



Astrodienst Ephemeris Tables

from the year 1050 for 50 years

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming

Dieter Koch and Alois Treindl

based on Swiss Ephemeris

Code D5EPH

ASTRODIENST EPHEMERIS for the year 1050
geocentric

JANUARY 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|--------|-------|-------|--------|--------|-------|--------|------|---|-----|
| M 1 | 7 4 0 | 16♌39'42 | 20♋32 | 23♌46 | 7°R22 | 3♌38 | 10♋37 | 0♌31 | 16♌ 3 | 13♌40 | 12♌ 4 | 17♌28 | 18♌50 | 8♌18 | 22♌48 | M 1 | | |
| T 2 | 7 7 57 | 17°40'47 | 4♌31 | 24°16 | 6♌50 | 4°25 | 10°49 | 0°39 | 16° 3 | 13°40 | 12° 6 | 17°29 | 18°47 | 8°24 | 22°48 | T 2 | | |
| W 3 | 7 11 53 | 18°41'51 | 18° 8 | 24°51 | 6°20 | 5°13 | 11° 0 | 0°46 | 16° 4 | 13°41 | 12° 7 | 17°R30 | 18°44 | 8°31 | 22°48 | W 3 | | |
| T 4 | 7 15 50 | 19°42'54 | 18°23 | 25°31 | 5°52 | 6° 0 | 11°12 | 0°53 | 16° 5 | 13°41 | 12° 9 | 17°29 | 18°40 | 8°37 | 22°49 | T 4 | | |
| F 5 | 7 19 46 | 20°43'55 | 14°20 | 26°16 | 5°25 | 6°48 | 11°23 | 1° 0 | 16° 5 | 13°42 | 12°11 | 17°27 | 18°37 | 8°44 | 22°49 | F 5 | | |
| S 6 | 7 23 43 | 21°44'56 | 26°59 | 27° 5 | 5° 1 | 7°35 | 11°35 | 1° 7 | 16° 6 | 13°42 | 12°12 | 17°24 | 18°34 | 8°51 | 22°50 | S 6 | | |
| S 7 | 7 27 39 | 22°45'55 | 9♌26 | 27°57 | 4°39 | 8°23 | 11°47 | 1°14 | 16° 6 | 13°43 | 12°14 | 17°20 | 18°31 | 8°57 | 22°50 | S 7 | | |
| M 8 | 7 31 36 | 23°46'53 | 21°40 | 28°53 | 4°19 | 9°10 | 11°59 | 1°21 | 16° 7 | 13°44 | 12°16 | 17°16 | 18°28 | 9° 4 | 22°51 | M 8 | | |
| T 9 | 7 35 32 | 24°47'50 | 3♌46 | 29°52 | 4° 1 | 9°57 | 12°11 | 1°29 | 16° 7 | 13°44 | 12°17 | 17°12 | 18°25 | 9°11 | 22°51 | T 9 | | |
| W10 | 7 39 29 | 25°48'46 | 15°44 | 0♌54 | 3°46 | 10°45 | 12°23 | 1°36 | 16° 7 | 13°45 | 12°19 | 17° 9 | 18°21 | 9°17 | 22°52 | W10 | | |
| T 11 | 7 43 26 | 26°49'41 | 27°36 | 1°58 | 3°33 | 11°32 | 12°35 | 1°43 | 16° 7 | 13°46 | 12°21 | 17° 6 | 18°18 | 9°24 | 22°53 | T 11 | | |
| F 12 | 7 47 22 | 27°50'35 | 9♌25 | 3° 5 | 3°23 | 12°20 | 12°47 | 1°50 | 16° 8 | 13°47 | 12°22 | 17° 5 | 18°15 | 9°31 | 22°54 | F 12 | | |
| S 13 | 7 51 19 | 28°51'27 | 21°12 | 4°14 | 3°16 | 13° 7 | 13° 0 | 1°57 | 16° 8 | 13°48 | 12°24 | 17°D 5 | 18°12 | 9°37 | 22°55 | S 13 | | |
| S 14 | 7 55 15 | 29°52'19 | 3♌ 1 | 5°25 | 3°10 | 13°54 | 13°12 | 2° 4 | 16°R 8 | 13°49 | 12°26 | 17° 6 | 18° 9 | 9°44 | 22°56 | S 14 | | |
| M15 | 7 59 12 | 0♌53'09 | 14°53 | 6°37 | 3° 8 | 14°42 | 13°25 | 2°12 | 16° 8 | 13°49 | 12°27 | 17° 7 | 18° 5 | 9°51 | 22°57 | M15 | | |
| T 16 | 8 3 8 | 1°53'59 | 26°52 | 7°52 | 3°D 7 | 15°29 | 13°37 | 2°19 | 16° 8 | 13°50 | 12°29 | 17° 8 | 18° 2 | 9°57 | 22°58 | T 16 | | |
| W17 | 8 7 5 | 2°54'47 | 9♌ 2 | 9° 8 | 3°10 | 16°17 | 13°50 | 2°26 | 16° 8 | 13°51 | 12°31 | 17°10 | 17°59 | 10° 4 | 22°59 | W17 | | |
| T 18 | 8 11 1 | 3°55'34 | 21°27 | 10°25 | 3°14 | 17° 4 | 14° 3 | 2°33 | 16° 7 | 13°52 | 12°33 | 17°11 | 17°56 | 10°11 | 23° 0 | T 18 | | |
| F 19 | 8 14 58 | 4°56'21 | 4♌11 | 11°44 | 3°21 | 17°51 | 14°15 | 2°41 | 16° 7 | 13°53 | 12°34 | 17°R11 | 17°53 | 10°17 | 23° 2 | F 19 | | |
| S 20 | 8 18 55 | 5°57'06 | 17°19 | 13° 4 | 3°30 | 18°39 | 14°28 | 2°48 | 16° 7 | 13°54 | 12°36 | 17°11 | 17°50 | 10°24 | 23° 3 | S 20 | | |
| S 21 | 8 22 51 | 6°57'50 | 0♌52 | 14°26 | 3°42 | 19°26 | 14°41 | 2°55 | 16° 7 | 13°56 | 12°38 | 17°10 | 17°46 | 10°30 | 23° 4 | S 21 | | |
| M22 | 8 26 48 | 7°58'34 | 14°52 | 15°48 | 3°55 | 20°13 | 14°54 | 3° 2 | 16° 6 | 13°57 | 12°40 | 17° 9 | 17°43 | 10°37 | 23° 6 | M22 | | |
| T 23 | 8 30 44 | 8°59'16 | 29°19 | 17°12 | 4°11 | 21° 1 | 15° 7 | 3° 9 | 16° 6 | 13°58 | 12°41 | 17° 8 | 17°40 | 10°44 | 23° 7 | T 23 | | |
| W24 | 8 34 41 | 9°59'57 | 14♌ 9 | 18°37 | 4°29 | 21°48 | 15°20 | 3°17 | 16° 5 | 13°59 | 12°43 | 17° 7 | 17°37 | 10°50 | 23° 9 | W24 | | |
| T 25 | 8 38 37 | 11° 0'36 | 29°15 | 20° 3 | 4°49 | 22°35 | 15°34 | 3°24 | 16° 5 | 14° 0 | 12°45 | 17° 6 | 17°34 | 10°57 | 23°10 | T 25 | | |
| F 26 | 8 42 34 | 12° 1'14 | 14♌29 | 21°30 | 5°10 | 23°23 | 15°47 | 3°31 | 16° 4 | 14° 2 | 12°47 | 17°D 6 | 17°31 | 11° 4 | 23°12 | F 26 | | |
| S 27 | 8 46 30 | 13° 1'50 | 29°41 | 22°58 | 5°34 | 24°10 | 16° 0 | 3°38 | 16° 3 | 14° 3 | 12°48 | 17° 6 | 17°27 | 11°10 | 23°14 | S 27 | | |
| S 28 | 8 50 27 | 14° 2'25 | 14♌40 | 24°27 | 5°59 | 24°57 | 16°13 | 3°45 | 16° 3 | 14° 4 | 12°50 | 17° 7 | 17°24 | 11°17 | 23°16 | S 28 | | |
| M29 | 8 54 24 | 15° 2'58 | 29°20 | 25°57 | 6°26 | 25°45 | 16°27 | 3°52 | 16° 2 | 14° 5 | 12°52 | 17° 7 | 17°21 | 11°24 | 23°17 | M29 | | |
| T 30 | 8 58 20 | 16° 3'29 | 13♌36 | 27°28 | 6°54 | 26°32 | 16°40 | 3°59 | 16° 1 | 14° 7 | 12°53 | 17° 7 | 17°18 | 11°30 | 23°19 | T 30 | | |
| W31 | 9 2 17 | 17° 3'58 | 27♌25 | 29° 0 | 7♌24 | 27°19 | 16°54 | 4° 7 | 16° 0 | 14° 8 | 12°55 | 17°R 7 | 17° 15 | 11°37 | 23° 21 | W31 | | |

Delta T = 20m42s Julian Calendar 1 Jan. 1050 == Greg. Calendar 7 Jan. 1050

FEBRUARY 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|--------|-------|-------|------|--------|-------|-------|--------|--------|--------|--------|------|---|-----|
| T 1 | 9 6 13 | 18° 4'26 | 10♌48 | 0♌33 | 7♌56 | 28° 6 | 17♋ 7 | 4♌14 | 15°R59 | 14♌10 | 12°57 | 17°D 7 | 17° 11 | 11° 44 | 23° 23 | T 1 | | |
| F 2 | 9 10 10 | 19° 4'51 | 23°46 | 2° 7 | 8°29 | 28°53 | 17°21 | 4°21 | 15° 58 | 14°11 | 12°59 | 17° 7 | 17° 8 | 11°50 | 23°25 | F 2 | | |
| S 3 | 9 14 6 | 20° 5'14 | 6♌22 | 3°41 | 9° 3 | 29°40 | 17°35 | 4°28 | 15°57 | 14°13 | 13° 0 | 17° 7 | 17° 5 | 11°57 | 23°27 | S 3 | | |
| S 4 | 9 18 3 | 21° 5'36 | 18°42 | 5°17 | 9°39 | 0♌28 | 17°48 | 4°35 | 15°56 | 14°14 | 13° 2 | 17° 7 | 17° 2 | 12° 4 | 23°29 | S 4 | | |
| M 5 | 9 21 59 | 22° 5'55 | 0♌48 | 6°54 | 10°16 | 1°15 | 18° 2 | 4°42 | 15°55 | 14°16 | 13° 4 | 17° 8 | 16°59 | 12°10 | 23°31 | M 5 | | |
| T 6 | 9 25 56 | 23° 6'12 | 12°44 | 8°32 | 10°54 | 2° 2 | 18°16 | 4°49 | 15°54 | 14°17 | 13° 6 | 17° 9 | 16°56 | 12°17 | 23°34 | T 6 | | |
| W 7 | 9 29 53 | 24° 6'28 | 24°35 | 10°11 | 11°33 | 2°49 | 18°30 | 4°56 | 15°53 | 14°19 | 13° 7 | 17° 9 | 16°52 | 12°23 | 23°36 | W 7 | | |
| T 8 | 9 33 49 | 25° 6'42 | 6♌22 | 11°50 | 12°14 | 3°36 | 18°44 | 5° 3 | 15°51 | 14°20 | 13° 9 | 17°10 | 16°49 | 12°30 | 23°38 | T 8 | | |
| F 9 | 9 37 46 | 26° 6'53 | 18°10 | 13°31 | 12°56 | 4°23 | 18°58 | 5°10 | 15°50 | 14°22 | 13°11 | 17°R10 | 16°46 | 12°37 | 23°41 | F 9 | | |
| S 10 | 9 41 42 | 27° 7'03 | 29°59 | 15°13 | 13°38 | 5°10 | 19°12 | 5°16 | 15°49 | 14°24 | 13°12 | 17°10 | 16°43 | 12°43 | 23°43 | S 10 | | |
| S 11 | 9 45 39 | 28° 7'11 | 11♌53 | 16°56 | 14°22 | 5°57 | 19°26 | 5°23 | 15°47 | 14°25 | 13°14 | 17° 9 | 16°40 | 12°50 | 23°45 | S 11 | | |
| M12 | 9 49 35 | 29° 7'17 | 23°54 | 18°40 | 15° 7 | 6°44 | 19°40 | 5°30 | 15°46 | 14°27 | 13°16 | 17° 7 | 16°37 | 12°57 | 23°48 | M12 | | |
| T 13 | 9 53 32 | 0♌ 7'21 | 6♌ 2 | 20°25 | 15°53 | 7°30 | 19°54 | 5°37 | 15°44 | 14°29 | 13°17 | 17° 5 | 16°33 | 13° 3 | 23°50 | T 13 | | |
| W14 | 9 57 28 | 1° 7'23 | 18°21 | 22°11 | 16°39 | 8°17 | 20° 8 | 5°44 | 15°43 | 14°30 | 13°19 | 17° 3 | 16°30 | 13°10 | 23°53 | W14 | | |
| T 15 | 10 1 25 | 2° 7'24 | 0♌53 | 23°58 | 17°27 | 9° 4 | 20°22 | 5°50 | 15°41 | 14°32 | 13°21 | 17° 1 | 16°27 | 13°17 | 23°56 | T 15 | | |
| F 16 | 10 5 21 | 3° 7'23 | 13°40 | 25°46 | 18°15 | 9°51 | 20°36 | 5°57 | 15°40 | 14°34 | 13°22 | 17° 0 | 16°24 | 13°23 | 23°58 | F 16 | | |
| S 17 | 10 9 18 | 4° 7'20 | 26°46 | 27°36 | 19° 4 | 10°38 | 20°50 | 6° 4 | 15°38 | 14°36 | 13°24 | 16°59 | 16°21 | 13°30 | 24° 1 | S 17 | | |
| S 18 | 10 13 15 | 5° 7'16 | 10♌12 | 29°26 | 19°54 | 11°24 | 21° 5 | 6°10 | 15°36 | 14°38 | 13°26 | 16°D59 | 16°17 | 13°37 | 24° 4 | S 18 | | |
| M19 | 10 17 11 | 6° 7'10 | 24° 0 | 1♌18 | 20°45 | 12°11 | 21°19 | 6°17 | 15°35 | 14°39 | 13°27 | 17° 0 | 16°14 | 13°43 | 24° 6 | M19 | | |
| T 20 | 10 21 8 | 7° 7'03 | 8♌10 | 3°11 | 21°36 | 12°58 | 21°33 | 6°24 | 15°33 | 14°41 | 13°29 | 17° 1 | 16°11 | 13°50 | 24° 9 | T 20 | | |
| W21 | 10 25 4 | 8° 6'54 | 22°42 | 5° 5 | 22°28 | 13°44 | 21°47 | 6°30 | 15°31 | 14°43 | 13°31 | 17° 2 | 16° 8 | 13°56 | 24°12 | W21 | | |
| T 22 | 10 29 1 | 9° 6'43 | 7♌32 | 7° 0 | 23°21 | 14°31 | 22° 2 | 6°37 | 15°29 | 14°45 | 13°32 | 17° 3 | 16° 5 | 14° 3 | 24°15 | T 22 | | |
| F 23 | 10 32 57 | 10° 6'30 | 22°33 | 8°56 | 24°14 | 15°18 | 22°16 | 6°43 | 15°27 | 14°47 | 13°34 | 17°R 3 | 16° 2 | 14°10 | 24°18 | F 23 | | |
| S 24 | 10 36 54 | 11° 6'15 | 7♌39 | 10°53 | 25° 8 | 16° 4 | 22°30 | 6°50 | 15°25 | 14°49 | 13°35 | 17° 2 | 15°58 | 14°16 | 24°21 | S 24 | | |
| S 25 | 10 40 50 | 12° 5'58 | 22°39 | 12°51 | 26° 2 | 16°51 | 22°45 | 6°56 | 15°23 | 14°51 | 13°37 | 17° 0 | 15°55 | 14°23 | 24°24 | S 25 | | |
| M26 | 10 44 47 | 13° 5'39 | 7♌25 | 14°49 | 26°57 | 17°37 | 22°59 | 7° 2 | 15°21 | 14°53 | 13°39 | 16°57 | 15°52 | 14°30 | 24°27 | M26 | | |
| T 27 | 10 48 44 | 14° 5'17 | 21°51 | 16°49 | 27°53 | 18°24 | 23°14 | 7° 8 | 15°19 | 14°55 | 13°40 | 16°53 | 15°49 | 14°36 | 24°30 | T 27 | | |
| W28 | 10 52 40 | 15♌ 4'54 | 5♌50 | 18♌49 | 28° 49 | 19♌10 | 23♌28 | 7°15 | 15°17 | 14°57 | 13°42 | 16° 15 | 15°46 | 14°43 | 24° 33 | W28 | | |

Delta T = 20m41s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1050
geocentric

MARCH 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|--------|--------|-------|--------|--------|--------|---------|--------|--------|--------|------|---|-----|
| T 1 | 10 56 37 | 16♌4'28" | 19♌22' | 20♌50' | 29♌45' | 19♌56' | 23♌43' | 7♌21' | 15°R15 | 14♌59' | 13♌43' | 16°R45 | 15♌42' | 14♌50' | 24♌36' | T 1 | | |
| F 2 | 11 0 33 | 17° 4'00" | 2♌26' | 22°51' | 0♌42' | 20°43' | 23°57' | 7°27' | 15♌13' | 15° 1' | 13°45' | 16♌43' | 15°39' | 14°56' | 24°39' | F 2 | | |
| S 3 | 11 4 30 | 18° 3'30" | 15° 6' | 24°52' | 1°40' | 21°29' | 24°11' | 7°33' | 15°11' | 15° 3' | 13°46' | 16°D42' | 15°36' | 15° 3' | 24°42' | S 3 | | |
| S 4 | 11 8 26 | 19° 2'57" | 27°26' | 26°52' | 2°38' | 22°15' | 24°26' | 7°39' | 15° 9' | 15° 5' | 13°48' | 16°42' | 15°33' | 15°10' | 24°46' | S 4 | | |
| M 5 | 11 12 23 | 20° 2'22" | 9♌30' | 28°53' | 3°36' | 23° 1' | 24°40' | 7°45' | 15° 6' | 15° 7' | 13°49' | 16°43' | 15°30' | 15°16' | 24°49' | M 5 | | |
| T 6 | 11 16 19 | 21° 1'45" | 21°24' | 0♌52' | 4°35' | 23°48' | 24°55' | 7°51' | 15° 4' | 15° 9' | 13°50' | 16°45' | 15°27' | 15°23' | 24°52' | T 6 | | |
| W 7 | 11 20 16 | 22° 1'05" | 3♌12' | 2°51' | 5°34' | 24°34' | 25° 9' | 7°57' | 15° 2' | 15°11' | 13°52' | 16°47' | 15°23' | 15°30' | 24°55' | W 7 | | |
| T 8 | 11 24 13 | 23° 0'23" | 14°58' | 4°48' | 6°33' | 25°20' | 25°24' | 8° 3' | 15° 0' | 15°13' | 13°53' | 16°R48' | 15°20' | 15°36' | 24°59' | T 8 | | |
| F 9 | 11 28 9 | 23°59'38" | 26°47' | 6°43' | 7°33' | 26° 6' | 25°38' | 8° 8' | 14°57' | 15°16' | 13°55' | 16°47' | 15°17' | 15°43' | 25° 2' | F 9 | | |
| S 10 | 11 32 6 | 24°58'52" | 8♌41' | 8°36' | 8°34' | 26°52' | 25°53' | 8°14' | 14°55' | 15°18' | 13°56' | 16°45' | 15°14' | 15°49' | 25° 5' | S 10 | | |
| S 11 | 11 36 2 | 25°58'03" | 20°44' | 10°26' | 9°34' | 27°38' | 26° 7' | 8°20' | 14°52' | 15°20' | 13°58' | 16°41' | 15°11' | 15°56' | 25° 9' | S 11 | | |
| M12 | 11 39 59 | 26°57'12" | 2♌56' | 12°14' | 10°35' | 28°24' | 26°22' | 8°25' | 14°50' | 15°22' | 13°59' | 16°35' | 15° 8' | 16° 3' | 25°12' | M12 | | |
| T 13 | 11 43 55 | 27°56'19" | 15°19' | 13°57' | 11°36' | 29° 9' | 26°36' | 8°31' | 14°48' | 15°24' | 14° 0' | 16°28' | 15° 4' | 16° 9' | 25°16' | T 13 | | |
| W14 | 11 47 52 | 28°55'24" | 27°54' | 15°37' | 12°38' | 29°55' | 26°51' | 8°36' | 14°45' | 15°26' | 14° 2' | 16°20' | 15° 1' | 16°16' | 25°19' | W14 | | |
| T 15 | 11 51 48 | 29°54'27" | 10♌42' | 17°13' | 13°40' | 0♌41' | 27° 5' | 8°42' | 14°43' | 15°29' | 14° 3' | 16°13' | 14°58' | 16°23' | 25°23' | T 15 | | |
| F 16 | 11 55 45 | 0♌53'29" | 23°42' | 18°45' | 14°42' | 1°27' | 27°20' | 8°47' | 14°40' | 15°31' | 14° 4' | 16° 6' | 14°55' | 16°29' | 25°26' | F 16 | | |
| S 17 | 11 59 41 | 1°52'28" | 6♌56' | 20°11' | 15°44' | 2°12' | 27°34' | 8°52' | 14°38' | 15°33' | 14° 5' | 16° 1' | 14°52' | 16°36' | 25°30' | S 17 | | |
| S 18 | 12 3 38 | 2°51'26" | 20°24' | 21°33' | 16°47' | 2°58' | 27°49' | 8°58' | 14°35' | 15°35' | 14° 7' | 15°59' | 14°48' | 16°43' | 25°33' | S 18 | | |
| M19 | 12 7 35 | 3°50'22" | 4♌ 8' | 22°49' | 17°50' | 3°44' | 28° 3' | 9° 3' | 14°33' | 15°37' | 14° 8' | 15°D58' | 14°45' | 16°49' | 25°37' | M19 | | |
| T 20 | 12 11 31 | 4°49'16" | 18° 7' | 24° 0' | 18°53' | 4°29' | 28°18' | 9° 8' | 14°30' | 15°40' | 14° 9' | 15°59' | 14°42' | 16°56' | 25°40' | T 20 | | |
| W21 | 12 15 28 | 5°48'09" | 2♌21' | 25° 5' | 19°57' | 5°15' | 28°32' | 9°13' | 14°28' | 15°42' | 14°10' | 16° 0' | 14°39' | 17° 3' | 25°44' | W21 | | |
| T 22 | 12 19 24 | 6°46'59" | 16°49' | 26° 4' | 21° 1' | 6° 0' | 28°46' | 9°18' | 14°25' | 15°44' | 14°11' | 16°R 0' | 14°36' | 17° 9' | 25°48' | T 22 | | |
| F 23 | 12 23 21 | 7°45'48" | 1♌28' | 26°57' | 22° 5' | 6°46' | 29° 1' | 9°23' | 14°23' | 15°46' | 14°13' | 15°59' | 14°33' | 17°16' | 25°51' | F 23 | | |
| S 24 | 12 27 17 | 8°44'35" | 16°13' | 27°44' | 23° 9' | 7°31' | 29°15' | 9°28' | 14°20' | 15°49' | 14°14' | 15°56' | 14°29' | 17°22' | 25°55' | S 24 | | |
| S 25 | 12 31 14 | 9°43'20" | 0♌57' | 28°25' | 24°13' | 8°16' | 29°30' | 9°32' | 14°18' | 15°51' | 14°15' | 15°51' | 14°26' | 17°29' | 25°59' | S 25 | | |
| M26 | 12 35 10 | 10°42'03" | 15°32' | 29° 0' | 25°18' | 9° 2' | 29°44' | 9°37' | 14°15' | 15°53' | 14°16' | 15°43' | 14°23' | 17°36' | 26° 2' | M26 | | |
| T 27 | 12 39 7 | 11°40'44" | 29°52' | 29°28' | 26°23' | 9°47' | 29°58' | 9°42' | 14°13' | 15°55' | 14°17' | 15°34' | 14°20' | 17°42' | 26° 6' | T 27 | | |
| W28 | 12 43 4 | 12°39'23" | 13♌50' | 29°50' | 27°28' | 10°32' | 0♌13' | 9°46' | 14°10' | 15°58' | 14°18' | 15°25' | 14°17' | 17°49' | 26°10' | W28 | | |
| T 29 | 12 47 0 | 13°38'00" | 27°24' | 0♌ 6' | 28°33' | 11°17' | 0°27' | 9°51' | 14° 8' | 16° 0' | 14°19' | 15°16' | 14°13' | 17°56' | 26°13' | T 29 | | |
| F 30 | 12 50 57 | 14°36'35" | 10♌32' | 0°15' | 29°38' | 12° 2' | 0°41' | 9°55' | 14° 5' | 16° 2' | 14°20' | 15° 9' | 14°10' | 18° 2' | 26°17' | F 30 | | |
| S 31 | 12 54 53 | 15°35'08" | 23♌15' | 0°R19' | 0♌44' | 12°47' | 0♌55' | 9°59' | 14° 2' | 16° 4' | 14°21' | 15° 5' | 14° 7' | 18° 9' | 26°21' | S 31 | | |

Delta T = 20m41s Julian Calendar 1 March 1050 == Greg. Calendar 7 March 1050

APRIL 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-----------|--------|---------|--------|---------|--------|--------|---------|---------|--------|---------|---------|---------|---------|------|---|-----|
| S 1 | 12 58 50 | 16♌33'38" | 5♌38' | 0°R17' | 1♌49' | 13°R32' | 1°R10' | 10♌ 4' | 14°R 0' | 16♌ 7' | 14°22' | 15°R 2' | 14♌ 4' | 18♌16' | 26°R25' | S 1 | | |
| M 2 | 13 2 46 | 17°32'06" | 17°43' | 0♌ 9' | 2°55' | 14°17' | 1°24' | 10° 8' | 13°55' | 16° 9' | 14°23' | 15°D 1' | 14° 1' | 18°22' | 26°28' | M 2 | | |
| T 3 | 13 6 43 | 18°30'32" | 29°38' | 29°R55' | 4° 1' | 15° 2' | 1°38' | 10°12' | 13°55' | 16°11' | 14°24' | 15♌ 2' | 13°58' | 18°29' | 26°32' | T 3 | | |
| W 4 | 13 10 39 | 19°28'56" | 11♌26' | 29°37' | 5° 7' | 15°47' | 1°52' | 10°16' | 13°52' | 16°14' | 14°25' | 15°R 2' | 13°54' | 18°36' | 26°36' | W 4 | | |
| T 5 | 13 14 36 | 20°27'18" | 23°14' | 29°14' | 6°14' | 16°32' | 2° 6' | 10°20' | 13°50' | 16°16' | 14°26' | 15° 2' | 13°51' | 18°42' | 26°40' | T 5 | | |
| F 6 | 13 18 33 | 21°25'37" | 5♌ 5' | 28°47' | 7°20' | 17°16' | 2°20' | 10°24' | 13°47' | 16°18' | 14°27' | 15° 0' | 13°48' | 18°49' | 26°44' | F 6 | | |
| S 7 | 13 22 29 | 22°23'55" | 17° 5' | 28°16' | 8°27' | 18° 1' | 2°34' | 10°27' | 13°45' | 16°20' | 14°27' | 14°56' | 13°45' | 18°55' | 26°47' | S 7 | | |
| S 8 | 13 26 26 | 23°22'10" | 29°17' | 27°42' | 9°34' | 18°46' | 2°48' | 10°31' | 13°42' | 16°23' | 14°28' | 14°49' | 13°42' | 19° 2' | 26°51' | S 8 | | |
| M 9 | 13 30 22 | 24°20'24" | 11♌42' | 27° 6' | 10°40' | 19°30' | 3° 2' | 10°35' | 13°40' | 16°25' | 14°29' | 14°39' | 13°39' | 19° 9' | 26°55' | M 9 | | |
| T 10 | 13 34 19 | 25°18'35" | 24°22' | 26°28' | 11°48' | 20°15' | 3°16' | 10°38' | 13°37' | 16°27' | 14°30' | 14°28' | 13°35' | 19°15' | 26°59' | T 10 | | |
| W11 | 13 38 15 | 26°16'45" | 7♌17' | 25°50' | 12°55' | 20°59' | 3°30' | 10°41' | 13°35' | 16°29' | 14°31' | 14°16' | 13°32' | 19°22' | 27° 3' | W11 | | |
| T 12 | 13 42 12 | 27°14'53" | 20°26' | 25°11' | 14° 2' | 21°44' | 3°44' | 10°45' | 13°32' | 16°31' | 14°31' | 14° 5' | 13°29' | 19°29' | 27° 6' | T 12 | | |
| F 13 | 13 46 8 | 28°13'00" | 3♌47' | 24°32' | 15° 9' | 22°28' | 3°58' | 10°48' | 13°30' | 16°34' | 14°32' | 13°54' | 13°26' | 19°35' | 27°10' | F 13 | | |
| S 14 | 13 50 5 | 29°11'05" | 17°20' | 23°55' | 16°17' | 23°12' | 4°12' | 10°51' | 13°27' | 16°36' | 14°33' | 13°46' | 13°23' | 19°42' | 27°14' | S 14 | | |
| S 15 | 13 54 2 | 0♌ 9'09" | 1♌ 1' | 23°19' | 17°25' | 23°57' | 4°25' | 10°54' | 13°25' | 16°38' | 14°33' | 13°41' | 13°19' | 19°49' | 27°18' | S 15 | | |
| M16 | 13 57 58 | 1° 7'11" | 14°52' | 22°46' | 18°32' | 24°41' | 4°39' | 10°57' | 13°22' | 16°40' | 14°34' | 13°38' | 13°16' | 19°55' | 27°22' | M16 | | |
| T 17 | 14 1 55 | 2° 5'12" | 28°50' | 22°15' | 19°40' | 25°25' | 4°53' | 11° 0' | 13°20' | 16°43' | 14°34' | 13°D37' | 13°13' | 20° 2' | 27°25' | T 17 | | |
| W18 | 14 5 51 | 3° 3'11" | 12♌56' | 21°48' | 20°48' | 26° 9' | 5° 6' | 11° 3' | 13°18' | 16°45' | 14°35' | 13°R37' | 13°10' | 20° 9' | 27°29' | W18 | | |
| T 19 | 14 9 48 | 4° 1'09" | 27° 8' | 21°24' | 21°56' | 26°53' | 5°20' | 11° 6' | 13°15' | 16°47' | 14°36' | 13°37' | 13° 7' | 20°15' | 27°33' | T 19 | | |
| F 20 | 14 13 44 | 4°59'06" | 11♌26' | 21° 5' | 23° 5' | 27°37' | 5°33' | 11° 8' | 13°13' | 16°49' | 14°36' | 13°35' | 13° 4' | 20°22' | 27°37' | F 20 | | |
| S 21 | 14 17 41 | 5°57'01" | 25°46' | 20°50' | 24°13' | 28°21' | 5°47' | 11°11' | 13°11' | 16°51' | 14°37' | 13°30' | 13° 0' | 20°29' | 27°41' | S 21 | | |
| S 22 | 14 21 37 | 6°54'55" | 10♌ 5' | 20°39' | 25°21' | 29° 5' | 6° 0' | 11°13' | 13° 8' | 16°53' | 14°37' | 13°23' | 12°57' | 20°35' | 27°44' | S 22 | | |
| M23 | 14 25 34 | 7°52'48" | 24°17' | 20°32' | 26°30' | 29°49' | 6°14' | 11°16' | 13° 6' | 16°56' | 14°37' | 13°13' | 12°54' | 20°42' | 27°48' | M23 | | |
| T 24 | 14 29 30 | 8°50'39" | 8♌18' | 20°D30' | 27°38' | 0♌33' | 6°27' | 11°18' | 13° 4' | 16°58' | 14°38' | 13° 1' | 12°51' | 20°48' | 27°52' | T 24 | | |
| W25 | 14 33 27 | 9°48'28" | 22° 3' | 20°33' | 28°47' | 1°16' | 6°40' | 11°20' | 13° 2' | 17° 0' | 14°38' | 12°49' | 12°48' | 20°55' | 27°56' | W25 | | |
| T 26 | 14 37 24 | 10°46'17" | 5♌17' | 20°41' | 29°56' | 2° 0' | 6°53' | 11°22' | 12°59' | 17° 2' | 14°39' | 12°37' | 12°45' | 21° 2' | 27°59' | T 26 | | |
| F 27 | 14 41 20 | 11°44'03" | 18°30' | 20°52' | 1°R 5' | 2°44' | 7° 7' | 11°24' | 12°57' | 17° 4' | 14°39' | 12°28' | 12°41' | 21° 8' | 28° 3' | F 27 | | |
| S 28 | 14 45 17 | 12°41'48" | 1♌11' | 21° 9' | 2°14' | 3°27' | 7°20' | 11°26' | 12°55' | 17° 6' | 14°39' | 12°21' | 12°38' | 21°15' | 28° 7' | S 28 | | |
| S 29 | 14 49 13 | 13°39'32" | 13°32' | 21°30' | 3°23' | 4°11' | 7°33' | 11°28' | 12°53' | 17° 8' | 14°40' | 12°16' | 12°35' | 21°22' | 28°10' | S 29 | | |
| M30 | 14 53 10 | 14♌37'14" | 25♌39' | 21°R55' | 4°R32' | 4♌54' | 7°R46' | 11°30' | 12°51' | 17°R10' | 14°40' | 12°R14' | 12°R32' | 21°R28' | 28°R14' | M30 | | |

Delta T = 20m41s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1050
geocentric

MAY 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|-------|--------|------|-----|
| T 1 | 14 57 6 | 15♁34'54 | 7♁34 | 22♁24 | 5♁41 | 5♁38 | 7♁59 | 11♁31 | 12°R49 | 17♁12 | 14♁40 | 12°R13 | 12♁29 | 21♁35 | 28♁18 | T 1 | |
| W 2 | 15 1 3 | 16°32'32 | 19°23 | 22°58 | 6°50 | 6°21 | 8°11 | 11°33 | 12♁47 | 17°14 | 14°40 | 12♁13 | 12°25 | 21°42 | 28°22 | W 2 | |
| T 3 | 15 4 59 | 17°30'09 | 1♁12 | 23°35 | 7°59 | 7° 4 | 8°24 | 11°34 | 12°45 | 17°16 | 14°41 | 12°13 | 12°22 | 21°48 | 28°25 | T 3 | |
| F 4 | 15 8 56 | 18°27'45 | 13° 6 | 24°16 | 9° 9 | 7°48 | 8°37 | 11°35 | 12°43 | 17°18 | 14°41 | 12°11 | 12°19 | 21°55 | 28°29 | F 4 | |
| S 5 | 15 12 53 | 19°25'19 | 25° 9 | 25° 2 | 10°18 | 8°31 | 8°49 | 11°37 | 12°41 | 17°20 | 14°41 | 12° 6 | 12°16 | 22° 2 | 28°32 | S 5 | |
| S 6 | 15 16 49 | 20°22'51 | 7♁28 | 25°50 | 11°28 | 9°14 | 9° 2 | 11°38 | 12°39 | 17°22 | 14°41 | 12° 0 | 12°13 | 22° 8 | 28°36 | S 6 | |
| M 7 | 15 20 46 | 21°20'22 | 20° 3 | 26°42 | 12°37 | 9°57 | 9°15 | 11°39 | 12°37 | 17°24 | 14°41 | 11°50 | 12°10 | 22°15 | 28°40 | M 7 | |
| T 8 | 15 24 42 | 22°17'52 | 2♁57 | 27°38 | 13°47 | 10°40 | 9°27 | 11°40 | 12°36 | 17°26 | 14°41 | 11°39 | 12° 6 | 22°21 | 28°43 | T 8 | |
| W 9 | 15 28 39 | 23°15'21 | 16°11 | 28°37 | 14°57 | 11°23 | 9°39 | 11°40 | 12°34 | 17°28 | 14°41 | 11°27 | 12° 3 | 22°28 | 28°47 | W 9 | |
| T 10 | 15 32 35 | 24°12'49 | 29°42 | 29°39 | 16° 6 | 12° 6 | 9°52 | 11°41 | 12°32 | 17°30 | 14°R41 | 11°16 | 12° 0 | 22°35 | 28°50 | T 10 | |
| F 11 | 15 36 32 | 25°10'15 | 13♁27 | 0♁45 | 17°16 | 12°49 | 10° 4 | 11°42 | 12°31 | 17°32 | 14°41 | 11° 5 | 11°57 | 22°41 | 28°54 | F 11 | |
| S 12 | 15 40 28 | 26° 7'41 | 27°24 | 1°53 | 18°26 | 13°32 | 10°16 | 11°42 | 12°29 | 17°34 | 14°41 | 10°57 | 11°54 | 22°48 | 28°57 | S 12 | |
| S 13 | 15 44 25 | 27° 5'06 | 11♁29 | 3° 5 | 19°36 | 14°14 | 10°28 | 11°43 | 12°27 | 17°36 | 14°41 | 10°52 | 11°50 | 22°55 | 29° 1 | S 13 | |
| M14 | 15 48 22 | 28° 2'30 | 25°37 | 4°19 | 20°46 | 14°57 | 10°40 | 11°43 | 12°26 | 17°38 | 14°41 | 10°49 | 11°47 | 23° 1 | 29° 4 | M14 | |
| T 15 | 15 52 18 | 28°59'53 | 9♁46 | 5°36 | 21°56 | 15°40 | 10°52 | 11°43 | 12°24 | 17°39 | 14°41 | 10°D48 | 11°44 | 23° 8 | 29° 8 | T 15 | |
| W16 | 15 56 15 | 29°57'15 | 23°56 | 6°57 | 23° 6 | 16°22 | 11° 4 | 11°43 | 12°23 | 17°41 | 14°41 | 10°R49 | 11°41 | 23°15 | 29°11 | W16 | |
| T 17 | 16 0 11 | 0♁54'37 | 8♁ 3 | 8°20 | 24°16 | 17° 5 | 11°15 | 11°R43 | 12°21 | 17°43 | 14°41 | 10°48 | 11°38 | 23°21 | 29°15 | T 17 | |
| F 18 | 16 4 8 | 1°51'59 | 22° 8 | 9°46 | 25°27 | 17°47 | 11°27 | 11°43 | 12°20 | 17°45 | 14°40 | 10°47 | 11°35 | 23°28 | 29°18 | F 18 | |
| S 19 | 16 8 4 | 2°49'20 | 6♁ 9 | 11°15 | 26°37 | 18°30 | 11°39 | 11°43 | 12°19 | 17°46 | 14°40 | 10°43 | 11°31 | 23°35 | 29°21 | S 19 | |
| S 20 | 16 12 1 | 3°46'40 | 20° 4 | 12°46 | 27°47 | 19°12 | 11°50 | 11°43 | 12°17 | 17°48 | 14°40 | 10°37 | 11°28 | 23°41 | 29°25 | S 20 | |
| M21 | 16 15 57 | 4°44'00 | 3♁51 | 14°21 | 28°58 | 19°55 | 12° 1 | 11°43 | 12°16 | 17°50 | 14°40 | 10°28 | 11°25 | 23°48 | 29°28 | M21 | |
| T 22 | 16 19 54 | 5°41'19 | 17°26 | 15°58 | 0♁ 8 | 20°37 | 12°13 | 11°42 | 12°15 | 17°52 | 14°39 | 10°18 | 11°22 | 23°55 | 29°31 | T 22 | |
| W23 | 16 23 51 | 6°38'37 | 0♁48 | 17°37 | 1°19 | 21°19 | 12°24 | 11°42 | 12°14 | 17°53 | 14°39 | 10° 8 | 11°19 | 24° 1 | 29°34 | W23 | |
| T 24 | 16 27 47 | 7°35'55 | 13°54 | 19°20 | 2°29 | 22° 1 | 12°35 | 11°41 | 12°13 | 17°55 | 14°39 | 9°58 | 11°16 | 24° 8 | 29°37 | T 24 | |
| F 25 | 16 31 44 | 8°33'12 | 26°43 | 21° 5 | 3°40 | 22°44 | 12°46 | 11°40 | 12°12 | 17°56 | 14°38 | 9°49 | 11°12 | 24°15 | 29°41 | F 25 | |
| S 26 | 16 35 40 | 9°30'29 | 9♁15 | 22°53 | 4°51 | 23°26 | 12°57 | 11°39 | 12°11 | 17°58 | 14°38 | 9°43 | 11° 9 | 24°21 | 29°44 | S 26 | |
| S 27 | 16 39 37 | 10°27'45 | 21°31 | 24°43 | 6° 1 | 24° 8 | 13° 8 | 11°38 | 12°10 | 18° 0 | 14°38 | 9°39 | 11° 6 | 24°28 | 29°47 | S 27 | |
| M28 | 16 43 33 | 11°25'00 | 3♁34 | 26°36 | 7°12 | 24°50 | 13°18 | 11°37 | 12° 9 | 18° 1 | 14°37 | 9°37 | 11° 3 | 24°34 | 29°50 | M28 | |
| T 29 | 16 47 30 | 12°22'14 | 15°28 | 28°31 | 8°23 | 25°32 | 13°29 | 11°36 | 12° 8 | 18° 3 | 14°37 | 9°D37 | 11° 0 | 24°41 | 29°53 | T 29 | |
| W30 | 16 51 27 | 13°19'28 | 27°17 | 0♁29 | 9°34 | 26°13 | 13°40 | 11°35 | 12° 7 | 18° 4 | 14°36 | 9°38 | 10°56 | 24°48 | 29°56 | W30 | |
| T 31 | 16 55 23 | 14♁16'41 | 9♁ 6 | 2♁29 | 10♁45 | 26♁55 | 13°V50 | 11♁34 | 12♁ 6 | 18°V 5 | 14♁36 | 9°R39 | 10♁53 | 24♁54 | 29°V59 | T 31 | |

Delta T = 20m40s Julian Calendar 1 May 1050 == Greg. Calendar 7 May 1050

JUNE 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|------|------|-----|
| F 1 | 16 59 20 | 15♁13'53 | 21♁ 1 | 4♁31 | 11♁56 | 27♁37 | 14°V 0 | 11°R32 | 12°R 6 | 18°V 7 | 14°R35 | 9°R39 | 10♁50 | 25♁ 1 | 0♁ 2 | F 1 | |
| S 2 | 17 3 16 | 16°11'04 | 3♁ 6 | 6°35 | 13° 7 | 28°19 | 14°10 | 11♁31 | 12♁ 5 | 18° 8 | 14♁35 | 9♁37 | 10°47 | 25° 8 | 0° 5 | S 2 | |
| S 3 | 17 7 13 | 17° 8'15 | 15°26 | 8°41 | 14°18 | 29° 0 | 14°20 | 11°29 | 12° 4 | 18°10 | 14°34 | 9°33 | 10°44 | 25°14 | 0° 8 | S 3 | |
| M 4 | 17 11 9 | 18° 5'25 | 28° 6 | 10°48 | 15°29 | 29°42 | 14°30 | 11°28 | 12° 4 | 18°11 | 14°34 | 9°28 | 10°41 | 25°21 | 0°11 | M 4 | |
| T 5 | 17 15 6 | 19° 2'35 | 11♁ 8 | 12°57 | 16°40 | 0♁23 | 14°40 | 11°26 | 12° 3 | 18°12 | 14°33 | 9°21 | 10°37 | 25°28 | 0°13 | T 5 | |
| W 6 | 17 19 2 | 19°59'44 | 24°34 | 15° 6 | 17°51 | 1° 5 | 14°50 | 11°24 | 12° 3 | 18°14 | 14°32 | 9°13 | 10°34 | 25°34 | 0°16 | W 6 | |
| T 7 | 17 22 59 | 20°56'53 | 8♁21 | 17°17 | 19° 2 | 1°46 | 15° 0 | 11°22 | 12° 2 | 18°15 | 14°32 | 9° 5 | 10°31 | 25°41 | 0°19 | T 7 | |
| F 8 | 17 26 56 | 21°54'02 | 22°27 | 19°27 | 20°14 | 2°28 | 15° 9 | 11°20 | 12° 2 | 18°16 | 14°31 | 8°58 | 10°28 | 25°48 | 0°22 | F 8 | |
| S 9 | 17 30 52 | 22°51'11 | 6♁48 | 21°38 | 21°25 | 3° 9 | 15°18 | 11°18 | 12° 2 | 18°17 | 14°30 | 8°53 | 10°25 | 25°54 | 0°24 | S 9 | |
| S 10 | 17 34 49 | 23°48'20 | 21°18 | 23°49 | 22°36 | 3°50 | 15°28 | 11°16 | 12° 1 | 18°19 | 14°30 | 8°50 | 10°22 | 26° 1 | 0°27 | S 10 | |
| M11 | 17 38 45 | 24°45'28 | 5♁50 | 25°59 | 23°48 | 4°32 | 15°37 | 11°13 | 12° 1 | 18°20 | 14°29 | 8°D49 | 10°18 | 26° 8 | 0°29 | M11 | |
| T 12 | 17 42 42 | 25°42'37 | 20°20 | 28° 9 | 24°59 | 5°13 | 15°46 | 11°11 | 12° 1 | 18°21 | 14°28 | 8°49 | 10°15 | 26°14 | 0°32 | T 12 | |
| W13 | 17 46 38 | 26°39'46 | 4♁44 | 0♁18 | 26°11 | 5°54 | 15°55 | 11° 8 | 12° 1 | 18°22 | 14°27 | 8°50 | 10°12 | 26°21 | 0°34 | W13 | |
| T 14 | 17 50 35 | 27°36'55 | 18°58 | 2°26 | 27°22 | 6°35 | 16° 3 | 11° 6 | 12° 1 | 18°23 | 14°27 | 8°51 | 10° 9 | 26°28 | 0°37 | T 14 | |
| F 15 | 17 54 31 | 28°34'04 | 3°V 1 | 4°33 | 28°34 | 7°16 | 16°12 | 11° 3 | 12°D 1 | 18°24 | 14°26 | 8°R51 | 10° 6 | 26°34 | 0°39 | F 15 | |
| S 16 | 17 58 28 | 29°31'14 | 16°52 | 6°38 | 29°45 | 7°57 | 16°21 | 11° 0 | 12° 1 | 18°25 | 14°25 | 8°50 | 10° 2 | 26°41 | 0°42 | S 16 | |
| S 17 | 18 2 25 | 0♁28'24 | 0♁31 | 8°42 | 0♁57 | 8°38 | 16°29 | 10°58 | 12° 1 | 18°26 | 14°24 | 8°47 | 9°59 | 26°47 | 0°44 | S 17 | |
| M18 | 18 6 21 | 1°25'35 | 13°56 | 10°45 | 2° 9 | 9°19 | 16°37 | 10°55 | 12° 1 | 18°27 | 14°23 | 8°43 | 9°56 | 26°54 | 0°46 | M18 | |
| T 19 | 18 10 18 | 2°22'46 | 27° 8 | 12°45 | 3°21 | 10° 0 | 16°45 | 10°52 | 12° 1 | 18°28 | 14°22 | 8°37 | 9°53 | 27° 1 | 0°48 | T 19 | |
| W20 | 18 14 14 | 3°19'57 | 10♁ 7 | 14°44 | 4°32 | 10°40 | 16°53 | 10°49 | 12° 2 | 18°29 | 14°21 | 8°31 | 9°50 | 27° 7 | 0°51 | W20 | |
| T 21 | 18 18 11 | 4°17'09 | 22°52 | 16°41 | 5°44 | 11°21 | 17° 1 | 10°46 | 12° 2 | 18°30 | 14°20 | 8°26 | 9°47 | 27°14 | 0°53 | T 21 | |
| F 22 | 18 22 7 | 5°14'21 | 5♁23 | 18°36 | 6°56 | 12° 2 | 17° 9 | 10°43 | 12° 2 | 18°30 | 14°19 | 8°21 | 9°43 | 27°21 | 0°55 | F 22 | |
| S 23 | 18 26 4 | 6°11'34 | 17°41 | 20°30 | 8° 8 | 12°42 | 17°16 | 10°39 | 12° 3 | 18°31 | 14°18 | 8°18 | 9°40 | 27°27 | 0°57 | S 23 | |
| S 24 | 18 30 0 | 7° 8'47 | 29°48 | 22°21 | 9°20 | 13°23 | 17°24 | 10°36 | 12° 3 | 18°32 | 14°18 | 8°16 | 9°37 | 27°34 | 0°59 | S 24 | |
| M25 | 18 33 57 | 8° 5'59 | 11♁46 | 24°11 | 10°32 | 14° 3 | 17°31 | 10°33 | 12° 4 | 18°33 | 14°17 | 8°D16 | 9°34 | 27°41 | 1° 1 | M25 | |
| T 26 | 18 37 54 | 9° 3'13 | 23°37 | 25°59 | 11°44 | 14°44 | 17°38 | 10°29 | 12° 4 | 18°33 | 14°16 | 8°17 | 9°31 | 27°47 | 1° 3 | T 26 | |
| W27 | 18 41 50 | 10° 0'26 | 5♁25 | 27°45 | 12°56 | 15°24 | 17°45 | 10°26 | 12° 5 | 18°34 | 14°14 | 8°18 | 9°28 | 27°54 | 1° 5 | W27 | |
| T 28 | 18 45 47 | 10°57'39 | 17°13 | 29°29 | 14° 9 | 16° 5 | 17°52 | 10°22 | 12° 6 | 18°35 | 14°13 | 8°20 | 9°24 | 28° 1 | 1° 7 | T 28 | |
| F 29 | 18 49 43 | 11°54'53 | 29° 7 | 1♁11 | 15°21 | 16°45 | 17°58 | 10°19 | 12° 6 | 18°35 | 14°12 | 8°21 | 9°21 | 28° 7 | 1° 8 | F 29 | |
| S 30 | 18 53 40 | 12°52'07 | 11♁12 | 2♁51 | 16♁33 | 17♁25 | 18°V 5 | 10♁15 | 12♁ 7 | 18°V36 | 14♁11 | 8°R22 | 9♁18 | 28♁14 | 1♁10 | S 30 | |

Delta T = 20m40s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1050
geocentric

JULY 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|------|-------|-------|------|-----|
| S 1 | 18 57 36 | 13♌49'21 | 23♌31 | 4♌29 | 17♏45 | 18♏5 | 18♏11 | 10°R11 | 12♌8 | 18♏36 | 14°R10 | 8°R22 | 9♏15 | 28♏21 | 1♏12 | S 1 | |
| M 2 | 19 1 33 | 14°46'36 | 6♏11 | 6° 6 | 18°58 | 18°46 | 18°17 | 10♌7 | 12° 9 | 18°37 | 14♌9 | 8♏20 | 9°12 | 28°27 | 1°13 | M 2 | |
| T 3 | 19 5 29 | 15°43'51 | 19°13 | 7°41 | 20°10 | 19°26 | 18°23 | 10° 3 | 12°10 | 18°37 | 14° 8 | 8°18 | 9° 8 | 28°34 | 1°15 | T 3 | |
| W 4 | 19 9 26 | 16°41'07 | 2♏40 | 9°13 | 21°22 | 20° 6 | 18°29 | 10° 0 | 12°11 | 18°38 | 14° 7 | 8°15 | 9° 5 | 28°41 | 1°16 | W 4 | |
| T 5 | 19 13 23 | 17°38'23 | 16°34 | 10°44 | 22°35 | 20°46 | 18°35 | 9°56 | 12°12 | 18°38 | 14° 6 | 8°12 | 9° 2 | 28°47 | 1°18 | T 5 | |
| F 6 | 19 17 19 | 18°35'39 | 0♏51 | 12°13 | 23°47 | 21°26 | 18°40 | 9°52 | 12°13 | 18°39 | 14° 5 | 8°10 | 8°59 | 28°54 | 1°19 | F 6 | |
| S 7 | 19 21 16 | 19°32'56 | 15°28 | 13°41 | 25° 0 | 22° 6 | 18°45 | 9°48 | 12°14 | 18°39 | 14° 3 | 8° 8 | 8°56 | 29° 1 | 1°21 | S 7 | |
| S 8 | 19 25 12 | 20°30'14 | 0♌18 | 15° 6 | 26°12 | 22°45 | 18°51 | 9°43 | 12°15 | 18°39 | 14° 2 | 8° 7 | 8°53 | 29° 7 | 1°22 | S 8 | |
| M 9 | 19 29 9 | 21°27'33 | 15°13 | 16°29 | 27°25 | 23°25 | 18°56 | 9°39 | 12°16 | 18°40 | 14° 1 | 8°D 7 | 8°49 | 29°14 | 1°23 | M 9 | |
| T 10 | 19 33 5 | 22°24'53 | 0♏7 | 17°50 | 28°38 | 24° 5 | 19° 0 | 9°35 | 12°18 | 18°40 | 14° 0 | 8° 8 | 8°46 | 29°21 | 1°24 | T 10 | |
| W11 | 19 37 2 | 23°22'14 | 14°51 | 19° 9 | 29°50 | 24°45 | 19° 5 | 9°31 | 12°19 | 18°40 | 13°59 | 8° 9 | 8°43 | 29°27 | 1°26 | W11 | |
| T 12 | 19 40 58 | 24°19'35 | 29°20 | 20°26 | 1♌3 | 25°24 | 19° 9 | 9°27 | 12°20 | 18°40 | 13°57 | 8°10 | 8°40 | 29°34 | 1°27 | T 12 | |
| F 13 | 19 44 55 | 25°16'58 | 13♏32 | 21°41 | 2°16 | 26° 4 | 19°14 | 9°22 | 12°22 | 18°40 | 13°56 | 8°10 | 8°37 | 29°40 | 1°28 | F 13 | |
| S 14 | 19 48 52 | 26°14'23 | 27°24 | 22°54 | 3°29 | 26°44 | 19°18 | 9°18 | 12°23 | 18°41 | 13°55 | 8°R11 | 8°34 | 29°47 | 1°29 | S 14 | |
| S 15 | 19 52 48 | 27°11'48 | 10♏55 | 24° 5 | 4°41 | 27°23 | 19°22 | 9°14 | 12°25 | 18°41 | 13°54 | 8°10 | 8°30 | 29°54 | 1°30 | S 15 | |
| M16 | 19 56 45 | 28° 9'15 | 24° 8 | 25°13 | 5°54 | 28° 3 | 19°26 | 9° 9 | 12°27 | 18°41 | 13°53 | 8°10 | 8°27 | 0♏0 | 1°31 | M16 | |
| T 17 | 20 0 41 | 29° 6'43 | 7♏3 | 26°19 | 7° 7 | 28°42 | 19°29 | 9° 5 | 12°28 | 18°R41 | 13°51 | 8° 8 | 8°24 | 0° 7 | 1°31 | T 17 | |
| W18 | 20 4 38 | 0♏4'13 | 19°43 | 27°22 | 8°20 | 29°21 | 19°33 | 9° 1 | 12°30 | 18°41 | 13°50 | 8° 7 | 8°21 | 0°14 | 1°32 | W18 | |
| T 19 | 20 8 34 | 1° 1'44 | 2♌10 | 28°23 | 9°33 | 0♌1 | 19°36 | 8°56 | 12°32 | 18°41 | 13°49 | 8° 6 | 8°18 | 0°20 | 1°33 | T 19 | |
| F 20 | 20 12 31 | 1°59'16 | 14°25 | 29°20 | 10°46 | 0°40 | 19°39 | 8°52 | 12°33 | 18°41 | 13°47 | 8° 6 | 8°14 | 0°27 | 1°34 | F 20 | |
| S 21 | 20 16 27 | 2°56'49 | 26°30 | 0♏15 | 12° 0 | 1°19 | 19°42 | 8°47 | 12°35 | 18°40 | 13°46 | 8° 5 | 8°11 | 0°34 | 1°34 | S 21 | |
| S 22 | 20 20 24 | 3°54'24 | 8♏27 | 1° 7 | 13°13 | 1°58 | 19°44 | 8°43 | 12°37 | 18°40 | 13°45 | 8°D 5 | 8° 8 | 0°40 | 1°35 | S 22 | |
| M23 | 20 24 21 | 4°52'00 | 20°19 | 1°56 | 14°26 | 2°37 | 19°47 | 8°38 | 12°39 | 18°40 | 13°44 | 8° 5 | 8° 5 | 0°47 | 1°35 | M23 | |
| T 24 | 20 28 17 | 5°49'36 | 2♏7 | 2°42 | 15°39 | 3°17 | 19°49 | 8°34 | 12°41 | 18°40 | 13°42 | 8° 5 | 8° 2 | 0°54 | 1°36 | T 24 | |
| W25 | 20 32 14 | 6°47'14 | 13°55 | 3°23 | 16°53 | 3°56 | 19°51 | 8°29 | 12°43 | 18°40 | 13°41 | 8° 6 | 7°59 | 1° 0 | 1°36 | W25 | |
| T 26 | 20 36 10 | 7°44'53 | 25°44 | 4° 2 | 18° 6 | 4°35 | 19°53 | 8°25 | 12°45 | 18°39 | 13°40 | 8°R 6 | 7°55 | 1° 7 | 1°36 | T 26 | |
| F 27 | 20 40 7 | 8°42'34 | 7♌39 | 4°36 | 19°19 | 5°13 | 19°55 | 8°20 | 12°47 | 18°39 | 13°38 | 8° 6 | 7°52 | 1°14 | 1°37 | F 27 | |
| S 28 | 20 44 3 | 9°40'15 | 19°44 | 5° 6 | 20°33 | 5°52 | 19°56 | 8°16 | 12°49 | 18°39 | 13°37 | 8° 6 | 7°49 | 1°20 | 1°37 | S 28 | |
| S 29 | 20 48 0 | 10°37'57 | 2♏2 | 5°32 | 21°46 | 6°31 | 19°57 | 8°11 | 12°51 | 18°38 | 13°36 | 8° 6 | 7°46 | 1°27 | 1°37 | S 29 | |
| M30 | 20 51 56 | 11°35'41 | 14°38 | 5°53 | 23° 0 | 7°10 | 19°58 | 8° 7 | 12°54 | 18°38 | 13°35 | 8°D 6 | 7°43 | 1°34 | 1°37 | M30 | |
| T 31 | 20 55 53 | 12♏33'26 | 27♏35 | 6♏9 | 24♌13 | 7♌49 | 19°59 | 8♌2 | 12♌56 | 18°37 | 13♌33 | 8♏6 | 7♏40 | 1♏40 | 1°R37 | T 31 | |

Delta T = 20m40s Julian Calendar 1 July 1050 == Greg. Calendar 7 July 1050

AUGUST 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|-------|--------|--------|-------|------|------|-------|------|-----|
| W 1 | 20 59 50 | 13♌31'12 | 10♏57 | 6♏20 | 25♌27 | 8♌27 | 20♏0 | 7°R58 | 12♌58 | 18°R37 | 13°R32 | 8♏6 | 7♏36 | 1♏47 | 1°R37 | W 1 | |
| T 2 | 21 3 46 | 14°28'59 | 24°46 | 6°26 | 26°40 | 9° 6 | 20° 0 | 7°53 | 13° 1 | 18°37 | 13°31 | 8° 7 | 7°33 | 1°54 | 1♏37 | T 2 | |
| F 3 | 21 7 43 | 15°26'48 | 9♏3 | 6°R27 | 27°54 | 9°44 | 20° 1 | 7°49 | 13° 3 | 18°36 | 13°29 | 8° 7 | 7°30 | 2° 0 | 1°37 | F 3 | |
| S 4 | 21 11 39 | 16°24'37 | 23°40 | 6°21 | 29° 8 | 10°23 | 20°R 1 | 7°44 | 13° 5 | 18°35 | 13°28 | 8° 8 | 7°27 | 2° 7 | 1°37 | S 4 | |
| S 5 | 21 15 36 | 17°22'29 | 8♌38 | 6°10 | 0♏21 | 11° 1 | 20° 1 | 7°40 | 13° 8 | 18°35 | 13°27 | 8°R 8 | 7°24 | 2°14 | 1°36 | S 5 | |
| M 6 | 21 19 32 | 18°20'21 | 23°47 | 5°53 | 1°35 | 11°40 | 20° 0 | 7°36 | 13°10 | 18°34 | 13°25 | 8° 8 | 7°20 | 2°20 | 1°36 | M 6 | |
| T 7 | 21 23 29 | 19°18'15 | 8♏58 | 5°30 | 2°49 | 12°18 | 20° 0 | 7°31 | 13°13 | 18°34 | 13°24 | 8° 7 | 7°17 | 2°27 | 1°36 | T 7 | |
| W 8 | 21 27 25 | 20°16'11 | 24° 2 | 5° 1 | 4° 3 | 12°56 | 19°59 | 7°27 | 13°16 | 18°33 | 13°23 | 8° 6 | 7°14 | 2°34 | 1°35 | W 8 | |
| T 9 | 21 31 22 | 21°14'09 | 8♏50 | 4°26 | 5°17 | 13°35 | 19°58 | 7°23 | 13°18 | 18°32 | 13°21 | 8° 4 | 7°11 | 2°40 | 1°35 | T 9 | |
| F 10 | 21 35 19 | 22°12'09 | 23°15 | 3°46 | 6°30 | 14°13 | 19°57 | 7°18 | 13°21 | 18°31 | 13°20 | 8° 3 | 7° 8 | 2°47 | 1°34 | F 10 | |
| S 11 | 21 39 15 | 23°10'10 | 7♏15 | 3° 1 | 7°44 | 14°51 | 19°56 | 7°14 | 13°24 | 18°31 | 13°19 | 8° 1 | 7° 5 | 2°54 | 1°34 | S 11 | |
| S 12 | 21 43 12 | 24° 8'14 | 20°50 | 2°11 | 8°58 | 15°29 | 19°54 | 7°10 | 13°26 | 18°30 | 13°18 | 8°D 1 | 7° 1 | 3° 0 | 1°33 | S 12 | |
| M13 | 21 47 8 | 25° 6'19 | 3♏59 | 1°18 | 10°12 | 16° 7 | 19°53 | 7° 6 | 13°29 | 18°29 | 13°16 | 8° 1 | 6°58 | 3° 7 | 1°32 | M13 | |
| T 14 | 21 51 5 | 26° 4'27 | 16°47 | 0°22 | 11°27 | 16°45 | 19°51 | 7° 1 | 13°32 | 18°28 | 13°15 | 8° 2 | 6°55 | 3°14 | 1°32 | T 14 | |
| W15 | 21 55 1 | 27° 2'37 | 29°16 | 29♏24 | 12°41 | 17°23 | 19°49 | 6°57 | 13°35 | 18°27 | 13°14 | 8° 3 | 6°52 | 3°20 | 1°31 | W15 | |
| T 16 | 21 58 58 | 28° 0'49 | 11♌30 | 28°26 | 13°55 | 18° 1 | 19°47 | 6°53 | 13°38 | 18°26 | 13°12 | 8° 5 | 6°49 | 3°27 | 1°30 | T 16 | |
| F 17 | 22 2 54 | 28°59'02 | 23°33 | 27°28 | 15° 9 | 18°39 | 19°44 | 6°49 | 13°40 | 18°25 | 13°11 | 8° 6 | 6°45 | 3°34 | 1°29 | F 17 | |
| S 18 | 22 6 51 | 29°57'18 | 5♏28 | 26°32 | 16°23 | 19°17 | 19°41 | 6°45 | 13°43 | 18°25 | 13°10 | 8°R 7 | 6°42 | 3°40 | 1°28 | S 18 | |
| S 19 | 22 10 48 | 0♏55'35 | 17°18 | 25°40 | 17°37 | 19°55 | 19°38 | 6°41 | 13°46 | 18°24 | 13° 9 | 8° 6 | 6°39 | 3°47 | 1°27 | S 19 | |
| M20 | 22 14 44 | 1°53'55 | 29° 7 | 24°52 | 18°52 | 20°32 | 19°35 | 6°37 | 13°49 | 18°22 | 13° 7 | 8° 5 | 6°36 | 3°53 | 1°26 | M20 | |
| T 21 | 22 18 41 | 2°52'16 | 10♏55 | 24°10 | 20° 6 | 21°10 | 19°32 | 6°34 | 13°52 | 18°21 | 13° 6 | 8° 2 | 6°33 | 4° 0 | 1°25 | T 21 | |
| W22 | 22 22 37 | 3°50'39 | 22°45 | 23°35 | 21°20 | 21°48 | 19°29 | 6°30 | 13°56 | 18°20 | 13° 5 | 7°58 | 6°30 | 4° 7 | 1°24 | W22 | |
| T 23 | 22 26 34 | 4°49'04 | 4♌39 | 23° 8 | 22°35 | 22°25 | 19°25 | 6°26 | 13°59 | 18°19 | 13° 4 | 7°54 | 6°26 | 4°13 | 1°22 | T 23 | |
| F 24 | 22 30 30 | 5°47'30 | 16°39 | 22°49 | 23°49 | 23° 3 | 19°21 | 6°23 | 14° 2 | 18°18 | 13° 3 | 7°49 | 6°23 | 4°20 | 1°21 | F 24 | |
| S 25 | 22 34 27 | 6°45'59 | 28°48 | 22°38 | 25° 4 | 23°40 | 19°17 | 6°19 | 14° 5 | 18°17 | 13° 1 | 7°45 | 6°20 | 4°27 | 1°20 | S 25 | |
| S 26 | 22 38 23 | 7°44'29 | 11♏8 | 22°D37 | 26°18 | 24°17 | 19°13 | 6°15 | 14° 8 | 18°16 | 13° 0 | 7°41 | 6°17 | 4°33 | 1°18 | S 26 | |
| M27 | 22 42 20 | 8°43'01 | 23°43 | 22°46 | 27°33 | 24°55 | 19° 9 | 6°12 | 14°11 | 18°15 | 12°59 | 7°39 | 6°14 | 4°40 | 1°17 | M27 | |
| T 28 | 22 46 16 | 9°41'34 | 6♏37 | 23° 4 | 28°47 | 25°32 | 19° 4 | 6° 9 | 14°15 | 18°13 | 12°58 | 7°D38 | 6°11 | 4°47 | 1°15 | T 28 | |
| W29 | 22 50 13 | 10°40'10 | 19°51 | 23°31 | 0♏2 | 26° 9 | 18°59 | 6° 5 | 14°18 | 18°12 | 12°57 | 7°38 | 6° 7 | 4°53 | 1°14 | W29 | |
| T 30 | 22 54 10 | 11°38'47 | 3♌29 | 24° 7 | 1°16 | 26°46 | 18°54 | 6° 2 | 14°21 | 18°11 | 12°56 | 7°39 | 6° 4 | 5° 0 | 1°12 | T 30 | |
| F 31 | 22 58 6 | 12♏37'25 | 17♏33 | 24♏52 | 2♏31 | 27♌23 | 18°49 | 5♌59 | 14♌24 | 18°10 | 12♌55 | 7♏41 | 6♏1 | 5♏7 | 1♏11 | F 31 | |

Delta T = 20m39s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1050
geocentric

SEPTEMBER 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|------|------|-------|------|-----|
| S 1 | 23 2 3 | 13♐36'06 | 2♋1 | 25♏45 | 3♐45 | 28♁1 | 18°R44 | 5°R56 | 14♌28 | 18°R 8 | 12°R54 | 7°R42 | 5♏58 | 5♐13 | 1°R 9 | S 1 | |
| S 2 | 23 5 59 | 14°34'48 | 16°52 | 26°45 | 5° 0 | 28°37 | 18°V39 | 5♋53 | 14°31 | 18°V 7 | 12♋52 | 7♏41 | 5°55 | 5°20 | 1♌7 | S 2 | |
| M 3 | 23 9 56 | 15°33'32 | 1♌59 | 27°53 | 6°15 | 29°14 | 18°33 | 5°50 | 14°35 | 18° 6 | 12°51 | 7°39 | 5°51 | 5°27 | 1° 5 | M 3 | |
| T 4 | 23 13 52 | 16°32'18 | 17°13 | 29° 7 | 7°29 | 29°51 | 18°28 | 5°47 | 14°38 | 18° 4 | 12°50 | 7°36 | 5°48 | 5°33 | 1° 4 | T 4 | |
| W 5 | 23 17 49 | 17°31'06 | 2°V25 | 0♐26 | 8°44 | 0♏28 | 18°22 | 5°44 | 14°41 | 18° 3 | 12°49 | 7°31 | 5°45 | 5°40 | 1° 2 | W 5 | |
| T 6 | 23 21 45 | 18°29'56 | 17°25 | 1°51 | 9°59 | 1° 5 | 18°16 | 5°42 | 14°45 | 18° 2 | 12°48 | 7°24 | 5°42 | 5°47 | 1° 0 | T 6 | |
| F 7 | 23 25 42 | 19°28'48 | 2♌3 | 3°20 | 11°14 | 1°42 | 18°10 | 5°39 | 14°48 | 18° 0 | 12°47 | 7°18 | 5°39 | 5°53 | 0°58 | F 7 | |
| S 8 | 23 29 39 | 20°27'42 | 16°14 | 4°53 | 12°28 | 2°18 | 18° 3 | 5°36 | 14°52 | 17°59 | 12°46 | 7°13 | 5°36 | 6° 0 | 0°56 | S 8 | |
| S 9 | 23 33 35 | 21°26'39 | 29°56 | 6°30 | 13°43 | 2°55 | 17°57 | 5°34 | 14°55 | 17°57 | 12°45 | 7° 9 | 5°32 | 6° 7 | 0°54 | S 9 | |
| M10 | 23 37 32 | 22°25'39 | 13♐9 | 8° 8 | 14°58 | 3°31 | 17°50 | 5°32 | 14°59 | 17°56 | 12°44 | 7° 7 | 5°29 | 6°13 | 0°52 | M10 | |
| T 11 | 23 41 28 | 23°24'40 | 25°57 | 9°50 | 16°13 | 4° 8 | 17°44 | 5°29 | 15° 2 | 17°54 | 12°43 | 7°D 6 | 5°26 | 6°20 | 0°49 | T 11 | |
| W12 | 23 45 25 | 24°23'44 | 8♁23 | 11°32 | 17°28 | 4°44 | 17°37 | 5°27 | 15° 6 | 17°53 | 12°42 | 7° 7 | 5°23 | 6°27 | 0°47 | W12 | |
| T 13 | 23 49 21 | 25°22'51 | 20°32 | 13°17 | 18°43 | 5°21 | 17°30 | 5°25 | 15°10 | 17°51 | 12°42 | 7° 8 | 5°20 | 6°33 | 0°45 | T 13 | |
| F 14 | 23 53 18 | 26°21'59 | 2♏29 | 15° 2 | 19°58 | 5°57 | 17°23 | 5°23 | 15°13 | 17°50 | 12°41 | 7°R 9 | 5°17 | 6°40 | 0°43 | F 14 | |
| S 15 | 23 57 14 | 27°21'10 | 14°19 | 16°48 | 21°13 | 6°33 | 17°16 | 5°21 | 15°17 | 17°48 | 12°40 | 7° 9 | 5°13 | 6°47 | 0°40 | S 15 | |
| S 16 | 0 1 11 | 28°20'24 | 26° 6 | 18°34 | 22°28 | 7° 9 | 17° 8 | 5°19 | 15°21 | 17°47 | 12°39 | 7° 7 | 5°10 | 6°53 | 0°38 | S 16 | |
| M17 | 0 5 8 | 29°19'39 | 7♐54 | 20°21 | 23°43 | 7°45 | 17° 1 | 5°17 | 15°24 | 17°45 | 12°38 | 7° 3 | 5° 7 | 7° 0 | 0°36 | M17 | |
| T 18 | 0 9 4 | 0♌18'57 | 19°45 | 22° 7 | 24°58 | 8°22 | 16°54 | 5°16 | 15°28 | 17°43 | 12°37 | 6°56 | 5° 4 | 7° 7 | 0°33 | T 18 | |
| W19 | 0 13 1 | 1°18'16 | 1♌41 | 23°54 | 26°13 | 8°58 | 16°46 | 5°14 | 15°32 | 17°42 | 12°37 | 6°47 | 5° 1 | 7°13 | 0°31 | W19 | |
| T 20 | 0 16 57 | 2°17'38 | 13°43 | 25°40 | 27°28 | 9°33 | 16°39 | 5°13 | 15°35 | 17°40 | 12°36 | 6°37 | 4°57 | 7°20 | 0°28 | T 20 | |
| F 21 | 0 20 54 | 3°17'02 | 25°44 | 27°26 | 28°43 | 10° 9 | 16°31 | 5°11 | 15°39 | 17°39 | 12°35 | 6°26 | 4°54 | 7°27 | 0°26 | F 21 | |
| S 22 | 0 24 50 | 4°16'28 | 8♐14 | 29°12 | 29°58 | 10°45 | 16°23 | 5°10 | 15°43 | 17°37 | 12°34 | 6°15 | 4°51 | 7°33 | 0°23 | S 22 | |
| S 23 | 0 28 47 | 5°15'56 | 20°44 | 0♌57 | 1♌13 | 11°21 | 16°15 | 5° 9 | 15°46 | 17°35 | 12°34 | 6° 6 | 4°48 | 7°40 | 0°21 | S 23 | |
| M24 | 0 32 43 | 6°15'25 | 3♌26 | 2°41 | 2°28 | 11°56 | 16° 7 | 5° 8 | 15°50 | 17°34 | 12°33 | 5°59 | 4°45 | 7°47 | 0°18 | M24 | |
| T 25 | 0 36 40 | 7°14'57 | 16°22 | 4°25 | 3°44 | 12°32 | 15°59 | 5° 7 | 15°54 | 17°32 | 12°32 | 5°54 | 4°42 | 7°53 | 0°16 | T 25 | |
| W26 | 0 40 37 | 8°14'30 | 29°34 | 6° 8 | 4°59 | 13° 7 | 15°51 | 5° 6 | 15°57 | 17°30 | 12°32 | 5°52 | 4°38 | 8° 0 | 0°13 | W26 | |
| T 27 | 0 44 33 | 9°14'06 | 13♌5 | 7°51 | 6°14 | 13°43 | 15°43 | 5° 5 | 16° 1 | 17°29 | 12°31 | 5°D52 | 4°35 | 8° 7 | 0°10 | T 27 | |
| F 28 | 0 48 30 | 10°13'43 | 26°55 | 9°33 | 7°29 | 14°18 | 15°35 | 5° 5 | 16° 5 | 17°27 | 12°30 | 5°53 | 4°32 | 8°13 | 0° 8 | F 28 | |
| S 29 | 0 52 26 | 11°13'21 | 11♋8 | 11°15 | 8°44 | 14°54 | 15°27 | 5° 4 | 16° 9 | 17°25 | 12°30 | 5°R53 | 4°29 | 8°20 | 0° 5 | S 29 | |
| S 30 | 0 56 23 | 12♌13'02 | 25♋40 | 12♌55 | 9♌59 | 15♏29 | 15°V19 | 5♋4 | 16♌13 | 17°V24 | 12♋29 | 5♏51 | 4♏26 | 8♐27 | 0♌2 | S 30 | |

Delta T = 20m39s Julian Calendar 1 Sept. 1050 == Greg. Calendar 7 Sept. 1050

OCTOBER 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|-------|-------|-------|--------|-------|-------|--------|--------|-------|------|-------|--------|------|-----|
| M 1 | 1 0 19 | 13♌12'44 | 10♌30 | 14♌36 | 11♌15 | 16♏4 | 15°R11 | 5°R 3 | 16♌16 | 17°R22 | 12°R29 | 5°R47 | 4♏22 | 8♐33 | 29°R59 | M 1 | |
| T 2 | 1 4 16 | 14°12'28 | 25°31 | 16°15 | 12°30 | 16°39 | 15°V 3 | 5♋3 | 16°20 | 17°V20 | 12♋28 | 5♏41 | 4°19 | 8°40 | 29°V57 | T 2 | |
| W 3 | 1 8 12 | 15°12'14 | 10°V34 | 17°54 | 13°45 | 17°14 | 14°55 | 5° 3 | 16°24 | 17°19 | 12°28 | 5°32 | 4°16 | 8°47 | 29°54 | W 3 | |
| T 4 | 1 12 9 | 16°12'01 | 25°30 | 19°33 | 15° 0 | 17°49 | 14°47 | 5°D 3 | 16°28 | 17°17 | 12°27 | 5°21 | 4°13 | 8°53 | 29°51 | T 4 | |
| F 5 | 1 16 5 | 17°11'51 | 10♌10 | 21°10 | 16°16 | 18°24 | 14°39 | 5° 3 | 16°31 | 17°15 | 12°27 | 5°10 | 4°10 | 9° 0 | 29°48 | F 5 | |
| S 6 | 1 20 2 | 18°11'44 | 24°26 | 22°48 | 17°31 | 18°58 | 14°30 | 5° 3 | 16°35 | 17°14 | 12°27 | 5° 0 | 4° 7 | 9° 7 | 29°45 | S 6 | |
| S 7 | 1 23 59 | 19°11'38 | 8♐13 | 24°24 | 18°46 | 19°33 | 14°22 | 5° 3 | 16°39 | 17°12 | 12°26 | 4°52 | 4° 3 | 9°13 | 29°42 | S 7 | |
| M 8 | 1 27 55 | 20°11'34 | 21°32 | 26° 1 | 20° 1 | 20° 8 | 14°14 | 5° 4 | 16°43 | 17°10 | 12°26 | 4°46 | 4° 0 | 9°20 | 29°39 | M 8 | |
| T 9 | 1 31 52 | 21°11'33 | 4♁24 | 27°36 | 21°17 | 20°42 | 14° 6 | 5° 4 | 16°46 | 17° 9 | 12°26 | 4°43 | 3°57 | 9°27 | 29°37 | T 9 | |
| W10 | 1 35 48 | 22°11'34 | 16°52 | 29°11 | 22°32 | 21°17 | 13°58 | 5° 5 | 16°50 | 17° 7 | 12°25 | 4°42 | 3°54 | 9°33 | 29°34 | W10 | |
| T 11 | 1 39 45 | 23°11'37 | 29° 2 | 0♐46 | 23°47 | 21°51 | 13°50 | 5° 6 | 16°54 | 17° 5 | 12°25 | 4°42 | 3°51 | 9°40 | 29°31 | T 11 | |
| F 12 | 1 43 41 | 24°11'43 | 10♏59 | 2°20 | 25° 3 | 22°25 | 13°43 | 5° 6 | 16°58 | 17° 4 | 12°25 | 4°42 | 3°48 | 9°47 | 29°28 | F 12 | |
| S 13 | 1 47 38 | 25°11'50 | 22°48 | 3°54 | 26°18 | 23° 0 | 13°35 | 5° 7 | 17° 1 | 17° 2 | 12°24 | 4°41 | 3°44 | 9°53 | 29°25 | S 13 | |
| S 14 | 1 51 34 | 26°12'00 | 4♐35 | 5°28 | 27°33 | 23°34 | 13°27 | 5° 8 | 17° 5 | 17° 0 | 12°24 | 4°37 | 3°41 | 10° 0 | 29°22 | S 14 | |
| M15 | 1 55 31 | 27°12'11 | 16°25 | 7° 1 | 28°48 | 24° 8 | 13°19 | 5° 9 | 17° 9 | 16°59 | 12°24 | 4°31 | 3°38 | 10° 7 | 29°19 | M15 | |
| T 16 | 1 59 28 | 28°12'25 | 28°20 | 8°33 | 0♐4 | 24°42 | 13°12 | 5°10 | 17°13 | 16°57 | 12°24 | 4°22 | 3°35 | 10°13 | 29°16 | T 16 | |
| W17 | 2 3 24 | 29°12'40 | 10♌24 | 10° 5 | 1°19 | 25°16 | 13° 4 | 5°12 | 17°16 | 16°55 | 12°24 | 4°10 | 3°32 | 10°20 | 29°13 | W17 | |
| T 18 | 2 7 21 | 0♐12'58 | 22°37 | 11°37 | 2°35 | 25°49 | 12°57 | 5°13 | 17°20 | 16°54 | 12°24 | 3°57 | 3°28 | 10°27 | 29°10 | T 18 | |
| F 19 | 2 11 17 | 1°13'17 | 5♐3 | 13° 8 | 3°50 | 26°23 | 12°49 | 5°15 | 17°24 | 16°52 | 12°24 | 3°42 | 3°25 | 10°33 | 29° 7 | F 19 | |
| S 20 | 2 15 14 | 2°13'38 | 17°39 | 14°39 | 5° 5 | 26°57 | 12°42 | 5°16 | 17°27 | 16°50 | 12°24 | 3°28 | 3°22 | 10°40 | 29° 4 | S 20 | |
| S 21 | 2 19 10 | 3°14'01 | 0♌27 | 16°10 | 6°21 | 27°30 | 12°35 | 5°18 | 17°31 | 16°49 | 12°D24 | 3°16 | 3°19 | 10°47 | 29° 1 | S 21 | |
| M22 | 2 23 7 | 4°14'25 | 13°25 | 17°40 | 7°36 | 28° 3 | 12°28 | 5°20 | 17°35 | 16°47 | 12°24 | 3° 6 | 3°16 | 10°54 | 28°58 | M22 | |
| T 23 | 2 27 3 | 5°14'51 | 26°35 | 19°10 | 8°51 | 28°37 | 12°21 | 5°22 | 17°38 | 16°46 | 12°24 | 3° 0 | 3°13 | 11° 0 | 28°55 | T 23 | |
| W24 | 2 31 0 | 6°15'18 | 9♌56 | 20°40 | 10° 7 | 29°10 | 12°14 | 5°24 | 17°42 | 16°44 | 12°24 | 2°56 | 3° 9 | 11° 7 | 28°53 | W24 | |
| T 25 | 2 34 57 | 7°15'47 | 23°29 | 22° 9 | 11°22 | 29°43 | 12° 8 | 5°26 | 17°46 | 16°43 | 12°24 | 2°55 | 3° 6 | 11°14 | 28°50 | T 25 | |
| F 26 | 2 38 53 | 8°16'17 | 7♋15 | 23°37 | 12°37 | 0♐16 | 12° 1 | 5°28 | 17°49 | 16°41 | 12°24 | 2°55 | 3° 3 | 11°20 | 28°47 | F 26 | |
| S 27 | 2 42 50 | 9°16'49 | 21°16 | 25° 6 | 13°53 | 0°49 | 11°55 | 5°30 | 17°53 | 16°40 | 12°24 | 2°54 | 3° 0 | 11°27 | 28°44 | S 27 | |
| S 28 | 2 46 46 | 10°17'21 | 5♌30 | 26°33 | 15° 8 | 1°21 | 11°48 | 5°33 | 17°56 | 16°38 | 12°24 | 2°53 | 2°57 | 11°34 | 28°41 | S 28 | |
| M29 | 2 50 43 | 11°17'55 | 19°58 | 28° 0 | 16°24 | 1°54 | 11°42 | 5°35 | 18° 0 | 16°36 | 12°25 | 2°48 | 2°54 | 11°40 | 28°38 | M29 | |
| T 30 | 2 54 39 | 12°18'30 | 4°V34 | 29°27 | 17°39 | 2°26 | 11°36 | 5°38 | 18° 3 | 16°35 | 12°25 | 2°41 | 2°50 | 11°47 | 28°35 | T 30 | |
| W31 | 2 58 36 | 13♐19'07 | 19°V14 | 0♌53 | 18♐54 | 2♐59 | 11°V30 | 5♋40 | 18♌7 | 16°V34 | 12♋25 | 2♏32 | 2♏47 | 11♐54 | 28°V32 | W31 | |

Delta T = 20m39s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1050
geocentric

NOVEMBER 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|--------|--------|-------|-------|--------|------|-------|--------|-------|-------|------|-------|--------|---|------|-----|
| T 1 | 3 2 32 | 14♌18'45 | 3♋50 | 2♌18 | 20♌10 | 3♎31 | 11°R25 | 5♋43 | 18♏10 | 16°R32 | 12♋25 | 2°R20 | 2♌44 | 12♎0 | 28°R30 | | T 1 | |
| F 2 | 3 6 29 | 15°20'24 | 18°14 | 3°43 | 21°25 | 4° 3 | 11°Y19 | 5°46 | 18°14 | 16°Y31 | 12°26 | 2♌ 8 | 2°41 | 12° 7 | 28°Y27 | | F 2 | |
| S 3 | 3 10 26 | 16°21'05 | 2♎21 | 5° 7 | 22°40 | 4°35 | 11°14 | 5°49 | 18°17 | 16°29 | 12°26 | 1°57 | 2°38 | 12°14 | 28°24 | | S 3 | |
| S 4 | 3 14 22 | 17°21'47 | 16° 4 | 6°29 | 23°56 | 5° 7 | 11° 9 | 5°52 | 18°21 | 16°28 | 12°26 | 1°48 | 2°34 | 12°20 | 28°21 | | S 4 | |
| M 5 | 3 18 19 | 18°22'31 | 29° 23 | 7°51 | 25°11 | 5°39 | 11° 4 | 5°55 | 18°24 | 16°26 | 12°27 | 1°41 | 2°31 | 12°27 | 28°19 | | M 5 | |
| T 6 | 3 22 15 | 19°23'16 | 12♌16 | 9°11 | 26°27 | 6°11 | 10°59 | 5°58 | 18°28 | 16°25 | 12°27 | 1°37 | 2°28 | 12°34 | 28°16 | | T 6 | |
| W 7 | 3 26 12 | 20°24'03 | 24°47 | 10°30 | 27°42 | 6°42 | 10°54 | 6° 2 | 18°31 | 16°24 | 12°28 | 1°35 | 2°25 | 12°40 | 28°13 | | W 7 | |
| T 8 | 3 30 8 | 21°24'51 | 7♌ 0 | 11°47 | 28°57 | 7°14 | 10°50 | 6° 5 | 18°34 | 16°22 | 12°28 | 1°D35 | 2°22 | 12°47 | 28°11 | | T 8 | |
| F 9 | 3 34 5 | 22°25'41 | 18°59 | 13° 3 | 0♌13 | 7°45 | 10°46 | 6° 9 | 18°38 | 16°21 | 12°29 | 1°R35 | 2°19 | 12°54 | 28° 8 | | F 9 | |
| S 10 | 3 38 1 | 23°26'33 | 0♎50 | 14°16 | 1°28 | 8°16 | 10°42 | 6°12 | 18°41 | 16°20 | 12°29 | 1°35 | 2°15 | 13° 0 | 28° 5 | | S 10 | |
| S 11 | 3 41 58 | 24°27'25 | 12°39 | 15°27 | 2°43 | 8°47 | 10°38 | 6°16 | 18°44 | 16°19 | 12°30 | 1°33 | 2°12 | 13° 7 | 28° 3 | | S 11 | |
| M12 | 3 45 55 | 25°28'19 | 24°30 | 16°35 | 3°59 | 9°18 | 10°34 | 6°20 | 18°47 | 16°17 | 12°30 | 1°29 | 2° 9 | 13°14 | 28° 0 | | M12 | |
| T 13 | 3 49 51 | 26°29'15 | 6♌29 | 17°39 | 5°14 | 9°49 | 10°31 | 6°24 | 18°50 | 16°16 | 12°31 | 1°22 | 2° 6 | 13°20 | 27°58 | | T 13 | |
| W14 | 3 53 48 | 27°30'12 | 18°38 | 18°40 | 6°29 | 10°19 | 10°27 | 6°28 | 18°54 | 16°15 | 12°31 | 1°13 | 2° 3 | 13°27 | 27°55 | | W14 | |
| T 15 | 3 57 44 | 28°31'10 | 1♌ 2 | 19°37 | 7°45 | 10°50 | 10°24 | 6°32 | 18°57 | 16°14 | 12°32 | 1° 2 | 1°59 | 13°34 | 27°53 | | T 15 | |
| F 16 | 4 1 41 | 29°32'09 | 13°41 | 20°29 | 9° 0 | 11°20 | 10°21 | 6°36 | 19° 0 | 16°13 | 12°33 | 0°51 | 1°56 | 13°40 | 27°50 | | F 16 | |
| S 17 | 4 5 37 | 0♌33'09 | 26°35 | 21°15 | 10°16 | 11°50 | 10°18 | 6°40 | 19° 3 | 16°12 | 12°33 | 0°39 | 1°53 | 13°47 | 27°48 | | S 17 | |
| S 18 | 4 9 34 | 1°34'11 | 9♌44 | 21°55 | 11°31 | 12°20 | 10°16 | 6°44 | 19° 6 | 16°11 | 12°34 | 0°29 | 1°50 | 13°54 | 27°46 | | S 18 | |
| M19 | 4 13 30 | 2°35'13 | 23° 5 | 22°27 | 12°46 | 12°50 | 10°14 | 6°49 | 19° 9 | 16° 9 | 12°35 | 0°21 | 1°47 | 14° 0 | 27°43 | | M19 | |
| T 20 | 4 17 27 | 3°36'16 | 6♋38 | 22°52 | 14° 2 | 13°20 | 10°11 | 6°53 | 19°12 | 16° 8 | 12°36 | 0°16 | 1°44 | 14° 7 | 27°41 | | T 20 | |
| W21 | 4 21 24 | 4°37'20 | 20°20 | 23° 8 | 15°17 | 13°49 | 10°10 | 6°58 | 19°15 | 16° 7 | 12°36 | 0°13 | 1°40 | 14°14 | 27°39 | | W21 | |
| T 22 | 4 25 20 | 5°38'25 | 4♌10 | 23°R14 | 16°32 | 14°19 | 10° 8 | 7° 2 | 19°18 | 16° 6 | 12°37 | 0°D13 | 1°37 | 14°21 | 27°37 | | T 22 | |
| F 23 | 4 29 17 | 6°39'30 | 18° 6 | 23° 9 | 17°48 | 14°48 | 10° 6 | 7° 7 | 19°21 | 16° 6 | 12°38 | 0°14 | 1°34 | 14°27 | 27°34 | | F 23 | |
| S 24 | 4 33 13 | 7°40'35 | 2♌ 8 | 22°54 | 19° 3 | 15°17 | 10° 5 | 7°12 | 19°23 | 16° 5 | 12°39 | 0°R15 | 1°31 | 14°34 | 27°32 | | S 24 | |
| S 25 | 4 37 10 | 8°41'40 | 16°15 | 22°27 | 20°18 | 15°45 | 10° 4 | 7°16 | 19°26 | 16° 4 | 12°40 | 0°15 | 1°28 | 14°41 | 27°30 | | S 25 | |
| M26 | 4 41 6 | 9°42'46 | 0°Y26 | 21°48 | 21°34 | 16°14 | 10° 3 | 7°21 | 19°29 | 16° 3 | 12°41 | 0°13 | 1°25 | 14°47 | 27°28 | | M26 | |
| T 27 | 4 45 3 | 10°43'53 | 14°39 | 20°58 | 22°49 | 16°42 | 10° 3 | 7°26 | 19°32 | 16° 2 | 12°42 | 0° 8 | 1°21 | 14°54 | 27°26 | | T 27 | |
| W28 | 4 48 59 | 11°44'59 | 28°50 | 19°58 | 24° 4 | 17°11 | 10° 2 | 7°31 | 19°34 | 16° 1 | 12°43 | 0° 2 | 1°18 | 15° 1 | 27°24 | | W28 | |
| T 29 | 4 52 56 | 12°46'06 | 12♋57 | 18°49 | 25°20 | 17°39 | 10° 2 | 7°37 | 19°37 | 16° 1 | 12°44 | 29♌54 | 1°15 | 15° 7 | 27°23 | | T 29 | |
| F 30 | 4 56 53 | 13♌47'14 | 26♋55 | 17♌32 | 26♌35 | 18♎ 6 | 10°D 2 | 7♋42 | 19♏40 | 16°Y 0 | 12♋45 | 29♌46 | 1♌12 | 15♎14 | 27°Y21 | | F 30 | |

Delta T = 20m38s Julian Calendar 1 Nov. 1050 == Greg. Calendar 7 Nov. 1050

DECEMBER 1050 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|--------|--------|-------|-------|--------|-------|-------|--------|-------|--------|-------|-------|--------|---|------|-----|
| S 1 | 5 0 49 | 14♌48'22 | 10♎39 | 16°R12 | 27♌50 | 18♎34 | 10°Y 2 | 7♋47 | 19♏42 | 15°R59 | 12♋46 | 29°R39 | 1♌ 9 | 15♎21 | 27°R19 | | S 1 | |
| S 2 | 5 4 46 | 15°49'30 | 24° 5 | 14♌49 | 29° 5 | 19° 2 | 10° 2 | 7°52 | 19°45 | 15°Y58 | 12°47 | 29♌32 | 1° 5 | 15°27 | 27°Y17 | | S 2 | |
| M 3 | 5 8 42 | 16°50'39 | 7♌13 | 13°27 | 0♌21 | 19°29 | 10° 3 | 7°58 | 19°47 | 15°58 | 12°48 | 29°28 | 1° 2 | 15°34 | 27°16 | | M 3 | |
| T 4 | 5 12 39 | 17°51'48 | 20° 0 | 12° 9 | 1°36 | 19°56 | 10° 4 | 8° 3 | 19°50 | 15°57 | 12°49 | 29°26 | 0°59 | 15°41 | 27°14 | | T 4 | |
| W 5 | 5 16 35 | 18°52'58 | 2♌30 | 10°57 | 2°51 | 20°23 | 10° 5 | 8° 9 | 19°52 | 15°57 | 12°50 | 29°D25 | 0°56 | 15°47 | 27°12 | | W 5 | |
| T 6 | 5 20 32 | 19°54'08 | 14°43 | 9°52 | 4° 6 | 20°49 | 10° 6 | 8°14 | 19°54 | 15°56 | 12°51 | 29°26 | 0°53 | 15°54 | 27°11 | | T 6 | |
| F 7 | 5 24 28 | 20°55'19 | 26°43 | 8°57 | 5°22 | 21°15 | 10° 8 | 8°20 | 19°57 | 15°56 | 12°52 | 29°28 | 0°50 | 16° 1 | 27° 9 | | F 7 | |
| S 8 | 5 28 25 | 21°56'30 | 8♎36 | 8°12 | 6°37 | 21°42 | 10° 9 | 8°26 | 19°59 | 15°55 | 12°54 | 29°29 | 0°46 | 16° 7 | 27° 8 | | S 8 | |
| S 9 | 5 32 22 | 22°57'42 | 20°26 | 7°38 | 7°52 | 22° 7 | 10°11 | 8°31 | 20° 1 | 15°55 | 12°55 | 29°R30 | 0°43 | 16°14 | 27° 7 | | S 9 | |
| M10 | 5 36 18 | 23°58'54 | 2♌18 | 7°14 | 9° 7 | 22°33 | 10°13 | 8°37 | 20° 3 | 15°54 | 12°56 | 29°30 | 0°40 | 16°21 | 27° 5 | | M10 | |
| T 11 | 5 40 15 | 25° 0'06 | 14°18 | 7° 0 | 10°23 | 22°58 | 10°15 | 8°43 | 20° 5 | 15°54 | 12°57 | 29°28 | 0°37 | 16°28 | 27° 4 | | T 11 | |
| W12 | 5 44 11 | 26° 1'18 | 26°29 | 6°D56 | 11°38 | 23°24 | 10°18 | 8°49 | 20° 7 | 15°53 | 12°58 | 29°25 | 0°34 | 16°34 | 27° 3 | | W12 | |
| T 13 | 5 48 8 | 27° 2'31 | 8♌56 | 7° 2 | 12°53 | 23°48 | 10°20 | 8°55 | 20° 9 | 15°53 | 13° 0 | 29°20 | 0°31 | 16°41 | 27° 2 | | T 13 | |
| F 14 | 5 52 4 | 28° 3'44 | 21°42 | 7°15 | 14° 8 | 24°13 | 10°23 | 9° 1 | 20°11 | 15°53 | 13° 1 | 29°14 | 0°27 | 16°48 | 27° 1 | | F 14 | |
| S 15 | 5 56 1 | 29° 4'58 | 4♌48 | 7°37 | 15°23 | 24°37 | 10°26 | 9° 7 | 20°13 | 15°53 | 13° 2 | 29° 9 | 0°24 | 16°54 | 27° 0 | | S 15 | |
| S 16 | 5 59 57 | 0♌ 6'11 | 18°13 | 8° 5 | 16°38 | 25° 1 | 10°30 | 9°13 | 20°15 | 15°52 | 13° 4 | 29° 4 | 0°21 | 17° 1 | 26°59 | | S 16 | |
| M17 | 6 3 54 | 1° 7'25 | 1♌57 | 8°40 | 17°54 | 25°25 | 10°33 | 9°19 | 20°17 | 15°52 | 13° 5 | 29° 1 | 0°18 | 17° 8 | 26°58 | | M17 | |
| T 18 | 6 7 51 | 2° 8'38 | 15°56 | 9°20 | 19° 9 | 25°49 | 10°37 | 9°26 | 20°19 | 15°52 | 13° 6 | 28°59 | 0°15 | 17°14 | 26°57 | | T 18 | |
| W19 | 6 11 47 | 3° 9'51 | 0♌ 7 | 10° 6 | 20°24 | 26°12 | 10°40 | 9°32 | 20°21 | 15°52 | 13° 8 | 28°D58 | 0°11 | 17°21 | 26°56 | | W19 | |
| T 20 | 6 15 44 | 4°11'03 | 14°24 | 10°56 | 21°39 | 26°35 | 10°44 | 9°38 | 20°22 | 15°52 | 13° 9 | 28°59 | 0° 8 | 17°28 | 26°55 | | T 20 | |
| F 21 | 6 19 40 | 5°12'15 | 28°43 | 11°50 | 22°54 | 26°57 | 10°49 | 9°45 | 20°24 | 15°D52 | 13°11 | 29° 0 | 0° 5 | 17°34 | 26°55 | | F 21 | |
| S 22 | 6 23 37 | 6°13'26 | 13♌ 2 | 12°48 | 24° 9 | 27°19 | 10°53 | 9°51 | 20°25 | 15°52 | 13°12 | 29° 2 | 0° 2 | 17°41 | 26°54 | | S 22 | |
| S 23 | 6 27 33 | 7°14'37 | 27°16 | 13°49 | 25°24 | 27°41 | 10°58 | 9°58 | 20°27 | 15°52 | 13°13 | 29° 3 | 29♌59 | 17°48 | 26°54 | | S 23 | |
| M24 | 6 31 30 | 8°15'47 | 11°Y25 | 14°52 | 26°39 | 28° 3 | 11° 2 | 10° 4 | 20°28 | 15°52 | 13°15 | 29°R 3 | 29°56 | 17°54 | 26°53 | | M24 | |
| T 25 | 6 35 27 | 9°16'56 | 25°25 | 15°59 | 27°54 | 28°24 | 11° 7 | 10°11 | 20°30 | 15°52 | 13°16 | 29° 2 | 29°52 | 18° 1 | 26°53 | | T 25 | |
| W26 | 6 39 23 | 10°18'04 | 9♌16 | 17° 7 | 29° 9 | 28°45 | 11°13 | 10°17 | 20°31 | 15°52 | 13°18 | 29° 1 | 29°49 | 18° 8 | 26°52 | | W26 | |
| T 27 | 6 43 20 | 11°19'12 | 22°57 | 18°18 | 0♌24 | 29° 5 | 11°18 | 10°24 | 20°33 | 15°52 | 13°19 | 28°58 | 29°46 | 18°15 | 26°52 | | T 27 | |
| F 28 | 6 47 16 | 12°20'19 | 6♎26 | 19°31 | 1°39 | 29°26 | 11°23 | 10°31 | 20°34 | 15°53 | 13°21 | 28°56 | 29°43 | 18°21 | 26°52 | | F 28 | |
| S 29 | 6 51 13 | 13°21'25 | 19°42 | 20°46 | 2°54 | 29°45 | 11°29 | 10°37 | 20°35 | 15°53 | 13°22 | 28°53 | 29°40 | 18°28 | 26°51 | | S 29 | |
| S 30 | 6 55 9 | 14°22'30 | 2♌44 | 22° 2 | 4° 9 | 0♌ 5 | 11°35 | 10°44 | 20°36 | 15°53 | 13°24 | 28°52 | 29°37 | 18°35 | 26°51 | | S 30 | |
| M31 | 6 59 6 | 15♌23'35 | 15♌32 | 23♌19 | 5♋24 | 0♌24 | 11°Y41 | 10♋51 | 20♏37 | 15°Y54 | 13♋25 | 28♌50 | 29♌33 | 18♎41 | 26°Y51 | | M31 | |

Delta T = 20m38s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1051
geocentric

JANUARY 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♁ | ♂ | ♄ | ♃ | ♆ | ♅ | ♁ | ♂ | ♄ | ♃ | ♆ | ♅ | ♁ | ♂ | Day |
|------|---------|----------|-------|-------|-------|------|-------|-------|--------|-------|-------|--------|--------|-------|--------|------|---|-----|
| T 1 | 7 3 2 | 16°24'39 | 28°06 | 24°38 | 6°39 | 0°43 | 11°47 | 10°58 | 20°38 | 15°54 | 13°27 | 28°D50 | 29°30 | 18°48 | 26°D51 | T 1 | | |
| W 2 | 7 6 59 | 17°25'42 | 10°02 | 25°58 | 7°54 | 1° 1 | 11°54 | 11° 5 | 20°39 | 15°54 | 13°29 | 28°E50 | 29°27 | 18°55 | 26°Y51 | W 2 | | |
| T 3 | 7 10 56 | 18°26'45 | 22°35 | 27°19 | 9° 9 | 1°19 | 12° 0 | 11°12 | 20°40 | 15°55 | 13°30 | 28°51 | 29°24 | 19° 1 | 26°51 | T 3 | | |
| F 4 | 7 14 52 | 19°27'47 | 4°43 | 28°42 | 10°24 | 1°36 | 12° 7 | 11°19 | 20°41 | 15°55 | 13°32 | 28°52 | 29°21 | 19° 8 | 26°52 | F 4 | | |
| S 5 | 7 18 49 | 20°28'48 | 16°28 | 0°35 | 11°38 | 1°53 | 12°14 | 11°25 | 20°42 | 15°56 | 13°33 | 28°53 | 29°17 | 19°15 | 26°52 | S 5 | | |
| S 6 | 7 22 45 | 21°29'48 | 28°18 | 1°29 | 12°53 | 2°10 | 12°21 | 11°32 | 20°43 | 15°56 | 13°35 | 28°54 | 29°14 | 19°21 | 26°52 | S 6 | | |
| M 7 | 7 26 42 | 22°30'48 | 10°10 | 2°55 | 14° 8 | 2°26 | 12°28 | 11°39 | 20°43 | 15°57 | 13°37 | 28°54 | 29°11 | 19°28 | 26°52 | M 7 | | |
| T 8 | 7 30 38 | 23°31'47 | 22° 8 | 4°21 | 15°23 | 2°41 | 12°35 | 11°46 | 20°44 | 15°57 | 13°38 | 28°R55 | 29° 8 | 19°35 | 26°53 | T 8 | | |
| W 9 | 7 34 35 | 24°32'46 | 4°11 | 5°48 | 16°37 | 2°57 | 12°43 | 11°54 | 20°45 | 15°58 | 13°40 | 28°54 | 29° 5 | 19°42 | 26°53 | W 9 | | |
| T 10 | 7 38 31 | 25°33'44 | 16°42 | 7°16 | 17°52 | 3°11 | 12°50 | 12° 1 | 20°45 | 15°59 | 13°42 | 28°54 | 29° 2 | 19°48 | 26°54 | T 10 | | |
| F 11 | 7 42 28 | 26°34'41 | 29°27 | 8°44 | 19° 7 | 3°26 | 12°58 | 12° 8 | 20°46 | 15°59 | 13°43 | 28°54 | 28°58 | 19°55 | 26°54 | F 11 | | |
| S 12 | 7 46 25 | 27°35'37 | 12°34 | 10°14 | 20°22 | 3°39 | 13° 6 | 12°15 | 20°46 | 16° 0 | 13°45 | 28°54 | 28°55 | 20° 2 | 26°55 | S 12 | | |
| S 13 | 7 50 21 | 28°36'32 | 26° 5 | 11°44 | 21°36 | 3°53 | 13°14 | 12°22 | 20°46 | 16° 1 | 13°47 | 28°D54 | 28°52 | 20° 8 | 26°56 | S 13 | | |
| M14 | 7 54 18 | 29°37'27 | 10°18 | 13°15 | 22°51 | 4° 5 | 13°22 | 12°29 | 20°47 | 16° 2 | 13°48 | 28°54 | 28°49 | 20°15 | 26°57 | M14 | | |
| T 15 | 7 58 14 | 0°38'20 | 24°18 | 14°46 | 24° 5 | 4°17 | 13°31 | 12°36 | 20°47 | 16° 2 | 13°50 | 28°R54 | 28°46 | 20°22 | 26°57 | T 15 | | |
| W16 | 8 2 11 | 1°39'12 | 8°52 | 16°19 | 25°20 | 4°29 | 13°39 | 12°43 | 20°47 | 16° 3 | 13°52 | 28°54 | 28°43 | 20°28 | 26°58 | W16 | | |
| T 17 | 8 6 7 | 2°40'03 | 23°38 | 17°52 | 26°34 | 4°40 | 13°48 | 12°51 | 20°47 | 16° 4 | 13°53 | 28°53 | 28°39 | 20°35 | 26°59 | T 17 | | |
| F 18 | 8 10 4 | 3°40'52 | 8°36 | 19°26 | 27°49 | 4°51 | 13°57 | 12°58 | 20°48 | 16° 5 | 13°55 | 28°53 | 28°36 | 20°42 | 27° 0 | F 18 | | |
| S 19 | 8 14 0 | 4°41'40 | 23°11 | 21° 1 | 29° 3 | 5° 0 | 14° 6 | 13° 5 | 20°R48 | 16° 6 | 13°57 | 28°52 | 28°33 | 20°48 | 27° 1 | S 19 | | |
| S 20 | 8 17 57 | 5°42'26 | 7°46 | 22°36 | 0°18 | 5°10 | 14°15 | 13°12 | 20°48 | 16° 7 | 13°58 | 28°52 | 28°30 | 20°55 | 27° 2 | S 20 | | |
| M21 | 8 21 54 | 6°43'10 | 22° 6 | 24°13 | 1°32 | 5°18 | 14°24 | 13°20 | 20°47 | 16° 8 | 14° 0 | 28°51 | 28°27 | 21° 2 | 27° 4 | M21 | | |
| T 22 | 8 25 50 | 7°43'53 | 6° 9 | 25°50 | 2°47 | 5°27 | 14°33 | 13°27 | 20°47 | 16° 9 | 14° 2 | 28°D51 | 28°23 | 21° 9 | 27° 5 | T 22 | | |
| W23 | 8 29 47 | 8°44'34 | 19°53 | 27°28 | 4° 1 | 5°34 | 14°43 | 13°34 | 20°47 | 16°10 | 14° 4 | 28°51 | 28°20 | 21°15 | 27° 6 | W23 | | |
| T 24 | 8 33 43 | 9°45'14 | 3°11 | 29° 7 | 5°15 | 5°41 | 14°52 | 13°41 | 20°47 | 16°11 | 14° 5 | 28°52 | 28°17 | 21°22 | 27° 8 | T 24 | | |
| F 25 | 8 37 40 | 10°45'52 | 16°27 | 0°46 | 6°29 | 5°47 | 15° 2 | 13°49 | 20°47 | 16°12 | 14° 7 | 28°53 | 28°14 | 21°29 | 27° 9 | F 25 | | |
| S 26 | 8 41 36 | 11°46'28 | 29°20 | 2°27 | 7°44 | 5°53 | 15°12 | 13°56 | 20°46 | 16°14 | 14° 9 | 28°54 | 28°11 | 21°35 | 27°10 | S 26 | | |
| S 27 | 8 45 33 | 12°47'02 | 12° 0 | 4° 8 | 8°58 | 5°58 | 15°22 | 14° 3 | 20°46 | 16°15 | 14°10 | 28°55 | 28° 8 | 21°42 | 27°12 | S 27 | | |
| M28 | 8 49 29 | 13°47'35 | 24°28 | 5°50 | 10°12 | 6° 2 | 15°32 | 14°10 | 20°45 | 16°16 | 14°12 | 28°R56 | 28° 4 | 21°49 | 27°13 | M28 | | |
| T 29 | 8 53 26 | 14°48'05 | 6°14 | 7°34 | 11°26 | 6° 6 | 15°42 | 14°18 | 20°45 | 16°17 | 14°14 | 28°55 | 28° 1 | 21°55 | 27°15 | T 29 | | |
| W30 | 8 57 23 | 15°48'35 | 18°54 | 9°18 | 12°40 | 6° 8 | 15°52 | 14°25 | 20°44 | 16°19 | 14°16 | 28°54 | 27°58 | 22° 2 | 27°17 | W30 | | |
| T 31 | 9 1 19 | 16°49'02 | 0°15 | 11°33 | 13°54 | 6°11 | 16° 3 | 14°32 | 20°44 | 16°20 | 14°17 | 28°E52 | 27°E55 | 22° 9 | 27°Y19 | T 31 | | |

Delta T = 20m38s Julian Calendar 1 Jan. 1051 == Greg. Calendar 7 Jan. 1051

FEBRUARY 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♁ | ♂ | ♄ | ♃ | ♆ | ♅ | ♁ | ♂ | ♄ | ♃ | ♆ | ♅ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|--------|-------|--------|-------|--------|--------|-------|--------|--------|--------|--------|------|---|-----|
| F 1 | 9 5 16 | 17°49'28 | 12°15 | 12°49 | 15°18 | 6°12 | 16°13 | 14°40 | 20°R43 | 16°21 | 14°19 | 28°R50 | 27°E52 | 22°16 | 27°Y20 | F 1 | | |
| S 2 | 9 9 12 | 18°49'52 | 24°43 | 14°35 | 16°22 | 6°13 | 16°24 | 14°47 | 20°42 | 16°23 | 14°21 | 28°E46 | 27°49 | 22°22 | 27°22 | S 2 | | |
| S 3 | 9 13 9 | 19°50'15 | 6°33 | 16°23 | 17°35 | 6°R13 | 16°35 | 14°54 | 20°42 | 16°24 | 14°23 | 28°43 | 27°45 | 22°29 | 27°24 | S 3 | | |
| M 4 | 9 17 5 | 20°50'37 | 18°26 | 18°12 | 18°49 | 6°12 | 16°45 | 15° 1 | 20°41 | 16°26 | 14°24 | 28°40 | 27°42 | 22°36 | 27°26 | M 4 | | |
| T 5 | 9 21 2 | 21°50'56 | 0°11 | 20° 2 | 20° 3 | 6°11 | 16°56 | 15° 9 | 20°40 | 16°27 | 14°26 | 28°37 | 27°39 | 22°42 | 27°28 | T 5 | | |
| W 6 | 9 24 58 | 22°51'15 | 12°31 | 21°52 | 21°17 | 6° 8 | 17° 7 | 15°16 | 20°39 | 16°28 | 14°28 | 28°35 | 27°36 | 22°49 | 27°30 | W 6 | | |
| T 7 | 9 28 55 | 23°51'31 | 24°51 | 23°44 | 22°30 | 6° 5 | 17°18 | 15°23 | 20°38 | 16°30 | 14°29 | 28°D35 | 27°33 | 22°56 | 27°32 | T 7 | | |
| F 8 | 9 32 52 | 24°51'47 | 7°30 | 25°36 | 23°44 | 6° 2 | 17°30 | 15°30 | 20°37 | 16°32 | 14°31 | 28°35 | 27°29 | 23° 2 | 27°34 | F 8 | | |
| S 9 | 9 36 48 | 25°52'01 | 20°31 | 27°30 | 24°58 | 5°57 | 17°41 | 15°38 | 20°36 | 16°33 | 14°33 | 28°37 | 27°26 | 23° 9 | 27°36 | S 9 | | |
| S 10 | 9 40 45 | 26°52'13 | 3°35 | 29°24 | 26°11 | 5°52 | 17°52 | 15°45 | 20°35 | 16°35 | 14°35 | 28°38 | 27°23 | 23°16 | 27°39 | S 10 | | |
| M11 | 9 44 41 | 27°52'24 | 17°50 | 1°18 | 27°25 | 5°46 | 18° 4 | 15°52 | 20°34 | 16°36 | 14°36 | 28°40 | 27°20 | 23°22 | 27°41 | M11 | | |
| T 12 | 9 48 38 | 28°52'33 | 2°11 | 3°14 | 28°38 | 5°39 | 18°16 | 15°59 | 20°32 | 16°38 | 14°38 | 28°R40 | 27°17 | 23°29 | 27°43 | T 12 | | |
| W13 | 9 52 34 | 29°52'40 | 16°55 | 5°10 | 29°51 | 5°31 | 18°27 | 16° 6 | 20°31 | 16°40 | 14°40 | 28°39 | 27°14 | 23°36 | 27°46 | W13 | | |
| T 14 | 9 56 31 | 0°52'45 | 1°57 | 7° 6 | 1°Y 5 | 5°23 | 18°39 | 16°13 | 20°30 | 16°41 | 14°41 | 28°36 | 27°10 | 23°43 | 27°48 | T 14 | | |
| F 15 | 10 0 27 | 1°52'49 | 17° 7 | 9° 2 | 2°18 | 5°14 | 18°51 | 16°21 | 20°28 | 16°43 | 14°43 | 28°32 | 27° 7 | 23°49 | 27°51 | F 15 | | |
| S 16 | 10 4 24 | 2°52'50 | 2°17 | 10°59 | 3°31 | 5° 4 | 19° 3 | 16°28 | 20°27 | 16°45 | 14°45 | 28°27 | 27° 4 | 23°56 | 27°53 | S 16 | | |
| S 17 | 10 8 21 | 3°52'49 | 17°15 | 12°55 | 4°44 | 4°53 | 19°15 | 16°35 | 20°26 | 16°46 | 14°46 | 28°22 | 27° 1 | 24° 3 | 27°56 | S 17 | | |
| M18 | 10 12 17 | 4°52'46 | 1°54 | 14°51 | 5°57 | 4°41 | 19°27 | 16°42 | 20°24 | 16°48 | 14°48 | 28°17 | 26°58 | 24° 9 | 27°58 | M18 | | |
| T 19 | 10 16 14 | 5°52'41 | 16° 9 | 16°46 | 7°10 | 4°29 | 19°39 | 16°49 | 20°23 | 16°50 | 14°50 | 28°14 | 26°54 | 24°16 | 28° 1 | T 19 | | |
| W20 | 10 20 10 | 6°52'34 | 29°59 | 18°40 | 8°23 | 4°16 | 19°52 | 16°56 | 20°21 | 16°52 | 14°51 | 28°12 | 26°51 | 24°23 | 28° 4 | W20 | | |
| T 21 | 10 24 7 | 7°52'24 | 13°23 | 20°32 | 9°36 | 4° 2 | 20° 4 | 17° 3 | 20°19 | 16°54 | 14°53 | 28°D12 | 26°48 | 24°29 | 28° 6 | T 21 | | |
| F 22 | 10 28 3 | 8°52'12 | 26°23 | 22°23 | 10°49 | 3°48 | 20°16 | 17°10 | 20°18 | 16°56 | 14°54 | 28°13 | 26°45 | 24°36 | 28° 9 | F 22 | | |
| S 23 | 10 32 0 | 9°51'58 | 9° 5 | 24°11 | 12° 2 | 3°33 | 20°29 | 17°17 | 20°16 | 16°57 | 14°56 | 28°15 | 26°42 | 24°43 | 28°12 | S 23 | | |
| S 24 | 10 35 56 | 10°51'41 | 21°30 | 25°56 | 13°15 | 3°17 | 20°41 | 17°24 | 20°14 | 16°59 | 14°58 | 28°16 | 26°39 | 24°50 | 28°15 | S 24 | | |
| M25 | 10 39 53 | 11°51'23 | 3°14 | 27°38 | 14°27 | 3° 0 | 20°54 | 17°31 | 20°12 | 17° 1 | 14°59 | 28°R16 | 26°35 | 24°56 | 28°18 | M25 | | |
| T 26 | 10 43 50 | 12°51'02 | 15°47 | 29°16 | 15°40 | 2°43 | 21° 7 | 17°37 | 20°11 | 17° 3 | 15° 1 | 28°14 | 26°32 | 25° 3 | 28°21 | T 26 | | |
| W27 | 10 47 46 | 13°50'38 | 27°46 | 0°Y50 | 16°52 | 2°25 | 21°19 | 17°44 | 20° 9 | 17° 5 | 15° 2 | 28°11 | 26°29 | 25°10 | 28°24 | W27 | | |
| T 28 | 10 51 43 | 14°50'13 | 9°14 | 2°Y19 | 18°Y 5 | 2° 7 | 21°Y32 | 17°51 | 20° 7 | 17°Y 7 | 15° 4 | 28°E 4 | 26°E26 | 25°Y16 | 28°Y27 | T 28 | | |

Delta T = 20m37s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1051
geocentric

MARCH 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|--------|-------|-------|--------|-------|--------|--------|-------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 10 55 39 | 15°49'45 | 21°32 | 3°43 | 19°17 | 1°R48 | 21°45 | 17°58 | 20°R 5 | 17°V 9 | 15°5 | 27°R56 | 26°23 | 25°23 | 28°V30 | F 1 | | | | | | | | |
| S 2 | 10 59 36 | 16°49'16 | 3°23 | 5° 2 | 20°29 | 1°29 | 21°58 | 18° 4 | 20°2 3 | 17°11 | 15° 7 | 27°247 | 26°20 | 25°30 | 28°33 | S 2 | | | | | | | | |
| S 3 | 11 3 32 | 17°48'44 | 15°16 | 6°14 | 21°41 | 1° 9 | 22°11 | 18°11 | 20° 1 | 17°13 | 15° 8 | 27°37 | 26°16 | 25°37 | 28°36 | S 3 | | | | | | | | |
| M 4 | 11 7 29 | 18°48'11 | 27°12 | 7°20 | 22°53 | 0°48 | 22°24 | 18°18 | 19°59 | 17°15 | 15°10 | 27°28 | 26°13 | 25°43 | 28°39 | M 4 | | | | | | | | |
| T 5 | 11 11 25 | 19°47'36 | 9°12 | 8°20 | 24° 5 | 0°27 | 22°37 | 18°24 | 19°57 | 17°17 | 15°11 | 27°20 | 26°10 | 25°50 | 28°42 | T 5 | | | | | | | | |
| W 6 | 11 15 22 | 20°46'58 | 21°21 | 9°13 | 25°17 | 0° 6 | 22°50 | 18°31 | 19°55 | 17°19 | 15°13 | 27°13 | 26° 7 | 25°57 | 28°45 | W 6 | | | | | | | | |
| T 7 | 11 19 18 | 21°46'19 | 3°41 | 9°58 | 26°29 | 29°44 | 23° 4 | 18°37 | 19°53 | 17°21 | 15°14 | 27° 9 | 26° 4 | 26° 3 | 28°49 | T 7 | | | | | | | | |
| F 8 | 11 23 15 | 22°45'38 | 16°16 | 10°37 | 27°41 | 29°22 | 23°17 | 18°44 | 19°51 | 17°23 | 15°16 | 27° 7 | 26° 0 | 26°10 | 28°52 | F 8 | | | | | | | | |
| S 9 | 11 27 12 | 23°44'56 | 29°11 | 11° 7 | 28°53 | 29° 0 | 23°30 | 18°50 | 19°48 | 17°25 | 15°17 | 27°D 7 | 25°57 | 26°17 | 28°55 | S 9 | | | | | | | | |
| S 10 | 11 31 8 | 24°44'12 | 12°28 | 11°31 | 0° 4 | 28°37 | 23°44 | 18°57 | 19°46 | 17°28 | 15°19 | 27° 8 | 25°54 | 26°23 | 28°58 | S 10 | | | | | | | | |
| M 11 | 11 35 5 | 25°43'25 | 26°12 | 11°47 | 1°16 | 28°15 | 23°57 | 19° 3 | 19°44 | 17°30 | 15°20 | 27°R 9 | 25°51 | 26°30 | 29° 2 | M 11 | | | | | | | | |
| T 12 | 11 39 1 | 26°42'37 | 10°24 | 11°56 | 2°27 | 27°52 | 24°10 | 19° 9 | 19°42 | 17°32 | 15°21 | 27° 8 | 25°48 | 26°37 | 29° 5 | T 12 | | | | | | | | |
| W 13 | 11 42 58 | 27°41'47 | 25° 2 | 11°R57 | 3°39 | 27°28 | 24°24 | 19°16 | 19°39 | 17°34 | 15°23 | 27° 5 | 25°45 | 26°44 | 29° 9 | W 13 | | | | | | | | |
| T 14 | 11 46 54 | 28°40'56 | 10°3 | 11°51 | 4°50 | 27° 5 | 24°37 | 19°22 | 19°37 | 17°36 | 15°24 | 27° 0 | 25°41 | 26°50 | 29°12 | T 14 | | | | | | | | |
| F 15 | 11 50 51 | 29°40'02 | 25°18 | 11°39 | 6° 1 | 26°42 | 24°51 | 19°28 | 19°35 | 17°38 | 15°25 | 26°52 | 25°38 | 26°57 | 29°16 | F 15 | | | | | | | | |
| S 16 | 11 54 47 | 0°V39'06 | 10°V37 | 11°20 | 7°12 | 26°19 | 25° 5 | 19°34 | 19°32 | 17°40 | 15°27 | 26°43 | 25°35 | 27° 4 | 29°19 | S 16 | | | | | | | | |
| S 17 | 11 58 44 | 1°38'08 | 25°49 | 10°56 | 8°23 | 25°56 | 25°18 | 19°40 | 19°30 | 17°43 | 15°28 | 26°33 | 25°32 | 27°10 | 29°23 | S 17 | | | | | | | | |
| M 18 | 12 2 41 | 2°37'08 | 10°343 | 10°26 | 9°34 | 25°33 | 25°32 | 19°46 | 19°28 | 17°45 | 15°29 | 26°24 | 25°29 | 27°17 | 29°26 | M 18 | | | | | | | | |
| T 19 | 12 6 37 | 3°36'05 | 25°12 | 9°52 | 10°45 | 25°10 | 25°46 | 19°52 | 19°25 | 17°47 | 15°30 | 26°17 | 25°26 | 27°24 | 29°30 | T 19 | | | | | | | | |
| W 20 | 12 10 34 | 4°35'00 | 9°12 | 9°13 | 11°56 | 24°47 | 26° 0 | 19°58 | 19°23 | 17°49 | 15°32 | 26°12 | 25°22 | 27°30 | 29°33 | W 20 | | | | | | | | |
| T 21 | 12 14 30 | 5°33'53 | 22°42 | 8°32 | 13° 6 | 24°25 | 26°13 | 20° 4 | 19°20 | 17°51 | 15°33 | 26° 9 | 25°19 | 27°37 | 29°37 | T 21 | | | | | | | | |
| F 22 | 12 18 27 | 6°32'44 | 5°45 | 7°48 | 14°17 | 24° 3 | 26°27 | 20°10 | 19°18 | 17°54 | 15°34 | 26°D 9 | 25°16 | 27°44 | 29°41 | F 22 | | | | | | | | |
| S 23 | 12 22 23 | 7°31'32 | 18°24 | 7° 3 | 15°27 | 23°41 | 26°41 | 20°15 | 19°15 | 17°56 | 15°35 | 26° 9 | 25°13 | 27°51 | 29°44 | S 23 | | | | | | | | |
| S 24 | 12 26 20 | 8°30'18 | 0°45 | 6°18 | 16°38 | 23°20 | 26°55 | 20°21 | 19°13 | 17°58 | 15°36 | 26°R 9 | 25°10 | 27°57 | 29°48 | S 24 | | | | | | | | |
| M 25 | 12 30 16 | 9°29'02 | 12°52 | 5°33 | 17°48 | 22°59 | 27° 9 | 20°27 | 19°10 | 18° 0 | 15°38 | 26° 8 | 25° 6 | 28° 4 | 29°52 | M 25 | | | | | | | | |
| T 26 | 12 34 13 | 10°27'44 | 24°50 | 4°49 | 18°58 | 22°38 | 27°23 | 20°32 | 19° 8 | 18° 3 | 15°39 | 26° 4 | 25° 3 | 28°11 | 29°55 | T 26 | | | | | | | | |
| W 27 | 12 38 10 | 11°26'23 | 6°42 | 4° 7 | 20° 8 | 22°18 | 27°37 | 20°38 | 19° 5 | 18° 5 | 15°40 | 25°58 | 25° 0 | 28°17 | 29°59 | W 27 | | | | | | | | |
| T 28 | 12 42 6 | 12°25'00 | 18°32 | 3°27 | 21°18 | 21°58 | 27°51 | 20°43 | 19° 3 | 18° 7 | 15°41 | 25°49 | 24°57 | 28°24 | 0° 3 | T 28 | | | | | | | | |
| F 29 | 12 46 3 | 13°23'35 | 0°23 | 2°51 | 22°28 | 21°39 | 28° 5 | 20°49 | 19° 0 | 18° 9 | 15°42 | 25°38 | 24°54 | 28°31 | 0° 6 | F 29 | | | | | | | | |
| S 30 | 12 49 59 | 14°22'08 | 12°16 | 2°19 | 23°37 | 21°21 | 28°19 | 20°54 | 18°58 | 18°12 | 15°43 | 25°25 | 24°51 | 28°38 | 0°10 | S 30 | | | | | | | | |
| S 31 | 12 53 56 | 15°V20'39 | 24°14 | 1°V51 | 24°47 | 21°3 | 28°V33 | 20°59 | 18°55 | 18°V14 | 15°44 | 25°11 | 24°47 | 28°44 | 0°14 | S 31 | | | | | | | | |

Delta T = 20m37s Julian Calendar 1 March 1051 == Greg. Calendar 7 March 1051

APRIL 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|-------|--------|--------|--------|-------|--------|--------|-------|--------|-------|--------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 12 57 52 | 16°V19'08 | 6°16 | 1°R27 | 25°56 | 20°R46 | 28°V47 | 21°4 | 18°R53 | 18°V16 | 15°45 | 24°R57 | 24°44 | 28°V51 | 0°18 | M 1 | | | | | | | | |
| T 2 | 13 1 49 | 17°17'35 | 18°25 | 1°V 8 | 27° 5 | 20°V29 | 29° 1 | 21° 9 | 18°50 | 18°18 | 15°46 | 24°45 | 24°41 | 28°58 | 0°22 | T 2 | | | | | | | | |
| W 3 | 13 5 45 | 18°16'00 | 0°41 | 0°54 | 28°14 | 20°13 | 29°15 | 21°14 | 18°48 | 18°21 | 15°47 | 24°36 | 24°38 | 29° 4 | 0°25 | W 3 | | | | | | | | |
| T 4 | 13 9 42 | 19°14'24 | 13° 8 | 0°45 | 29°23 | 19°58 | 29°30 | 21°19 | 18°45 | 18°23 | 15°48 | 24°29 | 24°35 | 29°11 | 0°29 | T 4 | | | | | | | | |
| F 5 | 13 13 38 | 20°12'46 | 25°47 | 0°D41 | 0°II32 | 19°44 | 29°44 | 21°24 | 18°42 | 18°25 | 15°49 | 24°25 | 24°31 | 29°18 | 0°33 | F 5 | | | | | | | | |
| S 6 | 13 17 35 | 21°11'07 | 8°34 | 0°42 | 1°41 | 19°30 | 29°58 | 21°29 | 18°40 | 18°28 | 15°50 | 24°23 | 24°28 | 29°25 | 0°37 | S 6 | | | | | | | | |
| S 7 | 13 21 32 | 22° 9'26 | 21°55 | 0°47 | 2°50 | 19°17 | 0°12 | 21°34 | 18°37 | 18°30 | 15°51 | 24°23 | 24°25 | 29°31 | 0°41 | S 7 | | | | | | | | |
| M 8 | 13 25 28 | 23° 7'44 | 5°31 | 0°58 | 3°58 | 19° 4 | 0°26 | 21°39 | 18°35 | 18°32 | 15°51 | 24°23 | 24°22 | 29°38 | 0°45 | M 8 | | | | | | | | |
| T 9 | 13 29 25 | 24° 6'00 | 19°31 | 1°14 | 5° 6 | 18°53 | 0°40 | 21°43 | 18°32 | 18°34 | 15°52 | 24°22 | 24°19 | 29°45 | 0°48 | T 9 | | | | | | | | |
| W 10 | 13 33 21 | 25° 4'14 | 3°56 | 1°34 | 6°14 | 18°42 | 0°55 | 21°48 | 18°30 | 18°37 | 15°53 | 24°18 | 24°16 | 29°51 | 0°52 | W 10 | | | | | | | | |
| T 11 | 13 37 18 | 26° 2'27 | 18°42 | 1°58 | 7°23 | 18°32 | 1° 9 | 21°52 | 18°27 | 18°39 | 15°54 | 24°12 | 24°12 | 29°58 | 0°56 | T 11 | | | | | | | | |
| F 12 | 13 41 14 | 27° 0'38 | 3°V45 | 2°27 | 8°30 | 18°23 | 1°23 | 21°57 | 18°25 | 18°41 | 15°55 | 24° 3 | 24° 9 | 0° 5 | 1° 0 | F 12 | | | | | | | | |
| S 13 | 13 45 11 | 27°58'47 | 18°56 | 3° 0 | 9°38 | 18°15 | 1°37 | 22° 1 | 18°22 | 18°43 | 15°55 | 23°53 | 24° 6 | 0°11 | 1° 4 | S 13 | | | | | | | | |
| S 14 | 13 49 7 | 28°56'55 | 4° 4 | 3°37 | 10°46 | 18° 7 | 1°52 | 22° 5 | 18°20 | 18°46 | 15°56 | 23°42 | 24° 3 | 0°18 | 1° 8 | S 14 | | | | | | | | |
| M 15 | 13 53 4 | 29°55'01 | 18°59 | 4°18 | 11°53 | 18° 0 | 2° 6 | 22° 9 | 18°17 | 18°48 | 15°57 | 23°31 | 24° 0 | 0°25 | 1°12 | M 15 | | | | | | | | |
| T 16 | 13 57 1 | 0°B53'06 | 3°II32 | 5° 2 | 13° 0 | 17°54 | 2°20 | 22°14 | 18°15 | 18°50 | 15°57 | 23°22 | 23°57 | 0°32 | 1°16 | T 16 | | | | | | | | |
| W 17 | 14 0 57 | 1°51'08 | 17°38 | 5°50 | 14° 7 | 17°49 | 2°34 | 22°18 | 18°12 | 18°52 | 15°58 | 23°16 | 23°53 | 0°38 | 1°20 | W 17 | | | | | | | | |
| T 18 | 14 4 54 | 2°49'09 | 1°14 | 6°41 | 15°14 | 17°45 | 2°49 | 22°21 | 18°10 | 18°54 | 15°59 | 23°13 | 23°50 | 0°45 | 1°23 | T 18 | | | | | | | | |
| F 19 | 14 8 50 | 3°47'08 | 14°22 | 7°36 | 16°21 | 17°41 | 3° 3 | 22°25 | 18° 7 | 18°57 | 15°59 | 23°11 | 23°47 | 0°52 | 1°27 | F 19 | | | | | | | | |
| S 20 | 14 12 47 | 4°45'05 | 27° 5 | 8°33 | 17°28 | 17°38 | 3°17 | 22°29 | 18° 5 | 18°59 | 16° 0 | 23°D11 | 23°44 | 0°58 | 1°31 | S 20 | | | | | | | | |
| S 21 | 14 16 43 | 5°43'00 | 9°128 | 9°34 | 18°34 | 17°36 | 3°31 | 22°33 | 18° 2 | 19° 1 | 16° 0 | 23°R11 | 23°41 | 1° 5 | 1°35 | S 21 | | | | | | | | |
| M 22 | 14 20 40 | 6°40'53 | 21°35 | 10°38 | 19°40 | 17°35 | 3°46 | 22°36 | 18° 0 | 19° 3 | 16° 1 | 23°10 | 23°37 | 1°12 | 1°39 | M 22 | | | | | | | | |
| T 23 | 14 24 36 | 7°38'45 | 3°V32 | 11°44 | 20°46 | 17°D35 | 4° 0 | 22°40 | 17°58 | 19° 5 | 16° 1 | 23° 7 | 23°34 | 1°19 | 1°43 | T 23 | | | | | | | | |
| W 24 | 14 28 33 | 8°36'34 | 15°23 | 12°54 | 21°52 | 17°35 | 4°14 | 22°43 | 17°55 | 19° 8 | 16° 2 | 23° 2 | 23°31 | 1°25 | 1°47 | W 24 | | | | | | | | |
| T 25 | 14 32 30 | 9°34'22 | 27°14 | 14° 6 | 22°57 | 17°36 | 4°28 | 22°47 | 17°53 | 19°10 | 16° 2 | 22°54 | 23°28 | 1°32 | 1°51 | T 25 | | | | | | | | |
| F 26 | 14 36 26 | 10°32'08 | 9° 6 | 15°20 | 24° 3 | 17°38 | 4°42 | 22°50 | 17°51 | 19°12 | 16° 2 | 22°44 | 23°25 | 1°39 | 1°54 | F 26 | | | | | | | | |
| S 27 | 14 40 23 | 11°29'53 | 21° 3 | 16°37 | 25° 8 | 17°41 | 4°57 | 22°53 | 17°48 | 19°14 | 16° 3 | 22°32 | 23°22 | 1°45 | 1°58 | S 27 | | | | | | | | |
| S 28 | 14 44 19 | 12°27'36 | 3°11 | 17°57 | 26°13 | 17°44 | 5°11 | 22°56 | 17°46 | 19°16 | 16° 3 | 22°20 | 23°18 | 1°52 | 2° 2 | S 28 | | | | | | | | |
| M 29 | 14 48 16 | 13°25'17 | 15°19 | 19°19 | 27°17 | 17°48 | 5°25 | 22°59 | 17°44 | 19°18 | 16° 4 | 22° 7 | 23°15 | 1°59</ | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1051
geocentric

MAY 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|----------|----------|----------|---------|------|---|-----|
| W 1 | 14 56 9 | 15°20'37 | 10°17'10 | 22°10'10 | 29°11'26 | 17°11'58 | 5°53'53 | 23°30'5 | 17°R40 | 19°17'22 | 16°30'4 | 21°R48 | 23°30'9 | 22°12'12 | 2°18'14 | W 1 | | |
| T 2 | 15 0 5 | 16°18'14 | 22°0'51 | 23°30'39 | 0°30'30 | 18°5'5 | 6°7'7 | 23°8'8 | 17°17'37 | 19°19'24 | 16°4'4 | 21°R42 | 23°6'6 | 2°19'19 | 2°18'18 | T 2 | | |
| F 3 | 15 4 2 | 17°15'51 | 5°33'43 | 25°11'11 | 1°33'11 | 18°11'11 | 6°21'6 | 23°10'10 | 17°30'30 | 19°26'26 | 16°5'5 | 21°R39 | 23°3'3 | 2°26'26 | 2°21'21 | F 3 | | |
| S 4 | 15 7 59 | 18°13'27 | 18°48'48 | 26°45'26 | 2°37'37 | 18°19'19 | 6°35'35 | 23°13'13 | 17°33'33 | 19°29'29 | 16°5'5 | 21°D38 | 22°59'59 | 2°32'32 | 2°25'25 | S 4 | | |
| S 5 | 15 11 55 | 19°11'02 | 2°8'8 | 28°21'21 | 3°40'40 | 18°27'27 | 6°49'49 | 23°15'15 | 17°31'31 | 19°31'31 | 16°5'5 | 21°R38 | 22°56'56 | 2°39'39 | 2°29'29 | S 5 | | |
| M 6 | 15 15 52 | 20°8'35 | 15°44'44 | 29°59'59 | 4°43'43 | 18°36'36 | 7°3'3 | 23°18'18 | 17°29'29 | 19°33'33 | 16°5'5 | 21°R38 | 22°53'53 | 2°46'46 | 2°33'33 | M 6 | | |
| T 7 | 15 19 48 | 21°6'08 | 29°38'38 | 1°41'41 | 5°45'45 | 18°45'45 | 7°17'17 | 23°20'20 | 17°27'27 | 19°35'35 | 16°5'5 | 21°R38 | 22°50'50 | 2°53'53 | 2°36'36 | T 7 | | |
| W 8 | 15 23 45 | 22°3'40 | 13°11'51 | 3°24'24 | 6°48'48 | 18°56'56 | 7°31'31 | 23°22'22 | 17°25'25 | 19°37'37 | 16°5'5 | 21°R36 | 22°47'47 | 2°59'59 | 2°40'40 | W 8 | | |
| T 9 | 15 27 41 | 23°1'11 | 28°20'20 | 5°9'9 | 7°50'50 | 19°6'6 | 7°45'45 | 23°24'24 | 17°23'23 | 19°39'39 | 16°6'6 | 21°R32 | 22°43'43 | 3°6'6 | 2°44'44 | T 9 | | |
| F 10 | 15 31 38 | 23°58'41 | 13°13'3 | 6°57'57 | 8°51'51 | 19°18'18 | 7°59'59 | 23°26'26 | 17°21'21 | 19°40'40 | 16°6'6 | 21°R26 | 22°40'40 | 3°13'13 | 2°48'48 | F 10 | | |
| S 11 | 15 35 34 | 24°56'10 | 27°52'52 | 8°47'47 | 9°53'53 | 19°30'30 | 8°13'13 | 23°28'28 | 17°20'20 | 19°42'42 | 16°6'6 | 21°R18 | 22°37'37 | 3°19'19 | 2°51'51 | S 11 | | |
| S 12 | 15 39 31 | 25°53'39 | 12°11'41 | 10°39'39 | 10°54'54 | 19°42'42 | 8°27'27 | 23°30'30 | 17°18'18 | 19°44'44 | 16°R6 | 21°R10 | 22°34'34 | 3°26'26 | 2°55'55 | S 12 | | |
| M13 | 15 43 28 | 26°51'06 | 27°21'21 | 12°34'34 | 11°55'55 | 19°55'55 | 8°41'41 | 23°32'32 | 17°16'16 | 19°46'46 | 16°6'6 | 21°R1 | 22°31'31 | 3°33'33 | 2°59'59 | M13 | | |
| T 14 | 15 47 24 | 27°48'33 | 11°11'43 | 14°30'30 | 12°55'55 | 20°9'9 | 8°55'55 | 23°33'33 | 17°14'14 | 19°48'48 | 16°6'6 | 20°55'55 | 22°28'28 | 3°40'40 | 3°2'2 | T 14 | | |
| W15 | 15 51 21 | 28°45'59 | 25°44'44 | 16°29'29 | 13°55'55 | 20°23'23 | 9°9'9 | 23°35'35 | 17°13'13 | 19°50'50 | 16°5'5 | 20°50'50 | 22°24'24 | 3°46'46 | 3°6'6 | W15 | | |
| T 16 | 15 55 17 | 29°43'23 | 9°19'19 | 18°30'30 | 14°55'55 | 20°38'38 | 9°22'22 | 23°36'36 | 17°11'11 | 19°52'52 | 16°5'5 | 20°47'47 | 22°21'21 | 3°53'53 | 3°9'9 | T 16 | | |
| F 17 | 15 59 14 | 0°11'40 | 22°28'28 | 20°33'33 | 15°54'54 | 20°53'53 | 9°36'36 | 23°37'37 | 17°9'9 | 19°54'54 | 16°5'5 | 20°D47 | 22°18'18 | 4°0'0 | 3°13'13 | F 17 | | |
| S 18 | 16 3 10 | 1°38'09 | 5°14'14 | 22°37'37 | 16°53'53 | 21°9'9 | 9°50'50 | 23°39'39 | 17°8'8 | 19°55'55 | 16°5'5 | 20°48'48 | 22°15'15 | 4°6'6 | 3°17'17 | S 18 | | |
| S 19 | 16 7 7 | 2°35'30 | 17°40'40 | 24°43'43 | 17°52'52 | 21°26'26 | 10°3'3 | 23°40'40 | 17°6'6 | 19°57'57 | 16°5'5 | 20°49'49 | 22°12'12 | 4°13'13 | 3°20'20 | S 19 | | |
| M20 | 16 11 3 | 3°32'50 | 29°50'50 | 26°51'51 | 18°50'50 | 21°42'42 | 10°17'17 | 23°41'41 | 17°5'5 | 19°59'59 | 16°5'5 | 20°R50 | 22°9'9 | 4°20'20 | 3°24'24 | M20 | | |
| T 21 | 16 15 0 | 4°30'09 | 11°11'49 | 29°0'0 | 19°48'48 | 22°0'0 | 10°31'31 | 23°42'42 | 17°3'3 | 20°1'1 | 16°5'5 | 20°49'49 | 22°5'5 | 4°27'27 | 3°27'27 | T 21 | | |
| W22 | 16 18 57 | 5°27'27 | 23°42'42 | 1°11'11 | 20°45'45 | 22°18'18 | 10°44'44 | 23°42'42 | 17°2'2 | 20°2'2 | 16°4'4 | 20°48'48 | 22°2'2 | 4°33'33 | 3°31'31 | W22 | | |
| T 23 | 16 22 53 | 6°24'44 | 5°14'14 | 3°21'21 | 21°42'42 | 22°36'36 | 10°58'58 | 23°43'43 | 17°0'0 | 20°4'4 | 16°4'4 | 20°44'44 | 21°59'59 | 4°40'40 | 3°34'34 | T 23 | | |
| F 24 | 16 26 50 | 7°21'59 | 17°29'29 | 5°33'33 | 22°38'38 | 22°55'55 | 11°11'11 | 23°44'44 | 16°59'59 | 20°6'6 | 16°4'4 | 20°38'38 | 21°56'56 | 4°47'47 | 3°37'37 | F 24 | | |
| S 25 | 16 30 46 | 8°19'15 | 29°30'30 | 7°44'44 | 23°34'34 | 23°14'14 | 11°24'24 | 23°44'44 | 16°58'58 | 20°7'7 | 16°3'3 | 20°32'32 | 21°53'53 | 4°54'54 | 3°41'41 | S 25 | | |
| S 26 | 16 34 43 | 9°16'29 | 11°11'41 | 9°56'56 | 24°29'29 | 23°34'34 | 11°38'38 | 23°45'45 | 16°56'56 | 20°9'9 | 16°3'3 | 20°24'24 | 21°49'49 | 5°0'0 | 3°44'44 | S 26 | | |
| M27 | 16 38 39 | 10°13'43 | 24°4'4 | 12°8'8 | 25°24'24 | 23°54'54 | 11°51'51 | 23°45'45 | 16°55'55 | 20°11'11 | 16°3'3 | 20°17'17 | 21°46'46 | 5°7'7 | 3°47'47 | M27 | | |
| T 28 | 16 42 36 | 11°10'56 | 6°11'38 | 14°19'19 | 26°18'18 | 24°15'15 | 12°4'4 | 23°45'45 | 16°54'54 | 20°12'12 | 16°2'2 | 20°11'11 | 21°43'43 | 5°14'14 | 3°51'51 | T 28 | | |
| W29 | 16 46 32 | 12°8'08 | 19°25'25 | 16°29'29 | 27°12'12 | 24°36'36 | 12°18'18 | 23°45'45 | 16°53'53 | 20°14'14 | 16°2'2 | 20°6'6 | 21°40'40 | 5°20'20 | 3°54'54 | W29 | | |
| T 30 | 16 50 29 | 13°5'20 | 2°26'26 | 18°39'39 | 28°5'5 | 24°57'57 | 12°31'31 | 23°R45 | 16°52'52 | 20°15'15 | 16°1'1 | 20°3'3 | 21°37'37 | 5°27'27 | 3°57'57 | T 30 | | |
| F 31 | 16 54 26 | 14°11'23 | 15°33'38 | 20°11'47 | 28°57'57 | 25°11'19 | 12°44'44 | 23°45'45 | 16°51'51 | 20°17'17 | 16°1'1 | 20°D2 | 21°34'34 | 5°34'34 | 4°0'0 | F 31 | | |

Delta T = 20m36s Julian Calendar 1 May 1051 == Greg. Calendar 7 May 1051

JUNE 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|------|---|-----|
| S 1 | 16 58 22 | 14°11'59 | 29°3'3 | 22°11'53 | 29°59'49 | 25°11'41 | 12°57'57 | 23°R45 | 16°R50 | 20°18'18 | 16°R1 | 20°2'2 | 21°30'30 | 5°41'41 | 4°4'4 | S 1 | | |
| S 2 | 17 2 19 | 15°56'55 | 12°33'39 | 24°59'59 | 0°14'40 | 26°4'4 | 13°10'10 | 23°45'45 | 16°49'49 | 20°20'20 | 16°0'0 | 20°3'3 | 21°27'27 | 5°47'47 | 4°7'7 | S 2 | | |
| M 3 | 17 6 15 | 16°54'06 | 26°27'27 | 27°2'2 | 1°31'31 | 26°27'27 | 13°23'23 | 23°44'44 | 16°48'48 | 20°21'21 | 15°59'59 | 20°5'5 | 21°24'24 | 5°54'54 | 4°10'10 | M 3 | | |
| T 4 | 17 10 12 | 17°51'17 | 10°11'26 | 29°4'4 | 2°21'21 | 26°50'50 | 13°36'36 | 23°44'44 | 16°47'47 | 20°23'23 | 15°59'59 | 20°6'6 | 21°21'21 | 6°1'1 | 4°13'13 | T 4 | | |
| W 5 | 17 14 8 | 18°48'28 | 24°35'35 | 1°4'4 | 3°10'10 | 27°14'14 | 13°49'49 | 23°43'43 | 16°47'47 | 20°24'24 | 15°58'58 | 20°R6 | 21°18'18 | 6°7'7 | 4°16'16 | W 5 | | |
| T 6 | 17 18 5 | 19°45'38 | 8°11'52 | 3°2'2 | 3°58'58 | 27°38'38 | 14°1'1 | 23°43'43 | 16°46'46 | 20°26'26 | 15°58'58 | 20°5'5 | 21°14'14 | 6°14'14 | 4°19'19 | T 6 | | |
| F 7 | 17 22 1 | 20°42'49 | 23°15'15 | 4°57'57 | 4°46'46 | 28°2'2 | 14°14'14 | 23°42'42 | 16°45'45 | 20°27'27 | 15°57'57 | 20°2'2 | 21°11'11 | 6°21'21 | 4°22'22 | F 7 | | |
| S 8 | 17 25 58 | 21°40'00 | 7°14'40 | 6°51'51 | 5°33'33 | 28°27'27 | 14°27'27 | 23°41'41 | 16°45'45 | 20°28'28 | 15°57'57 | 19°59'59 | 21°8'8 | 6°28'28 | 4°25'25 | S 8 | | |
| S 9 | 17 29 55 | 22°37'12 | 22°2'2 | 8°43'43 | 6°19'19 | 28°52'52 | 14°39'39 | 23°40'40 | 16°44'44 | 20°29'29 | 15°56'56 | 19°55'55 | 21°5'5 | 6°34'34 | 4°28'28 | S 9 | | |
| M10 | 17 33 51 | 23°34'23 | 6°11'16 | 10°33'33 | 7°4'4 | 29°18'18 | 14°52'52 | 23°39'39 | 16°43'43 | 20°31'31 | 15°55'55 | 19°51'51 | 21°2'2 | 6°41'41 | 4°31'31 | M10 | | |
| T 11 | 17 37 48 | 24°31'34 | 20°16'16 | 12°20'20 | 7°48'48 | 29°43'43 | 15°4'4 | 23°38'38 | 16°43'43 | 20°32'32 | 15°54'54 | 19°48'48 | 20°59'59 | 6°48'48 | 4°34'34 | T 11 | | |
| W12 | 17 41 44 | 25°28'45 | 4°10'4 | 14°6'6 | 8°32'32 | 0°10'10 | 15°17'17 | 23°37'37 | 16°43'43 | 20°33'33 | 15°54'54 | 19°46'46 | 20°55'55 | 6°54'54 | 4°36'36 | W12 | | |
| T 13 | 17 45 41 | 26°25'56 | 17°24'24 | 15°49'49 | 9°14'14 | 0°36'36 | 15°29'29 | 23°35'35 | 16°42'42 | 20°34'34 | 15°53'53 | 19°D45 | 20°52'52 | 7°1'1 | 4°39'39 | T 13 | | |
| F 14 | 17 49 37 | 27°23'07 | 0°12'27 | 17°30'30 | 9°56'56 | 1°3'3 | 15°41'41 | 23°34'34 | 16°42'42 | 20°35'35 | 15°52'52 | 19°46'46 | 20°49'49 | 7°8'8 | 4°42'42 | F 14 | | |
| S 15 | 17 53 34 | 28°20'18 | 13°10'10 | 19°9'9 | 10°36'36 | 1°30'30 | 15°54'54 | 23°32'32 | 16°42'42 | 20°37'37 | 15°51'51 | 19°47'47 | 20°46'46 | 7°15'15 | 4°44'44 | S 15 | | |
| S 16 | 17 57 31 | 29°17'29 | 25°36'36 | 20°46'46 | 11°16'16 | 1°57'57 | 16°6'6 | 23°31'31 | 16°41'41 | 20°38'38 | 15°51'51 | 19°48'48 | 20°43'43 | 7°21'21 | 4°47'47 | S 16 | | |
| M17 | 18 1 27 | 0°14'39 | 7°11'47 | 22°21'21 | 11°54'54 | 2°25'25 | 16°18'18 | 23°29'29 | 16°41'41 | 20°39'39 | 15°50'50 | 19°50'50 | 20°40'40 | 7°28'28 | 4°50'50 | M17 | | |
| T 18 | 18 5 24 | 1°11'49 | 19°47'47 | 23°54'54 | 12°31'31 | 2°53'53 | 16°30'30 | 23°27'27 | 16°41'41 | 20°40'40 | 15°49'49 | 19°51'51 | 20°36'36 | 7°35'35 | 4°52'52 | T 18 | | |
| W19 | 18 9 20 | 2°8'59 | 1°42'42 | 25°24'24 | 13°7'7 | 3°21'21 | 16°42'42 | 23°25'25 | 16°41'41 | 20°41'41 | 15°48'48 | 19°R51 | 20°33'33 | 7°41'41 | 4°55'55 | W19 | | |
| T 20 | 18 13 17 | 3°6'09 | 13°35'35 | 26°52'52 | 13°41'41 | 3°50'50 | 16°53'53 | 23°23'23 | 16°D41 | 20°42'42 | 15°47'47 | 19°51'51 | 20°30'30 | 7°48'48 | 4°57'57 | T 20 | | |
| F 21 | 18 17 13 | 4°3'19 | 25°32'32 | 28°18'18 | 14°14'14 | 4°19'19 | 17°5'5 | 23°21'21 | 16°41'41 | 20°43'43 | 15°46'46 | 19°50'50 | 20°27'27 | 7°55'55 | 5°0'0 | F 21 | | |
| S 22 | 18 21 10 | 5°0'30 | 7°11'36 | 29°42'42 | 14°46'46 | 4°48'48 | 17°17'17 | 23°19'19 | 16°41'41 | 20°44'44 | 15°45'45 | 19°48'48 | 20°24'24 | 8°2'2 | 5°2'2 | S 22 | | |
| S 23 | 18 25 6 | 5°57'40 | 19°51'51 | 1°11'4 | 15°17'17 | 5°17'17 | 17°28'28 | 23°17'17 | 16°41'41 | 20°44'44 | 15°45'45 | 19°46'46 | 20°20'20 | 8°8'8 | 5°4'4 | S 23 | | |
| M24 | 18 29 3 | 6°54'50 | 2°11'21 | 2°23'23 | 15°46'46 | 5°47'47 | 17°40'40 | 23°15'15 | 16°42'42 | 20°45'45 | 15°44'44 | 19°44'44 | 20°17'17 | 8°15'15 | 5°7'7 | M24 | | |
| T 25 | 18 33 0 | 7°52'00 | 15°7'7 | 3°40'40 | 16°13'13 | 6°17'17 | 17°51'51 | 23°12'12 | 16°42'42 | 20°46'46 | 15°43'43 | 19°43'43 | 20°14'14 | 8°22'22 | 5°9'9 | T 25 | | |
| W26 | 18 36 56 | 8°49'11 | 28°10'10 | 4°54'54 | 16°39'39 | 6°47'47 | 18°3'3 | 23°10'10 | 16°42'42 | 20°47'47 | 15°42'42 | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1051
geocentric

JULY 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|
| M 1 | 18 56 39 | 13°35'12 | 7°8 | 10°28 | 18°23 | 9°21 | 18°58 | 22°R56 | 16°44 | 20°V50 | 15°R37 | 19°E43 | 19°E55 | 9°2 | 5°21 | M 1 |
| T 2 | 19 0 35 | 14°32'27 | 21°23 | 11°27 | 18°39 | 9°53 | 19° 9 | 22°R53 | 16°45 | 20°51 | 15°R35 | 19°43 | 19°52 | 9° 9 | 5°23 | T 2 |
| W 3 | 19 4 32 | 15°29'42 | 5°V39 | 12°22 | 18°52 | 10°25 | 19°19 | 22°50 | 16°46 | 20°51 | 15°34 | 19°43 | 19°49 | 9°16 | 5°25 | W 3 |
| T 4 | 19 8 29 | 16°26'58 | 19°54 | 13°14 | 19° 3 | 10°57 | 19°30 | 22°47 | 16°46 | 20°52 | 15°33 | 19°R43 | 19°46 | 9°22 | 5°27 | T 4 |
| F 5 | 19 12 25 | 17°24'15 | 4°8 | 14° 3 | 19°12 | 11°29 | 19°40 | 22°43 | 16°47 | 20°52 | 15°32 | 19°43 | 19°42 | 9°29 | 5°29 | F 5 |
| S 6 | 19 16 22 | 18°21'33 | 18°10 | 14°49 | 19°19 | 12° 1 | 19°51 | 22°40 | 16°48 | 20°53 | 15°31 | 19°43 | 19°39 | 9°36 | 5°30 | S 6 |
| S 7 | 19 20 18 | 19°18'52 | 2°II | 15°31 | 19°24 | 12°34 | 20° 1 | 22°37 | 16°49 | 20°53 | 15°30 | 19°D43 | 19°36 | 9°42 | 5°32 | S 7 |
| M 8 | 19 24 15 | 20°16'12 | 15°52 | 16° 9 | 19°27 | 13° 7 | 20°11 | 22°33 | 16°50 | 20°54 | 15°29 | 19°43 | 19°33 | 9°49 | 5°34 | M 8 |
| T 9 | 19 28 11 | 21°13'33 | 29°26 | 16°44 | 19°R27 | 13°40 | 20°21 | 22°30 | 16°51 | 20°54 | 15°28 | 19°43 | 19°30 | 9°56 | 5°35 | T 9 |
| W10 | 19 32 8 | 22°10'56 | 12°E46 | 17°14 | 19°25 | 14°13 | 20°31 | 22°26 | 16°52 | 20°54 | 15°26 | 19°43 | 19°26 | 10° 3 | 5°37 | W10 |
| T 11 | 19 36 4 | 23° 8'19 | 25°51 | 17°40 | 19°21 | 14°47 | 20°41 | 22°23 | 16°53 | 20°55 | 15°25 | 19°R43 | 19°23 | 10° 9 | 5°38 | T 11 |
| F 12 | 19 40 1 | 24° 5'42 | 8°R41 | 18° 2 | 19°14 | 15°21 | 20°51 | 22°19 | 16°54 | 20°55 | 15°24 | 19°43 | 19°20 | 10°16 | 5°39 | F 12 |
| S 13 | 19 43 58 | 25° 3'07 | 21°15 | 18°19 | 19° 5 | 15°54 | 21° 0 | 22°15 | 16°55 | 20°55 | 15°23 | 19°43 | 19°17 | 10°23 | 5°41 | S 13 |
| S 14 | 19 47 54 | 26° 0'32 | 3°III | 18°32 | 18°54 | 16°29 | 21°10 | 22°12 | 16°57 | 20°55 | 15°22 | 19°42 | 19°14 | 10°30 | 5°42 | S 14 |
| M15 | 19 51 51 | 26°57'58 | 15°44 | 18°39 | 18°40 | 17° 3 | 21°19 | 22° 8 | 16°58 | 20°56 | 15°20 | 19°41 | 19°11 | 10°36 | 5°43 | M15 |
| T 16 | 19 55 47 | 27°55'25 | 27°44 | 18°R41 | 18°24 | 17°37 | 21°29 | 22° 4 | 16°59 | 20°56 | 15°19 | 19°40 | 19° 7 | 10°43 | 5°45 | T 16 |
| W17 | 19 59 44 | 28°52'53 | 9°E38 | 18°38 | 18° 6 | 18°12 | 21°38 | 22° 0 | 17° 1 | 20°56 | 15°18 | 19°39 | 19° 4 | 10°50 | 5°46 | W17 |
| T 18 | 20 3 40 | 29°50'22 | 21°31 | 18°30 | 17°45 | 18°47 | 21°47 | 21°56 | 17° 2 | 20°56 | 15°17 | 19°39 | 19° 1 | 10°56 | 5°47 | T 18 |
| F 19 | 20 7 37 | 0°R47'51 | 3°III | 18°17 | 17°22 | 19°22 | 21°56 | 21°52 | 17° 3 | 20°56 | 15°15 | 19°D38 | 18°58 | 11° 3 | 5°48 | F 19 |
| S 20 | 20 11 33 | 1°45'21 | 15°31 | 17°58 | 16°57 | 19°57 | 22° 4 | 21°48 | 17° 5 | 20°R56 | 15°14 | 19°39 | 18°55 | 11°10 | 5°49 | S 20 |
| S 21 | 20 15 30 | 2°42'53 | 27°46 | 17°33 | 16°30 | 20°33 | 22°13 | 21°43 | 17° 7 | 20°56 | 15°13 | 19°40 | 18°52 | 11°17 | 5°50 | S 21 |
| M22 | 20 19 27 | 3°40'25 | 10°R18 | 17° 4 | 16° 1 | 21° 8 | 22°22 | 21°39 | 17° 8 | 20°56 | 15°12 | 19°41 | 18°48 | 11°23 | 5°50 | M22 |
| T 23 | 20 23 23 | 4°37'58 | 23°10 | 16°30 | 15°31 | 21°44 | 22°30 | 21°35 | 17°10 | 20°56 | 15°10 | 19°42 | 18°45 | 11°30 | 5°51 | T 23 |
| W24 | 20 27 20 | 5°35'32 | 6°E23 | 15°52 | 14°59 | 22°20 | 22°38 | 21°31 | 17°12 | 20°56 | 15° 9 | 19°43 | 18°42 | 11°37 | 5°52 | W24 |
| T 25 | 20 31 16 | 6°33'08 | 19°59 | 15° 9 | 14°25 | 22°56 | 22°46 | 21°27 | 17°13 | 20°55 | 15° 8 | 19°R43 | 18°39 | 11°44 | 5°53 | T 25 |
| F 26 | 20 35 13 | 7°30'44 | 3°R56 | 14°23 | 13°50 | 23°32 | 22°54 | 21°22 | 17°15 | 20°55 | 15° 7 | 19°43 | 18°36 | 11°50 | 5°53 | F 26 |
| S 27 | 20 39 9 | 8°28'22 | 18°12 | 13°35 | 13°15 | 24° 9 | 23° 2 | 21°18 | 17°17 | 20°55 | 15° 5 | 19°42 | 18°32 | 11°57 | 5°54 | S 27 |
| S 28 | 20 43 6 | 9°26'01 | 2°R41 | 12°44 | 12°38 | 24°45 | 23°10 | 21°13 | 17°19 | 20°55 | 15° 4 | 19°39 | 18°29 | 12° 4 | 5°54 | S 28 |
| M29 | 20 47 2 | 10°23'42 | 17°18 | 11°53 | 12° 1 | 25°22 | 23°17 | 21° 9 | 17°21 | 20°55 | 15° 3 | 19°37 | 18°26 | 12°10 | 5°55 | M29 |
| T 30 | 20 50 59 | 11°21'24 | 1°V56 | 11° 2 | 11°24 | 25°59 | 23°25 | 21° 5 | 17°23 | 20°54 | 15° 1 | 19°34 | 18°23 | 12°17 | 5°55 | T 30 |
| W31 | 20 54 56 | 12°R19'08 | 16°V29 | 10°R12 | 10°R47 | 26°E36 | 23°R32 | 21°R 0 | 17°E25 | 20°V54 | 15°R 0 | 19°E32 | 18°E20 | 12°E24 | 5°R55 | W31 |

Delta T = 20m36s Julian Calendar 1 July 1051 == Greg. Calendar 7 July 1051

AUGUST 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|-----------|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|
| T 1 | 20 58 52 | 13°R16'53 | 0°R51 | 9°R23 | 10°R10 | 27°E13 | 23°R39 | 20°R56 | 17°E27 | 20°R53 | 14°R59 | 19°R30 | 18°E17 | 12°E31 | 5°R56 | T 1 |
| F 2 | 21 2 49 | 14°14'40 | 15° 1 | 8°R38 | 9°R33 | 27°50 | 23°46 | 20°R51 | 17°29 | 20°V53 | 14°R57 | 19°D30 | 18°13 | 12°37 | 5°56 | F 2 |
| S 3 | 21 6 45 | 15°12'30 | 28°55 | 7°57 | 8°57 | 28°28 | 23°53 | 20°47 | 17°31 | 20°53 | 14°56 | 19°E30 | 18°10 | 12°44 | 5°56 | S 3 |
| S 4 | 21 10 42 | 16°10'21 | 12°II | 7°21 | 8°22 | 29° 5 | 24° 0 | 20°42 | 17°34 | 20°52 | 14°55 | 19°32 | 18° 7 | 12°51 | 5°56 | S 4 |
| M 5 | 21 14 38 | 17° 8'13 | 25°59 | 6°51 | 7°48 | 29°43 | 24° 6 | 20°38 | 17°36 | 20°52 | 14°54 | 19°33 | 18° 4 | 12°57 | 5°R56 | M 5 |
| T 6 | 21 18 35 | 18° 6'08 | 9°E 8 | 6°28 | 7°16 | 0°III | 24°13 | 20°33 | 17°38 | 20°51 | 14°52 | 19°34 | 18° 1 | 13° 4 | 5°56 | T 6 |
| W 7 | 21 22 31 | 19° 4'04 | 22° 5 | 6°11 | 6°45 | 0°59 | 24°19 | 20°28 | 17°40 | 20°50 | 14°51 | 19°R35 | 17°58 | 13°11 | 5°56 | W 7 |
| T 8 | 21 26 28 | 20° 2'03 | 4°R49 | 6° 2 | 6°16 | 1°37 | 24°25 | 20°24 | 17°43 | 20°50 | 14°50 | 19°34 | 17°54 | 13°18 | 5°56 | T 8 |
| F 9 | 21 30 25 | 21° 0'02 | 17°22 | 6°D 1 | 5°48 | 2°16 | 24°31 | 20°19 | 17°45 | 20°49 | 14°48 | 19°31 | 17°51 | 13°24 | 5°56 | F 9 |
| S 10 | 21 34 21 | 21°58'04 | 29°43 | 6° 8 | 5°22 | 2°54 | 24°37 | 20°15 | 17°48 | 20°49 | 14°47 | 19°27 | 17°48 | 13°31 | 5°56 | S 10 |
| S 11 | 21 38 18 | 22°56'07 | 11°III | 6°23 | 4°59 | 3°33 | 24°42 | 20°10 | 17°50 | 20°48 | 14°46 | 19°22 | 17°45 | 13°38 | 5°55 | S 11 |
| M12 | 21 42 14 | 23°54'11 | 23°59 | 6°47 | 4°37 | 4°12 | 24°47 | 20° 6 | 17°53 | 20°47 | 14°44 | 19°16 | 17°42 | 13°45 | 5°55 | M12 |
| T 13 | 21 46 11 | 24°52'17 | 5°E56 | 7°19 | 4°18 | 4°50 | 24°53 | 20° 1 | 17°55 | 20°46 | 14°43 | 19° 9 | 17°38 | 13°51 | 5°54 | T 13 |
| W14 | 21 50 7 | 25°50'25 | 17°48 | 7°59 | 4° 1 | 5°29 | 24°58 | 19°57 | 17°58 | 20°46 | 14°42 | 19° 4 | 17°35 | 13°58 | 5°54 | W14 |
| T 15 | 21 54 4 | 26°48'34 | 29°40 | 8°47 | 3°47 | 6° 9 | 25° 3 | 19°52 | 18° 1 | 20°45 | 14°41 | 18°59 | 17°32 | 14° 5 | 5°53 | T 15 |
| F 16 | 21 58 0 | 27°46'45 | 11°III | 9°43 | 3°35 | 6°48 | 25° 7 | 19°47 | 18° 3 | 20°44 | 14°39 | 18°56 | 17°29 | 14°11 | 5°53 | F 16 |
| S 17 | 22 1 57 | 28°44'57 | 23°35 | 10°45 | 3°25 | 7°27 | 25°12 | 19°43 | 18° 6 | 20°43 | 14°38 | 18°D54 | 17°26 | 14°18 | 5°52 | S 17 |
| S 18 | 22 5 54 | 29°43'11 | 5°R47 | 11°55 | 3°18 | 8° 7 | 25°16 | 19°39 | 18° 9 | 20°42 | 14°37 | 18°54 | 17°23 | 14°25 | 5°51 | S 18 |
| M19 | 22 9 50 | 0°III | 18°16 | 13°11 | 3°13 | 8°47 | 25°20 | 19°34 | 18°12 | 20°41 | 14°36 | 18°55 | 17°19 | 14°32 | 5°51 | M19 |
| T 20 | 22 13 47 | 1°39'44 | 1°E 5 | 14°32 | 3°10 | 9°27 | 25°24 | 19°30 | 18°15 | 20°40 | 14°34 | 18°57 | 17°16 | 14°38 | 5°50 | T 20 |
| W21 | 22 17 43 | 2°38'03 | 14°19 | 15°59 | 3°D10 | 10° 6 | 25°28 | 19°25 | 18°17 | 20°39 | 14°33 | 18°R58 | 17°13 | 14°45 | 5°49 | W21 |
| T 22 | 22 21 40 | 3°36'23 | 28° 1 | 17°30 | 3°12 | 10°47 | 25°32 | 19°21 | 18°20 | 20°38 | 14°32 | 18°58 | 17°10 | 14°52 | 5°48 | T 22 |
| F 23 | 22 25 36 | 4°34'45 | 12°R 9 | 19° 6 | 3°16 | 11°27 | 25°35 | 19°17 | 18°23 | 20°37 | 14°31 | 18°55 | 17° 7 | 14°58 | 5°47 | F 23 |
| S 24 | 22 29 33 | 5°33'09 | 26°41 | 20°45 | 3°23 | 12° 7 | 25°39 | 19°12 | 18°26 | 20°36 | 14°29 | 18°51 | 17° 4 | 15° 5 | 5°46 | S 24 |
| S 25 | 22 33 29 | 6°31'34 | 11°R33 | 22°27 | 3°32 | 12°47 | 25°42 | 19° 8 | 18°29 | 20°35 | 14°28 | 18°45 | 17° 0 | 15°12 | 5°45 | S 25 |
| M26 | 22 37 26 | 7°30'02 | 26°35 | 24°12 | 3°43 | 13°28 | 25°45 | 19° 4 | 18°32 | 20°34 | 14°27 | 18°38 | 16°57 | 15°19 | 5°44 | M26 |
| T 27 | 22 41 22 | 8°28'31 | 11°V38 | 25°59 | 3°56 | 14° 9 | 25°47 | 19° 0 | 18°35 | 20°33 | 14°26 | 18°31 | 16°54 | 15°25 | 5°42 | T 27 |
| W28 | 22 45 19 | 9°27'03 | 26°33 | 27°47 | 4°11 | 14°49 | 25°50 | 18°56 | 18°38 | 20°32 | 14°25 | 18°24 | 16°51 | 15°32 | 5°41 | W28 |
| T 29 | 22 49 16 | 10°25'37 | 11°R12 | 29°37 | 4°28 | 15°30 | 25°52 | 18°51 | 18°42 | 20°31 | 14°24 | 18°19 | 16°48 | 15°39 | 5°40 | T 29 |
| F 30 | 22 53 12 | 11°24'13 | 25°30 | 1°III | 4°47 | 16°11 | 25°54 | 18°47 | 18°45 | 20°29 | 14°22 | 18°16 | 16°44 | 15°46 | 5°38 | F 30 |
| S 31 | 22 57 9 | 12°R22'51 | 9°III | 3°III | 5°R 8 | 16°III | 25°E56 | 18°R43 | 18°E48 | 20°V28 | 14°R21 | 18°D14 | 16°E41 | 15°E52 | 5°R37 | S 31 |

Delta T = 20m35s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1051
geocentric

SEPTEMBER 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|-------|--------|--------|--------|-------|-------|-------|------|-----|
| S 1 | 23 1 5 | 13♐21'32 | 22♐58 | 5♐11 | 5♏231 | 17♐33 | 25♏58 | 18°R40 | 18♏51 | 20°R27 | 14°R20 | 18♏15 | 16♏38 | 15♏59 | 5°R35 | S 1 | |
| M 2 | 23 5 2 | 14°20'16 | 6♏10 | 7° 2 | 5°56 | 18°15 | 25°59 | 18♏36 | 18°54 | 20°Y26 | 14♏19 | 18°16 | 16°35 | 16° 6 | 5♏34 | M 2 | |
| T 3 | 23 8 58 | 15°19'01 | 19° 4 | 8°54 | 6°22 | 18°56 | 26° 1 | 18°32 | 18°58 | 20°24 | 14°18 | 18°R16 | 16°32 | 16°12 | 5°32 | T 3 | |
| W 4 | 23 12 55 | 16°17'49 | 1♏43 | 10°45 | 6°50 | 19°38 | 26° 2 | 18°28 | 19° 1 | 20°23 | 14°17 | 18°15 | 16°29 | 16°19 | 5°31 | W 4 | |
| T 5 | 23 16 51 | 17°16'39 | 14°10 | 12°36 | 7°19 | 20°19 | 26° 3 | 18°24 | 19° 4 | 20°22 | 14°16 | 18°12 | 16°25 | 16°26 | 5°29 | T 5 | |
| F 6 | 23 20 48 | 18°15'31 | 26°27 | 14°26 | 7°50 | 21° 1 | 26° 4 | 18°21 | 19° 8 | 20°20 | 14°15 | 18° 6 | 16°22 | 16°33 | 5°27 | F 6 | |
| S 7 | 23 24 45 | 19°14'25 | 8♐36 | 16°16 | 8°23 | 21°43 | 26° 4 | 18°17 | 19°11 | 20°19 | 14°14 | 17°58 | 16°19 | 16°39 | 5°25 | S 7 | |
| S 8 | 23 28 41 | 20°13'21 | 20°39 | 18° 5 | 8°56 | 22°25 | 26° 5 | 18°14 | 19°14 | 20°18 | 14°13 | 17°47 | 16°16 | 16°46 | 5°24 | S 8 | |
| M 9 | 23 32 38 | 21°12'20 | 2♐37 | 19°54 | 9°32 | 23° 7 | 26°R 5 | 18°10 | 19°18 | 20°16 | 14°12 | 17°35 | 16°13 | 16°53 | 5°22 | M 9 | |
| T 10 | 23 36 34 | 22°11'20 | 14°30 | 21°41 | 10° 8 | 23°49 | 26° 5 | 18° 7 | 19°21 | 20°15 | 14°11 | 17°23 | 16° 9 | 17° 0 | 5°20 | T 10 | |
| W11 | 23 40 31 | 23°10'22 | 26°21 | 23°28 | 10°46 | 24°31 | 26° 4 | 18° 3 | 19°25 | 20°13 | 14°10 | 17°11 | 16° 6 | 17° 6 | 5°18 | W11 | |
| T 12 | 23 44 27 | 24° 9'27 | 8♐12 | 25°14 | 11°25 | 25°14 | 26° 4 | 18° 0 | 19°28 | 20°12 | 14° 9 | 17° 0 | 16° 3 | 17°13 | 5°16 | T 12 | |
| F 13 | 23 48 24 | 25° 8'33 | 20° 6 | 26°59 | 12° 5 | 25°56 | 26° 3 | 17°57 | 19°32 | 20°10 | 14° 8 | 16°53 | 16° 0 | 17°20 | 5°14 | F 13 | |
| S 14 | 23 52 20 | 26° 7'41 | 2♐ 5 | 28°43 | 12°46 | 26°39 | 26° 2 | 17°54 | 19°35 | 20° 9 | 14° 7 | 16°47 | 15°57 | 17°26 | 5°12 | S 14 | |
| S 15 | 23 56 17 | 27° 6'51 | 14°14 | 0♐27 | 13°28 | 27°22 | 26° 1 | 17°51 | 19°39 | 20° 7 | 14° 6 | 16°45 | 15°54 | 17°33 | 5° 9 | S 15 | |
| M16 | 0 0 14 | 28° 6'03 | 26°38 | 2° 9 | 14°11 | 28° 4 | 26° 0 | 17°48 | 19°42 | 20° 6 | 14° 5 | 16°D44 | 15°50 | 17°40 | 5° 7 | M16 | |
| T 17 | 0 4 10 | 29° 5'17 | 9♐22 | 3°51 | 14°56 | 28°47 | 25°59 | 17°45 | 19°46 | 20° 4 | 14° 4 | 16°44 | 15°47 | 17°47 | 5° 5 | T 17 | |
| W18 | 0 8 7 | 0♐ 4 | 32 | 5°32 | 15°41 | 29°30 | 25°57 | 17°42 | 19°49 | 20° 3 | 14° 4 | 16°R44 | 15°44 | 17°53 | 5° 3 | W18 | |
| T 19 | 0 12 3 | 1° 3'50 | 6♐ 6 | 7°12 | 16°27 | 0♐13 | 25°55 | 17°40 | 19°53 | 20° 1 | 14° 3 | 16°43 | 15°41 | 18° 0 | 5° 0 | T 19 | |
| F 20 | 0 16 0 | 2° 3'09 | 20°12 | 8°51 | 17°14 | 0°56 | 25°53 | 17°37 | 19°57 | 20° 0 | 14° 2 | 16°39 | 15°38 | 18° 7 | 4°58 | F 20 | |
| S 21 | 0 19 56 | 3° 2'30 | 4♐47 | 10°30 | 18° 2 | 1°39 | 25°51 | 17°35 | 20° 0 | 19°58 | 14° 1 | 16°33 | 15°35 | 18°13 | 4°56 | S 21 | |
| S 22 | 0 23 53 | 4° 1'52 | 19°46 | 12° 8 | 18°51 | 2°23 | 25°48 | 17°32 | 20° 4 | 19°56 | 14° 0 | 16°24 | 15°31 | 18°20 | 4°53 | S 22 | |
| M23 | 0 27 49 | 5° 1'17 | 5♐ 1 | 13°45 | 19°41 | 3° 6 | 25°46 | 17°30 | 20° 7 | 19°55 | 14° 0 | 16°14 | 15°28 | 18°27 | 4°51 | M23 | |
| T 24 | 0 31 46 | 6° 0'44 | 20°21 | 15°22 | 20°31 | 3°49 | 25°43 | 17°28 | 20°11 | 19°53 | 13°59 | 16° 3 | 15°25 | 18°34 | 4°48 | T 24 | |
| W25 | 0 35 42 | 7° 0'13 | 5♐35 | 16°57 | 21°23 | 4°33 | 25°40 | 17°25 | 20°15 | 19°52 | 13°58 | 15°52 | 15°22 | 18°40 | 4°46 | W25 | |
| T 26 | 0 39 39 | 7°59'45 | 20°32 | 18°32 | 22°15 | 5°17 | 25°37 | 17°23 | 20°19 | 19°50 | 13°58 | 15°44 | 15°19 | 18°47 | 4°43 | T 26 | |
| F 27 | 0 43 36 | 8°59'18 | 5♐ 4 | 20° 7 | 23° 7 | 6° 0 | 25°33 | 17°21 | 20°22 | 19°48 | 13°57 | 15°38 | 15°15 | 18°54 | 4°41 | F 27 | |
| S 28 | 0 47 32 | 9°58'55 | 19° 9 | 21°41 | 24° 1 | 6°44 | 25°30 | 17°20 | 20°26 | 19°47 | 13°56 | 15°35 | 15°12 | 19° 1 | 4°38 | S 28 | |
| S 29 | 0 51 29 | 10°58'33 | 2♐46 | 23°14 | 24°55 | 7°28 | 25°26 | 17°18 | 20°30 | 19°45 | 13°56 | 15°34 | 15° 9 | 19° 7 | 4°35 | S 29 | |
| M30 | 0 55 25 | 11°58'14 | 15♐57 | 24°46 | 25°49 | 8°12 | 25°22 | 17°16 | 20°33 | 19°Y43 | 13°55 | 15♐34 | 15♐ 6 | 19°14 | 4♐33 | M30 | |

Delta T = 20m35s Julian Calendar 1 Sept. 1051 == Greg. Calendar 7 Sept. 1051

OCTOBER 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|-------|--------|--------|--------|-------|-------|-------|------|-----|
| T 1 | 0 59 22 | 12♐57'57 | 28♐46 | 26♐18 | 26♏45 | 8♐56 | 25°R18 | 17°R14 | 20♐37 | 19°R42 | 13°R55 | 15°R33 | 15♐ 3 | 19♐21 | 4°R30 | T 1 | |
| W 2 | 1 3 18 | 13°57'42 | 11♏16 | 27°50 | 27°40 | 9°40 | 25♏13 | 17°13 | 20°41 | 19°Y40 | 13°54 | 15♐32 | 15° 0 | 19°27 | 4♐27 | W 2 | |
| T 3 | 1 7 15 | 14°57'30 | 23°33 | 29°21 | 28°37 | 10°24 | 25° 9 | 17°12 | 20°45 | 19°38 | 13°54 | 15°27 | 14°56 | 19°34 | 4°24 | T 3 | |
| F 4 | 1 11 11 | 15°57'20 | 5♐40 | 0♐51 | 29°34 | 11° 8 | 25° 4 | 17°10 | 20°48 | 19°37 | 13°53 | 15°20 | 14°53 | 19°41 | 4°22 | F 4 | |
| S 5 | 1 15 8 | 16°57'12 | 17°40 | 2°20 | 0♐32 | 11°53 | 24°59 | 17° 9 | 20°52 | 19°35 | 13°53 | 15°10 | 14°50 | 19°48 | 4°19 | S 5 | |
| S 6 | 1 19 5 | 17°57'06 | 29°36 | 3°49 | 1°30 | 12°37 | 24°54 | 17° 8 | 20°56 | 19°33 | 13°52 | 14°57 | 14°47 | 19°54 | 4°16 | S 6 | |
| M 7 | 1 23 1 | 18°57'02 | 11♐29 | 5°18 | 2°28 | 13°22 | 24°49 | 17° 7 | 21° 0 | 19°32 | 13°52 | 14°43 | 14°44 | 20° 1 | 4°13 | M 7 | |
| T 8 | 1 26 58 | 19°57'01 | 23°21 | 6°45 | 3°27 | 14° 6 | 24°43 | 17° 6 | 21° 3 | 19°30 | 13°51 | 14°28 | 14°40 | 20° 8 | 4°10 | T 8 | |
| W 9 | 1 30 54 | 20°57'01 | 5♐13 | 8°13 | 4°27 | 14°51 | 24°38 | 17° 5 | 21° 7 | 19°28 | 13°51 | 14°14 | 14°37 | 20°14 | 4° 7 | W 9 | |
| T 10 | 1 34 51 | 21°57'03 | 17° 7 | 9°39 | 5°27 | 15°36 | 24°32 | 17° 5 | 21°11 | 19°26 | 13°51 | 14° 1 | 14°34 | 20°21 | 4° 5 | T 10 | |
| F 11 | 1 38 47 | 22°57'07 | 29° 4 | 11° 5 | 6°27 | 16°20 | 24°26 | 17° 4 | 21°15 | 19°25 | 13°50 | 13°51 | 14°31 | 20°28 | 4° 2 | F 11 | |
| S 12 | 1 42 44 | 23°57'13 | 11♐ 7 | 12°30 | 7°28 | 17° 5 | 24°20 | 17° 3 | 21°18 | 19°23 | 13°50 | 13°44 | 14°28 | 20°35 | 3°59 | S 12 | |
| S 13 | 1 46 40 | 24°57'20 | 23°18 | 13°54 | 8°29 | 17°50 | 24°14 | 17° 3 | 21°22 | 19°21 | 13°50 | 13°40 | 14°25 | 20°41 | 3°56 | S 13 | |
| M14 | 1 50 37 | 25°57'29 | 5♐42 | 15°18 | 9°31 | 18°35 | 24° 8 | 17° 3 | 21°26 | 19°20 | 13°50 | 13°39 | 14°21 | 20°48 | 3°53 | M14 | |
| T 15 | 1 54 34 | 26°57'40 | 18°22 | 16°41 | 10°33 | 19°20 | 24° 1 | 17° 3 | 21°30 | 19°18 | 13°49 | 13°D39 | 14°18 | 20°55 | 3°50 | T 15 | |
| W16 | 1 58 30 | 27°57'52 | 1♐24 | 18° 2 | 11°35 | 20° 5 | 23°55 | 17°D 3 | 21°33 | 19°16 | 13°49 | 13°R39 | 14°15 | 21° 2 | 3°47 | W16 | |
| T 17 | 2 2 27 | 28°58'06 | 14°51 | 19°23 | 12°38 | 20°50 | 23°48 | 17° 3 | 21°37 | 19°15 | 13°49 | 13°38 | 14°12 | 21° 8 | 3°44 | T 17 | |
| F 18 | 2 6 23 | 29°58'22 | 28°45 | 20°43 | 13°41 | 21°36 | 23°41 | 17° 3 | 21°41 | 19°13 | 13°49 | 13°35 | 14° 9 | 21°15 | 3°41 | F 18 | |
| S 19 | 2 10 20 | 0♐58'38 | 13♐ 9 | 22° 2 | 14°45 | 22°21 | 23°34 | 17° 3 | 21°45 | 19°11 | 13°49 | 13°29 | 14° 6 | 21°22 | 3°38 | S 19 | |
| S 20 | 2 14 16 | 1°58'57 | 27°58 | 23°19 | 15°48 | 23° 6 | 23°27 | 17° 3 | 21°48 | 19°10 | 13°49 | 13°21 | 14° 2 | 21°28 | 3°35 | S 20 | |
| M21 | 2 18 13 | 2°59'17 | 13♐ 7 | 24°35 | 16°53 | 23°52 | 23°20 | 17° 4 | 21°52 | 19° 8 | 13°49 | 13°12 | 13°59 | 21°35 | 3°32 | M21 | |
| T 22 | 2 22 9 | 3°59'38 | 28°27 | 25°49 | 17°57 | 24°37 | 23°13 | 17° 4 | 21°56 | 19° 7 | 13°49 | 13° 1 | 13°56 | 21°42 | 3°29 | T 22 | |
| W23 | 2 26 6 | 5° 0'01 | 13♐45 | 27° 1 | 19° 2 | 25°23 | 23° 5 | 17° 5 | 21°59 | 19° 5 | 13°D49 | 12°51 | 13°53 | 21°49 | 3°26 | W23 | |
| T 24 | 2 30 3 | 6° 0'26 | 28°51 | 28°11 | 20° 7 | 26° 8 | 22°58 | 17° 6 | 22° 3 | 19° 3 | 13°49 | 12°43 | 13°50 | 21°55 | 3°23 | T 24 | |
| F 25 | 2 33 59 | 7° 0'53 | 13♐35 | 29°19 | 21°12 | 26°54 | 22°50 | 17° 7 | 22° 7 | 19° 2 | 13°49 | 12°37 | 13°46 | 22° 2 | 3°20 | F 25 | |
| S 26 | 2 37 56 | 8° 1'22 | 27°51 | 0♐25 | 22°18 | 27°39 | 22°43 | 17° 8 | 22°11 | 19° 0 | 13°49 | 12°34 | 13°43 | 22° 9 | 3°17 | S 26 | |
| S 27 | 2 41 52 | 9° 1'53 | 11♐38 | 1°27 | 23°24 | 28°25 | 22°35 | 17° 9 | 22°14 | 18°59 | 13°49 | 12°D33 | 13°40 | 22°16 | 3°14 | S 27 | |
| M28 | 2 45 49 | 10° 2'25 | 24°56 | 2°27 | 24°30 | 29°11 | 22°27 | 17°10 | 22°18 | 18°57 | 13°49 | 12°33 | 13°37 | 22°22 | 3°11 | M28 | |
| T 29 | 2 49 45 | 11° 2'59 | 7♐49 | 3°22 | 25°36 | 29°57 | 22°19 | 17°11 | 22°21 | 18°56 | 13°49 | 12°R34 | 13°34 | 22°29 | 3° 8 | T 29 | |
| W30 | 2 53 42 | 12° 3'36 | 20°20 | 4°14 | 26°43 | 0♐43 | 22°11 | 17°13 | 22°25 | 18°54 | 13°49 | 12°34 | 13°31 | 22°36 | 3° 5 | W30 | |
| T 31 | 2 57 38 | 13♐ 4'13 | 2♐35 | 5♐ 0 | 27♐50 | 1♐28 | 22° 3 | 17°14 | 22°29 | 18°Y53 | 13°49 | 12♐32 | 13♐27 | 22°42 | 3♐ 2 | T 31 | |

Delta T = 20m35s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1051
geocentric

NOVEMBER 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|-----|
| F 1 | 3 1 35 | 14♈ 4'53 | 14♏ 39 | 5♊ 42 | 28♏ 57 | 2♊ 14 | 21°R55 | 17♈ 16 | 22♈ 32 | 18°R51 | 13♈ 50 | 12°R27 | 13♏ 24 | 22♈ 49 | 2°R59 | F 1 | |
| S 2 | 3 5 32 | 15° 5'34 | 26°35 | 6°17 | 0♈ 5 | 3° 0 | 21♈ 47 | 17°18 | 22°36 | 18♏ 50 | 13°50 | 12♏ 20 | 13°21 | 22°56 | 2♊ 56 | S 2 | |
| S 3 | 3 9 28 | 16° 6'17 | 8♌ 27 | 6°46 | 1°12 | 3°46 | 21°39 | 17°19 | 22°39 | 18°48 | 13°50 | 12°11 | 13°18 | 23° 3 | 2°53 | S 3 | |
| M 4 | 3 13 25 | 17° 7'02 | 20°18 | 7° 7 | 2°20 | 4°33 | 21°31 | 17°21 | 22°43 | 18°47 | 13°51 | 12° 0 | 13°15 | 23° 9 | 2°50 | M 4 | |
| T 5 | 3 17 21 | 18° 7'48 | 2♈ 11 | 7°19 | 3°28 | 5°19 | 21°23 | 17°23 | 22°46 | 18°45 | 13°51 | 11°49 | 13°12 | 23°16 | 2°47 | T 5 | |
| W 6 | 3 21 18 | 19° 8'35 | 14° 6 | 7°R23 | 4°36 | 6° 5 | 21°14 | 17°25 | 22°50 | 18°44 | 13°51 | 11°38 | 13° 8 | 23°23 | 2°45 | W 6 | |
| T 7 | 3 25 14 | 20° 9'24 | 26° 6 | 7°17 | 5°45 | 6°51 | 21° 6 | 17°28 | 22°53 | 18°42 | 13°52 | 11°29 | 13° 5 | 23°29 | 2°42 | T 7 | |
| F 8 | 3 29 11 | 21°10'14 | 8♊ 12 | 7° 1 | 6°53 | 7°37 | 20°58 | 17°30 | 22°57 | 18°41 | 13°52 | 11°21 | 13° 2 | 23°36 | 2°39 | F 8 | |
| S 9 | 3 33 7 | 22°11'06 | 20°25 | 6°34 | 8° 2 | 8°24 | 20°50 | 17°32 | 23° 0 | 18°40 | 13°53 | 11°17 | 12°59 | 23°43 | 2°36 | S 9 | |
| S 10 | 3 37 4 | 23°11'58 | 2♊ 47 | 5°55 | 9°11 | 9°10 | 20°42 | 17°35 | 23° 4 | 18°38 | 13°53 | 11°14 | 12°56 | 23°50 | 2°33 | S 10 | |
| M11 | 3 41 1 | 24°12'52 | 15°20 | 5° 6 | 10°20 | 9°57 | 20°34 | 17°37 | 23° 7 | 18°37 | 13°54 | 11°D14 | 12°52 | 23°56 | 2°31 | M11 | |
| T 12 | 3 44 57 | 25°13'46 | 28° 7 | 4° 7 | 11°30 | 10°43 | 20°25 | 17°40 | 23°10 | 18°36 | 13°54 | 11°15 | 12°49 | 24° 3 | 2°28 | T 12 | |
| W13 | 3 48 54 | 26°14'42 | 11♈ 10 | 2°59 | 12°39 | 11°29 | 20°17 | 17°43 | 23°14 | 18°34 | 13°55 | 11°16 | 12°46 | 24°10 | 2°25 | W13 | |
| T 14 | 3 52 50 | 27°15'38 | 24°34 | 1°44 | 13°49 | 12°16 | 20° 9 | 17°46 | 23°17 | 18°33 | 13°55 | 11°R17 | 12°43 | 24°17 | 2°22 | T 14 | |
| F 15 | 3 56 47 | 28°16'35 | 8♏ 19 | 0°23 | 14°59 | 13° 2 | 20° 1 | 17°49 | 23°20 | 18°32 | 13°56 | 11°17 | 12°40 | 24°23 | 2°20 | F 15 | |
| S 16 | 4 0 43 | 29°17'32 | 22°27 | 29♈ 0 | 16° 9 | 13°49 | 19°53 | 17°52 | 23°23 | 18°31 | 13°56 | 11°15 | 12°37 | 24°30 | 2°17 | S 16 | |
| S 17 | 4 4 40 | 0♊ 18'30 | 6♏ 57 | 27°38 | 17°19 | 14°36 | 19°45 | 17°55 | 23°27 | 18°30 | 13°57 | 11°10 | 12°33 | 24°37 | 2°15 | S 17 | |
| M18 | 4 8 36 | 1°19'29 | 21°45 | 26°19 | 18°29 | 15°22 | 19°37 | 17°58 | 23°30 | 18°29 | 13°58 | 11° 5 | 12°30 | 24°43 | 2°12 | M18 | |
| T 19 | 4 12 33 | 2°20'29 | 6♌ 45 | 25° 6 | 19°39 | 16° 9 | 19°30 | 18° 2 | 23°33 | 18°27 | 13°58 | 10°59 | 12°27 | 24°50 | 2°10 | T 19 | |
| W20 | 4 16 30 | 3°21'29 | 21°48 | 24° 0 | 20°50 | 16°56 | 19°22 | 18° 5 | 23°36 | 18°26 | 13°59 | 10°53 | 12°24 | 24°57 | 2° 7 | W20 | |
| T 21 | 4 20 26 | 4°22'31 | 6♈ 45 | 23° 4 | 22° 1 | 17°42 | 19°14 | 18° 9 | 23°39 | 18°25 | 14° 0 | 10°48 | 12°21 | 25° 4 | 2° 5 | T 21 | |
| F 22 | 4 24 23 | 5°23'33 | 21°26 | 22°19 | 23°11 | 18°29 | 19° 7 | 18°12 | 23°42 | 18°24 | 14° 1 | 10°45 | 12°18 | 25°10 | 2° 2 | F 22 | |
| S 23 | 4 28 19 | 6°24'36 | 5♏ 45 | 21°45 | 24°22 | 19°16 | 18°59 | 18°16 | 23°45 | 18°23 | 14° 1 | 10°D44 | 12°14 | 25°17 | 2° 0 | S 23 | |
| S 24 | 4 32 16 | 7°25'40 | 19°38 | 21°22 | 25°33 | 20° 2 | 18°52 | 18°20 | 23°48 | 18°22 | 14° 2 | 10°44 | 12°11 | 25°24 | 1°58 | S 24 | |
| M25 | 4 36 12 | 8°26'45 | 3♈ 4 | 21°10 | 26°44 | 20°49 | 18°45 | 18°24 | 23°51 | 18°21 | 14° 3 | 10°45 | 12° 8 | 25°30 | 1°55 | M25 | |
| T 26 | 4 40 9 | 9°27'51 | 16° 5 | 21°D 8 | 27°56 | 21°36 | 18°37 | 18°28 | 23°54 | 18°20 | 14° 4 | 10°47 | 12° 5 | 25°37 | 1°53 | T 26 | |
| W27 | 4 44 5 | 10°28'58 | 28°42 | 21°16 | 29° 7 | 22°23 | 18°30 | 18°32 | 23°57 | 18°19 | 14° 5 | 10°48 | 12° 2 | 25°44 | 1°51 | W27 | |
| T 28 | 4 48 2 | 11°30'05 | 11♏ 1 | 21°34 | 0♈ 19 | 23°10 | 18°23 | 18°36 | 24° 0 | 18°19 | 14° 6 | 10°R49 | 11°58 | 25°51 | 1°49 | T 28 | |
| F 29 | 4 51 59 | 12°31'14 | 23° 7 | 21°59 | 1°30 | 23°57 | 18°16 | 18°40 | 24° 3 | 18°18 | 14° 7 | 10°48 | 11°55 | 25°57 | 1°47 | F 29 | |
| S 30 | 4 55 55 | 13°32'23 | 5♌ 3 | 22♈ 32 | 2♈ 42 | 24♊ 43 | 18♊ 10 | 18°45 | 24° 5 | 18♏ 17 | 14° 8 | 10°E46 | 11°E52 | 26° 4 | 1♊ 45 | S 30 | |

Delta T = 20m34s Julian Calendar 1 Nov. 1051 == Greg. Calendar 7 Nov. 1051

DECEMBER 1051 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|-----------|--------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|-------|------|-----|
| S 1 | 4 59 52 | 14♏ 33'33 | 16♌ 54 | 23♈ 11 | 3♈ 54 | 25♊ 30 | 18°R 3 | 18♈ 49 | 24♈ 8 | 18°R16 | 14♈ 9 | 10°R43 | 11♏ 49 | 26♈ 11 | 1°R43 | S 1 | |
| M 2 | 5 3 48 | 15°34'43 | 28°46 | 23°57 | 5° 5 | 26°17 | 17♊ 57 | 18°54 | 24°11 | 18♏ 15 | 14°10 | 10°E39 | 11°46 | 26°17 | 1♊ 41 | M 2 | |
| T 3 | 5 7 45 | 16°35'55 | 10♈ 40 | 24°47 | 6°17 | 27° 4 | 17°50 | 18°58 | 24°14 | 18°15 | 14°11 | 10°35 | 11°43 | 26°24 | 1°39 | T 3 | |
| W 4 | 5 11 41 | 17°37'07 | 22°40 | 25°42 | 7°29 | 27°51 | 17°44 | 19° 3 | 24°16 | 18°14 | 14°12 | 10°31 | 11°39 | 26°31 | 1°37 | W 4 | |
| T 5 | 5 15 38 | 18°38'19 | 4♊ 49 | 26°41 | 8°42 | 28°38 | 17°38 | 19° 8 | 24°19 | 18°13 | 14°13 | 10°27 | 11°36 | 26°38 | 1°35 | T 5 | |
| F 6 | 5 19 34 | 19°39'32 | 17° 6 | 27°44 | 9°54 | 29°25 | 17°32 | 19°12 | 24°21 | 18°13 | 14°14 | 10°24 | 11°33 | 26°44 | 1°33 | F 6 | |
| S 7 | 5 23 31 | 20°40'45 | 29°35 | 28°50 | 11° 6 | 0♈ 12 | 17°27 | 19°17 | 24°24 | 18°12 | 14°15 | 10°23 | 11°30 | 26°51 | 1°31 | S 7 | |
| S 8 | 5 27 28 | 21°41'58 | 12♊ 15 | 29°58 | 12°18 | 0°59 | 17°21 | 19°22 | 24°26 | 18°12 | 14°16 | 10°D22 | 11°27 | 26°58 | 1°30 | S 8 | |
| M 9 | 5 31 24 | 22°43'11 | 25° 7 | 1♊ 9 | 13°31 | 1°46 | 17°16 | 19°27 | 24°29 | 18°11 | 14°17 | 10°23 | 11°24 | 27° 5 | 1°28 | M 9 | |
| T 10 | 5 35 21 | 23°44'24 | 8♈ 12 | 2°23 | 14°43 | 2°33 | 17°10 | 19°32 | 24°31 | 18°11 | 14°19 | 10°24 | 11°20 | 27°11 | 1°27 | T 10 | |
| W11 | 5 39 17 | 24°45'38 | 21°30 | 3°38 | 15°56 | 3°20 | 17° 5 | 19°38 | 24°33 | 18°10 | 14°20 | 10°26 | 11°17 | 27°18 | 1°25 | W11 | |
| T 12 | 5 43 14 | 25°46'51 | 5♏ 2 | 4°54 | 17° 9 | 4° 7 | 17° 1 | 19°43 | 24°36 | 18°10 | 14°21 | 10°27 | 11°14 | 27°25 | 1°24 | T 12 | |
| F 13 | 5 47 10 | 26°48'03 | 18°49 | 6°13 | 18°21 | 4°54 | 16°56 | 19°48 | 24°38 | 18° 9 | 14°22 | 10°27 | 11°11 | 27°31 | 1°22 | F 13 | |
| S 14 | 5 51 7 | 27°49'15 | 2♏ 49 | 7°32 | 19°34 | 5°41 | 16°51 | 19°54 | 24°40 | 18° 9 | 14°23 | 10°R28 | 11° 8 | 27°38 | 1°21 | S 14 | |
| S 15 | 5 55 4 | 28°50'27 | 17° 3 | 8°53 | 20°47 | 6°28 | 16°47 | 19°59 | 24°42 | 18° 9 | 14°25 | 10°27 | 11° 4 | 27°45 | 1°20 | S 15 | |
| M16 | 5 59 0 | 29°51'39 | 1♊ 28 | 10°15 | 22° 0 | 7°15 | 16°43 | 20° 5 | 24°44 | 18° 8 | 14°26 | 10°26 | 11° 1 | 27°52 | 1°18 | M16 | |
| T 17 | 6 2 57 | 0♊ 52'50 | 16° 0 | 11°38 | 23°13 | 8° 2 | 16°39 | 20°10 | 24°46 | 18° 8 | 14°27 | 10°25 | 10°58 | 27°58 | 1°17 | T 17 | |
| W18 | 6 6 53 | 1°54'01 | 0♈ 35 | 13° 2 | 24°26 | 8°49 | 16°35 | 20°16 | 24°48 | 18° 8 | 14°29 | 10°24 | 10°55 | 28° 5 | 1°16 | W18 | |
| T 19 | 6 10 50 | 2°55'11 | 15° 5 | 14°27 | 25°39 | 9°36 | 16°32 | 20°21 | 24°50 | 18° 8 | 14°30 | 10°23 | 10°52 | 28°12 | 1°15 | T 19 | |
| F 20 | 6 14 46 | 3°56'22 | 29°27 | 15°53 | 26°52 | 10°23 | 16°28 | 20°27 | 24°52 | 18° 7 | 14°31 | 10°22 | 10°49 | 28°18 | 1°14 | F 20 | |
| S 21 | 6 18 43 | 4°57'32 | 13♏ 33 | 17°19 | 28° 5 | 11°10 | 16°25 | 20°33 | 24°54 | 18° 7 | 14°33 | 10°D22 | 10°45 | 28°25 | 1°13 | S 21 | |
| S 22 | 6 22 39 | 5°58'41 | 27°20 | 18°46 | 29°18 | 11°57 | 16°22 | 20°39 | 24°56 | 18° 7 | 14°34 | 10°23 | 10°42 | 28°32 | 1°12 | S 22 | |
| M23 | 6 26 36 | 6°59'51 | 10♈ 45 | 20°13 | 0♊ 31 | 12°44 | 16°19 | 20°45 | 24°58 | 18° 7 | 14°36 | 10°23 | 10°39 | 28°39 | 1°11 | M23 | |
| T 24 | 6 30 33 | 8° 1'00 | 23°49 | 21°42 | 1°44 | 13°31 | 16°17 | 20°51 | 24°59 | 18°D 7 | 14°37 | 10°23 | 10°36 | 28°45 | 1°11 | T 24 | |
| W25 | 6 34 29 | 9° 2'08 | 6♏ 31 | 23°11 | 2°58 | 14°18 | 16°14 | 20°57 | 25° 1 | 18° 7 | 14°38 | 10°23 | 10°33 | 28°52 | 1°10 | W25 | |
| T 26 | 6 38 26 | 10° 3'17 | 18°55 | 24°40 | 4°11 | 15° 5 | 16°12 | 21° 3 | 25° 3 | 18° 7 | 14°40 | 10°R23 | 10°30 | 28°59 | 1° 9 | T 26 | |
| F 27 | 6 42 22 | 11° 4'25 | 1♌ 4 | 26°10 | 5°24 | 15°52 | 16°10 | 21° 9 | 25° 4 | 18° 7 | 14°41 | 10°23 | 10°26 | 29° 5 | 1° 9 | F 27 | |
| S 28 | 6 46 19 | 12° 5'33 | 13° 2 | 27°41 | 6°38 | 16°39 | 16° 8 | 21°15 | 25° 6 | 18° 7 | 14°43 | 10°D23 | 10°23 | 29°12 | 1° 8 | S 28 | |
| S 29 | 6 50 15 | 13° 6'41 | 24°55 | 29°12 | 7°51 | 17°26 | 16° 7 | 21°22 | 25° 7 | 18° 8 | 14°44 | 10°24 | 10°20 | 29°19 | 1° 8 | S 29 | |
| M30 | 6 54 12 | 14° 7'48 | 6♈ 47 | 0♊ 44 | 9° 5 | 18°13 | 16° 5 | 21°28 | 25° 9 | 18° 8 | 14°46 | 10°24 | 10°17 | 29°26 | 1° 7 | M30 | |
| T 31 | 6 58 8 | 15° 8'55 | 18♈ 42 | 2♊ 16 | 10♊ 18 | 19° 0 | 16° 4 | 21°34 | 25°10 | 18♏ 8 | 14°47 | 10°E24 | 10°E14 | 29°32 | 1♊ 7 | T 31 | |

Delta T = 20m34s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1052
geocentric

JANUARY 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|--------|--------|-------|--------|-------|-------|-------|------|-----|
| W 1 | 7 2 5 | 16♁10'01 | 0♁45 | 3♁49 | 11♁32 | 19♁47 | 16°R 3 | 21♁41 | 25♁11 | 18♁° 8 | 14♁49 | 10♁25 | 10♁10 | 29♁39 | 1°R 7 | W 1 | |
| T 2 | 7 6 2 | 17°11'07 | 13° 0 | 5°22 | 12°46 | 20°34 | 16♁ 3 | 21°47 | 25°13 | 18° 9 | 14°50 | 10°26 | 10° 7 | 29°46 | 1♁ 6 | T 2 | |
| F 3 | 7 9 58 | 18°12'13 | 25°28 | 6°56 | 13°59 | 21°21 | 16° 2 | 21°54 | 25°14 | 18° 9 | 14°52 | 10°26 | 10° 4 | 29°52 | 1° 6 | F 3 | |
| S 4 | 7 13 55 | 19°13'17 | 8♁12 | 8°31 | 15°13 | 22° 8 | 16° 2 | 22° 0 | 25°15 | 18° 9 | 14°54 | 10°R26 | 10° 1 | 29°59 | 1° 6 | S 4 | |
| S 5 | 7 17 51 | 20°14'21 | 21°12 | 10° 6 | 16°27 | 22°55 | 16°D 2 | 22° 7 | 25°16 | 18°10 | 14°55 | 10°26 | 9°58 | 0♁ 6 | 1°D 6 | S 5 | |
| M 6 | 7 21 48 | 21°15'24 | 4♁28 | 11°42 | 17°40 | 23°42 | 16° 2 | 22°14 | 25°17 | 18°10 | 14°57 | 10°26 | 9°55 | 0°13 | 1° 6 | M 6 | |
| T 7 | 7 25 44 | 22°16'26 | 18° 0 | 13°18 | 18°54 | 24°28 | 16° 2 | 22°20 | 25°18 | 18°11 | 14°58 | 10°24 | 9°51 | 0°19 | 1° 6 | T 7 | |
| W 8 | 7 29 41 | 23°17'27 | 1♁44 | 14°56 | 20° 8 | 25°15 | 16° 2 | 22°27 | 25°19 | 18°11 | 15° 0 | 10°23 | 9°48 | 0°26 | 1° 6 | W 8 | |
| T 9 | 7 33 37 | 24°18'27 | 15°38 | 16°33 | 21°22 | 26° 2 | 16° 3 | 22°34 | 25°20 | 18°12 | 15° 2 | 10°21 | 9°45 | 0°33 | 1° 7 | T 9 | |
| F 10 | 7 37 34 | 25°19'25 | 29°41 | 18°12 | 22°35 | 26°49 | 16° 4 | 22°41 | 25°21 | 18°12 | 15° 3 | 10°19 | 9°42 | 0°39 | 1° 7 | F 10 | |
| S 11 | 7 41 31 | 26°20'22 | 13♁48 | 19°51 | 23°49 | 27°36 | 16° 5 | 22°47 | 25°21 | 18°13 | 15° 5 | 10°18 | 9°39 | 0°46 | 1° 7 | S 11 | |
| S 12 | 7 45 27 | 27°21'18 | 27°58 | 21°30 | 25° 3 | 28°22 | 16° 6 | 22°54 | 25°22 | 18°14 | 15° 6 | 10°D18 | 9°35 | 0°53 | 1° 8 | S 12 | |
| M13 | 7 49 24 | 28°22'12 | 12♁ 9 | 23°11 | 26°17 | 29° 9 | 16° 8 | 23° 1 | 25°23 | 18°14 | 15° 8 | 10°18 | 9°32 | 1° 0 | 1° 8 | M13 | |
| T 14 | 7 53 20 | 29°23'05 | 26°19 | 24°52 | 27°31 | 29°56 | 16°10 | 23° 8 | 25°23 | 18°15 | 15°10 | 10°19 | 9°29 | 1° 6 | 1° 9 | T 14 | |
| W15 | 7 57 17 | 0♁23'56 | 10♁25 | 26°34 | 28°44 | 0♁42 | 16°12 | 23°15 | 25°24 | 18°16 | 15°11 | 10°21 | 9°26 | 1°13 | 1° 9 | W15 | |
| T 16 | 8 1 13 | 1°24'46 | 24°26 | 28°17 | 29°58 | 1°29 | 16°14 | 23°22 | 25°24 | 18°16 | 15°13 | 10°22 | 9°23 | 1°20 | 1°10 | T 16 | |
| F 17 | 8 5 10 | 2°25'35 | 8♁18 | 29°59 | 1♁12 | 2°16 | 16°16 | 23°29 | 25°25 | 18°17 | 15°15 | 10°R22 | 9°20 | 1°26 | 1°11 | F 17 | |
| S 18 | 8 9 6 | 3°26'22 | 21°59 | 1♁44 | 2°26 | 3° 2 | 16°18 | 23°36 | 25°25 | 18°18 | 15°17 | 10°22 | 9°16 | 1°33 | 1°11 | S 18 | |
| S 19 | 8 13 3 | 4°27'08 | 5♁27 | 3°29 | 3°40 | 3°49 | 16°21 | 23°43 | 25°25 | 18°19 | 15°18 | 10°20 | 9°13 | 1°40 | 1°12 | S 19 | |
| M20 | 8 17 0 | 5°27'52 | 18°40 | 5°15 | 4°54 | 4°35 | 16°24 | 23°50 | 25°26 | 18°20 | 15°20 | 10°17 | 9°10 | 1°47 | 1°13 | M20 | |
| T 21 | 8 20 56 | 6°28'35 | 1♁36 | 7° 1 | 6° 8 | 5°22 | 16°27 | 23°57 | 25°26 | 18°21 | 15°22 | 10°13 | 9° 7 | 1°53 | 1°14 | T 21 | |
| W22 | 8 24 53 | 7°29'17 | 14°15 | 8°48 | 7°22 | 6° 8 | 16°30 | 24° 5 | 25°26 | 18°22 | 15°23 | 10° 9 | 9° 4 | 2° 0 | 1°15 | W22 | |
| T 23 | 8 28 49 | 8°29'57 | 26°39 | 10°36 | 8°36 | 6°55 | 16°34 | 24°12 | 25°26 | 18°23 | 15°25 | 10° 4 | 9° 1 | 2° 7 | 1°16 | T 23 | |
| F 24 | 8 32 46 | 9°30'37 | 8♁49 | 12°25 | 9°50 | 7°41 | 16°38 | 24°19 | 25°R26 | 18°24 | 15°27 | 10° 0 | 8°57 | 2°13 | 1°17 | F 24 | |
| S 25 | 8 36 42 | 10°31'15 | 20°49 | 14°14 | 11° 4 | 8°28 | 16°41 | 24°26 | 25°26 | 18°25 | 15°28 | 9°57 | 8°54 | 2°20 | 1°19 | S 25 | |
| S 26 | 8 40 39 | 11°31'51 | 2♁43 | 16° 4 | 12°18 | 9°14 | 16°45 | 24°33 | 25°26 | 18°26 | 15°30 | 9°55 | 8°51 | 2°27 | 1°20 | S 26 | |
| M27 | 8 44 35 | 12°32'27 | 14°34 | 17°54 | 13°32 | 10° 0 | 16°50 | 24°41 | 25°26 | 18°27 | 15°32 | 9°D54 | 8°48 | 2°34 | 1°21 | M27 | |
| T 28 | 8 48 32 | 13°33'01 | 26°29 | 19°45 | 14°46 | 10°47 | 16°54 | 24°48 | 25°26 | 18°28 | 15°34 | 9°55 | 8°45 | 2°40 | 1°22 | T 28 | |
| W29 | 8 52 29 | 14°33'34 | 8♁32 | 21°37 | 16° 0 | 11°33 | 16°59 | 24°55 | 25°25 | 18°29 | 15°35 | 9°57 | 8°41 | 2°47 | 1°24 | W29 | |
| T 30 | 8 56 25 | 15°34'05 | 20°47 | 23°28 | 17°14 | 12°19 | 17° 3 | 25° 2 | 25°25 | 18°31 | 15°37 | 9°58 | 8°38 | 2°54 | 1°25 | T 30 | |
| F 31 | 9 0 22 | 16°34'36 | 3♁20 | 25°20 | 18♁28 | 13♁ 5 | 17♁ 8 | 25°25 | 25°25 | 18♁32 | 15°39 | 10♁ 0 | 8♁35 | 3♁ 0 | 1♁27 | F 31 | |

Delta T = 20m34s Julian Calendar 1 Jan. 1052 == Greg. Calendar 7 Jan. 1052

FEBRUARY 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|--------|-------|-------|-------|-------|--------|-------|-------|--------|------|------|------|------|-----|
| S 1 | 9 4 18 | 17°35'04 | 16♁13 | 27°11 | 19♁42 | 13♁52 | 17♁13 | 25°17 | 25°R24 | 18♁33 | 15°40 | 10°R 0 | 8♁32 | 3♁ 7 | 1♁28 | S 1 | |
| S 2 | 9 8 15 | 18°35'32 | 29°28 | 29° 2 | 20°56 | 14°38 | 17°19 | 25°24 | 25°24 | 18°35 | 15°42 | 9♁58 | 8°29 | 3°14 | 1°30 | S 2 | |
| M 3 | 9 12 11 | 19°35'57 | 13♁ 6 | 0♁53 | 22°10 | 15°24 | 17°24 | 25°32 | 25°23 | 18°36 | 15°44 | 9°54 | 8°26 | 3°21 | 1°32 | M 3 | |
| T 4 | 9 16 8 | 20°36'21 | 27° 3 | 2°43 | 23°24 | 16°10 | 17°30 | 25°39 | 25°23 | 18°37 | 15°46 | 9°49 | 8°22 | 3°27 | 1°34 | T 4 | |
| W 5 | 9 20 4 | 21°36'43 | 11♁16 | 4°31 | 24°39 | 16°56 | 17°35 | 25°46 | 25°22 | 18°39 | 15°47 | 9°42 | 8°19 | 3°34 | 1°35 | W 5 | |
| T 6 | 9 24 1 | 22°37'03 | 25°41 | 6°18 | 25°53 | 17°42 | 17°41 | 25°54 | 25°22 | 18°40 | 15°49 | 9°35 | 8°16 | 3°41 | 1°37 | T 6 | |
| F 7 | 9 27 58 | 23°37'22 | 10♁° 9 | 8° 3 | 27° 7 | 18°28 | 17°48 | 26° 1 | 25°21 | 18°42 | 15°51 | 9°29 | 8°13 | 3°47 | 1°39 | F 7 | |
| S 8 | 9 31 54 | 24°37'38 | 24°36 | 9°45 | 28°21 | 19°14 | 17°54 | 26° 9 | 25°20 | 18°43 | 15°52 | 9°24 | 8°10 | 3°54 | 1°41 | S 8 | |
| S 9 | 9 35 51 | 25°37'52 | 8♁58 | 11°24 | 29°35 | 20° 0 | 18° 0 | 26°16 | 25°19 | 18°44 | 15°54 | 9°20 | 8° 7 | 4° 1 | 1°43 | S 9 | |
| M10 | 9 39 47 | 26°38'04 | 23° 9 | 13° 0 | 0♁49 | 20°45 | 18° 7 | 26°23 | 25°18 | 18°46 | 15°56 | 9°D19 | 8° 3 | 4° 8 | 1°45 | M10 | |
| T 11 | 9 43 44 | 27°38'14 | 7♁10 | 14°32 | 2° 3 | 21°31 | 18°14 | 26°31 | 25°17 | 18°48 | 15°57 | 9°19 | 8° 0 | 4°14 | 1°47 | T 11 | |
| W12 | 9 47 40 | 28°38'21 | 20°59 | 15°59 | 3°17 | 22°17 | 18°21 | 26°38 | 25°16 | 18°49 | 15°59 | 9°20 | 7°57 | 4°21 | 1°50 | W12 | |
| T 13 | 9 51 37 | 29°38'27 | 4♁36 | 17°20 | 4°31 | 23° 3 | 18°28 | 26°45 | 25°15 | 18°51 | 16° 1 | 9°R21 | 7°54 | 4°28 | 1°52 | T 13 | |
| F 14 | 9 55 33 | 0♁38'30 | 18° 3 | 18°36 | 5°45 | 23°48 | 18°35 | 26°53 | 25°14 | 18°52 | 16° 3 | 9°21 | 7°51 | 4°34 | 1°54 | F 14 | |
| S 15 | 9 59 30 | 1°38'32 | 1♁18 | 19°46 | 6°59 | 24°34 | 18°42 | 27° 0 | 25°13 | 18°54 | 16° 4 | 9°19 | 7°47 | 4°41 | 1°56 | S 15 | |
| S 16 | 10 3 27 | 2°38'31 | 14°22 | 20°48 | 8°13 | 25°20 | 18°50 | 27° 7 | 25°12 | 18°56 | 16° 6 | 9°14 | 7°44 | 4°48 | 1°59 | S 16 | |
| M17 | 10 7 23 | 3°38'28 | 27°15 | 21°44 | 9°28 | 26° 5 | 18°57 | 27°15 | 25°11 | 18°57 | 16° 8 | 9° 7 | 7°41 | 4°54 | 2° 1 | M17 | |
| T 18 | 10 11 20 | 4°38'23 | 9♁16 | 22°31 | 10°42 | 26°51 | 19° 5 | 27°22 | 25°10 | 18°59 | 16° 9 | 8°57 | 7°38 | 5° 1 | 2° 4 | T 18 | |
| W19 | 10 15 16 | 5°38'16 | 22°25 | 23°10 | 11°56 | 27°36 | 19°13 | 27°29 | 25° 8 | 19° 1 | 16°11 | 8°47 | 7°35 | 5° 8 | 2° 6 | W19 | |
| T 20 | 10 19 13 | 6°38'07 | 4♁42 | 23°41 | 13°10 | 28°21 | 19°21 | 27°37 | 25° 7 | 19° 3 | 16°12 | 8°36 | 7°32 | 5°15 | 2° 9 | T 20 | |
| F 21 | 10 23 9 | 7°37'56 | 16°49 | 24° 3 | 14°24 | 29° 7 | 19°29 | 27°44 | 25° 6 | 19° 4 | 16°14 | 8°25 | 7°28 | 5°21 | 2°11 | F 21 | |
| S 22 | 10 27 6 | 8°37'44 | 28°47 | 24°17 | 15°38 | 29°52 | 19°38 | 27°51 | 25° 4 | 19° 6 | 16°16 | 8°17 | 7°25 | 5°28 | 2°14 | S 22 | |
| S 23 | 10 31 2 | 9°37'29 | 10♁39 | 24°R22 | 16°52 | 0♁37 | 19°46 | 27°59 | 25° 3 | 19° 8 | 16°17 | 8°10 | 7°22 | 5°35 | 2°17 | S 23 | |
| M24 | 10 34 59 | 10°37'13 | 22°30 | 24°18 | 18° 6 | 1°23 | 19°55 | 28° 6 | 25° 1 | 19°10 | 16°19 | 8° 6 | 7°19 | 5°41 | 2°20 | M24 | |
| T 25 | 10 38 56 | 11°36'55 | 4♁22 | 24° 6 | 19°20 | 2° 8 | 20° 4 | 28°13 | 24°59 | 19°12 | 16°20 | 8° 4 | 7°16 | 5°48 | 2°22 | T 25 | |
| W26 | 10 42 52 | 12°36'36 | 16°23 | 23°46 | 20°34 | 2°53 | 20°12 | 28°20 | 24°58 | 19°14 | 16°22 | 8°D 4 | 7°13 | 5°55 | 2°25 | W26 | |
| T 27 | 10 46 49 | 13°36'14 | 28°36 | 23°19 | 21°48 | 3°38 | 20°21 | 28°27 | 24°56 | 19°15 | 16°24 | 8° 4 | 7° 9 | 6° 2 | 2°28 | T 27 | |
| F 28 | 10 50 45 | 14°35'51 | 11♁ 8 | 22°46 | 23° 2 | 4°23 | 20°31 | 28°35 | 24°54 | 19°17 | 16°25 | 8°R 5 | 7° 6 | 6° 8 | 2°31 | F 28 | |
| S 29 | 10 54 42 | 15°35'26 | 24♁ 2 | 22♁ 6 | 24°16 | 5♁ 8 | 20♁40 | 28°42 | 24°53 | 19♁19 | 16°27 | 8♁ 3 | 7♁ 3 | 6♁15 | 2♁34 | S 29 | |

Delta T = 20m33s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1052
geocentric

MARCH 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|--------|-------|-------|------|------|------|------|---|---|---|---|---|---|---|-----|
| S 1 | 10 58 38 | 16♌34'59 | 7♋22 | 21°R22 | 25♋31 | 5♏53 | 20♌49 | 28♋49 | 24°R51 | 19♏21 | 16♋28 | 8°R 0 | 7♌0 | 6♎22 | 2♌37 | S 1 | | | | | | | | |
| M 2 | 11 2 35 | 17°34'31 | 21°10 | 20♌34 | 26°45 | 6°38 | 20°59 | 28°56 | 24♌49 | 19°23 | 16°30 | 7♌54 | 6°57 | 6°28 | 2°40 | M 2 | | | | | | | | |
| T 3 | 11 6 31 | 18°34'00 | 5♌24 | 19°43 | 27°59 | 7°23 | 21° 8 | 29° 3 | 24°47 | 19°25 | 16°31 | 7°46 | 6°53 | 6°35 | 2°43 | T 3 | | | | | | | | |
| W 4 | 11 10 28 | 19°33'27 | 19°59 | 18°50 | 29°13 | 8° 8 | 21°18 | 29°10 | 24°45 | 19°27 | 16°33 | 7°35 | 6°50 | 6°42 | 2°46 | W 4 | | | | | | | | |
| T 5 | 11 14 25 | 20°32'52 | 4♏49 | 17°57 | 0♌27 | 8°53 | 21°28 | 29°17 | 24°43 | 19°29 | 16°34 | 7°24 | 6°47 | 6°48 | 2°49 | T 5 | | | | | | | | |
| F 6 | 11 18 21 | 21°32'15 | 19°45 | 17° 5 | 1°41 | 9°37 | 21°38 | 29°24 | 24°41 | 19°31 | 16°36 | 7°14 | 6°44 | 6°55 | 2°52 | F 6 | | | | | | | | |
| S 7 | 11 22 18 | 22°31'36 | 4♌37 | 16°14 | 2°55 | 10°22 | 21°48 | 29°31 | 24°40 | 19°33 | 16°37 | 7° 5 | 6°41 | 7° 2 | 2°56 | S 7 | | | | | | | | |
| S 8 | 11 26 14 | 23°30'54 | 19°18 | 15°25 | 4° 9 | 11° 7 | 21°58 | 29°38 | 24°37 | 19°35 | 16°39 | 6°59 | 6°38 | 7° 9 | 2°59 | S 8 | | | | | | | | |
| M 9 | 11 30 11 | 24°30'10 | 3♌43 | 14°40 | 5°23 | 11°51 | 22° 8 | 29°45 | 24°35 | 19°38 | 16°40 | 6°55 | 6°34 | 7°15 | 3° 2 | M 9 | | | | | | | | |
| T 10 | 11 34 7 | 25°29'24 | 17°48 | 13°59 | 6°37 | 12°36 | 22°18 | 29°52 | 24°33 | 19°40 | 16°41 | 6°54 | 6°31 | 7°22 | 3° 5 | T 10 | | | | | | | | |
| W11 | 11 38 4 | 26°28'36 | 1♌34 | 13°22 | 7°51 | 13°20 | 22°29 | 29°59 | 24°31 | 19°42 | 16°43 | 6°54 | 6°28 | 7°29 | 3° 9 | W11 | | | | | | | | |
| T 12 | 11 42 0 | 27°27'45 | 15° 1 | 12°51 | 9° 5 | 14° 5 | 22°39 | 0♌6 | 24°29 | 19°44 | 16°44 | 6°54 | 6°25 | 7°35 | 3°12 | T 12 | | | | | | | | |
| F 13 | 11 45 57 | 28°26'51 | 28°12 | 12°24 | 10°19 | 14°49 | 22°50 | 0°13 | 24°27 | 19°46 | 16°46 | 6°52 | 6°22 | 7°42 | 3°15 | F 13 | | | | | | | | |
| S 14 | 11 49 53 | 29°25'56 | 11♌9 | 12° 3 | 11°33 | 15°34 | 23° 1 | 0°19 | 24°25 | 19°48 | 16°47 | 6°49 | 6°18 | 7°49 | 3°19 | S 14 | | | | | | | | |
| S 15 | 11 53 50 | 0♏24'58 | 23°53 | 11°48 | 12°47 | 16°18 | 23°12 | 0°26 | 24°22 | 19°50 | 16°48 | 6°42 | 6°15 | 7°56 | 3°22 | S 15 | | | | | | | | |
| M16 | 11 57 47 | 1°23'57 | 6♏27 | 11°38 | 14° 1 | 17° 2 | 23°23 | 0°33 | 24°20 | 19°52 | 16°50 | 6°33 | 6°12 | 8° 2 | 3°26 | M16 | | | | | | | | |
| T 17 | 12 1 43 | 2°22'55 | 18°52 | 11°D34 | 15°15 | 17°46 | 23°34 | 0°40 | 24°18 | 19°55 | 16°51 | 6°21 | 6° 9 | 8° 9 | 3°29 | T 17 | | | | | | | | |
| W18 | 12 5 40 | 3°21'50 | 1♌7 | 11°35 | 16°29 | 18°30 | 23°45 | 0°46 | 24°16 | 19°57 | 16°52 | 6° 7 | 6° 6 | 8°16 | 3°33 | W18 | | | | | | | | |
| T 19 | 12 9 36 | 4°20'43 | 13°15 | 11°42 | 17°43 | 19°15 | 23°56 | 0°53 | 24°13 | 19°59 | 16°53 | 5°53 | 6° 3 | 8°22 | 3°36 | T 19 | | | | | | | | |
| F 20 | 12 13 33 | 5°19'34 | 25°15 | 11°54 | 18°57 | 19°59 | 24° 7 | 0°59 | 24°11 | 20° 1 | 16°55 | 5°39 | 5°59 | 8°29 | 3°40 | F 20 | | | | | | | | |
| S 21 | 12 17 29 | 6°18'24 | 7♎9 | 12°10 | 20°11 | 20°43 | 24°19 | 1° 6 | 24° 9 | 20° 3 | 16°56 | 5°27 | 5°56 | 8°36 | 3°44 | S 21 | | | | | | | | |
| S 22 | 12 21 26 | 7°17'11 | 19° 0 | 12°32 | 21°25 | 21°26 | 24°30 | 1°12 | 24° 6 | 20° 6 | 16°57 | 5°18 | 5°53 | 8°42 | 3°47 | S 22 | | | | | | | | |
| M23 | 12 25 22 | 8°15'57 | 0♌49 | 12°58 | 22°39 | 22°10 | 24°42 | 1°19 | 24° 4 | 20° 8 | 16°58 | 5°12 | 5°50 | 8°49 | 3°51 | M23 | | | | | | | | |
| T 24 | 12 29 19 | 9°14'40 | 12°41 | 13°29 | 23°53 | 22°54 | 24°53 | 1°25 | 24° 1 | 20°10 | 16°59 | 5° 8 | 5°47 | 8°56 | 3°55 | T 24 | | | | | | | | |
| W25 | 12 33 16 | 10°13'22 | 24°41 | 14° 3 | 25° 6 | 23°38 | 25° 5 | 1°31 | 23°59 | 20°12 | 17° 1 | 5° 6 | 5°44 | 9° 3 | 3°58 | W25 | | | | | | | | |
| T 26 | 12 37 12 | 11°12'03 | 6♌52 | 14°42 | 26°20 | 24°22 | 25°17 | 1°38 | 23°56 | 20°14 | 17° 2 | 5° 6 | 5°40 | 9° 9 | 4° 2 | T 26 | | | | | | | | |
| F 27 | 12 41 9 | 12°10'41 | 19°20 | 15°24 | 27°34 | 25° 5 | 25°29 | 1°44 | 23°54 | 20°17 | 17° 3 | 5° 6 | 5°37 | 9°16 | 4° 6 | F 27 | | | | | | | | |
| S 28 | 12 45 5 | 13° 9'18 | 2♌11 | 16°10 | 28°48 | 25°49 | 25°40 | 1°50 | 23°52 | 20°19 | 17° 4 | 5° 5 | 5°34 | 9°23 | 4°10 | S 28 | | | | | | | | |
| S 29 | 12 49 2 | 14° 7'53 | 15°28 | 17° 0 | 0♏2 | 26°33 | 25°52 | 1°56 | 23°49 | 20°21 | 17° 5 | 5° 2 | 5°31 | 9°29 | 4°13 | S 29 | | | | | | | | |
| M30 | 12 52 58 | 15° 6'27 | 29°15 | 17°52 | 1°16 | 27°16 | 26° 4 | 2° 2 | 23°47 | 20°23 | 17° 6 | 4°56 | 5°28 | 9°36 | 4°17 | M30 | | | | | | | | |
| T 31 | 12 56 55 | 16° 4'58 | 13♌31 | 18♌48 | 2♏30 | 28° 0 | 26♌17 | 2° 8 | 23♌44 | 20° 26 | 17° 7 | 4♌48 | 5♌24 | 9♎43 | 4♌21 | T 31 | | | | | | | | |

Delta T = 20m33s Julian Calendar 1 March 1052 == Greg. Calendar 7 March 1052

APRIL 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|--------|-------|-------|--------|-------|------|--------|--------|--------|-------|------|-------|------|------|---|---|---|---|---|---|---|-----|
| W 1 | 13 0 51 | 17° 3'28 | 28♌13 | 19♌47 | 3♏44 | 28° 43 | 26♌29 | 2♌14 | 23°R42 | 20° 28 | 17° 8 | 4°R38 | 5♌21 | 9♎49 | 4♌25 | W 1 | | | | | | | | |
| T 2 | 13 4 48 | 18° 1'56 | 13° 16 | 20°49 | 4°58 | 29°27 | 26°41 | 2°20 | 23♌39 | 20°30 | 17° 9 | 4♌28 | 5°18 | 9°56 | 4°29 | T 2 | | | | | | | | |
| F 3 | 13 8 45 | 19° 0'22 | 28° 28 | 21°53 | 6°12 | 0♌10 | 26°53 | 2°26 | 23°36 | 20°33 | 17°10 | 4°17 | 5°15 | 10° 3 | 4°33 | F 3 | | | | | | | | |
| S 4 | 13 12 41 | 19°58'47 | 13♌40 | 23° 0 | 7°25 | 0°53 | 27° 6 | 2°32 | 23°34 | 20°35 | 17°11 | 4° 8 | 5°12 | 10° 9 | 4°37 | S 4 | | | | | | | | |
| S 5 | 13 16 38 | 20°57'09 | 28°40 | 24° 9 | 8°39 | 1°37 | 27°18 | 2°37 | 23°31 | 20°37 | 17°12 | 4° 2 | 5° 9 | 10°16 | 4°40 | S 5 | | | | | | | | |
| M 6 | 13 20 34 | 21°55'29 | 13♌22 | 25°21 | 9°53 | 2°20 | 27°31 | 2°43 | 23°29 | 20°39 | 17°13 | 3°58 | 5° 5 | 10°23 | 4°44 | M 6 | | | | | | | | |
| T 7 | 13 24 31 | 22°53'48 | 27°40 | 26°36 | 11° 7 | 3° 3 | 27°43 | 2°49 | 23°26 | 20°42 | 17°14 | 3°D57 | 5° 2 | 10°30 | 4°48 | T 7 | | | | | | | | |
| W 8 | 13 28 27 | 23°52'04 | 11♌34 | 27°52 | 12°21 | 3°46 | 27°56 | 2°54 | 23°24 | 20°44 | 17°14 | 3°57 | 4°59 | 10°36 | 4°52 | W 8 | | | | | | | | |
| T 9 | 13 32 24 | 24°50'18 | 25° 3 | 29°11 | 13°35 | 4°29 | 28° 9 | 3° 0 | 23°21 | 20°46 | 17°15 | 3°R57 | 4°56 | 10°43 | 4°56 | T 9 | | | | | | | | |
| F 10 | 13 36 20 | 25°48'30 | 8♌10 | 0♏32 | 14°49 | 5°12 | 28°21 | 3° 5 | 23°19 | 20°48 | 17°16 | 3°56 | 4°53 | 10°50 | 5° 0 | F 10 | | | | | | | | |
| S 11 | 13 40 17 | 26°46'39 | 20°59 | 1°55 | 16° 2 | 5°55 | 28°34 | 3°10 | 23°16 | 20°51 | 17°17 | 3°54 | 4°50 | 10°56 | 5° 4 | S 11 | | | | | | | | |
| S 12 | 13 44 14 | 27°44'47 | 3♏32 | 3°20 | 17°16 | 6°38 | 28°47 | 3°16 | 23°14 | 20°53 | 17°18 | 3°49 | 4°46 | 11° 3 | 5° 8 | S 12 | | | | | | | | |
| M13 | 13 48 10 | 28°42'53 | 15°54 | 4°48 | 18°30 | 7°21 | 29° 0 | 3°21 | 23°11 | 20°55 | 17°18 | 3°41 | 4°43 | 11°10 | 5°12 | M13 | | | | | | | | |
| T 14 | 13 52 7 | 29°40'56 | 28° 6 | 6°17 | 19°44 | 8° 4 | 29°13 | 3°26 | 23° 8 | 20°57 | 17°19 | 3°31 | 4°40 | 11°16 | 5°16 | T 14 | | | | | | | | |
| W15 | 13 56 3 | 0♌38'58 | 10♌10 | 7°48 | 20°58 | 8°46 | 29°26 | 3°31 | 23° 6 | 21° 0 | 17°20 | 3°20 | 4°37 | 11°23 | 5°20 | W15 | | | | | | | | |
| T 16 | 14 0 0 | 1°36'59 | 22° 8 | 9°22 | 22°11 | 9°29 | 29°39 | 3°36 | 23° 3 | 21° 2 | 17°20 | 3° 8 | 4°34 | 11°30 | 5°24 | T 16 | | | | | | | | |
| F 17 | 14 3 56 | 2°34'57 | 4♎3 | 10°57 | 23°25 | 10°12 | 29°52 | 3°41 | 23° 1 | 21° 4 | 17°21 | 2°57 | 4°30 | 11°37 | 5°28 | F 17 | | | | | | | | |
| S 18 | 14 7 53 | 3°32'54 | 15°54 | 12°34 | 24°39 | 10°54 | 0♏5 | 3°46 | 22°58 | 21° 6 | 17°22 | 2°48 | 4°27 | 11°43 | 5°32 | S 18 | | | | | | | | |
| S 19 | 14 11 49 | 4°30'49 | 27°44 | 14°14 | 25°53 | 11°37 | 0°18 | 3°51 | 22°56 | 21° 8 | 17°22 | 2°40 | 4°24 | 11°50 | 5°36 | S 19 | | | | | | | | |
| M20 | 14 15 46 | 5°28'43 | 9♌35 | 15°55 | 27° 6 | 12°19 | 0°31 | 3°56 | 22°54 | 21°11 | 17°23 | 2°35 | 4°21 | 11°57 | 5°40 | M20 | | | | | | | | |
| T 21 | 14 19 42 | 6°26'36 | 21°30 | 17°38 | 28°20 | 13° 2 | 0°44 | 4° 0 | 22°51 | 21°13 | 17°23 | 2°32 | 4°18 | 12° 3 | 5°44 | T 21 | | | | | | | | |
| W22 | 14 23 39 | 7°24'27 | 3♌31 | 19°23 | 29°34 | 13°44 | 0°58 | 4° 5 | 22°49 | 21°15 | 17°24 | 2°D31 | 4°15 | 12°10 | 5°48 | W22 | | | | | | | | |
| T 23 | 14 27 36 | 8°22'17 | 15°44 | 21°11 | 0♌48 | 14°27 | 1°11 | 4° 9 | 22°46 | 21°17 | 17°24 | 2°32 | 4°11 | 12°17 | 5°52 | T 23 | | | | | | | | |
| F 24 | 14 31 32 | 9°20'05 | 28°13 | 23° 0 | 2° 1 | 15° 9 | 1°24 | 4°14 | 22°44 | 21°19 | 17°25 | 2°33 | 4° 8 | 12°23 | 5°56 | F 24 | | | | | | | | |
| S 25 | 14 35 29 | 10°17'53 | 11♌1 | 24°51 | 3°15 | 15°51 | 1°38 | 4°18 | 22°41 | 21°22 | 17°25 | 2°R34 | 4° 5 | 12°30 | 6° 0 | S 25 | | | | | | | | |
| S 26 | 14 39 25 | 11°15'39 | 24°14 | 26°44 | 4°29 | 16°33 | 1°51 | 4°23 | 22°39 | 21°24 | 17°26 | 2°33 | 4° 2 | 12°37 | 6° 4 | S 26 | | | | | | | | |
| M27 | 14 43 22 | 12°13'24 | 7♌54 | 28°39 | 5°43 | 17°16 | 2° 4 | 4°27 | 22°37 | 21°26 | 17°26 | 2°30 | 3°59 | 12°43 | 6° 8 | M27 | | | | | | | | |
| T 28 | 14 47 18 | 13°11'08 | 22° 3 | 0♌36 | 6°56 | 17°58 | 2°18 | 4°31 | 22°34 | 21°28 | 17°26 | 2°25 | 3°55 | 12°50 | 6°12 | T 28 | | | | | | | | |
| W29 | 14 51 15 | 14° 8'50 | 6♏39 | 2°35 | 8°10 | 18°40 | 2°31 | 4°35 | 22°32 | 21°30 | 17°27 | 2°19 | 3°52 | 12°57 | 6°16 | W29 | | | | | | | | |
| T 30 | 14 55 11 | 15° 6'32 | 21° 37 | 4♌36 | 9♌24 | 19♌22 | 2♏45 | 4♌39 | 22°30 | 21° 32 | 17° 27 | 2♌12 | 3♌49 | 13♎4 | 6♌20 | T 30 | | | | | | | | |

Delta T = 20m33s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1052
geocentric

MAY 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|------|--------|--------|--------|-------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| F 1 | 14 59 8 | 16♁4'12 | 6♁49 | 6♁39 | 10♁37 | 20♁4 | 2♁58 | 4♁43 | 22°R27 | 21°V34 | 17°≈27 | 2°R 5 | 3♁46 | 13♁10 | 6♁24 | F 1 | | | | | | | | |
| S 2 | 15 3 5 | 17° 1'51 | 22° 5 | 8°43 | 11°51 | 20°46 | 3°12 | 4°47 | 22°≈25 | 21°36 | 17°28 | 2♁ 0 | 3°43 | 13°17 | 6°28 | S 2 | | | | | | | | |
| S 3 | 15 7 1 | 17°59'29 | 7♁14 | 10°49 | 13° 5 | 21°28 | 3°26 | 4°50 | 22°23 | 21°39 | 17°28 | 1°56 | 3°40 | 13°24 | 6°32 | S 3 | | | | | | | | |
| M 4 | 15 10 58 | 18°57'06 | 22° 8 | 12°56 | 14°19 | 22° 9 | 3°39 | 4°54 | 22°21 | 21°41 | 17°28 | 1°54 | 3°36 | 13°30 | 6°36 | M 4 | | | | | | | | |
| T 5 | 15 14 54 | 19°54'41 | 6♁38 | 15° 5 | 15°32 | 22°51 | 3°53 | 4°58 | 22°19 | 21°43 | 17°28 | 1°D53 | 3°33 | 13°37 | 6°39 | T 5 | | | | | | | | |
| W 6 | 15 18 51 | 20°52'15 | 20°42 | 17°15 | 16°46 | 23°33 | 4° 6 | 5° 1 | 22°16 | 21°45 | 17°29 | 1°54 | 3°30 | 13°44 | 6°43 | W 6 | | | | | | | | |
| T 7 | 15 22 47 | 21°49'47 | 4♁19 | 19°25 | 18° 0 | 24°15 | 4°20 | 5° 5 | 22°14 | 21°47 | 17°29 | 1°56 | 3°27 | 13°50 | 6°47 | T 7 | | | | | | | | |
| F 8 | 15 26 44 | 22°47'18 | 17°31 | 21°37 | 19°13 | 24°56 | 4°34 | 5° 8 | 22°12 | 21°49 | 17°29 | 1°R57 | 3°24 | 13°57 | 6°51 | F 8 | | | | | | | | |
| S 9 | 15 30 41 | 23°44'47 | 0♁21 | 23°48 | 20°27 | 25°38 | 4°48 | 5°11 | 22°10 | 21°51 | 17°29 | 1°56 | 3°21 | 14° 4 | 6°55 | S 9 | | | | | | | | |
| S 10 | 15 34 37 | 24°42'15 | 12°52 | 26° 0 | 21°41 | 26°20 | 5° 1 | 5°14 | 22° 8 | 21°53 | 17°29 | 1°55 | 3°17 | 14°10 | 6°59 | S 10 | | | | | | | | |
| M 11 | 15 38 34 | 25°39'42 | 25° 8 | 28°12 | 22°55 | 27° 1 | 5°15 | 5°17 | 22° 6 | 21°55 | 17°29 | 1°52 | 3°14 | 14°17 | 7° 3 | M 11 | | | | | | | | |
| T 12 | 15 42 30 | 26°37'07 | 7♁14 | 0♁23 | 24° 8 | 27°42 | 5°29 | 5°20 | 22° 4 | 21°57 | 17°R29 | 1°47 | 3°11 | 14°24 | 7° 7 | T 12 | | | | | | | | |
| W 13 | 15 46 27 | 27°34'31 | 19°11 | 2°34 | 25°22 | 28°24 | 5°42 | 5°23 | 22° 2 | 21°59 | 17°29 | 1°41 | 3° 8 | 14°31 | 7°10 | W 13 | | | | | | | | |
| T 14 | 15 50 23 | 28°31'54 | 1♁ 4 | 4°44 | 26°36 | 29° 5 | 5°56 | 5°26 | 22° 0 | 22° 0 | 17°29 | 1°35 | 3° 5 | 14°37 | 7°14 | T 14 | | | | | | | | |
| F 15 | 15 54 20 | 29°29'16 | 12°55 | 6°53 | 27°49 | 29°47 | 6°10 | 5°28 | 21°59 | 22° 2 | 17°29 | 1°30 | 3° 1 | 14°44 | 7°18 | F 15 | | | | | | | | |
| S 16 | 15 58 16 | 0♁26'37 | 24°46 | 9° 0 | 29° 3 | 0♁28 | 6°24 | 5°31 | 21°57 | 22° 4 | 17°29 | 1°25 | 2°58 | 14°51 | 7°22 | S 16 | | | | | | | | |
| S 17 | 16 2 13 | 1°23'58 | 6♁38 | 11° 5 | 0♁17 | 1° 9 | 6°38 | 5°34 | 21°55 | 22° 6 | 17°29 | 1°21 | 2°55 | 14°57 | 7°26 | S 17 | | | | | | | | |
| M 18 | 16 6 9 | 2°21'17 | 18°34 | 13° 9 | 1°30 | 1°50 | 6°51 | 5°36 | 21°53 | 22° 8 | 17°29 | 1°19 | 2°52 | 15° 4 | 7°29 | M 18 | | | | | | | | |
| T 19 | 16 10 6 | 3°18'36 | 0♁37 | 15°11 | 2°44 | 2°31 | 7° 5 | 5°38 | 21°52 | 22°10 | 17°28 | 1°D18 | 2°49 | 15°11 | 7°33 | T 19 | | | | | | | | |
| W 20 | 16 14 3 | 4°15'54 | 12°47 | 17°11 | 3°58 | 3°12 | 7°19 | 5°40 | 21°50 | 22°12 | 17°28 | 1°19 | 2°46 | 15°17 | 7°37 | W 20 | | | | | | | | |
| T 21 | 16 17 59 | 5°13'11 | 25° 8 | 19° 9 | 5°11 | 3°54 | 7°33 | 5°43 | 21°48 | 22°13 | 17°28 | 1°20 | 2°42 | 15°24 | 7°40 | T 21 | | | | | | | | |
| F 22 | 16 21 56 | 6°10'28 | 7≈44 | 21° 5 | 6°25 | 4°35 | 7°47 | 5°45 | 21°47 | 22°15 | 17°28 | 1°22 | 2°39 | 15°31 | 7°44 | F 22 | | | | | | | | |
| S 23 | 16 25 52 | 7° 7'44 | 20°36 | 22°58 | 7°39 | 5°16 | 8° 0 | 5°47 | 21°45 | 22°17 | 17°28 | 1°23 | 2°36 | 15°37 | 7°48 | S 23 | | | | | | | | |
| S 24 | 16 29 49 | 8° 5'00 | 3♁49 | 24°49 | 8°52 | 5°56 | 8°14 | 5°48 | 21°44 | 22°18 | 17°27 | 1°R24 | 2°33 | 15°44 | 7°51 | S 24 | | | | | | | | |
| M 25 | 16 33 45 | 9° 2'16 | 17°24 | 26°38 | 10° 6 | 6°37 | 8°28 | 5°50 | 21°42 | 22°20 | 17°27 | 1°24 | 2°30 | 15°51 | 7°55 | M 25 | | | | | | | | |
| T 26 | 16 37 42 | 9°59'31 | 1°Y23 | 28°24 | 11°20 | 7°18 | 8°42 | 5°52 | 21°41 | 22°22 | 17°27 | 1°23 | 2°27 | 15°58 | 7°58 | T 26 | | | | | | | | |
| W 27 | 16 41 39 | 10°56'46 | 15°46 | 0♁ 8 | 12°33 | 7°59 | 8°56 | 5°53 | 21°39 | 22°23 | 17°26 | 1°21 | 2°23 | 16° 4 | 8° 2 | W 27 | | | | | | | | |
| T 28 | 16 45 35 | 11°54'01 | 0♁29 | 1°50 | 13°47 | 8°40 | 9° 9 | 5°55 | 21°38 | 22°25 | 17°26 | 1°18 | 2°20 | 16°11 | 8° 5 | T 28 | | | | | | | | |
| F 29 | 16 49 32 | 12°51'15 | 15°26 | 3°29 | 15° 1 | 9°20 | 9°23 | 5°56 | 21°37 | 22°27 | 17°26 | 1°16 | 2°17 | 16°18 | 8° 9 | F 29 | | | | | | | | |
| S 30 | 16 53 28 | 13°48'30 | 0♁31 | 5° 5 | 16°15 | 10° 1 | 9°37 | 5°57 | 21°35 | 22°28 | 17°25 | 1°14 | 2°14 | 16°24 | 8°12 | S 30 | | | | | | | | |
| S 31 | 16 57 25 | 14♁45'43 | 15♁33 | 6♁39 | 17♁28 | 10♁42 | 9♁51 | 5♁58 | 21°≈34 | 22°V30 | 17°≈25 | 1°≈13 | 2°≈11 | 16♁31 | 8♁16 | S 31 | | | | | | | | |

Delta T = 20m32s Julian Calendar 1 May 1052 == Greg. Calendar 7 May 1052

JUNE 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|--------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 17 1 21 | 15♁42'57 | 0♁25 | 8♁11 | 18♁42 | 11♁22 | 10♁ 5 | 6♁ 0 | 21°R33 | 22°V31 | 17°R24 | 1°D12 | 2♁ 7 | 16♁38 | 8♁19 | M 1 | | | | | | | | |
| T 2 | 17 5 18 | 16°40'10 | 14°58 | 9°40 | 19°56 | 12° 3 | 10°18 | 6° 0 | 21°≈32 | 22°33 | 17°≈24 | 1°≈13 | 2° 4 | 16°44 | 8°22 | T 2 | | | | | | | | |
| W 3 | 17 9 14 | 17°37'23 | 29° 8 | 11° 6 | 21° 9 | 12°43 | 10°32 | 6° 1 | 21°31 | 22°34 | 17°23 | 1°14 | 2° 1 | 16°51 | 8°26 | W 3 | | | | | | | | |
| T 4 | 17 13 11 | 18°34'35 | 12♁52 | 12°30 | 22°23 | 13°24 | 10°46 | 6° 2 | 21°30 | 22°36 | 17°23 | 1°15 | 1°58 | 16°58 | 8°29 | T 4 | | | | | | | | |
| F 5 | 17 17 8 | 19°31'46 | 26°11 | 13°52 | 23°37 | 14° 4 | 11° 0 | 6° 3 | 21°29 | 22°37 | 17°22 | 1°16 | 1°55 | 17° 4 | 8°32 | F 5 | | | | | | | | |
| S 6 | 17 21 4 | 20°28'57 | 9♁ 5 | 15°10 | 24°51 | 14°45 | 11°13 | 6° 3 | 21°28 | 22°39 | 17°22 | 1°16 | 1°52 | 17°11 | 8°36 | S 6 | | | | | | | | |
| S 7 | 17 25 1 | 21°26'07 | 21°38 | 16°26 | 26° 4 | 15°25 | 11°27 | 6° 4 | 21°27 | 22°40 | 17°21 | 1°R16 | 1°48 | 17°18 | 8°39 | S 7 | | | | | | | | |
| M 8 | 17 28 57 | 22°23'17 | 3♁55 | 17°40 | 27°18 | 16° 5 | 11°41 | 6° 4 | 21°26 | 22°41 | 17°20 | 1°16 | 1°45 | 17°24 | 8°42 | M 8 | | | | | | | | |
| T 9 | 17 32 54 | 23°20'27 | 15°59 | 18°50 | 28°32 | 16°46 | 11°54 | 6° 4 | 21°26 | 22°43 | 17°20 | 1°16 | 1°42 | 17°31 | 8°45 | T 9 | | | | | | | | |
| W 10 | 17 36 50 | 24°17'36 | 27°54 | 19°58 | 29°45 | 17°26 | 12° 8 | 6° 4 | 21°25 | 22°44 | 17°19 | 1°15 | 1°39 | 17°38 | 8°48 | W 10 | | | | | | | | |
| T 11 | 17 40 47 | 25°14'45 | 9♁45 | 21° 3 | 0♁59 | 18° 6 | 12°22 | 6°R 4 | 21°24 | 22°45 | 17°18 | 1°14 | 1°36 | 17°44 | 8°51 | T 11 | | | | | | | | |
| F 12 | 17 44 43 | 26°11'53 | 21°35 | 22° 4 | 2°13 | 18°46 | 12°35 | 6° 4 | 21°24 | 22°47 | 17°18 | 1°13 | 1°33 | 17°51 | 8°54 | F 12 | | | | | | | | |
| S 13 | 17 48 40 | 27° 9'02 | 3♁28 | 23° 3 | 3°27 | 19°26 | 12°49 | 6° 4 | 21°23 | 22°48 | 17°17 | 1°13 | 1°29 | 17°58 | 8°57 | S 13 | | | | | | | | |
| S 14 | 17 52 37 | 28° 6'10 | 15°26 | 23°58 | 4°40 | 20° 6 | 13° 2 | 6° 4 | 21°22 | 22°49 | 17°16 | 1°12 | 1°26 | 18° 5 | 9° 0 | S 14 | | | | | | | | |
| M 15 | 17 56 33 | 29° 3'19 | 27°30 | 24°50 | 5°54 | 20°46 | 13°16 | 6° 4 | 21°22 | 22°50 | 17°15 | 1°D12 | 1°23 | 18°11 | 9° 3 | M 15 | | | | | | | | |
| T 16 | 18 0 30 | 0♁ 0'27 | 9♁45 | 25°39 | 7° 8 | 21°26 | 13°29 | 6° 3 | 21°22 | 22°51 | 17°15 | 1°12 | 1°20 | 18°18 | 9° 6 | T 16 | | | | | | | | |
| W 17 | 18 4 26 | 0°57'36 | 22° 9 | 26°24 | 8°21 | 22° 6 | 13°43 | 6° 3 | 21°21 | 22°52 | 17°14 | 1°R12 | 1°17 | 18°25 | 9° 9 | W 17 | | | | | | | | |
| T 18 | 18 8 23 | 1°54'45 | 4≈46 | 27° 5 | 9°35 | 22°46 | 13°56 | 6° 2 | 21°21 | 22°53 | 17°13 | 1°12 | 1°13 | 18°31 | 9°12 | T 18 | | | | | | | | |
| F 19 | 18 12 19 | 2°51'54 | 17°37 | 27°42 | 10°49 | 23°26 | 14°10 | 6° 1 | 21°21 | 22°54 | 17°12 | 1°12 | 1°10 | 18°38 | 9°14 | F 19 | | | | | | | | |
| S 20 | 18 16 16 | 3°49'04 | 0♁42 | 28°16 | 12° 3 | 24° 6 | 14°23 | 6° 0 | 21°20 | 22°55 | 17°11 | 1°12 | 1° 7 | 18°45 | 9°17 | S 20 | | | | | | | | |
| S 21 | 18 20 12 | 4°46'14 | 14° 4 | 28°45 | 13°16 | 24°46 | 14°36 | 5°59 | 21°20 | 22°56 | 17°11 | 1°12 | 1° 4 | 18°51 | 9°20 | S 21 | | | | | | | | |
| M 22 | 18 24 9 | 5°43'24 | 27°41 | 29°10 | 14°30 | 25°25 | 14°50 | 5°58 | 21°20 | 22°57 | 17°10 | 1°12 | 1° 1 | 18°58 | 9°22 | M 22 | | | | | | | | |
| T 23 | 18 28 6 | 6°40'35 | 11°Y36 | 29°31 | 15°44 | 26° 5 | 15° 3 | 5°57 | 21°20 | 22°58 | 17° 9 | 1°D12 | 0°58 | 19° 5 | 9°25 | T 23 | | | | | | | | |
| W 24 | 18 32 2 | 7°37'47 | 25°47 | 29°47 | 16°58 | 26°45 | 15°16 | 5°56 | 21°D20 | 22°59 | 17° 8 | 1°12 | 0°54 | 19°11 | 9°27 | W 24 | | | | | | | | |
| T 25 | 18 35 59 | 8°35'00 | 10♁12 | 29°59 | 18°12 | 27°24 | 15°29 | 5°55 | 21°20 | 23° 0 | 17° 7 | 1°12 | 0°51 | 19°18 | 9°30 | T 25 | | | | | | | | |
| F 26 | 18 39 55 | 9°32'13 | 24°48 | 0♁ 6 | 19°25 | 28° 4 | 15°43 | 5°53 | 21°20 | 23° 1 | 17° 6 | 1°13 | 0°48 | 19°25 | 9°32 | F 26 | | | | | | | | |
| S 27 | 18 43 52 | 10°29'27 | 9♁30 | 0°R 8 | 20°39 | 28°44 | 15°56 | 5°52 | 21°20 | 23° 2 | 17° 5 | 1°14 | 0°45 | 19°31 | 9°35 | S 27 | | | | | | | | |
| S 28 | 18 47 48 | 11°26'42 | 24°12 | 0° 5 | 21°53 | 29°23 | 16° 9 | 5°50 | 21°21 | 23° 2 | 17° 4 | 1°R14 | 0°42 | 19°38 | 9°37 | S 28 | | | | | | | | |
| M 29 | 18 51 45 | 12°23'57 | 8≈48 | 29≈58 | 23° 7 | 0♁ 3 | 16°22 | 5°48 | 21°21 | 23° 3 | 17° 3 | 1°14 | 0°39 | 19°45 | 9°39 | M 29 | | | | | | | | |
| T 30 | 18 55 41 | 13≈21'13 | 23≈11 | 29≈45 | 24≈20 | 0♁42 | 16≈35 | 5♁47 | 21≈21 | 23°V 4 | 17≈ 2 | 1°≈13 | 0°≈35 | 19♁51 | 9♁42 | T 30 | | | | | | | | |

Delta T = 20m32s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1052
geocentric

JULY 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|------|
| W 1 | 18 59 38 | 14♁18'29 | 7♁16 | 29°R28 | 25♁34 | 1♁22 | 16♁48 | 5°R45 | 21♁21 | 23♁5 | 17°R 1 | 1°R12 | 0♁32 | 19♁58 | 9♁44 | W 1 |
| T 2 | 19 3 35 | 15°15'46 | 21° 0 | 29♁ 6 | 26°48 | 2° 1 | 17° 1 | 5♁43 | 21°22 | 23° 5 | 17♁ 0 | 1♁11 | 0°29 | 20° 5 | 9°46 | T 2 |
| F 3 | 19 7 31 | 16°13'03 | 4♁20 | 28°40 | 28° 2 | 2°40 | 17°14 | 5°41 | 21°22 | 23° 6 | 16°59 | 1° 9 | 0°26 | 20°11 | 9°48 | F 3 |
| S 4 | 19 11 28 | 17°10'21 | 17°17 | 28° 9 | 29°16 | 3°20 | 17°26 | 5°38 | 21°23 | 23° 6 | 16°58 | 1° 7 | 0°23 | 20°18 | 9°50 | S 4 |
| S 5 | 19 15 24 | 18° 7'39 | 29°54 | 27°35 | 0♁29 | 3°59 | 17°39 | 5°36 | 21°23 | 23° 7 | 16°56 | 1° 5 | 0°19 | 20°25 | 9°52 | S 5 |
| M 6 | 19 19 21 | 19° 4'57 | 12♁12 | 26°58 | 1°43 | 4°38 | 17°52 | 5°34 | 21°24 | 23° 7 | 16°55 | 1° 4 | 0°16 | 20°31 | 9°54 | M 6 |
| T 7 | 19 23 17 | 20° 2'16 | 24°16 | 26°18 | 2°57 | 5°18 | 18° 4 | 5°31 | 21°25 | 23° 8 | 16°54 | 1°D 4 | 0°13 | 20°38 | 9°56 | T 7 |
| W 8 | 19 27 14 | 20°59'36 | 6♁12 | 25°35 | 4°11 | 5°57 | 18°17 | 5°29 | 21°25 | 23° 8 | 16°53 | 1° 5 | 0°10 | 20°45 | 9°58 | W 8 |
| T 9 | 19 31 10 | 21°56'56 | 18° 2 | 24°51 | 5°25 | 6°36 | 18°30 | 5°26 | 21°26 | 23° 9 | 16°52 | 1° 6 | 0° 7 | 20°52 | 10° 0 | T 9 |
| F 10 | 19 35 7 | 22°54'17 | 29°53 | 24° 7 | 6°38 | 7°15 | 18°42 | 5°23 | 21°27 | 23° 9 | 16°51 | 1° 8 | 0° 4 | 20°58 | 10° 2 | F 10 |
| S 11 | 19 39 4 | 23°51'38 | 11♁49 | 23°22 | 7°52 | 7°54 | 18°55 | 5°21 | 21°28 | 23°10 | 16°50 | 1° 9 | 0° 0 | 21° 5 | 10° 3 | S 11 |
| S 12 | 19 43 0 | 24°49'01 | 23°52 | 22°39 | 9° 6 | 8°33 | 19° 7 | 5°18 | 21°29 | 23°10 | 16°48 | 1°10 | 29♁57 | 21°12 | 10° 5 | S 12 |
| M13 | 19 46 57 | 25°46'24 | 6♁ 7 | 21°57 | 10°20 | 9°12 | 19°19 | 5°15 | 21°30 | 23°10 | 16°47 | 1°R10 | 29°54 | 21°18 | 10° 7 | M13 |
| T 14 | 19 50 53 | 26°43'48 | 18°35 | 21°18 | 11°34 | 9°51 | 19°32 | 5°12 | 21°31 | 23°10 | 16°46 | 1° 9 | 29°51 | 21°25 | 10° 8 | T 14 |
| W15 | 19 54 50 | 27°41'12 | 1♁18 | 20°42 | 12°47 | 10°30 | 19°44 | 5° 9 | 21°32 | 23°11 | 16°45 | 1° 7 | 29°48 | 21°32 | 10°10 | W15 |
| T 16 | 19 58 46 | 28°38'38 | 14°16 | 20° 9 | 14° 1 | 11° 9 | 19°56 | 5° 6 | 21°33 | 23°11 | 16°44 | 1° 4 | 29°45 | 21°38 | 10°11 | T 16 |
| F 17 | 20 2 43 | 29°36'05 | 27°29 | 19°42 | 15°15 | 11°48 | 20° 8 | 5° 2 | 21°34 | 23°11 | 16°42 | 0°59 | 29°41 | 21°45 | 10°13 | F 17 |
| S 18 | 20 6 40 | 0♁33'33 | 10♁56 | 19°20 | 16°29 | 12°27 | 20°20 | 4°59 | 21°35 | 23°11 | 16°41 | 0°55 | 29°38 | 21°52 | 10°14 | S 18 |
| S 19 | 20 10 36 | 1°31'03 | 24°35 | 19° 4 | 17°42 | 13° 6 | 20°32 | 4°56 | 21°37 | 23°11 | 16°40 | 0°51 | 29°35 | 21°58 | 10°15 | S 19 |
| M20 | 20 14 33 | 2°28'34 | 8♁25 | 18°53 | 18°56 | 13°44 | 20°44 | 4°52 | 21°38 | 23°11 | 16°39 | 0°48 | 29°32 | 22° 5 | 10°16 | M20 |
| T 21 | 20 18 29 | 3°26'06 | 22°25 | 18°D50 | 20°10 | 14°23 | 20°56 | 4°49 | 21°39 | 23°R11 | 16°37 | 0°46 | 29°29 | 22°12 | 10°18 | T 21 |
| W22 | 20 22 26 | 4°23'40 | 6♁31 | 18°53 | 21°24 | 15° 2 | 21° 7 | 4°45 | 21°41 | 23°11 | 16°36 | 0°D45 | 29°25 | 22°18 | 10°19 | W22 |
| T 23 | 20 26 22 | 5°21'15 | 20°43 | 19° 3 | 22°38 | 15°41 | 21°19 | 4°41 | 21°42 | 23°11 | 16°35 | 0°46 | 29°22 | 22°25 | 10°20 | T 23 |
| F 24 | 20 30 19 | 6°18'52 | 5♁ 0 | 19°20 | 23°51 | 16°19 | 21°30 | 4°38 | 21°44 | 23°11 | 16°34 | 0°47 | 29°19 | 22°32 | 10°21 | F 24 |
| S 25 | 20 34 15 | 7°16'30 | 19°17 | 19°45 | 25° 5 | 16°58 | 21°42 | 4°34 | 21°45 | 23°11 | 16°32 | 0°49 | 29°16 | 22°38 | 10°22 | S 25 |
| S 26 | 20 38 12 | 8°14'11 | 3♁34 | 20°16 | 26°19 | 17°37 | 21°53 | 4°30 | 21°47 | 23°11 | 16°31 | 0°R49 | 29°13 | 22°45 | 10°23 | S 26 |
| M27 | 20 42 9 | 9°11'52 | 17°45 | 20°55 | 27°33 | 18°15 | 22° 5 | 4°26 | 21°49 | 23°11 | 16°30 | 0°48 | 29°10 | 22°52 | 10°23 | M27 |
| T 28 | 20 46 5 | 10° 9'35 | 1♁47 | 21°41 | 28°46 | 18°54 | 22°16 | 4°22 | 21°50 | 23°10 | 16°29 | 0°45 | 29° 6 | 22°58 | 10°24 | T 28 |
| W29 | 20 50 2 | 11° 7'20 | 15°37 | 22°33 | 0♁ 0 | 19°32 | 22°27 | 4°18 | 21°52 | 23°10 | 16°27 | 0°40 | 29° 3 | 23° 5 | 10°25 | W29 |
| T 30 | 20 53 58 | 12° 5'06 | 29° 9 | 23°32 | 1°14 | 20°11 | 22°38 | 4°14 | 21°54 | 23°10 | 16°26 | 0°34 | 29° 0 | 23°12 | 10°25 | T 30 |
| F 31 | 20 57 55 | 13♁ 2'53 | 12♁23 | 24♁38 | 2♁28 | 20♁49 | 22♁49 | 4♁10 | 21♁56 | 23♁10 | 16♁25 | 0♁27 | 28♁57 | 23♁18 | 10♁26 | F 31 |

Delta T = 20m32s Julian Calendar 1 July 1052 == Greg. Calendar 7 July 1052

AUGUST 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|--------|------|
| S 1 | 21 1 51 | 14♁ 0'41 | 25♁18 | 25♁50 | 3♁42 | 21♁28 | 23♁ 0 | 4°R 6 | 21♁58 | 23°R 9 | 16°R23 | 0°R20 | 28♁54 | 23♁25 | 10♁27 | S 1 |
| S 2 | 21 5 48 | 14°58'31 | 7♁53 | 27° 8 | 4°55 | 22° 6 | 23°11 | 4♁ 2 | 22° 0 | 23♁ 9 | 16♁22 | 0♁13 | 28°51 | 23°32 | 10°27 | S 2 |
| M 3 | 21 9 44 | 15°56'22 | 20°11 | 28°31 | 6° 9 | 22°45 | 23°22 | 3°57 | 22° 2 | 23° 9 | 16°21 | 0° 8 | 28°47 | 23°38 | 10°27 | M 3 |
| T 4 | 21 13 41 | 16°54'14 | 2♁15 | 29°59 | 7°23 | 23°23 | 23°32 | 3°53 | 22° 4 | 23° 8 | 16°19 | 0° 5 | 28°44 | 23°45 | 10°28 | T 4 |
| W 5 | 21 17 38 | 17°52'08 | 14°10 | 1♁32 | 8°36 | 24° 1 | 23°43 | 3°49 | 22° 6 | 23° 8 | 16°18 | 0°D 4 | 28°41 | 23°52 | 10°28 | W 5 |
| T 6 | 21 21 34 | 18°50'03 | 26° 0 | 3°10 | 9°50 | 24°40 | 23°53 | 3°45 | 22° 8 | 23° 7 | 16°17 | 0° 4 | 28°38 | 23°58 | 10°28 | T 6 |
| F 7 | 21 25 31 | 19°47'59 | 7♁51 | 4°51 | 11° 4 | 25°18 | 24° 4 | 3°40 | 22°10 | 23° 7 | 16°15 | 0° 5 | 28°35 | 24° 5 | 10°28 | F 7 |
| S 8 | 21 29 27 | 20°45'57 | 19°48 | 6°36 | 12°18 | 25°56 | 24°14 | 3°36 | 22°12 | 23° 6 | 16°14 | 0° 6 | 28°31 | 24°12 | 10°29 | S 8 |
| S 9 | 21 33 24 | 21°43'56 | 1♁55 | 8°23 | 13°31 | 26°34 | 24°24 | 3°31 | 22°15 | 23° 5 | 16°13 | 0°R 7 | 28°28 | 24°18 | 10°R29 | S 9 |
| M10 | 21 37 20 | 22°41'56 | 14°17 | 10°13 | 14°45 | 27°12 | 24°34 | 3°27 | 22°17 | 23° 5 | 16°12 | 0° 6 | 28°25 | 24°25 | 10°29 | M10 |
| T 11 | 21 41 17 | 23°39'58 | 26°57 | 12° 5 | 15°59 | 27°51 | 24°44 | 3°22 | 22°19 | 23° 4 | 16°10 | 0° 2 | 28°22 | 24°32 | 10°29 | T 11 |
| W12 | 21 45 13 | 24°38'02 | 9♁57 | 13°59 | 17°12 | 28°29 | 24°54 | 3°18 | 22°22 | 23° 4 | 16° 9 | 29♁57 | 28°19 | 24°38 | 10°28 | W12 |
| T 13 | 21 49 10 | 25°36'07 | 23°17 | 15°54 | 18°26 | 29° 7 | 25° 4 | 3°13 | 22°24 | 23° 3 | 16° 8 | 29°50 | 28°16 | 24°45 | 10°28 | T 13 |
| F 14 | 21 53 7 | 26°34'14 | 6♁55 | 17°49 | 19°40 | 29°45 | 25°13 | 3° 9 | 22°27 | 23° 2 | 16° 6 | 29°41 | 28°12 | 24°52 | 10°28 | F 14 |
| S 15 | 21 57 3 | 27°32'23 | 20°48 | 19°46 | 20°53 | 0♁23 | 25°23 | 3° 4 | 22°29 | 23° 1 | 16° 5 | 29°31 | 28° 9 | 24°58 | 10°28 | S 15 |
| S 16 | 22 1 0 | 28°30'33 | 4♁53 | 21°42 | 22° 7 | 1° 1 | 25°32 | 3° 0 | 22°32 | 23° 1 | 16° 4 | 29°22 | 28° 6 | 25° 5 | 10°27 | S 16 |
| M17 | 22 4 56 | 29°28'46 | 19° 5 | 23°38 | 23°20 | 1°39 | 25°41 | 2°55 | 22°34 | 23° 0 | 16° 3 | 29°15 | 28° 3 | 25°12 | 10°27 | M17 |
| T 18 | 22 8 53 | 0♁27'01 | 3♁19 | 25°35 | 24°34 | 2°17 | 25°51 | 2°50 | 22°37 | 22°59 | 16° 1 | 29°10 | 28° 0 | 25°18 | 10°26 | T 18 |
| W19 | 22 12 49 | 1°25'17 | 17°32 | 27°31 | 25°48 | 2°55 | 26° 0 | 2°46 | 22°39 | 22°58 | 16° 0 | 29° 7 | 27°56 | 25°25 | 10°26 | W19 |
| T 20 | 22 16 46 | 2°23'36 | 1♁42 | 29°26 | 27° 1 | 3°33 | 26° 9 | 2°41 | 22°42 | 22°57 | 15°59 | 29°D 6 | 27°53 | 25°32 | 10°25 | T 20 |
| F 21 | 22 20 42 | 3°21'57 | 15°48 | 1♁20 | 28°15 | 4°10 | 26°17 | 2°36 | 22°45 | 22°56 | 15°58 | 29° 6 | 27°50 | 25°38 | 10°25 | F 21 |
| S 22 | 22 24 39 | 4°20'21 | 29°47 | 3°14 | 29°28 | 4°48 | 26°26 | 2°32 | 22°48 | 22°55 | 15°56 | 29°R 7 | 27°47 | 25°45 | 10°24 | S 22 |
| S 23 | 22 28 35 | 5°18'47 | 13♁40 | 5° 7 | 0♁42 | 5°26 | 26°35 | 2°27 | 22°50 | 22°54 | 15°55 | 29° 6 | 27°44 | 25°52 | 10°23 | S 23 |
| M24 | 22 32 32 | 6°17'14 | 27°26 | 6°59 | 1°55 | 6° 4 | 26°43 | 2°23 | 22°53 | 22°53 | 15°54 | 29° 3 | 27°41 | 25°58 | 10°22 | M24 |
| T 25 | 22 36 29 | 7°15'44 | 11♁ 3 | 8°51 | 3° 9 | 6°42 | 26°51 | 2°18 | 22°56 | 22°52 | 15°53 | 28°57 | 27°37 | 26° 5 | 10°21 | T 25 |
| W26 | 22 40 25 | 8°14'16 | 24°30 | 10°41 | 4°22 | 7°19 | 27° 0 | 2°13 | 22°59 | 22°51 | 15°52 | 28°49 | 27°34 | 26°12 | 10°20 | W26 |
| T 27 | 22 44 22 | 9°12'50 | 7♁44 | 12°30 | 5°36 | 7°57 | 27° 8 | 2° 9 | 23° 2 | 22°50 | 15°50 | 28°38 | 27°31 | 26°18 | 10°19 | T 27 |
| F 28 | 22 48 18 | 10°11'25 | 20°43 | 14°18 | 6°49 | 8°35 | 27°16 | 2° 4 | 23° 5 | 22°49 | 15°49 | 28°26 | 27°28 | 26°25 | 10°18 | F 28 |
| S 29 | 22 52 15 | 11°10'03 | 3♁27 | 16° 5 | 8° 3 | 9°12 | 27°23 | 2° 0 | 23° 8 | 22°48 | 15°48 | 28°13 | 27°25 | 26°32 | 10°17 | S 29 |
| S 30 | 22 56 11 | 12° 8'43 | 15°56 | 17°51 | 9°16 | 9°50 | 27°31 | 1°55 | 23°11 | 22°46 | 15°47 | 28° 2 | 27°22 | 26°38 | 10°16 | S 30 |
| M31 | 23 0 8 | 13♁ 7'24 | 28♁ 9 | 19♁36 | 10♁30 | 10♁28 | 27♁39 | 1♁51 | 23♁14 | 22♁45 | 15♁46 | 27♁52 | 27♁18 | 26♁45 | 10♁15 | M31 |

Delta T = 20m31s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1052
geocentric

SEPTEMBER 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|--------|-------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|--------|------|-----|
| T 1 | 23 4 4 | 14♍ 6'07 | 10♌11 | 21♍20 | 11♌43 | 11♌5 | 27♍46 | 1°R46 | 23♌17 | 22°R44 | 15°R45 | 27°R45 | 27♍15 | 26♌52 | 10°R13 | T 1 | |
| W 2 | 23 8 1 | 15° 4'52 | 22° 4 | 23° 3 | 12°57 | 11°43 | 27°53 | 1♁42 | 23°20 | 22°Y43 | 15°A44 | 27♍41 | 27°12 | 26°58 | 10♌12 | W 2 | |
| T 3 | 23 11 58 | 16° 3'39 | 3♊53 | 24°45 | 14°10 | 12°20 | 28° 0 | 1°37 | 23°23 | 22°42 | 15°43 | 27°39 | 27° 9 | 27° 5 | 10°11 | T 3 | |
| F 4 | 23 15 54 | 17° 2'28 | 15°42 | 26°26 | 15°23 | 12°58 | 28° 7 | 1°33 | 23°27 | 22°40 | 15°41 | 27°D38 | 27° 6 | 27°12 | 10° 9 | F 4 | |
| S 5 | 23 19 51 | 18° 1'18 | 27°38 | 28° 6 | 16°37 | 13°35 | 28°14 | 1°29 | 23°30 | 22°39 | 15°40 | 27°R38 | 27° 2 | 27°18 | 10° 8 | S 5 | |
| S 6 | 23 23 47 | 19° 0'10 | 9♄45 | 29°46 | 17°50 | 14°12 | 28°20 | 1°24 | 23°33 | 22°38 | 15°39 | 27°38 | 26°59 | 27°25 | 10° 6 | S 6 | |
| M 7 | 23 27 44 | 19°59'04 | 22° 9 | 1♌24 | 19° 3 | 14°50 | 28°27 | 1°20 | 23°36 | 22°36 | 15°38 | 27°36 | 26°56 | 27°32 | 10° 4 | M 7 | |
| T 8 | 23 31 40 | 20°58'00 | 4♌54 | 3° 1 | 20°17 | 15°27 | 28°33 | 1°16 | 23°40 | 22°35 | 15°37 | 27°31 | 26°53 | 27°38 | 10° 3 | T 8 | |
| W 9 | 23 35 37 | 21°56'58 | 18° 4 | 4°38 | 21°30 | 16° 4 | 28°39 | 1°12 | 23°43 | 22°34 | 15°36 | 27°24 | 26°50 | 27°45 | 10° 1 | W 9 | |
| T 10 | 23 39 33 | 22°55'58 | 1♁38 | 6°13 | 22°43 | 16°42 | 28°45 | 1° 8 | 23°46 | 22°32 | 15°35 | 27°15 | 26°47 | 27°52 | 9°59 | T 10 | |
| F 11 | 23 43 30 | 23°54'59 | 15°37 | 7°48 | 23°56 | 17°19 | 28°51 | 1° 4 | 23°50 | 22°31 | 15°34 | 27° 4 | 26°43 | 27°58 | 9°57 | F 11 | |
| S 12 | 23 47 27 | 24°54'02 | 29°55 | 9°22 | 25°10 | 17°56 | 28°57 | 1° 0 | 23°53 | 22°29 | 15°33 | 26°52 | 26°40 | 28° 5 | 9°56 | S 12 | |
| S 13 | 23 51 23 | 25°53'08 | 14°Y27 | 10°55 | 26°23 | 18°33 | 29° 2 | 0°56 | 23°56 | 22°28 | 15°32 | 26°40 | 26°37 | 28°12 | 9°54 | S 13 | |
| M14 | 23 55 20 | 26°52'16 | 29° 5 | 12°27 | 27°36 | 19°11 | 29° 8 | 0°52 | 24° 0 | 22°26 | 15°31 | 26°30 | 26°34 | 28°18 | 9°52 | M14 | |
| T 15 | 23 59 16 | 27°51'26 | 13♁43 | 13°58 | 28°49 | 19°48 | 29°13 | 0°48 | 24° 3 | 22°25 | 15°31 | 26°23 | 26°31 | 28°25 | 9°50 | T 15 | |
| W16 | 0 3 13 | 28°50'38 | 28°14 | 15°29 | 0♌2 | 20°25 | 29°18 | 0°44 | 24° 7 | 22°23 | 15°30 | 26°19 | 26°28 | 28°32 | 9°48 | W16 | |
| T 17 | 0 7 9 | 29°49'53 | 12♍34 | 16°59 | 1°16 | 21° 2 | 29°23 | 0°40 | 24°10 | 22°22 | 15°29 | 26°17 | 26°24 | 28°38 | 9°46 | T 17 | |
| F 18 | 0 11 6 | 0♌49'11 | 26°40 | 18°28 | 2°29 | 21°39 | 29°28 | 0°37 | 24°14 | 22°20 | 15°28 | 26°17 | 26°21 | 28°45 | 9°43 | F 18 | |
| S 19 | 0 15 2 | 1°48'30 | 10♄33 | 19°56 | 3°42 | 22°16 | 29°32 | 0°33 | 24°17 | 22°19 | 15°27 | 26°17 | 26°18 | 28°52 | 9°41 | S 19 | |
| S 20 | 0 18 59 | 2°47'52 | 24°13 | 21°23 | 4°55 | 22°53 | 29°36 | 0°29 | 24°21 | 22°17 | 15°26 | 26°16 | 26°15 | 28°58 | 9°39 | S 20 | |
| M21 | 0 22 56 | 3°47'17 | 7♌40 | 22°50 | 6° 8 | 23°30 | 29°41 | 0°26 | 24°24 | 22°16 | 15°26 | 26°12 | 26°12 | 29° 5 | 9°37 | M21 | |
| T 22 | 0 26 52 | 4°46'44 | 20°55 | 24°15 | 7°21 | 24° 7 | 29°45 | 0°23 | 24°28 | 22°14 | 15°25 | 26° 6 | 26° 8 | 29°12 | 9°34 | T 22 | |
| W23 | 0 30 49 | 5°46'13 | 3♍59 | 25°40 | 8°34 | 24°44 | 29°48 | 0°19 | 24°31 | 22°12 | 15°24 | 25°57 | 26° 5 | 29°18 | 9°32 | W23 | |
| T 24 | 0 34 45 | 6°45'44 | 16°51 | 27° 4 | 9°47 | 25°21 | 29°52 | 0°16 | 24°35 | 22°11 | 15°23 | 25°45 | 26° 2 | 29°25 | 9°30 | T 24 | |
| F 25 | 0 38 42 | 7°45'17 | 29°32 | 28°27 | 11° 0 | 25°58 | 29°55 | 0°13 | 24°39 | 22° 9 | 15°23 | 25°32 | 25°59 | 29°32 | 9°27 | F 25 | |
| S 26 | 0 42 38 | 8°44'53 | 12♌1 | 29°49 | 12°13 | 26°34 | 29°59 | 0°10 | 24°42 | 22° 8 | 15°22 | 25°18 | 25°56 | 29°38 | 9°25 | S 26 | |
| S 27 | 0 46 35 | 9°44'30 | 24°18 | 1♌10 | 13°26 | 27°11 | 0♄2 | 0° 7 | 24°46 | 22° 6 | 15°21 | 25° 5 | 25°53 | 29°45 | 9°22 | S 27 | |
| M28 | 0 50 31 | 10°44'10 | 6♌25 | 2°30 | 14°39 | 27°48 | 0° 5 | 0° 4 | 24°50 | 22° 4 | 15°21 | 24°54 | 25°49 | 29°52 | 9°19 | M28 | |
| T 29 | 0 54 28 | 11°43'51 | 18°21 | 3°48 | 15°52 | 28°25 | 0° 7 | 0° 1 | 24°53 | 22° 3 | 15°20 | 24°46 | 25°46 | 29°58 | 9°17 | T 29 | |
| W30 | 0 58 24 | 12°43'34 | 0♊11 | 5♌6 | 17♌4 | 29°01 | 0♄10 | 29°58 | 24°57 | 22°Y1 | 15°A19 | 24♍41 | 25♍43 | 0♊5 | 9♌14 | W30 | |

Delta T = 20m31s Julian Calendar 1 Sept. 1052 == Greg. Calendar 7 Sept. 1052

OCTOBER 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|---------|----------|-------|--------|-------|--------|-------|--------|-------|--------|--------|--------|-------|------|-------|------|-----|
| T 1 | 1 2 21 | 13♌43'20 | 11♊58 | 6♌22 | 18♌17 | 29°R38 | 0♄12 | 29°R55 | 25♌1 | 21°R59 | 15°R19 | 24°R38 | 25♍40 | 0♊12 | 9°R12 | T 1 | |
| F 2 | 1 6 18 | 14°43'07 | 23°45 | 7°37 | 19°30 | 0♍15 | 0°14 | 29°53 | 25° 4 | 21°Y58 | 15°A18 | 24°D37 | 25°37 | 0°18 | 9♌9 | F 2 | |
| S 3 | 1 10 14 | 15°42'56 | 5♄39 | 8°50 | 20°43 | 0°51 | 0°16 | 29°50 | 25° 8 | 21°56 | 15°18 | 24♍38 | 25°33 | 0°25 | 9° 6 | S 3 | |
| S 4 | 1 14 11 | 16°42'46 | 17°43 | 10° 1 | 21°56 | 1°28 | 0°18 | 29°48 | 25°12 | 21°54 | 15°17 | 24°R38 | 25°30 | 0°32 | 9° 3 | S 4 | |
| M 5 | 1 18 7 | 17°42'39 | 0♌4 | 11°11 | 23° 8 | 2° 4 | 0°19 | 29°46 | 25°16 | 21°53 | 15°17 | 24°37 | 25°27 | 0°38 | 9° 1 | M 5 | |
| T 6 | 1 22 4 | 18°42'33 | 12°48 | 12°19 | 24°21 | 2°41 | 0°21 | 29°43 | 25°19 | 21°51 | 15°16 | 24°34 | 25°24 | 0°45 | 8°58 | T 6 | |
| W 7 | 1 26 0 | 19°42'28 | 25°57 | 13°24 | 25°34 | 3°17 | 0°22 | 29°41 | 25°23 | 21°49 | 15°16 | 24°29 | 25°21 | 0°52 | 8°55 | W 7 | |
| T 8 | 1 29 57 | 20°42'26 | 9♁35 | 14°27 | 26°46 | 3°53 | 0°23 | 29°39 | 25°27 | 21°48 | 15°16 | 24°22 | 25°18 | 0°58 | 8°52 | T 8 | |
| F 9 | 1 33 53 | 21°42'25 | 23°41 | 15°27 | 27°59 | 4°30 | 0°23 | 29°37 | 25°31 | 21°46 | 15°15 | 24°13 | 25°14 | 1° 5 | 8°49 | F 9 | |
| S 10 | 1 37 50 | 22°42'26 | 8°Y12 | 16°25 | 29°11 | 5° 6 | 0°24 | 29°35 | 25°34 | 21°44 | 15°15 | 24° 3 | 25°11 | 1°12 | 8°46 | S 10 | |
| S 11 | 1 41 47 | 23°42'29 | 23° 2 | 17°18 | 0♊24 | 5°42 | 0°24 | 29°34 | 25°38 | 21°43 | 15°14 | 23°53 | 25° 8 | 1°18 | 8°43 | S 11 | |
| M12 | 1 45 43 | 24°42'33 | 8♁3 | 18° 8 | 1°36 | 6°19 | 0°R24 | 29°32 | 25°42 | 21°41 | 15°14 | 23°45 | 25° 5 | 1°25 | 8°41 | M12 | |
| T 13 | 1 49 40 | 25°42'40 | 23° 5 | 18°54 | 2°49 | 6°55 | 0°24 | 29°30 | 25°46 | 21°39 | 15°14 | 23°39 | 25° 2 | 1°31 | 8°38 | T 13 | |
| W14 | 1 53 36 | 26°42'49 | 7♍59 | 19°36 | 4° 1 | 7°31 | 0°24 | 29°29 | 25°49 | 21°38 | 15°14 | 23°36 | 24°59 | 1°38 | 8°35 | W14 | |
| T 15 | 1 57 33 | 27°43'00 | 22°39 | 20°12 | 5°14 | 8° 7 | 0°24 | 29°28 | 25°53 | 21°36 | 15°13 | 23°D35 | 24°55 | 1°45 | 8°32 | T 15 | |
| F 16 | 2 1 29 | 28°43'13 | 6♄59 | 20°42 | 6°26 | 8°43 | 0°23 | 29°26 | 25°57 | 21°34 | 15°13 | 23°35 | 24°52 | 1°51 | 8°29 | F 16 | |
| S 17 | 2 5 26 | 29°43'28 | 20°58 | 21° 6 | 7°38 | 9°19 | 0°22 | 29°25 | 26° 1 | 21°33 | 15°13 | 23°36 | 24°49 | 1°58 | 8°26 | S 17 | |
| S 18 | 2 9 22 | 0♌43'45 | 4♌37 | 21°22 | 8°50 | 9°55 | 0°21 | 29°24 | 26° 4 | 21°31 | 15°13 | 23°R37 | 24°46 | 2° 5 | 8°23 | S 18 | |
| M19 | 2 13 19 | 1°44'04 | 17°56 | 21°31 | 10° 3 | 10°31 | 0°20 | 29°23 | 26° 8 | 21°29 | 15°13 | 23°35 | 24°43 | 2°11 | 8°20 | M19 | |
| T 20 | 2 17 16 | 2°44'25 | 0♍59 | 21°R32 | 11°15 | 11° 7 | 0°18 | 29°22 | 26°12 | 21°28 | 15°13 | 23°32 | 24°39 | 2°18 | 8°17 | T 20 | |
| W21 | 2 21 12 | 3°44'49 | 13°47 | 21°23 | 12°27 | 11°43 | 0°17 | 29°22 | 26°16 | 21°26 | 15°13 | 23°26 | 24°36 | 2°25 | 8°13 | W21 | |
| T 22 | 2 25 9 | 4°45'14 | 26°21 | 21° 5 | 13°39 | 12°19 | 0°15 | 29°21 | 26°19 | 21°24 | 15°12 | 23°18 | 24°33 | 2°31 | 8°10 | T 22 | |
| F 23 | 2 29 5 | 5°45'41 | 8♌45 | 20°37 | 14°51 | 12°55 | 0°13 | 29°20 | 26°23 | 21°23 | 15°D12 | 23° 9 | 24°30 | 2°38 | 8° 7 | F 23 | |
| S 24 | 2 33 2 | 6°46'10 | 20°59 | 19°59 | 16° 3 | 13°31 | 0°11 | 29°20 | 26°27 | 21°21 | 15°12 | 23° 0 | 24°27 | 2°45 | 8° 4 | S 24 | |
| S 25 | 2 36 58 | 7°46'40 | 3♌4 | 19°11 | 17°15 | 14° 6 | 0° 8 | 29°20 | 26°30 | 21°19 | 15°12 | 22°51 | 24°24 | 2°51 | 8° 1 | S 25 | |
| M26 | 2 40 55 | 8°47'12 | 15° 1 | 18°13 | 18°27 | 14°42 | 0° 6 | 29°19 | 26°34 | 21°18 | 15°13 | 22°44 | 24°20 | 2°58 | 7°58 | M26 | |
| T 27 | 2 44 51 | 9°47'46 | 26°53 | 17° 6 | 19°39 | 15°18 | 0° 3 | 29°19 | 26°38 | 21°16 | 15°13 | 22°38 | 24°17 | 3° 5 | 7°55 | T 27 | |
| W28 | 2 48 48 | 10°48'22 | 8♊40 | 15°53 | 20°50 | 15°53 | 29♍59 | 29°D19 | 26°41 | 21°15 | 15°13 | 22°35 | 24°14 | 3°11 | 7°52 | W28 | |
| T 29 | 2 52 45 | 11°48'58 | 20°26 | 14°35 | 22° 2 | 16°29 | 29°56 | 29°19 | 26°45 | 21°13 | 15°13 | 22°D34 | 24°11 | 3°18 | 7°49 | T 29 | |
| F 30 | 2 56 41 | 12°49'37 | 2♄14 | 13°14 | 23°14 | 17° 4 | 29°53 | 29°20 | 26°49 | 21°12 | 15°13 | 22°34 | 24° 8 | 3°25 | 7°46 | F 30 | |
| S 31 | 3 0 38 | 13♌50'16 | 14♄8 | 11♌53 | 24♊26 | 17♍40 | 29♍49 | 29°520 | 26°52 | 21°Y10 | 15°A13 | 22♍36 | 24♍5 | 3♊31 | 7♄43 | S 31 | |

Delta T = 20m31s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1052
geocentric

NOVEMBER 1052 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|---|---|---|---|---|---|---|---|---|---|---|---|--|--|------|-----|
| S 1 | 3 4 34 | 14 ^h 50 ^m 57 ^s | 26 ^h 31 ^m 11 ^s | 10 ^h R34 | 25 ^h 37 ^m 37 ^s | 18 ^h 15 ^m 15 ^s | 29 ^h R46 | 29 ^h 20 ^m 20 ^s | 26 ^h 56 ^m 56 ^s | 21 ^h R 8 | 15 ^h 33 ^m 13 ^s | 22 ^h 37 ^m 37 ^s | 24 ^h 11 ^m 11 ^s | 3 ^h 38 ^m 38 ^s | 7 ^h R40 | S 1 | |
| M 2 | 3 8 31 | 15 ^h 51 ^m 39 ^s | 8 ^h 30 ^m 30 ^s | 9 ^h M.21 | 26 ^h 49 ^m 49 ^s | 18 ^h 50 ^m 50 ^s | 29 ^h II42 | 29 ^h 21 ^m 21 ^s | 27 ^h 0 ^m 0 ^s | 21 ^h Y 7 | 15 ^h 14 ^m 14 ^s | 22 ^h 39 ^m 39 ^s | 23 ^h 58 ^m 58 ^s | 3 ^h 45 ^m 45 ^s | 7 ^h 37 ^m 37 ^s | M 2 | |
| T 3 | 3 12 27 | 16 ^h 52 ^m 27 ^s | 21 ^h 8 ^m 8 ^s | 8 ^h 15 ^m 15 ^s | 28 ^h 0 ^m 0 ^s | 19 ^h 26 ^m 26 ^s | 29 ^h 37 ^m 37 ^s | 29 ^h 21 ^m 21 ^s | 27 ^h 3 ^m 3 ^s | 21 ^h 5 ^m 5 ^s | 15 ^h 14 ^m 14 ^s | 22 ^h R39 | 23 ^h 55 ^m 55 ^s | 3 ^h 51 ^m 51 ^s | 7 ^h 34 ^m 34 ^s | T 3 | |
| W 4 | 3 16 24 | 17 ^h 53 ^m 06 ^s | 4 ^h 11 ^m 11 ^s | 7 ^h 19 ^m 19 ^s | 29 ^h 11 ^m 11 ^s | 20 ^h 1 ^m 1 ^s | 29 ^h 33 ^m 33 ^s | 29 ^h 22 ^m 22 ^s | 27 ^h 7 ^m 7 ^s | 21 ^h 4 ^m 4 ^s | 15 ^h 14 ^m 14 ^s | 22 ^h 37 ^m 37 ^s | 23 ^h 52 ^m 52 ^s | 3 ^h 58 ^m 58 ^s | 7 ^h 31 ^m 31 ^s | W 4 | |
| T 5 | 3 20 20 | 18 ^h 53 ^m 51 ^s | 17 ^h 41 ^m 41 ^s | 6 ^h 33 ^m 33 ^s | 0 ^h 23 ^m 23 ^s | 20 ^h 36 ^m 36 ^s | 29 ^h 29 ^m 29 ^s | 29 ^h 23 ^m 23 ^s | 27 ^h 10 ^m 10 ^s | 21 ^h 3 ^m 3 ^s | 15 ^h 15 ^m 15 ^s | 22 ^h 35 ^m 35 ^s | 23 ^h 49 ^m 49 ^s | 4 ^h 5 ^m 5 ^s | 7 ^h 28 ^m 28 ^s | T 5 | |
| F 6 | 3 24 17 | 19 ^h 54 ^m 37 ^s | 1 ^h Y40 | 5 ^h 59 ^m 59 ^s | 1 ^h 34 ^m 34 ^s | 21 ^h 11 ^m 11 ^s | 29 ^h 24 ^m 24 ^s | 29 ^h 24 ^m 24 ^s | 27 ^h 14 ^m 14 ^s | 21 ^h 1 ^m 1 ^s | 15 ^h 15 ^m 15 ^s | 22 ^h 31 ^m 31 ^s | 23 ^h 45 ^m 45 ^s | 4 ^h 11 ^m 11 ^s | 7 ^h 25 ^m 25 ^s | F 6 | |
| S 7 | 3 28 14 | 20 ^h 55 ^m 25 ^s | 16 ^h 8 ^m 8 ^s | 5 ^h 37 ^m 37 ^s | 2 ^h 45 ^m 45 ^s | 21 ^h 46 ^m 46 ^s | 29 ^h 19 ^m 19 ^s | 29 ^h 25 ^m 25 ^s | 27 ^h 18 ^m 18 ^s | 21 ^h 0 ^m 0 ^s | 15 ^h 15 ^m 15 ^s | 22 ^h 26 ^m 26 ^s | 23 ^h 42 ^m 42 ^s | 4 ^h 18 ^m 18 ^s | 7 ^h 22 ^m 22 ^s | S 7 | |
| S 8 | 3 32 10 | 21 ^h 56 ^m 13 ^s | 0 ^h 8 ^m 8 ^s | 5 ^h 25 ^m 25 ^s | 3 ^h 56 ^m 56 ^s | 22 ^h 21 ^m 21 ^s | 29 ^h 14 ^m 14 ^s | 29 ^h 26 ^m 26 ^s | 27 ^h 21 ^m 21 ^s | 20 ^h 58 ^m 58 ^s | 15 ^h 16 ^m 16 ^s | 22 ^h 21 ^m 21 ^s | 23 ^h 39 ^m 39 ^s | 4 ^h 25 ^m 25 ^s | 7 ^h 19 ^m 19 ^s | S 8 | |
| M 9 | 3 36 7 | 22 ^h 57 ^m 02 ^s | 16 ^h 8 ^m 8 ^s | 5 ^h D25 | 5 ^h 7 ^m 7 ^s | 22 ^h 56 ^m 56 ^s | 29 ^h 9 ^m 9 ^s | 29 ^h 28 ^m 28 ^s | 27 ^h 25 ^m 25 ^s | 20 ^h 57 ^m 57 ^s | 15 ^h 16 ^m 16 ^s | 22 ^h 17 ^m 17 ^s | 23 ^h 36 ^m 36 ^s | 4 ^h 31 ^m 31 ^s | 7 ^h 16 ^m 16 ^s | M 9 | |
| T 10 | 3 40 3 | 23 ^h 57 ^m 53 ^s | 1 ^h II23 | 5 ^h 36 ^m 36 ^s | 6 ^h 18 ^m 18 ^s | 23 ^h 31 ^m 31 ^s | 29 ^h 3 ^m 3 ^s | 29 ^h 29 ^m 29 ^s | 27 ^h 28 ^m 28 ^s | 20 ^h 56 ^m 56 ^s | 15 ^h 17 ^m 17 ^s | 22 ^h 14 ^m 14 ^s | 23 ^h 33 ^m 33 ^s | 4 ^h 38 ^m 38 ^s | 7 ^h 13 ^m 13 ^s | T 10 | |
| W11 | 3 44 0 | 24 ^h 58 ^m 45 ^s | 16 ^h 34 ^m 34 ^s | 5 ^h 55 ^m 55 ^s | 7 ^h 29 ^m 29 ^s | 24 ^h 6 ^m 6 ^s | 28 ^h 58 ^m 58 ^s | 29 ^h 30 ^m 30 ^s | 27 ^h 31 ^m 31 ^s | 20 ^h 54 ^m 54 ^s | 15 ^h 17 ^m 17 ^s | 22 ^h D13 | 23 ^h 30 ^m 30 ^s | 4 ^h 44 ^m 44 ^s | 7 ^h 10 ^m 10 ^s | W11 | |
| T 12 | 3 47 56 | 25 ^h 59 ^m 39 ^s | 1 ^h III34 | 6 ^h 24 ^m 24 ^s | 8 ^h 39 ^m 39 ^s | 24 ^h 41 ^m 41 ^s | 28 ^h 52 ^m 52 ^s | 29 ^h 32 ^m 32 ^s | 27 ^h 35 ^m 35 ^s | 20 ^h 53 ^m 53 ^s | 15 ^h 18 ^m 18 ^s | 22 ^h 13 ^m 13 ^s | 23 ^h 26 ^m 26 ^s | 4 ^h 51 ^m 51 ^s | 7 ^h 7 ^m 7 ^s | T 12 | |
| F 13 | 3 51 53 | 27 ^h 0 ^m 3 ^s | 16 ^h 13 ^m 13 ^s | 7 ^h 0 ^m 0 ^s | 9 ^h 50 ^m 50 ^s | 25 ^h 16 ^m 16 ^s | 28 ^h 46 ^m 46 ^s | 29 ^h 34 ^m 34 ^s | 27 ^h 38 ^m 38 ^s | 20 ^h 52 ^m 52 ^s | 15 ^h 18 ^m 18 ^s | 22 ^h 14 ^m 14 ^s | 23 ^h 23 ^m 23 ^s | 4 ^h 58 ^m 58 ^s | 7 ^h 4 ^m 4 ^s | F 13 | |
| S 14 | 3 55 49 | 28 ^h 0 ^m 12 ^s | 0 ^h II28 | 7 ^h 44 ^m 44 ^s | 11 ^h 0 ^m 0 ^s | 25 ^h 50 ^m 50 ^s | 28 ^h 40 ^m 40 ^s | 29 ^h 36 ^m 36 ^s | 27 ^h 42 ^m 42 ^s | 20 ^h 50 ^m 50 ^s | 15 ^h 19 ^m 19 ^s | 22 ^h 16 ^m 16 ^s | 23 ^h 20 ^m 20 ^s | 5 ^h 4 ^m 4 ^s | 7 ^h 1 ^m 1 ^s | S 14 | |
| S 15 | 3 59 46 | 29 ^h 0 ^m 27 ^s | 14 ^h 17 ^m 17 ^s | 8 ^h 33 ^m 33 ^s | 12 ^h 11 ^m 11 ^s | 26 ^h 25 ^m 25 ^s | 28 ^h 34 ^m 34 ^s | 29 ^h 37 ^m 37 ^s | 27 ^h 45 ^m 45 ^s | 20 ^h 49 ^m 49 ^s | 15 ^h 19 ^m 19 ^s | 22 ^h 17 ^m 17 ^s | 23 ^h 17 ^m 17 ^s | 5 ^h 11 ^m 11 ^s | 6 ^h 59 ^m 59 ^s | S 15 | |
| M16 | 4 3 43 | 0 ^h 3 ^m 3 ^s | 27 ^h 42 ^m 42 ^s | 9 ^h 29 ^m 29 ^s | 13 ^h 21 ^m 21 ^s | 26 ^h 59 ^m 59 ^s | 28 ^h 28 ^m 28 ^s | 29 ^h 39 ^m 39 ^s | 27 ^h 48 ^m 48 ^s | 20 ^h 48 ^m 48 ^s | 15 ^h 20 ^m 20 ^s | 22 ^h R18 | 23 ^h 14 ^m 14 ^s | 5 ^h 18 ^m 18 ^s | 6 ^h 56 ^m 56 ^s | M16 | |
| T 17 | 4 7 39 | 1 ^h 4 ^m 4 ^s | 10 ^h 43 ^m 43 ^s | 10 ^h 28 ^m 28 ^s | 14 ^h 31 ^m 31 ^s | 27 ^h 34 ^m 34 ^s | 28 ^h 22 ^m 22 ^s | 29 ^h 42 ^m 42 ^s | 27 ^h 52 ^m 52 ^s | 20 ^h 47 ^m 47 ^s | 15 ^h 20 ^m 20 ^s | 22 ^h 18 ^m 18 ^s | 23 ^h 11 ^m 11 ^s | 5 ^h 24 ^m 24 ^s | 6 ^h 53 ^m 53 ^s | T 17 | |
| W18 | 4 11 36 | 2 ^h 5 ^m 5 ^s | 2 ^h 25 ^m 25 ^s | 11 ^h 32 ^m 32 ^s | 15 ^h 41 ^m 41 ^s | 28 ^h 8 ^m 8 ^s | 28 ^h 15 ^m 15 ^s | 29 ^h 44 ^m 44 ^s | 27 ^h 55 ^m 55 ^s | 20 ^h 45 ^m 45 ^s | 15 ^h 21 ^m 21 ^s | 22 ^h 16 ^m 16 ^s | 23 ^h 7 ^m 7 ^s | 5 ^h 31 ^m 31 ^s | 6 ^h 50 ^m 50 ^s | W18 | |
| T 19 | 4 15 32 | 3 ^h 6 ^m 6 ^s | 5 ^h 25 ^m 25 ^s | 12 ^h 40 ^m 40 ^s | 16 ^h 51 ^m 51 ^s | 28 ^h 43 ^m 43 ^s | 28 ^h 8 ^m 8 ^s | 29 ^h 46 ^m 46 ^s | 27 ^h 58 ^m 58 ^s | 20 ^h 44 ^m 44 ^s | 15 ^h 22 ^m 22 ^s | 22 ^h 14 ^m 14 ^s | 23 ^h 4 ^m 4 ^s | 5 ^h 38 ^m 38 ^s | 6 ^h 48 ^m 48 ^s | T 19 | |
| F 20 | 4 19 29 | 4 ^h 7 ^m 7 ^s | 18 ^h 2 ^m 2 ^s | 13 ^h 50 ^m 50 ^s | 18 ^h 1 ^m 1 ^s | 29 ^h 17 ^m 17 ^s | 28 ^h 2 ^m 2 ^s | 29 ^h 48 ^m 48 ^s | 28 ^h 1 ^m 1 ^s | 20 ^h 43 ^m 43 ^s | 15 ^h 23 ^m 23 ^s | 22 ^h 11 ^m 11 ^s | 23 ^h 1 ^m 1 ^s | 5 ^h 44 ^m 44 ^s | 6 ^h 45 ^m 45 ^s | F 20 | |
| S 21 | 4 23 25 | 5 ^h 8 ^m 8 ^s | 0 ^h III4 | 15 ^h 4 ^m 4 ^s | 19 ^h 11 ^m 11 ^s | 29 ^h 51 ^m 51 ^s | 27 ^h 55 ^m 55 ^s | 29 ^h 51 ^m 51 ^s | 28 ^h 5 ^m 5 ^s | 20 ^h 42 ^m 42 ^s | 15 ^h 23 ^m 23 ^s | 22 ^h 8 ^m 8 ^s | 22 ^h 58 ^m 58 ^s | 5 ^h 51 ^m 51 ^s | 6 ^h 42 ^m 42 ^s | S 21 | |
| S 22 | 4 27 22 | 6 ^h 9 ^m 9 ^s | 11 ^h 59 ^m 59 ^s | 16 ^h 20 ^m 20 ^s | 20 ^h 21 ^m 21 ^s | 0 ^h 26 ^m 26 ^s | 27 ^h 48 ^m 48 ^s | 29 ^h 54 ^m 54 ^s | 28 ^h 8 ^m 8 ^s | 20 ^h 41 ^m 41 ^s | 15 ^h 24 ^m 24 ^s | 22 ^h 6 ^m 6 ^s | 22 ^h 55 ^m 55 ^s | 5 ^h 58 ^m 58 ^s | 6 ^h 40 ^m 40 ^s | S 22 | |
| M23 | 4 31 18 | 7 ^h 10 ^m 17 ^s | 23 ^h 50 ^m 50 ^s | 17 ^h 37 ^m 37 ^s | 21 ^h 30 ^m 30 ^s | 1 ^h 0 ^m 0 ^s | 27 ^h 40 ^m 40 ^s | 29 ^h 56 ^m 56 ^s | 28 ^h 11 ^m 11 ^s | 20 ^h 40 ^m 40 ^s | 15 ^h 25 ^m 25 ^s | 22 ^h 3 ^m 3 ^s | 22 ^h 51 ^m 51 ^s | 6 ^h 4 ^m 4 ^s | 6 ^h 37 ^m 37 ^s | M23 | |
| T 24 | 4 35 15 | 8 ^h 11 ^m 54 ^s | 5 ^h 38 ^m 38 ^s | 18 ^h 57 ^m 57 ^s | 22 ^h 40 ^m 40 ^s | 1 ^h 34 ^m 34 ^s | 27 ^h 33 ^m 33 ^s | 29 ^h 59 ^m 59 ^s | 28 ^h 14 ^m 14 ^s | 20 ^h 39 ^m 39 ^s | 15 ^h 26 ^m 26 ^s | 22 ^h 2 ^m 2 ^s | 22 ^h 48 ^m 48 ^s | 6 ^h 11 ^m 11 ^s | 6 ^h 35 ^m 35 ^s | T 24 | |
| W25 | 4 39 12 | 9 ^h 13 ^m 02 ^s | 17 ^h 25 ^m 25 ^s | 20 ^h 18 ^m 18 ^s | 23 ^h 49 ^m 49 ^s | 2 ^h 8 ^m 8 ^s | 27 ^h 26 ^m 26 ^s | 0 ^h 2 ^m 2 ^s | 28 ^h 17 ^m 17 ^s | 20 ^h 38 ^m 38 ^s | 15 ^h 26 ^m 26 ^s | 22 ^h D 1 | 22 ^h 45 ^m 45 ^s | 6 ^h 18 ^m 18 ^s | 6 ^h 32 ^m 32 ^s | W25 | |
| T 26 | 4 43 8 | 10 ^h 14 ^m 10 ^s | 29 ^h 14 ^m 14 ^s | 21 ^h 40 ^m 40 ^s | 24 ^h 58 ^m 58 ^s | 2 ^h 42 ^m 42 ^s | 27 ^h 18 ^m 18 ^s | 0 ^h 5 ^m 5 ^s | 28 ^h 20 ^m 20 ^s | 20 ^h 37 ^m 37 ^s | 15 ^h 27 ^m 27 ^s | 22 ^h 1 ^m 1 ^s | 22 ^h 42 ^m 42 ^s | 6 ^h 24 ^m 24 ^s | 6 ^h 30 ^m 30 ^s | T 26 | |
| F 27 | 4 47 5 | 11 ^h 15 ^m 19 ^s | 11 ^h 3 ^m 3 ^s | 23 ^h 4 ^m 4 ^s | 26 ^h 7 ^m 7 ^s | 3 ^h 15 ^m 15 ^s | 27 ^h 11 ^m 11 ^s | 0 ^h 8 ^m 8 ^s | 28 ^h 23 ^m 23 ^s | 20 ^h 36 ^m 36 ^s | 15 ^h 28 ^m 28 ^s | 22 ^h 2 ^m 2 ^s | 22 ^h 39 ^m 39 ^s | 6 ^h 31 ^m 31 ^s | 6 ^h 27 ^m 27 ^s | F 27 | |
| S 28 | 4 51 1 | 12 ^h 16 ^m 28 ^s | 23 ^h 7 ^m 7 ^s | 24 ^h 29 ^m 29 ^s | 27 ^h 16 ^m 16 ^s | 3 ^h 49 ^m 49 ^s | 27 ^h 3 ^m 3 ^s | 0 ^h 11 ^m 11 ^s | 28 ^h 26 ^m 26 ^s | 20 ^h 35 ^m 35 ^s | 15 ^h 29 ^m 29 ^s | 22 ^h 3 ^m 3 ^s | 22 ^h 36 ^m 36 ^s | 6 ^h 38 ^m 38 ^s | 6 ^h 25 ^m 25 ^s | S 28 | |
| S 29 | 4 54 58 | 13 ^h 17 ^m 38 ^s | 5 ^h 16 ^m 16 ^s | 25 ^h 54 ^m 54 ^s | 28 ^h 25 ^m 25 ^s | 4 ^h 23 ^m 23 ^s | 26 ^h 56 ^m 56 ^s | 0 ^h 15 ^m 15 ^s | 28 | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1053
geocentric

JANUARY 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|------|-------|-------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 7 5 4 | 16♁56'23 | 20♃5 | 17♁19 | 3♂58 | 21♁59 | 22°R39 | 2♂50 | 29♁43 | 20♃23 | 16♁11 | 21°D49 | 20♂48 | 10♁24 | 5°R35 | F 1 | | | | | | | | |
| S 2 | 7 9 1 | 17°57'27 | 4♁1 | 19° 0 | 4°56 | 22°29 | 22♂32 | 2°56 | 29°45 | 20°23 | 16°13 | 21♂49 | 20°44 | 10°30 | 5♁35 | S 2 | | | | | | | | |
| S 3 | 7 12 57 | 18°58'30 | 18°17 | 20°42 | 5°55 | 22°59 | 22°25 | 3° 2 | 29°46 | 20°24 | 16°15 | 21°51 | 20°41 | 10°37 | 5°35 | S 3 | | | | | | | | |
| M 4 | 7 16 54 | 19°59'31 | 2♂50 | 22°25 | 6°52 | 23°28 | 22°19 | 3° 8 | 29°47 | 20°24 | 16°16 | 21°52 | 20°38 | 10°44 | 5°34 | M 4 | | | | | | | | |
| T 5 | 7 20 50 | 21° 0'32 | 17°36 | 24° 8 | 7°49 | 23°58 | 22°13 | 3°15 | 29°49 | 20°24 | 16°18 | 21°R53 | 20°35 | 10°50 | 5°34 | T 5 | | | | | | | | |
| W 6 | 7 24 47 | 22° 1'32 | 2♁30 | 25°51 | 8°46 | 24°27 | 22° 7 | 3°21 | 29°50 | 20°25 | 16°19 | 21°53 | 20°32 | 10°57 | 5°34 | W 6 | | | | | | | | |
| T 7 | 7 28 44 | 23° 2'31 | 17°24 | 27°36 | 9°42 | 24°56 | 22° 1 | 3°27 | 29°51 | 20°25 | 16°21 | 21°51 | 20°28 | 11° 4 | 5°34 | T 7 | | | | | | | | |
| F 8 | 7 32 40 | 24° 3'28 | 2♂11 | 29°20 | 10°37 | 25°25 | 21°55 | 3°33 | 29°52 | 20°26 | 16°22 | 21°48 | 20°25 | 11°10 | 5°D34 | F 8 | | | | | | | | |
| S 9 | 7 36 37 | 25° 4'25 | 16°42 | 1♁ 5 | 11°32 | 25°54 | 21°49 | 3°40 | 29°53 | 20°26 | 16°24 | 21°43 | 20°22 | 11°17 | 5°34 | S 9 | | | | | | | | |
| S 10 | 7 40 33 | 26° 5'20 | 0♂51 | 2°51 | 12°26 | 26°22 | 21°43 | 3°46 | 29°54 | 20°27 | 16°26 | 21°37 | 20°19 | 11°24 | 5°34 | S 10 | | | | | | | | |
| M 11 | 7 44 30 | 27° 6'15 | 14°34 | 4°37 | 13°19 | 26°51 | 21°38 | 3°52 | 29°55 | 20°27 | 16°27 | 21°32 | 20°16 | 11°30 | 5°34 | M 11 | | | | | | | | |
| T 12 | 7 48 26 | 28° 7'09 | 27°51 | 6°23 | 14°11 | 27°19 | 21°33 | 3°59 | 29°56 | 20°28 | 16°29 | 21°27 | 20°13 | 11°37 | 5°34 | T 12 | | | | | | | | |
| W 13 | 7 52 23 | 29° 8'02 | 10♁42 | 8° 9 | 15° 3 | 27°47 | 21°28 | 4° 5 | 29°57 | 20°28 | 16°31 | 21°23 | 20° 9 | 11°43 | 5°34 | W 13 | | | | | | | | |
| T 14 | 7 56 19 | 0♁ 8'54 | 23°11 | 9°56 | 15°54 | 28°15 | 21°23 | 4°12 | 29°58 | 20°29 | 16°32 | 21°22 | 20° 6 | 11°50 | 5°35 | T 14 | | | | | | | | |
| F 15 | 8 0 16 | 1° 9'45 | 5♂21 | 11°42 | 16°45 | 28°43 | 21°18 | 4°19 | 29°59 | 20°30 | 16°34 | 21°D21 | 20° 3 | 11°57 | 5°35 | F 15 | | | | | | | | |
| S 16 | 8 4 13 | 2°10'35 | 17°18 | 13°28 | 17°34 | 29°10 | 21°13 | 4°25 | 29°59 | 20°31 | 16°35 | 21°22 | 20° 0 | 12° 3 | 5°36 | S 16 | | | | | | | | |
| S 17 | 8 8 9 | 3°11'24 | 29° 7 | 15°14 | 18°23 | 29°38 | 21° 9 | 4°32 | 29°59 | 20°31 | 16°37 | 21°24 | 19°57 | 12°10 | 5°36 | S 17 | | | | | | | | |
| M 18 | 8 12 6 | 4°12'12 | 10♁53 | 16°59 | 19°11 | 0♂ 5 | 21° 5 | 4°39 | 0♂ 1 | 20°32 | 16°39 | 21°26 | 19°54 | 12°17 | 5°37 | M 18 | | | | | | | | |
| T 19 | 8 16 2 | 5°12'59 | 22°42 | 18°42 | 19°57 | 0°32 | 21° 1 | 4°45 | 0° 1 | 20°33 | 16°40 | 21°R26 | 19°50 | 12°23 | 5°37 | T 19 | | | | | | | | |
| W 20 | 8 19 59 | 6°13'45 | 4♁36 | 20°25 | 20°43 | 0°58 | 20°57 | 4°52 | 0° 2 | 20°34 | 16°42 | 21°25 | 19°47 | 12°30 | 5°38 | W 20 | | | | | | | | |
| T 21 | 8 23 55 | 7°14'30 | 16°39 | 22° 5 | 21°28 | 1°25 | 20°53 | 4°59 | 0° 2 | 20°35 | 16°44 | 21°22 | 19°44 | 12°37 | 5°39 | T 21 | | | | | | | | |
| F 22 | 8 27 52 | 8°15'13 | 28°54 | 23°44 | 22°12 | 1°51 | 20°50 | 5° 6 | 0° 2 | 20°36 | 16°46 | 21°16 | 19°41 | 12°43 | 5°40 | F 22 | | | | | | | | |
| S 23 | 8 31 49 | 9°15'55 | 11♁22 | 25°20 | 22°55 | 2°17 | 20°46 | 5°13 | 0° 3 | 20°37 | 16°47 | 21° 9 | 19°38 | 12°50 | 5°40 | S 23 | | | | | | | | |
| S 24 | 8 35 45 | 10°16'35 | 24° 3 | 26°52 | 23°36 | 2°42 | 20°43 | 5°20 | 0° 3 | 20°38 | 16°49 | 21° 0 | 19°34 | 12°57 | 5°41 | S 24 | | | | | | | | |
| M 25 | 8 39 42 | 11°17'14 | 6♂58 | 28°21 | 24°17 | 3° 8 | 20°40 | 5°27 | 0° 3 | 20°39 | 16°51 | 20°51 | 19°31 | 13° 3 | 5°42 | M 25 | | | | | | | | |
| T 26 | 8 43 38 | 12°17'51 | 20° 6 | 29°45 | 24°56 | 3°33 | 20°58 | 5°34 | 0° 3 | 20°40 | 16°52 | 20°41 | 19°28 | 13°10 | 5°44 | T 26 | | | | | | | | |
| W 27 | 8 47 35 | 13°18'26 | 3♂26 | 1♂ 4 | 25°34 | 3°58 | 20°35 | 5°41 | 0° 3 | 20°41 | 16°54 | 20°34 | 19°25 | 13°16 | 5°45 | W 27 | | | | | | | | |
| T 28 | 8 51 31 | 14°19'00 | 16°57 | 2°18 | 26°11 | 4°23 | 20°33 | 5°48 | 0°R 3 | 20°42 | 16°56 | 20°28 | 19°22 | 13°23 | 5°46 | T 28 | | | | | | | | |
| F 29 | 8 55 28 | 15°19'31 | 0♁38 | 3°25 | 26°46 | 4°47 | 20°31 | 5°55 | 0° 3 | 20°43 | 16°57 | 20°25 | 19°19 | 13°30 | 5°47 | F 29 | | | | | | | | |
| S 30 | 8 59 24 | 16°20'01 | 14°31 | 4°25 | 27°20 | 5°11 | 20°29 | 6° 2 | 0° 3 | 20°44 | 16°59 | 20°D24 | 19°15 | 13°36 | 5°48 | S 30 | | | | | | | | |
| S 31 | 9 3 21 | 17°20'29 | 28♁34 | 5♂17 | 27♂52 | 5♂35 | 20♂27 | 6♂10 | 0♂ 3 | 20♂45 | 17° 1 | 20♂24 | 19♂12 | 13°43 | 5♂50 | S 31 | | | | | | | | |

Delta T = 20m30s Julian Calendar 1 Jan. 1053 == Greg. Calendar 7 Jan. 1053

FEBRUARY 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|------|-------|-------|-------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 9 7 17 | 18°20'55 | 12♂47 | 6♂ 0 | 28♂23 | 5♂59 | 20°R25 | 6♂17 | 0°R 3 | 20♂47 | 17° 3 | 20♂25 | 19♂ 9 | 13°50 | 5♂51 | M 1 | | | | | | | | |
| T 2 | 9 11 14 | 19°21'19 | 27° 9 | 6°35 | 28°53 | 6°22 | 20♂24 | 6°24 | 0♂ 3 | 20°48 | 17° 4 | 20°R25 | 19° 6 | 13°56 | 5°53 | T 2 | | | | | | | | |
| W 3 | 9 15 11 | 20°21'41 | 11♁36 | 7° 0 | 29°20 | 6°45 | 20°23 | 6°31 | 0° 2 | 20°49 | 17° 6 | 20°23 | 19° 3 | 14° 3 | 5°54 | W 3 | | | | | | | | |
| T 4 | 9 19 7 | 21°22'01 | 26° 5 | 7°16 | 29°46 | 7° 8 | 20°22 | 6°39 | 0° 2 | 20°50 | 17° 8 | 20°19 | 19° 0 | 14°10 | 5°56 | T 4 | | | | | | | | |
| F 5 | 9 23 4 | 22°22'19 | 10♁30 | 7°R21 | 0♂10 | 7°30 | 20°21 | 6°46 | 0° 2 | 20°52 | 17° 9 | 20°12 | 18°56 | 14°16 | 5°58 | F 5 | | | | | | | | |
| S 6 | 9 27 0 | 23°22'35 | 24°45 | 7°17 | 0°32 | 7°52 | 20°21 | 6°53 | 0° 1 | 20°53 | 17°11 | 20° 2 | 18°53 | 14°23 | 5°59 | S 6 | | | | | | | | |
| S 7 | 9 30 57 | 24°22'49 | 8♂44 | 7° 3 | 0°53 | 8°14 | 20°20 | 7° 0 | 0° 1 | 20°55 | 17°13 | 19°52 | 18°50 | 14°30 | 6° 1 | S 7 | | | | | | | | |
| M 8 | 9 34 53 | 25°23'02 | 22°23 | 6°40 | 1°11 | 8°35 | 20°D20 | 7° 8 | 0° 0 | 20°56 | 17°14 | 19°41 | 18°47 | 14°36 | 6° 3 | M 8 | | | | | | | | |
| T 9 | 9 38 50 | 26°23'13 | 5♁39 | 6° 8 | 1°27 | 8°57 | 20°20 | 7°15 | 29♁59 | 20°57 | 17°16 | 19°30 | 18°44 | 14°43 | 6° 5 | T 9 | | | | | | | | |
| W 10 | 9 42 46 | 27°23'22 | 18°32 | 5°29 | 1°42 | 9°17 | 20°21 | 7°22 | 29°59 | 20°59 | 17°18 | 19°22 | 18°40 | 14°50 | 6° 7 | W 10 | | | | | | | | |
| T 11 | 9 46 43 | 28°23'29 | 1♂ 3 | 4°43 | 1°54 | 9°38 | 20°21 | 7°30 | 29°58 | 21° 0 | 17°20 | 19°16 | 18°37 | 14°56 | 6° 9 | T 11 | | | | | | | | |
| F 12 | 9 50 40 | 29°23'35 | 13°15 | 3°51 | 2° 4 | 9°58 | 20°22 | 7°37 | 29°57 | 21° 2 | 17°21 | 19°13 | 18°34 | 15° 3 | 6°11 | F 12 | | | | | | | | |
| S 13 | 9 54 36 | 0♂23'40 | 25°14 | 2°54 | 2°11 | 10°17 | 20°22 | 7°45 | 29°56 | 21° 4 | 17°23 | 19°11 | 18°31 | 15° 9 | 6°13 | S 13 | | | | | | | | |
| S 14 | 9 58 33 | 1°23'42 | 7♂ 5 | 1°55 | 2°16 | 10°37 | 20°24 | 7°52 | 29°56 | 21° 5 | 17°25 | 19°D11 | 18°28 | 15°16 | 6°15 | S 14 | | | | | | | | |
| M 15 | 10 2 29 | 2°23'43 | 18°52 | 0°54 | 2°19 | 10°56 | 20°25 | 7°59 | 29°55 | 21° 7 | 17°26 | 19°R12 | 18°25 | 15°23 | 6°17 | M 15 | | | | | | | | |
| T 16 | 10 6 26 | 3°23'43 | 0♁42 | 29♁54 | 2°R20 | 11°14 | 20°26 | 8° 7 | 29°54 | 21° 8 | 17°28 | 19°11 | 18°21 | 15°29 | 6°20 | T 16 | | | | | | | | |
| W 17 | 10 10 22 | 4°23'40 | 12°39 | 28°54 | 2°18 | 11°32 | 20°28 | 8°14 | 29°53 | 21°10 | 17°30 | 19° 9 | 18°18 | 15°36 | 6°22 | W 17 | | | | | | | | |
| T 18 | 10 14 19 | 5°23'36 | 24°49 | 27°57 | 2°14 | 11°50 | 20°30 | 8°22 | 29°52 | 21°12 | 17°31 | 19° 4 | 18°15 | 15°43 | 6°24 | T 18 | | | | | | | | |
| F 19 | 10 18 15 | 6°23'30 | 7♁13 | 27° 4 | 2° 7 | 12° 7 | 20°32 | 8°29 | 29°50 | 21°13 | 17°33 | 18°56 | 18°12 | 15°49 | 6°27 | F 19 | | | | | | | | |
| S 20 | 10 22 12 | 7°23'22 | 19°55 | 26°15 | 1°57 | 12°24 | 20°34 | 8°37 | 29°49 | 21°15 | 17°34 | 18°46 | 18° 9 | 15°56 | 6°29 | S 20 | | | | | | | | |
| S 21 | 10 26 9 | 8°23'13 | 2♂56 | 25°32 | 1°46 | 12°40 | 20°36 | 8°44 | 29°48 | 21°17 | 17°36 | 18°34 | 18° 6 | 16° 3 | 6°32 | S 21 | | | | | | | | |
| M 22 | 10 30 5 | 9°23'01 | 16°13 | 24°54 | 1°31 | 12°56 | 20°39 | 8°52 | 29°47 | 21°19 | 17°38 | 18°21 | 18° 2 | 16° 9 | 6°34 | M 22 | | | | | | | | |
| T 23 | 10 34 2 | 10°22'47 | 29°46 | 24°22 | 1°14 | 13°11 | 20°42 | 8°59 | 29°45 | 21°20 | 17°39 | 18° 8 | 17°59 | 16°16 | 6°37 | T 23 | | | | | | | | |
| W 24 | 10 37 58 | 11°22'31 | 13♂30 | 23°56 | 0°55 | 13°26 | 20°44 | 9° 6 | 29°44 | 21°22 | 17°41 | 17°57 | 17°56 | 16°23 | 6°40 | W 24 | | | | | | | | |
| T 25 | 10 41 55 | 12°22'13 | 27°24 | 23°37 | 0°34 | 13°41 | 20°48 | 9°14 | 29°43 | 21°24 | 17°42 | 17°49 | 17°53 | 16°29 | 6°42 | T 25 | | | | | | | | |
| F 26 | 10 45 51 | 13°21'52 | 11♁23 | 23°24 | 0°10 | 13°55 | 20°51 | 9°21 | 29°41 | 21°26 | 17°44 | 17°43 | 17°50 | 16°36 | 6°45 | F 26 | | | | | | | | |
| S 27 | 10 49 48 | 14°21'29 | 25°25 | 23°17 | 29♂44 | 14° 8 | 20°54 | 9°29 | 29°40 | 21°28 | 17°46 | 17°41 | 17°46 | 16°42 | 6°48 | S 27 | | | | | | | | |
| S 28 | 10 53 44 | 15♂21'04 | 9♂30 | 23°D16 | 29♂16 | 14♂21 | 20♂58 | 9♂36 | 29♂38 | 21♂30 | 17♂47 | 17♂40 | 17♂43 | 16♂49 | 6♂51 | S 28 | | | | | | | | |

Delta T = 20m29s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1053
geocentric

MARCH 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|---------|--------|-------|------|
| M 1 | 10 57 41 | 16♂20'37 | 23♂36 | 23♂21 | 28♂R46 | 14♂M33 | 21♂II 2 | 9♂K44 | 29♂R37 | 21♂V32 | 17♂≈49 | 17♂R40 | 17♂II40 | 16♂≈56 | 6♂S4 | M 1 |
| T 2 | 11 1 38 | 17♂20'07 | 7♂E42 | 23♂32 | 28♂K14 | 14♂45 | 21° 6 | 9°51 | 29♂≈35 | 21♂34 | 17°50 | 17♂II39 | 17°37 | 17° 2 | 6°56 | T 2 |
| W 3 | 11 5 34 | 18♂19'35 | 21♂47 | 23♂48 | 27♂41 | 14°56 | 21°10 | 9°58 | 29°33 | 21♂36 | 17°52 | 17°37 | 17°34 | 17° 9 | 6°59 | W 3 |
| T 4 | 11 9 31 | 19♂19'00 | 5♂Ω50 | 24° 9 | 27° 6 | 15° 7 | 21°15 | 10° 6 | 29°32 | 21♂37 | 17°53 | 17°31 | 17°31 | 17°16 | 7° 2 | T 4 |
| F 5 | 11 13 27 | 20♂18'24 | 19♂47 | 24°35 | 26°30 | 15°17 | 21°19 | 10°13 | 29°30 | 21♂39 | 17°55 | 17°23 | 17°27 | 17°22 | 7° 5 | F 5 |
| S 6 | 11 17 24 | 21♂17'44 | 3♂♄36 | 25° 6 | 25°54 | 15°27 | 21°24 | 10°21 | 29°28 | 21♂41 | 17°56 | 17°12 | 17°24 | 17°29 | 7° 9 | S 6 |
| S 7 | 11 21 20 | 22♂17'03 | 17°14 | 25°40 | 25°16 | 15°36 | 21°29 | 10°28 | 29°26 | 21♂43 | 17°58 | 17° 0 | 17°21 | 17°36 | 7°12 | S 7 |
| M 8 | 11 25 17 | 23♂16'19 | 0♂♄35 | 26°19 | 24°38 | 15°44 | 21°34 | 10°35 | 29°24 | 21♂45 | 17°59 | 16°47 | 17°18 | 17°42 | 7°15 | M 8 |
| T 9 | 11 29 13 | 24♂15'34 | 13°39 | 27° 2 | 24° 0 | 15°52 | 21°39 | 10°43 | 29°23 | 21♂48 | 18° 1 | 16°35 | 17°15 | 17°49 | 7°18 | T 9 |
| W10 | 11 33 10 | 25♂14'46 | 26°25 | 27°48 | 23°22 | 15°59 | 21°44 | 10°50 | 29°21 | 21♂50 | 18° 2 | 16°25 | 17°11 | 17°56 | 7°21 | W10 |
| T 11 | 11 37 7 | 26♂13'57 | 8♂M52 | 28°38 | 22°45 | 16° 5 | 21°50 | 10°57 | 29°19 | 21♂52 | 18° 3 | 16°17 | 17° 8 | 18° 2 | 7°25 | T 11 |
| F 12 | 11 41 3 | 27♂13'05 | 21° 3 | 29°31 | 22° 8 | 16°11 | 21°56 | 11° 4 | 29°17 | 21♂54 | 18° 5 | 16°12 | 17° 5 | 18° 9 | 7°28 | F 12 |
| S 13 | 11 45 0 | 28♂12'12 | 3♂♂ 2 | 0♂K27 | 21°32 | 16°16 | 22° 1 | 11°12 | 29°15 | 21♂56 | 18° 6 | 16°10 | 17° 2 | 18°16 | 7°31 | S 13 |
| S 14 | 11 48 56 | 29♂11'17 | 14°53 | 1°26 | 20°56 | 16°21 | 22° 7 | 11°19 | 29°13 | 21♂58 | 18° 7 | 16°D 9 | 16°59 | 18°22 | 7°35 | S 14 |
| M15 | 11 52 53 | 0♂V10'20 | 26°41 | 2°27 | 20°23 | 16°25 | 22°14 | 11°26 | 29°11 | 22° 0 | 18° 9 | 16°R 9 | 16°56 | 18°29 | 7°38 | M15 |
| T 16 | 11 56 49 | 1° 9'22 | 8♂S32 | 3°32 | 19°50 | 16°28 | 22°20 | 11°33 | 29° 8 | 22° 2 | 18°10 | 16° 9 | 16°52 | 18°35 | 7°41 | T 16 |
| W17 | 12 0 46 | 2° 8'21 | 20°30 | 4°38 | 19°20 | 16°30 | 22°26 | 11°41 | 29° 6 | 22° 4 | 18°11 | 16° 8 | 16°49 | 18°42 | 7°45 | W17 |
| T 18 | 12 4 42 | 3° 7'19 | 2♂≈42 | 5°47 | 18°51 | 16°32 | 22°33 | 11°48 | 29° 4 | 22° 6 | 18°13 | 16° 4 | 16°46 | 18°49 | 7°48 | T 18 |
| F 19 | 12 8 39 | 4° 6'15 | 15°12 | 6°59 | 18°24 | 16°33 | 22°40 | 11°55 | 29° 2 | 22° 9 | 18°14 | 15°58 | 16°43 | 18°55 | 7°52 | F 19 |
| S 20 | 12 12 36 | 5° 5'09 | 28° 2 | 8°12 | 17°59 | 16°R33 | 22°47 | 12° 2 | 29° 0 | 22°11 | 18°15 | 15°49 | 16°40 | 19° 2 | 7°56 | S 20 |
| S 21 | 12 16 32 | 6° 4'01 | 11♂K15 | 9°28 | 17°37 | 16°33 | 22°54 | 12° 9 | 28°57 | 22°13 | 18°17 | 15°39 | 16°37 | 19° 9 | 7°59 | S 21 |
| M22 | 12 20 29 | 7° 2'51 | 24°50 | 10°46 | 17°17 | 16°31 | 23° 1 | 12°16 | 28°55 | 22°15 | 18°18 | 15°28 | 16°33 | 19°15 | 8° 3 | M22 |
| T 23 | 12 24 25 | 8° 1'39 | 8♂V44 | 12° 6 | 16°59 | 16°29 | 23° 8 | 12°23 | 28°53 | 22°17 | 18°19 | 15°17 | 16°30 | 19°22 | 8° 6 | T 23 |
| W24 | 12 28 22 | 9° 0'25 | 22°54 | 13°27 | 16°43 | 16°27 | 23°16 | 12°30 | 28°51 | 22°20 | 18°20 | 15° 7 | 16°27 | 19°29 | 8°10 | W24 |
| T 25 | 12 32 18 | 9°59'09 | 7♂B14 | 14°51 | 16°30 | 16°23 | 23°23 | 12°37 | 28°48 | 22°22 | 18°21 | 15° 0 | 16°24 | 19°35 | 8°14 | T 25 |
| F 26 | 12 36 15 | 10°57'51 | 21°38 | 16°16 | 16°19 | 16°19 | 23°31 | 12°44 | 28°46 | 22°24 | 18°23 | 14°55 | 16°21 | 19°42 | 8°18 | F 26 |
| S 27 | 12 40 11 | 11°56'31 | 6♂II 2 | 17°43 | 16°11 | 16°14 | 23°39 | 12°51 | 28°43 | 22°26 | 18°24 | 14°53 | 16°17 | 19°49 | 8°21 | S 27 |
| S 28 | 12 44 8 | 12°55'09 | 20°21 | 19°12 | 16° 5 | 16° 8 | 23°47 | 12°57 | 28°41 | 22°29 | 18°25 | 14°D53 | 16°14 | 19°55 | 8°25 | S 28 |
| M29 | 12 48 4 | 13°53'44 | 4♂S33 | 20°43 | 16° 2 | 16° 1 | 23°55 | 13° 4 | 28°39 | 22°31 | 18°26 | 14°53 | 16°11 | 20° 2 | 8°29 | M29 |
| T 30 | 12 52 1 | 14°52'18 | 18°37 | 22°16 | 16°D 1 | 15°54 | 24° 3 | 13°11 | 28°36 | 22°33 | 18°27 | 14°R54 | 16° 8 | 20° 8 | 8°33 | T 30 |
| W31 | 12 55 58 | 15°V50'48 | 2♂Ω32 | 23♂K50 | 16♂K 2 | 15♂M46 | 24♂II12 | 13♂K18 | 28♂≈34 | 22♂V35 | 18♂≈28 | 14♂II52 | 16♂II 5 | 20♂≈15 | 8♂S37 | W31 |

Delta T = 20m29s Julian Calendar 1 March 1053 == Greg. Calendar 7 March 1053

APRIL 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|---------|--------|--------|------|
| T 1 | 12 59 54 | 16♂V49'17 | 16♂Ω17 | 25♂K26 | 16♂K 6 | 15°R37 | 24♂II20 | 13♂K24 | 28°R31 | 22♂V37 | 18♂≈29 | 14°R49 | 16♂II 2 | 20♂≈22 | 8♂S40 | T 1 |
| F 2 | 13 3 51 | 17°47'43 | 29♂52 | 27° 3 | 16°12 | 15♂M27 | 24°29 | 13°31 | 28♂≈29 | 22°40 | 18°30 | 14♂II43 | 15°58 | 20°28 | 8°44 | F 2 |
| S 3 | 13 7 47 | 18°46'08 | 13♂♄16 | 28°43 | 16°20 | 15°17 | 24°38 | 13°37 | 28°26 | 22°42 | 18°31 | 14°35 | 15°55 | 20°35 | 8°48 | S 3 |
| S 4 | 13 11 44 | 19°44'30 | 26°29 | 0♂V24 | 16°30 | 15° 6 | 24°46 | 13°44 | 28°24 | 22°44 | 18°32 | 14°26 | 15°52 | 20°42 | 8°52 | S 4 |
| M 5 | 13 15 40 | 20°42'50 | 9♂≈28 | 2° 6 | 16°43 | 14°54 | 24°55 | 13°50 | 28°21 | 22°47 | 18°33 | 14°17 | 15°49 | 20°48 | 8°56 | M 5 |
| T 6 | 13 19 37 | 21°41'08 | 22°13 | 3°51 | 16°57 | 14°42 | 25° 4 | 13°57 | 28°19 | 22°49 | 18°34 | 14° 8 | 15°46 | 20°55 | 9° 0 | T 6 |
| W 7 | 13 23 33 | 22°39'24 | 4♂M44 | 5°37 | 17°14 | 14°28 | 25°14 | 14° 3 | 28°16 | 22°51 | 18°35 | 14° 0 | 15°43 | 21° 2 | 9° 4 | W 7 |
| T 8 | 13 27 30 | 23°37'39 | 17° 1 | 7°25 | 17°32 | 14°15 | 25°23 | 14°10 | 28°14 | 22°53 | 18°36 | 13°54 | 15°39 | 21° 8 | 9° 8 | T 8 |
| F 9 | 13 31 27 | 24°35'52 | 29° 6 | 9°15 | 17°53 | 14° 0 | 25°32 | 14°16 | 28°11 | 22°56 | 18°36 | 13°51 | 15°36 | 21°15 | 9°12 | F 9 |
| S 10 | 13 35 23 | 25°34'03 | 11♂♂ 2 | 11° 6 | 18°15 | 13°45 | 25°42 | 14°22 | 28° 9 | 22°58 | 18°37 | 13°D50 | 15°33 | 21°22 | 9°16 | S 10 |
| S 11 | 13 39 20 | 26°32'13 | 22°52 | 12°59 | 18°39 | 13°29 | 25°52 | 14°28 | 28° 6 | 23° 0 | 18°38 | 13°50 | 15°30 | 21°28 | 9°20 | S 11 |
| M12 | 13 43 16 | 27°30'21 | 4♂S40 | 14°54 | 19° 4 | 13°12 | 26° 1 | 14°34 | 28° 4 | 23° 2 | 18°39 | 13°51 | 15°27 | 21°35 | 9°24 | M12 |
| T 13 | 13 47 13 | 28°28'28 | 16°30 | 16°51 | 19°31 | 12°55 | 26°11 | 14°41 | 28° 1 | 23° 5 | 18°40 | 13°53 | 15°23 | 21°41 | 9°28 | T 13 |
| W14 | 13 51 9 | 29°26'33 | 28°29 | 18°49 | 20° 0 | 12°38 | 26°21 | 14°47 | 27°59 | 23° 7 | 18°40 | 13°R53 | 15°20 | 21°48 | 9°32 | W14 |
| T 15 | 13 55 6 | 0♂B24'37 | 10♂≈41 | 20°49 | 20°30 | 12°20 | 26°31 | 14°53 | 27°56 | 23° 9 | 18°41 | 13°53 | 15°17 | 21°55 | 9°36 | T 15 |
| F 16 | 13 59 2 | 1°22'39 | 23°10 | 22°51 | 21° 2 | 12° 1 | 26°41 | 14°59 | 27°54 | 23°11 | 18°42 | 13°51 | 15°14 | 22° 1 | 9°40 | F 16 |
| S 17 | 14 2 59 | 2°20'40 | 6♂K 2 | 24°54 | 21°35 | 11°42 | 26°51 | 15° 4 | 27°51 | 23°14 | 18°43 | 13°47 | 15°11 | 22° 8 | 9°44 | S 17 |
| S 18 | 14 6 56 | 3°18'40 | 19°19 | 26°59 | 22° 9 | 11°23 | 27° 2 | 15°10 | 27°49 | 23°16 | 18°43 | 13°41 | 15° 8 | 22°15 | 9°49 | S 18 |
| M19 | 14 10 52 | 4°16'38 | 3♂V 1 | 29° 5 | 22°45 | 11° 3 | 27°12 | 15°16 | 27°46 | 23°18 | 18°44 | 13°35 | 15° 4 | 22°21 | 9°53 | M19 |
| T 20 | 14 14 49 | 5°14'34 | 17° 7 | 1♂B13 | 23°22 | 10°42 | 27°23 | 15°22 | 27°43 | 23°20 | 18°44 | 13°29 | 15° 1 | 22°28 | 9°57 | T 20 |
| W21 | 14 18 45 | 6°12'30 | 1♂S34 | 3°21 | 24° 0 | 10°22 | 27°33 | 15°27 | 27°41 | 23°22 | 18°45 | 13°24 | 14°58 | 22°35 | 10° 1 | W21 |
| T 22 | 14 22 42 | 7°10'23 | 16°15 | 5°31 | 24°39 | 10° 1 | 27°44 | 15°33 | 27°38 | 23°25 | 18°46 | 13°20 | 14°55 | 22°41 | 10° 5 | T 22 |
| F 23 | 14 26 38 | 8° 8'15 | 1♂II 3 | 7°41 | 25°19 | 9°40 | 27°55 | 15°38 | 27°36 | 23°27 | 18°46 | 13°18 | 14°52 | 22°48 | 10° 9 | F 23 |
| S 24 | 14 30 35 | 9° 6'06 | 15°50 | 9°51 | 26° 0 | 9°19 | 28° 6 | 15°44 | 27°34 | 23°29 | 18°47 | 13°D17 | 14°48 | 22°55 | 10°13 | S 24 |
| S 25 | 14 34 31 | 10° 3'55 | 0♂E31 | 12° 2 | 26°43 | 8°58 | 28°16 | 15°49 | 27°31 | 23°31 | 18°47 | 13°18 | 14°45 | 23° 1 | 10°17 | S 25 |
| M26 | 14 38 28 | 11° 1'42 | 15° 0 | 14°13 | 27°26 | 8°36 | 28°27 | 15°55 | 27°29 | 23°33 | 18°48 | 13°19 | 14°42 | 23° 8 | 10°21 | M26 |
| T 27 | 14 42 25 | 11°59'28 | 29°13 | 16°24 | 28°10 | 8°15 | 28°39 | 16° 0 | 27°26 | 23°36 | 18°48 | 13°21 | 14°39 | 23°15 | 10°26 | T 27 |
| W28 | 14 46 21 | 12°57'12 | 13♂Ω10 | 18°34 | 28°55 | 7°53 | 28°50 | 16° 5 | 27°24 | 23°38 | 18°48 | 13°R21 | 14°36 | 23°21 | 10°30 | W28 |
| T 29 | 14 50 18 | 13°54'54 | 26°49 | 20°44 | 29°41 | 7°32 | 29° 1 | 16°10 | 27°21 | 23°40 | 18°49 | 13°20 | 14°33 | 23°28 | 10°34 | T 29 |
| F 30 | 14 54 14 | 14♂S52'34 | 10♂♄12 | 22♂S52 | 0♂V28 | 7♂M11 | 29♂II12 | 16♂K15 | 27♂≈19 | 23♂V42 | 18♂≈49 | 13♂II19 | 14♂II29 | 23♂≈34 | 10♂S38 | F 30 |

Delta T = 20m29s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1053
geocentric

MAY 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|-------|------|---|-----|
| S 1 | 14 58 11 | 15♃50'12 | 23♎19 | 24♄59 | 1♃15 | 6°R50 | 29♂24 | 16♃20 | 27°R17 | 23♃44 | 18♃49 | 13°R15 | 14♂26 | 23♃41 | 10♃42 | S 1 | | |
| S 2 | 15 2 7 | 16°47'50 | 6♄11 | 27° 4 | 2° 3 | 6♎29 | 29°35 | 16°25 | 27♄14 | 23°46 | 18°50 | 13♂12 | 14°23 | 23°48 | 10°46 | S 2 | | |
| M 3 | 15 6 4 | 17°45'25 | 18°49 | 29° 8 | 2°52 | 6° 8 | 29°47 | 16°30 | 27°12 | 23°48 | 18°50 | 13° 7 | 14°20 | 23°54 | 10°50 | M 3 | | |
| T 4 | 15 10 0 | 18°43'00 | 1♎16 | 1♂ 9 | 3°42 | 5°48 | 29°58 | 16°35 | 27°10 | 23°51 | 18°50 | 13° 4 | 14°17 | 24° 1 | 10°54 | T 4 | | |
| W 5 | 15 13 57 | 19°40'33 | 13°31 | 3° 8 | 4°32 | 5°28 | 0♄10 | 16°39 | 27° 7 | 23°53 | 18°51 | 13° 0 | 14°14 | 24° 8 | 10°58 | W 5 | | |
| T 6 | 15 17 54 | 20°38'04 | 25°36 | 5° 5 | 5°24 | 5° 8 | 0°22 | 16°44 | 27° 5 | 23°55 | 18°51 | 12°58 | 14°10 | 24°14 | 11° 2 | T 6 | | |
| F 7 | 15 21 50 | 21°35'35 | 7♃33 | 6°59 | 6°15 | 4°49 | 0°33 | 16°48 | 27° 3 | 23°57 | 18°51 | 12°D57 | 14° 7 | 24°21 | 11° 7 | F 7 | | |
| S 8 | 15 25 47 | 22°33'05 | 19°25 | 8°51 | 7° 7 | 4°30 | 0°45 | 16°53 | 27° 1 | 23°59 | 18°51 | 12°57 | 14° 4 | 24°28 | 11°11 | S 8 | | |
| S 9 | 15 29 43 | 23°30'33 | 1♄13 | 10°41 | 8° 0 | 4°12 | 0°57 | 16°57 | 26°58 | 24° 1 | 18°51 | 12°58 | 14° 1 | 24°34 | 11°15 | S 9 | | |
| M10 | 15 33 40 | 24°28'01 | 13° 1 | 12°27 | 8°54 | 3°54 | 1° 9 | 17° 2 | 26°56 | 24° 3 | 18°51 | 13° 0 | 13°58 | 24°41 | 11°19 | M10 | | |
| T 11 | 15 37 36 | 25°25'28 | 24°52 | 14°11 | 9°48 | 3°37 | 1°21 | 17° 6 | 26°54 | 24° 5 | 18°51 | 13° 1 | 13°54 | 24°48 | 11°23 | T 11 | | |
| W12 | 15 41 33 | 26°22'54 | 6♃52 | 15°52 | 10°42 | 3°20 | 1°33 | 17°10 | 26°52 | 24° 7 | 18°52 | 13° 2 | 13°51 | 24°54 | 11°27 | W12 | | |
| T 13 | 15 45 29 | 27°20'20 | 19° 3 | 17°30 | 11°37 | 3° 4 | 1°46 | 17°14 | 26°50 | 24° 9 | 18°52 | 13° 3 | 13°48 | 25° 1 | 11°31 | T 13 | | |
| F 14 | 15 49 26 | 28°17'44 | 1♃31 | 19° 5 | 12°33 | 2°49 | 1°58 | 17°18 | 26°48 | 24°11 | 18°R52 | 13°R 3 | 13°45 | 25° 8 | 11°35 | F 14 | | |
| S 15 | 15 53 23 | 29°15'08 | 14°20 | 20°38 | 13°29 | 2°34 | 2°10 | 17°22 | 26°46 | 24°13 | 18°52 | 13° 3 | 13°42 | 25°14 | 11°39 | S 15 | | |
| S 16 | 15 57 19 | 0♂12'31 | 27°33 | 22° 7 | 14°25 | 2°20 | 2°22 | 17°26 | 26°44 | 24°15 | 18°52 | 13° 2 | 13°39 | 25°21 | 11°43 | S 16 | | |
| M17 | 16 1 16 | 1° 9'54 | 11♃13 | 23°34 | 15°22 | 2° 6 | 2°35 | 17°29 | 26°42 | 24°17 | 18°51 | 13° 0 | 13°35 | 25°27 | 11°47 | M17 | | |
| T 18 | 16 5 12 | 2° 7'16 | 25°19 | 24°57 | 16°20 | 1°53 | 2°47 | 17°33 | 26°40 | 24°18 | 18°51 | 12°59 | 13°32 | 25°34 | 11°51 | T 18 | | |
| W19 | 16 9 9 | 3° 4'37 | 9♄49 | 26°18 | 17°17 | 1°41 | 3° 0 | 17°37 | 26°38 | 24°20 | 18°51 | 12°58 | 13°29 | 25°41 | 11°55 | W19 | | |
| T 20 | 16 13 5 | 4° 1'58 | 24°39 | 27°35 | 18°16 | 1°30 | 3°12 | 17°40 | 26°36 | 24°22 | 18°51 | 12°57 | 13°26 | 25°47 | 11°59 | T 20 | | |
| F 21 | 16 17 2 | 4°59'18 | 9♂42 | 28°49 | 19°14 | 1°20 | 3°25 | 17°43 | 26°35 | 24°24 | 18°51 | 12°D57 | 13°23 | 25°54 | 12° 2 | F 21 | | |
| S 22 | 16 20 58 | 5°56'37 | 24°48 | 0♄ 1 | 20°13 | 1°10 | 3°37 | 17°47 | 26°33 | 24°26 | 18°51 | 12°57 | 13°20 | 26° 1 | 12° 6 | S 22 | | |
| S 23 | 16 24 55 | 6°53'56 | 9♄48 | 1° 9 | 21°12 | 1° 2 | 3°50 | 17°50 | 26°31 | 24°28 | 18°51 | 12°57 | 13°16 | 26° 7 | 12°10 | S 23 | | |
| M24 | 16 28 52 | 7°51'14 | 24°36 | 2°13 | 22°12 | 0°54 | 4° 3 | 17°53 | 26°29 | 24°29 | 18°50 | 12°58 | 13°13 | 26°14 | 12°14 | M24 | | |
| T 25 | 16 32 48 | 8°48'30 | 9♂ 5 | 3°15 | 23°12 | 0°47 | 4°15 | 17°56 | 26°28 | 24°31 | 18°50 | 12°58 | 13°10 | 26°21 | 12°18 | T 25 | | |
| W26 | 16 36 45 | 9°45'46 | 23°12 | 4°12 | 24°12 | 0°40 | 4°28 | 17°59 | 26°26 | 24°33 | 18°50 | 12°58 | 13° 7 | 26°27 | 12°22 | W26 | | |
| T 27 | 16 40 41 | 10°43'01 | 6♎55 | 5° 7 | 25°12 | 0°35 | 4°41 | 18° 2 | 26°24 | 24°34 | 18°49 | 12°R59 | 13° 4 | 26°34 | 12°25 | T 27 | | |
| F 28 | 16 44 38 | 11°40'15 | 20°15 | 5°58 | 26°13 | 0°30 | 4°54 | 18° 5 | 26°23 | 24°36 | 18°49 | 12°59 | 13° 0 | 26°41 | 12°29 | F 28 | | |
| S 29 | 16 48 34 | 12°37'29 | 3♄13 | 6°45 | 27°14 | 0°26 | 5° 7 | 18° 7 | 26°21 | 24°38 | 18°49 | 12°D58 | 12°57 | 26°47 | 12°33 | S 29 | | |
| S 30 | 16 52 31 | 13°34'41 | 15°54 | 7°28 | 28°16 | 0°24 | 5°19 | 18°10 | 26°20 | 24°39 | 18°48 | 12°59 | 12°54 | 26°54 | 12°37 | S 30 | | |
| M31 | 16 56 27 | 14♂31'53 | 28♄18 | 8♄ 7 | 29♃17 | 0♎21 | 5♄32 | 18♃12 | 26♄19 | 24♃41 | 18♃48 | 12♂59 | 12♂51 | 27♃ 1 | 12♄40 | M31 | | |

Delta T = 20m28s Julian Calendar 1 May 1053 == Greg. Calendar 7 May 1053

JUNE 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|-------|------|---|-----|
| T 1 | 17 0 24 | 15♂29'04 | 10♎30 | 8♄43 | 0♄19 | 0°R20 | 5♄45 | 18♃15 | 26°R17 | 24♃43 | 18°R48 | 12♂59 | 12♂48 | 27♃ 7 | 12♄44 | T 1 | | |
| W 2 | 17 4 21 | 16°26'15 | 22°33 | 9°14 | 1°22 | 0°D20 | 5°58 | 18°17 | 26♄16 | 24°44 | 18♃47 | 12°59 | 12°45 | 27°14 | 12°47 | W 2 | | |
| T 3 | 17 8 17 | 17°23'25 | 4♃28 | 9°41 | 2°24 | 0♎20 | 6°11 | 18°19 | 26°15 | 24°46 | 18°47 | 12°59 | 12°41 | 27°21 | 12°51 | T 3 | | |
| F 4 | 17 12 14 | 18°20'35 | 16°19 | 10° 3 | 3°27 | 0°21 | 6°24 | 18°21 | 26°13 | 24°47 | 18°46 | 12°R59 | 12°38 | 27°27 | 12°55 | F 4 | | |
| S 5 | 17 16 10 | 19°17'45 | 28° 7 | 10°21 | 4°30 | 0°23 | 6°38 | 18°23 | 26°12 | 24°49 | 18°46 | 12°59 | 12°35 | 27°34 | 12°58 | S 5 | | |
| S 6 | 17 20 7 | 20°14'55 | 9♄56 | 10°35 | 5°33 | 0°26 | 6°51 | 18°25 | 26°11 | 24°50 | 18°45 | 12°59 | 12°32 | 27°40 | 13° 2 | S 6 | | |
| M 7 | 17 24 3 | 21°12'04 | 21°46 | 10°44 | 6°36 | 0°30 | 7° 4 | 18°27 | 26°10 | 24°52 | 18°45 | 12°58 | 12°29 | 27°47 | 13° 5 | M 7 | | |
| T 8 | 17 28 0 | 22° 9'14 | 3♃42 | 10°R48 | 7°40 | 0°34 | 7°17 | 18°29 | 26° 9 | 24°53 | 18°44 | 12°57 | 12°26 | 27°54 | 13° 9 | T 8 | | |
| W 9 | 17 31 57 | 23° 6'23 | 15°45 | 10°48 | 8°44 | 0°39 | 7°30 | 18°30 | 26° 8 | 24°54 | 18°43 | 12°55 | 12°22 | 28° 0 | 13°12 | W 9 | | |
| T 10 | 17 35 53 | 24° 3'32 | 27°59 | 10°43 | 9°48 | 0°45 | 7°43 | 18°32 | 26° 7 | 24°56 | 18°43 | 12°54 | 12°19 | 28° 7 | 13°15 | T 10 | | |
| F 11 | 17 39 50 | 25° 0'42 | 10♃28 | 10°34 | 10°52 | 0°52 | 7°57 | 18°33 | 26° 6 | 24°57 | 18°42 | 12°53 | 12°16 | 28°14 | 13°19 | F 11 | | |
| S 12 | 17 43 46 | 25°57'51 | 23°15 | 10°20 | 11°57 | 0°59 | 8°10 | 18°35 | 26° 5 | 24°59 | 18°41 | 12°D53 | 12°13 | 28°20 | 13°22 | S 12 | | |
| S 13 | 17 47 43 | 26°55'01 | 6♃23 | 10° 2 | 13° 2 | 1° 7 | 8°23 | 18°36 | 26° 4 | 25° 0 | 18°41 | 12°53 | 12°10 | 28°27 | 13°25 | S 13 | | |
| M14 | 17 51 39 | 27°52'12 | 19°55 | 9°41 | 14° 7 | 1°16 | 8°36 | 18°37 | 26° 3 | 25° 1 | 18°40 | 12°53 | 12° 6 | 28°34 | 13°29 | M14 | | |
| T 15 | 17 55 36 | 28°49'22 | 3♄52 | 9°15 | 15°12 | 1°26 | 8°50 | 18°38 | 26° 3 | 25° 2 | 18°39 | 12°55 | 12° 3 | 28°40 | 13°32 | T 15 | | |
| W16 | 17 59 32 | 29°46'33 | 18°15 | 8°46 | 16°17 | 1°36 | 9° 3 | 18°39 | 26° 2 | 25° 3 | 18°39 | 12°56 | 12° 0 | 28°47 | 13°35 | W16 | | |
| T 17 | 18 3 29 | 0♄43'44 | 3♂ 0 | 8°14 | 17°22 | 1°47 | 9°16 | 18°40 | 26° 1 | 25° 5 | 18°38 | 12°57 | 11°57 | 28°54 | 13°38 | T 17 | | |
| F 18 | 18 7 26 | 1°40'56 | 18° 2 | 7°39 | 18°28 | 1°59 | 9°30 | 18°40 | 26° 1 | 25° 6 | 18°37 | 12°R57 | 11°54 | 29° 0 | 13°41 | F 18 | | |
| S 19 | 18 11 22 | 2°38'08 | 3♄13 | 7° 3 | 19°34 | 2°11 | 9°43 | 18°41 | 26° 0 | 25° 7 | 18°36 | 12°56 | 11°51 | 29° 7 | 13°44 | S 19 | | |
| S 20 | 18 15 19 | 3°35'20 | 18°23 | 6°25 | 20°40 | 2°24 | 9°56 | 18°42 | 26° 0 | 25° 8 | 18°35 | 12°54 | 11°47 | 29°14 | 13°47 | S 20 | | |
| M21 | 18 19 15 | 4°32'33 | 3♂24 | 5°47 | 21°46 | 2°38 | 10°10 | 18°42 | 25°59 | 25° 9 | 18°35 | 12°52 | 11°44 | 29°20 | 13°50 | M21 | | |
| T 22 | 18 23 12 | 5°29'45 | 18° 6 | 5° 8 | 22°52 | 2°52 | 10°23 | 18°42 | 25°59 | 25°10 | 18°34 | 12°49 | 11°41 | 29°27 | 13°53 | T 22 | | |
| W23 | 18 27 8 | 6°26'58 | 2♎25 | 4°30 | 23°59 | 3° 7 | 10°37 | 18°42 | 25°59 | 25°11 | 18°33 | 12°46 | 11°38 | 29°34 | 13°56 | W23 | | |
| T 24 | 18 31 5 | 7°24'10 | 16°16 | 3°53 | 25° 5 | 3°23 | 10°50 | 18°R43 | 25°58 | 25°12 | 18°32 | 12°44 | 11°35 | 29°40 | 13°59 | T 24 | | |
| F 25 | 18 35 1 | 8°21'22 | 29°40 | 3°19 | 26°12 | 3°39 | 11° 3 | 18°43 | 25°58 | 25°13 | 18°31 | 12°42 | 11°32 | 29°47 | 14° 2 | F 25 | | |
| S 26 | 18 38 58 | 9°18'35 | 12♄38 | 2°46 | 27°19 | 3°56 | 11°17 | 18°42 | 25°58 | 25°14 | 18°30 | 12°D42 | 11°28 | 29°54 | 14° 4 | S 26 | | |
| S 27 | 18 42 55 | 10°15'48 | 25°14 | 2°17 | 28°26 | 4°14 | 11°30 | 18°42 | 25°58 | 25°15 | 18°29 | 12°43 | 11°25 | 0♄ 0 | 14° 7 | S 27 | | |
| M28 | 18 46 51 | 11°13'01 | 7♎32 | 1°52 | 29°33 | 4°32 | 11°43 | 18°42 | 25°58 | 25°16 | 18°28 | 12°44 | 11°22 | 0° 7 | 14°10 | M28 | | |
| T 29 | 18 50 48 | 12°10'14 | 19°37 | 1°30 | 0♂40 | 4°50 | 11°57 | 18°41 | 25°D58 | 25°16 | 18°27 | 12°46 | 11°19 | 0°13 | 14°12 | T 29 | | |
| W30 | 18 54 44 | 13♄ 7'28 | 1♃32 | 1♄13 | 1♂48 | 5♎ 9 | 12♄10 | 18♃41 | 25♄58 | 25♃17 | 18♃26 | 12♂47 | 11♂16 | 0♄20 | 14♄15 | W30 | | |

Delta T = 20m28s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1053
geocentric

JULY 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|--------------------|--------------------|---------------------|----------------------|--------------------|---------------------|--------------------|---------------------|---------------------|----------------------|----------------------|-------------------|--------------------|------|
| T 1 | 18 58 41 | 14 [☾] 4'42 | 13 [♊] 21 | 1 [♋] R 2 | 2 [♌] II55 | 5 [♍] III29 | 12 [♎] 24 | 18 [♏] R40 | 25 [♐] 58 | 25 [♑] V18 | 18 [♒] R25 | 12 [♓] R48 | 11 [♈] II12 | 0 [♉] 27 | 14 [♊] 18 | T 1 |
| F 2 | 19 2 37 | 15 [♋] 1'56 | 25 [♌] 9 | 0 [♍] 55 | 4 [♎] 3 | 5 [♏] 49 | 12 [♐] 37 | 18 [♑] 40 | 25 [♒] 58 | 25 [♓] 19 | 18 [♈] 24 | 12 [♉] II47 | 11 [♊] 9 | 0 [♋] 33 | 14 [♌] 20 | F 2 |
| S 3 | 19 6 34 | 15 [♌] 59'11 | 6 [♍] 57 | 0 [♎] D54 | 5 [♏] 11 | 6 [♐] 10 | 12 [♑] 50 | 18 [♒] 39 | 25 [♓] 58 | 25 [♈] 19 | 18 [♉] 23 | 12 [♊] 45 | 11 [♋] 6 | 0 [♌] 40 | 14 [♍] 23 | S 3 |
| S 4 | 19 10 30 | 16 [♍] 56'27 | 18 [♎] 49 | 0 [♏] 59 | 6 [♐] 19 | 6 [♑] 31 | 13 [♒] 4 | 18 [♓] 38 | 25 [♈] 59 | 25 [♉] 20 | 18 [♊] 22 | 12 [♋] 41 | 11 [♌] 3 | 0 [♍] 47 | 14 [♎] 25 | S 4 |
| M 5 | 19 14 27 | 17 [♎] 53'44 | 0 [♏] 46 | 1 [♐] 9 | 7 [♑] 27 | 6 [♒] 53 | 13 [♓] 17 | 18 [♈] 37 | 25 [♉] 59 | 25 [♊] 21 | 18 [♋] 21 | 12 [♌] 36 | 11 [♍] 0 | 0 [♎] 53 | 14 [♏] 27 | M 5 |
| T 6 | 19 18 24 | 18 [♏] 51'01 | 12 [♐] 50 | 1 [♑] 26 | 8 [♒] 35 | 7 [♓] 15 | 13 [♈] 30 | 18 [♉] 36 | 25 [♊] 59 | 25 [♋] 21 | 18 [♌] 20 | 12 [♍] 29 | 10 [♎] 57 | 1 [♏] 0 | 14 [♐] 30 | T 6 |
| W 7 | 19 22 20 | 19 [♐] 48'19 | 25 [♑] 2 | 1 [♒] 48 | 9 [♓] 43 | 7 [♈] 38 | 13 [♉] 44 | 18 [♊] 35 | 26 [♋] 0 | 25 [♌] 22 | 18 [♍] 19 | 12 [♎] 23 | 10 [♏] 53 | 1 [♐] 7 | 14 [♑] 32 | W 7 |
| T 8 | 19 26 17 | 20 [♒] 45'38 | 7 [♈] 25 | 2 [♉] 17 | 10 [♊] 51 | 8 [♋] 1 | 13 [♌] 57 | 18 [♍] 33 | 26 [♎] 0 | 25 [♏] 22 | 18 [♐] 18 | 12 [♑] 17 | 10 [♒] 50 | 1 [♓] 13 | 14 [♓] 34 | T 8 |
| F 9 | 19 30 13 | 21 [♓] 42'57 | 20 [♈] 1 | 2 [♉] 52 | 12 [♊] 0 | 8 [♋] 24 | 14 [♋] 10 | 18 [♌] 32 | 26 [♌] 1 | 25 [♍] 23 | 18 [♍] 17 | 12 [♎] 12 | 10 [♏] 47 | 1 [♐] 20 | 14 [♔] 36 | F 9 |
| S 10 | 19 34 10 | 22 [♈] 40'18 | 2 [♉] V50 | 3 [♊] 32 | 13 [♋] 9 | 8 [♌] 48 | 14 [♌] 24 | 18 [♍] 30 | 26 [♍] 1 | 25 [♎] 23 | 18 [♎] 15 | 12 [♏] 8 | 10 [♐] 44 | 1 [♑] 27 | 14 [♕] 38 | S 10 |
| S 11 | 19 38 6 | 23 [♉] 37'40 | 15 [♊] 57 | 4 [♋] 19 | 14 [♌] 17 | 9 [♍] 13 | 14 [♍] 37 | 18 [♎] 29 | 26 [♎] 2 | 25 [♏] 24 | 18 [♏] 14 | 12 [♐] 7 | 10 [♑] 41 | 1 [♒] 33 | 14 [♖] 40 | S 11 |
| M 12 | 19 42 3 | 24 [♊] 35'03 | 29 [♋] 24 | 5 [♌] 12 | 15 [♍] 26 | 9 [♎] 38 | 14 [♎] 50 | 18 [♏] 27 | 26 [♏] 2 | 25 [♐] 24 | 18 [♐] 13 | 12 [♑] D 6 | 10 [♒] 38 | 1 [♓] 40 | 14 [♗] 42 | M 12 |
| T 13 | 19 45 59 | 25 [♋] 32'28 | 13 [♌] 11 | 6 [♍] 10 | 16 [♎] 35 | 10 [♏] 3 | 15 [♐] 4 | 18 [♑] 25 | 26 [♑] 3 | 25 [♒] 25 | 18 [♒] 12 | 12 [♓] 7 | 10 [♈] 34 | 1 [♔] 47 | 14 [♘] 44 | T 13 |
| W 14 | 19 49 56 | 26 [♌] 29'54 | 27 [♍] 20 | 7 [♎] 14 | 17 [♏] 44 | 10 [♐] 29 | 15 [♑] 17 | 18 [♒] 23 | 26 [♒] 4 | 25 [♓] 25 | 18 [♓] 11 | 12 [♈] 8 | 10 [♉] 31 | 1 [♕] 53 | 14 [♙] 46 | W 14 |
| T 15 | 19 53 53 | 27 [♍] 27'21 | 11 [♎] 51 | 8 [♏] 24 | 18 [♐] 54 | 10 [♑] 55 | 15 [♒] 30 | 18 [♓] 21 | 26 [♓] 5 | 25 [♈] 25 | 18 [♈] 10 | 12 [♉] R 9 | 10 [♊] 28 | 2 [♋] 0 | 14 [♚] 48 | T 15 |
| F 16 | 19 57 49 | 28 [♎] 24'49 | 26 [♑] 39 | 9 [♒] 39 | 20 [♓] 3 | 11 [♈] 22 | 15 [♉] 43 | 18 [♊] 19 | 26 [♊] 6 | 25 [♋] 25 | 18 [♋] 8 | 12 [♌] 8 | 10 [♍] 25 | 2 [♌] 7 | 14 [♛] 50 | F 16 |
| S 17 | 20 1 46 | 29 [♏] 22'19 | 11 [♈] 40 | 10 [♉] 59 | 21 [♊] 12 | 11 [♋] 49 | 15 [♌] 57 | 18 [♍] 17 | 26 [♍] 7 | 25 [♎] 26 | 18 [♎] 7 | 12 [♏] 5 | 10 [♐] 22 | 2 [♏] 13 | 14 [♜] 52 | S 17 |
| S 18 | 20 5 42 | 0 [♉] 19'50 | 26 [♊] 45 | 12 [♋] 24 | 22 [♌] 22 | 12 [♍] 16 | 16 [♎] 10 | 18 [♏] 15 | 26 [♎] 8 | 25 [♏] 26 | 18 [♏] 6 | 12 [♐] 1 | 10 [♑] 18 | 2 [♐] 20 | 14 [♝] 53 | S 18 |
| M 19 | 20 9 39 | 1 [♊] 17'22 | 11 [♋] 45 | 13 [♌] 54 | 23 [♍] 32 | 12 [♎] 44 | 16 [♏] 23 | 18 [♐] 13 | 26 [♏] 9 | 25 [♐] 26 | 18 [♐] 5 | 11 [♑] 54 | 10 [♒] 15 | 2 [♑] 27 | 14 [♞] 55 | M 19 |
| T 20 | 20 13 35 | 2 [♋] 14'55 | 26 [♌] 31 | 15 [♍] 29 | 24 [♎] 41 | 13 [♏] 12 | 16 [♐] 36 | 18 [♑] 10 | 26 [♑] 10 | 25 [♒] 26 | 18 [♒] 3 | 11 [♓] 46 | 10 [♈] 12 | 2 [♓] 33 | 14 [♟] 57 | T 20 |
| W 21 | 20 17 32 | 3 [♌] 12'29 | 10 [♍] 55 | 17 [♎] 8 | 25 [♏] 51 | 13 [♐] 41 | 16 [♑] 49 | 18 [♒] 8 | 26 [♒] 11 | 25 [♓] 26 | 18 [♓] 2 | 11 [♈] 39 | 10 [♉] 9 | 2 [♔] 40 | 14 [♠] 58 | W 21 |
| T 22 | 20 21 29 | 4 [♍] 10'04 | 24 [♎] 52 | 18 [♏] 50 | 27 [♐] 1 | 14 [♑] 10 | 17 [♒] 2 | 18 [♓] 5 | 26 [♓] 12 | 25 [♈] 26 | 18 [♈] 1 | 11 [♉] 32 | 10 [♊] 6 | 2 [♕] 47 | 15 [♋] 0 | T 22 |
| F 23 | 20 25 25 | 5 [♎] 7'40 | 8 [♏] 21 | 20 [♐] 36 | 28 [♑] 11 | 14 [♒] 39 | 17 [♓] 15 | 18 [♈] 2 | 26 [♈] 13 | 25 [♉] 26 | 18 [♉] 0 | 11 [♊] 27 | 10 [♋] 3 | 2 [♖] 53 | 15 [♌] 1 | F 23 |
| S 24 | 20 29 22 | 6 [♏] 5'16 | 21 [♑] 22 | 22 [♒] 26 | 29 [♓] 21 | 15 [♈] 8 | 17 [♉] 28 | 18 [♊] 0 | 26 [♊] 14 | 25 [♋] R26 | 17 [♌] 58 | 11 [♍] 24 | 9 [♎] 59 | 3 [♏] 0 | 15 [♍] 2 | S 24 |
| S 25 | 20 33 18 | 7 [♐] 2'54 | 3 [♎] 59 | 24 [♏] 18 | 0 [♐] 31 | 15 [♑] 38 | 17 [♒] 41 | 17 [♓] 57 | 26 [♓] 16 | 25 [♈] 26 | 17 [♈] 57 | 11 [♉] D23 | 9 [♊] 56 | 3 [♑] 7 | 15 [♎] 4 | S 25 |
| M 26 | 20 37 15 | 8 [♑] 0'33 | 16 [♏] 17 | 26 [♐] 12 | 1 [♑] 42 | 16 [♒] 9 | 17 [♓] 54 | 17 [♈] 54 | 26 [♈] 17 | 25 [♉] 26 | 17 [♉] 56 | 11 [♊] 23 | 9 [♋] 53 | 3 [♒] 13 | 15 [♏] 5 | M 26 |
| T 27 | 20 41 11 | 8 [♒] 58'13 | 28 [♐] 19 | 28 [♑] 9 | 2 [♒] 52 | 16 [♓] 39 | 18 [♈] 7 | 17 [♉] 51 | 26 [♉] 19 | 25 [♊] 26 | 17 [♊] 55 | 11 [♋] 24 | 9 [♌] 50 | 3 [♓] 20 | 15 [♐] 6 | T 27 |
| W 28 | 20 45 8 | 9 [♓] 55'54 | 10 [♈] 12 | 0 [♉] 7 | 4 [♊] 3 | 17 [♋] 10 | 18 [♌] 20 | 17 [♍] 48 | 26 [♍] 20 | 25 [♎] 26 | 17 [♎] 53 | 11 [♏] R24 | 9 [♏] 47 | 3 [♔] 26 | 15 [♑] 7 | W 28 |
| T 29 | 20 49 4 | 10 [♉] 53'36 | 22 [♊] 0 | 2 [♋] 6 | 5 [♌] 13 | 17 [♍] 41 | 18 [♎] 33 | 17 [♏] 44 | 26 [♎] 22 | 25 [♏] 26 | 17 [♏] 52 | 11 [♐] 24 | 9 [♑] 44 | 3 [♕] 33 | 15 [♒] 8 | T 29 |
| F 30 | 20 53 1 | 11 [♊] 51'20 | 3 [♋] 47 | 4 [♌] 6 | 6 [♍] 24 | 18 [♎] 13 | 18 [♏] 46 | 17 [♐] 41 | 26 [♏] 23 | 25 [♐] 26 | 17 [♐] 51 | 11 [♑] 21 | 9 [♒] 40 | 3 [♖] 40 | 15 [♓] 9 | F 30 |
| S 31 | 20 56 58 | 12 [♋] 49'05 | 15 [♌] 39 | 6 [♍] 7 | 7 [♎] 35 | 18 [♏] 45 | 18 [♐] 58 | 17 [♑] 38 | 26 [♑] 25 | 25 [♒] V26 | 17 [♒] 50 | 11 [♓] 16 | 9 [♈] II37 | 3 [♗] 46 | 15 [♔] 10 | S 31 |

Delta T = 20m28s Julian Calendar 1 July 1053 == Greg. Calendar 7 July 1053

AUGUST 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|----------------------|---------------------|-------------------|--------------------|------|
| S 1 | 21 0 54 | 13 [♌] 46'51 | 27 [♍] 36 | 8 [♎] 8 | 8 [♏] 45 | 19 [♐] 17 | 19 [♑] 11 | 17 [♒] R34 | 26 [♓] 26 | 25 [♈] R25 | 17 [♓] R48 | 11 [♉] R 9 | 9 [♊] II34 | 3 [♋] 53 | 15 [♌] 11 | S 1 |
| M 2 | 21 4 51 | 14 [♍] 44'38 | 9 [♎] 42 | 10 [♏] 8 | 9 [♐] 56 | 19 [♑] 49 | 19 [♒] 24 | 17 [♓] 31 | 26 [♈] 28 | 25 [♉] V25 | 17 [♔] 47 | 10 [♊] II59 | 9 [♋] 31 | 4 [♌] 0 | 15 [♍] 12 | M 2 |
| T 3 | 21 8 47 | 15 [♎] 42'27 | 21 [♏] 59 | 12 [♐] 9 | 11 [♑] 7 | 20 [♒] 22 | 19 [♓] 37 | 17 [♈] 27 | 26 [♉] 30 | 25 [♊] 25 | 17 [♕] 46 | 10 [♋] 48 | 9 [♌] 28 | 4 [♍] 6 | 15 [♎] 13 | T 3 |
| W 4 | 21 12 44 | 16 [♏] 40'18 | 4 [♈] 26 | 14 [♉] 9 | 12 [♊] 18 | 20 [♋] 55 | 19 [♌] 49 | 17 [♍] 24 | 26 [♊] 32 | 25 [♎] 24 | 17 [♖] 44 | 10 [♌] 36 | 9 [♍] 24 | 4 [♎] 13 | 15 [♏] 13 | W 4 |
| T 5 | 21 16 40 | 17 [♐] 38'10 | 17 [♊] 4 | 16 [♋] 8 | 13 [♌] 30 | 21 [♍] 28 | 20 [♎] 2 | 17 [♏] 20 | 26 [♋] 34 | 25 [♏] 24 | 17 [♗] 43 | 10 [♍] 25 | 9 [♎] 21 | 4 [♏] 20 | 15 [♐] 14 | T 5 |
| F 6 | 21 20 37 | 18 [♑] 36'03 | 29 [♋] 53 | 18 [♌] 7 | 14 [♍] 41 | 22 [♎] 2 | 20 [♏] 14 | 17 [♐] 16 | 26 [♌] 35 | 25 [♐] 24 | 17 [♘] 42 | 10 [♎] 15 | 9 [♏] 18 | 4 [♐] 26 | 15 [♑] 14 | F 6 |
| S 7 | 21 24 33 | 19 [♒] 33'59 | 12 [♎] V55 | 20 [♏] 5 | 15 [♐] 52 | 22 [♑] 36 | 20 [♒] 27 | 17 [♓] 13 | 26 [♑] 37 | 25 [♒] 23 | 17 [♔] 40 | 10 [♓] 8 | 9 [♈] 15 | 4 [♓] 33 | 15 [♔] 15 | S 7 |
| S 8 | 21 28 30 | 20 [♓] 31'56 | 26 [♊] 9 | 22 [♋] 2 | 17 [♌] 4 | 23 [♍] 10 | 20 [♎] 39 | 17 [♏] 9 | 26 [♏] 39 | 25 [♐] 23 | 17 [♕] 39 | 10 [♑] 3 | 9 [♊] 12 | 4 [♑] 40 | 15 [♕] 15 | S 8 |
| M 9 | 21 32 26 | 21 [♈] 29'55 | 9 [♋] 37 | 23 [♌] 57 | 18 [♍] 15 | 23 [♎] 44 | 20 [♏] 51 | 17 [♐] 5 | 26 [♐] 41 | 25 [♑] 22 | 17 [♖] 38 | 10 [♒] 1 | 9 [♋] 9 | 4 [♒] 46 | 15 [♖] 16 | M 9 |
| T 10 | 21 36 23 | 22 [♉] 27'56 | 23 [♍] 20 | 25 [♎] 52 | 19 [♏] 27 | 24 [♐] 18 | 21 [♑] 4 | 17 [♒] 1 | 26 [♑] 43 | 25 [♒] 22 | 17 [♗] 37 | 10 [♓] D 0 | 9 [♈] 5 | 4 [♓] 53 | 15 [♗] 16 | T 10 |
| W 11 | 21 40 20 | 23 [♊] 26'00 | 7 [♋] II19 | 27 [♌] 46 | 20 [♍] 38 | 24 [♎] 53 | 21 [♏] 16 | 16 [♐] 57 | 26 [♒] 46 | 25 [♓] 21 | 17 [♘] 35 | 10 [♈] R 1 | 9 [♉] 2 | 5 [♊] 0 | 15 [♘] 16 | W 11 |
| T 12 | 21 44 16 | 24 [♋] 24'05 | 21 [♌] 34 | 29 [♍] 38 | 21 [♎] 50 | 25 [♏] 28 | 21 [♐] 28 | 16 [♑] 53 | 26 [♓] 48 | 25 [♐] 20 | 17 [♙] 34 | 10 [♉] 0 | 8 [♊] 59 | 5 [♋] 6 | 15 [♙] 17 | T 12 |
| F 13 | 21 48 13 | 25 [♌] 22'12 | 6 [♍] 3 | 1 [♎] 29 | 23 [♏] 2 | 26 [♐] 3 | 21 [♑] 40 | 16 [♒] 48 | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1053
geocentric

SEPTEMBER 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|------|---|-----|
| W 1 | 23 3 7 | 13 ^h 52'07" | 13 ^h 32' | 3 ^h 0 | 16 ^h 1 | 7 ^h 54 | 25 ^h 19 | 15 ^h R23 | 27 ^h 39 | 25 ^h R 2 | 17 ^h R 9 | 7 ^h R48 | 7 ^h II55 | 7 ^h 20 | 15 ^h R 8 | W 1 | | |
| T 2 | 23 7 4 | 14 ^h 50'49" | 26 ^h 29 | 4 ^h 29 | 17 ^h 14 | 8 ^h 33 | 25 ^h 30 | 15 ^h 18 | 27 ^h 42 | 25 ^h Y 1 | 17 ^h 8 | 7 ^h II35 | 7 ^h 52 | 7 ^h 26 | 15 ^h R 7 | T 2 | | |
| F 3 | 23 11 0 | 15 ^h 49'34" | 9 ^h 40 | 5 ^h 56 | 18 ^h 27 | 9 ^h 13 | 25 ^h 41 | 15 ^h 14 | 27 ^h 45 | 25 ^h 0 | 17 ^h 7 | 7 ^h 24 | 7 ^h 49 | 7 ^h 33 | 15 ^h 6 | F 3 | | |
| S 4 | 23 14 57 | 16 ^h 48'21" | 23 ^h 2 | 7 ^h 23 | 19 ^h 41 | 9 ^h 52 | 25 ^h 51 | 15 ^h 9 | 27 ^h 48 | 24 ^h 59 | 17 ^h 6 | 7 ^h 16 | 7 ^h 46 | 7 ^h 40 | 15 ^h 4 | S 4 | | |
| S 5 | 23 18 53 | 17 ^h 47'10" | 6 ^h 34 | 8 ^h 48 | 20 ^h 54 | 10 ^h 32 | 26 ^h 2 | 15 ^h 4 | 27 ^h 51 | 24 ^h 57 | 17 ^h 5 | 7 ^h 10 | 7 ^h 43 | 7 ^h 46 | 15 ^h 3 | S 5 | | |
| M 6 | 23 22 50 | 18 ^h 46'01" | 20 ^h 14 | 10 ^h 13 | 22 ^h 7 | 11 ^h 12 | 26 ^h 12 | 15 ^h 0 | 27 ^h 55 | 24 ^h 56 | 17 ^h 4 | 7 ^h 7 | 7 ^h 40 | 7 ^h 53 | 15 ^h 2 | M 6 | | |
| T 7 | 23 26 47 | 19 ^h 44'55" | 4 ^h II 4 | 11 ^h 36 | 23 ^h 21 | 11 ^h 52 | 26 ^h 22 | 14 ^h 55 | 27 ^h 58 | 24 ^h 55 | 17 ^h 3 | 7 ^h D 6 | 7 ^h 36 | 8 ^h 0 | 15 ^h 1 | T 7 | | |
| W 8 | 23 30 43 | 20 ^h 43'51" | 18 ^h 2 | 12 ^h 59 | 24 ^h 35 | 12 ^h 32 | 26 ^h 33 | 14 ^h 50 | 28 ^h 1 | 24 ^h 54 | 17 ^h 2 | 7 ^h R 6 | 7 ^h 33 | 8 ^h 6 | 14 ^h 59 | W 8 | | |
| T 9 | 23 34 40 | 21 ^h 42'50" | 2 ^h 8 | 14 ^h 20 | 25 ^h 48 | 13 ^h 12 | 26 ^h 43 | 14 ^h 46 | 28 ^h 4 | 24 ^h 52 | 17 ^h 1 | 7 ^h 6 | 7 ^h 30 | 8 ^h 13 | 14 ^h 58 | T 9 | | |
| F 10 | 23 38 36 | 22 ^h 41'51" | 16 ^h 21 | 15 ^h 40 | 27 ^h 2 | 13 ^h 53 | 26 ^h 53 | 14 ^h 41 | 28 ^h 7 | 24 ^h 51 | 17 ^h 0 | 7 ^h 4 | 7 ^h 27 | 8 ^h 20 | 14 ^h 56 | F 10 | | |
| S 11 | 23 42 33 | 23 ^h 40'54" | 0 ^h 40 | 16 ^h 58 | 28 ^h 16 | 14 ^h 33 | 27 ^h 3 | 14 ^h 37 | 28 ^h 10 | 24 ^h 50 | 16 ^h 59 | 7 ^h 0 | 7 ^h 24 | 8 ^h 26 | 14 ^h 55 | S 11 | | |
| S 12 | 23 46 29 | 24 ^h 39'59" | 15 ^h 1 | 18 ^h 15 | 29 ^h 30 | 15 ^h 14 | 27 ^h 12 | 14 ^h 32 | 28 ^h 14 | 24 ^h 48 | 16 ^h 58 | 6 ^h 53 | 7 ^h 21 | 8 ^h 33 | 14 ^h 53 | S 12 | | |
| M13 | 23 50 26 | 25 ^h 39'07" | 29 ^h 20 | 19 ^h 31 | 0 ^h 43 | 15 ^h 55 | 27 ^h 22 | 14 ^h 27 | 28 ^h 17 | 24 ^h 47 | 16 ^h 57 | 6 ^h 43 | 7 ^h 17 | 8 ^h 40 | 14 ^h 51 | M13 | | |
| T 14 | 23 54 22 | 26 ^h 38'17" | 13 ^h 32 | 20 ^h 46 | 1 ^h 57 | 16 ^h 36 | 27 ^h 32 | 14 ^h 23 | 28 ^h 20 | 24 ^h 45 | 16 ^h 56 | 6 ^h 32 | 7 ^h 14 | 8 ^h 46 | 14 ^h 49 | T 14 | | |
| W15 | 23 58 19 | 27 ^h 37'29" | 27 ^h 30 | 21 ^h 59 | 3 ^h 11 | 17 ^h 17 | 27 ^h 41 | 14 ^h 18 | 28 ^h 24 | 24 ^h 44 | 16 ^h 55 | 6 ^h 21 | 7 ^h 11 | 8 ^h 53 | 14 ^h 48 | W15 | | |
| T 16 | 0 2 16 | 28 ^h 36'44" | 11 ^h 10 | 23 ^h 10 | 4 ^h 25 | 17 ^h 58 | 27 ^h 51 | 14 ^h 14 | 28 ^h 27 | 24 ^h 42 | 16 ^h 54 | 6 ^h 11 | 7 ^h 8 | 9 ^h 0 | 14 ^h 46 | T 16 | | |
| F 17 | 0 6 12 | 29 ^h 36'00" | 24 ^h 30 | 24 ^h 19 | 5 ^h 40 | 18 ^h 40 | 28 ^h 0 | 14 ^h 9 | 28 ^h 30 | 24 ^h 41 | 16 ^h 53 | 6 ^h 2 | 7 ^h 5 | 9 ^h 6 | 14 ^h 44 | F 17 | | |
| S 18 | 0 10 9 | 0 ^h 35'18" | 7 ^h 27 | 25 ^h 27 | 6 ^h 54 | 19 ^h 21 | 28 ^h 9 | 14 ^h 5 | 28 ^h 34 | 24 ^h 39 | 16 ^h 52 | 5 ^h 56 | 7 ^h 1 | 9 ^h 13 | 14 ^h 42 | S 18 | | |
| S 19 | 0 14 5 | 1 ^h 34'38" | 20 ^h 4 | 26 ^h 32 | 8 ^h 8 | 20 ^h 3 | 28 ^h 18 | 14 ^h 1 | 28 ^h 37 | 24 ^h 38 | 16 ^h 51 | 5 ^h 53 | 6 ^h 58 | 9 ^h 20 | 14 ^h 40 | S 19 | | |
| M20 | 0 18 2 | 2 ^h 34'00" | 2 ^h 22 | 27 ^h 35 | 9 ^h 22 | 20 ^h 45 | 28 ^h 27 | 13 ^h 56 | 28 ^h 41 | 24 ^h 36 | 16 ^h 51 | 5 ^h D51 | 6 ^h 55 | 9 ^h 26 | 14 ^h 38 | M20 | | |
| T 21 | 0 21 58 | 3 ^h 33'24" | 14 ^h 26 | 28 ^h 36 | 10 ^h 36 | 21 ^h 26 | 28 ^h 36 | 13 ^h 52 | 28 ^h 44 | 24 ^h 35 | 16 ^h 50 | 5 ^h 51 | 6 ^h 52 | 9 ^h 33 | 14 ^h 36 | T 21 | | |
| W22 | 0 25 55 | 4 ^h 32'50" | 26 ^h 19 | 29 ^h 34 | 11 ^h 51 | 22 ^h 8 | 28 ^h 44 | 13 ^h 48 | 28 ^h 48 | 24 ^h 33 | 16 ^h 49 | 5 ^h 52 | 6 ^h 49 | 9 ^h 40 | 14 ^h 34 | W22 | | |
| T 23 | 0 29 51 | 5 ^h 32'17" | 8 ^h 3 9 | 0 ^h 29 | 13 ^h 5 | 22 ^h 51 | 28 ^h 53 | 13 ^h 44 | 28 ^h 51 | 24 ^h 32 | 16 ^h 48 | 5 ^h R52 | 6 ^h 46 | 9 ^h 46 | 14 ^h 31 | T 23 | | |
| F 24 | 0 33 48 | 6 ^h 31'47" | 19 ^h 59 | 1 ^h 21 | 14 ^h 19 | 23 ^h 33 | 29 ^h 2 | 13 ^h 40 | 28 ^h 55 | 24 ^h 30 | 16 ^h 48 | 5 ^h 51 | 6 ^h 42 | 9 ^h 53 | 14 ^h 29 | F 24 | | |
| S 25 | 0 37 44 | 7 ^h 31'18" | 1 ^h 56 | 2 ^h 9 | 15 ^h 34 | 24 ^h 15 | 29 ^h 10 | 13 ^h 35 | 28 ^h 58 | 24 ^h 29 | 16 ^h 47 | 5 ^h 48 | 6 ^h 39 | 10 ^h 0 | 14 ^h 27 | S 25 | | |
| S 26 | 0 41 41 | 8 ^h 30'51" | 14 ^h 3 | 2 ^h 53 | 16 ^h 48 | 24 ^h 58 | 29 ^h 18 | 13 ^h 31 | 29 ^h 2 | 24 ^h 27 | 16 ^h 46 | 5 ^h 43 | 6 ^h 36 | 10 ^h 6 | 14 ^h 24 | S 26 | | |
| M27 | 0 45 38 | 9 ^h 30'26" | 26 ^h 25 | 3 ^h 34 | 18 ^h 3 | 25 ^h 40 | 29 ^h 26 | 13 ^h 27 | 29 ^h 5 | 24 ^h 25 | 16 ^h 45 | 5 ^h 35 | 6 ^h 33 | 10 ^h 13 | 14 ^h 22 | M27 | | |
| T 28 | 0 49 34 | 10 ^h 30'02" | 9 ^h 4 | 4 ^h 9 | 19 ^h 17 | 26 ^h 23 | 29 ^h 34 | 13 ^h 24 | 29 ^h 9 | 24 ^h 24 | 16 ^h 45 | 5 ^h 26 | 6 ^h 30 | 10 ^h 20 | 14 ^h 20 | T 28 | | |
| W29 | 0 53 31 | 11 ^h 29'41" | 22 ^h 2 | 4 ^h 39 | 20 ^h 32 | 27 ^h 5 | 29 ^h 42 | 13 ^h 20 | 29 ^h 12 | 24 ^h 22 | 16 ^h 44 | 5 ^h 16 | 6 ^h 27 | 10 ^h 26 | 14 ^h 17 | W29 | | |
| T 30 | 0 57 27 | 12 ^h 29'21" | 5 ^h 19 | 5 ^h 27 | 21 ^h 46 | 27 ^h 48 | 29 ^h 49 | 13 ^h 16 | 29 ^h 16 | 24 ^h 20 | 16 ^h 43 | 5 ^h II 7 | 6 ^h II23 | 10 ^h 33 | 14 ^h 15 | T 30 | | |

Delta T = 20m27s Julian Calendar 1 Sept. 1053 == Greg. Calendar 7 Sept. 1053

OCTOBER 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------|---|-----|
| F 1 | 1 1 24 | 13 ^h 29'04" | 18 ^h 51 | 5 ^h 23 | 23 ^h 1 | 28 ^h 31 | 29 ^h 57 | 13 ^h R12 | 29 ^h 20 | 24 ^h R19 | 16 ^h R43 | 4 ^h R59 | 6 ^h II20 | 10 ^h 340 | 14 ^h R12 | F 1 | | |
| S 2 | 1 5 20 | 14 ^h 28'48" | 2 ^h 38 | 5 ^h 34 | 24 ^h 16 | 29 ^h 14 | 0 ^h 4 | 13 ^h 9 | 29 ^h 23 | 24 ^h Y17 | 16 ^h 42 | 4 ^h II52 | 6 ^h 17 | 10 ^h 46 | 14 ^h R 10 | S 2 | | |
| S 3 | 1 9 17 | 15 ^h 28'35" | 16 ^h 36 | 5 ^h R39 | 25 ^h 31 | 29 ^h 57 | 0 ^h 12 | 13 ^h 5 | 29 ^h 27 | 24 ^h 15 | 16 ^h 42 | 4 ^h 49 | 6 ^h 14 | 10 ^h 53 | 14 ^h 7 | S 3 | | |
| M 4 | 1 13 13 | 16 ^h 28'24" | 0 ^h II40 | 5 ^h 35 | 26 ^h 45 | 0 ^h 340 | 0 ^h 19 | 13 ^h 1 | 29 ^h 31 | 24 ^h 14 | 16 ^h 41 | 4 ^h D47 | 6 ^h 11 | 11 ^h 0 | 14 ^h 4 | M 4 | | |
| T 5 | 1 17 10 | 17 ^h 28'15" | 14 ^h 48 | 5 ^h 23 | 28 ^h 0 | 1 ^h 24 | 0 ^h 26 | 12 ^h 58 | 29 ^h 34 | 24 ^h 12 | 16 ^h 41 | 4 ^h 48 | 6 ^h 7 | 11 ^h 6 | 14 ^h 2 | T 5 | | |
| W 6 | 1 21 7 | 18 ^h 28'08" | 28 ^h 58 | 5 ^h 2 | 29 ^h 15 | 2 ^h 7 | 0 ^h 33 | 12 ^h 55 | 29 ^h 38 | 24 ^h 10 | 16 ^h 40 | 4 ^h 49 | 6 ^h 4 | 11 ^h 13 | 13 ^h 59 | W 6 | | |
| T 7 | 1 25 3 | 19 ^h 28'04" | 13 ^h 8 | 4 ^h 33 | 0 ^h 30 | 2 ^h 50 | 0 ^h 39 | 12 ^h 51 | 29 ^h 42 | 24 ^h 9 | 16 ^h 40 | 4 ^h R50 | 6 ^h 1 | 11 ^h 20 | 13 ^h 56 | T 7 | | |
| F 8 | 1 29 0 | 20 ^h 28'02" | 27 ^h 16 | 3 ^h 54 | 1 ^h 45 | 3 ^h 34 | 0 ^h 46 | 12 ^h 48 | 29 ^h 45 | 24 ^h 7 | 16 ^h 39 | 4 ^h 50 | 5 ^h 58 | 11 ^h 26 | 13 ^h 53 | F 8 | | |
| S 9 | 1 32 56 | 21 ^h 28'02" | 11 ^h 20 | 3 ^h 5 | 3 ^h 0 | 4 ^h 18 | 0 ^h 52 | 12 ^h 45 | 29 ^h 49 | 24 ^h 5 | 16 ^h 39 | 4 ^h 48 | 5 ^h 55 | 11 ^h 33 | 13 ^h 51 | S 9 | | |
| S 10 | 1 36 53 | 22 ^h 28'05" | 25 ^h 20 | 2 ^h 9 | 4 ^h 15 | 5 ^h 1 | 0 ^h 58 | 12 ^h 42 | 29 ^h 53 | 24 ^h 4 | 16 ^h 38 | 4 ^h 44 | 5 ^h 52 | 11 ^h 40 | 13 ^h 48 | S 10 | | |
| M11 | 1 40 49 | 23 ^h 28'09" | 9 ^h 13 | 1 ^h 4 | 5 ^h 30 | 5 ^h 45 | 1 ^h 5 | 12 ^h 39 | 29 ^h 57 | 24 ^h 2 | 16 ^h 38 | 4 ^h 39 | 5 ^h 48 | 11 ^h 46 | 13 ^h 45 | M11 | | |
| T 12 | 1 44 46 | 24 ^h 28'16" | 22 ^h 57 | 29 ^h 54 | 6 ^h 45 | 6 ^h 29 | 1 ^h 10 | 12 ^h 36 | 0 ^h 0 | 24 ^h 0 | 16 ^h 38 | 4 ^h 32 | 5 ^h 45 | 11 ^h 53 | 13 ^h 42 | T 12 | | |
| W13 | 1 48 42 | 25 ^h 28'24" | 6 ^h 28 | 28 ^h 38 | 8 ^h 0 | 7 ^h 13 | 1 ^h 16 | 12 ^h 33 | 0 ^h 4 | 23 ^h 59 | 16 ^h 37 | 4 ^h 25 | 5 ^h 42 | 12 ^h 0 | 13 ^h 39 | W13 | | |
| T 14 | 1 52 39 | 26 ^h 28'35" | 19 ^h 46 | 27 ^h 20 | 9 ^h 15 | 7 ^h 57 | 1 ^h 22 | 12 ^h 31 | 0 ^h 8 | 23 ^h 57 | 16 ^h 37 | 4 ^h 19 | 5 ^h 39 | 12 ^h 6 | 13 ^h 36 | T 14 | | |
| F 15 | 1 56 36 | 27 ^h 28'47" | 2 ^h 47 | 26 ^h 2 | 10 ^h 30 | 8 ^h 41 | 1 ^h 27 | 12 ^h 28 | 0 ^h 12 | 23 ^h 55 | 16 ^h 37 | 4 ^h 14 | 5 ^h 36 | 12 ^h 13 | 13 ^h 33 | F 15 | | |
| S 16 | 2 0 32 | 28 ^h 29'02" | 15 ^h 32 | 24 ^h 46 | 11 ^h 45 | 9 ^h 25 | 1 ^h 33 | 12 ^h 25 | 0 ^h 15 | 23 ^h 54 | 16 ^h 37 | 4 ^h 10 | | | | | | |

ASTRODIENST EPHEMERIS for the year 1053
geocentric

NOVEMBER 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|------|--------|-------|-------|------|-------|--------|------|---|---|---|---|---|-----|
| M 1 | 3 3 37 | 14♐36'19 | 10♐16 | 25♏10 | 1♐50 | 21♏18 | 2♏33 | 11°R58 | 1♐15 | 23°R27 | 16♏36 | 3°D53 | 4♐42 | 14♏6 | 12°R40 | M 1 | | | | | | |
| T 2 | 3 7 34 | 15°36'59 | 24°52 | 26°19 | 3° 5 | 22° 3 | 2°36 | 11♏57 | 1°19 | 23°Y26 | 16°36 | 3♐54 | 4°38 | 14°13 | 12♏37 | T 2 | | | | | | |
| W 3 | 3 11 30 | 16°37'41 | 9♏26 | 27°31 | 4°20 | 22°48 | 2°38 | 11°57 | 1°22 | 23°24 | 16°37 | 3°55 | 4°35 | 14°20 | 12°34 | W 3 | | | | | | |
| T 4 | 3 15 27 | 17°38'24 | 23°53 | 28°47 | 5°36 | 23°33 | 2°40 | 11°56 | 1°26 | 23°23 | 16°37 | 3°57 | 4°32 | 14°27 | 12°31 | T 4 | | | | | | |
| F 5 | 3 19 23 | 18°39'09 | 8♏10 | 0♐5 | 6°51 | 24°19 | 2°41 | 11°56 | 1°30 | 23°21 | 16°37 | 3°58 | 4°29 | 14°33 | 12°28 | F 5 | | | | | | |
| S 6 | 3 23 20 | 19°39'55 | 22°13 | 1°26 | 8° 7 | 25° 4 | 2°43 | 11°55 | 1°33 | 23°20 | 16°37 | 3°R58 | 4°26 | 14°40 | 12°25 | S 6 | | | | | | |
| S 7 | 3 27 16 | 20°40'43 | 6♐2 | 2°48 | 9°22 | 25°49 | 2°44 | 11°55 | 1°37 | 23°18 | 16°38 | 3°57 | 4°23 | 14°47 | 12°22 | S 7 | | | | | | |
| M 8 | 3 31 13 | 21°41'33 | 19°37 | 4°12 | 10°38 | 26°34 | 2°45 | 11°55 | 1°40 | 23°17 | 16°38 | 3°56 | 4°19 | 14°53 | 12°19 | M 8 | | | | | | |
| T 9 | 3 35 9 | 22°42'24 | 2♏57 | 5°38 | 11°53 | 27°19 | 2°46 | 11°D55 | 1°44 | 23°16 | 16°38 | 3°55 | 4°16 | 15° 0 | 12°15 | T 9 | | | | | | |
| W10 | 3 39 6 | 23°43'17 | 16° 4 | 7° 5 | 13° 9 | 28° 4 | 2°47 | 11°55 | 1°47 | 23°14 | 16°39 | 3°53 | 4°13 | 15° 7 | 12°12 | W10 | | | | | | |
| T 11 | 3 43 3 | 24°44'10 | 28°57 | 8°33 | 14°24 | 28°50 | 2°47 | 11°55 | 1°51 | 23°13 | 16°39 | 3°52 | 4°10 | 15°13 | 12° 9 | T 11 | | | | | | |
| F 12 | 3 46 59 | 25°45'06 | 11♐36 | 10° 1 | 15°40 | 29°35 | 2°48 | 11°55 | 1°55 | 23°11 | 16°40 | 3°51 | 4° 7 | 15°20 | 12° 6 | F 12 | | | | | | |
| S 13 | 3 50 56 | 26°46'02 | 24° 3 | 11°31 | 16°55 | 0♏20 | 2°R48 | 11°55 | 1°58 | 23°10 | 16°40 | 3°50 | 4° 4 | 15°27 | 12° 3 | S 13 | | | | | | |
| S 14 | 3 54 52 | 27°47'00 | 6♏19 | 13° 1 | 18°11 | 1° 6 | 2°48 | 11°56 | 2° 2 | 23° 9 | 16°41 | 3°D50 | 4° 0 | 15°33 | 12° 0 | S 14 | | | | | | |
| M15 | 3 58 49 | 28°47'58 | 18°25 | 14°31 | 19°26 | 1°51 | 2°47 | 11°57 | 2° 5 | 23° 7 | 16°41 | 3°51 | 3°57 | 15°40 | 11°57 | M15 | | | | | | |
| T 16 | 4 2 45 | 29°48'58 | 0♏22 | 16° 2 | 20°42 | 2°37 | 2°47 | 11°57 | 2° 8 | 23° 6 | 16°42 | 3°51 | 3°54 | 15°47 | 11°54 | T 16 | | | | | | |
| W17 | 4 6 42 | 0♏49'58 | 12°14 | 17°34 | 21°57 | 3°22 | 2°46 | 11°58 | 2°12 | 23° 5 | 16°42 | 3°51 | 3°51 | 15°53 | 11°51 | W17 | | | | | | |
| T 18 | 4 10 38 | 1°50'59 | 24° 3 | 19° 5 | 23°13 | 4° 7 | 2°45 | 11°59 | 2°15 | 23° 4 | 16°43 | 3°52 | 3°48 | 16° 0 | 11°48 | T 18 | | | | | | |
| F 19 | 4 14 35 | 2°52'01 | 5♏53 | 20°37 | 24°28 | 4°53 | 2°44 | 12° 0 | 2°19 | 23° 2 | 16°44 | 3°52 | 3°44 | 16° 7 | 11°45 | F 19 | | | | | | |
| S 20 | 4 18 32 | 3°53'04 | 17°47 | 22° 9 | 25°44 | 5°38 | 2°43 | 12° 1 | 2°22 | 23° 1 | 16°44 | 3°R52 | 3°41 | 16°13 | 11°43 | S 20 | | | | | | |
| S 21 | 4 22 28 | 4°54'07 | 29°51 | 23°41 | 26°59 | 6°24 | 2°41 | 12° 2 | 2°25 | 23° 0 | 16°45 | 3°D52 | 3°38 | 16°20 | 11°40 | S 21 | | | | | | |
| M22 | 4 26 25 | 5°55'10 | 12♏9 | 25°13 | 28°15 | 7° 9 | 2°40 | 12° 4 | 2°29 | 22°59 | 16°46 | 3°52 | 3°35 | 16°27 | 11°37 | M22 | | | | | | |
| T 23 | 4 30 21 | 6°56'14 | 24°45 | 26°46 | 29°30 | 7°55 | 2°38 | 12° 5 | 2°32 | 22°58 | 16°46 | 3°52 | 3°32 | 16°33 | 11°34 | T 23 | | | | | | |
| W24 | 4 34 18 | 7°57'19 | 7♏44 | 28°19 | 0♏46 | 8°40 | 2°36 | 12° 7 | 2°35 | 22°57 | 16°47 | 3°52 | 3°29 | 16°40 | 11°31 | W24 | | | | | | |
| T 25 | 4 38 14 | 8°58'24 | 21° 8 | 29°51 | 2° 2 | 9°26 | 2°34 | 12° 8 | 2°38 | 22°56 | 16°48 | 3°53 | 3°25 | 16°47 | 11°29 | T 25 | | | | | | |
| F 26 | 4 42 11 | 9°59'29 | 4♏58 | 1♏24 | 3°17 | 10°12 | 2°31 | 12°10 | 2°41 | 22°55 | 16°49 | 3°53 | 3°22 | 16°53 | 11°26 | F 26 | | | | | | |
| S 27 | 4 46 7 | 11° 0'35 | 19°14 | 2°57 | 4°33 | 10°57 | 2°29 | 12°12 | 2°45 | 22°54 | 16°50 | 3°54 | 3°19 | 17° 0 | 11°23 | S 27 | | | | | | |
| S 28 | 4 50 4 | 12° 1'42 | 3♐53 | 4°31 | 5°48 | 11°43 | 2°26 | 12°14 | 2°48 | 22°53 | 16°50 | 3°R54 | 3°16 | 17° 7 | 11°21 | S 28 | | | | | | |
| M29 | 4 54 1 | 13° 2'49 | 18°47 | 6° 4 | 7° 4 | 12°28 | 2°23 | 12°16 | 2°51 | 22°52 | 16°51 | 3°54 | 3°13 | 17°14 | 11°18 | M29 | | | | | | |
| T 30 | 4 57 57 | 14♏3'56 | 3♏49 | 7♏38 | 8♏19 | 13♏14 | 2♏20 | 12♏18 | 2♐54 | 22°Y51 | 16♏52 | 3♐53 | 3♐10 | 17♏20 | 11♏16 | T 30 | | | | | | |

Delta T = 20m26s Julian Calendar 1 Nov. 1053 == Greg. Calendar 7 Nov. 1053

DECEMBER 1053 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|------|-------|--------|------|---|---|---|---|---|-----|
| W 1 | 5 1 54 | 15♏5'04 | 18♏51 | 9♏11 | 9♏35 | 13♏59 | 2°R16 | 12♏20 | 2♐57 | 22°R50 | 16♏53 | 3°R52 | 3♐6 | 17♏27 | 11°R13 | W 1 | | | | | | |
| T 2 | 5 5 50 | 16° 6'13 | 3♏43 | 10°45 | 10°50 | 14°45 | 2♏13 | 12°23 | 3° 0 | 22°Y49 | 16°54 | 3♐50 | 3° 3 | 17°34 | 11♏11 | T 2 | | | | | | |
| F 3 | 5 9 47 | 17° 7'23 | 18°19 | 12°19 | 12° 6 | 15°30 | 2° 9 | 12°25 | 3° 3 | 22°48 | 16°55 | 3°49 | 3° 0 | 17°40 | 11° 8 | F 3 | | | | | | |
| S 4 | 5 13 43 | 18° 8'33 | 2♐34 | 13°53 | 13°21 | 16°16 | 2° 5 | 12°28 | 3° 6 | 22°47 | 16°56 | 3°48 | 2°57 | 17°47 | 11° 6 | S 4 | | | | | | |
| S 5 | 5 17 40 | 19° 9'43 | 16°27 | 15°28 | 14°37 | 17° 1 | 2° 1 | 12°31 | 3° 9 | 22°47 | 16°57 | 3°D47 | 2°54 | 17°54 | 11° 4 | S 5 | | | | | | |
| M 6 | 5 21 37 | 20°10'54 | 29°57 | 17° 3 | 15°52 | 17°47 | 1°57 | 12°33 | 3°12 | 22°46 | 16°58 | 3°47 | 2°50 | 18° 0 | 11° 1 | M 6 | | | | | | |
| T 7 | 5 25 33 | 21°12'06 | 13♏5 | 18°38 | 17° 8 | 18°33 | 1°52 | 12°36 | 3°14 | 22°45 | 16°59 | 3°48 | 2°47 | 18° 7 | 10°59 | T 7 | | | | | | |
| W 8 | 5 29 30 | 22°13'18 | 25°55 | 20°13 | 18°23 | 19°18 | 1°47 | 12°39 | 3°17 | 22°44 | 17° 0 | 3°50 | 2°44 | 18°14 | 10°57 | W 8 | | | | | | |
| T 9 | 5 33 26 | 23°14'31 | 8♐30 | 21°48 | 19°39 | 20° 4 | 1°43 | 12°42 | 3°20 | 22°44 | 17° 1 | 3°51 | 2°41 | 18°20 | 10°55 | T 9 | | | | | | |
| F 10 | 5 37 23 | 24°15'44 | 20°51 | 23°24 | 20°54 | 20°49 | 1°38 | 12°46 | 3°23 | 22°43 | 17° 2 | 3°53 | 2°38 | 18°27 | 10°53 | F 10 | | | | | | |
| S 11 | 5 41 19 | 25°16'57 | 3♏2 | 25° 0 | 22°10 | 21°35 | 1°33 | 12°49 | 3°25 | 22°42 | 17° 4 | 3°R53 | 2°35 | 18°34 | 10°51 | S 11 | | | | | | |
| S 12 | 5 45 16 | 26°18'10 | 15° 5 | 26°37 | 23°26 | 22°20 | 1°27 | 12°52 | 3°28 | 22°42 | 17° 5 | 3°53 | 2°31 | 18°40 | 10°49 | S 12 | | | | | | |
| M13 | 5 49 12 | 27°19'24 | 27° 1 | 28°14 | 24°41 | 23° 6 | 1°22 | 12°56 | 3°31 | 22°41 | 17° 6 | 3°51 | 2°28 | 18°47 | 10°47 | M13 | | | | | | |
| T 14 | 5 53 9 | 28°20'37 | 8♏54 | 29°51 | 25°57 | 23°51 | 1°16 | 12°59 | 3°33 | 22°41 | 17° 7 | 3°48 | 2°25 | 18°54 | 10°45 | T 14 | | | | | | |
| W15 | 5 57 6 | 29°21'51 | 20°44 | 1♏28 | 27°12 | 24°37 | 1°10 | 13° 3 | 3°36 | 22°40 | 17° 8 | 3°44 | 2°22 | 19° 1 | 10°43 | W15 | | | | | | |
| T 16 | 6 1 2 | 0♏23'04 | 2♏34 | 3° 6 | 28°28 | 25°22 | 1° 4 | 13° 7 | 3°38 | 22°40 | 17°10 | 3°39 | 2°19 | 19° 7 | 10°41 | T 16 | | | | | | |
| F 17 | 6 4 59 | 1°24'17 | 14°25 | 4°44 | 29°43 | 26° 8 | 0°58 | 13°11 | 3°41 | 22°40 | 17°11 | 3°34 | 2°16 | 19°14 | 10°40 | F 17 | | | | | | |
| S 18 | 6 8 55 | 2°25'29 | 26°21 | 6°23 | 0♏59 | 26°53 | 0°52 | 13°14 | 3°43 | 22°39 | 17°12 | 3°29 | 2°12 | 19°21 | 10°38 | S 18 | | | | | | |
| S 19 | 6 12 52 | 3°26'41 | 8♏25 | 8° 2 | 2°14 | 27°39 | 0°46 | 13°18 | 3°45 | 22°39 | 17°13 | 3°25 | 2° 9 | 19°27 | 10°36 | S 19 | | | | | | |
| M20 | 6 16 48 | 4°27'53 | 20°40 | 9°41 | 3°30 | 28°24 | 0°39 | 13°23 | 3°48 | 22°39 | 17°15 | 3°23 | 2° 6 | 19°34 | 10°35 | M20 | | | | | | |
| T 21 | 6 20 45 | 5°29'04 | 3♏10 | 11°21 | 4°45 | 29°10 | 0°33 | 13°27 | 3°50 | 22°38 | 17°16 | 3°D22 | 2° 3 | 19°41 | 10°33 | T 21 | | | | | | |
| W22 | 6 24 41 | 6°30'14 | 16° 0 | 13° 1 | 6° 0 | 29°55 | 0°26 | 13°31 | 3°52 | 22°38 | 17°17 | 3°22 | 2° 0 | 19°47 | 10°32 | W22 | | | | | | |
| T 23 | 6 28 38 | 7°31'24 | 29°14 | 14°42 | 7°16 | 0♏40 | 0°19 | 13°35 | 3°54 | 22°38 | 17°19 | 3°23 | 1°56 | 19°54 | 10°31 | T 23 | | | | | | |
| F 24 | 6 32 35 | 8°32'33 | 12♏55 | 16°22 | 8°31 | 1°26 | 0°13 | 13°40 | 3°56 | 22°38 | 17°20 | 3°25 | 1°53 | 20° 1 | 10°29 | F 24 | | | | | | |
| S 25 | 6 36 31 | 9°33'41 | 27° 4 | 18° 3 | 9°47 | 2°11 | 0° 5 | 13°44 | 3°58 | 22°38 | 17°21 | 3°R26 | 1°50 | 20° 7 | 10°28 | S 25 | | | | | | |
| S 26 | 6 40 28 | 10°34'49 | 11♐39 | 19°44 | 11° 2 | 2°56 | 29♏58 | 13°49 | 4° 0 | 22°38 | 17°23 | 3°26 | 1°47 | 20°14 | 10°27 | S 26 | | | | | | |
| M27 | 6 44 24 | 11°35'56 | 26°38 | 21°25 | 12°18 | 3°42 | 29°51 | 13°54 | 4° 2 | 22°38 | 17°24 | 3°24 | 1°44 | 20°21 | 10°26 | M27 | | | | | | |
| T 28 | 6 48 21 | 12°37'02 | 11♏51 | 23° 7 | 13°33 | 4°27 | 29°44 | 13°59 | 4° 4 | 22°D38 | 17°26 | 3°20 | 1°41 | 20°27 | 10°25 | T 28 | | | | | | |
| W29 | 6 52 17 | 13°38'08 | 27°10 | 24°48 | 14°48 | 5°12 | 29°36 | 14° 3 | 4° 6 | 22°38 | 17°27 | 3°15 | 1°37 | 20°34 | 10°24 | W29 | | | | | | |
| T 30 | 6 56 14 | 14°39'13 | 12♏23 | 26°29 | 16° 4 | 5°57 | 29°29 | 14° 8 | 4° 8 | 22°38 | 17°29 | 3° 8 | 1°34 | 20°41 | 10°23 | T 30 | | | | | | |
| F 31 | 7 0 11 | 15♏40'18 | 27♏20 | 28♏10 | 17♏19 | 6♏43 | 29♏21 | 14♏13 | 4♐10 | 22°Y38 | 17♏30 | 3♐2 | 1♐31 | 20♏48 | 10♏22 | F 31 | | | | | | |

Delta T = 20m26s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1054
geocentric

JANUARY 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|-----------|--------|--------|-------|-------|--------|-------|------|--------|-------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 4 7 | 16☾41'22 | 11♏53 | 29☾50 | 18☾35 | 7♋28 | 29°R14 | 14♋18 | 4♌12 | 22°V38 | 17♌32 | 2°R56 | 1♐28 | 20☾54 | 10°R21 | S 1 | | | | | | | | |
| S 2 | 7 8 4 | 17°42'25 | 25°59 | 1♌30 | 19°50 | 8°13 | 29☾ 6 | 14°24 | 4°13 | 22°38 | 17°33 | 2♐52 | 1°25 | 21° 1 | 10♌20 | S 2 | | | | | | | | |
| M 3 | 7 12 0 | 18°43'28 | 9♌35 | 3° 8 | 21° 5 | 8°58 | 28°58 | 14°29 | 4°15 | 22°38 | 17°35 | 2°50 | 1°22 | 21° 8 | 10°20 | M 3 | | | | | | | | |
| T 4 | 7 15 57 | 19°44'31 | 22°45 | 4°46 | 22°21 | 9°43 | 28°51 | 14°34 | 4°17 | 22°38 | 17°36 | 2°D49 | 1°18 | 21°14 | 10°19 | T 4 | | | | | | | | |
| W 5 | 7 19 53 | 20°45'33 | 5♌30 | 6°21 | 23°36 | 10°28 | 28°43 | 14°40 | 4°18 | 22°39 | 17°38 | 2°50 | 1°15 | 21°21 | 10°18 | W 5 | | | | | | | | |
| T 6 | 7 23 50 | 21°46'34 | 17°56 | 7°55 | 24°51 | 11°13 | 28°35 | 14°45 | 4°20 | 22°39 | 17°39 | 2°52 | 1°12 | 21°28 | 10°18 | T 6 | | | | | | | | |
| F 7 | 7 27 46 | 22°47'35 | 0♌ 7 | 9°27 | 26° 7 | 11°58 | 28°27 | 14°51 | 4°21 | 22°39 | 17°41 | 2°R53 | 1° 9 | 21°34 | 10°18 | F 7 | | | | | | | | |
| S 8 | 7 31 43 | 23°48'35 | 12° 8 | 10°55 | 27°22 | 12°43 | 28°19 | 14°56 | 4°22 | 22°40 | 17°42 | 2°52 | 1° 6 | 21°41 | 10°17 | S 8 | | | | | | | | |
| S 9 | 7 35 40 | 24°49'34 | 24° 2 | 12°20 | 28°37 | 13°28 | 28°11 | 15° 2 | 4°24 | 22°40 | 17°44 | 2°50 | 1° 2 | 21°48 | 10°17 | S 9 | | | | | | | | |
| M10 | 7 39 36 | 25°50'32 | 5☾52 | 13°41 | 29°53 | 14°13 | 28° 3 | 15° 8 | 4°25 | 22°41 | 17°46 | 2°44 | 0°59 | 21°54 | 10°17 | M10 | | | | | | | | |
| T 11 | 7 43 33 | 26°51'30 | 17°42 | 14°58 | 1♌ 8 | 14°58 | 27°55 | 15°13 | 4°26 | 22°41 | 17°47 | 2°37 | 0°56 | 22° 1 | 10°16 | T 11 | | | | | | | | |
| W12 | 7 47 29 | 27°52'26 | 29°32 | 16° 8 | 2°23 | 15°43 | 27°47 | 15°19 | 4°27 | 22°42 | 17°49 | 2°27 | 0°53 | 22° 8 | 10°16 | W12 | | | | | | | | |
| T 13 | 7 51 26 | 28°53'21 | 11♌25 | 17°13 | 3°39 | 16°28 | 27°39 | 15°25 | 4°28 | 22°42 | 17°50 | 2°16 | 0°50 | 22°15 | 10°D16 | T 13 | | | | | | | | |
| F 14 | 7 55 22 | 29°54'15 | 23°21 | 18°10 | 4°54 | 17°13 | 27°31 | 15°31 | 4°29 | 22°43 | 17°52 | 2° 4 | 0°47 | 22°21 | 10°16 | F 14 | | | | | | | | |
| S 15 | 7 59 19 | 0♌55'08 | 5♋24 | 19° 0 | 6° 9 | 17°58 | 27°23 | 15°37 | 4°30 | 22°43 | 17°54 | 1°53 | 0°43 | 22°28 | 10°16 | S 15 | | | | | | | | |
| S 16 | 8 3 15 | 1°55'59 | 17°33 | 19°41 | 7°24 | 18°42 | 27°15 | 15°43 | 4°31 | 22°44 | 17°55 | 1°43 | 0°40 | 22°35 | 10°17 | S 16 | | | | | | | | |
| M17 | 8 7 12 | 2°56'48 | 29°52 | 20°12 | 8°40 | 19°27 | 27° 7 | 15°49 | 4°32 | 22°45 | 17°57 | 1°35 | 0°37 | 22°41 | 10°17 | M17 | | | | | | | | |
| T 18 | 8 11 9 | 3°57'37 | 12°V23 | 20°34 | 9°55 | 20°12 | 26°59 | 15°56 | 4°33 | 22°45 | 17°59 | 1°30 | 0°34 | 22°48 | 10°17 | T 18 | | | | | | | | |
| W19 | 8 15 5 | 4°58'23 | 25°10 | 20°45 | 11°10 | 20°56 | 26°51 | 16° 2 | 4°34 | 22°46 | 18° 0 | 1°28 | 0°31 | 22°55 | 10°18 | W19 | | | | | | | | |
| T 20 | 8 19 2 | 5°59'08 | 8♌16 | 20°R45 | 12°25 | 21°41 | 26°44 | 16° 8 | 4°35 | 22°47 | 18° 2 | 1°D28 | 0°28 | 23° 1 | 10°18 | T 20 | | | | | | | | |
| F 21 | 8 22 58 | 6°59'51 | 21°45 | 20°35 | 13°40 | 22°26 | 26°36 | 16°15 | 4°35 | 22°48 | 18° 4 | 1°28 | 0°24 | 23° 8 | 10°18 | F 21 | | | | | | | | |
| S 22 | 8 26 55 | 8° 0'33 | 5♐39 | 20°13 | 14°55 | 23°10 | 26°28 | 16°21 | 4°36 | 22°48 | 18° 5 | 1°R28 | 0°21 | 23°15 | 10°19 | S 22 | | | | | | | | |
| S 23 | 8 30 51 | 9° 1'13 | 20° 0 | 19°42 | 16°11 | 23°55 | 26°20 | 16°27 | 4°37 | 22°49 | 18° 7 | 1°27 | 0°18 | 23°21 | 10°20 | S 23 | | | | | | | | |
| M24 | 8 34 48 | 10° 1'52 | 4☾45 | 19° 1 | 17°26 | 24°39 | 26°13 | 16°34 | 4°37 | 22°50 | 18° 9 | 1°23 | 0°15 | 23°28 | 10°20 | M24 | | | | | | | | |
| T 25 | 8 38 44 | 11° 2'28 | 19°50 | 18°12 | 18°41 | 25°24 | 26° 5 | 16°41 | 4°38 | 22°51 | 18°10 | 1°17 | 0°12 | 23°35 | 10°21 | T 25 | | | | | | | | |
| W26 | 8 42 41 | 12° 3'03 | 5♌ 6 | 17°16 | 19°56 | 26° 8 | 25°58 | 16°47 | 4°38 | 22°52 | 18°12 | 1° 8 | 0° 8 | 23°42 | 10°22 | W26 | | | | | | | | |
| T 27 | 8 46 38 | 13° 3'37 | 20°22 | 16°14 | 21°11 | 26°52 | 25°50 | 16°54 | 4°38 | 22°53 | 18°14 | 0°57 | 0° 5 | 23°48 | 10°23 | T 27 | | | | | | | | |
| F 28 | 8 50 34 | 14° 4'08 | 5♏28 | 15° 8 | 22°26 | 27°37 | 25°43 | 17° 0 | 4°39 | 22°54 | 18°15 | 0°46 | 0° 2 | 23°55 | 10°24 | F 28 | | | | | | | | |
| S 29 | 8 54 31 | 15° 4'39 | 20°12 | 14° 0 | 23°41 | 28°21 | 25°36 | 17° 7 | 4°39 | 22°55 | 18°17 | 0°36 | 29♌59 | 24° 2 | 10°25 | S 29 | | | | | | | | |
| S 30 | 8 58 27 | 16° 5'07 | 4♌30 | 12°52 | 24°56 | 29° 5 | 25°29 | 17°14 | 4°39 | 22°56 | 18°19 | 0°28 | 29°56 | 24° 8 | 10°26 | S 30 | | | | | | | | |
| M31 | 9 2 24 | 17°5 5'35 | 18♌17 | 11°46 | 26°11 | 29♋49 | 25°22 | 17♋21 | 4♌39 | 22°V58 | 18°20 | 0°II23 | 29♌53 | 24☾15 | 10♌27 | M31 | | | | | | | | |

Delta T = 20m26s Julian Calendar 1 Jan. 1054 == Greg. Calendar 7 Jan. 1054

FEBRUARY 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|--------|--------|-------|-------|--------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 9 6 20 | 18♌ 6'01 | 1♌34 | 10°R42 | 27°26 | 0°V34 | 25°R15 | 17♋28 | 4♌39 | 22°V59 | 18°22 | 0°R20 | 29♌49 | 24☾22 | 10♌28 | T 1 | | | | | | | | |
| W 2 | 9 10 17 | 19° 6'25 | 14°24 | 9♌43 | 28°41 | 1°18 | 25° 8 | 17°35 | 4°R39 | 23° 0 | 18°24 | 0°II19 | 29°46 | 24°28 | 10°29 | W 2 | | | | | | | | |
| T 3 | 9 14 13 | 20° 6'49 | 26°51 | 8°49 | 29°56 | 2° 2 | 25° 1 | 17°42 | 4°39 | 23° 1 | 18°26 | 0°19 | 29°43 | 24°35 | 10°31 | T 3 | | | | | | | | |
| F 4 | 9 18 10 | 21° 7'11 | 9♌ 1 | 8° 2 | 1♋11 | 2°46 | 24°55 | 17°49 | 4°39 | 23° 2 | 18°27 | 0°18 | 29°40 | 24°42 | 10°32 | F 4 | | | | | | | | |
| S 5 | 9 22 7 | 22° 7'31 | 20°59 | 7°21 | 2°25 | 3°30 | 24°49 | 17°56 | 4°39 | 23° 4 | 18°29 | 0°17 | 29°37 | 24°49 | 10°33 | S 5 | | | | | | | | |
| S 6 | 9 26 3 | 23° 7'50 | 2☾49 | 6°47 | 3°40 | 4°14 | 24°42 | 18° 3 | 4°39 | 23° 5 | 18°31 | 0°13 | 29°34 | 24°55 | 10°35 | S 6 | | | | | | | | |
| M 7 | 9 30 0 | 24° 8'07 | 14°38 | 6°20 | 4°55 | 4°58 | 24°36 | 18°10 | 4°39 | 23° 6 | 18°32 | 0° 6 | 29°30 | 25° 2 | 10°37 | M 7 | | | | | | | | |
| T 8 | 9 33 56 | 25° 8'23 | 26°27 | 6° 1 | 6°10 | 5°42 | 24°30 | 18°17 | 4°38 | 23° 8 | 18°34 | 29♌57 | 29°27 | 25° 9 | 10°38 | T 8 | | | | | | | | |
| W 9 | 9 37 53 | 26° 8'37 | 8♌19 | 5°48 | 7°25 | 6°26 | 24°24 | 18°24 | 4°38 | 23° 9 | 18°36 | 29°44 | 29°24 | 25°15 | 10°40 | W 9 | | | | | | | | |
| T 10 | 9 41 49 | 27° 8'49 | 20°18 | 5°D43 | 8°40 | 7° 9 | 24°18 | 18°31 | 4°37 | 23°10 | 18°37 | 29°30 | 29°21 | 25°22 | 10°42 | T 10 | | | | | | | | |
| F 11 | 9 45 46 | 28° 8'59 | 2♋23 | 5°44 | 9°54 | 7°53 | 24°13 | 18°38 | 4°37 | 23°12 | 18°39 | 29°15 | 29°18 | 25°29 | 10°43 | F 11 | | | | | | | | |
| S 12 | 9 49 42 | 29° 9'07 | 14°36 | 5°51 | 11° 9 | 8°37 | 24° 7 | 18°46 | 4°36 | 23°13 | 18°41 | 29° 1 | 29°14 | 25°35 | 10°45 | S 12 | | | | | | | | |
| S 13 | 9 53 39 | 0♋ 9'14 | 26°57 | 6° 5 | 12°24 | 9°21 | 24° 2 | 18°53 | 4°36 | 23°15 | 18°42 | 28°48 | 29°11 | 25°42 | 10°47 | S 13 | | | | | | | | |
| M14 | 9 57 36 | 1° 9'18 | 9°V28 | 6°24 | 13°39 | 10° 4 | 23°57 | 19° 0 | 4°35 | 23°16 | 18°44 | 28°38 | 29° 8 | 25°49 | 10°49 | M14 | | | | | | | | |
| T 15 | 10 1 32 | 2° 9'20 | 22°10 | 6°48 | 14°53 | 10°48 | 23°52 | 19° 8 | 4°35 | 23°18 | 18°46 | 28°32 | 29° 5 | 25°56 | 10°51 | T 15 | | | | | | | | |
| W16 | 10 5 29 | 3° 9'20 | 5♌ 3 | 7°17 | 16° 8 | 11°31 | 23°47 | 19°15 | 4°34 | 23°19 | 18°47 | 28°28 | 29° 2 | 26° 2 | 10°53 | W16 | | | | | | | | |
| T 17 | 10 9 25 | 4° 9'18 | 18°12 | 7°51 | 17°23 | 12°15 | 23°42 | 19°22 | 4°33 | 23°21 | 18°49 | 28°26 | 28°59 | 26° 9 | 10°55 | T 17 | | | | | | | | |
| F 18 | 10 13 22 | 5° 9'13 | 1♐38 | 8°29 | 18°37 | 12°58 | 23°38 | 19°30 | 4°32 | 23°23 | 18°51 | 28°26 | 28°55 | 26°16 | 10°58 | F 18 | | | | | | | | |
| S 19 | 10 17 18 | 6° 9'07 | 15°23 | 9°11 | 19°52 | 13°42 | 23°34 | 19°37 | 4°31 | 23°24 | 18°52 | 28°26 | 28°52 | 26°22 | 11° 0 | S 19 | | | | | | | | |
| S 20 | 10 21 15 | 7° 8'58 | 29°29 | 9°56 | 21° 6 | 14°25 | 23°30 | 19°44 | 4°30 | 23°26 | 18°54 | 28°24 | 28°49 | 26°29 | 11° 2 | S 20 | | | | | | | | |
| M21 | 10 25 11 | 8° 8'47 | 13☾56 | 10°45 | 22°21 | 15° 9 | 23°26 | 19°52 | 4°29 | 23°28 | 18°56 | 28°21 | 28°46 | 26°36 | 11° 5 | M21 | | | | | | | | |
| T 22 | 10 29 8 | 9° 8'34 | 28°40 | 11°38 | 23°35 | 15°52 | 23°22 | 19°59 | 4°28 | 23°29 | 18°57 | 28°14 | 28°43 | 26°42 | 11° 7 | T 22 | | | | | | | | |
| W23 | 10 33 5 | 10° 8'18 | 13♌36 | 12°33 | 24°50 | 16°35 | 23°18 | 20° 7 | 4°27 | 23°31 | 18°59 | 28° 5 | 28°39 | 26°49 | 11° 9 | W23 | | | | | | | | |
| T 24 | 10 37 1 | 11° 8'00 | 28°36 | 13°32 | 26° 4 | 17°18 | 23°15 | 20°14 | 4°26 | 23°33 | 19° 0 | 27°55 | 28°36 | 26°56 | 11°12 | T 24 | | | | | | | | |
| F 25 | 10 40 58 | 12° 7'40 | 13♏30 | 14°33 | 27°19 | 18° 2 | 23°12 | 20°22 | 4°25 | 23°35 | 19° 2 | 27°43 | 28°33 | 27° 3 | 11°14 | F 25 | | | | | | | | |
| S 26 | 10 44 54 | 13° 7'18 | 28° 9 | 15°36 | 28°33 | 18°45 | 23° 9 | 20°29 | 4°24 | 23°36 | 19° 4 | 27°33 | 28°30 | 27° 9 | 11°17 | S 26 | | | | | | | | |
| S 27 | 10 48 51 | 14° 6'53 | 12♌26 | 16°42 | 29°47 | 19°28 | 23° 6 | 20°37 | 4°23 | 23°38 | 19° 5 | 27°24 | 28°27 | 27°16 | 11°20 | S 27 | | | | | | | | |
| M28 | 10 52 47 | 15♋ 6'27 | 26♌17 | 17°51 | 1°V 2 | 20°V11 | 23☾ 3 | 20♋44 | 4♌21 | 23°V40 | 19° 7 | 27♌18 | 28♌24 | 27☾23 | 11♌22 | M28 | | | | | | | | |

Delta T = 20m25s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1054
geocentric

MARCH 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 10 56 44 | 16♋5'59 | 9♍39 | 19♏1 | 2♃16 | 20♄54 | 23°R 0 | 20♋52 | 4°R20 | 23♃42 | 19♏8 | 27°R15 | 28♌20 | 27♌29 | 11♌25 | T 1 | |
| W 2 | 11 0 40 | 17° 5'30 | 22°34 | 20°14 | 3°30 | 21°37 | 22♌58 | 20°59 | 4♍18 | 23°44 | 19°10 | 27°D13 | 28°17 | 27°36 | 11°28 | W 2 | |
| T 3 | 11 4 37 | 18° 4'58 | 5♌6 | 21°28 | 4°44 | 22°20 | 22°56 | 21° 7 | 4°17 | 23°46 | 19°11 | 27♌13 | 28°14 | 27°43 | 11°31 | T 3 | |
| F 4 | 11 8 33 | 19° 4'25 | 17°20 | 22°45 | 5°58 | 23° 2 | 22°54 | 21°14 | 4°15 | 23°48 | 19°13 | 27°R14 | 28°11 | 27°49 | 11°34 | F 4 | |
| S 5 | 11 12 30 | 20° 3'50 | 29°20 | 24° 3 | 7°13 | 23°45 | 22°52 | 21°22 | 4°14 | 23°50 | 19°14 | 27°13 | 28° 8 | 27°56 | 11°37 | S 5 | |
| S 6 | 11 16 27 | 21° 3'13 | 11♌12 | 25°23 | 8°27 | 24°28 | 22°51 | 21°29 | 4°12 | 23°52 | 19°16 | 27°11 | 28° 5 | 28° 3 | 11°40 | S 6 | |
| M 7 | 11 20 23 | 22° 2'34 | 23° 2 | 26°45 | 9°41 | 25°11 | 22°49 | 21°37 | 4°11 | 23°54 | 19°17 | 27° 7 | 28° 1 | 28°10 | 11°43 | M 7 | |
| T 8 | 11 24 20 | 23° 1'54 | 4♌53 | 28° 9 | 10°55 | 25°53 | 22°48 | 21°44 | 4° 9 | 23°56 | 19°19 | 27° 0 | 27°58 | 28°16 | 11°46 | T 8 | |
| W 9 | 11 28 16 | 24° 1'11 | 16°49 | 29°34 | 12° 9 | 26°36 | 22°47 | 21°52 | 4° 7 | 23°58 | 19°20 | 26°50 | 27°55 | 28°23 | 11°49 | W 9 | |
| T 10 | 11 32 13 | 25° 0'27 | 28°54 | 1♋0 | 13°23 | 27°19 | 22°46 | 21°59 | 4° 6 | 24° 0 | 19°22 | 26°39 | 27°52 | 28°30 | 11°52 | T 10 | |
| F 11 | 11 36 9 | 25°59'40 | 11♋8 | 2°29 | 14°37 | 28° 1 | 22°46 | 22° 7 | 4° 4 | 24° 2 | 19°23 | 26°28 | 27°49 | 28°36 | 11°55 | F 11 | |
| S 12 | 11 40 6 | 26°58'52 | 23°34 | 3°58 | 15°51 | 28°44 | 22°45 | 22°14 | 4° 2 | 24° 4 | 19°24 | 26°17 | 27°45 | 28°43 | 11°58 | S 12 | |
| S 13 | 11 44 2 | 27°58'01 | 6♃11 | 5°30 | 17° 5 | 29°26 | 22°45 | 22°22 | 4° 0 | 24° 6 | 19°26 | 26° 7 | 27°42 | 28°50 | 12° 2 | S 13 | |
| M14 | 11 47 59 | 28°57'08 | 19° 0 | 7° 3 | 18°19 | 0♃9 | 22°D45 | 22°30 | 3°58 | 24° 8 | 19°27 | 25°59 | 27°39 | 28°57 | 12° 5 | M14 | |
| T 15 | 11 51 56 | 29°56'13 | 2♃0 | 8°37 | 19°33 | 0°51 | 22°45 | 22°37 | 3°56 | 24°10 | 19°29 | 25°54 | 27°36 | 29° 3 | 12° 8 | T 15 | |
| W16 | 11 55 52 | 0♃55'16 | 15°12 | 10°13 | 20°47 | 1°33 | 22°46 | 22°45 | 3°55 | 24°12 | 19°30 | 25°51 | 27°33 | 29°10 | 12°12 | W16 | |
| T 17 | 11 59 49 | 1°54'17 | 28°35 | 11°50 | 22° 0 | 2°16 | 22°46 | 22°52 | 3°53 | 24°14 | 19°31 | 25°D51 | 27°30 | 29°17 | 12°15 | T 17 | |
| F 18 | 12 3 45 | 2°53'15 | 12♌11 | 13°29 | 23°14 | 2°58 | 22°47 | 22°59 | 3°51 | 24°16 | 19°33 | 25°52 | 27°26 | 29°23 | 12°19 | F 18 | |
| S 19 | 12 7 42 | 3°52'11 | 25°59 | 15° 9 | 24°28 | 3°40 | 22°48 | 23° 7 | 3°48 | 24°18 | 19°34 | 25°53 | 27°23 | 29°30 | 12°22 | S 19 | |
| S 20 | 12 11 38 | 4°51'05 | 10♌0 | 16°51 | 25°41 | 4°22 | 22°49 | 23°14 | 3°46 | 24°21 | 19°35 | 25°R53 | 27°20 | 29°37 | 12°26 | S 20 | |
| M21 | 12 15 35 | 5°49'56 | 24°14 | 18°34 | 26°55 | 5° 5 | 22°50 | 23°22 | 3°44 | 24°23 | 19°36 | 25°51 | 27°17 | 29°43 | 12°29 | M21 | |
| T 22 | 12 19 31 | 6°48'45 | 8♌38 | 20°19 | 28° 9 | 5°47 | 22°52 | 23°29 | 3°42 | 24°25 | 19°38 | 25°48 | 27°14 | 29°50 | 12°33 | T 22 | |
| W23 | 12 23 28 | 7°47'32 | 23° 9 | 22° 5 | 29°22 | 6°29 | 22°53 | 23°37 | 3°40 | 24°27 | 19°39 | 25°42 | 27°11 | 29°57 | 12°37 | W23 | |
| T 24 | 12 27 25 | 8°46'16 | 7♎43 | 23°53 | 0♃36 | 7°11 | 22°55 | 23°44 | 3°38 | 24°29 | 19°40 | 25°35 | 27° 7 | 0♌4 | 12°40 | T 24 | |
| F 25 | 12 31 21 | 9°44'58 | 22°12 | 25°42 | 1°49 | 7°53 | 22°57 | 23°51 | 3°36 | 24°31 | 19°41 | 25°28 | 27° 4 | 0°10 | 12°44 | F 25 | |
| S 26 | 12 35 18 | 10°43'38 | 6♌30 | 27°33 | 3° 3 | 8°34 | 22°59 | 23°59 | 3°33 | 24°34 | 19°42 | 25°21 | 27° 1 | 0°17 | 12°48 | S 26 | |
| S 27 | 12 39 14 | 11°42'16 | 20°31 | 29°25 | 4°16 | 9°16 | 23° 2 | 24° 6 | 3°31 | 24°36 | 19°44 | 25°15 | 26°58 | 0°24 | 12°51 | S 27 | |
| M28 | 12 43 11 | 12°40'52 | 4♍11 | 1°19 | 5°29 | 9°58 | 23° 4 | 24°13 | 3°29 | 24°38 | 19°45 | 25°12 | 26°55 | 0°30 | 12°55 | M28 | |
| T 29 | 12 47 7 | 13°39'26 | 17°29 | 3°15 | 6°43 | 10°40 | 23° 7 | 24°21 | 3°26 | 24°40 | 19°46 | 25°10 | 26°51 | 0°37 | 12°59 | T 29 | |
| W30 | 12 51 4 | 14°37'59 | 0♌23 | 5°12 | 7°56 | 11°22 | 23°10 | 24°28 | 3°24 | 24°42 | 19°47 | 25°D 9 | 26°48 | 0°44 | 13° 3 | W30 | |
| T 31 | 12 55 0 | 15°36'30 | 12♌57 | 7°10 | 9♃9 | 12♃3 | 23♌13 | 24♋35 | 3♍22 | 24°45 | 19°48 | 25♌11 | 26♌45 | 0♌51 | 13♃7 | T 31 | |

Delta T = 20m25s Julian Calendar 1 March 1054 == Greg. Calendar 7 March 1054

APRIL 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|------|-----|
| F 1 | 12 58 57 | 16♌34'59 | 25♌14 | 9♃11 | 10♃23 | 12♃45 | 23♌16 | 24♋42 | 3°R19 | 24♃47 | 19°49 | 25♌12 | 26♌42 | 0♌57 | 13♃10 | F 1 | |
| S 2 | 13 2 54 | 17°33'26 | 7♌17 | 11°12 | 11°36 | 13°27 | 23°20 | 24°49 | 3♍17 | 24°49 | 19°50 | 25°14 | 26°39 | 1° 4 | 13°14 | S 2 | |
| S 3 | 13 6 50 | 18°31'52 | 19°13 | 13°15 | 12°49 | 14° 8 | 23°23 | 24°57 | 3°15 | 24°51 | 19°51 | 25°R14 | 26°36 | 1°11 | 13°18 | S 3 | |
| M 4 | 13 10 47 | 19°30'16 | 1♌4 | 15°19 | 14° 2 | 14°50 | 23°27 | 25° 4 | 3°12 | 24°54 | 19°52 | 25°13 | 26°32 | 1°17 | 13°22 | M 4 | |
| T 5 | 13 14 43 | 20°28'38 | 12°58 | 17°25 | 15°15 | 15°31 | 23°31 | 25°11 | 3°10 | 24°56 | 19°53 | 25°11 | 26°29 | 1°24 | 13°26 | T 5 | |
| W 6 | 13 18 40 | 21°26'59 | 24°57 | 19°31 | 16°28 | 16°13 | 23°35 | 25°18 | 3° 7 | 24°58 | 19°54 | 25° 7 | 26°26 | 1°31 | 13°30 | W 6 | |
| T 7 | 13 22 36 | 22°25'18 | 7♋6 | 21°39 | 17°41 | 16°54 | 23°40 | 25°25 | 3° 5 | 25° 0 | 19°55 | 25° 2 | 26°23 | 1°38 | 13°34 | T 7 | |
| F 8 | 13 26 33 | 23°23'35 | 19°28 | 23°47 | 18°54 | 17°35 | 23°44 | 25°32 | 3° 2 | 25° 3 | 19°56 | 24°57 | 26°20 | 1°44 | 13°38 | F 8 | |
| S 9 | 13 30 29 | 24°21'51 | 2♃4 | 25°56 | 20° 7 | 18°17 | 23°49 | 25°39 | 3° 0 | 25° 5 | 19°57 | 24°52 | 26°16 | 1°51 | 13°42 | S 9 | |
| S 10 | 13 34 26 | 25°20'05 | 14°57 | 28° 5 | 21°20 | 18°58 | 23°53 | 25°46 | 2°57 | 25° 7 | 19°58 | 24°47 | 26°13 | 1°58 | 13°46 | S 10 | |
| M11 | 13 38 22 | 26°18'17 | 28° 5 | 0♃14 | 22°32 | 19°39 | 23°58 | 25°53 | 2°55 | 25° 9 | 19°59 | 24°44 | 26°10 | 2° 4 | 13°51 | M11 | |
| T 12 | 13 42 19 | 27°16'28 | 11♌27 | 2°23 | 23°45 | 20°20 | 24° 3 | 25°59 | 2°52 | 25°12 | 19°59 | 24°42 | 26° 7 | 2°11 | 13°55 | T 12 | |
| W13 | 13 46 16 | 28°14'37 | 25° 3 | 4°32 | 24°58 | 21° 1 | 24° 9 | 26° 6 | 2°50 | 25°14 | 20° 0 | 24°D41 | 26° 4 | 2°18 | 13°59 | W13 | |
| T 14 | 13 50 12 | 29°12'44 | 8♌50 | 6°40 | 26°11 | 21°43 | 24°14 | 26°13 | 2°47 | 25°16 | 20° 1 | 24°42 | 26° 1 | 2°24 | 14° 3 | T 14 | |
| F 15 | 13 54 9 | 0♃10'49 | 22°47 | 8°47 | 27°23 | 22°24 | 24°20 | 26°20 | 2°45 | 25°19 | 20° 2 | 24°43 | 25°57 | 2°31 | 14° 7 | F 15 | |
| S 16 | 13 58 5 | 1° 8'52 | 6♌51 | 10°52 | 28°36 | 23° 5 | 24°25 | 26°26 | 2°42 | 25°21 | 20° 2 | 24°44 | 25°54 | 2°38 | 14°11 | S 16 | |
| S 17 | 14 2 2 | 2° 6'53 | 21° 0 | 12°56 | 29°48 | 23°46 | 24°31 | 26°33 | 2°40 | 25°23 | 20° 3 | 24°45 | 25°51 | 2°45 | 14°15 | S 17 | |
| M18 | 14 5 58 | 3° 4'53 | 5♌12 | 14°58 | 1♌1 | 24°27 | 24°37 | 26°40 | 2°37 | 25°25 | 20° 4 | 24°R46 | 25°48 | 2°51 | 14°20 | M18 | |
| T 19 | 14 9 55 | 4° 2'50 | 19°25 | 16°58 | 2°13 | 25° 8 | 24°43 | 26°46 | 2°35 | 25°28 | 20° 5 | 24°45 | 25°45 | 2°58 | 14°24 | T 19 | |
| W20 | 14 13 52 | 5° 0'45 | 3♎38 | 18°55 | 3°26 | 25°48 | 24°50 | 26°53 | 2°32 | 25°30 | 20° 5 | 24°44 | 25°42 | 3° 5 | 14°28 | W20 | |
| T 21 | 14 17 48 | 5°58'39 | 17°46 | 20°50 | 4°38 | 26°29 | 24°56 | 26°59 | 2°30 | 25°32 | 20° 6 | 24°41 | 25°38 | 3°11 | 14°32 | T 21 | |
| F 22 | 14 21 45 | 6°56'30 | 1♌46 | 22°42 | 5°50 | 27°10 | 25° 3 | 27° 5 | 2°27 | 25°34 | 20° 6 | 24°39 | 25°35 | 3°18 | 14°36 | F 22 | |
| S 23 | 14 25 41 | 7°54'20 | 15°36 | 24°32 | 7° 3 | 27°51 | 25° 9 | 27°12 | 2°25 | 25°36 | 20° 7 | 24°37 | 25°32 | 3°25 | 14°41 | S 23 | |
| S 24 | 14 29 38 | 8°52'08 | 29°12 | 26°18 | 8°15 | 28°32 | 25°16 | 27°18 | 2°22 | 25°39 | 20° 7 | 24°35 | 25°29 | 3°32 | 14°45 | S 24 | |
| M25 | 14 33 34 | 9°49'55 | 12♌32 | 28° 1 | 9°27 | 29°12 | 25°23 | 27°24 | 2°20 | 25°41 | 20° 8 | 24°34 | 25°26 | 3°38 | 14°49 | M25 | |
| T 26 | 14 37 31 | 10°47'40 | 25°35 | 29°41 | 10°39 | 29°53 | 25°30 | 27°31 | 2°17 | 25°43 | 20° 9 | 24°D34 | 25°22 | 3°45 | 14°53 | T 26 | |
| W27 | 14 41 27 | 11°45'24 | 8♌21 | 1♌17 | 11°51 | 0♌33 | 25°38 | 27°37 | 2°15 | 25°45 | 20° 9 | 24°34 | 25°19 | 3°52 | 14°58 | W27 | |
| T 28 | 14 45 24 | 12°43'07 | 20°50 | 2°50 | 13° 3 | 1°14 | 25°45 | 27°43 | 2°12 | 25°47 | 20° 9 | 24°35 | 25°16 | 3°58 | 15° 2 | T 28 | |
| F 29 | 14 49 20 | 13°40'49 | 3♌5 | 4°20 | 14°15 | 1°55 | 25°52 | 27°49 | 2°10 | 25°50 | 20°10 | 24°36 | 25°13 | 4° 5 | 15° 6 | F 29 | |
| S 30 | 14 53 17 | 14°38'29 | 15♌9 | 5♌46 | 15♌27 | 2♌35 | 26° 0 | 27♋55 | 2♍7 | 25°52 | 20°10 | 24♌37 | 25♌10 | 4♌12 | 15♌10 | S 30 | |

Delta T = 20m25s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1054
geocentric

MAY 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|--------|---------|-------|---------|--------|-------|------|--------|--------|--------|--------|------|--------|-------|-----|
| S 1 | 14 57 14 | 15♌36°08 | 27♌5 | 7♌II | 9 | 16♌II39 | 3♌II16 | 26♌8 | 28♌1 | 2°R 5 | 25♌V54 | 20♌11 | 24♌B38 | 25♌7 | 4♌19 | 15♌15 | S 1 |
| M 2 | 15 1 10 | 16°33'47 | 8♌59 | 8°28 | 17°50 | 3°56 | 26°16 | 28° 7 | 2♌2 | 25°56 | 20°11 | 24°38 | 25° 3 | 4°25 | 15°19 | M 2 | |
| T 3 | 15 5 7 | 17°31'24 | 20°53 | 9°44 | 19° 2 | 4°36 | 26°24 | 28°12 | 2° 0 | 25°58 | 20°11 | 24°R38 | 25° 0 | 4°32 | 15°23 | T 3 | |
| W 4 | 15 9 3 | 18°29'00 | 2♌53 | 10°56 | 20°14 | 5°17 | 26°32 | 28°18 | 1°58 | 26° 0 | 20°12 | 24°38 | 24°57 | 4°39 | 15°27 | W 4 | |
| T 5 | 15 13 0 | 19°26'35 | 15° 3 | 12° 4 | 21°25 | 5°57 | 26°40 | 28°24 | 1°55 | 26° 2 | 20°12 | 24°37 | 24°54 | 4°45 | 15°32 | T 5 | |
| F 6 | 15 16 56 | 20°24'09 | 27°28 | 13° 9 | 22°37 | 6°37 | 26°49 | 28°30 | 1°53 | 26° 5 | 20°12 | 24°37 | 24°51 | 4°52 | 15°36 | F 6 | |
| S 7 | 15 20 53 | 21°21'42 | 10♌V10 | 14° 9 | 23°49 | 7°18 | 26°57 | 28°35 | 1°51 | 26° 7 | 20°12 | 24°36 | 24°48 | 4°59 | 15°40 | S 7 | |
| S 8 | 15 24 49 | 22°19'14 | 23°12 | 15° 6 | 25° 0 | 7°58 | 27° 6 | 28°41 | 1°48 | 26° 9 | 20°13 | 24°36 | 24°44 | 5° 6 | 15°44 | S 8 | |
| M 9 | 15 28 46 | 23°16'45 | 6♌35 | 15°59 | 26°11 | 8°38 | 27°14 | 28°46 | 1°46 | 26°11 | 20°13 | 24°36 | 24°41 | 5°12 | 15°49 | M 9 | |
| T 10 | 15 32 43 | 24°14'15 | 20°17 | 16°47 | 27°23 | 9°18 | 27°23 | 28°51 | 1°44 | 26°13 | 20°13 | 24°36 | 24°38 | 5°19 | 15°53 | T 10 | |
| W11 | 15 36 39 | 25°11'45 | 4♌II17 | 17°32 | 28°34 | 9°58 | 27°32 | 28°57 | 1°41 | 26°15 | 20°13 | 24°36 | 24°35 | 5°26 | 15°57 | W11 | |
| T 12 | 15 40 36 | 26° 9'13 | 18°31 | 18°12 | 29°45 | 10°38 | 27°41 | 29° 2 | 1°39 | 26°17 | 20°13 | 24°36 | 24°32 | 5°32 | 16° 1 | T 12 | |
| F 13 | 15 44 32 | 27° 6'40 | 2♌55 | 18°48 | 0♌56 | 11°18 | 27°50 | 29° 7 | 1°37 | 26°19 | 20°13 | 24°36 | 24°28 | 5°39 | 16° 6 | F 13 | |
| S 14 | 15 48 29 | 28° 4'06 | 17°23 | 19°20 | 2° 7 | 11°58 | 28° 0 | 29°12 | 1°35 | 26°21 | 20°13 | 24°35 | 24°25 | 5°46 | 16°10 | S 14 | |
| S 15 | 15 52 25 | 29° 1'31 | 1♌Ω50 | 19°47 | 3°19 | 12°38 | 28° 9 | 29°17 | 1°33 | 26°23 | 20°13 | 24°35 | 24°22 | 5°53 | 16°14 | S 15 | |
| M16 | 15 56 22 | 29°58'54 | 16°13 | 20°10 | 4°29 | 13°18 | 28°18 | 29°22 | 1°31 | 26°25 | 20°R13 | 24°35 | 24°19 | 5°59 | 16°18 | M16 | |
| T 17 | 16 0 19 | 0♌II56'16 | 0♌II26 | 20°28 | 5°40 | 13°58 | 28°28 | 29°27 | 1°28 | 26°27 | 20°13 | 24°D35 | 24°16 | 6° 6 | 16°22 | T 17 | |
| W18 | 16 4 15 | 1°53'37 | 14°30 | 20°42 | 6°51 | 14°38 | 28°38 | 29°32 | 1°26 | 26°29 | 20°13 | 24°35 | 24°13 | 6°13 | 16°27 | W18 | |
| T 19 | 16 8 12 | 2°50'57 | 28°20 | 20°51 | 8° 2 | 15°18 | 28°47 | 29°37 | 1°24 | 26°31 | 20°13 | 24°35 | 24° 9 | 6°20 | 16°31 | T 19 | |
| F 20 | 16 12 8 | 3°48'16 | 11♌58 | 20°R55 | 9°13 | 15°58 | 28°57 | 29°41 | 1°22 | 26°33 | 20°13 | 24°36 | 24° 6 | 6°26 | 16°35 | F 20 | |
| S 21 | 16 16 5 | 4°45'34 | 25°22 | 20°55 | 10°23 | 16°38 | 29° 7 | 29°46 | 1°20 | 26°34 | 20°13 | 24°37 | 24° 3 | 6°33 | 16°39 | S 21 | |
| S 22 | 16 20 1 | 5°42'51 | 8♌32 | 20°51 | 11°34 | 17°17 | 29°17 | 29°50 | 1°18 | 26°36 | 20°13 | 24°38 | 24° 0 | 6°40 | 16°43 | S 22 | |
| M23 | 16 23 58 | 6°40'07 | 21°29 | 20°42 | 12°44 | 17°57 | 29°27 | 29°55 | 1°16 | 26°38 | 20°13 | 24°R38 | 23°57 | 6°46 | 16°47 | M23 | |
| T 24 | 16 27 54 | 7°37'22 | 4♌13 | 20°28 | 13°55 | 18°37 | 29°37 | 29°59 | 1°15 | 26°40 | 20°12 | 24°38 | 23°54 | 6°53 | 16°51 | T 24 | |
| W25 | 16 31 51 | 8°34'37 | 16°45 | 20°11 | 15° 5 | 19°16 | 29°48 | 0♌V 3 | 1°13 | 26°42 | 20°12 | 24°37 | 23°50 | 7° 0 | 16°55 | W25 | |
| T 26 | 16 35 48 | 9°31'51 | 29° 4 | 19°51 | 16°15 | 19°56 | 29°58 | 0° 7 | 1°11 | 26°43 | 20°12 | 24°35 | 23°47 | 7° 7 | 16°59 | T 26 | |
| F 27 | 16 39 44 | 10°29'04 | 11♌313 | 19°27 | 17°25 | 20°36 | 0♌Ω 9 | 0°12 | 1° 9 | 26°45 | 20°12 | 24°33 | 23°44 | 7°13 | 17° 3 | F 27 | |
| S 28 | 16 43 41 | 11°26'18 | 23°14 | 18°59 | 18°35 | 21°15 | 0°19 | 0°16 | 1° 7 | 26°47 | 20°11 | 24°31 | 23°41 | 7°20 | 17° 7 | S 28 | |
| S 29 | 16 47 37 | 12°23'31 | 5♌10 | 18°30 | 19°45 | 21°55 | 0°30 | 0°19 | 1° 6 | 26°49 | 20°11 | 24°28 | 23°38 | 7°27 | 17°11 | S 29 | |
| M30 | 16 51 34 | 13°20'43 | 17° 2 | 17°58 | 20°55 | 22°34 | 0°40 | 0°23 | 1° 4 | 26°50 | 20°11 | 24°26 | 23°34 | 7°33 | 17°15 | M30 | |
| T 31 | 16 55 30 | 14♌II17'55 | 28♌56 | 17♌II25 | 22♌5 | 23♌II14 | 0♌Ω51 | 0♌V27 | 1♌2 | 26°V52 | 20♌10 | 24♌B24 | 23♌B31 | 7♌40 | 17♌B19 | T 31 | |

Delta T = 20m24s Julian Calendar 1 May 1054 == Greg. Calendar 7 May 1054

JUNE 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|---------|---------|--------|---------|-------|-------|-------|--------|--------|--------|--------|-------|--------|------|-----|
| W 1 | 16 59 27 | 15♌II15'08 | 10♌II55 | 16°R51 | 23♌Ω15 | 23♌II53 | 1♌Ω 2 | 0♌V31 | 1°R 1 | 26°V54 | 20°R10 | 24°D23 | 23♌B28 | 7♌47 | 17♌B23 | W 1 | |
| T 2 | 17 3 23 | 16°12'19 | 23° 4 | 16♌II16 | 24°24 | 24°33 | 1°13 | 0°34 | 0♌Ω59 | 26°55 | 20♌10 | 24♌B24 | 23°25 | 7°54 | 17°27 | T 2 | |
| F 3 | 17 7 20 | 17° 9'31 | 5♌V27 | 15°41 | 25°34 | 25°12 | 1°24 | 0°38 | 0°58 | 26°57 | 20° 9 | 24°24 | 23°22 | 8° 0 | 17°31 | F 3 | |
| S 4 | 17 11 17 | 18° 6'43 | 18° 9 | 15° 8 | 26°43 | 25°51 | 1°35 | 0°41 | 0°56 | 26°59 | 20° 9 | 24°26 | 23°19 | 8° 7 | 17°35 | S 4 | |
| S 5 | 17 15 13 | 19° 3'55 | 1♌B13 | 14°35 | 27°53 | 26°31 | 1°46 | 0°45 | 0°55 | 27° 0 | 20° 8 | 24°27 | 23°15 | 8°14 | 17°39 | S 5 | |
| M 6 | 17 19 10 | 20° 1'07 | 14°42 | 14° 5 | 29° 2 | 27°10 | 1°57 | 0°48 | 0°54 | 27° 2 | 20° 8 | 24°28 | 23°12 | 8°20 | 17°42 | M 6 | |
| T 7 | 17 23 6 | 20°58'18 | 28°35 | 13°37 | 0♌Ω11 | 27°49 | 2° 9 | 0°51 | 0°52 | 27° 3 | 20° 7 | 24°R29 | 23° 9 | 8°27 | 17°46 | T 7 | |
| W 8 | 17 27 3 | 21°55'30 | 12♌II52 | 13°12 | 1°20 | 28°29 | 2°20 | 0°54 | 0°51 | 27° 5 | 20° 7 | 24°28 | 23° 6 | 8°34 | 17°50 | W 8 | |
| T 9 | 17 30 59 | 22°52'42 | 27°28 | 12°50 | 2°29 | 29° 8 | 2°32 | 0°57 | 0°50 | 27° 6 | 20° 6 | 24°25 | 23° 3 | 8°41 | 17°54 | T 9 | |
| F 10 | 17 34 56 | 23°49'53 | 12♌Ω18 | 12°32 | 3°38 | 29°47 | 2°43 | 1° 0 | 0°49 | 27° 7 | 20° 5 | 24°22 | 23° 0 | 8°47 | 17°57 | F 10 | |
| S 11 | 17 38 52 | 24°47'05 | 27°12 | 12°18 | 4°47 | 0♌Ω26 | 2°55 | 1° 3 | 0°47 | 27° 9 | 20° 5 | 24°18 | 22°56 | 8°54 | 18° 1 | S 11 | |
| S 12 | 17 42 49 | 25°44'16 | 12♌Ω 2 | 12° 9 | 5°55 | 1° 6 | 3° 6 | 1° 5 | 0°46 | 27°10 | 20° 4 | 24°14 | 22°53 | 9° 1 | 18° 5 | S 12 | |
| M13 | 17 46 46 | 26°41'27 | 26°42 | 12° 4 | 7° 4 | 1°45 | 3°18 | 1° 8 | 0°45 | 27°12 | 20° 4 | 24°10 | 22°50 | 9° 7 | 18° 8 | M13 | |
| T 14 | 17 50 42 | 27°38'37 | 11♌V 6 | 12°D 4 | 8°12 | 2°24 | 3°30 | 1°10 | 0°44 | 27°13 | 20° 3 | 24° 8 | 22°47 | 9°14 | 18°12 | T 14 | |
| W15 | 17 54 39 | 28°35'47 | 25°10 | 12° 8 | 9°21 | 3° 3 | 3°41 | 1°13 | 0°43 | 27°14 | 20° 2 | 24°D 7 | 22°44 | 9°21 | 18°15 | W15 | |
| T 16 | 17 58 35 | 29°32'57 | 8♌Ω55 | 12°18 | 10°29 | 3°42 | 3°53 | 1°15 | 0°42 | 27°16 | 20° 1 | 24° 7 | 22°40 | 9°28 | 18°19 | T 16 | |
| F 17 | 18 2 32 | 0♌Ω30'06 | 22°19 | 12°33 | 11°37 | 4°21 | 4° 5 | 1°17 | 0°42 | 27°17 | 20° 1 | 24° 8 | 22°37 | 9°34 | 18°22 | F 17 | |
| S 18 | 18 6 28 | 1°27'16 | 5♌II26 | 12°53 | 12°45 | 5° 0 | 4°17 | 1°19 | 0°41 | 27°18 | 20° 0 | 24°10 | 22°34 | 9°41 | 18°26 | S 18 | |
| S 19 | 18 10 25 | 2°24'25 | 18°16 | 13°18 | 13°53 | 5°39 | 4°29 | 1°21 | 0°40 | 27°19 | 19°59 | 24°R11 | 22°31 | 9°48 | 18°29 | S 19 | |
| M20 | 18 14 21 | 3°21'35 | 0♌V54 | 13°48 | 15° 1 | 6°18 | 4°41 | 1°23 | 0°39 | 27°20 | 19°58 | 24°11 | 22°28 | 9°55 | 18°32 | M20 | |
| T 21 | 18 18 18 | 4°18'45 | 13°20 | 14°23 | 16° 8 | 6°57 | 4°53 | 1°25 | 0°39 | 27°21 | 19°58 | 24° 9 | 22°25 | 10° 1 | 18°36 | T 21 | |
| W22 | 18 22 15 | 5°15'54 | 25°36 | 15° 4 | 17°16 | 7°36 | 5° 5 | 1°27 | 0°38 | 27°23 | 19°57 | 24° 5 | 22°21 | 10° 8 | 18°39 | W22 | |
| T 23 | 18 26 11 | 6°13'05 | 7♌B45 | 15°49 | 18°23 | 8°15 | 5°18 | 1°29 | 0°37 | 27°24 | 19°56 | 24° 0 | 22°18 | 10°15 | 18°42 | T 23 | |
| F 24 | 18 30 8 | 7°10'15 | 19°46 | 16°39 | 19°30 | 8°54 | 5°30 | 1°30 | 0°37 | 27°25 | 19°55 | 23°53 | 22°15 | 10°21 | 18°45 | F 24 | |
| S 25 | 18 34 4 | 8° 7'26 | 1♌Ω43 | 17°35 | 20°37 | 9°33 | 5°42 | 1°31 | 0°36 | 27°26 | 19°54 | 23°45 | 22°12 | 10°28 | 18°48 | S 25 | |
| S 26 | 18 38 1 | 9° 4'37 | 13°36 | 18°35 | 21°44 | 10°12 | 5°54 | 1°33 | 0°36 | 27°27 | 19°53 | 23°36 | 22° 9 | 10°35 | 18°52 | S 26 | |
| M27 | 18 41 57 | 10° 1'49 | 25°28 | 19°40 | 22°51 | 10°50 | 6° 7 | 1°34 | 0°36 | 27°28 | 19°52 | 23°29 | 22° 6 | 10°42 | 18°55 | M27 | |
| T 28 | 18 45 54 | 10°59'01 | 7♌B22 | 20°49 | 23°57 | 11°29 | 6°19 | 1°35 | 0°35 | 27°29 | 19°51 | 23°22 | 22° 2 | 10°48 | 18°58 | T 28 | |
| W29 | 18 49 51 | 11°56'15 | 19°20 | 22° 4 | 25° 4 | 12° 8 | 6°32 | 1°36 | 0°35 | 27°29 | 19°50 | 23°18 | 21°59 | 10°55 | 19° 1 | W29 | |
| T 30 | 18 53 47 | 12°53'28 | 1♌V27 | 23♌II23 | 26♌Ω10 | 12♌Ω47 | 6♌Ω44 | 1♌V37 | 0♌Ω35 | 27°V30 | 19°50 | 23♌B15 | 21♌B56 | 11♌2 | 19♌B 4 | T 30 | |

Delta T = 20m24s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1054
geocentric

JULY 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|-------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|------|
| F 1 | 18 57 44 | 13 ⁵⁰ 43 | 13 ⁴⁷ 47 | 24 ^{II} 46 | 27 ^{II} 16 | 13 ²⁶ 26 | 6 ⁵⁷ 57 | 1 ³⁸ 38 | 0 ^R 35 | 27 ³¹ 31 | 19 ^R 49 | 23 ^D 14 | 21 ⁵³ 53 | 11 ⁸ 8 | 19 ⁶ 6 | F 1 |
| S 2 | 19 1 40 | 14 ⁴⁷ 59 | 26 ²⁵ | 26 ¹⁴ | 28 ²² | 14 ⁴ | 7 ⁹ | 1 ³⁹ | 0 ^M 34 | 27 ³² | 19 ⁴⁸ 48 | 23 ^B 15 | 21 ⁵⁰ | 11 ¹⁵ | 19 ⁹ | S 2 |
| S 3 | 19 5 37 | 15 ⁴⁵ 15 | 9 ^B 25 | 27 ⁴⁶ | 29 ²⁸ | 14 ⁴³ | 7 ²² | 1 ³⁹ | 0 ³⁴ | 27 ³³ | 19 ⁴⁷ | 23 ¹⁶ 16 | 21 ⁴⁶ | 11 ²² | 19 ¹² | S 3 |
| M 4 | 19 9 33 | 16 ⁴² 33 | 22 ⁵¹ | 29 ²² | 0 ³³ 33 | 15 ²² | 7 ³⁴ | 1 ⁴⁰ | 0 ^D 34 | 27 ³³ | 19 ⁴⁵ | 23 ^R 17 | 21 ⁴³ | 11 ²⁹ | 19 ¹⁵ | M 4 |
| T 5 | 19 13 30 | 17 ³⁹ 51 | 6 ^{II} 46 | 1 ² 2 | 1 ³⁸ | 16 ⁰ | 7 ⁴⁷ | 1 ⁴⁰ | 0 ³⁴ | 27 ³⁴ | 19 ⁴⁴ | 23 ¹⁶ 16 | 21 ⁴⁰ | 11 ³⁵ | 19 ¹⁸ | T 5 |
| W 6 | 19 17 26 | 18 ³⁷ 10 | 21 ⁸ | 2 ⁴⁵ | 2 ⁴⁴ | 16 ³⁹ | 8 ⁰ | 1 ⁴⁰ | 0 ³⁴ | 27 ³⁵ | 19 ⁴³ | 23 ¹³ 13 | 21 ³⁷ | 11 ⁴² | 19 ²⁰ | W 6 |
| T 7 | 19 21 23 | 19 ³⁴ 31 | 5 ⁵⁴ 54 | 4 ³² | 3 ⁴⁹ | 17 ¹⁸ | 8 ¹³ | 1 ⁴¹ | 0 ³⁵ | 27 ³⁶ | 19 ⁴² | 23 ⁸ 8 | 21 ³⁴ | 11 ⁴⁹ | 19 ²³ | T 7 |
| F 8 | 19 25 20 | 20 ³¹ 52 | 20 ⁵⁸ | 6 ²³ | 4 ⁵⁴ | 17 ⁵⁶ | 8 ²⁵ | 1 ^R 41 | 0 ³⁵ | 27 ³⁶ | 19 ⁴¹ | 23 ¹ 1 | 21 ³¹ | 11 ⁵⁶ | 19 ²⁶ | F 8 |
| S 9 | 19 29 16 | 21 ²⁹ 14 | 6 ^{II} 11 | 8 ¹⁶ | 5 ⁵⁸ | 18 ³⁵ | 8 ³⁸ | 1 ⁴¹ | 0 ³⁵ | 27 ³⁷ | 19 ⁴⁰ | 22 ⁵² | 21 ²⁷ | 12 ² | 19 ²⁸ | S 9 |
| S 10 | 19 33 13 | 22 ²⁶ 37 | 21 ²² | 10 ¹² | 7 ³ | 19 ¹⁴ | 8 ⁵¹ | 1 ⁴⁰ | 0 ³⁵ | 27 ³⁷ | 19 ³⁹ | 22 ⁴⁴ | 21 ²⁴ | 12 ⁹ | 19 ³¹ | S 10 |
| M 11 | 19 37 9 | 23 ²⁴ 00 | 6 ^{II} 21 | 12 ¹⁰ | 8 ⁷ | 19 ⁵² | 9 ⁴ | 1 ⁴⁰ | 0 ³⁶ | 27 ³⁸ | 19 ³⁸ | 22 ³⁶ | 21 ²¹ | 12 ¹⁶ | 19 ³³ | M 11 |
| T 12 | 19 41 6 | 24 ²¹ 24 | 20 ⁵⁹ | 14 ¹⁰ | 9 ¹¹ | 20 ³¹ | 9 ¹⁷ | 1 ⁴⁰ | 0 ³⁶ | 27 ³⁸ | 19 ³⁷ | 22 ³⁰ | 21 ¹⁸ | 12 ²² | 19 ³⁵ | T 12 |
| W 13 | 19 45 2 | 25 ¹⁸ 48 | 5 ^{II} 12 | 16 ¹¹ | 10 ¹⁵ | 21 ⁹ | 9 ³⁰ | 1 ³⁹ | 0 ³⁷ | 27 ³⁹ | 19 ³⁶ | 22 ²⁶ | 21 ¹⁵ | 12 ²⁹ | 19 ³⁸ | W 13 |
| T 14 | 19 48 59 | 26 ¹⁶ 14 | 18 ⁵⁹ | 18 ¹⁴ | 11 ¹⁸ | 21 ⁴⁸ | 9 ⁴² | 1 ³⁹ | 0 ³⁷ | 27 ³⁹ | 19 ³⁴ | 22 ²⁵ | 21 ¹² | 12 ³⁶ | 19 ⁴⁰ | T 14 |
| F 15 | 19 52 55 | 27 ¹³ 40 | 2 ^{II} 21 | 20 ¹⁸ | 12 ²¹ | 22 ²⁶ | 9 ⁵⁵ | 1 ³⁸ | 0 ³⁸ | 27 ⁴⁰ | 19 ³³ | 22 ^D 24 | 21 ⁸ 8 | 12 ⁴³ | 19 ⁴² | F 15 |
| S 16 | 19 56 52 | 28 ¹¹ 06 | 15 ¹⁹ | 22 ²² | 13 ²⁴ | 23 ⁵ | 10 ⁸ | 1 ³⁸ | 0 ³⁸ | 27 ⁴⁰ | 19 ³² | 22 ²⁵ | 21 ⁵ 5 | 12 ⁴⁹ | 19 ⁴⁴ | S 16 |
| S 17 | 20 0 49 | 29 ⁸ 34 | 27 ⁵⁹ | 24 ²⁷ | 14 ²⁷ | 23 ⁴³ | 10 ²¹ | 1 ³⁷ | 0 ³⁹ | 27 ⁴⁰ | 19 ³¹ | 22 ^R 25 | 21 ² 2 | 12 ⁵⁶ | 19 ⁴⁶ | S 17 |
| M 18 | 20 4 45 | 0 ^{II} 6'02 | 10 ⁷ 24 | 26 ³² | 15 ³⁰ | 24 ²² | 10 ³⁴ | 1 ³⁶ | 0 ⁴⁰ | 27 ⁴¹ | 19 ³⁰ | 22 ²³ | 20 ⁵⁹ | 13 ³ 3 | 19 ⁴⁹ | M 18 |
| T 19 | 20 8 42 | 1 ³ 3'31 | 22 ³⁸ | 28 ³⁶ | 16 ³² | 25 ⁰ | 10 ⁴⁷ | 1 ³⁵ | 0 ⁴⁰ | 27 ⁴¹ | 19 ²⁹ | 22 ²⁰ | 20 ⁵⁶ | 13 ⁹ 9 | 19 ⁵¹ | T 19 |
| W 20 | 20 12 38 | 2 ¹ 0'2 | 4 ³ 43 | 0 ^{II} 40 | 17 ³⁴ | 25 ³⁹ | 11 ⁰ | 1 ³⁴ | 0 ⁴¹ | 27 ⁴¹ | 19 ²⁷ | 22 ¹³ | 20 ⁵² | 13 ¹⁶ 16 | 19 ⁵³ | W 20 |
| T 21 | 20 16 35 | 2 ⁵⁸ 33 | 16 ⁴² | 2 ⁴³ | 18 ³⁶ | 26 ¹⁷ | 11 ¹³ | 1 ³² | 0 ⁴² | 27 ⁴¹ | 19 ²⁶ | 22 ⁴ 4 | 20 ⁴⁹ | 13 ²³ 23 | 19 ⁵⁴ | T 21 |
| F 22 | 20 20 31 | 3 ⁵⁶ 05 | 28 ³⁸ | 4 ⁴⁶ | 19 ³⁷ | 26 ⁵⁵ | 11 ²⁶ | 1 ³¹ | 0 ⁴³ | 27 ⁴¹ | 19 ²⁵ | 21 ⁵³ | 20 ⁴⁶ | 13 ³⁰ 30 | 19 ⁵⁶ | F 22 |
| S 23 | 20 24 28 | 4 ⁵³ 39 | 10 ³¹ | 6 ⁴⁷ | 20 ³⁸ | 27 ³⁴ | 11 ³⁹ | 1 ³⁰ | 0 ⁴⁴ | 27 ⁴¹ | 19 ²⁴ | 21 ⁴⁰ | 20 ⁴³ | 13 ³⁶ 36 | 19 ⁵⁸ | S 23 |
| S 24 | 20 28 24 | 5 ⁵¹ 14 | 22 ²⁴ | 8 ⁴⁷ | 21 ³⁹ | 28 ¹² | 11 ⁵² | 1 ²⁸ | 0 ⁴⁵ | 27 ⁴² | 19 ²² | 21 ²⁷ | 20 ⁴⁰ | 13 ⁴³ 43 | 20 ⁰ 0 | S 24 |
| M 25 | 20 32 21 | 6 ⁴⁸ 50 | 4 ³ 17 | 10 ⁴⁶ | 22 ³⁹ | 28 ⁵⁰ | 12 ⁶ | 1 ²⁶ | 0 ⁴⁶ | 27 ⁴² | 19 ²¹ | 21 ¹⁴ | 20 ³⁷ | 13 ⁵⁰ 50 | 20 ² 2 | M 25 |
| T 26 | 20 36 18 | 7 ⁴⁶ 27 | 16 ¹³ | 12 ⁴⁴ | 23 ³⁹ | 29 ²⁹ | 12 ¹⁹ | 1 ²⁵ | 0 ⁴⁷ | 27 ^R 42 | 19 ²⁰ | 21 ⁴ 4 | 20 ³³ | 13 ⁵⁷ 57 | 20 ³ 3 | T 26 |
| W 27 | 20 40 14 | 8 ⁴⁴ 06 | 28 ¹³ | 14 ⁴¹ | 24 ³⁹ | 0 ^{II} 7 | 12 ³² | 1 ²³ | 0 ⁴⁸ | 27 ⁴² | 19 ¹⁹ | 20 ⁵⁵ | 20 ³⁰ | 14 ³ 3 | 20 ⁵ 5 | W 27 |
| T 28 | 20 44 11 | 9 ⁴¹ 46 | 10 ²¹ | 16 ³⁶ | 25 ³⁹ | 0 ⁴⁵ | 12 ⁴⁵ | 1 ²¹ | 0 ⁵⁰ | 27 ⁴² | 19 ¹⁷ | 20 ⁴⁹ | 20 ²⁷ | 14 ¹⁰ 10 | 20 ⁶ 6 | T 28 |
| F 29 | 20 48 7 | 10 ³⁹ 28 | 22 ⁴¹ | 18 ³⁰ | 26 ³⁸ | 1 ²⁴ | 12 ⁵⁸ | 1 ¹⁹ | 0 ⁵¹ | 27 ⁴¹ | 19 ¹⁶ | 20 ⁴⁶ | 20 ²⁴ | 14 ¹⁷ 17 | 20 ⁸ 8 | F 29 |
| S 30 | 20 52 4 | 11 ³⁷ 12 | 5 ^B 17 | 20 ²³ | 27 ³⁶ | 2 ² | 13 ¹¹ | 1 ¹⁷ | 0 ⁵² | 27 ⁴¹ | 19 ¹⁵ | 20 ⁴⁵ | 20 ²¹ | 14 ²³ 23 | 20 ⁹ 9 | S 30 |
| S 31 | 20 56 0 | 12 ³⁴ 58 | 18 ^B 12 | 22 ¹⁴ | 28 ³⁵ | 2 ^{II} 40 | 13 ²⁴ | 1 ¹⁴ | 0 ^M 54 | 27 ⁴¹ | 19 ¹³ | 20 ^B 45 | 20 ^B 18 | 14 ³⁰ 30 | 20 ^B 10 | S 31 |

Delta T = 20m24s Julian Calendar 1 July 1054 == Greg. Calendar 7 July 1054

AUGUST 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|------|
| M 1 | 20 59 57 | 13 ³² 45 | 1 ^{II} 32 | 24 ^{II} 3 | 29 ³² 32 | 3 ^{II} 19 | 13 ³⁷ 37 | 1 ^R 12 | 0 ^M 55 | 27 ^R 41 | 19 ^R 12 | 20 ^R 45 | 20 ^B 14 | 14 ³⁷ 37 | 20 ^B 12 | M 1 |
| T 2 | 21 3 53 | 14 ³⁰ 34 | 15 ¹⁹ | 25 ⁵² | 0 ³⁰ 30 | 3 ⁵⁷ | 13 ⁵⁰ | 1 ¹⁰ 10 | 0 ⁵⁶ | 27 ⁴¹ | 19 ¹¹ | 20 ^B 43 | 20 ¹¹ | 14 ⁴⁴ 44 | 20 ¹³ 13 | T 2 |
| W 3 | 21 7 50 | 15 ²⁸ 25 | 29 ³⁵ | 27 ³⁹ | 1 ²⁷ | 4 ³⁵ | 14 ³ | 1 ⁷ | 0 ⁵⁸ | 27 ⁴¹ | 19 ¹⁰ | 20 ⁴⁰ | 20 ⁸ 8 | 14 ⁵⁰ 50 | 20 ¹⁴ 14 | W 3 |
| T 4 | 21 11 47 | 16 ²⁶ 17 | 14 ⁵¹ 17 | 29 ²⁴ | 2 ²⁴ | 5 ¹³ | 14 ¹⁶ | 1 ⁵ | 0 ⁵⁹ | 27 ⁴⁰ | 19 ⁸ | 20 ³³ | 20 ⁵ 5 | 14 ⁵⁷ 57 | 20 ¹⁵ 15 | T 4 |
| F 5 | 21 15 43 | 17 ²⁴ 12 | 29 ²¹ | 1 ³⁹ 9 | 3 ²⁰ | 5 ⁵² | 14 ³⁰ | 1 ² | 1 ¹ | 27 ⁴⁰ | 19 ⁷ | 20 ²⁴ | 20 ² 2 | 15 ⁴ 4 | 20 ¹⁶ 16 | F 5 |
| S 6 | 21 19 40 | 18 ²² 08 | 14 ^{II} 39 | 2 ⁵² | 4 ¹⁶ | 6 ³⁰ | 14 ⁴³ | 0 ⁵⁹ | 1 ³ | 27 ⁴⁰ | 19 ⁶ | 20 ¹⁴ | 19 ⁵⁸ | 15 ¹¹ 11 | 20 ¹⁷ 17 | S 6 |
| S 7 | 21 23 36 | 19 ²⁰ 05 | 29 ⁵⁸ | 4 ³³ | 5 ¹¹ | 7 ⁸ | 14 ⁵⁶ | 0 ⁵⁶ | 1 ⁴ | 27 ³⁹ | 19 ⁴ | 20 ³ 3 | 19 ⁵⁵ | 15 ¹⁷ 17 | 20 ¹⁸ 18 | S 7 |
| M 8 | 21 27 33 | 20 ¹⁸ 04 | 15 ³⁹ 7 | 6 ¹³ | 6 ⁵ | 7 ⁴⁶ | 15 ⁹ | 0 ⁵³ | 1 ⁶ | 27 ³⁹ | 19 ³ | 19 ⁵³ | 19 ⁵² | 15 ²⁴ 24 | 20 ¹⁹ 19 | M 8 |
| T 9 | 21 31 29 | 21 ¹⁶ 04 | 29 ⁵⁷ | 7 ⁵² | 7 ⁰ | 8 ²⁴ | 15 ²² | 0 ⁵⁰ | 1 ⁸ | 27 ³⁹ | 19 ² | 19 ⁴⁴ | 19 ⁴⁹ | 15 ³¹ 31 | 20 ²⁰ 20 | T 9 |
| W 10 | 21 35 26 | 22 ¹⁴ 06 | 14 ^{II} 21 | 9 ³⁰ | 7 ⁵³ | 9 ³ | 15 ³⁵ | 0 ⁴⁷ | 1 ¹⁰ | 27 ³⁸ | 19 ¹ | 19 ³⁹ | 19 ⁴⁶ | 15 ³⁷ 37 | 20 ²⁰ 20 | W 10 |
| T 11 | 21 39 22 | 23 ¹² 10 | 28 ¹⁵ | 11 ⁶ | 8 ⁴⁶ | 9 ⁴¹ | 15 ⁴⁸ | 0 ⁴⁴ | 1 ¹² | 27 ³⁸ | 18 ⁵⁹ | 19 ³⁶ | 19 ⁴³ | 15 ⁴⁴ 44 | 20 ²¹ 21 | T 11 |
| F 12 | 21 43 19 | 24 ¹⁰ 14 | 11 ^{II} 41 | 12 ⁴² | 9 ³⁹ | 10 ¹⁹ | 16 ¹ | 0 ⁴¹ | 1 ¹⁴ | 27 ³⁷ | 18 ⁵⁸ | 19 ³⁵ | 19 ³⁹ | 15 ⁵¹ 51 | 20 ²² 22 | F 12 |
| S 13 | 21 47 16 | 25 ⁸ 21 | 24 ⁴¹ | 14 ¹⁵ | 10 ³¹ | 10 ⁵⁷ | 16 ¹⁴ | 0 ³⁸ | 1 ¹⁶ | 27 ³⁶ | 18 ⁵⁷ | 19 ³⁵ | 19 ³⁶ | 15 ⁵⁸ 58 | 20 ²² 22 | S 13 |
| S 14 | 21 51 12 | 26 ⁶ 28 | 7 ⁷ 19 | 15 ⁴⁸ | 11 ²² | 11 ³⁵ | 16 ²⁷ | 0 ³⁴ | 1 ¹⁸ | 27 ³⁶ | 18 ⁵⁵ | 19 ³⁴ | 19 ³³ | 16 ⁴ 4 | 20 ²³ 23 | S 14 |
| M 15 | 21 55 9 | 27 ⁴ 37 | 19 ³⁹ | 17 ¹⁹ | 12 ¹³ | 12 ¹³ | 16 ⁴⁰ | 0 ³¹ | 1 ²⁰ | 27 ³⁵ | 18 ⁵⁴ | 19 ³³ | 19 ³⁰ | 16 ¹¹ 11 | 20 ²³ 23 | M 15 |
| T 16 | 21 59 5 | 28 ² 48 | 1 ³ 47 | 18 ⁴⁹ | 13 ³ | 12 | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1054
geocentric

SEPTEMBER 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|------|--------|--------|--------|-------|-------|--------|------|-----|
| T 1 | 23 2 10 | 13♐37°50 | 23♌13 | 9♂40 | 24♂23 | 23♂0 | 20♂18 | 29°R22 | 2♌1 | 27°R20 | 18°R33 | 17°R43 | 18♌36 | 18♌5 | 20°R20 | T 1 | |
| F 2 | 23 6 7 | 14°36'35 | 8♌3 | 10°44 | 24°56 | 23°38 | 20°30 | 29°H18 | 2°4 | 27°Y19 | 18♌32 | 17♌36 | 18°33 | 18°12 | 20♌19 | F 2 | |
| S 3 | 23 10 3 | 15°35'22 | 23°8 | 11°45 | 25°28 | 24°16 | 20°42 | 29°13 | 2°7 | 27°18 | 18°31 | 17°27 | 18°29 | 18°19 | 20°18 | S 3 | |
| S 4 | 23 14 0 | 16°34'11 | 8♐18 | 12°43 | 25°59 | 24°54 | 20°55 | 29°9 | 2°10 | 27°17 | 18°30 | 17°18 | 18°26 | 18°26 | 20°18 | S 4 | |
| M 5 | 23 17 56 | 17°33'02 | 23°23 | 13°39 | 26°28 | 25°32 | 21°7 | 29°4 | 2°13 | 27°16 | 18°29 | 17°9 | 18°23 | 18°32 | 20°17 | M 5 | |
| T 6 | 23 21 53 | 18°31'55 | 8♌13 | 14°32 | 26°55 | 26°10 | 21°20 | 28°59 | 2°16 | 27°15 | 18°28 | 17°2 | 18°20 | 18°39 | 20°16 | T 6 | |
| W 7 | 23 25 49 | 19°30'50 | 22°41 | 15°22 | 27°21 | 26°48 | 21°32 | 28°55 | 2°19 | 27°13 | 18°27 | 16°57 | 18°17 | 18°46 | 20°15 | W 7 | |
| T 8 | 23 29 46 | 20°29'47 | 6♌41 | 16°8 | 27°46 | 27°26 | 21°44 | 28°50 | 2°22 | 27°12 | 18°26 | 16°55 | 18°14 | 18°52 | 20°13 | T 8 | |
| F 9 | 23 33 43 | 21°28'45 | 20°13 | 16°51 | 28°8 | 28°4 | 21°56 | 28°45 | 2°25 | 27°11 | 18°25 | 16°D54 | 18°10 | 18°59 | 20°12 | F 9 | |
| S 10 | 23 37 39 | 22°27'46 | 3♌18 | 17°29 | 28°29 | 28°42 | 22°9 | 28°41 | 2°28 | 27°9 | 18°24 | 16°55 | 18°7 | 19°6 | 20°11 | S 10 | |
| S 11 | 23 41 36 | 23°26'48 | 16°0 | 18°4 | 28°48 | 29°20 | 22°21 | 28°36 | 2°31 | 27°8 | 18°23 | 16°56 | 18°4 | 19°13 | 20°10 | S 11 | |
| M12 | 23 45 32 | 24°25'53 | 28°22 | 18°33 | 29°5 | 29°58 | 22°33 | 28°31 | 2°34 | 27°7 | 18°22 | 16°R56 | 18°1 | 19°19 | 20°8 | M12 | |
| T 13 | 23 49 29 | 25°24'59 | 10♌29 | 18°57 | 29°20 | 0♐36 | 22°45 | 28°27 | 2°37 | 27°5 | 18°21 | 16°55 | 17°58 | 19°26 | 20°7 | T 13 | |
| W14 | 23 53 25 | 26°24'06 | 22°27 | 19°16 | 29°33 | 1°13 | 22°57 | 28°22 | 2°40 | 27°4 | 18°20 | 16°51 | 17°55 | 19°33 | 20°5 | W14 | |
| T 15 | 23 57 22 | 27°23'16 | 4♌21 | 19°28 | 29°44 | 1°51 | 23°9 | 28°17 | 2°43 | 27°3 | 18°19 | 16°46 | 17°51 | 19°39 | 20°4 | T 15 | |
| F 16 | 0 1 18 | 28°22'28 | 16°12 | 19°R34 | 29°53 | 2°29 | 23°20 | 28°12 | 2°47 | 27°1 | 18°18 | 16°38 | 17°48 | 19°46 | 20°2 | F 16 | |
| S 17 | 0 5 15 | 29°21'41 | 28°6 | 19°33 | 29°59 | 3°7 | 23°32 | 28°8 | 2°50 | 27°0 | 18°17 | 16°30 | 17°45 | 19°53 | 20°1 | S 17 | |
| S 18 | 0 9 12 | 0♌20'56 | 10♐4 | 19°25 | 0♌4 | 3°45 | 23°44 | 28°3 | 2°53 | 26°58 | 18°16 | 16°21 | 17°42 | 20°0 | 19°59 | S 18 | |
| M19 | 0 13 8 | 1°20'13 | 22°9 | 19°9 | 0°R6 | 4°23 | 23°55 | 27°58 | 2°57 | 26°57 | 18°15 | 16°12 | 17°39 | 20°6 | 19°57 | M19 | |
| T 20 | 0 17 5 | 2°19'33 | 4♌21 | 18°44 | 0°6 | 5°1 | 24°7 | 27°53 | 3°0 | 26°55 | 18°14 | 16°5 | 17°35 | 20°13 | 19°55 | T 20 | |
| W21 | 0 21 1 | 3°18'54 | 16°42 | 18°12 | 0°3 | 5°39 | 24°19 | 27°49 | 3°3 | 26°54 | 18°13 | 15°59 | 17°32 | 20°20 | 19°53 | W21 | |
| T 22 | 0 24 58 | 4°18'18 | 29°12 | 17°31 | 29♂58 | 6°16 | 24°30 | 27°44 | 3°7 | 26°52 | 18°12 | 15°55 | 17°29 | 20°27 | 19°52 | T 22 | |
| F 23 | 0 28 54 | 5°17'43 | 11♌53 | 16°43 | 29°50 | 6°54 | 24°41 | 27°39 | 3°10 | 26°51 | 18°12 | 15°D54 | 17°26 | 20°33 | 19°50 | F 23 | |
| S 24 | 0 32 51 | 6°17'11 | 24°45 | 15°47 | 29°41 | 7°32 | 24°53 | 27°35 | 3°13 | 26°49 | 18°11 | 15°54 | 17°23 | 20°40 | 19°48 | S 24 | |
| S 25 | 0 36 47 | 7°16'42 | 7♐52 | 14°44 | 29°28 | 8°10 | 25°4 | 27°30 | 3°17 | 26°48 | 18°10 | 15°56 | 17°20 | 20°47 | 19°45 | S 25 | |
| M26 | 0 40 44 | 8°16'15 | 21°14 | 13°36 | 29°14 | 8°48 | 25°15 | 27°25 | 3°20 | 26°46 | 18°9 | 15°57 | 17°16 | 20°53 | 19°43 | M26 | |
| T 27 | 0 44 40 | 9°15'50 | 4♌52 | 12°24 | 28°57 | 9°26 | 25°26 | 27°21 | 3°24 | 26°44 | 18°9 | 15°R58 | 17°13 | 21°0 | 19°41 | T 27 | |
| W28 | 0 48 37 | 10°15'27 | 18°49 | 11°11 | 28°37 | 10°4 | 25°37 | 27°16 | 3°27 | 26°43 | 18°8 | 15°58 | 17°10 | 21°7 | 19°39 | W28 | |
| T 29 | 0 52 34 | 11°15'07 | 3♌3 | 9°57 | 28°16 | 10°41 | 25°48 | 27°12 | 3°31 | 26°41 | 18°7 | 15°56 | 17°7 | 21°14 | 19°37 | T 29 | |
| F 30 | 0 56 30 | 12♌14'49 | 17♌33 | 8♌45 | 27♂52 | 11♐19 | 25♌59 | 27♐7 | 3♌34 | 26°Y40 | 18♌7 | 15♌53 | 17♌4 | 21♌20 | 19♌34 | F 30 | |

Delta T = 20m23s Julian Calendar 1 Sept. 1054 == Greg. Calendar 7 Sept. 1054

OCTOBER 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|--------|-------|-------|--------|------|--------|--------|--------|-------|-------|--------|------|-----|
| S 1 | 1 0 27 | 13♌14'34 | 2♐15 | 7°R38 | 27°R26 | 11♐57 | 26♂10 | 27°R3 | 3♌38 | 26°R38 | 18°R6 | 15°R48 | 17♌0 | 21♌27 | 19°R32 | S 1 | |
| S 2 | 1 4 23 | 14°14'20 | 17°2 | 6♌37 | 26♂59 | 12°35 | 26°20 | 26°H58 | 3°41 | 26°Y36 | 18♌5 | 15♌44 | 16°57 | 21°34 | 19♌30 | S 2 | |
| M 3 | 1 8 20 | 15°14'09 | 1♌47 | 5°45 | 26°30 | 13°13 | 26°31 | 26°54 | 3°45 | 26°35 | 18°5 | 15°39 | 16°54 | 21°41 | 19°27 | M 3 | |
| T 4 | 1 12 16 | 16°14'00 | 16°22 | 5°2 | 25°59 | 13°50 | 26°42 | 26°49 | 3°49 | 26°33 | 18°4 | 15°36 | 16°51 | 21°47 | 19°25 | T 4 | |
| W 5 | 1 16 13 | 17°13'52 | 0♌40 | 4°29 | 25°26 | 14°28 | 26°52 | 26°45 | 3°52 | 26°31 | 18°4 | 15°33 | 16°48 | 21°54 | 19°22 | W 5 | |
| T 6 | 1 20 9 | 18°13'47 | 14°37 | 4°8 | 24°53 | 15°6 | 27°2 | 26°41 | 3°56 | 26°30 | 18°3 | 15°D33 | 16°45 | 22°1 | 19°19 | T 6 | |
| F 7 | 1 24 6 | 19°13'44 | 28°10 | 3°D58 | 24°18 | 15°44 | 27°13 | 26°37 | 3°59 | 26°28 | 18°3 | 15°33 | 16°41 | 22°7 | 19°17 | F 7 | |
| S 8 | 1 28 3 | 20°13'42 | 11♌18 | 4°0 | 23°42 | 16°22 | 27°23 | 26°32 | 4°3 | 26°26 | 18°2 | 15°34 | 16°38 | 22°14 | 19°14 | S 8 | |
| S 9 | 1 31 59 | 21°13'43 | 24°3 | 4°12 | 23°6 | 16°59 | 27°33 | 26°28 | 4°7 | 26°25 | 18°2 | 15°36 | 16°35 | 22°21 | 19°11 | S 9 | |
| M10 | 1 35 56 | 22°13'44 | 6♌29 | 4°35 | 22°30 | 17°37 | 27°43 | 26°24 | 4°10 | 26°23 | 18°1 | 15°38 | 16°32 | 22°28 | 19°9 | M10 | |
| T 11 | 1 39 52 | 23°13'48 | 18°40 | 5°8 | 21°53 | 18°15 | 27°53 | 26°20 | 4°14 | 26°21 | 18°1 | 15°R38 | 16°29 | 22°34 | 19°6 | T 11 | |
| W12 | 1 43 49 | 24°13'53 | 0♌40 | 5°49 | 21°17 | 18°53 | 28°2 | 26°16 | 4°18 | 26°20 | 18°0 | 15°38 | 16°26 | 22°41 | 19°3 | W12 | |
| T 13 | 1 47 45 | 25°14'00 | 12°34 | 6°38 | 20°41 | 19°30 | 28°12 | 26°13 | 4°22 | 26°18 | 18°0 | 15°37 | 16°22 | 22°48 | 19°0 | T 13 | |
| F 14 | 1 51 42 | 26°14'08 | 24°26 | 7°35 | 20°6 | 20°8 | 28°22 | 26°9 | 4°25 | 26°16 | 18°0 | 15°35 | 16°19 | 22°54 | 18°57 | F 14 | |
| S 15 | 1 55 38 | 27°14'18 | 6♐21 | 8°37 | 19°31 | 20°46 | 28°31 | 26°5 | 4°29 | 26°15 | 17°59 | 15°33 | 16°16 | 23°1 | 18°54 | S 15 | |
| S 16 | 1 59 35 | 28°14'30 | 18°23 | 9°45 | 18°58 | 21°24 | 28°41 | 26°2 | 4°33 | 26°13 | 17°59 | 15°30 | 16°13 | 23°8 | 18°51 | S 16 | |
| M17 | 2 3 32 | 29°14'43 | 0♌34 | 10°58 | 18°26 | 22°1 | 28°50 | 25°58 | 4°36 | 26°11 | 17°59 | 15°27 | 16°10 | 23°15 | 18°49 | M17 | |
| T 18 | 2 7 28 | 0♌14'58 | 12°56 | 12°15 | 17°55 | 22°39 | 28°59 | 25°54 | 4°40 | 26°10 | 17°59 | 15°25 | 16°6 | 23°21 | 18°46 | T 18 | |
| W19 | 2 11 25 | 1°15'15 | 25°32 | 13°35 | 17°26 | 23°17 | 29°8 | 25°51 | 4°44 | 26°8 | 17°58 | 15°23 | 16°3 | 23°28 | 18°42 | W19 | |
| T 20 | 2 15 21 | 2°15'33 | 8♌20 | 14°58 | 16°59 | 23°54 | 29°17 | 25°48 | 4°48 | 26°6 | 17°58 | 15°23 | 16°0 | 23°35 | 18°39 | T 20 | |
| F 21 | 2 19 18 | 3°15'53 | 21°23 | 16°23 | 16°35 | 24°32 | 29°26 | 25°44 | 4°51 | 26°4 | 17°58 | 15°D22 | 15°57 | 23°42 | 18°36 | F 21 | |
| S 22 | 2 23 14 | 4°16'15 | 4♐39 | 17°51 | 16°12 | 25°10 | 29°34 | 25°41 | 4°55 | 26°3 | 17°58 | 15°23 | 15°54 | 23°48 | 18°33 | S 22 | |
| S 23 | 2 27 11 | 5°16'39 | 18°7 | 19°20 | 15°51 | 25°48 | 29°43 | 25°38 | 4°59 | 26°1 | 17°58 | 15°24 | 15°51 | 23°55 | 18°30 | S 23 | |
| M24 | 2 31 7 | 6°17'05 | 1♌47 | 20°50 | 15°33 | 26°25 | 29°51 | 25°35 | 5°3 | 25°59 | 17°58 | 15°25 | 15°47 | 24°2 | 18°27 | M24 | |
| T 25 | 2 35 4 | 7°17'33 | 15°38 | 22°22 | 15°17 | 27°3 | 29°59 | 25°32 | 5°6 | 25°58 | 17°58 | 15°26 | 15°44 | 24°8 | 18°24 | T 25 | |
| W26 | 2 39 1 | 8°18'03 | 29°38 | 23°54 | 15°4 | 27°41 | 0♐8 | 25°29 | 5°10 | 25°56 | 17°58 | 15°26 | 15°41 | 24°15 | 18°21 | W26 | |
| T 27 | 2 42 57 | 9°18'34 | 13♌46 | 25°27 | 14°53 | 28°18 | 0°16 | 25°27 | 5°14 | 25°55 | 17°D58 | 15°R26 | 15°38 | 24°22 | 18°18 | T 27 | |
| F 28 | 2 46 54 | 10°19'08 | 28°1 | 27°1 | 14°44 | 28°56 | 0°24 | 25°24 | 5°17 | 25°53 | 17°58 | 15°26 | 15°35 | 24°29 | 18°14 | F 28 | |
| S 29 | 2 50 50 | 11°19'43 | 12♐20 | 28°35 | 14°39 | 29°34 | 0°32 | 25°21 | 5°21 | 25°51 | 17°58 | 15°25 | 15°32 | 24°35 | 18°11 | S 29 | |
| S 30 | 2 54 47 | 12°20'20 | 26°39 | 0♌10 | 14°35 | 0♌11 | 0°39 | 25°19 | 5°25 | 25°50 | 17°58 | 15°25 | 15°28 | 24°42 | 18°8 | S 30 | |
| M31 | 2 58 43 | 13♌20'59 | 10♌54 | 1♌44 | 14°D34 | 0♌49 | 0♐47 | 25♐17 | 5♌29 | 25°Y48 | 17♌58 | 15♌25 | 15♌25 | 24♌49 | 18♌5 | M31 | |

Delta T = 20m23s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1054
geocentric

NOVEMBER 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|------|--------|------|--------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 3 2 40 | 14♐21'39 | 25♌ 2 | 3♑19 | 14♌36 | 1♃26 | 0♈54 | 25°R14 | 5♑32 | 25°R46 | 17♎58 | 15°R25 | 15♌22 | 24♎55 | 18°R 2 | T 1 | |
| W 2 | 3 6 36 | 15°22'21 | 8♑58 | 4°54 | 14°39 | 2° 4 | 1° 1 | 25♐12 | 5°36 | 25°Y45 | 17°58 | 15♌25 | 15°19 | 25° 2 | 17♌58 | W 2 | |
| T 3 | 3 10 33 | 16°23'05 | 22°38 | 6°29 | 14°46 | 2°42 | 1° 9 | 25°10 | 5°40 | 25°43 | 17°58 | 15°25 | 15°16 | 25° 9 | 17°55 | T 3 | |
| F 4 | 3 14 30 | 17°23'50 | 6♌ 1 | 8° 4 | 14°54 | 3°19 | 1°16 | 25° 8 | 5°43 | 25°42 | 17°59 | 15°24 | 15°12 | 25°16 | 17°52 | F 4 | |
| S 5 | 3 18 26 | 18°24'36 | 19° 4 | 9°39 | 15° 5 | 3°57 | 1°22 | 25° 6 | 5°47 | 25°40 | 17°59 | 15°24 | 15° 9 | 25°22 | 17°49 | S 5 | |
| S 6 | 3 22 23 | 19°25'24 | 1♌49 | 11°14 | 15°18 | 4°35 | 1°29 | 25° 4 | 5°51 | 25°39 | 17°59 | 15°24 | 15° 6 | 25°29 | 17°45 | S 6 | |
| M 7 | 3 26 19 | 20°26'12 | 14°17 | 12°49 | 15°33 | 5°12 | 1°36 | 25° 3 | 5°54 | 25°37 | 17°59 | 15°23 | 15° 3 | 25°36 | 17°42 | M 7 | |
| T 8 | 3 30 16 | 21°27'02 | 26°29 | 14°24 | 15°50 | 5°50 | 1°42 | 25° 1 | 5°58 | 25°36 | 18° 0 | 15°22 | 15° 0 | 25°43 | 17°39 | T 8 | |
| W 9 | 3 34 12 | 22°27'53 | 8♎31 | 15°58 | 16° 9 | 6°27 | 1°48 | 25° 0 | 6° 2 | 25°34 | 18° 0 | 15°22 | 14°57 | 25°49 | 17°36 | W 9 | |
| T 10 | 3 38 9 | 23°28'45 | 20°25 | 17°33 | 16°30 | 7° 5 | 1°54 | 24°58 | 6° 5 | 25°33 | 18° 0 | 15°D22 | 14°53 | 25°56 | 17°32 | T 10 | |
| F 11 | 3 42 5 | 24°29'37 | 2♌17 | 19° 7 | 16°53 | 7°42 | 2° 0 | 24°57 | 6° 9 | 25°31 | 18° 1 | 15°22 | 14°50 | 26° 3 | 17°29 | F 11 | |
| S 12 | 3 46 2 | 25°30'30 | 14°12 | 20°42 | 17°18 | 8°20 | 2° 6 | 24°56 | 6°13 | 25°30 | 18° 1 | 15°22 | 14°47 | 26° 9 | 17°26 | S 12 | |
| S 13 | 3 49 59 | 26°31'25 | 26°14 | 22°16 | 17°44 | 8°57 | 2°12 | 24°55 | 6°16 | 25°29 | 18° 2 | 15°23 | 14°44 | 26°16 | 17°23 | S 13 | |
| M14 | 3 53 55 | 27°32'20 | 8♑28 | 23°51 | 18°12 | 9°35 | 2°17 | 24°54 | 6°20 | 25°27 | 18° 2 | 15°24 | 14°41 | 26°23 | 17°20 | M14 | |
| T 15 | 3 57 52 | 28°33'16 | 20°56 | 25°25 | 18°42 | 10°12 | 2°22 | 24°53 | 6°23 | 25°26 | 18° 2 | 15°26 | 14°38 | 26°30 | 17°16 | T 15 | |
| W16 | 4 1 48 | 29°34'13 | 3♌43 | 26°59 | 19°14 | 10°50 | 2°28 | 24°52 | 6°27 | 25°24 | 18° 3 | 15°26 | 14°34 | 26°36 | 17°13 | W16 | |
| T 17 | 4 5 45 | 0♌35'10 | 16°48 | 28°33 | 19°47 | 11°27 | 2°32 | 24°52 | 6°30 | 25°23 | 18° 4 | 15°R27 | 14°31 | 26°43 | 17°10 | T 17 | |
| F 18 | 4 9 41 | 1°36'09 | 0♐12 | 0♌ 8 | 20°21 | 12° 5 | 2°37 | 24°51 | 6°34 | 25°22 | 18° 4 | 15°26 | 14°28 | 26°50 | 17° 7 | F 18 | |
| S 19 | 4 13 38 | 2°37'09 | 13°55 | 1°42 | 20°57 | 12°42 | 2°42 | 24°51 | 6°37 | 25°21 | 18° 5 | 15°25 | 14°25 | 26°56 | 17° 4 | S 19 | |
| S 20 | 4 17 34 | 3°38'09 | 27°52 | 3°16 | 21°34 | 13°19 | 2°46 | 24°50 | 6°41 | 25°19 | 18° 5 | 15°23 | 14°22 | 27° 3 | 17° 1 | S 20 | |
| M21 | 4 21 31 | 4°39'11 | 12♌ 1 | 4°50 | 22°13 | 13°57 | 2°51 | 24°50 | 6°44 | 25°18 | 18° 6 | 15°20 | 14°18 | 27°10 | 16°58 | M21 | |
| T 22 | 4 25 28 | 5°40'14 | 26°16 | 6°25 | 22°53 | 14°34 | 2°55 | 24°D50 | 6°48 | 25°17 | 18° 7 | 15°17 | 14°15 | 27°17 | 16°55 | T 22 | |
| W23 | 4 29 24 | 6°41'18 | 10♌24 | 7°59 | 23°34 | 15°12 | 2°59 | 24°50 | 6°51 | 25°16 | 18° 7 | 15°15 | 14°12 | 27°23 | 16°52 | W23 | |
| T 24 | 4 33 21 | 7°42'22 | 24°50 | 9°34 | 24°16 | 15°49 | 3° 3 | 24°50 | 6°54 | 25°15 | 18° 8 | 15°13 | 14° 9 | 27°30 | 16°49 | T 24 | |
| F 25 | 4 37 17 | 8°43'28 | 9♑ 2 | 11° 9 | 24°59 | 16°26 | 3° 6 | 24°51 | 6°58 | 25°13 | 18° 9 | 15°D13 | 14° 6 | 27°37 | 16°46 | F 25 | |
| S 26 | 4 41 14 | 9°44'34 | 23° 8 | 12°43 | 25°43 | 17° 4 | 3°10 | 24°51 | 7° 1 | 25°12 | 18°10 | 15°13 | 14° 3 | 27°44 | 16°43 | S 26 | |
| S 27 | 4 45 10 | 10°45'42 | 7♌ 5 | 14°18 | 26°29 | 17°41 | 3°13 | 24°52 | 7° 4 | 25°11 | 18°10 | 15°14 | 13°59 | 27°50 | 16°40 | S 27 | |
| M28 | 4 49 7 | 11°46'50 | 20°54 | 15°53 | 27°15 | 18°18 | 3°16 | 24°52 | 7° 7 | 25°10 | 18°11 | 15°16 | 13°56 | 27°57 | 16°37 | M28 | |
| T 29 | 4 53 3 | 12°48'00 | 4♑33 | 17°29 | 28° 3 | 18°56 | 3°19 | 24°53 | 7°11 | 25° 9 | 18°12 | 15°17 | 13°53 | 28° 4 | 16°34 | T 29 | |
| W30 | 4 57 0 | 13♌49'10 | 18♑ 1 | 19♌ 4 | 28♌51 | 19♌33 | 3♑22 | 24♌54 | 7♑14 | 25°Y 8 | 18♌13 | 15°R18 | 13♌50 | 28♌10 | 16♌31 | W30 | |

Delta T = 20m23s Julian Calendar 1 Nov. 1054 == Greg. Calendar 7 Nov. 1054

DECEMBER 1054 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|--------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 5 0 57 | 14♐50'20 | 1♌17 | 20♌40 | 29♌40 | 20♌10 | 3♑24 | 24♌55 | 7♑17 | 25°R 7 | 18♌14 | 15°R17 | 13♌47 | 28♌17 | 16°R29 | T 1 | |
| F 2 | 5 4 53 | 15°51'32 | 14°20 | 22°15 | 0♑30 | 20°48 | 3°26 | 24°56 | 7°20 | 25°Y 6 | 18°15 | 15♌14 | 13°44 | 28°24 | 16♌26 | F 2 | |
| S 3 | 5 8 50 | 16°52'43 | 27°10 | 23°51 | 1°21 | 21°25 | 3°28 | 24°57 | 7°23 | 25° 5 | 18°16 | 15°10 | 13°40 | 28°31 | 16°23 | S 3 | |
| S 4 | 5 12 46 | 17°53'55 | 9♌47 | 25°27 | 2°12 | 22° 2 | 3°30 | 24°58 | 7°26 | 25° 4 | 18°17 | 15° 4 | 13°37 | 28°37 | 16°21 | S 4 | |
| M 5 | 5 16 43 | 18°55'08 | 22°10 | 27° 3 | 3° 5 | 22°39 | 3°32 | 24°59 | 7°29 | 25° 4 | 18°17 | 14°58 | 13°34 | 28°44 | 16°18 | M 5 | |
| T 6 | 5 20 39 | 19°56'20 | 4♎20 | 28°40 | 3°58 | 23°16 | 3°34 | 25° 1 | 7°32 | 25° 3 | 18°18 | 14°51 | 13°31 | 28°51 | 16°15 | T 6 | |
| W 7 | 5 24 36 | 20°57'33 | 16°21 | 0♌16 | 4°51 | 23°54 | 3°35 | 25° 2 | 7°35 | 25° 2 | 18°19 | 14°46 | 13°28 | 28°57 | 16°13 | W 7 | |
| T 8 | 5 28 33 | 21°58'45 | 28°15 | 1°53 | 5°46 | 24°31 | 3°36 | 25° 4 | 7°38 | 25° 1 | 18°21 | 14°41 | 13°24 | 29° 4 | 16°10 | T 8 | |
| F 9 | 5 32 29 | 22°59'57 | 10♌ 6 | 3°29 | 6°41 | 25° 8 | 3°37 | 25° 6 | 7°41 | 25° 0 | 18°22 | 14°38 | 13°21 | 29°11 | 16° 8 | F 9 | |
| S 10 | 5 36 26 | 24° 1'09 | 21°59 | 5° 6 | 7°36 | 25°45 | 3°38 | 25° 8 | 7°44 | 25° 0 | 18°23 | 14°D37 | 13°18 | 29°18 | 16° 6 | S 10 | |
| S 11 | 5 40 22 | 25° 2'21 | 3♑58 | 6°43 | 8°32 | 26°22 | 3°39 | 25°10 | 7°47 | 24°59 | 18°24 | 14°38 | 13°15 | 29°24 | 16° 3 | S 11 | |
| M12 | 5 44 19 | 26° 3'33 | 16° 9 | 8°19 | 9°29 | 26°59 | 3°39 | 25°12 | 7°50 | 24°58 | 18°25 | 14°39 | 13°12 | 29°31 | 16° 1 | M12 | |
| T 13 | 5 48 15 | 27° 4'45 | 28°37 | 9°56 | 10°27 | 27°36 | 3°39 | 25°14 | 7°53 | 24°58 | 18°26 | 14°41 | 13° 9 | 29°38 | 15°59 | T 13 | |
| W14 | 5 52 12 | 28° 5'56 | 11♌25 | 11°32 | 11°24 | 28°13 | 3°R39 | 25°16 | 7°55 | 24°57 | 18°27 | 14°R42 | 13° 5 | 29°44 | 15°57 | W14 | |
| T 15 | 5 56 8 | 29° 7'07 | 24°38 | 13° 7 | 12°23 | 28°50 | 3°39 | 25°19 | 7°58 | 24°57 | 18°28 | 14°41 | 13° 2 | 29°51 | 15°54 | T 15 | |
| F 16 | 6 0 5 | 0♌ 8'18 | 8♐16 | 14°42 | 13°22 | 29°27 | 3°39 | 25°21 | 8° 1 | 24°56 | 18°30 | 14°39 | 12°59 | 29°58 | 15°52 | F 16 | |
| S 17 | 6 4 2 | 1° 9'29 | 22°18 | 16°16 | 14°21 | 0♑ 4 | 3°38 | 25°24 | 8° 3 | 24°56 | 18°31 | 14°34 | 12°56 | 0♌ 5 | 15°50 | S 17 | |
| S 18 | 6 7 58 | 2°10'39 | 6♌41 | 17°50 | 15°21 | 0°41 | 3°38 | 25°27 | 8° 6 | 24°55 | 18°32 | 14°28 | 12°53 | 0°11 | 15°48 | S 18 | |
| M19 | 6 11 55 | 3°11'50 | 21°20 | 19°22 | 16°21 | 1°18 | 3°37 | 25°30 | 8° 8 | 24°55 | 18°33 | 14°20 | 12°50 | 0°18 | 15°46 | M19 | |
| T 20 | 6 15 51 | 4°13'00 | 6♑ 5 | 20°52 | 17°22 | 1°55 | 3°36 | 25°33 | 8°11 | 24°55 | 18°35 | 14°12 | 12°46 | 0°25 | 15°45 | T 20 | |
| W21 | 6 19 48 | 5°14'10 | 20°50 | 22°21 | 18°23 | 2°32 | 3°34 | 25°36 | 8°13 | 24°54 | 18°36 | 14° 4 | 12°43 | 0°32 | 15°43 | W21 | |
| T 22 | 6 23 44 | 6°15'20 | 5♑27 | 23°48 | 19°24 | 3° 8 | 3°33 | 25°39 | 8°16 | 24°54 | 18°37 | 13°58 | 12°40 | 0°38 | 15°41 | T 22 | |
| F 23 | 6 27 41 | 7°16'30 | 19°51 | 25°11 | 20°26 | 3°45 | 3°31 | 25°42 | 8°18 | 24°54 | 18°38 | 13°55 | 12°37 | 0°45 | 15°39 | F 23 | |
| S 24 | 6 31 37 | 8°17'39 | 3♌59 | 26°32 | 21°28 | 4°22 | 3°29 | 25°45 | 8°20 | 24°53 | 18°40 | 13°D53 | 12°34 | 0°52 | 15°38 | S 24 | |
| S 25 | 6 35 34 | 9°18'49 | 17°49 | 27°49 | 22°31 | 4°59 | 3°27 | 25°49 | 8°23 | 24°53 | 18°41 | 13°53 | 12°30 | 0°58 | 15°36 | S 25 | |
| M26 | 6 39 31 | 10°19'58 | 1♑23 | 29° 2 | 23°34 | 5°35 | 3°25 | 25°52 | 8°25 | 24°53 | 18°43 | 13°54 | 12°27 | 1° 5 | 15°35 | M26 | |
| T 27 | 6 43 27 | 11°21'07 | 14°41 | 0♎ 9 | 24°37 | 6°12 | 3°22 | 25°56 | 8°27 | 24°53 | 18°44 | 13°R55 | 12°24 | 1°12 | 15°33 | T 27 | |
| W28 | 6 47 24 | 12°22'16 | 27°46 | 1°11 | 25°41 | 6°49 | 3°20 | 26° 0 | 8°29 | 24°53 | 18°45 | 13°54 | 12°21 | 1°19 | 15°32 | W28 | |
| T 29 | 6 51 20 | 13°23'25 | 10♌39 | 2° 5 | 26°45 | 7°25 | 3°17 | 26° 3 | 8°31 | 24°53 | 18°47 | 13°50 | 12°18 | 1°25 | 15°30 | T 29 | |
| F 30 | 6 55 17 | 14°24'33 | 23°21 | 2°53 | 27°49 | 8° 2 | 3°14 | 26° 7 | 8°33 | 24°D53 | 18°48 | 13°44 | 12°15 | 1°32 | 15°29 | F 30 | |
| S 31 | 6 59 13 | 15♌25'40 | 5♌53 | 3♎31 | 28♑53 | 8♑39 | 3♑10 | 26♌11 | 8♑35 | 24°Y53 | 18♌50 | 13♌35 | 12♌11 | 1♌39 | 15♌28 | S 31 | |

Delta T = 20m22s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1055
geocentric

JANUARY 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-----|
| S 1 | 7 3 10 | 16♌26'47 | 18♌16 | 4♌1 | 29♍58 | 9♍15 | 3°R 7 | 26♋15 | 8♍37 | 24♍53 | 18♌51 | 13°R24 | 12♌8 | 1♋45 | 15°R27 | S 1 | |
| M 2 | 7 7 7 | 17°27'54 | 0♌29 | 4°20 | 1♌3 | 9°52 | 3♍4 | 26°20 | 8°39 | 24°53 | 18°53 | 13♌11 | 12°5 | 1°52 | 15♌26 | M 2 | |
| T 3 | 7 11 3 | 18°28'59 | 12°34 | 4°R29 | 2°8 | 10°28 | 3°0 | 26°24 | 8°41 | 24°53 | 18°54 | 12°58 | 12°2 | 1°59 | 15°25 | T 3 | |
| W 4 | 7 15 0 | 19°30'03 | 24°32 | 4°26 | 4°26 | 3°14 | 11°5 | 2°56 | 26°28 | 8°43 | 24°53 | 18°56 | 12°46 | 11°59 | 2°6 | 15°24 | W 4 |
| T 5 | 7 18 56 | 20°31'06 | 6♋24 | 4°12 | 4°20 | 11°41 | 2°52 | 26°33 | 8°45 | 24°53 | 18°57 | 12°36 | 11°56 | 2°12 | 15°23 | T 5 | |
| F 6 | 7 22 53 | 21°32'09 | 18°13 | 3°46 | 5°26 | 12°17 | 2°47 | 26°37 | 8°47 | 24°53 | 18°59 | 12°28 | 11°52 | 2°19 | 15°22 | F 6 | |
| S 7 | 7 26 49 | 22°33'10 | 0♍4 | 3°10 | 6°32 | 12°54 | 2°43 | 26°42 | 8°48 | 24°54 | 19°0 | 12°23 | 11°49 | 2°26 | 15°21 | S 7 | |
| S 8 | 7 30 46 | 23°34'09 | 12°0 | 2°23 | 7°38 | 13°30 | 2°38 | 26°46 | 8°50 | 24°54 | 19°2 | 12°21 | 11°46 | 2°32 | 15°20 | S 8 | |
| M 9 | 7 34 42 | 24°35'08 | 24°7 | 1°27 | 8°45 | 14°6 | 2°34 | 26°51 | 8°51 | 24°54 | 19°3 | 12°D20 | 11°43 | 2°39 | 15°20 | M 9 | |
| T 10 | 7 38 39 | 25°36'05 | 6♌29 | 0°23 | 9°51 | 14°42 | 2°29 | 26°56 | 8°53 | 24°55 | 19°5 | 12°R20 | 11°40 | 2°46 | 15°19 | T 10 | |
| W11 | 7 42 36 | 26°37'01 | 19°13 | 29♌14 | 10°58 | 15°19 | 2°24 | 27°1 | 8°54 | 24°55 | 19°6 | 12°20 | 11°36 | 2°53 | 15°19 | W11 | |
| T 12 | 7 46 32 | 27°37'56 | 2♍23 | 28°1 | 12°6 | 15°55 | 2°18 | 27°6 | 8°56 | 24°55 | 19°8 | 12°18 | 11°33 | 2°59 | 15°18 | T 12 | |
| F 13 | 7 50 29 | 28°38'49 | 16°1 | 26°47 | 13°13 | 16°31 | 2°13 | 27°11 | 8°57 | 24°56 | 19°10 | 12°15 | 11°30 | 3°6 | 15°18 | F 13 | |
| S 14 | 7 54 25 | 29°39'42 | 0♌9 | 25°34 | 14°20 | 17°7 | 2°7 | 27°16 | 8°58 | 24°56 | 19°11 | 12°8 | 11°27 | 3°13 | 15°18 | S 14 | |
| S 15 | 7 58 22 | 0♌40'32 | 14°44 | 24°23 | 15°28 | 17°43 | 2°2 | 27°21 | 9°0 | 24°57 | 19°13 | 11°59 | 11°24 | 3°19 | 15°17 | S 15 | |
| M16 | 8 2 18 | 1°41'22 | 29°41 | 23°17 | 16°36 | 18°19 | 1°56 | 27°27 | 9°1 | 24°57 | 19°14 | 11°48 | 11°21 | 3°26 | 15°17 | M16 | |
| T 17 | 8 6 15 | 2°42'10 | 14♌9 | 22°16 | 17°44 | 18°55 | 1°50 | 27°32 | 9°2 | 24°58 | 19°16 | 11°36 | 11°17 | 3°33 | 15°17 | T 17 | |
| W18 | 8 10 11 | 3°42'57 | 29°59 | 21°23 | 18°52 | 19°30 | 1°44 | 27°38 | 9°3 | 24°59 | 19°18 | 11°25 | 11°14 | 3°40 | 15°D17 | W18 | |
| T 19 | 8 14 8 | 4°43'42 | 15♍1 | 20°36 | 20°1 | 20°6 | 1°38 | 27°43 | 9°4 | 24°59 | 19°19 | 11°16 | 11°11 | 3°46 | 15°17 | T 19 | |
| F 20 | 8 18 5 | 5°44'27 | 29°46 | 19°58 | 21°9 | 20°42 | 1°31 | 27°49 | 9°5 | 25°0 | 19°21 | 11°10 | 11°8 | 3°53 | 15°17 | F 20 | |
| S 21 | 8 22 1 | 6°45'10 | 14♌7 | 19°29 | 22°18 | 21°18 | 1°25 | 27°54 | 9°6 | 25°1 | 19°23 | 11°6 | 11°5 | 4°0 | 15°18 | S 21 | |
| S 22 | 8 25 58 | 7°45'52 | 28°5 | 19°7 | 23°26 | 21°53 | 1°18 | 28°0 | 9°7 | 25°2 | 19°24 | 11°5 | 11°2 | 4°6 | 15°18 | S 22 | |
| M23 | 8 29 54 | 8°46'34 | 11♍38 | 18°53 | 24°35 | 22°29 | 1°11 | 28°6 | 9°8 | 25°2 | 19°26 | 11°5 | 10°58 | 4°13 | 15°18 | M23 | |
| T 24 | 8 33 51 | 9°47'14 | 24°50 | 18°D47 | 25°44 | 23°5 | 1°5 | 28°12 | 9°9 | 25°3 | 19°28 | 11°5 | 10°55 | 4°20 | 15°18 | T 24 | |
| W25 | 8 37 47 | 10°47'53 | 7♋44 | 18°48 | 26°54 | 23°40 | 0°58 | 28°18 | 9°9 | 25°4 | 19°29 | 11°3 | 10°52 | 4°27 | 15°19 | W25 | |
| T 26 | 8 41 44 | 11°48'30 | 20°22 | 18°57 | 28°3 | 24°16 | 0°51 | 28°24 | 9°10 | 25°5 | 19°31 | 10°59 | 10°49 | 4°33 | 15°19 | T 26 | |
| F 27 | 8 45 40 | 12°49'07 | 2♌48 | 19°11 | 29°12 | 24°51 | 0°44 | 28°30 | 9°11 | 25°6 | 19°33 | 10°51 | 10°46 | 4°40 | 15°20 | F 27 | |
| S 28 | 8 49 37 | 13°49'42 | 15°5 | 19°32 | 0♌22 | 25°26 | 0°36 | 28°36 | 9°11 | 25°7 | 19°34 | 10°41 | 10°42 | 4°47 | 15°21 | S 28 | |
| S 29 | 8 53 34 | 14°50'15 | 27°14 | 19°58 | 1°31 | 26°2 | 0°29 | 28°42 | 9°12 | 25°8 | 19°36 | 10°28 | 10°39 | 4°53 | 15°21 | S 29 | |
| M30 | 8 57 30 | 15°50'47 | 9♌17 | 20°29 | 2°41 | 26°37 | 0°22 | 28°48 | 9°12 | 25°9 | 19°38 | 10°13 | 10°36 | 5°0 | 15°22 | M30 | |
| T 31 | 9 1 27 | 16°51'18 | 21♌15 | 21♌5 | 3♌51 | 27♍12 | 0♍14 | 28♋54 | 9♍13 | 25♍10 | 19°39 | 9♌58 | 10♌33 | 5♋7 | 15♌23 | T 31 | |

Delta T = 20m22s Julian Calendar 1 Jan. 1055 == Greg. Calendar 7 Jan. 1055

FEBRUARY 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
| W 1 | 9 5 23 | 17°51'46 | 3♋8 | 21♌45 | 5♌1 | 27♍47 | 0°R 7 | 29♋1 | 9♍13 | 25♍11 | 19°41 | 9°R44 | 10♌30 | 5♋14 | 15♌24 | W 1 |
| T 2 | 9 9 20 | 18°52'13 | 14°59 | 22°29 | 6°11 | 28°22 | 29♌59 | 29°7 | 9°13 | 25°12 | 19°43 | 9♌32 | 10°27 | 5°20 | 15°25 | T 2 |
| F 3 | 9 13 16 | 19°52'38 | 26°48 | 23°18 | 7°21 | 28°57 | 29°52 | 29°14 | 9°13 | 25°13 | 19°44 | 9°22 | 10°23 | 5°27 | 15°26 | F 3 |
| S 4 | 9 17 13 | 20°53'01 | 8♍40 | 24°9 | 8°31 | 29°32 | 29°44 | 29°20 | 9°14 | 25°14 | 19°46 | 9°16 | 10°20 | 5°34 | 15°27 | S 4 |
| S 5 | 9 21 9 | 21°53'23 | 20°36 | 25°4 | 9°41 | 0♌7 | 29°36 | 29°27 | 9°14 | 25°16 | 19°48 | 9°12 | 10°17 | 5°40 | 15°28 | S 5 |
| M 6 | 9 25 6 | 22°53'42 | 2♌42 | 26°1 | 10°51 | 0°42 | 29°29 | 29°33 | 9°14 | 25°17 | 19°49 | 9°11 | 10°14 | 5°47 | 15°29 | M 6 |
| T 7 | 9 29 3 | 23°53'59 | 15°2 | 27°2 | 12°2 | 1°16 | 29°21 | 29°40 | 9°R14 | 25°18 | 19°51 | 9°D11 | 10°11 | 5°54 | 15°31 | T 7 |
| W 8 | 9 32 59 | 24°54'14 | 27°40 | 28°4 | 13°12 | 1°51 | 29°13 | 29°47 | 9°14 | 25°19 | 19°53 | 9°R11 | 10°8 | 6°0 | 15°32 | W 8 |
| T 9 | 9 36 56 | 25°54'27 | 10♍43 | 29°10 | 14°23 | 2°25 | 29°5 | 29°53 | 9°14 | 25°21 | 19°54 | 9°10 | 10°4 | 6°7 | 15°34 | T 9 |
| F 10 | 9 40 52 | 26°54'38 | 24°13 | 0♌17 | 15°33 | 3°0 | 28°57 | 0♍0 | 9°13 | 25°22 | 19°56 | 9°7 | 10°1 | 6°14 | 15°35 | F 10 |
| S 11 | 9 44 49 | 27°54'47 | 8♌14 | 1°27 | 16°44 | 3°34 | 28°50 | 0°7 | 9°13 | 25°23 | 19°58 | 9°2 | 9°58 | 6°21 | 15°37 | S 11 |
| S 12 | 9 48 45 | 28°54'54 | 22°45 | 2°39 | 17°55 | 4°9 | 28°42 | 0°14 | 9°13 | 25°25 | 19°59 | 8°54 | 9°55 | 6°27 | 15°38 | S 12 |
| M13 | 9 52 42 | 29°54'59 | 7♌41 | 3°52 | 19°6 | 4°43 | 28°34 | 0°21 | 9°13 | 25°26 | 20°1 | 8°44 | 9°52 | 6°34 | 15°40 | M13 |
| T 14 | 9 56 38 | 0♌55'01 | 22°54 | 5°7 | 20°16 | 5°17 | 28°26 | 0°28 | 9°12 | 25°28 | 20°3 | 8°34 | 9°48 | 6°41 | 15°42 | T 14 |
| W15 | 10 0 35 | 1°55'02 | 8♍15 | 6°24 | 21°27 | 5°51 | 28°18 | 0°35 | 9°12 | 25°29 | 20°4 | 8°24 | 9°45 | 6°47 | 15°44 | W15 |
| T 16 | 10 4 32 | 2°55'00 | 23°32 | 7°43 | 22°38 | 6°25 | 28°10 | 0°42 | 9°11 | 25°31 | 20°6 | 8°16 | 9°42 | 6°54 | 15°45 | T 16 |
| F 17 | 10 8 28 | 3°54'57 | 8♌33 | 9°3 | 23°49 | 6°59 | 28°3 | 0°49 | 9°11 | 25°32 | 20°8 | 8°10 | 9°39 | 7°1 | 15°47 | F 17 |
| S 18 | 10 12 25 | 4°54'52 | 23°11 | 10°25 | 25°1 | 7°33 | 27°55 | 0°56 | 9°10 | 25°34 | 20°9 | 8°7 | 9°36 | 7°8 | 15°49 | S 18 |
| S 19 | 10 16 21 | 5°54'45 | 7♍23 | 11°48 | 26°12 | 8°6 | 27°47 | 1°3 | 9°10 | 25°35 | 20°11 | 8°D 6 | 9°33 | 7°14 | 15°51 | S 19 |
| M20 | 10 20 18 | 6°54'37 | 21°6 | 13°13 | 27°23 | 8°40 | 27°39 | 1°10 | 9°9 | 25°37 | 20°13 | 8°7 | 9°29 | 7°21 | 15°53 | M20 |
| T 21 | 10 24 14 | 7°54'27 | 4♌23 | 14°39 | 28°34 | 9°14 | 27°32 | 1°17 | 9°8 | 25°39 | 20°14 | 8°R 7 | 9°26 | 7°28 | 15°56 | T 21 |
| W22 | 10 28 11 | 8°54'15 | 17°17 | 16°6 | 29°46 | 9°47 | 27°24 | 1°25 | 9°7 | 25°40 | 20°16 | 8°7 | 9°23 | 7°34 | 15°58 | W22 |
| T 23 | 10 32 7 | 9°54'02 | 29°52 | 17°35 | 0♌57 | 10°20 | 27°17 | 1°32 | 9°7 | 25°42 | 20°18 | 8°5 | 9°20 | 7°41 | 16°0 | T 23 |
| F 24 | 10 36 4 | 10°53'46 | 12♌12 | 19°5 | 2°8 | 10°54 | 27°9 | 1°39 | 9°6 | 25°44 | 20°19 | 8°0 | 9°17 | 7°48 | 16°2 | F 24 |
| S 25 | 10 40 1 | 11°53'29 | 24°20 | 20°36 | 3°20 | 11°27 | 27°2 | 1°46 | 9°5 | 25°45 | 20°21 | 7°53 | 9°13 | 7°55 | 16°5 | S 25 |
| S 26 | 10 43 57 | 12°53'10 | 6♌21 | 22°9 | 4°31 | 12°0 | 26°54 | 1°54 | 9°4 | 25°47 | 20°22 | 7°44 | 9°10 | 8°1 | 16°7 | S 26 |
| M27 | 10 47 54 | 13°52'50 | 18°16 | 23°43 | 5°43 | 12°33 | 26°47 | 2°1 | 9°3 | 25°49 | 20°24 | 7°34 | 9°7 | 8°8 | 16°10 | M27 |
| T 28 | 10 51 50 | 14°52'27 | 0♋8 | 25°18 | 6♌55 | 13♌5 | 26♌40 | 2°Y 8 | 9♍2 | 25♍51 | 20°25 | 7♌23 | 9♌4 | 8♋15 | 16♌12 | T 28 |

Delta T = 20m22s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1055
geocentric

MARCH 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|-------|-------|-------|-------|------|-------|-------|------|
| W 1 | 10 55 47 | 15°52'02 | 11°59 | 26°55 | 8°56 | 13°38 | 26°R33 | 2°16 | 9°R 1 | 25°52 | 20°27 | 7°R13 | 9°8 | 8°21 | 16°15 | W 1 |
| T 2 | 10 59 43 | 16°51'35 | 23°50 | 28°32 | 9°18 | 14°11 | 26°R26 | 2°23 | 8°M59 | 25°54 | 20°29 | 7°B 4 | 8°58 | 8°28 | 16°18 | T 2 |
| F 3 | 11 3 40 | 17°51'06 | 5°43 | 0°11 | 10°30 | 14°43 | 26°19 | 2°31 | 8°58 | 25°56 | 20°30 | 6°58 | 8°54 | 8°35 | 16°20 | F 3 |
| S 4 | 11 7 36 | 18°50'34 | 17°39 | 1°52 | 11°41 | 15°15 | 26°12 | 2°38 | 8°57 | 25°58 | 20°32 | 6°53 | 8°51 | 8°41 | 16°23 | S 4 |
| S 5 | 11 11 33 | 19°50'01 | 29°42 | 3°33 | 12°53 | 15°48 | 26° 5 | 2°46 | 8°56 | 26° 0 | 20°33 | 6°51 | 8°48 | 8°48 | 16°26 | S 5 |
| M 6 | 11 15 29 | 20°49'25 | 11°53 | 5°16 | 14° 5 | 16°20 | 25°59 | 2°53 | 8°54 | 26° 2 | 20°35 | 6°D51 | 8°45 | 8°55 | 16°29 | M 6 |
| T 7 | 11 19 26 | 21°48'47 | 24°17 | 7° 1 | 15°17 | 16°51 | 25°52 | 3° 1 | 8°53 | 26° 4 | 20°36 | 6°52 | 8°42 | 9° 2 | 16°32 | T 7 |
| W 8 | 11 23 23 | 22°48'07 | 6°11 | 8°46 | 16°29 | 17°23 | 25°46 | 3° 8 | 8°51 | 26° 6 | 20°38 | 6°54 | 8°39 | 9° 8 | 16°35 | W 8 |
| T 9 | 11 27 19 | 23°47'24 | 19°58 | 10°33 | 17°41 | 17°55 | 25°40 | 3°16 | 8°50 | 26° 8 | 20°39 | 6°R55 | 8°35 | 9°15 | 16°38 | T 9 |
| F 10 | 11 31 16 | 24°46'39 | 3°22 | 12°22 | 18°53 | 18°26 | 25°34 | 3°23 | 8°48 | 26°10 | 20°40 | 6°54 | 8°32 | 9°22 | 16°41 | F 10 |
| S 11 | 11 35 12 | 25°45'52 | 17°12 | 14°11 | 20° 5 | 18°58 | 25°28 | 3°31 | 8°47 | 26°12 | 20°42 | 6°52 | 8°29 | 9°28 | 16°44 | S 11 |
| S 12 | 11 39 9 | 26°45'02 | 18°29 | 16° 2 | 21°17 | 19°29 | 25°22 | 3°39 | 8°45 | 26°14 | 20°43 | 6°49 | 8°26 | 9°35 | 16°47 | S 12 |
| M13 | 11 43 5 | 27°44'10 | 16°11 | 17°55 | 22°29 | 20° 0 | 25°16 | 3°46 | 8°43 | 26°16 | 20°45 | 6°44 | 8°23 | 9°42 | 16°50 | M13 |
| T 14 | 11 47 2 | 28°43'16 | 1°11 | 19°49 | 23°41 | 20°31 | 25°11 | 3°54 | 8°42 | 26°18 | 20°46 | 6°38 | 8°19 | 9°48 | 16°53 | T 14 |
| W15 | 11 50 58 | 29°42'19 | 16°23 | 21°44 | 24°53 | 21° 1 | 25° 5 | 4° 1 | 8°40 | 26°20 | 20°48 | 6°33 | 8°16 | 9°55 | 16°56 | W15 |
| T 16 | 11 54 55 | 0°41'20 | 18°36 | 23°40 | 26° 5 | 21°32 | 25° 0 | 4° 9 | 8°38 | 26°22 | 20°49 | 6°28 | 8°13 | 10° 2 | 17° 0 | T 16 |
| F 17 | 11 58 52 | 1°40'19 | 16°40 | 25°38 | 27°17 | 22° 2 | 24°55 | 4°17 | 8°36 | 26°24 | 20°50 | 6°25 | 8°10 | 10° 9 | 17° 3 | F 17 |
| S 18 | 12 2 48 | 2°39'16 | 1°25 | 27°37 | 28°29 | 22°33 | 24°50 | 4°24 | 8°35 | 26°26 | 20°52 | 6°D24 | 8° 7 | 10°15 | 17° 7 | S 18 |
| S 19 | 12 6 45 | 3°38'11 | 15°46 | 29°38 | 29°41 | 23° 3 | 24°45 | 4°32 | 8°33 | 26°28 | 20°53 | 6°24 | 8° 4 | 10°22 | 17°10 | S 19 |
| M20 | 12 10 41 | 4°37'04 | 29°40 | 1°40 | 0°53 | 23°33 | 24°40 | 4°39 | 8°31 | 26°30 | 20°54 | 6°25 | 8° 0 | 10°29 | 17°13 | M20 |
| T 21 | 12 14 38 | 5°35'56 | 13°21 | 3°42 | 2° 6 | 24° 2 | 24°36 | 4°47 | 8°29 | 26°32 | 20°55 | 6°27 | 7°57 | 10°35 | 17°17 | T 21 |
| W22 | 12 18 34 | 6°34'45 | 26° 7 | 5°46 | 3°18 | 24°32 | 24°32 | 4°55 | 8°27 | 26°34 | 20°57 | 6°28 | 7°54 | 10°42 | 17°21 | W22 |
| T 23 | 12 22 31 | 7°33'33 | 8°36 | 7°51 | 4°30 | 25° 1 | 24°27 | 5° 2 | 8°25 | 26°37 | 20°58 | 6°R28 | 7°51 | 10°49 | 17°24 | T 23 |
| F 24 | 12 26 27 | 8°32'20 | 21° 7 | 9°56 | 5°42 | 25°30 | 24°23 | 5°10 | 8°23 | 26°39 | 20°59 | 6°28 | 7°48 | 10°55 | 17°28 | F 24 |
| S 25 | 12 30 24 | 9°31'04 | 3°14 | 12° 3 | 6°55 | 25°59 | 24°20 | 5°18 | 8°21 | 26°41 | 21° 0 | 6°26 | 7°45 | 11° 2 | 17°31 | S 25 |
| S 26 | 12 34 21 | 10°29'47 | 15°12 | 14° 9 | 8° 7 | 26°28 | 24°16 | 5°25 | 8°19 | 26°43 | 21° 2 | 6°23 | 7°41 | 11° 9 | 17°35 | S 26 |
| M27 | 12 38 17 | 11°28'28 | 27° 4 | 16°16 | 9°19 | 26°56 | 24°12 | 5°33 | 8°17 | 26°45 | 21° 3 | 6°19 | 7°38 | 11°16 | 17°39 | M27 |
| T 28 | 12 42 14 | 12°27'07 | 8°54 | 18°22 | 10°32 | 27°25 | 24° 9 | 5°40 | 8°14 | 26°48 | 21° 4 | 6°15 | 7°35 | 11°22 | 17°43 | T 28 |
| W29 | 12 46 10 | 13°25'44 | 20°45 | 20°28 | 11°44 | 27°53 | 24° 6 | 5°48 | 8°12 | 26°50 | 21° 5 | 6°11 | 7°32 | 11°29 | 17°46 | W29 |
| T 30 | 12 50 7 | 14°24'19 | 2°45 | 22°34 | 12°57 | 28°21 | 24° 3 | 5°55 | 8°10 | 26°52 | 21° 6 | 6° 7 | 7°29 | 11°36 | 17°50 | T 30 |
| F 31 | 12 54 3 | 15°22'52 | 14°38 | 24°38 | 14° 9 | 28°48 | 24° 0 | 6° 3 | 8° 8 | 26°54 | 21° 7 | 6° 5 | 7°25 | 11°42 | 17°54 | F 31 |

Delta T = 20m21s Julian Calendar 1 March 1055 == Greg. Calendar 7 March 1055

APRIL 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|--------|--------|--------|--------|-------|-------|--------|--------|-------|-------|--------|--------|------|
| S 1 | 12 58 0 | 16°21'23 | 26°43 | 26°41 | 15°22 | 29°16 | 23°R57 | 6°11 | 8°R 6 | 26°56 | 21° 8 | 6°R 4 | 7°B22 | 11°49 | 17°58 | S 1 |
| S 2 | 13 1 56 | 17°19'53 | 8°58 | 28°43 | 16°34 | 29°43 | 23°R55 | 6°18 | 8°M 3 | 26°59 | 21°10 | 6°D 3 | 7°19 | 11°56 | 18° 2 | S 2 |
| M 3 | 13 5 53 | 18°18'20 | 21°23 | 0°43 | 17°46 | 0°3 | 23°53 | 6°26 | 8° 1 | 27° 1 | 21°11 | 6°B 4 | 7°16 | 12° 2 | 18° 6 | M 3 |
| T 4 | 13 9 50 | 19°16'46 | 4°11 | 2°40 | 18°59 | 0°36 | 23°51 | 6°33 | 7°59 | 27° 3 | 21°12 | 6° 5 | 7°13 | 12° 9 | 18°10 | T 4 |
| W 5 | 13 13 46 | 20°15'09 | 16°51 | 4°35 | 20°11 | 1° 2 | 23°49 | 6°41 | 7°56 | 27° 5 | 21°13 | 6° 6 | 7°10 | 12°16 | 18°14 | W 5 |
| T 6 | 13 17 43 | 21°13'30 | 29°59 | 6°26 | 21°24 | 1°28 | 23°47 | 6°48 | 7°54 | 27° 8 | 21°14 | 6° 7 | 7° 6 | 12°23 | 18°18 | T 6 |
| F 7 | 13 21 39 | 22°11'50 | 13°25 | 8°15 | 22°36 | 1°54 | 23°46 | 6°56 | 7°52 | 27°10 | 21°15 | 6° 8 | 7° 3 | 12°29 | 18°22 | F 7 |
| S 8 | 13 25 36 | 23°10'07 | 27°11 | 10° 1 | 23°49 | 2°19 | 23°44 | 7° 3 | 7°49 | 27°12 | 21°15 | 6°R 8 | 7° 0 | 12°36 | 18°26 | S 8 |
| S 9 | 13 29 32 | 24° 8'21 | 11°R16 | 11°43 | 25° 1 | 2°45 | 23°43 | 7°10 | 7°47 | 27°14 | 21°16 | 6° 8 | 6°57 | 12°43 | 18°30 | S 9 |
| M10 | 13 33 29 | 25° 6'34 | 25°41 | 13°21 | 26°14 | 3° 9 | 23°42 | 7°18 | 7°44 | 27°17 | 21°17 | 6° 7 | 6°54 | 12°49 | 18°34 | M10 |
| T 11 | 13 37 25 | 26° 4'45 | 10°M20 | 14°55 | 27°27 | 3°34 | 23°41 | 7°25 | 7°42 | 27°19 | 21°18 | 6° 6 | 6°50 | 12°56 | 18°38 | T 11 |
| W12 | 13 41 22 | 27° 2'53 | 25°10 | 16°26 | 28°39 | 3°58 | 23°41 | 7°33 | 7°39 | 27°21 | 21°19 | 6° 5 | 6°47 | 13° 3 | 18°42 | W12 |
| T 13 | 13 45 19 | 28° 1'00 | 10°R 3 | 17°52 | 29°52 | 4°22 | 23°40 | 7°40 | 7°37 | 27°23 | 21°20 | 6° 4 | 6°44 | 13° 9 | 18°47 | T 13 |
| F 14 | 13 49 15 | 28°59'04 | 24°51 | 19°15 | 1°Y 4 | 4°46 | 23°40 | 7°47 | 7°34 | 27°26 | 21°21 | 6° 3 | 6°41 | 13°16 | 18°51 | F 14 |
| S 15 | 13 53 12 | 29°57'07 | 9°M28 | 20°33 | 2°17 | 5° 9 | 23°D40 | 7°54 | 7°32 | 27°28 | 21°21 | 6°D 3 | 6°38 | 13°23 | 18°55 | S 15 |
| S 16 | 13 57 8 | 0°55'09 | 23°46 | 21°47 | 3°29 | 5°32 | 23°40 | 8° 2 | 7°29 | 27°30 | 21°22 | 6° 3 | 6°35 | 13°30 | 18°59 | S 16 |
| M17 | 14 1 5 | 1°53'09 | 7°R42 | 22°56 | 4°42 | 5°55 | 23°41 | 8° 9 | 7°27 | 27°32 | 21°23 | 6° 4 | 6°31 | 13°36 | 19° 3 | M17 |
| T 18 | 14 5 1 | 2°51'07 | 21°13 | 24° 1 | 5°55 | 6°17 | 23°41 | 8°16 | 7°24 | 27°35 | 21°24 | 6° 4 | 6°28 | 13°43 | 19° 8 | T 18 |
| W19 | 14 8 58 | 3°49'04 | 4°B20 | 25° 1 | 7° 7 | 6°39 | 23°42 | 8°23 | 7°22 | 27°37 | 21°24 | 6° 4 | 6°25 | 13°50 | 19°12 | W19 |
| T 20 | 14 12 54 | 4°47'00 | 17° 4 | 25°57 | 8°20 | 7° 0 | 23°43 | 8°30 | 7°19 | 27°39 | 21°25 | 6° 5 | 6°22 | 13°56 | 19°16 | T 20 |
| F 21 | 14 16 51 | 5°44'54 | 29°28 | 26°49 | 9°33 | 7°21 | 23°44 | 8°38 | 7°17 | 27°41 | 21°26 | 6° 5 | 6°19 | 14° 3 | 19°21 | F 21 |
| S 22 | 14 20 48 | 6°42'47 | 11°R38 | 27°35 | 10°45 | 7°42 | 23°45 | 8°45 | 7°14 | 27°44 | 21°26 | 6° 5 | 6°16 | 14°10 | 19°25 | S 22 |
| S 23 | 14 24 44 | 7°40'39 | 23°36 | 28°17 | 11°58 | 8° 2 | 23°46 | 8°52 | 7°12 | 27°46 | 21°27 | 6° 5 | 6°12 | 14°16 | 19°29 | S 23 |
| M24 | 14 28 41 | 8°38'29 | 5°R29 | 28°54 | 13°11 | 8°22 | 23°48 | 8°59 | 7° 9 | 27°48 | 21°28 | 6° 5 | 6° 9 | 14°23 | 19°34 | M24 |
| T 25 | 14 32 37 | 9°36'18 | 17°19 | 29°26 | 14°24 | 8°41 | 23°50 | 9° 6 | 7° 7 | 27°50 | 21°28 | 6° 5 | 6° 6 | 14°30 | 19°38 | T 25 |
| W26 | 14 36 34 | 10°34'06 | 29°11 | 29°53 | 15°36 | 9° 0 | 23°52 | 9°12 | 7° 4 | 27°53 | 21°29 | 6° 6 | 6° 3 | 14°36 | 19°42 | W26 |
| T 27 | 14 40 30 | 11°31'52 | 11°Y 9 | 0°II16 | 16°49 | 9°19 | 23°54 | 9°19 | 7° 2 | 27°55 | 21°29 | 6° 6 | 6° 0 | 14°43 | 19°47 | T 27 |
| F 28 | 14 44 27 | 12°29'37 | 23°16 | 0°33 | 18° 2 | 9°37 | 23°56 | 9°26 | 6°59 | 27°57 | 21°30 | 6° 7 | 5°56 | 14°50 | 19°51 | F 28 |
| S 29 | 14 48 23 | 13°27'21 | 5°B33 | 0°45 | 19°15 | 9°54 | 23°59 | 9°33 | 6°57 | 27°59 | 21°30 | 6°R 7 | 5°53 | 14°57 | 19°56 | S 29 |
| S 30 | 14 52 20 | 14°25'04 | 18°B 3 | 0°II53 | 20°Y27 | 10°R11 | 24° 1 | 9°Y40 | 6°M54 | 28°Y 1 | 21°R30 | 6°B 7 | 5°B50 | 15°R 3 | 20°B 0 | S 30 |

Delta T = 20m21s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1055
geocentric

MAY 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|--------|--------|--------|--------|-------|--------|-------|--------|-------|-------|------|-------|-------|------|
| M 1 | 14 56 17 | 15♌22'45 | 0♏II47 | 0°R56 | 21°V40 | 10♌28 | 24♌4 | 9°V46 | 6°R52 | 28°V 3 | 21♌31 | 6°R 6 | 5♌47 | 15♌10 | 20♌4 | M 1 |
| T 2 | 15 0 13 | 16°20'25 | 13°44 | 0♏II54 | 22°53 | 10°44 | 24° 7 | 9°53 | 6♌49 | 28° 6 | 21°31 | 6♌5 | 5°44 | 15°17 | 20° 9 | T 2 |
| W 3 | 15 4 10 | 17°18'03 | 26°56 | 0°47 | 24° 6 | 10°59 | 24°10 | 10° 0 | 6°47 | 28° 8 | 21°32 | 6° 4 | 5°41 | 15°23 | 20°13 | W 3 |
| T 4 | 15 8 6 | 18°15'40 | 10♌21 | 0°37 | 25°19 | 11°14 | 24°14 | 10° 6 | 6°44 | 28°10 | 21°32 | 6° 2 | 5°37 | 15°30 | 20°18 | T 4 |
| F 5 | 15 12 3 | 19°13'16 | 24° 0 | 0°22 | 26°31 | 11°29 | 24°17 | 10°13 | 6°42 | 28°12 | 21°32 | 6° 1 | 5°34 | 15°37 | 20°22 | F 5 |
| S 6 | 15 15 59 | 20°10'50 | 7♌52 | 0° 3 | 27°44 | 11°43 | 24°21 | 10°19 | 6°40 | 28°14 | 21°33 | 6° 0 | 5°31 | 15°43 | 20°27 | S 6 |
| S 7 | 15 19 56 | 21° 8'23 | 21°55 | 29♌40 | 28°57 | 11°56 | 24°25 | 10°26 | 6°37 | 28°16 | 21°33 | 6°D 0 | 5°28 | 15°50 | 20°31 | S 7 |
| M 8 | 15 23 52 | 22° 5'53 | 6♏ 8 | 29°15 | 0♌10 | 12° 9 | 24°29 | 10°32 | 6°35 | 28°18 | 21°33 | 6° 0 | 5°25 | 15°57 | 20°35 | M 8 |
| T 9 | 15 27 49 | 23° 3'23 | 20°28 | 28°47 | 1°23 | 12°21 | 24°33 | 10°38 | 6°32 | 28°21 | 21°33 | 6° 1 | 5°22 | 16° 3 | 20°40 | T 9 |
| W10 | 15 31 46 | 24° 0'51 | 4♌54 | 28°16 | 2°36 | 12°32 | 24°37 | 10°45 | 6°30 | 28°23 | 21°33 | 6° 2 | 5°18 | 16°10 | 20°44 | W10 |
| T 11 | 15 35 42 | 24°58'18 | 19°20 | 27°44 | 3°49 | 12°43 | 24°41 | 10°51 | 6°28 | 28°25 | 21°34 | 6° 3 | 5°15 | 16°17 | 20°49 | T 11 |
| F 12 | 15 39 39 | 25°55'43 | 3♌43 | 27°11 | 5° 1 | 12°54 | 24°46 | 10°57 | 6°25 | 28°27 | 21°34 | 6°R 4 | 5°12 | 16°24 | 20°53 | F 12 |
| S 13 | 15 43 35 | 26°53'08 | 17°58 | 26°37 | 6°14 | 13° 3 | 24°51 | 11° 3 | 6°23 | 28°29 | 21°34 | 6° 3 | 5° 9 | 16°30 | 20°58 | S 13 |
| S 14 | 15 47 32 | 27°50'31 | 2♌ 7 | 26° 4 | 7°27 | 13°12 | 24°56 | 11° 9 | 6°21 | 28°31 | 21°34 | 6° 2 | 5° 6 | 16°37 | 21° 2 | S 14 |
| M15 | 15 51 28 | 28°47'54 | 15°46 | 25°31 | 8°40 | 13°21 | 25° 1 | 11°15 | 6°19 | 28°33 | 21°34 | 5°59 | 5° 2 | 16°44 | 21° 6 | M15 |
| T 16 | 15 55 25 | 29°45'15 | 29°12 | 24°59 | 9°53 | 13°29 | 25° 6 | 11°21 | 6°16 | 28°35 | 21°34 | 5°56 | 4°59 | 16°50 | 21°11 | T 16 |
| W17 | 15 59 21 | 0♏II42'36 | 12♌17 | 24°29 | 11° 6 | 13°36 | 25°12 | 11°27 | 6°14 | 28°37 | 21°34 | 5°53 | 4°56 | 16°57 | 21°15 | W17 |
| T 18 | 16 3 18 | 1°39'57 | 25° 2 | 24° 1 | 12°19 | 13°42 | 25°17 | 11°33 | 6°12 | 28°39 | 21°34 | 5°49 | 4°53 | 17° 4 | 21°20 | T 18 |
| F 19 | 16 7 15 | 2°37'16 | 7♌28 | 23°36 | 13°32 | 13°48 | 25°23 | 11°39 | 6°10 | 28°41 | 21°34 | 5°46 | 4°50 | 17°10 | 21°24 | F 19 |
| S 20 | 16 11 11 | 3°34'35 | 19°39 | 23°14 | 14°45 | 13°53 | 25°29 | 11°44 | 6° 8 | 28°43 | 21°34 | 5°44 | 4°47 | 17°17 | 21°28 | S 20 |
| S 21 | 16 15 8 | 4°31'54 | 1♌39 | 22°56 | 15°58 | 13°57 | 25°35 | 11°50 | 6° 5 | 28°45 | 21°34 | 5°D43 | 4°43 | 17°24 | 21°33 | S 21 |
| M22 | 16 19 4 | 5°29'11 | 13°32 | 22°41 | 17°11 | 14° 1 | 25°41 | 11°56 | 6° 3 | 28°47 | 21°34 | 5°43 | 4°40 | 17°30 | 21°37 | M22 |
| T 23 | 16 23 1 | 6°26'29 | 25°23 | 22°30 | 18°24 | 14° 4 | 25°47 | 12° 1 | 6° 1 | 28°48 | 21°34 | 5°44 | 4°37 | 17°37 | 21°41 | T 23 |
| W24 | 16 26 57 | 7°23'46 | 7°V17 | 22°24 | 19°37 | 14° 6 | 25°53 | 12° 6 | 5°59 | 28°50 | 21°34 | 5°46 | 4°34 | 17°44 | 21°46 | W24 |
| T 25 | 16 30 54 | 8°21'02 | 19°18 | 22°D22 | 20°50 | 14° 7 | 26° 0 | 12°12 | 5°57 | 28°52 | 21°33 | 5°48 | 4°31 | 17°51 | 21°50 | T 25 |
| F 26 | 16 34 50 | 9°18'18 | 1♌31 | 22°24 | 22° 3 | 14°R 8 | 26° 7 | 12°17 | 5°55 | 28°54 | 21°33 | 5°R49 | 4°28 | 17°57 | 21°54 | F 26 |
| S 27 | 16 38 47 | 10°15'34 | 13°59 | 22°31 | 23°16 | 14° 8 | 26°13 | 12°22 | 5°53 | 28°56 | 21°33 | 5°48 | 4°24 | 18° 4 | 21°59 | S 27 |
| S 28 | 16 42 44 | 11°12'49 | 26°44 | 22°42 | 24°29 | 14° 7 | 26°20 | 12°28 | 5°51 | 28°58 | 21°33 | 5°47 | 4°21 | 18°11 | 22° 3 | S 28 |
| M29 | 16 46 40 | 12°10'04 | 9♏II47 | 22°59 | 25°43 | 14° 5 | 26°27 | 12°33 | 5°50 | 28°59 | 21°32 | 5°43 | 4°18 | 18°17 | 22° 7 | M29 |
| T 30 | 16 50 37 | 13° 7'19 | 23° 8 | 23°19 | 26°56 | 14° 3 | 26°35 | 12°38 | 5°48 | 29° 1 | 21°32 | 5°38 | 4°15 | 18°24 | 22°11 | T 30 |
| W31 | 16 54 33 | 14♏II 4'33 | 6♌45 | 23♌45 | 28♌ 9 | 13♌59 | 26♌42 | 12°V43 | 5♏46 | 29°V 3 | 21♌32 | 5♌32 | 4♌12 | 18♌31 | 22♌16 | W31 |

Delta T = 20m21s Julian Calendar 1 May 1055 = Greg. Calendar 7 May 1055

JUNE 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|--------|--------|--------|--------|-------|--------|-------|--------|--------|-------|------|-------|-------|------|
| T 1 | 16 58 30 | 15♏II 1'46 | 20♌36 | 24♌14 | 29♌22 | 13°R55 | 26♌49 | 12°V47 | 5°R44 | 29°V 5 | 21°R31 | 5°R26 | 4♌ 8 | 18♌37 | 22♌20 | T 1 |
| F 2 | 17 2 26 | 15°58'59 | 4♌37 | 24°49 | 0♏II35 | 13°51 | 26°57 | 12°52 | 5♏42 | 29° 6 | 21°31 | 5♌21 | 4° 5 | 18°44 | 22°24 | F 2 |
| S 3 | 17 6 23 | 16°56'11 | 18°34 | 25°27 | 1°48 | 13°45 | 27° 5 | 12°57 | 5°41 | 29° 8 | 21°31 | 5°16 | 4° 2 | 18°51 | 22°28 | S 3 |
| S 4 | 17 10 20 | 17°53'23 | 2♏55 | 26°10 | 3° 2 | 13°39 | 27°12 | 13° 2 | 5°39 | 29°10 | 21°30 | 5°14 | 3°59 | 18°57 | 22°32 | S 4 |
| M 5 | 17 14 16 | 18°50'34 | 17° 7 | 26°57 | 4°15 | 13°32 | 27°20 | 13° 6 | 5°37 | 29°11 | 21°30 | 5°D13 | 3°56 | 19° 4 | 22°36 | M 5 |
| T 6 | 17 18 13 | 19°47'44 | 1♌18 | 27°49 | 5°28 | 13°24 | 27°28 | 13°11 | 5°36 | 29°13 | 21°29 | 5°13 | 3°53 | 19°11 | 22°40 | T 6 |
| W 7 | 17 22 9 | 20°44'54 | 15°25 | 28°44 | 6°41 | 13°16 | 27°37 | 13°15 | 5°34 | 29°14 | 21°29 | 5°14 | 3°49 | 19°17 | 22°45 | W 7 |
| T 8 | 17 26 6 | 21°42'03 | 29°28 | 29°44 | 7°55 | 13° 7 | 27°45 | 13°19 | 5°33 | 29°16 | 21°28 | 5°R15 | 3°46 | 19°24 | 22°49 | T 8 |
| F 9 | 17 30 2 | 22°39'12 | 13♏25 | 0♏II48 | 9° 8 | 12°58 | 27°53 | 13°24 | 5°31 | 29°17 | 21°28 | 5°15 | 3°43 | 19°31 | 22°53 | F 9 |
| S 10 | 17 33 59 | 23°36'20 | 27°14 | 1°55 | 10°21 | 12°47 | 28° 2 | 13°28 | 5°30 | 29°19 | 21°27 | 5°13 | 3°40 | 19°37 | 22°57 | S 10 |
| S 11 | 17 37 55 | 24°33'29 | 10♌53 | 3° 7 | 11°35 | 12°36 | 28°10 | 13°32 | 5°29 | 29°20 | 21°27 | 5° 9 | 3°37 | 19°44 | 23° 1 | S 11 |
| M12 | 17 41 52 | 25°30'37 | 24°19 | 4°23 | 12°48 | 12°25 | 28°19 | 13°36 | 5°27 | 29°22 | 21°26 | 5° 3 | 3°34 | 19°51 | 23° 5 | M12 |
| T 13 | 17 45 49 | 26°27'45 | 7♌30 | 5°42 | 14° 1 | 12°13 | 28°28 | 13°40 | 5°26 | 29°23 | 21°25 | 4°55 | 3°30 | 19°58 | 23° 8 | T 13 |
| W14 | 17 49 45 | 27°24'54 | 20°25 | 7° 5 | 15°15 | 12° 0 | 28°37 | 13°44 | 5°25 | 29°25 | 21°25 | 4°46 | 3°27 | 20° 4 | 23°12 | W14 |
| T 15 | 17 53 42 | 28°22'02 | 3♌ 4 | 8°32 | 16°28 | 11°47 | 28°46 | 13°47 | 5°24 | 29°26 | 21°24 | 4°37 | 3°24 | 20°11 | 23°16 | T 15 |
| F 16 | 17 57 38 | 29°19'11 | 15°27 | 10° 2 | 17°41 | 11°33 | 28°55 | 13°51 | 5°23 | 29°27 | 21°24 | 4°28 | 3°21 | 20°18 | 23°20 | F 16 |
| S 17 | 18 1 35 | 0♏II6'19 | 27°36 | 11°36 | 18°55 | 11°19 | 29° 4 | 13°55 | 5°21 | 29°29 | 21°23 | 4°22 | 3°18 | 20°24 | 23°24 | S 17 |
| S 18 | 18 5 31 | 1°13'28 | 9♌35 | 13°14 | 20° 8 | 11° 4 | 29°14 | 13°58 | 5°20 | 29°30 | 21°22 | 4°17 | 3°14 | 20°31 | 23°28 | S 18 |
| M19 | 18 9 28 | 2°10'38 | 21°27 | 14°55 | 21°22 | 10°49 | 29°23 | 14° 1 | 5°19 | 29°31 | 21°21 | 4°15 | 3°11 | 20°38 | 23°31 | M19 |
| T 20 | 18 13 24 | 3° 7'48 | 3°V17 | 16°39 | 22°35 | 10°34 | 29°33 | 14° 5 | 5°18 | 29°32 | 21°21 | 4°D14 | 3° 8 | 20°44 | 23°35 | T 20 |
| W21 | 18 17 21 | 4° 4'58 | 15°11 | 18°27 | 23°49 | 10°18 | 29°42 | 14° 8 | 5°17 | 29°34 | 21°20 | 4°14 | 3° 5 | 20°51 | 23°39 | W21 |
| T 22 | 18 21 18 | 5° 2'09 | 27°13 | 20°18 | 25° 2 | 10° 2 | 29°52 | 14°11 | 5°17 | 29°35 | 21°19 | 4°15 | 3° 2 | 20°58 | 23°42 | T 22 |
| F 23 | 18 25 14 | 5°59'20 | 9♌29 | 22°11 | 26°16 | 9°46 | 0♏ 2 | 14°14 | 5°16 | 29°36 | 21°18 | 4°R15 | 2°59 | 21° 4 | 23°46 | F 23 |
| S 24 | 18 29 11 | 6°56'33 | 22° 3 | 24° 7 | 27°29 | 9°29 | 0°12 | 14°17 | 5°15 | 29°37 | 21°17 | 4°14 | 2°55 | 21°11 | 23°49 | S 24 |
| S 25 | 18 33 7 | 7°53'45 | 4♏II58 | 26° 6 | 28°43 | 9°12 | 0°22 | 14°20 | 5°14 | 29°38 | 21°17 | 4°10 | 2°52 | 21°18 | 23°53 | S 25 |
| M26 | 18 37 4 | 8°50'59 | 18°17 | 28° 7 | 29°57 | 8°55 | 0°32 | 14°23 | 5°14 | 29°39 | 21°16 | 4° 4 | 2°49 | 21°24 | 23°56 | M26 |
| T 27 | 18 41 0 | 9°48'12 | 1♌58 | 0♏10 | 1♌10 | 8°38 | 0°42 | 14°25 | 5°13 | 29°40 | 21°15 | 3°56 | 2°46 | 21°31 | 24° 0 | T 27 |
| W28 | 18 44 57 | 10°45'27 | 16° 0 | 2°14 | 2°24 | 8°21 | 0°52 | 14°28 | 5°12 | 29°41 | 21°14 | 3°46 | 2°43 | 21°38 | 24° 3 | W28 |
| T 29 | 18 48 53 | 11°42'41 | 0♏17 | 4°20 | 3°37 | 8° 4 | 1° 3 | 14°30 | 5°12 | 29°42 | 21°13 | 3°35 | 2°40 | 21°44 | 24° 7 | T 29 |
| F 30 | 18 52 50 | 12♌39'57 | 14♏44 | 6♌26 | 4♌51 | 7♌48 | 1♏13 | 14°V33 | 5♏11 | 29°V43 | 21°12 | 3♌26 | 2♌36 | 21♌51 | 24♌10 | F 30 |

Delta T = 20m20s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1055
geocentric

JULY 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 18 56 47 | 13 ⁵³ 7'12 | 29 ¹² 15 | 8 ⁵³ 34 | 6 ⁵⁸ 5 | 7°R31 | 1 ¹¹ 24 | 14 ¹⁴ 35 | 5°R11 | 29 ¹⁴ 44 | 21°R11 | 3°R18 | 2 ²⁸ 33 | 21 ¹¹ 58 | 24 ¹⁸ 13 | S 1 | | | | | | | | |
| S 2 | 19 0 43 | 14°34'28 | 13 ¹¹ 44 | 10°41 | 7°19 | 7 ¹⁸ 14 | 1°34 | 14°37 | 5 ¹¹ 11 | 29°45 | 21 ¹¹ 10 | 3 ¹⁸ 12 | 2°30 | 22° 4 | 24°17 | S 2 | | | | | | | | |
| M 3 | 19 4 40 | 15°31'44 | 28° 5 | 12°49 | 8°32 | 6°58 | 1°45 | 14°39 | 5°10 | 29°46 | 21° 9 | 3° 9 | 2°27 | 22°11 | 24°20 | M 3 | | | | | | | | |
| T 4 | 19 8 36 | 16°29'00 | 12 ¹² 16 | 14°57 | 9°46 | 6°42 | 1°56 | 14°41 | 5°10 | 29°47 | 21° 8 | 3°D 8 | 2°24 | 22°18 | 24°23 | T 4 | | | | | | | | |
| W 5 | 19 12 33 | 17°26'17 | 26°16 | 17° 4 | 11° 0 | 6°26 | 2° 7 | 14°43 | 5°10 | 29°47 | 21° 7 | 3°R 8 | 2°20 | 22°25 | 24°26 | W 5 | | | | | | | | |
| T 6 | 19 16 29 | 18°23'34 | 10 ¹⁰ 4 | 19°10 | 12°14 | 6°11 | 2°17 | 14°45 | 5°10 | 29°48 | 21° 6 | 3° 8 | 2°17 | 22°31 | 24°29 | T 6 | | | | | | | | |
| F 7 | 19 20 26 | 19°20'52 | 23°42 | 21°16 | 13°28 | 5°56 | 2°28 | 14°46 | 5°10 | 29°49 | 21° 5 | 3° 7 | 2°14 | 22°38 | 24°32 | F 7 | | | | | | | | |
| S 8 | 19 24 22 | 20°18'10 | 7 ¹⁷ 8 | 23°20 | 14°41 | 5°41 | 2°39 | 14°48 | 5° 9 | 29°50 | 21° 4 | 3° 3 | 2°11 | 22°45 | 24°35 | S 8 | | | | | | | | |
| S 9 | 19 28 19 | 21°15'29 | 20°23 | 25°24 | 15°55 | 5°27 | 2°51 | 14°49 | 5°D 9 | 29°50 | 21° 3 | 2°57 | 2° 8 | 22°51 | 24°38 | S 9 | | | | | | | | |
| M10 | 19 32 16 | 22°12'49 | 3 ¹⁸ 27 | 27°26 | 17° 9 | 5°13 | 3° 2 | 14°51 | 5° 9 | 29°51 | 21° 2 | 2°48 | 2° 5 | 22°58 | 24°41 | M10 | | | | | | | | |
| T 11 | 19 36 12 | 23°10'09 | 16°19 | 29°27 | 18°23 | 5° 0 | 3°13 | 14°52 | 5°10 | 29°51 | 21° 1 | 2°36 | 2° 1 | 23° 5 | 24°44 | T 11 | | | | | | | | |
| W12 | 19 40 9 | 24° 7'30 | 28°59 | 1 ¹² 26 | 19°37 | 4°48 | 3°24 | 14°53 | 5°10 | 29°52 | 21° 0 | 2°23 | 1°58 | 23°11 | 24°47 | W12 | | | | | | | | |
| T 13 | 19 44 5 | 25° 4'52 | 11 ¹¹ 26 | 3°24 | 20°51 | 4°36 | 3°36 | 14°54 | 5°10 | 29°53 | 20°58 | 2°10 | 1°55 | 23°18 | 24°49 | T 13 | | | | | | | | |
| F 14 | 19 48 2 | 26° 2'15 | 23°41 | 5°20 | 22° 5 | 4°25 | 3°47 | 14°55 | 5°10 | 29°53 | 20°57 | 1°58 | 1°52 | 23°25 | 24°52 | F 14 | | | | | | | | |
| S 15 | 19 51 58 | 26°59'40 | 5 ¹¹ 45 | 7°15 | 23°19 | 4°14 | 3°59 | 14°56 | 5°10 | 29°54 | 20°56 | 1°48 | 1°49 | 23°31 | 24°55 | S 15 | | | | | | | | |
| S 16 | 19 55 55 | 27°57'05 | 17°41 | 9° 8 | 24°33 | 4° 4 | 4°10 | 14°57 | 5°11 | 29°54 | 20°55 | 1°41 | 1°46 | 23°38 | 24°57 | S 16 | | | | | | | | |
| M17 | 19 59 52 | 28°54'31 | 29°31 | 11° 0 | 25°47 | 3°55 | 4°22 | 14°57 | 5°11 | 29°54 | 20°54 | 1°36 | 1°42 | 23°45 | 25° 0 | M17 | | | | | | | | |
| T 18 | 20 3 48 | 29°51'59 | 11 ¹¹ 19 | 12°50 | 27° 1 | 3°46 | 4°33 | 14°58 | 5°12 | 29°55 | 20°53 | 1°33 | 1°39 | 23°51 | 25° 2 | T 18 | | | | | | | | |
| W19 | 20 7 45 | 0 ¹² 49'28 | 23°11 | 14°39 | 28°15 | 3°38 | 4°45 | 14°58 | 5°12 | 29°55 | 20°51 | 1°32 | 1°36 | 23°58 | 25° 5 | W19 | | | | | | | | |
| T 20 | 20 11 41 | 1°46'59 | 5 ¹⁸ 12 | 16°26 | 29°29 | 3°31 | 4°57 | 14°58 | 5°13 | 29°55 | 20°50 | 1°32 | 1°33 | 24° 5 | 25° 7 | T 20 | | | | | | | | |
| F 21 | 20 15 38 | 2°44'31 | 17°27 | 18°11 | 0 ¹² 43 | 3°25 | 5° 9 | 14°59 | 5°13 | 29°56 | 20°49 | 1°32 | 1°30 | 24°11 | 25°10 | F 21 | | | | | | | | |
| S 22 | 20 19 34 | 3°42'04 | 0 ¹² 2 | 19°55 | 1°57 | 3°19 | 5°21 | 14°R59 | 5°14 | 29°56 | 20°48 | 1°30 | 1°26 | 24°18 | 25°12 | S 22 | | | | | | | | |
| S 23 | 20 23 31 | 4°39'39 | 13° 0 | 21°38 | 3°11 | 3°14 | 5°33 | 14°59 | 5°15 | 29°56 | 20°47 | 1°26 | 1°23 | 24°25 | 25°14 | S 23 | | | | | | | | |
| M24 | 20 27 27 | 5°37'16 | 26°25 | 23°19 | 4°25 | 3°10 | 5°45 | 14°59 | 5°15 | 29°56 | 20°45 | 1°19 | 1°20 | 24°31 | 25°16 | M24 | | | | | | | | |
| T 25 | 20 31 24 | 6°34'54 | 10 ¹² 18 | 24°58 | 5°40 | 3° 7 | 5°57 | 14°58 | 5°16 | 29°56 | 20°44 | 1°11 | 1°17 | 24°38 | 25°18 | T 25 | | | | | | | | |
| W26 | 20 35 21 | 7°32'33 | 24°35 | 26°36 | 6°54 | 3° 5 | 6° 9 | 14°58 | 5°17 | 29°57 | 20°43 | 1° 0 | 1°14 | 24°45 | 25°20 | W26 | | | | | | | | |
| T 27 | 20 39 17 | 8°30'14 | 9 ¹² 13 | 28°13 | 8° 8 | 3° 3 | 6°21 | 14°58 | 5°18 | 29°57 | 20°42 | 0°48 | 1°11 | 24°51 | 25°22 | T 27 | | | | | | | | |
| F 28 | 20 43 14 | 9°27'56 | 24° 4 | 29°48 | 9°22 | 3°D 2 | 6°33 | 14°57 | 5°19 | 29°57 | 20°40 | 0°38 | 1° 7 | 24°58 | 25°24 | F 28 | | | | | | | | |
| S 29 | 20 47 10 | 10°25'39 | 8 ¹¹ 59 | 1 ¹¹ 21 | 10°37 | 3° 3 | 6°45 | 14°56 | 5°20 | 29°R57 | 20°39 | 0°29 | 1° 4 | 25° 5 | 25°26 | S 29 | | | | | | | | |
| S 30 | 20 51 7 | 11°23'24 | 23°49 | 2°53 | 11°51 | 3° 4 | 6°58 | 14°56 | 5°21 | 29°57 | 20°38 | 0°23 | 1° 1 | 25°11 | 25°28 | S 30 | | | | | | | | |
| M31 | 20 55 3 | 12 ¹² 21'09 | 8 ¹¹ 28 | 4 ¹¹ 23 | 13 ¹² 5 | 3 ¹⁸ 5 | 7 ¹¹ 10 | 14°V55 | 5 ¹¹ 22 | 29°V57 | 20°37 | 0 ¹⁸ 19 | 0 ¹⁸ 58 | 25°V18 | 25°R30 | M31 | | | | | | | | |

Delta T = 20m20s Julian Calendar 1 July 1055 == Greg. Calendar 7 July 1055

AUGUST 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------|--------------------|--------|--------|--------------------|--------------------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 20 59 0 | 13 ¹² 18'56 | 22 ¹² 50 | 5 ¹¹ 52 | 14 ¹² 19 | 3 ¹⁸ 8 | 7 ¹¹ 22 | 14°R54 | 5 ¹¹ 23 | 29°R57 | 20°R35 | 0°R18 | 0 ¹⁸ 55 | 25°V25 | 25°R31 | T 1 | | | | | | | | |
| W 2 | 21 2 56 | 14°16'44 | 6 ¹¹ 54 | 7°20 | 15°34 | 3°12 | 7°35 | 14°V53 | 5°25 | 29°V56 | 20°34 | 0 ¹⁸ 18 | 0°52 | 25°31 | 25°33 | W 2 | | | | | | | | |
| T 3 | 21 6 53 | 15°14'33 | 18°10'59 | 8°46 | 16°48 | 3°16 | 7°47 | 14°52 | 5°26 | 29°56 | 20°33 | 0°17 | 0°48 | 25°38 | 25°35 | T 3 | | | | | | | | |
| F 4 | 21 10 50 | 16°12'24 | 4 ¹¹ 6 | 10°10 | 18° 2 | 3°21 | 8° 0 | 14°50 | 5°27 | 29°56 | 20°32 | 0°16 | 0°45 | 25°45 | 25°36 | F 4 | | | | | | | | |
| S 5 | 21 14 46 | 17°10'16 | 17°18 | 11°33 | 19°17 | 3°27 | 8°12 | 14°49 | 5°29 | 29°56 | 20°30 | 0°13 | 0°42 | 25°51 | 25°38 | S 5 | | | | | | | | |
| S 6 | 21 18 43 | 18° 8'09 | 0 ¹⁸ 16 | 12°54 | 20°31 | 3°34 | 8°25 | 14°48 | 5°30 | 29°56 | 20°29 | 0° 7 | 0°39 | 25°58 | 25°39 | S 6 | | | | | | | | |
| M 7 | 21 22 39 | 19° 6'03 | 13° 1 | 14°14 | 21°45 | 3°41 | 8°37 | 14°46 | 5°31 | 29°55 | 20°28 | 29°V59 | 0°36 | 26° 5 | 25°40 | M 7 | | | | | | | | |
| T 8 | 21 26 36 | 20° 3'59 | 25°35 | 15°32 | 23° 0 | 3°50 | 8°50 | 14°44 | 5°33 | 29°55 | 20°26 | 29°48 | 0°32 | 26°11 | 25°42 | T 8 | | | | | | | | |
| W 9 | 21 30 32 | 21° 1'57 | 7 ¹¹ 59 | 16°48 | 24°14 | 3°59 | 9° 2 | 14°43 | 5°35 | 29°55 | 20°25 | 29°36 | 0°29 | 26°18 | 25°43 | W 9 | | | | | | | | |
| T 10 | 21 34 29 | 21°59'56 | 20°13 | 18° 2 | 25°29 | 4° 9 | 9°15 | 14°41 | 5°36 | 29°54 | 20°24 | 29°24 | 0°26 | 26°25 | 25°44 | T 10 | | | | | | | | |
| F 11 | 21 38 25 | 22°57'56 | 2 ¹⁸ 18 | 19°15 | 26°43 | 4°19 | 9°28 | 14°39 | 5°38 | 29°54 | 20°23 | 29°12 | 0°23 | 26°31 | 25°45 | F 11 | | | | | | | | |
| S 12 | 21 42 22 | 23°55'58 | 14°15 | 20°25 | 27°58 | 4°31 | 9°40 | 14°37 | 5°40 | 29°53 | 20°21 | 29° 3 | 0°20 | 26°38 | 25°46 | S 12 | | | | | | | | |
| S 13 | 21 46 19 | 24°54'02 | 26° 6 | 21°34 | 29°12 | 4°43 | 9°53 | 14°35 | 5°41 | 29°53 | 20°20 | 28°55 | 0°17 | 26°45 | 25°47 | S 13 | | | | | | | | |
| M14 | 21 50 15 | 25°52'08 | 7°V54 | 22°40 | 0 ¹¹ 26 | 4°55 | 10° 6 | 14°32 | 5°43 | 29°52 | 20°19 | 28°51 | 0°13 | 26°51 | 25°48 | M14 | | | | | | | | |
| T 15 | 21 54 12 | 26°50'16 | 19°42 | 23°44 | 1°41 | 5° 9 | 10°19 | 14°30 | 5°45 | 29°52 | 20°17 | 28°48 | 0°10 | 26°58 | 25°49 | T 15 | | | | | | | | |
| W16 | 21 58 8 | 27°48'26 | 1 ¹⁸ 33 | 24°46 | 2°55 | 5°23 | 10°32 | 14°28 | 5°47 | 29°51 | 20°16 | 28°D48 | 0° 7 | 27° 5 | 25°50 | W16 | | | | | | | | |
| T 17 | 22 2 5 | 28°46'38 | 13°33 | 25°45 | 4°10 | 5°38 | 10°44 | 14°25 | 5°49 | 29°51 | 20°15 | 28°49 | 0° 4 | 27°11 | 25°50 | T 17 | | | | | | | | |
| F 18 | 22 6 1 | 29°44'52 | 25°46 | 26°42 | 5°24 | 5°53 | 10°57 | 14°22 | 5°51 | 29°50 | 20°14 | 28°R49 | 0° 1 | 27°18 | 25°51 | F 18 | | | | | | | | |
| S 19 | 22 9 58 | 0 ¹¹ 43'08 | 8 ¹¹ 18 | 27°36 | 6°39 | 6° 9 | 11°10 | 14°20 | 5°53 | 29°49 | 20°12 | 28°49 | 29°V57 | 27°25 | 25°52 | S 19 | | | | | | | | |
| S 20 | 22 13 54 | 1°41'26 | 21°13 | 28°26 | 7°54 | 6°26 | 11°23 | 14°17 | 5°55 | 29°49 | 20°11 | 28°47 | 29°54 | 27°31 | 25°52 | S 20 | | | | | | | | |
| M21 | 22 17 51 | 2°39'46 | 4 ¹⁸ 36 | 29°14 | 9° 8 | 6°44 | 11°36 | 14°14 | 5°57 | 29°48 | 20°10 | 28°43 | 29°51 | 27°38 | 25°53 | M21 | | | | | | | | |
| T 22 | 22 21 48 | 3°38'09 | 18°28 | 29°58 | 10°23 | 7° 2 | 11°49 | 14°11 | 5°59 | 29°47 | 20° 9 | 28°37 | 29°48 | 27°45 | 25°53 | T 22 | | | | | | | | |
| W23 | 22 25 44 | 4°36'34 | 2 ¹² 48 | 0 ¹⁸ 38 | 11°37 | 7°20 | 12° 2 | 14° 8 | 6° 1 | 29°46 | 20° 7 | 28°30 | 29°45 | 27°51 | 25°53 | W23 | | | | | | | | |
| T 24 | 22 29 41 | 5°35'00 | 17°34 | 1°15 | 12°52 | 7°39 | 12°15 | 14° 5 | 6° 4 | 29°46 | 20° 6 | 28°21 | 29°42 | 27°58 | 25°53 | T 24 | | | | | | | | |
| F 25 | 22 33 37 | 6°33'29 | 2 ¹¹ 36 | 1°47 | 14° 7 | 7°59 | 12°28 | 14° 2 | 6° 6 | 29°45 | 20° 5 | 28°13 | 29°38 | 28° 5 | 25°54 | F 25 | | | | | | | | |
| S 26 | 22 37 34 | 7°31'59 | 17°47 | 2°15 | 15°21 | 8°20 | 12°41 | 13°58 | 6° 8 | 29°44 | 20° 4 | 28° 7 | 29°35 | 28°11 | 25°54 | S 26 | | | | | | | | |
| S 27 | 22 41 30 | 8°30'32 | 2 ¹² 56 | 2°37 | 16°36 | 8°41 | 12°54 | 13°55 | 6°11 | 29°43 | 20° 2 | 28° 2 | 29°32 | 28°18 | 25°R54 | S 27 | | | | | | | | |
| M28 | 22 45 27 | 9°29'06 | 17°53 | 2°55 | 17°50 | 9° 2 | 13° 7 | 13°52 | 6°13 | 29°42 | 20° 1 | 28° 0 | 29°29 | 28°25 | 25°54 | M28 | | | | | | | | |
| T 29 | 22 49 23 | 10°27'42 | 2 ¹¹ 32 | 3° 7 | 19° 5 | 9°24 | 13°20 | 13°48 | 6°15 | 29°41 | 20° 0 | 28°D 0 | 29°26 | 28°31 | 25°54 | T 29 | | | | | | | | |
| W30 | 22 53 20 | 11°26'20 | 16°48 | 3°R13 | 20°20 | 9°47 | 13°33 | 13°44 | 6°18 | 29°40 | 19°59 | 28° 1 | 29°23 | 28°38 | 25°53 | W30 | | | | | | | | |
| T 31 | 22 57 16 | 12 ¹¹ 24'59 | 0 ¹⁷ 40 | 3 ¹² 12 | 21 ¹¹ 34 | 10 ¹⁸ 10 | 13 ¹¹ 46 | 13°V41 | 6 ¹¹ 20 | 29°V39 | 19°58 | 28°V 2 | 29°V19 | 28°V45 | 25°R53 | T 31 | | | | | | | | |

Delta T = 20m20s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1055
geocentric

SEPTEMBER 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|-----|----------|----------|-------|--------|-------|--------|-------|--------|------|--------|--------|--------|--------|--------|--------|-----|
| F 1 | 23 1 13 | 13♐23'40 | 14♌8 | 3°R 5 | 22♐49 | 10♌33 | 13♐59 | 13°R37 | 6♐23 | 29°R38 | 19°R57 | 28°R 2 | 29°V16 | 28°X51 | 25°R53 | F 1 |
| S 2 | 23 5 10 | 14°22'23 | 27°16 | 2♌51 | 24° 4 | 10°58 | 14°12 | 13°V33 | 6°26 | 29°V37 | 19°X55 | 28°V 1 | 29°13 | 28°58 | 25°R53 | S 2 |
| S 3 | 23 9 6 | 15°21'08 | 10♌5 | 2°30 | 25°18 | 11°22 | 14°25 | 13°29 | 6°28 | 29°36 | 19°54 | 27°59 | 29°10 | 29° 5 | 25°52 | S 3 |
| M 4 | 23 13 3 | 16°19'55 | 22°39 | 2° 2 | 26°33 | 11°47 | 14°38 | 13°25 | 6°31 | 29°35 | 19°53 | 27°54 | 29° 7 | 29°11 | 25°52 | M 4 |
| T 5 | 23 16 59 | 17°18'43 | 4♌59 | 1°26 | 27°48 | 12°13 | 14°51 | 13°21 | 6°34 | 29°34 | 19°52 | 27°48 | 29° 3 | 29°18 | 25°51 | T 5 |
| W 6 | 23 20 56 | 18°17'33 | 17°10 | 0°43 | 29° 2 | 12°39 | 15° 4 | 13°17 | 6°36 | 29°33 | 19°51 | 27°41 | 29° 0 | 29°25 | 25°51 | W 6 |
| T 7 | 23 24 52 | 19°16'25 | 29°13 | 29♐54 | 0♌17 | 13° 5 | 15°17 | 13°13 | 6°39 | 29°31 | 19°50 | 27°34 | 28°57 | 29°31 | 25°50 | T 7 |
| F 8 | 23 28 49 | 20°15'19 | 11♌9 | 28°58 | 1°32 | 13°32 | 15°30 | 13° 9 | 6°42 | 29°30 | 19°49 | 27°27 | 28°54 | 29°38 | 25°49 | F 8 |
| S 9 | 23 32 45 | 21°14'14 | 23° 1 | 27°58 | 2°46 | 13°59 | 15°43 | 13° 5 | 6°45 | 29°29 | 19°48 | 27°21 | 28°51 | 29°45 | 25°48 | S 9 |
| S10 | 23 36 42 | 22°13'12 | 4°V49 | 26°53 | 4° 1 | 14°27 | 15°56 | 13° 0 | 6°48 | 29°28 | 19°47 | 27°17 | 28°48 | 29°51 | 25°47 | S10 |
| M11 | 23 40 39 | 23°12'12 | 16°38 | 25°45 | 5°16 | 14°55 | 16° 8 | 12°56 | 6°51 | 29°26 | 19°46 | 27°15 | 28°44 | 29°58 | 25°46 | M11 |
| T12 | 23 44 35 | 24°11'15 | 28°27 | 24°37 | 6°30 | 15°23 | 16°21 | 12°52 | 6°54 | 29°25 | 19°44 | 27°D14 | 28°41 | 0°V 5 | 25°45 | T12 |
| W13 | 23 48 32 | 25°10'19 | 10♌22 | 23°29 | 7°45 | 15°52 | 16°34 | 12°47 | 6°57 | 29°24 | 19°43 | 27°15 | 28°38 | 0°11 | 25°44 | W13 |
| T14 | 23 52 28 | 26° 9'26 | 22°25 | 22°24 | 9° 0 | 16°21 | 16°47 | 12°43 | 7° 0 | 29°22 | 19°42 | 27°17 | 28°35 | 0°18 | 25°43 | T14 |
| F15 | 23 56 25 | 27° 8'35 | 4♐39 | 21°22 | 10°14 | 16°50 | 17° 0 | 12°38 | 7° 3 | 29°21 | 19°42 | 27°18 | 28°32 | 0°25 | 25°42 | F15 |
| S16 | 0 0 21 | 28° 7'47 | 17°11 | 20°27 | 11°29 | 17°20 | 17°13 | 12°34 | 7° 6 | 29°20 | 19°41 | 27°20 | 28°29 | 0°31 | 25°41 | S16 |
| S17 | 0 4 18 | 29° 7'01 | 0♌2 | 19°40 | 12°44 | 17°50 | 17°26 | 12°29 | 7° 9 | 29°18 | 19°40 | 27°R20 | 28°25 | 0°38 | 25°39 | S17 |
| M18 | 0 8 14 | 0♌6'17 | 13°19 | 19° 1 | 13°59 | 18°21 | 17°39 | 12°25 | 7°12 | 29°17 | 19°39 | 27°20 | 28°22 | 0°45 | 25°38 | M18 |
| T19 | 0 12 11 | 1° 5'36 | 27° 2 | 18°32 | 15°13 | 18°51 | 17°52 | 12°20 | 7°15 | 29°16 | 19°38 | 27°18 | 28°19 | 0°51 | 25°37 | T19 |
| W20 | 0 16 8 | 2° 4'57 | 11♌13 | 18°14 | 16°28 | 19°22 | 18° 5 | 12°15 | 7°18 | 29°14 | 19°37 | 27°15 | 28°16 | 0°58 | 25°35 | W20 |
| T21 | 0 20 4 | 3° 4'20 | 25°50 | 18°D 6 | 17°43 | 19°54 | 18°17 | 12°11 | 7°22 | 29°13 | 19°36 | 27°11 | 28°13 | 1° 5 | 25°33 | T21 |
| F22 | 0 24 1 | 4° 3'46 | 10♐47 | 18°10 | 18°57 | 20°26 | 18°30 | 12° 6 | 7°25 | 29°11 | 19°35 | 27° 8 | 28° 9 | 1°11 | 25°32 | F22 |
| S23 | 0 27 57 | 5° 3'14 | 25°58 | 18°24 | 20°12 | 20°58 | 18°43 | 12° 1 | 7°28 | 29°10 | 19°34 | 27° 6 | 28° 6 | 1°18 | 25°30 | S23 |
| S24 | 0 31 54 | 6° 2'44 | 11♌12 | 18°48 | 21°27 | 21°30 | 18°56 | 11°56 | 7°31 | 29° 8 | 19°33 | 27° 4 | 28° 3 | 1°25 | 25°28 | S24 |
| M25 | 0 35 50 | 7° 2'16 | 26°20 | 19°22 | 22°42 | 22° 2 | 19° 8 | 11°52 | 7°35 | 29° 7 | 19°33 | 27°D 3 | 28° 0 | 1°31 | 25°26 | M25 |
| T26 | 0 39 47 | 8° 1'50 | 11♌12 | 20° 5 | 23°56 | 22°35 | 19°21 | 11°47 | 7°38 | 29° 5 | 19°32 | 27° 4 | 27°57 | 1°38 | 25°25 | T26 |
| W27 | 0 43 43 | 9° 1'26 | 25°42 | 20°56 | 25°11 | 23° 8 | 19°34 | 11°42 | 7°41 | 29° 3 | 19°31 | 27° 5 | 27°54 | 1°45 | 25°23 | W27 |
| T28 | 0 47 40 | 10° 1'03 | 9♌46 | 21°54 | 26°26 | 23°42 | 19°46 | 11°37 | 7°45 | 29° 2 | 19°30 | 27° 6 | 27°50 | 1°51 | 25°21 | T28 |
| F29 | 0 51 37 | 11° 0'43 | 23°24 | 23° 0 | 27°40 | 24°15 | 19°59 | 11°32 | 7°48 | 29° 0 | 19°30 | 27° 7 | 27°47 | 1°58 | 25°19 | F29 |
| S30 | 0 55 33 | 12° 0'24 | 6♌36 | 24♐11 | 28°55 | 24°R49 | 20♐11 | 11°V27 | 7♐52 | 28°V59 | 19°X29 | 27°R 8 | 27°V44 | 2°V 5 | 25°R17 | S30 |

Delta T = 20m19s Julian Calendar 1 Sept. 1055 == Greg. Calendar 7 Sept. 1055

OCTOBER 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|-----|---------|----------|-------|-------|-------|-------|-------|--------|------|--------|--------|--------|--------|-------|--------|-----|
| S 1 | 0 59 30 | 13♌0'08 | 19♌25 | 25♐27 | 0♐10 | 25♌23 | 20♐24 | 11°R23 | 7♐55 | 28°R57 | 19°R28 | 27°R 8 | 27°V41 | 2°V11 | 25°R14 | S 1 |
| M 2 | 1 3 26 | 13°59'52 | 1♌55 | 26°48 | 1°24 | 25°58 | 20°36 | 11°V18 | 7°59 | 28°V56 | 19°X28 | 27°V 7 | 27°38 | 2°18 | 25°R12 | M 2 |
| T 3 | 1 7 23 | 14°59'39 | 14°10 | 28°12 | 2°39 | 26°32 | 20°49 | 11°13 | 8° 2 | 28°54 | 19°27 | 27° 6 | 27°35 | 2°25 | 25°10 | T 3 |
| W 4 | 1 11 19 | 15°59'27 | 26°13 | 29°40 | 3°54 | 27° 7 | 21° 1 | 11° 8 | 8° 6 | 28°52 | 19°26 | 27° 4 | 27°31 | 2°31 | 25° 8 | W 4 |
| T 5 | 1 15 16 | 16°59'17 | 8♌9 | 1♌10 | 5° 9 | 27°42 | 21°14 | 11° 4 | 8° 9 | 28°51 | 19°26 | 27° 3 | 27°28 | 2°38 | 25° 5 | T 5 |
| F 6 | 1 19 12 | 17°59'09 | 19°59 | 2°42 | 6°23 | 28°17 | 21°26 | 10°59 | 8°13 | 28°49 | 19°25 | 27° 1 | 27°25 | 2°45 | 25° 3 | F 6 |
| S 7 | 1 23 9 | 18°59'03 | 1°V48 | 4°16 | 7°38 | 28°53 | 21°38 | 10°54 | 8°16 | 28°47 | 19°25 | 27° 0 | 27°22 | 2°51 | 25° 0 | S 7 |
| S 8 | 1 27 6 | 19°58'59 | 13°37 | 5°52 | 8°53 | 29°29 | 21°50 | 10°49 | 8°20 | 28°46 | 19°24 | 27° 0 | 27°19 | 2°58 | 24°58 | S 8 |
| M 9 | 1 31 2 | 20°58'56 | 25°29 | 7°28 | 10° 7 | 0♌4 | 22° 2 | 10°45 | 8°23 | 28°44 | 19°24 | 26°D59 | 27°15 | 3° 5 | 24°55 | M 9 |
| T10 | 1 34 59 | 21°58'56 | 7♌26 | 9° 5 | 11°22 | 0°40 | 22°15 | 10°40 | 8°27 | 28°42 | 19°23 | 26°59 | 27°12 | 3°11 | 24°53 | T10 |
| W11 | 1 38 55 | 22°58'57 | 19°29 | 10°44 | 12°37 | 1°16 | 22°27 | 10°35 | 8°31 | 28°41 | 19°23 | 27° 0 | 27° 9 | 3°18 | 24°50 | W11 |
| T12 | 1 42 52 | 23°59'01 | 11♌42 | 12°22 | 13°51 | 1°53 | 22°39 | 10°31 | 8°34 | 28°39 | 19°22 | 27° 0 | 27° 6 | 3°25 | 24°48 | T12 |
| F13 | 1 46 48 | 24°59'07 | 14° 6 | 14° 1 | 15° 6 | 2°29 | 22°51 | 10°26 | 8°38 | 28°37 | 19°22 | 27° 0 | 27° 3 | 3°31 | 24°45 | F13 |
| S14 | 1 50 45 | 25°59'15 | 26°44 | 15°40 | 16°20 | 3° 6 | 23° 3 | 10°22 | 8°42 | 28°36 | 19°22 | 27° 1 | 27° 0 | 3°38 | 24°42 | S14 |
| S15 | 1 54 41 | 26°59'25 | 9♌38 | 17°19 | 17°35 | 3°43 | 23°14 | 10°17 | 8°45 | 28°34 | 19°21 | 27°R 1 | 26°56 | 3°45 | 24°39 | S15 |
| M16 | 1 58 38 | 27°59'37 | 22°52 | 18°57 | 18°50 | 4°20 | 23°26 | 10°13 | 8°49 | 28°32 | 19°21 | 27°D 1 | 26°53 | 3°51 | 24°36 | M16 |
| T17 | 2 2 35 | 28°59'51 | 6♌26 | 20°36 | 20° 4 | 4°57 | 23°38 | 10° 8 | 8°53 | 28°30 | 19°21 | 27° 1 | 26°50 | 3°58 | 24°34 | T17 |
| W18 | 2 6 31 | 0♐0'08 | 20°24 | 22°15 | 21°19 | 5°34 | 23°50 | 10° 4 | 8°56 | 28°29 | 19°20 | 27° 1 | 26°47 | 4° 4 | 24°31 | W18 |
| T19 | 2 10 28 | 1° 0'26 | 4♐43 | 23°53 | 22°34 | 6°12 | 24° 1 | 9°59 | 9° 0 | 28°27 | 19°20 | 27° 1 | 26°44 | 4°11 | 24°28 | T19 |
| F20 | 2 14 24 | 2° 0'46 | 19°22 | 25°32 | 23°48 | 6°49 | 24°13 | 9°55 | 9° 4 | 28°25 | 19°20 | 27° 1 | 26°40 | 4°18 | 24°25 | F20 |
| S21 | 2 18 21 | 3° 1'09 | 4♌15 | 27°10 | 25° 3 | 7°27 | 24°24 | 9°51 | 9° 7 | 28°24 | 19°20 | 27° 2 | 26°37 | 4°24 | 24°22 | S21 |
| S22 | 2 22 17 | 4° 1'33 | 19°17 | 28°47 | 26°17 | 8° 5 | 24°36 | 9°47 | 9°11 | 28°22 | 19°19 | 27° 2 | 26°34 | 4°31 | 24°19 | S22 |
| M23 | 2 26 14 | 5° 1'59 | 4♐18 | 0♐25 | 27°32 | 8°43 | 24°47 | 9°43 | 9°15 | 28°20 | 19°19 | 27°R 2 | 26°31 | 4°38 | 24°16 | M23 |
| T24 | 2 30 10 | 6° 2'27 | 19°11 | 2° 2 | 28°47 | 9°21 | 24°58 | 9°39 | 9°19 | 28°19 | 19°19 | 27° 2 | 26°28 | 4°44 | 24°13 | T24 |
| W25 | 2 34 7 | 7° 2'56 | 3♌47 | 3°39 | 0♌1 | 9°59 | 25°10 | 9°35 | 9°22 | 28°17 | 19°19 | 27° 1 | 26°25 | 4°51 | 24° 9 | W25 |
| T26 | 2 38 4 | 8° 3'27 | 18° 0 | 5°15 | 1°16 | 10°38 | 25°21 | 9°31 | 9°26 | 28°15 | 19°19 | 27° 0 | 26°21 | 4°58 | 24° 6 | T26 |
| F27 | 2 42 0 | 9° 4'00 | 1♌47 | 6°51 | 2°30 | 11°16 | 25°32 | 9°27 | 9°30 | 28°14 | 19°19 | 26°58 | 26°18 | 5° 4 | 24° 3 | F27 |
| S28 | 2 45 57 | 10° 4'34 | 15° 7 | 8°27 | 3°45 | 11°55 | 25°43 | 9°23 | 9°33 | 28°12 | 19°D19 | 26°57 | 26°15 | 5°11 | 24° 0 | S28 |
| S29 | 2 49 53 | 11° 5'09 | 28° 2 | 10° 3 | 5° 0 | 12°34 | 25°54 | 9°19 | 9°37 | 28°10 | 19°19 | 26°56 | 26°12 | 5°18 | 23°57 | S29 |
| M30 | 2 53 50 | 12° 5'45 | 10♌35 | 11°38 | 6°14 | 13°12 | 26° 5 | 9°16 | 9°41 | 28° 9 | 19°19 | 26°D55 | 26° 9 | 5°24 | 23°53 | M30 |
| T31 | 2 57 46 | 13♐6'23 | 22♌49 | 13♐14 | 7♌29 | 13♌51 | 26♐15 | 9°V12 | 9♐45 | 28°V 7 | 19°X19 | 26°V55 | 26°V 6 | 5°V31 | 23°R50 | T31 |

ASTRODIENST EPHEMERIS for the year 1055
geocentric

NOVEMBER 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|-----------|---------|--------|--------|--------|--------|-------|--------|--------|--------|---------|--------|--------|---------|------|-----|
| W 1 | 3 1 43 | 14♌ 7'02 | 4♋ 50 | 14♌ 49 | 8♌ 43 | 14♌ 30 | 26♎ 26 | 9°R 9 | 9♌ 48 | 28°R 5 | 19♌ 19 | 26°V 56 | 26°V 2 | 5°V 38 | 23°R 47 | W 1 | |
| T 2 | 3 5 39 | 15° 7'41 | 16° 43 | 16° 23 | 9° 58 | 15° 9 | 26° 37 | 9°V 5 | 9° 52 | 28°V 4 | 19° 19 | 26° 58 | 25° 59 | 5° 44 | 23°R 44 | T 2 | |
| F 3 | 3 9 36 | 16° 8'23 | 28° 31 | 17° 58 | 11° 12 | 15° 49 | 26° 47 | 9° 2 | 9° 56 | 28° 2 | 19° 19 | 26° 59 | 25° 56 | 5° 51 | 23° 40 | F 3 | |
| S 4 | 3 13 33 | 17° 9'05 | 10°V 19 | 19° 32 | 12° 27 | 16° 28 | 26° 58 | 8° 59 | 10° 0 | 28° 1 | 19° 20 | 27° 1 | 25° 53 | 5° 58 | 23° 37 | S 4 | |
| S 5 | 3 17 29 | 18° 9'48 | 22° 11 | 21° 7 | 13° 41 | 17° 7 | 27° 8 | 8° 55 | 10° 3 | 27° 59 | 19° 20 | 27°R 2 | 25° 50 | 6° 4 | 23° 34 | S 5 | |
| M 6 | 3 21 26 | 19° 10'33 | 4♌ 9 | 22° 41 | 14° 56 | 17° 47 | 27° 18 | 8° 52 | 10° 7 | 27° 58 | 19° 20 | 27° 2 | 25° 46 | 6° 11 | 23° 30 | M 6 | |
| T 7 | 3 25 22 | 20° 11'19 | 16° 16 | 24° 15 | 16° 10 | 18° 26 | 27° 28 | 8° 49 | 10° 11 | 27° 56 | 19° 20 | 27° 0 | 25° 43 | 6° 18 | 23° 27 | T 7 | |
| W 8 | 3 29 19 | 21° 12'07 | 28° 34 | 25° 48 | 17° 25 | 19° 6 | 27° 38 | 8° 46 | 10° 14 | 27° 55 | 19° 20 | 26° 58 | 25° 40 | 6° 24 | 23° 24 | W 8 | |
| T 9 | 3 33 15 | 22° 12'56 | 11♌ 3 | 27° 22 | 18° 39 | 19° 46 | 27° 48 | 8° 44 | 10° 18 | 27° 53 | 19° 21 | 26° 54 | 25° 37 | 6° 31 | 23° 20 | T 9 | |
| F 10 | 3 37 12 | 23° 13'46 | 23° 45 | 28° 56 | 19° 54 | 20° 26 | 27° 58 | 8° 41 | 10° 22 | 27° 51 | 19° 21 | 26° 50 | 25° 34 | 6° 38 | 23° 17 | F 10 | |
| S 11 | 3 41 8 | 24° 14'37 | 6♌ 39 | 0♌ 29 | 21° 8 | 21° 5 | 28° 8 | 8° 38 | 10° 25 | 27° 50 | 19° 21 | 26° 45 | 25° 31 | 6° 44 | 23° 14 | S 11 | |
| S 12 | 3 45 5 | 25° 15'30 | 19° 47 | 2° 3 | 22° 22 | 21° 45 | 28° 18 | 8° 36 | 10° 29 | 27° 49 | 19° 22 | 26° 41 | 25° 27 | 6° 51 | 23° 10 | S 12 | |
| M13 | 3 49 2 | 26° 16'24 | 3♌ 9 | 3° 36 | 23° 37 | 22° 25 | 28° 27 | 8° 33 | 10° 33 | 27° 47 | 19° 22 | 26° 38 | 25° 24 | 6° 58 | 23° 7 | M13 | |
| T 14 | 3 52 58 | 27° 17'20 | 16° 44 | 5° 10 | 24° 51 | 23° 5 | 28° 37 | 8° 31 | 10° 36 | 27° 46 | 19° 23 | 26° 36 | 25° 21 | 7° 4 | 23° 4 | T 14 | |
| W15 | 3 56 55 | 28° 18'17 | 0♎ 34 | 6° 43 | 26° 5 | 23° 46 | 28° 46 | 8° 29 | 10° 40 | 27° 44 | 19° 23 | 26°D35 | 25° 18 | 7° 11 | 23° 0 | W15 | |
| T 16 | 4 0 51 | 29° 19'15 | 14° 38 | 8° 16 | 27° 20 | 24° 26 | 28° 55 | 8° 26 | 10° 43 | 27° 43 | 19° 24 | 26° 36 | 25° 15 | 7° 17 | 22° 57 | T 16 | |
| F 17 | 4 4 48 | 0♌ 20'14 | 28° 55 | 9° 50 | 28° 34 | 25° 6 | 29° 4 | 8° 24 | 10° 47 | 27° 41 | 19° 24 | 26° 38 | 25° 12 | 7° 24 | 22° 54 | F 17 | |
| S 18 | 4 8 44 | 1° 21'15 | 13♌ 24 | 11° 23 | 29° 48 | 25° 46 | 29° 13 | 8° 22 | 10° 51 | 27° 40 | 19° 25 | 26° 39 | 25° 8 | 7° 31 | 22° 51 | S 18 | |
| S 19 | 4 12 41 | 2° 22'17 | 28° 1 | 12° 56 | 1♌ 3 | 26° 27 | 29° 22 | 8° 21 | 10° 54 | 27° 39 | 19° 25 | 26°R40 | 25° 5 | 7° 37 | 22° 47 | S 19 | |
| M20 | 4 16 37 | 3° 23'20 | 12♌ 40 | 14° 29 | 2° 17 | 27° 7 | 29° 31 | 8° 19 | 10° 58 | 27° 37 | 19° 26 | 26° 39 | 25° 2 | 7° 44 | 22° 44 | M20 | |
| T 21 | 4 20 34 | 4° 24'24 | 27° 15 | 16° 2 | 3° 31 | 27° 47 | 29° 40 | 8° 17 | 11° 1 | 27° 36 | 19° 26 | 26° 36 | 24° 59 | 7° 51 | 22° 41 | T 21 | |
| W22 | 4 24 31 | 5° 25'29 | 11♌ 41 | 17° 35 | 4° 46 | 28° 28 | 29° 48 | 8° 16 | 11° 5 | 27° 35 | 19° 27 | 26° 31 | 24° 56 | 7° 57 | 22° 37 | W22 | |
| T 23 | 4 28 27 | 6° 26'35 | 25° 50 | 19° 8 | 6° 0 | 29° 9 | 29° 56 | 8° 14 | 11° 8 | 27° 34 | 19° 28 | 26° 24 | 24° 52 | 8° 4 | 22° 34 | T 23 | |
| F 24 | 4 32 24 | 7° 27'42 | 9♌ 37 | 20° 40 | 7° 14 | 29° 49 | 0♌ 5 | 8° 13 | 11° 12 | 27° 32 | 19° 28 | 26° 17 | 24° 49 | 8° 11 | 22° 31 | F 24 | |
| S 25 | 4 36 20 | 8° 28'49 | 23° 1 | 22° 13 | 8° 28 | 0♋ 30 | 0° 13 | 8° 12 | 11° 15 | 27° 31 | 19° 29 | 26° 10 | 24° 46 | 8° 17 | 22° 28 | S 25 | |
| S 26 | 4 40 17 | 9° 29'56 | 6♌ 0 | 23° 45 | 9° 42 | 1° 11 | 0° 21 | 8° 11 | 11° 18 | 27° 30 | 19° 30 | 26° 4 | 24° 43 | 8° 24 | 22° 25 | S 26 | |
| M27 | 4 44 13 | 10° 31'04 | 18° 37 | 25° 17 | 10° 57 | 1° 51 | 0° 29 | 8° 10 | 11° 22 | 27° 29 | 19° 30 | 26° 0 | 24° 40 | 8° 31 | 22° 21 | M27 | |
| T 28 | 4 48 10 | 11° 32'12 | 0♋ 54 | 26° 48 | 12° 11 | 2° 32 | 0° 37 | 8° 9 | 11° 25 | 27° 28 | 19° 31 | 25° 57 | 24° 37 | 8° 37 | 22° 18 | T 28 | |
| W29 | 4 52 6 | 12° 33'21 | 12° 57 | 28° 18 | 13° 25 | 3° 13 | 0° 44 | 8° 8 | 11° 29 | 27° 27 | 19° 32 | 25°D56 | 24° 33 | 8° 44 | 22° 15 | W29 | |
| T 30 | 4 56 3 | 13° 34'29 | 24♋ 49 | 29° 48 | 14° 39 | 3° 54 | 0° 52 | 8° 7 | 11° 32 | 27° 26 | 19° 33 | 25°V57 | 24°V30 | 8° 51 | 22° 12 | T 30 | |

Delta T = 20m19s Julian Calendar 1 Nov. 1055 == Greg. Calendar 7 Nov. 1055

DECEMBER 1055 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|-----------|--------|--------|--------|--------|-------|-------|--------|---------|--------|---------|---------|--------|--------|------|-----|
| F 1 | 5 0 0 | 14♌ 35'38 | 6°V 37 | 1♌ 17 | 15♌ 53 | 4♋ 35 | 0♌ 59 | 8°R 7 | 11♌ 35 | 27°R25 | 19♌ 34 | 25°V 58 | 24°V 27 | 8°V 57 | 22°R 9 | F 1 | |
| S 2 | 5 3 56 | 15° 36'47 | 18° 25 | 2° 45 | 17° 7 | 5° 16 | 1° 6 | 8° 6 | 11° 38 | 27°V 24 | 19° 34 | 26° 0 | 24° 24 | 9° 4 | 22° 6 | S 2 | |
| S 3 | 5 7 53 | 16° 37'57 | 0♌ 20 | 4° 12 | 18° 21 | 5° 57 | 1° 13 | 8° 6 | 11° 42 | 27° 23 | 19° 35 | 26°R 0 | 24° 21 | 9° 11 | 22° 3 | S 3 | |
| M 4 | 5 11 49 | 17° 39'06 | 12° 23 | 5° 38 | 19° 35 | 6° 37 | 1° 20 | 8° 6 | 11° 45 | 27° 22 | 19° 36 | 25° 58 | 24° 18 | 9° 17 | 22° 0 | M 4 | |
| T 5 | 5 15 46 | 18° 40'16 | 24° 40 | 7° 1 | 20° 49 | 7° 18 | 1° 27 | 8°D 6 | 11° 48 | 27° 21 | 19° 37 | 25° 54 | 24° 14 | 9° 24 | 21° 57 | T 5 | |
| W 6 | 5 19 42 | 19° 41'26 | 7♌ 13 | 8° 22 | 22° 3 | 7° 59 | 1° 34 | 8° 6 | 11° 51 | 27° 20 | 19° 38 | 25° 48 | 24° 11 | 9° 31 | 21° 55 | W 6 | |
| T 7 | 5 23 39 | 20° 42'36 | 20° 1 | 9° 41 | 23° 16 | 8° 41 | 1° 40 | 8° 6 | 11° 54 | 27° 19 | 19° 39 | 25° 39 | 24° 8 | 9° 37 | 21° 52 | T 7 | |
| F 8 | 5 27 35 | 21° 43'47 | 3♌ 5 | 10° 57 | 24° 30 | 9° 22 | 1° 47 | 8° 6 | 11° 57 | 27° 18 | 19° 40 | 25° 29 | 24° 5 | 9° 44 | 21° 49 | F 8 | |
| S 9 | 5 31 32 | 22° 44'58 | 16° 24 | 12° 9 | 25° 44 | 10° 3 | 1° 53 | 8° 7 | 12° 0 | 27° 17 | 19° 41 | 25° 19 | 24° 2 | 9° 50 | 21° 46 | S 9 | |
| S 10 | 5 35 29 | 23° 46'09 | 29° 56 | 13° 17 | 26° 58 | 10° 44 | 1° 59 | 8° 7 | 12° 3 | 27° 17 | 19° 42 | 25° 9 | 23° 58 | 9° 57 | 21° 43 | S 10 | |
| M11 | 5 39 25 | 24° 47'20 | 13♌ 38 | 14° 21 | 28° 12 | 11° 25 | 2° 5 | 8° 8 | 12° 6 | 27° 16 | 19° 43 | 25° 1 | 23° 55 | 10° 4 | 21° 41 | M11 | |
| T 12 | 5 43 22 | 25° 48'32 | 27° 27 | 15° 19 | 29° 25 | 12° 6 | 2° 11 | 8° 8 | 12° 9 | 27° 15 | 19° 44 | 24° 55 | 23° 52 | 10° 10 | 21° 38 | T 12 | |
| W13 | 5 47 18 | 26° 49'44 | 11♎ 23 | 16° 11 | 0♌ 39 | 12° 47 | 2° 16 | 8° 9 | 12° 12 | 27° 14 | 19° 45 | 24° 51 | 23° 49 | 10° 17 | 21° 36 | W13 | |
| T 14 | 5 51 15 | 27° 50'56 | 25° 25 | 16° 55 | 1° 52 | 13° 28 | 2° 22 | 8° 10 | 12° 15 | 27° 14 | 19° 47 | 24°D50 | 23° 46 | 10° 24 | 21° 33 | T 14 | |
| F 15 | 5 55 11 | 28° 52'08 | 9♌ 30 | 17° 32 | 3° 6 | 14° 9 | 2° 27 | 8° 11 | 12° 18 | 27° 13 | 19° 48 | 24° 50 | 23° 43 | 10° 30 | 21° 31 | F 15 | |
| S 16 | 5 59 8 | 29° 53'20 | 23° 39 | 17° 59 | 4° 19 | 14° 51 | 2° 32 | 8° 12 | 12° 21 | 27° 13 | 19° 49 | 24°R51 | 23° 39 | 10° 37 | 21° 28 | S 16 | |
| S 17 | 6 3 5 | 0♌ 54'33 | 7♌ 50 | 18° 17 | 5° 33 | 15° 32 | 2° 37 | 8° 13 | 12° 24 | 27° 12 | 19° 50 | 24° 50 | 23° 36 | 10° 44 | 21° 26 | S 17 | |
| M18 | 6 7 1 | 1° 55'46 | 22° 1 | 18°R24 | 6° 46 | 16° 13 | 2° 42 | 8° 15 | 12° 26 | 27° 11 | 19° 51 | 24° 47 | 23° 33 | 10° 50 | 21° 23 | M18 | |
| T 19 | 6 10 58 | 2° 56'59 | 6♌ 9 | 18° 20 | 8° 0 | 16° 54 | 2° 47 | 8° 16 | 12° 29 | 27° 11 | 19° 52 | 24° 42 | 23° 30 | 10° 57 | 21° 21 | T 19 | |
| W20 | 6 14 54 | 3° 58'12 | 20° 11 | 18° 4 | 9° 13 | 17° 35 | 2° 51 | 8° 18 | 12° 32 | 27° 11 | 19° 54 | 24° 33 | 23° 27 | 11° 4 | 21° 19 | W20 | |
| T 21 | 6 18 51 | 4° 59'25 | 4♌ 1 | 17° 36 | 10° 26 | 18° 17 | 2° 55 | 8° 20 | 12° 35 | 27° 10 | 19° 55 | 24° 22 | 23° 24 | 11° 10 | 21° 17 | T 21 | |
| F 22 | 6 22 47 | 6° 0'37 | 17° 35 | 16° 57 | 11° 40 | 18° 58 | 2° 59 | 8° 21 | 12° 37 | 27° 10 | 19° 56 | 24° 10 | 23° 20 | 11° 17 | 21° 15 | F 22 | |
| S 23 | 6 26 44 | 7° 1'49 | 0♌ 51 | 16° 6 | 12° 53 | 19° 39 | 3° 3 | 8° 23 | 12° 40 | 27° 9 | 19° 57 | 23° 57 | 23° 17 | 11° 24 | 21° 13 | S 23 | |
| S 24 | 6 30 40 | 8° 3'01 | 13° 47 | 15° 6 | 14° 6 | 20° 20 | 3° 7 | 8° 25 | 12° 42 | 27° 9 | 19° 59 | 23° 45 | 23° 14 | 11° 30 | 21° 11 | S 24 | |
| M25 | 6 34 37 | 9° 4'12 | 26° 23 | 13° 59 | 15° 19 | 21° 2 | 3° 11 | 8° 27 | 12° 45 | 27° 9 | 20° 0 | 23° 36 | 23° 11 | 11° 37 | 21° 9 | M25 | |
| T 26 | 6 38 34 | 10° 5'22 | 8♋ 40 | 12° 45 | 16° 32 | 21° 43 | 3° 14 | 8° 30 | 12° 47 | 27° 8 | 20° 1 | 23° 29 | 23° 8 | 11° 44 | 21° 7 | T 26 | |
| W27 | 6 42 30 | 11° 6'31 | 20° 43 | 11° 27 | 17° 45 | 22° 24 | 3° 17 | 8° 32 | 12° 50 | 27° 8 | 20° 3 | 23° 25 | 23° 4 | 11° 50 | 21° 5 | W27 | |
| T 28 | 6 46 27 | 12° 7'40 | 2°V 36 | 10° 8 | 18° 58 | 23° 6 | 3° 20 | 8° 34 | 12° 52 | 27° 8 | 20° 4 | 23° 23 | 23° 1 | 11° 57 | 21° 3 | T 28 | |
| F 29 | 6 50 23 | 13° 8'47 | 14° 24 | 8° 51 | 20° 10 | 23° 47 | 3° 23 | 8° 37 | 12° 54 | 27° 8 | 20° 6 | 23°D23 | 22° 58 | 12° 3 | 21° 1 | F 29 | |
| S 30 | 6 54 20 | 14° 9'54 | 26° 13 | 7° 37 | 21° 23 | 24° 28 | 3° 26 | 8° 39 | 12° 56 | 27° 8 | 20° 7 | 23°R23 | 22° 55 | 12° 10 | 21° 0 | S 30 | |
| S 31 | 6 58 16 | 15° 11'00 | 8♌ 7 | 6♌ 28 | 22° 36 | 25° 9 | 3° 29 | 8° 42 | 12° 59 | 27° 8 | 20° 8 | 23°V22 | 22° 52 | 12° 17 | 20° 58 | S 31 | |

Delta T = 20m18s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1056
geocentric

JANUARY 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|-------|-------|--------|-------|--------|-------|--------|-------|--------|--------|--------|--------|------|-----|
| M 1 | 7 2 13 | 16♁12'05 | 20♁14 | 5°R27 | 23♁48 | 25♁51 | 3♁31 | 8°Y45 | 13♁ 1 | 27°R 8 | 20♁10 | 23°R20 | 22°Y49 | 12°Y23 | 20°R57 | M 1 | |
| T 2 | 7 6 9 | 17°13'09 | 2♁36 | 4♁33 | 25° 1 | 26°32 | 3°33 | 8°48 | 13° 3 | 27°D 8 | 20°11 | 23°Y15 | 22°45 | 12°30 | 20♁55 | T 2 | |
| W 3 | 7 10 6 | 18°14'12 | 15°18 | 3°49 | 26°13 | 27°13 | 3°35 | 8°51 | 13° 5 | 27°Y 8 | 20°13 | 23° 7 | 22°42 | 12°37 | 20°54 | W 3 | |
| T 4 | 7 14 3 | 19°15'14 | 28°21 | 3°13 | 27°26 | 27°54 | 3°37 | 8°54 | 13° 7 | 27° 8 | 20°14 | 22°56 | 22°39 | 12°43 | 20°52 | T 4 | |
| F 5 | 7 17 59 | 20°16'16 | 11♁45 | 2°47 | 28°38 | 28°36 | 3°38 | 8°58 | 13° 9 | 27° 8 | 20°16 | 22°44 | 22°36 | 12°50 | 20°51 | F 5 | |
| S 6 | 7 21 56 | 21°17'16 | 25°28 | 2°29 | 29°50 | 29°17 | 3°40 | 9° 1 | 13°11 | 27° 8 | 20°17 | 22°30 | 22°33 | 12°57 | 20°50 | S 6 | |
| S 7 | 7 25 52 | 22°18'16 | 9♁27 | 2°21 | 1♁ 2 | 29°58 | 3°41 | 9° 4 | 13°13 | 27° 8 | 20°19 | 22°18 | 22°30 | 13° 3 | 20°49 | S 7 | |
| M 8 | 7 29 49 | 23°19'14 | 23°37 | 2°D20 | 2°14 | 0°Y39 | 3°42 | 9° 8 | 13°15 | 27° 8 | 20°20 | 22° 7 | 22°26 | 13°10 | 20°48 | M 8 | |
| T 9 | 7 33 45 | 24°20'12 | 7♁52 | 2°27 | 3°26 | 1°21 | 3°43 | 9°11 | 13°17 | 27° 9 | 20°22 | 21°59 | 22°23 | 13°17 | 20°47 | T 9 | |
| W10 | 7 37 42 | 25°21'09 | 22° 8 | 2°41 | 4°38 | 2° 2 | 3°44 | 9°15 | 13°18 | 27° 9 | 20°23 | 21°54 | 22°20 | 13°23 | 20°46 | W10 | |
| T 11 | 7 41 39 | 26°22'05 | 6♁21 | 3° 2 | 5°50 | 2°43 | 3°44 | 9°19 | 13°20 | 27° 9 | 20°25 | 21°52 | 22°17 | 13°30 | 20°45 | T 11 | |
| F 12 | 7 45 35 | 27°23'00 | 20°29 | 3°29 | 7° 1 | 3°24 | 3°44 | 9°23 | 13°22 | 27° 9 | 20°26 | 21°51 | 22°14 | 13°37 | 20°44 | F 12 | |
| S 13 | 7 49 32 | 28°23'54 | 4♁32 | 4° 1 | 8°13 | 4° 5 | 3°R44 | 9°27 | 13°23 | 27°10 | 20°28 | 21°51 | 22°10 | 13°43 | 20°43 | S 13 | |
| S 14 | 7 53 28 | 29°24'48 | 18°29 | 4°39 | 9°24 | 4°46 | 3°44 | 9°31 | 13°25 | 27°10 | 20°29 | 21°50 | 22° 7 | 13°50 | 20°43 | S 14 | |
| M15 | 7 57 25 | 0♁25'41 | 2♁19 | 5°21 | 10°36 | 5°28 | 3°44 | 9°35 | 13°26 | 27°11 | 20°31 | 21°47 | 22° 4 | 13°56 | 20°42 | M15 | |
| T 16 | 8 1 21 | 1°26'33 | 16° 2 | 6° 7 | 11°47 | 6° 9 | 3°43 | 9°40 | 13°28 | 27°11 | 20°33 | 21°41 | 22° 1 | 14° 3 | 20°42 | T 16 | |
| W17 | 8 5 18 | 2°27'24 | 29°36 | 6°57 | 12°58 | 6°50 | 3°43 | 9°44 | 13°29 | 27°12 | 20°34 | 21°32 | 21°58 | 14°10 | 20°41 | W17 | |
| T 18 | 8 9 14 | 3°28'14 | 13♁ 1 | 7°50 | 14° 9 | 7°31 | 3°42 | 9°48 | 13°31 | 27°12 | 20°36 | 21°21 | 21°55 | 14°16 | 20°41 | T 18 | |
| F 19 | 8 13 11 | 4°29'03 | 26°13 | 8°47 | 15°20 | 8°12 | 3°41 | 9°53 | 13°32 | 27°13 | 20°38 | 21° 8 | 21°51 | 14°23 | 20°40 | F 19 | |
| S 20 | 8 17 8 | 5°29'50 | 9♁11 | 9°46 | 16°31 | 8°53 | 3°40 | 9°58 | 13°33 | 27°13 | 20°39 | 21°54 | 21°48 | 14°30 | 20°40 | S 20 | |
| S 21 | 8 21 4 | 6°30'36 | 21°53 | 10°49 | 17°42 | 9°34 | 3°38 | 10° 2 | 13°34 | 27°14 | 20°41 | 21°42 | 21°45 | 14°36 | 20°40 | S 21 | |
| M22 | 8 25 1 | 7°31'20 | 4♁21 | 11°53 | 18°52 | 10°15 | 3°36 | 10° 7 | 13°35 | 27°15 | 20°42 | 21°42 | 21°42 | 14°43 | 20°40 | M22 | |
| T 23 | 8 28 57 | 8°32'03 | 16°33 | 13° 0 | 20° 3 | 10°56 | 3°35 | 10°12 | 13°36 | 27°15 | 20°44 | 21°39 | 21°39 | 14°50 | 20°D40 | T 23 | |
| W24 | 8 32 54 | 9°32'44 | 28°34 | 14° 9 | 21°13 | 11°37 | 3°33 | 10°17 | 13°37 | 27°16 | 20°46 | 21°36 | 21°36 | 14°56 | 20°40 | W24 | |
| T 25 | 8 36 50 | 10°33'24 | 10°Y26 | 15°20 | 22°23 | 12°18 | 3°30 | 10°22 | 13°38 | 27°17 | 20°47 | 21°32 | 21°32 | 15° 3 | 20°40 | T 25 | |
| F 26 | 8 40 47 | 11°34'01 | 22°13 | 16°33 | 23°33 | 12°59 | 3°28 | 10°27 | 13°39 | 27°18 | 20°49 | 21°29 | 21°29 | 15°10 | 20°40 | F 26 | |
| S 27 | 8 44 43 | 12°34'37 | 4♁ 1 | 17°48 | 24°43 | 13°40 | 3°25 | 10°32 | 13°40 | 27°19 | 20°51 | 21°26 | 21°26 | 15°16 | 20°40 | S 27 | |
| S 28 | 8 48 40 | 13°35'12 | 15°54 | 19° 4 | 25°53 | 14°21 | 3°23 | 10°37 | 13°41 | 27°19 | 20°52 | 21°23 | 21°23 | 15°23 | 20°41 | S 28 | |
| M29 | 8 52 37 | 14°35'44 | 28° 0 | 20°21 | 27° 2 | 15° 2 | 3°20 | 10°43 | 13°42 | 27°20 | 20°54 | 21°20 | 21°20 | 15°30 | 20°41 | M29 | |
| T 30 | 8 56 33 | 15°36'15 | 10♁22 | 21°40 | 28°12 | 15°43 | 3°17 | 10°48 | 13°43 | 27°21 | 20°56 | 21°13 | 21°16 | 15°36 | 20°42 | T 30 | |
| W31 | 9 0 30 | 16°36'44 | 23♁ 5 | 23♁ 1 | 29♁21 | 16°Y24 | 3♁13 | 10°Y54 | 13♁43 | 27°Y22 | 20°57 | 21°Y 7 | 21°Y13 | 15°Y43 | 20♁42 | W31 | |

Delta T = 20m18s Julian Calendar 1 Jan. 1056 == Greg. Calendar 7 Jan. 1056

FEBRUARY 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|--------|--------|-------|--------|--------|--------|-------|------|-----|
| T 1 | 9 4 26 | 17°37'10 | 6♁13 | 24♁23 | 0°Y30 | 17°Y 5 | 3°R10 | 10°Y59 | 13♁44 | 27°Y23 | 20°59 | 20°R 0 | 21°Y10 | 15°Y49 | 20♁43 | T 1 | |
| F 2 | 9 8 23 | 18°37'35 | 19°47 | 25°46 | 1°39 | 17°46 | 3♁ 6 | 11° 5 | 13°44 | 27°24 | 21° 1 | 19°Y50 | 21° 7 | 15°56 | 20°43 | F 2 | |
| S 3 | 9 12 19 | 19°37'59 | 3♁45 | 27°10 | 2°48 | 18°27 | 3° 2 | 11°11 | 13°45 | 27°25 | 21° 2 | 19°40 | 21° 4 | 16° 3 | 20°44 | S 3 | |
| S 4 | 9 16 16 | 20°38'20 | 18° 4 | 28°36 | 3°57 | 19° 7 | 2°58 | 11°16 | 13°45 | 27°26 | 21° 4 | 19°30 | 21° 1 | 16° 9 | 20°45 | S 4 | |
| M 5 | 9 20 12 | 21°38'39 | 2♁39 | 0♁ 2 | 5° 5 | 19°48 | 2°54 | 11°22 | 13°46 | 27°28 | 21° 6 | 19°22 | 20°57 | 16°16 | 20°46 | M 5 | |
| T 6 | 9 24 9 | 22°38'57 | 17°21 | 1°30 | 6°13 | 20°29 | 2°50 | 11°28 | 13°46 | 27°29 | 21° 7 | 19°16 | 20°54 | 16°23 | 20°47 | T 6 | |
| W 7 | 9 28 6 | 23°39'13 | 2♁ 3 | 2°59 | 7°21 | 21°10 | 2°45 | 11°34 | 13°46 | 27°30 | 21° 9 | 19°12 | 20°51 | 16°29 | 20°48 | W 7 | |
| T 8 | 9 32 2 | 24°39'28 | 16°40 | 4°29 | 8°29 | 21°50 | 2°41 | 11°40 | 13°46 | 27°31 | 21°11 | 19°D11 | 20°48 | 16°36 | 20°49 | T 8 | |
| F 9 | 9 35 59 | 25°39'41 | 1♁ 6 | 6° 0 | 9°37 | 22°31 | 2°36 | 11°46 | 13°47 | 27°32 | 21°12 | 19°11 | 20°45 | 16°43 | 20°50 | F 9 | |
| S 10 | 9 39 55 | 26°39'52 | 15°18 | 7°33 | 10°44 | 23°12 | 2°31 | 11°52 | 13°47 | 27°34 | 21°14 | 19°12 | 20°42 | 16°49 | 20°51 | S 10 | |
| S 11 | 9 43 52 | 27°40'02 | 29°15 | 9° 6 | 11°51 | 23°52 | 2°26 | 11°58 | 13°R47 | 27°35 | 21°16 | 19°R12 | 20°38 | 16°56 | 20°52 | S 11 | |
| M12 | 9 47 48 | 28°40'10 | 12♁57 | 10°41 | 12°59 | 24°33 | 2°21 | 12° 5 | 13°47 | 27°36 | 21°17 | 19°11 | 20°35 | 17° 3 | 20°54 | M12 | |
| T 13 | 9 51 45 | 29°40'17 | 26°26 | 12°16 | 14° 5 | 25°14 | 2°15 | 12°11 | 13°47 | 27°38 | 21°19 | 19° 8 | 20°32 | 17° 9 | 20°55 | T 13 | |
| W14 | 9 55 41 | 0♁40'23 | 9♁40 | 13°53 | 15°12 | 25°54 | 2°10 | 12°17 | 13°47 | 27°39 | 21°21 | 19° 3 | 20°29 | 17°16 | 20°57 | W14 | |
| T 15 | 9 59 38 | 1°40'26 | 22°42 | 15°30 | 16°18 | 26°35 | 2° 4 | 12°24 | 13°46 | 27°40 | 21°22 | 18°56 | 20°26 | 17°23 | 20°58 | T 15 | |
| F 16 | 10 3 35 | 2°40'28 | 5♁31 | 17° 9 | 17°25 | 27°15 | 1°58 | 12°30 | 13°46 | 27°42 | 21°24 | 18°47 | 20°22 | 17°29 | 21° 0 | F 16 | |
| S 17 | 10 7 31 | 3°40'28 | 18° 8 | 18°49 | 18°30 | 27°56 | 1°52 | 12°37 | 13°46 | 27°43 | 21°26 | 18°39 | 20°19 | 17°36 | 21° 2 | S 17 | |
| S 18 | 10 11 28 | 4°40'26 | 0♁33 | 20°30 | 19°36 | 28°36 | 1°46 | 12°43 | 13°46 | 27°45 | 21°27 | 18°31 | 20°16 | 17°42 | 21° 3 | S 18 | |
| M19 | 10 15 24 | 5°40'22 | 12°47 | 22°12 | 20°42 | 29°17 | 1°40 | 12°50 | 13°45 | 27°46 | 21°29 | 18°24 | 20°13 | 17°49 | 21° 5 | M19 | |
| T 20 | 10 19 21 | 6°40'16 | 24°51 | 23°56 | 21°47 | 29°57 | 1°34 | 12°57 | 13°45 | 27°48 | 21°31 | 18°19 | 20°10 | 17°56 | 21° 7 | T 20 | |
| W21 | 10 23 17 | 7°40'07 | 6°Y46 | 25°40 | 22°52 | 0♁38 | 1°27 | 13° 3 | 13°44 | 27°50 | 21°32 | 18°17 | 20° 7 | 18° 2 | 21° 9 | W21 | |
| T 22 | 10 27 14 | 8°39'57 | 18°35 | 27°26 | 23°56 | 1°18 | 1°21 | 13°10 | 13°44 | 27°51 | 21°34 | 18°D16 | 20° 3 | 18° 9 | 21°11 | T 22 | |
| F 23 | 10 31 10 | 9°39'45 | 0♁22 | 29°13 | 25° 1 | 1°59 | 1°14 | 13°17 | 13°43 | 27°53 | 21°36 | 18°16 | 20° 0 | 18°16 | 21°13 | F 23 | |
| S 24 | 10 35 7 | 10°39'30 | 12° 9 | 1♁ 1 | 26° 5 | 2°39 | 1° 7 | 13°24 | 13°43 | 27°54 | 21°37 | 18°18 | 19°57 | 18°22 | 21°15 | S 24 | |
| S 25 | 10 39 4 | 11°39'13 | 24° 2 | 2°50 | 27° 8 | 3°19 | 1° 0 | 13°31 | 13°42 | 27°56 | 21°39 | 18°20 | 19°54 | 18°29 | 21°17 | S 25 | |
| M26 | 10 43 0 | 12°38'54 | 6♁ 6 | 4°40 | 28°12 | 4° 0 | 0°53 | 13°38 | 13°41 | 27°58 | 21°40 | 18°21 | 19°51 | 18°36 | 21°19 | M26 | |
| T 27 | 10 46 57 | 13°38'32 | 18°26 | 6°32 | 29°15 | 4°40 | 0°46 | 13°45 | 13°40 | 27°59 | 21°42 | 18°R21 | 19°48 | 18°42 | 21°22 | T 27 | |
| W28 | 10 50 53 | 14°38'09 | 1♁ 6 | 8°25 | 0♁18 | 5°20 | 0°39 | 13°52 | 13°39 | 28° 1 | 21°43 | 18°20 | 19°44 | 18°49 | 21°24 | W28 | |
| T 29 | 10 54 50 | 15°37'42 | 14♁11 | 10♁19 | 1♁20 | 6♁ 1 | 0♁32 | 13°Y59 | 13♁39 | 28°Y 3 | 21°45 | 18°Y17 | 19°Y41 | 18°Y56 | 21♁26 | T 29 | |

Delta T = 20m18s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1056
geocentric

MARCH 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 10 58 46 | 16°37'14" | 27°43' | 12°14' | 2°22' | 6°41' | 0°R25 | 14°Y 6 | 13°R38 | 28°Y 5 | 21°47' | 18°R13 | 19°Y38 | 19°Y 2 | 21°R29 | F 1 | | | | | | | | |
| S 2 | 11 2 43 | 17°36'43" | 11°42' | 14°10' | 3°24' | 7°21' | 0°17' | 14°13' | 13°M37 | 28° 7 | 21°48' | 18°Y 8 | 19°35' | 19° 9 | 21°31' | S 2 | | | | | | | | |
| S 3 | 11 6 39 | 18°36'10" | 26° 7' | 16° 8' | 4°26' | 8° 1' | 0°10' | 14°20' | 13°36' | 28° 8 | 21°50' | 18° 4' | 19°32' | 19°15' | 21°34' | S 3 | | | | | | | | |
| M 4 | 11 10 36 | 19°35'35" | 10°M53 | 18° 6' | 5°26' | 8°41' | 0° 3' | 14°28' | 13°35' | 28°10' | 21°51' | 18° 0' | 19°28' | 19°22' | 21°37' | M 4 | | | | | | | | |
| T 5 | 11 14 32 | 20°34'57" | 25°53' | 20° 6' | 6°27' | 9°21' | 29°M55 | 14°35' | 13°33' | 28°12' | 21°53' | 17°57' | 19°25' | 19°29' | 21°39' | T 5 | | | | | | | | |
| W 6 | 11 18 29 | 21°34'17" | 10°15'57" | 22° 7' | 7°27' | 10° 2' | 29°48' | 14°42' | 13°32' | 28°14' | 21°54' | 17°D56 | 19°22' | 19°35' | 21°42' | W 6 | | | | | | | | |
| T 7 | 11 22 26 | 22°33'36" | 25°57' | 24° 8' | 8°27' | 10°42' | 29°40' | 14°49' | 13°31' | 28°16' | 21°56' | 17°56' | 19°19' | 19°42' | 21°45' | T 7 | | | | | | | | |
| F 8 | 11 26 22 | 23°32'52" | 10°M45 | 26°10' | 9°26' | 11°22' | 29°32' | 14°57' | 13°30' | 28°18' | 21°57' | 17°57' | 19°16' | 19°49' | 21°48' | F 8 | | | | | | | | |
| S 9 | 11 30 19 | 24°32'07" | 25°15' | 28°13' | 10°25' | 12° 2' | 29°25' | 15° 4' | 13°28' | 28°20' | 21°59' | 17°59' | 19°13' | 19°55' | 21°51' | S 9 | | | | | | | | |
| S 10 | 11 34 15 | 25°31'20" | 9°12'25" | 0°Y16 | 11°23' | 12°42' | 29°17' | 15°12' | 13°27' | 28°22' | 22° 0' | 18° 0' | 19° 9' | 20° 2' | 21°54' | S 10 | | | | | | | | |
| M 11 | 11 38 12 | 26°30'31" | 23°13' | 2°19' | 12°21' | 13°22' | 29° 9' | 15°19' | 13°26' | 28°24' | 22° 2' | 18°R 0 | 19° 6' | 20° 9' | 21°57' | M 11 | | | | | | | | |
| T 12 | 11 42 8 | 27°29'41" | 6°33'39" | 4°22' | 13°19' | 14° 2' | 29° 2' | 15°26' | 13°24' | 28°26' | 22° 3' | 18° 0' | 19° 3' | 20°15' | 22° 0' | T 12 | | | | | | | | |
| W 13 | 11 46 5 | 28°28'48" | 19°45' | 6°25' | 14°16' | 14°41' | 28°54' | 15°34' | 13°23' | 28°28' | 22° 4' | 17°59' | 19° 0' | 20°22' | 22° 3' | W 13 | | | | | | | | |
| T 14 | 11 50 1 | 29°27'54" | 22°34' | 8°27' | 15°12' | 15°21' | 28°46' | 15°41' | 13°21' | 28°30' | 22° 6' | 17°57' | 18°57' | 20°29' | 22° 6' | T 14 | | | | | | | | |
| F 15 | 11 53 58 | 0°Y26'58" | 15° 7' | 10°28' | 16° 8' | 16° 1' | 28°38' | 15°49' | 13°20' | 28°32' | 22° 7' | 17°55' | 18°53' | 20°35' | 22° 9' | F 15 | | | | | | | | |
| S 16 | 11 57 55 | 1°26'00" | 27°28' | 12°28' | 17° 3' | 16°41' | 28°31' | 15°56' | 13°18' | 28°34' | 22° 8' | 17°52' | 18°50' | 20°42' | 22°12' | S 16 | | | | | | | | |
| S 17 | 12 1 51 | 2°25'00" | 9°13'37" | 14°26' | 17°58' | 17°21' | 28°23' | 16° 4' | 13°16' | 28°36' | 22°10' | 17°50' | 18°47' | 20°48' | 22°16' | S 17 | | | | | | | | |
| M 18 | 12 5 48 | 3°23'58" | 21°38' | 16°22' | 18°52' | 18° 1' | 28°15' | 16°12' | 13°15' | 28°38' | 22°11' | 17°48' | 18°44' | 20°55' | 22°19' | M 18 | | | | | | | | |
| T 19 | 12 9 44 | 4°22'54" | 3°Y33 | 18°16' | 19°46' | 18°40' | 28° 8' | 16°19' | 13°13' | 28°40' | 22°12' | 17°46' | 18°41' | 21° 2' | 22°22' | T 19 | | | | | | | | |
| W 20 | 12 13 41 | 5°21'48" | 15°22' | 20° 7' | 20°39' | 19°20' | 28° 0' | 16°27' | 13°11' | 28°42' | 22°14' | 17°D46 | 18°38' | 21° 8' | 22°26' | W 20 | | | | | | | | |
| T 21 | 12 17 37 | 6°20'40" | 27° 9' | 21°55' | 21°31' | 20° 0' | 27°52' | 16°34' | 13° 9' | 28°44' | 22°15' | 17°46' | 18°34' | 21°15' | 22°29' | T 21 | | | | | | | | |
| F 22 | 12 21 34 | 7°19'29" | 8°35'56" | 23°39' | 22°23' | 20°40' | 27°45' | 16°42' | 13° 7' | 28°46' | 22°16' | 17°47' | 18°31' | 21°22' | 22°33' | F 22 | | | | | | | | |
| S 23 | 12 25 30 | 8°18'17" | 20°46' | 25°20' | 23°14' | 21°19' | 27°37' | 16°50' | 13° 6' | 28°48' | 22°18' | 17°48' | 18°28' | 21°28' | 22°36' | S 23 | | | | | | | | |
| S 24 | 12 29 27 | 9°17'02" | 2°II42 | 26°56' | 24° 4' | 21°59' | 27°30' | 16°57' | 13° 4' | 28°50' | 22°19' | 17°49' | 18°25' | 21°35' | 22°40' | S 24 | | | | | | | | |
| M 25 | 12 33 24 | 10°15'46" | 14°48' | 28°28' | 24°53' | 22°39' | 27°22' | 17° 5' | 13° 2' | 28°53' | 22°20' | 17°49' | 18°22' | 21°42' | 22°44' | M 25 | | | | | | | | |
| T 26 | 12 37 20 | 11°14'27" | 27° 8' | 29°56' | 25°42' | 23°18' | 27°15' | 17°13' | 13° 0' | 28°55' | 22°21' | 17°50' | 18°19' | 21°48' | 22°47' | T 26 | | | | | | | | |
| W 27 | 12 41 17 | 12°13'05" | 9°15'45" | 1°R19 | 26°29' | 23°58' | 27° 8' | 17°20' | 12°58' | 28°57' | 22°22' | 17°R50 | 18°15' | 21°55' | 22°51' | W 27 | | | | | | | | |
| T 28 | 12 45 13 | 13°11'42" | 22°45' | 2°37' | 27°16' | 24°37' | 27° 1' | 17°28' | 12°56' | 28°59' | 22°24' | 17°50' | 18°12' | 22° 2' | 22°55' | T 28 | | | | | | | | |
| F 29 | 12 49 10 | 14°10'16" | 6°R 9 | 3°50' | 28° 2' | 25°17' | 26°54' | 17°36' | 12°54' | 29° 1' | 22°25' | 17°50' | 18° 9' | 22° 8' | 22°59' | F 29 | | | | | | | | |
| S 30 | 12 53 6 | 15° 8'48" | 20° 0' | 4°58' | 28°47' | 25°56' | 26°46' | 17°43' | 12°52' | 29° 4' | 22°26' | 17°50' | 18° 6' | 22°15' | 23° 2' | S 30 | | | | | | | | |
| S 31 | 12 57 3 | 16°Y 7'18" | 4°M18 | 6°R 0 | 29°R31 | 26°R36 | 26°M40 | 17°Y51 | 12°M49 | 29°Y 6 | 22°R27 | 17°Y49 | 18°Y 3 | 22°Y22 | 23°R 6 | S 31 | | | | | | | | |

Delta T = 20m17s Julian Calendar 1 March 1056 == Greg. Calendar 7 March 1056

APRIL 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 13 0 59 | 17°Y 5'45" | 18°M59 | 6°R58 | 0°II15 | 27°R15 | 26°R33 | 17°Y59 | 12°R47 | 29°Y 8 | 22°R28 | 17°R49 | 17°Y59 | 22°Y28 | 23°R10 | M 1 | | | | | | | | |
| T 2 | 13 4 56 | 18° 4'10" | 4°10' | 7°49' | 0°57' | 27°55' | 26°M26 | 18° 6' | 12°M45 | 29°10' | 22°29' | 17°D49 | 17°56' | 22°35' | 23°14' | T 2 | | | | | | | | |
| W 3 | 13 8 53 | 19° 2'34" | 19°11' | 8°35' | 1°38' | 28°34' | 26°19' | 18°14' | 12°43' | 29°12' | 22°30' | 17°R49 | 17°53' | 22°41' | 23°18' | W 3 | | | | | | | | |
| T 4 | 13 12 49 | 20° 0'55" | 4°M23 | 9°16' | 2°17' | 29°13' | 26°13' | 18°22' | 12°41' | 29°15' | 22°31' | 17°Y49 | 17°50' | 22°48' | 23°22' | T 4 | | | | | | | | |
| F 5 | 13 16 46 | 20°59'15" | 19°27' | 9°50' | 2°56' | 29°53' | 26° 6' | 18°30' | 12°38' | 29°17' | 22°32' | 17°49' | 17°47' | 22°55' | 23°26' | F 5 | | | | | | | | |
| S 6 | 13 20 42 | 21°57'33" | 4°15' | 10°19' | 3°34' | 0°II32 | 26° 0' | 18°37' | 12°36' | 29°19' | 22°33' | 17°49' | 17°44' | 23° 1' | 23°30' | S 6 | | | | | | | | |
| S 7 | 13 24 39 | 22°55'49" | 18°41' | 10°43' | 4°10' | 1°11' | 25°54' | 18°45' | 12°34' | 29°21' | 22°34' | 17°48' | 17°40' | 23° 8' | 23°34' | S 7 | | | | | | | | |
| M 8 | 13 28 35 | 23°54'04" | 2°34'0 | 11° 0' | 4°45' | 1°51' | 25°47' | 18°53' | 12°32' | 29°24' | 22°35' | 17°48' | 17°37' | 23°15' | 23°38' | M 8 | | | | | | | | |
| T 9 | 13 32 32 | 24°52'18" | 16°13' | 11°12' | 5°18' | 2°30' | 25°41' | 19° 0' | 12°29' | 29°26' | 22°36' | 17°47' | 17°34' | 23°21' | 23°42' | T 9 | | | | | | | | |
| W 10 | 13 36 28 | 25°50'30" | 29°21' | 11°19' | 5°51' | 3° 9' | 25°35' | 19° 8' | 12°27' | 29°28' | 22°37' | 17°D47 | 17°31' | 23°28' | 23°47' | W 10 | | | | | | | | |
| T 11 | 13 40 25 | 26°48'40" | 12°R 6 | 11°R20 | 6°21' | 3°48' | 25°30' | 19°16' | 12°24' | 29°30' | 22°38' | 17°47' | 17°28' | 23°35' | 23°51' | T 11 | | | | | | | | |
| F 12 | 13 44 22 | 27°46'49" | 24°32' | 11°16' | 6°51' | 4°28' | 25°24' | 19°23' | 12°22' | 29°33' | 22°39' | 17°48' | 17°25' | 23°41' | 23°55' | F 12 | | | | | | | | |
| S 13 | 13 48 18 | 28°44'56" | 6°R43 | 11° 6' | 7°18' | 5° 7' | 25°19' | 19°31' | 12°20' | 29°35' | 22°40' | 17°49' | 17°21' | 23°48' | 23°59' | S 13 | | | | | | | | |
| S 14 | 13 52 15 | 29°43'02" | 18°43' | 10°53' | 7°45' | 5°46' | 25°13' | 19°39' | 12°17' | 29°37' | 22°40' | 17°50' | 17°18' | 23°55' | 24° 4' | S 14 | | | | | | | | |
| M 15 | 13 56 11 | 0°R41'06" | 0°Y36 | 10°34' | 8° 9' | 6°25' | 25° 8' | 19°46' | 12°15' | 29°39' | 22°41' | 17°51' | 17°15' | 24° 1' | 24° 8' | M 15 | | | | | | | | |
| T 16 | 14 0 8 | 1°39'08" | 12°24' | 10°12' | 8°32' | 7° 4' | 25° 3' | 19°54' | 12°12' | 29°42' | 22°42' | 17°R52 | 17°12' | 24° 8' | 24°12' | T 16 | | | | | | | | |
| W 17 | 14 4 4 | 2°37'09" | 24°11' | 9°45' | 8°53' | 7°43' | 24°58' | 20° 1' | 12°10' | 29°44' | 22°43' | 17°52' | 17° 9' | 24°14' | 24°17' | W 17 | | | | | | | | |
| T 18 | 14 8 1 | 3°35'09" | 5°R58 | 9°16' | 9°12' | 8°22' | 24°53' | 20° 9' | 12° 7' | 29°46' | 22°43' | 17°51' | 17° 5' | 24°21' | 24°21' | T 18 | | | | | | | | |
| F 19 | 14 11 57 | 4°33'06" | 17°49' | 8°44' | 9°29' | 9° 1' | 24°49' | 20°16' | 12° 5' | 29°48' | 22°44' | 17°49' | 17° 2' | 24°28' | 24°25' | F 19 | | | | | | | | |
| S 20 | 14 15 54 | 5°31'03" | 29°45' | 8°11' | 9°44' | 9°41' | 24°44' | 20°24' | 12° 3' | 29°51' | 22°45' | 17°47' | 16°59' | 24°34' | 24°30' | S 20 | | | | | | | | |
| S 21 | 14 19 51 | 6°28'57" | 11°II49 | 7°35' | 9°57' | 10°20' | 24°40' | 20°32' | 12° 0' | 29°53' | 22°46' | 17°44' | 16°56' | 24°41' | 24°34' | S 21 | | | | | | | | |
| M 22 | 14 23 47 | 7°26'50" | 24° 2' | 7° 0' | 10° 9' | 10°59' | 24°36' | 20°39' | 11°58' | 29°55' | 22°46' | 17°41' | 16°53' | 24°48' | 24°39' | M 22 | | | | | | | | |
| T 23 | 14 27 44 | 8°24'41" | 6°R28 | 6°23' | 10°18' | 11°38' | 24°32' | 20°47' | 11°55' | 29°57' | 22°47' | 17°38' | 16°50' | 24°54' | 24°43' | T 23 | | | | | | | | |
| W 24 | 14 31 40 | 9°22'30" | 19° 9' | 5°48' | 10°24' | 12°16' | 24°28' | 20°54' | 11°53' | 29°59' | 22°47' | 17°36' | 16°46' | 25° 1' | 24°48' | W 24 | | | | | | | | |
| T 25 | 14 35 37 | 10°20'18" | 2°R 7 | 5°14' | 10°29' | 12°55' | 24°24' | 21° 1' | 11°50' | 0°R 2 | 22°48' | 17°35' | 16°43' | 25° 8' | 24°52' | T 25 | | | | | | | | |
| F 26 | 14 39 33 | 11°18'04" | 15°26' | 4°41' | 10°R31 | 13°34' | 24°21' | 21° 9' | 11°48' | 0° 4' | 22°48' | 17°D35 | 16°40' | 25°14' | 24°57' | F 26 | | | | | | | | |
| S 27 | 14 43 30 | 12°15'48" | 29° 7' | 4°10' | 10°31' | 14°13' | 24°18' | 21°16' | 11°45' | 0° 6' | 22°49' | 17°36' | 16°37' | 25°21' | 25° 1' | S 27 | | | | | | | | |
| S 28 | 14 47 26 | 13°13'30" | 13°M12 | 3°42' | 10°28' | 14°52' | 24°15' | 21°24' | 11°43' | 0° 9' | 22°49' | 17°37' | 16°34' | 25°28' | 25° 6' | S 28 | | | | | | | | |
| M 29 | 14 51 23 | 14°11'11" | 27°39' | 3°18' | | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1056
geocentric

MAY 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|--------|-------|--------|--------|--------|------|--------|--------|--------|--------|-------|------|-----|
| W 1 | 14 59 16 | 16♁ 6'27 | 27♂28 | 2°R39 | 10°R 6 | 16♁49 | 24°R 6 | 21°V45 | 11°R35 | 0♁15 | 22°≈51 | 17°R39 | 16°V24 | 25°V48 | 25♁19 | W 1 | |
| T 2 | 15 3 13 | 17° 4'03 | 12♁36 | 2♁26 | 9♁54 | 17°27 | 24♁ 4 | 21°53 | 11♁33 | 0°17 | 22°51 | 17°V37 | 16°21 | 25°54 | 25°24 | T 2 | |
| F 3 | 15 7 9 | 18° 1'38 | 27°42 | 2°17 | 9°39 | 18° 6 | 24° 2 | 22° 0 | 11°30 | 0°19 | 22°52 | 17°34 | 16°18 | 26° 1 | 25°28 | F 3 | |
| S 4 | 15 11 6 | 18°59'12 | 12♁36 | 2°12 | 9°22 | 18°45 | 24° 0 | 22° 7 | 11°28 | 0°22 | 22°52 | 17°30 | 16°15 | 26° 7 | 25°33 | S 4 | |
| S 5 | 15 15 2 | 19°56'45 | 27°11 | 2°D12 | 9° 2 | 19°24 | 23°58 | 22°14 | 11°25 | 0°24 | 22°52 | 17°26 | 16°11 | 26°14 | 25°38 | S 5 | |
| M 6 | 15 18 59 | 20°54'17 | 11♁20 | 2°16 | 8°41 | 20° 2 | 23°56 | 22°21 | 11°23 | 0°26 | 22°53 | 17°21 | 16° 8 | 26°21 | 25°42 | M 6 | |
| T 7 | 15 22 55 | 21°51'47 | 25° 1 | 2°25 | 8°17 | 20°41 | 23°54 | 22°28 | 11°20 | 0°28 | 22°53 | 17°18 | 16° 5 | 26°27 | 25°47 | T 7 | |
| W 8 | 15 26 52 | 22°49'17 | 8≈14 | 2°38 | 7°51 | 21°20 | 23°53 | 22°35 | 11°18 | 0°30 | 22°53 | 17°15 | 16° 2 | 26°34 | 25°51 | W 8 | |
| T 9 | 15 30 49 | 23°46'46 | 21° 1 | 2°56 | 7°23 | 21°58 | 23°52 | 22°42 | 11°15 | 0°32 | 22°53 | 17°D14 | 15°59 | 26°41 | 25°56 | T 9 | |
| F 10 | 15 34 45 | 24°44'14 | 3♁27 | 3°18 | 6°53 | 22°37 | 23°51 | 22°49 | 11°13 | 0°34 | 22°54 | 17°14 | 15°56 | 26°47 | 26° 1 | F 10 | |
| S 11 | 15 38 42 | 25°41'41 | 15°36 | 3°45 | 6°22 | 23°16 | 23°50 | 22°56 | 11°10 | 0°37 | 22°54 | 17°16 | 15°52 | 26°54 | 26° 5 | S 11 | |
| S 12 | 15 42 38 | 26°39'08 | 27°32 | 4°15 | 5°49 | 23°54 | 23°49 | 23° 3 | 11° 8 | 0°39 | 22°54 | 17°17 | 15°49 | 27° 1 | 26°10 | S 12 | |
| M13 | 15 46 35 | 27°36'33 | 9°V21 | 4°50 | 5°15 | 24°33 | 23°49 | 23°10 | 11° 6 | 0°41 | 22°54 | 17°18 | 15°46 | 27° 7 | 26°15 | M13 | |
| T 14 | 15 50 31 | 28°33'58 | 21° 8 | 5°29 | 4°39 | 25°11 | 23°49 | 23°17 | 11° 3 | 0°43 | 22°54 | 17°R19 | 15°43 | 27°14 | 26°19 | T 14 | |
| W15 | 15 54 28 | 29°31'22 | 2♁55 | 6°12 | 4° 3 | 25°50 | 23°D49 | 23°24 | 11° 1 | 0°45 | 22°54 | 17°17 | 15°40 | 27°21 | 26°24 | W15 | |
| T 16 | 15 58 24 | 0♁28'45 | 14°46 | 6°58 | 3°26 | 26°29 | 23°49 | 23°30 | 10°59 | 0°47 | 22°54 | 17°14 | 15°36 | 27°27 | 26°28 | T 16 | |
| F 17 | 16 2 21 | 1°26'08 | 26°44 | 7°49 | 2°49 | 27° 7 | 23°49 | 23°37 | 10°56 | 0°49 | 22°54 | 17° 9 | 15°33 | 27°34 | 26°33 | F 17 | |
| S 18 | 16 6 18 | 2°23'30 | 8♁50 | 8°43 | 2°11 | 27°46 | 23°49 | 23°44 | 10°54 | 0°51 | 22°R54 | 17° 2 | 15°30 | 27°41 | 26°38 | S 18 | |
| S 19 | 16 10 14 | 3°20'51 | 21° 6 | 9°40 | 1°34 | 28°24 | 23°50 | 23°50 | 10°52 | 0°53 | 22°54 | 16°54 | 15°27 | 27°47 | 26°42 | S 19 | |
| M20 | 16 14 11 | 4°18'11 | 3♁33 | 10°42 | 0°56 | 29° 3 | 23°51 | 23°57 | 10°50 | 0°55 | 22°54 | 16°45 | 15°24 | 27°54 | 26°47 | M20 | |
| T 21 | 16 18 7 | 5°15'30 | 16°12 | 11°46 | 0°19 | 29°41 | 23°52 | 24° 3 | 10°47 | 0°57 | 22°54 | 16°37 | 15°21 | 28° 0 | 26°52 | T 21 | |
| W22 | 16 22 4 | 6°12'48 | 29° 4 | 12°54 | 29♁43 | 0♁20 | 23°53 | 24°10 | 10°45 | 0°59 | 22°54 | 16°31 | 15°17 | 28° 7 | 26°56 | W22 | |
| T 23 | 16 26 0 | 7°10'06 | 12♁ 9 | 14° 5 | 29° 8 | 0°58 | 23°54 | 24°16 | 10°43 | 1° 1 | 22°54 | 16°26 | 15°14 | 28°14 | 27° 1 | T 23 | |
| F 24 | 16 29 57 | 8° 7'22 | 25°30 | 15°20 | 28°34 | 1°37 | 23°56 | 24°22 | 10°41 | 1° 2 | 22°54 | 16°23 | 15°11 | 28°20 | 27° 5 | F 24 | |
| S 25 | 16 33 53 | 9° 4'37 | 9♁ 7 | 16°37 | 28° 2 | 2°15 | 23°58 | 24°28 | 10°39 | 1° 4 | 22°54 | 16°D22 | 15° 8 | 28°27 | 27°10 | S 25 | |
| S 26 | 16 37 50 | 10° 1'52 | 23° 2 | 17°58 | 27°31 | 2°53 | 23°59 | 24°35 | 10°37 | 1° 6 | 22°53 | 16°23 | 15° 5 | 28°34 | 27°14 | S 26 | |
| M27 | 16 41 47 | 10°59'05 | 7♁15 | 19°22 | 27° 1 | 3°32 | 24° 1 | 24°41 | 10°35 | 1° 8 | 22°53 | 16°24 | 15° 2 | 28°40 | 27°19 | M27 | |
| T 28 | 16 45 43 | 11°56'18 | 21°44 | 20°49 | 26°34 | 4°10 | 24° 4 | 24°47 | 10°33 | 1°10 | 22°53 | 16°R24 | 14°58 | 28°47 | 27°24 | T 28 | |
| W29 | 16 49 40 | 12°53'30 | 6♁26 | 22°19 | 26° 8 | 4°49 | 24° 6 | 24°53 | 10°31 | 1°12 | 22°53 | 16°22 | 14°55 | 28°54 | 27°28 | W29 | |
| T 30 | 16 53 36 | 13°50'41 | 21°17 | 23°52 | 25°45 | 5°27 | 24° 9 | 24°59 | 10°29 | 1°13 | 22°52 | 16°19 | 14°52 | 29° 0 | 27°33 | T 30 | |
| F 31 | 16 57 33 | 14♁47'52 | 6♁ 9 | 25♁29 | 25♁24 | 6♁ 5 | 24♁11 | 25°V 5 | 10♁27 | 1♁15 | 22°≈52 | 16°V12 | 14°V49 | 29°V 7 | 27♁37 | F 31 | |

Delta T = 20m17s Julian Calendar 1 May 1056 == Greg. Calendar 7 May 1056

JUNE 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|--------|-------|-------|--------|--------|------|--------|--------|--------|--------|-------|------|-----|
| S 1 | 17 1 29 | 15♁45'03 | 20♁54 | 27♁ 8 | 25°R 5 | 6♁44 | 24♁14 | 25°V11 | 10°R25 | 1♁17 | 22°R52 | 16°R 4 | 14°V46 | 29°V14 | 27♁42 | S 1 | |
| S 2 | 17 5 26 | 16°42'13 | 5♁32 | 28°50 | 24♁48 | 7°22 | 24°17 | 25°16 | 10♁23 | 1°19 | 22°≈51 | 15°V55 | 14°42 | 29°20 | 27°46 | S 2 | |
| M 3 | 17 9 23 | 17°39'23 | 19°32 | 0♁35 | 24°34 | 8° 0 | 24°21 | 25°22 | 10°21 | 1°20 | 22°51 | 15°46 | 14°39 | 29°27 | 27°50 | M 3 | |
| T 4 | 17 13 19 | 18°36'32 | 3≈15 | 2°23 | 24°22 | 8°39 | 24°24 | 25°28 | 10°19 | 1°22 | 22°51 | 15°38 | 14°36 | 29°34 | 27°55 | T 4 | |
| W 5 | 17 17 16 | 19°33'42 | 16°31 | 4°14 | 24°12 | 9°17 | 24°28 | 25°33 | 10°18 | 1°24 | 22°50 | 15°31 | 14°33 | 29°40 | 27°59 | W 5 | |
| T 6 | 17 21 12 | 20°30'52 | 29°21 | 6° 7 | 24° 5 | 9°55 | 24°31 | 25°39 | 10°16 | 1°25 | 22°50 | 15°27 | 14°30 | 29°47 | 28° 4 | T 6 | |
| F 7 | 17 25 9 | 21°28'01 | 11♁49 | 8° 3 | 24° 1 | 10°34 | 24°35 | 25°44 | 10°14 | 1°27 | 22°49 | 15°25 | 14°27 | 29°54 | 28° 8 | F 7 | |
| S 8 | 17 29 5 | 22°25'11 | 23°58 | 10° 1 | 23°D58 | 11°12 | 24°39 | 25°50 | 10°13 | 1°28 | 22°49 | 15°D25 | 14°23 | 0♁ 0 | 28°12 | S 8 | |
| S 9 | 17 33 2 | 23°22'20 | 5°V55 | 12° 2 | 23°59 | 11°50 | 24°43 | 25°55 | 10°11 | 1°30 | 22°48 | 15°25 | 14°20 | 0° 7 | 28°17 | S 9 | |
| M10 | 17 36 58 | 24°19'30 | 17°45 | 14° 5 | 24° 1 | 12°28 | 24°48 | 26° 0 | 10° 9 | 1°32 | 22°48 | 15°R25 | 14°17 | 0°13 | 28°21 | M10 | |
| T 11 | 17 40 55 | 25°16'40 | 29°32 | 16° 9 | 24° 6 | 13° 7 | 24°52 | 26° 6 | 10° 8 | 1°33 | 22°47 | 15°24 | 14°14 | 0°20 | 28°25 | T 11 | |
| W12 | 17 44 52 | 26°13'50 | 11♁21 | 18°16 | 24°12 | 13°45 | 24°57 | 26°11 | 10° 6 | 1°35 | 22°47 | 15°21 | 14°11 | 0°27 | 28°30 | W12 | |
| T 13 | 17 48 48 | 27°11'01 | 23°18 | 20°23 | 24°22 | 14°23 | 25° 2 | 26°16 | 10° 5 | 1°36 | 22°46 | 15°16 | 14° 8 | 0°33 | 28°34 | T 13 | |
| F 14 | 17 52 45 | 28° 8'12 | 5♁24 | 22°32 | 24°33 | 15° 1 | 25° 7 | 26°21 | 10° 4 | 1°37 | 22°45 | 15° 8 | 14° 4 | 0°40 | 28°38 | F 14 | |
| S 15 | 17 56 41 | 29° 5'22 | 17°42 | 24°41 | 24°46 | 15°40 | 25°12 | 26°26 | 10° 2 | 1°39 | 22°45 | 14°57 | 14° 1 | 0°47 | 28°42 | S 15 | |
| S 16 | 18 0 38 | 0♁ 2'33 | 0♁14 | 26°51 | 25° 1 | 16°18 | 25°17 | 26°30 | 10° 1 | 1°40 | 22°44 | 14°46 | 13°58 | 0°53 | 28°46 | S 16 | |
| M17 | 18 4 34 | 0°59'45 | 12°59 | 29° 1 | 25°18 | 16°56 | 25°23 | 26°35 | 10° 0 | 1°42 | 22°43 | 14°33 | 13°55 | 1° 0 | 28°51 | M17 | |
| T 18 | 18 8 31 | 1°56'56 | 25°57 | 1♁11 | 25°37 | 17°34 | 25°28 | 26°40 | 9°58 | 1°43 | 22°43 | 14°21 | 13°52 | 1° 7 | 28°55 | T 18 | |
| W19 | 18 12 27 | 2°54'07 | 9♁ 7 | 3°20 | 25°58 | 18°12 | 25°34 | 26°44 | 9°57 | 1°44 | 22°42 | 14°11 | 13°48 | 1°13 | 28°59 | W19 | |
| T 20 | 18 16 24 | 3°51'18 | 22°29 | 5°29 | 26°20 | 18°51 | 25°40 | 26°49 | 9°56 | 1°45 | 22°41 | 14° 3 | 13°45 | 1°20 | 29° 3 | T 20 | |
| F 21 | 18 20 21 | 4°48'29 | 6♁ 2 | 7°38 | 26°44 | 19°29 | 25°46 | 26°53 | 9°55 | 1°47 | 22°40 | 13°59 | 13°42 | 1°27 | 29° 7 | F 21 | |
| S 22 | 18 24 17 | 5°45'41 | 19°45 | 9°45 | 27°10 | 20° 7 | 25°52 | 26°58 | 9°54 | 1°48 | 22°40 | 13°56 | 13°39 | 1°33 | 29°11 | S 22 | |
| S 23 | 18 28 14 | 6°42'52 | 3♁38 | 11°51 | 27°37 | 20°45 | 25°59 | 27° 2 | 9°53 | 1°49 | 22°39 | 13°55 | 13°36 | 1°40 | 29°15 | S 23 | |
| M24 | 18 32 10 | 7°40'03 | 17°43 | 13°55 | 28° 6 | 21°23 | 26° 5 | 27° 6 | 9°52 | 1°50 | 22°38 | 13°55 | 13°33 | 1°47 | 29°19 | M24 | |
| T 25 | 18 36 7 | 8°37'14 | 1♁57 | 15°59 | 28°36 | 22° 1 | 26°12 | 27°10 | 9°51 | 1°51 | 22°37 | 13°55 | 13°29 | 1°53 | 29°23 | T 25 | |
| W26 | 18 40 3 | 9°34'26 | 16°19 | 18° 0 | 29° 8 | 22°40 | 26°18 | 27°14 | 9°50 | 1°53 | 22°36 | 13°52 | 13°26 | 2° 0 | 29°26 | W26 | |
| T 27 | 18 44 0 | 10°31'38 | 0♁47 | 20° 0 | 29°41 | 23°18 | 26°25 | 27°18 | 9°49 | 1°54 | 22°36 | 13°47 | 13°23 | 2° 7 | 29°30 | T 27 | |
| F 28 | 18 47 56 | 11°28'50 | 15°16 | 21°59 | 0♁15 | 23°56 | 26°32 | 27°22 | 9°49 | 1°55 | 22°35 | 13°39 | 13°20 | 2°13 | 29°34 | F 28 | |
| S 29 | 18 51 53 | 12°26'02 | 29°40 | 23°56 | 0°51 | 24°34 | 26°39 | 27°26 | 9°48 | 1°56 | 22°34 | 13°29 | 13°17 | 2°20 | 29°38 | S 29 | |
| S 30 | 18 55 50 | 13♁23'15 | 13♁52 | 25♁51 | 1♁28 | 25♁12 | 26♁46 | 27°V29 | 9♁47 | 1♁57 | 22°≈33 | 13°V18 | 13°V14 | 2♁27 | 29♁42 | S 30 | |

Delta T = 20m16s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1056
geocentric

JULY 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|-----------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|---------------------|-------------------|--------------------|------|
| M 1 | 18 59 46 | 14 ²⁰ 29 | 27 ³ 48 | 27 ² 44 | 2 ^{II} 6 | 25 ² 50 | 26 ^{II} 54 | 27 ^{VI} 33 | 9 ^R 47 | 1 ^U 58 | 22 ^R 32 | 13 ^R 6 | 13 ^{VI} 10 | 2 ^U 33 | 29 ^U 45 | M 1 |
| T 2 | 19 3 43 | 15 ¹ 743 | 11 ² 22 | 29 ³ 36 | 2 ⁴ 45 | 26 ² 28 | 27 ¹ 1 | 27 ³ 36 | 9 ^{II} 46 | 1 ⁵ 59 | 22 ² 31 | 12 ^{VI} 56 | 13 ³ 7 | 2 ⁴ 40 | 29 ⁴ 49 | T 2 |
| W 3 | 19 7 39 | 16 ¹ 458 | 24 ³ 33 | 1 ^U 25 | 3 ² 25 | 27 ² 7 | 27 ² 9 | 27 ⁴ 40 | 9 ⁴ 45 | 1 ⁵ 59 | 22 ³ 30 | 12 ⁴ 47 | 13 ⁴ 4 | 2 ⁴ 47 | 29 ⁵ 52 | W 3 |
| T 4 | 19 11 36 | 17 ¹ 1213 | 7 ^{II} 21 | 3 ³ 13 | 4 ² 6 | 27 ⁴ 45 | 27 ¹ 17 | 27 ⁴ 43 | 9 ⁴ 45 | 2 ⁰ 0 | 22 ² 29 | 12 ⁴ 41 | 13 ¹ 1 | 2 ⁵ 53 | 29 ⁵ 56 | T 4 |
| F 5 | 19 15 32 | 18 ¹ 930 | 19 ² 49 | 5 ² 0 | 4 ⁴ 48 | 28 ² 23 | 27 ² 25 | 27 ⁴ 46 | 9 ⁴ 45 | 2 ¹ 1 | 22 ² 28 | 12 ³ 37 | 12 ⁵ 58 | 3 ² 0 | 29 ⁵ 59 | F 5 |
| S 6 | 19 19 29 | 19 ¹ 647 | 1 ^{VI} 59 | 6 ⁴ 44 | 5 ³ 32 | 29 ² 1 | 27 ³ 33 | 27 ⁴ 49 | 9 ⁴ 44 | 2 ² 2 | 22 ² 27 | 12 ³ 36 | 12 ⁵ 54 | 3 ³ 6 | 0 ^{II} 3 | S 6 |
| S 7 | 19 23 25 | 20 ² 406 | 13 ² 56 | 8 ² 27 | 6 ¹ 16 | 29 ³ 39 | 27 ² 41 | 27 ⁵ 52 | 9 ⁴ 44 | 2 ³ 3 | 22 ² 26 | 12 ³ 35 | 12 ⁵ 51 | 3 ³ 13 | 0 ⁶ 6 | S 7 |
| M 8 | 19 27 22 | 21 ² 125 | 25 ⁴ 47 | 10 ² 8 | 7 ¹ 1 | 0 ^U 17 | 27 ² 49 | 27 ⁵ 55 | 9 ⁴ 44 | 2 ⁴ 4 | 22 ² 25 | 12 ³ 35 | 12 ⁴ 48 | 3 ² 20 | 0 ¹⁰ 10 | M 8 |
| T 9 | 19 31 19 | 21 ² 5846 | 7 ^U 36 | 11 ⁴ 48 | 7 ⁴ 47 | 0 ⁵ 55 | 27 ² 57 | 27 ⁵ 58 | 9 ⁴ 43 | 2 ⁴ 4 | 22 ² 24 | 12 ³ 34 | 12 ⁴ 45 | 3 ² 26 | 0 ¹³ 13 | T 9 |
| W10 | 19 35 15 | 22 ² 5608 | 19 ² 28 | 13 ² 25 | 8 ³ 33 | 1 ³ 33 | 28 ² 6 | 28 ¹ 1 | 9 ⁴ 43 | 2 ⁵ 5 | 22 ² 23 | 12 ³ 32 | 12 ⁴ 42 | 3 ³ 33 | 0 ¹⁶ 16 | W10 |
| T 11 | 19 39 12 | 23 ² 5331 | 1 ^{II} 28 | 15 ¹ 1 | 9 ² 21 | 2 ¹ 21 | 28 ² 14 | 28 ³ 3 | 9 ⁴ 43 | 2 ⁶ 6 | 22 ² 22 | 12 ² 27 | 12 ³ 39 | 3 ⁴ 40 | 0 ²⁰ 20 | T 11 |
| F 12 | 19 43 8 | 24 ² 5055 | 13 ² 41 | 16 ² 35 | 10 ² 9 | 2 ⁵ 20 | 28 ² 23 | 28 ² 6 | 9 ⁴ 43 | 2 ⁶ 6 | 22 ² 21 | 12 ² 19 | 12 ³ 35 | 3 ⁴ 46 | 0 ²³ 23 | F 12 |
| S 13 | 19 47 5 | 25 ² 4820 | 26 ¹ 10 | 18 ² 8 | 10 ² 58 | 3 ² 28 | 28 ² 32 | 28 ² 8 | 9 ^D 43 | 2 ⁷ 7 | 22 ² 19 | 12 ² 10 | 12 ³ 32 | 3 ⁵ 53 | 0 ²⁶ 26 | S 13 |
| S 14 | 19 51 1 | 26 ² 4547 | 8 ^U 55 | 19 ² 38 | 11 ⁴ 48 | 4 ² 6 | 28 ² 41 | 28 ² 11 | 9 ⁴ 43 | 2 ⁷ 7 | 22 ² 18 | 11 ² 58 | 12 ² 29 | 4 ² 0 | 0 ²⁹ 29 | S 14 |
| M15 | 19 54 58 | 27 ² 4314 | 21 ² 58 | 21 ² 8 | 12 ² 39 | 4 ⁴ 44 | 28 ² 50 | 28 ² 13 | 9 ⁴ 43 | 2 ⁸ 8 | 22 ² 17 | 11 ² 46 | 12 ² 26 | 4 ² 6 | 0 ³² 32 | M15 |
| T 16 | 19 58 55 | 28 ² 4043 | 5 ^U 18 | 22 ² 35 | 13 ³ 30 | 5 ² 22 | 28 ² 59 | 28 ² 15 | 9 ⁴ 43 | 2 ⁸ 8 | 22 ² 16 | 11 ² 34 | 12 ² 23 | 4 ² 13 | 0 ³⁵ 35 | T 16 |
| W17 | 20 2 51 | 29 ² 3812 | 18 ² 51 | 24 ² 0 | 14 ² 21 | 6 ² 0 | 29 ² 8 | 28 ² 17 | 9 ⁴ 43 | 2 ⁹ 9 | 22 ² 15 | 11 ² 25 | 12 ² 20 | 4 ² 20 | 0 ³⁸ 38 | W17 |
| T 18 | 20 6 48 | 0 ^U 3543 | 2 ^{II} 36 | 25 ² 24 | 15 ² 14 | 6 ³ 39 | 29 ² 17 | 28 ² 19 | 9 ⁴ 44 | 2 ⁹ 9 | 22 ² 14 | 11 ² 17 | 12 ² 16 | 4 ² 26 | 0 ⁴¹ 41 | T 18 |
| F 19 | 20 10 44 | 1 ³ 3314 | 16 ² 30 | 26 ² 46 | 16 ² 7 | 7 ¹ 17 | 29 ² 27 | 28 ² 21 | 9 ⁴ 44 | 2 ¹⁰ 10 | 22 ² 13 | 11 ² 12 | 12 ² 13 | 4 ² 33 | 0 ⁴⁴ 44 | F 19 |
| S 20 | 20 14 41 | 2 ³ 3046 | 0 ^U 30 | 28 ² 6 | 17 ² 0 | 7 ⁵ 55 | 29 ² 36 | 28 ² 22 | 9 ⁴ 44 | 2 ¹⁰ 10 | 22 ² 11 | 11 ² 10 | 12 ² 10 | 4 ² 40 | 0 ⁴⁷ 47 | S 20 |
| S 21 | 20 18 37 | 3 ² 2820 | 14 ² 34 | 29 ² 24 | 17 ² 54 | 8 ³ 33 | 29 ² 46 | 28 ² 24 | 9 ⁴ 45 | 2 ¹⁰ 10 | 22 ² 10 | 11 ^D 10 | 12 ² 7 | 4 ² 46 | 0 ⁴⁹ 49 | S 21 |
| M22 | 20 22 34 | 4 ² 2554 | 28 ² 40 | 0 ^{II} 40 | 18 ² 49 | 9 ¹ 11 | 29 ² 55 | 28 ² 26 | 9 ⁴ 45 | 2 ¹¹ 11 | 22 ² 9 | 11 ^R 10 | 12 ² 4 | 4 ² 53 | 0 ⁵² 52 | M22 |
| T 23 | 20 26 30 | 5 ² 2329 | 12 ^{II} 49 | 1 ⁵ 44 | 19 ² 44 | 9 ⁴ 49 | 0 ^U 5 | 28 ² 27 | 9 ⁴ 46 | 2 ¹¹ 11 | 22 ² 8 | 11 ¹ 10 | 12 ² 0 | 5 ² 0 | 0 ⁵⁵ 55 | T 23 |
| W24 | 20 30 27 | 6 ² 2105 | 26 ² 58 | 3 ² 6 | 20 ² 40 | 10 ² 27 | 0 ¹ 15 | 28 ² 28 | 9 ⁴ 46 | 2 ¹¹ 11 | 22 ² 6 | 11 ¹ 9 | 11 ⁵ 7 | 5 ² 6 | 0 ⁵⁷ 57 | W24 |
| T 25 | 20 34 24 | 7 ¹ 1842 | 11 ^U 5 | 4 ¹ 16 | 21 ² 36 | 11 ² 6 | 0 ² 25 | 28 ² 29 | 9 ⁴ 47 | 2 ¹¹ 11 | 22 ² 5 | 11 ¹ 5 | 11 ⁵ 4 | 5 ¹ 13 | 1 ⁰ 0 | T 25 |
| F 26 | 20 38 20 | 8 ¹ 1620 | 25 ² 10 | 5 ² 23 | 22 ² 32 | 11 ² 44 | 0 ³ 35 | 28 ² 31 | 9 ⁴ 48 | 2 ¹¹ 11 | 22 ² 4 | 10 ⁵ 8 | 11 ⁵ 1 | 5 ² 20 | 1 ² 2 | F 26 |
| S 27 | 20 42 17 | 9 ¹ 1400 | 9 ^U 7 | 6 ² 28 | 23 ² 30 | 12 ² 22 | 0 ⁴ 45 | 28 ² 32 | 9 ⁴ 48 | 2 ¹² 12 | 22 ² 3 | 10 ⁵ 0 | 11 ⁴ 8 | 5 ² 26 | 1 ⁵ 5 | S 27 |
| S 28 | 20 46 13 | 10 ¹ 1140 | 22 ² 55 | 7 ³ 31 | 24 ² 27 | 13 ² 0 | 0 ⁵ 56 | 28 ² 32 | 9 ⁴ 49 | 2 ¹² 12 | 22 ² 2 | 10 ⁴ 0 | 11 ⁴ 5 | 5 ² 33 | 1 ⁷ 7 | S 28 |
| M29 | 20 50 10 | 11 ¹ 922 | 6 ² 28 | 8 ³ 31 | 25 ² 25 | 13 ³ 38 | 1 ⁶ 6 | 28 ² 33 | 9 ⁵ 0 | 2 ¹² 12 | 22 ² 0 | 10 ³ 0 | 11 ⁴ 1 | 5 ² 40 | 1 ¹⁰ 10 | M29 |
| T 30 | 20 54 6 | 12 ¹ 705 | 19 ² 44 | 9 ² 29 | 26 ² 23 | 14 ¹ 16 | 1 ¹ 16 | 28 ² 34 | 9 ⁵ 1 | 2 ^R 12 | 21 ⁵ 9 | 10 ² 1 | 11 ³ 8 | 5 ² 46 | 1 ¹² 12 | T 30 |
| W31 | 20 58 3 | 13 ¹ U 450 | 2 ^{II} 43 | 10 ^{II} 23 | 27 ^{II} 22 | 14 ^U 54 | 1 ^U 27 | 28 ^{VI} 34 | 9 ^{II} 52 | 2 ^U 12 | 21 ² 58 | 10 ^{VI} 14 | 11 ^{VI} 35 | 5 ^U 53 | 1 ^{II} 14 | W31 |

Delta T = 20m16s Julian Calendar 1 July 1056 == Greg. Calendar 7 July 1056

AUGUST 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|----------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|-------------------|--------------------|------|
| T 1 | 21 1 59 | 14 ^U 236 | 15 ^{II} 22 | 11 ^{II} 15 | 28 ^{II} 21 | 15 ^U 33 | 1 ^U 37 | 28 ^{VI} 35 | 9 ^{II} 53 | 2 ^R 12 | 21 ^R 57 | 10 ^R 9 | 11 ^{VI} 32 | 6 ^U 0 | 1 ^{II} 16 | T 1 |
| F 2 | 21 5 56 | 15 ¹ 824 | 27 ⁴ 45 | 12 ² 3 | 29 ² 21 | 16 ¹ 11 | 1 ⁴ 48 | 28 ³ 35 | 9 ⁵ 4 | 2 ^U 12 | 21 ² 55 | 10 ^{VI} 9 | 11 ² 29 | 6 ² 6 | 1 ¹⁸ 18 | F 2 |
| S 3 | 21 9 53 | 15 ¹ 5813 | 9 ^{VI} 53 | 12 ² 48 | 0 ^U 21 | 16 ¹ 49 | 1 ⁵ 59 | 28 ³ 35 | 9 ⁵ 5 | 2 ¹¹ 11 | 21 ⁵ 4 | 10 ^D 5 | 11 ² 26 | 6 ¹ 13 | 1 ²⁰ 20 | S 3 |
| S 4 | 21 13 49 | 16 ¹ 5604 | 21 ² 49 | 13 ³ 30 | 1 ² 21 | 17 ² 27 | 2 ¹⁰ 10 | 28 ³ 36 | 9 ⁵ 6 | 2 ¹¹ 11 | 21 ⁵ 3 | 10 ⁶ 6 | 11 ² 22 | 6 ² 20 | 1 ²² 22 | S 4 |
| M 5 | 21 17 46 | 17 ¹ 5357 | 3 ^U 40 | 14 ² 8 | 2 ² 22 | 18 ² 5 | 2 ² 20 | 28 ^R 36 | 9 ⁵ 7 | 2 ¹¹ 11 | 21 ⁵ 1 | 10 ⁷ 7 | 11 ¹ 19 | 6 ² 26 | 1 ²⁴ 24 | M 5 |
| T 6 | 21 21 42 | 18 ¹ 5152 | 15 ² 29 | 14 ² 42 | 3 ² 23 | 18 ² 44 | 2 ³ 31 | 28 ³ 36 | 9 ⁵ 8 | 2 ¹¹ 11 | 21 ⁵ 0 | 10 ^R 8 | 11 ¹ 16 | 6 ² 33 | 1 ²⁶ 26 | T 6 |
| W 7 | 21 25 39 | 19 ¹ 4949 | 27 ² 22 | 15 ² 11 | 4 ² 25 | 19 ² 22 | 2 ⁴ 2 | 28 ³ 35 | 9 ⁵ 9 | 2 ¹¹ 11 | 21 ⁴ 9 | 10 ⁷ 7 | 11 ¹ 13 | 6 ² 40 | 1 ²⁸ 28 | W 7 |
| T 8 | 21 29 35 | 20 ¹ 4747 | 9 ^{II} 24 | 15 ² 36 | 5 ² 26 | 20 ² 0 | 2 ⁵ 24 | 28 ³ 35 | 10 ¹ 1 | 2 ¹¹ 11 | 21 ⁴ 8 | 10 ⁵ 5 | 11 ¹ 10 | 6 ² 46 | 1 ²⁹ 29 | T 8 |
| F 9 | 21 33 32 | 21 ¹ 4548 | 21 ² 40 | 15 ² 57 | 6 ² 28 | 20 ² 38 | 3 ² 5 | 28 ³ 35 | 10 ² 2 | 2 ¹¹ 11 | 21 ⁴ 6 | 10 ¹ 1 | 11 ¹ 6 | 6 ² 53 | 1 ³¹ 31 | F 9 |
| S 10 | 21 37 28 | 22 ¹ 4350 | 4 ^U 14 | 16 ² 12 | 7 ³ 31 | 21 ² 16 | 3 ¹ 16 | 28 ³ 34 | 10 ² 4 | 2 ¹¹ 11 | 21 ⁴ 5 | 9 ⁵ 6 | 11 ¹ 3 | 6 ² 59 | 1 ³³ 33 | S 10 |
| S 11 | 21 41 25 | 23 ¹ 4155 | 17 ² 8 | 16 ² 22 | 8 ³ 33 | 21 ² 55 | 3 ² 27 | 28 ³ 34 | 10 ² 5 | 2 ⁹ 9 | 21 ⁴ 4 | 9 ⁴ 9 | 11 ¹ 0 | 7 ² 6 | 1 ³⁴ 34 | S 11 |
| M12 | 21 45 22 | 24 ¹ 4001 | 0 ^U 23 | 16 ^R 26 | 9 ³ 36 | 22 ² 33 | 3 ³ 39 | 28 ³ 33 | 10 ² 7 | 2 ⁹ 9 | 21 ⁴ 2 | 9 ⁴ 1 | 10 ⁵ 7 | 7 ² 13 | 1 ³⁶ 36 | M12 |
| T 13 | 21 49 18 | 25 ¹ 3809 | 14 ² 0 | 16 ² 25 | 10 ⁴ 40 | 23 ¹ 11 | 3 ⁵ 50 | 28 ³ 32 | 10 ² 8 | 2 ⁹ 9 | 21 ⁴ 1 | 9 ³ 4 | 10 ⁵ 4 | 7 ² 19 | 1 ³⁷ 37 | T 13 |
| W14 | 21 53 15 | 26 ¹ 3619 | 27 ² 55 | 16 ² 17 | 11 ⁴ 43 | 23 ² 50 | 4 ² 2 | 28 ³ 31 | 10 ² 10 | 2 ⁸ 8 | 21 ⁴ 0 | 9 ² 7 | 10 ⁵ 1 | 7 ² 26 | 1 ³⁸ 38 | W14 |
| T 15 | 21 57 11 | 27 ¹ 3431 | 12 ^{II} 5 | 16 ² 4 | 12 ⁴ 47 | 24 ² 28 | 4 ¹ 13 | 28 ³ 30 | 10 ² 11 | 2 ⁸ 8 | 21 ³ 9 | 9 ² 3 | 10 ⁴ 7 | 7 ² 33 | 1 ⁴⁰ 40 | T 15 |
| F 16 | 22 1 8 | 28 ¹ | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1056
geocentric

SEPTEMBER 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------------------|--------------------|-------------------|-------------------|-------------------|-------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 23 4 13 | 14 [♏] 8'04 | 29 [♏] 51 | 2°R43 | 1♏27 | 5 [♏] 20 | 7♏39 | 27°R57 | 10 [♏] 46 | 1°R55 | 21°R18 | 8 [♏] 55 | 9 [♏] 53 | 9 [♏] 26 | 1 [♏] 51 | S 1 | | | | | | | | |
| M 2 | 23 8 9 | 15° 6'47 | 11 [♏] 41 | 2 [♏] 20 | 2°35 | 5°58 | 7°51 | 27 [♏] 54 | 10°49 | 1 [♏] 54 | 21 [♏] 17 | 8°56 | 9°50 | 9°33 | 1°R51 | M 2 | | | | | | | | |
| T 3 | 23 12 6 | 16° 5'33 | 23°29 | 2° 7 | 3°43 | 6°37 | 8° 4 | 27°51 | 10°51 | 1°53 | 21°15 | 8°58 | 9°47 | 9°39 | 1°51 | T 3 | | | | | | | | |
| W 4 | 23 16 2 | 17° 4'22 | 5 [♏] 22 | 2°D 3 | 4°51 | 7°15 | 8°16 | 27°48 | 10°54 | 1°52 | 21°14 | 8°59 | 9°44 | 9°46 | 1°51 | W 4 | | | | | | | | |
| T 5 | 23 19 59 | 18° 3'12 | 17°23 | 2°10 | 6° 0 | 7°54 | 8°29 | 27°45 | 10°56 | 1°50 | 21°13 | 9°R 0 | 9°41 | 9°53 | 1°50 | T 5 | | | | | | | | |
| F 6 | 23 23 55 | 19° 2'06 | 29°38 | 2°27 | 7° 8 | 8°32 | 8°41 | 27°42 | 10°59 | 1°49 | 21°12 | 8°59 | 9°38 | 9°59 | 1°50 | F 6 | | | | | | | | |
| S 7 | 23 27 52 | 20° 1'01 | 12 [♏] 10 | 2°53 | 8°17 | 9°11 | 8°54 | 27°39 | 11° 2 | 1°48 | 21°11 | 8°58 | 9°34 | 10° 6 | 1°50 | S 7 | | | | | | | | |
| S 8 | 23 31 48 | 20°59'59 | 25° 4 | 3°29 | 9°26 | 9°49 | 9° 7 | 27°35 | 11° 4 | 1°47 | 21°10 | 8°56 | 9°31 | 10°13 | 1°49 | S 8 | | | | | | | | |
| M 9 | 23 35 45 | 21°58'59 | 8 [♏] 23 | 4°13 | 10°35 | 10°28 | 9°20 | 27°32 | 11° 7 | 1°46 | 21° 9 | 8°54 | 9°28 | 10°19 | 1°49 | M 9 | | | | | | | | |
| T 10 | 23 39 42 | 22°58'01 | 22° 6 | 5° 6 | 11°44 | 11° 7 | 9°32 | 27°29 | 11°10 | 1°45 | 21° 8 | 8°51 | 9°25 | 10°26 | 1°48 | T 10 | | | | | | | | |
| W 11 | 23 43 38 | 23°57'05 | 6 [♏] 13 | 6° 7 | 12°53 | 11°45 | 9°45 | 27°25 | 11°13 | 1°43 | 21° 7 | 8°50 | 9°22 | 10°33 | 1°48 | W 11 | | | | | | | | |
| T 12 | 23 47 35 | 24°56'12 | 20°41 | 7°14 | 14° 3 | 12°24 | 9°58 | 27°21 | 11°15 | 1°42 | 21° 6 | 8°48 | 9°18 | 10°39 | 1°47 | T 12 | | | | | | | | |
| F 13 | 23 51 31 | 25°55'21 | 5 [♏] 23 | 8°27 | 15°12 | 13° 2 | 10°11 | 27°18 | 11°18 | 1°41 | 21° 5 | 8°D48 | 9°15 | 10°46 | 1°46 | F 13 | | | | | | | | |
| S 14 | 23 55 28 | 26°54'31 | 20°13 | 9°47 | 16°22 | 13°41 | 10°24 | 27°14 | 11°21 | 1°40 | 21° 4 | 8°48 | 9°12 | 10°53 | 1°46 | S 14 | | | | | | | | |
| S 15 | 23 59 24 | 27°53'44 | 5 [♏] 3 | 11°10 | 17°32 | 14°20 | 10°37 | 27°10 | 11°24 | 1°38 | 21° 3 | 8°49 | 9° 9 | 10°59 | 1°45 | S 15 | | | | | | | | |
| M 16 | 0 3 21 | 28°52'59 | 19°46 | 12°38 | 18°42 | 14°58 | 10°50 | 27° 6 | 11°27 | 1°37 | 21° 2 | 8°49 | 9° 6 | 11° 6 | 1°44 | M 16 | | | | | | | | |
| T 17 | 0 7 17 | 29°52'15 | 4 [♏] 18 | 14°10 | 19°52 | 15°37 | 11° 2 | 27° 2 | 11°30 | 1°35 | 21° 1 | 8°50 | 9° 3 | 11°13 | 1°43 | T 17 | | | | | | | | |
| W 18 | 0 11 14 | 0 [♏] 51'34 | 18°32 | 15°44 | 21° 2 | 16°16 | 11°15 | 26°58 | 11°33 | 1°34 | 21° 0 | 8°51 | 8°59 | 11°19 | 1°42 | W 18 | | | | | | | | |
| T 19 | 0 15 11 | 1°50'54 | 2 [♏] 29 | 17°21 | 22°13 | 16°54 | 11°28 | 26°54 | 11°36 | 1°33 | 20°59 | 8°R51 | 8°56 | 11°26 | 1°41 | T 19 | | | | | | | | |
| F 20 | 0 19 7 | 2°50'16 | 16° 7 | 19° 0 | 23°23 | 17°33 | 11°41 | 26°50 | 11°39 | 1°31 | 20°58 | 8°51 | 8°53 | 11°33 | 1°39 | F 20 | | | | | | | | |
| S 21 | 0 23 4 | 3°49'40 | 29°27 | 20°40 | 24°34 | 18°12 | 11°54 | 26°46 | 11°42 | 1°30 | 20°57 | 8°50 | 8°50 | 11°39 | 1°38 | S 21 | | | | | | | | |
| S 22 | 0 27 0 | 4°49'05 | 12 [♏] 29 | 22°22 | 25°45 | 18°50 | 12° 7 | 26°41 | 11°45 | 1°28 | 20°56 | 8°50 | 8°47 | 11°46 | 1°37 | S 22 | | | | | | | | |
| M 23 | 0 30 57 | 5°48'32 | 25°17 | 24° 4 | 26°56 | 19°29 | 12°21 | 26°37 | 11°49 | 1°27 | 20°55 | 8°49 | 8°43 | 11°53 | 1°35 | M 23 | | | | | | | | |
| T 24 | 0 34 53 | 6°48'02 | 7 [♏] 50 | 25°47 | 28° 7 | 20° 8 | 12°34 | 26°33 | 11°52 | 1°25 | 20°55 | 8°49 | 8°40 | 11°59 | 1°34 | T 24 | | | | | | | | |
| W 25 | 0 38 50 | 7°47'33 | 20°12 | 27°31 | 29°18 | 20°47 | 12°47 | 26°28 | 11°55 | 1°24 | 20°54 | 8°49 | 8°37 | 12° 6 | 1°32 | W 25 | | | | | | | | |
| T 26 | 0 42 46 | 8°47'06 | 2 [♏] 23 | 29°14 | 0 [♏] 29 | 21°26 | 13° 0 | 26°24 | 11°58 | 1°22 | 20°53 | 8°49 | 8°34 | 12°13 | 1°31 | T 26 | | | | | | | | |
| F 27 | 0 46 43 | 9°46'41 | 14°26 | 0 [♏] 58 | 1°40 | 22° 4 | 13°13 | 26°19 | 12° 2 | 1°21 | 20°52 | 8°49 | 8°31 | 12°19 | 1°29 | F 27 | | | | | | | | |
| S 28 | 0 50 40 | 10°46'18 | 26°22 | 2°42 | 2°52 | 22°43 | 13°26 | 26°14 | 12° 5 | 1°19 | 20°51 | 8°49 | 8°28 | 12°26 | 1°27 | S 28 | | | | | | | | |
| S 29 | 0 54 36 | 11°45'57 | 8 [♏] 13 | 4°25 | 4° 3 | 23°22 | 13°39 | 26°10 | 12° 8 | 1°18 | 20°51 | 8°49 | 8°24 | 12°33 | 1°26 | S 29 | | | | | | | | |
| M 30 | 0 58 33 | 12°45'39 | 20 [♏] 2 | 6 [♏] 8 | 5 [♏] 15 | 24 [♏] 1 | 13°52 | 26° [♏] 5 | 12 [♏] 11 | 1 [♏] 16 | 20°50 | 8° [♏] 48 | 8° [♏] 21 | 12 [♏] 39 | 1 [♏] 24 | M 30 | | | | | | | | |

Delta T = 20m15s Julian Calendar 1 Sept. 1056 == Greg. Calendar 7 Sept. 1056

OCTOBER 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|-----------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------|---|---|---|---|---|---|---|-----|
| T 1 | 1 2 29 | 13 [♏] 45'23 | 1 [♏] 51 | 7 [♏] 51 | 6 [♏] 27 | 24 [♏] 40 | 14 [♏] 5 | 26°R 1 | 12 [♏] 15 | 1°R15 | 20°R49 | 8°R47 | 8° [♏] 18 | 12 [♏] 46 | 1°R22 | T 1 | | | | | | | | |
| W 2 | 1 6 26 | 14°45'09 | 13°44 | 9°34 | 7°39 | 25°19 | 14°18 | 25 [♏] 56 | 12°18 | 1 [♏] 13 | 20 [♏] 49 | 8° [♏] 47 | 8°15 | 12°53 | 1 [♏] 20 | W 2 | | | | | | | | |
| T 3 | 1 10 22 | 15°44'57 | 25°45 | 11°16 | 8°51 | 25°58 | 14°31 | 25°51 | 12°22 | 1°11 | 20°48 | 8°46 | 8°12 | 12°59 | 1°18 | T 3 | | | | | | | | |
| F 4 | 1 14 19 | 16°44'48 | 7 [♏] 57 | 12°57 | 10° 3 | 26°36 | 14°44 | 25°46 | 12°25 | 1°10 | 20°47 | 8°46 | 8° 9 | 13° 6 | 1°16 | F 4 | | | | | | | | |
| S 5 | 1 18 15 | 17°44'41 | 20°25 | 14°38 | 11°15 | 27°15 | 14°58 | 25°42 | 12°29 | 1° 8 | 20°47 | 8°D45 | 8° 5 | 13°13 | 1°14 | S 5 | | | | | | | | |
| S 6 | 1 22 12 | 18°44'36 | 3 [♏] 13 | 16°19 | 12°28 | 27°54 | 15°11 | 25°37 | 12°32 | 1° 6 | 20°46 | 8°46 | 8° 2 | 13°19 | 1°12 | S 6 | | | | | | | | |
| M 7 | 1 26 9 | 19°44'33 | 16°26 | 17°59 | 13°40 | 28°33 | 15°24 | 25°32 | 12°35 | 1° 5 | 20°46 | 8°47 | 7°59 | 13°26 | 1° 9 | M 7 | | | | | | | | |
| T 8 | 1 30 5 | 20°44'33 | 0 [♏] 4 | 19°39 | 14°53 | 29°12 | 15°37 | 25°27 | 12°39 | 1° 3 | 20°45 | 8°48 | 7°56 | 13°33 | 1° 7 | T 8 | | | | | | | | |
| W 9 | 1 34 2 | 21°44'34 | 14° 9 | 21°18 | 16° 5 | 29°51 | 15°50 | 25°22 | 12°43 | 1° 1 | 20°45 | 8°49 | 7°53 | 13°39 | 1° 5 | W 9 | | | | | | | | |
| T 10 | 1 37 58 | 22°44'38 | 28°40 | 22°56 | 17°18 | 0 [♏] 30 | 16° 3 | 25°17 | 12°46 | 1° 0 | 20°44 | 8°49 | 7°49 | 13°46 | 1° 2 | T 10 | | | | | | | | |
| F 11 | 1 41 55 | 23°44'44 | 13 [♏] 32 | 24°34 | 18°31 | 1° 9 | 16°16 | 25°13 | 12°50 | 0°58 | 20°44 | 8°R49 | 7°46 | 13°53 | 1° 0 | F 11 | | | | | | | | |
| S 12 | 1 45 51 | 24°44'51 | 28°39 | 26°12 | 19°44 | 1°49 | 16°29 | 25° 8 | 12°53 | 0°56 | 20°43 | 8°49 | 7°43 | 13°59 | 0°57 | S 12 | | | | | | | | |
| S 13 | 1 49 48 | 25°45'01 | 13 [♏] 50 | 27°49 | 20°57 | 2°28 | 16°42 | 25° 3 | 12°57 | 0°55 | 20°43 | 8°47 | 7°40 | 14° 6 | 0°55 | S 13 | | | | | | | | |
| M 14 | 1 53 44 | 26°45'13 | 28°56 | 29°26 | 22°10 | 3° 7 | 16°55 | 24°58 | 13° 0 | 0°53 | 20°42 | 8°45 | 7°37 | 14°13 | 0°52 | M 14 | | | | | | | | |
| T 15 | 1 57 41 | 27°45'26 | 13 [♏] 48 | 1 [♏] 2 | 23°23 | 3°46 | 17° 8 | 24°53 | 13° 4 | 0°51 | 20°42 | 8°43 | 7°34 | 14°19 | 0°49 | T 15 | | | | | | | | |
| W 16 | 2 1 38 | 28°45'41 | 28°20 | 2°38 | 24°36 | 4°25 | 17°21 | 24°48 | 13° 8 | 0°50 | 20°42 | 8°40 | 7°30 | 14°26 | 0°47 | W 16 | | | | | | | | |
| T 17 | 2 5 34 | 29°45'58 | 12 [♏] 27 | 4°13 | 25°49 | 5° 4 | 17°34 | 24°43 | 13°11 | 0°48 | 20°41 | 8°38 | 7°27 | 14°33 | 0°44 | T 17 | | | | | | | | |
| F 18 | 2 9 31 | 0 [♏] 46'15 | 26° 9 | 5°48 | 27° 2 | 5°43 | 17°47 | 24°39 | 13°15 | 0°46 | 20°41 | 8°D37 | 7°24 | 14°39 | 0°41 | F 18 | | | | | | | | |
| S 19 | 2 13 27 | 1°46'35 | 9 [♏] 25 | 7°23 | 28°16 | 6°23 | 18° 0 | 24°34 | 13°19 | 0°45 | 20°41 | 8°38 | 7°21 | 14°46 | 0°38 | S 19 | | | | | | | | |
| S 20 | 2 17 24 | 2°46'56 | 22°19 | 8°57 | 29°29 | 7° 2 | 18°13 | 24°29 | 13°22 | 0°43 | 20°41 | 8°39 | 7°18 | 14°53 | 0°36 | S 20 | | | | | | | | |
| M 21 | 2 21 20 | 3°47'18 | 4 [♏] 54 | 10°31 | 0 [♏] 43 | 7°41 | 18°26 | 24°24 | 13°26 | 0°41 | 20°40 | 8°40 | 7°15 | 15° 0 | 0°33 | M 21 | | | | | | | | |
| T 22 | 2 25 17 | 4°47'41 | 17°13 | 12° 5 | 1°56 | 8°20 | 18°39 | 24°19 | 13°30 | 0°40 | 20°40 | 8°42 | 7°11 | 15° 6 | 0°30 | T 22 | | | | | | | | |
| W 23 | 2 29 13 | 5°48'07 | 29°21 | 13°38 | 3°10 | 8°59 | 18°52 | 24°15 | 13°33 | 0°38 | 20°40 | 8°43 | 7° 8 | 15°13 | 0°27 | W 23 | | | | | | | | |
| T 24 | 2 33 10 | 6°48'33 | 11 [♏] 21 | 15°11 | 4°23 | 9°39 | 19° 4 | 24°10 | 13°37 | 0°36 | 20°40 | 8°R44 | 7° 5 | 15°20 | 0°24 | T 24 | | | | | | | | |
| F 25 | 2 37 7 | 7°49'01 | 23°15 | 16°44 | 5°37 | 10°18 | 19°17 | 24° 5 | 13°41 | 0°34 | 20°40 | 8°43 | 7° 2 | 15°26 | 0°21 | F 25 | | | | | | | | |
| S 26 | 2 41 3 | 8°49'31 | 5 [♏] 5 | 18°16 | 6°51 | 10°57 | 19°30 | 24° 1 | 13°44 | 0°33 | 20°40 | 8°40 | 6°59 | 15°33 | 0°17 | S 26 | | | | | | | | |
| S 27 | 2 45 0 | 9°50'03 | 16°55 | 19°49 | 8° 5 | 11°37 | 19°43 | 23°56 | 13°48 | 0°31 | 20°40 | 8°36 | 6°55 | 15°40 | 0°14 | S 27 | | | | | | | | |
| M 28 | 2 48 56 | 10°50'36 | 28°45 | 21°21 | 9°19 | 12°16 | 19°55 | 23°52 | 13°52 | 0°29 | 20°40 | 8°30 | 6°52 | 15°46 | 0°11 | M 28 | | | | | | | | |
| T 29 | 2 52 53 | 11°51'10 | 10 [♏] 38 | 22°52 | 10°33 | 12°55 | 20° 8 | 23°47 | 13°56 | 0°28 | 20°D40 | 8°24 | 6°49 | 15°53 | 0° 8 | T 29 | | | | | | | | |
| W 30 | 2 56 49 | 12°51'47 | 22°35 | 24°24 | 11°47 | 13°35 | 20°21 | 23°43 | 13°59 | 0°26 | 20°40 | 8°18 | 6°46 | 16° 0 | 0° 5 | W 30 | | | | | | | | |
| T 31 | 3 0 46 | 13 [♏] 52'25 | 4 [♏] 39 | 25 [♏] 55 | 13 [♏] 1 | 14 [♏] 14 | 20 [♏] 33 | 23 [♏] 38 | 14 [♏] 3 | 0 [♏] 25 | 20 [♏] 40 | 8° [♏] 12 | 6° [♏] 43 | 16 [♏] 6 | 0 [♏] 2 | T 31 | | | | | | | | |

Delta T = 20m15s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1056
geocentric

NOVEMBER 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|--------|--------|------|---|---|---|---|-----|
| F 1 | 3 4 42 | 14♌53°04 | 16♌53 | 27♌26 | 14♌15 | 14♌54 | 20♌46 | 23°R34 | 14♌ 7 | 0°R23 | 20♌40 | 8°R 7 | 6°V40 | 16♌13 | 29°R58 | F 1 | | | | | |
| S 2 | 3 8 39 | 15°53'46 | 29°20 | 28°56 | 15°29 | 15°33 | 20°58 | 23°V29 | 14°10 | 0°Z21 | 20°40 | 8°V 4 | 6°36 | 16°20 | 29°R55 | S 2 | | | | | |
| S 3 | 3 12 36 | 16°54'29 | 12♌ 3 | 0♌27 | 16°43 | 16°12 | 21°11 | 23°25 | 14°14 | 0°20 | 20°40 | 8°D 2 | 6°33 | 16°26 | 29°52 | S 3 | | | | | |
| M 4 | 3 16 32 | 17°55'14 | 25° 7 | 1°57 | 17°58 | 16°52 | 21°23 | 23°21 | 14°18 | 0°18 | 20°40 | 8° 2 | 6°30 | 16°33 | 29°48 | M 4 | | | | | |
| T 5 | 3 20 29 | 18°56'00 | 8♌34 | 3°27 | 19°12 | 17°31 | 21°36 | 23°17 | 14°22 | 0°16 | 20°40 | 8° 3 | 6°27 | 16°40 | 29°45 | T 5 | | | | | |
| W 6 | 3 24 25 | 19°56'48 | 22°27 | 4°56 | 20°26 | 18°11 | 21°48 | 23°13 | 14°25 | 0°15 | 20°40 | 8° 5 | 6°24 | 16°46 | 29°42 | W 6 | | | | | |
| T 7 | 3 28 22 | 20°57'37 | 6♌47 | 6°25 | 21°41 | 18°51 | 22° 0 | 23° 9 | 14°29 | 0°13 | 20°41 | 8°R 6 | 6°20 | 16°53 | 29°38 | T 7 | | | | | |
| F 8 | 3 32 18 | 21°58'28 | 21°31 | 7°53 | 22°55 | 19°30 | 22°13 | 23° 5 | 14°33 | 0°12 | 20°41 | 8° 5 | 6°17 | 17° 0 | 29°35 | F 8 | | | | | |
| S 9 | 3 36 15 | 22°59'21 | 6♌35 | 9°22 | 24°10 | 20°10 | 22°25 | 23° 1 | 14°36 | 0°10 | 20°41 | 8° 2 | 6°14 | 17° 6 | 29°31 | S 9 | | | | | |
| S 10 | 3 40 11 | 24° 0'15 | 21°51 | 10°49 | 25°24 | 20°49 | 22°37 | 22°57 | 14°40 | 0° 9 | 20°41 | 7°57 | 6°11 | 17°13 | 29°28 | S 10 | | | | | |
| M11 | 3 44 8 | 25° 1'10 | 7♌ 8 | 12°16 | 26°39 | 21°29 | 22°49 | 22°53 | 14°44 | 0° 7 | 20°42 | 7°50 | 6° 8 | 17°20 | 29°25 | M11 | | | | | |
| T 12 | 3 48 5 | 26° 2'06 | 22°15 | 13°42 | 27°53 | 22° 9 | 23° 1 | 22°50 | 14°47 | 0° 6 | 20°42 | 7°43 | 6° 5 | 17°26 | 29°21 | T 12 | | | | | |
| W13 | 3 52 1 | 27° 3'03 | 7♌ 3 | 15° 7 | 29° 8 | 22°48 | 23°13 | 22°46 | 14°51 | 0° 4 | 20°43 | 7°35 | 6° 1 | 17°33 | 29°18 | W13 | | | | | |
| T 14 | 3 55 58 | 28° 4'01 | 21°24 | 16°31 | 0♌23 | 23°28 | 23°25 | 22°43 | 14°55 | 0° 3 | 20°43 | 7°28 | 5°58 | 17°40 | 29°14 | T 14 | | | | | |
| F 15 | 3 59 54 | 29° 5'00 | 5♌16 | 17°54 | 1°37 | 24° 8 | 23°37 | 22°39 | 14°58 | 0° 1 | 20°43 | 7°23 | 5°55 | 17°46 | 29°11 | F 15 | | | | | |
| S 16 | 4 3 51 | 0♌ 5'59 | 18°38 | 19°16 | 2°52 | 24°47 | 23°49 | 22°36 | 15° 2 | 29°V59 | 20°44 | 7°21 | 5°52 | 17°53 | 29° 7 | S 16 | | | | | |
| S 17 | 4 7 47 | 1° 6'59 | 1♌33 | 20°36 | 4° 7 | 25°27 | 24° 0 | 22°33 | 15° 6 | 29°59 | 20°44 | 7°D20 | 5°49 | 18° 0 | 29° 4 | S 17 | | | | | |
| M18 | 4 11 44 | 2° 8'00 | 14° 6 | 21°54 | 5°22 | 26° 7 | 24°12 | 22°29 | 15° 9 | 29°57 | 20°45 | 7°21 | 5°46 | 18° 6 | 29° 0 | M18 | | | | | |
| T 19 | 4 15 40 | 3° 9'01 | 26°20 | 23°10 | 6°36 | 26°47 | 24°24 | 22°26 | 15°13 | 29°56 | 20°45 | 7°22 | 5°42 | 18°13 | 28°57 | T 19 | | | | | |
| W20 | 4 19 37 | 4°10'03 | 8°V21 | 24°24 | 7°51 | 27°26 | 24°35 | 22°23 | 15°16 | 29°54 | 20°46 | 7°R22 | 5°39 | 18°20 | 28°53 | W20 | | | | | |
| T 21 | 4 23 34 | 4°11'06 | 20°14 | 25°34 | 9° 6 | 28° 6 | 24°47 | 22°20 | 15°20 | 29°53 | 20°46 | 7°21 | 5°36 | 18°27 | 28°50 | T 21 | | | | | |
| F 22 | 4 27 30 | 6°12'09 | 2♌ 3 | 26°42 | 10°21 | 28°46 | 24°58 | 22°18 | 15°24 | 29°52 | 20°47 | 7°18 | 5°33 | 18°33 | 28°47 | F 22 | | | | | |
| S 23 | 4 31 27 | 7°13'13 | 13°52 | 27°45 | 11°36 | 29°26 | 25° 9 | 22°15 | 15°27 | 29°51 | 20°48 | 7°12 | 5°30 | 18°40 | 28°43 | S 23 | | | | | |
| S 24 | 4 35 23 | 8°14'17 | 25°42 | 28°44 | 12°51 | 0♌ 6 | 25°21 | 22°12 | 15°31 | 29°49 | 20°48 | 7° 3 | 5°26 | 18°47 | 28°40 | S 24 | | | | | |
| M25 | 4 39 20 | 9°15'22 | 7♌36 | 29°38 | 14° 5 | 0°45 | 25°32 | 22°10 | 15°34 | 29°48 | 20°49 | 6°52 | 5°23 | 18°53 | 28°36 | M25 | | | | | |
| T 26 | 4 43 16 | 10°16'28 | 19°36 | 0♌26 | 15°20 | 1°25 | 25°43 | 22° 7 | 15°38 | 29°47 | 20°50 | 6°40 | 5°20 | 19° 0 | 28°33 | T 26 | | | | | |
| W27 | 4 47 13 | 11°17'34 | 1♌43 | 1° 7 | 16°35 | 2° 5 | 25°54 | 22° 5 | 15°41 | 29°46 | 20°50 | 6°27 | 5°17 | 19° 7 | 28°30 | W27 | | | | | |
| T 28 | 4 51 9 | 12°18'42 | 13°57 | 1°40 | 17°50 | 2°45 | 26° 5 | 22° 3 | 15°44 | 29°44 | 20°51 | 6°15 | 5°14 | 19°13 | 28°26 | T 28 | | | | | |
| F 29 | 4 55 6 | 13°19'49 | 26°20 | 2° 6 | 19° 5 | 3°25 | 26°16 | 22° 1 | 15°48 | 29°43 | 20°52 | 6° 4 | 5°11 | 19°20 | 28°23 | F 29 | | | | | |
| S 30 | 4 59 3 | 14°20'58 | 8♌54 | 2♌22 | 20♌20 | 4♌ 5 | 26°Δ27 | 21°V59 | 15♌51 | 29°V42 | 20°Δ53 | 5°V56 | 5°V 7 | 19°R27 | 28°R20 | S 30 | | | | | |

Delta T = 20m15s Julian Calendar 1 Nov. 1056 == Greg. Calendar 7 Nov. 1056

DECEMBER 1056 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | Day |
|------|---------|----------|--------|--------|--------|-------|-------|--------|-------|--------|--------|-------|-------|--------|--------|------|---|---|---|---|-----|
| S 1 | 5 2 59 | 15°22'07 | 21♌40 | 2°R27 | 21♌35 | 4♌45 | 26Δ37 | 21°R57 | 15♌55 | 29°R41 | 20°Δ54 | 5°R51 | 5°V 4 | 19°R33 | 28°R16 | S 1 | | | | | |
| M 2 | 5 6 56 | 16°23'17 | 4♌42 | 2♌22 | 22°50 | 5°25 | 26°48 | 21°V55 | 15°58 | 29°V40 | 20°54 | 5°V49 | 5° 1 | 19°40 | 28°R13 | M 2 | | | | | |
| T 3 | 5 10 52 | 17°24'27 | 18° 2 | 2° 6 | 24° 5 | 6° 5 | 26°58 | 21°53 | 16° 1 | 29°39 | 20°55 | 5°D48 | 4°58 | 19°47 | 28°10 | T 3 | | | | | |
| W 4 | 5 14 49 | 18°25'38 | 1♌43 | 1°37 | 25°20 | 6°45 | 27° 9 | 21°51 | 16° 5 | 29°38 | 20°56 | 5°R48 | 4°55 | 19°53 | 28° 7 | W 4 | | | | | |
| T 5 | 5 18 45 | 19°26'50 | 15°46 | 0°57 | 26°36 | 7°25 | 27°19 | 21°50 | 16° 8 | 29°37 | 20°57 | 5°48 | 4°52 | 20° 0 | 28° 4 | T 5 | | | | | |
| F 6 | 5 22 42 | 20°28'02 | 0♌12 | 0° 6 | 27°51 | 8° 5 | 27°29 | 21°49 | 16°11 | 29°36 | 20°58 | 5°46 | 4°48 | 20° 7 | 28° 1 | F 6 | | | | | |
| S 7 | 5 26 38 | 21°29'15 | 14°59 | 29°V 5 | 29° 6 | 8°45 | 27°40 | 21°47 | 16°14 | 29°35 | 20°59 | 5°41 | 4°45 | 20°13 | 27°57 | S 7 | | | | | |
| S 8 | 5 30 35 | 22°30'29 | 29°59 | 27°55 | 0♌21 | 9°26 | 27°50 | 21°46 | 16°18 | 29°34 | 21° 0 | 5°34 | 4°42 | 20°20 | 27°54 | S 8 | | | | | |
| M 9 | 5 34 32 | 23°31'42 | 15°V 7 | 26°38 | 1°36 | 10° 6 | 28° 0 | 21°45 | 16°21 | 29°34 | 21° 1 | 5°24 | 4°39 | 20°27 | 27°51 | M 9 | | | | | |
| T 10 | 5 38 28 | 24°32'56 | 0♌11 | 25°18 | 2°51 | 10°46 | 28° 9 | 21°44 | 16°24 | 29°33 | 21° 2 | 5°12 | 4°36 | 20°34 | 27°48 | T 10 | | | | | |
| W11 | 5 42 25 | 25°34'10 | 15° 1 | 23°56 | 4° 6 | 11°26 | 28°19 | 21°43 | 16°27 | 29°32 | 21° 3 | 5° 0 | 4°33 | 20°40 | 27°45 | W11 | | | | | |
| T 12 | 5 46 21 | 26°35'24 | 29°28 | 22°36 | 5°21 | 12° 6 | 28°29 | 21°43 | 16°30 | 29°31 | 21° 4 | 4°49 | 4°29 | 20°47 | 27°42 | T 12 | | | | | |
| F 13 | 5 50 18 | 27°36'37 | 13°Δ28 | 21°20 | 6°37 | 12°46 | 28°38 | 21°42 | 16°33 | 29°30 | 21° 5 | 4°41 | 4°26 | 20°54 | 27°40 | F 13 | | | | | |
| S 14 | 5 54 14 | 28°37'51 | 26°58 | 20° 9 | 7°52 | 13°27 | 28°48 | 21°41 | 16°36 | 29°30 | 21° 6 | 4°35 | 4°23 | 21° 0 | 27°37 | S 14 | | | | | |
| S 15 | 5 58 11 | 29°39'04 | 9♌59 | 19° 6 | 9° 7 | 14° 7 | 28°57 | 21°41 | 16°39 | 29°29 | 21° 7 | 4°32 | 4°20 | 21° 7 | 27°34 | S 15 | | | | | |
| M16 | 6 2 8 | 0♌40'16 | 22°36 | 18°13 | 10°22 | 14°47 | 29° 6 | 21°41 | 16°42 | 29°28 | 21° 9 | 4°31 | 4°17 | 21°14 | 27°31 | M16 | | | | | |
| T 17 | 6 6 4 | 1°41'28 | 4°V52 | 17°29 | 11°37 | 15°27 | 29°15 | 21°41 | 16°45 | 29°28 | 21°10 | 4°31 | 4°13 | 21°20 | 27°28 | T 17 | | | | | |
| W18 | 6 10 1 | 2°42'39 | 16°54 | 16°55 | 12°52 | 16° 8 | 29°24 | 21°D41 | 16°48 | 29°27 | 21°11 | 4°30 | 4°10 | 21°27 | 27°26 | W18 | | | | | |
| T 19 | 6 13 57 | 3°43'50 | 28°46 | 16°31 | 14° 8 | 16°48 | 29°33 | 21°41 | 16°51 | 29°27 | 21°12 | 4°29 | 4° 7 | 21°34 | 27°23 | T 19 | | | | | |
| F 20 | 6 17 54 | 4°45'01 | 10♌34 | 16°17 | 15°23 | 17°28 | 29°42 | 21°41 | 16°53 | 29°26 | 21°13 | 4°25 | 4° 4 | 21°40 | 27°21 | F 20 | | | | | |
| S 21 | 6 21 50 | 5°46'11 | 22°23 | 16°D12 | 16°38 | 18° 9 | 29°51 | 21°41 | 16°56 | 29°26 | 21°15 | 4°18 | 4° 1 | 21°47 | 27°18 | S 21 | | | | | |
| S 22 | 6 25 47 | 6°47'21 | 4♌16 | 16°16 | 17°53 | 18°49 | 29°59 | 21°42 | 16°59 | 29°25 | 21°16 | 4° 8 | 3°58 | 21°54 | 27°16 | S 22 | | | | | |
| M23 | 6 29 43 | 7°48'30 | 16°16 | 16°29 | 19° 8 | 19°29 | 0♌ 7 | 21°42 | 17° 2 | 29°25 | 21°17 | 3°56 | 3°54 | 22° 0 | 27°13 | M23 | | | | | |
| T 24 | 6 33 40 | 8°49'38 | 28°25 | 16°48 | 20°23 | 20°10 | 0°16 | 21°43 | 17° 4 | 29°24 | 21°18 | 3°41 | 3°51 | 22° 7 | 27°11 | T 24 | | | | | |
| W25 | 6 37 37 | 9°50'46 | 10♌43 | 17°14 | 21°39 | 20°50 | 0°24 | 21°43 | 17° 7 | 29°24 | 21°20 | 3°27 | 3°48 | 22°14 | 27° 9 | W25 | | | | | |
| T 26 | 6 41 33 | 10°51'54 | 23°13 | 17°47 | 22°54 | 21°31 | 0°32 | 21°44 | 17° 9 | 29°24 | 21°21 | 3°13 | 3°45 | 22°21 | 27° 6 | T 26 | | | | | |
| F 27 | 6 45 30 | 11°53'01 | 5♌53 | 18°25 | 24° 9 | 22°11 | 0°40 | 21°45 | 17°12 | 29°24 | 21°22 | 3° 1 | 3°42 | 22°27 | 27° 4 | F 27 | | | | | |
| S 28 | 6 49 26 | 12°54'08 | 18°43 | 19° 8 | 25°24 | 22°51 | 0°48 | 21°46 | 17°15 | 29°23 | 21°24 | 2°51 | 3°39 | 22°34 | 27° 2 | S 28 | | | | | |
| S 29 | 6 53 23 | 13°55'14 | 1♌44 | 19°55 | 26°39 | 23°32 | 0°55 | 21°48 | 17°17 | 29°23 | 21°25 | 2°45 | 3°35 | 22°41 | 27° 0 | S 29 | | | | | |
| M30 | 6 57 19 | 14°56'19 | 14°56 | 20°47 | 27°54 | 24°12 | 1° 3 | 21°49 | 17°19 | 29°23 | 21°27 | 2°42 | 3°32 | 22°47 | 26°58 | M30 | | | | | |
| T 31 | 7 1 16 | 15°57'24 | 28♌21 | 21°V42 | 29°V10 | 24♌53 | 1♌10 | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1057
geocentric

JANUARY 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|-------|-------|------|--------|-------|--------|-------|-------|-------|--------|--------|--------|-----|---|---|---|---|---|---|-----|
| W 1 | 7 5 12 | 16°58'29 | 12°0 | 22°40 | 0°25 | 25°33 | 1°17 | 21°52 | 17°24 | 29°R23 | 21°29 | 2°R41 | 3°V26 | 23°8 | 1 | 26°R54 | W 1 | | | | | | | |
| T 2 | 7 9 9 | 17°59'33 | 25°54 | 23°42 | 1°40 | 26°14 | 1°24 | 21°53 | 17°26 | 29°V23 | 21°31 | 2°V40 | 3°23 | 7 | 26°R52 | T 2 | | | | | | | | |
| F 3 | 7 13 6 | 19° 0'37 | 10°14 | 24°46 | 2°55 | 26°55 | 1°31 | 21°55 | 17°29 | 29°D23 | 21°32 | 2°39 | 3°19 | 23°14 | 26°51 | F 3 | | | | | | | | |
| S 4 | 7 17 2 | 20° 1'40 | 24°29 | 25°52 | 4°10 | 27°35 | 1°38 | 21°57 | 17°31 | 29°E23 | 21°34 | 2°35 | 3°16 | 23°21 | 26°49 | S 4 | | | | | | | | |
| S 5 | 7 20 59 | 21° 2'43 | 9°27 | 27° 1 | 5°25 | 28°16 | 1°44 | 21°59 | 17°33 | 29°E23 | 21°35 | 2°28 | 3°13 | 23°27 | 26°47 | S 5 | | | | | | | | |
| M 6 | 7 24 55 | 22° 3'45 | 23°49 | 28°12 | 6°41 | 28°56 | 1°51 | 22° 1 | 17°35 | 29°E23 | 21°37 | 2°19 | 3°10 | 23°34 | 26°46 | M 6 | | | | | | | | |
| T 7 | 7 28 52 | 23° 4'47 | 8°31 | 29°25 | 7°56 | 29°37 | 1°57 | 22° 3 | 17°37 | 29°E23 | 21°38 | 2° 8 | 3° 7 | 23°41 | 26°44 | T 7 | | | | | | | | |
| W 8 | 7 32 48 | 24° 5'47 | 23° 4 | 0°39 | 9°11 | 0°18 | 2° 3 | 22° 6 | 17°39 | 29°E23 | 21°40 | 1°57 | 3° 4 | 23°48 | 26°43 | W 8 | | | | | | | | |
| T 9 | 7 36 45 | 25° 6'47 | 7°21 | 1°55 | 10°26 | 0°58 | 2° 9 | 22° 8 | 17°41 | 29°E23 | 21°41 | 1°46 | 3° 0 | 23°54 | 26°42 | T 9 | | | | | | | | |
| F 10 | 7 40 42 | 26° 7'45 | 21°15 | 3°12 | 11°41 | 1°39 | 2°15 | 22°10 | 17°43 | 29°E23 | 21°43 | 1°38 | 2°57 | 24° 1 | 26°40 | F 10 | | | | | | | | |
| S 11 | 7 44 38 | 27° 8'42 | 4°45 | 4°31 | 12°56 | 2°20 | 2°21 | 22°13 | 17°45 | 29°E24 | 21°44 | 1°32 | 2°54 | 24° 8 | 26°39 | S 11 | | | | | | | | |
| S 12 | 7 48 35 | 28° 9'38 | 17°49 | 5°51 | 14°12 | 3° 0 | 2°27 | 22°16 | 17°47 | 29°E24 | 21°46 | 1°29 | 2°51 | 24°14 | 26°38 | S 12 | | | | | | | | |
| M13 | 7 52 31 | 29°10'32 | 0°V30 | 7°12 | 15°27 | 3°41 | 2°32 | 22°19 | 17°49 | 29°E24 | 21°47 | 1°D28 | 2°48 | 24°21 | 26°37 | M13 | | | | | | | | |
| T 14 | 7 56 28 | 0°11'25 | 12°50 | 8°34 | 16°42 | 4°22 | 2°37 | 22°22 | 17°50 | 29°E25 | 21°49 | 1°29 | 2°45 | 24°28 | 26°36 | T 14 | | | | | | | | |
| W15 | 8 0 24 | 1°12'16 | 24°55 | 9°58 | 17°57 | 5° 3 | 2°42 | 22°25 | 17°52 | 29°E25 | 21°50 | 1°29 | 2°41 | 24°34 | 26°35 | W15 | | | | | | | | |
| T 16 | 8 4 21 | 2°13'06 | 6°49 | 11°22 | 19°12 | 5°43 | 2°47 | 22°28 | 17°54 | 29°E25 | 21°52 | 1°R29 | 2°38 | 24°41 | 26°34 | T 16 | | | | | | | | |
| F 17 | 8 8 17 | 3°13'55 | 18°39 | 12°48 | 20°27 | 6°24 | 2°52 | 22°31 | 17°55 | 29°E26 | 21°54 | 1°28 | 2°35 | 24°48 | 26°33 | F 17 | | | | | | | | |
| S 18 | 8 12 14 | 4°14'42 | 0°II30 | 14°14 | 21°42 | 7° 5 | 2°56 | 22°34 | 17°57 | 29°E26 | 21°55 | 1°24 | 2°32 | 24°55 | 26°32 | S 18 | | | | | | | | |
| S 19 | 8 16 11 | 5°15'27 | 12°25 | 15°42 | 22°57 | 7°46 | 3° 1 | 22°38 | 17°58 | 29°E27 | 21°57 | 1°18 | 2°29 | 25° 1 | 26°32 | S 19 | | | | | | | | |
| M20 | 8 20 7 | 6°16'11 | 24°30 | 17°10 | 24°12 | 8°26 | 3° 5 | 22°41 | 18° 0 | 29°E27 | 21°58 | 1°10 | 2°25 | 25° 8 | 26°31 | M20 | | | | | | | | |
| T 21 | 8 24 4 | 7°16'53 | 6°46 | 18°39 | 25°28 | 9° 7 | 3° 9 | 22°45 | 18° 1 | 29°E28 | 22° 0 | 1° 0 | 2°22 | 25°15 | 26°31 | T 21 | | | | | | | | |
| W22 | 8 28 0 | 8°17'34 | 19°16 | 20° 9 | 26°43 | 9°48 | 3°13 | 22°48 | 18° 2 | 29°E29 | 22° 2 | 0°50 | 2°19 | 25°21 | 26°30 | W22 | | | | | | | | |
| T 23 | 8 31 57 | 9°18'13 | 2°II 1 | 21°40 | 27°58 | 10°29 | 3°17 | 22°52 | 18° 4 | 29°E29 | 22° 3 | 0°40 | 2°16 | 25°28 | 26°30 | T 23 | | | | | | | | |
| F 24 | 8 35 53 | 10°18'51 | 15° 0 | 23°12 | 29°13 | 11°10 | 3°20 | 22°56 | 18° 5 | 29°E30 | 22° 5 | 0°32 | 2°13 | 25°35 | 26°30 | F 24 | | | | | | | | |
| S 25 | 8 39 50 | 11°19'27 | 28°12 | 24°45 | 0°28 | 11°51 | 3°24 | 23° 0 | 18° 6 | 29°E31 | 22° 7 | 0°25 | 2°10 | 25°41 | 26°29 | S 25 | | | | | | | | |
| S 26 | 8 43 46 | 12°20'01 | 11°36 | 26°19 | 1°43 | 12°31 | 3°27 | 23° 4 | 18° 7 | 29°E31 | 22° 8 | 0°21 | 2° 6 | 25°48 | 26°29 | S 26 | | | | | | | | |
| M27 | 8 47 43 | 13°20'34 | 25°11 | 27°53 | 2°58 | 13°12 | 3°30 | 23° 8 | 18° 8 | 29°E32 | 22°10 | 0°D20 | 2° 3 | 25°55 | 26°29 | M27 | | | | | | | | |
| T 28 | 8 51 40 | 14°21'06 | 8°54 | 29°29 | 4°13 | 13°53 | 3°33 | 23°13 | 18° 9 | 29°E33 | 22°11 | 0°20 | 2° 0 | 26° 1 | 26°D29 | T 28 | | | | | | | | |
| W29 | 8 55 36 | 15°21'37 | 22°46 | 1°5 | 5°28 | 14°34 | 3°35 | 23°17 | 18°10 | 29°E34 | 22°13 | 0°21 | 1°57 | 26° 8 | 26°29 | W29 | | | | | | | | |
| T 30 | 8 59 33 | 16°22'06 | 6°46 | 2°42 | 6°43 | 15°15 | 3°38 | 23°21 | 18°11 | 29°E35 | 22°15 | 0°22 | 1°54 | 26°15 | 26°29 | T 30 | | | | | | | | |
| F 31 | 9 3 29 | 17°22'34 | 20°52 | 4°20 | 7°58 | 15°56 | 3°40 | 23°V26 | 18°12 | 29°V36 | 22°16 | 0°R22 | 1°V50 | 26°R22 | 26°R30 | F 31 | | | | | | | | |

Delta T = 20m14s Julian Calendar 1 Jan. 1057 == Greg. Calendar 7 Jan. 1057

FEBRUARY 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|---------|--------|--------|-------|------|--------|--------|--------|-------|--------|-------|--------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 9 7 26 | 18°23'00 | 5°27 | 5°59 | 9°13 | 16°37 | 3°42 | 23°V31 | 18°13 | 29°V37 | 22°18 | 0°R21 | 1°V47 | 26°R28 | 26°R30 | S 1 | | | | | | | | |
| S 2 | 9 11 22 | 19°23'26 | 19°20 | 7°39 | 10°28 | 17°18 | 3°44 | 23°35 | 18°13 | 29°E38 | 22°20 | 0°V18 | 1°44 | 26°35 | 26°30 | S 2 | | | | | | | | |
| M 3 | 9 15 19 | 20°23'50 | 3°36 | 9°20 | 11°43 | 17°59 | 3°46 | 23°40 | 18°14 | 29°E39 | 22°21 | 0°13 | 1°41 | 26°42 | 26°31 | M 3 | | | | | | | | |
| T 4 | 9 19 15 | 21°24'12 | 17°48 | 11° 2 | 12°58 | 18°40 | 3°47 | 23°45 | 18°15 | 29°E40 | 22°23 | 0° 7 | 1°38 | 26°48 | 26°31 | T 4 | | | | | | | | |
| W 5 | 9 23 12 | 22°24'33 | 1°53 | 12°45 | 14°13 | 19°21 | 3°49 | 23°50 | 18°15 | 29°E41 | 22°25 | 0° 1 | 1°35 | 26°55 | 26°32 | W 5 | | | | | | | | |
| T 6 | 9 27 9 | 23°24'52 | 15°45 | 14°29 | 15°28 | 20° 2 | 3°50 | 23°55 | 18°16 | 29°E42 | 22°26 | 29°H55 | 1°31 | 27° 2 | 26°32 | T 6 | | | | | | | | |
| F 7 | 9 31 5 | 24°25'09 | 29°21 | 16°14 | 16°43 | 20°43 | 3°51 | 24° 0 | 18°16 | 29°E43 | 22°28 | 29°S0 | 1°28 | 27° 8 | 26°33 | F 7 | | | | | | | | |
| S 8 | 9 35 2 | 25°25'24 | 12°38 | 18° 0 | 17°57 | 21°24 | 3°52 | 24° 5 | 18°17 | 29°E44 | 22°30 | 29°E47 | 1°25 | 27°15 | 26°34 | S 8 | | | | | | | | |
| S 9 | 9 38 58 | 26°25'37 | 25°35 | 19°47 | 19°12 | 22° 5 | 3°52 | 24°10 | 18°17 | 29°E45 | 22°31 | 29°D46 | 1°22 | 27°22 | 26°35 | S 9 | | | | | | | | |
| M10 | 9 42 55 | 27°25'49 | 8°V13 | 21°35 | 20°27 | 22°46 | 3°53 | 24°16 | 18°17 | 29°E47 | 22°33 | 29°E46 | 1°19 | 27°29 | 26°36 | M10 | | | | | | | | |
| T 11 | 9 46 51 | 28°25'58 | 20°33 | 23°24 | 21°42 | 23°27 | 3°53 | 24°21 | 18°18 | 29°E48 | 22°35 | 29°E47 | 1°16 | 27°35 | 26°37 | T 11 | | | | | | | | |
| W12 | 9 50 48 | 29°26'05 | 2°40 | 25°15 | 22°57 | 24° 8 | 3°53 | 24°27 | 18°18 | 29°E49 | 22°36 | 29°E49 | 1°12 | 27°42 | 26°38 | W12 | | | | | | | | |
| T 13 | 9 54 44 | 0°26'10 | 14°37 | 27° 6 | 24°12 | 24°49 | 3°53 | 24°32 | 18°18 | 29°E51 | 22°38 | 29°E51 | 1° 9 | 27°49 | 26°39 | T 13 | | | | | | | | |
| F 14 | 9 58 41 | 1°26'13 | 26°28 | 28°58 | 25°27 | 25°30 | 3°53 | 24°38 | 18°18 | 29°E52 | 22°40 | 29°R52 | 1° 6 | 27°55 | 26°40 | F 14 | | | | | | | | |
| S 15 | 10 2 38 | 2°26'14 | 8°II20 | 0°H51 | 26°41 | 26°12 | 3°52 | 24°43 | 18°R18 | 29°E53 | 22°41 | 29°E52 | 1° 3 | 28° 2 | 26°42 | S 15 | | | | | | | | |
| S 16 | 10 6 34 | 3°26'13 | 20°17 | 2°45 | 27°56 | 26°53 | 3°51 | 24°49 | 18°18 | 29°E55 | 22°43 | 29°E50 | 1° 0 | 28° 9 | 26°43 | S 16 | | | | | | | | |
| M17 | 10 10 31 | 4°26'09 | 2°E23 | 4°41 | 29°11 | 27°34 | 3°50 | 24°55 | 18°18 | 29°E56 | 22°45 | 29°E48 | 0°56 | 28°15 | 26°44 | M17 | | | | | | | | |
| T 18 | 10 14 27 | 5°26'04 | 14°42 | 6°37 | 0°H26 | 28°15 | 3°49 | 25° 1 | 18°18 | 29°E58 | 22°46 | 29°E45 | 0°53 | 28°22 | 26°46 | T 18 | | | | | | | | |
| W19 | 10 18 24 | 6°25'56 | 27°18 | 8°33 | 1°41 | 28°56 | 3°48 | 25° 7 | 18°18 | 29°E59 | 22°48 | 29°E41 | 0°50 | 28°29 | 26°47 | W19 | | | | | | | | |
| T 20 | 10 22 20 | 7°25'45 | 10°II13 | 10°31 | 2°55 | 29°37 | 3°47 | 25°13 | 18°18 | 0°R 1 | 22°50 | 29°E37 | 0°47 | 28°36 | 26°49 | T 20 | | | | | | | | |
| F 21 | 10 26 17 | 8°25'33 | 23°27 | 12°29 | 4°10 | 0°H18 | 3°45 | 25°19 | 18°17 | 0° 2 | 22°51 | 29°E34 | 0°44 | 28°42 | 26°51 | F 21 | | | | | | | | |
| S 22 | 10 30 13 | 9°25'19 | 6°II59 | 14°28 | 5°25 | 0°59 | 3°43 | 25°25 | 18°17 | 0° 4 | 22°53 | 29°E32 | 0°41 | 28°49 | 26°53 | S 22 | | | | | | | | |
| S 23 | 10 34 10 | 10°25'02 | 20°48 | 16°27 | 6°40 | 1°40 | 3°41 | 25°31 | 18°17 | 0° 5 | 22°54 | 29°E31 | 0°37 | 28°56 | 26°54 | S 23 | | | | | | | | |
| M24 | 10 38 7 | 11°24'43 | 4°50 | 18°26 | 7°54 | 2°21 | 3°39 | 25°38 | 18°16 | 0° 7 | 22°56 | 29°D31 | 0°34 | 29° 2 | 26°56 | M24 | | | | | | | | |
| T 25 | 10 42 3 | 12°24'23 | 19° 1 | 20°25 | 9° 9 | 3° 3 | 3°36 | 25°44 | 18°16 | 0° 8 | 22°58 | 29°E31 | 0°31 | 29° 9 | 26°58 | T 25 | | | | | | | | |
| W26 | 10 46 0 | 13°24'01 | 3°III18 | 22°24 | 10°24 | 3°44 | 3°34 | 25°50 | 18°15 | 0°10 | 22°59 | 29°E32 | 0°28 | 29°16 | 27° 0 | W26 | | | | | | | | |
| T 27 | 10 49 56 | 14°23'36 | 17°36 | 24°22 | 11°38 | 4°25 | 3°31 | 25°57 | 18°14 | 0°12 | 23° 1 | 29°E34 | 0°25 | 29°22 | 27° 2 | T 27 | | | | | | | | |
| F 28 | 10 53 53 | 15°23'11 | 1°H53 | 26°H18 | 12°H53 | 5°H 6 | 3°28 | 26°V 3 | 18°14 | 0°H14 | 23°22 | 29°H35 | 0°V22 | 29°H29 | 27°H 5 | F 28 | | | | | | | | |

Delta T = 20m14s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1057
geocentric

MARCH 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|------|-------|--------|-------|-------|-------|------|------|-----|
| S 1 | 10 57 49 | 16♌22'43 | 16♌6 | 28♌14 | 14♌7 | 5♌47 | 3°R25 | 26♌10 | 18°R13 | 0♌15 | 23♌4 | 29°R35 | 0♌18 | 29♌36 | 27♌7 | S 1 | S 1 | |
| S 2 | 11 1 46 | 17°22'14 | 0♌13 | 0♌8 | 15°22 | 6°28 | 3♌22 | 26°16 | 18♌12 | 0°17 | 23°5 | 29♌35 | 0°15 | 29°43 | 27°9 | S 2 | S 2 | |
| M 3 | 11 5 42 | 18°21'43 | 14°11 | 2°0 | 16°37 | 7°9 | 3°18 | 26°23 | 18°12 | 0°19 | 23°7 | 29°34 | 0°12 | 29°49 | 27°11 | M 3 | M 3 | |
| T 4 | 11 9 39 | 19°21'10 | 27°59 | 3°49 | 17°51 | 7°51 | 3°15 | 26°30 | 18°11 | 0°21 | 23°9 | 29°33 | 0°9 | 29°56 | 27°14 | T 4 | T 4 | |
| W 5 | 11 13 36 | 20°20'36 | 11♌35 | 5°35 | 19°6 | 8°32 | 3°11 | 26°37 | 18°10 | 0°22 | 23°10 | 29°31 | 0°6 | 0♌3 | 27°16 | W 5 | W 5 | |
| T 6 | 11 17 32 | 21°19'59 | 25°0 | 7°18 | 20°20 | 9°13 | 3°7 | 26°43 | 18°9 | 0°24 | 23°12 | 29°30 | 0°2 | 0°9 | 27°19 | T 6 | T 6 | |
| F 7 | 11 21 29 | 22°19'20 | 8♌10 | 8°57 | 21°35 | 9°54 | 3°3 | 26°50 | 18°8 | 0°26 | 23°13 | 29°29 | 29♌59 | 0°16 | 27°21 | F 7 | F 7 | |
| S 8 | 11 25 25 | 23°18'39 | 21°6 | 10°31 | 22°49 | 10°35 | 2°59 | 26°57 | 18°7 | 0°28 | 23°15 | 29°29 | 29°56 | 0°23 | 27°24 | S 8 | S 8 | |
| S 9 | 11 29 22 | 24°17'57 | 3♌47 | 12°1 | 24°4 | 11°16 | 2°54 | 27°4 | 18°6 | 0°30 | 23°16 | 29°D29 | 29°53 | 0°30 | 27°27 | S 9 | S 9 | |
| M10 | 11 33 18 | 25°17'12 | 16°15 | 13°26 | 25°18 | 11°57 | 2°50 | 27°11 | 18°5 | 0°32 | 23°18 | 29°29 | 29°50 | 0°36 | 27°30 | M10 | M10 | |
| T 11 | 11 37 15 | 26°16'24 | 28°29 | 14°46 | 26°33 | 12°39 | 2°45 | 27°18 | 18°3 | 0°34 | 23°19 | 29°30 | 29°47 | 0°43 | 27°32 | T 11 | T 11 | |
| W12 | 11 41 11 | 27°15'35 | 10♌34 | 16°0 | 27°47 | 13°20 | 2°40 | 27°25 | 18°2 | 0°36 | 23°20 | 29°30 | 29°43 | 0°50 | 27°35 | W12 | W12 | |
| T 13 | 11 45 8 | 28°14'44 | 22°30 | 17°8 | 29°2 | 14°1 | 2°35 | 27°32 | 18°1 | 0°38 | 23°22 | 29°30 | 29°40 | 0°56 | 27°38 | T 13 | T 13 | |
| F 14 | 11 49 4 | 29°13'50 | 4♌22 | 18°10 | 0♌16 | 14°42 | 2°30 | 27°39 | 18°0 | 0°39 | 23°23 | 29°R30 | 29°37 | 1°3 | 27°41 | F 14 | F 14 | |
| S 15 | 11 53 1 | 0♌12'54 | 16°14 | 19°5 | 1°31 | 15°23 | 2°24 | 27°46 | 17°58 | 0°41 | 23°25 | 29°30 | 29°34 | 1°10 | 27°44 | S 15 | S 15 | |
| S 16 | 11 56 58 | 1°11'55 | 28°10 | 19°54 | 2°45 | 16°4 | 2°19 | 27°54 | 17°57 | 0°43 | 23°26 | 29°D30 | 29°31 | 1°16 | 27°47 | S 16 | S 16 | |
| M17 | 12 0 54 | 2°10'54 | 10♌15 | 20°37 | 3°59 | 16°45 | 2°13 | 28°1 | 17°55 | 0°46 | 23°27 | 29°30 | 29°28 | 1°23 | 27°50 | M17 | M17 | |
| T 18 | 12 4 51 | 3°9'51 | 22°33 | 21°13 | 5°14 | 17°26 | 2°7 | 28°8 | 17°54 | 0°48 | 23°29 | 29°30 | 29°24 | 1°30 | 27°54 | T 18 | T 18 | |
| W19 | 12 8 47 | 4°8'46 | 5♌9 | 21°42 | 6°28 | 18°7 | 2°1 | 28°15 | 17°52 | 0°50 | 23°30 | 29°31 | 29°21 | 1°37 | 27°57 | W19 | W19 | |
| T 20 | 12 12 44 | 5°7'38 | 18°5 | 22°4 | 7°42 | 18°48 | 1°55 | 28°23 | 17°51 | 0°52 | 23°31 | 29°31 | 29°18 | 1°43 | 28°0 | T 20 | T 20 | |
| F 21 | 12 16 40 | 6°6'28 | 1♌25 | 22°19 | 8°57 | 19°29 | 1°49 | 28°30 | 17°49 | 0°54 | 23°33 | 29°32 | 29°15 | 1°50 | 28°4 | F 21 | F 21 | |
| S 22 | 12 20 37 | 7°5'16 | 15°9 | 22°28 | 10°11 | 20°10 | 1°43 | 28°38 | 17°48 | 0°56 | 23°34 | 29°32 | 29°12 | 1°57 | 28°7 | S 22 | S 22 | |
| S 23 | 12 24 33 | 8°4'01 | 29°14 | 22°R30 | 11°25 | 20°51 | 1°37 | 28°45 | 17°46 | 0°58 | 23°35 | 29°R32 | 29°8 | 2°3 | 28°10 | S 23 | S 23 | |
| M24 | 12 28 30 | 9°2'45 | 13♌39 | 22°26 | 12°39 | 21°32 | 1°30 | 28°52 | 17°44 | 1°0 | 23°37 | 29°32 | 29°5 | 2°10 | 28°14 | M24 | M24 | |
| T 25 | 12 32 27 | 10°1'26 | 28°18 | 22°16 | 13°54 | 22°13 | 1°24 | 29°0 | 17°42 | 1°2 | 23°38 | 29°32 | 29°2 | 2°17 | 28°18 | T 25 | T 25 | |
| W26 | 12 36 23 | 11°0'06 | 13♌3 | 22°0 | 15°8 | 22°54 | 1°17 | 29°7 | 17°41 | 1°4 | 23°39 | 29°30 | 28°59 | 2°24 | 28°21 | W26 | W26 | |
| T 27 | 12 40 20 | 11°58'43 | 27°48 | 21°39 | 16°22 | 23°35 | 1°10 | 29°15 | 17°39 | 1°6 | 23°40 | 29°29 | 28°56 | 2°30 | 28°25 | T 27 | T 27 | |
| F 28 | 12 44 16 | 12°57'20 | 12♌26 | 21°13 | 17°36 | 24°16 | 1°3 | 29°22 | 17°37 | 1°9 | 23°41 | 29°27 | 28°53 | 2°37 | 28°28 | F 28 | F 28 | |
| S 29 | 12 48 13 | 13°55'54 | 26°52 | 20°43 | 18°50 | 24°57 | 0°56 | 29°30 | 17°35 | 1°11 | 23°43 | 29°26 | 28°49 | 2°44 | 28°32 | S 29 | S 29 | |
| S 30 | 12 52 9 | 14°54'27 | 11♌2 | 20°9 | 20°5 | 25°38 | 0°49 | 29°38 | 17°33 | 1°13 | 23°44 | 29°D26 | 28°46 | 2°50 | 28°36 | S 30 | S 30 | |
| M31 | 12 56 6 | 15°52'58 | 24♌54 | 19°32 | 21°19 | 26♌19 | 0♌42 | 29°45 | 17♌31 | 1♌15 | 23°45 | 29♌26 | 28♌43 | 2♌57 | 28♌40 | M31 | M31 | |

Delta T = 20m13s Julian Calendar 1 March 1057 == Greg. Calendar 7 March 1057

APRIL 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|------|-------|--------|-------|------|-------|------|------|-----|
| T 1 | 13 0 2 | 16♌51'27 | 8♌29 | 18°R53 | 22♌33 | 26♌59 | 0°R35 | 29♌53 | 17°R29 | 1♌17 | 23♌46 | 29♌27 | 28♌40 | 3♌4 | 28♌44 | T 1 | T 1 | |
| W 2 | 13 3 59 | 17°49'55 | 21°46 | 18♌12 | 23°47 | 27°40 | 0♌28 | 0♌8 | 17♌25 | 1°20 | 23°47 | 29°28 | 28°37 | 3°10 | 28°47 | W 2 | W 2 | |
| T 3 | 13 7 56 | 18°48'21 | 4♌48 | 17°31 | 25°1 | 28°21 | 0°21 | 0°8 | 17°25 | 1°22 | 23°48 | 29°29 | 28°33 | 3°17 | 28°51 | T 3 | T 3 | |
| F 4 | 13 11 52 | 19°46'46 | 17°35 | 16°49 | 26°15 | 29°2 | 0°13 | 0°16 | 17°23 | 1°24 | 23°49 | 29°30 | 28°30 | 3°24 | 28°55 | F 4 | F 4 | |
| S 5 | 13 15 49 | 20°45'08 | 0♌10 | 16°9 | 27°29 | 29°43 | 0°6 | 0°24 | 17°21 | 1°26 | 23°50 | 29°R31 | 28°27 | 3°31 | 28°59 | S 5 | S 5 | |
| S 6 | 13 19 45 | 21°43'29 | 12°34 | 15°30 | 28°43 | 0♌23 | 29♌58 | 0°31 | 17°19 | 1°28 | 23°51 | 29°30 | 28°24 | 3°37 | 29°3 | S 6 | S 6 | |
| M 7 | 13 23 42 | 22°41'48 | 24°48 | 14°53 | 29°57 | 1°4 | 29°51 | 0°39 | 17°16 | 1°31 | 23°52 | 29°28 | 28°21 | 3°44 | 29°8 | M 7 | M 7 | |
| T 8 | 13 27 38 | 23°40'05 | 6♌54 | 14°18 | 1♌11 | 1°45 | 29°43 | 0°47 | 17°14 | 1°33 | 23°53 | 29°26 | 28°18 | 3°51 | 29°12 | T 8 | T 8 | |
| W 9 | 13 31 35 | 24°38'20 | 18°53 | 13°47 | 2°25 | 2°25 | 29°36 | 0°54 | 17°12 | 1°35 | 23°54 | 29°22 | 28°14 | 3°57 | 29°16 | W 9 | W 9 | |
| T 10 | 13 35 31 | 25°36'34 | 0♌47 | 13°20 | 3°39 | 3°6 | 29°28 | 1°2 | 17°10 | 1°37 | 23°55 | 29°17 | 28°11 | 4°4 | 29°20 | T 10 | T 10 | |
| F 11 | 13 39 28 | 26°34'45 | 12°38 | 12°56 | 4°53 | 3°46 | 29°20 | 1°10 | 17°7 | 1°40 | 23°56 | 29°13 | 28°8 | 4°11 | 29°24 | F 11 | F 11 | |
| S 12 | 13 43 25 | 27°32'55 | 24°30 | 12°37 | 6°7 | 4°27 | 29°13 | 1°18 | 17°5 | 1°42 | 23°57 | 29°9 | 28°5 | 4°18 | 29°28 | S 12 | S 12 | |
| S 13 | 13 47 21 | 28°31'03 | 6♌25 | 12°23 | 7°21 | 5°7 | 29°5 | 1°25 | 17°3 | 1°44 | 23°58 | 29°5 | 28°2 | 4°24 | 29°33 | S 13 | S 13 | |
| M14 | 13 51 18 | 29°29'08 | 18°28 | 12°12 | 8°35 | 5°48 | 28°57 | 1°33 | 17°1 | 1°46 | 23°59 | 29°3 | 27°59 | 4°31 | 29°37 | M14 | M14 | |
| T 15 | 13 55 14 | 0♌27'12 | 0♌44 | 12°7 | 9°48 | 6°28 | 28°50 | 1°41 | 16°58 | 1°49 | 23°59 | 29°D3 | 27°55 | 4°38 | 29°41 | T 15 | T 15 | |
| W16 | 13 59 11 | 1°25'14 | 13°15 | 12°D7 | 11°2 | 7°8 | 28°42 | 1°49 | 16°56 | 1°51 | 24°0 | 29°3 | 27°52 | 4°44 | 29°46 | W16 | W16 | |
| T 17 | 14 3 7 | 2°23'14 | 26°8 | 12°11 | 12°16 | 7°49 | 28°35 | 1°57 | 16°53 | 1°53 | 24°1 | 29°5 | 27°49 | 4°51 | 29°50 | T 17 | T 17 | |
| F 18 | 14 7 4 | 3°21'11 | 9♌25 | 12°20 | 13°30 | 8°29 | 28°27 | 2°4 | 16°51 | 1°55 | 24°2 | 29°6 | 27°46 | 4°58 | 29°55 | F 18 | F 18 | |
| S 19 | 14 11 0 | 4°19'07 | 23°9 | 12°33 | 14°44 | 9°9 | 28°19 | 2°12 | 16°49 | 1°58 | 24°3 | 29°R7 | 27°43 | 5°5 | 29°59 | S 19 | S 19 | |
| S 20 | 14 14 57 | 5°17'01 | 7♌20 | 12°51 | 15°57 | 9°49 | 28°12 | 2°20 | 16°46 | 2°0 | 24°3 | 29°7 | 27°39 | 5°11 | 0♌4 | S 20 | S 20 | |
| M21 | 14 18 54 | 6°14'54 | 21°55 | 13°13 | 17°11 | 10°29 | 28°4 | 2°28 | 16°44 | 2°2 | 24°4 | 29°5 | 27°36 | 5°18 | 0°8 | M21 | M21 | |
| T 22 | 14 22 50 | 7°12'44 | 6♌50 | 13°40 | 18°25 | 11°9 | 27°57 | 2°35 | 16°41 | 2°4 | 24°5 | 29°2 | 27°33 | 5°25 | 0°13 | T 22 | T 22 | |
| W23 | 14 26 47 | 8°10'34 | 21°57 | 14°11 | 19°39 | 11°49 | 27°49 | 2°43 | 16°39 | 2°7 | 24°5 | 28°57 | 27°30 | 5°31 | 0°17 | W23 | W23 | |
| T 24 | 14 30 43 | 9°8'21 | 7♌6 | 14°46 | 20°52 | 12°29 | 27°42 | 2°51 | 16°36 | 2°9 | 24°6 | 28°51 | 27°27 | 5°38 | 0°22 | T 24 | T 24 | |
| F 25 | 14 34 40 | 10°6'08 | 22°6 | 15°25 | 22°6 | 13°9 | 27°35 | 2°59 | 16°34 | 2°11 | 24°6 | 28°46 | 27°24 | 5°45 | 0°26 | F 25 | F 25 | |
| S 26 | 14 38 36 | 11°3'54 | 6♌50 | 16°8 | 23°20 | 13°49 | 27°27 | 3°6 | 16°31 | 2°13 | 24°7 | 28°41 | 27°20 | 5°52 | 0°31 | S 26 | S 26 | |
| S 27 | 14 42 33 | 12°1'38 | 21°12 | 16°54 | 24°33 | 14°28 | 27°20 | 3°14 | 16°29 | 2°16 | 24°8 | 28°37 | 27°17 | 5°58 | 0°36 | S 27 | S 27 | |
| M28 | 14 46 29 | 12°59'21 | 5♌9 | 17°44 | 25°47 | 15°8 | 27°13 | 3°22 | 16°26 | 2°18 | 24°8 | 28°35 | 27°14 | 6°5 | 0°40 | M28 | M28 | |
| T 29 | 14 50 26 | 13°57'03 | 18°42 | 18°37 | 27°0 | 15°48 | 27°6 | 3°29 | 16°24 | 2°20 | 24°9 | 28°D35 | 27°11 | 6°12 | 0°45 | T 29 | T 29 | |
| W30 | 14 54 23 | 14°54'43 | 1♌51 | 19°34 | 28♌14 | 16♌27 | 26♌59 | 3♌37 | 16♌21 | 2♌22 | 24°9 | 28♌36 | 27♌8 | 6♌18 | 0♌50 | W30 | W30 | |

Delta T = 20m13s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1057
geocentric

MAY 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|--------|------|--------|--------|-------|------|------|------|---|---|---|---|---|---|---|-----|
| T 1 | 14 58 19 | 15♁52'23 | 14♁41 | 20♁33 | 29♁28 | 17♁7 | 26°R52 | 3♁45 | 16°R19 | 2♁24 | 24♁10 | 28♁37 | 27♁5 | 6♁25 | 0♁54 | T 1 | | | | | | | | |
| F 2 | 15 2 16 | 16°50'02 | 27°13 | 21°36 | 0♁41 | 17°46 | 26♁45 | 3°52 | 16♁16 | 2°27 | 24°10 | 28°R38 | 27° 1 | 6°32 | 0°59 | F 2 | | | | | | | | |
| S 3 | 15 6 12 | 17°47'39 | 9♁33 | 22°42 | 1°55 | 18°25 | 26°38 | 4° 0 | 16°14 | 2°29 | 24°10 | 28°37 | 26°58 | 6°39 | 1° 4 | S 3 | | | | | | | | |
| S 4 | 15 10 9 | 18°45'15 | 21°43 | 23°51 | 3° 8 | 19° 5 | 26°32 | 4° 8 | 16°11 | 2°31 | 24°11 | 28°35 | 26°55 | 6°45 | 1° 9 | S 4 | | | | | | | | |
| M 5 | 15 14 5 | 19°42'51 | 3♁46 | 25° 2 | 4°22 | 19°44 | 26°25 | 4°15 | 16° 9 | 2°33 | 24°11 | 28°30 | 26°52 | 6°52 | 1°13 | M 5 | | | | | | | | |
| T 6 | 15 18 2 | 20°40'25 | 15°43 | 26°17 | 5°35 | 20°23 | 26°19 | 4°23 | 16° 7 | 2°35 | 24°12 | 28°23 | 26°49 | 6°59 | 1°18 | T 6 | | | | | | | | |
| W 7 | 15 21 58 | 21°37'58 | 27°36 | 27°34 | 6°49 | 21° 2 | 26°12 | 4°30 | 16° 4 | 2°38 | 24°12 | 28°14 | 26°45 | 7° 5 | 1°23 | W 7 | | | | | | | | |
| T 8 | 15 25 55 | 22°35'30 | 9♁28 | 28°54 | 8° 2 | 21°41 | 26° 6 | 4°38 | 16° 2 | 2°40 | 24°12 | 28° 3 | 26°42 | 7°12 | 1°28 | T 8 | | | | | | | | |
| F 9 | 15 29 52 | 23°33'01 | 21°20 | 0♁16 | 9°16 | 22°19 | 26° 0 | 4°45 | 15°59 | 2°42 | 24°12 | 27°53 | 26°39 | 7°19 | 1°32 | F 9 | | | | | | | | |
| S 10 | 15 33 48 | 24°30'30 | 3♁13 | 1°42 | 10°29 | 22°58 | 25°54 | 4°53 | 15°57 | 2°44 | 24°13 | 27°43 | 26°36 | 7°26 | 1°37 | S 10 | | | | | | | | |
| S 11 | 15 37 45 | 25°27'59 | 15°10 | 3° 9 | 11°42 | 23°37 | 25°48 | 5° 0 | 15°54 | 2°46 | 24°13 | 27°35 | 26°33 | 7°32 | 1°42 | S 11 | | | | | | | | |
| M12 | 15 41 41 | 26°25'26 | 27°14 | 4°40 | 12°56 | 24°15 | 25°42 | 5° 8 | 15°52 | 2°48 | 24°13 | 27°29 | 26°30 | 7°39 | 1°47 | M12 | | | | | | | | |
| T 13 | 15 45 38 | 27°22'52 | 9♁28 | 6°13 | 14° 9 | 24°53 | 25°37 | 5°15 | 15°49 | 2°50 | 24°13 | 27°25 | 26°26 | 7°46 | 1°52 | T 13 | | | | | | | | |
| W14 | 15 49 34 | 28°20'16 | 21°57 | 7°48 | 15°23 | 25°32 | 25°31 | 5°23 | 15°47 | 2°52 | 24°13 | 27°23 | 26°23 | 7°52 | 1°57 | W14 | | | | | | | | |
| T 15 | 15 53 31 | 29°17'40 | 4♁45 | 9°26 | 16°36 | 26°10 | 25°26 | 5°30 | 15°44 | 2°54 | 24°13 | 27°D23 | 26°20 | 7°59 | 2° 1 | T 15 | | | | | | | | |
| F 16 | 15 57 27 | 0♁15'02 | 17°56 | 11° 7 | 17°49 | 26°48 | 25°21 | 5°37 | 15°42 | 2°57 | 24°14 | 27°24 | 26°17 | 8° 6 | 2° 6 | F 16 | | | | | | | | |
| S 17 | 16 1 24 | 1°12'22 | 1♁33 | 12°50 | 19° 2 | 27°26 | 25°16 | 5°45 | 15°40 | 2°59 | 24°14 | 27°R24 | 26°14 | 8°13 | 2°11 | S 17 | | | | | | | | |
| S 18 | 16 5 21 | 2° 9'42 | 15°39 | 14°35 | 20°16 | 28° 3 | 25°11 | 5°52 | 15°37 | 3° 1 | 24°14 | 27°22 | 26°11 | 8°19 | 2°16 | S 18 | | | | | | | | |
| M19 | 16 9 17 | 3° 7'01 | 0♁12 | 16°24 | 21°29 | 28°41 | 25° 6 | 5°59 | 15°35 | 3° 3 | 24°R14 | 27°19 | 26° 7 | 8°26 | 2°21 | M19 | | | | | | | | |
| T 20 | 16 13 14 | 4° 4'19 | 15° 9 | 18°14 | 22°42 | 29°18 | 25° 1 | 6° 6 | 15°33 | 3° 5 | 24°14 | 27°13 | 26° 4 | 8°33 | 2°26 | T 20 | | | | | | | | |
| W21 | 16 17 10 | 5° 1'36 | 0♁23 | 20° 7 | 23°55 | 29°56 | 24°57 | 6°13 | 15°30 | 3° 7 | 24°14 | 27° 5 | 26° 1 | 8°39 | 2°31 | W21 | | | | | | | | |
| T 22 | 16 21 7 | 5°58'52 | 15°42 | 22° 2 | 25° 9 | 0♁33 | 24°53 | 6°20 | 15°28 | 3° 9 | 24°14 | 26°56 | 25°58 | 8°46 | 2°35 | T 22 | | | | | | | | |
| F 23 | 16 25 3 | 6°56'08 | 0♁57 | 24° 0 | 26°22 | 1°10 | 24°48 | 6°28 | 15°26 | 3°11 | 24°14 | 26°46 | 25°55 | 8°53 | 2°40 | F 23 | | | | | | | | |
| S 24 | 16 29 0 | 7°53'23 | 15°55 | 26° 0 | 27°35 | 1°47 | 24°44 | 6°35 | 15°24 | 3°12 | 24°13 | 26°37 | 25°51 | 9° 0 | 2°45 | S 24 | | | | | | | | |
| S 25 | 16 32 57 | 8°50'37 | 0♁30 | 28° 1 | 28°48 | 2°24 | 24°41 | 6°42 | 15°21 | 3°14 | 24°13 | 26°30 | 25°48 | 9° 6 | 2°50 | S 25 | | | | | | | | |
| M26 | 16 36 53 | 9°47'52 | 14°30 | 0♁11 | 5 0 | 3° 1 | 24°37 | 6°49 | 15°19 | 3°16 | 24°13 | 26°26 | 25°45 | 9°13 | 2°55 | M26 | | | | | | | | |
| T 27 | 16 40 50 | 10°45'06 | 28°14 | 2°11 | 1°14 | 3°37 | 24°33 | 6°56 | 15°17 | 3°18 | 24°13 | 26°24 | 25°42 | 9°20 | 3° 0 | T 27 | | | | | | | | |
| W28 | 16 44 46 | 11°42'19 | 11♁25 | 4°18 | 2°27 | 4°14 | 24°30 | 7° 2 | 15°15 | 3°20 | 24°13 | 26°D23 | 25°39 | 9°26 | 3° 5 | W28 | | | | | | | | |
| T 29 | 16 48 43 | 12°39'32 | 24°11 | 6°26 | 3°40 | 4°50 | 24°27 | 7° 9 | 15°13 | 3°22 | 24°13 | 26°R23 | 25°36 | 9°33 | 3° 9 | T 29 | | | | | | | | |
| F 30 | 16 52 39 | 13°36'45 | 6♁38 | 8°36 | 4°53 | 5°26 | 24°24 | 7°16 | 15°11 | 3°24 | 24°12 | 26°23 | 25°32 | 9°40 | 3°14 | F 30 | | | | | | | | |
| S 31 | 16 56 36 | 14♁33'58 | 18♁51 | 10♁46 | 6♁7 | 6♁2 | 24♁21 | 7♁23 | 15♁8 | 3♁26 | 24♁12 | 26♁21 | 25♁29 | 9♁47 | 3♁19 | S 31 | | | | | | | | |

Delta T = 20m13s Julian Calendar 1 May 1057 == Greg. Calendar 7 May 1057

JUNE 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|------|--------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| S 1 | 17 0 32 | 15♁31'11 | 0♁53 | 12♁57 | 7♁20 | 6♁37 | 24°R19 | 7♁29 | 15°R 6 | 3♁27 | 24°R12 | 26°R17 | 25♁26 | 9♁53 | 3♁24 | S 1 | | | | | | | | |
| M 2 | 17 4 29 | 16°28'23 | 12°49 | 15° 9 | 8°33 | 7°13 | 24♁16 | 7°36 | 15♁4 | 3°29 | 24♁11 | 26♁10 | 25°23 | 10° 0 | 3°29 | M 2 | | | | | | | | |
| T 3 | 17 8 26 | 17°25'36 | 24°41 | 17°20 | 9°46 | 7°48 | 24°14 | 7°43 | 15° 2 | 3°31 | 24°11 | 26° 0 | 25°20 | 10° 7 | 3°33 | T 3 | | | | | | | | |
| W 4 | 17 12 22 | 18°22'48 | 6♁32 | 19°31 | 10°58 | 8°23 | 24°12 | 7°49 | 15° 0 | 3°33 | 24°11 | 25°48 | 25°17 | 10°14 | 3°38 | W 4 | | | | | | | | |
| T 5 | 17 16 19 | 19°20'00 | 18°24 | 21°42 | 12°11 | 8°58 | 24°10 | 7°56 | 14°59 | 3°34 | 24°10 | 25°35 | 25°13 | 10°20 | 3°43 | T 5 | | | | | | | | |
| F 6 | 17 20 15 | 20°17'12 | 0♁18 | 23°52 | 13°24 | 9°32 | 24° 8 | 8° 2 | 14°57 | 3°36 | 24°10 | 25°21 | 25°10 | 10°27 | 3°48 | F 6 | | | | | | | | |
| S 7 | 17 24 12 | 21°14'23 | 12°15 | 26° 1 | 14°37 | 10° 7 | 24° 6 | 8° 9 | 14°55 | 3°38 | 24° 9 | 25° 8 | 25° 7 | 10°34 | 3°52 | S 7 | | | | | | | | |
| S 8 | 17 28 8 | 22°11'34 | 24°18 | 28° 9 | 15°50 | 10°41 | 24° 5 | 8°15 | 14°53 | 3°39 | 24° 9 | 24°56 | 25° 4 | 10°40 | 3°57 | S 8 | | | | | | | | |
| M 9 | 17 32 5 | 23° 8'45 | 6♁28 | 0♁15 | 17° 3 | 11°15 | 24° 4 | 8°21 | 14°51 | 3°41 | 24° 9 | 24°48 | 25° 1 | 10°47 | 4° 2 | M 9 | | | | | | | | |
| T 10 | 17 36 1 | 24° 5'56 | 18°47 | 2°20 | 18°16 | 11°49 | 24° 3 | 8°28 | 14°49 | 3°43 | 24° 8 | 24°42 | 24°57 | 10°54 | 4° 6 | T 10 | | | | | | | | |
| W11 | 17 39 58 | 25° 3'06 | 1♁19 | 4°24 | 19°29 | 12°22 | 24° 2 | 8°34 | 14°48 | 3°44 | 24° 8 | 24°38 | 24°54 | 11° 1 | 4°11 | W11 | | | | | | | | |
| T 12 | 17 43 55 | 26° 0'16 | 14° 7 | 6°26 | 20°41 | 12°55 | 24° 1 | 8°40 | 14°46 | 3°46 | 24° 7 | 24°37 | 24°51 | 11° 7 | 4°16 | T 12 | | | | | | | | |
| F 13 | 17 47 51 | 26°57'25 | 27°14 | 8°26 | 21°54 | 13°28 | 24° 1 | 8°46 | 14°44 | 3°47 | 24° 6 | 24°37 | 24°48 | 11°14 | 4°20 | F 13 | | | | | | | | |
| S 14 | 17 51 48 | 27°54'34 | 10♁45 | 10°24 | 23° 7 | 14° 1 | 24° 0 | 8°52 | 14°43 | 3°49 | 24° 6 | 24°37 | 24°45 | 11°21 | 4°25 | S 14 | | | | | | | | |
| S 15 | 17 55 44 | 28°51'43 | 24°41 | 12°20 | 24°20 | 14°33 | 24°D 0 | 8°58 | 14°41 | 3°50 | 24° 5 | 24°35 | 24°42 | 11°27 | 4°29 | S 15 | | | | | | | | |
| M16 | 17 59 41 | 29°48'52 | 9♁13 | 14°14 | 25°32 | 15° 6 | 24° 0 | 9° 4 | 14°40 | 3°52 | 24° 5 | 24°31 | 24°38 | 11°34 | 4°34 | M16 | | | | | | | | |
| T 17 | 18 3 37 | 0♁46'01 | 23°50 | 16° 6 | 26°45 | 15°38 | 24° 1 | 9°10 | 14°38 | 3°53 | 24° 4 | 24°25 | 24°35 | 11°41 | 4°39 | T 17 | | | | | | | | |
| W18 | 18 7 34 | 1°43'09 | 8♁55 | 17°57 | 27°58 | 16° 9 | 24° 1 | 9°15 | 14°37 | 3°54 | 24° 3 | 24°16 | 24°32 | 11°48 | 4°43 | W18 | | | | | | | | |
| T 19 | 18 11 30 | 2°40'18 | 24° 9 | 19°45 | 29°10 | 16°41 | 24° 2 | 9°21 | 14°35 | 3°56 | 24° 3 | 24° 6 | 24°29 | 11°54 | 4°48 | T 19 | | | | | | | | |
| F 20 | 18 15 27 | 3°37'27 | 9♁22 | 21°32 | 0♁23 | 17°12 | 24° 2 | 9°27 | 14°34 | 3°57 | 24° 2 | 23°56 | 24°26 | 12° 1 | 4°52 | F 20 | | | | | | | | |
| S 21 | 18 19 24 | 4°34'37 | 24°23 | 23°16 | 1°35 | 17°42 | 24° 3 | 9°32 | 14°33 | 3°58 | 24° 1 | 23°46 | 24°23 | 12° 8 | 4°56 | S 21 | | | | | | | | |
| S 22 | 18 23 20 | 5°31'46 | 9♁4 | 24°58 | 2°48 | 18°13 | 24° 4 | 9°38 | 14°31 | 4° 0 | 24° 0 | 23°38 | 24°19 | 12°15 | 5° 1 | S 22 | | | | | | | | |
| M23 | 18 27 17 | 6°28'56 | 23°17 | 26°39 | 4° 0 | 18°43 | 24° 6 | 9°43 | 14°30 | 4° 1 | 24° 0 | 23°33 | 24°16 | 12°21 | 5° 5 | M23 | | | | | | | | |
| T 24 | 18 31 13 | 7°26'06 | 7♁0 | 28°17 | 5°13 | 19°13 | 24° 7 | 9°49 | 14°29 | 4° 2 | 23°59 | 23°30 | 24°13 | 12°28 | 5°10 | T 24 | | | | | | | | |
| W25 | 18 35 10 | 8°23'18 | 20°15 | 29°54 | 6°25 | 19°42 | 24° 9 | 9°54 | 14°28 | 4° 3 | 23°58 | 23°D29 | 24°10 | 12°35 | 5°14 | W25 | | | | | | | | |
| T 26 | 18 39 6 | 9°20'29 | 3♁5 | 1♁29 | 7°38 | 20°11 | 24°11 | 9°59 | 14°27 | 4° 5 | 23°57 | 23°R29 | 24° 7 | 12°41 | 5°18 | T 26 | | | | | | | | |
| F 27 | 18 43 3 | 10°17'42 | 15°33 | 3° 1 | 8°50 | 20°40 | 24°13 | 10° 4 | 14°26 | 4° 6 | 23°56 | 23°29 | 24° 3 | 12°48 | 5°22 | F 27 | | | | | | | | |
| S 28 | 18 46 59 | 11°14'55 | 27°45 | 4°32 | 10° 2 | 21° 8 | 24°15 | 10° 9 | 14°25 | 4° 7 | 23°56 | 23°28 | 24° 0 | 12°55 | 5°27 | S 28 | | | | | | | | |
| S 29 | 18 50 56 | 12°12'09 | 9♁45 | 6° 0 | 11°15 | 21°36 | 24°17 | 10°14 | 14°24 | 4° 8 | 23°55 | 23°25 | 23°57 | 13° 2 | 5°31 | S 29 | | | | | | | | |
| M30 | 18 54 53 | 13♁9'24 | 21♁39 | 7♁27 | 12♁27 | 22♁4 | 24♁20 | 10♁19 | 14♁23 | 4♁9 | 23♁54 | 23♁19 | 23♁54 | 13♁8 | 5♁35 | M30 | | | | | | | | |

Delta T = 20m13s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1057
geocentric

JULY 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|-------------------|---------------------|---------------------|--------------------|--------------------|-------------------|------|-----|
| T 1 | 18 58 49 | 14 [☾] 6'39 | 3 [♂] 29 | 8 [♁] 51 | 13 [♁] 39 | 22 [♁] 31 | 24 [♁] 23 | 10 [♁] 24 | 14 [♁] R22 | 4 [♁] 10 | 23 [♁] R53 | 23 [♁] R11 | 23 [♁] 51 | 13 [♂] 15 | 5 [♂] 39 | T 1 | |
| W 2 | 19 2 46 | 15° 3'56 | 15°21 | 10°14 | 14°52 | 22°58 | 24°25 | 10°29 | 14 [♂] 21 | 4°11 | 23 [♁] 52 | 23 [♁] 1 | 23°48 | 13°22 | 5°43 | W 2 | |
| T 3 | 19 6 42 | 16° 1'13 | 27°15 | 11°34 | 16° 4 | 23°24 | 24°29 | 10°33 | 14°20 | 4°12 | 23°51 | 22°49 | 23°44 | 13°28 | 5°47 | T 3 | |
| F 4 | 19 10 39 | 16°58'31 | 9 [♁] 14 | 12°52 | 17°16 | 23°50 | 24°32 | 10°38 | 14°20 | 4°13 | 23°50 | 22°37 | 23°41 | 13°35 | 5°51 | F 4 | |
| S 5 | 19 14 35 | 17°55'49 | 21°20 | 14° 8 | 18°28 | 24°15 | 24°35 | 10°43 | 14°19 | 4°14 | 23°49 | 22°25 | 23°38 | 13°42 | 5°55 | S 5 | |
| S 6 | 19 18 32 | 18°53'08 | 3 [♁] 33 | 15°22 | 19°40 | 24°40 | 24°39 | 10°47 | 14°18 | 4°15 | 23°48 | 22°15 | 23°35 | 13°49 | 5°59 | S 6 | |
| M 7 | 19 22 29 | 19°50'28 | 15°55 | 16°33 | 20°52 | 25° 5 | 24°42 | 10°51 | 14°18 | 4°16 | 23°47 | 22° 8 | 23°32 | 13°55 | 6° 3 | M 7 | |
| T 8 | 19 26 25 | 20°47'49 | 28°26 | 17°42 | 22° 4 | 25°29 | 24°46 | 10°56 | 14°17 | 4°17 | 23°46 | 22° 3 | 23°29 | 14° 2 | 6° 7 | T 8 | |
| W 9 | 19 30 22 | 21°45'10 | 11 [♂] 8 | 18°48 | 23°16 | 25°52 | 24°50 | 11° 0 | 14°17 | 4°17 | 23°45 | 22° 0 | 23°25 | 14° 9 | 6°11 | W 9 | |
| T 10 | 19 34 18 | 22°42'32 | 24° 4 | 19°52 | 24°28 | 26°15 | 24°55 | 11° 4 | 14°17 | 4°18 | 23°44 | 22°D 0 | 23°22 | 14°16 | 6°15 | T 10 | |
| F 11 | 19 38 15 | 23°39'54 | 7 [♁] 16 | 20°53 | 25°40 | 26°38 | 24°59 | 11° 8 | 14°16 | 4°19 | 23°43 | 22° 0 | 23°19 | 14°22 | 6°18 | F 11 | |
| S 12 | 19 42 11 | 24°37'17 | 20°46 | 21°51 | 26°52 | 27° 0 | 25° 4 | 11°12 | 14°16 | 4°19 | 23°42 | 22°R 1 | 23°16 | 14°29 | 6°22 | S 12 | |
| S 13 | 19 46 8 | 25°34'41 | 4 [♂] 36 | 22°47 | 28° 4 | 27°21 | 25° 8 | 11°16 | 14°16 | 4°20 | 23°41 | 22° 0 | 23°13 | 14°36 | 6°26 | S 13 | |
| M14 | 19 50 4 | 26°32'05 | 18°47 | 23°39 | 29°16 | 27°42 | 25°13 | 11°19 | 14°15 | 4°21 | 23°40 | 21°58 | 23° 9 | 14°42 | 6°29 | M14 | |
| T 15 | 19 54 1 | 27°29'30 | 3 [♁] 18 | 24°28 | 0 [♂] 28 | 28° 3 | 25°18 | 11°23 | 14°15 | 4°21 | 23°39 | 21°54 | 23° 6 | 14°49 | 6°33 | T 15 | |
| W16 | 19 57 58 | 28°26'56 | 18° 4 | 25°14 | 1°40 | 28°22 | 25°23 | 11°27 | 14°15 | 4°22 | 23°37 | 21°48 | 23° 3 | 14°56 | 6°36 | W16 | |
| T 17 | 20 1 54 | 29°24'23 | 2 [♁] 59 | 25°56 | 2°51 | 28°42 | 25°29 | 11°30 | 14°15 | 4°23 | 23°36 | 21°41 | 23° 0 | 15° 3 | 6°40 | T 17 | |
| F 18 | 20 5 51 | 0 [♁] 21'51 | 17°56 | 26°34 | 4° 3 | 29° 0 | 25°34 | 11°34 | 14°D15 | 4°23 | 23°35 | 21°33 | 22°57 | 15° 9 | 6°43 | F 18 | |
| S 19 | 20 9 47 | 1°19'20 | 2 [♁] 44 | 27° 9 | 5°14 | 29°18 | 25°40 | 11°37 | 14°15 | 4°24 | 23°34 | 21°26 | 22°54 | 15°16 | 6°47 | S 19 | |
| S 20 | 20 13 44 | 2°16'50 | 17°17 | 27°39 | 6°26 | 29°36 | 25°46 | 11°40 | 14°15 | 4°24 | 23°33 | 21°20 | 22°50 | 15°23 | 6°50 | S 20 | |
| M21 | 20 17 40 | 3°14'21 | 1 [♂] 27 | 28° 5 | 7°38 | 29°53 | 25°51 | 11°43 | 14°15 | 4°24 | 23°32 | 21°17 | 22°47 | 15°29 | 6°53 | M21 | |
| T 22 | 20 21 37 | 4°11'53 | 15°11 | 28°27 | 8°49 | 0 [♂] 9 | 25°57 | 11°46 | 14°15 | 4°25 | 23°30 | 21°D15 | 22°44 | 15°36 | 6°57 | T 22 | |
| W23 | 20 25 33 | 5° 9'27 | 28°28 | 28°44 | 10° 0 | 0°24 | 26° 4 | 11°49 | 14°16 | 4°25 | 23°29 | 21°15 | 22°41 | 15°43 | 7° 0 | W23 | |
| T 24 | 20 29 30 | 6° 7'02 | 11 [♂] 21 | 28°56 | 11°12 | 0°39 | 26°10 | 11°52 | 14°16 | 4°25 | 23°28 | 21°16 | 22°38 | 15°50 | 7° 3 | T 24 | |
| F 25 | 20 33 27 | 7° 4'39 | 23°53 | 29° 3 | 12°23 | 0°53 | 26°17 | 11°55 | 14°16 | 4°26 | 23°27 | 21°17 | 22°35 | 15°56 | 7° 6 | F 25 | |
| S 26 | 20 37 23 | 8° 2'17 | 6 [♁] 7 | 29°R 5 | 13°34 | 1° 7 | 26°23 | 11°57 | 14°17 | 4°26 | 23°26 | 21°R18 | 22°31 | 16° 3 | 7° 9 | S 26 | |
| S 27 | 20 41 20 | 8°59'57 | 18° 9 | 29° 1 | 14°46 | 1°19 | 26°30 | 12° 0 | 14°17 | 4°26 | 23°24 | 21°18 | 22°28 | 16°10 | 7°12 | S 27 | |
| M28 | 20 45 16 | 9°57'38 | 0 [♂] 4 | 28°51 | 15°57 | 1°31 | 26°37 | 12° 2 | 14°18 | 4°26 | 23°23 | 21°16 | 22°25 | 16°17 | 7°15 | M28 | |
| T 29 | 20 49 13 | 10°55'22 | 11°56 | 28°36 | 17° 8 | 1°42 | 26°44 | 12° 4 | 14°18 | 4°26 | 23°22 | 21°12 | 22°22 | 16°23 | 7°18 | T 29 | |
| W30 | 20 53 9 | 11°53'07 | 23°49 | 28°16 | 18°19 | 1°53 | 26°51 | 12° 7 | 14°19 | 4°27 | 23°21 | 21° 6 | 22°19 | 16°30 | 7°21 | W30 | |
| T 31 | 20 57 6 | 12 [♁] 50'53 | 5 [♁] 47 | 27 [♁] 49 | 19 [♂] 30 | 2°0 | 26°58 | 12 [♁] 9 | 14 [♂] 20 | 4 [♁] 27 | 23 [♁] 19 | 21 [♁] 0 | 22 [♁] 15 | 16 [♂] 37 | 7 [♂] 23 | T 31 | |

Delta T = 20m12s Julian Calendar 1 July 1057 == Greg. Calendar 7 July 1057

AUGUST 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|-------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------|
| F 1 | 21 1 2 | 13 [♁] 48'41 | 17 [♁] 53 | 27°R17 | 20 [♂] 41 | 2°0 | 27°13 | 12 [♁] 11 | 14 [♂] 20 | 4 [♁] 27 | 23°R18 | 20°R53 | 22 [♁] 12 | 16 [♂] 43 | 7 [♂] 26 | F 1 |
| S 2 | 21 4 59 | 14°46'31 | 0 [♁] 8 | 26 [♁] 40 | 21°52 | 2°20 | 27°13 | 12°13 | 14°21 | 4°R27 | 23 [♁] 17 | 20 [♁] 47 | 22° 9 | 16°50 | 7°29 | S 2 |
| S 3 | 21 8 56 | 15°44'22 | 12°33 | 25°58 | 23° 3 | 2°27 | 27°21 | 12°15 | 14°22 | 4°27 | 23°16 | 20°41 | 22° 6 | 16°57 | 7°31 | S 3 |
| M 4 | 21 12 52 | 16°42'15 | 25°11 | 25°12 | 24°14 | 2°33 | 27°29 | 12°16 | 14°23 | 4°27 | 23°14 | 20°37 | 22° 3 | 17° 4 | 7°34 | M 4 |
| T 5 | 21 16 49 | 17°40'09 | 8 [♂] 0 | 24°23 | 25°25 | 2°39 | 27°37 | 12°18 | 14°24 | 4°27 | 23°13 | 20°35 | 22° 0 | 17°10 | 7°36 | T 5 |
| W 6 | 21 20 45 | 18°38'05 | 21° 2 | 23°30 | 26°35 | 2°44 | 27°45 | 12°19 | 14°25 | 4°26 | 23°12 | 20°D34 | 21°56 | 17°17 | 7°39 | W 6 |
| T 7 | 21 24 42 | 19°36'02 | 4 [♁] 16 | 22°36 | 27°46 | 2°48 | 27°53 | 12°21 | 14°26 | 4°26 | 23°11 | 20°35 | 21°53 | 17°24 | 7°41 | T 7 |
| F 8 | 21 28 38 | 20°34'01 | 17°43 | 21°40 | 28°57 | 2°51 | 28° 1 | 12°22 | 14°27 | 4°26 | 23° 9 | 20°36 | 21°50 | 17°30 | 7°43 | F 8 |
| S 9 | 21 32 35 | 21°32'01 | 1 [♂] 23 | 20°45 | 0 [♁] 7 | 2°53 | 28°10 | 12°23 | 14°28 | 4°26 | 23° 8 | 20°38 | 21°47 | 17°37 | 7°45 | S 9 |
| S 10 | 21 36 31 | 22°30'02 | 15°16 | 19°51 | 1°18 | 2°54 | 28°18 | 12°24 | 14°29 | 4°26 | 23° 7 | 20°39 | 21°44 | 17°44 | 7°48 | S 10 |
| M11 | 21 40 28 | 23°28'05 | 29°22 | 19° 0 | 2°28 | 2°R55 | 28°27 | 12°25 | 14°30 | 4°25 | 23° 5 | 20°R39 | 21°40 | 17°51 | 7°50 | M11 |
| T 12 | 21 44 25 | 24°26'09 | 13 [♁] 39 | 18°13 | 3°38 | 2°55 | 28°36 | 12°26 | 14°31 | 4°25 | 23° 4 | 20°38 | 21°37 | 17°57 | 7°52 | T 12 |
| W13 | 21 48 21 | 25°24'15 | 28° 5 | 17°31 | 4°49 | 2°53 | 28°45 | 12°27 | 14°33 | 4°25 | 23° 3 | 20°35 | 21°34 | 18° 4 | 7°54 | W13 |
| T 14 | 21 52 18 | 26°22'22 | 12 [♁] 36 | 16°54 | 5°59 | 2°51 | 28°54 | 12°27 | 14°34 | 4°24 | 23° 2 | 20°32 | 21°31 | 18°11 | 7°56 | T 14 |
| F 15 | 21 56 14 | 27°20'31 | 27° 6 | 16°24 | 7° 9 | 2°48 | 29° 3 | 12°28 | 14°36 | 4°24 | 23° 0 | 20°29 | 21°28 | 18°18 | 7°57 | F 15 |
| S 16 | 22 0 11 | 28°18'41 | 11 [♁] 29 | 16° 2 | 8°19 | 2°45 | 29°12 | 12°28 | 14°37 | 4°23 | 22°59 | 20°26 | 21°25 | 18°24 | 7°59 | S 16 |
| S 17 | 22 4 7 | 29°16'53 | 25°41 | 15°48 | 9°29 | 2°40 | 29°22 | 12°29 | 14°39 | 4°23 | 22°58 | 20°24 | 21°21 | 18°31 | 8° 1 | S 17 |
| M18 | 22 8 4 | 0 [♂] 15'06 | 9 [♁] 36 | 15°D42 | 10°39 | 2°35 | 29°31 | 12°29 | 14°40 | 4°22 | 22°57 | 20°23 | 21°18 | 18°38 | 8° 2 | M18 |
| T 19 | 22 12 0 | 1°13'22 | 23°11 | 15°45 | 11°49 | 2°29 | 29°41 | 12°R29 | 14°42 | 4°22 | 22°55 | 20°D22 | 21°15 | 18°44 | 8° 4 | T 19 |
| W20 | 22 15 57 | 2°11'39 | 6 [♂] 24 | 15°57 | 12°59 | 2°21 | 29°50 | 12°29 | 14°43 | 4°21 | 22°54 | 20°23 | 21°12 | 18°51 | 8° 5 | W20 |
| T 21 | 22 19 54 | 3° 9'59 | 19°16 | 16°19 | 14° 8 | 2°14 | 29°59 | 12°29 | 14°45 | 4°21 | 22°53 | 20°24 | 21° 9 | 18°58 | 8° 7 | T 21 |
| F 22 | 22 23 50 | 4° 8'20 | 1 [♁] 49 | 16°48 | 15°18 | 2° 5 | 0 [♂] 10 | 12°29 | 14°47 | 4°20 | 22°52 | 20°25 | 21° 6 | 19° 5 | 8° 8 | F 22 |
| S 23 | 22 27 47 | 5° 6'44 | 14° 5 | 17°27 | 16°27 | 1°55 | 0°20 | 12°28 | 14°49 | 4°19 | 22°50 | 20°27 | 21° 2 | 19°11 | 8°10 | S 23 |
| S 24 | 22 31 43 | 6° 5'10 | 26°10 | 18°14 | 17°37 | 1°45 | 0°30 | 12°28 | 14°50 | 4°19 | 22°49 | 20°28 | 20°59 | 19°18 | 8°11 | S 24 |
| M25 | 22 35 40 | 7° 3'38 | 8 [♂] 6 | 19° 9 | 18°46 | 1°34 | 0°40 | 12°27 | 14°52 | 4°18 | 22°48 | 20°R28 | 20°56 | 19°25 | 8°12 | M25 |
| T 26 | 22 39 36 | 8° 2'08 | 19°59 | 20°11 | 19°55 | 1°22 | 0°50 | 12°27 | 14°54 | 4°17 | 22°47 | 20°27 | 20°53 | 19°32 | 8°13 | T 26 |
| W27 | 22 43 33 | 9° 0'41 | 1 [♁] 53 | 21°20 | 21° 5 | 1°10 | 1° 0 | 12°26 | 14°56 | 4°16 | 22°45 | 20°27 | 20°50 | 19°38 | 8°14 | W27 |
| T 28 | 22 47 29 | 9°59'16 | 13°53 | 22°36 | 22°14 | 0°57 | 1°11 | 12°25 | 14°58 | 4°16 | 22°44 | 20°25 | 20°46 | 19°45 | 8°15 | T 28 |
| F 29 | 22 51 26 | 10°57'53 | 26° 3 | 23°57 | 23°23 | 0°43 | 1°21 | 12°24 | 15° 0 | 4°15 | 22°43 | 20°24 | 20°43 | 19°52 | 8°16 | F 29 |
| S 30 | 22 55 23 | 11°56'32 | 8 [♁] 25 | 25°23 | 24°31 | 0°28 | 1°32 | 12°23 | 15° 2 | 4°14 | 22°42 | 20°23 | 20°40 | 19°58 | 8°17 | S 30 |
| S 31 | 22 59 19 | 12 [♂] 55'13 | 21 [♁] 3 | 26 [♁] 54 | 25 [♁] 40 | 0°0 | 1°43 | 12 [♁] 22 | 15 [♂] 5 | 4 [♁] 13 | 22 [♁] 41 | 20 [♁] 22 | 20 [♁] 37 | 20 [♂] 5 | 8 [♂] 17 | S 31 |

Delta T = 20m12s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1057
geocentric

SEPTEMBER 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 23 3 16 | 13♎53'56 | 3♎56 | 28♏28 | 26♏49 | 29♎58 | 1♎53 | 12♎20 | 15♎ 7 | 4♎12 | 22♎39 | 20♎R21 | 20♎34 | 20♎12 | 8♎18 | M 1 | | | | | | | | |
| T 2 | 23 7 12 | 14°52'42 | 17° 6 | 0♎ 6 | 27°58 | 29♎42 | 2° 4 | 12♎19 | 15° 9 | 4♎11 | 22♎38 | 20♎D21 | 20°31 | 20°19 | 8°19 | T 2 | | | | | | | | |
| W 3 | 23 11 9 | 15°51'29 | 0♏31 | 1°47 | 29° 6 | 29°25 | 2°15 | 12°17 | 15°11 | 4°10 | 22°37 | 20♎21 | 20°27 | 20°25 | 8°19 | W 3 | | | | | | | | |
| T 4 | 23 15 5 | 16°50'18 | 14°11 | 3°30 | 0♎.15 | 29° 8 | 2°26 | 12°16 | 15°14 | 4° 9 | 22°36 | 20°21 | 20°24 | 20°32 | 8°20 | T 4 | | | | | | | | |
| F 5 | 23 19 2 | 17°49'09 | 28° 3 | 5°15 | 1°23 | 28°51 | 2°37 | 12°14 | 15°16 | 4° 8 | 22°35 | 20°22 | 20°21 | 20°39 | 8°20 | F 5 | | | | | | | | |
| S 6 | 23 22 58 | 18°48'02 | 12♎ 4 | 7° 1 | 2°31 | 28°33 | 2°48 | 12°12 | 15°18 | 4° 7 | 22°34 | 20°22 | 20°18 | 20°45 | 8°20 | S 6 | | | | | | | | |
| S 7 | 23 26 55 | 19°46'57 | 26°12 | 8°49 | 3°39 | 28°15 | 3° 0 | 12°10 | 15°21 | 4° 6 | 22°33 | 20°22 | 20°15 | 20°52 | 8°20 | S 7 | | | | | | | | |
| M 8 | 23 30 52 | 20°45'54 | 10♎23 | 10°37 | 4°47 | 27°57 | 3°11 | 12° 8 | 15°23 | 4° 5 | 22°31 | 20°R22 | 20°12 | 20°59 | 8°21 | M 8 | | | | | | | | |
| T 9 | 23 34 48 | 21°44'53 | 24°37 | 12°25 | 5°55 | 27°39 | 3°22 | 12° 6 | 15°26 | 4° 4 | 22°30 | 20°D22 | 20° 8 | 21° 6 | 8°R21 | T 9 | | | | | | | | |
| W10 | 23 38 45 | 22°43'53 | 8♎49 | 14°14 | 7° 3 | 27°20 | 3°34 | 12° 4 | 15°28 | 4° 3 | 22°29 | 20°22 | 20° 5 | 21°12 | 8°21 | W10 | | | | | | | | |
| T 11 | 23 42 41 | 23°42'55 | 22°58 | 16° 3 | 8°10 | 27° 2 | 3°45 | 12° 1 | 15°31 | 4° 1 | 22°28 | 20°22 | 20° 2 | 21°19 | 8°21 | T 11 | | | | | | | | |
| F 12 | 23 46 38 | 24°41'59 | 7♎ 2 | 17°51 | 9°18 | 26°43 | 3°57 | 11°59 | 15°34 | 4° 0 | 22°27 | 20°22 | 19°59 | 21°26 | 8°20 | F 12 | | | | | | | | |
| S 13 | 23 50 34 | 25°41'05 | 20°56 | 19°40 | 10°25 | 26°25 | 4° 9 | 11°56 | 15°36 | 3°59 | 22°26 | 20°23 | 19°56 | 21°33 | 8°20 | S 13 | | | | | | | | |
| S 14 | 23 54 31 | 26°40'12 | 4♎41 | 21°28 | 11°32 | 26° 7 | 4°20 | 11°54 | 15°39 | 3°58 | 22°25 | 20°23 | 19°52 | 21°39 | 8°20 | S 14 | | | | | | | | |
| M15 | 23 58 27 | 27°39'22 | 18°12 | 23°15 | 12°39 | 25°48 | 4°32 | 11°51 | 15°42 | 3°56 | 22°24 | 20°R24 | 19°49 | 21°46 | 8°20 | M15 | | | | | | | | |
| T 16 | 0 2 24 | 28°38'33 | 1♎28 | 25° 2 | 13°46 | 25°30 | 4°44 | 11°48 | 15°45 | 3°55 | 22°23 | 20°23 | 19°46 | 21°53 | 8°19 | T 16 | | | | | | | | |
| W17 | 0 6 20 | 29°37'47 | 14°29 | 26°48 | 14°52 | 25°12 | 4°56 | 11°45 | 15°47 | 3°54 | 22°22 | 20°23 | 19°43 | 21°59 | 8°19 | W17 | | | | | | | | |
| T 18 | 0 10 17 | 0♏37'03 | 27°13 | 28°34 | 15°59 | 24°55 | 5° 8 | 11°42 | 15°50 | 3°52 | 22°21 | 20°22 | 19°40 | 22° 6 | 8°18 | T 18 | | | | | | | | |
| F 19 | 0 14 14 | 1°36'21 | 9♎42 | 0♏19 | 17° 5 | 24°37 | 5°20 | 11°39 | 15°53 | 3°51 | 22°20 | 20°20 | 19°37 | 22°13 | 8°17 | F 19 | | | | | | | | |
| S 20 | 0 18 10 | 2°35'41 | 21°57 | 2° 3 | 18°12 | 24°21 | 5°32 | 11°36 | 15°56 | 3°50 | 22°19 | 20°18 | 19°33 | 22°20 | 8°17 | S 20 | | | | | | | | |
| S 21 | 0 22 7 | 3°35'04 | 4♎ 1 | 3°47 | 19°18 | 24° 4 | 5°44 | 11°33 | 15°59 | 3°48 | 22°18 | 20°17 | 19°30 | 22°26 | 8°16 | S 21 | | | | | | | | |
| M22 | 0 26 3 | 4°34'29 | 15°58 | 5°30 | 20°23 | 23°48 | 5°57 | 11°30 | 16° 2 | 3°47 | 22°18 | 20°15 | 19°27 | 22°33 | 8°15 | M22 | | | | | | | | |
| T 23 | 0 30 0 | 5°33'56 | 27°51 | 7°12 | 21°29 | 23°32 | 6° 9 | 11°26 | 16° 5 | 3°46 | 22°17 | 20°15 | 19°24 | 22°40 | 8°14 | T 23 | | | | | | | | |
| W24 | 0 33 56 | 6°33'26 | 9♎44 | 8°53 | 22°35 | 23°17 | 6°21 | 11°23 | 16° 8 | 3°44 | 22°16 | 20°D14 | 19°21 | 22°47 | 8°13 | W24 | | | | | | | | |
| T 25 | 0 37 53 | 7°32'58 | 21°44 | 10°34 | 23°40 | 23° 2 | 6°34 | 11°19 | 16°11 | 3°43 | 22°15 | 20°15 | 19°18 | 22°53 | 8°12 | T 25 | | | | | | | | |
| F 26 | 0 41 49 | 8°32'32 | 3♎53 | 12°14 | 24°45 | 22°48 | 6°46 | 11°15 | 16°14 | 3°41 | 22°14 | 20°16 | 19°14 | 23° 0 | 8°11 | F 26 | | | | | | | | |
| S 27 | 0 45 46 | 9°32'09 | 16°17 | 13°53 | 25°50 | 22°35 | 6°59 | 11°12 | 16°17 | 3°40 | 22°13 | 20°18 | 19°11 | 23° 7 | 8° 9 | S 27 | | | | | | | | |
| S 28 | 0 49 43 | 10°31'48 | 29° 0 | 15°32 | 26°54 | 22°22 | 7°11 | 11° 8 | 16°21 | 3°38 | 22°13 | 20°19 | 19° 8 | 23°13 | 8° 8 | S 28 | | | | | | | | |
| M29 | 0 53 39 | 11°31'29 | 12♎ 3 | 17°10 | 27°59 | 22°10 | 7°24 | 11° 4 | 16°24 | 3°37 | 22°12 | 20°20 | 19° 5 | 23°20 | 8° 7 | M29 | | | | | | | | |
| T 30 | 0 57 36 | 12°31'12 | 25♎29 | 18♏48 | 29♎ 3 | 21♎58 | 7♎36 | 11♎ 0 | 16♎27 | 3♎35 | 22°11 | 20°R20 | 19♎ 2 | 23♎27 | 8♎ 5 | T 30 | | | | | | | | |

Delta T = 20m12s Julian Calendar 1 Sept. 1057 == Greg. Calendar 7 Sept. 1057

OCTOBER 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|--------|-------|-------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 1 1 32 | 13♏30'58 | 9♏16 | 20♏24 | 0♎ 7 | 21°R47 | 7♎49 | 10°R56 | 16♎30 | 3°R33 | 22°R10 | 20°R19 | 18♎58 | 23♎34 | 8°R 4 | W 1 | | | | | | | | |
| T 2 | 1 5 29 | 14°30'45 | 23°22 | 22° 1 | 1°11 | 21♎37 | 8° 2 | 10♎52 | 16°33 | 3♎32 | 22°10 | 20♎17 | 18°55 | 23°40 | 8♎ 2 | T 2 | | | | | | | | |
| F 3 | 1 9 25 | 15°30'34 | 7♎43 | 23°36 | 2°14 | 21°28 | 8°14 | 10°48 | 16°37 | 3°30 | 22° 9 | 20°14 | 18°52 | 23°47 | 8° 1 | F 3 | | | | | | | | |
| S 4 | 1 13 22 | 16°30'26 | 22°13 | 25°11 | 3°18 | 21°20 | 8°27 | 10°44 | 16°40 | 3°29 | 22° 8 | 20°10 | 18°49 | 23°54 | 7°59 | S 4 | | | | | | | | |
| S 5 | 1 17 18 | 17°30'19 | 6♎46 | 26°46 | 4°21 | 21°12 | 8°40 | 10°39 | 16°43 | 3°27 | 22° 8 | 20° 6 | 18°46 | 24° 0 | 7°57 | S 5 | | | | | | | | |
| M 6 | 1 21 15 | 18°30'14 | 21°15 | 28°20 | 5°23 | 21° 5 | 8°53 | 10°35 | 16°47 | 3°25 | 22° 7 | 20° 3 | 18°43 | 24° 7 | 7°55 | M 6 | | | | | | | | |
| T 7 | 1 25 12 | 19°30'11 | 5♎37 | 29°53 | 6°26 | 20°59 | 9° 6 | 10°31 | 16°50 | 3°24 | 22° 7 | 20° 1 | 18°39 | 24°14 | 7°53 | T 7 | | | | | | | | |
| W 8 | 1 29 8 | 20°30'10 | 19°48 | 1♎26 | 7°28 | 20°53 | 9°19 | 10°26 | 16°54 | 3°22 | 22° 6 | 20°D 0 | 18°36 | 24°21 | 7°51 | W 8 | | | | | | | | |
| T 9 | 1 33 5 | 21°30'10 | 3♎46 | 2°59 | 8°30 | 20°49 | 9°32 | 10°22 | 16°57 | 3°21 | 22° 5 | 20° 1 | 18°33 | 24°27 | 7°49 | T 9 | | | | | | | | |
| F 10 | 1 37 1 | 22°30'11 | 17°30 | 4°31 | 9°31 | 20°45 | 9°45 | 10°17 | 17° 0 | 3°19 | 22° 5 | 20° 2 | 18°30 | 24°34 | 7°47 | F 10 | | | | | | | | |
| S 11 | 1 40 58 | 23°30'15 | 1♎ 1 | 6° 2 | 10°32 | 20°42 | 9°58 | 10°13 | 17° 4 | 3°17 | 22° 4 | 20° 4 | 18°27 | 24°41 | 7°45 | S 11 | | | | | | | | |
| S 12 | 1 44 54 | 24°30'19 | 14°20 | 7°33 | 11°33 | 20°40 | 10°11 | 10° 8 | 17° 7 | 3°16 | 22° 4 | 20°R 5 | 18°23 | 24°48 | 7°43 | S 12 | | | | | | | | |
| M13 | 1 48 51 | 25°30'26 | 27°26 | 9° 4 | 12°34 | 20°39 | 10°24 | 10° 3 | 17°11 | 3°14 | 22° 3 | 20° 5 | 18°20 | 24°54 | 7°41 | M13 | | | | | | | | |
| T 14 | 1 52 47 | 26°30'34 | 10♎20 | 10°34 | 13°34 | 20°D39 | 10°37 | 9°59 | 17°14 | 3°12 | 22° 3 | 20° 3 | 18°17 | 25° 1 | 7°38 | T 14 | | | | | | | | |
| W15 | 1 56 44 | 27°30'44 | 23° 2 | 12° 3 | 14°33 | 20°39 | 10°50 | 9°54 | 17°18 | 3°11 | 22° 3 | 19°59 | 18°14 | 25° 8 | 7°36 | W15 | | | | | | | | |
| T 16 | 2 0 41 | 28°30'56 | 5♎33 | 13°32 | 15°33 | 20°40 | 11° 3 | 9°49 | 17°21 | 3° 9 | 22° 2 | 19°53 | 18°11 | 25°14 | 7°34 | T 16 | | | | | | | | |
| F 17 | 2 4 37 | 29°31'10 | 17°53 | 15° 1 | 16°31 | 20°42 | 11°17 | 9°44 | 17°25 | 3° 7 | 22° 2 | 19°46 | 18° 8 | 25°21 | 7°31 | F 17 | | | | | | | | |
| S 18 | 2 8 34 | 0♎31'26 | 0♎ 3 | 16°29 | 17°30 | 20°45 | 11°30 | 9°40 | 17°29 | 3° 5 | 22° 2 | 19°39 | 18° 4 | 25°28 | 7°29 | S 18 | | | | | | | | |
| S 19 | 2 12 30 | 1°31'43 | 12° 5 | 17°57 | 18°28 | 20°48 | 11°43 | 9°35 | 17°32 | 3° 4 | 22° 1 | 19°31 | 18° 1 | 25°35 | 7°26 | S 19 | | | | | | | | |
| M20 | 2 16 27 | 2°32'03 | 23°59 | 19°24 | 19°25 | 20°52 | 11°56 | 9°30 | 17°36 | 3° 2 | 22° 1 | 19°24 | 17°58 | 25°41 | 7°23 | M20 | | | | | | | | |
| T 21 | 2 20 23 | 3°32'25 | 5♎51 | 20°50 | 20°22 | 20°57 | 12°10 | 9°25 | 17°39 | 3° 0 | 22° 1 | 19°18 | 17°55 | 25°48 | 7°21 | T 21 | | | | | | | | |
| W22 | 2 24 20 | 4°32'48 | 17°43 | 22°16 | 21°19 | 21° 3 | 12°23 | 9°20 | 17°43 | 2°59 | 22° 0 | 19°14 | 17°52 | 25°55 | 7°18 | W22 | | | | | | | | |
| T 23 | 2 28 16 | 5°33'14 | 29°39 | 23°41 | 22°15 | 21° 9 | 12°36 | 9°15 | 17°47 | 2°57 | 22° 0 | 19°13 | 17°49 | 26° 1 | 7°15 | T 23 | | | | | | | | |
| F 24 | 2 32 13 | 6°33'41 | 11♎45 | 25° 6 | 23°10 | 21°17 | 12°49 | 9°10 | 17°50 | 2°55 | 22° 0 | 19°D12 | 17°45 | 26° 8 | 7°12 | F 24 | | | | | | | | |
| S 25 | 2 36 10 | 7°34'11 | 24° 5 | 26°29 | 24° 5 | 21°24 | 13° 3 | 9° 6 | 17°54 | 2°54 | 22° 0 | 19°14 | 17°42 | 26°15 | 7° 9 | S 25 | | | | | | | | |
| S 26 | 2 40 6 | 8°34'42 | 6♎45 | 27°52 | 24°59 | 21°33 | 13°16 | 9° 1 | 17°58 | 2°52 | 22° 0 | 19°15 | 17°39 | 26°22 | 7° 6 | S 26 | | | | | | | | |
| M27 | 2 44 3 | 9°35'15 | 19°49 | 29°14 | 25°53 | 21°42 | 13°30 | 8°56 | 18° 1 | 2°50 | 22° 0 | 19°R15 | 17°36 | 26°28 | 7° 3 | M27 | | | | | | | | |
| T 28 | 2 47 59 | 10°35'50 | 3♎20 | 0♎35 | 26°46 | 21°52 | 13°43 | 8°51 | 18° 5 | 2°49 | 22° 0 | 19°14 | 17°33 | 26°35 | 7° 0 | T 28 | | | | | | | | |
| W29 | 2 51 56 | 11°36'26 | 17°18 | 1°54 | 27°38 | 22° 3 | 13°56 | 8°46 | 18° 9 | 2°47 | 22° 0 | 19°11 | 17°29 | 26°42 | 6°57 | W29 | | | | | | | | |
| T 30 | 2 55 52 | 12°37'04 | 1♎41 | 3°13 | 28°30 | 22°14 | 14°10 | 8°41 | 18°12 | 2°45 | 22° 0 | 19° 6 | 17°26 | 26°49 | 6°54 | T 30 | | | | | | | | |
| F 31 | 2 59 49 | 13♎37'44 | 16♎25 | 4♎29 | 29♎21 | 22♎26 | 14♎23 | 8♎36 | 18♎16 | 2♎44 | 22°D 0 | 18♎58 | 17♎23 | 26♎55 | 6♎51 | F 31 | | | | | | | | |

Delta T = 20m11s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1057
geocentric

NOVEMBER 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 3 3 45 | 14♌38'26 | 1♌22 | 5♌44 | 0♌12 | 22♌38 | 14♌36 | 8°R31 | 18♌20 | 2°R42 | 22♌0 | 18°R49 | 17♌20 | 27♌2 | 6°R48 | S 1 | | | | | | | | |
| S 2 | 3 7 42 | 15°39'09 | 16°23 | 6°57 | 1° 1 | 22°52 | 14°50 | 8♌26 | 18°23 | 2♌40 | 22° 0 | 18♌40 | 17°17 | 27° 9 | 6♌45 | S 2 | | | | | | | | |
| M 3 | 3 11 39 | 16°39'53 | 1♌18 | 8° 8 | 1°50 | 23° 5 | 15° 3 | 8°21 | 18°27 | 2°39 | 22° 0 | 18°32 | 17°14 | 27°15 | 6°41 | M 3 | | | | | | | | |
| T 4 | 3 15 35 | 17°40'38 | 15°59 | 9°16 | 2°38 | 23°20 | 15°17 | 8°17 | 18°31 | 2°37 | 22° 0 | 18°26 | 17°10 | 27°22 | 6°38 | T 4 | | | | | | | | |
| W 5 | 3 19 32 | 18°41'25 | 0♌21 | 10°22 | 3°25 | 23°35 | 15°30 | 8°12 | 18°35 | 2°35 | 22° 0 | 18°22 | 17° 7 | 27°29 | 6°35 | W 5 | | | | | | | | |
| T 6 | 3 23 28 | 19°42'12 | 14°21 | 11°24 | 4°11 | 23°50 | 15°43 | 8° 7 | 18°38 | 2°34 | 22° 0 | 18°D20 | 17° 4 | 27°36 | 6°31 | T 6 | | | | | | | | |
| F 7 | 3 27 25 | 20°43'00 | 28° 0 | 12°22 | 4°56 | 24° 6 | 15°57 | 8° 2 | 18°42 | 2°32 | 22° 0 | 18°20 | 17° 1 | 27°42 | 6°28 | F 7 | | | | | | | | |
| S 8 | 3 31 21 | 21°43'49 | 11♌19 | 13°16 | 5°40 | 24°23 | 16°10 | 7°58 | 18°46 | 2°31 | 22° 0 | 18°21 | 16°58 | 27°49 | 6°25 | S 8 | | | | | | | | |
| S 9 | 3 35 18 | 22°44'39 | 24°20 | 14° 5 | 6°23 | 24°40 | 16°23 | 7°53 | 18°49 | 2°29 | 22° 1 | 18°R21 | 16°55 | 27°56 | 6°21 | S 9 | | | | | | | | |
| M10 | 3 39 14 | 23°45'31 | 7♌7 | 14°48 | 7° 5 | 24°58 | 16°37 | 7°48 | 18°53 | 2°27 | 22° 1 | 18°19 | 16°51 | 28° 2 | 6°18 | M10 | | | | | | | | |
| T 11 | 3 43 11 | 24°46'23 | 19°42 | 15°26 | 7°46 | 25°16 | 16°50 | 7°44 | 18°57 | 2°26 | 22° 1 | 18°15 | 16°48 | 28° 9 | 6°14 | T 11 | | | | | | | | |
| W12 | 3 47 8 | 25°47'16 | 2♌6 | 15°56 | 8°26 | 25°35 | 17° 3 | 7°39 | 19° 1 | 2°24 | 22° 2 | 18° 8 | 16°45 | 28°16 | 6°11 | W12 | | | | | | | | |
| T 13 | 3 51 4 | 26°48'10 | 14°23 | 16°18 | 9° 4 | 25°54 | 17°17 | 7°35 | 19° 4 | 2°23 | 22° 2 | 17°58 | 16°42 | 28°23 | 6° 7 | T 13 | | | | | | | | |
| F 14 | 3 55 1 | 27°49'05 | 26°32 | 16°32 | 9°41 | 26°13 | 17°30 | 7°30 | 19° 8 | 2°21 | 22° 2 | 17°46 | 16°39 | 28°29 | 6° 4 | F 14 | | | | | | | | |
| S 15 | 3 58 57 | 28°50'01 | 8♌34 | 16°R36 | 10°17 | 26°33 | 17°43 | 7°26 | 19°12 | 2°20 | 22° 3 | 17°32 | 16°35 | 28°36 | 6° 0 | S 15 | | | | | | | | |
| S 16 | 4 2 54 | 29°50'59 | 20°31 | 16°29 | 10°51 | 26°54 | 17°57 | 7°21 | 19°15 | 2°18 | 22° 3 | 17°18 | 16°32 | 28°43 | 5°57 | S 16 | | | | | | | | |
| M17 | 4 6 50 | 0♌51'57 | 2♌24 | 16°12 | 11°24 | 27°15 | 18°10 | 7°17 | 19°19 | 2°17 | 22° 3 | 17° 5 | 16°29 | 28°50 | 5°53 | M17 | | | | | | | | |
| T 18 | 4 10 47 | 1°52'57 | 14°15 | 15°44 | 11°56 | 27°36 | 18°23 | 7°13 | 19°23 | 2°16 | 22° 4 | 16°54 | 16°26 | 28°56 | 5°50 | T 18 | | | | | | | | |
| W19 | 4 14 43 | 2°53'57 | 26° 6 | 15° 4 | 12°26 | 27°58 | 18°36 | 7° 9 | 19°26 | 2°14 | 22° 4 | 16°46 | 16°23 | 29° 3 | 5°46 | W19 | | | | | | | | |
| T 20 | 4 18 40 | 3°54'59 | 8♌1 | 14°13 | 12°54 | 28°20 | 18°49 | 7° 5 | 19°30 | 2°13 | 22° 5 | 16°40 | 16°20 | 29°10 | 5°43 | T 20 | | | | | | | | |
| F 21 | 4 22 37 | 4°56'02 | 20° 4 | 13°12 | 13°21 | 28°43 | 19° 3 | 7° 1 | 19°33 | 2°11 | 22° 5 | 16°37 | 16°16 | 29°16 | 5°39 | F 21 | | | | | | | | |
| S 22 | 4 26 33 | 5°57'06 | 2♌19 | 12° 2 | 13°46 | 29° 5 | 19°16 | 6°57 | 19°37 | 2°10 | 22° 6 | 16°D36 | 16°13 | 29°23 | 5°35 | S 22 | | | | | | | | |
| S 23 | 4 30 30 | 6°58'11 | 14°53 | 10°46 | 14° 9 | 29°29 | 19°29 | 6°53 | 19°41 | 2° 9 | 22° 7 | 16°R36 | 16°10 | 29°30 | 5°32 | S 23 | | | | | | | | |
| M24 | 4 34 26 | 7°59'16 | 27°50 | 9°24 | 14°30 | 29°52 | 19°42 | 6°49 | 19°44 | 2° 7 | 22° 7 | 16°36 | 16° 7 | 29°37 | 5°28 | M24 | | | | | | | | |
| T 25 | 4 38 23 | 9° 0'23 | 11♌15 | 8° 1 | 14°50 | 0♌16 | 19°55 | 6°45 | 19°48 | 2° 6 | 22° 8 | 16°34 | 16° 4 | 29°43 | 5°25 | T 25 | | | | | | | | |
| W26 | 4 42 19 | 10° 1'31 | 25° 9 | 6°39 | 15° 7 | 0°41 | 20° 8 | 6°41 | 19°51 | 2° 5 | 22° 9 | 16°30 | 16° 1 | 29°50 | 5°21 | W26 | | | | | | | | |
| T 27 | 4 46 16 | 11° 2'40 | 9♌34 | 5°21 | 15°22 | 1° 5 | 20°21 | 6°38 | 19°55 | 2° 4 | 22° 9 | 16°23 | 15°57 | 29°57 | 5°18 | T 27 | | | | | | | | |
| F 28 | 4 50 12 | 12° 3'49 | 24°25 | 4° 9 | 15°35 | 1°30 | 20°34 | 6°34 | 19°58 | 2° 2 | 22°10 | 16°13 | 15°54 | 0♌3 | 5°14 | F 28 | | | | | | | | |
| S 29 | 4 54 9 | 13° 4'59 | 9♌35 | 3° 6 | 15°46 | 1°56 | 20°47 | 6°31 | 20° 2 | 2° 1 | 22°11 | 16° 1 | 15°51 | 0°10 | 5°10 | S 29 | | | | | | | | |
| S 30 | 4 58 6 | 14♌6'10 | 24♌54 | 2♌11 | 15♌55 | 2♌22 | 21♌0 | 6♌27 | 20♌5 | 2♌0 | 22♌11 | 15♌49 | 15♌48 | 0♌17 | 5♌7 | S 30 | | | | | | | | |

Delta T = 20m11s Julian Calendar 1 Nov. 1057 = Greg. Calendar 7 Nov. 1057

DECEMBER 1057 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 5 2 2 | 15♌7'21 | 10♌10 | 1°R27 | 16♌2 | 2♌47 | 21♌13 | 6°R24 | 20♌9 | 1°R59 | 22♌12 | 15°R39 | 15♌45 | 0♌24 | 5°R3 | M 1 | | | | | | | | |
| T 2 | 5 5 59 | 16° 8'33 | 25°12 | 0♌54 | 16° 6 | 3°14 | 21°25 | 6♌21 | 20°12 | 1♌58 | 22°13 | 15♌30 | 15°41 | 0°30 | 5♌0 | T 2 | | | | | | | | |
| W 3 | 5 9 55 | 17° 9'45 | 9♌52 | 0°32 | 16°R8 | 3°40 | 21°38 | 6°18 | 20°16 | 1°57 | 22°14 | 15°24 | 15°38 | 0°37 | 4°56 | W 3 | | | | | | | | |
| T 4 | 5 13 52 | 18°10'56 | 24° 5 | 0°21 | 16° 7 | 4° 7 | 21°51 | 6°15 | 20°19 | 1°56 | 22°15 | 15°21 | 15°35 | 0°44 | 4°53 | T 4 | | | | | | | | |
| F 5 | 5 17 48 | 19°12'08 | 7♌51 | 0°D19 | 16° 4 | 4°34 | 22° 4 | 6°12 | 20°22 | 1°55 | 22°16 | 15°20 | 15°32 | 0°51 | 4°49 | F 5 | | | | | | | | |
| S 6 | 5 21 45 | 20°13'19 | 21°11 | 0°27 | 15°58 | 5° 2 | 22°16 | 6° 9 | 20°26 | 1°54 | 22°16 | 15°20 | 15°29 | 0°57 | 4°46 | S 6 | | | | | | | | |
| S 7 | 5 25 42 | 21°14'31 | 4♌7 | 0°43 | 15°50 | 5°29 | 22°29 | 6° 6 | 20°29 | 1°53 | 22°17 | 15°19 | 15°26 | 1° 4 | 4°43 | S 7 | | | | | | | | |
| M 8 | 5 29 38 | 22°15'42 | 16°48 | 1° 7 | 15°39 | 5°57 | 22°41 | 6° 4 | 20°32 | 1°52 | 22°18 | 15°17 | 15°22 | 1°11 | 4°39 | M 8 | | | | | | | | |
| T 9 | 5 33 35 | 23°16'54 | 29°11 | 1°38 | 15°25 | 6°26 | 22°54 | 6° 1 | 20°36 | 1°51 | 22°19 | 15°13 | 15°19 | 1°17 | 4°36 | T 9 | | | | | | | | |
| W10 | 5 37 31 | 24°18'05 | 11♌24 | 2°16 | 15°10 | 6°54 | 23° 6 | 5°59 | 20°39 | 1°50 | 22°20 | 15° 5 | 15°16 | 1°24 | 4°33 | W10 | | | | | | | | |
| T 11 | 5 41 28 | 25°19'16 | 23°29 | 2°59 | 14°51 | 7°23 | 23°19 | 5°56 | 20°42 | 1°49 | 22°21 | 14°54 | 15°13 | 1°31 | 4°29 | T 11 | | | | | | | | |
| F 12 | 5 45 24 | 26°20'27 | 5♌29 | 3°47 | 14°31 | 7°51 | 23°31 | 5°54 | 20°45 | 1°48 | 22°22 | 14°42 | 15°10 | 1°38 | 4°26 | F 12 | | | | | | | | |
| S 13 | 5 49 21 | 27°21'39 | 17°24 | 4°39 | 14° 8 | 8°21 | 23°43 | 5°52 | 20°49 | 1°47 | 22°23 | 14°27 | 15° 7 | 1°44 | 4°23 | S 13 | | | | | | | | |
| S 14 | 5 53 17 | 28°22'50 | 29°18 | 5°36 | 13°43 | 8°50 | 23°55 | 5°50 | 20°52 | 1°46 | 22°24 | 14°12 | 15° 3 | 1°51 | 4°20 | S 14 | | | | | | | | |
| M15 | 5 57 14 | 29°24'01 | 11♌10 | 6°36 | 13°16 | 9°19 | 24° 8 | 5°48 | 20°55 | 1°46 | 22°25 | 13°59 | 15° 0 | 1°58 | 4°16 | M15 | | | | | | | | |
| T 16 | 6 1 11 | 0♌25'12 | 23° 2 | 7°40 | 12°47 | 9°49 | 24°20 | 5°46 | 20°58 | 1°45 | 22°27 | 13°47 | 14°57 | 2° 4 | 4°13 | T 16 | | | | | | | | |
| W17 | 6 5 7 | 1°26'23 | 4♌56 | 8°46 | 12°16 | 10°19 | 24°32 | 5°44 | 21° 1 | 1°44 | 22°28 | 13°38 | 14°54 | 2°11 | 4°10 | W17 | | | | | | | | |
| T 18 | 6 9 4 | 2°27'34 | 16°54 | 9°54 | 11°43 | 10°49 | 24°44 | 5°43 | 21° 4 | 1°44 | 22°29 | 13°32 | 14°51 | 2°18 | 4° 7 | T 18 | | | | | | | | |
| F 19 | 6 13 0 | 3°28'44 | 29° 0 | 11° 5 | 11°10 | 11°19 | 24°56 | 5°41 | 21° 7 | 1°43 | 22°30 | 13°28 | 14°47 | 2°25 | 4° 4 | F 19 | | | | | | | | |
| S 20 | 6 16 57 | 4°29'55 | 11♌16 | 12°18 | 10°35 | 11°50 | 25° 7 | 5°40 | 21°10 | 1°42 | 22°31 | 13°D27 | 14°44 | 2°31 | 4° 1 | S 20 | | | | | | | | |
| S 21 | 6 20 53 | 5°31'06 | 23°48 | 13°33 | 9°59 | 12°20 | 25°19 | 5°39 | 21°13 | 1°42 | 22°32 | 13°28 | 14°41 | 2°38 | 3°58 | S 21 | | | | | | | | |
| M22 | 6 24 50 | 6°32'16 | 6♌39 | 14°49 | 9°23 | 12°51 | 25°31 | 5°38 | 21°16 | 1°41 | 22°34 | 13°R28 | 14°38 | 2°45 | 3°55 | M22 | | | | | | | | |
| T 23 | 6 28 46 | 7°33'27 | 19°55 | 16° 7 | 8°46 | 13°22 | 25°43 | 5°37 | 21°19 | 1°41 | 22°35 | 13°27 | 14°35 | 2°51 | 3°53 | T 23 | | | | | | | | |
| W24 | 6 32 43 | 8°34'37 | 3♌39 | 17°26 | 8° 9 | 13°53 | 25°54 | 5°36 | 21°21 | 1°40 | 22°36 | 13°24 | 14°32 | 2°58 | 3°50 | W24 | | | | | | | | |
| T 25 | 6 36 40 | 9°35'47 | 17°52 | 18°46 | 7°33 | 14°25 | 26° 6 | 5°35 | 21°24 | 1°40 | 22°37 | 13°19 | 14°28 | 3° 5 | 3°47 | T 25 | | | | | | | | |
| F 26 | 6 40 36 | 10°36'57 | 2♌32 | 20° 8 | 6°56 | 14°56 | 26°17 | 5°34 | 21°27 | 1°40 | 22°39 | 13°12 | 14°25 | 3°12 | 3°44 | F 26 | | | | | | | | |
| S 27 | 6 44 33 | 11°38'07 | 17°35 | 21°30 | 6°21 | 15°28 | 26°28 | 5°33 | 21°30 | 1°39 | 22°40 | 13° 3 | 14°22 | 3°18 | 3°42 | S 27 | | | | | | | | |
| S 28 | 6 48 29 | 12°39'17 | 2♌52 | 22°54 | 5°46 | 15°59 | 26°40 | 5°33 | 21°32 | 1°39 | 22°41 | 12°53 | 14°19 | 3°25 | 3°39 | S 28 | | | | | | | | |
| M29 | 6 52 26 | 13°40'26 | 18°12 | 24°18 | 5°12 | 16°31 | 26°51 | 5°33 | 21°35 | 1°39 | 22°43 | 12°44 | 14°16 | 3°32 | 3°37 | M29 | | | | | | | | |
| T 30 | 6 56 22 | 14°41'34 | 3♌23 | 25°43 | 4°40 | 17° 3 | 27° 2 | 5°32 | 21°38 | 1°38 | 22°44 | 12°36 | 14°13 | 3°38 | 3°34 | T 30 | | | | | | | | |
| W31 | 7 0 19 | 15♌42'41 | 18♌15 | 27♌9 | 4♌9 | 17♌36 | 27♌13 | 5♌32 | 21♌40 | 1♌38 | 22♌45 | 12♌31 | 14♌9 | 3♌45 | 3♌32 | W31 | | | | | | | | |

Delta T = 20m11s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1058
geocentric

JANUARY 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|--------|-------|--------|-------|--------|--------|--------|-------|--------|------|-----|
| T 1 | 7 4 16 | 16°34'48 | 2°43 | 28°36 | 3°R40 | 18°8 | 27°M24 | 5°D32 | 21°M43 | 1°R38 | 22°A47 | 12°R29 | 14°K 6 | 3°E52 | 3°R30 | T 1 | |
| F 2 | 7 8 12 | 17°44'53 | 16°41 | 0°3 4 | 3°E12 | 18°40 | 27°35 | 5°B32 | 21°45 | 1°B38 | 22°48 | 12°D29 | 14° 3 | 3°59 | 3°II27 | F 2 | |
| S 3 | 7 12 9 | 18°45'57 | 0°V11 | 1°32 | 2°47 | 19°13 | 27°45 | 5°32 | 21°48 | 1°38 | 22°50 | 12°K29 | 14° 0 | 4° 5 | 3°25 | S 3 | |
| S 4 | 7 16 5 | 19°47'01 | 13°15 | 3° 1 | 2°23 | 19°46 | 27°56 | 5°33 | 21°50 | 1°38 | 22°51 | 12°30 | 13°57 | 4°12 | 3°23 | S 4 | |
| M 5 | 7 20 2 | 20°48'03 | 25°56 | 4°31 | 2° 2 | 20°19 | 28° 6 | 5°33 | 21°52 | 1°38 | 22°52 | 12°R30 | 13°53 | 4°19 | 3°21 | M 5 | |
| T 6 | 7 23 58 | 21°49'04 | 8°B18 | 6° 1 | 1°44 | 20°52 | 28°17 | 5°34 | 21°55 | 1°D38 | 22°54 | 12°29 | 13°50 | 4°25 | 3°19 | T 6 | |
| W 7 | 7 27 55 | 22°50'03 | 20°28 | 7°32 | 1°27 | 21°25 | 28°27 | 5°34 | 21°57 | 1°38 | 22°55 | 12°25 | 13°47 | 4°32 | 3°17 | W 7 | |
| T 8 | 7 31 51 | 23°51'02 | 2°II28 | 9° 4 | 1°13 | 21°58 | 28°37 | 5°35 | 21°59 | 1°38 | 22°57 | 12°19 | 13°44 | 4°39 | 3°15 | T 8 | |
| F 9 | 7 35 48 | 24°51'59 | 14°22 | 10°36 | 1° 2 | 22°31 | 28°48 | 5°36 | 22° 1 | 1°38 | 22°58 | 12°11 | 13°41 | 4°46 | 3°13 | F 9 | |
| S 10 | 7 39 45 | 25°52'56 | 26°14 | 12° 9 | 0°53 | 23° 5 | 28°58 | 5°37 | 22° 3 | 1°38 | 23° 0 | 12° 2 | 13°38 | 4°52 | 3°11 | S 10 | |
| S 11 | 7 43 41 | 26°53'51 | 8°E 5 | 13°43 | 0°46 | 23°38 | 29° 8 | 5°38 | 22° 6 | 1°38 | 23° 1 | 11°53 | 13°34 | 4°59 | 3°10 | S 11 | |
| M12 | 7 47 38 | 27°54'44 | 19°59 | 15°18 | 0°42 | 24°12 | 29°18 | 5°39 | 22° 8 | 1°38 | 23° 3 | 11°44 | 13°31 | 5° 6 | 3° 8 | M12 | |
| T 13 | 7 51 34 | 28°55'37 | 16°E55 | 16°53 | 0°D41 | 24°45 | 29°27 | 5°41 | 22°10 | 1°38 | 23° 4 | 11°36 | 13°28 | 5°13 | 3° 7 | T 13 | |
| W14 | 7 55 31 | 29°56'29 | 13°57 | 18°29 | 0°42 | 25°19 | 29°37 | 5°42 | 22°12 | 1°39 | 23° 6 | 11°31 | 13°25 | 5°19 | 3° 5 | W14 | |
| T 15 | 7 59 27 | 0°A57'19 | 26° 5 | 20° 5 | 0°45 | 25°53 | 29°46 | 5°44 | 22°13 | 1°39 | 23° 7 | 11°27 | 13°22 | 5°26 | 3° 4 | T 15 | |
| F 16 | 8 3 24 | 1°58'08 | 8°M20 | 21°43 | 0°51 | 26°27 | 29°56 | 5°45 | 22°15 | 1°39 | 23° 9 | 11°D26 | 13°19 | 5°33 | 3° 2 | F 16 | |
| S 17 | 8 7 20 | 2°58'56 | 20°47 | 23°21 | 0°59 | 27° 1 | 0°A 5 | 5°47 | 22°17 | 1°40 | 23°11 | 11°27 | 13°15 | 5°39 | 3° 1 | S 17 | |
| S 18 | 8 11 17 | 3°59'43 | 3°E26 | 25° 0 | 1° 9 | 27°35 | 0°14 | 5°49 | 22°19 | 1°40 | 23°12 | 11°28 | 13°12 | 5°46 | 3° 0 | S 18 | |
| M19 | 8 15 14 | 5° 0'29 | 16°22 | 26°39 | 1°22 | 28° 9 | 0°23 | 5°51 | 22°21 | 1°41 | 23°14 | 11°30 | 13° 9 | 5°53 | 2°59 | M19 | |
| T 20 | 8 19 10 | 6° 1'14 | 29°36 | 28°20 | 1°36 | 28°44 | 0°32 | 5°53 | 22°22 | 1°41 | 23°15 | 11°31 | 13° 6 | 5°59 | 2°58 | T 20 | |
| W21 | 8 23 7 | 7° 1'58 | 13°M13 | 0°A 1 | 1°53 | 29°18 | 0°41 | 5°55 | 22°24 | 1°42 | 23°17 | 11°R31 | 13° 3 | 6° 6 | 2°57 | W21 | |
| T 22 | 8 27 3 | 8° 2'40 | 27°12 | 1°43 | 2°11 | 29°53 | 0°50 | 5°58 | 22°25 | 1°42 | 23°19 | 11°29 | 12°59 | 6°13 | 2°56 | T 22 | |
| F 23 | 8 31 0 | 9° 3'22 | 11°A35 | 3°26 | 2°32 | 0°B27 | 0°58 | 6° 0 | 22°27 | 1°43 | 23°20 | 11°26 | 12°56 | 6°20 | 2°55 | F 23 | |
| S 24 | 8 34 56 | 10° 4'03 | 26°17 | 5°10 | 2°55 | 1° 2 | 1° 7 | 6° 2 | 22°28 | 1°43 | 23°22 | 11°22 | 12°53 | 6°26 | 2°54 | S 24 | |
| S 25 | 8 38 53 | 11° 4'42 | 11°E14 | 6°54 | 3°19 | 1°36 | 1°15 | 6° 5 | 22°30 | 1°44 | 23°23 | 11°18 | 12°50 | 6°33 | 2°54 | S 25 | |
| M26 | 8 42 49 | 12° 5'20 | 26°17 | 8°40 | 3°45 | 2°11 | 1°24 | 6° 8 | 22°31 | 1°45 | 23°25 | 11°13 | 12°47 | 6°40 | 2°53 | M26 | |
| T 27 | 8 46 46 | 13° 5'56 | 11°A18 | 10°26 | 4°13 | 2°46 | 1°32 | 6°11 | 22°32 | 1°45 | 23°27 | 11°10 | 12°44 | 6°46 | 2°52 | T 27 | |
| W28 | 8 50 43 | 14° 6'31 | 26° 7 | 12°13 | 4°42 | 3°21 | 1°40 | 6°14 | 22°34 | 1°46 | 23°28 | 11° 8 | 12°40 | 6°53 | 2°52 | W28 | |
| T 29 | 8 54 39 | 15° 7'04 | 10°K36 | 14° 1 | 5°13 | 3°56 | 1°47 | 6°17 | 22°35 | 1°47 | 23°30 | 11°D 7 | 12°37 | 7° 0 | 2°52 | T 29 | |
| F 30 | 8 58 36 | 16° 7'36 | 24°41 | 15°50 | 5°45 | 4°31 | 1°55 | 6°20 | 22°36 | 1°48 | 23°32 | 11° 7 | 12°34 | 7° 7 | 2°51 | F 30 | |
| S 31 | 9 2 32 | 17° 8'05 | 8°V19 | 17°A40 | 6°E19 | 5°B 6 | 2°A 3 | 6°B23 | 22°M37 | 1°B48 | 23°A33 | 11°K 9 | 12°K31 | 7°E13 | 2°II51 | S 31 | |

Delta T = 20m10s Julian Calendar 1 Jan. 1058 == Greg. Calendar 7 Jan. 1058

FEBRUARY 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|---------|--------|--------|--------|-------|-------|--------|-------|--------|--------|--------|--------|--------|------|-----|
| S 1 | 9 6 29 | 18° 8'33 | 21°V32 | 19°A31 | 6°E54 | 5°B41 | 2°A10 | 6°B26 | 22°M38 | 1°B49 | 23°A35 | 11°K10 | 12°K28 | 7°E20 | 2°R51 | S 1 | |
| M 2 | 9 10 25 | 19° 8'58 | 4°B20 | 21°22 | 7°30 | 6°16 | 2°17 | 6°30 | 22°39 | 1°50 | 23°37 | 11°12 | 12°25 | 7°27 | 2°D51 | M 2 | |
| T 3 | 9 14 22 | 20° 9'22 | 16°47 | 23°14 | 8° 8 | 6°51 | 2°24 | 6°33 | 22°40 | 1°51 | 23°38 | 11°R12 | 12°21 | 7°33 | 2°II51 | T 3 | |
| W 4 | 9 18 18 | 21° 9'44 | 28°59 | 25° 7 | 8°47 | 7°27 | 2°31 | 6°37 | 22°41 | 1°52 | 23°40 | 11°12 | 12°18 | 7°40 | 2°51 | W 4 | |
| T 5 | 9 22 15 | 22°10'04 | 11°II 0 | 27° 0 | 9°27 | 8° 2 | 2°38 | 6°41 | 22°42 | 1°53 | 23°42 | 11°11 | 12°15 | 7°47 | 2°51 | T 5 | |
| F 6 | 9 26 12 | 23°10'22 | 22°53 | 28°54 | 10° 8 | 8°37 | 2°45 | 6°45 | 22°43 | 1°54 | 23°43 | 11° 9 | 12°12 | 7°54 | 2°51 | F 6 | |
| S 7 | 9 30 8 | 24°10'37 | 4°E44 | 0°K48 | 10°50 | 9°13 | 2°51 | 6°49 | 22°43 | 1°55 | 23°45 | 11° 7 | 12° 9 | 8° 0 | 2°52 | S 7 | |
| S 8 | 9 34 5 | 25°10'51 | 16°36 | 2°43 | 11°34 | 9°48 | 2°58 | 6°53 | 22°44 | 1°56 | 23°47 | 11° 4 | 12° 5 | 8° 7 | 2°52 | S 8 | |
| M 9 | 9 38 1 | 26°11'03 | 28°32 | 4°37 | 12°18 | 10°24 | 3° 4 | 6°57 | 22°45 | 1°58 | 23°48 | 11° 2 | 12° 2 | 8°14 | 2°52 | M 9 | |
| T 10 | 9 41 58 | 27°11'13 | 10°E35 | 6°31 | 13° 3 | 10°59 | 3°10 | 7° 1 | 22°45 | 1°59 | 23°50 | 11° 0 | 11°59 | 8°20 | 2°53 | T 10 | |
| W11 | 9 45 54 | 28°11'20 | 22°46 | 8°25 | 13°49 | 11°35 | 3°16 | 7° 5 | 22°46 | 2° 0 | 23°52 | 10°58 | 11°56 | 8°27 | 2°54 | W11 | |
| T 12 | 9 49 51 | 29°11'26 | 5°M 7 | 10°18 | 14°36 | 12°11 | 3°22 | 7°10 | 22°46 | 2° 1 | 23°53 | 10°D58 | 11°53 | 8°34 | 2°54 | T 12 | |
| F 13 | 9 53 47 | 0°K11'30 | 17°40 | 12°10 | 15°24 | 12°46 | 3°27 | 7°14 | 22°47 | 2° 2 | 23°55 | 10°58 | 11°50 | 8°41 | 2°55 | F 13 | |
| S 14 | 9 57 44 | 1°11'32 | 0°E24 | 14° 1 | 16°13 | 13°22 | 3°33 | 7°19 | 22°47 | 2° 4 | 23°56 | 10°58 | 11°46 | 8°47 | 2°56 | S 14 | |
| S 15 | 10 1 41 | 2°11'32 | 13°22 | 15°49 | 17° 3 | 13°58 | 3°38 | 7°23 | 22°47 | 2° 5 | 23°58 | 10°59 | 11°43 | 8°54 | 2°57 | S 15 | |
| M16 | 10 5 37 | 3°11'31 | 26°33 | 17°36 | 17°53 | 14°34 | 3°43 | 7°28 | 22°47 | 2° 6 | 24° 0 | 11° 0 | 11°40 | 9° 1 | 2°58 | M16 | |
| T 17 | 10 9 34 | 4°11'28 | 9°M59 | 19°20 | 18°44 | 15° 9 | 3°48 | 7°33 | 22°48 | 2° 8 | 24° 1 | 11° 0 | 11°37 | 9° 7 | 2°59 | T 17 | |
| W18 | 10 13 30 | 5°11'23 | 23°40 | 21° 0 | 19°36 | 15°45 | 3°53 | 7°38 | 22°48 | 2° 9 | 24° 3 | 11° 1 | 11°34 | 9°14 | 3° 0 | W18 | |
| T 19 | 10 17 27 | 6°11'17 | 7°A36 | 22°37 | 20°28 | 16°21 | 3°58 | 7°43 | 22°48 | 2°10 | 24° 5 | 11°R 1 | 11°31 | 9°21 | 3° 1 | T 19 | |
| F 20 | 10 21 23 | 7°11'09 | 21°46 | 24°10 | 21°21 | 16°57 | 4° 2 | 7°48 | 22°R48 | 2°12 | 24° 6 | 11° 1 | 11°27 | 9°27 | 3° 2 | F 20 | |
| S 21 | 10 25 20 | 8°10'59 | 6°E 8 | 25°37 | 22°15 | 17°33 | 4° 6 | 7°53 | 22°48 | 2°13 | 24° 8 | 11° 1 | 11°24 | 9°34 | 3° 4 | S 21 | |
| S 22 | 10 29 16 | 9°10'48 | 20°40 | 27° 0 | 23° 9 | 18° 9 | 4°10 | 7°58 | 22°48 | 2°15 | 24°10 | 11° 0 | 11°21 | 9°41 | 3° 5 | S 22 | |
| M23 | 10 33 13 | 10°10'35 | 5°A16 | 28°16 | 24° 4 | 18°45 | 4°14 | 8° 3 | 22°48 | 2°16 | 24°11 | 11° 0 | 11°18 | 9°48 | 3° 7 | M23 | |
| T 24 | 10 37 10 | 11°10'20 | 19°51 | 29°27 | 24°59 | 19°21 | 4°18 | 8° 9 | 22°47 | 2°18 | 24°13 | 11°D 0 | 11°15 | 9°54 | 3° 8 | T 24 | |
| W25 | 10 41 6 | 12°10'02 | 4°K19 | 0°V31 | 25°55 | 19°57 | 4°22 | 8°14 | 22°47 | 2°19 | 24°14 | 11°R 0 | 11°11 | 10° 1 | 3°10 | W25 | |
| T 26 | 10 45 3 | 13° 9'43 | 18°34 | 1°28 | 26°51 | 20°33 | 4°25 | 8°20 | 22°47 | 2°21 | 24°16 | 11° 0 | 11° 8 | 10° 8 | 3°12 | T 26 | |
| F 27 | 10 48 59 | 14° 9'22 | 2°V31 | 2°17 | 27°48 | 21°10 | 4°28 | 8°25 | 22°47 | 2°23 | 24°18 | 11° 0 | 11° 5 | 10°14 | 3°13 | F 27 | |
| S 28 | 10 52 56 | 15°K 8'59 | 16°V 7 | 2°V59 | 28°E45 | 21°B46 | 4°A32 | 8°B31 | 22°M46 | 2°B24 | 24°A19 | 11°K 0 | 11°K 2 | 10°E21 | 3°II15 | S 28 | |

Delta T = 20m10s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1058
geocentric

MARCH 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|------|------|-----|
| S 1 | 10 56 52 | 16♉ 8'33 | 29♏21 | 3♃33 | 29♁43 | 22♁22 | 4♂34 | 8♁36 | 22♁46 | 2♁26 | 24♁21 | 10♁R59 | 10♁59 | 10♁28 | 3♁17 | S 1 | |
| M 2 | 11 0 49 | 17° 8'05 | 12♁13 | 3°59 | 0♁41 | 22°58 | 4°37 | 8°42 | 22♁45 | 2°28 | 24°22 | 10♁58 | 10°56 | 10°35 | 3°19 | M 2 | |
| T 3 | 11 4 45 | 18° 7'35 | 24°45 | 4°17 | 1°40 | 23°34 | 4°40 | 8°48 | 22°45 | 2°29 | 24°24 | 10°58 | 10°52 | 10°41 | 3°21 | T 3 | |
| W 4 | 11 8 42 | 19° 7'03 | 7♁ 1 | 4°27 | 2°39 | 24°11 | 4°42 | 8°54 | 22°44 | 2°31 | 24°25 | 10°57 | 10°49 | 10°48 | 3°23 | W 4 | |
| T 5 | 11 12 39 | 20° 6'28 | 19° 4 | 4°R30 | 3°38 | 24°47 | 4°44 | 9° 0 | 22°43 | 2°33 | 24°27 | 10°D57 | 10°46 | 10°55 | 3°26 | T 5 | |
| F 6 | 11 16 35 | 21° 5'51 | 0♁59 | 4°24 | 4°38 | 25°23 | 4°46 | 9° 6 | 22°43 | 2°35 | 24°28 | 10°57 | 10°43 | 11° 1 | 3°28 | F 6 | |
| S 7 | 11 20 32 | 22° 5'12 | 12°50 | 4°12 | 5°38 | 26° 0 | 4°48 | 9°12 | 22°42 | 2°36 | 24°30 | 10°58 | 10°40 | 11° 8 | 3°30 | S 7 | |
| S 8 | 11 24 28 | 23° 4'30 | 24°43 | 3°52 | 6°39 | 26°36 | 4°50 | 9°18 | 22°41 | 2°38 | 24°31 | 10°59 | 10°36 | 11°15 | 3°33 | S 8 | |
| M 9 | 11 28 25 | 24° 3'46 | 6♁41 | 3°26 | 7°39 | 27°13 | 4°51 | 9°25 | 22°40 | 2°40 | 24°33 | 11° 0 | 10°33 | 11°21 | 3°35 | M 9 | |
| T 10 | 11 32 21 | 25° 2'59 | 18°49 | 2°54 | 8°40 | 27°49 | 4°52 | 9°31 | 22°39 | 2°42 | 24°34 | 11° 1 | 10°30 | 11°28 | 3°37 | T 10 | |
| W11 | 11 36 18 | 26° 2'11 | 1♁ 9 | 2°17 | 9°42 | 28°25 | 4°53 | 9°37 | 22°38 | 2°44 | 24°36 | 11° 2 | 10°27 | 11°35 | 3°40 | W11 | |
| T 12 | 11 40 14 | 27° 1'20 | 13°44 | 1°36 | 10°44 | 29° 2 | 4°54 | 9°44 | 22°37 | 2°46 | 24°37 | 11°R 2 | 10°24 | 11°42 | 3°43 | T 12 | |
| F 13 | 11 44 11 | 28° 0'27 | 26°34 | 0°52 | 11°46 | 29°38 | 4°55 | 9°50 | 22°36 | 2°48 | 24°39 | 11° 2 | 10°21 | 11°48 | 3°45 | F 13 | |
| S 14 | 11 48 8 | 28°59'31 | 9♁41 | 0° 5 | 12°48 | 0♁15 | 4°55 | 9°57 | 22°35 | 2°49 | 24°40 | 11° 0 | 10°17 | 11°55 | 3°48 | S 14 | |
| S 15 | 11 52 4 | 29°58'34 | 23° 4 | 29♁17 | 13°51 | 0°51 | 4°56 | 10° 3 | 22°34 | 2°51 | 24°41 | 10°58 | 10°14 | 12° 2 | 3°51 | S 15 | |
| M16 | 11 56 1 | 0♁57'35 | 6♁41 | 28°28 | 14°54 | 1°28 | 4°R56 | 10°10 | 22°33 | 2°53 | 24°43 | 10°55 | 10°11 | 12° 8 | 3°54 | M16 | |
| T 17 | 11 59 57 | 1°56'34 | 20°29 | 27°40 | 15°57 | 2° 4 | 4°56 | 10°16 | 22°32 | 2°55 | 24°44 | 10°52 | 10° 8 | 12°15 | 3°57 | T 17 | |
| W18 | 12 3 54 | 2°55'31 | 4♁27 | 26°53 | 17° 0 | 2°41 | 4°55 | 10°23 | 22°30 | 2°57 | 24°46 | 10°50 | 10° 5 | 12°22 | 4° 0 | W18 | |
| T 19 | 12 7 50 | 3°54'27 | 18°32 | 26° 9 | 18° 4 | 3°17 | 4°55 | 10°30 | 22°29 | 2°59 | 24°47 | 10°48 | 10° 2 | 12°28 | 4° 3 | T 19 | |
| F 20 | 12 11 47 | 4°53'21 | 2♁42 | 25°27 | 19° 8 | 3°54 | 4°54 | 10°37 | 22°28 | 3° 1 | 24°48 | 10°D47 | 9°58 | 12°35 | 4° 6 | F 20 | |
| S 21 | 12 15 43 | 5°52'13 | 16°54 | 24°49 | 20°12 | 4°31 | 4°53 | 10°44 | 22°26 | 3° 3 | 24°50 | 10°47 | 9°55 | 12°42 | 4° 9 | S 21 | |
| S 22 | 12 19 40 | 6°51'03 | 1♁ 6 | 24°15 | 21°16 | 5° 7 | 4°52 | 10°51 | 22°25 | 3° 6 | 24°51 | 10°49 | 9°52 | 12°49 | 4°13 | S 22 | |
| M23 | 12 23 37 | 7°49'51 | 15°17 | 23°45 | 22°21 | 5°44 | 4°51 | 10°58 | 22°23 | 3° 8 | 24°52 | 10°50 | 9°49 | 12°55 | 4°16 | M23 | |
| T 24 | 12 27 33 | 8°48'38 | 29°24 | 23°21 | 23°26 | 6°20 | 4°50 | 11° 5 | 22°22 | 3°10 | 24°54 | 10°51 | 9°46 | 13° 2 | 4°19 | T 24 | |
| W25 | 12 31 30 | 9°47'23 | 13♁23 | 23° 1 | 24°30 | 6°57 | 4°48 | 11°12 | 22°20 | 3°12 | 24°55 | 10°R52 | 9°42 | 13° 9 | 4°23 | W25 | |
| T 26 | 12 35 26 | 10°46'06 | 27°13 | 22°47 | 25°36 | 7°34 | 4°47 | 11°19 | 22°19 | 3°14 | 24°56 | 10°51 | 9°39 | 13°15 | 4°26 | T 26 | |
| F 27 | 12 39 23 | 11°44'46 | 10♁51 | 22°38 | 26°41 | 8°10 | 4°45 | 11°26 | 22°17 | 3°16 | 24°57 | 10°48 | 9°36 | 13°22 | 4°30 | F 27 | |
| S 28 | 12 43 19 | 12°43'25 | 24°13 | 22°D34 | 27°46 | 8°47 | 4°42 | 11°33 | 22°15 | 3°18 | 24°58 | 10°44 | 9°33 | 13°29 | 4°33 | S 28 | |
| S 29 | 12 47 16 | 13°42'07 | 7♁18 | 22°35 | 28°52 | 9°24 | 4°40 | 11°40 | 22°14 | 3°20 | 25° 0 | 10°39 | 9°30 | 13°35 | 4°37 | S 29 | |
| M30 | 12 51 12 | 14°40'37 | 20° 6 | 22°41 | 29°58 | 10° 1 | 4°38 | 11°47 | 22°12 | 3°22 | 25° 1 | 10°33 | 9°27 | 13°42 | 4°40 | M30 | |
| T 31 | 12 55 9 | 15°39'10 | 2♁37 | 22♁52 | 1♁ 4 | 10♁37 | 4♁35 | 11♁55 | 22♁10 | 3♁25 | 25♁ 2 | 10♁27 | 9♁23 | 13♁49 | 4♁44 | T 31 | |

Delta T = 20m10s Julian Calendar 1 March 1058 == Greg. Calendar 7 March 1058

APRIL 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|------|-------|--------|------|-------|------|------|-----|
| W 1 | 12 59 5 | 16♏37'41 | 14♁52 | 23♁ 9 | 2♁10 | 11♁14 | 4°R32 | 12♁ 2 | 22°R 8 | 3♁27 | 25♁ 3 | 10°R22 | 9♁20 | 13♁56 | 4♁48 | W 1 | |
| T 2 | 13 3 2 | 17°36'10 | 26°56 | 23°29 | 3°17 | 11°51 | 4♁29 | 12° 9 | 22♁ 6 | 3°29 | 25° 4 | 10♁19 | 9°17 | 14° 2 | 4°52 | T 2 | |
| F 3 | 13 6 59 | 18°34'36 | 8♁51 | 23°55 | 4°23 | 12°28 | 4°26 | 12°17 | 22° 4 | 3°31 | 25° 5 | 10°17 | 9°14 | 14° 9 | 4°56 | F 3 | |
| S 4 | 13 10 55 | 19°33'00 | 20°42 | 24°24 | 5°30 | 13° 4 | 4°23 | 12°24 | 22° 2 | 3°33 | 25° 6 | 10°D16 | 9°11 | 14°16 | 4°59 | S 4 | |
| S 5 | 13 14 52 | 20°31'22 | 2♁35 | 24°58 | 6°36 | 13°41 | 4°19 | 12°32 | 22° 0 | 3°36 | 25° 7 | 10°17 | 9° 8 | 14°22 | 5° 3 | S 5 | |
| M 6 | 13 18 48 | 21°29'42 | 14°34 | 25°35 | 7°43 | 14°18 | 4°15 | 12°39 | 21°58 | 3°38 | 25° 9 | 10°18 | 9° 4 | 14°29 | 5° 7 | M 6 | |
| T 7 | 13 22 45 | 22°28'00 | 26°43 | 26°17 | 8°50 | 14°55 | 4°11 | 12°46 | 21°56 | 3°40 | 25°10 | 10°20 | 9° 1 | 14°36 | 5°11 | T 7 | |
| W 8 | 13 26 41 | 23°26'16 | 9♁ 8 | 27° 2 | 9°57 | 15°31 | 4° 7 | 12°54 | 21°54 | 3°42 | 25°11 | 10°R20 | 8°58 | 14°42 | 5°16 | W 8 | |
| T 9 | 13 30 38 | 24°24'29 | 21°53 | 27°51 | 11° 5 | 16° 8 | 4° 3 | 13° 2 | 21°52 | 3°44 | 25°12 | 10°20 | 8°55 | 14°49 | 5°20 | T 9 | |
| F 10 | 13 34 34 | 25°22'41 | 4♁58 | 28°42 | 12°12 | 16°45 | 3°59 | 13° 9 | 21°50 | 3°47 | 25°12 | 10°17 | 8°52 | 14°56 | 5°24 | F 10 | |
| S 11 | 13 38 31 | 26°20'51 | 18°25 | 29°37 | 13°20 | 17°22 | 3°54 | 13°17 | 21°48 | 3°49 | 25°13 | 10°13 | 8°48 | 15° 3 | 5°28 | S 11 | |
| S 12 | 13 42 28 | 27°18'59 | 2♁12 | 0♁36 | 14°27 | 17°59 | 3°50 | 13°24 | 21°46 | 3°51 | 25°14 | 10° 6 | 8°45 | 15° 9 | 5°32 | S 12 | |
| M13 | 13 46 24 | 28°17'05 | 16°16 | 1°37 | 15°35 | 18°36 | 3°45 | 13°32 | 21°44 | 3°53 | 25°15 | 9°59 | 8°42 | 15°16 | 5°37 | M13 | |
| T 14 | 13 50 21 | 29°15'10 | 0♁32 | 2°41 | 16°43 | 19°12 | 3°40 | 13°40 | 21°41 | 3°56 | 25°16 | 9°51 | 8°39 | 15°23 | 5°41 | T 14 | |
| W15 | 13 54 17 | 0♁13'13 | 14°56 | 3°47 | 17°51 | 19°49 | 3°35 | 13°47 | 21°39 | 3°58 | 25°17 | 9°44 | 8°36 | 15°29 | 5°45 | W15 | |
| T 16 | 13 58 14 | 1°11'15 | 29°20 | 4°57 | 18°59 | 20°26 | 3°29 | 13°55 | 21°37 | 4° 0 | 25°18 | 9°39 | 8°33 | 15°36 | 5°50 | T 16 | |
| F 17 | 14 2 10 | 2° 9'16 | 13♁41 | 6° 9 | 20° 7 | 21° 3 | 3°24 | 14° 3 | 21°35 | 4° 2 | 25°19 | 9°35 | 8°29 | 15°43 | 5°54 | F 17 | |
| S 18 | 14 6 7 | 3° 7'15 | 27°56 | 7°23 | 21°15 | 21°40 | 3°18 | 14°10 | 21°32 | 4° 5 | 25°19 | 9°D34 | 8°26 | 15°49 | 5°58 | S 18 | |
| S 19 | 14 10 3 | 4° 5'12 | 12♁ 1 | 8°40 | 22°24 | 22°17 | 3°13 | 14°18 | 21°30 | 4° 7 | 25°20 | 9°34 | 8°23 | 15°56 | 6° 3 | S 19 | |
| M20 | 14 14 0 | 5° 3'09 | 25°57 | 9°59 | 23°32 | 22°54 | 3° 7 | 14°26 | 21°28 | 4° 9 | 25°21 | 9°34 | 8°20 | 16° 3 | 6° 7 | M20 | |
| T 21 | 14 17 57 | 6° 1'04 | 9♁42 | 11°21 | 24°41 | 23°31 | 3° 1 | 14°34 | 21°25 | 4°11 | 25°22 | 9°R35 | 8°17 | 16°10 | 6°12 | T 21 | |
| W22 | 14 21 53 | 6°58'57 | 23°17 | 12°45 | 25°50 | 24° 8 | 2°55 | 14°41 | 21°23 | 4°14 | 25°22 | 9°34 | 8°14 | 16°16 | 6°17 | W22 | |
| T 23 | 14 25 50 | 7°56'50 | 6♁42 | 14°11 | 26°58 | 24°44 | 2°49 | 14°49 | 21°21 | 4°16 | 25°23 | 9°31 | 8°10 | 16°23 | 6°21 | T 23 | |
| F 24 | 14 29 46 | 8°54'41 | 19°55 | 15°39 | 28° 7 | 25°21 | 2°42 | 14°57 | 21°18 | 4°18 | 25°24 | 9°26 | 8° 7 | 16°30 | 6°26 | F 24 | |
| S 25 | 14 33 43 | 9°52'30 | 2♁57 | 17°10 | 29°16 | 25°58 | 2°36 | 15° 5 | 21°16 | 4°20 | 25°24 | 9°18 | 8° 4 | 16°36 | 6°31 | S 25 | |
| S 26 | 14 37 39 | 10°50'18 | 15°46 | 18°42 | 0♁25 | 26°35 | 2°29 | 15°12 | 21°13 | 4°23 | 25°25 | 9° 7 | 8° 1 | 16°43 | 6°35 | S 26 | |
| M27 | 14 41 36 | 11°48'05 | 28°22 | 20°17 | 1°34 | 27°12 | 2°23 | 15°20 | 21°11 | 4°25 | 25°26 | 8°56 | 7°58 | 16°50 | 6°40 | M27 | |
| T 28 | 14 45 32 | 12°45'50 | 10♁45 | 21°54 | 2°43 | 27°49 | 2°16 | 15°28 | 21° 8 | 4°27 | 25°26 | 8°45 | 7°54 | 16°56 | 6°45 | T 28 | |
| W29 | 14 49 29 | 13°43'34 | 22°56 | 23°34 | 3°53 | 28°26 | 2° 9 | 15°36 | 21° 6 | 4°29 | 25°27 | 8°35 | 7°51 | 17° 3 | 6°50 | W29 | |
| T 30 | 14 53 26 | 14♁41'16 | 4♁56 | 25♁15 | 5♁ 2 | 29♁ 3 | 2♁ 2 | 15♁44 | 21♁ 4 | 4♁32 | 25♁27 | 8♁26 | 7♁48 | 17♁10 | 6♁54 | T 30 | |

Delta T = 20m09s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1058
geocentric

MAY 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|---------|------|--------|-------|------|-------|------|------|---|-----|
| F 1 | 14 57 22 | 15♈38'57 | 16♉50 | 26♊58 | 6♋11 | 29♌40 | 1♍R55 | 15♎52 | 21♏R 1 | 4♐34 | 25♑28 | 8♒R20 | 7♓45 | 17♉16 | 6♊59 | F 1 | | |
| S 2 | 15 1 19 | 16♈36'36 | 28♉40 | 28♊44 | 7♋21 | 0♌17 | 1♍48 | 15♎59 | 20♏M.59 | 4♐36 | 25♑28 | 8♒16 | 7♓42 | 17♉23 | 7♋4 | S 2 | | |
| S 3 | 15 5 15 | 17♈34'14 | 10♉31 | 0♊32 | 8♋30 | 0♌54 | 1♍41 | 16° 7 | 20°56 | 4♐38 | 25°29 | 8°15 | 7°39 | 17°30 | 7° 9 | S 3 | | |
| M 4 | 15 9 12 | 18♈31'50 | 22♉28 | 2°22 | 9°40 | 1°31 | 1°34 | 16°15 | 20°54 | 4°40 | 25°29 | 8°D15 | 7°35 | 17°37 | 7°14 | M 4 | | |
| T 5 | 15 13 8 | 19♈29'24 | 4♊37 | 4°14 | 10°49 | 2° 8 | 1°27 | 16°23 | 20°51 | 4°43 | 25°29 | 8°R15 | 7°32 | 17°43 | 7°19 | T 5 | | |
| W 6 | 15 17 5 | 20♈26'57 | 17° 3 | 6° 8 | 11°59 | 2°45 | 1°19 | 16°31 | 20°49 | 4°45 | 25°30 | 8°15 | 7°29 | 17°50 | 7°24 | W 6 | | |
| T 7 | 15 21 1 | 21♈24'29 | 29°50 | 8° 4 | 13° 9 | 3°22 | 1°12 | 16°38 | 20°46 | 4°47 | 25°30 | 8°13 | 7°26 | 17°57 | 7°29 | T 7 | | |
| F 8 | 15 24 58 | 22♈21'59 | 13♉1 | 10° 3 | 14°19 | 3°59 | 1° 5 | 16°46 | 20°44 | 4°49 | 25°30 | 8° 9 | 7°23 | 18° 3 | 7°34 | F 8 | | |
| S 9 | 15 28 55 | 23♈19'28 | 26°40 | 12° 3 | 15°29 | 4°36 | 0°57 | 16°54 | 20°41 | 4°51 | 25°31 | 8° 2 | 7°19 | 18°10 | 7°39 | S 9 | | |
| S 10 | 15 32 51 | 24°16'55 | 10♊44 | 14° 5 | 16°38 | 5°13 | 0°50 | 17° 2 | 20°39 | 4°54 | 25°31 | 7°53 | 7°16 | 18°17 | 7°44 | S 10 | | |
| M11 | 15 36 48 | 25°14'22 | 25°10 | 16° 9 | 17°48 | 5°50 | 0°42 | 17° 9 | 20°36 | 4°56 | 25°31 | 7°43 | 7°13 | 18°23 | 7°49 | M11 | | |
| T 12 | 15 40 44 | 26°11'47 | 9♊51 | 18°15 | 18°59 | 6°27 | 0°34 | 17°17 | 20°34 | 4°58 | 25°31 | 7°32 | 7°10 | 18°30 | 7°54 | T 12 | | |
| W13 | 15 44 41 | 27° 9'12 | 24°41 | 20°22 | 20° 9 | 7° 5 | 0°27 | 17°25 | 20°31 | 5° 0 | 25°32 | 7°22 | 7° 7 | 18°37 | 7°59 | W13 | | |
| T 14 | 15 48 37 | 28° 6'36 | 9♋29 | 22°30 | 21°19 | 7°42 | 0°19 | 17°33 | 20°29 | 5° 2 | 25°32 | 7°14 | 7° 4 | 18°43 | 8° 4 | T 14 | | |
| F 15 | 15 52 34 | 29° 3'59 | 24°10 | 24°40 | 22°29 | 8°19 | 0°12 | 17°40 | 20°26 | 5° 4 | 25°32 | 7° 8 | 7° 0 | 18°50 | 8° 9 | F 15 | | |
| S 16 | 15 56 30 | 0♊1'21 | 8♋36 | 26°51 | 23°39 | 8°56 | 0° 4 | 17°48 | 20°24 | 5° 6 | 25°32 | 7° 5 | 6°57 | 18°57 | 8°14 | S 16 | | |
| S 17 | 16 0 27 | 0°58'43 | 22°46 | 29° 2 | 24°50 | 9°33 | 29♌56 | 17°56 | 20°21 | 5° 8 | 25°32 | 7° 3 | 6°54 | 19° 4 | 8°19 | S 17 | | |
| M18 | 16 4 24 | 1°56'04 | 6♊39 | 1♊14 | 26° 0 | 10°10 | 29°49 | 18° 4 | 20°19 | 5°10 | 25°32 | 7° 3 | 6°51 | 19°10 | 8°24 | M18 | | |
| T 19 | 16 8 20 | 2°53'24 | 20°14 | 3°26 | 27°11 | 10°47 | 29°41 | 18°11 | 20°17 | 5°12 | 25°32 | 7° 3 | 6°48 | 19°17 | 8°29 | T 19 | | |
| W20 | 16 12 17 | 3°50'44 | 3♋34 | 5°38 | 28°21 | 11°24 | 29°33 | 18°19 | 20°14 | 5°14 | 25°32 | 7° 1 | 6°45 | 19°24 | 8°34 | W20 | | |
| T 21 | 16 16 13 | 4°48'03 | 16°40 | 7°49 | 29°32 | 12° 1 | 29°26 | 18°26 | 20°12 | 5°16 | 25°R32 | 6°57 | 6°41 | 19°30 | 8°39 | T 21 | | |
| F 22 | 16 20 10 | 5°45'22 | 29°33 | 10° 0 | 0♋42 | 12°39 | 29°18 | 18°34 | 20° 9 | 5°19 | 25°32 | 6°50 | 6°38 | 19°37 | 8°44 | F 22 | | |
| S 23 | 16 24 6 | 6°42'41 | 12♊16 | 12°10 | 1°53 | 13°16 | 29°11 | 18°42 | 20° 7 | 5°21 | 25°32 | 6°41 | 6°35 | 19°44 | 8°50 | S 23 | | |
| S 24 | 16 28 3 | 7°39'59 | 24°47 | 14°19 | 3° 4 | 13°53 | 29° 3 | 18°49 | 20° 5 | 5°22 | 25°32 | 6°29 | 6°32 | 19°50 | 8°55 | S 24 | | |
| M25 | 16 31 59 | 8°37'16 | 7♊19 | 16°27 | 4°15 | 14°30 | 28°56 | 18°57 | 20° 2 | 5°24 | 25°32 | 6°15 | 6°29 | 19°57 | 9° 0 | M25 | | |
| T 26 | 16 35 56 | 9°34'33 | 19°20 | 18°33 | 5°25 | 15° 7 | 28°48 | 19° 4 | 20° 0 | 5°26 | 25°32 | 6° 2 | 6°25 | 20° 4 | 9° 5 | T 26 | | |
| W27 | 16 39 53 | 10°31'49 | 1♋23 | 20°37 | 6°36 | 15°44 | 28°41 | 19°12 | 19°58 | 5°28 | 25°32 | 5°49 | 6°22 | 20°10 | 9°10 | W27 | | |
| T 28 | 16 43 49 | 11°29'04 | 13°19 | 22°40 | 7°47 | 16°22 | 28°34 | 19°19 | 19°56 | 5°30 | 25°32 | 5°39 | 6°19 | 20°17 | 9°15 | T 28 | | |
| F 29 | 16 47 46 | 12°26'19 | 25° 9 | 24°40 | 8°58 | 16°59 | 28°26 | 19°27 | 19°53 | 5°32 | 25°32 | 5°30 | 6°16 | 20°24 | 9°20 | F 29 | | |
| S 30 | 16 51 42 | 13°23'33 | 6♋57 | 26°39 | 10° 9 | 17°36 | 28°19 | 19°34 | 19°51 | 5°34 | 25°31 | 5°25 | 6°13 | 20°30 | 9°25 | S 30 | | |
| S 31 | 16 55 39 | 14♊20'46 | 18♋47 | 28♊36 | 11♋20 | 18♌13 | 28♌12 | 19♎41 | 19♏49 | 5♐36 | 25♑31 | 5♒22 | 6♓10 | 20♉37 | 9♊31 | S 31 | | |

Delta T = 20m09s Julian Calendar 1 May 1058 == Greg. Calendar 7 May 1058

JUNE 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|------|--------|-------|------|-------|-------|------|---|-----|
| M 1 | 16 59 35 | 15♊17'59 | 0♋43 | 0♌30 | 12♍31 | 18♎51 | 28♏R 5 | 19♐49 | 19♑R47 | 5♒38 | 25♓R31 | 5°D21 | 6♔6 | 20♉44 | 9♊36 | M 1 | | |
| T 2 | 17 3 32 | 16°15'11 | 12°50 | 2°22 | 13°42 | 19°28 | 27♌58 | 19°56 | 19♏45 | 5°40 | 25°31 | 5°R21 | 6° 3 | 20°51 | 9°41 | T 2 | | |
| W 3 | 17 7 29 | 17°12'22 | 25°13 | 4°12 | 14°53 | 20° 5 | 27°51 | 20° 3 | 19°43 | 5°41 | 25°30 | 5°R21 | 6° 0 | 20°57 | 9°46 | W 3 | | |
| T 4 | 17 11 25 | 18° 9'33 | 7♌59 | 6° 0 | 16° 5 | 20°42 | 27°44 | 20°11 | 19°40 | 5°43 | 25°30 | 5°20 | 5°57 | 21° 4 | 9°51 | T 4 | | |
| F 5 | 17 15 22 | 19° 6'43 | 21°10 | 7°46 | 17°16 | 21°20 | 27°38 | 20°18 | 19°38 | 5°45 | 25°30 | 5°17 | 5°54 | 21°11 | 9°56 | F 5 | | |
| S 6 | 17 19 18 | 20° 3'53 | 4♌50 | 9°29 | 18°27 | 21°57 | 27°31 | 20°25 | 19°36 | 5°47 | 25°29 | 5°11 | 5°51 | 21°17 | 10° 1 | S 6 | | |
| S 7 | 17 23 15 | 21° 1'02 | 18°59 | 11°10 | 19°39 | 22°34 | 27°25 | 20°32 | 19°34 | 5°48 | 25°29 | 5° 3 | 5°47 | 21°24 | 10° 6 | S 7 | | |
| M 8 | 17 27 11 | 21°58'11 | 3♌35 | 12°49 | 20°50 | 23°12 | 27°18 | 20°39 | 19°32 | 5°50 | 25°29 | 4°53 | 5°44 | 21°31 | 10°11 | M 8 | | |
| T 9 | 17 31 8 | 22°55'20 | 18°30 | 14°26 | 22° 1 | 23°49 | 27°12 | 20°46 | 19°30 | 5°52 | 25°28 | 4°43 | 5°41 | 21°37 | 10°16 | T 9 | | |
| W10 | 17 35 4 | 23°52'28 | 3♌38 | 16° 0 | 23°13 | 24°26 | 27° 6 | 20°53 | 19°28 | 5°53 | 25°28 | 4°33 | 5°38 | 21°44 | 10°21 | W10 | | |
| T 11 | 17 39 1 | 24°49'37 | 18°46 | 17°32 | 24°24 | 25° 3 | 27° 0 | 21° 0 | 19°27 | 5°55 | 25°27 | 4°25 | 5°35 | 21°51 | 10°27 | T 11 | | |
| F 12 | 17 42 58 | 25°46'45 | 3♌46 | 19° 2 | 25°36 | 25°41 | 26°54 | 21° 7 | 19°25 | 5°57 | 25°27 | 4°20 | 5°31 | 21°57 | 10°32 | F 12 | | |
| S 13 | 17 46 54 | 26°43'54 | 18°29 | 20°29 | 26°47 | 26°18 | 26°48 | 21°14 | 19°23 | 5°58 | 25°26 | 4°17 | 5°28 | 22° 4 | 10°37 | S 13 | | |
| S 14 | 17 50 51 | 27°41'03 | 2♌52 | 21°54 | 27°59 | 26°56 | 26°42 | 21°21 | 19°21 | 6° 0 | 25°26 | 4°D16 | 5°25 | 22°11 | 10°42 | S 14 | | |
| M15 | 17 54 47 | 28°38'12 | 16°51 | 23°17 | 29°11 | 27°33 | 26°37 | 21°28 | 19°19 | 6° 1 | 25°25 | 4°16 | 5°22 | 22°17 | 10°47 | M15 | | |
| T 16 | 17 58 44 | 29°35'21 | 0♍27 | 24°37 | 0♊23 | 28°10 | 26°31 | 21°34 | 19°18 | 6° 3 | 25°24 | 4°R17 | 5°19 | 22°24 | 10°52 | T 16 | | |
| W17 | 18 2 40 | 0♌32'31 | 13°42 | 25°55 | 1°34 | 28°48 | 26°26 | 21°41 | 19°16 | 6° 4 | 25°24 | 4°16 | 5°16 | 22°31 | 10°56 | W17 | | |
| T 18 | 18 6 37 | 1°29'41 | 26°39 | 27°10 | 2°46 | 29°25 | 26°21 | 21°48 | 19°14 | 6° 6 | 25°23 | 4°13 | 5°12 | 22°37 | 11° 1 | T 18 | | |
| F 19 | 18 10 33 | 2°26'52 | 9♌20 | 28°23 | 3°58 | 0♋3 | 26°16 | 21°54 | 19°13 | 6° 7 | 25°22 | 4° 8 | 5° 9 | 22°44 | 11° 6 | F 19 | | |
| S 20 | 18 14 30 | 3°24'03 | 21°48 | 29°33 | 5°10 | 0°40 | 26°11 | 22° 1 | 19°11 | 6° 9 | 25°22 | 4° 1 | 5° 6 | 22°51 | 11°11 | S 20 | | |
| S 21 | 18 18 27 | 4°21'15 | 4♊6 | 0♋40 | 6°22 | 1°18 | 26° 7 | 22° 7 | 19°10 | 6°10 | 25°21 | 3°51 | 5° 3 | 22°57 | 11°16 | S 21 | | |
| M22 | 18 22 23 | 5°18'27 | 16°14 | 1°45 | 7°34 | 1°55 | 26° 2 | 22°14 | 19° 8 | 6°11 | 25°20 | 3°41 | 5° 0 | 23° 4 | 11°21 | M22 | | |
| T 23 | 18 26 20 | 6°15'39 | 28°16 | 2°46 | 8°46 | 2°33 | 25°58 | 22°20 | 19° 7 | 6°13 | 25°20 | 3°30 | 4°57 | 23°11 | 11°26 | T 23 | | |
| W24 | 18 30 16 | 7°12'52 | 10♌11 | 3°45 | 9°58 | 3°10 | 25°54 | 22°27 | 19° 5 | 6°14 | 25°19 | 3°20 | 4°53 | 23°18 | 11°31 | W24 | | |
| T 25 | 18 34 13 | 8°10'05 | 22° 2 | 4°41 | 11°10 | 3°48 | 25°50 | 22°33 | 19° 4 | 6°15 | 25°18 | 3°11 | 4°50 | 23°24 | 11°35 | T 25 | | |
| F 26 | 18 38 9 | 9° 7'18 | 3♌50 | 5°33 | 12°22 | 4°25 | 25°46 | 22°39 | 19° 3 | 6°17 | 25°17 | 3° 5 | 4°47 | 23°31 | 11°40 | F 26 | | |
| S 27 | 18 42 6 | 10° 4'32 | 15°38 | 6°22 | 13°34 | 5° 3 | 25°42 | 22°45 | 19° 2 | 6°18 | 25°17 | 3° 1 | 4°44 | 23°38 | 11°45 | S 27 | | |
| S 28 | 18 46 3 | 11° 1'46 | 27°29 | 7° 8 | 14°47 | 5°40 | 25°38 | 22°51 | 19° 0 | 6°19 | 25°16 | 2°D59 | 4°41 | 23°44 | 11°50 | S 28 | | |
| M29 | 18 49 59 | 11°59'00 | 9♌26 | 7°50 | 15°59 | 6°18 | 25°35 | 22°57 | 18°59 | 6°20 | 25°15 | 2°59 | 4°37 | 23°51 | 11°54 | M29 | | |
| T 30 | 18 53 56 | 12°56'14 | 21♌34 | 8♌28 | 17♌11 | 6♍55 | 25♎32 | 23♏3 | 18♏58 | 6♐21 | 25♑14 | 3♒0 | 4♓34 | 23♉58 | 11♊59 | | | |

ASTRODIENST EPHEMERIS for the year 1058
geocentric

JULY 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|--------|------|--------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 18 57 52 | 13♄53'29 | 3♂57 | 9♂ 3 | 18♂24 | 7♂33 | 25°R29 | 23♂ 9 | 18°R57 | 6♂22 | 25°R13 | 3♂ 2 | 4♂31 | 24♄ 4 | 12♂ 3 | W 1 | | | | | | | | |
| T 2 | 19 1 49 | 14°50'44 | 16°40 | 9°33 | 19°36 | 8°11 | 25♂26 | 23°15 | 18♂56 | 6°23 | 25♂12 | 3°R 2 | 4°28 | 24°11 | 12° 8 | T 2 | | | | | | | | |
| F 3 | 19 5 45 | 15°48'00 | 29°47 | 9°59 | 20°48 | 8°48 | 25°23 | 23°21 | 18°55 | 6°25 | 25°11 | 3° 1 | 4°25 | 24°18 | 12°13 | F 3 | | | | | | | | |
| S 4 | 19 9 42 | 16°45'15 | 13♂22 | 10°21 | 22° 1 | 9°26 | 25°21 | 23°27 | 18°54 | 6°26 | 25°10 | 2°58 | 4°22 | 24°24 | 12°17 | S 4 | | | | | | | | |
| S 5 | 19 13 38 | 17°42'32 | 27°26 | 10°38 | 23°13 | 10° 4 | 25°19 | 23°32 | 18°53 | 6°27 | 25° 9 | 2°54 | 4°18 | 24°31 | 12°22 | S 5 | | | | | | | | |
| M 6 | 19 17 35 | 18°39'48 | 11♂58 | 10°50 | 24°26 | 10°41 | 25°16 | 23°38 | 18°52 | 6°27 | 25° 8 | 2°48 | 4°15 | 24°38 | 12°26 | M 6 | | | | | | | | |
| T 7 | 19 21 32 | 19°37'06 | 26°53 | 10°58 | 25°38 | 11°19 | 25°15 | 23°43 | 18°51 | 6°28 | 25° 8 | 2°42 | 4°12 | 24°44 | 12°31 | T 7 | | | | | | | | |
| W 8 | 19 25 28 | 20°34'24 | 12♂ 3 | 11°R 0 | 26°51 | 11°57 | 25°13 | 23°49 | 18°51 | 6°29 | 25° 7 | 2°36 | 4° 9 | 24°51 | 12°35 | W 8 | | | | | | | | |
| T 9 | 19 29 25 | 21°31'43 | 27°19 | 10°58 | 28° 4 | 12°35 | 25°11 | 23°54 | 18°50 | 6°30 | 25° 6 | 2°31 | 4° 6 | 24°58 | 12°39 | T 9 | | | | | | | | |
| F 10 | 19 33 21 | 22°29'02 | 12♂31 | 10°50 | 29°17 | 13°12 | 25°10 | 24° 0 | 18°49 | 6°31 | 25° 4 | 2°27 | 4° 3 | 25° 4 | 12°44 | F 10 | | | | | | | | |
| S 11 | 19 37 18 | 23°26'22 | 27°27 | 10°38 | 0♂29 | 13°50 | 25° 9 | 24° 5 | 18°49 | 6°32 | 25° 3 | 2°D26 | 3°59 | 25°11 | 12°48 | S 11 | | | | | | | | |
| S 12 | 19 41 14 | 24°23'44 | 12♂ 3 | 10°20 | 1°42 | 14°28 | 25° 8 | 24°10 | 18°48 | 6°33 | 25° 2 | 2°26 | 3°56 | 25°18 | 12°52 | S 12 | | | | | | | | |
| M13 | 19 45 11 | 25°21'06 | 26°13 | 9°57 | 2°55 | 15° 6 | 25° 7 | 24°15 | 18°48 | 6°33 | 25° 1 | 2°27 | 3°53 | 25°24 | 12°56 | M13 | | | | | | | | |
| T 14 | 19 49 7 | 26°18'30 | 9♂58 | 9°29 | 4° 8 | 15°43 | 25° 6 | 24°20 | 18°47 | 6°34 | 25° 0 | 2°29 | 3°50 | 25°31 | 13° 1 | T 14 | | | | | | | | |
| W15 | 19 53 4 | 27°15'55 | 23°16 | 8°57 | 5°21 | 16°21 | 25° 5 | 24°25 | 18°47 | 6°35 | 24°59 | 2°R30 | 3°47 | 25°38 | 13° 5 | W15 | | | | | | | | |
| T 16 | 19 57 1 | 28°13'22 | 6♂13 | 8°21 | 6°34 | 16°59 | 25° 5 | 24°30 | 18°46 | 6°35 | 24°58 | 2°30 | 3°43 | 25°44 | 13° 9 | T 16 | | | | | | | | |
| F 17 | 20 0 57 | 29°10'49 | 18°50 | 7°41 | 7°47 | 17°37 | 25°D 5 | 24°35 | 18°46 | 6°36 | 24°57 | 2°28 | 3°40 | 25°51 | 13°13 | F 17 | | | | | | | | |
| S 18 | 20 4 54 | 0♂ 8'19 | 1♂11 | 6°58 | 9° 0 | 18°15 | 25° 5 | 24°39 | 18°46 | 6°37 | 24°56 | 2°25 | 3°37 | 25°58 | 13°17 | S 18 | | | | | | | | |
| S 19 | 20 8 50 | 1° 5'49 | 13°20 | 6°12 | 10°13 | 18°53 | 25° 5 | 24°44 | 18°46 | 6°37 | 24°55 | 2°20 | 3°34 | 26° 4 | 13°21 | S 19 | | | | | | | | |
| M20 | 20 12 47 | 2° 3'21 | 25°21 | 5°25 | 11°26 | 19°31 | 25° 6 | 24°49 | 18°45 | 6°38 | 24°54 | 2°15 | 3°31 | 26°11 | 13°25 | M20 | | | | | | | | |
| T 21 | 20 16 43 | 3° 0'54 | 7♂15 | 4°37 | 12°39 | 20° 9 | 25° 6 | 24°53 | 18°45 | 6°38 | 24°52 | 2°10 | 3°28 | 26°18 | 13°29 | T 21 | | | | | | | | |
| W22 | 20 20 40 | 3°58'28 | 19° 5 | 3°49 | 13°52 | 20°47 | 25° 7 | 24°57 | 18°45 | 6°39 | 24°51 | 2° 5 | 3°24 | 26°25 | 13°32 | W22 | | | | | | | | |
| T 23 | 20 24 36 | 4°56'04 | 0♂54 | 3° 1 | 15° 6 | 21°25 | 25° 8 | 25° 2 | 18°D45 | 6°39 | 24°50 | 2° 1 | 3°21 | 26°31 | 13°36 | T 23 | | | | | | | | |
| F 24 | 20 28 33 | 5°53'41 | 12°43 | 2°15 | 16°19 | 22° 3 | 25° 9 | 25° 6 | 18°45 | 6°40 | 24°49 | 1°59 | 3°18 | 26°38 | 13°40 | F 24 | | | | | | | | |
| S 25 | 20 32 30 | 6°51'19 | 24°35 | 1°33 | 17°32 | 22°41 | 25°11 | 25°10 | 18°45 | 6°40 | 24°48 | 1°57 | 3°15 | 26°45 | 13°44 | S 25 | | | | | | | | |
| S 26 | 20 36 26 | 7°48'58 | 6♂32 | 0°53 | 18°46 | 23°19 | 25°12 | 25°14 | 18°45 | 6°40 | 24°46 | 1°D57 | 3°12 | 26°51 | 13°47 | S 26 | | | | | | | | |
| M27 | 20 40 23 | 8°46'39 | 18°36 | 0°18 | 19°59 | 23°57 | 25°14 | 25°18 | 18°46 | 6°40 | 24°45 | 1°58 | 3° 9 | 26°58 | 13°51 | M27 | | | | | | | | |
| T 28 | 20 44 19 | 9°44'20 | 0♂50 | 29♂49 | 21°13 | 24°35 | 25°16 | 25°22 | 18°46 | 6°41 | 24°44 | 2° 0 | 3° 5 | 27° 5 | 13°54 | T 28 | | | | | | | | |
| W29 | 20 48 16 | 10°42'03 | 13°18 | 29°25 | 22°26 | 25°13 | 25°18 | 25°26 | 18°46 | 6°41 | 24°43 | 2° 1 | 3° 2 | 27°11 | 13°58 | W29 | | | | | | | | |
| T 30 | 20 52 12 | 11°39'47 | 26° 3 | 29° 7 | 23°40 | 25°51 | 25°20 | 25°29 | 18°47 | 6°41 | 24°42 | 2° 2 | 2°59 | 27°18 | 14° 1 | T 30 | | | | | | | | |
| F 31 | 20 56 9 | 12♂37'32 | 9♂ 9 | 28♂57 | 24♂53 | 26♂30 | 25♂23 | 25♂33 | 18♂47 | 6♂41 | 24♂40 | 2°R 3 | 2♂56 | 27♂25 | 14♂ 4 | F 31 | | | | | | | | |

Delta T = 20m08s Julian Calendar 1 July 1058 == Greg. Calendar 7 July 1058

AUGUST 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 21 0 5 | 13♂35'18 | 22♂38 | 28°D54 | 26♄ 7 | 27♂ 8 | 25♂25 | 25♂36 | 18♂47 | 6♂41 | 24°R39 | 2°R 3 | 2♂53 | 27♂31 | 14♂ 8 | S 1 | | | | | | | | |
| S 2 | 21 4 2 | 14°33'05 | 6♂32 | 28♄58 | 27°21 | 27°46 | 25°28 | 25°40 | 18°48 | 6°42 | 24♂38 | 2♂ 2 | 2°49 | 27°38 | 14°11 | S 2 | | | | | | | | |
| M 3 | 21 7 59 | 15°30'54 | 20°51 | 29°10 | 28°34 | 28°24 | 25°31 | 25°43 | 18°49 | 6°42 | 24°37 | 2° 0 | 2°46 | 27°45 | 14°14 | M 3 | | | | | | | | |
| T 4 | 21 11 55 | 16°28'44 | 5♂33 | 29°30 | 29°48 | 29° 2 | 25°34 | 25°46 | 18°49 | 6°R42 | 24°35 | 1°58 | 2°43 | 27°51 | 14°17 | T 4 | | | | | | | | |
| W 5 | 21 15 52 | 17°26'35 | 20°31 | 29°57 | 1♂ 2 | 29°41 | 25°38 | 25°49 | 18°50 | 6°42 | 24°34 | 1°56 | 2°40 | 27°58 | 14°20 | W 5 | | | | | | | | |
| T 6 | 21 19 48 | 18°24'28 | 5♂39 | 0♂33 | 2°16 | 0♂19 | 25°41 | 25°52 | 18°51 | 6°42 | 24°33 | 1°55 | 2°37 | 28° 5 | 14°24 | T 6 | | | | | | | | |
| F 7 | 21 23 45 | 19°22'22 | 20°47 | 1°16 | 3°29 | 0°57 | 25°45 | 25°55 | 18°51 | 6°42 | 24°32 | 1°54 | 2°34 | 28°11 | 14°26 | F 7 | | | | | | | | |
| S 8 | 21 27 41 | 20°20'18 | 5♂46 | 2° 6 | 4°43 | 1°36 | 25°49 | 25°58 | 18°52 | 6°41 | 24°30 | 1°D54 | 2°30 | 28°18 | 14°29 | S 8 | | | | | | | | |
| S 9 | 21 31 38 | 21°18'15 | 20°27 | 3° 4 | 5°57 | 2°14 | 25°53 | 26° 1 | 18°53 | 6°41 | 24°29 | 1°55 | 2°27 | 28°25 | 14°32 | S 9 | | | | | | | | |
| M10 | 21 35 34 | 22°16'14 | 4♂46 | 4° 9 | 7°11 | 2°52 | 25°57 | 26° 3 | 18°54 | 6°41 | 24°28 | 1°55 | 2°24 | 28°31 | 14°35 | M10 | | | | | | | | |
| T 11 | 21 39 31 | 23°14'15 | 18°39 | 5°20 | 8°25 | 3°31 | 26° 1 | 26° 6 | 18°55 | 6°41 | 24°27 | 1°56 | 2°21 | 28°38 | 14°38 | T 11 | | | | | | | | |
| W12 | 21 43 28 | 24°12'18 | 2♂ 6 | 6°37 | 9°39 | 4° 9 | 26° 6 | 26° 8 | 18°56 | 6°41 | 24°25 | 1°57 | 2°18 | 28°45 | 14°40 | W12 | | | | | | | | |
| T 13 | 21 47 24 | 25°10'23 | 15° 7 | 8° 0 | 10°53 | 4°48 | 26°11 | 26°11 | 18°57 | 6°40 | 24°24 | 1°57 | 2°15 | 28°51 | 14°43 | T 13 | | | | | | | | |
| F 14 | 21 51 21 | 26° 8'30 | 27°46 | 9°28 | 12° 7 | 5°26 | 26°15 | 26°13 | 18°58 | 6°40 | 24°23 | 1°R57 | 2°11 | 28°58 | 14°46 | F 14 | | | | | | | | |
| S 15 | 21 55 17 | 27° 6'39 | 10♂ 6 | 11° 1 | 13°21 | 6° 5 | 26°20 | 26°15 | 18°59 | 6°40 | 24°21 | 1°57 | 2° 8 | 29° 5 | 14°48 | S 15 | | | | | | | | |
| S 16 | 21 59 14 | 28° 4'51 | 22°13 | 12°38 | 14°36 | 6°43 | 26°26 | 26°17 | 19° 0 | 6°39 | 24°20 | 1°57 | 2° 5 | 29°11 | 14°51 | S 16 | | | | | | | | |
| M17 | 22 3 10 | 29° 3'04 | 4♄ 9 | 14°18 | 15°50 | 7°22 | 26°31 | 26°19 | 19° 2 | 6°39 | 24°19 | 1°56 | 2° 2 | 29°18 | 14°53 | M17 | | | | | | | | |
| T 18 | 22 7 7 | 0♂1'19 | 16° 0 | 16° 2 | 17° 4 | 8° 0 | 26°36 | 26°21 | 19° 3 | 6°39 | 24°18 | 1°56 | 1°59 | 29°25 | 14°55 | T 18 | | | | | | | | |
| W19 | 22 11 3 | 0°59'36 | 27°49 | 17°48 | 18°18 | 8°39 | 26°42 | 26°22 | 19° 4 | 6°38 | 24°16 | 1°56 | 1°55 | 29°31 | 14°57 | W19 | | | | | | | | |
| T 20 | 22 15 0 | 1°57'55 | 9♂38 | 19°37 | 19°33 | 9°18 | 26°48 | 26°24 | 19° 6 | 6°38 | 24°15 | 1°D56 | 1°52 | 29°38 | 15° 0 | T 20 | | | | | | | | |
| F 21 | 22 18 57 | 2°56'16 | 21°32 | 21°27 | 20°47 | 9°56 | 26°54 | 26°25 | 19° 7 | 6°37 | 24°14 | 1°56 | 1°49 | 29°45 | 15° 2 | F 21 | | | | | | | | |
| S 22 | 22 22 53 | 3°54'39 | 3♂31 | 23°19 | 22° 1 | 10°35 | 27° 0 | 26°27 | 19° 9 | 6°37 | 24°13 | 1°R56 | 1°46 | 29°51 | 15° 4 | S 22 | | | | | | | | |
| S 23 | 22 26 50 | 4°53'04 | 15°38 | 25°12 | 23°16 | 11°14 | 27° 6 | 26°28 | 19°10 | 6°36 | 24°11 | 1°56 | 1°43 | 29°58 | 15° 6 | S 23 | | | | | | | | |
| M24 | 22 30 46 | 5°51'30 | 27°55 | 27° 5 | 24°30 | 11°53 | 27°13 | 26°29 | 19°12 | 6°35 | 24°10 | 1°56 | 1°40 | 0♂ 5 | 15° 7 | M24 | | | | | | | | |
| T 25 | 22 34 43 | 6°49'59 | 10♂24 | 28°58 | 25°45 | 12°31 | 27°19 | 26°30 | 19°14 | 6°35 | 24° 9 | 1°55 | 1°36 | 0°11 | 15° 9 | T 25 | | | | | | | | |
| W26 | 22 38 39 | 7°48'29 | 23° 5 | 0♂52 | 26°59 | 13°10 | 27°26 | 26°31 | 19°15 | 6°34 | 24° 8 | 1°54 | 1°33 | 0°18 | 15°11 | W26 | | | | | | | | |
| T 27 | 22 42 36 | 8°47'01 | 6♂ 1 | 2°46 | 28°14 | 13°49 | 27°33 | 26°32 | 19°17 | 6°33 | 24° 6 | 1°54 | 1°30 | 0°25 | 15°13 | T 27 | | | | | | | | |
| F 28 | 22 46 32 | 9°45'35 | 19°13 | 4°39 | 29°28 | 14°28 | 27°40 | 26°33 | 19°19 | 6°33 | 24° 5 | 1°53 | 1°27 | 0°31 | 15°14 | F 28 | | | | | | | | |
| S 29 | 22 50 29 | 10°44'10 | 2♂43 | 6°32 | 0♂43 | 15° 7 | 27°47 | 26°33 | 19°21 | 6°32 | 24° 4 | 1°52 | 1°24 | 0°38 | 15°16 | S 29 | | | | | | | | |
| S 30 | 22 54 26 | 11°42'48 | 16°30 | 8°25 | 1°57 | 15°46 | 27°54 | 26°34 | 19°23 | 6°31 | 24° 3 | 1°D52 | 1°21 | 0°45 | 15°17 | S 30 | | | | | | | | |
| M31 | 22 58 22 | 12♂41'26 | 0♂36 | 10♂16 | 3♂12 | 16♂25 | 28♂ 2 | 26♂34 | 19♂25 | 6♂30 | 24♂ 2 | 1♂53 | 1♂17 | 0♂51 | 15♂19 | M31 | | | | | | | | |

Delta T = 20m08s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1058
geocentric

SEPTEMBER 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|------|--------|------|---|-----|
| T 1 | 23 2 19 | 13♎40'07 | 14♌59 | 12♎7 | 4♎27 | 17♎4 | 28♎9 | 26♌35 | 19♎27 | 6°R29 | 24°R 0 | 1♋54 | 1♋14 | 0♎58 | 15♎20 | T 1 | | |
| W 2 | 23 6 15 | 14°38'49 | 29°36 | 13°57 | 5°41 | 17°43 | 28°17 | 26°35 | 19°29 | 6♌28 | 23♌59 | 1°55 | 1°11 | 1° 5 | 15°21 | W 2 | | |
| T 3 | 23 10 12 | 15°37'34 | 14♌22 | 15°47 | 6°56 | 18°22 | 28°25 | 26°R35 | 19°31 | 6°28 | 23°58 | 1°55 | 1° 8 | 1°11 | 15°22 | T 3 | | |
| F 4 | 23 14 8 | 16°36'19 | 29°12 | 17°35 | 8°11 | 19° 1 | 28°33 | 26°35 | 19°33 | 6°27 | 23°57 | 1°R56 | 1° 5 | 1°18 | 15°23 | F 4 | | |
| S 5 | 23 18 5 | 17°35'07 | 13♋57 | 19°23 | 9°25 | 19°40 | 28°41 | 26°35 | 19°35 | 6°26 | 23°56 | 1°56 | 1° 1 | 1°25 | 15°24 | S 5 | | |
| S 6 | 23 22 1 | 18°33'57 | 28°32 | 21° 9 | 10°40 | 20°19 | 28°49 | 26°34 | 19°37 | 6°25 | 23°55 | 1°55 | 0°58 | 1°31 | 15°25 | S 6 | | |
| M 7 | 23 25 58 | 19°32'49 | 12♋49 | 22°55 | 11°55 | 20°58 | 28°57 | 26°34 | 19°39 | 6°24 | 23°53 | 1°53 | 0°55 | 1°38 | 15°26 | M 7 | | |
| T 8 | 23 29 55 | 20°31'43 | 26°45 | 24°40 | 13°10 | 21°37 | 29° 6 | 26°33 | 19°42 | 6°23 | 23°52 | 1°50 | 0°52 | 1°45 | 15°27 | T 8 | | |
| W 9 | 23 33 51 | 21°30'39 | 10♌15 | 26°24 | 14°25 | 22°17 | 29°14 | 26°33 | 19°44 | 6°22 | 23°51 | 1°47 | 0°49 | 1°51 | 15°28 | W 9 | | |
| T 10 | 23 37 48 | 22°29'38 | 23°21 | 28° 7 | 15°39 | 22°56 | 29°23 | 26°32 | 19°46 | 6°20 | 23°50 | 1°45 | 0°46 | 1°58 | 15°28 | T 10 | | |
| F 11 | 23 41 44 | 23°28'39 | 6♎4 | 29°49 | 16°54 | 23°35 | 29°32 | 26°31 | 19°49 | 6°19 | 23°49 | 1°43 | 0°42 | 2° 5 | 15°29 | F 11 | | |
| S 12 | 23 45 41 | 24°27'42 | 18°27 | 1♎30 | 18° 9 | 24°14 | 29°41 | 26°30 | 19°51 | 6°18 | 23°48 | 1°42 | 0°39 | 2°11 | 15°29 | S 12 | | |
| S 13 | 23 49 37 | 25°26'48 | 0♎34 | 3°10 | 19°24 | 24°54 | 29°50 | 26°29 | 19°54 | 6°17 | 23°47 | 1°D42 | 0°36 | 2°18 | 15°30 | S 13 | | |
| M14 | 23 53 34 | 26°25'56 | 12°31 | 4°50 | 20°39 | 25°33 | 29°59 | 26°28 | 19°56 | 6°16 | 23°46 | 1°43 | 0°33 | 2°25 | 15°30 | M14 | | |
| T 15 | 23 57 30 | 27°25'06 | 24°21 | 6°29 | 21°54 | 26°13 | 0♎8 | 26°27 | 19°59 | 6°15 | 23°45 | 1°44 | 0°30 | 2°31 | 15°30 | T 15 | | |
| W16 | 0 1 27 | 28°24'19 | 6♎9 | 8° 7 | 23° 9 | 26°52 | 0°18 | 26°25 | 20° 1 | 6°13 | 23°44 | 1°46 | 0°26 | 2°38 | 15°30 | W16 | | |
| T 17 | 0 5 24 | 29°23'34 | 18° 1 | 9°44 | 24°24 | 27°31 | 0°27 | 26°24 | 20° 4 | 6°12 | 23°43 | 1°48 | 0°23 | 2°45 | 15°31 | T 17 | | |
| F 18 | 0 9 20 | 0♎22'51 | 29°59 | 11°20 | 25°39 | 28°11 | 0°37 | 26°22 | 20° 7 | 6°11 | 23°42 | 1°R48 | 0°20 | 2°51 | 15°R31 | F 18 | | |
| S 19 | 0 13 17 | 1°22'11 | 12♎8 | 12°56 | 26°54 | 28°50 | 0°47 | 26°21 | 20° 9 | 6° 9 | 23°41 | 1°48 | 0°17 | 2°58 | 15°31 | S 19 | | |
| S 20 | 0 17 13 | 2°21'32 | 24°28 | 14°30 | 28° 9 | 29°30 | 0°57 | 26°19 | 20°12 | 6° 8 | 23°40 | 1°46 | 0°14 | 3° 5 | 15°30 | S 20 | | |
| M21 | 0 21 10 | 3°20'56 | 7♎3 | 16° 4 | 29°24 | 0♎10 | 1° 7 | 26°17 | 20°15 | 6° 7 | 23°39 | 1°42 | 0°11 | 3°11 | 15°30 | M21 | | |
| T 22 | 0 25 6 | 4°20'22 | 19°51 | 17°38 | 0♎40 | 0°49 | 1°17 | 26°15 | 20°18 | 6° 5 | 23°38 | 1°38 | 0° 7 | 3°18 | 15°30 | T 22 | | |
| W23 | 0 29 3 | 5°19'50 | 2♎54 | 19°10 | 1°55 | 1°29 | 1°27 | 26°13 | 20°21 | 6° 4 | 23°37 | 1°32 | 0° 4 | 3°25 | 15°30 | W23 | | |
| T 24 | 0 32 59 | 6°19'20 | 16°11 | 20°42 | 3°10 | 2° 9 | 1°37 | 26°11 | 20°23 | 6° 3 | 23°36 | 1°26 | 0° 1 | 3°31 | 15°29 | T 24 | | |
| F 25 | 0 36 56 | 7°18'51 | 29°40 | 22°14 | 4°25 | 2°48 | 1°48 | 26° 8 | 20°26 | 6° 1 | 23°36 | 1°21 | 29♌58 | 3°38 | 15°29 | F 25 | | |
| S 26 | 0 40 52 | 8°18'25 | 13♎20 | 23°44 | 5°40 | 3°28 | 1°58 | 26° 6 | 20°29 | 6° 0 | 23°35 | 1°17 | 29°55 | 3°44 | 15°28 | S 26 | | |
| S 27 | 0 44 49 | 9°18'01 | 27°11 | 25°14 | 6°55 | 4° 8 | 2° 9 | 26° 3 | 20°32 | 5°58 | 23°34 | 1°15 | 29°52 | 3°51 | 15°27 | S 27 | | |
| M28 | 0 48 46 | 10°17'38 | 11♌11 | 26°43 | 8°10 | 4°48 | 2°19 | 26° 1 | 20°35 | 5°57 | 23°33 | 1°D14 | 29°48 | 3°58 | 15°27 | M28 | | |
| T 29 | 0 52 42 | 11°17'17 | 25°20 | 28°12 | 9°26 | 5°28 | 2°30 | 25°58 | 20°38 | 5°55 | 23°32 | 1°15 | 29°45 | 4° 4 | 15°26 | T 29 | | |
| W30 | 0 56 39 | 12♎16'58 | 9♌36 | 29°40 | 10°41 | 6♎8 | 2♎41 | 25♌55 | 20♎41 | 5♌54 | 23♌31 | 1♋16 | 29♌42 | 4♎11 | 15♎25 | W30 | | |

Delta T = 20m08s Julian Calendar 1 Sept. 1058 == Greg. Calendar 7 Sept. 1058

OCTOBER 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|-------|------|--------|-------|-------|--------|--------|-------|------|--------|------|---|-----|
| T 1 | 1 0 35 | 13♎16'40 | 23♌57 | 1♎7 | 11♎56 | 6♎47 | 2♎52 | 25°R53 | 20♎45 | 5°R52 | 23°R31 | 1°R17 | 29♌39 | 4♎18 | 15°R24 | T 1 | | |
| F 2 | 1 4 32 | 14°16'24 | 8♎20 | 2°33 | 13°11 | 7°27 | 3° 3 | 25♌50 | 20°48 | 5♌51 | 23°R30 | 1♋17 | 29°36 | 4°24 | 15♎23 | F 2 | | |
| S 3 | 1 8 28 | 15°16'10 | 22°41 | 3°59 | 14°26 | 8° 7 | 3°14 | 25°46 | 20°51 | 5°49 | 23°29 | 1°15 | 29°32 | 4°31 | 15°22 | S 3 | | |
| S 4 | 1 12 25 | 16°15'58 | 6♎55 | 5°23 | 15°42 | 8°47 | 3°25 | 25°43 | 20°54 | 5°48 | 23°29 | 1°11 | 29°29 | 4°38 | 15°20 | S 4 | | |
| M 5 | 1 16 21 | 17°15'48 | 20°57 | 6°47 | 16°57 | 9°27 | 3°37 | 25°40 | 20°57 | 5°46 | 23°28 | 1° 5 | 29°26 | 4°44 | 15°19 | M 5 | | |
| T 6 | 1 20 18 | 18°15'39 | 4♌43 | 8°11 | 18°12 | 10° 7 | 3°48 | 25°37 | 21° 0 | 5°44 | 23°27 | 0°58 | 29°23 | 4°51 | 15°18 | T 6 | | |
| W 7 | 1 24 15 | 19°15'33 | 18°10 | 9°33 | 19°27 | 10°48 | 3°59 | 25°33 | 21° 4 | 5°43 | 23°27 | 0°49 | 29°20 | 4°58 | 15°16 | W 7 | | |
| T 8 | 1 28 11 | 20°15'30 | 11♎15 | 10°54 | 20°43 | 11°28 | 4°11 | 25°30 | 21° 7 | 5°41 | 23°26 | 0°41 | 29°17 | 5° 4 | 15°15 | T 8 | | |
| F 9 | 1 32 8 | 21°15'28 | 13°58 | 12°14 | 21°58 | 12° 8 | 4°23 | 25°26 | 21°10 | 5°40 | 23°26 | 0°33 | 29°13 | 5°11 | 15°13 | F 9 | | |
| S 10 | 1 36 4 | 22°15'28 | 26°22 | 13°34 | 23°13 | 12°48 | 4°34 | 25°23 | 21°14 | 5°38 | 23°25 | 0°28 | 29°10 | 5°18 | 15°12 | S 10 | | |
| S 11 | 1 40 1 | 23°15'31 | 8♎31 | 14°52 | 24°28 | 13°28 | 4°46 | 25°19 | 21°17 | 5°36 | 23°24 | 0°24 | 29° 7 | 5°24 | 15°10 | S 11 | | |
| M12 | 1 43 57 | 24°15'36 | 20°27 | 16° 8 | 25°44 | 14° 9 | 4°58 | 25°15 | 21°20 | 5°35 | 23°24 | 0°D23 | 29° 4 | 5°31 | 15° 8 | M12 | | |
| T 13 | 1 47 54 | 25°15'43 | 2♎17 | 17°24 | 26°59 | 14°49 | 5°10 | 25°11 | 21°24 | 5°33 | 23°23 | 0°23 | 29° 1 | 5°38 | 15° 6 | T 13 | | |
| W14 | 1 51 50 | 26°15'52 | 14° 5 | 18°37 | 28°14 | 15°29 | 5°22 | 25° 7 | 21°27 | 5°31 | 23°23 | 0°24 | 28°58 | 5°44 | 15° 4 | W14 | | |
| T 15 | 1 55 47 | 27°16'03 | 25°58 | 19°49 | 29°30 | 16°10 | 5°34 | 25° 3 | 21°31 | 5°30 | 23°23 | 0°R25 | 28°54 | 5°51 | 15° 3 | T 15 | | |
| F 16 | 1 59 44 | 28°16'16 | 8♎0 | 21° 0 | 0♎45 | 16°50 | 5°46 | 24°59 | 21°34 | 5°28 | 23°22 | 0°25 | 28°51 | 5°58 | 15° 0 | F 16 | | |
| S 17 | 2 3 40 | 29°16'31 | 20°15 | 22° 8 | 2° 0 | 17°31 | 5°58 | 24°55 | 21°38 | 5°26 | 23°22 | 0°23 | 28°48 | 6° 4 | 14°58 | S 17 | | |
| S 18 | 2 7 37 | 0♎16'49 | 2♎47 | 23°13 | 3°16 | 18°11 | 6°10 | 24°51 | 21°41 | 5°25 | 23°21 | 0°18 | 28°45 | 6°11 | 14°56 | S 18 | | |
| M19 | 2 11 33 | 1°17'08 | 15°37 | 24°16 | 4°31 | 18°52 | 6°23 | 24°46 | 21°45 | 5°23 | 23°21 | 0°11 | 28°42 | 6°18 | 14°54 | M19 | | |
| T 20 | 2 15 30 | 2°17'29 | 28°47 | 25°16 | 5°46 | 19°33 | 6°35 | 24°42 | 21°48 | 5°21 | 23°21 | 0° 2 | 28°38 | 6°24 | 14°52 | T 20 | | |
| W21 | 2 19 26 | 3°17'52 | 12♎15 | 26°13 | 7° 2 | 20°13 | 6°48 | 24°38 | 21°52 | 5°20 | 23°20 | 29♌51 | 28°35 | 6°31 | 14°49 | W21 | | |
| T 22 | 2 23 23 | 4°18'16 | 25°58 | 27° 5 | 8°17 | 20°54 | 7° 0 | 24°33 | 21°55 | 5°18 | 23°20 | 29°40 | 28°32 | 6°38 | 14°47 | T 22 | | |
| F 23 | 2 27 19 | 5°18'43 | 9♎53 | 27°54 | 9°33 | 21°35 | 7°13 | 24°29 | 21°59 | 5°16 | 23°20 | 29°29 | 28°29 | 6°44 | 14°44 | F 23 | | |
| S 24 | 2 31 16 | 6°19'10 | 23°55 | 28°38 | 10°48 | 22°15 | 7°25 | 24°24 | 22° 2 | 5°15 | 23°20 | 29°21 | 28°26 | 6°51 | 14°42 | S 24 | | |
| S 25 | 2 35 13 | 7°19'40 | 8♌2 | 29°16 | 12° 3 | 22°56 | 7°38 | 24°20 | 22° 6 | 5°13 | 23°19 | 29°15 | 28°23 | 6°58 | 14°39 | S 25 | | |
| M26 | 2 39 9 | 8°20'10 | 22°10 | 29°49 | 13°19 | 23°37 | 7°51 | 24°15 | 22°10 | 5°11 | 23°19 | 29°12 | 28°19 | 7° 4 | 14°36 | M26 | | |
| T 27 | 2 43 6 | 9°20'42 | 6♌17 | 0♎15 | 14°34 | 24°18 | 8° 4 | 24°10 | 22°13 | 5° 9 | 23°19 | 29°D10 | 28°16 | 7°11 | 14°34 | T 27 | | |
| W28 | 2 47 2 | 10°21'15 | 20°22 | 0°33 | 15°49 | 24°59 | 8°16 | 24° 6 | 22°17 | 5° 8 | 23°19 | 29°11 | 28°13 | 7°18 | 14°31 | W28 | | |
| T 29 | 2 50 59 | 11°21'50 | 4♎24 | 0°44 | 17° 5 | 25°39 | 8°29 | 24° 1 | 22°20 | 5° 6 | 23°19 | 29°R11 | 28°10 | 7°24 | 14°28 | T 29 | | |
| F 30 | 2 54 55 | 12°22'25 | 18°23 | 0°R45 | 18°20 | 26°20 | 8°42 | 23°56 | 22°24 | 5° 4 | 23°19 | 29° 9 | 28° 7 | 7°31 | 14°25 | F 30 | | |
| S 31 | 2 58 52 | 13♎23'02 | 2♎17 | 0♎37 | 19♎35 | 27♎1 | 8♎55 | 23♌51 | 22♎28 | 5♌3 | 23♌19 | 29♌6 | 28♌3 | 7♎37 | 14♎22 | S 31 | | |

Delta T = 20m07s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1058
geocentric

NOVEMBER 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|-------|--------|--------|-------|-------|--------|------|-----|
| S 1 | 3 2 48 | 14♌23'40 | 16♍4 | 0°R19 | 20♌51 | 27♁42 | 9♁ 8 | 23°R46 | 22♌31 | 5°R 1 | 23°D19 | 28°R59 | 28♁ 0 | 7♌44 | 14°R19 | S 1 | |
| M 2 | 3 6 45 | 15°24'19 | 29°42 | 29♌50 | 22° 6 | 28°23 | 9°21 | 23♁42 | 22°35 | 4♁59 | 23♁19 | 28♁49 | 27°57 | 7°51 | 14♌16 | M 2 | |
| T 3 | 3 10 42 | 16°25'00 | 13♃ 8 | 29°11 | 23°21 | 29° 5 | 9°34 | 23°37 | 22°39 | 4°58 | 23°19 | 28°37 | 27°54 | 7°57 | 14°13 | T 3 | |
| W 4 | 3 14 38 | 17°25'42 | 26°19 | 28°21 | 24°37 | 29°46 | 9°48 | 23°32 | 22°42 | 4°56 | 23°19 | 28°24 | 27°51 | 8° 4 | 14°10 | W 4 | |
| T 5 | 3 18 35 | 18°26'26 | 9♌14 | 27°21 | 25°52 | 0♌27 | 10° 1 | 23°27 | 22°46 | 4°54 | 23°19 | 28°11 | 27°48 | 8°11 | 14° 7 | T 5 | |
| F 6 | 3 22 31 | 19°27'11 | 21°51 | 26°13 | 27° 8 | 1° 8 | 10°14 | 23°22 | 22°50 | 4°53 | 23°19 | 27°59 | 27°44 | 8°17 | 14° 4 | F 6 | |
| S 7 | 3 26 28 | 20°27'58 | 4♁12 | 24°57 | 28°23 | 1°49 | 10°27 | 23°17 | 22°54 | 4°51 | 23°19 | 27°49 | 27°41 | 8°24 | 14° 1 | S 7 | |
| S 8 | 3 30 24 | 21°28'46 | 16°19 | 23°37 | 29°38 | 2°31 | 10°41 | 23°12 | 22°57 | 4°50 | 23°19 | 27°42 | 27°38 | 8°31 | 13°57 | S 8 | |
| M 9 | 3 34 21 | 22°29'36 | 28°15 | 22°15 | 0♁54 | 3°12 | 10°54 | 23° 7 | 23° 1 | 4°48 | 23°20 | 27°37 | 27°35 | 8°37 | 13°54 | M 9 | |
| T 10 | 3 38 17 | 23°30'27 | 10♌ 4 | 20°53 | 2° 9 | 3°53 | 11° 7 | 23° 2 | 23° 5 | 4°46 | 23°20 | 27°35 | 27°32 | 8°44 | 13°51 | T 10 | |
| W11 | 3 42 14 | 24°31'20 | 21°51 | 19°34 | 3°24 | 4°35 | 11°21 | 22°57 | 23° 8 | 4°45 | 23°20 | 27°35 | 27°29 | 8°51 | 13°47 | W11 | |
| T 12 | 3 46 11 | 25°32'13 | 3♌43 | 18°22 | 4°40 | 5°16 | 11°34 | 22°52 | 23°12 | 4°43 | 23°20 | 27°35 | 27°25 | 8°57 | 13°44 | T 12 | |
| F 13 | 3 50 7 | 26°33'09 | 15°44 | 17°17 | 5°55 | 5°58 | 11°48 | 22°47 | 23°16 | 4°42 | 23°21 | 27°34 | 27°22 | 9° 4 | 13°40 | F 13 | |
| S 14 | 3 54 4 | 27°34'05 | 28° 1 | 16°22 | 7°10 | 6°39 | 12° 1 | 22°42 | 23°19 | 4°40 | 23°21 | 27°31 | 27°19 | 9°11 | 13°37 | S 14 | |
| S 15 | 3 58 0 | 28°35'03 | 10♁37 | 15°38 | 8°26 | 7°21 | 12°15 | 22°38 | 23°23 | 4°39 | 23°21 | 27°26 | 27°16 | 9°17 | 13°33 | S 15 | |
| M16 | 4 1 57 | 29°36'03 | 23°36 | 15° 5 | 9°41 | 8° 2 | 12°28 | 22°33 | 23°27 | 4°37 | 23°22 | 27°18 | 27°13 | 9°24 | 13°30 | M16 | |
| T 17 | 4 5 53 | 0♁37'03 | 7♌ 0 | 14°43 | 10°56 | 8°44 | 12°42 | 22°28 | 23°30 | 4°36 | 23°22 | 27° 8 | 27° 9 | 9°31 | 13°26 | T 17 | |
| W18 | 4 9 50 | 1°38'05 | 20°47 | 14°D33 | 12°12 | 9°26 | 12°56 | 22°23 | 23°34 | 4°34 | 23°22 | 26°55 | 27° 6 | 9°37 | 13°23 | W18 | |
| T 19 | 4 13 46 | 2°39'07 | 4♁54 | 14°34 | 13°27 | 10° 7 | 13° 9 | 22°18 | 23°38 | 4°33 | 23°23 | 26°42 | 27° 3 | 9°44 | 13°19 | T 19 | |
| F 20 | 4 17 43 | 3°40'11 | 19°17 | 14°44 | 14°42 | 10°49 | 13°23 | 22°13 | 23°41 | 4°31 | 23°23 | 26°30 | 27° 0 | 9°51 | 13°15 | F 20 | |
| S 21 | 4 21 40 | 4°41'15 | 3♁48 | 15° 4 | 15°58 | 11°31 | 13°36 | 22° 8 | 23°45 | 4°30 | 23°24 | 26°20 | 26°57 | 9°57 | 13°12 | S 21 | |
| S 22 | 4 25 36 | 5°42'20 | 18°20 | 15°31 | 17°13 | 12°13 | 13°50 | 22° 4 | 23°49 | 4°28 | 23°24 | 26°13 | 26°54 | 10° 4 | 13° 8 | S 22 | |
| M23 | 4 29 33 | 6°43'26 | 2♁48 | 16° 7 | 18°28 | 12°54 | 14° 4 | 21°59 | 23°52 | 4°27 | 23°25 | 26° 9 | 26°50 | 10°11 | 13° 4 | M23 | |
| T 24 | 4 33 29 | 7°44'32 | 17° 8 | 16°49 | 19°44 | 13°36 | 14°18 | 21°54 | 23°56 | 4°26 | 23°26 | 26° 7 | 26°47 | 10°17 | 13° 1 | T 24 | |
| W25 | 4 37 26 | 8°45'38 | 1♁17 | 17°36 | 20°59 | 14°18 | 14°31 | 21°50 | 24° 0 | 4°24 | 23°26 | 26° 7 | 26°44 | 10°24 | 12°57 | W25 | |
| T 26 | 4 41 22 | 9°46'45 | 15°14 | 18°29 | 22°14 | 15° 0 | 14°45 | 21°45 | 24° 3 | 4°23 | 23°27 | 26° 7 | 26°41 | 10°30 | 12°53 | T 26 | |
| F 27 | 4 45 19 | 10°47'52 | 29° 0 | 19°27 | 23°30 | 15°42 | 14°59 | 21°40 | 24° 7 | 4°22 | 23°27 | 26° 6 | 26°38 | 10°37 | 12°50 | F 27 | |
| S 28 | 4 49 15 | 11°48'59 | 12♍35 | 20°28 | 24°45 | 16°24 | 15°13 | 21°36 | 24°10 | 4°20 | 23°28 | 26° 3 | 26°35 | 10°44 | 12°46 | S 28 | |
| S 29 | 4 53 12 | 12°50'07 | 25°59 | 21°34 | 26° 0 | 17° 6 | 15°26 | 21°32 | 24°14 | 4°19 | 23°29 | 25°56 | 26°31 | 10°50 | 12°42 | S 29 | |
| M30 | 4 57 9 | 13♁51'15 | 9♁12 | 22♌42 | 27♁16 | 17♌48 | 15♁40 | 21♁27 | 24♌17 | 4♁18 | 23♁29 | 25♁47 | 26♁28 | 10♌57 | 12♌38 | M30 | |

Delta T = 20m07s Julian Calendar 1 Nov. 1058 == Greg. Calendar 7 Nov. 1058

DECEMBER 1058 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 5 1 5 | 14♁52'23 | 22♃14 | 23♌53 | 28♁31 | 18♌30 | 15♁54 | 21°R23 | 24♌21 | 4°R17 | 23♁30 | 25°R36 | 26♁25 | 11♌ 4 | 12°R35 | T 1 | |
| W 2 | 5 5 2 | 15°53'32 | 5♌ 4 | 25° 6 | 29°46 | 19°13 | 16° 8 | 21♁19 | 24°25 | 4♁16 | 23°31 | 25°23 | 26°22 | 11°10 | 12♌31 | W 2 | |
| T 3 | 5 8 58 | 16°54'41 | 17°42 | 26°21 | 1♁ 1 | 19°55 | 16°21 | 21°14 | 24°28 | 4°14 | 23°32 | 25°10 | 26°19 | 11°17 | 12°27 | T 3 | |
| F 4 | 5 12 55 | 17°55'50 | 0♁ 7 | 27°38 | 2°17 | 20°37 | 16°35 | 21°10 | 24°32 | 4°13 | 23°33 | 24°58 | 26°15 | 11°24 | 12°24 | F 4 | |
| S 5 | 5 16 51 | 18°57'00 | 12°20 | 28°57 | 3°32 | 21°19 | 16°49 | 21° 6 | 24°35 | 4°12 | 23°33 | 24°48 | 26°12 | 11°30 | 12°20 | S 5 | |
| S 6 | 5 20 48 | 19°58'11 | 24°21 | 0♁17 | 4°47 | 22° 2 | 17° 3 | 21° 2 | 24°38 | 4°11 | 23°34 | 24°41 | 26° 9 | 11°37 | 12°16 | S 6 | |
| M 7 | 5 24 45 | 20°59'21 | 6♌14 | 1°39 | 6° 2 | 22°44 | 17°16 | 20°58 | 24°42 | 4°10 | 23°35 | 24°37 | 26° 6 | 11°44 | 12°12 | M 7 | |
| T 8 | 5 28 41 | 22° 0'32 | 18° 2 | 3° 1 | 7°17 | 23°26 | 17°30 | 20°54 | 24°45 | 4° 9 | 23°36 | 24°35 | 26° 3 | 11°50 | 12° 9 | T 8 | |
| W 9 | 5 32 38 | 23° 1'44 | 29°48 | 4°25 | 8°33 | 24° 9 | 17°44 | 20°50 | 24°49 | 4° 8 | 23°37 | 24°D35 | 26° 0 | 11°57 | 12° 5 | W 9 | |
| T 10 | 5 36 34 | 24° 2'56 | 11♌38 | 5°49 | 9°48 | 24°51 | 17°58 | 20°47 | 24°52 | 4° 7 | 23°38 | 24°35 | 25°56 | 12° 4 | 12° 2 | T 10 | |
| F 11 | 5 40 31 | 25° 4'08 | 23°38 | 7°14 | 11° 3 | 25°34 | 18°12 | 20°43 | 24°55 | 4° 6 | 23°39 | 24°R36 | 25°53 | 12°10 | 11°58 | F 11 | |
| S 12 | 5 44 27 | 26° 5'20 | 5♁52 | 8°40 | 12°18 | 26°16 | 18°25 | 20°40 | 24°59 | 4° 5 | 23°40 | 24°35 | 25°50 | 12°17 | 11°54 | S 12 | |
| S 13 | 5 48 24 | 27° 6'33 | 18°25 | 10° 7 | 13°33 | 26°59 | 18°39 | 20°36 | 25° 2 | 4° 4 | 23°41 | 24°33 | 25°47 | 12°24 | 11°51 | S 13 | |
| M14 | 5 52 20 | 28° 7'46 | 1♌23 | 11°35 | 14°49 | 27°42 | 18°53 | 20°33 | 25° 5 | 4° 3 | 23°42 | 24°28 | 25°44 | 12°30 | 11°47 | M14 | |
| T 15 | 5 56 17 | 29° 9'00 | 14°49 | 13° 2 | 16° 4 | 28°24 | 19° 6 | 20°29 | 25° 8 | 4° 3 | 23°43 | 24°21 | 25°41 | 12°37 | 11°44 | T 15 | |
| W16 | 6 0 14 | 0♁10'13 | 28°42 | 14°31 | 17°19 | 29° 7 | 19°20 | 20°26 | 25°12 | 4° 2 | 23°44 | 24°13 | 25°37 | 12°43 | 11°40 | W16 | |
| T 17 | 6 4 10 | 1°11'27 | 13♁ 1 | 16° 0 | 18°34 | 29°50 | 19°34 | 20°23 | 25°15 | 4° 1 | 23°45 | 24° 4 | 25°34 | 12°50 | 11°37 | T 17 | |
| F 18 | 6 8 7 | 2°12'40 | 27°41 | 17°30 | 19°49 | 0♁33 | 19°47 | 20°20 | 25°18 | 4° 0 | 23°46 | 23°55 | 25°31 | 12°57 | 11°33 | F 18 | |
| S 19 | 6 12 3 | 3°13'54 | 12♁34 | 19° 0 | 21° 4 | 1°15 | 20° 1 | 20°17 | 25°21 | 4° 0 | 23°47 | 23°48 | 25°28 | 13° 3 | 11°30 | S 19 | |
| S 20 | 6 16 0 | 4°15'07 | 27°32 | 20°30 | 22°19 | 1°58 | 20°15 | 20°14 | 25°24 | 3°59 | 23°48 | 23°43 | 25°25 | 13°10 | 11°27 | S 20 | |
| M21 | 6 19 56 | 5°16'20 | 12♁26 | 22° 1 | 23°34 | 2°41 | 20°28 | 20°11 | 25°27 | 3°58 | 23°50 | 23°40 | 25°22 | 13°17 | 11°23 | M21 | |
| T 22 | 6 23 53 | 6°17'32 | 27° 8 | 23°33 | 24°49 | 3°24 | 20°42 | 20° 9 | 25°30 | 3°58 | 23°51 | 23°D40 | 25°18 | 13°23 | 11°20 | T 22 | |
| W23 | 6 27 50 | 7°18'43 | 11♁35 | 25° 5 | 26° 5 | 4° 7 | 20°55 | 20° 6 | 25°33 | 3°57 | 23°52 | 23°41 | 25°15 | 13°30 | 11°17 | W23 | |
| T 24 | 6 31 46 | 8°19'54 | 25°42 | 26°37 | 27°20 | 4°50 | 21° 9 | 20° 4 | 25°36 | 3°57 | 23°53 | 23°42 | 25°12 | 13°37 | 11°14 | T 24 | |
| F 25 | 6 35 43 | 9°21'04 | 9♍30 | 28°10 | 28°35 | 5°33 | 21°22 | 20° 1 | 25°39 | 3°56 | 23°55 | 23°R42 | 25° 9 | 13°43 | 11°10 | F 25 | |
| S 26 | 6 39 39 | 10°22'13 | 22°59 | 29°43 | 29°50 | 6°16 | 21°36 | 19°59 | 25°42 | 3°56 | 23°56 | 23°42 | 25° 6 | 13°50 | 11° 7 | S 26 | |
| S 27 | 6 43 36 | 11°23'21 | 6♃10 | 1♁17 | 1♁ 5 | 6°59 | 21°49 | 19°57 | 25°45 | 3°55 | 23°57 | 23°39 | 25° 2 | 13°57 | 11° 4 | S 27 | |
| M28 | 6 47 32 | 12°24'29 | 19° 7 | 2°51 | 2°19 | 7°42 | 22° 3 | 19°55 | 25°48 | 3°55 | 23°58 | 23°34 | 24°59 | 14° 3 | 11° 1 | M28 | |
| T 29 | 6 51 29 | 13°25'35 | 1♌50 | 4°26 | 3°34 | 8°25 | 22°16 | 19°53 | 25°51 | 3°54 | 24° 0 | 23°28 | 24°56 | 14°10 | 10°58 | T 29 | |
| W30 | 6 55 25 | 14°26'41 | 14°21 | 6° 2 | 4°49 | 9° 9 | 22°29 | 19°51 | 25°53 | 3°54 | 24° 1 | 23°20 | 24°53 | 14°17 | 10°55 | W30 | |
| T 31 | 6 59 22 | 15°27'47 | 26♌40 | 7♁38 | 6♁ 4 | 9♁52 | 22♁43 | 19♁49 | 25♌56 | 3♁54 | 24♁ 2 | 23♁13 | 24♁50 | 14♌23 | 10♌52 | T 31 | |

Delta T = 20m07s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1059
geocentric

JANUARY 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|--------|-------|--------|--------|--------|-------|--------|--------|--------|--------|---------|------|---|---|---|---|---|---|---|-----|
| F 1 | 7 3 19 | 16°28'51 | 8°51 | 9°14 | 7°19 | 10°35 | 22°56 | 19°R48 | 25°59 | 3°R53 | 24°4 | 23°R 6 | 24°47 | 14°Ω30 | 10°R50 | F 1 | | | | | | | | |
| S 2 | 7 7 15 | 17°29'55 | 20°52 | 10°51 | 8°34 | 11°18 | 23° 9 | 19°R46 | 26° 1 | 3°R53 | 24° 5 | 23°R 1 | 24°43 | 14°37 | 10°II47 | S 2 | | | | | | | | |
| S 3 | 7 11 12 | 18°30'58 | 20°47 | 12°29 | 9°49 | 12° 2 | 23°22 | 19°45 | 26° 4 | 3°53 | 24° 6 | 22°57 | 24°40 | 14°43 | 10°44 | S 3 | | | | | | | | |
| M 4 | 7 15 8 | 19°32'00 | 14°37 | 14° 7 | 11° 4 | 12°45 | 23°35 | 19°44 | 26° 7 | 3°53 | 24° 8 | 22°55 | 24°37 | 14°50 | 10°41 | M 4 | | | | | | | | |
| T 5 | 7 19 5 | 20°33'01 | 26°24 | 15°46 | 12°18 | 13°29 | 23°48 | 19°42 | 26° 9 | 3°53 | 24° 9 | 22°D55 | 24°34 | 14°56 | 10°39 | T 5 | | | | | | | | |
| W 6 | 7 23 1 | 21°34'02 | 8°11 | 17°25 | 13°33 | 14°12 | 24° 1 | 19°41 | 26°12 | 3°53 | 24°11 | 22°56 | 24°31 | 15° 3 | 10°36 | W 6 | | | | | | | | |
| T 7 | 7 26 58 | 22°35'01 | 20° 2 | 19° 5 | 14°48 | 14°56 | 24°14 | 19°40 | 26°14 | 3°53 | 24°12 | 22°57 | 24°27 | 15°10 | 10°34 | T 7 | | | | | | | | |
| F 8 | 7 30 54 | 23°36'00 | 2° 2 | 20°46 | 16° 3 | 15°39 | 24°27 | 19°39 | 26°17 | 3°D53 | 24°14 | 22°59 | 24°24 | 15°16 | 10°31 | F 8 | | | | | | | | |
| S 9 | 7 34 51 | 24°36'59 | 14°14 | 22°27 | 17°17 | 16°23 | 24°40 | 19°39 | 26°19 | 3°53 | 24°15 | 23° 1 | 24°21 | 15°23 | 10°29 | S 9 | | | | | | | | |
| S 10 | 7 38 48 | 25°37'56 | 26°44 | 24°10 | 18°32 | 17° 6 | 24°53 | 19°38 | 26°21 | 3°53 | 24°16 | 23°R 1 | 24°18 | 15°30 | 10°27 | S 10 | | | | | | | | |
| M11 | 7 42 44 | 26°38'53 | 9°11 | 25°52 | 19°47 | 17°50 | 25° 6 | 19°38 | 26°23 | 3°53 | 24°18 | 23° 0 | 24°15 | 15°36 | 10°25 | M11 | | | | | | | | |
| T 12 | 7 46 41 | 27°39'49 | 22°54 | 27°36 | 21° 1 | 18°33 | 25°19 | 19°37 | 26°26 | 3°53 | 24°19 | 22°58 | 24°12 | 15°43 | 10°22 | T 12 | | | | | | | | |
| W13 | 7 50 37 | 28°40'45 | 6°40 | 29°20 | 22°16 | 19°17 | 25°31 | 19°37 | 26°28 | 3°53 | 24°21 | 22°56 | 24° 8 | 15°50 | 10°20 | W13 | | | | | | | | |
| T 14 | 7 54 34 | 29°41'39 | 20°54 | 1° 5 | 23°30 | 20° 1 | 25°44 | 19°37 | 26°30 | 3°53 | 24°22 | 22°52 | 24° 5 | 15°56 | 10°18 | T 14 | | | | | | | | |
| F 15 | 7 58 30 | 0°42'33 | 5°34 | 2°50 | 24°45 | 20°45 | 25°57 | 19°D37 | 26°32 | 3°53 | 24°24 | 22°49 | 24° 2 | 16° 3 | 10°16 | F 15 | | | | | | | | |
| S 16 | 8 2 27 | 1°43'25 | 20°33 | 4°36 | 25°59 | 21°28 | 26° 9 | 19°37 | 26°34 | 3°54 | 24°26 | 22°46 | 23°59 | 16°10 | 10°14 | S 16 | | | | | | | | |
| S 17 | 8 6 23 | 2°44'16 | 5°43 | 6°23 | 27°14 | 22°12 | 26°22 | 19°37 | 26°36 | 3°54 | 24°27 | 22°44 | 23°56 | 16°16 | 10°13 | S 17 | | | | | | | | |
| M18 | 8 10 20 | 3°45'06 | 20°55 | 8°11 | 28°28 | 22°56 | 26°34 | 19°37 | 26°38 | 3°54 | 24°29 | 22°D44 | 23°53 | 16°23 | 10°11 | M18 | | | | | | | | |
| T 19 | 8 14 17 | 4°45'55 | 5°48 | 9°59 | 29°43 | 23°40 | 26°46 | 19°38 | 26°40 | 3°55 | 24°30 | 22°44 | 23°49 | 16°30 | 10° 9 | T 19 | | | | | | | | |
| W20 | 8 18 13 | 5°46'42 | 20°46 | 11°47 | 0°57 | 24°24 | 26°58 | 19°38 | 26°42 | 3°55 | 24°32 | 22°45 | 23°46 | 16°36 | 10° 8 | W20 | | | | | | | | |
| T 21 | 8 22 10 | 6°47'27 | 5°11 | 13°36 | 2°11 | 25° 8 | 27°11 | 19°39 | 26°44 | 3°55 | 24°33 | 22°46 | 23°43 | 16°43 | 10° 6 | T 21 | | | | | | | | |
| F 22 | 8 26 6 | 7°48'10 | 19°12 | 15°25 | 3°26 | 25°52 | 27°23 | 19°40 | 26°46 | 3°56 | 24°35 | 22°48 | 23°40 | 16°49 | 10° 5 | F 22 | | | | | | | | |
| S 23 | 8 30 3 | 8°48'52 | 2°48 | 17°14 | 4°40 | 26°36 | 27°35 | 19°40 | 26°47 | 3°56 | 24°37 | 22°R48 | 23°37 | 16°56 | 10° 3 | S 23 | | | | | | | | |
| S 24 | 8 33 59 | 9°49'32 | 16° 0 | 19° 4 | 5°54 | 27°20 | 27°47 | 19°41 | 26°49 | 3°57 | 24°38 | 22°48 | 23°33 | 17° 3 | 10° 2 | S 24 | | | | | | | | |
| M25 | 8 37 56 | 10°50'11 | 28°51 | 20°53 | 7° 8 | 28° 4 | 27°59 | 19°43 | 26°51 | 3°57 | 24°40 | 22°48 | 23°30 | 17° 9 | 10° 1 | M25 | | | | | | | | |
| T 26 | 8 41 52 | 11°50'47 | 11°25 | 22°42 | 8°22 | 28°48 | 28°11 | 19°44 | 26°52 | 3°58 | 24°41 | 22°46 | 23°27 | 17°16 | 10° 0 | T 26 | | | | | | | | |
| W27 | 8 45 49 | 12°51'22 | 23°43 | 24°30 | 9°37 | 29°32 | 28°22 | 19°45 | 26°54 | 3°59 | 24°43 | 22°45 | 23°24 | 17°23 | 9°59 | W27 | | | | | | | | |
| T 28 | 8 49 46 | 13°51'55 | 5°50 | 26°18 | 10°51 | 0°16 | 28°34 | 19°46 | 26°55 | 3°59 | 24°45 | 22°44 | 23°21 | 17°29 | 9°58 | T 28 | | | | | | | | |
| F 29 | 8 53 42 | 14°52'27 | 17°49 | 28° 4 | 12° 5 | 1° 0 | 28°46 | 19°48 | 26°57 | 4° 0 | 24°46 | 22°42 | 23°18 | 17°36 | 9°57 | F 29 | | | | | | | | |
| S 30 | 8 57 39 | 15°52'56 | 29°42 | 29°49 | 13°19 | 1°44 | 28°57 | 19°50 | 26°58 | 4° 1 | 24°48 | 22°42 | 23°14 | 17°43 | 9°56 | S 30 | | | | | | | | |
| S 31 | 9 1 35 | 16°53'24 | 11°Ω31 | 1°X32 | 14°X33 | 2°Z29 | 29°X 8 | 19°R51 | 27°M 0 | 4°R 1 | 24°R49 | 22°R41 | 23°R11 | 17°Ω49 | 9°II55 | S 31 | | | | | | | | |

Delta T = 20m06s Julian Calendar 1 Jan. 1059 == Greg. Calendar 7 Jan. 1059

FEBRUARY 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|---------|------|---|---|---|---|---|---|---|-----|
| M 1 | 9 5 32 | 17°53'50 | 23°Ω18 | 3°X12 | 15°X46 | 3°Z13 | 29°X20 | 19°R53 | 27°M 1 | 4°R 2 | 24°R51 | 22°D41 | 23°R 8 | 17°Ω56 | 9°R54 | M 1 | | | | | | | | |
| T 2 | 9 9 28 | 18°54'15 | 5°11 | 4°50 | 17° 0 | 3°57 | 29°31 | 19°55 | 27° 2 | 4° 3 | 24°53 | 22°R41 | 23° 5 | 18° 3 | 9°II54 | T 2 | | | | | | | | |
| W 3 | 9 13 25 | 19°54'38 | 16°58 | 6°24 | 18°14 | 4°42 | 29°42 | 19°57 | 27° 3 | 4° 4 | 24°54 | 22°41 | 23° 2 | 18° 9 | 9°53 | W 3 | | | | | | | | |
| T 4 | 9 17 21 | 20°54'59 | 28°55 | 7°54 | 19°28 | 5°26 | 29°53 | 20° 0 | 27° 4 | 4° 5 | 24°56 | 22°42 | 22°59 | 18°16 | 9°53 | T 4 | | | | | | | | |
| F 5 | 9 21 18 | 21°55'19 | 11°Ω 0 | 9°19 | 20°41 | 6°10 | 0°Z 4 | 20° 2 | 27° 5 | 4° 6 | 24°58 | 22°42 | 22°55 | 18°23 | 9°52 | F 5 | | | | | | | | |
| S 6 | 9 25 15 | 22°55'37 | 23°17 | 10°39 | 21°55 | 6°55 | 0°15 | 20° 4 | 27° 6 | 4° 7 | 24°59 | 22°R42 | 22°52 | 18°29 | 9°52 | S 6 | | | | | | | | |
| S 7 | 9 29 11 | 23°55'53 | 5°M48 | 11°53 | 23° 9 | 7°39 | 0°26 | 20° 7 | 27° 7 | 4° 8 | 25° 1 | 22°42 | 22°49 | 18°36 | 9°52 | S 7 | | | | | | | | |
| M 8 | 9 33 8 | 24°56'08 | 18°38 | 13° 1 | 24°22 | 8°23 | 0°37 | 20° 9 | 27° 8 | 4° 9 | 25° 3 | 22°D42 | 22°46 | 18°42 | 9°52 | M 8 | | | | | | | | |
| T 9 | 9 37 4 | 25°56'22 | 1°X49 | 14° 2 | 25°36 | 9° 8 | 0°47 | 20°12 | 27° 9 | 4°10 | 25° 4 | 22°42 | 22°43 | 18°49 | 9°D52 | T 9 | | | | | | | | |
| W10 | 9 41 1 | 26°56'34 | 15°24 | 14°54 | 26°49 | 9°52 | 0°58 | 20°15 | 27°10 | 4°11 | 25° 6 | 22°42 | 22°39 | 18°56 | 9°52 | W10 | | | | | | | | |
| T 11 | 9 44 57 | 27°56'44 | 29°25 | 15°39 | 28° 2 | 10°37 | 1° 8 | 20°18 | 27°11 | 4°12 | 25° 8 | 22°42 | 22°36 | 19° 2 | 9°52 | T 11 | | | | | | | | |
| F 12 | 9 48 54 | 28°56'53 | 13°Z50 | 16°15 | 29°16 | 11°22 | 1°19 | 20°21 | 27°11 | 4°13 | 25° 9 | 22°43 | 22°33 | 19° 9 | 9°52 | F 12 | | | | | | | | |
| S 13 | 9 52 50 | 29°57'01 | 28°37 | 16°42 | 0°Y29 | 12° 6 | 1°29 | 20°24 | 27°12 | 4°14 | 25°11 | 22°43 | 22°30 | 19°16 | 9°52 | S 13 | | | | | | | | |
| S 14 | 9 56 47 | 0°X57'06 | 13°R41 | 17° 0 | 1°42 | 12°51 | 1°39 | 20°27 | 27°13 | 4°15 | 25°13 | 22°44 | 22°27 | 19°22 | 9°53 | S 14 | | | | | | | | |
| M15 | 10 0 44 | 1°57'10 | 28°52 | 17°R 9 | 2°55 | 13°35 | 1°49 | 20°31 | 27°13 | 4°17 | 25°14 | 22°R44 | 22°24 | 19°29 | 9°53 | M15 | | | | | | | | |
| T 16 | 10 4 40 | 2°57'11 | 14°X 2 | 17° 9 | 4° 9 | 14°20 | 1°59 | 20°34 | 27°14 | 4°18 | 25°16 | 22°43 | 22°20 | 19°36 | 9°54 | T 16 | | | | | | | | |
| W17 | 10 8 37 | 3°57'11 | 29° 0 | 17° 0 | 5°22 | 15° 5 | 2° 9 | 20°38 | 27°14 | 4°19 | 25°17 | 22°42 | 22°17 | 19°42 | 9°54 | W17 | | | | | | | | |
| T 18 | 10 12 33 | 4°57'08 | 13°Y40 | 16°42 | 6°35 | 15°49 | 2°18 | 20°41 | 27°15 | 4°21 | 25°19 | 22°41 | 22°14 | 19°49 | 9°55 | T 18 | | | | | | | | |
| F 19 | 10 16 30 | 5°57'04 | 27°55 | 16°16 | 7°47 | 16°34 | 2°28 | 20°45 | 27°15 | 4°22 | 25°21 | 22°39 | 22°11 | 19°56 | 9°56 | F 19 | | | | | | | | |
| S 20 | 10 20 26 | 6°56'57 | 11°R43 | 15°43 | 9° 0 | 17°19 | 2°37 | 20°49 | 27°15 | 4°23 | 25°22 | 22°38 | 22° 8 | 20° 2 | 9°57 | S 20 | | | | | | | | |
| S 21 | 10 24 23 | 7°56'48 | 25° 3 | 15° 3 | 10°13 | 18° 4 | 2°47 | 20°53 | 27°15 | 4°25 | 25°24 | 22°37 | 22° 5 | 20° 9 | 9°58 | S 21 | | | | | | | | |
| M22 | 10 28 19 | 8°56'36 | 7°II58 | 14°17 | 11°26 | 18°48 | 2°56 | 20°57 | 27°16 | 4°26 | 25°26 | 22°D36 | 22° 1 | 20°15 | 9°59 | M22 | | | | | | | | |
| T 23 | 10 32 16 | 9°56'23 | 20°31 | 13°27 | 12°39 | 19°33 | 3° 5 | 21° 1 | 27°16 | 4°28 | 25°27 | 22°36 | 21°58 | 20°22 | 10° 0 | T 23 | | | | | | | | |
| W24 | 10 36 13 | 10°56'07 | 2°Z45 | 12°33 | 13°51 | 20°18 | 3°14 | 21° 5 | 27°16 | 4°29 | 25°29 | 22°37 | 21°55 | 20°29 | 10° 1 | W24 | | | | | | | | |
| T 25 | 10 40 9 | 11°55'48 | 14°47 | 11°38 | 15° 4 | 21° 3 | 3°23 | 21° 9 | 27°R16 | 4°31 | 25°30 | 22°39 | 21°52 | 20°35 | 10° 2 | T 25 | | | | | | | | |
| F 26 | 10 44 6 | 12°55'28 | 26°40 | 10°41 | 16°16 | 21°48 | 3°32 | 21°14 | 27°16 | 4°32 | 25°32 | 22°41 | 21°49 | 20°42 | 10° 3 | F 26 | | | | | | | | |
| S 27 | 10 48 2 | 13°55'05 | 8°Ω28 | 9°45 | 17°28 | 22°32 | 3°40 | 21°18 | 27°16 | 4°34 | 25°34 | 22°42 | 21°45 | 20°49 | 10° 5 | S 27 | | | | | | | | |
| S 28 | 10 51 59 | 14°54'40 | 20°Ω14 | 8°X51 | 18°Y41 | 23°Z17 | 3°Z49 | 21°R23 | 27°M15 | 4°R35 | 25°R35 | 22°R43 | 21°R42 | 20°Ω55 | 10°II 6 | S 28 | | | | | | | | |

Delta T = 20m06s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1059
geocentric

MARCH 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|--------|--------|-------|--------|---------|-------|--------|--------|--------|--------|---------|------|-----|
| M 1 | 10 55 55 | 15°54'13 | 2♈ 3 | 7°R59 | 19°V53 | 24°Z 2 | 3°S57 | 21°B27 | 27°R15 | 4°B37 | 25°A37 | 22°R42 | 21°A39 | 21°Q 2 | 10°II 8 | M 1 | |
| T 2 | 10 59 52 | 16°53'43 | 13°56 | 7°K10 | 21° 5 | 24°47 | 4° 5 | 21°32 | 27°M.15 | 4°38 | 25°38 | 22°A41 | 21°36 | 21° 9 | 10° 9 | T 2 | |
| W 3 | 11 3 48 | 17°53'12 | 25°55 | 6°26 | 22°17 | 25°32 | 4°13 | 21°37 | 27°15 | 4°40 | 25°40 | 22°38 | 21°33 | 21°15 | 10°11 | W 3 | |
| T 4 | 11 7 45 | 18°52'38 | 8♌ 3 | 5°46 | 23°29 | 26°17 | 4°21 | 21°42 | 27°14 | 4°42 | 25°41 | 22°34 | 21°30 | 21°22 | 10°13 | T 4 | |
| F 5 | 11 11 42 | 19°52'02 | 20°20 | 5°12 | 24°41 | 27° 2 | 4°29 | 21°47 | 27°14 | 4°43 | 25°43 | 22°30 | 21°26 | 21°29 | 10°15 | F 5 | |
| S 6 | 11 15 38 | 20°51'25 | 2♈49 | 4°43 | 25°53 | 27°47 | 4°37 | 21°52 | 27°13 | 4°45 | 25°44 | 22°25 | 21°23 | 21°35 | 10°16 | S 6 | |
| S 7 | 11 19 35 | 21°50'45 | 15°30 | 4°21 | 27° 4 | 28°32 | 4°44 | 21°57 | 27°13 | 4°47 | 25°46 | 22°20 | 21°20 | 21°42 | 10°18 | S 7 | |
| M 8 | 11 23 31 | 22°50'04 | 28°26 | 4° 4 | 28°16 | 29°17 | 4°52 | 22° 2 | 27°12 | 4°49 | 25°47 | 22°17 | 21°17 | 21°48 | 10°20 | M 8 | |
| T 9 | 11 27 28 | 23°49'21 | 11♌38 | 3°53 | 29°28 | 0° 2 | 4°59 | 22° 7 | 27°12 | 4°50 | 25°49 | 22°15 | 21°14 | 21°55 | 10°23 | T 9 | |
| W10 | 11 31 24 | 24°48'37 | 25° 8 | 3°D48 | 0°B39 | 0°47 | 5° 6 | 22°12 | 27°11 | 4°52 | 25°50 | 22°D14 | 21°11 | 22° 2 | 10°25 | W10 | |
| T 11 | 11 35 21 | 25°47'50 | 8♌58 | 3°48 | 1°50 | 1°32 | 5°13 | 22°18 | 27°10 | 4°54 | 25°52 | 22°15 | 21° 7 | 22° 8 | 10°27 | T 11 | |
| F 12 | 11 39 17 | 26°47'02 | 23° 7 | 3°54 | 3° 2 | 2°17 | 5°20 | 22°23 | 27°10 | 4°56 | 25°53 | 22°16 | 21° 4 | 22°15 | 10°29 | F 12 | |
| S 13 | 11 43 14 | 27°46'12 | 7♌35 | 4° 6 | 4°13 | 3° 2 | 5°26 | 22°29 | 27° 9 | 4°58 | 25°55 | 22°18 | 21° 1 | 22°22 | 10°32 | S 13 | |
| S 14 | 11 47 11 | 28°45'19 | 22°18 | 4°22 | 5°24 | 3°47 | 5°33 | 22°35 | 27° 8 | 5° 0 | 25°56 | 22°R18 | 20°58 | 22°28 | 10°34 | S 14 | |
| M15 | 11 51 7 | 29°44'25 | 7♌12 | 4°44 | 6°35 | 4°32 | 5°39 | 22°40 | 27° 7 | 5° 2 | 25°58 | 22°17 | 20°55 | 22°35 | 10°37 | M15 | |
| T 16 | 11 55 4 | 0°V43'29 | 22°10 | 5°10 | 7°46 | 5°17 | 5°45 | 22°46 | 27° 6 | 5° 3 | 25°59 | 22°15 | 20°51 | 22°42 | 10°39 | T 16 | |
| W17 | 11 59 0 | 1°42'31 | 7♌ 3 | 5°41 | 8°57 | 6° 2 | 5°51 | 22°52 | 27° 5 | 5° 5 | 26° 0 | 22°10 | 20°48 | 22°48 | 10°42 | W17 | |
| T 18 | 12 2 57 | 2°41'31 | 21°42 | 6°15 | 10° 8 | 6°47 | 5°57 | 22°58 | 27° 4 | 5° 7 | 26° 2 | 22° 4 | 20°45 | 22°55 | 10°45 | T 18 | |
| F 19 | 12 6 53 | 3°40'29 | 6♌ 1 | 6°54 | 11°18 | 7°33 | 6° 3 | 23° 4 | 27° 3 | 5° 9 | 26° 3 | 21°58 | 20°42 | 23° 2 | 10°48 | F 19 | |
| S 20 | 12 10 50 | 4°39'25 | 19°55 | 7°37 | 12°29 | 8°18 | 6° 9 | 23°10 | 27° 2 | 5°11 | 26° 5 | 21°51 | 20°39 | 23° 8 | 10°51 | S 20 | |
| S 21 | 12 14 46 | 5°38'18 | 3♈22 | 8°23 | 13°39 | 9° 3 | 6°14 | 23°16 | 27° 1 | 5°13 | 26° 6 | 21°46 | 20°36 | 23°15 | 10°54 | S 21 | |
| M22 | 12 18 43 | 6°37'09 | 16°22 | 9°12 | 14°50 | 9°48 | 6°19 | 23°22 | 26°59 | 5°15 | 26° 7 | 21°42 | 20°32 | 23°22 | 10°57 | M22 | |
| T 23 | 12 22 39 | 7°35'58 | 28°58 | 10° 5 | 16° 0 | 10°33 | 6°24 | 23°28 | 26°58 | 5°17 | 26° 9 | 21°40 | 20°29 | 23°28 | 11° 0 | T 23 | |
| W24 | 12 26 36 | 8°34'44 | 11♌15 | 11° 1 | 17°10 | 11°18 | 6°29 | 23°35 | 26°57 | 5°19 | 26°10 | 21°D39 | 20°26 | 23°35 | 11° 3 | W24 | |
| T 25 | 12 30 33 | 9°33'28 | 23°16 | 12° 0 | 18°20 | 12° 3 | 6°34 | 23°41 | 26°55 | 5°22 | 26°11 | 21°40 | 20°23 | 23°41 | 11° 6 | T 25 | |
| F 26 | 12 34 29 | 10°32'10 | 5♌ 8 | 13° 1 | 19°30 | 12°48 | 6°38 | 23°47 | 26°54 | 5°24 | 26°12 | 21°42 | 20°20 | 23°48 | 11° 9 | F 26 | |
| S 27 | 12 38 26 | 11°30'50 | 16°55 | 14° 6 | 20°40 | 13°33 | 6°43 | 23°54 | 26°52 | 5°26 | 26°14 | 21°R43 | 20°16 | 23°55 | 11°13 | S 27 | |
| S 28 | 12 42 22 | 12°29'27 | 28°42 | 15°12 | 21°49 | 14°18 | 6°47 | 24° 0 | 26°51 | 5°28 | 26°15 | 21°42 | 20°13 | 24° 1 | 11°16 | S 28 | |
| M29 | 12 46 19 | 13°28'02 | 10♈34 | 16°22 | 22°59 | 15° 4 | 6°51 | 24° 7 | 26°49 | 5°30 | 26°16 | 21°40 | 20°10 | 24° 8 | 11°19 | M29 | |
| T 30 | 12 50 15 | 14°26'35 | 22°33 | 17°33 | 24° 8 | 15°49 | 6°55 | 24°13 | 26°48 | 5°32 | 26°17 | 21°36 | 20° 7 | 24°15 | 11°23 | T 30 | |
| W31 | 12 54 12 | 15°25'06 | 4♌42 | 18°47 | 25°B17 | 16°A34 | 6°59 | 24°B20 | 26°M.46 | 5°B34 | 26°A18 | 21°A30 | 20°A 4 | 24°Q21 | 11°II26 | W31 | |

Delta T = 20m06s Julian Calendar 1 March 1059 == Greg. Calendar 7 March 1059

APRIL 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|---------|--------|---------|--------|-------|--------|---------|-------|--------|--------|--------|--------|---------|------|
| T 1 | 12 58 8 | 16°V23'35 | 17♌ 4 | 20°K 3 | 26°B26 | 17°A19 | 7°Z 2 | 24°B27 | 26°R45 | 5°B36 | 26°A20 | 21°R21 | 20°A 1 | 24°Q28 | 11°II30 | T 1 |
| F 2 | 13 2 5 | 17°22'02 | 29°38 | 21°22 | 27°35 | 18° 4 | 7° 6 | 24°34 | 26°M.43 | 5°38 | 26°21 | 21°A11 | 19°57 | 24°35 | 11°34 | F 2 |
| S 3 | 13 6 2 | 18°20'27 | 12♈25 | 22°42 | 28°44 | 18°49 | 7° 9 | 24°40 | 26°41 | 5°41 | 26°22 | 21° 1 | 19°54 | 24°41 | 11°37 | S 3 |
| S 4 | 13 9 58 | 19°18'51 | 25°25 | 24° 5 | 29°53 | 19°34 | 7°12 | 24°47 | 26°39 | 5°43 | 26°23 | 20°51 | 19°51 | 24°48 | 11°41 | S 4 |
| M 5 | 13 13 55 | 20°17'12 | 8♌37 | 25°29 | 1°II 2 | 20°19 | 7°15 | 24°54 | 26°38 | 5°45 | 26°24 | 20°43 | 19°48 | 24°55 | 11°45 | M 5 |
| T 6 | 13 17 51 | 21°15'32 | 22° 1 | 26°55 | 2°10 | 21° 4 | 7°17 | 25° 1 | 26°36 | 5°47 | 26°25 | 20°38 | 19°45 | 25° 1 | 11°49 | T 6 |
| W 7 | 13 21 48 | 22°13'51 | 5♌37 | 28°24 | 3°18 | 21°49 | 7°20 | 25° 8 | 26°34 | 5°49 | 26°26 | 20°34 | 19°42 | 25° 8 | 11°53 | W 7 |
| T 8 | 13 25 44 | 23°12'08 | 19°25 | 29°54 | 4°26 | 22°34 | 7°22 | 25°15 | 26°32 | 5°52 | 26°27 | 20°D33 | 19°38 | 25°14 | 11°57 | T 8 |
| F 9 | 13 29 41 | 24°10'24 | 3♌25 | 1°V26 | 5°34 | 23°19 | 7°24 | 25°22 | 26°30 | 5°54 | 26°28 | 20°33 | 19°35 | 25°21 | 12° 1 | F 9 |
| S 10 | 13 33 37 | 25° 8'37 | 17°37 | 3° 0 | 6°42 | 24° 4 | 7°26 | 25°29 | 26°28 | 5°56 | 26°29 | 20°R34 | 19°32 | 25°28 | 12° 5 | S 10 |
| S 11 | 13 37 34 | 26° 6'50 | 2♌ 0 | 4°36 | 7°50 | 24°49 | 7°28 | 25°37 | 26°26 | 5°58 | 26°30 | 20°33 | 19°29 | 25°34 | 12° 9 | S 11 |
| M12 | 13 41 31 | 27° 5'01 | 16°31 | 6°14 | 8°57 | 25°34 | 7°29 | 25°44 | 26°24 | 6° 0 | 26°31 | 20°31 | 19°26 | 25°41 | 12°13 | M12 |
| T 13 | 13 45 27 | 28° 3'10 | 1°V 5 | 7°54 | 10° 5 | 26°19 | 7°31 | 25°51 | 26°22 | 6° 3 | 26°32 | 20°26 | 19°22 | 25°48 | 12°17 | T 13 |
| W14 | 13 49 24 | 29° 1'17 | 15°37 | 9°35 | 11°12 | 27° 4 | 7°32 | 25°58 | 26°20 | 6° 5 | 26°33 | 20°18 | 19°19 | 25°54 | 12°22 | W14 |
| T 15 | 13 53 20 | 29°59'23 | 0♌ 1 | 11°19 | 12°19 | 27°49 | 7°33 | 26° 6 | 26°18 | 6° 7 | 26°34 | 20° 8 | 19°16 | 26° 1 | 12°26 | T 15 |
| F 16 | 13 57 17 | 0♌57'28 | 14° 9 | 13° 4 | 13°26 | 28°34 | 7°34 | 26°13 | 26°16 | 6° 9 | 26°35 | 19°57 | 19°13 | 26° 8 | 12°30 | F 16 |
| S 17 | 14 1 13 | 1°55'30 | 27°57 | 14°51 | 14°33 | 29°19 | 7°34 | 26°20 | 26°13 | 6°12 | 26°36 | 19°46 | 19°10 | 26°14 | 12°35 | S 17 |
| S 18 | 14 5 10 | 2°53'31 | 11°II22 | 16°40 | 15°39 | 0°K 4 | 7°35 | 26°28 | 26°11 | 6°14 | 26°36 | 19°37 | 19° 7 | 26°21 | 12°39 | S 18 |
| M19 | 14 9 6 | 3°51'31 | 24°22 | 18°31 | 16°45 | 0°49 | 7°35 | 26°35 | 26° 9 | 6°16 | 26°37 | 19°29 | 19° 3 | 26°28 | 12°44 | M19 |
| T 20 | 14 13 3 | 4°49'28 | 6♌59 | 20°23 | 17°52 | 1°34 | 7°R35 | 26°43 | 26° 7 | 6°18 | 26°38 | 19°23 | 19° 0 | 26°34 | 12°48 | T 20 |
| W21 | 14 17 0 | 5°47'23 | 19°17 | 22°18 | 18°58 | 2°19 | 7°35 | 26°50 | 26° 5 | 6°21 | 26°39 | 19°20 | 18°57 | 26°41 | 12°53 | W21 |
| T 22 | 14 20 56 | 6°45'17 | 1♌20 | 24°14 | 20° 3 | 3° 3 | 7°34 | 26°58 | 26° 2 | 6°23 | 26°39 | 19°19 | 18°54 | 26°48 | 12°57 | T 22 |
| F 23 | 14 24 53 | 7°43'09 | 13°13 | 26°13 | 21° 9 | 3°48 | 7°34 | 27° 5 | 26° 0 | 6°25 | 26°40 | 19°19 | 18°51 | 26°54 | 13° 2 | F 23 |
| S 24 | 14 28 49 | 8°40'58 | 25° 1 | 28°13 | 22°14 | 4°33 | 7°33 | 27°13 | 25°58 | 6°27 | 26°41 | 19°19 | 18°48 | 27° 1 | 13° 7 | S 24 |
| S 25 | 14 32 46 | 9°38'47 | 6♈50 | 0♌14 | 23°19 | 5°18 | 7°32 | 27°20 | 25°55 | 6°30 | 26°42 | 19°18 | 18°44 | 27° 7 | 13°11 | S 25 |
| M26 | 14 36 42 | 10°36'33 | 18°45 | 2°18 | 24°24 | 6° 2 | 7°31 | 27°28 | 25°53 | 6°32 | 26°42 | 19°15 | 18°41 | 27°14 | 13°16 | M26 |
| T 27 | 14 40 39 | 11°34'18 | 0♌50 | 4°23 | 25°29 | 6°47 | 7°30 | 27°36 | 25°51 | 6°34 | 26°43 | 19°10 | 18°38 | 27°21 | 13°21 | T 27 |
| W28 | 14 44 35 | 12°32'01 | 13° 9 | 6°29 | 26°33 | 7°32 | 7°28 | 27°43 | 25°48 | 6°36 | 26°43 | 19° 1 | 18°35 | 27°27 | 13°26 | W28 |
| T 29 | 14 48 32 | 13°29'42 | 25°43 | 8°37 | 27°37 | 8°16 | 7°27 | 27°51 | 25°46 | 6°39 | 26°44 | 18°51 | 18°32 | 27°34 | 13°31 | T 29 |
| F 30 | 14 52 29 | 14°27'22 | 8♈35 | 10°B46 | 28°II41 | 9°K 1 | 7°Z25 | 27°B59 | 25°M.43 | 6°B41 | 26°A45 | 18°A39 | 18°A28 | 27°Q41 | 13°II35 | F 30 |

Delta T = 20m05s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1059
geocentric

MAY 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 14 56 25 | 15♌25°01 | 21♋42 | 12♉56 | 29♏45 | 9♌45 | 7°R23 | 28♄6 | 25°R41 | 6♄43 | 26♌45 | 18°R26 | 18♌25 | 27♎47 | 13♏40 | S 1 | | | | | | | | |
| S 2 | 15 0 22 | 16°22'39 | 5♌5 | 15° 7 | 0♉48 | 10°30 | 7♄20 | 28°14 | 25♋39 | 6°45 | 26°46 | 18°14 | 18°22 | 27°54 | 13°45 | S 2 | | | | | | | | |
| M 3 | 15 4 18 | 17°20'15 | 18°40 | 17°18 | 1°51 | 11°14 | 7°18 | 28°22 | 25°36 | 6°48 | 26°46 | 18° 4 | 18°19 | 28° 1 | 13°50 | M 3 | | | | | | | | |
| T 4 | 15 8 15 | 18°17'50 | 2♌25 | 19°29 | 2°54 | 11°59 | 7°16 | 28°29 | 25°34 | 6°50 | 26°46 | 17°56 | 18°16 | 28° 7 | 13°55 | T 4 | | | | | | | | |
| W 5 | 15 12 11 | 19°15'25 | 16°17 | 21°41 | 3°56 | 12°43 | 7°13 | 28°37 | 25°31 | 6°52 | 26°47 | 17°51 | 18°13 | 28°14 | 14° 0 | W 5 | | | | | | | | |
| T 6 | 15 16 8 | 20°12'58 | 0♌16 | 23°52 | 4°59 | 13°27 | 7°10 | 28°45 | 25°29 | 6°54 | 26°47 | 17°49 | 18° 9 | 28°21 | 14° 5 | T 6 | | | | | | | | |
| F 7 | 15 20 4 | 21°10'30 | 14°19 | 26° 3 | 6° 0 | 14°12 | 7° 7 | 28°53 | 25°26 | 6°56 | 26°48 | 17°49 | 18° 6 | 28°27 | 14°10 | F 7 | | | | | | | | |
| S 8 | 15 24 1 | 22° 8'02 | 28°26 | 28°13 | 7° 2 | 14°56 | 7° 3 | 29° 1 | 25°24 | 6°59 | 26°48 | 17°49 | 18° 3 | 28°34 | 14°15 | S 8 | | | | | | | | |
| S 9 | 15 27 58 | 23° 5'32 | 12♌35 | 0♏22 | 8° 3 | 15°40 | 7° 0 | 29° 8 | 25°21 | 7° 1 | 26°48 | 17°48 | 18° 0 | 28°41 | 14°21 | S 9 | | | | | | | | |
| M10 | 15 31 54 | 24° 3'02 | 26°47 | 2°30 | 9° 4 | 16°24 | 6°56 | 29°16 | 25°19 | 7° 3 | 26°49 | 17°45 | 17°57 | 28°47 | 14°26 | M10 | | | | | | | | |
| T 11 | 15 35 51 | 25° 0'31 | 10♏57 | 4°36 | 10° 5 | 17° 8 | 6°52 | 29°24 | 25°16 | 7° 5 | 26°49 | 17°40 | 17°54 | 28°54 | 14°31 | T 11 | | | | | | | | |
| W12 | 15 39 47 | 25°57'59 | 25° 4 | 6°41 | 11° 5 | 17°52 | 6°48 | 29°32 | 25°14 | 7° 7 | 26°49 | 17°31 | 17°50 | 29° 0 | 14°36 | W12 | | | | | | | | |
| T 13 | 15 43 44 | 26°55'26 | 9♄2 | 8°43 | 12° 5 | 18°36 | 6°44 | 29°40 | 25°11 | 7° 9 | 26°50 | 17°21 | 17°47 | 29° 7 | 14°41 | T 13 | | | | | | | | |
| F 14 | 15 47 40 | 27°52'52 | 22°49 | 10°44 | 13° 5 | 19°20 | 6°40 | 29°48 | 25° 9 | 7°12 | 26°50 | 17° 9 | 17°44 | 29°14 | 14°47 | F 14 | | | | | | | | |
| S 15 | 15 51 37 | 28°50'18 | 6♏19 | 12°42 | 14° 4 | 20° 4 | 6°36 | 29°55 | 25° 6 | 7°14 | 26°50 | 16°57 | 17°41 | 29°20 | 14°52 | S 15 | | | | | | | | |
| S 16 | 15 55 33 | 29°47'43 | 19°31 | 14°38 | 15° 3 | 20°48 | 6°31 | 0♏3 | 25° 4 | 7°16 | 26°50 | 16°47 | 17°38 | 29°27 | 14°57 | S 16 | | | | | | | | |
| M17 | 15 59 30 | 0♏45'06 | 2♉23 | 16°32 | 16° 1 | 21°32 | 6°26 | 0°11 | 25° 2 | 7°18 | 26°50 | 16°38 | 17°34 | 29°34 | 15° 2 | M17 | | | | | | | | |
| T 18 | 16 3 27 | 1°42'29 | 14°56 | 18°23 | 16°59 | 22°16 | 6°21 | 0°19 | 24°59 | 7°20 | 26°50 | 16°32 | 17°31 | 29°40 | 15° 8 | T 18 | | | | | | | | |
| W19 | 16 7 23 | 2°39'50 | 27°11 | 20°11 | 17°57 | 22°59 | 6°16 | 0°27 | 24°57 | 7°22 | 26°50 | 16°28 | 17°28 | 29°47 | 15°13 | W19 | | | | | | | | |
| T 20 | 16 11 20 | 3°37'10 | 9♏13 | 21°58 | 18°54 | 23°43 | 6°11 | 0°35 | 24°54 | 7°24 | 26°51 | 16°26 | 17°25 | 29°54 | 15°18 | T 20 | | | | | | | | |
| F 21 | 16 15 16 | 4°34'30 | 21° 6 | 23°41 | 19°51 | 24°26 | 6° 5 | 0°42 | 24°52 | 7°26 | 26°51 | 16°D26 | 17°22 | 0♏0 | 15°24 | F 21 | | | | | | | | |
| S 22 | 16 19 13 | 5°31'48 | 2♏55 | 25°22 | 20°47 | 25°10 | 6° 0 | 0°50 | 24°49 | 7°28 | 26°R51 | 16°R26 | 17°19 | 0° 7 | 15°29 | S 22 | | | | | | | | |
| S 23 | 16 23 9 | 6°29'05 | 14°45 | 27° 1 | 21°43 | 25°53 | 5°54 | 0°58 | 24°47 | 7°30 | 26°51 | 16°26 | 17°15 | 0°14 | 15°35 | S 23 | | | | | | | | |
| M24 | 16 27 6 | 7°26'22 | 26°42 | 28°37 | 22°38 | 26°37 | 5°48 | 1° 6 | 24°44 | 7°32 | 26°51 | 16°24 | 17°12 | 0°20 | 15°40 | M24 | | | | | | | | |
| T 25 | 16 31 2 | 8°23'37 | 8♌50 | 0♉10 | 23°32 | 27°20 | 5°42 | 1°14 | 24°42 | 7°34 | 26°51 | 16°20 | 17° 9 | 0°27 | 15°45 | T 25 | | | | | | | | |
| W26 | 16 34 59 | 9°20'51 | 21°15 | 1°40 | 24°26 | 28° 3 | 5°36 | 1°21 | 24°40 | 7°36 | 26°50 | 16°14 | 17° 6 | 0°34 | 15°51 | W26 | | | | | | | | |
| T 27 | 16 38 56 | 10°18'05 | 3♋58 | 3° 8 | 25°20 | 28°46 | 5°30 | 1°29 | 24°37 | 7°38 | 26°50 | 16° 6 | 17° 3 | 0°40 | 15°56 | T 27 | | | | | | | | |
| F 28 | 16 42 52 | 11°15'18 | 17° 2 | 4°33 | 26°13 | 29°29 | 5°24 | 1°37 | 24°35 | 7°40 | 26°50 | 15°56 | 16°59 | 0°47 | 16° 2 | F 28 | | | | | | | | |
| S 29 | 16 46 49 | 12°12'31 | 0♌27 | 5°55 | 27° 5 | 0♏12 | 5°18 | 1°45 | 24°33 | 7°42 | 26°50 | 15°46 | 16°56 | 0°53 | 16° 7 | S 29 | | | | | | | | |
| S 30 | 16 50 45 | 13° 9'43 | 14°11 | 7°15 | 27°57 | 0°55 | 5°11 | 1°53 | 24°30 | 7°44 | 26°50 | 15°36 | 16°53 | 1° 0 | 16°12 | S 30 | | | | | | | | |
| M31 | 16 54 42 | 14♏6'54 | 28♌10 | 8♉32 | 28♉48 | 1♏38 | 5♄4 | 2♏0 | 24♋28 | 7♄46 | 26♌50 | 15♌27 | 16♌50 | 1♏7 | 16♏18 | M31 | | | | | | | | |

Delta T = 20m05s Julian Calendar 1 May 1059 == Greg. Calendar 7 May 1059

JUNE 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|--------|------|--------|--------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 16 58 38 | 15♏4'05 | 12♌20 | 9♉45 | 29♏38 | 2♏21 | 4°R58 | 2♏8 | 24°R26 | 7♄48 | 26°R49 | 15°R21 | 16♌47 | 1♏13 | 16♏23 | T 1 | | | | | | | | |
| W 2 | 17 2 35 | 16° 1'16 | 26°37 | 10°56 | 0♏28 | 3° 4 | 4♄51 | 2°16 | 24♋24 | 7°50 | 26♌49 | 15♌18 | 16°44 | 1°20 | 16°29 | W 2 | | | | | | | | |
| T 3 | 17 6 32 | 16°58'27 | 10♌55 | 12° 4 | 1°17 | 3°46 | 4°44 | 2°23 | 24°21 | 7°52 | 26°49 | 15°D16 | 16°40 | 1°27 | 16°34 | T 3 | | | | | | | | |
| F 4 | 17 10 28 | 17°55'37 | 25°13 | 13° 9 | 2° 5 | 4°29 | 4°37 | 2°31 | 24°19 | 7°54 | 26°49 | 15°16 | 16°37 | 1°33 | 16°40 | F 4 | | | | | | | | |
| S 5 | 17 14 25 | 18°52'48 | 9♌26 | 14°11 | 2°52 | 5°11 | 4°30 | 2°39 | 24°17 | 7°55 | 26°48 | 15°17 | 16°34 | 1°40 | 16°45 | S 5 | | | | | | | | |
| S 6 | 17 18 21 | 19°49'58 | 23°34 | 15° 9 | 3°39 | 5°54 | 4°23 | 2°46 | 24°15 | 7°57 | 26°48 | 15°R17 | 16°31 | 1°47 | 16°50 | S 6 | | | | | | | | |
| M 7 | 17 22 18 | 20°47'09 | 7♏35 | 16° 4 | 4°25 | 6°36 | 4°15 | 2°54 | 24°13 | 7°59 | 26°48 | 15°16 | 16°28 | 1°53 | 16°56 | M 7 | | | | | | | | |
| T 8 | 17 26 14 | 21°44'19 | 21°28 | 16°56 | 5° 9 | 7°18 | 4° 8 | 3° 2 | 24°11 | 8° 1 | 26°47 | 15°13 | 16°25 | 2° 0 | 17° 1 | T 8 | | | | | | | | |
| W 9 | 17 30 11 | 22°41'30 | 5♄12 | 17°44 | 5°53 | 8° 0 | 4° 1 | 3° 9 | 24° 8 | 8° 2 | 26°47 | 15° 7 | 16°21 | 2° 7 | 17° 7 | W 9 | | | | | | | | |
| T 10 | 17 34 7 | 23°38'41 | 18°46 | 18°29 | 6°36 | 8°42 | 3°53 | 3°17 | 24° 6 | 8° 4 | 26°46 | 15° 0 | 16°18 | 2°13 | 17°12 | T 10 | | | | | | | | |
| F 11 | 17 38 4 | 24°35'52 | 2♏7 | 19°10 | 7°18 | 9°24 | 3°46 | 3°24 | 24° 4 | 8° 6 | 26°46 | 14°52 | 16°15 | 2°20 | 17°18 | F 11 | | | | | | | | |
| S 12 | 17 42 1 | 25°33'03 | 15°15 | 19°47 | 8° 0 | 10° 6 | 3°38 | 3°32 | 24° 2 | 8° 7 | 26°46 | 14°43 | 16°12 | 2°27 | 17°23 | S 12 | | | | | | | | |
| S 13 | 17 45 57 | 26°30'14 | 28° 7 | 20°19 | 8°40 | 10°48 | 3°31 | 3°39 | 24° 0 | 8° 9 | 26°45 | 14°36 | 16° 9 | 2°33 | 17°29 | S 13 | | | | | | | | |
| M14 | 17 49 54 | 27°27'25 | 10♌44 | 20°48 | 9°19 | 11°29 | 3°23 | 3°47 | 23°58 | 8°11 | 26°45 | 14°29 | 16° 6 | 2°40 | 17°34 | M14 | | | | | | | | |
| T 15 | 17 53 50 | 28°24'36 | 23° 7 | 21°13 | 9°56 | 12°11 | 3°16 | 3°54 | 23°57 | 8°12 | 26°44 | 14°25 | 16° 2 | 2°47 | 17°39 | T 15 | | | | | | | | |
| W16 | 17 57 47 | 29°21'47 | 5♏16 | 21°33 | 10°33 | 12°52 | 3° 8 | 4° 1 | 23°55 | 8°14 | 26°43 | 14°23 | 15°59 | 2°53 | 17°45 | W16 | | | | | | | | |
| T 17 | 18 1 43 | 0♉18'58 | 17°14 | 21°48 | 11° 8 | 13°33 | 3° 0 | 4° 9 | 23°53 | 8°15 | 26°43 | 14°D23 | 15°56 | 3° 0 | 17°50 | T 17 | | | | | | | | |
| F 18 | 18 5 40 | 1°16'08 | 29° 5 | 21°59 | 11°43 | 14°14 | 2°52 | 4°16 | 23°51 | 8°17 | 26°42 | 14°23 | 15°53 | 3° 7 | 17°56 | F 18 | | | | | | | | |
| S 19 | 18 9 36 | 2°13'19 | 10♏53 | 22° 6 | 12°15 | 14°55 | 2°45 | 4°23 | 23°49 | 8°18 | 26°42 | 14°25 | 15°50 | 3°13 | 18° 1 | S 19 | | | | | | | | |
| S 20 | 18 13 33 | 3°10'29 | 22°43 | 22°R 7 | 12°47 | 15°36 | 2°37 | 4°30 | 23°48 | 8°20 | 26°41 | 14°26 | 15°46 | 3°20 | 18° 6 | S 20 | | | | | | | | |
| M21 | 18 17 30 | 4° 7'39 | 4♌40 | 22° 4 | 13°17 | 16°17 | 2°29 | 4°38 | 23°46 | 8°21 | 26°40 | 14°R27 | 15°43 | 3°26 | 18°12 | M21 | | | | | | | | |
| T 22 | 18 21 26 | 5° 4'50 | 16°49 | 21°56 | 13°45 | 16°58 | 2°22 | 4°45 | 23°44 | 8°23 | 26°40 | 14°26 | 15°40 | 3°33 | 18°17 | T 22 | | | | | | | | |
| W23 | 18 25 23 | 6° 2'00 | 29°14 | 21°44 | 14°12 | 17°38 | 2°14 | 4°52 | 23°43 | 8°24 | 26°39 | 14°24 | 15°37 | 3°40 | 18°22 | W23 | | | | | | | | |
| T 24 | 18 29 19 | 6°59'11 | 12♋0 | 21°27 | 14°38 | 18°19 | 2° 6 | 4°59 | 23°41 | 8°26 | 26°38 | 14°20 | 15°34 | 3°46 | 18°27 | T 24 | | | | | | | | |
| F 25 | 18 33 16 | 7°56'21 | 25°10 | 21° 5 | 15° 1 | 18°59 | 1°59 | 5° 6 | 23°39 | 8°27 | 26°38 | 14°15 | 15°31 | 3°53 | 18°33 | F 25 | | | | | | | | |
| S 26 | 18 37 12 | 8°53'32 | 8♌43 | 20°39 | 15°24 | 19°39 | 1°51 | 5°13 | 23°38 | 8°28 | 26°37 | 14° 9 | 15°27 | 4° 0 | 18°38 | S 26 | | | | | | | | |
| S 27 | 18 41 9 | 9°50'44 | 22°41 | 20°10 | 15°44 | 20°19 | 1°43 | 5°20 | 23°36 | 8°30 | 26°36 | 14° 4 | 15°24 | 4° 6 | 18°43 | S 27 | | | | | | | | |
| M28 | 18 45 5 | 10°47'55 | 6♄58 | 19°37 | 16° 2 | 20°59 | 1°36 | 5°27 | 23°35 | 8°31 | 26°35 | 14° 0 | 15°21 | 4°13 | 18°48 | M28 | | | | | | | | |
| T 29 | 18 49 2 | 11°45'07 | 21°30 | 19° 1 | 16°19 | 21°39 | 1°28 | 5°34 | 23°34 | 8°32 | 26°34 | 13°57 | 15°18 | 4°20 | 18°54 | T 29 | | | | | | | | |
| W30 | 18 52 59 | 12°42'20 | 6♌12 | 18♉23 | 16♏33 | 22♏19 | 1♄21 | 5♏41 | 23♋32 | 8♄33 | 26♌34 | 13♌55 | 15♌15 | 4♏26 | 18♏59 | W30 | | | | | | | | |

Delta T = 20m05s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1059
geocentric

JULY 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-------------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|-------------------------|--------------------|----------------------|----------------------|----------------------|--------------------|-----------------------|------|
| T 1 | 18 56 55 | 13 ²³ 39'33 | 20 ²² 55 | 17 ¹⁷ R42 | 16 ¹⁶ Ω46 | 22 ²² Υ58 | 1 ¹ R14 | 5 ⁵ II47 | 23 ²³ R31 | 8 ⁸ ♁34 | 26 ²⁶ R33 | 13 ¹³ D55 | 15 ¹⁵ ≈12 | 4 ⁴ ♁33 | 19 ¹⁹ II 4 | T 1 |
| F 2 | 19 0 52 | 14 ¹⁴ 36'47 | 5 ⁵ ♁33 | 17 ¹⁷ ♁ 1 | 16 ¹⁶ 56 | 23 ²³ 37 | 1 ¹ ♁ 6 | 5 ⁵ 54 | 23 ²³ III.30 | 8 ⁸ 36 | 26 ²⁶ ≈32 | 13 ¹³ ≈56 | 15 ¹⁵ ° 8 | 4 ⁴ 40 | 19 ¹⁹ ° 9 | F 2 |
| S 3 | 19 4 48 | 15 ¹⁵ 34'01 | 20 ²⁰ ° 3 | 16 ¹⁶ 19 | 17 ¹⁷ ° 5 | 24 ²⁴ 17 | 0 ⁰ 59 | 6 ⁶ ° 1 | 23 ²³ 29 | 8 ⁸ 37 | 26 ²⁶ 31 | 13 ¹³ 58 | 15 ¹⁵ ° 5 | 4 ⁴ 46 | 19 ¹⁹ 14 | S 3 |
| S 4 | 19 8 45 | 16 ¹⁶ 31'17 | 4 ⁴ Υ19 | 15 ¹⁵ 37 | 17 ¹⁷ 11 | 24 ²⁴ 56 | 0 ⁰ 52 | 6 ⁶ ° 7 | 23 ²³ 27 | 8 ⁸ 38 | 26 ²⁶ 30 | 13 ¹³ 59 | 15 ¹⁵ ° 2 | 4 ⁴ 53 | 19 ¹⁹ 19 | S 4 |
| M 5 | 19 12 41 | 17 ¹⁷ 28'34 | 18 ¹⁸ 21 | 14 ¹⁴ 57 | 17 ¹⁷ 15 | 25 ²⁵ 35 | 0 ⁰ 45 | 6 ⁶ 14 | 23 ²³ 26 | 8 ⁸ 39 | 26 ²⁶ 29 | 13 ¹³ R59 | 14 ¹⁴ 59 | 5 ⁵ ° 0 | 19 ¹⁹ 24 | M 5 |
| T 6 | 19 16 38 | 18 ¹⁸ 25'51 | 2 ² ♁ 7 | 14 ¹⁴ 18 | 17 ¹⁷ R17 | 26 ²⁶ 13 | 0 ⁰ 38 | 6 ⁶ 21 | 23 ²³ 25 | 8 ⁸ 40 | 26 ²⁶ 28 | 13 ¹³ 59 | 14 ¹⁴ 56 | 5 ⁵ ° 6 | 19 ¹⁹ 29 | T 6 |
| W 7 | 19 20 34 | 19 ¹⁹ 23'10 | 15 ¹⁵ 37 | 13 ¹³ 41 | 17 ¹⁷ 16 | 26 ²⁶ 52 | 0 ⁰ 31 | 6 ⁶ 27 | 23 ²³ 24 | 8 ⁸ 41 | 26 ²⁶ 27 | 13 ¹³ 57 | 14 ¹⁴ 52 | 5 ⁵ 13 | 19 ¹⁹ 34 | W 7 |
| T 8 | 19 24 31 | 20 ²⁰ 20'30 | 28 ²⁸ 52 | 13 ¹³ ° 8 | 17 ¹⁷ 13 | 27 ²⁷ 30 | 0 ⁰ 24 | 6 ⁶ 33 | 23 ²³ 23 | 8 ⁸ 42 | 26 ²⁶ 26 | 13 ¹³ 54 | 14 ¹⁴ 49 | 5 ⁵ 20 | 19 ¹⁹ 39 | T 8 |
| F 9 | 19 28 28 | 21 ²¹ 17'50 | 11 ¹¹ II52 | 12 ¹² 38 | 17 ¹⁷ ° 8 | 28 ²⁸ ° 9 | 0 ⁰ 17 | 6 ⁶ 40 | 23 ²³ 22 | 8 ⁸ 43 | 26 ²⁶ 25 | 13 ¹³ 51 | 14 ¹⁴ 46 | 5 ⁵ 26 | 19 ¹⁹ 44 | F 9 |
| S 10 | 19 32 24 | 22 ²² 15'12 | 24 ²⁴ 38 | 12 ¹² 13 | 17 ¹⁷ ° 1 | 28 ²⁸ 47 | 0 ⁰ 10 | 6 ⁶ 46 | 23 ²³ 21 | 8 ⁸ 44 | 26 ²⁶ 24 | 13 ¹³ 47 | 14 ¹⁴ 43 | 5 ⁵ 33 | 19 ¹⁹ 49 | S 10 |
| S 11 | 19 36 21 | 23 ²³ 12'35 | 7 ⁷ ♁10 | 11 ¹¹ 53 | 16 ¹⁶ 51 | 29 ²⁹ 25 | 0 ⁰ ° 4 | 6 ⁶ 52 | 23 ²³ 20 | 8 ⁸ 45 | 26 ²⁶ 23 | 13 ¹³ 44 | 14 ¹⁴ 40 | 5 ⁵ 40 | 19 ¹⁹ 54 | S 11 |
| M12 | 19 40 17 | 24 ²⁴ ° 9'59 | 19 ¹⁹ 31 | 11 ¹¹ 38 | 16 ¹⁶ 39 | 0 ⁰ ♁ 3 | 29 ²⁹ ♁57 | 6 ⁶ 59 | 23 ²³ 20 | 8 ⁸ 46 | 26 ²⁶ 22 | 13 ¹³ 42 | 14 ¹⁴ 37 | 5 ⁵ 46 | 19 ¹⁹ 59 | M12 |
| T 13 | 19 44 14 | 25 ²⁵ ° 7'23 | 1 ¹ Ω40 | 11 ¹¹ 29 | 16 ¹⁶ 24 | 0 ⁰ 40 | 29 ²⁹ 51 | 7 ⁷ ° 5 | 23 ²³ 19 | 8 ⁸ 46 | 26 ²⁶ 21 | 13 ¹³ 41 | 14 ¹⁴ 33 | 5 ⁵ 53 | 20 ²⁰ ° 4 | T 13 |
| W14 | 19 48 10 | 26 ²⁶ ° 4'49 | 13 ¹³ 41 | 11 ¹¹ D25 | 16 ¹⁶ ° 7 | 1 ¹ 18 | 29 ²⁹ 45 | 7 ⁷ 11 | 23 ²³ 18 | 8 ⁸ 47 | 26 ²⁶ 20 | 13 ¹³ D40 | 14 ¹⁴ 30 | 6 ⁶ ° 0 | 20 ²⁰ ° 8 | W14 |
| T 15 | 19 52 7 | 27 ²⁷ ° 2'15 | 25 ²⁵ 34 | 11 ¹¹ 28 | 15 ¹⁵ 48 | 1 ¹ 55 | 29 ²⁹ 39 | 7 ⁷ 17 | 23 ²³ 18 | 8 ⁸ 48 | 26 ²⁶ 19 | 13 ¹³ 41 | 14 ¹⁴ 27 | 6 ⁶ ° 6 | 20 ²⁰ 13 | T 15 |
| F 16 | 19 56 4 | 27 ²⁷ 59'42 | 7 ⁷ ♁23 | 11 ¹¹ 38 | 15 ¹⁵ 26 | 2 ² 32 | 29 ²⁹ 33 | 7 ⁷ 23 | 23 ²³ 17 | 8 ⁸ 49 | 26 ²⁶ 18 | 13 ¹³ 42 | 14 ¹⁴ 24 | 6 ⁶ 13 | 20 ²⁰ 18 | F 16 |
| S 17 | 20 0 0 | 28 ²⁸ 57'10 | 19 ¹⁹ 10 | 11 ¹¹ 54 | 15 ¹⁵ ° 3 | 3 ³ ° 9 | 29 ²⁹ 27 | 7 ⁷ 29 | 23 ²³ 16 | 8 ⁸ 49 | 26 ²⁶ 17 | 13 ¹³ 43 | 14 ¹⁴ 21 | 6 ⁶ 20 | 20 ²⁰ 22 | S 17 |
| S 18 | 20 3 57 | 29 ²⁹ 54'39 | 1 ¹ ♁ 0 | 12 ¹² 17 | 14 ¹⁴ 37 | 3 ³ 45 | 29 ²⁹ 21 | 7 ⁷ 34 | 23 ²³ 16 | 8 ⁸ 50 | 26 ²⁶ 16 | 13 ¹³ 44 | 14 ¹⁴ 17 | 6 ⁶ 26 | 20 ²⁰ 27 | S 18 |
| M19 | 20 7 53 | 0 ⁰ Ω52'09 | 12 ¹² 57 | 12 ¹² 46 | 14 ¹⁴ ° 9 | 4 ⁴ 22 | 29 ²⁹ 15 | 7 ⁷ 40 | 23 ²³ 15 | 8 ⁸ 51 | 26 ²⁶ 15 | 13 ¹³ 45 | 14 ¹⁴ 14 | 6 ⁶ 33 | 20 ²⁰ 32 | M19 |
| T 20 | 20 11 50 | 1 ¹ 49'39 | 25 ²⁵ ° 4 | 13 ¹³ 22 | 13 ¹³ 40 | 4 ⁴ 58 | 29 ²⁹ 10 | 7 ⁷ 46 | 23 ²³ 15 | 8 ⁸ 51 | 26 ²⁶ 14 | 13 ¹³ 46 | 14 ¹⁴ 11 | 6 ⁶ 39 | 20 ²⁰ 36 | T 20 |
| W21 | 20 15 46 | 2 ² 47'11 | 7 ⁷ ♁27 | 14 ¹⁴ ° 5 | 13 ¹³ ° 9 | 5 ⁵ 34 | 29 ²⁹ ° 5 | 7 ⁷ 52 | 23 ²³ 15 | 8 ⁸ 52 | 26 ²⁶ 12 | 13 ¹³ R46 | 14 ¹⁴ ° 8 | 6 ⁶ 46 | 20 ²⁰ 41 | W21 |
| T 22 | 20 19 43 | 3 ³ 44'43 | 20 ²⁰ 11 | 14 ¹⁴ 54 | 12 ¹² 36 | 6 ⁶ 10 | 29 ²⁹ ° 0 | 7 ⁷ 57 | 23 ²³ 14 | 8 ⁸ 52 | 26 ²⁶ 11 | 13 ¹³ 46 | 14 ¹⁴ ° 5 | 6 ⁶ 53 | 20 ²⁰ 45 | T 22 |
| F 23 | 20 23 39 | 4 ⁴ 42'17 | 3 ³ ♁17 | 15 ¹⁵ 49 | 12 ¹² ° 2 | 6 ⁶ 45 | 28 ²⁸ 55 | 8 ⁸ ° 3 | 23 ²³ 14 | 8 ⁸ 53 | 26 ²⁶ 10 | 13 ¹³ 45 | 14 ¹⁴ ° 2 | 6 ⁶ 59 | 20 ²⁰ 50 | F 23 |
| S 24 | 20 27 36 | 5 ⁵ 39'51 | 16 ¹⁶ 50 | 16 ¹⁶ 51 | 11 ¹¹ 27 | 7 ⁷ 20 | 28 ²⁸ 50 | 8 ⁸ ° 8 | 23 ²³ 14 | 8 ⁸ 53 | 26 ²⁶ ° 9 | 13 ¹³ 44 | 13 ¹³ 58 | 7 ⁷ ° 6 | 20 ²⁰ 54 | S 24 |
| S 25 | 20 31 33 | 6 ⁶ 37'27 | 0 ⁰ ♁49 | 17 ¹⁷ 59 | 10 ¹⁰ 51 | 7 ⁷ 56 | 28 ²⁸ 45 | 8 ⁸ 13 | 23 ²³ 14 | 8 ⁸ 54 | 26 ²⁶ ° 8 | 13 ¹³ 43 | 13 ¹³ 55 | 7 ⁷ 13 | 20 ²⁰ 58 | S 25 |
| M26 | 20 35 29 | 7 ⁷ 35'03 | 15 ¹⁵ 13 | 19 ¹⁹ 13 | 10 ¹⁰ 15 | 8 ⁸ 31 | 28 ²⁸ 41 | 8 ⁸ 19 | 23 ²³ 14 | 8 ⁸ 54 | 26 ²⁶ ° 7 | 13 ¹³ 42 | 13 ¹³ 52 | 7 ⁷ 19 | 21 ²¹ ° 3 | M26 |
| T 27 | 20 39 26 | 8 ⁸ 32'41 | 29 ²⁹ 58 | 20 ²⁰ 32 | 9 ⁹ 38 | 9 ⁹ ° 5 | 28 ²⁸ 36 | 8 ⁸ 24 | 23 ²³ 14 | 8 ⁸ 55 | 26 ²⁶ ° 5 | 13 ¹³ 42 | 13 ¹³ 49 | 7 ⁷ 26 | 21 ²¹ ° 7 | T 27 |
| W28 | 20 43 22 | 9 ⁹ 30'20 | 14 ¹⁴ ≈56 | 21 ²¹ 56 | 9 ⁹ ° 0 | 9 ⁹ 40 | 28 ²⁸ 32 | 8 ⁸ 29 | 23 ²³ D14 | 8 ⁸ 55 | 26 ²⁶ ° 4 | 13 ¹³ D42 | 13 ¹³ 46 | 7 ⁷ 33 | 21 ²¹ 11 | W28 |
| T 29 | 20 47 19 | 10 ¹⁰ 28'01 | 29 ²⁹ 59 | 23 ²³ 26 | 8 ⁸ 23 | 10 ¹⁰ 14 | 28 ²⁸ 28 | 8 ⁸ 34 | 23 ²³ 14 | 8 ⁸ 55 | 26 ²⁶ ° 3 | 13 ¹³ 42 | 13 ¹³ 43 | 7 ⁷ 39 | 21 ²¹ 15 | T 29 |
| F 30 | 20 51 15 | 11 ¹¹ 25'42 | 15 ¹⁵ ♁ 1 | 25 ²⁵ ° 0 | 7 ⁷ 46 | 10 ¹⁰ 48 | 28 ²⁸ 24 | 8 ⁸ 39 | 23 ²³ 14 | 8 ⁸ 56 | 26 ²⁶ ° 2 | 13 ¹³ 42 | 13 ¹³ 39 | 7 ⁷ 46 | 21 ²¹ 19 | F 30 |
| S 31 | 20 55 12 | 12 ¹² Ω23'26 | 29 ²⁹ ♁51 | 26 ²⁶ 39 | 7 ⁷ Ω10 | 11 ¹¹ ♁22 | 28 ²⁸ ♁20 | 8 ⁸ II44 | 23 ²³ II.14 | 8 ⁸ 56 | 26 ²⁶ ≈ 1 | 13 ¹³ ≈42 | 13 ¹³ ≈36 | 7 ⁷ ♁53 | 21 ²¹ II23 | S 31 |

Delta T = 20m05s Julian Calendar 1 July 1059 == Greg. Calendar 7 July 1059

AUGUST 1059 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-------------------------|----------------------|----------------------|--------------------|----------------------|----------------------|---------------------|------------------------|--------------------|----------------------|----------------------|----------------------|--------------------|-----------------------|------|
| S 1 | 20 59 8 | 13 ¹³ Ω21'11 | 14 ¹⁴ Υ24 | 28 ²⁸ ♁21 | 6 ⁶ R34 | 11 ¹¹ ♁55 | 28 ²⁸ R17 | 8 ⁸ II49 | 23 ²³ II.14 | 8 ⁸ 56 | 25 ²⁵ R59 | 13 ¹³ R42 | 13 ¹³ ≈33 | 7 ⁷ ♁59 | 21 ²¹ II27 | S 1 |
| M 2 | 21 3 5 | 14 ¹⁴ 18'57 | 28 ²⁸ 35 | 0 ⁰ Ω 7 | 5 ⁵ Ω59 | 12 ¹² 28 | 28 ²⁸ ♁14 | 8 ⁸ 53 | 23 ²³ 14 | 8 ⁸ 56 | 25 ²⁵ ≈58 | 13 ¹³ ≈42 | 13 ¹³ 30 | 8 ⁸ ° 6 | 21 ²¹ 31 | M 2 |
| T 3 | 21 7 2 | 15 ¹⁵ 16'46 | 12 ¹² ♁24 | 1 ¹ 56 | 5 ⁵ 26 | 13 ¹³ ° 1 | 28 ²⁸ 10 | 8 ⁸ 58 | 23 ²³ 15 | 8 ⁸ 56 | 25 ²⁵ 57 | 13 ¹³ D42 | 13 ¹³ 27 | 8 ⁸ 13 | 21 ²¹ 35 | T 3 |
| W 4 | 21 10 58 | 16 ¹⁶ 14'36 | 25 ²⁵ 50 | 3 ³ 47 | 4 ⁴ 54 | 13 ¹³ 34 | 28 ²⁸ ° 7 | 9 ⁹ ° 3 | 23 ²³ 15 | 8 ⁸ 57 | 25 ²⁵ 56 | 13 ¹³ 42 | 13 ¹³ 23 | 8 ⁸ 19 | 21 ²¹ 39 | W 4 |
| T 5 | 21 14 55 | 17 ¹⁷ 12'29 | 8 ⁸ II55 | 5 ⁵ 40 | 4 ⁴ 23 | 14 ¹⁴ ° 6 | 28 ²⁸ ° 5 | 9 ⁹ ° 7 | 23 ²³ 15 | 8 ⁸ 57 | 25 ²⁵ 54 | 13 ¹³ 42 | 13 ¹³ 20 | 8 ⁸ 26 | 21 ²¹ 43 | T 5 |
| F 6 | 21 18 51 | 18 ¹⁸ 10'23 | 21 ²¹ 41 | 7 ⁷ 35 | 3 ³ 54 | 14 ¹⁴ 39 | 28 ²⁸ ° 2 | 9 ⁹ 11 | 23 ²³ 16 | 8 ⁸ 57 | 25 ²⁵ 53 | 13 ¹³ 43 | 13 ¹³ 17 | 8 ⁸ 33 | 21 ²¹ 47 | F 6 |
| S 7 | 21 22 48 | 19 ¹⁹ ° 8'19 | 4 ⁴ ♁11 | 9 ⁹ 32 | 3 ³ 27 | 15 ¹⁵ 10 | 28 ²⁸ ° 0 | 9 ⁹ 16 | 23 ²³ 16 | 8 ⁸ R57 | 25 ²⁵ 52 | 13 ¹³ 43 | 13 ¹³ 14 | 8 ⁸ 39 | 21 ²¹ 50 | S 7 |
| S 8 | 21 26 44 | 20 ²⁰ ° 6'17 | 16 ¹⁶ 27 | 11 ¹¹ 29 | 3 ³ ° 2 | 15 ¹⁵ 42 | 27 ²⁷ 57 | 9 ⁹ 20 | 23 ²³ 17 | 8 ⁸ 57 | 25 ²⁵ 51 | 13 ¹³ 44 | 13 ¹³ 11 | 8 ⁸ 46 | 21 ²¹ 54 | S 8 |
| M 9 | 21 30 41 | 21 ²¹ ° 4'16 | 28 ²⁸ 34 | 13 ¹³ 27 | 2 ² 40 | 16 ¹⁶ 13 | 27 ²⁷ 55 | 9 ⁹ 24 | 23 ²³ 18 | 8 ⁸ 57 | 25 ²⁵ 49 | 13 ¹³ 44 | 13 ¹³ ° 8 | 8 ⁸ 53 | 21 ²¹ 57 | M 9 |
| T 10 | 21 34 37 | 22 ²² ° 2'17 | 10 ¹⁰ Ω32 | 15 ¹⁵ 26 | 2 ² 19 | 16 ¹⁶ 44 | 27 ²⁷ 53 | 9 ⁹ 28 | 23 ²³ 18 | 8 ⁸ 57 | 25 ²⁵ 48 | 13 ¹³ R45 | 13 ¹³ ° 4 | 8 ⁸ 59 | 22 ²² ° 1 | T 10 |
| W11 | 21 38 34 | 23 ²³ ° 0'20 | 22 ²² 25 | 17 ¹⁷ 24 | 2 ² ° 1 | 17 ¹⁷ 15 | 27 ²⁷ 52 | 9 ⁹ 32 | 23 ²³ 19 | 8 ⁸ 56 | 25 ²⁵ 47 | 13 ¹³ 45 | 13 ¹³ ° 1 | 9 ⁹ ° 6 | 22 ²² ° 4 | W11 |
| T 12 | 21 42 31 | 23 ²³ 58'25 | 4 ⁴ ♁14 | 19 ¹⁹ 22 | 1 ¹ 45 | 17 ¹⁷ 45 | 27 ²⁷ 50 | 9 ⁹ 36 | 23 ²³ 20 | 8 ⁸ 56 | 25 ²⁵ 46 | 13 ¹³ 44 | 12 ¹² 58 | 9 ⁹ 13 | 22 ²² ° 8 | T 12 |
| F 13 | 21 46 27 | 24 ²⁴ 56'31 | 16 ¹⁶ ° 2 | 21 ²¹ 20 | 1 ¹ 31 | 18 ¹⁸ 15 | 27 ²⁷ 49 | 9 ⁹ 40 | 23 | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1059
geocentric

SEPTEMBER 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|-------|--------|------|
| W 1 | 23 1 22 | 13♎25'44 | 5♏25 | 25♎42 | 4♏19 | 26♏32 | 28♏0 | 10♏33 | 23♎46 | 8°R47 | 25°R21 | 13°R20 | 11♎55 | 11♎26 | 23♏2 | W 1 |
| T 2 | 23 5 18 | 14°24'27 | 18°29 | 27°20 | 4°47 | 26°54 | 28° 3 | 10°35 | 23°47 | 8♏46 | 25♎20 | 13°D20 | 11°51 | 11°33 | 23° 4 | T 2 |
| F 3 | 23 9 15 | 15°23'12 | 1♏10 | 28°57 | 5°17 | 27°15 | 28° 6 | 10°36 | 23°49 | 8°45 | 25°18 | 13♎21 | 11°48 | 11°39 | 23° 6 | F 3 |
| S 4 | 23 13 11 | 16°21'59 | 13°32 | 0♏33 | 5°49 | 27°36 | 28° 8 | 10°38 | 23°51 | 8°44 | 25°17 | 13°22 | 11°45 | 11°46 | 23° 8 | S 4 |
| S 5 | 23 17 8 | 17°20'48 | 25°39 | 2° 8 | 6°21 | 27°56 | 28°11 | 10°39 | 23°53 | 8°43 | 25°16 | 13°24 | 11°42 | 11°53 | 23°10 | S 5 |
| M 6 | 23 21 4 | 18°19'40 | 7♏37 | 3°42 | 6°56 | 28°16 | 28°15 | 10°41 | 23°55 | 8°42 | 25°15 | 13°R25 | 11°39 | 11°59 | 23°12 | M 6 |
| T 7 | 23 25 1 | 19°18'34 | 19°28 | 5°15 | 7°31 | 28°35 | 28°18 | 10°42 | 23°57 | 8°41 | 25°14 | 13°25 | 11°35 | 12° 6 | 23°13 | T 7 |
| W 8 | 23 28 57 | 20°17'29 | 1♎16 | 6°48 | 8° 8 | 28°53 | 28°22 | 10°43 | 23°59 | 8°40 | 25°13 | 13°23 | 11°32 | 12°13 | 23°15 | W 8 |
| T 9 | 23 32 54 | 21°16'28 | 13° 3 | 8°19 | 8°46 | 29°11 | 28°26 | 10°44 | 24° 1 | 8°39 | 25°12 | 13°20 | 11°29 | 12°19 | 23°16 | T 9 |
| F 10 | 23 36 51 | 22°15'28 | 24°53 | 9°50 | 9°25 | 29°29 | 28°29 | 10°45 | 24° 3 | 8°38 | 25°10 | 13°14 | 11°26 | 12°26 | 23°18 | F 10 |
| S 11 | 23 40 47 | 23°14'30 | 6♏47 | 11°19 | 10° 6 | 29°45 | 28°34 | 10°46 | 24° 6 | 8°37 | 25° 9 | 13° 8 | 11°23 | 12°33 | 23°19 | S 11 |
| S 12 | 23 44 44 | 24°13'34 | 18°46 | 12°48 | 10°47 | 0♏2 | 28°38 | 10°47 | 24° 8 | 8°36 | 25° 8 | 13° 0 | 11°20 | 12°39 | 23°20 | S 12 |
| M13 | 23 48 40 | 25°12'40 | 0♏52 | 14°16 | 11°30 | 0°17 | 28°42 | 10°47 | 24°10 | 8°35 | 25° 7 | 12°52 | 11°16 | 12°46 | 23°21 | M13 |
| T 14 | 23 52 37 | 26°11'49 | 13° 8 | 15°43 | 12°14 | 0°32 | 28°47 | 10°48 | 24°12 | 8°34 | 25° 6 | 12°45 | 11°13 | 12°53 | 23°23 | T 14 |
| W15 | 23 56 33 | 27°10'59 | 25°34 | 17° 9 | 12°58 | 0°46 | 28°52 | 10°48 | 24°15 | 8°33 | 25° 5 | 12°39 | 11°10 | 12°59 | 23°24 | W15 |
| T 16 | 0 0 30 | 28°10'11 | 8♏15 | 18°34 | 13°44 | 1° 0 | 28°57 | 10°48 | 24°17 | 8°31 | 25° 4 | 12°35 | 11° 7 | 13° 6 | 23°24 | T 16 |
| F 17 | 0 4 26 | 29° 9'25 | 21°12 | 19°58 | 14°30 | 1°12 | 29° 2 | 10°48 | 24°20 | 8°30 | 25° 3 | 12°33 | 11° 4 | 13°13 | 23°25 | F 17 |
| S 18 | 0 8 23 | 0♏8'41 | 4♏30 | 21°21 | 15°18 | 1°25 | 29° 7 | 10°R48 | 24°22 | 8°29 | 25° 2 | 12°D33 | 11° 0 | 13°19 | 23°26 | S 18 |
| S 19 | 0 12 20 | 1° 7'58 | 18° 9 | 22°43 | 16° 6 | 1°36 | 29°13 | 10°48 | 24°25 | 8°28 | 25° 1 | 12°33 | 10°57 | 13°26 | 23°27 | S 19 |
| M20 | 0 16 16 | 2° 7'17 | 2♏12 | 24° 4 | 16°55 | 1°47 | 29°19 | 10°48 | 24°27 | 8°26 | 25° 0 | 12°35 | 10°54 | 13°33 | 23°27 | M20 |
| T 21 | 0 20 13 | 3° 6'39 | 16°40 | 25°24 | 17°45 | 1°57 | 29°25 | 10°48 | 24°30 | 8°25 | 24°59 | 12°R35 | 10°51 | 13°39 | 23°28 | T 21 |
| W22 | 0 24 9 | 4° 6'01 | 1♏28 | 26°42 | 18°35 | 2° 6 | 29°31 | 10°47 | 24°33 | 8°24 | 24°58 | 12°33 | 10°48 | 13°46 | 23°28 | W22 |
| T 23 | 0 28 6 | 5° 5'26 | 16°33 | 27°59 | 19°27 | 2°15 | 29°37 | 10°47 | 24°35 | 8°23 | 24°57 | 12°30 | 10°45 | 13°53 | 23°29 | T 23 |
| F 24 | 0 32 2 | 6° 4'53 | 1°Y44 | 29°15 | 20°19 | 2°23 | 29°43 | 10°46 | 24°38 | 8°21 | 24°56 | 12°24 | 10°41 | 13°59 | 23°29 | F 24 |
| S 25 | 0 35 59 | 7° 4'22 | 16°53 | 0♏30 | 21°12 | 2°30 | 29°50 | 10°45 | 24°41 | 8°20 | 24°55 | 12°16 | 10°38 | 14° 6 | 23°29 | S 25 |
| S 26 | 0 39 55 | 8° 3'52 | 1♏49 | 1°43 | 22° 5 | 2°36 | 29°56 | 10°44 | 24°43 | 8°18 | 24°55 | 12° 7 | 10°35 | 14°13 | 23°29 | S 26 |
| M27 | 0 43 52 | 9° 3'26 | 16°24 | 2°54 | 22°59 | 2°41 | 0♏3 | 10°43 | 24°46 | 8°17 | 24°54 | 11°58 | 10°32 | 14°19 | 23°R29 | M27 |
| T 28 | 0 47 49 | 10° 3'01 | 0♏31 | 4° 4 | 23°54 | 2°46 | 0°10 | 10°42 | 24°49 | 8°16 | 24°53 | 11°51 | 10°29 | 14°26 | 23°29 | T 28 |
| W29 | 0 51 45 | 11° 2'39 | 14° 9 | 5°11 | 24°49 | 2°50 | 0°17 | 10°41 | 24°52 | 8°14 | 24°52 | 11°46 | 10°26 | 14°33 | 23°29 | W29 |
| T 30 | 0 55 42 | 12♏2'19 | 27♏18 | 6♏17 | 25♏45 | 2♏53 | 0♏24 | 10♏40 | 24♏55 | 8♏13 | 24♏51 | 11♏42 | 10♏22 | 14♏39 | 23♏29 | T 30 |

Delta T = 20m04s Julian Calendar 1 Sept. 1059 == Greg. Calendar 7 Sept. 1059

OCTOBER 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|------|--------|-------|-------|--------|--------|-------|-------|--------|------|
| F 1 | 0 59 38 | 13♏2'02 | 10♏0 | 7♏20 | 26♏42 | 2♏55 | 0♏32 | 10°R38 | 24♏58 | 8°R11 | 24°R51 | 11°D41 | 10♏19 | 14♏46 | 23°R29 | F 1 |
| S 2 | 1 3 35 | 14° 1'46 | 22°22 | 8°20 | 27°39 | 2°56 | 0°39 | 10♏37 | 25° 1 | 8♏10 | 24♏50 | 11♏41 | 10°16 | 14°53 | 23♏28 | S 2 |
| S 3 | 1 7 31 | 15° 1'33 | 4♏27 | 9°18 | 28°37 | 2°R56 | 0°47 | 10°35 | 25° 4 | 8° 8 | 24°49 | 11°42 | 10°13 | 14°59 | 23°28 | S 3 |
| M 4 | 1 11 28 | 16° 1'23 | 16°21 | 10°13 | 29°35 | 2°56 | 0°55 | 10°33 | 25° 7 | 8° 7 | 24°48 | 11°R42 | 10°10 | 15° 6 | 23°27 | M 4 |
| T 5 | 1 15 24 | 17° 1'14 | 28°10 | 11° 4 | 0♏34 | 2°54 | 1° 3 | 10°32 | 25°10 | 8° 5 | 24°48 | 11°41 | 10° 6 | 15°13 | 23°27 | T 5 |
| W 6 | 1 19 21 | 18° 1'08 | 9♏57 | 11°51 | 1°33 | 2°52 | 1°11 | 10°30 | 25°13 | 8° 3 | 24°47 | 11°37 | 10° 3 | 15°19 | 23°26 | W 6 |
| T 7 | 1 23 18 | 19° 1'04 | 21°46 | 12°34 | 2°32 | 2°49 | 1°19 | 10°28 | 25°16 | 8° 2 | 24°46 | 11°30 | 10° 0 | 15°26 | 23°25 | T 7 |
| F 8 | 1 27 14 | 20° 1'02 | 3♏40 | 13°12 | 3°32 | 2°45 | 1°27 | 10°25 | 25°19 | 8° 0 | 24°46 | 11°21 | 9°57 | 15°33 | 23°24 | F 8 |
| S 9 | 1 31 11 | 21° 1'01 | 15°41 | 13°45 | 4°33 | 2°40 | 1°36 | 10°23 | 25°22 | 7°59 | 24°45 | 11° 9 | 9°54 | 15°39 | 23°23 | S 9 |
| S 10 | 1 35 7 | 22° 1'03 | 27°51 | 14°13 | 5°34 | 2°34 | 1°45 | 10°21 | 25°26 | 7°57 | 24°44 | 10°56 | 9°51 | 15°46 | 23°22 | S 10 |
| M11 | 1 39 4 | 23° 1'07 | 10♏11 | 14°34 | 6°35 | 2°27 | 1°53 | 10°18 | 25°29 | 7°55 | 24°44 | 10°43 | 9°47 | 15°53 | 23°21 | M11 |
| T 12 | 1 43 0 | 24° 1'13 | 22°40 | 14°48 | 7°37 | 2°20 | 2° 2 | 10°16 | 25°32 | 7°54 | 24°43 | 10°30 | 9°44 | 15°59 | 23°20 | T 12 |
| W13 | 1 46 57 | 25° 1'21 | 5♏20 | 14°R54 | 8°39 | 2°11 | 2°11 | 10°13 | 25°35 | 7°52 | 24°43 | 10°19 | 9°41 | 16° 6 | 23°19 | W13 |
| T 14 | 1 50 53 | 26° 1'30 | 18°11 | 14°52 | 9°41 | 2° 2 | 2°20 | 10°10 | 25°39 | 7°51 | 24°42 | 10°11 | 9°38 | 16°13 | 23°18 | T 14 |
| F 15 | 1 54 50 | 27° 1'41 | 1♏14 | 14°41 | 10°44 | 1°52 | 2°30 | 10° 7 | 25°42 | 7°49 | 24°42 | 10° 6 | 9°35 | 16°19 | 23°16 | F 15 |
| S 16 | 1 58 47 | 28° 1'54 | 14°32 | 14°21 | 11°47 | 1°41 | 2°39 | 10° 5 | 25°45 | 7°47 | 24°41 | 10° 4 | 9°32 | 16°26 | 23°15 | S 16 |
| S 17 | 2 2 43 | 29° 2'08 | 28° 6 | 13°51 | 12°51 | 1°29 | 2°49 | 10° 1 | 25°49 | 7°46 | 24°41 | 10°D 3 | 9°28 | 16°33 | 23°13 | S 17 |
| M18 | 2 6 40 | 0♏2'23 | 11♏58 | 13°11 | 13°55 | 1°16 | 2°58 | 9°58 | 25°52 | 7°44 | 24°41 | 10°R 3 | 9°25 | 16°39 | 23°11 | M18 |
| T 19 | 2 10 36 | 1° 2'40 | 26° 8 | 12°22 | 14°59 | 1° 2 | 3° 8 | 9°55 | 25°56 | 7°42 | 24°40 | 10° 3 | 9°22 | 16°46 | 23°10 | T 19 |
| W20 | 2 14 33 | 2° 2'59 | 10♏36 | 11°24 | 16° 3 | 0°48 | 3°18 | 9°52 | 25°59 | 7°41 | 24°40 | 10° 0 | 9°19 | 16°53 | 23° 8 | W20 |
| T 21 | 2 18 29 | 3° 3'19 | 25°20 | 10°18 | 17° 8 | 0°33 | 3°28 | 9°48 | 26° 3 | 7°39 | 24°40 | 9°55 | 9°16 | 16°59 | 23° 6 | T 21 |
| F 22 | 2 22 26 | 4° 3'40 | 10°Y12 | 9° 5 | 18°13 | 0°17 | 3°38 | 9°45 | 26° 6 | 7°37 | 24°39 | 9°47 | 9°12 | 17° 6 | 23° 4 | F 22 |
| S 23 | 2 26 22 | 5° 4'03 | 25° 6 | 7°47 | 19°19 | 0° 0 | 3°48 | 9°41 | 26° 9 | 7°35 | 24°39 | 9°36 | 9° 9 | 17°13 | 23° 2 | S 23 |
| S 24 | 2 30 19 | 6° 4'28 | 9♏52 | 6°27 | 20°24 | 29♏43 | 3°59 | 9°38 | 26°13 | 7°34 | 24°39 | 9°24 | 9° 6 | 17°19 | 23° 0 | S 24 |
| M25 | 2 34 15 | 7° 4'55 | 24°22 | 5° 7 | 21°30 | 29°25 | 4° 9 | 9°34 | 26°17 | 7°32 | 24°38 | 9°12 | 9° 3 | 17°26 | 22°58 | M25 |
| T 26 | 2 38 12 | 8° 5'23 | 8♏30 | 3°50 | 22°36 | 29° 6 | 4°20 | 9°30 | 26°20 | 7°30 | 24°38 | 9° 1 | 9° 0 | 17°33 | 22°56 | T 26 |
| W27 | 2 42 9 | 9° 5'53 | 22°10 | 2°38 | 23°43 | 28°47 | 4°30 | 9°26 | 26°24 | 7°29 | 24°38 | 8°53 | 8°57 | 17°39 | 22°53 | W27 |
| T 28 | 2 46 5 | 10° 6'25 | 5♏23 | 1°33 | 24°50 | 28°28 | 4°41 | 9°22 | 26°27 | 7°27 | 24°38 | 8°47 | 8°53 | 17°46 | 22°51 | T 28 |
| F 29 | 2 50 2 | 11° 6'59 | 18°10 | 0°38 | 25°57 | 28° 7 | 4°52 | 9°18 | 26°31 | 7°25 | 24°38 | 8°44 | 8°50 | 17°53 | 22°49 | F 29 |
| S 30 | 2 53 58 | 12° 7'34 | 0♏34 | 29♏54 | 27° 4 | 27°47 | 5° 3 | 9°14 | 26°34 | 7°24 | 24°38 | 8°43 | 8°47 | 17°59 | 22°46 | S 30 |
| S 31 | 2 57 55 | 13♏8'12 | 12♏42 | 29♏21 | 28♏11 | 27♏25 | 5♏14 | 9♏10 | 26♏38 | 7♏22 | 24♏38 | 8♏43 | 8♏44 | 18♏6 | 22♏44 | S 31 |

Delta T = 20m04s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1059
geocentric

NOVEMBER 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|--------|-------|-------|-------|-------|--------|-------|------|-------|--------|------|
| M 1 | 3 1 51 | 14♌ 8'51 | 24♊37 | 29°R 0 | 29♏19 | 27°R 4 | 5♄25 | 9°R 6 | 26♌42 | 7°R20 | 24°R38 | 8°R43 | 8♌41 | 18♏13 | 22°R41 | M 1 |
| T 2 | 3 5 48 | 15° 9'31 | 6♏26 | 28°D50 | 0♌27 | 26♄42 | 5°37 | 9♏ 2 | 26°45 | 7♄19 | 24♌37 | 8♌41 | 8°38 | 18°19 | 22♏38 | T 2 |
| W 3 | 3 9 45 | 16°10'14 | 18°14 | 28♌52 | 1°35 | 26°19 | 5°48 | 8°57 | 26°49 | 7°17 | 24°D37 | 8°37 | 8°34 | 18°26 | 22°35 | W 3 |
| T 4 | 3 13 41 | 17°10'58 | 0♌ 6 | 29° 4 | 2°43 | 25°57 | 5°59 | 8°53 | 26°52 | 7°15 | 24°37 | 8°30 | 8°31 | 18°33 | 22°33 | T 4 |
| F 5 | 3 17 38 | 18°11'44 | 12° 5 | 29°26 | 3°52 | 25°34 | 6°11 | 8°49 | 26°56 | 7°14 | 24°38 | 8°21 | 8°28 | 18°39 | 22°30 | F 5 |
| S 6 | 3 21 34 | 19°12'31 | 24°15 | 29°56 | 5° 0 | 25°11 | 6°22 | 8°44 | 27° 0 | 7°12 | 24°38 | 8° 9 | 8°25 | 18°46 | 22°27 | S 6 |
| S 7 | 3 25 31 | 20°13'19 | 6♌37 | 0♌35 | 6° 9 | 24°48 | 6°34 | 8°39 | 27° 3 | 7°10 | 24°38 | 7°56 | 8°22 | 18°53 | 22°24 | S 7 |
| M 8 | 3 29 27 | 21°14'09 | 19°12 | 1°21 | 7°18 | 24°25 | 6°46 | 8°35 | 27° 7 | 7° 9 | 24°38 | 7°42 | 8°18 | 18°59 | 22°21 | M 8 |
| T 9 | 3 33 24 | 22°15'01 | 1♌59 | 2°13 | 8°27 | 24° 2 | 6°58 | 8°30 | 27°11 | 7° 7 | 24°38 | 7°28 | 8°15 | 19° 6 | 22°18 | T 9 |
| W10 | 3 37 20 | 23°15'54 | 14°59 | 3°10 | 9°37 | 23°39 | 7°10 | 8°26 | 27°14 | 7° 5 | 24°38 | 7°17 | 8°12 | 19°13 | 22°15 | W10 |
| T 11 | 3 41 17 | 24°16'47 | 28°10 | 4°12 | 10°46 | 23°16 | 7°22 | 8°21 | 27°18 | 7° 4 | 24°38 | 7° 9 | 8° 9 | 19°20 | 22°11 | T 11 |
| F 12 | 3 45 14 | 25°17'42 | 11♄32 | 5°19 | 11°56 | 22°54 | 7°34 | 8°16 | 27°22 | 7° 2 | 24°39 | 7° 4 | 8° 6 | 19°26 | 22° 8 | F 12 |
| S 13 | 3 49 10 | 26°18'38 | 25° 3 | 6°29 | 13° 6 | 22°31 | 7°46 | 8°11 | 27°25 | 7° 1 | 24°39 | 7° 1 | 8° 3 | 19°33 | 22° 5 | S 13 |
| S 14 | 3 53 7 | 27°19'34 | 8♌44 | 7°42 | 14°16 | 22° 9 | 7°58 | 8° 6 | 27°29 | 6°59 | 24°39 | 7°D 0 | 7°59 | 19°40 | 22° 2 | S 14 |
| M15 | 3 57 3 | 28°20'32 | 22°35 | 8°57 | 15°26 | 21°47 | 8°11 | 8° 2 | 27°33 | 6°57 | 24°39 | 7°R 1 | 7°56 | 19°46 | 21°58 | M15 |
| T 16 | 4 1 0 | 29°21'30 | 6♄37 | 10°15 | 16°36 | 21°25 | 8°23 | 7°57 | 27°37 | 6°56 | 24°40 | 7° 1 | 7°53 | 19°53 | 21°55 | T 16 |
| W17 | 4 4 56 | 0♌22'28 | 20°49 | 11°35 | 17°47 | 21° 4 | 8°36 | 7°52 | 27°40 | 6°54 | 24°40 | 6°59 | 7°50 | 20° 0 | 21°51 | W17 |
| T 18 | 4 8 53 | 1°23'28 | 5♏10 | 12°57 | 18°57 | 20°44 | 8°48 | 7°47 | 27°44 | 6°53 | 24°40 | 6°55 | 7°47 | 20° 6 | 21°48 | T 18 |
| F 19 | 4 12 49 | 2°24'27 | 19°36 | 14°20 | 20° 8 | 20°23 | 9° 1 | 7°42 | 27°48 | 6°51 | 24°41 | 6°48 | 7°43 | 20°13 | 21°44 | F 19 |
| S 20 | 4 16 46 | 3°25'28 | 4♄ 2 | 15°45 | 21°19 | 20° 4 | 9°14 | 7°37 | 27°51 | 6°50 | 24°41 | 6°39 | 7°40 | 20°20 | 21°41 | S 20 |
| S 21 | 4 20 43 | 4°26'30 | 18°24 | 17°10 | 22°29 | 19°45 | 9°26 | 7°32 | 27°55 | 6°48 | 24°42 | 6°29 | 7°37 | 20°26 | 21°37 | S 21 |
| M22 | 4 24 39 | 5°27'32 | 2♏34 | 18°36 | 23°40 | 19°26 | 9°39 | 7°27 | 27°59 | 6°47 | 24°42 | 6°18 | 7°34 | 20°33 | 21°34 | M22 |
| T 23 | 4 28 36 | 6°28'35 | 16°27 | 20° 4 | 24°52 | 19° 8 | 9°52 | 7°22 | 28° 2 | 6°46 | 24°43 | 6° 9 | 7°31 | 20°40 | 21°30 | T 23 |
| W24 | 4 32 32 | 7°29'39 | 29°58 | 21°31 | 26° 3 | 18°51 | 10° 5 | 7°17 | 28° 6 | 6°44 | 24°43 | 6° 1 | 7°28 | 20°46 | 21°26 | W24 |
| T 25 | 4 36 29 | 8°30'44 | 13♄ 8 | 23° 0 | 27°14 | 18°34 | 10°18 | 7°12 | 28°10 | 6°43 | 24°44 | 5°56 | 7°24 | 20°53 | 21°23 | T 25 |
| F 26 | 4 40 25 | 9°31'49 | 25°54 | 24°29 | 28°26 | 18°18 | 10°31 | 7° 7 | 28°13 | 6°41 | 24°44 | 5°54 | 7°21 | 21° 0 | 21°19 | F 26 |
| S 27 | 4 44 22 | 10°32'56 | 8♊20 | 25°58 | 29°37 | 18° 3 | 10°44 | 7° 2 | 28°17 | 6°40 | 24°45 | 5°D53 | 7°18 | 21° 6 | 21°15 | S 27 |
| S 28 | 4 48 18 | 11°34'03 | 20°30 | 27°28 | 0♌49 | 17°49 | 10°57 | 6°57 | 28°20 | 6°39 | 24°46 | 5°54 | 7°15 | 21°13 | 21°11 | S 28 |
| M29 | 4 52 15 | 12°35'11 | 2♏28 | 28°59 | 2° 1 | 17°35 | 11°11 | 6°52 | 28°24 | 6°37 | 24°46 | 5°55 | 7°12 | 21°20 | 21° 8 | M29 |
| T 30 | 4 56 12 | 13°36'20 | 14♏19 | 0♌29 | 3♌13 | 17♄22 | 11♄24 | 6♏47 | 28♌28 | 6♄36 | 24♌47 | 5°R55 | 7♌ 9 | 21♏26 | 21♏ 4 | T 30 |

Delta T = 20m03s Julian Calendar 1 Nov. 1059 == Greg. Calendar 7 Nov. 1059

DECEMBER 1059 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|------|-------|--------|------|
| W 1 | 5 0 8 | 14♌37'29 | 26♏ 8 | 2♌ 0 | 4♌25 | 17°R10 | 11♄37 | 6°R43 | 28♌31 | 6°R35 | 24♌48 | 5°R55 | 7♌ 5 | 21♏33 | 21°R 0 | W 1 |
| T 2 | 5 4 5 | 15°38'40 | 8♌ 2 | 3°31 | 5°37 | 16♄58 | 11° 5 | 6♏38 | 28°35 | 6♄34 | 24°48 | 5♌52 | 7° 2 | 21°40 | 20♏56 | T 2 |
| F 3 | 5 8 1 | 16°39'51 | 20° 4 | 5° 3 | 6°49 | 16°48 | 12° 4 | 6°33 | 28°38 | 6°32 | 24°49 | 5°47 | 6°59 | 21°47 | 20°52 | F 3 |
| S 4 | 5 11 58 | 17°41'02 | 2♌18 | 6°35 | 8° 1 | 16°38 | 12°17 | 6°28 | 28°42 | 6°31 | 24°50 | 5°40 | 6°56 | 21°53 | 20°48 | S 4 |
| S 5 | 5 15 54 | 18°42'14 | 14°48 | 8° 7 | 9°14 | 16°29 | 12°31 | 6°23 | 28°45 | 6°30 | 24°51 | 5°31 | 6°53 | 22° 0 | 20°44 | S 5 |
| M 6 | 5 19 51 | 19°43'27 | 27°35 | 9°39 | 10°26 | 16°21 | 12°45 | 6°18 | 28°49 | 6°29 | 24°51 | 5°22 | 6°49 | 22° 7 | 20°41 | M 6 |
| T 7 | 5 23 47 | 20°44'40 | 10♌40 | 11°11 | 11°39 | 16°14 | 12°58 | 6°14 | 28°52 | 6°28 | 24°52 | 5°14 | 6°46 | 22°13 | 20°37 | T 7 |
| W 8 | 5 27 44 | 21°45'54 | 24° 1 | 12°44 | 12°51 | 16° 7 | 13°12 | 6° 9 | 28°56 | 6°27 | 24°53 | 5° 7 | 6°43 | 22°20 | 20°33 | W 8 |
| T 9 | 5 31 41 | 22°47'08 | 7♄37 | 14°17 | 14° 4 | 16° 2 | 13°25 | 6° 4 | 28°59 | 6°26 | 24°54 | 5° 2 | 6°40 | 22°27 | 20°29 | T 9 |
| F 10 | 5 35 37 | 23°48'21 | 21°24 | 15°51 | 15°16 | 15°57 | 13°39 | 6° 0 | 29° 3 | 6°25 | 24°55 | 4°59 | 6°37 | 22°33 | 20°25 | F 10 |
| S 11 | 5 39 34 | 24°49'35 | 5♌21 | 17°24 | 16°29 | 15°53 | 13°53 | 5°55 | 29° 6 | 6°24 | 24°56 | 4°D58 | 6°34 | 22°40 | 20°21 | S 11 |
| S 12 | 5 43 30 | 25°50'49 | 19°23 | 18°58 | 17°42 | 15°50 | 14° 7 | 5°50 | 29°10 | 6°23 | 24°57 | 4°59 | 6°30 | 22°47 | 20°17 | S 12 |
| M13 | 5 47 27 | 26°52'02 | 3♄29 | 20°33 | 18°55 | 15°47 | 14°21 | 5°46 | 29°13 | 6°22 | 24°58 | 5° 0 | 6°27 | 22°53 | 20°14 | M13 |
| T 14 | 5 51 23 | 27°53'15 | 17°37 | 22° 7 | 20° 8 | 15°46 | 14°34 | 5°42 | 29°16 | 6°21 | 24°59 | 5° 2 | 6°24 | 23° 0 | 20°10 | T 14 |
| W15 | 5 55 20 | 28°54'27 | 1♏46 | 23°42 | 21°21 | 15°D45 | 14°48 | 5°37 | 29°20 | 6°20 | 25° 0 | 5°R 2 | 6°21 | 23° 7 | 20° 6 | W15 |
| T 16 | 5 59 16 | 29°55'39 | 15°53 | 25°17 | 22°34 | 15°45 | 15° 2 | 5°33 | 29°23 | 6°19 | 25° 1 | 5° 1 | 6°18 | 23°13 | 20° 2 | T 16 |
| F 17 | 6 3 13 | 0♌56'51 | 29°58 | 26°53 | 23°47 | 15°46 | 15°16 | 5°29 | 29°26 | 6°18 | 25° 2 | 4°58 | 6°15 | 23°20 | 19°58 | F 17 |
| S 18 | 6 7 10 | 1°58'03 | 13♄58 | 28°29 | 25° 0 | 15°48 | 15°30 | 5°24 | 29°30 | 6°17 | 25° 3 | 4°54 | 6°11 | 23°27 | 19°54 | S 18 |
| S 19 | 6 11 6 | 2°59'14 | 27°49 | 0♄ 5 | 26°13 | 15°50 | 15°44 | 5°20 | 29°33 | 6°16 | 25° 4 | 4°49 | 6° 8 | 23°34 | 19°51 | S 19 |
| M20 | 6 15 3 | 4° 0'24 | 11♏30 | 1°42 | 27°26 | 15°53 | 15°58 | 5°16 | 29°36 | 6°16 | 25° 5 | 4°44 | 6° 5 | 23°40 | 19°47 | M20 |
| T 21 | 6 18 59 | 5° 1'34 | 24°58 | 3°19 | 28°39 | 15°57 | 16°12 | 5°12 | 29°39 | 6°15 | 25° 6 | 4°39 | 6° 2 | 23°47 | 19°43 | T 21 |
| W22 | 6 22 56 | 6° 2'44 | 8♄10 | 4°57 | 29°53 | 16° 1 | 16°26 | 5° 8 | 29°42 | 6°14 | 25° 7 | 4°35 | 5°59 | 23°54 | 19°40 | W22 |
| T 23 | 6 26 52 | 7° 3'54 | 21° 5 | 6°35 | 1♌ 6 | 16° 7 | 16°40 | 5° 5 | 29°46 | 6°14 | 25° 9 | 4°33 | 5°56 | 24° 0 | 19°36 | T 23 |
| F 24 | 6 30 49 | 8° 5'03 | 3♊43 | 8°14 | 2°19 | 16°13 | 16°54 | 5° 1 | 29°49 | 6°13 | 25°10 | 4°D32 | 5°52 | 24° 7 | 19°32 | F 24 |
| S 25 | 6 34 46 | 9° 6'12 | 16° 5 | 9°53 | 3°33 | 16°19 | 17° 8 | 4°57 | 29°52 | 6°12 | 25°11 | 4°33 | 5°49 | 24°14 | 19°29 | S 25 |
| S 26 | 6 38 42 | 10° 7'20 | 28°14 | 11°32 | 4°46 | 16°27 | 17°22 | 4°54 | 29°55 | 6°12 | 25°12 | 4°34 | 5°46 | 24°20 | 19°25 | S 26 |
| M27 | 6 42 39 | 11° 8'29 | 10♏13 | 13°12 | 6° 0 | 16°35 | 17°37 | 4°50 | 29°58 | 6°11 | 25°13 | 4°36 | 5°43 | 24°27 | 19°22 | M27 |
| T 28 | 6 46 35 | 12° 9'36 | 22° 5 | 14°53 | 7°13 | 16°43 | 17°51 | 4°47 | 0♌ 1 | 6°11 | 25°15 | 4°38 | 5°40 | 24°34 | 19°18 | T 28 |
| W29 | 6 50 32 | 13°10'44 | 3♌55 | 16°34 | 8°27 | 16°52 | 18° 5 | 4°43 | 0° 4 | 6°10 | 25°16 | 4°39 | 5°36 | 24°40 | 19°15 | W29 |
| T 30 | 6 54 28 | 14°11'51 | 15°48 | 18°16 | 9°41 | 17° 2 | 18°19 | 4°40 | 0° 7 | 6°10 | 25°17 | 4°R39 | 5°33 | 24°47 | 19°11 | T 30 |
| F 31 | 6 58 25 | 15°12'58 | 27♌50 | 19♄58 | 10♌54 | 17♄13 | 18♄33 | 4♏37 | 0♌ 9 | 6♄10 | 25♌19 | 4♌38 | 5♌30 | 24♏54 | 19♏ 8 | F 31 |

Delta T = 20m03s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1060
geocentric

JANUARY 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|--------|------|-----|
| S 1 | 7 2 21 | 16♁14'04 | 10♁ 4 | 21♁40 | 12♁ 8 | 17♁24 | 18♁47 | 4°R34 | 0♁12 | 6°R 9 | 25♁20 | 4°R37 | 5♁27 | 25♁ 1 | 19°R 5 | S 1 | |
| S 2 | 7 6 18 | 17°15'10 | 22°35 | 23°23 | 13°22 | 17°35 | 19° 2 | 4♁31 | 0°15 | 6♁ 9 | 25°21 | 4♁35 | 5°24 | 25° 7 | 19♁ 1 | S 2 | |
| M 3 | 7 10 15 | 18°16'16 | 5♁26 | 25° 6 | 14°35 | 17°47 | 19°16 | 4°28 | 0°18 | 6° 9 | 25°23 | 4°32 | 5°21 | 25°14 | 18°58 | M 3 | |
| T 4 | 7 14 11 | 19°17'20 | 18°39 | 26°50 | 15°49 | 18° 0 | 19°30 | 4°25 | 0°21 | 6° 8 | 25°24 | 4°30 | 5°17 | 25°21 | 18°55 | T 4 | |
| W 5 | 7 18 8 | 20°18'25 | 2♁14 | 28°34 | 17° 3 | 18°13 | 19°44 | 4°22 | 0°23 | 6° 8 | 25°25 | 4°28 | 5°14 | 25°27 | 18°52 | W 5 | |
| T 6 | 7 22 4 | 21°19'28 | 16°10 | 0♁18 | 18°17 | 18°27 | 19°58 | 4°20 | 0°26 | 6° 8 | 25°27 | 4°27 | 5°11 | 25°34 | 18°49 | T 6 | |
| F 7 | 7 26 1 | 22°20'31 | 0♁22 | 2° 2 | 19°30 | 18°42 | 20°13 | 4°17 | 0°29 | 6° 8 | 25°28 | 4°D26 | 5° 8 | 25°41 | 18°46 | F 7 | |
| S 8 | 7 29 57 | 23°21'32 | 14°47 | 3°46 | 20°44 | 18°56 | 20°27 | 4°15 | 0°31 | 6° 8 | 25°30 | 4°26 | 5° 5 | 25°47 | 18°43 | S 8 | |
| S 9 | 7 33 54 | 24°22'33 | 29°19 | 5°30 | 21°58 | 19°12 | 20°41 | 4°13 | 0°34 | 6° 8 | 25°31 | 4°27 | 5° 2 | 25°54 | 18°40 | S 9 | |
| M10 | 7 37 50 | 25°23'32 | 13♁51 | 7°14 | 23°12 | 19°28 | 20°55 | 4°10 | 0°36 | 6° 8 | 25°32 | 4°28 | 4°58 | 26° 1 | 18°37 | M10 | |
| T 11 | 7 41 47 | 26°24'29 | 28°50 | 8°57 | 24°26 | 19°44 | 21° 9 | 4° 8 | 0°39 | 6°D 8 | 25°34 | 4°29 | 4°55 | 26° 7 | 18°34 | T 11 | |
| W12 | 7 45 44 | 27°25'26 | 12♁41 | 10°40 | 25°40 | 20° 1 | 21°23 | 4° 6 | 0°41 | 6° 8 | 25°35 | 4°29 | 4°52 | 26°14 | 18°31 | W12 | |
| T 13 | 7 49 40 | 28°26'21 | 26°50 | 12°21 | 26°54 | 20°18 | 21°38 | 4° 5 | 0°44 | 6° 8 | 25°37 | 4°R29 | 4°49 | 26°21 | 18°29 | T 13 | |
| F 14 | 7 53 37 | 29°27'14 | 10♁46 | 14° 1 | 28° 8 | 20°36 | 21°52 | 4° 3 | 0°46 | 6° 8 | 25°38 | 4°29 | 4°46 | 26°28 | 18°26 | F 14 | |
| S 15 | 7 57 33 | 0♁28'07 | 24°29 | 15°40 | 29°22 | 20°54 | 22° 6 | 4° 1 | 0°48 | 6° 8 | 25°40 | 4°29 | 4°42 | 26°34 | 18°24 | S 15 | |
| S 16 | 8 1 30 | 1°28'57 | 7♁58 | 17°16 | 0♁36 | 21°12 | 22°20 | 4° 0 | 0°50 | 6° 8 | 25°41 | 4°28 | 4°39 | 26°41 | 18°21 | S 16 | |
| M17 | 8 5 26 | 2°29'47 | 21°13 | 18°50 | 1°50 | 21°31 | 22°34 | 3°58 | 0°53 | 6° 8 | 25°43 | 4°28 | 4°36 | 26°48 | 18°19 | M17 | |
| T 18 | 8 9 23 | 3°30'34 | 4♁14 | 20°20 | 3° 4 | 21°51 | 22°48 | 3°57 | 0°55 | 6° 8 | 25°44 | 4°28 | 4°33 | 26°54 | 18°16 | T 18 | |
| W19 | 8 13 20 | 4°31'21 | 17° 2 | 21°47 | 4°18 | 22°11 | 23° 2 | 3°56 | 0°57 | 6° 9 | 25°46 | 4°D28 | 4°30 | 27° 1 | 18°14 | W19 | |
| T 20 | 8 17 16 | 5°32'06 | 29°37 | 23°10 | 5°32 | 22°31 | 23°16 | 3°54 | 0°59 | 6° 9 | 25°48 | 4°R28 | 4°27 | 27° 8 | 18°12 | T 20 | |
| F 21 | 8 21 13 | 6°32'49 | 12♁ 1 | 24°27 | 6°46 | 22°51 | 23°30 | 3°54 | 1° 1 | 6° 9 | 25°49 | 4°28 | 4°23 | 27°14 | 18°10 | F 21 | |
| S 22 | 8 25 9 | 7°33'31 | 24°14 | 25°39 | 8° 0 | 23°12 | 23°44 | 3°53 | 1° 3 | 6°10 | 25°51 | 4°28 | 4°20 | 27°21 | 18° 8 | S 22 | |
| S 23 | 8 29 6 | 8°34'12 | 6♁17 | 26°44 | 9°14 | 23°33 | 23°58 | 3°52 | 1° 5 | 6°10 | 25°52 | 4°27 | 4°17 | 27°28 | 18° 6 | S 23 | |
| M24 | 8 33 2 | 9°34'51 | 18°14 | 27°42 | 10°28 | 23°55 | 24°12 | 3°51 | 1° 7 | 6°11 | 25°54 | 4°27 | 4°14 | 27°34 | 18° 4 | M24 | |
| T 25 | 8 36 59 | 10°35'29 | 0♁ 6 | 28°32 | 11°42 | 24°17 | 24°26 | 3°51 | 1° 9 | 6°11 | 25°55 | 4°26 | 4°11 | 27°41 | 18° 2 | T 25 | |
| W26 | 8 40 55 | 11°36'06 | 11°56 | 29°13 | 12°56 | 24°39 | 24°40 | 3°50 | 1°11 | 6°12 | 25°57 | 4°25 | 4° 7 | 27°48 | 18° 0 | W26 | |
| T 27 | 8 44 52 | 12°36'41 | 23°49 | 29°45 | 14°10 | 25° 1 | 24°54 | 3°50 | 1°12 | 6°12 | 25°59 | 4°24 | 4° 4 | 27°55 | 17°58 | T 27 | |
| F 28 | 8 48 48 | 13°37'16 | 5♁49 | 0♁ 7 | 15°24 | 25°24 | 25° 8 | 3°50 | 1°14 | 6°13 | 26° 0 | 4°24 | 4° 1 | 28° 1 | 17°57 | F 28 | |
| S 29 | 8 52 45 | 14°37'48 | 18° 1 | 0°20 | 16°38 | 25°47 | 25°22 | 3°D50 | 1°16 | 6°13 | 26° 2 | 4°D24 | 3°58 | 28° 8 | 17°55 | S 29 | |
| S 30 | 8 56 42 | 15°38'20 | 0♁28 | 0°R21 | 17°52 | 26°11 | 25°36 | 3°50 | 1°17 | 6°14 | 26° 3 | 4°24 | 3°55 | 28°15 | 17°54 | S 30 | |
| M31 | 9 0 38 | 16°38'50 | 13♁15 | 0♁13 | 19° 6 | 26°34 | 25°34 | 3♁50 | 1♁19 | 6♁15 | 26° 5 | 4°25 | 3°52 | 28♁21 | 17♁52 | M31 | |

Delta T = 20m03s

Julian Calendar 1 Jan. 1060 == Greg. Calendar 7 Jan. 1060

FEBRUARY 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|-------|------|-------|-------|------|-------|--------|------|-----|
| T 1 | 9 4 35 | 17♁39'19 | 26♁26 | 29°R55 | 20♁21 | 26♁58 | 26♁ 3 | 3♁50 | 1♁20 | 6♁15 | 26° 7 | 4°26 | 3°48 | 28♁28 | 17°R51 | T 1 | |
| W 2 | 9 8 31 | 18°39'47 | 10♁ 2 | 29°27 | 21°35 | 27°23 | 26°17 | 3°50 | 1°22 | 6°16 | 26° 8 | 4°27 | 3°45 | 28°35 | 17♁50 | W 2 | |
| T 3 | 9 12 28 | 19°40'13 | 24° 4 | 28°50 | 22°49 | 27°47 | 26°30 | 3°51 | 1°23 | 6°17 | 26°10 | 4°28 | 3°42 | 28°41 | 17°49 | T 3 | |
| F 4 | 9 16 24 | 20°40'37 | 8♁30 | 28° 5 | 24° 3 | 28°12 | 26°44 | 3°51 | 1°25 | 6°18 | 26°12 | 4°R28 | 3°39 | 28°48 | 17°48 | F 4 | |
| S 5 | 9 20 21 | 21°41'00 | 23°15 | 27°14 | 25°17 | 28°37 | 26°58 | 3°52 | 1°26 | 6°19 | 26°13 | 4°28 | 3°36 | 28°55 | 17°47 | S 5 | |
| S 6 | 9 24 18 | 22°41'20 | 8♁12 | 26°17 | 26°31 | 29° 2 | 27°11 | 3°53 | 1°27 | 6°19 | 26°15 | 4°26 | 3°33 | 29° 2 | 17°46 | S 6 | |
| M 7 | 9 28 14 | 23°41'39 | 23°12 | 25°16 | 27°45 | 29°28 | 27°25 | 3°54 | 1°28 | 6°20 | 26°17 | 4°24 | 3°29 | 29° 8 | 17°45 | M 7 | |
| T 8 | 9 32 11 | 24°41'56 | 8°Y 7 | 24°13 | 29° 0 | 29°54 | 27°38 | 3°55 | 1°30 | 6°21 | 26°18 | 4°21 | 3°26 | 29°15 | 17°44 | T 8 | |
| W 9 | 9 36 7 | 25°42'11 | 22°50 | 23° 9 | 0♁14 | 0♁20 | 27°51 | 3°56 | 1°31 | 6°22 | 26°20 | 4°18 | 3°23 | 29°22 | 17°44 | W 9 | |
| T 10 | 9 40 4 | 26°42'24 | 7♁13 | 22° 5 | 1°28 | 0°46 | 28° 5 | 3°57 | 1°32 | 6°23 | 26°21 | 4°16 | 3°20 | 29°28 | 17°43 | T 10 | |
| F 11 | 9 44 0 | 27°42'34 | 21°15 | 21° 4 | 2°42 | 1°12 | 28°18 | 3°59 | 1°33 | 6°24 | 26°23 | 4°15 | 3°17 | 29°35 | 17°42 | F 11 | |
| S 12 | 9 47 57 | 28°42'43 | 4♁55 | 20° 7 | 3°56 | 1°39 | 28°31 | 4° 0 | 1°34 | 6°25 | 26°25 | 4°D15 | 3°13 | 29°42 | 17°42 | S 12 | |
| S 13 | 9 51 53 | 29°42'49 | 18°13 | 19°13 | 5°10 | 2° 6 | 28°45 | 4° 2 | 1°35 | 6°26 | 26°26 | 4°16 | 3°10 | 29°48 | 17°42 | S 13 | |
| M14 | 9 55 50 | 0♁42'53 | 1♁12 | 18°26 | 6°24 | 2°33 | 28°58 | 4° 4 | 1°35 | 6°28 | 26°28 | 4°18 | 3° 7 | 29°55 | 17°42 | M14 | |
| T 15 | 9 59 47 | 1°42'55 | 13°55 | 17°44 | 7°38 | 3° 1 | 29°11 | 4° 5 | 1°36 | 6°29 | 26°30 | 4°19 | 3° 4 | 0♁ 2 | 17°41 | T 15 | |
| W16 | 10 3 43 | 2°42'55 | 26°24 | 17° 8 | 8°53 | 3°28 | 29°24 | 4° 7 | 1°37 | 6°30 | 26°31 | 4°20 | 3° 1 | 0° 9 | 17°D41 | W16 | |
| T 17 | 10 7 40 | 3°42'53 | 8♁41 | 16°39 | 10° 7 | 3°56 | 29°37 | 4° 9 | 1°38 | 6°31 | 26°33 | 4°R21 | 2°58 | 0°15 | 17°41 | T 17 | |
| F 18 | 10 11 36 | 4°42'48 | 20°50 | 16°17 | 11°21 | 4°24 | 29°50 | 4°12 | 1°38 | 6°32 | 26°35 | 4°19 | 2°54 | 0°22 | 17°41 | F 18 | |
| S 19 | 10 15 33 | 5°42'42 | 2♁52 | 16° 1 | 12°35 | 4°52 | 0♁ 3 | 4°14 | 1°39 | 6°34 | 26°36 | 4°17 | 2°51 | 0°29 | 17°42 | S 19 | |
| S 20 | 10 19 29 | 6°42'33 | 14°49 | 15°52 | 13°49 | 5°20 | 0°15 | 4°16 | 1°39 | 6°35 | 26°38 | 4°12 | 2°48 | 0°35 | 17°42 | S 20 | |
| M21 | 10 23 26 | 7°42'23 | 26°42 | 15°D49 | 15° 3 | 5°48 | 0°28 | 4°19 | 1°40 | 6°36 | 26°39 | 4° 6 | 2°45 | 0°42 | 17°42 | M21 | |
| T 22 | 10 27 22 | 8°42'10 | 8♁33 | 15°53 | 16°17 | 6°17 | 0°41 | 4°21 | 1°40 | 6°38 | 26°41 | 4° 0 | 2°42 | 0°49 | 17°43 | T 22 | |
| W23 | 10 31 19 | 9°41'56 | 20°25 | 16° 2 | 17°31 | 6°46 | 0°53 | 4°24 | 1°41 | 6°39 | 26°43 | 3°53 | 2°39 | 0°55 | 17°43 | W23 | |
| T 24 | 10 35 15 | 10°41'40 | 2♁20 | 16°17 | 18°46 | 7°15 | 1° 6 | 4°27 | 1°41 | 6°40 | 26°44 | 3°47 | 2°35 | 1° 2 | 17°44 | T 24 | |
| F 25 | 10 39 12 | 11°41'22 | 14°20 | 16°37 | 20° 0 | 7°44 | 1°18 | 4°30 | 1°41 | 6°42 | 26°46 | 3°42 | 2°32 | 1° 9 | 17°45 | F 25 | |
| S 26 | 10 43 9 | 12°41'02 | 26°30 | 17° 3 | 21°14 | 8°13 | 1°31 | 4°33 | 1°41 | 6°43 | 26°47 | 3°39 | 2°29 | 1°16 | 17°45 | S 26 | |
| S 27 | 10 47 5 | 13°40'40 | 8♁54 | 17°33 | 22°28 | 8°42 | 1°43 | 4°36 | 1°42 | 6°45 | 26°49 | 3°D38 | 2°26 | 1°22 | 17°46 | S 27 | |
| M28 | 10 51 2 | 14°40'17 | 21°35 | 18° 7 | 23°42 | 9°12 | 1°56 | 4°39 | 1°42 | 6°46 | 26°51 | 3°38 | 2°23 | 1°29 | 17°47 | M28 | |
| T 29 | 10 54 58 | 15°39'52 | 4♁38 | 18°45 | 24°56 | 9♁41 | 2° 8 | 4♁42 | 1°R42 | 6♁48 | 26°52 | 3°39 | 2°19 | 1♁36 | 17♁48 | T 29 | |

Delta T = 20m02s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1060
geocentric

MARCH 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|------|------|-------|------|-------|-------|------|------|-------|------|---|-----|
| W 1 | 10 58 55 | 16♋39'25 | 18♌7 | 19♍28 | 26♎10 | 10♏11 | 2♐20 | 4♑46 | 1°R42 | 6♒49 | 26♓54 | 3♔40 | 2♕16 | 1♖42 | 17♗49 | W 1 | | |
| T 2 | 11 2 51 | 17°38'57 | 2♌4 | 20°14 | 27°24 | 10°41 | 2°32 | 4°49 | 1♒42 | 6°51 | 26°55 | 3°R41 | 2°13 | 1°49 | 17°50 | T 2 | | |
| F 3 | 11 6 48 | 18°38'26 | 16°28 | 21° 3 | 28°39 | 11°11 | 2°44 | 4°53 | 1°42 | 6°53 | 26°57 | 3°40 | 2°10 | 1°56 | 17°52 | F 3 | | |
| S 4 | 11 10 44 | 19°37'54 | 1♌17 | 21°56 | 29°53 | 11°41 | 2°56 | 4°56 | 1°41 | 6°54 | 26°58 | 3°38 | 2° 7 | 2° 2 | 17°53 | S 4 | | |
| S 5 | 11 14 41 | 20°37'19 | 16°24 | 22°52 | 1♌7 | 12°12 | 3° 8 | 5° 0 | 1°41 | 6°56 | 27° 0 | 3°33 | 2° 4 | 2° 9 | 17°55 | S 5 | | |
| M 6 | 11 18 38 | 21°36'42 | 1♎40 | 23°51 | 2°21 | 12°42 | 3°19 | 5° 4 | 1°41 | 6°58 | 27° 1 | 3°26 | 2° 0 | 2°16 | 17°56 | M 6 | | |
| T 7 | 11 22 34 | 22°36'03 | 16°55 | 24°52 | 3°35 | 13°13 | 3°31 | 5° 8 | 1°41 | 6°59 | 27° 3 | 3°19 | 1°57 | 2°23 | 17°58 | T 7 | | |
| W 8 | 11 26 31 | 23°35'22 | 1♌57 | 25°56 | 4°49 | 13°44 | 3°42 | 5°12 | 1°40 | 7° 1 | 27° 4 | 3°11 | 1°54 | 2°29 | 17°59 | W 8 | | |
| T 9 | 11 30 27 | 24°34'39 | 16°38 | 27° 2 | 6° 3 | 14°14 | 3°54 | 5°16 | 1°40 | 7° 3 | 27° 6 | 3° 5 | 1°51 | 2°36 | 18° 1 | T 9 | | |
| F 10 | 11 34 24 | 25°33'54 | 0♏53 | 28°11 | 7°17 | 14°45 | 4° 5 | 5°20 | 1°39 | 7° 5 | 27° 7 | 3° 0 | 1°48 | 2°43 | 18° 3 | F 10 | | |
| S 11 | 11 38 20 | 26°33'06 | 14°40 | 29°22 | 8°31 | 15°16 | 4°17 | 5°25 | 1°39 | 7° 6 | 27° 9 | 2°58 | 1°45 | 2°49 | 18° 5 | S 11 | | |
| S 12 | 11 42 17 | 27°32'15 | 27°59 | 0♋35 | 9°45 | 15°48 | 4°28 | 5°29 | 1°38 | 7° 8 | 27°10 | 2°D57 | 1°41 | 2°56 | 18° 7 | S 12 | | |
| M13 | 11 46 13 | 28°31'23 | 10♌54 | 1°50 | 10°59 | 16°19 | 4°39 | 5°33 | 1°38 | 7°10 | 27°12 | 2°57 | 1°38 | 3° 3 | 18° 9 | M13 | | |
| T 14 | 11 50 10 | 29°30'28 | 23°29 | 3° 7 | 12°13 | 16°50 | 4°50 | 5°38 | 1°37 | 7°12 | 27°13 | 2°58 | 1°35 | 3°10 | 18°11 | T 14 | | |
| W15 | 11 54 7 | 0♎29'30 | 5♏47 | 4°26 | 13°27 | 17°22 | 5° 1 | 5°43 | 1°36 | 7°14 | 27°15 | 2°R59 | 1°32 | 3°16 | 18°13 | W15 | | |
| T 16 | 11 58 3 | 1°28'30 | 17°54 | 5°47 | 14°41 | 17°53 | 5°12 | 5°47 | 1°35 | 7°16 | 27°16 | 2°57 | 1°29 | 3°23 | 18°16 | T 16 | | |
| F 17 | 12 2 0 | 2°27'28 | 29°53 | 7°10 | 15°55 | 18°25 | 5°22 | 5°52 | 1°35 | 7°18 | 27°18 | 2°54 | 1°25 | 3°30 | 18°18 | F 17 | | |
| S 18 | 12 5 56 | 3°26'24 | 11♎47 | 8°34 | 17° 9 | 18°57 | 5°33 | 5°57 | 1°34 | 7°19 | 27°19 | 2°48 | 1°22 | 3°36 | 18°20 | S 18 | | |
| S 19 | 12 9 53 | 4°25'17 | 23°39 | 10° 1 | 18°23 | 19°29 | 5°43 | 6° 2 | 1°33 | 7°21 | 27°20 | 2°39 | 1°19 | 3°43 | 18°23 | S 19 | | |
| M20 | 12 13 49 | 5°24'09 | 5♏30 | 11°28 | 19°37 | 20° 1 | 5°54 | 6° 7 | 1°32 | 7°23 | 27°22 | 2°28 | 1°16 | 3°50 | 18°25 | M20 | | |
| T 21 | 12 17 46 | 6°22'58 | 17°23 | 12°58 | 20°51 | 20°33 | 6° 4 | 6°12 | 1°31 | 7°25 | 27°23 | 2°16 | 1°13 | 3°56 | 18°28 | T 21 | | |
| W22 | 12 21 42 | 7°21'45 | 29°18 | 14°29 | 22° 5 | 21° 5 | 6°14 | 6°18 | 1°30 | 7°27 | 27°24 | 2° 4 | 1°10 | 4° 3 | 18°31 | W22 | | |
| T 23 | 12 25 39 | 8°20'31 | 11♏17 | 16° 2 | 23°19 | 21°37 | 6°24 | 6°23 | 1°29 | 7°29 | 27°26 | 1°52 | 1° 6 | 4°10 | 18°34 | T 23 | | |
| F 24 | 12 29 35 | 9°19'14 | 23°23 | 17°37 | 24°33 | 22°10 | 6°34 | 6°28 | 1°27 | 7°31 | 27°27 | 1°42 | 1° 3 | 4°17 | 18°37 | F 24 | | |
| S 25 | 12 33 32 | 10°17'56 | 5♌37 | 19°13 | 25°47 | 22°42 | 6°44 | 6°34 | 1°26 | 7°33 | 27°28 | 1°35 | 1° 0 | 4°23 | 18°40 | S 25 | | |
| S 26 | 12 37 29 | 11°16'36 | 18° 2 | 20°50 | 27° 1 | 23°15 | 6°54 | 6°39 | 1°25 | 7°35 | 27°29 | 1°30 | 0°57 | 4°30 | 18°43 | S 26 | | |
| M27 | 12 41 25 | 12°15'15 | 0♌42 | 22°30 | 28°15 | 23°47 | 7° 4 | 6°45 | 1°24 | 7°38 | 27°31 | 1°28 | 0°54 | 4°37 | 18°46 | M27 | | |
| T 28 | 12 45 22 | 13°13'51 | 13°40 | 24°11 | 29°29 | 24°20 | 7°13 | 6°50 | 1°22 | 7°40 | 27°32 | 1°D27 | 0°50 | 4°43 | 18°49 | T 28 | | |
| W29 | 12 49 18 | 14°12'26 | 27° 2 | 25°53 | 0♎43 | 24°53 | 7°23 | 6°56 | 1°21 | 7°42 | 27°33 | 1°R27 | 0°47 | 4°50 | 18°52 | W29 | | |
| T 30 | 12 53 15 | 15°10'59 | 10♏48 | 27°38 | 1°57 | 25°25 | 7°32 | 7° 2 | 1°20 | 7°44 | 27°34 | 1°27 | 0°44 | 4°57 | 18°55 | T 30 | | |
| F 31 | 12 57 11 | 16°09'31 | 25♌1 | 29♋23 | 3♎11 | 25♏58 | 7♎41 | 7♏8 | 1♒18 | 7♑46 | 27♓36 | 1♔25 | 0♕41 | 5♖4 | 18♗59 | F 31 | | |

Delta T = 20m02s Julian Calendar 1 March 1060 == Greg. Calendar 7 March 1060

APRIL 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|------|-------|--------|-------|------|-------|------|-----|
| S 1 | 13 1 8 | 17°R8'00 | 9♋40 | 1♎11 | 4♎25 | 26♏31 | 7♐50 | 7♑14 | 1°R17 | 7♒48 | 27♓37 | 1°R21 | 0♓38 | 5♔10 | 19♗2 | S 1 | |
| S 2 | 13 5 4 | 18° 6'28 | 24°41 | 3° 0 | 5°38 | 27° 4 | 7°59 | 7°20 | 1♒15 | 7°50 | 27°38 | 1♓14 | 0°35 | 5°17 | 19° 6 | S 2 | |
| M 3 | 13 9 1 | 19° 4'55 | 9♎55 | 4°51 | 6°52 | 27°37 | 8° 8 | 7°26 | 1°13 | 7°52 | 27°39 | 1° 5 | 0°31 | 5°24 | 19° 9 | M 3 | |
| T 4 | 13 12 58 | 20° 3'19 | 25°12 | 6°43 | 8° 6 | 28°11 | 8°16 | 7°32 | 1°12 | 7°55 | 27°40 | 0°54 | 0°28 | 5°30 | 19°13 | T 4 | |
| W 5 | 13 16 54 | 21° 1'41 | 10♌21 | 8°37 | 9°20 | 28°44 | 8°25 | 7°38 | 1°10 | 7°57 | 27°41 | 0°44 | 0°25 | 5°37 | 19°16 | W 5 | |
| T 6 | 13 20 51 | 22° 0'02 | 25°12 | 10°33 | 10°34 | 29°17 | 8°33 | 7°44 | 1° 9 | 7°59 | 27°42 | 0°34 | 0°22 | 5°44 | 19°20 | T 6 | |
| F 7 | 13 24 47 | 22°58'21 | 9♏37 | 12°31 | 11°48 | 29°51 | 8°42 | 7°51 | 1° 7 | 8° 1 | 27°43 | 0°26 | 0°19 | 5°51 | 19°24 | F 7 | |
| S 8 | 13 28 44 | 23°56'37 | 23°32 | 14°30 | 13° 2 | 0♌24 | 8°50 | 7°57 | 1° 5 | 8° 3 | 27°44 | 0°21 | 0°16 | 5°57 | 19°28 | S 8 | |
| S 9 | 13 32 40 | 24°54'52 | 6♌58 | 16°30 | 14°16 | 0°58 | 8°58 | 8° 3 | 1° 3 | 8° 5 | 27°45 | 0°19 | 0°12 | 6° 4 | 19°32 | S 9 | |
| M10 | 13 36 37 | 25°53'04 | 19°57 | 18°32 | 15°29 | 1°31 | 9° 5 | 8°10 | 1° 1 | 8° 8 | 27°46 | 0°18 | 0° 9 | 6°11 | 19°36 | M10 | |
| T 11 | 13 40 33 | 26°51'14 | 2♏32 | 20°36 | 16°43 | 2° 5 | 9°13 | 8°16 | 1° 0 | 8°10 | 27°47 | 0°18 | 0° 6 | 6°17 | 19°40 | T 11 | |
| W12 | 13 44 30 | 27°49'23 | 14°49 | 22°41 | 17°57 | 2°39 | 9°21 | 8°23 | 0°58 | 8°12 | 27°48 | 0°17 | 0° 3 | 6°24 | 19°44 | W12 | |
| T 13 | 13 48 27 | 28°47'29 | 26°52 | 24°47 | 19°11 | 3°12 | 9°28 | 8°30 | 0°56 | 8°14 | 27°49 | 0°15 | 29♌59 | 6°31 | 19°48 | T 13 | |
| F 14 | 13 52 23 | 29°45'33 | 8♎48 | 26°54 | 20°25 | 3°46 | 9°35 | 8°36 | 0°54 | 8°17 | 27°50 | 0°11 | 29°56 | 6°38 | 19°52 | F 14 | |
| S 15 | 13 56 20 | 0♌43'35 | 20°39 | 29° 3 | 21°39 | 4°20 | 9°43 | 8°43 | 0°52 | 8°19 | 27°51 | 0° 4 | 29°53 | 6°44 | 19°56 | S 15 | |
| S 16 | 14 0 16 | 1°41'35 | 2♕29 | 1♌12 | 22°52 | 4°54 | 9°50 | 8°50 | 0°50 | 8°21 | 27°52 | 29♌54 | 29°50 | 6°51 | 20° 1 | S 16 | |
| M17 | 14 4 13 | 2°39'34 | 14°21 | 3°22 | 24° 6 | 5°28 | 9°56 | 8°57 | 0°48 | 8°23 | 27°53 | 29°42 | 29°47 | 6°58 | 20° 5 | M17 | |
| T 18 | 14 8 9 | 3°37'31 | 26°17 | 5°32 | 25°20 | 6° 2 | 10° 3 | 9° 3 | 0°46 | 8°25 | 27°54 | 29°29 | 29°44 | 7° 4 | 20° 9 | T 18 | |
| W19 | 14 12 6 | 4°35'26 | 8♏19 | 7°42 | 26°34 | 6°36 | 10°10 | 9°10 | 0°43 | 8°28 | 27°54 | 29°15 | 29°41 | 7°11 | 20°14 | W19 | |
| T 20 | 14 16 2 | 5°33'20 | 20°27 | 9°53 | 27°47 | 7°10 | 10°16 | 9°17 | 0°41 | 8°30 | 27°55 | 29° 2 | 29°37 | 7°18 | 20°18 | T 20 | |
| F 21 | 14 19 59 | 6°31'12 | 2♒42 | 12° 2 | 29° 1 | 7°45 | 10°22 | 9°24 | 0°39 | 8°32 | 27°56 | 28°50 | 29°34 | 7°24 | 20°23 | F 21 | |
| S 22 | 14 23 56 | 7°29'03 | 15° 6 | 14°12 | 0♌15 | 8°19 | 10°28 | 9°31 | 0°37 | 8°34 | 27°57 | 28°42 | 29°31 | 7°31 | 20°27 | S 22 | |
| S 23 | 14 27 52 | 8°26'52 | 27°41 | 16°20 | 1°29 | 8°53 | 10°34 | 9°38 | 0°35 | 8°37 | 27°57 | 28°36 | 29°28 | 7°38 | 20°32 | S 23 | |
| M24 | 14 31 49 | 9°24'40 | 10♌28 | 18°27 | 2°42 | 9°28 | 10°40 | 9°46 | 0°32 | 8°39 | 27°58 | 28°33 | 29°25 | 7°45 | 20°37 | M24 | |
| T 25 | 14 35 45 | 10°22'27 | 23°30 | 20°32 | 3°56 | 10° 2 | 10°46 | 9°53 | 0°30 | 8°41 | 27°59 | 28°D32 | 29°22 | 7°51 | 20°41 | T 25 | |
| W26 | 14 39 42 | 11°20'13 | 6♓50 | 22°35 | 5°10 | 10°37 | 10°51 | 10° 0 | 0°28 | 8°44 | 27°59 | 28°R32 | 29°18 | 7°58 | 20°46 | W26 | |
| T 27 | 14 43 38 | 12°17'58 | 20°31 | 24°37 | 6°24 | 11°11 | 10°56 | 10° 7 | 0°26 | 8°46 | 28° 0 | 28°31 | 29°15 | 8° 5 | 20°51 | T 27 | |
| F 28 | 14 47 35 | 13°15'41 | 4♋33 | 26°36 | 7°37 | 11°46 | 11° 1 | 10°14 | 0°23 | 8°48 | 28° 1 | 28°30 | 29°12 | 8°11 | 20°56 | F 28 | |
| S 29 | 14 51 31 | 14°13'23 | 18°58 | 28°33 | 8°51 | 12°20 | 11° 6 | 10°22 | 0°21 | 8°50 | 28° 1 | 28°26 | 29° 9 | 8°18 | 21° 1 | S 29 | |
| S 30 | 14 55 28 | 15♌11'04 | 3♎41 | 0♏28 | 10♌5 | 12♓55 | 11♎11 | 10♏29 | 0♒19 | 8♑52 | 28♓2 | 28♌20 | 29♌6 | 8♖25 | 21♗6 | S 30 | |

Delta T = 20m02s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1060
geocentric

MAY 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|------|--------|--------|-------|-------|-------|------|---|-----|
| M 1 | 14 59 25 | 16♈ 8'44 | 18♉39 | 2♊19 | 11♋19 | 13♌30 | 11♍16 | 10♎36 | 0♏R16 | 8♐55 | 28♑ 2 | 28♒R12 | 29♓ 2 | 8♔32 | 21♕11 | M 1 | | |
| T 2 | 15 3 21 | 17° 6'23 | 3♈42 | 4° 8 | 12°32 | 14° 4 | 11°20 | 10°44 | 0♏A14 | 8°57 | 28° 3 | 28♓ 2 | 28°59 | 8°38 | 21°16 | T 2 | | |
| W 3 | 15 7 18 | 18° 4'01 | 18°41 | 5°55 | 13°46 | 14°39 | 11°24 | 10°51 | 0°12 | 8°59 | 28° 3 | 27°52 | 28°56 | 8°45 | 21°21 | W 3 | | |
| T 4 | 15 11 14 | 19° 1'38 | 3♊26 | 7°38 | 15° 0 | 15°14 | 11°28 | 10°59 | 0° 9 | 9° 1 | 28° 4 | 27°42 | 28°53 | 8°52 | 21°26 | T 4 | | |
| F 5 | 15 15 11 | 19°59'13 | 17°50 | 9°18 | 16°14 | 15°49 | 11°32 | 11° 6 | 0° 7 | 9° 4 | 28° 4 | 27°35 | 28°50 | 8°58 | 21°31 | F 5 | | |
| S 6 | 15 19 7 | 20°56'47 | 1♉47 | 10°55 | 17°27 | 16°24 | 11°36 | 11°14 | 0° 4 | 9° 6 | 28° 5 | 27°30 | 28°47 | 9° 5 | 21°36 | S 6 | | |
| S 7 | 15 23 4 | 21°54'20 | 15°17 | 12°29 | 18°41 | 16°59 | 11°39 | 11°21 | 0° 2 | 9° 8 | 28° 5 | 27°27 | 28°43 | 9°12 | 21°41 | S 7 | | |
| M 8 | 15 27 0 | 22°51'51 | 28°20 | 14° 1 | 19°55 | 17°34 | 11°43 | 11°29 | 29♌.59 | 9°10 | 28° 5 | 27°D27 | 28°40 | 9°19 | 21°47 | M 8 | | |
| T 9 | 15 30 57 | 23°49'20 | 10♌58 | 15°28 | 21° 8 | 18° 9 | 11°46 | 11°36 | 29°57 | 9°13 | 28° 6 | 27°27 | 28°37 | 9°25 | 21°52 | T 9 | | |
| W10 | 15 34 54 | 24°46'49 | 23°18 | 16°53 | 22°22 | 18°44 | 11°49 | 11°44 | 29°55 | 9°15 | 28° 6 | 27°R28 | 28°34 | 9°32 | 21°57 | W10 | | |
| T 11 | 15 38 50 | 25°44'16 | 5♎23 | 18°15 | 23°36 | 19°20 | 11°52 | 11°52 | 29°52 | 9°17 | 28° 6 | 27°27 | 28°31 | 9°39 | 22° 2 | T 11 | | |
| F 12 | 15 42 47 | 26°41'41 | 17°19 | 19°33 | 24°50 | 19°55 | 11°54 | 11°59 | 29°50 | 9°19 | 28° 7 | 27°25 | 28°28 | 9°45 | 22° 8 | F 12 | | |
| S 13 | 15 46 43 | 27°39'06 | 29°11 | 20°48 | 26° 3 | 20°30 | 11°57 | 12° 7 | 29°47 | 9°21 | 28° 7 | 27°20 | 28°24 | 9°52 | 22°13 | S 13 | | |
| S 14 | 15 50 40 | 28°36'29 | 11♌ 2 | 21°59 | 27°17 | 21° 5 | 11°59 | 12°15 | 29°45 | 9°23 | 28° 7 | 27°14 | 28°21 | 9°59 | 22°19 | S 14 | | |
| M15 | 15 54 36 | 29°33'51 | 22°57 | 23° 7 | 28°31 | 21°41 | 12° 1 | 12°22 | 29°42 | 9°26 | 28° 7 | 27° 5 | 28°18 | 10° 6 | 22°24 | M15 | | |
| T 16 | 15 58 33 | 0♊31'12 | 4♌58 | 24°12 | 29°44 | 22°16 | 12° 3 | 12°30 | 29°40 | 9°28 | 28° 7 | 26°55 | 28°15 | 10°12 | 22°30 | T 16 | | |
| W17 | 16 2 29 | 1°28'32 | 17° 8 | 25°13 | 0♊58 | 22°52 | 12° 5 | 12°38 | 29°37 | 9°30 | 28° 8 | 26°45 | 28°12 | 10°19 | 22°35 | W17 | | |
| T 18 | 16 6 26 | 2°25'51 | 29°27 | 26°11 | 2°12 | 23°27 | 12° 6 | 12°46 | 29°35 | 9°32 | 28° 8 | 26°35 | 28° 8 | 10°26 | 22°41 | T 18 | | |
| F 19 | 16 10 23 | 3°23'10 | 11♌56 | 27° 5 | 3°25 | 24° 2 | 12° 7 | 12°53 | 29°32 | 9°34 | 28° 8 | 26°27 | 28° 5 | 10°33 | 22°46 | F 19 | | |
| S 20 | 16 14 19 | 4°20'27 | 24°36 | 27°55 | 4°39 | 24°38 | 12° 9 | 13° 1 | 29°30 | 9°36 | 28° 8 | 26°21 | 28° 2 | 10°39 | 22°52 | S 20 | | |
| S 21 | 16 18 16 | 5°17'44 | 7♓28 | 28°41 | 5°53 | 25°14 | 12°10 | 13° 9 | 29°27 | 9°38 | 28° 8 | 26°17 | 27°59 | 10°46 | 22°57 | S 21 | | |
| M22 | 16 22 12 | 6°15'01 | 20°31 | 29°23 | 7° 6 | 25°49 | 12°10 | 13°17 | 29°25 | 9°40 | 28° 8 | 26°D15 | 27°56 | 10°53 | 23° 3 | M22 | | |
| T 23 | 16 26 9 | 7°12'17 | 3♌47 | 0♉ 1 | 8°20 | 26°25 | 12°11 | 13°25 | 29°22 | 9°42 | 28°R 8 | 26°15 | 27°53 | 10°59 | 23° 8 | T 23 | | |
| W24 | 16 30 5 | 8° 9'32 | 17°17 | 0°35 | 9°34 | 27° 1 | 12°11 | 13°32 | 29°20 | 9°44 | 28° 8 | 26°16 | 27°49 | 11° 6 | 23°14 | W24 | | |
| T 25 | 16 34 2 | 9° 6'47 | 1♋ 1 | 1° 5 | 10°47 | 27°36 | 12°R11 | 13°40 | 29°18 | 9°46 | 28° 8 | 26°17 | 27°46 | 11°13 | 23°20 | T 25 | | |
| F 26 | 16 37 58 | 10° 4'02 | 15° 0 | 1°30 | 12° 1 | 28°12 | 12°11 | 13°48 | 29°15 | 9°48 | 28° 8 | 26°R17 | 27°43 | 11°20 | 23°25 | F 26 | | |
| S 27 | 16 41 55 | 11° 1'16 | 29°14 | 1°52 | 13°15 | 28°48 | 12°11 | 13°56 | 29°13 | 9°50 | 28° 8 | 26°16 | 27°40 | 11°26 | 23°31 | S 27 | | |
| S 28 | 16 45 52 | 11°58'31 | 13♉40 | 2° 8 | 14°28 | 29°24 | 12°11 | 14° 4 | 29°10 | 9°52 | 28° 8 | 26°13 | 27°37 | 11°33 | 23°37 | S 28 | | |
| M29 | 16 49 48 | 12°55'45 | 28°16 | 2°20 | 15°42 | 29°59 | 12°10 | 14°12 | 29° 8 | 9°54 | 28° 8 | 26° 8 | 27°33 | 11°40 | 23°42 | M29 | | |
| T 30 | 16 53 45 | 13°52'58 | 12♈55 | 2°28 | 16°56 | 0♌36 | 12° 9 | 14°19 | 29° 6 | 9°56 | 28° 7 | 26° 2 | 27°30 | 11°46 | 23°48 | T 30 | | |
| W31 | 16 57 41 | 14°50'12 | 27♈30 | 2°R31 | 18♊10 | 1♌12 | 12° 8 | 14°27 | 29♌ 3 | 9♉58 | 28° 7 | 25°♓56 | 27♓27 | 11°53 | 23°54 | W31 | | |

Delta T = 20m01s Julian Calendar 1 May 1060 == Greg. Calendar 7 May 1060

JUNE 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|--------|-------|--------|--------|-------|-------|-------|------|---|-----|
| T 1 | 17 1 38 | 15♊47'25 | 11♊56 | 2°R29 | 19♊23 | 1♌48 | 12°R 7 | 14♊35 | 29°R 1 | 10♈ 0 | 28°R 7 | 25°R50 | 27♓24 | 12♌ 0 | 24♊ 0 | T 1 | | |
| F 2 | 17 5 34 | 16°44'38 | 26° 5 | 2°23 | 20°37 | 2°24 | 12° 6 | 14°43 | 28♌.59 | 10° 2 | 28° 7 | 25°♓46 | 27°21 | 12° 7 | 24° 5 | F 2 | | |
| S 3 | 17 9 31 | 17°41'51 | 9♉53 | 2°13 | 21°51 | 3° 0 | 12° 4 | 14°51 | 28°56 | 10° 4 | 28° 7 | 25°43 | 27°18 | 12°13 | 24°11 | S 3 | | |
| S 4 | 17 13 28 | 18°39'03 | 23°18 | 1°58 | 23° 4 | 3°36 | 12° 3 | 14°59 | 28°54 | 10° 6 | 28° 6 | 25°D42 | 27°14 | 12°20 | 24°17 | S 4 | | |
| M 5 | 17 17 24 | 19°36'15 | 6♌20 | 1°39 | 24°18 | 4°12 | 12° 1 | 15° 7 | 28°52 | 10° 8 | 28° 6 | 25°42 | 27°11 | 12°27 | 24°23 | M 5 | | |
| T 6 | 17 21 21 | 20°33'26 | 19° 0 | 1°17 | 25°32 | 4°48 | 11°58 | 15°14 | 28°50 | 10° 9 | 28° 6 | 25°43 | 27° 8 | 12°33 | 24°29 | T 6 | | |
| W 7 | 17 25 17 | 21°30'36 | 1♎21 | 0°51 | 26°46 | 5°25 | 11°56 | 15°22 | 28°47 | 10°11 | 28° 5 | 25°45 | 27° 5 | 12°40 | 24°34 | W 7 | | |
| T 8 | 17 29 14 | 22°27'47 | 13°29 | 0°22 | 27°59 | 6° 1 | 11°54 | 15°30 | 28°45 | 10°13 | 28° 5 | 25°46 | 27° 2 | 12°47 | 24°40 | T 8 | | |
| F 9 | 17 33 10 | 23°24'56 | 25°27 | 29♊51 | 29°13 | 6°37 | 11°51 | 15°38 | 28°43 | 10°15 | 28° 5 | 25°R47 | 26°59 | 12°54 | 24°46 | F 9 | | |
| S 10 | 17 37 7 | 24°22'06 | 7♌20 | 29°17 | 0♉27 | 7°13 | 11°48 | 15°46 | 28°41 | 10°17 | 28° 4 | 25°46 | 26°55 | 13° 0 | 24°52 | S 10 | | |
| S 11 | 17 41 3 | 25°19'15 | 19°14 | 28°42 | 1°40 | 7°50 | 11°45 | 15°53 | 28°39 | 10°18 | 28° 4 | 25°44 | 26°52 | 13° 7 | 24°58 | S 11 | | |
| M12 | 17 45 0 | 26°16'23 | 1♌11 | 28° 5 | 2°54 | 8°26 | 11°42 | 16° 1 | 28°37 | 10°20 | 28° 3 | 25°40 | 26°49 | 13°14 | 25° 3 | M12 | | |
| T 13 | 17 48 57 | 27°13'32 | 13°17 | 27°29 | 4° 8 | 9° 3 | 11°38 | 16° 9 | 28°34 | 10°22 | 28° 3 | 25°36 | 26°46 | 13°20 | 25° 9 | T 13 | | |
| W14 | 17 52 53 | 28°10'41 | 25°33 | 26°52 | 5°22 | 9°39 | 11°35 | 16°17 | 28°32 | 10°23 | 28° 2 | 25°31 | 26°43 | 13°27 | 25°15 | W14 | | |
| T 15 | 17 56 50 | 29° 7'49 | 8♌ 3 | 26°17 | 6°35 | 10°16 | 11°31 | 16°24 | 28°30 | 10°25 | 28° 2 | 25°27 | 26°39 | 13°34 | 25°21 | T 15 | | |
| F 16 | 18 0 46 | 0♉ 4'57 | 20°46 | 25°42 | 7°49 | 10°52 | 11°27 | 16°32 | 28°28 | 10°27 | 28° 1 | 25°24 | 26°36 | 13°41 | 25°27 | F 16 | | |
| S 17 | 18 4 43 | 1° 2'06 | 3♓45 | 25°10 | 9° 3 | 11°29 | 11°23 | 16°40 | 28°26 | 10°28 | 28° 1 | 25°21 | 26°33 | 13°47 | 25°33 | S 17 | | |
| S 18 | 18 8 39 | 1°59'14 | 16°58 | 24°41 | 10°17 | 12° 6 | 11°19 | 16°47 | 28°25 | 10°30 | 28° 0 | 25°20 | 26°30 | 13°54 | 25°38 | S 18 | | |
| M19 | 18 12 36 | 2°56'23 | 0♌24 | 24°15 | 11°30 | 12°42 | 11°14 | 16°55 | 28°23 | 10°31 | 28° 0 | 25°D20 | 26°27 | 14° 1 | 25°44 | M19 | | |
| T 20 | 18 16 32 | 3°53'33 | 14° 3 | 23°52 | 12°44 | 13°19 | 11°10 | 17° 3 | 28°21 | 10°33 | 27°59 | 25°20 | 26°24 | 14° 8 | 25°50 | T 20 | | |
| W21 | 18 20 29 | 4°50'42 | 27°52 | 23°34 | 13°58 | 13°56 | 11° 5 | 17°10 | 28°19 | 10°34 | 27°58 | 25°22 | 26°20 | 14°14 | 25°56 | W21 | | |
| T 22 | 18 24 26 | 5°47'52 | 11♋51 | 23°20 | 15°11 | 14°32 | 11° 0 | 17°18 | 28°17 | 10°36 | 27°58 | 25°23 | 26°17 | 14°21 | 26° 2 | T 22 | | |
| F 23 | 18 28 22 | 6°45'03 | 25°57 | 23°11 | 16°25 | 15° 9 | 10°55 | 17°25 | 28°15 | 10°37 | 27°57 | 25°24 | 26°14 | 14°28 | 26° 7 | F 23 | | |
| S 24 | 18 32 19 | 7°42'14 | 10♉ 9 | 23°D 6 | 17°39 | 15°46 | 10°50 | 17°33 | 28°14 | 10°39 | 27°56 | 25°R24 | 26°11 | 14°34 | 26°13 | S 24 | | |
| S 25 | 18 36 15 | 8°39'26 | 24°25 | 23° 7 | 18°53 | 16°23 | 10°44 | 17°41 | 28°12 | 10°40 | 27°55 | 25°24 | 26° 8 | 14°41 | 26°19 | S 25 | | |
| M26 | 18 40 12 | 9°36'39 | 8♈42 | 23°14 | 20° 6 | 17° 0 | 10°39 | 17°48 | 28°10 | 10°41 | 27°55 | 25°22 | 26° 5 | 14°48 | 26°25 | M26 | | |
| T 27 | 18 44 8 | 10°33'52 | 22°56 | 23°26 | 21°20 | 17°37 | 10°33 | 17°56 | 28° 9 | 10°43 | 27°54 | 25°21 | 26° 1 | 14°55 | 26°30 | T 27 | | |
| W28 | 18 48 5 | 11°31'07 | 7♊ 4 | 23°43 | 22°34 | 18°14 | 10°27 | 18° 3 | 28° 7 | 10°44 | 27°53 | 25°19 | 25°58 | 15° 1 | 26°36 | W28 | | |
| T 29 | 18 52 1 | 12°28'22 | 21° 2 | 24° 6 | 23°48 | 18°51 | 10°21 | 18°10 | 28° 6 | 10°45 | 27°52 | 25°17 | 25°55 | 15° 8 | 26°42 | T 29 | | |
| F 30 | 18 55 58 | 13°25'37 | 4♉47 | 24♊35 | 25°25 | 19♌28 | 10° 8 | 18°18 | 28♌ 4 | 10♈47 | 27° 5 | 25°♓16 | 25°52 | 15°15 | 26°47 | F 30 | | |

Delta T = 20m01s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1060
geocentric

JULY 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|---------------------------------|---------------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|
| S 1 | 18 59 55 | 14 ²² 53 | 18 ¹⁶ 16 | 25 ^{II} 9 | 26 ¹⁵ 15 | 20 ^Ω 5 | 10 ^R 9 | 18 ^{II} 25 | 28 ^R 3 | 10 ⁸ 48 | 27 ^R 51 | 25 ^R 16 | 25 ³ 49 | 15 ^Ω 21 | 26 ^{II} 53 | S 1 |
| S 2 | 19 3 51 | 15 ²⁰ 10 | 18 ^Ω 27 | 25 ⁴⁹ | 27 ²⁹ | 20 ⁴² | 10 ³ 3 | 18 ³² | 28 ^{III} 1 | 10 ⁴⁹ | 27 ⁵⁰ | 25 ^D 16 | 25 ⁴⁵ | 15 ²⁸ | 26 ⁵⁹ | S 2 |
| M 3 | 19 7 48 | 16 ¹⁷ 27 | 14 ²¹ | 26 ³⁴ | 28 ⁴³ | 21 ²⁰ | 9 ⁵⁶ | 18 ⁴⁰ | 28 ⁰ | 10 ⁵⁰ | 27 ⁴⁹ | 25 ³ 16 | 25 ⁴² | 15 ³⁵ | 27 ⁴ | M 3 |
| T 4 | 19 11 44 | 17 ¹⁴ 45 | 26 ⁵⁶ | 27 ²⁵ | 29 ⁵⁷ | 21 ⁵⁷ | 9 ⁵⁰ | 18 ⁴⁷ | 27 ⁵⁹ | 10 ⁵¹ | 27 ⁴⁸ | 25 ¹⁷ | 25 ³⁹ | 15 ⁴² | 27 ¹⁰ | T 4 |
| W 5 | 19 15 41 | 18 ¹² 03 | 9 ^{III} 17 | 28 ²² | 18 ¹⁰ | 22 ³⁴ | 9 ⁴³ | 18 ⁵⁴ | 27 ⁵⁷ | 10 ⁵² | 27 ⁴⁷ | 25 ¹⁸ | 25 ³⁶ | 15 ⁴⁸ | 27 ¹⁶ | W 5 |
| T 6 | 19 19 37 | 19 ⁹ 22 | 21 ²⁴ | 29 ²³ | 2 ²⁴ | 23 ¹¹ | 9 ³⁶ | 19 ¹ | 27 ⁵⁶ | 10 ⁵³ | 27 ⁴⁶ | 25 ¹⁸ | 25 ³³ | 15 ⁵⁵ | 27 ²¹ | T 6 |
| F 7 | 19 23 34 | 20 ⁶ 41 | 3 ^Ω 23 | 0 ³⁰ | 3 ³⁸ | 23 ⁴⁹ | 9 ²⁹ | 19 ⁸ | 27 ⁵⁵ | 10 ⁵⁵ | 27 ⁴⁵ | 25 ¹⁹ | 25 ³⁰ | 16 ² | 27 ²⁷ | F 7 |
| S 8 | 19 27 30 | 21 ⁴ 01 | 15 ¹⁷ | 1 ⁴² | 4 ⁵² | 24 ²⁶ | 9 ²² | 19 ¹⁶ | 27 ⁵⁴ | 10 ⁵⁶ | 27 ⁴⁴ | 25 ¹⁹ | 25 ²⁶ | 16 ⁹ | 27 ³² | S 8 |
| S 9 | 19 31 27 | 22 ¹ 22 | 27 ¹¹ | 3 ⁰ | 6 ⁶ | 25 ⁴ | 9 ¹⁵ | 19 ²³ | 27 ⁵³ | 10 ⁵⁷ | 27 ⁴³ | 25 ^R 19 | 25 ²³ | 16 ¹⁵ | 27 ³⁸ | S 9 |
| M10 | 19 35 24 | 22 ⁵⁸ 43 | 9 ^{III} 9 | 4 ²² | 7 ¹⁹ | 25 ⁴¹ | 9 ⁸ | 19 ³⁰ | 27 ⁵¹ | 10 ⁵⁷ | 27 ⁴² | 25 ¹⁹ | 25 ²⁰ | 16 ²² | 27 ⁴³ | M10 |
| T 11 | 19 39 20 | 23 ⁵⁶ 04 | 21 ¹⁶ | 5 ⁴⁸ | 8 ³³ | 26 ¹⁹ | 9 ¹ | 19 ³⁷ | 27 ⁵⁰ | 10 ⁵⁸ | 27 ⁴¹ | 25 ¹⁹ | 25 ¹⁷ | 16 ²⁹ | 27 ⁴⁹ | T 11 |
| W12 | 19 43 17 | 24 ⁵³ 27 | 3 ³ 35 | 7 ²⁰ | 9 ⁴⁷ | 26 ⁵⁶ | 8 ⁵³ | 19 ⁴⁴ | 27 ⁴⁹ | 10 ⁵⁹ | 27 ⁴⁰ | 25 ^D 19 | 25 ¹⁴ | 16 ³⁵ | 27 ⁵⁴ | W12 |
| T 13 | 19 47 13 | 25 ⁵⁰ 50 | 16 ¹¹ | 8 ⁵⁵ | 11 ¹ | 27 ³⁴ | 8 ⁴⁶ | 19 ⁵⁰ | 27 ⁴⁸ | 11 ⁰ | 27 ³⁹ | 25 ¹⁹ | 25 ¹¹ | 16 ⁴² | 28 ⁰ | T 13 |
| F 14 | 19 51 10 | 26 ⁴⁸ 14 | 29 ⁵ | 10 ³⁵ | 12 ¹⁴ | 28 ¹¹ | 8 ³⁸ | 19 ⁵⁷ | 27 ⁴⁸ | 11 ¹ | 27 ³⁸ | 25 ¹⁹ | 25 ⁷ | 16 ⁴⁹ | 28 ⁵ | F 14 |
| S 15 | 19 55 6 | 27 ⁴⁵ 39 | 12 ³ 19 | 12 ¹⁸ | 13 ²⁸ | 28 ⁴⁹ | 8 ³¹ | 20 ⁴ | 27 ⁴⁷ | 11 ² | 27 ³⁷ | 25 ¹⁹ | 25 ⁴ | 16 ⁵⁶ | 28 ¹⁰ | S 15 |
| S 16 | 19 59 3 | 28 ⁴³ 04 | 25 ⁵² | 14 ⁵ | 14 ⁴² | 29 ²⁷ | 8 ²³ | 20 ¹¹ | 27 ⁴⁶ | 11 ³ | 27 ³⁶ | 25 ^R 19 | 25 ¹ | 17 ² | 28 ¹⁶ | S 16 |
| M17 | 20 3 0 | 29 ⁴⁰ 31 | 9 ³ 43 | 15 ⁵⁵ | 15 ⁵⁶ | 0 ^{III} 4 | 8 ¹⁶ | 20 ¹⁷ | 27 ⁴⁵ | 11 ³ | 27 ³⁵ | 25 ¹⁹ | 24 ⁵⁸ | 17 ⁹ | 28 ²¹ | M17 |
| T 18 | 20 6 56 | 0 ^Ω 37 ⁵⁹ | 23 ⁴⁹ | 17 ⁴⁸ | 17 ⁹ | 0 ⁴² | 8 ⁸ | 20 ²⁴ | 27 ⁴⁵ | 11 ⁴ | 27 ³⁴ | 25 ¹⁸ | 24 ⁵⁵ | 17 ¹⁶ | 28 ²⁶ | T 18 |
| W19 | 20 10 53 | 1 ³⁵ 28 | 8 ³ 5 | 19 ⁴⁴ | 18 ²³ | 1 ²⁰ | 8 ⁰ | 20 ³¹ | 27 ⁴⁴ | 11 ⁵ | 27 ³³ | 25 ¹⁸ | 24 ⁵¹ | 17 ²³ | 28 ³¹ | W19 |
| T 20 | 20 14 49 | 2 ³² 58 | 22 ²⁸ | 21 ⁴¹ | 19 ³⁷ | 1 ⁵⁸ | 7 ⁵³ | 20 ³⁷ | 27 ⁴³ | 11 ⁵ | 27 ³² | 25 ¹⁷ | 24 ⁴⁸ | 17 ²⁹ | 28 ³⁷ | T 20 |
| F 21 | 20 18 46 | 3 ³⁰ 30 | 6 ³ 52 | 23 ⁴¹ | 20 ⁵¹ | 2 ³⁵ | 7 ⁴⁵ | 20 ⁴⁴ | 27 ⁴³ | 11 ⁶ | 27 ³¹ | 25 ¹⁶ | 24 ⁴⁵ | 17 ³⁶ | 28 ⁴² | F 21 |
| S 22 | 20 22 42 | 4 ²⁸ 03 | 21 ¹³ | 25 ⁴¹ | 22 ⁴ | 3 ¹³ | 7 ³⁷ | 20 ⁵⁰ | 27 ⁴² | 11 ⁷ | 27 ³⁰ | 25 ¹⁶ | 24 ⁴² | 17 ⁴³ | 28 ⁴⁷ | S 22 |
| S 23 | 20 26 39 | 5 ²⁵ 38 | 5 ³ 28 | 27 ⁴³ | 23 ¹⁸ | 3 ⁵¹ | 7 ²⁹ | 20 ⁵⁷ | 27 ⁴² | 11 ⁷ | 27 ²⁸ | 25 ^D 15 | 24 ³⁹ | 17 ⁴⁹ | 28 ⁵² | S 23 |
| M24 | 20 30 35 | 6 ²³ 14 | 19 ³⁴ | 29 ⁴⁵ | 24 ³² | 4 ²⁹ | 7 ²¹ | 21 ³ | 27 ⁴¹ | 11 ⁸ | 27 ²⁷ | 25 ¹⁶ | 24 ³⁶ | 17 ⁵⁶ | 28 ⁵⁷ | M24 |
| T 25 | 20 34 32 | 7 ²⁰ 52 | 3 ^{III} 30 | 1 ^Ω 47 | 25 ⁴⁶ | 5 ⁷ | 7 ¹³ | 21 ⁹ | 27 ⁴¹ | 11 ⁸ | 27 ²⁶ | 25 ¹⁶ | 24 ³² | 18 ³ | 29 ² | T 25 |
| W26 | 20 38 29 | 8 ¹⁸ 32 | 17 ¹⁵ | 3 ⁵⁰ | 26 ⁵⁹ | 5 ⁴⁵ | 7 ⁶ | 21 ¹⁵ | 27 ⁴¹ | 11 ⁹ | 27 ²⁵ | 25 ¹⁷ | 24 ²⁹ | 18 ¹⁰ | 29 ⁷ | W26 |
| T 27 | 20 42 25 | 9 ¹⁶ 13 | 0 ³ 46 | 5 ⁵² | 28 ¹³ | 6 ²⁴ | 6 ⁵⁸ | 21 ²¹ | 27 ⁴⁰ | 11 ⁹ | 27 ²⁴ | 25 ¹⁸ | 24 ²⁶ | 18 ¹⁶ | 29 ¹² | T 27 |
| F 28 | 20 46 22 | 10 ¹³ 56 | 14 ⁵ | 7 ⁵⁴ | 29 ²⁷ | 7 ² | 6 ⁵⁰ | 21 ²⁸ | 27 ⁴⁰ | 11 ¹⁰ | 27 ²³ | 25 ¹⁹ | 24 ²³ | 18 ²³ | 29 ¹⁷ | F 28 |
| S 29 | 20 50 18 | 11 ¹¹ 40 | 27 ¹¹ | 9 ⁵⁵ | 0 ^{III} 40 | 7 ⁴⁰ | 6 ⁴² | 21 ³⁴ | 27 ⁴⁰ | 11 ¹⁰ | 27 ²¹ | 25 ^R 20 | 24 ²⁰ | 18 ³⁰ | 29 ²² | S 29 |
| S 30 | 20 54 15 | 12 ⁹ 26 | 10 ^Ω 3 | 11 ⁵⁶ | 1 ⁵⁴ | 8 ¹⁸ | 6 ³⁴ | 21 ⁴⁰ | 27 ⁴⁰ | 11 ¹⁰ | 27 ²⁰ | 25 ¹⁹ | 24 ¹⁷ | 18 ³⁶ | 29 ²⁷ | S 30 |
| M31 | 20 58 11 | 13 ^Ω 7 ¹³ | 22 ^Ω 42 | 13 ^Ω 56 | 3 ^{III} 8 | 8 ^{III} 56 | 6 ³² 27 | 21 ^{II} 45 | 27 ^D 40 | 11 ¹¹ | 27 ¹⁹ | 25 ³ 18 | 24 ³ 13 | 18 ⁴³ | 29 ³¹ | M31 |

Delta T = 20m01s Julian Calendar 1 July 1060 == Greg. Calendar 7 July 1060

AUGUST 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------------------|---------------------|--------------------|---------------------|---------------------|-------------------|---------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|
| T 1 | 21 2 8 | 14 ^Ω 5'01 | 5 ^{III} 8 | 15 ^Ω 54 | 4 ^{III} 22 | 9 ^{III} 35 | 6 ^R 19 | 21 ^{II} 51 | 27 ^{III} 40 | 11 ⁸ 11 | 27 ^R 18 | 25 ^R 15 | 24 ³ 10 | 18 ^Ω 50 | 29 ^{II} 36 | T 1 |
| W 2 | 21 6 4 | 15 ² 51 | 17 ²³ | 17 ⁵² | 5 ³⁵ | 10 ¹³ | 6 ³¹ | 21 ⁵⁷ | 27 ⁴⁰ | 11 ¹¹ | 27 ¹⁷ | 25 ³ 12 | 24 ⁷ | 18 ⁵⁷ | 29 ⁴¹ | W 2 |
| T 3 | 21 10 1 | 16 ⁰ 42 | 29 ²⁷ | 19 ⁴⁸ | 6 ⁴⁹ | 10 ⁵² | 6 ³ | 22 ³ | 27 ⁴⁰ | 11 ¹¹ | 27 ¹⁵ | 25 ⁹ | 24 ⁴ | 19 ³ | 29 ⁴⁵ | T 3 |
| F 4 | 21 13 58 | 16 ⁵⁸ 35 | 11 ^Ω 24 | 21 ⁴⁴ | 8 ³ | 11 ³⁰ | 5 ⁵⁶ | 22 ⁸ | 27 ⁴⁰ | 11 ¹¹ | 27 ¹⁴ | 25 ⁶ | 24 ¹ | 19 ¹⁰ | 29 ⁵⁰ | F 4 |
| S 5 | 21 17 54 | 17 ⁵⁶ 28 | 23 ¹⁷ | 23 ³⁸ | 9 ¹⁶ | 12 ⁸ | 5 ⁴⁸ | 22 ¹⁴ | 27 ⁴⁰ | 11 ¹² | 27 ¹³ | 25 ³ | 23 ⁵⁷ | 19 ¹⁷ | 29 ⁵⁴ | S 5 |
| S 6 | 21 21 51 | 18 ⁵⁴ 24 | 5 ^{III} 10 | 25 ³⁰ | 10 ³⁰ | 12 ⁴⁷ | 5 ⁴¹ | 22 ¹⁹ | 27 ⁴¹ | 11 ¹² | 27 ¹² | 25 ¹ | 23 ⁵⁴ | 19 ²⁴ | 29 ⁵⁹ | S 6 |
| M 7 | 21 25 47 | 19 ⁵² 20 | 17 ⁶ | 27 ²² | 11 ⁴⁴ | 13 ²⁶ | 5 ³³ | 22 ²⁵ | 27 ⁴¹ | 11 ¹² | 27 ¹⁰ | 25 ^D 1 | 23 ⁵¹ | 19 ³⁰ | 0 ³ | M 7 |
| T 8 | 21 29 44 | 20 ⁵⁰ 18 | 29 ¹¹ | 29 ¹² | 12 ⁵⁷ | 14 ⁴ | 5 ²⁶ | 22 ³⁰ | 27 ⁴¹ | 11 ¹² | 27 ⁹ | 25 ¹ | 23 ⁴⁸ | 19 ³⁷ | 0 ⁸ | T 8 |
| W 9 | 21 33 40 | 21 ⁴⁸ 18 | 11 ³ 29 | 1 ^{III} 1 | 14 ¹¹ | 14 ⁴³ | 5 ¹⁹ | 22 ³⁵ | 27 ⁴² | 11 ^R 12 | 27 ⁸ | 25 ² | 23 ⁴⁵ | 19 ⁴⁴ | 0 ¹² | W 9 |
| T 10 | 21 37 37 | 22 ⁴⁶ 18 | 24 ⁵ | 2 ⁴⁸ | 15 ²⁵ | 15 ²² | 5 ¹² | 22 ⁴¹ | 27 ⁴² | 11 ¹² | 27 ⁷ | 25 ⁴ | 23 ⁴² | 19 ⁵⁰ | 0 ¹⁶ | T 10 |
| F 11 | 21 41 33 | 23 ⁴⁴ 21 | 7 ³ 2 | 4 ³⁵ | 16 ³⁸ | 16 ⁰ | 5 ⁵ | 22 ⁴⁶ | 27 ⁴³ | 11 ¹² | 27 ⁵ | 25 ⁵ | 23 ³⁸ | 19 ⁵⁷ | 0 ²¹ | F 11 |
| S 12 | 21 45 30 | 24 ⁴² 24 | 20 ²³ | 6 ²⁰ | 17 ⁵² | 16 ³⁹ | 4 ⁵⁸ | 22 ⁵¹ | 27 ⁴³ | 11 ¹² | 27 ⁴ | 25 ^R 6 | 23 ³⁵ | 20 ⁴ | 0 ²⁵ | S 12 |
| S 13 | 21 49 27 | 25 ⁴⁰ 30 | 4 ³ 9 | 8 ³ | 19 ⁵ | 17 ¹⁸ | 4 ⁵¹ | 22 ⁵⁶ | 27 ⁴⁴ | 11 ¹¹ | 27 ³ | 25 ⁶ | 23 ³² | 20 ¹¹ | 0 ²⁹ | S 13 |
| M14 | 21 53 23 | 26 ³⁸ 36 | 18 ¹⁹ | 9 ⁴⁶ | 20 ¹⁹ | 17 ⁵⁷ | 4 ⁴⁴ | 23 ¹ | 27 ⁴⁵ | 11 ¹¹ | 27 ² | 25 ⁴ | 23 ²⁹ | 20 ¹⁷ | 0 ³³ | M14 |
| T 15 | 21 57 20 | 27 ³⁶ 45 | 2 ³ 49 | 11 ²⁷ | 21 ³³ | 18 ³⁶ | 4 ³⁷ | 23 ⁵ | 27 ⁴⁵ | 11 ¹¹ | 27 ⁰ | 25 ¹ | 23 ²⁶ | 20 ²⁴ | 0 ³⁷ | T 15 |
| W16 | 22 1 16 | 28 ³⁴ 55 | 17 ³² | 13 ⁷ | 22 ⁴⁶ | 19 ¹⁴ | 4 ³¹ | 23 ¹⁰ | 27 ⁴⁶ | 11 ¹¹ | 26 ⁵⁹ | 24 ⁵⁷ | 23 ²³ | 20 ³¹ | 0 | |

ASTRODIENST EPHEMERIS for the year 1060
geocentric

SEPTEMBER 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|--------|--------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| F 1 | 23 4 21 | 14♐10'23 | 19♌45 | 7♋12 | 12♌21 | 29♐43 | 3°R 5 | 24♐14 | 28♌ 5 | 11°R 3 | 26°R39 | 24°R 0 | 22♌32 | 22♌18 | 1♌35 | F 1 | | | | | | | | |
| S 2 | 23 8 18 | 15° 9'08 | 1♌36 | 8°32 | 13°35 | 0♌23 | 3♌ 1 | 24°17 | 28° 7 | 11♌ 2 | 26♌38 | 23♌51 | 22°29 | 22°25 | 1°38 | S 2 | | | | | | | | |
| S 3 | 23 12 14 | 16° 7'55 | 13°27 | 9°51 | 14°48 | 1° 3 | 2°57 | 24°20 | 28° 9 | 11° 1 | 26°37 | 23°44 | 22°25 | 22°32 | 1°41 | S 3 | | | | | | | | |
| M 4 | 23 16 11 | 17° 6'44 | 25°21 | 11° 9 | 16° 1 | 1°43 | 2°53 | 24°23 | 28°10 | 11° 0 | 26°36 | 23°39 | 22°22 | 22°39 | 1°44 | M 4 | | | | | | | | |
| T 5 | 23 20 7 | 18° 5'34 | 7♋23 | 12°25 | 17°15 | 2°22 | 2°50 | 24°26 | 28°12 | 11° 0 | 26°35 | 23°37 | 22°19 | 22°45 | 1°46 | T 5 | | | | | | | | |
| W 6 | 23 24 4 | 19° 4'27 | 19°37 | 13°39 | 18°28 | 3° 2 | 2°47 | 24°29 | 28°14 | 10°59 | 26°33 | 23°D36 | 22°16 | 22°52 | 1°49 | W 6 | | | | | | | | |
| T 7 | 23 28 0 | 20° 3'21 | 2♌ 8 | 14°52 | 19°41 | 3°42 | 2°44 | 24°32 | 28°16 | 10°58 | 26°32 | 23°37 | 22°13 | 22°59 | 1°51 | T 7 | | | | | | | | |
| F 8 | 23 31 57 | 21° 2'17 | 15° 1 | 16° 3 | 20°54 | 4°22 | 2°41 | 24°34 | 28°18 | 10°57 | 26°31 | 23°38 | 22° 9 | 23° 5 | 1°54 | F 8 | | | | | | | | |
| S 9 | 23 35 53 | 22° 1'15 | 28°20 | 17°13 | 22° 8 | 5° 2 | 2°38 | 24°37 | 28°20 | 10°56 | 26°30 | 23°R38 | 22° 6 | 23°12 | 1°56 | S 9 | | | | | | | | |
| S 10 | 23 39 50 | 23° 0'15 | 12♌ 8 | 18°20 | 23°21 | 5°42 | 2°35 | 24°39 | 28°22 | 10°55 | 26°29 | 23°36 | 22° 3 | 23°19 | 1°58 | S 10 | | | | | | | | |
| M11 | 23 43 47 | 23°59'16 | 26°24 | 19°26 | 24°34 | 6°22 | 2°33 | 24°41 | 28°24 | 10°54 | 26°28 | 23°33 | 22° 0 | 23°26 | 2° 0 | M11 | | | | | | | | |
| T 12 | 23 47 43 | 24°58'20 | 11♌ 6 | 20°29 | 25°47 | 7° 2 | 2°31 | 24°43 | 28°26 | 10°53 | 26°27 | 23°26 | 21°57 | 23°32 | 2° 2 | T 12 | | | | | | | | |
| W13 | 23 51 40 | 25°57'25 | 26° 7 | 21°30 | 27° 0 | 7°43 | 2°29 | 24°45 | 28°28 | 10°52 | 26°26 | 23°18 | 21°54 | 23°39 | 2° 4 | W13 | | | | | | | | |
| T 14 | 23 55 36 | 26°56'32 | 11♐19 | 22°28 | 28°13 | 8°23 | 2°27 | 24°47 | 28°30 | 10°51 | 26°25 | 23° 9 | 21°50 | 23°46 | 2° 6 | T 14 | | | | | | | | |
| F 15 | 23 59 33 | 27°55'42 | 26°31 | 23°24 | 29°26 | 9° 3 | 2°26 | 24°49 | 28°32 | 10°50 | 26°23 | 22°59 | 21°47 | 23°52 | 2° 8 | F 15 | | | | | | | | |
| S 16 | 0 3 29 | 28°54'54 | 11♌32 | 24°16 | 0♌39 | 9°43 | 2°24 | 24°51 | 28°35 | 10°48 | 26°22 | 22°51 | 21°44 | 23°59 | 2°10 | S 16 | | | | | | | | |
| S 17 | 0 7 26 | 29°54'08 | 26°13 | 25° 5 | 1°52 | 10°24 | 2°23 | 24°53 | 28°37 | 10°47 | 26°21 | 22°44 | 21°41 | 24° 6 | 2°12 | S 17 | | | | | | | | |
| M18 | 0 11 22 | 0♌53'25 | 10♐31 | 25°51 | 3° 5 | 11° 4 | 2°22 | 24°54 | 28°39 | 10°46 | 26°20 | 22°40 | 21°38 | 24°13 | 2°13 | M18 | | | | | | | | |
| T 19 | 0 15 19 | 1°52'44 | 24°23 | 26°32 | 4°18 | 11°45 | 2°21 | 24°56 | 28°41 | 10°45 | 26°19 | 22°39 | 21°34 | 24°19 | 2°15 | T 19 | | | | | | | | |
| W20 | 0 19 16 | 2°52'05 | 7♌50 | 27°10 | 5°31 | 12°25 | 2°21 | 24°57 | 28°44 | 10°44 | 26°18 | 22°D38 | 21°31 | 24°26 | 2°16 | W20 | | | | | | | | |
| T 21 | 0 23 12 | 3°51'29 | 20°54 | 27°42 | 6°44 | 13° 6 | 2°21 | 24°58 | 28°46 | 10°42 | 26°18 | 22°R39 | 21°28 | 24°33 | 2°18 | T 21 | | | | | | | | |
| F 22 | 0 27 9 | 4°50'55 | 3♌40 | 28° 9 | 7°57 | 13°46 | 2°D20 | 24°59 | 28°49 | 10°41 | 26°17 | 22°38 | 21°25 | 24°40 | 2°19 | F 22 | | | | | | | | |
| S 23 | 0 31 5 | 5°50'24 | 16°10 | 28°31 | 9°10 | 14°27 | 2°20 | 25° 0 | 28°51 | 10°40 | 26°16 | 22°36 | 21°22 | 24°46 | 2°20 | S 23 | | | | | | | | |
| S 24 | 0 35 2 | 6°49'54 | 28°29 | 28°46 | 10°23 | 15° 8 | 2°21 | 25° 1 | 28°54 | 10°38 | 26°15 | 22°31 | 21°19 | 24°53 | 2°21 | S 24 | | | | | | | | |
| M25 | 0 38 58 | 7°49'27 | 10♐39 | 28°54 | 11°36 | 15°49 | 2°21 | 25° 2 | 28°57 | 10°37 | 26°14 | 22°23 | 21°15 | 25° 0 | 2°22 | M25 | | | | | | | | |
| T 26 | 0 42 55 | 8°49'02 | 22°42 | 28°R56 | 12°49 | 16°29 | 2°22 | 25° 2 | 28°59 | 10°36 | 26°13 | 22°12 | 21°12 | 25° 6 | 2°23 | T 26 | | | | | | | | |
| W27 | 0 46 51 | 9°48'40 | 4♌41 | 28°49 | 14° 2 | 17°10 | 2°23 | 25° 3 | 29° 2 | 10°34 | 26°12 | 21°59 | 21° 9 | 25°13 | 2°24 | W27 | | | | | | | | |
| T 28 | 0 50 48 | 10°48'19 | 16°35 | 28°35 | 15°14 | 17°51 | 2°24 | 25° 3 | 29° 5 | 10°33 | 26°11 | 21°45 | 21° 6 | 25°20 | 2°25 | T 28 | | | | | | | | |
| F 29 | 0 54 44 | 11°48'00 | 28°27 | 28°12 | 16°27 | 18°32 | 2°25 | 25° 4 | 29° 7 | 10°31 | 26°10 | 21°31 | 21° 3 | 25°27 | 2°25 | F 29 | | | | | | | | |
| S 30 | 0 58 41 | 12♌47'44 | 10♌19 | 27♌40 | 17♌40 | 19♌13 | 2♌26 | 25♐ 4 | 29♌10 | 10♌30 | 26♌10 | 21♌17 | 21♌ 0 | 25♌33 | 2♌26 | S 30 | | | | | | | | |

Delta T = 20m00s Julian Calendar 1 Sept. 1060 == Greg. Calendar 7 Sept. 1060

OCTOBER 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|------|--------|-------|--------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 1 2 38 | 13♌47'29 | 22♌11 | 26°R59 | 18♌53 | 19♌54 | 2♌28 | 25°R 4 | 29♌13 | 10°R28 | 26°R 9 | 21°R 6 | 20♌56 | 25♌40 | 2♌26 | S 1 | | | | | | | | |
| M 2 | 1 6 34 | 14°47'16 | 4♌ 6 | 26♌10 | 20° 5 | 20°35 | 2°30 | 25♐ 4 | 29°16 | 10♌27 | 26♌ 8 | 20♌57 | 20°53 | 25°47 | 2°27 | M 2 | | | | | | | | |
| T 3 | 1 10 31 | 15°47'05 | 16° 8 | 25°13 | 21°18 | 21°16 | 2°32 | 25° 4 | 29°19 | 10°26 | 26° 7 | 20°52 | 20°50 | 25°54 | 2°27 | T 3 | | | | | | | | |
| W 4 | 1 14 27 | 16°46'56 | 28°20 | 24° 9 | 22°31 | 21°58 | 2°34 | 25° 4 | 29°22 | 10°24 | 26° 7 | 20°49 | 20°47 | 26° 0 | 2°27 | W 4 | | | | | | | | |
| T 5 | 1 18 24 | 17°46'49 | 10♌47 | 22°59 | 23°43 | 22°39 | 2°36 | 25° 3 | 29°24 | 10°22 | 26° 6 | 20°48 | 20°44 | 26° 7 | 2°27 | T 5 | | | | | | | | |
| F 6 | 1 22 20 | 18°46'43 | 23°33 | 21°44 | 24°56 | 23°20 | 2°39 | 25° 3 | 29°27 | 10°21 | 26° 5 | 20°48 | 20°40 | 26°14 | 2°R28 | F 6 | | | | | | | | |
| S 7 | 1 26 17 | 19°46'39 | 6♌45 | 20°28 | 26° 8 | 24° 1 | 2°42 | 25° 2 | 29°30 | 10°19 | 26° 5 | 20°47 | 20°37 | 26°20 | 2°28 | S 7 | | | | | | | | |
| S 8 | 1 30 13 | 20°46'36 | 20°24 | 19°12 | 27°21 | 24°43 | 2°45 | 25° 1 | 29°34 | 10°18 | 26° 4 | 20°45 | 20°34 | 26°27 | 2°27 | S 8 | | | | | | | | |
| M 9 | 1 34 10 | 21°46'35 | 4♌33 | 17°58 | 28°33 | 25°24 | 2°48 | 25° 1 | 29°37 | 10°16 | 26° 3 | 20°41 | 20°31 | 26°34 | 2°27 | M 9 | | | | | | | | |
| T 10 | 1 38 7 | 22°46'36 | 19°11 | 16°49 | 29°46 | 26° 6 | 2°52 | 25° 0 | 29°40 | 10°15 | 26° 3 | 20°34 | 20°28 | 26°41 | 2°27 | T 10 | | | | | | | | |
| W11 | 1 42 3 | 23°46'39 | 4♐13 | 15°46 | 0♌58 | 26°47 | 2°55 | 24°59 | 29°43 | 10°13 | 26° 2 | 20°24 | 20°25 | 26°47 | 2°27 | W11 | | | | | | | | |
| T 12 | 1 46 0 | 24°46'43 | 19°31 | 14°53 | 2°10 | 27°29 | 2°59 | 24°57 | 29°46 | 10°11 | 26° 2 | 20°13 | 20°21 | 26°54 | 2°26 | T 12 | | | | | | | | |
| F 13 | 1 49 56 | 25°46'49 | 4♌54 | 14°10 | 3°23 | 28°10 | 3° 3 | 24°56 | 29°49 | 10°10 | 26° 1 | 20° 2 | 20°18 | 27° 1 | 2°26 | F 13 | | | | | | | | |
| S 14 | 1 53 53 | 26°46'58 | 20° 9 | 13°37 | 4°35 | 28°52 | 3° 7 | 24°55 | 29°52 | 10° 8 | 26° 1 | 19°51 | 20°15 | 27° 7 | 2°25 | S 14 | | | | | | | | |
| S 15 | 1 57 49 | 27°47'08 | 5♐ 6 | 13°16 | 5°47 | 29°34 | 3°11 | 24°53 | 29°56 | 10° 7 | 26° 0 | 19°43 | 20°12 | 27°14 | 2°24 | S 15 | | | | | | | | |
| M16 | 2 1 46 | 28°47'20 | 19°38 | 13°D 7 | 6°59 | 0♌16 | 3°16 | 24°52 | 29°59 | 10° 5 | 26° 0 | 19°38 | 20° 9 | 27°21 | 2°23 | M16 | | | | | | | | |
| T 17 | 2 5 42 | 29°47'35 | 3♌41 | 13°10 | 8°11 | 0°57 | 3°21 | 24°50 | 0♌ 2 | 10° 3 | 25°59 | 19°35 | 20° 6 | 27°28 | 2°22 | T 17 | | | | | | | | |
| W18 | 2 9 39 | 0♌47'52 | 17°15 | 13°23 | 9°24 | 1°39 | 3°25 | 24°48 | 0° 5 | 10° 2 | 25°59 | 19°D35 | 20° 2 | 27°34 | 2°22 | W18 | | | | | | | | |
| T 19 | 2 13 36 | 1°48'10 | 0♌22 | 13°46 | 10°36 | 2°21 | 3°30 | 24°46 | 0° 9 | 10° 0 | 25°58 | 19°R35 | 19°59 | 27°41 | 2°20 | T 19 | | | | | | | | |
| F 20 | 2 17 32 | 2°48'31 | 13° 6 | 14°19 | 11°48 | 3° 3 | 3°36 | 24°44 | 0°12 | 9°58 | 25°58 | 19°34 | 19°56 | 27°48 | 2°19 | F 20 | | | | | | | | |
| S 21 | 2 21 29 | 3°48'53 | 25°32 | 15° 0 | 13° 0 | 3°45 | 3°41 | 24°42 | 0°15 | 9°57 | 25°58 | 19°32 | 19°53 | 27°55 | 2°18 | S 21 | | | | | | | | |
| S 22 | 2 25 25 | 4°49'18 | 7♐44 | 15°49 | 14°12 | 4°27 | 3°47 | 24°40 | 0°19 | 9°55 | 25°57 | 19°28 | 19°50 | 28° 1 | 2°17 | S 22 | | | | | | | | |
| M23 | 2 29 22 | 5°49'44 | 19°47 | 16°44 | 15°23 | 5° 9 | 3°52 | 24°38 | 0°22 | 9°53 | 25°57 | 19°21 | 19°46 | 28° 8 | 2°15 | M23 | | | | | | | | |
| T 24 | 2 33 18 | 6°50'12 | 1♌43 | 17°45 | 16°35 | 5°52 | 3°58 | 24°35 | 0°26 | 9°51 | 25°57 | 19°10 | 19°43 | 28°15 | 2°14 | T 24 | | | | | | | | |
| W25 | 2 37 15 | 7°50'42 | 13°36 | 18°52 | 17°47 | 6°34 | 4° 4 | 24°33 | 0°29 | 9°50 | 25°57 | 18°58 | 19°40 | 28°21 | 2°12 | W25 | | | | | | | | |
| T 26 | 2 41 11 | 8°51'14 | 25°28 | 20° 3 | 18°59 | 7°16 | 4°11 | 24°30 | 0°33 | 9°48 | 25°56 | 18°45 | 19°37 | 28°28 | 2°11 | T 26 | | | | | | | | |
| F 27 | 2 45 8 | 9°51'48 | 7♌20 | 21°17 | 20°10 | 7°58 | 4°17 | 24°27 | 0°36 | 9°46 | 25°56 | 18°31 | 19°34 | 28°35 | 2° 9 | F 27 | | | | | | | | |
| S 28 | 2 49 5 | 10°52'23 | 19°14 | 22°35 | 21°22 | 8°41 | 4°24 | 24°25 | 0°40 | 9°45 | 25°56 | 18°18 | 19°31 | 28°42 | 2° 7 | S 28 | | | | | | | | |
| S 29 | 2 53 1 | 11°53'00 | 1♌11 | 23°56 | 22°33 | 9°23 | 4°30 | 24°22 | 0°43 | 9°43 | 25°56 | 18° 7 | 19°27 | 28°48 | 2° 5 | S 29 | | | | | | | | |
| M30 | 2 56 58 | 12°53'38 | 13°13 | 25°19 | 23°45 | 10° 6 | 4°37 | 24°19 | 0°47 | 9°41 | 25°56 | 17°59 | 19°24 | 28°55 | 2° 3 | M30 | | | | | | | | |
| T 31 | 3 0 54 | 13♌54'18 | | | | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1060
geocentric

NOVEMBER 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|---|--|---|---|---------------------------------|--------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|--|--------------------------------|------|-----|
| W 1 | 3 4 51 | 14 ^h 54 ^m 59 ^s | 7 ^h 38 ^m | 28 ^h 10 ^m | 26 ^h 7 ^m 8 ^s | 11 ^h 31 ^m | 4 ^h 52 ^m | 24 ^h R12 | 0 ^h 54 ^m | 9 ^h R38 | 25 ^h R55 | 17 ^h R51 | 19 ^h 31 ^m | 29 ^h 8 ^m | 1 ^h R59 | W 1 | |
| T 2 | 3 8 47 | 15 ^h 55 ^m 41 ^s | 20 ^h 8 ^m | 29 ^h 38 ^m | 27 ^h 19 ^m | 12 ^h 13 ^m | 4 ^h 59 ^m | 24 ^h II 9 | 0 ^h 57 ^m | 9 ^h R36 | 25 ^h 55 ^m | 17 ^h D51 | 19 ^h 15 ^m | 29 ^h 15 ^m | 1 ^h 57 ^m | T 2 | |
| F 3 | 3 12 44 | 16 ^h 56 ^m 24 ^s | 2 ^h 55 ^m | 1 ^h 11 ^m 7 ^s | 28 ^h 30 ^m | 12 ^h 56 ^m | 5 ^h 7 ^m | 24 ^h 6 ^m | 1 ^h 1 ^m | 9 ^h 35 ^m | 25 ^h D55 | 17 ^h 35 ^m | 19 ^h 11 ^m | 29 ^h 22 ^m | 1 ^h 55 ^m | F 3 | |
| S 4 | 3 16 40 | 17 ^h 57 ^m 08 ^s | 16 ^h 1 ^m | 2 ^h 37 ^m | 29 ^h 41 ^m | 13 ^h 39 ^m | 5 ^h 14 ^m | 24 ^h 2 ^m | 1 ^h 4 ^m | 9 ^h 33 ^m | 25 ^h 55 ^m | 17 ^h R52 | 19 ^h 8 ^m | 29 ^h 29 ^m | 1 ^h 52 ^m | S 4 | |
| S 5 | 3 20 37 | 18 ^h 57 ^m 54 ^s | 29 ^h 31 ^m | 4 ^h 7 ^m | 0 ^h 52 ^m | 14 ^h 21 ^m | 5 ^h 22 ^m | 23 ^h 59 ^m | 1 ^h 8 ^m | 9 ^h 31 ^m | 25 ^h 55 ^m | 17 ^h 51 ^m | 19 ^h 5 ^m | 29 ^h 35 ^m | 1 ^h 50 ^m | S 5 | |
| M 6 | 3 24 34 | 19 ^h 58 ^m 40 ^s | 13 ^h 27 ^m | 5 ^h 39 ^m | 2 ^h 3 ^m | 15 ^h 4 ^m | 5 ^h 30 ^m | 23 ^h 55 ^m | 1 ^h 12 ^m | 9 ^h 30 ^m | 25 ^h 55 ^m | 17 ^h 49 ^m | 19 ^h 2 ^m | 29 ^h 42 ^m | 1 ^h 47 ^m | M 6 | |
| T 7 | 3 28 30 | 20 ^h 59 ^m 27 ^s | 27 ^h 50 ^m | 7 ^h 10 ^m | 3 ^h 14 ^m | 15 ^h 47 ^m | 5 ^h 38 ^m | 23 ^h 51 ^m | 1 ^h 15 ^m | 9 ^h 28 ^m | 25 ^h 56 ^m | 17 ^h 44 ^m | 18 ^h 59 ^m | 29 ^h 49 ^m | 1 ^h 45 ^m | T 7 | |
| W 8 | 3 32 27 | 22 ^h 0 ^m 16 ^s | 12 ^h 0 ^m 37 ^s | 8 ^h 42 ^m | 4 ^h 25 ^m | 16 ^h 30 ^m | 5 ^h 47 ^m | 23 ^h 48 ^m | 1 ^h 19 ^m | 9 ^h 26 ^m | 25 ^h 56 ^m | 17 ^h 37 ^m | 18 ^h 56 ^m | 29 ^h 56 ^m | 1 ^h 42 ^m | W 8 | |
| T 9 | 3 36 23 | 23 ^h 1 ^m 05 ^s | 27 ^h 42 ^m | 10 ^h 15 ^m | 5 ^h 36 ^m | 17 ^h 13 ^m | 5 ^h 55 ^m | 23 ^h 44 ^m | 1 ^h 23 ^m | 9 ^h 25 ^m | 25 ^h 56 ^m | 17 ^h 29 ^m | 18 ^h 52 ^m | 0 ^h 11 ^m 2 ^s | 1 ^h 40 ^m | T 9 | |
| F 10 | 3 40 20 | 24 ^h 1 ^m 56 ^s | 12 ^h 35 ^m | 11 ^h 48 ^m | 6 ^h 47 ^m | 17 ^h 56 ^m | 6 ^h 4 ^m | 23 ^h 40 ^m | 1 ^h 26 ^m | 9 ^h 23 ^m | 25 ^h 56 ^m | 17 ^h 20 ^m | 18 ^h 49 ^m | 0 ^h 9 ^m | 1 ^h 37 ^m | F 10 | |
| S 11 | 3 44 16 | 25 ^h 2 ^m 48 ^s | 28 ^h 8 ^m | 13 ^h 20 ^m | 7 ^h 57 ^m | 18 ^h 39 ^m | 6 ^h 12 ^m | 23 ^h 36 ^m | 1 ^h 30 ^m | 9 ^h 21 ^m | 25 ^h 56 ^m | 17 ^h 12 ^m | 18 ^h 46 ^m | 0 ^h 16 ^m | 1 ^h 34 ^m | S 11 | |
| S 12 | 3 48 13 | 26 ^h 3 ^m 41 ^s | 13 ^h II 8 | 14 ^h 54 ^m | 9 ^h 7 ^m | 19 ^h 22 ^m | 6 ^h 21 ^m | 23 ^h 32 ^m | 1 ^h 34 ^m | 9 ^h 20 ^m | 25 ^h 56 ^m | 17 ^h 6 ^m | 18 ^h 43 ^m | 0 ^h 22 ^m | 1 ^h 31 ^m | S 12 | |
| M13 | 3 52 9 | 27 ^h 4 ^m 35 ^s | 27 ^h 47 ^m | 16 ^h 27 ^m | 10 ^h 18 ^m | 20 ^h 5 ^m | 6 ^h 30 ^m | 23 ^h 28 ^m | 1 ^h 37 ^m | 9 ^h 18 ^m | 25 ^h 57 ^m | 17 ^h 2 ^m | 18 ^h 40 ^m | 0 ^h 29 ^m | 1 ^h 28 ^m | M13 | |
| T 14 | 3 56 6 | 28 ^h 5 ^m 30 ^s | 11 ^h 59 ^m | 18 ^h 0 ^m | 11 ^h 28 ^m | 20 ^h 48 ^m | 6 ^h 39 ^m | 23 ^h 23 ^m | 1 ^h 41 ^m | 9 ^h 16 ^m | 25 ^h 57 ^m | 17 ^h D 1 | 18 ^h 37 ^m | 0 ^h 36 ^m | 1 ^h 25 ^m | T 14 | |
| W15 | 4 0 3 | 29 ^h 6 ^m 27 ^s | 25 ^h 43 ^m | 19 ^h 33 ^m | 12 ^h 38 ^m | 21 ^h 32 ^m | 6 ^h 49 ^m | 23 ^h 19 ^m | 1 ^h 45 ^m | 9 ^h 15 ^m | 25 ^h 57 ^m | 17 ^h 1 ^m | 18 ^h 33 ^m | 0 ^h 43 ^m | 1 ^h 22 ^m | W15 | |
| T 16 | 4 3 59 | 0 ^h 7 ^m 25 ^s | 8 ^h 58 ^m | 21 ^h 7 ^m | 13 ^h 48 ^m | 22 ^h 15 ^m | 6 ^h 58 ^m | 23 ^h 15 ^m | 1 ^h 48 ^m | 9 ^h 13 ^m | 25 ^h 57 ^m | 17 ^h 2 ^m | 18 ^h 30 ^m | 0 ^h 49 ^m | 1 ^h 19 ^m | T 16 | |
| F 17 | 4 7 56 | 1 ^h 8 ^m 24 ^s | 21 ^h 49 ^m | 22 ^h 40 ^m | 14 ^h 58 ^m | 22 ^h 58 ^m | 7 ^h 7 ^m | 23 ^h 11 ^m | 1 ^h 52 ^m | 9 ^h 12 ^m | 25 ^h 58 ^m | 17 ^h 3 ^m | 18 ^h 27 ^m | 0 ^h 56 ^m | 1 ^h 16 ^m | F 17 | |
| S 18 | 4 11 52 | 2 ^h 9 ^m 24 ^s | 4 ^h 18 ^m | 24 ^h 14 ^m | 16 ^h 8 ^m | 23 ^h 42 ^m | 7 ^h 17 ^m | 23 ^h 6 ^m | 1 ^h 56 ^m | 9 ^h 10 ^m | 25 ^h 58 ^m | 17 ^h R 4 | 18 ^h 24 ^m | 1 ^h 3 ^m | 1 ^h 13 ^m | S 18 | |
| S 19 | 4 15 49 | 3 ^h 10 ^m 26 ^s | 16 ^h 31 ^m | 25 ^h 47 ^m | 17 ^h 18 ^m | 24 ^h 25 ^m | 7 ^h 27 ^m | 23 ^h 2 ^m | 1 ^h 59 ^m | 9 ^h 9 ^m | 25 ^h 59 ^m | 17 ^h 2 ^m | 18 ^h 21 ^m | 1 ^h 9 ^m | 1 ^h 9 ^m | S 19 | |
| M20 | 4 19 45 | 4 ^h 11 ^m 28 ^s | 28 ^h 32 ^m | 27 ^h 21 ^m | 18 ^h 27 ^m | 25 ^h 9 ^m | 7 ^h 37 ^m | 22 ^h 57 ^m | 2 ^h 3 ^m | 9 ^h 7 ^m | 25 ^h 59 ^m | 16 ^h 59 ^m | 18 ^h 17 ^m | 1 ^h 16 ^m | 1 ^h 6 ^m | M20 | |
| T 21 | 4 23 42 | 5 ^h 12 ^m 32 ^s | 10 ^h 27 ^m | 28 ^h 55 ^m | 19 ^h 37 ^m | 25 ^h 52 ^m | 7 ^h 47 ^m | 22 ^h 52 ^m | 2 ^h 7 ^m | 9 ^h 6 ^m | 25 ^h 59 ^m | 16 ^h 54 ^m | 18 ^h 14 ^m | 1 ^h 23 ^m | 1 ^h 3 ^m | T 21 | |
| W22 | 4 27 38 | 6 ^h 13 ^m 37 ^s | 22 ^h 18 ^m | 0 ^h 29 ^m | 20 ^h 46 ^m | 26 ^h 36 ^m | 7 ^h 57 ^m | 22 ^h 48 ^m | 2 ^h 10 ^m | 9 ^h 4 ^m | 26 ^h 0 ^m | 16 ^h 48 ^m | 18 ^h 11 ^m | 1 ^h 30 ^m | 0 ^h 59 ^m | W22 | |
| T 23 | 4 31 35 | 7 ^h 14 ^m 43 ^s | 4 ^h 11 ^m 9 ^s | 2 ^h 2 ^m | 21 ^h 55 ^m | 27 ^h 19 ^m | 8 ^h 7 ^m | 22 ^h 43 ^m | 2 ^h 14 ^m | 9 ^h 3 ^m | 26 ^h 0 ^m | 16 ^h 40 ^m | 18 ^h 8 ^m | 1 ^h 36 ^m | 0 ^h 56 ^m | T 23 | |
| F 24 | 4 35 32 | 8 ^h 15 ^m 49 ^s | 16 ^h 3 ^m | 3 ^h 36 ^m | 23 ^h 4 ^m | 28 ^h 3 ^m | 8 ^h 17 ^m | 22 ^h 38 ^m | 2 ^h 18 ^m | 9 ^h 1 ^m | 26 ^h 1 ^m | 16 ^h 32 ^m | 18 ^h 5 ^m | 1 ^h 43 ^m | 0 ^h 52 ^m | F 24 | |
| S 25 | 4 39 28 | 9 ^h 16 ^m 57 ^s | 28 ^h 2 ^m | 5 ^h 10 ^m | 24 ^h 13 ^m | 28 ^h 47 ^m | 8 ^h 28 ^m | 22 ^h 34 ^m | 2 ^h 21 ^m | 9 ^h 0 ^m | 26 ^h 1 ^m | 16 ^h 25 ^m | 18 ^h 2 ^m | 1 ^h 50 ^m | 0 ^h 48 ^m | S 25 | |
| S 26 | 4 43 25 | 10 ^h 18 ^m 05 ^s | 10 ^h 7 ^m 8 ^s | 6 ^h 44 ^m | 25 ^h 22 ^m | 29 ^h 30 ^m | 8 ^h 39 ^m | 22 ^h 29 ^m | 2 ^h 25 ^m | 8 ^h 59 ^m | 26 ^h 2 ^m | 16 ^h 19 ^m | 17 ^h 58 ^m | 1 ^h 57 ^m | 0 ^h 45 ^m | S 26 | |
| M27 | 4 47 21 | 11 ^h 19 ^m 14 ^s | 22 ^h 21 ^m | 8 ^h 19 ^m | 26 ^h 30 ^m | 0 ^h 14 ^m | 8 ^h 49 ^m | 22 ^h 24 ^m | 2 ^h 29 ^m | 8 ^h 57 ^m | 26 ^h 3 ^m | 16 ^h 14 ^m | 17 ^h 55 ^m | 2 ^h 3 ^m | 0 ^h 41 ^m | M27 | |
| T 28 | 4 51 18 | 12 ^h 20 ^m 24 ^s | 4 ^h 34 ^m | 9 ^h 53 ^m | 27 ^h 39 ^m | 0 ^h 58 ^m | 9 ^h 0 ^m | 22 ^h 19 ^m | 2 ^h 32 ^m | 8 ^h 56 ^m | 26 ^h 3 ^m | 16 ^h 12 ^m | 17 ^h 52 ^m | 2 ^h 10 ^m | 0 ^h 38 ^m | T 28 | |
| W29 | 4 55 14 | 13 ^h 21 ^m 34 ^s | 17 ^h 14 ^m | 11 ^h 28 ^m | 28 ^h 47 ^m | 1 ^h 42 ^m | 9 ^h 11 ^m | 22 ^h 14 ^m | 2 ^h 36 ^m | 8 ^h 54 ^m | 26 ^h 4 ^m | 16 ^h D11 | 17 ^h 49 ^m | 2 ^h 17 ^m | 0 ^h 34 ^m | W29 | |
| T 30 | 4 59 11 | 14 ^h 22 ^m 44 ^s | 29 ^h 35 ^m | 13 ^h 2 ^m 2 ^s | 29 ^h 35 ^m | 2 ^h 26 ^m | 9 ^h 22 ^m | 22 ^h II 9 | 2 ^h 39 ^m | 8 ^h 53 ^m | 26 ^h 4 ^m | 16 ^h 32 ^m | 17 ^h 34 ^m | 2 ^h 11 ^m 23 ^s | 0 ^h 30 ^m | T 30 | |

Delta T = 19m59s Julian Calendar 1 Nov. 1060 == Greg. Calendar 7 Nov. 1060

DECEMBER 1060 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|-----|---------|---|---------------------------------|---------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|--|--------------------------------|-----|-----|
| F 1 | 5 3 8 | 15 ^h 23 ^m 54 ^s | 12 ^h 55 ^m | 14 ^h 37 ^m | 1 ^h 3 ^m | 3 ^h 10 ^m | 9 ^h 33 ^m | 22 ^h R 5 | 2 ^h 43 ^m | 8 ^h R52 | 26 ^h 5 ^m | 16 ^h 34 ^m | 17 ^h 34 ^m | 2 ^h 11 ^m 30 ^s | 0 ^h R26 | F 1 | |
| S 2 | 5 7 4 | 16 ^h 25 ^m 05 ^s | 26 ^h 7 ^m | 16 ^h 12 ^m | 2 ^h 11 ^m | 3 ^h 54 ^m | 9 ^h 44 ^m | 22 ^h II 0 | 2 ^h 47 ^m | 8 ^h 51 ^m | 26 ^h 6 ^m | 16 ^h 15 ^m | 17 ^h 39 ^m | 2 ^h 37 ^m | 0 ^h 22 ^m | S 2 | |
| S 3 | 5 11 1 | 17 ^h 26 ^m 16 ^s | 9 ^h 37 ^m | 17 ^h 47 ^m | 3 ^h 18 ^m | 4 ^h 38 ^m | 9 ^h 56 ^m | 21 ^h 55 ^m | 2 ^h 50 ^m | 8 ^h 49 ^m | 26 ^h 7 ^m | 16 ^h 17 ^m | 17 ^h 36 ^m | 2 ^h 44 ^m | 0 ^h 18 ^m | S 3 | |
| M 4 | 5 14 57 | 18 ^h 27 ^m 26 ^s | 23 ^h 26 ^m | 19 ^h 23 ^m | 4 ^h 26 ^m | 5 ^h 22 ^m | 10 ^h 7 ^m | 21 ^h 50 ^m | 2 ^h 54 ^m | 8 ^h 48 ^m | 26 ^h 7 ^m | 16 ^h R17 | 17 ^h 33 ^m | 2 ^h 50 ^m | 0 ^h 15 ^m | M 4 | |
| T 5 | 5 18 54 | 19 ^h 28 ^m 37 ^s | 7 ^h 34 ^m | 20 ^h 59 ^m | 5 ^h 33 ^m | 6 ^h 6 ^m | 10 ^h 19 ^m | 21 ^h 45 ^m | 2 ^h 57 ^m | 8 ^h 47 ^m | 26 ^h 8 ^m | 16 ^h 15 ^m | 17 ^h 30 ^m | 2 ^h 57 ^m | 0 ^h 11 ^m | T 5 | |
| W 6 | 5 22 50 | 20 ^h 29 ^m 48 ^s | 22 ^h 0 ^m | 22 ^h 35 ^m | 6 ^h 40 ^m | 6 ^h 51 ^m | 10 ^h 30 ^m | 21 ^h 40 ^m | 3 ^h 1 ^m | 8 ^h 46 ^m | 26 ^h | | | | | | |

ASTRODIENST EPHEMERIS for the year 1061
geocentric

JANUARY 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|---------|------|-------|-------|--------|-------|------|---------|------|
| M 1 | 7 5 21 | 17♌0'20 | 4♋12 | 4♌28 | 3♋57 | 26♌15 | 16♌0 | 19°R38 | 4♌26 | 8°R25 | 26♌37 | 15°R58 | 16♌4 | 5♌58 | 28°R24 | M 1 |
| T 2 | 7 9 17 | 18°1'24 | 18°17 | 5°51 | 4°54 | 27°0 | 16°14 | 19°II34 | 4°29 | 8♌25 | 26°38 | 15°D58 | 16°1 | 6°5 | 28°II20 | T 2 |
| W 3 | 7 13 14 | 19°2'28 | 2♌29 | 7°10 | 5°51 | 27°46 | 16°28 | 19°30 | 4°32 | 8°24 | 26°40 | 15°S58 | 15°58 | 6°12 | 28°16 | W 3 |
| T 4 | 7 17 11 | 20°3'30 | 16°47 | 8°24 | 6°48 | 28°31 | 16°41 | 19°26 | 4°35 | 8°24 | 26°41 | 15°58 | 15°55 | 6°19 | 28°12 | T 4 |
| F 5 | 7 21 7 | 21°4'31 | 1♌8 | 9°33 | 7°43 | 29°17 | 16°55 | 19°22 | 4°38 | 8°24 | 26°42 | 15°59 | 15°51 | 6°25 | 28°9 | F 5 |
| S 6 | 7 25 4 | 22°5'32 | 15°28 | 10°35 | 8°38 | 0♌2 | 17°9 | 19°18 | 4°41 | 8°23 | 26°44 | 15°59 | 15°48 | 6°32 | 28°5 | S 6 |
| S 7 | 7 29 0 | 23°6'31 | 29°43 | 11°31 | 9°33 | 0°47 | 17°22 | 19°14 | 4°43 | 8°23 | 26°45 | 16°0 | 15°45 | 6°39 | 28°2 | S 7 |
| M 8 | 7 32 57 | 24°7'29 | 13♌34 | 12°18 | 10°27 | 1°33 | 17°36 | 19°11 | 4°46 | 8°23 | 26°46 | 16°R0 | 15°42 | 6°45 | 27°58 | M 8 |
| T 9 | 7 36 53 | 25°8'25 | 27°41 | 12°57 | 11°20 | 2°19 | 17°50 | 19°7 | 4°49 | 8°23 | 26°48 | 16°0 | 15°39 | 6°52 | 27°55 | T 9 |
| W10 | 7 40 50 | 26°9'21 | 11♌16 | 13°27 | 12°12 | 3°4 | 18°4 | 19°4 | 4°51 | 8°23 | 26°49 | 15°59 | 15°35 | 6°59 | 27°51 | W10 |
| T 11 | 7 44 46 | 27°10'16 | 24°33 | 13°46 | 13°4 | 3°50 | 18°18 | 19°0 | 4°54 | 8°23 | 26°51 | 15°58 | 15°32 | 7°6 | 27°48 | T 11 |
| F 12 | 7 48 43 | 28°11'10 | 7♌29 | 13°R55 | 13°55 | 4°35 | 18°32 | 18°57 | 4°57 | 8°D23 | 26°52 | 15°56 | 15°29 | 7°12 | 27°45 | F 12 |
| S 13 | 7 52 40 | 29°12'03 | 20°7 | 13°52 | 14°45 | 5°21 | 18°46 | 18°54 | 4°59 | 8°23 | 26°54 | 15°54 | 15°26 | 7°19 | 27°41 | S 13 |
| S 14 | 7 56 36 | 0♌25'4 | 2♌28 | 13°38 | 15°34 | 6°7 | 19°0 | 18°51 | 5°2 | 8°23 | 26°55 | 15°52 | 15°23 | 7°26 | 27°38 | S 14 |
| M15 | 8 0 33 | 1°13'45 | 14°35 | 13°14 | 16°22 | 6°53 | 19°14 | 18°48 | 5°4 | 8°23 | 26°57 | 15°51 | 15°20 | 7°32 | 27°35 | M15 |
| T 16 | 8 4 29 | 2°14'35 | 26°33 | 12°39 | 17°10 | 7°38 | 19°28 | 18°45 | 5°6 | 8°23 | 26°58 | 15°50 | 15°16 | 7°39 | 27°32 | T 16 |
| W17 | 8 8 26 | 3°15'24 | 8♌25 | 11°54 | 17°56 | 8°24 | 19°42 | 18°42 | 5°9 | 8°23 | 27°0 | 15°D50 | 15°13 | 7°46 | 27°29 | W17 |
| T 18 | 8 12 22 | 4°16'12 | 20°17 | 11°0 | 18°42 | 9°10 | 19°57 | 18°39 | 5°11 | 8°23 | 27°1 | 15°51 | 15°10 | 7°53 | 27°26 | T 18 |
| F 19 | 8 16 19 | 5°16'59 | 2♌14 | 10°0 | 19°26 | 9°56 | 20°11 | 18°37 | 5°13 | 8°24 | 27°3 | 15°52 | 15°7 | 7°59 | 27°23 | F 19 |
| S 20 | 8 20 15 | 6°17'45 | 14°20 | 8°54 | 20°10 | 10°42 | 20°25 | 18°34 | 5°16 | 8°24 | 27°4 | 15°54 | 15°4 | 8°6 | 27°20 | S 20 |
| S 21 | 8 24 12 | 7°18'29 | 26°38 | 7°45 | 20°52 | 11°28 | 20°39 | 18°32 | 5°18 | 8°24 | 27°6 | 15°55 | 15°1 | 8°13 | 27°18 | S 21 |
| M22 | 8 28 9 | 8°19'13 | 9♌14 | 6°34 | 21°34 | 12°14 | 20°54 | 18°29 | 5°20 | 8°24 | 27°7 | 15°56 | 14°57 | 8°19 | 27°15 | M22 |
| T 23 | 8 32 5 | 9°19'55 | 22°7 | 5°24 | 22°14 | 13°0 | 21°8 | 18°27 | 5°22 | 8°25 | 27°9 | 15°R56 | 14°54 | 8°26 | 27°12 | T 23 |
| W24 | 8 36 2 | 10°20'36 | 5♌20 | 4°16 | 22°52 | 13°46 | 21°22 | 18°25 | 5°24 | 8°25 | 27°11 | 15°55 | 14°51 | 8°33 | 27°10 | W24 |
| T 25 | 8 39 58 | 11°21'15 | 18°51 | 3°12 | 23°30 | 14°32 | 21°37 | 18°23 | 5°26 | 8°26 | 27°12 | 15°53 | 14°48 | 8°40 | 27°7 | T 25 |
| F 26 | 8 43 55 | 12°21'53 | 2♌39 | 2°13 | 24°6 | 15°18 | 21°51 | 18°21 | 5°28 | 8°26 | 27°14 | 15°49 | 14°45 | 8°46 | 27°5 | F 26 |
| S 27 | 8 47 51 | 13°22'29 | 16°39 | 1°20 | 24°41 | 16°4 | 22°5 | 18°19 | 5°30 | 8°26 | 27°15 | 15°45 | 14°41 | 8°53 | 27°3 | S 27 |
| S 28 | 8 51 48 | 14°23'03 | 0♌49 | 0°34 | 25°15 | 16°50 | 22°20 | 18°18 | 5°32 | 8°27 | 27°17 | 15°41 | 14°38 | 9°0 | 27°0 | S 28 |
| M29 | 8 55 44 | 15°23'35 | 15°3 | 29♌55 | 25°47 | 17°36 | 22°34 | 18°16 | 5°34 | 8°28 | 27°18 | 15°37 | 14°35 | 9°6 | 26°58 | M29 |
| T 30 | 8 59 41 | 16°24'06 | 29°18 | 29°23 | 26°17 | 18°22 | 22°49 | 18°14 | 5°35 | 8°28 | 27°20 | 15°34 | 14°32 | 9°13 | 26°56 | T 30 |
| W31 | 9 3 38 | 17°24'34 | 13♌31 | 29♌0 | 26♌46 | 19♌9 | 23♌3 | 18°II13 | 5♌37 | 8♌29 | 27°22 | 15°D33 | 14♌29 | 9♌20 | 26°II54 | W31 |

Delta T = 19m59s Julian Calendar 1 Jan. 1061 == Greg. Calendar 7 Jan. 1061

FEBRUARY 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|---------|------|------|-------|--------|-------|-------|---------|------|
| T 1 | 9 7 34 | 18♌25'01 | 27♌39 | 28°R44 | 27♌13 | 19♌55 | 23♌17 | 18°R12 | 5♌39 | 8♌29 | 27°23 | 15°S34 | 14♌26 | 9♌26 | 26°R52 | T 1 |
| F 2 | 9 11 31 | 19°25'26 | 11♌41 | 28♌35 | 27°38 | 20°41 | 23°32 | 18°II11 | 5°40 | 8°30 | 27°25 | 15°35 | 14°22 | 9°33 | 26°II50 | F 2 |
| S 3 | 9 15 27 | 20°25'49 | 25°36 | 28°D33 | 28°2 | 21°27 | 23°46 | 18°10 | 5°42 | 8°31 | 27°27 | 15°36 | 14°19 | 9°40 | 26°48 | S 3 |
| S 4 | 9 19 24 | 21°26'09 | 9♌23 | 28°38 | 28°23 | 22°13 | 24°1 | 18°9 | 5°44 | 8°32 | 27°28 | 15°R37 | 14°16 | 9°47 | 26°47 | S 4 |
| M 5 | 9 23 20 | 22°26'28 | 23°0 | 28°49 | 28°43 | 23°0 | 24°15 | 18°8 | 5°45 | 8°32 | 27°30 | 15°37 | 14°13 | 9°53 | 26°45 | M 5 |
| T 6 | 9 27 17 | 23°26'45 | 6♌26 | 29°6 | 29°1 | 23°46 | 24°30 | 18°7 | 5°47 | 8°33 | 27°31 | 15°36 | 14°10 | 10°0 | 26°43 | T 6 |
| W 7 | 9 31 13 | 24°27'00 | 19°40 | 29°29 | 29°16 | 24°32 | 24°44 | 18°7 | 5°48 | 8°34 | 27°33 | 15°32 | 14°7 | 10°7 | 26°42 | W 7 |
| T 8 | 9 35 10 | 25°27'13 | 2♌41 | 29°57 | 29°30 | 25°19 | 24°59 | 18°6 | 5°49 | 8°35 | 27°35 | 15°26 | 14°3 | 10°13 | 26°41 | T 8 |
| F 9 | 9 39 7 | 26°27'24 | 15°28 | 0♌29 | 29°41 | 26°5 | 25°13 | 18°6 | 5°51 | 8°36 | 27°36 | 15°19 | 14°0 | 10°20 | 26°39 | F 9 |
| S 10 | 9 43 3 | 27°27'33 | 28°0 | 1°6 | 29°50 | 26°51 | 25°28 | 18°6 | 5°52 | 8°37 | 27°38 | 15°11 | 13°57 | 10°27 | 26°38 | S 10 |
| S 11 | 9 47 0 | 28°27'41 | 10♌18 | 1°48 | 29°57 | 27°38 | 25°42 | 18°5 | 5°53 | 8°38 | 27°40 | 15°3 | 13°54 | 10°34 | 26°37 | S 11 |
| M12 | 9 50 56 | 29°27'47 | 22°25 | 2°33 | 0♌2 | 28°24 | 25°57 | 18°D5 | 5°54 | 8°39 | 27°41 | 14°56 | 13°51 | 10°40 | 26°36 | M12 |
| T 13 | 9 54 53 | 0♌27'51 | 4♌22 | 3°21 | 0°R4 | 29°11 | 26°11 | 18°5 | 5°55 | 8°40 | 27°43 | 14°51 | 13°47 | 10°47 | 26°35 | T 13 |
| W14 | 9 58 49 | 1°27'54 | 16°14 | 4°13 | 0°3 | 29°57 | 26°25 | 18°6 | 5°56 | 8°41 | 27°44 | 14°48 | 13°44 | 10°54 | 26°34 | W14 |
| T 15 | 10 2 46 | 2°27'55 | 28°5 | 5°8 | 0°1 | 0♌44 | 26°40 | 18°6 | 5°57 | 8°42 | 27°46 | 14°D46 | 13°41 | 11°0 | 26°33 | T 15 |
| F 16 | 10 6 42 | 3°27'54 | 10♌1 | 6°7 | 29♌55 | 1°30 | 26°54 | 18°6 | 5°58 | 8°43 | 27°48 | 14°46 | 13°38 | 11°7 | 26°33 | F 16 |
| S 17 | 10 10 39 | 4°27'52 | 22°5 | 7°7 | 29°47 | 2°17 | 27°9 | 18°7 | 5°59 | 8°44 | 27°49 | 14°47 | 13°35 | 11°14 | 26°32 | S 17 |
| S 18 | 10 14 36 | 5°27'48 | 4♌24 | 8°10 | 29°37 | 3°3 | 27°23 | 18°8 | 6°0 | 8°46 | 27°51 | 14°48 | 13°32 | 11°21 | 26°31 | S 18 |
| M19 | 10 18 32 | 6°27'42 | 17°2 | 9°16 | 29°24 | 3°50 | 27°37 | 18°8 | 6°1 | 8°47 | 27°53 | 14°R49 | 13°28 | 11°27 | 26°31 | M19 |
| T 20 | 10 22 29 | 7°27'34 | 0♌2 | 10°24 | 29°9 | 4°36 | 27°52 | 18°9 | 6°1 | 8°48 | 27°54 | 14°48 | 13°25 | 11°34 | 26°31 | T 20 |
| W21 | 10 26 25 | 8°27'25 | 13°27 | 11°34 | 28°51 | 5°23 | 28°6 | 18°10 | 6°2 | 8°49 | 27°56 | 14°44 | 13°22 | 11°41 | 26°30 | W21 |
| T 22 | 10 30 22 | 9°27'14 | 27°17 | 12°46 | 28°31 | 6°9 | 28°21 | 18°11 | 6°3 | 8°51 | 27°57 | 14°38 | 13°19 | 11°47 | 26°30 | T 22 |
| F 23 | 10 34 18 | 10°27'00 | 11♌28 | 14°0 | 28°9 | 6°56 | 28°35 | 18°13 | 6°3 | 8°52 | 27°59 | 14°31 | 13°16 | 11°54 | 26°D30 | F 23 |
| S 24 | 10 38 15 | 11°26'45 | 25°57 | 15°16 | 27°44 | 7°42 | 28°49 | 18°14 | 6°4 | 8°53 | 28°1 | 14°22 | 13°13 | 12°1 | 26°30 | S 24 |
| S 25 | 10 42 11 | 12°26'27 | 10♌35 | 16°34 | 27°18 | 8°29 | 29°3 | 18°15 | 6°4 | 8°55 | 28°2 | 14°12 | 13°9 | 12°7 | 26°30 | S 25 |
| M26 | 10 46 8 | 13°26'08 | 25°17 | 17°53 | 26°49 | 9°15 | 29°18 | 18°17 | 6°4 | 8°56 | 28°4 | 14°4 | 13°6 | 12°14 | 26°30 | M26 |
| T 27 | 10 50 4 | 14°25'46 | 9♌53 | 19°14 | 26°18 | 10°2 | 29°32 | 18°18 | 6°5 | 8°58 | 28°5 | 13°57 | 13°3 | 12°21 | 26°31 | T 27 |
| W28 | 10 54 1 | 15°25'22 | 24♌20 | 20♌37 | 25♌46 | 10♌49 | 29♌46 | 18°II20 | 6♌5 | 8♌59 | 28°7 | 13°S53 | 13♌0 | 12♌28 | 26°II31 | W28 |

Delta T = 19m58s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1061
geocentric

MARCH 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|--------|-------|------|--------|------|------|-------|--------|--------|--------|---------|---------|------|-----|
| T 1 | 10 57 58 | 16♌24'55 | 8♏33 | 22♍1 | 25°R13 | 11♌35 | 0♌0 | 18♏22 | 6♌5 | 9♌1 | 28♌9 | 13°R51 | 12♌57 | 12♌34 | 26♏32 | 26♏32 | T 1 | |
| F 2 | 11 1 54 | 17°24'26 | 22°30 | 23°27 | 24♌37 | 12°22 | 0°14 | 18°24 | 6°6 | 9°2 | 28°10 | 13°D51 | 12°53 | 12°41 | 26°32 | 26°32 | F 2 | |
| S 3 | 11 5 51 | 18°23'55 | 6♌12 | 24°54 | 24°1 | 13°8 | 0°29 | 18°26 | 6°6 | 9°4 | 28°12 | 13°S52 | 12°50 | 12°48 | 26°33 | 26°33 | S 3 | |
| S 4 | 11 9 47 | 19°23'21 | 19°40 | 26°23 | 23°24 | 13°55 | 0°43 | 18°28 | 6°6 | 9°5 | 28°13 | 13°R52 | 12°47 | 12°54 | 26°34 | 26°34 | S 4 | |
| M 5 | 11 13 44 | 20°22'45 | 2♌55 | 27°53 | 22°47 | 14°42 | 0°57 | 18°31 | 6°R6 | 9°7 | 28°15 | 13°50 | 12°44 | 13°1 | 26°34 | 26°34 | M 5 | |
| T 6 | 11 17 40 | 21°22'07 | 15°58 | 29°24 | 22°9 | 15°28 | 1°11 | 18°33 | 6°6 | 9°9 | 28°16 | 13°46 | 12°41 | 13°8 | 26°35 | 26°35 | T 6 | |
| W 7 | 11 21 37 | 22°21'26 | 28°50 | 0♌57 | 21°31 | 16°15 | 1°25 | 18°36 | 6°6 | 9°10 | 28°18 | 13°39 | 12°38 | 13°15 | 26°36 | 26°36 | W 7 | |
| T 8 | 11 25 33 | 23°20'43 | 11♏31 | 2°31 | 20°53 | 17°1 | 1°39 | 18°38 | 6°6 | 9°12 | 28°19 | 13°29 | 12°34 | 13°21 | 26°37 | 26°37 | T 8 | |
| F 9 | 11 29 30 | 24°19'58 | 24°2 | 4°7 | 20°16 | 17°48 | 1°53 | 18°41 | 6°5 | 9°14 | 28°21 | 13°18 | 12°31 | 13°28 | 26°38 | 26°38 | F 9 | |
| S 10 | 11 33 27 | 25°19'11 | 6♌22 | 5°44 | 19°39 | 18°34 | 2°7 | 18°44 | 6°5 | 9°15 | 28°22 | 13°5 | 12°28 | 13°35 | 26°40 | 26°40 | S 10 | |
| S 11 | 11 37 23 | 26°18'21 | 18°33 | 7°23 | 19°3 | 19°21 | 2°20 | 18°47 | 6°5 | 9°17 | 28°24 | 12°52 | 12°25 | 13°41 | 26°41 | 26°41 | S 11 | |
| M12 | 11 41 20 | 27°17'30 | 0♌35 | 9°3 | 18°28 | 20°8 | 2°34 | 18°50 | 6°4 | 9°19 | 28°25 | 12°40 | 12°22 | 13°48 | 26°42 | 26°42 | M12 | |
| T 13 | 11 45 16 | 28°16'37 | 12°30 | 10°44 | 17°55 | 20°54 | 2°48 | 18°53 | 6°4 | 9°21 | 28°27 | 12°30 | 12°18 | 13°55 | 26°44 | 26°44 | T 13 | |
| W14 | 11 49 13 | 29°15'42 | 24°21 | 12°27 | 17°23 | 21°41 | 3°2 | 18°56 | 6°4 | 9°22 | 28°28 | 12°22 | 12°15 | 14°1 | 26°46 | 26°46 | W14 | |
| T 15 | 11 53 9 | 0♌14'45 | 6♌10 | 14°11 | 16°53 | 22°27 | 3°15 | 18°59 | 6°3 | 9°24 | 28°30 | 12°17 | 12°12 | 14°8 | 26°47 | 26°47 | T 15 | |
| F 16 | 11 57 6 | 1°13'46 | 18°4 | 15°57 | 16°25 | 23°14 | 3°29 | 19°3 | 6°3 | 9°26 | 28°31 | 12°15 | 12°9 | 14°15 | 26°49 | 26°49 | F 16 | |
| S 17 | 12 1 2 | 2°12'46 | 0♌6 | 17°44 | 15°59 | 24°0 | 3°43 | 19°6 | 6°2 | 9°28 | 28°32 | 12°D14 | 12°6 | 14°22 | 26°51 | 26°51 | S 17 | |
| S 18 | 12 4 59 | 3°11'44 | 12°23 | 19°32 | 15°35 | 24°47 | 3°56 | 19°10 | 6°1 | 9°30 | 28°34 | 12°R14 | 12°3 | 14°28 | 26°53 | 26°53 | S 18 | |
| M19 | 12 8 56 | 4°10'40 | 24°58 | 21°22 | 15°14 | 25°33 | 4°10 | 19°13 | 6°1 | 9°32 | 28°35 | 12°14 | 11°59 | 14°35 | 26°55 | 26°55 | M19 | |
| T 20 | 12 12 52 | 5°9'34 | 7♌58 | 23°14 | 14°54 | 26°20 | 4°23 | 19°17 | 6°0 | 9°34 | 28°37 | 12°12 | 11°56 | 14°42 | 26°57 | 26°57 | T 20 | |
| W21 | 12 16 49 | 6°8'26 | 11°25 | 25°7 | 14°37 | 27°7 | 4°36 | 19°21 | 5°59 | 9°36 | 28°38 | 12°8 | 11°53 | 14°48 | 26°59 | 26°59 | W21 | |
| T 22 | 12 20 45 | 7°7'17 | 5♌20 | 27°1 | 14°23 | 27°53 | 4°50 | 19°25 | 5°58 | 9°38 | 28°39 | 12°1 | 11°50 | 14°55 | 27°1 | 27°1 | T 22 | |
| F 23 | 12 24 42 | 8°6'05 | 19°43 | 28°57 | 14°11 | 28°40 | 5°3 | 19°29 | 5°57 | 9°39 | 28°41 | 11°51 | 11°47 | 15°2 | 27°4 | 27°4 | F 23 | |
| S 24 | 12 28 38 | 9°4'52 | 4♌29 | 0♌54 | 14°1 | 29°26 | 5°16 | 19°33 | 5°57 | 9°41 | 28°42 | 11°40 | 11°44 | 15°8 | 27°6 | 27°6 | S 24 | |
| S 25 | 12 32 35 | 10°3'36 | 19°29 | 2°53 | 13°54 | 0♌13 | 5°29 | 19°37 | 5°56 | 9°43 | 28°43 | 11°29 | 11°40 | 15°15 | 27°9 | 27°9 | S 25 | |
| M26 | 12 36 31 | 11°2'19 | 4♌34 | 4°53 | 13°49 | 0°59 | 5°43 | 19°42 | 5°54 | 9°45 | 28°45 | 11°18 | 11°37 | 15°22 | 27°11 | 27°11 | M26 | |
| T 27 | 12 40 28 | 12°0'59 | 19°34 | 6°55 | 13°46 | 1°45 | 5°56 | 19°46 | 5°53 | 9°48 | 28°46 | 11°9 | 11°34 | 15°29 | 27°14 | 27°14 | T 27 | |
| W28 | 12 44 25 | 12°59'38 | 4♏20 | 8°58 | 13°D46 | 2°32 | 6°9 | 19°51 | 5°52 | 9°50 | 28°47 | 11°4 | 11°31 | 15°35 | 27°17 | 27°17 | W28 | |
| T 29 | 12 48 21 | 13°58'14 | 18°47 | 11°2 | 13°49 | 3°18 | 6°22 | 19°55 | 5°51 | 9°52 | 28°48 | 11°1 | 11°28 | 15°42 | 27°19 | 27°19 | T 29 | |
| F 30 | 12 52 18 | 14°56'48 | 2♌52 | 13°7 | 13°53 | 4°5 | 6°34 | 20°0 | 5°50 | 9°54 | 28°49 | 10°59 | 11°24 | 15°49 | 27°22 | 27°22 | F 30 | |
| S 31 | 12 56 14 | 15°55'20 | 16♌34 | 15°Y13 | 14♌0 | 4♌51 | 6♌47 | 20°II5 | 5♌49 | 9♌56 | 28°51 | 10°S59 | 11°S21 | 15°M55 | 27°II25 | 27°II25 | S 31 | |

Delta T = 19m58s Julian Calendar 1 March 1061 == Greg. Calendar 7 March 1061

APRIL 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|---------|-------|-------|-------|--------|--------|--------|---------|---------|------|
| S 1 | 13 0 11 | 16♌53'49 | 29♌56 | 17♌20 | 14♌9 | 5♌37 | 7♌0 | 20°II10 | 5°R47 | 9♌58 | 28°52 | 10°R59 | 11°S18 | 16♌2 | 27°II28 | 27°II28 | S 1 |
| M 2 | 13 4 7 | 17°52'16 | 13♏0 | 19°28 | 14°20 | 6°24 | 7°13 | 20°14 | 5°46 | 10°0 | 28°53 | 10°S57 | 11°15 | 16°9 | 27°31 | 27°31 | M 2 |
| T 3 | 13 8 4 | 18°50'41 | 25°49 | 21°36 | 14°34 | 7°10 | 7°25 | 20°19 | 5°45 | 10°2 | 28°54 | 10°53 | 11°12 | 16°15 | 27°35 | 27°35 | T 3 |
| W 4 | 13 12 0 | 19°49'04 | 8♏24 | 23°44 | 14°49 | 7°56 | 7°38 | 20°24 | 5°43 | 10°4 | 28°55 | 10°46 | 11°9 | 16°22 | 27°38 | 27°38 | W 4 |
| T 5 | 13 15 57 | 20°47'24 | 20°49 | 25°52 | 15°6 | 8°42 | 7°50 | 20°30 | 5°42 | 10°6 | 28°56 | 10°36 | 11°5 | 16°29 | 27°41 | 27°41 | T 5 |
| F 6 | 13 19 54 | 21°45'43 | 3♌6 | 28°0 | 15°25 | 9°29 | 8°3 | 20°35 | 5°40 | 10°9 | 28°58 | 10°24 | 11°2 | 16°36 | 27°45 | 27°45 | F 6 |
| S 7 | 13 23 50 | 22°44'00 | 15°14 | 0♌7 | 15°46 | 10°15 | 8°15 | 20°40 | 5°39 | 10°11 | 28°59 | 10°10 | 10°59 | 16°42 | 27°48 | 27°48 | S 7 |
| S 8 | 13 27 47 | 23°42'14 | 27°15 | 2°13 | 16°9 | 11°1 | 8°27 | 20°45 | 5°37 | 10°13 | 29°0 | 9°57 | 10°56 | 16°49 | 27°52 | 27°52 | S 8 |
| M 9 | 13 31 43 | 24°40'27 | 9♏11 | 4°18 | 16°34 | 11°47 | 8°39 | 20°51 | 5°35 | 10°15 | 29°1 | 9°44 | 10°53 | 16°56 | 27°55 | 27°55 | M 9 |
| T 10 | 13 35 40 | 25°38'39 | 21°3 | 6°22 | 17°0 | 12°33 | 8°51 | 20°56 | 5°34 | 10°17 | 29°2 | 9°34 | 10°49 | 17°2 | 27°59 | 27°59 | T 10 |
| W11 | 13 39 36 | 26°36'49 | 2♌53 | 8°24 | 17°28 | 13°19 | 9°3 | 21°2 | 5°32 | 10°19 | 29°3 | 9°26 | 10°46 | 17°9 | 28°3 | 28°3 | W11 |
| T 12 | 13 43 33 | 27°34'57 | 14°43 | 10°23 | 17°57 | 14°6 | 9°15 | 21°8 | 5°30 | 10°22 | 29°4 | 9°21 | 10°43 | 17°16 | 28°6 | 28°6 | T 12 |
| F 13 | 13 47 29 | 28°33'03 | 26°37 | 12°20 | 18°28 | 14°52 | 9°27 | 21°13 | 5°29 | 10°24 | 29°5 | 9°18 | 10°40 | 17°22 | 28°10 | 28°10 | F 13 |
| S 14 | 13 51 26 | 29°31'08 | 8♌39 | 14°15 | 19°0 | 15°38 | 9°39 | 21°19 | 5°27 | 10°26 | 29°6 | 9°D17 | 10°37 | 17°29 | 28°14 | 28°14 | S 14 |
| S 15 | 13 55 22 | 0♌29'12 | 20°54 | 16°7 | 19°33 | 16°24 | 9°50 | 21°25 | 5°25 | 10°28 | 29°7 | 9°18 | 10°34 | 17°36 | 28°18 | 28°18 | S 15 |
| M16 | 13 59 19 | 1°27'14 | 3♌27 | 17°55 | 20°8 | 17°10 | 10°2 | 21°31 | 5°23 | 10°30 | 29°7 | 9°R18 | 10°30 | 17°42 | 28°22 | 28°22 | M16 |
| T 17 | 14 3 16 | 2°25'15 | 16°23 | 19°41 | 20°44 | 17°55 | 10°13 | 21°37 | 5°21 | 10°33 | 29°8 | 9°17 | 10°27 | 17°49 | 28°27 | 28°27 | T 17 |
| W18 | 14 7 12 | 3°23'14 | 29°45 | 21°23 | 21°22 | 18°41 | 10°25 | 21°43 | 5°19 | 10°35 | 29°9 | 9°14 | 10°24 | 17°56 | 28°31 | 28°31 | W18 |
| T 19 | 14 11 9 | 4°21'12 | 13♌37 | 23°2 | 22°0 | 19°27 | 10°36 | 21°49 | 5°17 | 10°37 | 29°10 | 9°9 | 10°21 | 18°3 | 28°35 | 28°35 | T 19 |
| F 20 | 14 15 5 | 5°19'09 | 27°58 | 24°37 | 22°40 | 20°13 | 10°47 | 21°55 | 5°15 | 10°39 | 29°11 | 9°2 | 10°18 | 18°9 | 28°39 | 28°39 | F 20 |
| S 21 | 14 19 2 | 6°17'04 | 12♌46 | 26°9 | 23°21 | 20°59 | 10°58 | 22°1 | 5°13 | 10°42 | 29°12 | 8°53 | 10°15 | 18°16 | 28°44 | 28°44 | S 21 |
| S 22 | 14 22 58 | 7°14'58 | 27°52 | 27°37 | 24°2 | 21°45 | 11°9 | 22°8 | 5°11 | 10°44 | 29°12 | 8°44 | 10°11 | 18°23 | 28°48 | 28°48 | S 22 |
| M23 | 14 26 55 | 8°12'50 | 13♌7 | 29°1 | 24°45 | 22°30 | 11°20 | 22°14 | 5°9 | 10°46 | 29°13 | 8°35 | 10°8 | 18°29 | 28°53 | 28°53 | M23 |
| T 24 | 14 30 51 | 9°10'41 | 28°21 | 0♏22 | 25°29 | 23°16 | 11°31 | 22°20 | 5°7 | 10°48 | 29°14 | 8°28 | 10°5 | 18°36 | 28°57 | 28°57 | T 24 |
| W25 | 14 34 48 | 10°8'31 | 13♏23 | 1°39 | 26°13 | 24°2 | 11°42 | 22°27 | 5°5 | 10°51 | 29°15 | 8°24 | 10°2 | 18°43 | 29°2 | 29°2 | W25 |
| T 26 | 14 38 45 | 11°6'19 | 28°5 | 2°51 | 26°59 | 24°47 | 11°52 | 22°33 | 5°3 | 10°53 | 29°15 | 8°21 | 9°59 | 18°49 | 29°6 | 29°6 | T 26 |
| F 27 | 14 42 41 | 12°4'05 | 12♌23 | 4°0 | 27°45 | 25°33 | 12°3 | 22°40 | 5°1 | 10°55 | 29°16 | 8°D21 | 9°55 | 18°56 | 29°11 | 29°11 | F 27 |
| S 28 | 14 46 38 | 13°1'49 | 26°14 | 5°5 | 28°32 | 26°18 | 12°13 | 22°47 | 4°58 | 10°57 | 29°17 | 8°22 | 9°52 | 19°3 | 29°16 | 29°16 | S 28 |
| S 29 | 14 50 34 | 13°59'32 | 9♏40 | 6°5 | 29°20 | 27°4 | 12°24 | 22°53 | 4°56 | 11°0 | 29°17 | 8°R22 | 9°49 | 19°9 | 29°21 | 29°21 | S 29 |
| M30 | 14 54 31 | 14°57'12 | 22♏44 | 7°II2 | 0♌9 | 27♌49 | 12♌34 | 23°II0 | 4°54 | 11°S2 | 29°18 | 8°S22 | 9°S46 | 19°M16 | 29°II26 | 29°II26 | M30 |

Delta T = 19m58s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1061
geocentric

MAY 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|--------|--------|--------|---------|-------|-------|--------|-------|------|---------|-------|------|
| T 1 | 14 58 27 | 15♌54'52 | 5♎27 | 7♋54 | 0♏58 | 28♏35 | 12♏44 | 23♋7 | 4°R52 | 11♌4 | 29♌18 | 8°R20 | 9♌43 | 19♌23 | 29♋31 | T 1 |
| W 2 | 15 2 24 | 16°52'29 | 17°55 | 8°42 | 1°48 | 29°20 | 12°54 | 23°13 | 4♌49 | 11°6 | 29°19 | 8♌16 | 9°40 | 19°30 | 29°35 | W 2 |
| T 3 | 15 6 20 | 17°50'05 | 0♌11 | 9°25 | 2°39 | 0♏5 | 13°4 | 23°20 | 4°47 | 11°9 | 29°19 | 8°10 | 9°36 | 19°36 | 29°40 | T 3 |
| F 4 | 15 10 17 | 18°47'40 | 12°17 | 10°4 | 3°30 | 0°51 | 13°13 | 23°27 | 4°45 | 11°11 | 29°20 | 8°2 | 9°33 | 19°43 | 29°46 | F 4 |
| S 5 | 15 14 14 | 19°45'13 | 24°17 | 10°39 | 4°22 | 1°36 | 13°23 | 23°34 | 4°42 | 11°13 | 29°20 | 7°53 | 9°30 | 19°50 | 29°51 | S 5 |
| S 6 | 15 18 10 | 20°42'45 | 6♋11 | 11°9 | 5°14 | 2°21 | 13°33 | 23°41 | 4°40 | 11°15 | 29°21 | 7°44 | 9°27 | 19°56 | 29°56 | S 6 |
| M 7 | 15 22 7 | 21°40'16 | 18°3 | 11°34 | 6°7 | 3°6 | 13°42 | 23°48 | 4°38 | 11°18 | 29°21 | 7°36 | 9°24 | 20°3 | 0♌1 | M 7 |
| T 8 | 15 26 3 | 22°37'46 | 29°53 | 11°55 | 7°1 | 3°51 | 13°51 | 23°55 | 4°35 | 11°20 | 29°22 | 7°29 | 9°21 | 20°10 | 0°6 | T 8 |
| W 9 | 15 30 0 | 23°35'14 | 11♌44 | 12°11 | 7°55 | 4°36 | 14°0 | 24°2 | 4°33 | 11°22 | 29°22 | 7°24 | 9°17 | 20°16 | 0°12 | W 9 |
| T 10 | 15 33 56 | 24°32'42 | 23°38 | 12°22 | 8°50 | 5°21 | 14°9 | 24°9 | 4°30 | 11°24 | 29°22 | 7°21 | 9°14 | 20°23 | 0°17 | T 10 |
| F 11 | 15 37 53 | 25°30'08 | 5♌36 | 12°29 | 9°45 | 6°6 | 14°18 | 24°17 | 4°28 | 11°26 | 29°23 | 7°D20 | 9°11 | 20°30 | 0°22 | F 11 |
| S 12 | 15 41 49 | 26°27'34 | 17°44 | 12°R31 | 10°41 | 6°51 | 14°27 | 24°24 | 4°26 | 11°29 | 29°23 | 7°21 | 9°8 | 20°36 | 0°28 | S 12 |
| S 13 | 15 45 46 | 27°24'59 | 0♌3 | 12°28 | 11°37 | 7°36 | 14°36 | 24°31 | 4°23 | 11°31 | 29°23 | 7°22 | 9°5 | 20°43 | 0°33 | S 13 |
| M14 | 15 49 43 | 28°22'23 | 12°38 | 12°21 | 12°34 | 8°21 | 14°44 | 24°38 | 4°21 | 11°33 | 29°24 | 7°24 | 9°1 | 20°50 | 0°39 | M14 |
| T 15 | 15 53 39 | 29°19'47 | 25°33 | 12°10 | 13°31 | 9°5 | 14°52 | 24°46 | 4°18 | 11°35 | 29°24 | 7°R24 | 8°58 | 20°57 | 0°44 | T 15 |
| W16 | 15 57 36 | 0♋17'09 | 8♏52 | 11°55 | 14°29 | 9°50 | 15°1 | 24°53 | 4°16 | 11°37 | 29°24 | 7°24 | 8°55 | 21°3 | 0°50 | W16 |
| T 17 | 16 1 32 | 1°14'32 | 22°36 | 11°36 | 15°26 | 10°35 | 15°9 | 25°0 | 4°13 | 11°40 | 29°24 | 7°22 | 8°52 | 21°10 | 0°55 | T 17 |
| F 18 | 16 5 29 | 2°11'53 | 6♏48 | 11°14 | 16°25 | 11°19 | 15°17 | 25°8 | 4°11 | 11°42 | 29°24 | 7°19 | 8°49 | 21°17 | 1°1 | F 18 |
| S 19 | 16 9 25 | 3°9'14 | 21°24 | 10°48 | 17°23 | 12°4 | 15°24 | 25°15 | 4°8 | 11°44 | 29°25 | 7°15 | 8°46 | 21°23 | 1°7 | S 19 |
| S 20 | 16 13 22 | 4°6'35 | 6♌21 | 10°20 | 18°22 | 12°48 | 15°32 | 25°23 | 4°6 | 11°46 | 29°25 | 7°10 | 8°42 | 21°30 | 1°12 | S 20 |
| M21 | 16 17 18 | 5°3'55 | 21°31 | 9°50 | 19°22 | 13°32 | 15°40 | 25°30 | 4°3 | 11°48 | 29°25 | 7°6 | 8°39 | 21°37 | 1°18 | M21 |
| T 22 | 16 21 15 | 6°1'14 | 6♋43 | 9°18 | 20°22 | 14°17 | 15°47 | 25°38 | 4°1 | 11°50 | 29°25 | 7°2 | 8°36 | 21°43 | 1°24 | T 22 |
| W23 | 16 25 12 | 6°58'33 | 21°48 | 8°45 | 21°22 | 15°1 | 15°54 | 25°45 | 3°58 | 11°52 | 29°25 | 7°0 | 8°33 | 21°50 | 1°29 | W23 |
| T 24 | 16 29 8 | 7°55'51 | 6♌37 | 8°11 | 22°22 | 15°45 | 16°1 | 25°53 | 3°56 | 11°54 | 29°25 | 7°D0 | 8°30 | 21°57 | 1°35 | T 24 |
| F 25 | 16 33 5 | 8°53'08 | 21°4 | 7°37 | 23°23 | 16°29 | 16°8 | 26°0 | 3°54 | 11°56 | 29°R25 | 7°0 | 8°27 | 22°3 | 1°41 | F 25 |
| S 26 | 16 37 1 | 9°50'24 | 5♌5 | 7°4 | 24°24 | 17°13 | 16°15 | 26°8 | 3°51 | 11°58 | 29°25 | 7°1 | 8°23 | 22°10 | 1°47 | S 26 |
| S 27 | 16 40 58 | 10°47'39 | 18°39 | 6°32 | 25°25 | 17°57 | 16°22 | 26°16 | 3°49 | 12°0 | 29°25 | 7°3 | 8°20 | 22°17 | 1°53 | S 27 |
| M28 | 16 44 54 | 11°44'54 | 1♎48 | 6°2 | 26°27 | 18°41 | 16°28 | 26°23 | 3°46 | 12°2 | 29°25 | 7°4 | 8°17 | 22°23 | 1°59 | M28 |
| T 29 | 16 48 51 | 12°42'07 | 14°34 | 5°34 | 27°28 | 19°25 | 16°34 | 26°31 | 3°44 | 12°4 | 29°25 | 7°R4 | 8°14 | 22°30 | 2°5 | T 29 |
| W30 | 16 52 48 | 13°39'20 | 27°1 | 5°8 | 28°31 | 20°9 | 16°41 | 26°39 | 3°41 | 12°6 | 29°25 | 7°4 | 8°11 | 22°37 | 2°11 | W30 |
| T 31 | 16 56 44 | 14°36'32 | 9♌14 | 4♋46 | 29°Y33 | 20°Y53 | 16°H47 | 26°II46 | 3°H39 | 12°8 | 29°R24 | 7♌2 | 8♌7 | 22°II44 | 2°E17 | T 31 |

Delta T = 19m58s Julian Calendar 1 May 1061 == Greg. Calendar 7 May 1061

JUNE 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|--------|--------|--------|---------|-------|-------|--------|-------|------|---------|-------|------|
| F 1 | 17 0 41 | 15♋33'44 | 21♌16 | 4°R27 | 0♌35 | 21°Y36 | 16°H52 | 26°II54 | 3°R37 | 12♌10 | 29°R24 | 6°R59 | 8♌4 | 22°II50 | 2°E23 | F 1 |
| S 2 | 17 4 37 | 16°30'55 | 3♋10 | 4♋12 | 1°38 | 22°20 | 16°58 | 27°2 | 3°H34 | 12°12 | 29°R24 | 6♌56 | 8°1 | 22°57 | 2°29 | S 2 |
| S 3 | 17 8 34 | 17°28'05 | 15°1 | 4°1 | 2°41 | 23°3 | 17°3 | 27°10 | 3°32 | 12°14 | 29°24 | 6°53 | 7°58 | 23°4 | 2°35 | S 3 |
| M 4 | 17 12 30 | 18°25'15 | 26°51 | 3°55 | 3°45 | 23°47 | 17°9 | 27°17 | 3°29 | 12°16 | 29°24 | 6°50 | 7°55 | 23°10 | 2°41 | M 4 |
| T 5 | 17 16 27 | 19°22'25 | 8♌43 | 3°D52 | 4°48 | 24°30 | 17°14 | 27°25 | 3°27 | 12°18 | 29°23 | 6°48 | 7°52 | 23°17 | 2°47 | T 5 |
| W 6 | 17 20 23 | 20°19'34 | 20°39 | 3°55 | 5°52 | 25°14 | 17°19 | 27°33 | 3°25 | 12°20 | 29°23 | 6°46 | 7°48 | 23°24 | 2°53 | W 6 |
| T 7 | 17 24 20 | 21°16'43 | 2♌40 | 4°2 | 6°56 | 25°57 | 17°24 | 27°41 | 3°22 | 12°22 | 29°23 | 6°D46 | 7°45 | 23°30 | 2°59 | T 7 |
| F 8 | 17 28 17 | 22°13'52 | 14°49 | 4°15 | 8°0 | 26°40 | 17°28 | 27°48 | 3°20 | 12°24 | 29°22 | 6°46 | 7°42 | 23°37 | 3°5 | F 8 |
| S 9 | 17 32 13 | 23°11'01 | 27°8 | 4°32 | 9°4 | 27°23 | 17°33 | 27°56 | 3°18 | 12°25 | 29°22 | 6°47 | 7°39 | 23°44 | 3°12 | S 9 |
| S 10 | 17 36 10 | 24°8'10 | 9♌39 | 4°53 | 10°9 | 28°6 | 17°37 | 28°4 | 3°16 | 12°27 | 29°22 | 6°48 | 7°36 | 23°50 | 3°18 | S 10 |
| M11 | 17 40 6 | 25°5'19 | 22°24 | 5°20 | 11°14 | 28°49 | 17°41 | 28°12 | 3°13 | 12°29 | 29°21 | 6°49 | 7°33 | 23°57 | 3°24 | M11 |
| T 12 | 17 44 3 | 26°2'28 | 5♏26 | 5°52 | 12°19 | 29°32 | 17°45 | 28°20 | 3°11 | 12°31 | 29°21 | 6°50 | 7°29 | 24°4 | 3°30 | T 12 |
| W13 | 17 47 59 | 26°59'38 | 18°46 | 6°28 | 13°24 | 0♌15 | 17°49 | 28°28 | 3°9 | 12°32 | 29°20 | 6°50 | 7°26 | 24°10 | 3°36 | W13 |
| T 14 | 17 51 56 | 27°56'47 | 2°Y27 | 7°9 | 14°29 | 0°58 | 17°53 | 28°35 | 3°7 | 12°34 | 29°20 | 6°R50 | 7°23 | 24°17 | 3°42 | T 14 |
| F 15 | 17 55 52 | 28°53'57 | 16°29 | 7°55 | 15°35 | 1°40 | 17°56 | 28°43 | 3°5 | 12°36 | 29°19 | 6°50 | 7°20 | 24°24 | 3°49 | F 15 |
| S 16 | 17 59 49 | 29°51'08 | 0♌51 | 8°45 | 16°41 | 2°23 | 17°59 | 28°51 | 3°3 | 12°38 | 29°19 | 6°49 | 7°17 | 24°30 | 3°55 | S 16 |
| S 17 | 18 3 46 | 0♌48'18 | 15°29 | 9°40 | 17°46 | 3°5 | 18°2 | 28°59 | 3°0 | 12°39 | 29°18 | 6°49 | 7°13 | 24°37 | 4°1 | S 17 |
| M18 | 18 7 42 | 1°45'30 | 0♋20 | 10°40 | 18°52 | 3°48 | 18°5 | 29°7 | 2°58 | 12°41 | 29°18 | 6°48 | 7°10 | 24°44 | 4°7 | M18 |
| T 19 | 18 11 39 | 2°42'41 | 15°16 | 11°44 | 19°59 | 4°30 | 18°8 | 29°14 | 2°56 | 12°42 | 29°17 | 6°48 | 7°7 | 24°51 | 4°14 | T 19 |
| W20 | 18 15 35 | 3°39'53 | 0♌9 | 12°52 | 21°5 | 5°12 | 18°11 | 29°22 | 2°54 | 12°44 | 29°17 | 6°D47 | 7°4 | 24°57 | 4°20 | W20 |
| T 21 | 18 19 32 | 4°37'06 | 14°52 | 14°5 | 22°11 | 5°54 | 18°13 | 29°30 | 2°52 | 12°46 | 29°16 | 6°47 | 7°1 | 25°4 | 4°26 | T 21 |
| F 22 | 18 23 28 | 5°34'18 | 29°17 | 15°22 | 23°18 | 6°36 | 18°15 | 29°38 | 2°50 | 12°47 | 29°15 | 6°48 | 6°58 | 25°11 | 4°32 | F 22 |
| S 23 | 18 27 25 | 6°31'31 | 13♌21 | 16°43 | 24°25 | 7°18 | 18°17 | 29°46 | 2°49 | 12°49 | 29°15 | 6°R48 | 6°54 | 25°17 | 4°39 | S 23 |
| S 24 | 18 31 21 | 7°28'43 | 26°59 | 18°8 | 25°32 | 8°0 | 18°19 | 29°54 | 2°47 | 12°50 | 29°14 | 6°48 | 6°51 | 25°24 | 4°45 | S 24 |
| M25 | 18 35 18 | 8°25'56 | 10♎13 | 19°38 | 26°39 | 8°42 | 18°20 | 0♌1 | 2°45 | 12°52 | 29°13 | 6°47 | 6°48 | 25°31 | 4°51 | M25 |
| T 26 | 18 39 15 | 9°23'09 | 23°4 | 21°11 | 27°46 | 9°24 | 18°21 | 0°9 | 2°43 | 12°53 | 29°13 | 6°47 | 6°45 | 25°37 | 4°57 | T 26 |
| W27 | 18 43 11 | 10°20'22 | 5♌33 | 22°48 | 28°53 | 10°5 | 18°23 | 0°17 | 2°41 | 12°54 | 29°12 | 6°D47 | 6°42 | 25°44 | 5°4 | W27 |
| T 28 | 18 47 8 | 11°17'35 | 17°47 | 24°29 | 0♋1 | 10°47 | 18°24 | 0°25 | 2°39 | 12°56 | 29°11 | 6°47 | 6°39 | 25°51 | 5°10 | T 28 |
| F 29 | 18 51 4 | 12°14'48 | 29°48 | 26°13 | 1°8 | 11°28 | 18°24 | 0°32 | 2°38 | 12°57 | 29°10 | 6°47 | 6°35 | 25°57 | 5°16 | F 29 |
| S 30 | 18 55 1 | 13°12'02 | 11♋42 | 28°II1 | 2°II16 | 12♌10 | 18°H25 | 0°E40 | 2°H36 | 12°58 | 29°R10 | 6♌48 | 6♌32 | 26°II4 | 5°E22 | S 30 |

Delta T = 19m57s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1061
geocentric

JULY 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|-------|-------|-------|--------|------|-------|-------|--------|-------|------|-------|------|------|
| S 1 | 18 58 57 | 14☾ 9'16 | 23♈32 | 29♂52 | 3♂24 | 12♂51 | 18♂25 | 0☾48 | 2°R34 | 13♂ 0 | 29°R 9 | 6♂49 | 6♂29 | 26♈11 | 5☾29 | S 1 |
| M 2 | 19 2 54 | 15° 6'31 | 5♂23 | 1☾45 | 4°32 | 13°32 | 18°R25 | 0°55 | 2♂33 | 13° 1 | 29°R 8 | 6°49 | 6°26 | 26°17 | 5°35 | M 2 |
| T 3 | 19 6 50 | 16° 3'46 | 17°18 | 3°42 | 5°40 | 14°13 | 18°25 | 1° 3 | 2°31 | 13° 2 | 29° 7 | 6°50 | 6°23 | 26°24 | 5°41 | T 3 |
| W 4 | 19 10 47 | 17° 1'01 | 29°20 | 5°40 | 6°48 | 14°54 | 18°25 | 1°11 | 2°30 | 13° 3 | 29° 6 | 6°51 | 6°19 | 26°31 | 5°47 | W 4 |
| T 5 | 19 14 44 | 17°58'17 | 11♂32 | 7°41 | 7°56 | 15°35 | 18°25 | 1°18 | 2°28 | 13° 5 | 29° 6 | 6°R51 | 6°16 | 26°37 | 5°53 | T 5 |
| F 6 | 19 18 40 | 18°55'34 | 23°56 | 9°43 | 9° 5 | 16°16 | 18°24 | 1°26 | 2°27 | 13° 6 | 29° 5 | 6°50 | 6°13 | 26°44 | 6° 0 | F 6 |
| S 7 | 19 22 37 | 19°52'52 | 6♂32 | 11°47 | 10°13 | 16°56 | 18°23 | 1°33 | 2°25 | 13° 7 | 29° 4 | 6°49 | 6°10 | 26°51 | 6° 6 | S 7 |
| S 8 | 19 26 33 | 20°50'10 | 19°22 | 13°52 | 11°22 | 17°37 | 18°22 | 1°41 | 2°24 | 13° 8 | 29° 3 | 6°47 | 6° 7 | 26°57 | 6°12 | S 8 |
| M 9 | 19 30 30 | 21°47'30 | 2♂25 | 15°57 | 12°31 | 18°17 | 18°21 | 1°49 | 2°23 | 13° 9 | 29° 2 | 6°46 | 6° 4 | 27° 4 | 6°18 | M 9 |
| T 10 | 19 34 26 | 22°44'50 | 15°43 | 18° 3 | 13°40 | 18°58 | 18°20 | 1°56 | 2°21 | 13°10 | 29° 1 | 6°44 | 6° 0 | 27°11 | 6°24 | T 10 |
| W11 | 19 38 23 | 23°42'11 | 29°14 | 20° 9 | 14°49 | 19°38 | 18°18 | 2° 4 | 2°20 | 13°11 | 29° 0 | 6°42 | 5°57 | 27°17 | 6°30 | W11 |
| T 12 | 19 42 20 | 24°39'34 | 13°♀ 0 | 22°15 | 15°58 | 20°18 | 18°16 | 2°11 | 2°19 | 13°12 | 28°59 | 6°41 | 5°54 | 27°24 | 6°36 | T 12 |
| F 13 | 19 46 16 | 25°36'58 | 2♂58 | 24°21 | 17° 7 | 20°58 | 18°14 | 2°18 | 2°18 | 13°13 | 28°58 | 6°D40 | 5°51 | 27°31 | 6°42 | F 13 |
| S 14 | 19 50 13 | 26°34'23 | 11♂ 9 | 26°26 | 18°16 | 21°38 | 18°12 | 2°26 | 2°17 | 13°14 | 28°57 | 6°41 | 5°48 | 27°37 | 6°48 | S 14 |
| S 15 | 19 54 9 | 27°31'49 | 25°29 | 28°30 | 19°26 | 22°18 | 18°10 | 2°33 | 2°16 | 13°15 | 28°56 | 6°42 | 5°45 | 27°44 | 6°54 | S 15 |
| M16 | 19 58 6 | 28°29'17 | 9♂57 | 0♂33 | 20°35 | 22°58 | 18° 7 | 2°40 | 2°15 | 13°16 | 28°55 | 6°43 | 5°41 | 27°51 | 7° 0 | M16 |
| T 17 | 20 2 2 | 29°26'46 | 24°29 | 2°35 | 21°45 | 23°37 | 18° 5 | 2°48 | 2°14 | 13°17 | 28°54 | 6°44 | 5°38 | 27°58 | 7° 6 | T 17 |
| W18 | 20 5 59 | 0♂24'17 | 8☾59 | 4°36 | 22°55 | 24°17 | 18° 2 | 2°55 | 2°13 | 13°17 | 28°53 | 6°R45 | 5°35 | 28° 4 | 7°12 | W18 |
| T 19 | 20 9 55 | 1°21'48 | 23°22 | 6°36 | 24° 4 | 24°56 | 17°58 | 3° 2 | 2°12 | 13°18 | 28°52 | 6°44 | 5°32 | 28°11 | 7°18 | T 19 |
| F 20 | 20 13 52 | 2°19'21 | 7♂34 | 8°34 | 25°14 | 25°36 | 17°55 | 3°10 | 2°11 | 13°19 | 28°51 | 6°42 | 5°29 | 28°18 | 7°24 | F 20 |
| S 21 | 20 17 49 | 3°16'55 | 21°29 | 10°31 | 26°24 | 26°15 | 17°52 | 3°17 | 2°10 | 13°20 | 28°49 | 6°39 | 5°25 | 28°24 | 7°30 | S 21 |
| S 22 | 20 21 45 | 4°14'30 | 5♂ 4 | 12°26 | 27°35 | 26°54 | 17°48 | 3°24 | 2° 9 | 13°20 | 28°48 | 6°35 | 5°22 | 28°31 | 7°36 | S 22 |
| M23 | 20 25 42 | 5°12'06 | 18°17 | 14°20 | 28°45 | 27°33 | 17°44 | 3°31 | 2° 9 | 13°21 | 28°47 | 6°30 | 5°19 | 28°38 | 7°42 | M23 |
| T 24 | 20 29 38 | 6° 9'43 | 1♂ 8 | 16°13 | 29°55 | 28°11 | 17°40 | 3°38 | 2° 8 | 13°22 | 28°46 | 6°26 | 5°16 | 28°44 | 7°48 | T 24 |
| W25 | 20 33 35 | 7° 7'21 | 13°39 | 18° 4 | 1☾ 5 | 28°50 | 17°36 | 3°45 | 2° 8 | 13°22 | 28°45 | 6°23 | 5°13 | 28°51 | 7°53 | W25 |
| T 26 | 20 37 31 | 8° 5'00 | 25°54 | 19°54 | 2°16 | 29°29 | 17°31 | 3°52 | 2° 7 | 13°23 | 28°44 | 6°21 | 5°10 | 28°58 | 7°59 | T 26 |
| F 27 | 20 41 28 | 9° 2'40 | 7♈55 | 21°42 | 3°26 | 0♂ 7 | 17°27 | 3°59 | 2° 7 | 13°23 | 28°43 | 6°D20 | 5° 6 | 29° 4 | 8° 5 | F 27 |
| S 28 | 20 45 24 | 10° 0'21 | 19°49 | 23°29 | 4°37 | 0°45 | 17°22 | 4° 6 | 2° 6 | 13°24 | 28°41 | 6°20 | 5° 3 | 29°11 | 8°11 | S 28 |
| S 29 | 20 49 21 | 10°58'04 | 1♂39 | 25°14 | 5°48 | 1°23 | 17°17 | 4°12 | 2° 6 | 13°24 | 28°40 | 6°22 | 5° 0 | 29°18 | 8°16 | S 29 |
| M30 | 20 53 18 | 11°55'47 | 13°31 | 26°58 | 6°59 | 2° 1 | 17°12 | 4°19 | 2° 5 | 13°25 | 28°39 | 6°24 | 4°57 | 29°24 | 8°22 | M30 |
| T 31 | 20 57 14 | 12♂53'32 | 25♂29 | 28♂40 | 8☾ 9 | 2♂39 | 17♂ 7 | 4☾26 | 2♂ 5 | 13♂25 | 28♂38 | 6♂25 | 4♂54 | 29♈31 | 8☾27 | T 31 |

Delta T = 19m57s Julian Calendar 1 July 1061 == Greg. Calendar 7 July 1061

AUGUST 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|-------|--------|--------|-------|------|-------|-------|------|
| W 1 | 21 1 11 | 13♈51'18 | 7♂38 | 0♂21 | 9☾20 | 3♂17 | 17°R 2 | 4☾33 | 2°R 5 | 13♂25 | 28°R37 | 6°R25 | 4♂51 | 29♈38 | 8☾33 | W 1 |
| T 2 | 21 5 7 | 14°49'06 | 20° 0 | 2° 1 | 10°32 | 3°55 | 16°R56 | 4°39 | 2♂ 5 | 13°26 | 28°R35 | 6♂25 | 4°47 | 29°44 | 8°38 | T 2 |
| F 3 | 21 9 4 | 15°46'54 | 2♂39 | 3°39 | 11°43 | 4°32 | 16°50 | 4°46 | 2° 4 | 13°26 | 28°R34 | 6°22 | 4°44 | 29°51 | 8°44 | F 3 |
| S 4 | 21 13 0 | 16°44'44 | 15°34 | 5°16 | 12°54 | 5° 9 | 16°45 | 4°52 | 2° 4 | 13°26 | 28°R33 | 6°17 | 4°41 | 29°58 | 8°49 | S 4 |
| S 5 | 21 16 57 | 17°42'36 | 28°47 | 6°51 | 14° 5 | 5°47 | 16°39 | 4°59 | 2°D 4 | 13°26 | 28°R32 | 6°11 | 4°38 | 0♂ 4 | 8°55 | S 5 |
| M 6 | 21 20 53 | 18°40'29 | 12♂15 | 8°25 | 15°17 | 6°24 | 16°32 | 5° 5 | 2° 4 | 13°27 | 28°R31 | 6° 5 | 4°35 | 0°11 | 9° 0 | M 6 |
| T 7 | 21 24 50 | 19°38'24 | 25°57 | 9°58 | 16°28 | 7° 1 | 16°26 | 5°12 | 2° 4 | 13°27 | 28°R29 | 5°58 | 4°31 | 0°18 | 9° 5 | T 7 |
| W 8 | 21 28 47 | 20°36'21 | 9°♀49 | 11°30 | 17°40 | 7°37 | 16°20 | 5°18 | 2° 5 | 13°27 | 28°R28 | 5°51 | 4°28 | 0°24 | 9°11 | W 8 |
| T 9 | 21 32 43 | 21°34'20 | 23°49 | 13° 0 | 18°51 | 8°14 | 16°13 | 5°24 | 2° 5 | 13°27 | 28°R27 | 5°47 | 4°25 | 0°31 | 9°16 | T 9 |
| F 10 | 21 36 40 | 22°32'20 | 7♂54 | 14°28 | 20° 3 | 8°50 | 16° 7 | 5°30 | 2° 5 | 13°27 | 28°R26 | 5°44 | 4°22 | 0°38 | 9°21 | F 10 |
| S 11 | 21 40 36 | 23°30'23 | 22° 3 | 15°56 | 21°15 | 9°27 | 16° 0 | 5°36 | 2° 5 | 13°R27 | 28°R24 | 5°D43 | 4°19 | 0°44 | 9°26 | S 11 |
| S 12 | 21 44 33 | 24°28'27 | 6♂13 | 17°22 | 22°27 | 10° 3 | 15°53 | 5°43 | 2° 6 | 13°27 | 28°R23 | 5°43 | 4°16 | 0°51 | 9°31 | S 12 |
| M13 | 21 48 29 | 25°26'34 | 20°22 | 18°46 | 23°39 | 10°39 | 15°46 | 5°49 | 2° 6 | 13°27 | 28°R22 | 5°44 | 4°12 | 0°58 | 9°36 | M13 |
| T 14 | 21 52 26 | 26°24'43 | 4☾30 | 20° 9 | 24°51 | 11°15 | 15°39 | 5°54 | 2° 6 | 13°27 | 28°R21 | 5°R45 | 4° 9 | 1° 4 | 9°41 | T 14 |
| W15 | 21 56 22 | 27°22'54 | 18°34 | 21°31 | 26° 3 | 11°50 | 15°32 | 6° 0 | 2° 7 | 13°27 | 28°R19 | 5°44 | 4° 6 | 1°11 | 9°46 | W15 |
| T 16 | 22 0 19 | 28°21'06 | 2♂32 | 22°51 | 27°15 | 12°26 | 15°25 | 6° 6 | 2° 7 | 13°27 | 28°R18 | 5°41 | 4° 3 | 1°18 | 9°51 | T 16 |
| F 17 | 22 4 16 | 29°19'21 | 16°21 | 24°10 | 28°27 | 13° 1 | 15°17 | 6°12 | 2° 8 | 13°26 | 28°R17 | 5°36 | 4° 0 | 1°24 | 9°56 | F 17 |
| S 18 | 22 8 12 | 0♂17'37 | 29°57 | 25°27 | 29°40 | 13°37 | 15°10 | 6°18 | 2° 9 | 13°26 | 28°R16 | 5°29 | 3°56 | 1°31 | 10° 1 | S 18 |
| S 19 | 22 12 9 | 1°15'55 | 13♂18 | 26°42 | 0♂52 | 14°12 | 15° 2 | 6°23 | 2° 9 | 13°26 | 28°R14 | 5°20 | 3°53 | 1°38 | 10° 5 | S 19 |
| M20 | 22 16 5 | 2°14'15 | 26°22 | 27°56 | 2° 5 | 14°46 | 14°55 | 6°29 | 2°10 | 13°26 | 28°R13 | 5°10 | 3°50 | 1°44 | 10°10 | M20 |
| T 21 | 22 20 2 | 3°12'37 | 9♂ 8 | 29° 8 | 3°17 | 15°21 | 14°47 | 6°34 | 2°11 | 13°25 | 28°R12 | 5° 0 | 3°47 | 1°51 | 10°15 | T 21 |
| W22 | 22 23 58 | 4°11'00 | 21°37 | 0♂18 | 4°30 | 15°55 | 14°39 | 6°40 | 2°12 | 13°25 | 28°R10 | 4°51 | 3°44 | 1°58 | 10°19 | W22 |
| T 23 | 22 27 55 | 5° 9'25 | 3♈49 | 1°26 | 5°42 | 16°30 | 14°32 | 6°45 | 2°12 | 13°25 | 28°R 9 | 4°44 | 3°41 | 2° 4 | 10°24 | T 23 |
| F 24 | 22 31 51 | 6° 7'52 | 15°50 | 2°32 | 6°55 | 17° 4 | 14°24 | 6°50 | 2°13 | 13°24 | 28°R 8 | 4°40 | 3°37 | 2°11 | 10°28 | F 24 |
| S 25 | 22 35 48 | 7° 6'20 | 27°42 | 3°36 | 8° 8 | 17°38 | 14°16 | 6°55 | 2°14 | 13°24 | 28°R 7 | 4°38 | 3°34 | 2°18 | 10°33 | S 25 |
| S 26 | 22 39 44 | 8° 4'51 | 9♂32 | 4°37 | 9°21 | 18°11 | 14° 8 | 7° 0 | 2°15 | 13°23 | 28°R 6 | 4°D37 | 3°31 | 2°24 | 10°37 | S 26 |
| M27 | 22 43 41 | 9° 3'22 | 21°23 | 5°36 | 10°34 | 18°45 | 14° 0 | 7° 5 | 2°16 | 13°23 | 28°R 4 | 4°38 | 3°28 | 2°31 | 10°41 | M27 |
| T 28 | 22 47 38 | 10° 1'56 | 3♂22 | 6°33 | 11°47 | 19°18 | 13°52 | 7°10 | 2°18 | 13°22 | 28°R 3 | 4°R38 | 3°25 | 2°38 | 10°45 | T 28 |
| W29 | 22 51 34 | 11° 0'31 | 15°33 | 7°26 | 13° 0 | 19°51 | 13°44 | 7°15 | 2°19 | 13°22 | 28°R 2 | 4°38 | 3°22 | 2°44 | 10°49 | W29 |
| T 30 | 22 55 31 | 11°59'08 | 28° 2 | 8°16 | 14°13 | 20°24 | 13°36 | 7°20 | 2°20 | 13°21 | 28°R 1 | 4°35 | 3°18 | 2°51 | 10°53 | T 30 |
| F 31 | 22 59 27 | 12♂57'47 | 10♂51 | 9♂ 3 | 15♂26 | 20♂57 | 13♂28 | 7☾25 | 2♂21 | 13♂20 | 27♂59 | 4♂30 | 3♂15 | 2♂58 | 10☾57 | F 31 |

Delta T = 19m57s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1061
geocentric

SEPTEMBER 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|------|------|--------|--------|-------|------|------|-------|------|
| S 1 | 23 3 24 | 13♎56'28 | 24♋2 | 9♉47 | 16♊39 | 21♎29 | 13°R20 | 7♄29 | 2♃23 | 13°R20 | 27°R58 | 4°R23 | 3♁12 | 3♁4 | 11♁1 | S 1 |
| S 2 | 23 7 20 | 14°55'10 | 7♋35 | 10°26 | 17°53 | 22° 2 | 13♋12 | 7°34 | 2°24 | 13♋19 | 27°57 | 4♁13 | 3° 9 | 3°11 | 11° 5 | S 2 |
| M 3 | 23 11 17 | 15°53'54 | 21°28 | 11° 2 | 19° 6 | 22°34 | 13° 4 | 7°38 | 2°25 | 13°18 | 27°56 | 4° 2 | 3° 6 | 3°18 | 11° 9 | M 3 |
| T 4 | 23 15 13 | 16°52'41 | 5♎37 | 11°33 | 20°19 | 23° 6 | 12°56 | 7°43 | 2°27 | 13°18 | 27°55 | 3°51 | 3° 2 | 3°24 | 11°13 | T 4 |
| W 5 | 23 19 10 | 17°51'29 | 19°57 | 11°59 | 21°33 | 23°37 | 12°48 | 7°47 | 2°28 | 13°17 | 27°53 | 3°41 | 2°59 | 3°31 | 11°16 | W 5 |
| T 6 | 23 23 7 | 18°50'20 | 4♉21 | 12°19 | 22°46 | 24° 9 | 12°40 | 7°51 | 2°30 | 13°16 | 27°52 | 3°32 | 2°56 | 3°38 | 11°20 | T 6 |
| F 7 | 23 27 3 | 19°49'13 | 18°44 | 12°34 | 24° 0 | 24°40 | 12°32 | 7°55 | 2°32 | 13°15 | 27°51 | 3°27 | 2°53 | 3°44 | 11°24 | F 7 |
| S 8 | 23 31 0 | 20°48'09 | 3♎2 | 12°43 | 25°14 | 25°11 | 12°24 | 7°59 | 2°33 | 13°14 | 27°50 | 3°24 | 2°50 | 3°51 | 11°27 | S 8 |
| S 9 | 23 34 56 | 21°47'07 | 17°12 | 12°R46 | 26°27 | 25°41 | 12°17 | 8° 3 | 2°35 | 13°13 | 27°49 | 3°D23 | 2°47 | 3°58 | 11°30 | S 9 |
| M10 | 23 38 53 | 22°46'07 | 1♁14 | 12°42 | 27°41 | 26°12 | 12° 9 | 8° 7 | 2°37 | 13°13 | 27°48 | 3°R23 | 2°43 | 4° 4 | 11°34 | M10 |
| T 11 | 23 42 49 | 23°45'10 | 15° 6 | 12°30 | 28°55 | 26°42 | 12° 1 | 8°11 | 2°39 | 13°12 | 27°47 | 3°22 | 2°40 | 4°11 | 11°37 | T 11 |
| W12 | 23 46 46 | 24°44'15 | 28°49 | 12°11 | 0♎9 | 27°12 | 11°53 | 8°14 | 2°41 | 13°11 | 27°46 | 3°21 | 2°37 | 4°18 | 11°40 | W12 |
| T 13 | 23 50 42 | 25°43'22 | 12♊23 | 11°44 | 1°23 | 27°42 | 11°46 | 8°18 | 2°42 | 13°10 | 27°44 | 3°16 | 2°34 | 4°24 | 11°43 | T 13 |
| F 14 | 23 54 39 | 26°42'32 | 25°47 | 11°10 | 2°37 | 28°11 | 11°38 | 8°21 | 2°44 | 13° 9 | 27°43 | 3° 9 | 2°31 | 4°31 | 11°46 | F 14 |
| S 15 | 23 58 36 | 27°41'43 | 9♎1 | 10°27 | 3°51 | 28°40 | 11°31 | 8°25 | 2°46 | 13° 8 | 27°42 | 2°58 | 2°28 | 4°38 | 11°49 | S 15 |
| S 16 | 0 2 32 | 28°40'57 | 22° 2 | 9°38 | 5° 5 | 29° 9 | 11°24 | 8°28 | 2°48 | 13° 6 | 27°41 | 2°46 | 2°24 | 4°44 | 11°52 | S 16 |
| M17 | 0 6 29 | 29°40'13 | 4♉50 | 8°41 | 6°19 | 29°37 | 11°16 | 8°31 | 2°50 | 13° 5 | 27°40 | 2°32 | 2°21 | 4°51 | 11°55 | M17 |
| T 18 | 0 10 25 | 0♉39'31 | 17°24 | 7°39 | 7°33 | 0♉6 | 11° 9 | 8°34 | 2°53 | 13° 4 | 27°39 | 2°19 | 2°18 | 4°58 | 11°57 | T 18 |
| W19 | 0 14 22 | 1°38'52 | 29°45 | 6°32 | 8°48 | 0°34 | 11° 2 | 8°37 | 2°55 | 13° 3 | 27°38 | 2° 6 | 2°15 | 5° 4 | 12° 0 | W19 |
| T 20 | 0 18 18 | 2°38'14 | 11♎52 | 5°22 | 10° 2 | 1° 1 | 10°55 | 8°40 | 2°57 | 13° 2 | 27°37 | 1°56 | 2°12 | 5°11 | 12° 3 | T 20 |
| F 21 | 0 22 15 | 3°37'38 | 23°23 | 4°10 | 11°16 | 1°28 | 10°48 | 8°43 | 2°59 | 13° 1 | 27°36 | 1°49 | 2° 8 | 5°18 | 12° 5 | F 21 |
| S 22 | 0 26 11 | 4°37'04 | 5♁40 | 2°59 | 12°31 | 1°55 | 10°42 | 8°45 | 3° 1 | 12°59 | 27°35 | 1°45 | 2° 5 | 5°24 | 12° 7 | S 22 |
| S 23 | 0 30 8 | 5°36'31 | 17°27 | 1°50 | 13°45 | 2°22 | 10°35 | 8°48 | 3° 4 | 12°58 | 27°34 | 1°42 | 2° 2 | 5°31 | 12°10 | S 23 |
| M24 | 0 34 5 | 6°36'01 | 29°16 | 0°46 | 14°59 | 2°49 | 10°29 | 8°50 | 3° 6 | 12°57 | 27°33 | 1°42 | 1°59 | 5°38 | 12°12 | M24 |
| T 25 | 0 38 1 | 7°35'33 | 11♁13 | 29♎48 | 16°14 | 3°15 | 10°22 | 8°53 | 3° 9 | 12°56 | 27°32 | 1°42 | 1°56 | 5°44 | 12°14 | T 25 |
| W26 | 0 41 58 | 8°35'06 | 23°23 | 28°58 | 17°28 | 3°40 | 10°16 | 8°55 | 3°11 | 12°54 | 27°32 | 1°41 | 1°53 | 5°51 | 12°16 | W26 |
| T 27 | 0 45 54 | 9°34'41 | 5♋51 | 28°18 | 18°43 | 4° 6 | 10°10 | 8°57 | 3°14 | 12°53 | 27°31 | 1°39 | 1°49 | 5°58 | 12°18 | T 27 |
| F 28 | 0 49 51 | 10°34'18 | 18°43 | 27°48 | 19°58 | 4°31 | 10° 4 | 8°59 | 3°16 | 12°52 | 27°30 | 1°34 | 1°46 | 6° 4 | 12°20 | F 28 |
| S 29 | 0 53 47 | 11°33'56 | 2♋0 | 27°29 | 21°12 | 4°55 | 9°59 | 9° 1 | 3°19 | 12°50 | 27°29 | 1°27 | 1°43 | 6°11 | 12°21 | S 29 |
| S 30 | 0 57 44 | 12♁33'37 | 15♋45 | 27°D21 | 22♎27 | 5♁19 | 9♋53 | 9♁3 | 3♁21 | 12♋49 | 27°28 | 1♁17 | 1♁40 | 6♁17 | 12♁23 | S 30 |

Delta T = 19m56s Julian Calendar 1 Sept. 1061 == Greg. Calendar 7 Sept. 1061

OCTOBER 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|--------|--------|--------|------|------|--------|------|
| M 1 | 1 1 40 | 13♁33'19 | 29♋55 | 27♎24 | 23♎42 | 5♁43 | 9°R48 | 9♁4 | 3♁24 | 12°R47 | 27°R27 | 1°R 6 | 1♁37 | 6♁24 | 12♁25 | M 1 |
| T 2 | 1 5 37 | 14°33'03 | 14♎25 | 27°38 | 24°56 | 6° 7 | 9♋42 | 9° 6 | 3°27 | 12♋46 | 27°26 | 0♁54 | 1°33 | 6°31 | 12°26 | T 2 |
| W 3 | 1 9 33 | 15°32'49 | 29°10 | 28° 3 | 26°11 | 6°30 | 9°37 | 9° 7 | 3°29 | 12°44 | 27°26 | 0°43 | 1°30 | 6°37 | 12°28 | W 3 |
| T 4 | 1 13 30 | 16°32'38 | 14♉0 | 28°37 | 27°26 | 6°53 | 9°32 | 9° 9 | 3°32 | 12°43 | 27°25 | 0°35 | 1°27 | 6°44 | 12°29 | T 4 |
| F 5 | 1 17 27 | 17°32'28 | 28°48 | 29°20 | 28°41 | 7°15 | 9°28 | 9°10 | 3°35 | 12°41 | 27°24 | 0°29 | 1°24 | 6°51 | 12°30 | F 5 |
| S 6 | 1 21 23 | 18°32'21 | 13♎26 | 0♉11 | 29°56 | 7°37 | 9°23 | 9°11 | 3°38 | 12°40 | 27°24 | 0°26 | 1°21 | 6°57 | 12°31 | S 6 |
| S 7 | 1 25 20 | 19°32'16 | 27°49 | 1° 9 | 1♁10 | 7°58 | 9°19 | 9°12 | 3°40 | 12°38 | 27°23 | 0°D25 | 1°18 | 7° 4 | 12°32 | S 7 |
| M 8 | 1 29 16 | 20°32'13 | 11♁56 | 2°13 | 2°25 | 8°19 | 9°14 | 9°13 | 3°43 | 12°37 | 27°22 | 0°25 | 1°14 | 7°11 | 12°33 | M 8 |
| T 9 | 1 33 13 | 21°32'13 | 25°46 | 3°23 | 3°40 | 8°40 | 9°10 | 9°14 | 3°46 | 12°35 | 27°22 | 0°R25 | 1°11 | 7°17 | 12°34 | T 9 |
| W10 | 1 37 9 | 22°32'15 | 9♊20 | 4°38 | 4°55 | 9° 0 | 9° 7 | 9°14 | 3°49 | 12°34 | 27°21 | 0°24 | 1° 8 | 7°24 | 12°35 | W10 |
| T 11 | 1 41 6 | 23°32'19 | 22°38 | 5°57 | 6°10 | 9°20 | 9° 3 | 9°15 | 3°52 | 12°32 | 27°20 | 0°20 | 1° 5 | 7°31 | 12°36 | T 11 |
| F 12 | 1 45 2 | 24°32'25 | 5♎43 | 7°19 | 7°25 | 9°39 | 8°59 | 9°16 | 3°55 | 12°31 | 27°20 | 0°14 | 1° 2 | 7°37 | 12°36 | F 12 |
| S 13 | 1 48 59 | 25°32'33 | 18°36 | 8°45 | 8°41 | 9°58 | 8°56 | 9°16 | 3°58 | 12°29 | 27°19 | 0° 5 | 0°59 | 7°44 | 12°37 | S 13 |
| S 14 | 1 52 56 | 26°32'43 | 1♁17 | 10°13 | 9°56 | 10°16 | 8°53 | 9°16 | 4° 1 | 12°27 | 27°19 | 29♁54 | 0°55 | 7°51 | 12°37 | S 14 |
| M15 | 1 56 52 | 27°32'55 | 13°47 | 11°42 | 11°11 | 10°34 | 8°50 | 9°16 | 4° 4 | 12°26 | 27°18 | 29°42 | 0°52 | 7°57 | 12°37 | M15 |
| T 16 | 2 0 49 | 28°33'09 | 26° 6 | 13°14 | 12°26 | 10°51 | 8°47 | 9°R16 | 4° 8 | 12°24 | 27°18 | 29°30 | 0°49 | 8° 4 | 12°38 | T 16 |
| W17 | 2 4 45 | 29°33'25 | 8♎15 | 14°46 | 13°41 | 11° 7 | 8°45 | 9°16 | 4°11 | 12°23 | 27°17 | 29°20 | 0°46 | 8°11 | 12°38 | W17 |
| T 18 | 2 8 42 | 0♎33'43 | 20°15 | 16°20 | 14°56 | 11°24 | 8°43 | 9°16 | 4°14 | 12°21 | 27°17 | 29°11 | 0°43 | 8°17 | 12°R38 | T 18 |
| F 19 | 2 12 38 | 1°34'02 | 2♁8 | 17°55 | 16°12 | 11°39 | 8°40 | 9°16 | 4°17 | 12°19 | 27°16 | 29° 4 | 0°39 | 8°24 | 12°38 | F 19 |
| S 20 | 2 16 35 | 2°34'23 | 13°55 | 19°30 | 17°27 | 11°54 | 8°39 | 9°15 | 4°20 | 12°18 | 27°16 | 29° 1 | 0°36 | 8°31 | 12°37 | S 20 |
| S 21 | 2 20 31 | 3°34'46 | 25°41 | 21° 6 | 18°42 | 12° 9 | 8°37 | 9°15 | 4°24 | 12°16 | 27°15 | 28°D59 | 0°33 | 8°37 | 12°37 | S 21 |
| M22 | 2 24 28 | 4°35'10 | 7♁29 | 22°42 | 19°57 | 12°22 | 8°35 | 9°14 | 4°27 | 12°14 | 27°15 | 29° 0 | 0°30 | 8°44 | 12°37 | M22 |
| T 23 | 2 28 25 | 5°35'36 | 19°24 | 24°18 | 21°13 | 12°36 | 8°34 | 9°13 | 4°30 | 12°13 | 27°15 | 29° 1 | 0°27 | 8°51 | 12°36 | T 23 |
| W24 | 2 32 21 | 6°36'03 | 1♁31 | 25°55 | 22°28 | 12°48 | 8°33 | 9°12 | 4°33 | 12°11 | 27°14 | 29°R 2 | 0°24 | 8°57 | 12°36 | W24 |
| T 25 | 2 36 18 | 7°36'31 | 13°56 | 27°31 | 23°43 | 13° 0 | 8°32 | 9°11 | 4°37 | 12° 9 | 27°14 | 29° 1 | 0°20 | 9° 4 | 12°35 | T 25 |
| F 26 | 2 40 14 | 8°37'01 | 26°43 | 29° 8 | 24°58 | 13°12 | 8°32 | 9°10 | 4°40 | 12° 8 | 27°14 | 29° 0 | 0°17 | 9°11 | 12°35 | F 26 |
| S 27 | 2 44 11 | 9°37'32 | 9♋56 | 0♎44 | 26°14 | 13°22 | 8°31 | 9° 9 | 4°44 | 12° 6 | 27°14 | 28°56 | 0°14 | 9°17 | 12°34 | S 27 |
| S 28 | 2 48 7 | 10°38'04 | 23°39 | 2°21 | 27°29 | 13°32 | 8°31 | 9° 8 | 4°47 | 12° 4 | 27°13 | 28°50 | 0°11 | 9°24 | 12°33 | S 28 |
| M29 | 2 52 4 | 11°38'38 | 7♎51 | 3°57 | 28°45 | 13°42 | 8°D31 | 9° 6 | 4°50 | 12° 2 | 27°13 | 28°43 | 0° 8 | 9°31 | 12°32 | M29 |
| T 30 | 2 56 0 | 12°39'13 | 22°28 | 5°33 | 29°59 | 13°51 | 8°31 | 9° 5 | 4°54 | 12° 1 | 27°13 | 28°35 | 0° 4 | 9°37 | 12°31 | T 30 |
| W31 | 2 59 57 | 13♎39'49 | 7♁26 | 7♎ 9 | 1♎15 | 13♁59 | 8♋31 | 9♁3 | 4♁57 | 11♋59 | 27°13 | 28°28 | 0♁ 1 | 9♁44 | 12♁30 | W31 |

Delta T = 19m56s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1061
geocentric

NOVEMBER 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|-----------------------|-----------------------|--------------------|-------------------|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| T 1 | 3 3 54 | 14 ^m 40'27 | 22 ^h 33'34 | 8 ^m 45 | 2 ^m 31 | 14 ^h 06 | 8 ^h 32 | 9°R 1 | 5 ^h 1 | 11°R57 | 27°R13 | 28°R22 | 29 ^h 58 | 9 ^h 50 | 12°R28 | T 1 | | | | | | | | |
| F 2 | 3 7 50 | 15°41'06 | 7 ^h 11'43 | 10°20 | 3°46 | 14°13 | 8°33 | 8 ^h 59 | 5° 4 | 11 ^h 56 | 27 ^h 13 | 28 ^h 19 | 29°55 | 9°57 | 12 ^h 27 | F 2 | | | | | | | | |
| S 3 | 3 11 47 | 16°41'47 | 22°44 | 11°56 | 5° 2 | 14°19 | 8°34 | 8°57 | 5° 8 | 11°54 | 27°13 | 28°D17 | 29°52 | 10° 4 | 12°26 | S 3 | | | | | | | | |
| S 4 | 3 15 43 | 17°42'30 | 7 ^h 28 | 13°31 | 6°17 | 14°24 | 8°35 | 8°55 | 5°11 | 11°52 | 27°13 | 28°17 | 29°49 | 10°10 | 12°24 | S 4 | | | | | | | | |
| M 5 | 3 19 40 | 18°43'14 | 21°51 | 15° 6 | 7°32 | 14°28 | 8°36 | 8°53 | 5°15 | 11°51 | 27°D13 | 28°19 | 29°45 | 10°17 | 12°22 | M 5 | | | | | | | | |
| T 6 | 3 23 36 | 19°44'00 | 5 ^h 21 | 16°41 | 8°48 | 14°32 | 8°38 | 8°51 | 5°18 | 11°49 | 27°13 | 28°20 | 29°42 | 10°24 | 12°21 | T 6 | | | | | | | | |
| W 7 | 3 27 33 | 20°44'48 | 19°28 | 18°16 | 10° 3 | 14°35 | 8°40 | 8°48 | 5°22 | 11°47 | 27°13 | 28°R21 | 29°39 | 10°30 | 12°19 | W 7 | | | | | | | | |
| T 8 | 3 31 29 | 21°45'37 | 2 ^h 14 | 19°50 | 11°19 | 14°37 | 8°42 | 8°46 | 5°26 | 11°46 | 27°13 | 28°20 | 29°36 | 10°37 | 12°17 | T 8 | | | | | | | | |
| F 9 | 3 35 26 | 22°46'27 | 15°40 | 21°25 | 12°34 | 14°39 | 8°44 | 8°43 | 5°29 | 11°44 | 27°13 | 28°18 | 29°33 | 10°44 | 12°15 | F 9 | | | | | | | | |
| S 10 | 3 39 23 | 23°47'19 | 28°19 | 23° 0 | 13°50 | 14°R39 | 8°46 | 8°41 | 5°33 | 11°42 | 27°13 | 28°14 | 29°30 | 10°50 | 12°13 | S 10 | | | | | | | | |
| S 11 | 3 43 19 | 24°48'12 | 10 ^h 46 | 24°34 | 15° 5 | 14°39 | 8°49 | 8°38 | 5°36 | 11°41 | 27°13 | 28° 9 | 29°26 | 10°57 | 12°11 | S 11 | | | | | | | | |
| M12 | 3 47 16 | 25°49'07 | 23° 0 | 26° 8 | 16°21 | 14°38 | 8°52 | 8°35 | 5°40 | 11°39 | 27°13 | 28° 3 | 29°23 | 11° 4 | 12° 9 | M12 | | | | | | | | |
| T 13 | 3 51 12 | 26°50'03 | 5 ^h 16 | 27°43 | 17°36 | 14°36 | 8°55 | 8°32 | 5°44 | 11°37 | 27°13 | 27°57 | 29°20 | 11°10 | 12° 6 | T 13 | | | | | | | | |
| W14 | 3 55 9 | 27°51'00 | 17° 4 | 29°17 | 18°52 | 14°33 | 8°58 | 8°29 | 5°47 | 11°36 | 27°14 | 27°51 | 29°17 | 11°17 | 12° 4 | W14 | | | | | | | | |
| T 15 | 3 59 5 | 28°51'58 | 28°57 | 0 ^h 51 | 20° 7 | 14°29 | 9° 1 | 8°26 | 5°51 | 11°34 | 27°14 | 27°47 | 29°14 | 11°24 | 12° 2 | T 15 | | | | | | | | |
| F 16 | 4 3 2 | 29°52'58 | 10 ^h 46 | 2°25 | 21°23 | 14°25 | 9° 5 | 8°22 | 5°54 | 11°32 | 27°14 | 27°44 | 29°10 | 11°30 | 11°59 | F 16 | | | | | | | | |
| S 17 | 4 6 58 | 0 ^h 53'58 | 22°33 | 3°59 | 22°38 | 14°20 | 9° 9 | 8°19 | 5°58 | 11°31 | 27°14 | 27°D43 | 29° 7 | 11°37 | 11°57 | S 17 | | | | | | | | |
| S 18 | 4 10 55 | 1°54'59 | 4 ^h 30 | 5°34 | 23°54 | 14°13 | 9°13 | 8°16 | 6° 2 | 11°29 | 27°15 | 27°43 | 29° 4 | 11°44 | 11°54 | S 18 | | | | | | | | |
| M19 | 4 14 52 | 2°56'01 | 16°11 | 7° 8 | 25°10 | 14° 6 | 9°17 | 8°12 | 6° 5 | 11°28 | 27°15 | 27°44 | 29° 1 | 11°50 | 11°51 | M19 | | | | | | | | |
| T 20 | 4 18 48 | 3°57'04 | 28° 8 | 8°42 | 26°25 | 13°59 | 9°21 | 8° 9 | 6° 9 | 11°26 | 27°16 | 27°46 | 28°58 | 11°57 | 11°48 | T 20 | | | | | | | | |
| W21 | 4 22 45 | 4°58'07 | 10 ^h 16 | 10°16 | 27°41 | 13°50 | 9°26 | 8° 5 | 6°13 | 11°25 | 27°16 | 27°47 | 28°55 | 12° 4 | 11°45 | W21 | | | | | | | | |
| T 22 | 4 26 41 | 5°59'11 | 22°39 | 11°51 | 28°56 | 13°40 | 9°31 | 8° 1 | 6°16 | 11°23 | 27°16 | 27°49 | 28°51 | 12°10 | 11°42 | T 22 | | | | | | | | |
| F 23 | 4 30 38 | 7° 0'15 | 5 ^h 22 | 13°25 | 0 ^h 12 | 13°30 | 9°36 | 7°57 | 6°20 | 11°22 | 27°17 | 27°R49 | 28°48 | 12°17 | 11°39 | F 23 | | | | | | | | |
| S 24 | 4 34 34 | 8° 1'20 | 18°28 | 15° 0 | 1°27 | 13°19 | 9°41 | 7°53 | 6°24 | 11°20 | 27°17 | 27°49 | 28°45 | 12°24 | 11°36 | S 24 | | | | | | | | |
| S 25 | 4 38 31 | 9° 2'25 | 2 ^h 0 | 16°35 | 2°43 | 13° 7 | 9°46 | 7°49 | 6°27 | 11°19 | 27°18 | 27°48 | 28°42 | 12°30 | 11°33 | S 25 | | | | | | | | |
| M26 | 4 42 27 | 10° 3'31 | 16° 0 | 18° 9 | 3°58 | 12°54 | 9°51 | 7°45 | 6°31 | 11°17 | 27°18 | 27°46 | 28°39 | 12°37 | 11°30 | M26 | | | | | | | | |
| T 27 | 4 46 24 | 11° 4'37 | 0 ^h 28 | 19°44 | 5°14 | 12°40 | 9°57 | 7°41 | 6°35 | 11°16 | 27°19 | 27°43 | 28°36 | 12°43 | 11°27 | T 27 | | | | | | | | |
| W28 | 4 50 21 | 12° 5'43 | 15°19 | 21°19 | 6°29 | 12°26 | 10° 3 | 7°37 | 6°38 | 11°14 | 27°19 | 27°41 | 28°32 | 12°50 | 11°23 | W28 | | | | | | | | |
| T 29 | 4 54 17 | 13° 6'50 | 0 ^h 27 | 22°54 | 7°45 | 12°11 | 10° 9 | 7°33 | 6°42 | 11°13 | 27°20 | 27°40 | 28°29 | 12°57 | 11°20 | T 29 | | | | | | | | |
| F 30 | 4 58 14 | 14 ^h 7'57 | 15 ^h 42 | 24 ^h 29 | 9 ^h 0 | 11°55 | 10 ^h 15 | 7°29 | 6 ^h 46 | 11 ^h 12 | 27 ^h 21 | 27 ^h 39 | 28 ^h 26 | 13 ^h 3 | 11 ^h 16 | F 30 | | | | | | | | |

Delta T = 19m56s Julian Calendar 1 Nov. 1061 == Greg. Calendar 7 Nov. 1061

DECEMBER 1061 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|-----------------------|--------------------|--------------------|--------------------|-------------------|--------------------|------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 5 2 10 | 15 ^h 19'05 | 0 ^h 56 | 26 ^h 4 | 10 ^h 16 | 11°R38 | 10 ^h 21 | 7°R24 | 6 ^h 49 | 11°R10 | 27 ^h 21 | 27°D38 | 28 ^h 23 | 13 ^h 10 | 11°R13 | S 1 | | | | | | | | |
| S 2 | 5 6 7 | 16°10'13 | 15°57 | 27°39 | 11°31 | 11°21 | 10°28 | 7°20 | 6°53 | 11 ^h 9 | 27°22 | 27 ^h 39 | 28°20 | 13°17 | 11 ^h 9 | S 2 | | | | | | | | |
| M 3 | 5 10 3 | 17°11'22 | 0 ^h 38 | 29°13 | 12°47 | 11° 3 | 10°35 | 7°15 | 6°57 | 11° 8 | 27°23 | 27°40 | 28°16 | 13°23 | 11° 6 | M 3 | | | | | | | | |
| T 4 | 5 14 0 | 18°12'32 | 14°54 | 0 ^h 48 | 14° 3 | 10°44 | 10°42 | 7°11 | 7° 0 | 11° 6 | 27°23 | 27°41 | 28°13 | 13°30 | 11° 2 | T 4 | | | | | | | | |
| W 5 | 5 17 57 | 19°13'42 | 28°44 | 2°23 | 15°18 | 10°25 | 10°49 | 7° 6 | 7° 4 | 11° 5 | 27°24 | 27°41 | 28°10 | 13°37 | 10°58 | W 5 | | | | | | | | |
| T 6 | 5 21 53 | 20°14'52 | 12 ^h 17 | 3°57 | 16°34 | 10° 5 | 10°56 | 7° 2 | 7° 7 | 11° 4 | 27°25 | 27°42 | 28° 7 | 13°43 | 10°55 | T 6 | | | | | | | | |
| F 7 | 5 25 50 | 21°16'03 | 25° 5 | 5°31 | 17°49 | 9°45 | 11° 3 | 6°57 | 7°11 | 11° 3 | 27°26 | 27°R42 | 28° 4 | 13°50 | 10°51 | F 7 | | | | | | | | |
| S 8 | 5 29 46 | 22°17'15 | 7 ^h 42 | 7° 4 | 19° 5 | 9°24 | 11°11 | 6°52 | 7°14 | 11° 1 | 27°26 | 27°42 | 28° 1 | 13°57 | 10°47 | S 8 | | | | | | | | |
| S 9 | 5 33 43 | 23°18'27 | 20° 2 | 8°37 | 20°20 | 9° 2 | 11°18 | 6°48 | 7°18 | 11° 0 | 27°27 | 27°41 | 27°57 | 14° 3 | 10°43 | S 9 | | | | | | | | |
| M10 | 5 37 39 | 24°19'39 | 2 ^h 8 | 10° 9 | 21°36 | 8°40 | 11°26 | 6°43 | 7°22 | 10°59 | 27°28 | 27°41 | 27°54 | 14°10 | 10°39 | M10 | | | | | | | | |
| T 11 | 5 41 36 | 25°20'52 | 14° 5 | 11°40 | 22°51 | 8°18 | 11°34 | 6°38 | 7°25 | 10°58 | 27°29 | 27°40 | 27°51 | 14°17 | 10°35 | T 11 | | | | | | | | |
| W12 | 5 45 32 | 26°22'05 | 25°56 | 13° 9 | 24° 7 | 7°55 | 11°42 | 6°33 | 7°29 | 10°57 | 27°30 | 27°40 | 27°48 | 14°23 | 10°31 | W12 | | | | | | | | |
| T 13 | 5 49 29 | 27°23'18 | 7 ^h 44 | 14°37 | 25°22 | 7°32 | 11°50 | 6°28 | 7°32 | 10°56 | 27°31 | 27°D40 | 27°45 | 14°30 | 10°27 | T 13 | | | | | | | | |
| F 14 | 5 53 26 | 28°24'31 | 19°31 | 16° 4 | 26°38 | 7° 8 | 11°59 | 6°24 | 7°36 | 10°55 | 27°32 | 27°40 | 27°42 | 14°37 | 10°23 | F 14 | | | | | | | | |
| S 15 | 5 57 22 | 29°25'45 | 1 ^h 30 | 17°28 | 27°53 | 6°45 | 12° 7 | 6°19 | 7°39 | 10°54 | 27°33 | 27°R40 | 27°38 | 14°43 | 10°19 | S 15 | | | | | | | | |
| S 16 | 6 1 19 | 0 ^h 36'58 | 13°13 | 18°49 | 29° 9 | 6°21 | 12°16 | 6°14 | 7°43 | 10°53 | 27°34 | 27°40 | 27°35 | 14°50 | 10°15 | S 16 | | | | | | | | |
| M17 | 6 5 15 | 1°28'11 | 25°12 | 20° 8 | 0 ^h 24 | 5°57 | 12°25 | 6° 9 | 7°46 | 10°52 | 27°35 | 27°40 | 27°32 | 14°56 | 10°11 | M17 | | | | | | | | |
| T 18 | 6 9 12 | 2°29'23 | 7 ^h 19 | 21°22 | 1°40 | 5°33 | 12°34 | 6° 4 | 7°49 | 10°51 | 27°36 | 27°39 | 27°29 | 15° 3 | 10° 7 | T 18 | | | | | | | | |
| W19 | 6 13 8 | 3°30'36 | 19°36 | 22°33 | 2°55 | 5° 9 | 12°43 | 5°59 | 7°53 | 10°50 | 27°37 | 27°38 | 27°26 | 15°10 | 10° 3 | W19 | | | | | | | | |
| T 20 | 6 17 5 | 4°31'47 | 2 ^h 5 | 23°38 | 4°11 | 4°45 | 12°52 | 5°54 | 7°56 | 10°49 | 27°38 | 27°38 | 27°22 | 15°16 | 9°59 | T 20 | | | | | | | | |
| F 21 | 6 21 1 | 5°32'59 | 14°51 | 24°37 | 5°26 | 4°21 | 13° 1 | 5°49 | 8° 0 | 10°48 | 27°39 | 27°37 | 27°19 | 15°23 | 9°54 | F 21 | | | | | | | | |
| S 22 | 6 24 58 | 6°34'09 | 27°54 | 25°30 | 6°42 | 3°57 | 13°11 | 5°44 | 8° 3 | 10°48 | 27°40 | 27°36 | 27°16 | 15°30 | 9°50 | S 22 | | | | | | | | |
| S 23 | 6 28 55 | 7°35'19 | 11 ^h 18 | 26°15 | 7°57 | 3°33 | 13°21 | 5°39 | 8° 6 | 10°47 | 27°41 | 27°D36 | 27°13 | 15°36 | 9°46 | S 23 | | | | | | | | |
| M24 | 6 32 51 | 8°36'28 | 25° 5 | 26°52 | 9°13 | 3°10 | 13°30 | 5°34 | 8°10 | 10°46 | 27°42 | 27°37 | 27°10 | 15°43 | 9°42 | M24 | | | | | | | | |
| T 25 | 6 36 48 | 9°37'37 | 9 ^h 15 | 27°20 | 10°28 | 2°46 | 13°40 | 5°29 | 8°13 | 10°45 | 27°43 | 27°37 | 27° 7 | 15°50 | 9°38 | T 25 | | | | | | | | |
| W26 | 6 40 44 | 10°38'45 | 23°46 | 27°37 | 11°43 | 2°23 | 13°50 | 5°24 | 8°16 | 10°45 | 27°45 | 27°38 | 27° 3 | 15°56 | 9°33 | W26 | | | | | | | | |
| T 27 | 6 44 41 | 11°39'52 | 8 ^h 36 | 27°R44 | 12°59 | 2° 1 | 14° 0 | 5°19 | 8°19 | 10°44 | 27°46 | 27°39 | 27° 0 | 16° 3 | 9°29 | T 27 | | | | | | | | |
| F 28 | 6 48 37 | 12°40'58 | 23°38 | 27°39 | 14°14 | 1°39 | 14°11 | 5°14 | 8°22 | 10°43 | 27°47 | 27°R40 | 26°57 | 16°10 | 9°25 | F 28 | | | | | | | | |
| S 29 | 6 52 34 | 13°42'04 | 8 ^h 44 | 27°22 | 15°30 | 1°17 | 14°21 | 5° 9 | 8°26 | 10°43 | 27°48 | 27°40 | 26°54 | 16°16 | 9°21 | S 29 | | | | | | | | |
| S 30 | 6 56 30 | 14°43'09 | 23°45 | 26°54 | 16°45 | 0°55 | 14°31 | 5° 5 | 8°29 | 10°42 | 27°49 | 27°39 | 26°51 | 16°23 | 9°17 | S 30 | | | | | | | | |
| M31 | 7 0 27 | 15 ^h 34'14 | 8 ^h 33 | 26 ^h 15 | 18 ^h 0 | 0 ^h 35 | 14 ^h 42 | 5 ^h 0 | 8 ^h 32 | 10 ^h 42 | 27 ^h 51 | 27 ^h 37 | 26 ^h 48 | 16 ^h 30 | 9 ^h 12 | M31 | | | | | | | | |

Delta T = 19m55s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1062
geocentric

JANUARY 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|--------|-------|-------|------|--------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 7 4 24 | 16♁5'17 | 23♁ 0 | 25°R25 | 19♁16 | 0°R14 | 14♁53 | 4°R55 | 8♁35 | 10°R41 | 27♁52 | 27°R34 | 26♁44 | 16♁36 | 9°R 8 | T 1 | |
| W 2 | 7 8 20 | 17°46'20 | 7♁ 1 | 24♁26 | 20°31 | 29♁54 | 15° 4 | 4♁50 | 8°38 | 10♁41 | 27°53 | 27♁31 | 26°41 | 16°43 | 9♁ 4 | W 2 | |
| T 3 | 7 12 17 | 18°47'23 | 20°35 | 23°19 | 21°47 | 29°35 | 15°14 | 4°45 | 8°41 | 10°40 | 27°55 | 27°29 | 26°38 | 16°50 | 9° 0 | T 3 | |
| F 4 | 7 16 13 | 19°48'25 | 3♁41 | 22° 7 | 23° 2 | 29°17 | 15°25 | 4°41 | 8°44 | 10°40 | 27°56 | 27°27 | 26°35 | 16°56 | 8°56 | F 4 | |
| S 5 | 7 20 10 | 20°49'26 | 16°23 | 20°52 | 24°17 | 28°59 | 15°37 | 4°36 | 8°47 | 10°40 | 27°57 | 27°D26 | 26°32 | 17° 3 | 8°52 | S 5 | |
| S 6 | 7 24 6 | 21°50'27 | 28°45 | 19°35 | 25°33 | 28°41 | 15°48 | 4°31 | 8°50 | 10°39 | 27°59 | 27°26 | 26°28 | 17° 9 | 8°48 | S 6 | |
| M 7 | 7 28 3 | 22°51'27 | 10♁50 | 18°20 | 26°48 | 28°25 | 15°59 | 4°27 | 8°53 | 10°39 | 28° 0 | 27°27 | 26°25 | 17°16 | 8°43 | M 7 | |
| T 8 | 7 31 59 | 23°52'27 | 22°44 | 17° 9 | 28° 3 | 28° 9 | 16°11 | 4°22 | 8°56 | 10°39 | 28° 1 | 27°29 | 26°22 | 17°23 | 8°39 | T 8 | |
| W 9 | 7 35 56 | 24°53'26 | 4♁32 | 16° 2 | 29°18 | 27°54 | 16°22 | 4°18 | 8°58 | 10°39 | 28° 3 | 27°30 | 26°19 | 17°29 | 8°35 | W 9 | |
| T 10 | 7 39 53 | 25°54'24 | 16°18 | 15° 2 | 0♁34 | 27°39 | 16°34 | 4°13 | 9° 1 | 10°38 | 28° 4 | 27°32 | 26°16 | 17°36 | 8°31 | T 10 | |
| F 11 | 7 43 49 | 26°55'21 | 28° 6 | 14°10 | 1°49 | 27°26 | 16°46 | 4° 9 | 9° 4 | 10°38 | 28° 6 | 27°R33 | 26°13 | 17°43 | 8°28 | F 11 | |
| S 12 | 7 47 46 | 27°56'17 | 10♁ 0 | 13°25 | 3° 4 | 27°13 | 16°57 | 4° 5 | 9° 7 | 10°38 | 28° 7 | 27°32 | 26° 9 | 17°49 | 8°24 | S 12 | |
| S 13 | 7 51 42 | 28°57'13 | 22° 1 | 12°49 | 4°20 | 27° 1 | 17° 9 | 4° 0 | 9° 9 | 10°38 | 28° 8 | 27°29 | 26° 6 | 17°56 | 8°20 | S 13 | |
| M14 | 7 55 39 | 29°58'07 | 4♁12 | 12°22 | 5°35 | 26°49 | 17°21 | 3°56 | 9°12 | 10°38 | 28°10 | 27°25 | 26° 3 | 18° 3 | 8°16 | M14 | |
| T 15 | 7 59 35 | 0♁58'59 | 16°34 | 12° 3 | 6°50 | 26°39 | 17°33 | 3°52 | 9°15 | 10°D38 | 28°11 | 27°20 | 26° 0 | 18° 9 | 8°12 | T 15 | |
| W16 | 8 3 32 | 1°59'51 | 29° 7 | 11°53 | 8° 5 | 26°29 | 17°45 | 3°48 | 9°17 | 10°38 | 28°13 | 27°14 | 25°57 | 18°16 | 8° 8 | W16 | |
| T 17 | 8 7 29 | 3° 0'41 | 11♁54 | 11°D50 | 9°21 | 26°20 | 17°58 | 3°44 | 9°20 | 10°38 | 28°14 | 27° 7 | 25°54 | 18°23 | 8° 5 | T 17 | |
| F 18 | 8 11 25 | 4° 1'30 | 24°53 | 11°55 | 10°36 | 26°12 | 18°10 | 3°40 | 9°22 | 10°38 | 28°16 | 27° 1 | 25°50 | 18°29 | 8° 1 | F 18 | |
| S 19 | 8 15 22 | 5° 2'17 | 8°Y 5 | 12° 6 | 11°51 | 26° 5 | 18°22 | 3°36 | 9°25 | 10°38 | 28°17 | 26°57 | 25°47 | 18°36 | 7°58 | S 19 | |
| S 20 | 8 19 18 | 6° 3'02 | 21°32 | 12°24 | 13° 6 | 25°58 | 18°35 | 3°32 | 9°27 | 10°38 | 28°19 | 26°54 | 25°44 | 18°43 | 7°54 | S 20 | |
| M21 | 8 23 15 | 7° 3'46 | 5♁13 | 12°48 | 14°21 | 25°53 | 18°47 | 3°29 | 9°30 | 10°39 | 28°20 | 26°D53 | 25°41 | 18°49 | 7°51 | M21 | |
| T 22 | 8 27 11 | 8° 4'28 | 19°10 | 13°18 | 15°36 | 25°48 | 19° 0 | 3°25 | 9°32 | 10°39 | 28°22 | 26°53 | 25°38 | 18°56 | 7°47 | T 22 | |
| W23 | 8 31 8 | 9° 5'09 | 3♁22 | 13°52 | 16°51 | 25°44 | 19°13 | 3°21 | 9°34 | 10°39 | 28°23 | 26°55 | 25°34 | 19° 2 | 7°44 | W23 | |
| T 24 | 8 35 4 | 10° 5'47 | 17°48 | 14°31 | 18° 7 | 25°41 | 19°26 | 3°18 | 9°36 | 10°39 | 28°25 | 26°56 | 25°31 | 19° 9 | 7°40 | T 24 | |
| F 25 | 8 39 1 | 11° 6'24 | 2♁25 | 15°14 | 19°22 | 25°38 | 19°38 | 3°15 | 9°39 | 10°40 | 28°27 | 26°R56 | 25°28 | 19°16 | 7°37 | F 25 | |
| S 26 | 8 42 58 | 12° 7'00 | 17° 8 | 16° 2 | 20°37 | 25°36 | 19°51 | 3°11 | 9°41 | 10°40 | 28°28 | 26°54 | 25°25 | 19°22 | 7°34 | S 26 | |
| S 27 | 8 46 54 | 13° 7'33 | 1♁52 | 16°52 | 21°52 | 25°35 | 20° 4 | 3° 8 | 9°43 | 10°41 | 28°30 | 26°50 | 25°22 | 19°29 | 7°31 | S 27 | |
| M28 | 8 50 51 | 14° 8'05 | 16°28 | 17°46 | 23° 7 | 25°D35 | 20°17 | 3° 5 | 9°45 | 10°41 | 28°31 | 26°44 | 25°19 | 19°36 | 7°28 | M28 | |
| T 29 | 8 54 47 | 15° 8'36 | 0♁49 | 18°43 | 24°22 | 25°36 | 20°31 | 3° 2 | 9°47 | 10°41 | 28°33 | 26°37 | 25°15 | 19°42 | 7°25 | T 29 | |
| W30 | 8 58 44 | 16° 9'04 | 14°50 | 19°43 | 25°37 | 25°37 | 20°44 | 2°59 | 9°49 | 10°42 | 28°34 | 26°28 | 25°12 | 19°49 | 7°22 | W30 | |
| T 31 | 9 2 40 | 17° 9'32 | 28♁27 | 20♁46 | 26♁52 | 25♁39 | 20♁57 | 2♁56 | 9♁51 | 10♁43 | 28♁36 | 26♁20 | 25♁ 9 | 19♁56 | 7♁19 | T 31 | |

Delta T = 19m55s Julian Calendar 1 Jan. 1062 == Greg. Calendar 7 Jan. 1062

FEBRUARY 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|-----|
| F 1 | 9 6 37 | 18♁9'57 | 11♁39 | 21♁51 | 28♁ 7 | 25♁42 | 21♁10 | 2°R53 | 9♁53 | 10♁43 | 28♁38 | 26°R13 | 25♁ 6 | 20♁ 2 | 7°R16 | F 1 | |
| S 2 | 9 10 33 | 19°10'22 | 24°26 | 22°58 | 29°22 | 25°45 | 21°24 | 2♁51 | 9°55 | 10°44 | 28°39 | 26♁ 8 | 25° 3 | 20° 9 | 7♁14 | S 2 | |
| S 3 | 9 14 30 | 20°10'45 | 6♁51 | 24° 7 | 0♁37 | 25°49 | 21°37 | 2°48 | 9°56 | 10°44 | 28°41 | 26° 4 | 25° 0 | 20°16 | 7°11 | S 3 | |
| M 4 | 9 18 26 | 21°11'06 | 18°58 | 25°18 | 1°51 | 25°54 | 21°50 | 2°46 | 9°58 | 10°45 | 28°42 | 26°D 3 | 24°56 | 20°22 | 7° 8 | M 4 | |
| T 5 | 9 22 23 | 22°11'27 | 0♁54 | 26°31 | 3° 6 | 26° 0 | 22° 4 | 2°43 | 10° 0 | 10°46 | 28°44 | 26° 4 | 24°53 | 20°29 | 7° 6 | T 5 | |
| W 6 | 9 26 20 | 23°11'45 | 12°42 | 27°46 | 4°21 | 26° 6 | 22°17 | 2°41 | 10° 2 | 10°47 | 28°46 | 26° 5 | 24°50 | 20°35 | 7° 4 | W 6 | |
| T 7 | 9 30 16 | 24°12'02 | 24°29 | 29° 3 | 5°36 | 26°12 | 22°31 | 2°39 | 10° 3 | 10°47 | 28°47 | 26°R 5 | 24°47 | 20°42 | 7° 1 | T 7 | |
| F 8 | 9 34 13 | 25°12'18 | 6♁19 | 0♁21 | 6°51 | 26°20 | 22°45 | 2°37 | 10° 5 | 10°48 | 28°49 | 26° 5 | 24°44 | 20°49 | 6°59 | F 8 | |
| S 9 | 9 38 9 | 26°12'32 | 18°17 | 1°41 | 8° 6 | 26°28 | 22°58 | 2°35 | 10° 6 | 10°49 | 28°51 | 26° 2 | 24°40 | 20°55 | 6°57 | S 9 | |
| S 10 | 9 42 6 | 27°12'44 | 0♁27 | 3° 2 | 9°20 | 26°36 | 23°12 | 2°33 | 10° 8 | 10°50 | 28°52 | 25°57 | 24°37 | 21° 2 | 6°55 | S 10 | |
| M11 | 9 46 2 | 28°12'54 | 12°50 | 4°24 | 10°35 | 26°46 | 23°26 | 2°31 | 10° 9 | 10°51 | 28°54 | 25°49 | 24°34 | 21° 9 | 6°53 | M11 | |
| T 12 | 9 49 59 | 29°13'03 | 25°29 | 5°48 | 11°50 | 26°55 | 23°40 | 2°30 | 10°11 | 10°52 | 28°55 | 25°39 | 24°31 | 21°15 | 6°51 | T 12 | |
| W13 | 9 53 55 | 0♁13'10 | 8♁23 | 7°13 | 13° 5 | 27° 6 | 23°54 | 2°28 | 10°12 | 10°53 | 28°57 | 25°28 | 24°28 | 21°22 | 6°49 | W13 | |
| T 14 | 9 57 52 | 1°13'15 | 21°32 | 8°40 | 14°19 | 27°17 | 24° 8 | 2°27 | 10°13 | 10°54 | 28°59 | 25°16 | 24°25 | 21°29 | 6°47 | T 14 | |
| F 15 | 10 1 49 | 2°13'17 | 4°Y54 | 10° 8 | 15°34 | 27°28 | 24°22 | 2°25 | 10°14 | 10°55 | 29° 0 | 25° 5 | 24°21 | 21°35 | 6°46 | F 15 | |
| S 16 | 10 5 45 | 3°13'18 | 18°26 | 11°37 | 16°49 | 27°40 | 24°36 | 2°24 | 10°15 | 10°56 | 29° 2 | 24°56 | 24°18 | 21°42 | 6°44 | S 16 | |
| S 17 | 10 9 42 | 4°13'16 | 2♁ 9 | 13° 7 | 18° 3 | 27°53 | 24°50 | 2°23 | 10°17 | 10°57 | 29° 4 | 24°49 | 24°15 | 21°49 | 6°43 | S 17 | |
| M18 | 10 13 38 | 5°13'13 | 15°59 | 14°38 | 19°18 | 28° 6 | 25° 4 | 2°22 | 10°18 | 10°58 | 29° 5 | 24°45 | 24°12 | 21°55 | 6°41 | M18 | |
| T 19 | 10 17 35 | 6°13'07 | 29°56 | 16°11 | 20°32 | 28°20 | 25°18 | 2°21 | 10°19 | 10°59 | 29° 7 | 24°44 | 24° 9 | 22° 2 | 6°40 | T 19 | |
| W20 | 10 21 31 | 7°12'59 | 13♁59 | 17°45 | 21°47 | 28°34 | 25°32 | 2°20 | 10°20 | 11° 0 | 29° 8 | 24°D44 | 24° 6 | 22° 9 | 6°39 | W20 | |
| T 21 | 10 25 28 | 8°12'48 | 28° 9 | 19°20 | 23° 1 | 28°48 | 25°46 | 2°20 | 10°20 | 11° 1 | 29°10 | 24°R44 | 24° 2 | 22°15 | 6°38 | T 21 | |
| F 22 | 10 29 24 | 9°12'36 | 12♁23 | 20°56 | 24°16 | 29° 3 | 26° 0 | 2°19 | 10°21 | 11° 3 | 29°12 | 24°43 | 23°59 | 22°22 | 6°37 | F 22 | |
| S 23 | 10 33 21 | 10°12'21 | 26°40 | 22°33 | 25°30 | 29°19 | 26°14 | 2°19 | 10°22 | 11° 4 | 29°13 | 24°40 | 23°56 | 22°28 | 6°36 | S 23 | |
| S 24 | 10 37 18 | 11°12'03 | 10♁56 | 24°12 | 26°45 | 29°35 | 26°29 | 2°19 | 10°23 | 11° 5 | 29°15 | 24°34 | 23°53 | 22°35 | 6°35 | S 24 | |
| M25 | 10 41 14 | 12°11'44 | 25° 7 | 25°52 | 27°59 | 29°51 | 26°43 | 2°18 | 10°24 | 11° 7 | 29°16 | 24°25 | 23°50 | 22°42 | 6°34 | M25 | |
| T 26 | 10 45 11 | 13°11'22 | 9♁ 8 | 27°33 | 29°13 | 0♁ 8 | 26°57 | 2°D18 | 10°24 | 11° 8 | 29°18 | 24°14 | 23°46 | 22°48 | 6°33 | T 26 | |
| W27 | 10 49 7 | 14°10'58 | 22°55 | 29°15 | 0°Y28 | 0°25 | 27°11 | 2°18 | 10°25 | 11° 9 | 29°20 | 24° 1 | 23°43 | 22°55 | 6°33 | W27 | |
| T 28 | 10 53 4 | 15°10'32 | 6♁22 | 0♁59 | 1°Y42 | 0♁43 | 27°26 | 2♁18 | 10°25 | 11°11 | 29°21 | 23°49 | 23°40 | 23°40 | 6°32 | T 28 | |

Delta T = 19m55s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1062
geocentric

MARCH 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|--------|-------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 10 57 0 | 16♋10'04 | 19♌28 | 2♋43 | 2♃56 | 1♉1 | 27♋40 | 2♉19 | 10♌26 | 11♌12 | 29♌23 | 23♌38 | 23♌37 | 23♌8 | 6♌32 | F 1 | | | | | | | | |
| S 2 | 11 0 57 | 17° 9'35 | 2♌13 | 4°29 | 4°10 | 1°20 | 27°54 | 2°19 | 10°26 | 11°14 | 29°24 | 23♌29 | 23°34 | 23°15 | 6♌32 | S 2 | | | | | | | | |
| S 3 | 11 4 53 | 18° 9'03 | 14°39 | 6°17 | 5°25 | 1°38 | 28° 9 | 2°20 | 10°27 | 11°15 | 29°26 | 23°23 | 23°31 | 23°22 | 6°31 | S 3 | | | | | | | | |
| M 4 | 11 8 50 | 19° 8'30 | 26°48 | 8° 5 | 6°39 | 1°58 | 28°23 | 2°20 | 10°27 | 11°17 | 29°27 | 23°19 | 23°27 | 23°28 | 6°31 | M 4 | | | | | | | | |
| T 5 | 11 12 47 | 20° 7'55 | 8♌44 | 9°55 | 7°53 | 2°17 | 28°38 | 2°21 | 10°27 | 11°18 | 29°29 | 23°17 | 23°24 | 23°35 | 6°D31 | T 5 | | | | | | | | |
| W 6 | 11 16 43 | 21° 7'18 | 20°34 | 11°46 | 9° 7 | 2°37 | 28°52 | 2°22 | 10°27 | 11°20 | 29°30 | 23°17 | 23°21 | 23°42 | 6°31 | W 6 | | | | | | | | |
| T 7 | 11 20 40 | 22° 6'39 | 2♌22 | 13°39 | 10°21 | 2°57 | 29° 6 | 2°23 | 10°28 | 11°21 | 29°32 | 23°17 | 23°18 | 23°48 | 6°32 | T 7 | | | | | | | | |
| F 8 | 11 24 36 | 23° 5'58 | 14°14 | 15°33 | 11°35 | 3°18 | 29°21 | 2°24 | 10°28 | 11°23 | 29°33 | 23°16 | 23°15 | 23°55 | 6°32 | F 8 | | | | | | | | |
| S 9 | 11 28 33 | 24° 5'16 | 26°15 | 17°28 | 12°49 | 3°39 | 29°35 | 2°25 | 10°28 | 11°25 | 29°35 | 23°13 | 23°11 | 24° 1 | 6°32 | S 9 | | | | | | | | |
| S 10 | 11 32 29 | 25° 4'32 | 8♌30 | 19°24 | 14° 3 | 4° 0 | 29°50 | 2°26 | 10°R28 | 11°26 | 29°36 | 23° 7 | 23° 8 | 24° 8 | 6°33 | S 10 | | | | | | | | |
| M 11 | 11 36 26 | 26° 3'45 | 21° 2 | 21°22 | 15°17 | 4°22 | 0♃4 | 2°27 | 10°28 | 11°28 | 29°38 | 22°59 | 23° 5 | 24°15 | 6°33 | M 11 | | | | | | | | |
| T 12 | 11 40 22 | 27° 2'57 | 3♋54 | 23°21 | 16°31 | 4°44 | 0°19 | 2°29 | 10°28 | 11°30 | 29°39 | 22°48 | 23° 2 | 24°21 | 6°34 | T 12 | | | | | | | | |
| W 13 | 11 44 19 | 28° 2'07 | 17° 6 | 25°21 | 17°45 | 5° 6 | 0°33 | 2°30 | 10°27 | 11°31 | 29°41 | 22°36 | 22°59 | 24°28 | 6°35 | W 13 | | | | | | | | |
| T 14 | 11 48 15 | 29° 1'15 | 0♃37 | 27°22 | 18°59 | 5°29 | 0°48 | 2°32 | 10°27 | 11°33 | 29°42 | 22°23 | 22°56 | 24°35 | 6°36 | T 14 | | | | | | | | |
| F 15 | 11 52 12 | 0♃020 | 14°33 | 29°25 | 20°13 | 5°51 | 1° 2 | 2°34 | 10°27 | 11°35 | 29°44 | 22°11 | 22°52 | 24°41 | 6°37 | F 15 | | | | | | | | |
| S 16 | 11 56 9 | 0°59'24 | 28°22 | 1♃28 | 21°26 | 6°15 | 1°17 | 2°36 | 10°27 | 11°37 | 29°45 | 22° 1 | 22°49 | 24°48 | 6°38 | S 16 | | | | | | | | |
| S 17 | 12 0 5 | 1°58'25 | 12♌29 | 3°32 | 22°40 | 6°38 | 1°31 | 2°38 | 10°26 | 11°39 | 29°47 | 21°54 | 22°46 | 24°55 | 6°39 | S 17 | | | | | | | | |
| M 18 | 12 4 2 | 2°57'25 | 26°39 | 5°36 | 23°54 | 7° 2 | 1°45 | 2°40 | 10°26 | 11°40 | 29°48 | 21°49 | 22°43 | 25° 1 | 6°40 | M 18 | | | | | | | | |
| T 19 | 12 7 58 | 3°56'21 | 10♌10 | 7°41 | 25° 8 | 7°26 | 2° 0 | 2°42 | 10°25 | 11°42 | 29°49 | 21°47 | 22°40 | 25° 8 | 6°41 | T 19 | | | | | | | | |
| W 20 | 12 11 55 | 4°55'16 | 24°59 | 9°47 | 26°21 | 7°50 | 2°14 | 2°44 | 10°25 | 11°44 | 29°51 | 21°D47 | 22°37 | 25°15 | 6°43 | W 20 | | | | | | | | |
| T 21 | 12 15 51 | 5°54'08 | 9♌5 | 11°52 | 27°35 | 8°14 | 2°29 | 2°47 | 10°24 | 11°46 | 29°52 | 21°R47 | 22°33 | 25°21 | 6°44 | T 21 | | | | | | | | |
| F 22 | 12 19 48 | 6°52'58 | 23° 8 | 13°57 | 28°48 | 8°39 | 2°43 | 2°49 | 10°24 | 11°48 | 29°54 | 21°46 | 22°30 | 25°28 | 6°46 | F 22 | | | | | | | | |
| S 23 | 12 23 44 | 7°51'46 | 7♌6 | 16° 1 | 0♃2 | 9° 4 | 2°58 | 2°52 | 10°23 | 11°50 | 29°55 | 21°43 | 22°27 | 25°34 | 6°47 | S 23 | | | | | | | | |
| S 24 | 12 27 41 | 8°50'31 | 20°58 | 18° 5 | 1°15 | 9°29 | 3°12 | 2°55 | 10°22 | 11°52 | 29°56 | 21°38 | 22°24 | 25°41 | 6°49 | S 24 | | | | | | | | |
| M 25 | 12 31 38 | 9°49'14 | 4♌43 | 20° 7 | 2°29 | 9°55 | 3°27 | 2°57 | 10°22 | 11°54 | 29°58 | 21°30 | 22°21 | 25°48 | 6°51 | M 25 | | | | | | | | |
| T 26 | 12 35 34 | 10°47'54 | 18°18 | 22° 8 | 3°42 | 10°20 | 3°41 | 3° 0 | 10°21 | 11°56 | 29°59 | 21°19 | 22°17 | 25°54 | 6°53 | T 26 | | | | | | | | |
| W 27 | 12 39 31 | 11°46'33 | 1♌40 | 24° 7 | 4°56 | 10°46 | 3°55 | 3° 3 | 10°20 | 11°58 | 0♃0 | 21° 8 | 22°14 | 26° 1 | 6°55 | W 27 | | | | | | | | |
| T 28 | 12 43 27 | 12°45'09 | 14°48 | 26° 3 | 6° 9 | 11°12 | 4°10 | 3° 6 | 10°19 | 12° 0 | 0° 1 | 20°56 | 22°11 | 26° 8 | 6°57 | T 28 | | | | | | | | |
| F 29 | 12 47 24 | 13°43'44 | 27°40 | 27°57 | 7°22 | 11°38 | 4°24 | 3°10 | 10°18 | 12° 2 | 0° 3 | 20°46 | 22° 8 | 26°14 | 6°59 | F 29 | | | | | | | | |
| S 30 | 12 51 20 | 14°42'16 | 10♌15 | 29°48 | 8°35 | 12° 5 | 4°38 | 3°13 | 10°17 | 12° 4 | 0° 4 | 20°37 | 22° 5 | 26°21 | 7° 2 | S 30 | | | | | | | | |
| S 31 | 12 55 17 | 15°40'47 | 22♌34 | 1♃36 | 9♃49 | 12♌32 | 4♃53 | 3♌16 | 10♌16 | 12♌6 | 0♃5 | 20♌31 | 22♌2 | 26♌28 | 7♌4 | S 31 | | | | | | | | |

Delta T = 19m54s Julian Calendar 1 March 1062 == Greg. Calendar 7 March 1062

APRIL 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|-------|-------|------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 12 59 13 | 16♃39'16 | 4♌40 | 3♌21 | 11♌2 | 12♌59 | 5♃7 | 3♌20 | 10♌15 | 12♌8 | 0♃6 | 20♌28 | 21♌58 | 26♌34 | 7♌6 | M 1 | | | | | | | | |
| T 2 | 13 3 10 | 17°37'44 | 16°36 | 5° 2 | 12°15 | 13°26 | 5°21 | 3°24 | 10♌14 | 12°10 | 0° 8 | 20°D26 | 21°55 | 26°41 | 7° 9 | T 2 | | | | | | | | |
| W 3 | 13 7 7 | 18°36'09 | 28°25 | 6°39 | 13°28 | 13°53 | 5°36 | 3°27 | 10°13 | 12°12 | 0° 9 | 20♌26 | 21°52 | 26°48 | 7°12 | W 3 | | | | | | | | |
| T 4 | 13 11 3 | 19°34'33 | 10♌13 | 8°12 | 14°41 | 14°20 | 5°50 | 3°31 | 10°12 | 12°14 | 0°10 | 20°27 | 21°49 | 26°54 | 7°14 | T 4 | | | | | | | | |
| F 5 | 13 15 0 | 20°32'56 | 22° 6 | 9°41 | 15°54 | 14°48 | 6° 4 | 3°35 | 10°10 | 12°16 | 0°11 | 20°R28 | 21°46 | 27° 1 | 7°17 | F 5 | | | | | | | | |
| S 6 | 13 18 56 | 21°31'17 | 4♌8 | 11° 5 | 17° 7 | 15°16 | 6°18 | 3°39 | 10° 9 | 12°18 | 0°12 | 20°27 | 21°43 | 27° 8 | 7°20 | S 6 | | | | | | | | |
| S 7 | 13 22 53 | 22°29'36 | 16°24 | 12°25 | 18°20 | 15°44 | 6°32 | 3°43 | 10° 8 | 12°20 | 0°13 | 20°24 | 21°39 | 27°14 | 7°23 | S 7 | | | | | | | | |
| M 8 | 13 26 49 | 23°27'53 | 29° 0 | 13°41 | 19°33 | 16°12 | 6°47 | 3°47 | 10° 6 | 12°23 | 0°14 | 20°19 | 21°36 | 27°21 | 7°26 | M 8 | | | | | | | | |
| T 9 | 13 30 46 | 24°26'09 | 11♌57 | 14°52 | 20°45 | 16°41 | 7° 1 | 3°51 | 10° 5 | 12°25 | 0°15 | 20°12 | 21°33 | 27°27 | 7°29 | T 9 | | | | | | | | |
| W 10 | 13 34 42 | 25°24'24 | 25°19 | 15°58 | 21°58 | 17° 9 | 7°15 | 3°56 | 10° 3 | 12°27 | 0°16 | 20° 3 | 21°30 | 27°34 | 7°32 | W 10 | | | | | | | | |
| T 11 | 13 38 39 | 26°22'36 | 9♃4 | 16°59 | 23°11 | 17°38 | 7°29 | 4° 0 | 10° 2 | 12°29 | 0°17 | 19°54 | 21°27 | 27°41 | 7°36 | T 11 | | | | | | | | |
| F 12 | 13 42 36 | 27°20'47 | 23°10 | 17°55 | 24°24 | 18° 7 | 7°43 | 4° 4 | 10° 0 | 12°31 | 0°18 | 19°46 | 21°23 | 27°47 | 7°39 | F 12 | | | | | | | | |
| S 13 | 13 46 32 | 28°18'57 | 7♌32 | 18°46 | 25°36 | 18°36 | 7°57 | 4° 9 | 9°59 | 12°33 | 0°19 | 19°39 | 21°20 | 27°54 | 7°43 | S 13 | | | | | | | | |
| S 14 | 13 50 29 | 29°17'04 | 22° 4 | 19°33 | 26°49 | 19° 5 | 8°11 | 4°14 | 9°57 | 12°36 | 0°20 | 19°34 | 21°17 | 28° 1 | 7°46 | S 14 | | | | | | | | |
| M 15 | 13 54 25 | 0♃15'10 | 6♌40 | 20°14 | 28° 1 | 19°34 | 8°25 | 4°18 | 9°55 | 12°38 | 0°21 | 19°31 | 21°14 | 28° 7 | 7°50 | M 15 | | | | | | | | |
| T 16 | 13 58 22 | 1°13'14 | 21°13 | 20°50 | 29°14 | 20° 4 | 8°39 | 4°23 | 9°54 | 12°40 | 0°22 | 19°D30 | 21°11 | 28°14 | 7°53 | T 16 | | | | | | | | |
| W 17 | 14 2 18 | 2°11'16 | 5♌39 | 21°21 | 0♌26 | 20°34 | 8°53 | 4°28 | 9°52 | 12°42 | 0°23 | 19°31 | 21° 8 | 28°21 | 7°57 | W 17 | | | | | | | | |
| T 18 | 14 6 15 | 3° 9'16 | 19°55 | 21°46 | 1°39 | 21° 3 | 9° 6 | 4°33 | 9°50 | 12°45 | 0°24 | 19°32 | 21° 4 | 28°27 | 8° 1 | T 18 | | | | | | | | |
| F 19 | 14 10 11 | 4° 7'14 | 3♌59 | 22° 7 | 2°51 | 21°33 | 9°20 | 4°38 | 9°48 | 12°47 | 0°25 | 19°R33 | 21° 1 | 28°34 | 8° 5 | F 19 | | | | | | | | |
| S 20 | 14 14 8 | 5° 5'10 | 17°50 | 22°22 | 4° 4 | 22° 3 | 9°34 | 4°43 | 9°46 | 12°49 | 0°26 | 19°32 | 20°58 | 28°41 | 8° 9 | S 20 | | | | | | | | |
| S 21 | 14 18 5 | 6° 3'04 | 1♌28 | 22°32 | 5°16 | 22°34 | 9°48 | 4°48 | 9°45 | 12°51 | 0°27 | 19°30 | 20°55 | 28°47 | 8°13 | S 21 | | | | | | | | |
| M 22 | 14 22 1 | 7° 0'57 | 14°54 | 22°R37 | 6°28 | 23° 4 | 10° 1 | 4°54 | 9°43 | 12°53 | 0°27 | 19°25 | 20°52 | 28°54 | 8°17 | M 22 | | | | | | | | |
| T 23 | 14 25 58 | 7°58'47 | 28° 6 | 22°37 | 7°40 | 23°34 | 10°15 | 4°59 | 9°41 | 12°56 | 0°28 | 19°19 | 20°48 | 29° 0 | 8°21 | T 23 | | | | | | | | |
| W 24 | 14 29 54 | 8°56'36 | 11♌5 | 22°32 | 8°52 | 24° 5 | 10°28 | 5° 4 | 9°39 | 12°58 | 0°29 | 19°12 | 20°45 | 29° 7 | 8°25 | W 24 | | | | | | | | |
| T 25 | 14 33 51 | 9°54'23 | 23°51 | 22°22 | 10° 4 | 24°36 | 10°42 | 5°10 | 9°37 | 13° 0 | 0°30 | 19° 6 | 20°42 | 29°14 | 8°30 | T 25 | | | | | | | | |
| F 26 | 14 37 47 | 10°52'09 | 6♌24 | 22° 8 | 11°16 | 25° 7 | 10°55 | 5°15 | 9°35 | 13° 2 | 0°30 | 18°59 | 20°39 | 29°20 | 8°34 | F 26 | | | | | | | | |
| S 27 | 14 41 44 | 11°49'53 | 18°44 | 21°50 | 12°28 | 25°38 | 11° 9 | 5°21 | 9°33 | 13° 5 | 0°31 | 18°55 | 20°36 | 29°27 | 8°38 | S 27 | | | | | | | | |
| S 28 | 14 45 40 | 12°47'36 | 0♃53 | 21°29 | 13°40 | 26° 9 | 11°22 | 5°27 | 9°31 | 13° 7 | 0°32 | 18°51 | 20°33 | 29°34 | 8°43 | S 28 | | | | | | | | |
| M 29 | 14 49 37 | 13°45'18 | 12°53 | 21° 3 | 14°52 | 26°40 | 11°35 | 5°32 | 9°28 | 13° 9 | 0°32 | 18°50 | 20°29 | 29°40 | 8°48 | M 29 | | | | | | | | |
| T 30 | 14 53 34 | 14°42'58 | 24♌45 | 20♃35 | 16♌4 | 27♌1 | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1062
geocentric

MAY 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|-------|--------|-------|-------|-------|------|-------|-------|-------|--------|-------|-------|-------|------|
| W 1 | 14 57 30 | 15♂40'38 | 6♂33 | 20°R 5 | 17♂15 | 27♂43 | 12♂2 | 5♂44 | 9°R24 | 13♂14 | 0♂34 | 18♂51 | 20♂23 | 29♂54 | 8♂57 | W 1 |
| T 2 | 15 1 27 | 16°38'16 | 18°21 | 19♂33 | 18°27 | 28°14 | 12°15 | 5°50 | 9♂22 | 13°16 | 0°34 | 18°52 | 20°20 | 0♂0 | 9° 2 | T 2 |
| F 3 | 15 5 23 | 17°35'53 | 0♂14 | 18°59 | 19°39 | 28°46 | 12°28 | 5°56 | 9°20 | 13°18 | 0°35 | 18°54 | 20°17 | 0° 7 | 9° 6 | F 3 |
| S 4 | 15 9 20 | 18°33'29 | 12°16 | 18°25 | 20°50 | 29°18 | 12°41 | 6° 2 | 9°18 | 13°20 | 0°35 | 18°55 | 20°14 | 0°14 | 9°11 | S 4 |
| S 5 | 15 13 16 | 19°31'04 | 24°31 | 17°51 | 22° 2 | 29°50 | 12°54 | 6° 8 | 9°15 | 13°23 | 0°36 | 18°R55 | 20°10 | 0°20 | 9°16 | S 5 |
| M 6 | 15 17 13 | 20°28'38 | 7♂ 6 | 17°17 | 23°13 | 0♂22 | 13° 7 | 6°14 | 9°13 | 13°25 | 0°36 | 18°54 | 20° 7 | 0°27 | 9°21 | M 6 |
| T 7 | 15 21 9 | 21°26'11 | 20° 3 | 16°45 | 24°25 | 0°54 | 13°20 | 6°21 | 9°11 | 13°27 | 0°37 | 18°52 | 20° 4 | 0°34 | 9°26 | T 7 |
| W 8 | 15 25 6 | 22°23'43 | 3♂25 | 16°14 | 25°36 | 1°26 | 13°32 | 6°27 | 9° 8 | 13°29 | 0°37 | 18°49 | 20° 1 | 0°40 | 9°31 | W 8 |
| T 9 | 15 29 2 | 23°21'14 | 17°14 | 15°45 | 26°47 | 1°58 | 13°45 | 6°33 | 9° 6 | 13°32 | 0°38 | 18°45 | 19°58 | 0°47 | 9°37 | T 9 |
| F 10 | 15 32 59 | 24°18'44 | 1♂27 | 15°18 | 27°58 | 2°31 | 13°58 | 6°40 | 9° 4 | 13°34 | 0°38 | 18°42 | 19°54 | 0°53 | 9°42 | F 10 |
| S 11 | 15 36 56 | 25°16'14 | 16° 2 | 14°55 | 29°10 | 3° 3 | 14°10 | 6°46 | 9° 1 | 13°36 | 0°38 | 18°39 | 19°51 | 1° 0 | 9°47 | S 11 |
| S 12 | 15 40 52 | 26°13'42 | 0♂52 | 14°35 | 0♂21 | 3°36 | 14°23 | 6°53 | 8°59 | 13°38 | 0°39 | 18°37 | 19°48 | 1° 7 | 9°52 | S 12 |
| M13 | 15 44 49 | 27°11'10 | 15°49 | 14°19 | 1°32 | 4° 9 | 14°35 | 6°59 | 8°57 | 13°41 | 0°39 | 18°D36 | 19°45 | 1°13 | 9°58 | M13 |
| T 14 | 15 48 45 | 28° 8'36 | 0♂45 | 14° 7 | 2°43 | 4°41 | 14°48 | 7° 6 | 8°54 | 13°43 | 0°39 | 18°36 | 19°42 | 1°20 | 10° 3 | T 14 |
| W15 | 15 52 42 | 29° 6'01 | 15°32 | 13°59 | 3°53 | 5°14 | 15° 0 | 7°13 | 8°52 | 13°45 | 0°40 | 18°37 | 19°39 | 1°27 | 10° 9 | W15 |
| T 16 | 15 56 38 | 0♂32' 3'26 | 0♂ 6 | 13°D55 | 5° 4 | 5°47 | 15°12 | 7°19 | 8°49 | 13°47 | 0°40 | 18°39 | 19°35 | 1°33 | 10°14 | T 16 |
| F 17 | 16 0 35 | 1° 0'48 | 14°21 | 13°56 | 6°15 | 6°21 | 15°24 | 7°26 | 8°47 | 13°49 | 0°40 | 18°40 | 19°32 | 1°40 | 10°20 | F 17 |
| S 18 | 16 4 32 | 1°58'10 | 28°16 | 14° 1 | 7°26 | 6°54 | 15°36 | 7°33 | 8°45 | 13°51 | 0°40 | 18°R40 | 19°29 | 1°47 | 10°25 | S 18 |
| S 19 | 16 8 28 | 2°55'30 | 11♂51 | 14°11 | 8°36 | 7°27 | 15°48 | 7°40 | 8°42 | 13°54 | 0°40 | 18°40 | 19°26 | 1°53 | 10°31 | S 19 |
| M20 | 16 12 25 | 3°52'50 | 25° 7 | 14°25 | 9°47 | 8° 0 | 16° 0 | 7°47 | 8°40 | 13°56 | 0°41 | 18°39 | 19°23 | 2° 0 | 10°37 | M20 |
| T 21 | 16 16 21 | 4°50'08 | 8♂ 4 | 14°43 | 10°57 | 8°34 | 16°12 | 7°54 | 8°37 | 13°58 | 0°41 | 18°38 | 19°20 | 2° 7 | 10°43 | T 21 |
| W22 | 16 20 18 | 5°47'25 | 20°46 | 15° 6 | 12° 8 | 9° 7 | 16°24 | 8° 1 | 8°35 | 14° 0 | 0°41 | 18°36 | 19°16 | 2°13 | 10°48 | W22 |
| T 23 | 16 24 14 | 6°44'42 | 3♂14 | 15°34 | 13°18 | 9°41 | 16°35 | 8° 8 | 8°32 | 14° 2 | 0°41 | 18°34 | 19°13 | 2°20 | 10°54 | T 23 |
| F 24 | 16 28 11 | 7°41'57 | 15°30 | 16° 5 | 14°28 | 10°15 | 16°47 | 8°15 | 8°30 | 14° 4 | 0°41 | 18°33 | 19°10 | 2°27 | 11° 0 | F 24 |
| S 25 | 16 32 7 | 8°39'12 | 27°37 | 16°42 | 15°38 | 10°49 | 16°58 | 8°22 | 8°27 | 14° 6 | 0°41 | 18°32 | 19° 7 | 2°33 | 11° 6 | S 25 |
| S 26 | 16 36 4 | 9°36'26 | 9♂35 | 17°22 | 16°48 | 11°22 | 17°10 | 8°29 | 8°25 | 14° 8 | 0°R41 | 18°31 | 19° 4 | 2°40 | 11°12 | S 26 |
| M27 | 16 40 1 | 10°33'40 | 21°28 | 18° 6 | 17°58 | 11°56 | 17°21 | 8°36 | 8°23 | 14°10 | 0°41 | 18°D31 | 19° 0 | 2°46 | 11°18 | M27 |
| T 28 | 16 43 57 | 11°30'53 | 3♂17 | 18°54 | 19° 8 | 12°31 | 17°32 | 8°43 | 8°20 | 14°13 | 0°41 | 18°31 | 18°57 | 2°53 | 11°24 | T 28 |
| W29 | 16 47 54 | 12°28'06 | 15° 5 | 19°47 | 20°18 | 13° 5 | 17°43 | 8°50 | 8°18 | 14°15 | 0°41 | 18°32 | 18°54 | 3° 0 | 11°30 | W29 |
| T 30 | 16 51 50 | 13°25'18 | 26°55 | 20°43 | 21°27 | 13°39 | 17°54 | 8°58 | 8°15 | 14°17 | 0°41 | 18°33 | 18°51 | 3° 6 | 11°36 | T 30 |
| F 31 | 16 55 47 | 14♂22'30 | 8♂49 | 21♂43 | 22♂37 | 14♂13 | 18♂5 | 9♂5 | 8♂13 | 14♂19 | 0♂41 | 18♂33 | 18♂48 | 3♂13 | 11♂42 | F 31 |

Delta T = 19m54s Julian Calendar 1 May 1062 == Greg. Calendar 7 May 1062

JUNE 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|------|
| S 1 | 16 59 43 | 15♂19'42 | 20♂52 | 22♂47 | 23♂47 | 14♂47 | 18♂16 | 9♂12 | 8°R10 | 14♂21 | 0°R41 | 18♂33 | 18♂45 | 3♂20 | 11♂49 | S 1 |
| S 2 | 17 3 40 | 16°16'54 | 3♂ 8 | 23°54 | 24°56 | 15°22 | 18°27 | 9°20 | 8♂ 8 | 14°23 | 0♂40 | 18°34 | 18°41 | 3°26 | 11°55 | S 2 |
| M 3 | 17 7 36 | 17°14'05 | 15°41 | 25° 5 | 26° 5 | 15°56 | 18°37 | 9°27 | 8° 5 | 14°25 | 0°40 | 18°R34 | 18°38 | 3°33 | 12° 1 | M 3 |
| T 4 | 17 11 33 | 18°11'17 | 28°34 | 26°20 | 27°14 | 16°31 | 18°48 | 9°35 | 8° 3 | 14°26 | 0°40 | 18°D34 | 18°35 | 3°40 | 12° 7 | T 4 |
| W 5 | 17 15 30 | 19° 8'28 | 11♂52 | 27°38 | 28°24 | 17° 6 | 18°58 | 9°42 | 8° 1 | 14°28 | 0°40 | 18°34 | 18°32 | 3°46 | 12°14 | W 5 |
| T 6 | 17 19 26 | 20° 5'39 | 25°35 | 29° 0 | 29°33 | 17°40 | 19° 9 | 9°49 | 7°58 | 14°30 | 0°40 | 18°34 | 18°29 | 3°53 | 12°20 | T 6 |
| F 7 | 17 23 23 | 21° 2'51 | 9♂44 | 0♂25 | 0♂42 | 18°15 | 19°19 | 9°57 | 7°56 | 14°32 | 0°39 | 18°34 | 18°26 | 4° 0 | 12°26 | F 7 |
| S 8 | 17 27 19 | 22° 0'02 | 24°19 | 1°54 | 1°50 | 18°50 | 19°29 | 10° 5 | 7°54 | 14°34 | 0°39 | 18°34 | 18°22 | 4° 6 | 12°33 | S 8 |
| S 9 | 17 31 16 | 22°57'14 | 9♂12 | 3°26 | 2°59 | 19°25 | 19°39 | 10°12 | 7°51 | 14°36 | 0°39 | 18°34 | 18°19 | 4°13 | 12°39 | S 9 |
| M10 | 17 35 12 | 23°54'26 | 24°19 | 5° 2 | 4° 8 | 20° 0 | 19°49 | 10°20 | 7°49 | 14°38 | 0°38 | 18°R34 | 18°16 | 4°20 | 12°45 | M10 |
| T 11 | 17 39 9 | 24°51'37 | 9♂29 | 6°40 | 5°16 | 20°35 | 19°58 | 10°27 | 7°47 | 14°40 | 0°38 | 18°34 | 18°13 | 4°26 | 12°52 | T 11 |
| W12 | 17 43 5 | 25°48'48 | 24°34 | 8°22 | 6°25 | 21°11 | 20° 8 | 10°35 | 7°44 | 14°41 | 0°38 | 18°34 | 18°10 | 4°33 | 12°58 | W12 |
| T 13 | 17 47 2 | 26°45'59 | 9♂24 | 10° 7 | 7°33 | 21°46 | 20°18 | 10°42 | 7°42 | 14°43 | 0°37 | 18°33 | 18° 6 | 4°40 | 13° 5 | T 13 |
| F 14 | 17 50 59 | 27°43'10 | 23°54 | 11°56 | 8°41 | 22°21 | 20°27 | 10°50 | 7°40 | 14°45 | 0°37 | 18°32 | 18° 3 | 4°46 | 13°11 | F 14 |
| S 15 | 17 54 55 | 28°40'21 | 7♂59 | 13°47 | 9°49 | 22°57 | 20°36 | 10°58 | 7°37 | 14°47 | 0°36 | 18°31 | 18° 0 | 4°53 | 13°18 | S 15 |
| S 16 | 17 58 52 | 29°37'31 | 21°39 | 15°40 | 10°57 | 23°32 | 20°45 | 11° 5 | 7°35 | 14°49 | 0°36 | 18°30 | 17°57 | 5° 0 | 13°25 | S 16 |
| M17 | 18 2 48 | 0♂34'41 | 4♂54 | 17°37 | 12° 5 | 24° 8 | 20°54 | 11°13 | 7°33 | 14°50 | 0°35 | 18°D30 | 17°54 | 5° 6 | 13°31 | M17 |
| T 18 | 18 6 45 | 1°31'51 | 17°46 | 19°36 | 13°13 | 24°43 | 21° 3 | 11°21 | 7°31 | 14°52 | 0°35 | 18°31 | 17°51 | 5°13 | 13°38 | T 18 |
| W19 | 18 10 41 | 2°29'00 | 0♂19 | 21°37 | 14°20 | 25°19 | 21°12 | 11°29 | 7°29 | 14°54 | 0°34 | 18°32 | 17°47 | 5°19 | 13°44 | W19 |
| T 20 | 18 14 38 | 3°26'10 | 12°36 | 23°40 | 15°27 | 25°55 | 21°21 | 11°36 | 7°27 | 14°55 | 0°34 | 18°33 | 17°44 | 5°26 | 13°51 | T 20 |
| F 21 | 18 18 34 | 4°23'20 | 24°41 | 25°45 | 16°35 | 26°31 | 21°29 | 11°44 | 7°24 | 14°57 | 0°33 | 18°34 | 17°41 | 5°33 | 13°58 | F 21 |
| S 22 | 18 22 31 | 5°20'30 | 6♂37 | 27°51 | 17°42 | 27° 7 | 21°38 | 11°52 | 7°22 | 14°58 | 0°33 | 18°35 | 17°38 | 5°39 | 14° 4 | S 22 |
| S 23 | 18 26 28 | 6°17'40 | 18°29 | 29°58 | 18°49 | 27°42 | 21°46 | 12° 0 | 7°20 | 15° 0 | 0°32 | 18°R36 | 17°35 | 5°46 | 14°11 | S 23 |
| M24 | 18 30 24 | 7°14'50 | 0♂17 | 29° 6 | 19°56 | 28°18 | 21°54 | 12° 7 | 7°18 | 15° 2 | 0°31 | 18°35 | 17°32 | 5°53 | 14°18 | M24 |
| T 25 | 18 34 21 | 8°12'01 | 12° 5 | 4°15 | 21° 2 | 28°55 | 22° 2 | 12°15 | 7°16 | 15° 3 | 0°31 | 18°34 | 17°28 | 5°59 | 14°24 | T 25 |
| W26 | 18 38 17 | 9° 9'12 | 23°55 | 6°24 | 22° 9 | 29°31 | 22°10 | 12°23 | 7°14 | 15° 5 | 0°30 | 18°32 | 17°25 | 6° 6 | 14°31 | W26 |
| T 27 | 18 42 14 | 10° 6'23 | 5♂50 | 8°32 | 23°15 | 0♂7 | 22°17 | 12°31 | 7°12 | 15° 6 | 0°29 | 18°28 | 17°22 | 6°13 | 14°38 | T 27 |
| F 28 | 18 46 10 | 11° 3'35 | 17°50 | 10°41 | 24°21 | 0°43 | 22°25 | 12°38 | 7°10 | 15° 7 | 0°29 | 18°25 | 17°19 | 6°19 | 14°44 | F 28 |
| S 29 | 18 50 7 | 12° 0'48 | 29°59 | 12°49 | 25°27 | 1°20 | 22°32 | 12°46 | 7° 9 | 15° 9 | 0°28 | 18°21 | 17°16 | 6°26 | 14°51 | S 29 |
| S 30 | 18 54 4 | 12♂58'01 | 12♂20 | 14♂56 | 26♂33 | 1♂56 | 22♂40 | 12♂54 | 7♂ 7 | 15♂10 | 0♂27 | 18♂18 | 17♂12 | 6♂33 | 14♂58 | S 30 |

Delta T = 19m53s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1062
geocentric

JULY 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|--------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|------|
| M 1 | 18 58 0 | 13♄55'15 | 24♃54 | 17♄2 | 27♂139 | 2♃32 | 22♃47 | 13♄2 | 7°R 5 | 15♂12 | 0°R26 | 18°R16 | 17♂9 | 6♄39 | 15♄5 | M 1 |
| T 2 | 19 1 57 | 14°52'30 | 7♃46 | 19° 7 | 28°44 | 3° 9 | 22°54 | 13°10 | 7♂3 | 15°13 | 0♃25 | 18♂14 | 17° 6 | 6°46 | 15°11 | T 2 |
| W 3 | 19 5 53 | 15°49'46 | 20°59 | 21°10 | 29°49 | 3°46 | 23° 0 | 13°17 | 7° 1 | 15°14 | 0°25 | 18°D14 | 17° 3 | 6°53 | 15°18 | W 3 |
| T 4 | 19 9 50 | 16°47'03 | 4♃33 | 23°13 | 0♃54 | 4°22 | 23° 7 | 13°25 | 7° 0 | 15°16 | 0°24 | 18°15 | 17° 0 | 6°59 | 15°25 | T 4 |
| F 5 | 19 13 46 | 17°44'21 | 18°32 | 25°14 | 1°59 | 4°59 | 23°13 | 13°33 | 6°58 | 15°17 | 0°23 | 18°17 | 16°57 | 7° 6 | 15°31 | F 5 |
| S 6 | 19 17 43 | 18°41'40 | 2♂55 | 27°13 | 3° 4 | 5°36 | 23°20 | 13°41 | 6°56 | 15°18 | 0°22 | 18°18 | 16°53 | 7°13 | 15°38 | S 6 |
| S 7 | 19 21 39 | 19°39'00 | 17°40 | 29°11 | 4° 8 | 6°13 | 23°26 | 13°48 | 6°55 | 15°19 | 0°21 | 18°R19 | 16°50 | 7°19 | 15°45 | S 7 |
| M 8 | 19 25 36 | 20°36'21 | 2♄41 | 1♂ 7 | 5°13 | 6°50 | 23°32 | 13°56 | 6°53 | 15°20 | 0°20 | 18°18 | 16°47 | 7°26 | 15°52 | M 8 |
| T 9 | 19 29 33 | 21°33'42 | 17°51 | 3° 2 | 6°17 | 7°27 | 23°38 | 14° 4 | 6°52 | 15°22 | 0°19 | 18°16 | 16°44 | 7°33 | 15°58 | T 9 |
| W10 | 19 33 29 | 22°31'05 | 3♂ 0 | 4°55 | 7°21 | 8° 4 | 23°44 | 14°12 | 6°50 | 15°23 | 0°19 | 18°12 | 16°41 | 7°39 | 16° 5 | W10 |
| T 11 | 19 37 26 | 23°28'28 | 17°59 | 6°46 | 8°24 | 8°41 | 23°49 | 14°19 | 6°49 | 15°24 | 0°18 | 18° 7 | 16°38 | 7°46 | 16°12 | T 11 |
| F 12 | 19 41 22 | 24°25'52 | 2♃39 | 8°36 | 9°28 | 9°18 | 23°54 | 14°27 | 6°47 | 15°25 | 0°17 | 18° 2 | 16°34 | 7°53 | 16°19 | F 12 |
| S 13 | 19 45 19 | 25°23'17 | 16°54 | 10°24 | 10°31 | 9°55 | 24° 0 | 14°35 | 6°46 | 15°26 | 0°16 | 17°57 | 16°31 | 7°59 | 16°25 | S 13 |
| S 14 | 19 49 15 | 26°20'42 | 0♄41 | 12°10 | 11°34 | 10°33 | 24° 5 | 14°42 | 6°45 | 15°27 | 0°15 | 17°53 | 16°28 | 8° 6 | 16°32 | S 14 |
| M15 | 19 53 12 | 27°18'08 | 14° 0 | 13°55 | 12°36 | 11°10 | 24° 9 | 14°50 | 6°43 | 15°28 | 0°14 | 17°51 | 16°25 | 8°12 | 16°39 | M15 |
| T 16 | 19 57 8 | 28°15'35 | 26°53 | 15°38 | 13°39 | 11°48 | 24°14 | 14°58 | 6°42 | 15°29 | 0°13 | 17°D50 | 16°22 | 8°19 | 16°45 | T 16 |
| W17 | 20 1 5 | 29°13'03 | 9♂23 | 17°20 | 14°41 | 12°25 | 24°19 | 15° 5 | 6°41 | 15°30 | 0°12 | 17°50 | 16°18 | 8°26 | 16°52 | W17 |
| T 18 | 20 5 2 | 0♂10'31 | 21°36 | 19° 0 | 15°43 | 13° 3 | 24°23 | 15°13 | 6°40 | 15°31 | 0°11 | 17°52 | 16°15 | 8°32 | 16°59 | T 18 |
| F 19 | 20 8 58 | 1° 8'00 | 3♂36 | 20°38 | 16°44 | 13°40 | 24°27 | 15°21 | 6°39 | 15°31 | 0° 9 | 17°53 | 16°12 | 8°39 | 17° 5 | F 19 |
| S 20 | 20 12 55 | 2° 5'31 | 15°28 | 22°15 | 17°46 | 14°18 | 24°31 | 15°28 | 6°38 | 15°32 | 0° 8 | 17°R54 | 16° 9 | 8°46 | 17°12 | S 20 |
| S 21 | 20 16 51 | 3° 3'02 | 27°16 | 23°50 | 18°46 | 14°56 | 24°35 | 15°36 | 6°37 | 15°33 | 0° 7 | 17°53 | 16° 6 | 8°52 | 17°19 | S 21 |
| M22 | 20 20 48 | 4° 0'34 | 9♄ 4 | 25°24 | 19°47 | 15°34 | 24°38 | 15°43 | 6°36 | 15°34 | 0° 6 | 17°51 | 16° 3 | 8°59 | 17°25 | M22 |
| T 23 | 20 24 44 | 4°58'07 | 20°54 | 26°56 | 20°47 | 16°11 | 24°42 | 15°51 | 6°35 | 15°35 | 0° 5 | 17°47 | 15°59 | 9° 6 | 17°32 | T 23 |
| W24 | 20 28 41 | 5°55'42 | 2♄50 | 28°26 | 21°47 | 16°49 | 24°45 | 15°58 | 6°34 | 15°35 | 0° 4 | 17°40 | 15°56 | 9°12 | 17°38 | W24 |
| T 25 | 20 32 37 | 6°53'18 | 14°53 | 29°55 | 22°47 | 17°27 | 24°48 | 16° 6 | 6°33 | 15°36 | 0° 3 | 17°32 | 15°53 | 9°19 | 17°45 | T 25 |
| F 26 | 20 36 34 | 7°50'55 | 27° 4 | 1♃22 | 23°46 | 18° 5 | 24°51 | 16°13 | 6°32 | 15°37 | 0° 2 | 17°23 | 15°50 | 9°26 | 17°51 | F 26 |
| S 27 | 20 40 31 | 8°48'33 | 9♂25 | 2°48 | 24°45 | 18°43 | 24°54 | 16°21 | 6°32 | 15°37 | 0° 1 | 17°14 | 15°47 | 9°32 | 17°58 | S 27 |
| S 28 | 20 44 27 | 9°46'13 | 21°57 | 4°12 | 25°43 | 19°22 | 24°56 | 16°28 | 6°31 | 15°38 | 29♄59 | 17° 5 | 15°43 | 9°39 | 18° 4 | S 28 |
| M29 | 20 48 24 | 10°43'54 | 4♃40 | 5°34 | 26°41 | 20° 0 | 24°58 | 16°35 | 6°30 | 15°38 | 29°58 | 16°58 | 15°40 | 9°46 | 18°11 | M29 |
| T 30 | 20 52 20 | 11°41'37 | 17°38 | 6°55 | 27°39 | 20°38 | 25° 0 | 16°43 | 6°30 | 15°39 | 29°57 | 16°54 | 15°37 | 9°52 | 18°17 | T 30 |
| W31 | 20 56 17 | 12♂39'22 | 0♄51 | 8♃13 | 28♃36 | 21♃17 | 25° 2 | 16°50 | 6♂29 | 15♂39 | 29♄56 | 16♂51 | 15♂34 | 9♄59 | 18°24 | W31 |

Delta T = 19m53s Julian Calendar 1 July 1062 == Greg. Calendar 7 July 1062

AUGUST 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|------|
| T 1 | 21 0 13 | 13♂37'08 | 14♂21 | 9♃30 | 29♃33 | 21♃55 | 25° 4 | 16°57 | 6°R29 | 15♂40 | 29°R55 | 16°D50 | 15♂31 | 10♄6 | 18♄30 | T 1 |
| F 2 | 21 4 10 | 14°34'56 | 28°10 | 10°45 | 0♄29 | 22°33 | 25° 6 | 17° 4 | 6♂28 | 15°40 | 29♄54 | 16♂51 | 15°28 | 10°12 | 18°36 | F 2 |
| S 3 | 21 8 6 | 15°32'46 | 12♂19 | 11°58 | 1°25 | 23°12 | 25° 7 | 17°12 | 6°28 | 15°40 | 29°52 | 16°R51 | 15°24 | 10°19 | 18°43 | S 3 |
| S 4 | 21 12 3 | 16°30'38 | 26°47 | 13°10 | 2°21 | 23°51 | 25° 8 | 17°19 | 6°28 | 15°41 | 29°51 | 16°51 | 15°21 | 10°26 | 18°49 | S 4 |
| M 5 | 21 16 0 | 17°28'32 | 11♄31 | 14°19 | 3°16 | 24°29 | 25° 9 | 17°26 | 6°27 | 15°41 | 29°50 | 16°49 | 15°18 | 10°32 | 18°55 | M 5 |
| T 6 | 21 19 56 | 18°26'28 | 26°26 | 15°26 | 4°10 | 25° 8 | 25°10 | 17°33 | 6°27 | 15°41 | 29°49 | 16°44 | 15°15 | 10°39 | 19° 2 | T 6 |
| W 7 | 21 23 53 | 19°24'25 | 11♂25 | 16°30 | 5° 4 | 25°47 | 25°10 | 17°40 | 6°27 | 15°42 | 29°47 | 16°37 | 15°12 | 10°46 | 19° 8 | W 7 |
| T 8 | 21 27 49 | 20°22'23 | 26°18 | 17°32 | 5°57 | 26°26 | 25°10 | 17°47 | 6°27 | 15°42 | 29°46 | 16°28 | 15° 9 | 10°52 | 19°14 | T 8 |
| F 9 | 21 31 46 | 21°20'24 | 10♃56 | 18°32 | 6°50 | 27° 5 | 25°R11 | 17°54 | 6°27 | 15°42 | 29°45 | 16°18 | 15° 5 | 10°59 | 19°20 | F 9 |
| S 10 | 21 35 42 | 22°18'25 | 25°13 | 19°29 | 7°42 | 27°44 | 25°10 | 18° 1 | 6°D27 | 15°42 | 29°44 | 16° 9 | 15° 2 | 11° 6 | 19°26 | S 10 |
| S 11 | 21 39 39 | 23°16'29 | 9♄ 3 | 20°24 | 8°34 | 28°23 | 25°10 | 18° 8 | 6°27 | 15°42 | 29°43 | 16° 0 | 14°59 | 11°12 | 19°32 | S 11 |
| M12 | 21 43 35 | 24°14'33 | 22°25 | 21°15 | 9°25 | 29° 2 | 25°10 | 18°15 | 6°27 | 15°42 | 29°41 | 15°54 | 14°56 | 11°19 | 19°38 | M12 |
| T 13 | 21 47 32 | 25°12'40 | 5♂21 | 22° 3 | 10°15 | 29°41 | 25° 9 | 18°21 | 6°27 | 15°42 | 29°40 | 15°50 | 14°53 | 11°26 | 19°44 | T 13 |
| W14 | 21 51 29 | 26°10'47 | 17°53 | 22°48 | 11° 5 | 0♄20 | 25° 8 | 18°28 | 6°27 | 15°R42 | 29°39 | 15°48 | 14°49 | 11°32 | 19°50 | W14 |
| T 15 | 21 55 25 | 27° 8'57 | 0♂ 6 | 23°29 | 11°53 | 1° 0 | 25° 7 | 18°35 | 6°27 | 15°42 | 29°38 | 15°D48 | 14°46 | 11°39 | 19°56 | T 15 |
| F 16 | 21 59 22 | 28° 7'07 | 12° 5 | 24° 6 | 12°42 | 1°39 | 25° 6 | 18°41 | 6°28 | 15°42 | 29°36 | 15°R48 | 14°43 | 11°46 | 20° 2 | F 16 |
| S 17 | 22 3 18 | 29° 5'20 | 23°56 | 24°39 | 13°29 | 2°18 | 25° 4 | 18°48 | 6°28 | 15°42 | 29°35 | 15°48 | 14°40 | 11°52 | 20° 8 | S 17 |
| S 18 | 22 7 15 | 0♃ 3'34 | 5♄44 | 25° 8 | 14°15 | 2°58 | 25° 3 | 18°55 | 6°28 | 15°42 | 29°34 | 15°46 | 14°37 | 11°59 | 20°14 | S 18 |
| M19 | 22 11 11 | 1° 1'49 | 17°33 | 25°32 | 15° 1 | 3°37 | 25° 1 | 19° 1 | 6°29 | 15°42 | 29°33 | 15°42 | 14°34 | 12° 6 | 20°19 | M19 |
| T 20 | 22 15 8 | 2° 0'06 | 29°28 | 25°51 | 15°46 | 4°17 | 24°59 | 19° 7 | 6°29 | 15°42 | 29°31 | 15°36 | 14°30 | 12°12 | 20°25 | T 20 |
| W21 | 22 19 4 | 2°58'25 | 11♄31 | 26° 5 | 16°30 | 4°57 | 24°56 | 19°14 | 6°30 | 15°41 | 29°30 | 15°26 | 14°27 | 12°19 | 20°31 | W21 |
| T 22 | 22 23 1 | 3°56'45 | 23°45 | 26°13 | 17°13 | 5°36 | 24°54 | 19°20 | 6°30 | 15°41 | 29°29 | 15°15 | 14°24 | 12°26 | 20°36 | T 22 |
| F 23 | 22 26 57 | 4°55'08 | 6♂10 | 26°R15 | 17°55 | 6°16 | 24°51 | 19°26 | 6°31 | 15°41 | 29°27 | 15° 2 | 14°21 | 12°32 | 20°42 | F 23 |
| S 24 | 22 30 54 | 5°53'32 | 18°48 | 26°11 | 18°35 | 6°56 | 24°48 | 19°33 | 6°32 | 15°40 | 29°26 | 14°48 | 14°18 | 12°39 | 20°47 | S 24 |
| S 25 | 22 34 51 | 6°51'58 | 1° 37 | 26° 0 | 19°15 | 7°36 | 24°45 | 19°39 | 6°32 | 15°40 | 29°25 | 14°36 | 14°15 | 12°46 | 20°53 | S 25 |
| M26 | 22 38 47 | 7°50'26 | 14°38 | 25°43 | 19°54 | 8°16 | 24°42 | 19°45 | 6°33 | 15°40 | 29°24 | 14°26 | 14°11 | 12°52 | 20°58 | M26 |
| T 27 | 22 42 44 | 8°48'57 | 27°51 | 25°19 | 20°32 | 8°56 | 24°39 | 19°51 | 6°34 | 15°39 | 29°23 | 14°18 | 14° 8 | 12°59 | 21° 4 | T 27 |
| W28 | 22 46 40 | 9°47'29 | 11♂14 | 24°48 | 21° 8 | 9°36 | 24°35 | 19°57 | 6°35 | 15°39 | 29°21 | 14°14 | 14° 5 | 13° 5 | 21° 9 | W28 |
| T 29 | 22 50 37 | 10°46'04 | 24°49 | 24°10 | 21°43 | 10°16 | 24°31 | 20° 3 | 6°36 | 15°38 | 29°20 | 14°12 | 14° 2 | 13°12 | 21°14 | T 29 |
| F 30 | 22 54 33 | 11°44'41 | 8♂36 | 23°26 | 22°17 | 10°56 | 24°27 | 20° 8 | 6°37 | 15°38 | 29°19 | 14°11 | 13°59 | 13°19 | 21°19 | F 30 |
| S 31 | 22 58 30 | 12♃43'21 | 22♂36 | 22♃35 | 22♄50 | 11♄36 | 24° 23 | 20°14 | 6♂38 | 15♂37 | 29♄18 | 14♂11 | 13♂55 | 13♄25 | 21°25 | S 31 |

Delta T = 19m53s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1062
geocentric

SEPTEMBER 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|--------|-------------------|--------------------|--------------------|--------------------|------|-----|
| S 1 | 23 2 26 | 13 ^h 42'02 | 6 ^h 49 | 21°R39 | 23 ^h 21 | 12 ^h 17 | 24°R19 | 20 ^h 20 | 6 ^h 39 | 15°R37 | 29°R16 | 14°R10 | 13 ^h 52 | 13 ^h 32 | 21 ^h 30 | S 1 | |
| M 2 | 23 6 23 | 14°40'46 | 21°13 | 20 ^h 39 | 23°50 | 12°57 | 24°R14 | 20°26 | 6°40 | 15 ^h 36 | 29°R15 | 14 ^h 7 | 13°49 | 13°39 | 21°35 | M 2 | |
| T 3 | 23 10 20 | 15°39'33 | 5 ^h 46 | 19°36 | 24°19 | 13°37 | 24° 9 | 20°31 | 6°41 | 15°35 | 29°14 | 14° 1 | 13°46 | 13°45 | 21°40 | T 3 | |
| W 4 | 23 14 16 | 16°38'21 | 20°21 | 18°30 | 24°45 | 14°18 | 24° 5 | 20°37 | 6°43 | 15°35 | 29°13 | 13°53 | 13°43 | 13°52 | 21°44 | W 4 | |
| T 5 | 23 18 13 | 17°37'12 | 4 ^h 54 | 17°24 | 25°10 | 14°59 | 24° 0 | 20°42 | 6°44 | 15°34 | 29°12 | 13°42 | 13°40 | 13°59 | 21°49 | T 5 | |
| F 6 | 23 22 9 | 18°36'04 | 19°17 | 16°20 | 25°34 | 15°39 | 23°54 | 20°47 | 6°45 | 15°33 | 29°10 | 13°30 | 13°36 | 14° 5 | 21°54 | F 6 | |
| S 7 | 23 26 6 | 19°34'59 | 3 ^h 22 | 15°18 | 25°56 | 16°20 | 23°49 | 20°53 | 6°47 | 15°33 | 29° 9 | 13°18 | 13°33 | 14°12 | 21°59 | S 7 | |
| S 8 | 23 30 2 | 20°33'56 | 17° 6 | 14°21 | 26°15 | 17° 1 | 23°43 | 20°58 | 6°48 | 15°32 | 29° 8 | 13° 8 | 13°30 | 14°19 | 22° 3 | S 8 | |
| M 9 | 23 33 59 | 21°32'55 | 0 ^h 26 | 13°30 | 26°33 | 17°41 | 23°38 | 21° 3 | 6°50 | 15°31 | 29° 7 | 12°59 | 13°27 | 14°25 | 22° 8 | M 9 | |
| T 10 | 23 37 55 | 22°31'55 | 13°21 | 12°46 | 26°50 | 18°22 | 23°32 | 21° 8 | 6°51 | 15°30 | 29° 6 | 12°54 | 13°24 | 14°32 | 22°12 | T 10 | |
| W11 | 23 41 52 | 23°30'58 | 25°54 | 12°11 | 27° 4 | 19° 3 | 23°26 | 21°13 | 6°53 | 15°29 | 29° 5 | 12°51 | 13°20 | 14°39 | 22°17 | W11 | |
| T 12 | 23 45 49 | 24°30'02 | 8 ^h 8 | 11°45 | 27°16 | 19°44 | 23°20 | 21°18 | 6°54 | 15°28 | 29° 4 | 12°D50 | 13°17 | 14°45 | 22°21 | T 12 | |
| F 13 | 23 49 45 | 25°29'08 | 20° 8 | 11°30 | 27°26 | 20°25 | 23°13 | 21°23 | 6°56 | 15°27 | 29° 2 | 12°R50 | 13°14 | 14°52 | 22°26 | F 13 | |
| S 14 | 23 53 42 | 26°28'16 | 2 ^h 0 | 11°D25 | 27°34 | 21° 6 | 23° 7 | 21°27 | 6°58 | 15°26 | 29° 1 | 12°50 | 13°11 | 14°59 | 22°30 | S 14 | |
| S 15 | 23 57 38 | 27°27'26 | 13°49 | 11°31 | 27°39 | 21°48 | 23° 0 | 21°32 | 7° 0 | 15°25 | 29° 0 | 12°49 | 13° 8 | 15° 5 | 22°34 | S 15 | |
| M16 | 0 1 35 | 28°26'38 | 25°40 | 11°47 | 27°42 | 22°29 | 22°54 | 21°36 | 7° 1 | 15°24 | 28°59 | 12°45 | 13° 5 | 15°12 | 22°38 | M16 | |
| T 17 | 0 5 31 | 29°25'51 | 7 ^h 38 | 12°13 | 27°R43 | 23°10 | 22°47 | 21°41 | 7° 3 | 15°23 | 28°58 | 12°40 | 13° 1 | 15°19 | 22°42 | T 17 | |
| W18 | 0 9 28 | 0 ^h 25'06 | 19°47 | 12°48 | 27°42 | 23°52 | 22°40 | 21°45 | 7° 5 | 15°22 | 28°57 | 12°31 | 12°58 | 15°25 | 22°46 | W18 | |
| T 19 | 0 13 24 | 1°24'23 | 2 ^h 10 | 13°33 | 27°38 | 24°33 | 22°33 | 21°50 | 7° 7 | 15°21 | 28°56 | 12°21 | 12°55 | 15°32 | 22°50 | T 19 | |
| F 20 | 0 17 21 | 2°23'43 | 14°49 | 14°26 | 27°32 | 25°14 | 22°26 | 21°54 | 7° 9 | 15°20 | 28°55 | 12° 9 | 12°52 | 15°39 | 22°54 | F 20 | |
| S 21 | 0 21 17 | 3°23'04 | 27°44 | 15°26 | 27°23 | 25°56 | 22°19 | 21°58 | 7°11 | 15°19 | 28°54 | 11°57 | 12°49 | 15°45 | 22°57 | S 21 | |
| S 22 | 0 25 14 | 4°22'27 | 10 ^h 54 | 16°33 | 27°12 | 26°38 | 22°11 | 22° 2 | 7°13 | 15°18 | 28°53 | 11°45 | 12°46 | 15°52 | 23° 1 | S 22 | |
| M23 | 0 29 11 | 5°21'52 | 24°18 | 17°46 | 26°59 | 27°19 | 22° 4 | 22° 6 | 7°15 | 15°17 | 28°52 | 11°36 | 12°42 | 15°59 | 23° 4 | M23 | |
| T 24 | 0 33 7 | 6°21'19 | 7 ^h 53 | 19° 4 | 26°43 | 28° 1 | 21°56 | 22°10 | 7°17 | 15°15 | 28°51 | 11°29 | 12°39 | 16° 5 | 23° 8 | T 24 | |
| W25 | 0 37 4 | 7°20'49 | 21°38 | 20°26 | 26°25 | 28°43 | 21°49 | 22°13 | 7°20 | 15°14 | 28°50 | 11°25 | 12°36 | 16°12 | 23°11 | W25 | |
| T 26 | 0 41 0 | 8°20'21 | 5 ^h 30 | 21°53 | 26° 5 | 29°25 | 21°41 | 22°17 | 7°22 | 15°13 | 28°49 | 11°D23 | 12°33 | 16°19 | 23°15 | T 26 | |
| F 27 | 0 44 57 | 9°19'56 | 19°27 | 23°22 | 25°42 | 0 ^h 6 | 21°33 | 22°21 | 7°24 | 15°12 | 28°48 | 11°23 | 12°30 | 16°25 | 23°18 | F 27 | |
| S 28 | 0 48 53 | 10°19'33 | 3 ^h 30 | 24°54 | 25°17 | 0°48 | 21°25 | 22°24 | 7°27 | 15°10 | 28°48 | 11°R24 | 12°26 | 16°32 | 23°21 | S 28 | |
| S 29 | 0 52 50 | 11°19'12 | 17°37 | 26°29 | 24°51 | 1°30 | 21°17 | 22°27 | 7°29 | 15° 9 | 28°47 | 11°24 | 12°23 | 16°39 | 23°24 | S 29 | |
| M30 | 0 56 46 | 12°18'53 | 1 ^h 46 | 28 ^h 5 | 24 ^h 22 | 2 ^h 13 | 21 ^h 9 | 22°31 | 7°31 | 15° 8 | 28°46 | 11°22 | 12°20 | 16°45 | 23°27 | M30 | |

Delta T = 19m52s

Julian Calendar 1 Sept. 1062 == Greg. Calendar 7 Sept. 1062

OCTOBER 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|-----|
| T 1 | 1 0 43 | 13 ^h 18'37 | 15 ^h 58 | 29 ^h 43 | 23°R52 | 2 ^h 55 | 21°R 1 | 22 ^h 34 | 7 ^h 34 | 15°R 6 | 28°R45 | 11°R18 | 12 ^h 17 | 16 ^h 52 | 23 ^h 30 | T 1 | |
| W 2 | 1 4 40 | 14°18'23 | 0 ^h 18 | 1 ^h 22 | 23°D20 | 3°37 | 20°V53 | 22°37 | 7°36 | 15° 5 | 28°R44 | 11 ^h 12 | 12°14 | 16°59 | 23°33 | W 2 | |
| T 3 | 1 8 36 | 15°18'11 | 1 ^h 13 | 3° 2 | 22°47 | 4°19 | 20°45 | 22°40 | 7°39 | 15° 3 | 28°43 | 11° 4 | 12°11 | 17° 5 | 23°35 | T 3 | |
| F 4 | 1 12 33 | 16°18'02 | 28°10 | 4°42 | 22°13 | 5° 1 | 20°37 | 22°43 | 7°41 | 15° 2 | 28°43 | 10°54 | 12° 7 | 17°12 | 23°38 | F 4 | |
| S 5 | 1 16 29 | 17°17'54 | 11 ^h 53 | 6°22 | 21°38 | 5°44 | 20°29 | 22°46 | 7°44 | 15° 0 | 28°42 | 10°45 | 12° 4 | 17°19 | 23°41 | S 5 | |
| S 6 | 1 20 26 | 18°17'49 | 25°19 | 8° 3 | 21° 2 | 6°26 | 20°21 | 22°48 | 7°47 | 14°59 | 28°41 | 10°37 | 12° 1 | 17°25 | 23°43 | S 6 | |
| M 7 | 1 24 22 | 19°17'45 | 8 ^h 26 | 9°44 | 20°26 | 7° 9 | 20°13 | 22°51 | 7°49 | 14°58 | 28°40 | 10°30 | 11°58 | 17°32 | 23°45 | M 7 | |
| T 8 | 1 28 19 | 20°17'44 | 21°14 | 11°25 | 19°50 | 7°51 | 20° 5 | 22°53 | 7°52 | 14°56 | 28°40 | 10°26 | 11°55 | 17°39 | 23°48 | T 8 | |
| W 9 | 1 32 15 | 21°17'44 | 3 ^h 43 | 13° 6 | 19°13 | 8°34 | 19°57 | 22°56 | 7°55 | 14°55 | 28°39 | 10°24 | 11°52 | 17°46 | 23°50 | W 9 | |
| T 10 | 1 36 12 | 22°17'46 | 15°56 | 14°46 | 18°37 | 9°17 | 19°48 | 22°58 | 7°58 | 14°53 | 28°38 | 10°D24 | 11°48 | 17°52 | 23°52 | T 10 | |
| F 11 | 1 40 9 | 23°17'50 | 27°57 | 16°27 | 18° 1 | 10° 0 | 19°40 | 23° 0 | 8° 0 | 14°51 | 28°38 | 10°25 | 11°45 | 17°59 | 23°54 | F 11 | |
| S 12 | 1 44 5 | 24°17'55 | 9 ^h 34 | 18° 7 | 17°26 | 10°42 | 19°32 | 23° 2 | 8° 3 | 14°50 | 28°37 | 10°26 | 11°42 | 18° 6 | 23°56 | S 12 | |
| S 13 | 1 48 2 | 25°18'02 | 21°38 | 19°47 | 16°52 | 11°25 | 19°24 | 23° 4 | 8° 6 | 14°48 | 28°36 | 10°R27 | 11°39 | 18°12 | 23°58 | S 13 | |
| M14 | 1 51 58 | 26°18'11 | 3 ^h 30 | 21°26 | 16°20 | 12° 8 | 19°16 | 23° 6 | 8° 9 | 14°47 | 28°36 | 10°27 | 11°36 | 18°19 | 23°59 | M14 | |
| T 15 | 1 55 55 | 27°18'21 | 15°29 | 23° 5 | 15°48 | 12°51 | 19° 8 | 23° 7 | 8°12 | 14°45 | 28°35 | 10°25 | 11°32 | 18°26 | 24° 1 | T 15 | |
| W16 | 1 59 51 | 28°18'33 | 27°40 | 24°44 | 15°18 | 13°34 | 19° 0 | 23° 9 | 8°15 | 14°44 | 28°35 | 10°21 | 11°29 | 18°32 | 24° 2 | W16 | |
| T 17 | 2 3 48 | 29°18'46 | 10 ^h 7 | 26°22 | 14°50 | 14°17 | 18°52 | 23°10 | 8°18 | 14°42 | 28°34 | 10°16 | 11°26 | 18°39 | 24° 4 | T 17 | |
| F 18 | 2 7 44 | 0 ^h 19'01 | 22°53 | 28° 0 | 14°24 | 15° 0 | 18°44 | 23°12 | 8°21 | 14°40 | 28°34 | 10° 9 | 11°23 | 18°46 | 24° 5 | F 18 | |
| S 19 | 2 11 41 | 1°19'18 | 5 ^h 59 | 29°37 | 14° 0 | 15°44 | 18°37 | 23°13 | 8°24 | 14°39 | 28°33 | 10° 2 | 11°20 | 18°52 | 24° 6 | S 19 | |
| S 20 | 2 15 38 | 2°19'36 | 19°26 | 1 ^h 14 | 13°38 | 16°27 | 18°29 | 23°14 | 8°27 | 14°37 | 28°33 | 9°56 | 11°17 | 18°59 | 24° 7 | S 20 | |
| M21 | 2 19 34 | 3°19'56 | 3 ^h 12 | 2°51 | 13°19 | 17°10 | 18°21 | 23°15 | 8°30 | 14°35 | 28°32 | 9°51 | 11°13 | 19° 6 | 24° 8 | M21 | |
| T 22 | 2 23 31 | 4°20'18 | 17°13 | 4°27 | 13° 1 | 17°54 | 18°14 | 23°16 | 8°34 | 14°34 | 28°32 | 9°47 | 11°10 | 19°12 | 24° 9 | T 22 | |
| W23 | 2 27 27 | 5°20'41 | 1 ^h 25 | 6° 3 | 12°47 | 18°37 | 18° 6 | 23°17 | 8°37 | 14°32 | 28°32 | 9°45 | 11° 7 | 19°19 | 24°10 | W23 | |
| T 24 | 2 31 24 | 6°21'07 | 15°43 | 7°39 | 12°34 | 19°20 | 17°59 | 23°18 | 8°40 | 14°30 | 28°31 | 9°D45 | 11° 4 | 19°26 | 24°11 | T 24 | |
| F 25 | 2 35 20 | 7°21'34 | 0 ^h 3 | 9°14 | 12°24 | 20° 4 | 17°52 | 23°18 | 8°43 | 14°29 | 28°31 | 9°46 | 11° 1 | 19°32 | 24°12 | F 25 | |
| S 26 | 2 39 17 | 8°22'03 | 14°22 | 10°50 | 12°17 | 20°48 | 17°45 | 23°19 | 8°46 | 14°27 | 28°31 | 9°47 | 10°57 | 19°39 | 24°12 | S 26 | |
| S 27 | 2 43 13 | 9°22'34 | 28°37 | 12°24 | 12°12 | 21°31 | 17°38 | 23°19 | 8°50 | 14°25 | 28°30 | 9°49 | 10°54 | 19°46 | 24°13 | S 27 | |
| M28 | 2 47 10 | 10°23'07 | 12 ^h 45 | 13°59 | 12°D10 | 22°15 | 17°31 | 23°20 | 8°53 | 14°24 | 28°30 | 9°R49 | 10°51 | 19°52 | 24°13 | M28 | |
| T 29 | 2 51 7 | 11°23'42 | 26°45 | 15°33 | 12°10 | 22°59 | 17°24 | 23°20 | 8°56 | 14°22 | 28°30 | 9°48 | 10°48 | 19°59 | 24°13 | T 29 | |
| W30 | 2 55 3 | 12°24'18 | 10 ^h 36 | 17° 7 | 12°12 | 23°43 | 17°17 | 23°R20 | 9° 0 | 14°20 | 28°30 | 9°46 | 10°45 | 20° 6 | 24°13 | W30 | |
| T 31 | 2 59 0 | 13 ^h 24'56 | 24 ^h 17 | 18 ^h 41 | 12 ^h 17 | 24 ^h 27 | 17 ^h 11 | 23 ^h 20 | 9 ^h 3 | 14 ^h 19 | 28 ^h 30 | 9 ^h 43 | 10 ^h 42 | 20 ^h 12 | 24 ^h R13 | T 31 | |

Delta T = 19m52s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1062
geocentric

NOVEMBER 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|-------|--------|------|
| F 1 | 3 2 56 | 14♌25'36 | 7♋46 | 20♍15 | 12♌24 | 25♍11 | 17°R 4 | 23°R19 | 9♁ 6 | 14°R17 | 28°R29 | 9°R39 | 10♁38 | 20♋19 | 24°R13 | F 1 |
| S 2 | 3 6 53 | 15°26'18 | 21° 2 | 21°48 | 12°34 | 25°55 | 16°V58 | 23♋19 | 9°10 | 14♋15 | 28♋29 | 9♁35 | 10°35 | 20°26 | 24♋13 | S 2 |
| S 3 | 3 10 49 | 16°27'01 | 4♌ 4 | 23°22 | 12°45 | 26°39 | 16°52 | 23°19 | 9°13 | 14°13 | 28°29 | 9°31 | 10°32 | 20°32 | 24°13 | S 3 |
| M 4 | 3 14 46 | 17°27'46 | 16°52 | 24°55 | 12°59 | 27°23 | 16°46 | 23°18 | 9°17 | 14°12 | 28°29 | 9°28 | 10°29 | 20°39 | 24°12 | M 4 |
| T 5 | 3 18 42 | 18°28'32 | 29°26 | 26°28 | 13°15 | 28° 7 | 16°40 | 23°17 | 9°20 | 14°10 | 28°29 | 9°27 | 10°26 | 20°46 | 24°12 | T 5 |
| W 6 | 3 22 39 | 19°29'20 | 11♁46 | 28° 1 | 13°33 | 28°51 | 16°34 | 23°17 | 9°24 | 14° 8 | 28°D29 | 9°D27 | 10°23 | 20°52 | 24°11 | W 6 |
| T 7 | 3 26 36 | 20°30'09 | 23°53 | 29°33 | 13°53 | 29°35 | 16°29 | 23°16 | 9°27 | 14° 7 | 28°29 | 9°27 | 10°19 | 20°59 | 24°11 | T 7 |
| F 8 | 3 30 32 | 21°30'59 | 5♋51 | 1♁ 6 | 14°15 | 0♁20 | 16°23 | 23°15 | 9°31 | 14° 5 | 28°29 | 9°29 | 10°16 | 21° 6 | 24°10 | F 8 |
| S 9 | 3 34 29 | 22°31'50 | 17°43 | 2°38 | 14°39 | 1° 4 | 16°18 | 23°14 | 9°34 | 14° 3 | 28°29 | 9°30 | 10°13 | 21°12 | 24° 9 | S 9 |
| S 10 | 3 38 25 | 23°32'41 | 29°32 | 4°11 | 15° 4 | 1°49 | 16°13 | 23°13 | 9°38 | 14° 2 | 28°29 | 9°32 | 10°10 | 21°19 | 24° 8 | S 10 |
| M11 | 3 42 22 | 24°33'34 | 11♁23 | 5°43 | 15°32 | 2°33 | 16° 8 | 23°11 | 9°41 | 14° 0 | 28°29 | 9°33 | 10° 7 | 21°26 | 24° 7 | M11 |
| T 12 | 3 46 18 | 25°34'28 | 23°20 | 7°15 | 16° 1 | 3°18 | 16° 4 | 23°10 | 9°45 | 13°58 | 28°30 | 9°R33 | 10° 3 | 21°32 | 24° 6 | T 12 |
| W13 | 3 50 15 | 26°35'23 | 5♁28 | 8°47 | 16°31 | 4° 2 | 15°59 | 23° 8 | 9°48 | 13°57 | 28°30 | 9°33 | 10° 0 | 21°39 | 24° 5 | W13 |
| T 14 | 3 54 11 | 27°36'18 | 17°53 | 10°18 | 17° 3 | 4°47 | 15°55 | 23° 7 | 9°52 | 13°55 | 28°30 | 9°32 | 9°57 | 21°46 | 24° 3 | T 14 |
| F 15 | 3 58 8 | 28°37'14 | 0♁38 | 11°50 | 17°37 | 5°32 | 15°51 | 23° 5 | 9°55 | 13°53 | 28°30 | 9°31 | 9°54 | 21°53 | 24° 2 | F 15 |
| S 16 | 4 2 5 | 29°38'11 | 13°46 | 13°21 | 18°12 | 6°16 | 15°47 | 23° 3 | 9°59 | 13°52 | 28°30 | 9°30 | 9°51 | 21°59 | 24° 0 | S 16 |
| S 17 | 4 6 1 | 0♁39'09 | 27°18 | 14°52 | 18°48 | 7° 1 | 15°43 | 23° 1 | 10° 3 | 13°50 | 28°31 | 9°28 | 9°48 | 22° 6 | 23°59 | S 17 |
| M18 | 4 9 58 | 1°40'08 | 11♁15 | 16°23 | 19°26 | 7°46 | 15°40 | 22°59 | 10° 6 | 13°49 | 28°31 | 9°27 | 9°44 | 22°13 | 23°57 | M18 |
| T 19 | 4 13 54 | 2°41'07 | 25°34 | 17°53 | 20° 5 | 8°31 | 15°36 | 22°57 | 10°10 | 13°47 | 28°31 | 9°27 | 9°41 | 22°19 | 23°55 | T 19 |
| W20 | 4 17 51 | 3°42'07 | 10♁10 | 19°23 | 20°45 | 9°16 | 15°33 | 22°55 | 10°14 | 13°45 | 28°31 | 9°D27 | 9°38 | 22°26 | 23°53 | W20 |
| T 21 | 4 21 47 | 4°43'09 | 24°56 | 20°52 | 21°27 | 10° 1 | 15°30 | 22°52 | 10°17 | 13°44 | 28°32 | 9°27 | 9°35 | 22°33 | 23°51 | T 21 |
| F 22 | 4 25 44 | 5°44'11 | 9♋45 | 22°20 | 22° 9 | 10°46 | 15°28 | 22°50 | 10°21 | 13°42 | 28°32 | 9°27 | 9°32 | 22°39 | 23°49 | F 22 |
| S 23 | 4 29 40 | 6°45'14 | 24°30 | 23°48 | 22°53 | 11°31 | 15°25 | 22°47 | 10°24 | 13°41 | 28°33 | 9°27 | 9°29 | 22°46 | 23°47 | S 23 |
| S 24 | 4 33 37 | 7°46'18 | 9♌ 5 | 25°15 | 23°38 | 12°16 | 15°23 | 22°44 | 10°28 | 13°39 | 28°33 | 9°28 | 9°25 | 22°53 | 23°45 | S 24 |
| M25 | 4 37 34 | 8°47'24 | 23°26 | 26°41 | 24°23 | 13° 1 | 15°21 | 22°42 | 10°32 | 13°38 | 28°33 | 9°28 | 9°22 | 22°59 | 23°43 | M25 |
| T 26 | 4 41 30 | 9°48'30 | 7♎29 | 28° 5 | 25°10 | 13°47 | 15°19 | 22°39 | 10°35 | 13°36 | 28°34 | 9°28 | 9°19 | 23° 6 | 23°40 | T 26 |
| W27 | 4 45 27 | 10°49'37 | 21°13 | 29°28 | 25°58 | 14°32 | 15°17 | 22°36 | 10°39 | 13°35 | 28°34 | 9°28 | 9°16 | 23°13 | 23°38 | W27 |
| T 28 | 4 49 23 | 11°50'44 | 4♌40 | 0♁49 | 26°47 | 15°17 | 15°16 | 22°33 | 10°43 | 13°33 | 28°35 | 9°28 | 9°13 | 23°19 | 23°35 | T 28 |
| F 29 | 4 53 20 | 12°51'53 | 17°49 | 2° 8 | 27°36 | 16° 3 | 15°14 | 22°30 | 10°46 | 13°32 | 28°36 | 9°28 | 9° 9 | 23°26 | 23°32 | F 29 |
| S 30 | 4 57 16 | 13♁53'03 | 0♍43 | 3♋24 | 28♌26 | 16♁48 | 15°V13 | 22♋26 | 10♁50 | 13♋30 | 28♋36 | 9♁29 | 9♁ 6 | 23♋33 | 23♋30 | S 30 |

Delta T = 19m52s Julian Calendar 1 Nov. 1062 == Greg. Calendar 7 Nov. 1062

DECEMBER 1062 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|--------|-------|--------|-------|-------|------|-------|--------|------|
| S 1 | 5 1 13 | 14♌54'13 | 13♍22 | 4♋37 | 29♌18 | 17♁34 | 15°R12 | 22°R23 | 10♁54 | 13°R29 | 28♋37 | 9♁29 | 9♁ 3 | 23♋39 | 23°R27 | S 1 |
| M 2 | 5 5 9 | 15°55'24 | 25°50 | 5°47 | 0♍10 | 18°19 | 15°V12 | 22♋20 | 10°57 | 13♋28 | 28°37 | 9°30 | 9° 0 | 23°46 | 23♋24 | M 2 |
| T 3 | 5 9 6 | 16°56'35 | 8♁ 7 | 6°53 | 1° 2 | 19° 5 | 15°11 | 22°16 | 11° 1 | 13°26 | 28°38 | 9°R30 | 8°57 | 23°53 | 23°21 | T 3 |
| W 4 | 5 13 3 | 17°57'47 | 20°14 | 7°54 | 1°55 | 19°50 | 15°11 | 22°13 | 11° 4 | 13°25 | 28°39 | 9°30 | 8°54 | 24° 0 | 23°18 | W 4 |
| T 5 | 5 16 59 | 18°58'59 | 2♋14 | 8°49 | 2°49 | 20°36 | 15°D11 | 22° 9 | 11° 8 | 13°24 | 28°39 | 9°29 | 8°50 | 24° 6 | 23°15 | T 5 |
| F 6 | 5 20 56 | 20° 0'12 | 14° 8 | 9°39 | 3°44 | 21°22 | 15°11 | 22° 5 | 11°12 | 13°22 | 28°40 | 9°28 | 8°47 | 24°13 | 23°11 | F 6 |
| S 7 | 5 24 52 | 21° 1'25 | 25°59 | 10°21 | 4°39 | 22° 7 | 15°11 | 22° 2 | 11°15 | 13°21 | 28°41 | 9°26 | 8°44 | 24°20 | 23° 8 | S 7 |
| S 8 | 5 28 49 | 22° 2'37 | 7♋48 | 10°56 | 5°35 | 22°53 | 15°12 | 21°58 | 11°19 | 13°20 | 28°42 | 9°24 | 8°41 | 24°26 | 23° 5 | S 8 |
| M 9 | 5 32 45 | 23° 3'50 | 19°39 | 11°21 | 6°32 | 23°39 | 15°13 | 21°54 | 11°23 | 13°19 | 28°42 | 9°22 | 8°38 | 24°33 | 23° 1 | M 9 |
| T 10 | 5 36 42 | 24° 5'02 | 1♁35 | 11°37 | 7°29 | 24°25 | 15°14 | 21°50 | 11°26 | 13°17 | 28°43 | 9°20 | 8°35 | 24°40 | 22°58 | T 10 |
| W11 | 5 40 38 | 25° 6'15 | 13°41 | 11°R43 | 8°26 | 25°11 | 15°15 | 21°46 | 11°30 | 13°16 | 28°44 | 9°19 | 8°31 | 24°46 | 22°54 | W11 |
| T 12 | 5 44 35 | 26° 7'27 | 26° 1 | 11°37 | 9°25 | 25°57 | 15°16 | 21°41 | 11°33 | 13°15 | 28°45 | 9°D19 | 8°28 | 24°53 | 22°51 | T 12 |
| F 13 | 5 48 32 | 27° 8'39 | 8♁39 | 11°19 | 10°23 | 26°43 | 15°18 | 21°37 | 11°37 | 13°14 | 28°46 | 9°19 | 8°25 | 25° 0 | 22°47 | F 13 |
| S 14 | 5 52 28 | 28° 9'50 | 21°39 | 10°49 | 11°22 | 27°29 | 15°20 | 21°33 | 11°40 | 13°13 | 28°47 | 9°20 | 8°22 | 25° 6 | 22°44 | S 14 |
| S 15 | 5 56 25 | 29°11'01 | 5♋ 6 | 10° 8 | 12°22 | 28°15 | 15°22 | 21°29 | 11°44 | 13°12 | 28°48 | 9°22 | 8°19 | 25°13 | 22°40 | S 15 |
| M16 | 6 0 21 | 0♋12'12 | 18°59 | 9°16 | 13°22 | 29° 1 | 15°24 | 21°24 | 11°47 | 13°11 | 28°49 | 9°23 | 8°15 | 25°20 | 22°36 | M16 |
| T 17 | 6 4 18 | 1°13'23 | 3♎20 | 8°14 | 14°22 | 29°47 | 15°27 | 21°20 | 11°51 | 13°10 | 28°49 | 9°R24 | 8°12 | 25°26 | 22°32 | T 17 |
| W18 | 6 8 14 | 2°14'34 | 18° 4 | 7° 4 | 15°23 | 0♋33 | 15°29 | 21°15 | 11°54 | 13° 9 | 28°50 | 9°24 | 8° 9 | 25°33 | 22°28 | W18 |
| T 19 | 6 12 11 | 3°15'44 | 3♋ 7 | 5°48 | 16°24 | 1°19 | 15°32 | 21°11 | 11°58 | 13° 8 | 28°51 | 9°23 | 8° 6 | 25°40 | 22°24 | T 19 |
| F 20 | 6 16 8 | 4°16'54 | 18°18 | 4°29 | 17°26 | 2° 6 | 15°35 | 21° 6 | 12° 1 | 13° 7 | 28°52 | 9°20 | 8° 3 | 25°47 | 22°20 | F 20 |
| S 21 | 6 20 4 | 5°18'03 | 3♌28 | 3° 9 | 18°28 | 2°52 | 15°38 | 21° 2 | 12° 5 | 13° 6 | 28°54 | 9°17 | 8° 0 | 25°53 | 22°16 | S 21 |
| S 22 | 6 24 1 | 6°19'13 | 18°28 | 1°50 | 19°30 | 3°38 | 15°42 | 20°57 | 12° 8 | 13° 5 | 28°55 | 9°13 | 7°56 | 26° 0 | 22°12 | S 22 |
| M23 | 6 27 57 | 7°20'22 | 3♎10 | 0°36 | 20°33 | 4°25 | 15°45 | 20°52 | 12°12 | 13° 4 | 28°56 | 9° 9 | 7°53 | 26° 7 | 22° 8 | M23 |
| T 24 | 6 31 54 | 8°21'31 | 17°27 | 29♁27 | 21°36 | 5°11 | 15°49 | 20°48 | 12°15 | 13° 3 | 28°57 | 9° 6 | 7°50 | 26°13 | 22° 4 | T 24 |
| W25 | 6 35 50 | 9°22'40 | 1♌18 | 28°26 | 22°40 | 5°57 | 15°53 | 20°43 | 12°18 | 13° 3 | 28°58 | 9° 5 | 7°47 | 26°20 | 22° 0 | W25 |
| T 26 | 6 39 47 | 10°23'49 | 14°44 | 27°34 | 23°43 | 6°44 | 15°57 | 20°38 | 12°22 | 13° 2 | 28°59 | 9°D 4 | 7°44 | 26°27 | 21°56 | T 26 |
| F 27 | 6 43 43 | 11°24'58 | 27°46 | 26°50 | 24°47 | 7°30 | 16° 2 | 20°33 | 12°25 | 13° 1 | 29° 0 | 9° 5 | 7°41 | 26°33 | 21°51 | F 27 |
| S 28 | 6 47 40 | 12°26'06 | 10♍27 | 26°17 | 25°52 | 8°17 | 16° 6 | 20°28 | 12°28 | 13° 0 | 29° 1 | 9° 7 | 7°37 | 26°40 | 21°47 | S 28 |
| S 29 | 6 51 37 | 13°27'14 | 22°53 | 25°53 | 26°56 | 9° 3 | 16°11 | 20°23 | 12°32 | 13° 0 | 29° 3 | 9° 9 | 7°34 | 26°47 | 21°43 | S 29 |
| M30 | 6 55 33 | 14°28'22 | 5♁ 5 | 25°38 | 28° 1 | 9°50 | 16°16 | 20°19 | 12°35 | 12°59 | 29° 4 | 9°R10 | 7°31 | 26°53 | 21°38 | M30 |
| T 31 | 6 59 30 | 15♋29'29 | 17♁ 9 | 25°D32 | 29♍ 7 | 10♋37 | 16°V21 | 20♋14 | 12♁38 | 12♋58 | 29♋ 5 | 9♁10 | 7♁28 | | | |

ASTRODIENST EPHEMERIS for the year 1063
geocentric

JANUARY 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|------|-------|--------|------|-----|
| W 1 | 7 3 26 | 16♁30'36 | 29♁ 5 | 25♁35 | 0♁12 | 11♁23 | 16♁26 | 20°R 9 | 12♁41 | 12°R58 | 29♁ 6 | 9°R 7 | 7♁25 | 27♁ 7 | 21°R30 | W 1 | |
| T 2 | 7 7 23 | 17°31'42 | 10♁58 | 25°45 | 1°18 | 12°10 | 16°32 | 20♁ 4 | 12°44 | 12♁57 | 29° 8 | 9♁ 3 | 7°21 | 27°13 | 21♁25 | T 2 | |
| F 3 | 7 11 19 | 18°32'47 | 22°49 | 26° 2 | 2°23 | 12°57 | 16°37 | 19°59 | 12°47 | 12°57 | 29° 9 | 8°57 | 7°18 | 27°20 | 21°21 | F 3 | |
| S 4 | 7 15 16 | 19°33'51 | 4♁39 | 26°26 | 3°30 | 13°43 | 16°43 | 19°54 | 12°51 | 12°56 | 29°10 | 8°50 | 7°15 | 27°27 | 21°17 | S 4 | |
| S 5 | 7 19 12 | 20°34'55 | 16°30 | 26°56 | 4°36 | 14°30 | 16°49 | 19°49 | 12°54 | 12°56 | 29°11 | 8°41 | 7°12 | 27°34 | 21°12 | S 5 | |
| M 6 | 7 23 9 | 21°35'57 | 28°24 | 27°32 | 5°42 | 15°17 | 16°55 | 19°44 | 12°57 | 12°55 | 29°13 | 8°33 | 7° 9 | 27°40 | 21° 8 | M 6 | |
| T 7 | 7 27 6 | 22°36'58 | 10♁24 | 28°12 | 6°49 | 16° 4 | 17° 2 | 19°39 | 13° 0 | 12°55 | 29°14 | 8°25 | 7° 6 | 27°47 | 21° 3 | T 7 | |
| W 8 | 7 31 2 | 23°37'58 | 22°32 | 28°57 | 7°56 | 16°51 | 17° 8 | 19°34 | 13° 3 | 12°55 | 29°15 | 8°19 | 7° 2 | 27°54 | 20°59 | W 8 | |
| T 9 | 7 34 59 | 24°38'57 | 4♁50 | 29°46 | 9° 3 | 17°37 | 17°15 | 19°29 | 13° 6 | 12°54 | 29°17 | 8°15 | 6°59 | 28° 0 | 20°55 | T 9 | |
| F 10 | 7 38 55 | 25°39'55 | 17°24 | 0♁38 | 10°11 | 18°24 | 17°22 | 19°24 | 13° 9 | 12°54 | 29°18 | 8°12 | 6°56 | 28° 7 | 20°50 | F 10 | |
| S 11 | 7 42 52 | 26°40'51 | 0♁17 | 1°34 | 11°18 | 19°11 | 17°29 | 19°19 | 13°12 | 12°54 | 29°20 | 8°D12 | 6°53 | 28°14 | 20°46 | S 11 | |
| S 12 | 7 46 48 | 27°41'46 | 13°32 | 2°33 | 12°26 | 19°58 | 17°36 | 19°15 | 13°14 | 12°54 | 29°21 | 8°13 | 6°50 | 28°20 | 20°42 | S 12 | |
| M13 | 7 50 45 | 28°42'40 | 27°14 | 3°35 | 13°34 | 20°45 | 17°43 | 19°10 | 13°17 | 12°54 | 29°22 | 8°14 | 6°47 | 28°27 | 20°37 | M13 | |
| T 14 | 7 54 41 | 29°43'32 | 11♁23 | 4°39 | 14°42 | 21°32 | 17°51 | 19° 5 | 13°20 | 12°53 | 29°24 | 8°R14 | 6°43 | 28°34 | 20°33 | T 14 | |
| W15 | 7 58 38 | 0♁44'23 | 25°59 | 5°46 | 15°50 | 22°19 | 17°58 | 19° 0 | 13°23 | 12°53 | 29°25 | 8°13 | 6°40 | 28°40 | 20°29 | W15 | |
| T 16 | 8 2 35 | 1°45'13 | 10♁58 | 6°55 | 16°58 | 23° 6 | 18° 6 | 18°55 | 13°26 | 12°53 | 29°27 | 8° 9 | 6°37 | 28°47 | 20°24 | T 16 | |
| F 17 | 8 6 31 | 2°46'01 | 26°13 | 8° 5 | 18° 6 | 23°53 | 18°14 | 18°51 | 13°28 | 12°D53 | 29°28 | 8° 3 | 6°34 | 28°54 | 20°20 | F 17 | |
| S 18 | 8 10 28 | 3°46'48 | 11♁34 | 9°18 | 19°15 | 24°40 | 18°22 | 18°46 | 13°31 | 12°53 | 29°30 | 7°55 | 6°31 | 29° 1 | 20°16 | S 18 | |
| S 19 | 8 14 24 | 4°47'33 | 26°48 | 10°32 | 20°24 | 25°27 | 18°30 | 18°41 | 13°34 | 12°53 | 29°31 | 7°46 | 6°27 | 29° 7 | 20°12 | S 19 | |
| M20 | 8 18 21 | 5°48'17 | 11♁47 | 11°48 | 21°33 | 26°14 | 18°39 | 18°37 | 13°36 | 12°53 | 29°33 | 7°37 | 6°24 | 29°14 | 20° 8 | M20 | |
| T 21 | 8 22 17 | 6°49'00 | 26°20 | 13° 6 | 22°42 | 27° 1 | 18°47 | 18°32 | 13°39 | 12°54 | 29°34 | 7°30 | 6°21 | 29°21 | 20° 3 | T 21 | |
| W22 | 8 26 14 | 7°49'42 | 10♁24 | 14°24 | 23°51 | 27°48 | 18°56 | 18°28 | 13°41 | 12°54 | 29°36 | 7°24 | 6°18 | 29°27 | 19°59 | W22 | |
| T 23 | 8 30 10 | 8°50'23 | 23°58 | 15°45 | 25° 0 | 28°35 | 19° 5 | 18°23 | 13°44 | 12°54 | 29°37 | 7°21 | 6°15 | 29°34 | 19°55 | T 23 | |
| F 24 | 8 34 7 | 9°51'02 | 7♁ 4 | 17° 6 | 26° 9 | 29°22 | 19°13 | 18°19 | 13°46 | 12°54 | 29°39 | 7°D20 | 6°12 | 29°41 | 19°51 | F 24 | |
| S 25 | 8 38 4 | 10°51'41 | 19°45 | 18°29 | 27°19 | 0♁ 9 | 19°22 | 18°14 | 13°48 | 12°54 | 29°40 | 7°20 | 6° 8 | 29°47 | 19°47 | S 25 | |
| S 26 | 8 42 0 | 11°52'18 | 2♁ 6 | 19°52 | 28°28 | 0°57 | 19°32 | 18°10 | 13°51 | 12°55 | 29°42 | 7°R21 | 6° 5 | 29°54 | 19°43 | S 26 | |
| M27 | 8 45 57 | 12°52'54 | 14°13 | 21°17 | 29°38 | 1°44 | 19°41 | 18° 6 | 13°53 | 12°55 | 29°43 | 7°21 | 6° 2 | 0♁ 1 | 19°39 | M27 | |
| T 28 | 8 49 53 | 13°53'28 | 26° 9 | 22°43 | 0♁48 | 2°31 | 19°50 | 18° 2 | 13°55 | 12°55 | 29°45 | 7°19 | 5°59 | 0° 8 | 19°36 | T 28 | |
| W29 | 8 53 50 | 14°54'02 | 8♁ 0 | 24°11 | 1°58 | 3°18 | 20° 0 | 17°58 | 13°58 | 12°56 | 29°46 | 7°14 | 5°56 | 0°14 | 19°32 | W29 | |
| T 30 | 8 57 46 | 15°54'34 | 19°49 | 25°39 | 3° 8 | 4° 5 | 20°10 | 17°53 | 14° 0 | 12°56 | 29°48 | 7° 7 | 5°53 | 0°21 | 19°28 | T 30 | |
| F 31 | 9 1 43 | 16°55'04 | 1♁38 | 27♁ 8 | 4♁18 | 4♁52 | 20°19 | 17♁49 | 14♁ 2 | 12♁57 | 29°50 | 6♁57 | 5♁49 | 0♁28 | 19♁24 | F 31 | |

Delta T = 19m51s Julian Calendar 1 Jan. 1063 == Greg. Calendar 7 Jan. 1063

FEBRUARY 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|------|------|--------|------|-----|
| S 1 | 9 5 39 | 17°55'32 | 13♁30 | 28♁38 | 5♁28 | 5♁40 | 20°19 | 17°R46 | 14♁ 4 | 12♁57 | 29°51 | 6°R45 | 5♁46 | 0♁34 | 19°R21 | S 1 | |
| S 2 | 9 9 36 | 18°55'59 | 25°26 | 0♁ 9 | 6°38 | 6°27 | 20°39 | 17♁42 | 14° 6 | 12°58 | 29°53 | 6♁31 | 5°43 | 0°41 | 19♁17 | S 2 | |
| M 3 | 9 13 33 | 19°56'25 | 7♁28 | 1°42 | 7°49 | 7°14 | 20°49 | 17°38 | 14° 8 | 12°58 | 29°54 | 6°17 | 5°40 | 0°48 | 19°14 | M 3 | |
| T 4 | 9 17 29 | 20°56'48 | 19°36 | 3°15 | 8°59 | 8° 1 | 21° 0 | 17°34 | 14°10 | 12°59 | 29°56 | 6° 4 | 5°37 | 0°54 | 19°10 | T 4 | |
| W 5 | 9 21 26 | 21°57'10 | 1°19 | 4°49 | 10°10 | 8°48 | 21°10 | 17°31 | 14°12 | 12°59 | 29°58 | 5°53 | 5°33 | 1° 1 | 19° 7 | W 5 | |
| T 6 | 9 25 22 | 22°57'29 | 14°18 | 6°24 | 11°20 | 9°36 | 21°21 | 17°27 | 14°14 | 13° 0 | 29°59 | 5°44 | 5°30 | 1° 8 | 19° 3 | T 6 | |
| F 7 | 9 29 19 | 23°57'47 | 26°56 | 8° 0 | 12°31 | 10°23 | 21°31 | 17°24 | 14°16 | 13° 1 | 0♁ 1 | 5°39 | 5°27 | 1°15 | 19° 0 | F 7 | |
| S 8 | 9 33 15 | 24°58'02 | 9♁48 | 9°38 | 13°41 | 11°10 | 21°42 | 17°20 | 14°17 | 13° 1 | 0° 2 | 5°36 | 5°24 | 1°21 | 18°57 | S 8 | |
| S 9 | 9 37 12 | 25°58'16 | 22°59 | 11°16 | 14°52 | 11°57 | 21°53 | 17°17 | 14°19 | 13° 2 | 0° 4 | 5°D36 | 5°21 | 1°28 | 18°54 | S 9 | |
| M10 | 9 41 8 | 26°58'28 | 6♁31 | 12°55 | 16° 3 | 12°44 | 22° 3 | 17°14 | 14°21 | 13° 3 | 0° 6 | 5°R36 | 5°18 | 1°35 | 18°51 | M10 | |
| T 11 | 9 45 5 | 27°58'37 | 20°26 | 14°35 | 17°14 | 13°32 | 22°14 | 17°10 | 14°22 | 13° 4 | 0° 7 | 5°35 | 5°14 | 1°41 | 18°48 | T 11 | |
| W12 | 9 49 2 | 28°58'44 | 4♁26 | 16°17 | 18°25 | 14°19 | 22°26 | 17° 7 | 14°24 | 13° 5 | 0° 9 | 5°33 | 5°11 | 1°48 | 18°45 | W12 | |
| T 13 | 9 52 58 | 29°58'49 | 19°36 | 17°59 | 19°36 | 15° 6 | 22°37 | 17° 4 | 14°25 | 13° 6 | 0°10 | 5°28 | 5° 8 | 1°55 | 18°42 | T 13 | |
| F 14 | 9 56 55 | 0♁58'52 | 4♁28 | 19°43 | 20°47 | 15°53 | 22°48 | 17° 2 | 14°27 | 13° 6 | 0°12 | 5°20 | 5° 5 | 2° 1 | 18°40 | F 14 | |
| S 15 | 10 0 51 | 1°58'53 | 19°38 | 21°27 | 21°58 | 16°41 | 22°59 | 16°59 | 14°28 | 13° 7 | 0°14 | 5°10 | 5° 2 | 2° 8 | 18°37 | S 15 | |
| S 16 | 10 4 48 | 2°58'51 | 4♁48 | 23°13 | 23° 9 | 17°28 | 23°11 | 16°56 | 14°30 | 13° 8 | 0°15 | 4°59 | 4°58 | 2°15 | 18°34 | S 16 | |
| M17 | 10 8 44 | 3°58'48 | 19°47 | 25° 0 | 24°21 | 18°15 | 23°22 | 16°54 | 14°31 | 13° 9 | 0°17 | 4°47 | 4°55 | 2°22 | 18°32 | M17 | |
| T 18 | 10 12 41 | 4°58'43 | 4♁26 | 26°48 | 25°32 | 19° 2 | 23°34 | 16°51 | 14°32 | 13°10 | 0°19 | 4°37 | 4°52 | 2°28 | 18°29 | T 18 | |
| W19 | 10 16 37 | 5°58'36 | 18°37 | 28°37 | 26°43 | 19°49 | 23°46 | 16°49 | 14°34 | 13°12 | 0°20 | 4°29 | 4°49 | 2°35 | 18°27 | W19 | |
| T 20 | 10 20 34 | 6°58'27 | 2♁20 | 0♁27 | 27°55 | 20°36 | 23°58 | 16°46 | 14°35 | 13°13 | 0°22 | 4°23 | 4°46 | 2°42 | 18°25 | T 20 | |
| F 21 | 10 24 31 | 7°58'17 | 15°32 | 2°18 | 29° 6 | 21°24 | 24°10 | 16°44 | 14°36 | 13°14 | 0°23 | 4°21 | 4°43 | 2°48 | 18°23 | F 21 | |
| S 22 | 10 28 27 | 8°58'05 | 28°19 | 4°11 | 0♁18 | 22°11 | 24°22 | 16°42 | 14°37 | 13°15 | 0°25 | 4°20 | 4°39 | 2°55 | 18°21 | S 22 | |
| S 23 | 10 32 24 | 9°57'51 | 10♁43 | 6° 5 | 1°29 | 22°58 | 24°34 | 16°40 | 14°38 | 13°16 | 0°27 | 4°20 | 4°36 | 3° 2 | 18°19 | S 23 | |
| M24 | 10 36 20 | 10°57'35 | 22°51 | 7°59 | 2°41 | 23°45 | 24°46 | 16°38 | 14°39 | 13°17 | 0°28 | 4°19 | 4°33 | 3° 8 | 18°17 | M24 | |
| T 25 | 10 40 17 | 11°57'18 | 4♁47 | 9°55 | 3°52 | 24°32 | 24°58 | 16°37 | 14°40 | 13°19 | 0°30 | 4°17 | 4°30 | 3°15 | 18°15 | T 25 | |
| W26 | 10 44 13 | 12°56'59 | 16°38 | 11°52 | 5° 4 | 25°19 | 25°10 | 16°35 | 14°41 | 13°20 | 0°31 | 4°13 | 4°27 | 3°22 | 18°13 | W26 | |
| T 27 | 10 48 10 | 13°56'38 | 28°26 | 13°50 | 6°16 | 26° 6 | 25°23 | 16°33 | 14°42 | 13°21 | 0°33 | 4° 6 | 4°24 | 3°29 | 18°12 | T 27 | |
| F 28 | 10 52 6 | 14°56'15 | 10♁17 | 15♁49 | 7♁28 | 26°54 | 25°35 | 16♁32 | 14♁42 | 13♁23 | 0♁35 | 3♁56 | 4♁20 | 3♁35 | 18♁10 | F 28 | |

Delta T = 19m51s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1063
geocentric

MARCH 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 10 56 3 | 15 ^h 55 ^m 50 ^s | 22 ^h 13 ^m | 17 ^h 48 ^m | 8 ^h 39 ^m | 27 ^h 41 ^m | 25 ^h 48 ^m | 16 ^h R31 | 14 ^h 43 ^m | 13 ^h 24 ^m | 0 ^h 36 ^m | 3 ^h R44 | 4 ^h 17 ^m | 3 ^h 42 ^m | 18 ^h R 9 | S 1 | | | | | | | | |
| S 2 | 10 59 59 | 16 ^h 55 ^m 23 ^s | 4 ^h 16 ^m | 19 ^h 49 ^m | 9 ^h 51 ^m | 28 ^h 28 ^m | 26 ^h 0 ^m | 16 ^h 29 ^m | 14 ^h 44 ^m | 13 ^h 25 ^m | 0 ^h 38 ^m | 3 ^h 31 ^m | 4 ^h 14 ^m | 3 ^h 49 ^m | 18 ^h 27 ^m | S 2 | | | | | | | | |
| M 3 | 11 3 56 | 17 ^h 54 ^m 54 ^s | 16 ^h 27 ^m | 21 ^h 50 ^m | 11 ^h 3 ^m | 29 ^h 15 ^m | 26 ^h 13 ^m | 16 ^h 28 ^m | 14 ^h 44 ^m | 13 ^h 27 ^m | 0 ^h 39 ^m | 3 ^h 17 ^m | 4 ^h 11 ^m | 3 ^h 55 ^m | 18 ^h 6 ^m | M 3 | | | | | | | | |
| T 4 | 11 7 53 | 18 ^h 54 ^m 23 ^s | 28 ^h 48 ^m | 23 ^h 51 ^m | 12 ^h 15 ^m | 0 ^h 2 ^m | 26 ^h 25 ^m | 16 ^h 27 ^m | 14 ^h 45 ^m | 13 ^h 28 ^m | 0 ^h 41 ^m | 3 ^h 4 ^m | 4 ^h 8 ^m | 4 ^h 2 ^m | 18 ^h 5 ^m | T 4 | | | | | | | | |
| W 5 | 11 11 49 | 19 ^h 53 ^m 50 ^s | 11 ^h 19 ^m | 25 ^h 52 ^m | 13 ^h 27 ^m | 0 ^h 49 ^m | 26 ^h 38 ^m | 16 ^h 26 ^m | 14 ^h 46 ^m | 13 ^h 30 ^m | 0 ^h 42 ^m | 2 ^h 53 ^m | 4 ^h 4 ^m | 4 ^h 9 ^m | 18 ^h 4 ^m | W 5 | | | | | | | | |
| T 6 | 11 15 46 | 20 ^h 53 ^m 15 ^s | 24 ^h 0 ^m | 27 ^h 54 ^m | 14 ^h 39 ^m | 1 ^h 36 ^m | 26 ^h 51 ^m | 16 ^h 25 ^m | 14 ^h 46 ^m | 13 ^h 31 ^m | 0 ^h 44 ^m | 2 ^h 45 ^m | 4 ^h 1 ^m | 4 ^h 15 ^m | 18 ^h 3 ^m | T 6 | | | | | | | | |
| F 7 | 11 19 42 | 21 ^h 52 ^m 38 ^s | 6 ^h 52 ^m | 29 ^h 55 ^m | 15 ^h 51 ^m | 2 ^h 23 ^m | 27 ^h 4 ^m | 16 ^h 25 ^m | 14 ^h 46 ^m | 13 ^h 33 ^m | 0 ^h 45 ^m | 2 ^h 39 ^m | 3 ^h 58 ^m | 4 ^h 22 ^m | 18 ^h 2 ^m | F 7 | | | | | | | | |
| S 8 | 11 23 39 | 22 ^h 51 ^m 58 ^s | 19 ^h 55 ^m | 1 ^h 56 ^m | 17 ^h 3 ^m | 3 ^h 10 ^m | 27 ^h 17 ^m | 16 ^h 24 ^m | 14 ^h 47 ^m | 13 ^h 34 ^m | 0 ^h 47 ^m | 2 ^h 36 ^m | 3 ^h 55 ^m | 4 ^h 29 ^m | 18 ^h 1 ^m | S 8 | | | | | | | | |
| S 9 | 11 27 35 | 23 ^h 51 ^m 16 ^s | 3 ^h 13 ^m | 3 ^h 56 ^m | 18 ^h 15 ^m | 3 ^h 57 ^m | 27 ^h 30 ^m | 16 ^h 24 ^m | 14 ^h 47 ^m | 13 ^h 36 ^m | 0 ^h 48 ^m | 2 ^h D36 | 3 ^h 52 ^m | 4 ^h 36 ^m | 18 ^h 1 ^m | S 9 | | | | | | | | |
| M10 | 11 31 32 | 24 ^h 50 ^m 32 ^s | 16 ^h 45 ^m | 5 ^h 54 ^m | 19 ^h 27 ^m | 4 ^h 44 ^m | 27 ^h 43 ^m | 16 ^h 23 ^m | 14 ^h 47 ^m | 13 ^h 37 ^m | 0 ^h 50 ^m | 2 ^h 36 ^m | 3 ^h 49 ^m | 4 ^h 42 ^m | 18 ^h 0 ^m | M10 | | | | | | | | |
| T 11 | 11 35 28 | 25 ^h 49 ^m 45 ^s | 0 ^h 35 ^m | 7 ^h 51 ^m | 20 ^h 39 ^m | 5 ^h 30 ^m | 27 ^h 56 ^m | 16 ^h 23 ^m | 14 ^h 47 ^m | 13 ^h 39 ^m | 0 ^h 51 ^m | 2 ^h R36 | 3 ^h 45 ^m | 4 ^h 49 ^m | 18 ^h 0 ^m | T 11 | | | | | | | | |
| W12 | 11 39 25 | 26 ^h 48 ^m 56 ^s | 14 ^h 42 ^m | 9 ^h 47 ^m | 21 ^h 51 ^m | 6 ^h 17 ^m | 28 ^h 9 ^m | 16 ^h 23 ^m | 14 ^h 48 ^m | 13 ^h 41 ^m | 0 ^h 53 ^m | 2 ^h 35 ^m | 3 ^h 42 ^m | 4 ^h 56 ^m | 18 ^h 0 ^m | W12 | | | | | | | | |
| T 13 | 11 43 22 | 27 ^h 48 ^m 05 ^s | 29 ^h 6 ^m | 11 ^h 39 ^m | 23 ^h 3 ^m | 7 ^h 4 ^m | 28 ^h 23 ^m | 16 ^h D23 | 14 ^h 48 ^m | 13 ^h 42 ^m | 0 ^h 54 ^m | 2 ^h 31 ^m | 3 ^h 39 ^m | 5 ^h 2 ^m | 17 ^h 59 ^m | T 13 | | | | | | | | |
| F 14 | 11 47 18 | 28 ^h 47 ^m 11 ^s | 13 ^h 14 ^m | 13 ^h 29 ^m | 24 ^h 16 ^m | 7 ^h 51 ^m | 28 ^h 36 ^m | 16 ^h 23 ^m | 14 ^h R48 | 13 ^h 44 ^m | 0 ^h 56 ^m | 2 ^h 26 ^m | 3 ^h 36 ^m | 5 ^h 9 ^m | 17 ^h 59 ^m | F 14 | | | | | | | | |
| S 15 | 11 51 15 | 29 ^h 46 ^m 14 ^s | 28 ^h 31 ^m | 15 ^h 16 ^m | 25 ^h 28 ^m | 8 ^h 38 ^m | 28 ^h 49 ^m | 16 ^h 23 ^m | 14 ^h 48 ^m | 13 ^h 46 ^m | 0 ^h 57 ^m | 2 ^h 17 ^m | 3 ^h 33 ^m | 5 ^h 16 ^m | 17 ^h D59 | S 15 | | | | | | | | |
| S 16 | 11 55 11 | 0 ^h 45 ^m 16 ^s | 13 ^h 19 ^m | 16 ^h 59 ^m | 26 ^h 40 ^m | 9 ^h 25 ^m | 29 ^h 2 ^m | 16 ^h 24 ^m | 14 ^h 48 ^m | 13 ^h 48 ^m | 0 ^h 59 ^m | 2 ^h 8 ^m | 3 ^h 30 ^m | 5 ^h 23 ^m | 17 ^h 59 ^m | S 16 | | | | | | | | |
| M17 | 11 59 8 | 1 ^h 44 ^m 15 ^s | 28 ^h 1 ^m | 18 ^h 39 ^m | 27 ^h 52 ^m | 10 ^h 11 ^m | 29 ^h 16 ^m | 16 ^h 24 ^m | 14 ^h 48 ^m | 13 ^h 49 ^m | 1 ^h 0 ^m | 1 ^h 59 ^m | 3 ^h 26 ^m | 5 ^h 29 ^m | 17 ^h 59 ^m | M17 | | | | | | | | |
| T 18 | 12 3 4 | 2 ^h 43 ^m 12 ^s | 12 ^h 27 ^m | 20 ^h 14 ^m | 29 ^h 4 ^m | 10 ^h 58 ^m | 29 ^h 29 ^m | 16 ^h 24 ^m | 14 ^h 47 ^m | 13 ^h 51 ^m | 1 ^h 2 ^m | 1 ^h 50 ^m | 3 ^h 23 ^m | 5 ^h 36 ^m | 18 ^h 0 ^m | T 18 | | | | | | | | |
| W19 | 12 7 1 | 3 ^h 42 ^m 07 ^s | 26 ^h 33 ^m | 21 ^h 45 ^m | 0 ^h 17 ^m | 11 ^h 45 ^m | 29 ^h 43 ^m | 16 ^h 25 ^m | 14 ^h 47 ^m | 13 ^h 53 ^m | 1 ^h 3 ^m | 1 ^h 43 ^m | 3 ^h 20 ^m | 5 ^h 43 ^m | 18 ^h 0 ^m | W19 | | | | | | | | |
| T 20 | 12 10 57 | 4 ^h 41 ^m 01 ^s | 10 ^h 13 ^m | 23 ^h 10 ^m | 1 ^h 29 ^m | 12 ^h 31 ^m | 29 ^h 56 ^m | 16 ^h 26 ^m | 14 ^h 47 ^m | 13 ^h 55 ^m | 1 ^h 4 ^m | 1 ^h 39 ^m | 3 ^h 17 ^m | 5 ^h 49 ^m | 18 ^h 0 ^m | T 20 | | | | | | | | |
| F 21 | 12 14 54 | 5 ^h 39 ^m 52 ^s | 23 ^h 28 ^m | 24 ^h 31 ^m | 2 ^h 41 ^m | 13 ^h 18 ^m | 0 ^h 10 ^m | 16 ^h 27 ^m | 14 ^h 47 ^m | 13 ^h 57 ^m | 1 ^h 6 ^m | 1 ^h 37 ^m | 3 ^h 14 ^m | 5 ^h 56 ^m | 18 ^h 1 ^m | F 21 | | | | | | | | |
| S 22 | 12 18 51 | 6 ^h 38 ^m 42 ^s | 6 ^h 18 ^m | 25 ^h 47 ^m | 3 ^h 54 ^m | 14 ^h 5 ^m | 0 ^h 24 ^m | 16 ^h 28 ^m | 14 ^h 46 ^m | 13 ^h 58 ^m | 1 ^h 7 ^m | 1 ^h D36 | 3 ^h 10 ^m | 6 ^h 3 ^m | 18 ^h 2 ^m | S 22 | | | | | | | | |
| S 23 | 12 22 47 | 7 ^h 37 ^m 30 ^s | 18 ^h 47 ^m | 26 ^h 57 ^m | 5 ^h 6 ^m | 14 ^h 51 ^m | 0 ^h 37 ^m | 16 ^h 29 ^m | 14 ^h 46 ^m | 14 ^h 0 ^m | 1 ^h 9 ^m | 1 ^h 37 ^m | 3 ^h 7 ^m | 6 ^h 9 ^m | 18 ^h 2 ^m | S 23 | | | | | | | | |
| M24 | 12 26 44 | 8 ^h 36 ^m 16 ^s | 0 ^h 58 ^m | 28 ^h 2 ^m | 6 ^h 18 ^m | 15 ^h 38 ^m | 0 ^h 51 ^m | 16 ^h 30 ^m | 14 ^h 45 ^m | 14 ^h 2 ^m | 1 ^h 10 ^m | 1 ^h 38 ^m | 3 ^h 4 ^m | 6 ^h 16 ^m | 18 ^h 3 ^m | M24 | | | | | | | | |
| T 25 | 12 30 40 | 9 ^h 35 ^m 00 ^s | 12 ^h 58 ^m | 29 ^h 0 ^m | 7 ^h 31 ^m | 16 ^h 24 ^m | 1 ^h 5 ^m | 16 ^h 31 ^m | 14 ^h 45 ^m | 14 ^h 4 ^m | 1 ^h 11 ^m | 1 ^h R39 | 3 ^h 1 ^m | 6 ^h 23 ^m | 18 ^h 4 ^m | T 25 | | | | | | | | |
| W26 | 12 34 37 | 10 ^h 33 ^m 43 ^s | 24 ^h 50 ^m | 29 ^h 53 ^m | 8 ^h 43 ^m | 17 ^h 11 ^m | 1 ^h 18 ^m | 16 ^h 32 ^m | 14 ^h 44 ^m | 14 ^h 6 ^m | 1 ^h 12 ^m | 1 ^h 37 ^m | 2 ^h 58 ^m | 6 ^h 30 ^m | 18 ^h 5 ^m | W26 | | | | | | | | |
| T 27 | 12 38 33 | 11 ^h 32 ^m 23 ^s | 6 ^h 41 ^m | 0 ^h 40 ^m | 9 ^h 56 ^m | 17 ^h 57 ^m | 1 ^h 32 ^m | 16 ^h 34 ^m | 14 ^h 44 ^m | 14 ^h 8 ^m | 1 ^h 14 ^m | 1 ^h 34 ^m | 2 ^h 55 ^m | 6 ^h 36 ^m | 18 ^h 6 ^m | T 27 | | | | | | | | |
| F 28 | 12 42 30 | 12 ^h 31 ^m 02 ^s | 18 ^h 34 ^m | 1 ^h 21 ^m | 11 ^h 8 ^m | 18 ^h 44 ^m | 1 ^h 46 ^m | 16 ^h 36 ^m | 14 ^h 43 ^m | 14 ^h 10 ^m | 1 ^h 15 ^m | 1 ^h 29 ^m | 2 ^h 51 ^m | 6 ^h 43 ^m | 18 ^h 7 ^m | F 28 | | | | | | | | |
| S 29 | 12 46 26 | 13 ^h 29 ^m 40 ^s | 0 ^h 34 ^m | 1 ^h 56 ^m | 12 ^h 21 ^m | 19 ^h 30 ^m | 2 ^h 0 ^m | 16 ^h 37 ^m | 14 ^h 42 ^m | 14 ^h 12 ^m | 1 ^h 16 ^m | 1 ^h 22 ^m | 2 ^h 48 ^m | 6 ^h 50 ^m | 18 ^h 9 ^m | S 29 | | | | | | | | |
| S 30 | 12 50 23 | 14 ^h 28 ^m 15 ^s | 12 ^h 44 ^m | 2 ^h 25 ^m | 13 ^h 33 ^m | 20 ^h 16 ^m | 2 ^h 14 ^m | 16 ^h 39 ^m | 14 ^h 41 ^m | 14 ^h 14 ^m | 1 ^h 18 ^m | 1 ^h 13 ^m | 2 ^h 45 ^m | 6 ^h 56 ^m | 18 ^h 10 ^m | S 30 | | | | | | | | |
| M31 | 12 54 19 | 15 ^h 26 ^m 48 ^s | 25 ^h 1 ^m | 2 ^h 48 ^m | 14 ^h 46 ^m | 21 ^h 1 ^m | 2 ^h 28 ^m | 16 ^h 41 ^m | 14 ^h 41 ^m | 14 ^h 16 ^m | 1 ^h 19 ^m | 1 ^h 1 ^m | 2 ^h 42 ^m | 7 ^h 3 ^m | 18 ^h 12 ^m | M31 | | | | | | | | |

Delta T = 19m51s Julian Calendar 1 March 1063 == Greg. Calendar 7 March 1063

APRIL 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|-----|----------|---|---------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|-----|---|---|---|---|---|---|---|-----|
| T 1 | 12 58 16 | 16 ^h 25 ^m 20 ^s | 7 ^h 39 ^m | 3 ^h 4 ^m | 15 ^h 58 ^m | 21 ^h 49 ^m | 2 ^h 42 ^m | 16 ^h 43 ^m | 14 ^h R40 | 14 ^h 18 ^m | 1 ^h 20 ^m | 0 ^h R57 | 2 ^h 39 ^m | 7 ^h 10 ^m | 18 ^h 13 ^m | T 1 | | | | | | | | |
| W 2 | 13 2 13 | 17 ^h 23 ^m 50 ^s | 20 ^h 27 ^m | 3 ^h 15 ^m | 17 ^h 11 ^m | 22 ^h 35 ^m | 2 ^h 56 ^m | 16 ^h 45 ^m | 14 ^h 39 ^m | 14 ^h 20 ^m | 1 ^h 21 ^m | 0 ^h 50 ^m | 2 ^h 35 ^m | 7 ^h 17 ^m | 18 ^h 15 ^m | W 2 | | | | | | | | |
| T 3 | 13 6 9 | 18 ^h 22 ^m 18 ^s | 3 ^h 27 ^m | 3 ^h R19 | 18 ^h 23 ^m | 23 ^h 22 ^m | 3 ^h 9 ^m | 16 ^h 47 ^m | 14 ^h 38 ^m | 14 ^h 22 ^m | 1 ^h 22 ^m | 0 ^h 45 ^m | 2 ^h 32 ^m | 7 ^h 23 ^m | 18 ^h 17 ^m | T 3 | | | | | | | | |
| F 4 | 13 10 6 | 19 ^h 20 ^m 44 ^s | 16 ^h 40 ^m | 3 ^h 18 ^m | 19 ^h 36 ^m | 24 ^h 8 ^m | 3 ^h 23 ^m | 16 ^h 50 ^m | 14 ^h 37 ^m | 14 ^h 24 ^m | 1 ^h 24 ^m | 0 ^h 42 ^m | 2 ^h 29 ^m | 7 ^h 30 ^m | 18 ^h 19 ^m | F 4 | | | | | | | | |
| S 5 | 13 14 2 | 20 ^h 19 ^m 08 ^s | 0 ^h 13 ^m | 3 ^h 12 ^m | 20 ^h 48 ^m | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1063
geocentric

MAY 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|------|
| T 1 | 14 56 33 | 15♌26°53 | 12♌22 | 24♍17 | 22♍19 | 14♍39 | 9♌45 | 18♌28 | 13♌R54 | 15♌23 | 1♌48 | 0°R11 | 1♌3 | 10♌31 | 19♌44 | T 1 |
| F 2 | 15 0 29 | 16°24'33 | 25°58 | 24°37 | 23°32 | 15°24 | 10° 0 | 18°33 | 13♌52 | 15°26 | 1°49 | 0°D10 | 1° 0 | 10°38 | 19°49 | F 2 |
| S 3 | 15 4 26 | 17°22'12 | 9♌49 | 25° 1 | 24°45 | 16° 8 | 10°14 | 18°38 | 13°50 | 15°28 | 1°49 | 0♌10 | 0°57 | 10°45 | 19°53 | S 3 |
| S 4 | 15 8 22 | 18°19'50 | 23°51 | 25°29 | 25°58 | 16°53 | 10°28 | 18°43 | 13°48 | 15°30 | 1°50 | 0°11 | 0°54 | 10°51 | 19°58 | S 4 |
| M 5 | 15 12 19 | 19°17'26 | 8♌51 | 26° 2 | 27°10 | 17°38 | 10°42 | 18°48 | 13°46 | 15°32 | 1°50 | 0°12 | 0°51 | 10°58 | 20° 2 | M 5 |
| T 6 | 15 16 15 | 20°15'01 | 22°15 | 26°39 | 28°23 | 18°23 | 10°56 | 18°53 | 13°44 | 15°35 | 1°51 | 0°12 | 0°47 | 11° 5 | 20° 7 | T 6 |
| W 7 | 15 20 12 | 21°12'35 | 6♌32 | 27°19 | 29°36 | 19° 7 | 11°10 | 18°59 | 13°41 | 15°37 | 1°51 | 0°13 | 0°44 | 11°11 | 20°11 | W 7 |
| T 8 | 15 24 9 | 22°10'06 | 20°47 | 28° 3 | 0♌49 | 19°52 | 11°24 | 19° 4 | 13°39 | 15°39 | 1°52 | 0°R13 | 0°41 | 11°18 | 20°16 | T 8 |
| F 9 | 15 28 5 | 23° 7'37 | 4♌58 | 28°51 | 2° 2 | 20°37 | 11°38 | 19° 9 | 13°37 | 15°41 | 1°52 | 0°13 | 0°38 | 11°25 | 20°21 | F 9 |
| S 10 | 15 32 2 | 24° 5'05 | 19° 3 | 29°43 | 3°15 | 21°21 | 11°52 | 19°15 | 13°35 | 15°43 | 1°53 | 0°13 | 0°35 | 11°32 | 20°26 | S 10 |
| S 11 | 15 35 58 | 25° 2'33 | 3♌ 0 | 0♌38 | 4°28 | 22° 6 | 12° 6 | 19°20 | 13°32 | 15°46 | 1°53 | 0°12 | 0°32 | 11°38 | 20°31 | S 11 |
| M12 | 15 39 55 | 25°59'59 | 16°47 | 1°36 | 5°41 | 22°50 | 12°20 | 19°26 | 13°30 | 15°48 | 1°53 | 0°12 | 0°28 | 11°45 | 20°36 | M12 |
| T 13 | 15 43 51 | 26°57'24 | 0♌21 | 2°38 | 6°54 | 23°34 | 12°34 | 19°31 | 13°28 | 15°50 | 1°54 | 0°11 | 0°25 | 11°52 | 20°41 | T 13 |
| W14 | 15 47 48 | 27°54'48 | 13°41 | 3°43 | 8° 7 | 24°18 | 12°48 | 19°37 | 13°26 | 15°52 | 1°54 | 0°11 | 0°22 | 11°58 | 20°46 | W14 |
| T 15 | 15 51 44 | 28°52'11 | 26°47 | 4°51 | 9°20 | 25° 3 | 13° 2 | 19°43 | 13°23 | 15°55 | 1°54 | 0°D11 | 0°19 | 12° 5 | 20°51 | T 15 |
| F 16 | 15 55 41 | 29°49'33 | 9♌38 | 6° 2 | 10°33 | 25°47 | 13°16 | 19°49 | 13°21 | 15°57 | 1°55 | 0°R11 | 0°16 | 12°12 | 20°57 | F 16 |
| S 17 | 15 59 38 | 0♌46'54 | 22°14 | 7°16 | 11°46 | 26°31 | 13°29 | 19°55 | 13°19 | 15°59 | 1°55 | 0°11 | 0°12 | 12°19 | 21° 2 | S 17 |
| S 18 | 16 3 34 | 1°44'14 | 4♌36 | 8°34 | 12°59 | 27°15 | 13°43 | 20° 1 | 13°16 | 16° 1 | 1°55 | 0°11 | 0° 9 | 12°25 | 21° 7 | S 18 |
| M19 | 16 7 31 | 2°41'34 | 16°46 | 9°54 | 14°12 | 27°59 | 13°57 | 20° 7 | 13°14 | 16° 3 | 1°55 | 0°11 | 0° 6 | 12°32 | 21°13 | M19 |
| T 20 | 16 11 27 | 3°38'53 | 28°47 | 11°17 | 15°25 | 28°43 | 14°11 | 20°13 | 13°11 | 16° 6 | 1°56 | 0°10 | 0° 3 | 12°39 | 21°18 | T 20 |
| W21 | 16 15 24 | 4°36'11 | 10♌42 | 12°43 | 16°38 | 29°27 | 14°24 | 20°19 | 13° 9 | 16° 8 | 1°56 | 0°10 | 29♌59 | 12°46 | 21°24 | W21 |
| T 22 | 16 19 20 | 5°33'29 | 22°35 | 14°12 | 17°51 | 0♌11 | 14°38 | 20°25 | 13° 7 | 16°10 | 1°56 | 0° 9 | 29°57 | 12°52 | 21°30 | T 22 |
| F 23 | 16 23 17 | 6°30'46 | 4♌30 | 15°44 | 19° 4 | 0°54 | 14°52 | 20°31 | 13° 4 | 16°12 | 1°56 | 0°D 9 | 29°53 | 12°59 | 21°35 | F 23 |
| S 24 | 16 27 13 | 7°28'03 | 16°32 | 17°18 | 20°17 | 1°38 | 15° 5 | 20°38 | 13° 2 | 16°14 | 1°56 | 0° 9 | 29°50 | 13° 6 | 21°41 | S 24 |
| S 25 | 16 31 10 | 8°25'19 | 28°46 | 18°56 | 21°30 | 2°22 | 15°19 | 20°44 | 12°59 | 16°16 | 1°56 | 0°10 | 29°47 | 13°12 | 21°47 | S 25 |
| M26 | 16 35 7 | 9°22'35 | 11♍14 | 20°36 | 22°43 | 3° 5 | 15°32 | 20°50 | 12°57 | 16°18 | 1°56 | 0°11 | 29°44 | 13°19 | 21°53 | M26 |
| T 27 | 16 39 3 | 10°19'51 | 24° 2 | 22°19 | 23°56 | 3°49 | 15°46 | 20°57 | 12°54 | 16°20 | 1°R56 | 0°11 | 29°41 | 13°26 | 21°59 | T 27 |
| W28 | 16 43 0 | 11°17'07 | 7♌12 | 24° 5 | 25°10 | 4°32 | 15°59 | 21° 3 | 12°52 | 16°23 | 1°56 | 0°12 | 29°38 | 13°33 | 22° 5 | W28 |
| T 29 | 16 46 56 | 12°14'22 | 20°44 | 25°53 | 26°23 | 5°16 | 16°13 | 21°10 | 12°49 | 16°25 | 1°56 | 0°13 | 29°34 | 13°39 | 22°11 | T 29 |
| F 30 | 16 50 53 | 13°11'36 | 4♌38 | 27°44 | 27°36 | 5°59 | 16°26 | 21°17 | 12°47 | 16°27 | 1°56 | 0°R13 | 29°31 | 13°46 | 22°17 | F 30 |
| S 31 | 16 54 49 | 14♌ 8'51 | 18♌52 | 29♌38 | 28♌49 | 6♌42 | 16♌40 | 21♌23 | 12♌45 | 16♌29 | 1♌56 | 0♌13 | 29♌28 | 13♌53 | 22♌23 | S 31 |

Delta T = 19m50s Julian Calendar 1 May 1063 == Greg. Calendar 7 May 1063

JUNE 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|------|
| S 1 | 16 58 46 | 15♌ 6'05 | 3♌20 | 1♌34 | 0♌ 2 | 7♌25 | 16♌53 | 21♌30 | 12°R42 | 16♌31 | 1°R56 | 0°R11 | 29♌25 | 13♌59 | 22♌29 | S 1 |
| M 2 | 17 2 42 | 16° 3'18 | 17°57 | 3°32 | 1°16 | 8° 9 | 17° 6 | 21°37 | 12♌40 | 16°33 | 1♌56 | 0♌10 | 29°22 | 14° 6 | 22°35 | M 2 |
| T 3 | 17 6 39 | 17° 0'31 | 2♌37 | 5°33 | 2°29 | 8°52 | 17°19 | 21°43 | 12°37 | 16°35 | 1°56 | 0° 7 | 29°18 | 14°13 | 22°41 | T 3 |
| W 4 | 17 10 36 | 17°57'43 | 17°13 | 7°35 | 3°42 | 9°35 | 17°32 | 21°50 | 12°35 | 16°37 | 1°56 | 0° 6 | 29°15 | 14°20 | 22°48 | W 4 |
| T 5 | 17 14 32 | 18°54'54 | 1♌40 | 9°40 | 4°55 | 10°18 | 17°45 | 21°57 | 12°32 | 16°39 | 1°55 | 0° 4 | 29°12 | 14°26 | 22°54 | T 5 |
| F 6 | 17 18 29 | 19°52'05 | 15°54 | 11°46 | 6° 9 | 11° 0 | 17°58 | 22° 4 | 12°30 | 16°41 | 1°55 | 0°D 3 | 29° 9 | 14°33 | 23° 0 | F 6 |
| S 7 | 17 22 25 | 20°49'16 | 29°52 | 13°54 | 7°22 | 11°43 | 18°11 | 22°11 | 12°27 | 16°43 | 1°55 | 0° 4 | 29° 6 | 14°40 | 23° 7 | S 7 |
| S 8 | 17 26 22 | 21°46'26 | 13♌34 | 16° 2 | 8°35 | 12°26 | 18°24 | 22°18 | 12°25 | 16°45 | 1°55 | 0° 5 | 29° 3 | 14°46 | 23°13 | S 8 |
| M 9 | 17 30 18 | 22°43'35 | 27° 0 | 18°12 | 9°48 | 13° 9 | 18°37 | 22°25 | 12°23 | 16°46 | 1°54 | 0° 6 | 28°59 | 14°53 | 23°20 | M 9 |
| T 10 | 17 34 15 | 23°40'44 | 10♌12 | 20°22 | 11° 2 | 13°51 | 18°50 | 22°32 | 12°20 | 16°48 | 1°54 | 0° 7 | 28°56 | 15° 0 | 23°26 | T 10 |
| W11 | 17 38 11 | 24°37'53 | 23° 9 | 22°33 | 12°15 | 14°34 | 19° 3 | 22°39 | 12°18 | 16°50 | 1°54 | 0° 8 | 28°53 | 15° 7 | 23°33 | W11 |
| T 12 | 17 42 8 | 25°35'01 | 5♌53 | 24°44 | 13°29 | 15°16 | 19°15 | 22°46 | 12°15 | 16°52 | 1°54 | 0°R 8 | 28°50 | 15°13 | 23°40 | T 12 |
| F 13 | 17 46 5 | 26°32'10 | 18°26 | 26°54 | 14°42 | 15°59 | 19°28 | 22°54 | 12°13 | 16°54 | 1°53 | 0° 7 | 28°47 | 15°20 | 23°46 | F 13 |
| S 14 | 17 50 1 | 27°29'18 | 0♌48 | 29° 4 | 15°55 | 16°41 | 19°41 | 23° 1 | 12°11 | 16°56 | 1°53 | 0° 5 | 28°44 | 15°27 | 23°53 | S 14 |
| S 15 | 17 53 58 | 28°26'27 | 13° 0 | 1♌14 | 17° 9 | 17°23 | 19°53 | 23° 8 | 12° 8 | 16°58 | 1°52 | 0° 1 | 28°40 | 15°33 | 24° 0 | S 15 |
| M16 | 17 57 54 | 29°23'35 | 25° 4 | 3°22 | 18°22 | 18° 6 | 20° 6 | 23°15 | 12° 6 | 16°59 | 1°52 | 29♌56 | 28°37 | 15°40 | 24° 6 | M16 |
| T 17 | 18 1 51 | 0♌20'44 | 7♌ 2 | 5°29 | 19°36 | 18°48 | 20°18 | 23°23 | 12° 4 | 17° 1 | 1°51 | 29°51 | 28°34 | 15°47 | 24°13 | T 17 |
| W18 | 18 5 47 | 1°17'53 | 18°55 | 7°35 | 20°49 | 19°30 | 20°30 | 23°30 | 12° 2 | 17° 3 | 1°51 | 29°46 | 28°31 | 15°54 | 24°20 | W18 |
| T 19 | 18 9 44 | 2°15'02 | 0♌48 | 9°40 | 22° 3 | 20°12 | 20°42 | 23°37 | 11°59 | 17° 5 | 1°50 | 29°42 | 28°28 | 16° 0 | 24°27 | T 19 |
| F 20 | 18 13 40 | 3°12'11 | 12°42 | 11°43 | 23°16 | 20°54 | 20°55 | 23°45 | 11°57 | 17° 6 | 1°50 | 29°38 | 28°24 | 16° 7 | 24°34 | F 20 |
| S 21 | 18 17 37 | 4° 9'22 | 24°42 | 13°44 | 24°30 | 21°36 | 21° 7 | 23°52 | 11°55 | 17° 8 | 1°49 | 29°36 | 28°21 | 16°14 | 24°41 | S 21 |
| S 22 | 18 21 34 | 5° 6'32 | 6♌53 | 15°44 | 25°43 | 22°17 | 21°19 | 24° 0 | 11°53 | 17°10 | 1°49 | 29°D36 | 28°18 | 16°21 | 24°47 | S 22 |
| M23 | 18 25 30 | 6° 3'43 | 19°20 | 17°42 | 26°57 | 22°59 | 21°31 | 24° 7 | 11°51 | 17°11 | 1°48 | 29°37 | 28°15 | 16°27 | 24°54 | M23 |
| T 24 | 18 29 27 | 7° 0'55 | 2♌ 5 | 19°38 | 28°10 | 23°41 | 21°42 | 24°15 | 11°48 | 17°13 | 1°48 | 29°38 | 28°12 | 16°34 | 25° 1 | T 24 |
| W25 | 18 33 23 | 7°58'07 | 15°15 | 21°32 | 29°24 | 24°22 | 21°54 | 24°22 | 11°46 | 17°14 | 1°47 | 29°39 | 28° 9 | 16°41 | 25° 8 | W25 |
| T 26 | 18 37 20 | 8°55'20 | 28°50 | 23°25 | 0♌38 | 25° 4 | 22° 6 | 24°30 | 11°44 | 17°16 | 1°46 | 29°R40 | 28° 5 | 16°47 | 25°15 | T 26 |
| F 27 | 18 41 16 | 9°52'34 | 12♌52 | 25°16 | 1°51 | 25°46 | 22°18 | 24°37 | 11°42 | 17°17 | 1°46 | 29°39 | 28° 2 | 16°54 | 25°22 | F 27 |
| S 28 | 18 45 13 | 10°49'48 | 27°19 | 27° 5 | 3° 5 | 26°27 | 22°29 | 24°45 | 11°40 | 17°19 | 1°45 | 29°37 | 27°59 | 17° 1 | 25°30 | S 28 |
| S 29 | 18 49 10 | 11°47'03 | 12♌ 7 | 28°52 | 4°19 | 27° 8 | 22°41 | 24°52 | 11°38 | 17°20 | 1°44 | 29°33 | 27°56 | 17° 8 | 25°37 | S 29 |
| M30 | 18 53 6 | 12♌44'19 | 27♌ 7 | 0♌37 | 5♌32 | 27♌49 | 22♌52 | 25♌ 0 | 11♌36 | 17♌22 | 1♌44 | 29♌27 | 27♌53 | 17♌14 | 25♌44 | M30 |

Delta T = 19m50s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1063
geocentric

JULY 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|------|
| T 1 | 18 57 3 | 13♌41'34 | 12♋11 | 2♌20 | 6♌46 | 28♌31 | 23♌3 | 25♌8 | 11°R34 | 17♌23 | 1°R43 | 29°R21 | 27♌50 | 17♌21 | 25♌51 | T 1 |
| W 2 | 19 0 59 | 14°38'50 | 27° 9 | 4° 2 | 8° 0 | 29°12 | 23°15 | 25°15 | 11°R32 | 17°25 | 1°R42 | 29°R14 | 27°46 | 17°28 | 25°58 | W 2 |
| T 3 | 19 4 56 | 15°36'07 | 11♎53 | 5°41 | 9°14 | 29°53 | 23°26 | 25°23 | 11°30 | 17°26 | 1°41 | 29° 9 | 27°43 | 17°34 | 26° 5 | T 3 |
| F 4 | 19 8 52 | 16°33'24 | 26°17 | 7°19 | 10°27 | 0♌34 | 23°37 | 25°31 | 11°28 | 17°28 | 1°40 | 29° 5 | 27°40 | 17°41 | 26°12 | F 4 |
| S 5 | 19 12 49 | 17°30'41 | 10♌19 | 8°55 | 11°41 | 1°15 | 23°48 | 25°38 | 11°27 | 17°29 | 1°40 | 29° 4 | 27°37 | 17°48 | 26°20 | S 5 |
| S 6 | 19 16 45 | 18°27'58 | 23°57 | 10°30 | 12°55 | 1°55 | 23°58 | 25°46 | 11°25 | 17°30 | 1°39 | 29°D 4 | 27°34 | 17°55 | 26°27 | S 6 |
| M 7 | 19 20 42 | 19°25'16 | 7♌13 | 12° 2 | 14° 9 | 2°36 | 24° 9 | 25°54 | 11°23 | 17°31 | 1°38 | 29° 4 | 27°30 | 18° 1 | 26°34 | M 7 |
| T 8 | 19 24 39 | 20°22'35 | 20°10 | 13°32 | 15°23 | 3°17 | 24°20 | 26° 1 | 11°21 | 17°33 | 1°37 | 29° 5 | 27°27 | 18° 8 | 26°41 | T 8 |
| W 9 | 19 28 35 | 21°19'54 | 2♌51 | 15° 1 | 16°36 | 3°57 | 24°30 | 26° 9 | 11°20 | 17°34 | 1°36 | 29°R 6 | 27°24 | 18°15 | 26°48 | W 9 |
| T 10 | 19 32 32 | 22°17'14 | 15°19 | 16°28 | 17°50 | 4°38 | 24°41 | 26°17 | 11°18 | 17°35 | 1°35 | 29° 4 | 27°21 | 18°22 | 26°56 | T 10 |
| F 11 | 19 36 28 | 23°14'34 | 27°36 | 17°53 | 19° 4 | 5°18 | 24°51 | 26°24 | 11°16 | 17°36 | 1°34 | 29° 1 | 27°18 | 18°28 | 27° 3 | F 11 |
| S 12 | 19 40 25 | 24°11'55 | 9♌45 | 19°16 | 20°18 | 5°59 | 25° 1 | 26°32 | 11°15 | 17°37 | 1°33 | 28°55 | 27°15 | 18°35 | 27°10 | S 12 |
| S 13 | 19 44 21 | 25° 9'18 | 21°48 | 20°37 | 21°32 | 6°39 | 25°11 | 26°40 | 11°13 | 17°38 | 1°33 | 28°47 | 27°11 | 18°42 | 27°17 | S 13 |
| M14 | 19 48 18 | 26° 6'40 | 3♌45 | 21°56 | 22°46 | 7°19 | 25°22 | 26°48 | 11°12 | 17°40 | 1°32 | 28°37 | 27° 8 | 18°48 | 27°25 | M14 |
| T 15 | 19 52 14 | 27° 4'04 | 15°40 | 23°13 | 24° 0 | 7°59 | 25°31 | 26°55 | 11°10 | 17°41 | 1°31 | 28°26 | 27° 5 | 18°55 | 27°32 | T 15 |
| W16 | 19 56 11 | 28° 1'29 | 27°32 | 24°28 | 25°14 | 8°39 | 25°41 | 27° 3 | 11° 9 | 17°42 | 1°30 | 28°15 | 27° 2 | 19° 2 | 27°39 | W16 |
| T 17 | 20 0 8 | 28°58'55 | 9♌24 | 25°40 | 26°28 | 9°19 | 25°51 | 27°11 | 11° 7 | 17°43 | 1°29 | 28° 5 | 26°59 | 19° 9 | 27°46 | T 17 |
| F 18 | 20 4 4 | 29°56'23 | 21°19 | 26°51 | 27°42 | 9°59 | 26° 1 | 27°18 | 11° 6 | 17°44 | 1°28 | 27°57 | 26°56 | 19°15 | 27°54 | F 18 |
| S 19 | 20 8 1 | 0♌53'51 | 3♌19 | 27°59 | 28°56 | 10°39 | 26°10 | 27°26 | 11° 5 | 17°45 | 1°27 | 27°51 | 26°52 | 19°22 | 28° 1 | S 19 |
| S 20 | 20 11 57 | 1°51'21 | 15°29 | 29° 5 | 0♌10 | 11°19 | 26°19 | 27°34 | 11° 3 | 17°45 | 1°25 | 27°47 | 26°49 | 19°29 | 28° 8 | S 20 |
| M21 | 20 15 54 | 2°48'53 | 27°52 | 0♌ 8 | 1°24 | 11°58 | 26°29 | 27°42 | 11° 2 | 17°46 | 1°24 | 27°D46 | 26°46 | 19°35 | 28°16 | M21 |
| T 22 | 20 19 50 | 3°46'25 | 10♌34 | 1° 8 | 2°39 | 12°38 | 26°38 | 27°49 | 11° 1 | 17°47 | 1°23 | 27°46 | 26°43 | 19°42 | 28°23 | T 22 |
| W23 | 20 23 47 | 4°44'00 | 23°38 | 2° 6 | 3°53 | 13°17 | 26°47 | 27°57 | 11° 0 | 17°48 | 1°22 | 27°R46 | 26°40 | 19°49 | 28°30 | W23 |
| T 24 | 20 27 43 | 5°41'36 | 7♌ 8 | 3° 1 | 5° 7 | 13°57 | 26°56 | 28° 5 | 10°59 | 17°49 | 1°21 | 27°46 | 26°36 | 19°56 | 28°37 | T 24 |
| F 25 | 20 31 40 | 6°39'13 | 21° 8 | 3°53 | 6°21 | 14°36 | 27° 4 | 28°12 | 10°58 | 17°49 | 1°20 | 27°44 | 26°33 | 20° 2 | 28°45 | F 25 |
| S 26 | 20 35 37 | 7°36'52 | 5♌35 | 4°42 | 7°35 | 15°15 | 27°13 | 28°20 | 10°57 | 17°50 | 1°19 | 27°40 | 26°30 | 20° 9 | 28°52 | S 26 |
| S 27 | 20 39 33 | 8°34'33 | 20°28 | 5°28 | 8°49 | 15°55 | 27°21 | 28°28 | 10°56 | 17°51 | 1°18 | 27°33 | 26°27 | 20°16 | 28°59 | S 27 |
| M28 | 20 43 30 | 9°32'15 | 5♌39 | 6°10 | 10° 4 | 16°34 | 27°30 | 28°35 | 10°55 | 17°51 | 1°17 | 27°24 | 26°24 | 20°23 | 29° 6 | M28 |
| T 29 | 20 47 26 | 10°29'58 | 20°57 | 6°48 | 11°18 | 17°13 | 27°38 | 28°43 | 10°54 | 17°52 | 1°16 | 27°14 | 26°21 | 20°29 | 29°14 | T 29 |
| W30 | 20 51 23 | 11°27'42 | 6♌11 | 7°23 | 12°32 | 17°52 | 27°46 | 28°51 | 10°53 | 17°53 | 1°14 | 27° 4 | 26°17 | 20°36 | 29°21 | W30 |
| T 31 | 20 55 19 | 12♌25'28 | 21♌11 | 7♌53 | 13♌46 | 18♌30 | 27♌54 | 28♌58 | 10♌53 | 17♌53 | 1°13 | 26♌55 | 26♌14 | 20♌43 | 29♌28 | T 31 |

Delta T = 19m49s Julian Calendar 1 July 1063 == Greg. Calendar 7 July 1063

AUGUST 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|--------|-------|--------|-------|-------|-------|------|
| F 1 | 20 59 16 | 13♌23'15 | 5♌49 | 8♌19 | 15♌ 1 | 19♌ 9 | 28♌ 2 | 29♌ 6 | 10°R52 | 17♌54 | 1°R12 | 26°R48 | 26♌11 | 20♌49 | 29♌35 | F 1 |
| S 2 | 21 3 12 | 14°21'03 | 20° 0 | 8°40 | 16°15 | 19°48 | 28° 9 | 29°13 | 10°R51 | 17°54 | 1°R11 | 26°R44 | 26° 8 | 20°56 | 29°42 | S 2 |
| S 3 | 21 7 9 | 15°18'52 | 3♌42 | 8°57 | 17°29 | 20°26 | 28°17 | 29°21 | 10°51 | 17°55 | 1°10 | 26°D42 | 26° 5 | 21° 3 | 29°49 | S 3 |
| M 4 | 21 11 6 | 16°16'43 | 16°58 | 9° 8 | 18°44 | 21° 5 | 28°24 | 29°28 | 10°50 | 17°55 | 1° 8 | 26°D42 | 26° 2 | 21°10 | 29°57 | M 4 |
| T 5 | 21 15 2 | 17°14'35 | 29°50 | 9°14 | 19°58 | 21°43 | 28°32 | 29°36 | 10°49 | 17°56 | 1° 7 | 26°R42 | 25°58 | 21°16 | 0♌ 4 | T 5 |
| W 6 | 21 18 59 | 18°12'28 | 12♌24 | 9°R14 | 21°12 | 22°21 | 28°39 | 29°43 | 10°49 | 17°56 | 1° 6 | 26°41 | 25°55 | 21°23 | 0°11 | W 6 |
| T 7 | 21 22 55 | 19°10'23 | 24°42 | 9° 9 | 22°27 | 23° 0 | 28°46 | 29°51 | 10°49 | 17°56 | 1° 5 | 26°39 | 25°52 | 21°30 | 0°18 | T 7 |
| F 8 | 21 26 52 | 20° 8'19 | 6♌50 | 8°57 | 23°41 | 23°38 | 28°52 | 29°58 | 10°48 | 17°56 | 1° 4 | 26°34 | 25°49 | 21°37 | 0°25 | F 8 |
| S 9 | 21 30 48 | 21° 6'16 | 18°51 | 8°40 | 24°56 | 24°16 | 28°59 | 0♌ 6 | 10°48 | 17°57 | 1° 2 | 26°26 | 25°46 | 21°43 | 0°32 | S 9 |
| S 10 | 21 34 45 | 22° 4'15 | 0♌46 | 8°17 | 26°10 | 24°54 | 29° 6 | 0°13 | 10°48 | 17°57 | 1° 1 | 26°15 | 25°42 | 21°50 | 0°39 | S 10 |
| M11 | 21 38 41 | 23° 2'15 | 12°40 | 7°47 | 27°24 | 25°31 | 29°12 | 0°20 | 10°47 | 17°57 | 1° 0 | 26° 2 | 25°39 | 21°57 | 0°46 | M11 |
| T 12 | 21 42 38 | 24° 0'17 | 24°32 | 7°11 | 28°39 | 26° 9 | 29°18 | 0°28 | 10°47 | 17°57 | 0°59 | 25°48 | 25°36 | 22° 3 | 0°53 | T 12 |
| W13 | 21 46 35 | 24°58'21 | 6♌26 | 6°30 | 29°53 | 26°47 | 29°24 | 0°35 | 10°47 | 17°57 | 0°57 | 25°34 | 25°33 | 22°10 | 1° 0 | W13 |
| T 14 | 21 50 31 | 25°56'26 | 18°21 | 5°44 | 1♌ 8 | 27°24 | 29°30 | 0°42 | 10°47 | 17°57 | 0°56 | 25°21 | 25°30 | 22°17 | 1° 7 | T 14 |
| F 15 | 21 54 28 | 26°54'33 | 0♌20 | 4°54 | 2°22 | 28° 2 | 29°36 | 0°49 | 10°D47 | 17°58 | 0°55 | 25°10 | 25°27 | 22°24 | 1°14 | F 15 |
| S 16 | 21 58 24 | 27°52'42 | 12°24 | 3°59 | 3°37 | 28°39 | 29°41 | 0°57 | 10°47 | 17°R58 | 0°54 | 25° 2 | 25°23 | 22°30 | 1°21 | S 16 |
| S 17 | 22 2 21 | 28°50'53 | 24°37 | 3° 2 | 4°51 | 29°16 | 29°47 | 1° 4 | 10°47 | 17°58 | 0°52 | 24°56 | 25°20 | 22°37 | 1°27 | S 17 |
| M18 | 22 6 17 | 29°49'07 | 7♌ 2 | 2° 3 | 6° 6 | 29°53 | 29°52 | 1°11 | 10°47 | 17°58 | 0°51 | 24°54 | 25°17 | 22°44 | 1°34 | M18 |
| T 19 | 22 10 14 | 0♌47'22 | 19°42 | 1° 4 | 7°20 | 0♌31 | 29°57 | 1°18 | 10°47 | 17°57 | 0°50 | 24°53 | 25°14 | 22°50 | 1°41 | T 19 |
| W20 | 22 14 10 | 1°45'39 | 2♌42 | 0° 5 | 8°35 | 1° 7 | 0♌ 2 | 1°25 | 10°48 | 17°57 | 0°49 | 24°53 | 25°11 | 22°57 | 1°48 | W20 |
| T 21 | 22 18 7 | 2°43'59 | 16° 6 | 29♌ 9 | 9°49 | 1°44 | 0° 6 | 1°32 | 10°48 | 17°57 | 0°47 | 24°52 | 25° 7 | 23° 4 | 1°54 | T 21 |
| F 22 | 22 22 3 | 3°42'21 | 29°56 | 28°16 | 11° 4 | 2°21 | 0°11 | 1°39 | 10°48 | 17°57 | 0°46 | 24°50 | 25° 4 | 23°11 | 2° 1 | F 22 |
| S 23 | 22 26 0 | 4°40'45 | 14♌14 | 27°28 | 12°19 | 2°58 | 0°15 | 1°46 | 10°49 | 17°57 | 0°45 | 24°46 | 25° 1 | 23°17 | 2° 8 | S 23 |
| S 24 | 22 29 57 | 5°39'11 | 28°58 | 26°46 | 13°33 | 3°34 | 0°19 | 1°53 | 10°49 | 17°57 | 0°44 | 24°39 | 24°58 | 23°24 | 2°14 | S 24 |
| M25 | 22 33 53 | 6°37'39 | 14♌ 2 | 26°11 | 14°48 | 4°11 | 0°23 | 2° 0 | 10°50 | 17°56 | 0°42 | 24°30 | 24°55 | 23°31 | 2°21 | M25 |
| T 26 | 22 37 50 | 7°36'09 | 29°18 | 25°44 | 16° 2 | 4°47 | 0°27 | 2° 6 | 10°50 | 17°56 | 0°41 | 24°19 | 24°52 | 23°38 | 2°27 | T 26 |
| W27 | 22 41 46 | 8°34'41 | 14♌35 | 25°26 | 17°17 | 5°23 | 0°31 | 2°13 | 10°51 | 17°56 | 0°40 | 24° 9 | 24°48 | 23°44 | 2°34 | W27 |
| T 28 | 22 45 43 | 9°33'15 | 29°41 | 25°D16 | 18°32 | 5°59 | 0°34 | 2°20 | 10°51 | 17°55 | 0°39 | 23°59 | 24°45 | 23°51 | 2°40 | T 28 |
| F 29 | 22 49 39 | 10°31'51 | 14♌27 | 25°16 | 19°46 | 6°35 | 0°37 | 2°26 | 10°52 | 17°55 | 0°37 | 23°52 | 24°42 | 23°58 | 2°47 | F 29 |
| S 30 | 22 53 36 | 11°30'29 | 28°46 | 25°26 | 21° 1 | 7°11 | 0°40 | 2°33 | 10°53 | 17°54 | 0°36 | 23°47 | 24°39 | 24° 4 | 2°53 | S 30 |
| S 31 | 22 57 32 | 12♌29'08 | 12♌36 | 25♌46 | 22♌15 | 7♌47 | 0♌43 | 2♌40 | 10♌54 | 17♌54 | 0°H35 | 23♌45 | 24♌36 | 24♌11 | 2♌59 | S 31 |

Delta T = 19m49s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1063
geocentric

SEPTEMBER 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|-------|------|--------|-------|-------|------|------|-----|
| M 1 | 23 1 29 | 13♎27'49 | 25♍58 | 26♌14 | 23♎30 | 8♌23 | 0♈46 | 2♌46 | 10♌55 | 17♌53 | 0♌34 | 23♌45 | 24♍33 | 24♌18 | 3♌5 | M 1 | |
| T 2 | 23 5 26 | 14°26'32 | 8♌53 | 26°52 | 24°45 | 8°58 | 0°48 | 2°53 | 10°56 | 17♌53 | 0♌33 | 23♌45 | 24°29 | 24°25 | 3°12 | T 2 | |
| W 3 | 23 9 22 | 15°25'17 | 21°27 | 27°38 | 25°59 | 9°33 | 0°51 | 2°59 | 10°56 | 17°52 | 0°31 | 23♍45 | 24°26 | 24°31 | 3°18 | W 3 | |
| T 4 | 23 13 19 | 16°24'03 | 3♌43 | 28°33 | 27°14 | 10° 9 | 0°53 | 3° 5 | 10°57 | 17°52 | 0°30 | 23°43 | 24°23 | 24°38 | 3°24 | T 4 | |
| F 5 | 23 17 15 | 17°22'52 | 15°48 | 29°35 | 28°29 | 10°44 | 0°55 | 3°12 | 10°59 | 17°51 | 0°29 | 23°40 | 24°20 | 24°45 | 3°30 | F 5 | |
| S 6 | 23 21 12 | 18°21'42 | 27°45 | 0♎44 | 29°43 | 11°19 | 0°56 | 3°18 | 11° 0 | 17°50 | 0°28 | 23°33 | 24°17 | 24°52 | 3°36 | S 6 | |
| S 7 | 23 25 8 | 19°20'34 | 9♌38 | 1°59 | 0♎58 | 11°54 | 0°58 | 3°24 | 11° 1 | 17°50 | 0°27 | 23°25 | 24°13 | 24°58 | 3°42 | S 7 | |
| M 8 | 23 29 5 | 20°19'27 | 21°29 | 3°19 | 2°13 | 12°28 | 0°59 | 3°30 | 11° 2 | 17°49 | 0°25 | 23°14 | 24°10 | 25° 5 | 3°48 | M 8 | |
| T 9 | 23 33 1 | 21°18'23 | 3♌23 | 4°45 | 3°27 | 13° 3 | 1° 0 | 3°36 | 11° 3 | 17°48 | 0°24 | 23° 2 | 24° 7 | 25°12 | 3°54 | T 9 | |
| W10 | 23 36 58 | 22°17'20 | 15°20 | 6°14 | 4°42 | 13°38 | 1° 1 | 3°42 | 11° 5 | 17°48 | 0°23 | 22°50 | 24° 4 | 25°18 | 3°59 | W10 | |
| T 11 | 23 40 55 | 23°16'20 | 27°22 | 7°48 | 5°56 | 14°12 | 1° 2 | 3°48 | 11° 6 | 17°47 | 0°22 | 22°40 | 24° 1 | 25°25 | 4° 5 | T 11 | |
| F 12 | 23 44 51 | 24°15'22 | 9♎29 | 9°24 | 7°11 | 14°46 | 1° 2 | 3°54 | 11° 7 | 17°46 | 0°21 | 22°30 | 23°58 | 25°32 | 4°11 | F 12 | |
| S 13 | 23 48 48 | 25°14'26 | 21°44 | 11° 3 | 8°26 | 15°20 | 1° 3 | 4° 0 | 11° 9 | 17°45 | 0°20 | 22°24 | 23°54 | 25°39 | 4°16 | S 13 | |
| S 14 | 23 52 44 | 26°13'32 | 4♌ 8 | 12°44 | 9°40 | 15°54 | 1°R 3 | 4° 5 | 11°10 | 17°44 | 0°19 | 22°20 | 23°51 | 25°45 | 4°22 | S 14 | |
| M15 | 23 56 41 | 27°12'40 | 16°42 | 14°26 | 10°55 | 16°28 | 1° 3 | 4°11 | 11°12 | 17°43 | 0°18 | 22°D18 | 23°48 | 25°52 | 4°27 | M15 | |
| T 16 | 0 0 37 | 28°11'51 | 29°29 | 16°10 | 12°10 | 17° 2 | 1° 2 | 4°17 | 11°13 | 17°42 | 0°17 | 22°18 | 23°45 | 25°59 | 4°33 | T 16 | |
| W17 | 0 4 34 | 29°11'04 | 12♈33 | 17°55 | 13°24 | 17°35 | 1° 2 | 4°22 | 11°15 | 17°41 | 0°15 | 22°19 | 23°42 | 26° 5 | 4°38 | W17 | |
| T 18 | 0 8 30 | 0♎10'19 | 25°55 | 19°40 | 14°39 | 18° 9 | 1° 1 | 4°28 | 11°17 | 17°40 | 0°14 | 22°R20 | 23°38 | 26°12 | 4°44 | T 18 | |
| F 19 | 0 12 27 | 1° 9'37 | 9♌38 | 21°26 | 15°54 | 18°42 | 1° 0 | 4°33 | 11°18 | 17°39 | 0°13 | 22°19 | 23°35 | 26°19 | 4°49 | F 19 | |
| S 20 | 0 16 23 | 2° 8'58 | 23°44 | 23°11 | 17° 8 | 19°15 | 0°59 | 4°38 | 11°20 | 17°38 | 0°12 | 22°17 | 23°32 | 26°26 | 4°54 | S 20 | |
| S 21 | 0 20 20 | 3° 8'20 | 8♌11 | 24°57 | 18°23 | 19°48 | 0°58 | 4°44 | 11°22 | 17°37 | 0°11 | 22°13 | 23°29 | 26°32 | 4°59 | S 21 | |
| M22 | 0 24 17 | 4° 7'45 | 22°57 | 26°43 | 19°38 | 20°21 | 0°57 | 4°49 | 11°24 | 17°36 | 0°10 | 22° 7 | 23°26 | 26°39 | 5° 4 | M22 | |
| T 23 | 0 28 13 | 5° 7'13 | 7♎54 | 28°28 | 20°52 | 20°54 | 0°55 | 4°54 | 11°26 | 17°35 | 0° 9 | 22° 0 | 23°23 | 26°46 | 5° 9 | T 23 | |
| W24 | 0 32 10 | 6° 6'42 | 22°56 | 0♎14 | 22° 7 | 21°26 | 0°53 | 4°59 | 11°28 | 17°34 | 0° 8 | 21°53 | 23°19 | 26°53 | 5°14 | W24 | |
| T 25 | 0 36 6 | 7° 6'14 | 7♎51 | 1°58 | 23°22 | 21°59 | 0°51 | 5° 4 | 11°30 | 17°32 | 0° 7 | 21°47 | 23°16 | 26°59 | 5°19 | T 25 | |
| F 26 | 0 40 3 | 8° 5'47 | 22°32 | 3°43 | 24°37 | 22°31 | 0°49 | 5° 9 | 11°32 | 17°31 | 0° 6 | 21°42 | 23°13 | 27° 6 | 5°23 | F 26 | |
| S 27 | 0 43 59 | 9° 5'23 | 6♍51 | 5°26 | 25°51 | 23° 3 | 0°46 | 5°14 | 11°34 | 17°30 | 0° 5 | 21°39 | 23°10 | 27°13 | 5°28 | S 27 | |
| S 28 | 0 47 56 | 10° 5'01 | 20°45 | 7°10 | 27° 6 | 23°35 | 0°43 | 5°18 | 11°36 | 17°29 | 0° 5 | 21°D38 | 23° 7 | 27°19 | 5°33 | S 28 | |
| M29 | 0 51 52 | 11° 4'40 | 4♌11 | 8°52 | 28°21 | 24° 6 | 0°40 | 5°23 | 11°38 | 17°28 | 0° 4 | 21°38 | 23° 4 | 27°26 | 5°37 | M29 | |
| T 30 | 0 55 49 | 12♎ 4'22 | 17♌12 | 10♎34 | 29♎35 | 24♌38 | 0♈37 | 5♌27 | 11♌41 | 17♌26 | 0♌ 3 | 21♎40 | 23♎ 0 | 27♎33 | 5♌42 | T 30 | |

Delta T = 19m49s Julian Calendar 1 Sept. 1063 == Greg. Calendar 7 Sept. 1063

OCTOBER 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|--------|-------|--------|-------|-------|------|------|-----|
| W 1 | 0 59 46 | 13♎ 4'05 | 29♌50 | 12♎16 | 0♍50 | 25♌ 9 | 0°R34 | 5♌32 | 11♌43 | 17°R25 | 0°R 2 | 21♍41 | 22♍57 | 27♎40 | 5♌46 | W 1 | |
| T 2 | 1 3 42 | 14° 3'50 | 12♎10 | 13°56 | 2° 5 | 25°40 | 0♈31 | 5°36 | 11°45 | 17♌24 | 0♌ 1 | 21°R42 | 22°54 | 27°46 | 5°50 | T 2 | |
| F 3 | 1 7 39 | 15° 3'37 | 24°16 | 15°37 | 3°19 | 26°11 | 0°27 | 5°40 | 11°47 | 17°22 | 0° 0 | 21°42 | 22°51 | 27°53 | 5°54 | F 3 | |
| S 4 | 1 11 35 | 16° 3'25 | 6♌13 | 17°16 | 4°34 | 26°42 | 0°23 | 5°45 | 11°50 | 17°21 | 29♌59 | 21°39 | 22°48 | 28° 0 | 5°59 | S 4 | |
| S 5 | 1 15 32 | 17° 3'15 | 18° 6 | 18°55 | 5°49 | 27°12 | 0°19 | 5°49 | 11°52 | 17°19 | 29°59 | 21°36 | 22°44 | 28° 6 | 6° 3 | S 5 | |
| M 6 | 1 19 28 | 18° 3'07 | 29°58 | 20°34 | 7° 3 | 27°42 | 0°15 | 5°53 | 11°55 | 17°18 | 29°58 | 21°31 | 22°41 | 28°13 | 6° 7 | M 6 | |
| T 7 | 1 23 25 | 19° 3'01 | 11♌53 | 22°12 | 8°18 | 28°13 | 0°10 | 5°57 | 11°57 | 17°17 | 29°57 | 21°25 | 22°38 | 28°20 | 6°10 | T 7 | |
| W 8 | 1 27 21 | 20° 2'56 | 23°55 | 23°49 | 9°32 | 28°43 | 0° 6 | 6° 0 | 12° 0 | 17°15 | 29°56 | 21°19 | 22°35 | 28°27 | 6°14 | W 8 | |
| T 9 | 1 31 18 | 21° 2'54 | 6♎ 5 | 25°26 | 10°47 | 29°12 | 0° 1 | 6° 4 | 12° 2 | 17°14 | 29°56 | 21°14 | 22°32 | 28°33 | 6°18 | T 9 | |
| F 10 | 1 35 15 | 22° 2'53 | 18°24 | 27° 2 | 12° 2 | 29°42 | 29♌56 | 6° 8 | 12° 5 | 17°12 | 29°55 | 21° 9 | 22°29 | 28°40 | 6°21 | F 10 | |
| S 11 | 1 39 11 | 23° 2'54 | 0♌54 | 28°38 | 13°16 | 0♌11 | 29°51 | 6°11 | 12° 8 | 17°11 | 29°54 | 21° 6 | 22°25 | 28°47 | 6°25 | S 11 | |
| S 12 | 1 43 8 | 24° 2'57 | 13°35 | 0♍14 | 14°31 | 0°40 | 29°46 | 6°15 | 12°10 | 17° 9 | 29°54 | 21° 5 | 22°22 | 28°54 | 6°28 | S 12 | |
| M13 | 1 47 4 | 25° 3'02 | 26°28 | 1°49 | 15°45 | 1° 9 | 29°40 | 6°18 | 12°13 | 17° 8 | 29°53 | 21°D 5 | 22°19 | 29° 0 | 6°32 | M13 | |
| T 14 | 1 51 1 | 26° 3'09 | 9♈33 | 3°23 | 17° 0 | 1°38 | 29°35 | 6°21 | 12°16 | 17° 6 | 29°52 | 21° 6 | 22°16 | 29° 7 | 6°35 | T 14 | |
| W15 | 1 54 57 | 27° 3'19 | 22°52 | 4°57 | 18°15 | 2° 6 | 29°29 | 6°24 | 12°19 | 17° 4 | 29°52 | 21° 7 | 22°13 | 29°14 | 6°38 | W15 | |
| T 16 | 1 58 54 | 28° 3'30 | 6♌23 | 6°31 | 19°29 | 2°34 | 29°23 | 6°27 | 12°21 | 17° 3 | 29°51 | 21° 9 | 22°10 | 29°20 | 6°41 | T 16 | |
| F 17 | 2 2 50 | 29° 3'44 | 20° 9 | 8° 4 | 20°44 | 3° 2 | 29°17 | 6°30 | 12°24 | 17° 1 | 29°51 | 21°10 | 22° 6 | 29°27 | 6°44 | F 17 | |
| S 18 | 2 6 47 | 0♍ 4'00 | 4♌10 | 9°37 | 21°58 | 3°30 | 29°11 | 6°33 | 12°27 | 17° 0 | 29°50 | 21°R10 | 22° 3 | 29°34 | 6°47 | S 18 | |
| S 19 | 2 10 44 | 1° 4'17 | 18°23 | 11° 9 | 23°13 | 3°57 | 29° 5 | 6°36 | 12°30 | 16°58 | 29°50 | 21° 9 | 22° 0 | 29°41 | 6°50 | S 19 | |
| M20 | 2 14 40 | 2° 4'37 | 2♎47 | 12°42 | 24°28 | 4°25 | 28°58 | 6°39 | 12°33 | 16°56 | 29°49 | 21° 7 | 21°57 | 29°47 | 6°53 | M20 | |
| T 21 | 2 18 37 | 3° 4'59 | 17°19 | 14°13 | 25°42 | 4°52 | 28°52 | 6°41 | 12°36 | 16°55 | 29°49 | 21° 5 | 21°54 | 29°54 | 6°55 | T 21 | |
| W22 | 2 22 33 | 4° 5'23 | 1♎53 | 15°45 | 26°57 | 5°18 | 28°45 | 6°44 | 12°39 | 16°53 | 29°48 | 21° 3 | 21°50 | 0♌ 1 | 6°58 | W22 | |
| T 23 | 2 26 30 | 5° 5'48 | 16°24 | 17°16 | 28°11 | 5°45 | 28°38 | 6°46 | 12°42 | 16°52 | 29°48 | 21° 1 | 21°47 | 0° 7 | 7° 0 | T 23 | |
| F 24 | 2 30 26 | 6° 6'16 | 0♍44 | 18°47 | 29°26 | 6°11 | 28°31 | 6°48 | 12°45 | 16°50 | 29°48 | 20°59 | 21°44 | 0°14 | 7° 2 | F 24 | |
| S 25 | 2 34 23 | 7° 6'45 | 14°50 | 20°17 | 0♌40 | 6°37 | 28°24 | 6°50 | 12°48 | 16°48 | 29°47 | 20°D58 | 21°41 | 0°21 | 7° 4 | S 25 | |
| S 26 | 2 38 19 | 8° 7'16 | 28°35 | 21°47 | 1°55 | 7° 2 | 28°17 | 6°52 | 12°51 | 16°47 | 29°47 | 20°58 | 21°38 | 0°28 | 7° 7 | S 26 | |
| M27 | 2 42 16 | 9° 7'48 | 12♌ 0 | 23°17 | 3°10 | 7°27 | 28° 9 | 6°54 | 12°55 | 16°45 | 29°47 | 20°59 | 21°35 | 0°34 | 7° 9 | M27 | |
| T 28 | 2 46 12 | 10° 8'22 | 25° 2 | 24°46 | 4°24 | 7°52 | 28° 2 | 6°56 | 12°58 | 16°43 | 29°46 | 21° 0 | 21°31 | 0°41 | 7°10 | T 28 | |
| W29 | 2 50 9 | 11° 8'58 | 7♌43 | 26°15 | 5°39 | 8°17 | 27°54 | 6°58 | 13° 1 | 16°41 | 29°46 | 21° 1 | 21°28 | 0°48 | 7°12 | W29 | |
| T 30 | 2 54 6 | 12° 9'34 | 20° 6 | 27°44 | 6°53 | 8°41 | 27°47 | 6°59 | 13° 4 | 16°40 | 29°46 | 21° 2 | 21°25 | 0°55 | 7°14 | T 30 | |
| F 31 | 2 58 2 | 13♎10'12 | 2♌15 | 29♎12 | 8♌ 8 | 9♌ 5 | 27♌39 | 7♌ 1 | 13♌ 7 | 16♌38 | 29♌46 | 21♎ 3 | 21♎22 | 1♌ 1 | 7♌15 | F 31 | |

Delta T = 19m48s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1063
geocentric

NOVEMBER 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|-------|-------|--------|--------|--------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 3 1 59 | 14♐10'51 | 14♏14 | 0♊39 | 9♊22 | 9♏29 | 27°R31 | 7♏ 2 | 13♐11 | 16°R36 | 29°R45 | 21°R 3 | 21♐19 | 1♊ 8 | 7♏17 | S 1 | | | | | | | | |
| S 2 | 3 5 55 | 15°11'31 | 26° 7 | 2° 6 | 10°37 | 9°52 | 27♃24 | 7° 3 | 13°14 | 16♃35 | 29♏45 | 21♐ 3 | 21°15 | 1°15 | 7°18 | S 2 | | | | | | | | |
| M 3 | 3 9 52 | 16°12'13 | 8♊ 0 | 3°33 | 11°51 | 10°15 | 27°16 | 7° 4 | 13°17 | 16°33 | 29°45 | 21° 2 | 21°12 | 1°21 | 7°20 | M 3 | | | | | | | | |
| T 4 | 3 13 48 | 17°12'55 | 19°56 | 4°58 | 13° 5 | 10°38 | 27° 8 | 7° 5 | 13°21 | 16°31 | 29°45 | 21° 2 | 21° 9 | 1°28 | 7°21 | T 4 | | | | | | | | |
| W 5 | 3 17 45 | 18°13'39 | 2♀ 1 | 6°23 | 14°20 | 11° 0 | 27° 0 | 7° 6 | 13°24 | 16°30 | 29°45 | 21° 1 | 21° 6 | 1°35 | 7°22 | W 5 | | | | | | | | |
| T 6 | 3 21 41 | 19°14'24 | 14°16 | 7°47 | 15°34 | 11°22 | 26°52 | 7° 7 | 13°27 | 16°28 | 29°45 | 21° 1 | 21° 3 | 1°42 | 7°23 | T 6 | | | | | | | | |
| F 7 | 3 25 38 | 20°15'10 | 26°46 | 9°11 | 16°49 | 11°44 | 26°44 | 7° 8 | 13°31 | 16°26 | 29°45 | 21° 1 | 21° 0 | 1°48 | 7°24 | F 7 | | | | | | | | |
| S 8 | 3 29 35 | 21°15'57 | 9♃30 | 10°33 | 18° 3 | 12° 5 | 26°36 | 7° 8 | 13°34 | 16°25 | 29°D45 | 21°D 1 | 20°56 | 1°55 | 7°24 | S 8 | | | | | | | | |
| S 9 | 3 33 31 | 22°16'45 | 22°32 | 11°53 | 19°18 | 12°26 | 26°27 | 7° 9 | 13°38 | 16°23 | 29°45 | 21°R 1 | 20°53 | 2° 2 | 7°25 | S 9 | | | | | | | | |
| M10 | 3 37 28 | 23°17'35 | 5♁48 | 13°13 | 20°32 | 12°46 | 26°19 | 7° 9 | 13°41 | 16°21 | 29°45 | 21° 1 | 20°50 | 2° 8 | 7°26 | M10 | | | | | | | | |
| T 11 | 3 41 24 | 24°18'26 | 19°20 | 14°30 | 21°46 | 13° 6 | 26°11 | 7°10 | 13°45 | 16°19 | 29°45 | 21° 1 | 20°47 | 2°15 | 7°26 | T 11 | | | | | | | | |
| W12 | 3 45 21 | 25°19'19 | 3♁ 4 | 15°46 | 23° 1 | 13°26 | 26° 3 | 7°10 | 13°48 | 16°18 | 29°45 | 21° 0 | 20°44 | 2°22 | 7°26 | W12 | | | | | | | | |
| T 13 | 3 49 17 | 26°20'12 | 16°58 | 16°59 | 24°15 | 13°45 | 25°55 | 7°R10 | 13°51 | 16°16 | 29°45 | 21° 0 | 20°41 | 2°29 | 7°27 | T 13 | | | | | | | | |
| F 14 | 3 53 14 | 27°21'08 | 1♏ 1 | 18°10 | 25°29 | 14° 4 | 25°47 | 7°10 | 13°55 | 16°14 | 29°45 | 20°59 | 20°37 | 2°35 | 7°27 | F 14 | | | | | | | | |
| S 15 | 3 57 10 | 28°22'04 | 15° 8 | 19°18 | 26°44 | 14°22 | 25°38 | 7° 9 | 13°59 | 16°13 | 29°45 | 20°58 | 20°34 | 2°42 | 7°R27 | S 15 | | | | | | | | |
| S 16 | 4 1 7 | 29°23'02 | 29°19 | 20°23 | 27°58 | 14°40 | 25°30 | 7° 9 | 14° 2 | 16°11 | 29°46 | 20°D58 | 20°31 | 2°49 | 7°27 | S 16 | | | | | | | | |
| M17 | 4 5 4 | 0♊24'01 | 13♐30 | 21°24 | 29°12 | 14°58 | 25°22 | 7° 9 | 14° 6 | 16°10 | 29°46 | 20°58 | 20°28 | 2°56 | 7°26 | M17 | | | | | | | | |
| T 18 | 4 9 0 | 1°25'01 | 27°41 | 22°20 | 0♃26 | 15°15 | 25°14 | 7° 8 | 14° 9 | 16° 8 | 29°46 | 20°59 | 20°25 | 3° 2 | 7°26 | T 18 | | | | | | | | |
| W19 | 4 12 57 | 2°26'02 | 11♁47 | 23°11 | 1°41 | 15°31 | 25° 6 | 7° 7 | 14°13 | 16° 6 | 29°46 | 21° 0 | 20°21 | 3° 9 | 7°26 | W19 | | | | | | | | |
| T 20 | 4 16 53 | 3°27'05 | 25°47 | 23°57 | 2°55 | 15°47 | 24°58 | 7° 7 | 14°16 | 16° 5 | 29°47 | 21° 1 | 20°18 | 3°16 | 7°25 | T 20 | | | | | | | | |
| F 21 | 4 20 50 | 4°28'09 | 9♐39 | 24°35 | 4° 9 | 16° 3 | 24°50 | 7° 6 | 14°20 | 16° 3 | 29°47 | 21° 2 | 20°15 | 3°22 | 7°24 | F 21 | | | | | | | | |
| S 22 | 4 24 46 | 5°29'13 | 23°19 | 25° 7 | 5°23 | 16°18 | 24°42 | 7° 5 | 14°24 | 16° 1 | 29°47 | 21°R 2 | 20°12 | 3°29 | 7°24 | S 22 | | | | | | | | |
| S 23 | 4 28 43 | 6°30'19 | 6♊46 | 25°30 | 6°37 | 16°32 | 24°34 | 7° 4 | 14°27 | 16° 0 | 29°48 | 21° 2 | 20° 9 | 3°36 | 7°23 | S 23 | | | | | | | | |
| M24 | 4 32 39 | 7°31'26 | 19°57 | 25°44 | 7°52 | 16°46 | 24°26 | 7° 2 | 14°31 | 15°58 | 29°48 | 21° 0 | 20° 6 | 3°43 | 7°22 | M24 | | | | | | | | |
| T 25 | 4 36 36 | 8°32'33 | 2♃52 | 25°R48 | 9° 6 | 17° 0 | 24°19 | 7° 1 | 14°34 | 15°57 | 29°48 | 20°58 | 20° 2 | 3°49 | 7°21 | T 25 | | | | | | | | |
| W26 | 4 40 33 | 9°33'40 | 15°30 | 25°41 | 10°20 | 17°13 | 24°11 | 7° 0 | 14°38 | 15°55 | 29°49 | 20°55 | 19°59 | 3°56 | 7°20 | W26 | | | | | | | | |
| T 27 | 4 44 29 | 10°34'49 | 27°52 | 25°23 | 11°34 | 17°25 | 24° 3 | 6°58 | 14°42 | 15°54 | 29°49 | 20°52 | 19°56 | 4° 3 | 7°18 | T 27 | | | | | | | | |
| F 28 | 4 48 26 | 11°35'57 | 10♏ 2 | 24°53 | 12°48 | 17°37 | 23°56 | 6°56 | 14°45 | 15°52 | 29°50 | 20°49 | 19°53 | 4° 9 | 7°17 | F 28 | | | | | | | | |
| S 29 | 4 52 22 | 12°37'06 | 22° 1 | 24°12 | 14° 2 | 17°48 | 23°49 | 6°55 | 14°49 | 15°51 | 29°50 | 20°46 | 19°50 | 4°16 | 7°16 | S 29 | | | | | | | | |
| S 30 | 4 56 19 | 13♊38'15 | 3♊54 | 23♊20 | 15♃16 | 17♏58 | 23♃41 | 6♏53 | 14♐53 | 15♃49 | 29♏51 | 20♐45 | 19♐47 | 4♊23 | 7♏14 | S 30 | | | | | | | | |

Delta T = 19m48s Julian Calendar 1 Nov. 1063 = Greg. Calendar 7 Nov. 1063

DECEMBER 1063 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|--------|--------|-------|-------|--------|-------|--------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 5 0 15 | 14♊39'24 | 15♊46 | 22°R17 | 16♃30 | 18♏ 8 | 23°R34 | 6°R51 | 14♊56 | 15°R48 | 29♏51 | 20°D44 | 19♐43 | 4♊30 | 7°R12 | M 1 | | | | | | | | |
| T 2 | 5 4 12 | 15°40'34 | 27°41 | 21♊ 6 | 17°44 | 18°17 | 23♃27 | 6♏49 | 15° 0 | 15♃46 | 29°52 | 20♐45 | 19°40 | 4°36 | 7♏11 | T 2 | | | | | | | | |
| W 3 | 5 8 9 | 16°41'44 | 9♀45 | 19°49 | 18°58 | 18°26 | 23°20 | 6°47 | 15° 3 | 15°45 | 29°53 | 20°46 | 19°37 | 4°43 | 7° 9 | W 3 | | | | | | | | |
| T 4 | 5 12 5 | 17°42'53 | 22° 1 | 18°28 | 20°12 | 18°34 | 23°13 | 6°44 | 15° 7 | 15°44 | 29°53 | 20°48 | 19°34 | 4°50 | 7° 7 | T 4 | | | | | | | | |
| F 5 | 5 16 2 | 18°44'03 | 4♃34 | 17° 5 | 21°25 | 18°42 | 23° 7 | 6°42 | 15°11 | 15°42 | 29°54 | 20°50 | 19°31 | 4°56 | 7° 5 | F 5 | | | | | | | | |
| S 6 | 5 19 58 | 19°45'13 | 17°28 | 15°44 | 22°39 | 18°48 | 23° 0 | 6°40 | 15°14 | 15°41 | 29°55 | 20°R51 | 19°27 | 5° 3 | 7° 3 | S 6 | | | | | | | | |
| S 7 | 5 23 55 | 20°46'24 | 0♁43 | 14°27 | 23°53 | 18°54 | 22°54 | 6°37 | 15°18 | 15°40 | 29°55 | 20°50 | 19°24 | 5°10 | 7° 0 | S 7 | | | | | | | | |
| M 8 | 5 27 51 | 21°47'34 | 14°21 | 13°17 | 25° 7 | 19° 0 | 22°47 | 6°34 | 15°22 | 15°38 | 29°56 | 20°48 | 19°21 | 5°17 | 6°58 | M 8 | | | | | | | | |
| T 9 | 5 31 48 | 22°48'45 | 28°18 | 12°15 | 26°20 | 19° 5 | 22°41 | 6°32 | 15°25 | 15°37 | 29°57 | 20°45 | 19°18 | 5°23 | 6°56 | T 9 | | | | | | | | |
| W10 | 5 35 44 | 23°49'56 | 12♁32 | 11°22 | 27°34 | 19° 9 | 22°35 | 6°29 | 15°29 | 15°36 | 29°58 | 20°40 | 19°15 | 5°30 | 6°53 | W10 | | | | | | | | |
| T 11 | 5 39 41 | 24°51'07 | 26°57 | 10°39 | 28°48 | 19°12 | 22°29 | 6°26 | 15°32 | 15°34 | 29°58 | 20°35 | 19°12 | 5°37 | 6°51 | T 11 | | | | | | | | |
| F 12 | 5 43 38 | 25°52'18 | 11♏27 | 10° 7 | 0♏ 1 | 19°14 | 22°24 | 6°23 | 15°36 | 15°33 | 29°59 | 20°29 | 19° 8 | 5°44 | 6°48 | F 12 | | | | | | | | |
| S 13 | 5 47 34 | 26°53'29 | 25°56 | 9°45 | 1°15 | 19°16 | 22°18 | 6°20 | 15°40 | 15°32 | 0♊ 0 | 20°25 | 19° 5 | 5°50 | 6°45 | S 13 | | | | | | | | |
| S 14 | 5 51 31 | 27°54'41 | 10♐18 | 9°33 | 2°28 | 19°17 | 22°13 | 6°16 | 15°43 | 15°31 | 0° 1 | 20°22 | 19° 2 | 5°57 | 6°42 | S 14 | | | | | | | | |
| M15 | 5 55 27 | 28°55'53 | 24°31 | 9°D31 | 3°42 | 19°R18 | 22° 8 | 6°13 | 15°47 | 15°30 | 0° 2 | 20°D21 | 18°59 | 6° 4 | 6°39 | M15 | | | | | | | | |
| T 16 | 5 59 24 | 29°57'05 | 8♁34 | 9°38 | 4°55 | 19°17 | 22° 3 | 6°10 | 15°50 | 15°29 | 0° 3 | 20°21 | 18°56 | 6°10 | 6°36 | T 16 | | | | | | | | |
| W17 | 6 3 20 | 0♃58'17 | 22°22 | 9°53 | 6° 8 | 19°16 | 21°58 | 6° 6 | 15°54 | 15°28 | 0° 4 | 20°22 | 18°53 | 6°17 | 6°33 | W17 | | | | | | | | |
| T 18 | 6 7 17 | 1°59'30 | 5♐59 | 10°15 | 7°22 | 19°14 | 21°53 | 6° 3 | 15°57 | 15°26 | 0° 5 | 20°23 | 18°49 | 6°24 | 6°30 | T 18 | | | | | | | | |
| F 19 | 6 11 13 | 3° 0'42 | 19°24 | 10°45 | 8°35 | 19°11 | 21°49 | 5°59 | 16° 1 | 15°25 | 0° 6 | 20°R24 | 18°46 | 6°31 | 6°27 | F 19 | | | | | | | | |
| S 20 | 6 15 10 | 4° 1'55 | 2♊38 | 11°20 | 9°48 | 19° 8 | 21°44 | 5°55 | 16° 4 | 15°24 | 0° 7 | 20°23 | 18°43 | 6°37 | 6°24 | S 20 | | | | | | | | |
| S 21 | 6 19 7 | 5° 3'07 | 15°40 | 12° 1 | 11° 1 | 19° 3 | 21°40 | 5°52 | 16° 8 | 15°23 | 0° 8 | 20°21 | 18°40 | 6°44 | 6°20 | S 21 | | | | | | | | |
| M22 | 6 23 3 | 6° 4'20 | 28°31 | 12°47 | 12°14 | 18°58 | 21°36 | 5°48 | 16°11 | 15°23 | 0° 9 | 20°15 | 18°37 | 6°51 | 6°17 | M22 | | | | | | | | |
| T 23 | 6 27 0 | 7° 5'32 | 11♃10 | 13°37 | 13°27 | 18°52 | 21°33 | 5°44 | 16°15 | 15°22 | 0°10 | 20° 8 | 18°33 | 6°57 | 6°13 | T 23 | | | | | | | | |
| W24 | 6 30 56 | 8° 6'43 | 23°38 | 14°31 | 14°40 | 18°45 | 21°29 | 5°40 | 16°18 | 15°21 | 0°11 | 19°59 | 18°30 | 7° 4 | 6°10 | W24 | | | | | | | | |
| T 25 | 6 34 53 | 9° 7'54 | 5♏54 | 15°29 | 15°53 | 18°37 | 21°26 | 5°36 | 16°22 | 15°20 | 0°12 | 19°49 | 18°27 | 7°11 | 6° 6 | T 25 | | | | | | | | |
| F 26 | 6 38 49 | 10° 9'05 | 18° 1 | 16°29 | 17° 6 | 18°29 | 21°23 | 5°32 | 16°25 | 15°19 | 0°13 | 19°39 | 18°24 | 7°18 | 6° 2 | F 26 | | | | | | | | |
| S 27 | 6 42 46 | 11°10'14 | 29°58 | 17°33 | 18°19 | 18°20 | 21°20 | 5°27 | 16°28 | 15°18 | 0°14 | 19°31 | 18°21 | 7°24 | 5°58 | S 27 | | | | | | | | |
| S 28 | 6 46 42 | 12°11'23 | 11♊50 | 18°40 | 19°32 | 18°10 | 21°17 | 5°23 | 16°32 | 15°17 | 0°15 | 19°24 | 18°18 | 7°31 | 5°54 | S 28 | | | | | | | | |
| M29 | 6 50 39 | 13°12'31 | 23°40 | 19°48 | 20°44 | 17°59 | 21°14 | 5°19 | 16°35 | 15°17 | 0°16 | 19°19 | 18°14 | 7°38 | 5°51 | M29 | | | | | | | | |
| T 30 | 6 54 36 | 14°13'38 | 5♀33 | 20°59 | 21°57 | 17°47 | 21°12 | 5°14 | 16°39 | 15°16 | 0°17 | 19°17 | 18°11 | 7°44 | 5°47 | T 30 | | | | | | | | |
| W31 | 6 58 32 | 15♃14'45 | 17♀33 | 22♊11 | 23♏10 | 17♏35 | 21♃10 | 5♏10 | 16♊42 | 15♃15 | 0♊19 | 19°D16 | 18♐ 8 | 7♊51 | 5♏43 | W31 | | | | | | | | |

Delta T = 19m48s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1064
geocentric

JANUARY 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|--------|--------|-------|-------|--------|------|--------|-------|-------|-------|------|---|-----|
| T 1 | 7 2 29 | 16♌15'50 | 29♋45 | 23♌26 | 24♌22 | 17°R21 | 21°R 8 | 5°R 6 | 16♌45 | 15°R15 | 0♌20 | 19♌17 | 18♌ 5 | 7♌58 | 5°R39 | T 1 | | |
| F 2 | 7 6 25 | 17°16'55 | 12♌16 | 24°42 | 25°34 | 17°R 7 | 21♌ 6 | 5♌ 1 | 16°48 | 15♌14 | 0°21 | 19°18 | 18° 2 | 8° 5 | 5♌34 | F 2 | | |
| S 3 | 7 10 22 | 18°17'58 | 25° 8 | 25°59 | 26°47 | 16°53 | 21° 4 | 4°57 | 16°52 | 15°13 | 0°22 | 19°R18 | 17°59 | 8°11 | 5°30 | S 3 | | |
| S 4 | 7 14 18 | 19°19'00 | 8♌17 | 27°18 | 27°59 | 16°37 | 21° 3 | 4°52 | 16°55 | 15°13 | 0°24 | 19°16 | 17°55 | 8°18 | 5°26 | S 4 | | |
| M 5 | 7 18 15 | 20°20'02 | 22°14 | 28°38 | 29°11 | 16°21 | 21° 2 | 4°47 | 16°58 | 15°12 | 0°25 | 19°12 | 17°52 | 8°25 | 5°22 | M 5 | | |
| T 6 | 7 22 11 | 21°21'02 | 6♌27 | 29°59 | 0♌23 | 16° 4 | 21° 1 | 4°43 | 17° 1 | 15°12 | 0°26 | 19° 5 | 17°49 | 8°31 | 5°18 | T 6 | | |
| W 7 | 7 26 8 | 22°22'02 | 21° 3 | 1♌21 | 1°35 | 15°47 | 21° 0 | 4°38 | 17° 4 | 15°11 | 0°27 | 18°56 | 17°46 | 8°38 | 5°13 | W 7 | | |
| T 8 | 7 30 5 | 23°23'00 | 5♌55 | 2°44 | 2°47 | 15°28 | 21° 0 | 4°33 | 17° 7 | 15°11 | 0°29 | 18°46 | 17°43 | 8°45 | 5° 9 | T 8 | | |
| F 9 | 7 34 1 | 24°23'57 | 20°54 | 4° 9 | 3°58 | 15°10 | 21° 0 | 4°28 | 17°11 | 15°11 | 0°30 | 18°36 | 17°39 | 8°52 | 5° 5 | F 9 | | |
| S 10 | 7 37 58 | 25°24'54 | 5♌50 | 5°34 | 5°10 | 14°50 | 20°D59 | 4°24 | 17°14 | 15°10 | 0°32 | 18°27 | 17°36 | 8°58 | 5° 0 | S 10 | | |
| S 11 | 7 41 54 | 26°25'50 | 20°34 | 7° 0 | 6°22 | 14°30 | 21° 0 | 4°19 | 17°17 | 15°10 | 0°33 | 18°20 | 17°33 | 9° 5 | 4°56 | S 11 | | |
| M12 | 7 45 51 | 27°26'44 | 5♌ 2 | 8°27 | 7°33 | 14°10 | 21° 0 | 4°14 | 17°20 | 15°10 | 0°34 | 18°15 | 17°30 | 9°12 | 4°51 | M12 | | |
| T 13 | 7 49 47 | 28°27'38 | 19°10 | 9°55 | 8°44 | 13°49 | 21° 0 | 4° 9 | 17°23 | 15° 9 | 0°36 | 18°13 | 17°27 | 9°18 | 4°47 | T 13 | | |
| W14 | 7 53 44 | 29°28'32 | 2♌57 | 11°23 | 9°56 | 13°27 | 21° 1 | 4° 4 | 17°26 | 15° 9 | 0°37 | 18°D13 | 17°24 | 9°25 | 4°42 | W14 | | |
| T 15 | 7 57 40 | 0♌29'24 | 16°24 | 12°53 | 11° 7 | 13° 5 | 21° 2 | 3°59 | 17°28 | 15° 9 | 0°38 | 18°R13 | 17°20 | 9°32 | 4°38 | T 15 | | |
| F 16 | 8 1 37 | 1°30'16 | 29°34 | 14°23 | 12°18 | 12°43 | 21° 3 | 3°55 | 17°31 | 15° 9 | 0°40 | 18°13 | 17°17 | 9°39 | 4°33 | F 16 | | |
| S 17 | 8 5 34 | 2°31'06 | 12♌29 | 15°54 | 13°29 | 12°20 | 21° 4 | 3°50 | 17°34 | 15° 9 | 0°41 | 18°10 | 17°14 | 9°45 | 4°29 | S 17 | | |
| S 18 | 8 9 30 | 3°31'56 | 25°11 | 17°26 | 14°39 | 11°57 | 21° 6 | 3°45 | 17°37 | 15° 9 | 0°43 | 18° 5 | 17°11 | 9°52 | 4°24 | S 18 | | |
| M19 | 8 13 27 | 4°32'44 | 7♌34 | 18°59 | 15°50 | 11°34 | 21° 8 | 3°40 | 17°40 | 15° 9 | 0°44 | 17°57 | 17° 8 | 9°59 | 4°20 | M19 | | |
| T 20 | 8 17 23 | 5°33'31 | 20° 5 | 20°33 | 17° 1 | 11°10 | 21° 9 | 3°35 | 17°43 | 15°D 9 | 0°46 | 17°46 | 17° 5 | 10° 5 | 4°15 | T 20 | | |
| W21 | 8 21 20 | 6°34'17 | 2♌20 | 22° 7 | 18°11 | 10°47 | 21°12 | 3°30 | 17°45 | 15° 9 | 0°47 | 17°33 | 17° 1 | 10°12 | 4°11 | W21 | | |
| T 22 | 8 25 16 | 7°35'02 | 14°26 | 23°42 | 19°21 | 10°23 | 21°14 | 3°25 | 17°48 | 15° 9 | 0°49 | 17°18 | 16°58 | 10°19 | 4° 6 | T 22 | | |
| F 23 | 8 29 13 | 8°35'45 | 26°26 | 25°18 | 20°32 | 9°59 | 21°16 | 3°20 | 17°51 | 15° 9 | 0°50 | 17° 3 | 16°55 | 10°26 | 4° 2 | F 23 | | |
| S 24 | 8 33 10 | 9°36'26 | 8♌21 | 26°55 | 21°42 | 9°35 | 21°19 | 3°16 | 17°53 | 15° 9 | 0°52 | 16°50 | 16°52 | 10°32 | 3°57 | S 24 | | |
| S 25 | 8 37 6 | 10°37'06 | 20°11 | 28°32 | 22°52 | 9°11 | 21°22 | 3°11 | 17°56 | 15° 9 | 0°53 | 16°39 | 16°49 | 10°39 | 3°52 | S 25 | | |
| M26 | 8 41 3 | 11°37'44 | 2♌ 0 | 0♌11 | 24° 1 | 8°47 | 21°25 | 3° 6 | 17°58 | 15° 9 | 0°55 | 16°30 | 16°45 | 10°46 | 3°48 | M26 | | |
| T 27 | 8 44 59 | 12°38'20 | 13°52 | 1°50 | 25°11 | 8°23 | 21°28 | 3° 1 | 18° 1 | 15° 9 | 0°56 | 16°25 | 16°42 | 10°52 | 3°44 | T 27 | | |
| W28 | 8 48 56 | 13°38'55 | 25°49 | 3°30 | 26°20 | 7°59 | 21°32 | 2°56 | 18° 3 | 15°10 | 0°58 | 16°22 | 16°39 | 10°59 | 3°39 | W28 | | |
| T 29 | 8 52 52 | 14°39'28 | 7♌58 | 5°11 | 27°30 | 7°36 | 21°35 | 2°52 | 18° 5 | 15°10 | 0°59 | 16°21 | 16°36 | 11° 6 | 3°35 | T 29 | | |
| F 30 | 8 56 49 | 15°39'59 | 20°23 | 6°53 | 28°39 | 7°12 | 21°39 | 2°47 | 18° 8 | 15°10 | 1° 1 | 16°21 | 16°33 | 11°13 | 3°30 | F 30 | | |
| S 31 | 9 0 45 | 16°40'28 | 3♌10 | 8♌36 | 29♌48 | 6♌50 | 21♌43 | 2♌42 | 18♌10 | 15♌11 | 1♌ 3 | 16♌21 | 16♌30 | 11♌19 | 3♌26 | S 31 | | |

Delta T = 19m47s Julian Calendar 1 Jan. 1064 == Greg. Calendar 7 Jan. 1064

FEBRUARY 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|-------|------|---|-----|
| S 1 | 9 4 42 | 17°40'55 | 16♌12 | 10♌20 | 0♌57 | 6°R27 | 21♌48 | 2°R38 | 18♌12 | 15♌11 | 1♌ 4 | 16°R19 | 16♌26 | 11♌26 | 3°R21 | S 1 | | |
| M 2 | 9 8 38 | 18°41'20 | 0♌ 7 | 12° 4 | 2° 5 | 6♌ 5 | 21°52 | 2♌33 | 18°15 | 15°12 | 1° 6 | 16♌14 | 16°23 | 11°33 | 3♌21 | M 2 | | |
| T 3 | 9 12 35 | 19°41'44 | 14°20 | 13°50 | 3°14 | 5°43 | 21°56 | 2°28 | 18°17 | 15°12 | 1° 7 | 16° 7 | 16°20 | 11°39 | 3°13 | T 3 | | |
| W 4 | 9 16 32 | 20°42'05 | 29° 1 | 15°37 | 4°22 | 5°21 | 22° 1 | 2°24 | 18°19 | 15°13 | 1° 9 | 15°57 | 16°17 | 11°46 | 3° 9 | W 4 | | |
| T 5 | 9 20 28 | 21°42'25 | 14♌ 5 | 17°24 | 5°30 | 5° 0 | 22° 6 | 2°19 | 18°21 | 15°13 | 1°10 | 15°46 | 16°14 | 11°53 | 3° 4 | T 5 | | |
| F 6 | 9 24 25 | 22°42'42 | 29°20 | 19°13 | 6°38 | 4°40 | 22°11 | 2°15 | 18°23 | 15°14 | 1°12 | 15°34 | 16°11 | 12° 0 | 3° 0 | F 6 | | |
| S 7 | 9 28 21 | 23°42'58 | 14♌37 | 21° 3 | 7°45 | 4°20 | 22°17 | 2°11 | 18°25 | 15°14 | 1°14 | 15°24 | 16° 7 | 12° 6 | 2°56 | S 7 | | |
| S 8 | 9 32 18 | 24°43'12 | 29°43 | 22°53 | 8°53 | 4° 0 | 22°22 | 2° 6 | 18°27 | 15°15 | 1°15 | 15°16 | 16° 4 | 12°13 | 2°52 | S 8 | | |
| M 9 | 9 36 14 | 25°43'25 | 14♌31 | 24°45 | 10° 0 | 3°41 | 22°28 | 2° 2 | 18°29 | 15°16 | 1°17 | 15°10 | 16° 1 | 12°20 | 2°48 | M 9 | | |
| T 10 | 9 40 11 | 26°43'36 | 28°54 | 26°37 | 11° 7 | 3°23 | 22°33 | 1°58 | 18°31 | 15°16 | 1°18 | 15° 7 | 15°58 | 12°26 | 2°44 | T 10 | | |
| W11 | 9 44 7 | 27°43'45 | 12♌51 | 28°30 | 12°14 | 3° 6 | 22°39 | 1°54 | 18°33 | 15°17 | 1°20 | 15°D 7 | 15°55 | 12°33 | 2°40 | W11 | | |
| T 12 | 9 48 4 | 28°43'53 | 26°22 | 0♌24 | 13°21 | 2°49 | 22°45 | 1°49 | 18°35 | 15°18 | 1°22 | 15°R 7 | 15°51 | 12°40 | 2°36 | T 12 | | |
| F 13 | 9 52 1 | 29°44'00 | 9♌29 | 2°19 | 14°27 | 2°33 | 22°52 | 1°45 | 18°36 | 15°19 | 1°23 | 15° 6 | 15°48 | 12°46 | 2°33 | F 13 | | |
| S 14 | 9 55 57 | 0♌44'04 | 22°17 | 4°15 | 15°33 | 2°17 | 22°58 | 1°41 | 18°38 | 15°20 | 1°25 | 15° 5 | 15°45 | 12°53 | 2°29 | S 14 | | |
| S 15 | 9 59 54 | 1°44'08 | 4♌50 | 6°11 | 16°39 | 2° 2 | 23° 5 | 1°38 | 18°40 | 15°20 | 1°26 | 15° 0 | 15°42 | 13° 0 | 2°25 | S 15 | | |
| M16 | 10 3 50 | 2°44'09 | 17° 9 | 8° 8 | 17°45 | 1°48 | 23°11 | 1°34 | 18°41 | 15°21 | 1°28 | 14°53 | 15°39 | 13° 7 | 2°22 | M16 | | |
| T 17 | 10 7 47 | 3°44'09 | 29°19 | 10° 5 | 18°50 | 1°35 | 23°18 | 1°30 | 18°43 | 15°22 | 1°30 | 14°43 | 15°36 | 13°13 | 2°18 | T 17 | | |
| W18 | 10 11 43 | 4°44'06 | 11♌23 | 12° 2 | 19°55 | 1°22 | 23°25 | 1°26 | 18°44 | 15°23 | 1°31 | 14°31 | 15°32 | 13°20 | 2°14 | W18 | | |
| T 19 | 10 15 40 | 5°44'02 | 23°20 | 13°59 | 21° 0 | 1°10 | 23°32 | 1°23 | 18°46 | 15°24 | 1°33 | 14°18 | 15°29 | 13°27 | 2°11 | T 19 | | |
| F 20 | 10 19 36 | 6°43'56 | 5♌14 | 15°56 | 22° 5 | 0°59 | 23°40 | 1°19 | 18°47 | 15°25 | 1°34 | 14° 4 | 15°26 | 13°33 | 2° 8 | F 20 | | |
| S 21 | 10 23 33 | 7°43'48 | 17° 5 | 17°52 | 23° 9 | 0°49 | 23°47 | 1°16 | 18°49 | 15°26 | 1°36 | 13°52 | 15°23 | 13°40 | 2° 4 | S 21 | | |
| S 22 | 10 27 30 | 8°43'38 | 28°56 | 19°48 | 24°13 | 0°40 | 23°55 | 1°12 | 18°50 | 15°27 | 1°38 | 13°42 | 15°20 | 13°47 | 2° 1 | S 22 | | |
| M23 | 10 31 26 | 9°43'26 | 10♌46 | 21°42 | 25°17 | 0°31 | 24° 3 | 1° 9 | 18°51 | 15°28 | 1°39 | 13°34 | 15°16 | 13°54 | 1°58 | M23 | | |
| T 24 | 10 35 23 | 10°43'11 | 22°41 | 23°34 | 26°20 | 0°23 | 24°11 | 1° 6 | 18°52 | 15°30 | 1°41 | 13°29 | 15°13 | 14° 0 | 1°55 | T 24 | | |
| W25 | 10 39 19 | 11°42'55 | 4♌41 | 25°24 | 27°23 | 0°16 | 24°19 | 1° 3 | 18°53 | 15°31 | 1°42 | 13°27 | 15°10 | 14° 7 | 1°52 | W25 | | |
| T 26 | 10 43 16 | 12°42'36 | 16°51 | 27°12 | 28°26 | 0°10 | 24°27 | 1° 0 | 18°55 | 15°32 | 1°44 | 13°D27 | 15° 7 | 14°14 | 1°49 | T 26 | | |
| F 27 | 10 47 12 | 13°42'15 | 29°16 | 28°57 | 29°28 | 0° 4 | 24°35 | 0°57 | 18°56 | 15°33 | 1°46 | 13°27 | 15° 4 | 14°20 | 1°46 | F 27 | | |
| S 28 | 10 51 9 | 14°41'52 | 12♌ 0 | 0♌39 | 0♌30 | 29♌59 | 24°44 | 0°54 | 18°57 | 15°35 | 1°47 | 13°R28 | 15° 1 | 14°27 | 1°44 | S 28 | | |
| S 29 | 10 55 5 | 15°41'26 | 25♌ 7 | 2♌16 | 1♌32 | 29♌56 | 24♌52 | 0♌51 | 18°58 | 15♌36 | 1♌49 | 13♌28 | 14♌57 | 14♌34 | 1♌41 | S 29 | | |

Delta T = 19m47s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1064
geocentric

MARCH 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|--------|--------|-------|--------|-------|------|--------|--------|--------|-------|------|---|-----|
| M 1 | 10 59 2 | 16°40'58 | 8°41 | 3°50 | 2°33 | 29°R52 | 25°8 1 | 0°R48 | 18°58 | 15°37 | 1°50 | 13°R25 | 14°M54 | 14°40 | 1°R39 | M 1 | | |
| T 2 | 11 2 59 | 17°40'27 | 22°45 | 5°18 | 3°34 | 29°50 | 25°10 | 0°46 | 18°59 | 15°39 | 1°52 | 13°M21 | 14°51 | 14°47 | 1°36 | T 2 | | |
| W 3 | 11 6 55 | 18°39'55 | 7°16 | 6°41 | 4°35 | 29°48 | 25°19 | 0°43 | 19° 0 | 15°40 | 1°53 | 13°15 | 14°48 | 14°54 | 1°34 | W 3 | | |
| T 4 | 11 10 52 | 19°39'19 | 22°13 | 7°59 | 5°35 | 29°48 | 25°28 | 0°41 | 19° 1 | 15°41 | 1°55 | 13° 7 | 14°45 | 15° 1 | 1°32 | T 4 | | |
| F 5 | 11 14 48 | 20°38'42 | 7°26 | 9°10 | 6°35 | 29°D48 | 25°37 | 0°39 | 19° 2 | 15°43 | 1°57 | 12°59 | 14°42 | 15° 7 | 1°29 | F 5 | | |
| S 6 | 11 18 45 | 21°38'02 | 22°45 | 10°16 | 7°34 | 29°48 | 25°46 | 0°37 | 19° 2 | 15°44 | 1°58 | 12°51 | 14°38 | 15°14 | 1°27 | S 6 | | |
| S 7 | 11 22 41 | 22°37'21 | 7°59 | 11°15 | 8°33 | 29°49 | 25°56 | 0°34 | 19° 3 | 15°46 | 2° 0 | 12°45 | 14°35 | 15°21 | 1°25 | S 7 | | |
| M 8 | 11 26 38 | 23°36'37 | 22°59 | 12° 7 | 9°31 | 29°51 | 26° 5 | 0°32 | 19° 3 | 15°47 | 2° 1 | 12°41 | 14°32 | 15°27 | 1°23 | M 8 | | |
| T 9 | 11 30 34 | 24°35'51 | 7°M36 | 12°52 | 10°29 | 29°54 | 26°15 | 0°31 | 19° 4 | 15°49 | 2° 3 | 12°D40 | 14°29 | 15°34 | 1°22 | T 9 | | |
| W10 | 11 34 31 | 25°35'04 | 21°45 | 13°30 | 11°26 | 29°58 | 26°25 | 0°29 | 19° 4 | 15°50 | 2° 4 | 12°40 | 14°26 | 15°41 | 1°20 | W10 | | |
| T 11 | 11 38 27 | 26°34'15 | 5°27 | 14° 0 | 12°23 | 0°2 | 26°35 | 0°27 | 19° 5 | 15°52 | 2° 6 | 12°41 | 14°22 | 15°47 | 1°18 | T 11 | | |
| F 12 | 11 42 24 | 27°33'24 | 18°42 | 14°24 | 13°19 | 0° 7 | 26°45 | 0°26 | 19° 5 | 15°53 | 2° 7 | 12°42 | 14°19 | 15°54 | 1°17 | F 12 | | |
| S 13 | 11 46 21 | 28°32'31 | 1°33 | 14°40 | 14°15 | 0°12 | 26°55 | 0°24 | 19° 5 | 15°55 | 2° 9 | 12°R43 | 14°16 | 16° 1 | 1°15 | S 13 | | |
| S 14 | 11 50 17 | 29°31'36 | 14° 5 | 14°49 | 15°10 | 0°18 | 27° 5 | 0°23 | 19° 5 | 15°57 | 2°10 | 12°41 | 14°13 | 16° 8 | 1°14 | S 14 | | |
| M15 | 11 54 14 | 0°Y30'40 | 26°21 | 14°R51 | 16° 5 | 0°25 | 27°15 | 0°21 | 19° 6 | 15°58 | 2°11 | 12°38 | 14°10 | 16°14 | 1°13 | M15 | | |
| T 16 | 11 58 10 | 1°29'42 | 8°26 | 14°46 | 16°59 | 0°32 | 27°26 | 0°20 | 19° 6 | 16° 0 | 2°13 | 12°34 | 14° 7 | 16°21 | 1°12 | T 16 | | |
| W17 | 12 2 7 | 2°28'42 | 20°23 | 14°34 | 17°52 | 0°40 | 27°36 | 0°19 | 19° 6 | 16° 2 | 2°14 | 12°27 | 14° 3 | 16°28 | 1°11 | W17 | | |
| T 18 | 12 6 3 | 3°27'39 | 2°16 | 14°16 | 18°45 | 0°49 | 27°47 | 0°18 | 19°R 6 | 16° 4 | 2°16 | 12°20 | 14° 0 | 16°34 | 1°10 | T 18 | | |
| F 19 | 12 10 0 | 4°26'35 | 14° 6 | 13°53 | 19°37 | 0°58 | 27°57 | 0°17 | 19° 6 | 16° 5 | 2°17 | 12°13 | 13°57 | 16°41 | 1° 9 | F 19 | | |
| S 20 | 12 13 56 | 5°25'29 | 25°57 | 13°24 | 20°29 | 1° 8 | 28° 8 | 0°17 | 19° 6 | 16° 7 | 2°19 | 12° 6 | 13°54 | 16°48 | 1° 8 | S 20 | | |
| S 21 | 12 17 53 | 6°24'21 | 7°49 | 12°51 | 21°19 | 1°18 | 28°19 | 0°16 | 19° 6 | 16° 9 | 2°20 | 12° 0 | 13°51 | 16°55 | 1° 8 | S 21 | | |
| M22 | 12 21 50 | 7°23'11 | 19°45 | 12°14 | 22° 9 | 1°29 | 28°30 | 0°16 | 19° 5 | 16°11 | 2°21 | 11°56 | 13°47 | 17° 1 | 1° 7 | M22 | | |
| T 23 | 12 25 46 | 8°21'59 | 1°47 | 11°34 | 22°58 | 1°40 | 28°41 | 0°15 | 19° 5 | 16°13 | 2°23 | 11°54 | 13°44 | 17° 8 | 1° 7 | T 23 | | |
| W24 | 12 29 43 | 9°20'45 | 13°56 | 10°52 | 23°47 | 1°52 | 28°52 | 0°15 | 19° 5 | 16°15 | 2°24 | 11°D54 | 13°41 | 17°15 | 1° 7 | W24 | | |
| T 25 | 12 33 39 | 10°19'29 | 26°16 | 10° 8 | 24°34 | 2° 5 | 29° 4 | 0°15 | 19° 4 | 16°16 | 2°25 | 11°54 | 13°38 | 17°21 | 1° 6 | T 25 | | |
| F 26 | 12 37 36 | 11°18'10 | 8°II48 | 9°24 | 25°21 | 2°18 | 29°15 | 0°D15 | 19° 4 | 16°18 | 2°27 | 11°56 | 13°35 | 17°28 | 1°D 6 | F 26 | | |
| S 27 | 12 41 32 | 12°16'49 | 21°37 | 8°40 | 26° 7 | 2°32 | 29°26 | 0°15 | 19° 4 | 16°20 | 2°28 | 11°58 | 13°32 | 17°35 | 1° 6 | S 27 | | |
| S 28 | 12 45 29 | 13°15'26 | 4°45 | 7°57 | 26°52 | 2°46 | 29°38 | 0°15 | 19° 3 | 16°22 | 2°29 | 11°59 | 13°28 | 17°41 | 1° 7 | S 28 | | |
| M29 | 12 49 25 | 14°14'01 | 18°14 | 7°15 | 27°35 | 3° 0 | 29°49 | 0°15 | 19° 3 | 16°24 | 2°30 | 11°R59 | 13°25 | 17°48 | 1° 7 | M29 | | |
| T 30 | 12 53 22 | 15°12'34 | 2°8 | 6°36 | 28°18 | 3°15 | 0°II 1 | 0°15 | 19° 2 | 16°26 | 2°32 | 11°58 | 13°22 | 17°55 | 1° 7 | T 30 | | |
| W31 | 12 57 19 | 16°Y11'04 | 16°25 | 6°Y 1 | 29°8 0 | 3°23 | 0°II3 | 0°16 | 19°2 1 | 16°28 | 2°33 | 11°M56 | 13°M19 | 18°Y 1 | 1°8 | W31 | | |

Delta T = 19m47s Julian Calendar 1 March 1064 == Greg. Calendar 7 March 1064

APRIL 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|-------|--------|-------|--------|-------|------|--------|--------|--------|------|------|---|-----|
| T 1 | 13 1 15 | 17°Y 9'32 | 1°M 4 | 5°R28 | 29°841 | 3°247 | 0°II24 | 0°16 | 19°R 1 | 16°30 | 2°34 | 11°R53 | 13°M16 | 18°Y 8 | 1°8 | T 1 | | |
| F 2 | 13 5 12 | 18° 7'57 | 15°59 | 5°Y 0 | 0°II20 | 4° 3 | 0°36 | 0°17 | 19°2 0 | 16°32 | 2°35 | 11°M50 | 13°13 | 18°15 | 1° 9 | F 2 | | |
| S 3 | 13 9 8 | 19° 6'21 | 1°4 | 4°36 | 0°59 | 4°20 | 0°48 | 0°18 | 18°59 | 16°34 | 2°37 | 11°47 | 13° 9 | 18°22 | 1°10 | S 3 | | |
| S 4 | 13 13 5 | 20° 4'43 | 16° 8 | 4°17 | 1°36 | 4°37 | 1° 0 | 0°19 | 18°58 | 16°36 | 2°38 | 11°44 | 13° 6 | 18°28 | 1°11 | S 4 | | |
| M 5 | 13 17 1 | 21° 3'02 | 1°M 3 | 4° 2 | 2°12 | 4°55 | 1°12 | 0°20 | 18°57 | 16°38 | 2°39 | 11°43 | 13° 3 | 18°35 | 1°12 | M 5 | | |
| T 6 | 13 20 58 | 22° 1'20 | 15°41 | 3°53 | 2°46 | 5°13 | 1°24 | 0°21 | 18°56 | 16°40 | 2°40 | 11°D43 | 13° 0 | 18°42 | 1°13 | T 6 | | |
| W 7 | 13 24 54 | 22°59'37 | 29°56 | 3°D48 | 3°20 | 5°32 | 1°37 | 0°22 | 18°56 | 16°42 | 2°41 | 11°44 | 12°57 | 18°48 | 1°14 | W 7 | | |
| T 8 | 13 28 51 | 23°57'51 | 13°46 | 3°48 | 3°51 | 5°50 | 1°49 | 0°23 | 18°54 | 16°44 | 2°42 | 11°45 | 12°53 | 18°55 | 1°15 | T 8 | | |
| F 9 | 13 32 47 | 24°56'04 | 27° 9 | 3°54 | 4°22 | 6°10 | 2° 1 | 0°25 | 18°53 | 16°47 | 2°43 | 11°46 | 12°50 | 19° 2 | 1°17 | F 9 | | |
| S 10 | 13 36 44 | 25°54'16 | 10°3 | 4° 4 | 4°51 | 6°29 | 2°14 | 0°26 | 18°52 | 16°49 | 2°44 | 11°47 | 12°47 | 19° 8 | 1°18 | S 10 | | |
| S 11 | 13 40 41 | 26°52'26 | 22°43 | 4°18 | 5°18 | 6°49 | 2°26 | 0°28 | 18°51 | 16°51 | 2°46 | 11°R48 | 12°44 | 19°15 | 1°20 | S 11 | | |
| M12 | 13 44 37 | 27°50'35 | 5°2 | 4°38 | 5°43 | 7°10 | 2°39 | 0°30 | 18°50 | 16°53 | 2°47 | 11°48 | 12°41 | 19°22 | 1°21 | M12 | | |
| T 13 | 13 48 34 | 28°48'42 | 17° 7 | 5° 1 | 6° 7 | 7°30 | 2°51 | 0°32 | 18°49 | 16°55 | 2°48 | 11°47 | 12°38 | 19°29 | 1°23 | T 13 | | |
| W14 | 13 52 30 | 29°46'47 | 29° 3 | 5°30 | 6°30 | 7°51 | 3° 4 | 0°34 | 18°47 | 16°57 | 2°49 | 11°46 | 12°34 | 19°35 | 1°25 | W14 | | |
| T 15 | 13 56 27 | 0°B44'51 | 10°K54 | 6° 2 | 6°50 | 8°13 | 3°16 | 0°36 | 18°46 | 16°59 | 2°50 | 11°44 | 12°31 | 19°42 | 1°27 | T 15 | | |
| F 16 | 14 0 23 | 1°42'54 | 22°44 | 6°38 | 7° 8 | 8°35 | 3°29 | 0°38 | 18°45 | 17° 2 | 2°50 | 11°43 | 12°28 | 19°49 | 1°29 | F 16 | | |
| S 17 | 14 4 20 | 2°40'55 | 4°Y36 | 7°18 | 7°25 | 8°57 | 3°42 | 0°40 | 18°43 | 17° 4 | 2°51 | 11°41 | 12°25 | 19°55 | 1°31 | S 17 | | |
| S 18 | 14 8 16 | 3°38'54 | 16°33 | 8° 2 | 7°40 | 9°19 | 3°55 | 0°42 | 18°42 | 17° 6 | 2°52 | 11°40 | 12°22 | 20° 2 | 1°34 | S 18 | | |
| M19 | 14 12 13 | 4°36'52 | 28°37 | 8°49 | 7°52 | 9°42 | 4° 8 | 0°45 | 18°40 | 17° 8 | 2°53 | 11°40 | 12°19 | 20° 9 | 1°36 | M19 | | |
| T 20 | 14 16 10 | 5°34'49 | 10°B50 | 9°40 | 8° 3 | 10° 5 | 4°20 | 0°47 | 18°39 | 17°10 | 2°54 | 11°D40 | 12°15 | 20°15 | 1°39 | T 20 | | |
| W21 | 14 20 6 | 6°32'44 | 23°14 | 10°34 | 8°11 | 10°28 | 4°33 | 0°50 | 18°37 | 17°13 | 2°55 | 11°40 | 12°12 | 20°22 | 1°41 | W21 | | |
| T 22 | 14 24 3 | 7°30'37 | 5°II50 | 11°31 | 8°17 | 10°52 | 4°46 | 0°53 | 18°36 | 17°15 | 2°56 | 11°40 | 12° 9 | 20°29 | 1°44 | T 22 | | |
| F 23 | 14 27 59 | 8°28'29 | 18°39 | 12°32 | 8°21 | 11°16 | 4°59 | 0°56 | 18°34 | 17°17 | 2°57 | 11°40 | 12° 6 | 20°35 | 1°47 | F 23 | | |
| S 24 | 14 31 56 | 9°26'19 | 1°43 | 13°35 | 8°R22 | 11°40 | 5°13 | 0°58 | 18°32 | 17°19 | 2°57 | 11°41 | 12° 3 | 20°42 | 1°50 | S 24 | | |
| S 25 | 14 35 52 | 10°24'07 | 15° 1 | 14°41 | 8°22 | 12° 4 | 5°26 | 1° 1 | 18°31 | 17°22 | 2°58 | 11°41 | 11°59 | 20°49 | 1°53 | S 25 | | |
| M26 | 14 39 49 | 11°21'54 | 28°36 | 15°50 | 8°18 | 12°29 | 5°39 | 1° 5 | 18°29 | 17°24 | 2°59 | 11°41 | 11°56 | 20°56 | 1°56 | M26 | | |
| T 27 | 14 43 45 | 12°19'38 | 12°28 | 17° 2 | 8°13 | 12°54 | 5°52 | 1° 8 | 18°27 | 17°26 | 3° 0 | 11°41 | 11°53 | 21° 2 | 1°59 | T 27 | | |
| W28 | 14 47 42 | 13°17'21 | 26°35 | 18°16 | 8° 5 | 13°19 | 6° 5 | 1° 11 | 18°25 | 17°28 | 3° 0 | 11°41 | 11°50 | 21° 9 | 2° 2 | W28 | | |
| T 29 | 14 51 39 | 14°15'03 | 10°M57 | 19°33 | 7°54 | 13°45 | 6°19 | 1°15 | 18°23 | 17°31 | 3° 1 | 11°41 | 11°47 | 21°16 | 2° 5 | T 29 | | |
| F 30 | 14 55 35 | 15°12'42 | 25°M30 | 20°Y53 | 7°II41 | 14°21 | 6°II32 | 1°18 | 18°22 | 17°33 | 3°2 | 11°M41 | 11°M44 | 21°Y22 | 2°9 | F 30 | | |

Delta T = 19m47s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1064
geocentric

MAY 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|-------|-------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| S 1 | 14 59 32 | 16♁10'20 | 10♁10 | 22♃15 | 7♁26 | 14♁37 | 6♁45 | 1♁22 | 18♁20 | 17♁35 | 3♁ 2 | 11♁42 | 11♁40 | 21♁29 | 2♁12 | S 1 | | | | | | | | |
| S 2 | 15 3 28 | 17° 7'57 | 24°51 | 23°39 | 7♁ 8 | 15° 3 | 6°59 | 1°25 | 18♁18 | 17°37 | 3° 3 | 11°42 | 11°37 | 21°36 | 2°16 | S 2 | | | | | | | | |
| M 3 | 15 7 25 | 18° 5'32 | 9♁26 | 25° 6 | 6°48 | 15°29 | 7°12 | 1°29 | 18°16 | 17°40 | 3° 4 | 11°R42 | 11°34 | 21°42 | 2°20 | M 3 | | | | | | | | |
| T 4 | 15 11 21 | 19° 3'06 | 23°51 | 26°35 | 6°25 | 15°56 | 7°25 | 1°33 | 18°14 | 17°42 | 3° 4 | 11°42 | 11°31 | 21°49 | 2°24 | T 4 | | | | | | | | |
| W 5 | 15 15 18 | 20° 0'39 | 7♁59 | 28° 7 | 6° 1 | 16°23 | 7°39 | 1°37 | 18°12 | 17°44 | 3° 5 | 11°42 | 11°28 | 21°56 | 2°27 | W 5 | | | | | | | | |
| T 6 | 15 19 14 | 20°58'10 | 21°45 | 29°41 | 5°34 | 16°50 | 7°52 | 1°41 | 18°10 | 17°46 | 3° 5 | 11°41 | 11°24 | 22° 2 | 2°31 | T 6 | | | | | | | | |
| F 7 | 15 23 11 | 21°55'41 | 5♁10 | 1♁18 | 5° 5 | 17°18 | 8° 6 | 1°45 | 18° 8 | 17°49 | 3° 6 | 11°39 | 11°21 | 22° 9 | 2°35 | F 7 | | | | | | | | |
| S 8 | 15 27 8 | 22°53'11 | 18°11 | 2°57 | 4°35 | 17°45 | 8°19 | 1°49 | 18° 5 | 17°51 | 3° 6 | 11°38 | 11°18 | 22°16 | 2°40 | S 8 | | | | | | | | |
| S 9 | 15 31 4 | 23°50'40 | 0♁51 | 4°38 | 4° 3 | 18°13 | 8°33 | 1°53 | 18° 3 | 17°53 | 3° 7 | 11°37 | 11°15 | 22°23 | 2°44 | S 9 | | | | | | | | |
| M10 | 15 35 1 | 24°48'08 | 13°13 | 6°22 | 3°30 | 18°41 | 8°46 | 1°58 | 18° 1 | 17°55 | 3° 7 | 11°36 | 11°12 | 22°29 | 2°48 | M10 | | | | | | | | |
| T 11 | 15 38 57 | 25°45'35 | 25°20 | 8° 8 | 2°55 | 19° 9 | 9° 0 | 2° 2 | 17°59 | 17°57 | 3° 8 | 11°D36 | 11° 9 | 22°36 | 2°53 | T 11 | | | | | | | | |
| W12 | 15 42 54 | 26°43'01 | 7♁17 | 9°56 | 2°19 | 19°38 | 9°14 | 2° 7 | 17°57 | 18° 0 | 3° 8 | 11°36 | 11° 5 | 22°43 | 2°57 | W12 | | | | | | | | |
| T 13 | 15 46 50 | 27°40'27 | 19° 8 | 11°46 | 1°43 | 20° 6 | 9°27 | 2°11 | 17°54 | 18° 2 | 3° 8 | 11°37 | 11° 2 | 22°49 | 3° 2 | T 13 | | | | | | | | |
| F 14 | 15 50 47 | 28°37'51 | 0♁59 | 13°39 | 1° 5 | 20°35 | 9°41 | 2°16 | 17°52 | 18° 4 | 3° 9 | 11°38 | 10°59 | 22°56 | 3° 6 | F 14 | | | | | | | | |
| S 15 | 15 54 43 | 29°35'15 | 12°53 | 15°34 | 0°28 | 21° 4 | 9°55 | 2°21 | 17°50 | 18° 6 | 3° 9 | 11°40 | 10°56 | 23° 3 | 3°11 | S 15 | | | | | | | | |
| S 16 | 15 58 40 | 0♁32'39 | 24°55 | 17°32 | 29♁50 | 21°33 | 10° 8 | 2°26 | 17°48 | 18° 9 | 3° 9 | 11°41 | 10°53 | 23° 9 | 3°16 | S 16 | | | | | | | | |
| M17 | 16 2 37 | 1°30'01 | 7♁ 8 | 19°31 | 29°13 | 22° 3 | 10°22 | 2°30 | 17°45 | 18°11 | 3° 9 | 11°R42 | 10°50 | 23°16 | 3°21 | M17 | | | | | | | | |
| T 18 | 16 6 33 | 2°27'23 | 19°34 | 21°33 | 28°36 | 22°32 | 10°36 | 2°35 | 17°43 | 18°13 | 3°10 | 11°41 | 10°46 | 23°23 | 3°26 | T 18 | | | | | | | | |
| W19 | 16 10 30 | 3°24'45 | 2♁15 | 23°36 | 27°59 | 23° 2 | 10°49 | 2°41 | 17°41 | 18°15 | 3°10 | 11°40 | 10°43 | 23°29 | 3°31 | W19 | | | | | | | | |
| T 20 | 16 14 26 | 4°22'05 | 15°12 | 25°41 | 27°23 | 23°32 | 11° 3 | 2°46 | 17°38 | 18°17 | 3°10 | 11°38 | 10°40 | 23°36 | 3°36 | T 20 | | | | | | | | |
| F 21 | 16 18 23 | 5°19'25 | 28°23 | 27°48 | 26°48 | 24° 2 | 11°17 | 2°51 | 17°36 | 18°20 | 3°10 | 11°35 | 10°37 | 23°43 | 3°41 | F 21 | | | | | | | | |
| S 22 | 16 22 19 | 6°16'44 | 11♁50 | 29°56 | 26°15 | 24°32 | 11°31 | 2°56 | 17°34 | 18°22 | 3°10 | 11°31 | 10°34 | 23°50 | 3°46 | S 22 | | | | | | | | |
| S 23 | 16 26 16 | 7°14'02 | 25°29 | 2♁ 6 | 25°43 | 25° 3 | 11°44 | 3° 1 | 17°31 | 18°24 | 3°11 | 11°28 | 10°30 | 23°56 | 3°51 | S 23 | | | | | | | | |
| M24 | 16 30 12 | 8°11'19 | 9♁20 | 4°16 | 25°12 | 25°33 | 11°58 | 3° 7 | 17°29 | 18°26 | 3°11 | 11°25 | 10°27 | 24° 3 | 3°57 | M24 | | | | | | | | |
| T 25 | 16 34 9 | 9° 8'35 | 23°19 | 6°27 | 24°44 | 26° 4 | 12°12 | 3°12 | 17°26 | 18°28 | 3°11 | 11°23 | 10°24 | 24°10 | 4° 2 | T 25 | | | | | | | | |
| W26 | 16 38 6 | 10° 5'50 | 7♁26 | 8°39 | 24°17 | 26°35 | 12°26 | 3°18 | 17°24 | 18°30 | 3°11 | 11°D22 | 10°21 | 24°16 | 4° 8 | W26 | | | | | | | | |
| T 27 | 16 42 2 | 11° 3'05 | 21°38 | 10°51 | 23°52 | 27° 6 | 12°39 | 3°23 | 17°22 | 18°32 | 3°11 | 11°22 | 10°18 | 24°23 | 4°13 | T 27 | | | | | | | | |
| F 28 | 16 45 59 | 12° 0'18 | 5♁54 | 13° 2 | 23°29 | 27°37 | 12°53 | 3°29 | 17°19 | 18°35 | 3°R11 | 11°23 | 10°15 | 24°30 | 4°19 | F 28 | | | | | | | | |
| S 29 | 16 49 55 | 12°57'31 | 20°10 | 15°14 | 23° 9 | 28° 9 | 13° 7 | 3°35 | 17°17 | 18°37 | 3°11 | 11°25 | 10°11 | 24°36 | 4°25 | S 29 | | | | | | | | |
| S 30 | 16 53 52 | 13°54'43 | 4♁25 | 17°24 | 22°51 | 28°40 | 13°21 | 3°41 | 17°14 | 18°39 | 3°11 | 11°R26 | 10° 8 | 24°43 | 4°31 | S 30 | | | | | | | | |
| M31 | 16 57 48 | 14♁51'54 | 18♁34 | 19♁34 | 22♁35 | 29♁12 | 13♁34 | 3♁47 | 17♁12 | 18♁41 | 3♁11 | 11♁26 | 10♁ 5 | 24♁50 | 4♁36 | M31 | | | | | | | | |

Delta T = 19m46s Julian Calendar 1 May 1064 == Greg. Calendar 7 May 1064

JUNE 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|--------|-------|-------|------|--------|-------|-------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| T 1 | 17 1 45 | 15♁49'05 | 2♁35 | 21♁43 | 22°R21 | 29♁44 | 13♁48 | 3♁52 | 17°R 9 | 18♁43 | 3°R11 | 11°R24 | 10♁ 2 | 24♁56 | 4♁42 | T 1 | | | | | | | | |
| W 2 | 17 5 41 | 16°46'15 | 16°24 | 23°50 | 22♁10 | 0♁16 | 14° 2 | 3°58 | 17°♁ 7 | 18°45 | 3°R11 | 11♁21 | 9°59 | 25° 3 | 4°48 | W 2 | | | | | | | | |
| T 3 | 17 9 38 | 17°43'25 | 29°58 | 25°56 | 22° 1 | 0°48 | 14°16 | 4° 4 | 17° 5 | 18°47 | 3°10 | 11°16 | 9°56 | 25°10 | 4°54 | T 3 | | | | | | | | |
| F 4 | 17 13 35 | 18°40'35 | 13♁13 | 28° 1 | 21°55 | 1°20 | 14°29 | 4°11 | 17° 2 | 18°49 | 3°10 | 11°11 | 9°52 | 25°16 | 5° 0 | F 4 | | | | | | | | |
| S 5 | 17 17 31 | 19°37'45 | 26°10 | 0♁ 4 | 21°51 | 1°52 | 14°43 | 4°17 | 17° 0 | 18°51 | 3°10 | 11° 4 | 9°49 | 25°23 | 5° 7 | S 5 | | | | | | | | |
| S 6 | 17 21 28 | 20°34'54 | 8♁48 | 2° 4 | 21°D50 | 2°25 | 14°57 | 4°23 | 16°57 | 18°53 | 3°10 | 10°58 | 9°46 | 25°30 | 5°13 | S 6 | | | | | | | | |
| M 7 | 17 25 24 | 21°32'04 | 21°10 | 4° 3 | 21°50 | 2°58 | 15°10 | 4°29 | 16°55 | 18°55 | 3°10 | 10°53 | 9°43 | 25°36 | 5°19 | M 7 | | | | | | | | |
| T 8 | 17 29 21 | 22°29'13 | 3♁17 | 6° 1 | 21°53 | 3°30 | 15°24 | 4°35 | 16°52 | 18°57 | 3° 9 | 10°50 | 9°40 | 25°43 | 5°25 | T 8 | | | | | | | | |
| W 9 | 17 33 17 | 23°26'23 | 15°14 | 7°56 | 21°59 | 4° 3 | 15°38 | 4°42 | 16°50 | 18°59 | 3° 9 | 10°48 | 9°36 | 25°50 | 5°32 | W 9 | | | | | | | | |
| T 10 | 17 37 14 | 24°23'33 | 27° 6 | 9°49 | 22° 6 | 4°36 | 15°52 | 4°48 | 16°47 | 19° 1 | 3° 9 | 10°D47 | 9°33 | 25°57 | 5°38 | T 10 | | | | | | | | |
| F 11 | 17 41 10 | 25°20'42 | 8♁57 | 11°40 | 22°16 | 5°10 | 16° 5 | 4°55 | 16°45 | 19° 3 | 3° 9 | 10°48 | 9°30 | 26° 3 | 5°45 | F 11 | | | | | | | | |
| S 12 | 17 45 7 | 26°17'52 | 20°53 | 13°29 | 22°28 | 5°43 | 16°19 | 5° 1 | 16°43 | 19° 4 | 3° 8 | 10°49 | 9°27 | 26°10 | 5°51 | S 12 | | | | | | | | |
| S 13 | 17 49 4 | 27°15'03 | 2♁58 | 15°15 | 22°42 | 6°16 | 16°32 | 5° 8 | 16°40 | 19° 6 | 3° 8 | 10°51 | 9°24 | 26°17 | 5°58 | S 13 | | | | | | | | |
| M14 | 17 53 0 | 28°12'13 | 15°16 | 17° 0 | 22°58 | 6°50 | 16°46 | 5°14 | 16°38 | 19° 8 | 3° 8 | 10°R51 | 9°21 | 26°23 | 6° 4 | M14 | | | | | | | | |
| T 15 | 17 56 57 | 29° 9'24 | 27°52 | 18°43 | 23°15 | 7°24 | 17° 0 | 5°21 | 16°36 | 19°10 | 3° 7 | 10°49 | 9°17 | 26°30 | 6°11 | T 15 | | | | | | | | |
| W16 | 18 0 53 | 0♁ 6'35 | 10♁48 | 20°24 | 23°35 | 7°57 | 17°13 | 5°28 | 16°33 | 19°12 | 3° 7 | 10°46 | 9°14 | 26°37 | 6°18 | W16 | | | | | | | | |
| T 17 | 18 4 50 | 1° 3'47 | 24° 4 | 22° 2 | 23°56 | 8°31 | 17°27 | 5°34 | 16°31 | 19°14 | 3° 6 | 10°40 | 9°11 | 26°43 | 6°25 | T 17 | | | | | | | | |
| F 18 | 18 8 46 | 2° 0'58 | 7♁40 | 23°39 | 24°19 | 9° 5 | 17°40 | 5°41 | 16°28 | 19°15 | 3° 6 | 10°33 | 9° 8 | 26°50 | 6°31 | F 18 | | | | | | | | |
| S 19 | 18 12 43 | 2°58'10 | 21°33 | 25°13 | 24°44 | 9°40 | 17°54 | 5°48 | 16°26 | 19°17 | 3° 5 | 10°25 | 9° 5 | 26°57 | 6°38 | S 19 | | | | | | | | |
| S 20 | 18 16 40 | 3°55'22 | 5♁39 | 26°45 | 25°10 | 10°14 | 18° 7 | 5°55 | 16°24 | 19°19 | 3° 5 | 10°16 | 9° 2 | 27° 3 | 6°45 | S 20 | | | | | | | | |
| M21 | 18 20 36 | 4°52'34 | 19°53 | 28°15 | 25°38 | 10°48 | 18°21 | 6° 2 | 16°22 | 19°21 | 3° 4 | 10° 9 | 8°58 | 27°10 | 6°52 | M21 | | | | | | | | |
| T 22 | 18 24 33 | 5°49'46 | 4♁10 | 29°43 | 26° 7 | 11°23 | 18°34 | 6° 9 | 16°19 | 19°22 | 3° 4 | 10° 3 | 8°55 | 27°17 | 6°59 | T 22 | | | | | | | | |
| W23 | 18 28 29 | 6°46'58 | 18°27 | 1♁ 9 | 26°38 | 11°58 | 18°47 | 6°16 | 16°17 | 19°24 | 3° 3 | 10° 0 | 8°52 | 27°23 | 7° 6 | W23 | | | | | | | | |
| T 24 | 18 32 26 | 7°44'09 | 2♁41 | 2°33 | 27°10 | 12°32 | 19° 1 | 6°23 | 16°15 | 19°26 | 3° 3 | 9°D58 | 8°49 | 27°30 | 7°13 | T 24 | | | | | | | | |
| F 25 | 18 36 22 | 8°41'21 | 16°48 | 3°54 | 27°44 | 13° 7 | 19°14 | 6°30 | 16°13 | 19°27 | 3° 2 | 9°58 | 8°46 | 27°37 | 7°20 | F 25 | | | | | | | | |
| S 26 | 18 40 19 | 9°38'33 | 0♁49 | 5°13 | 28°18 | 13°42 | 19°27 | 6°37 | 16°10 | 19°29 | 3° 1 | 9°59 | 8°42 | 27°43 | 7°27 | S 26 | | | | | | | | |
| S 27 | 18 44 15 | 10°35'46 | 14°42 | 6°30 | 28°54 | 14°17 | 19°41 | 6°44 | 16° 8 | 19°30 | 3° 1 | 9°R59 | 8°39 | 27°50 | 7°35 | S 27 | | | | | | | | |
| M28 | 18 48 12 | 11°32'58 | 28°27 | 7°44 | 29°32 | 14°53 | 19°54 | 6°51 | 16° 6 | 19°32 | 3° 0 | 9°58 | 8°36 | 27°57 | 7°42 | M28 | | | | | | | | |
| T 29 | 18 52 9 | 12°30'11 | 12♁ 3 | 8°56 | 0♁10 | 15°28 | 20° 7 | 6°58 | 16° 4 | 19°33 | 2°59 | 9°54 | 8°33 | 28° 3 | 7°49 | T 29 | | | | | | | | |
| W30 | 18 56 5 | 13♁27'24 | 25♁28 | 10♁ 6 | 0♁49 | 16♁ 3 | 20♁20 | 7♁ 6 | 16♁ 2 | 19♁35 | 2♁59 | 9♁48 | 8♁30 | 28♁10 | 7♁56 | W30 | | | | | | | | |

Delta T = 19m46s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1064
geocentric

JULY 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|------|-------|-------|------|
| T 1 | 19 0 2 | 14♌24'38 | 8♌41 | 11♌12 | 1♏30 | 16♏39 | 20♏33 | 7♏13 | 16°R 0 | 19♏36 | 2°R58 | 9°R39 | 8♏27 | 28♏17 | 8♏4 | T 1 |
| F 2 | 19 3 58 | 15°21'52 | 21°41 | 12°17 | 2°11 | 17°14 | 20°46 | 7°20 | 15♌58 | 19°38 | 2♏57 | 9♏29 | 8°23 | 28°24 | 8°11 | F 2 |
| S 3 | 19 7 55 | 16°19'07 | 4♌26 | 13°18 | 2°54 | 17°50 | 20°59 | 7°27 | 15°56 | 19°39 | 2°56 | 9°17 | 8°20 | 28°30 | 8°18 | S 3 |
| S 4 | 19 11 51 | 17°16'23 | 16°56 | 14°17 | 3°37 | 18°26 | 21°12 | 7°35 | 15°54 | 19°41 | 2°55 | 9°6 | 8°17 | 28°37 | 8°26 | S 4 |
| M 5 | 19 15 48 | 18°13'39 | 29°13 | 15°12 | 4°22 | 19°2 | 21°25 | 7°42 | 15°52 | 19°42 | 2°55 | 8°56 | 8°14 | 28°44 | 8°33 | M 5 |
| T 6 | 19 19 44 | 19°10'57 | 11♏17 | 16°5 | 5°7 | 19°38 | 21°38 | 7°49 | 15°50 | 19°43 | 2°54 | 8°48 | 8°11 | 28°50 | 8°41 | T 6 |
| W 7 | 19 23 41 | 20°8'15 | 23°12 | 16°54 | 5°53 | 20°14 | 21°51 | 7°57 | 15°48 | 19°45 | 2°53 | 8°43 | 8°8 | 28°57 | 8°48 | W 7 |
| T 8 | 19 27 38 | 21°5'34 | 5♏2 | 17°40 | 6°40 | 20°50 | 22°4 | 8°4 | 15°46 | 19°46 | 2°52 | 8°39 | 8°4 | 29°4 | 8°56 | T 8 |
| F 9 | 19 31 34 | 22°2'55 | 16°52 | 18°22 | 7°28 | 21°27 | 22°17 | 8°12 | 15°44 | 19°47 | 2°51 | 8°38 | 8°1 | 29°10 | 9°3 | F 9 |
| S 10 | 19 35 31 | 23°0'16 | 28°47 | 19°1 | 8°16 | 22°3 | 22°29 | 8°19 | 15°43 | 19°48 | 2°50 | 8°D38 | 7°58 | 29°17 | 9°11 | S 10 |
| S 11 | 19 39 27 | 23°57'39 | 10♏52 | 19°36 | 9°6 | 22°40 | 22°42 | 8°27 | 15°41 | 19°50 | 2°49 | 8°R38 | 7°55 | 29°24 | 9°18 | S 11 |
| M12 | 19 43 24 | 24°55'03 | 23°12 | 20°6 | 9°56 | 23°16 | 22°55 | 8°34 | 15°39 | 19°51 | 2°49 | 8°38 | 7°52 | 29°30 | 9°26 | M12 |
| T 13 | 19 47 20 | 25°52'28 | 5♏53 | 20°33 | 10°46 | 23°53 | 23°7 | 8°42 | 15°38 | 19°52 | 2°48 | 8°35 | 7°48 | 29°37 | 9°34 | T 13 |
| W14 | 19 51 17 | 26°49'54 | 18°57 | 20°55 | 11°38 | 24°30 | 23°20 | 8°49 | 15°36 | 19°53 | 2°47 | 8°30 | 7°45 | 29°44 | 9°41 | W14 |
| T 15 | 19 55 13 | 27°47'21 | 2♌26 | 21°12 | 12°29 | 25°7 | 23°32 | 8°57 | 15°34 | 19°54 | 2°46 | 8°22 | 7°42 | 29°50 | 9°49 | T 15 |
| F 16 | 19 59 10 | 28°44'50 | 16°21 | 21°25 | 13°22 | 25°44 | 23°45 | 9°4 | 15°33 | 19°55 | 2°45 | 8°13 | 7°39 | 29°57 | 9°57 | F 16 |
| S 17 | 20 3 7 | 29°42'20 | 0♏36 | 21°33 | 14°15 | 26°21 | 23°57 | 9°12 | 15°31 | 19°56 | 2°44 | 8°1 | 7°36 | 0♏4 | 10°4 | S 17 |
| S 18 | 20 7 3 | 0♏39'50 | 15°7 | 21°R35 | 15°9 | 26°58 | 24°9 | 9°20 | 15°30 | 19°57 | 2°43 | 7°50 | 7°33 | 0°10 | 10°12 | S 18 |
| M19 | 20 11 0 | 1°37'22 | 29°48 | 21°33 | 16°3 | 27°35 | 24°21 | 9°27 | 15°28 | 19°58 | 2°42 | 7°40 | 7°29 | 0°17 | 10°20 | M19 |
| T 20 | 20 14 56 | 2°34'55 | 14♏29 | 21°24 | 16°58 | 28°13 | 24°33 | 9°35 | 15°27 | 19°59 | 2°41 | 7°32 | 7°26 | 0°24 | 10°28 | T 20 |
| W21 | 20 18 53 | 3°32'28 | 29°4 | 21°11 | 17°53 | 28°50 | 24°46 | 9°42 | 15°25 | 20°0 | 2°40 | 7°26 | 7°23 | 0°30 | 10°35 | W21 |
| T 22 | 20 22 49 | 4°30'03 | 13♏29 | 20°52 | 18°49 | 29°28 | 24°58 | 9°50 | 15°24 | 20°1 | 2°39 | 7°24 | 7°20 | 0°37 | 10°43 | T 22 |
| F 23 | 20 26 46 | 5°27'38 | 27°40 | 20°28 | 19°45 | 0♏6 | 25°10 | 9°58 | 15°23 | 20°2 | 2°37 | 7°23 | 7°17 | 0°44 | 10°51 | F 23 |
| S 24 | 20 30 42 | 6°25'15 | 11♏36 | 19°58 | 20°42 | 0°43 | 25°21 | 10°5 | 15°22 | 20°3 | 2°36 | 7°23 | 7°14 | 0°50 | 10°59 | S 24 |
| S 25 | 20 34 39 | 7°22'52 | 25°18 | 19°24 | 21°39 | 1°21 | 25°33 | 10°13 | 15°20 | 20°4 | 2°35 | 7°22 | 7°10 | 0°57 | 11°6 | S 25 |
| M26 | 20 38 36 | 8°20'31 | 8♏46 | 18°45 | 22°37 | 1°59 | 25°45 | 10°21 | 15°19 | 20°4 | 2°34 | 7°20 | 7°7 | 1°4 | 11°14 | M26 |
| T 27 | 20 42 32 | 9°18'11 | 22°2 | 18°1 | 23°35 | 2°37 | 25°57 | 10°28 | 15°18 | 20°5 | 2°33 | 7°15 | 7°4 | 1°10 | 11°22 | T 27 |
| W28 | 20 46 29 | 10°15'51 | 5♏5 | 17°15 | 24°33 | 3°15 | 26°8 | 10°36 | 15°17 | 20°6 | 2°32 | 7°8 | 7°1 | 1°17 | 11°30 | W28 |
| T 29 | 20 50 25 | 11°13'33 | 17°58 | 16°25 | 25°32 | 3°54 | 26°20 | 10°43 | 15°16 | 20°6 | 2°31 | 6°57 | 6°58 | 1°24 | 11°38 | T 29 |
| F 30 | 20 54 22 | 12°11'17 | 0♏39 | 15°34 | 26°32 | 4°32 | 26°31 | 10°51 | 15°15 | 20°7 | 2°30 | 6°45 | 6°54 | 1°30 | 11°45 | F 30 |
| S 31 | 20 58 18 | 13♏9'01 | 13♏8 | 14♏42 | 27♏31 | 5♏10 | 26♏42 | 10♏59 | 15♏14 | 20♏8 | 2♏28 | 6♏32 | 6♏51 | 1♏37 | 11♏53 | S 31 |

Delta T = 19m46s Julian Calendar 1 July 1064 == Greg. Calendar 7 July 1064

AUGUST 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|--------|-------|-------|------|------|-------|------|
| S 1 | 21 2 15 | 14♏6'47 | 25♏27 | 13°R49 | 28♏31 | 5♏49 | 26♏54 | 11♏6 | 15°R13 | 20♏8 | 2°R27 | 6°R19 | 6♏48 | 1♏44 | 12♏1 | S 1 |
| M 2 | 21 6 11 | 15°4'35 | 7♏34 | 12♏58 | 29°32 | 6°27 | 27°5 | 11°14 | 15♏12 | 20°9 | 2♏26 | 6♏7 | 6°45 | 1°50 | 12°9 | M 2 |
| T 3 | 21 10 8 | 16°2'24 | 19°33 | 12°9 | 0♏32 | 7°6 | 27°16 | 11°22 | 15°12 | 20°9 | 2°25 | 5°57 | 6°42 | 1°57 | 12°17 | T 3 |
| W 4 | 21 14 5 | 17°0'14 | 1♏25 | 11°23 | 1°34 | 7°45 | 27°27 | 11°29 | 15°11 | 20°10 | 2°24 | 5°50 | 6°39 | 2°4 | 12°25 | W 4 |
| T 5 | 21 18 1 | 17°58'07 | 13°13 | 10°41 | 2°35 | 8°23 | 27°38 | 11°37 | 15°10 | 20°10 | 2°23 | 5°46 | 6°35 | 2°10 | 12°32 | T 5 |
| F 6 | 21 21 58 | 18°56'01 | 25°1 | 10°5 | 3°37 | 9°2 | 27°49 | 11°45 | 15°10 | 20°11 | 2°21 | 5°44 | 6°32 | 2°17 | 12°40 | F 6 |
| S 7 | 21 25 54 | 19°53'57 | 6♏54 | 9°34 | 4°39 | 9°41 | 28°0 | 11°52 | 15°9 | 20°11 | 2°20 | 5°D44 | 6°29 | 2°24 | 12°48 | S 7 |
| S 8 | 21 29 51 | 20°51'55 | 18°58 | 9°10 | 5°41 | 10°20 | 28°10 | 12°0 | 15°8 | 20°11 | 2°19 | 5°R44 | 6°26 | 2°30 | 12°56 | S 8 |
| M 9 | 21 33 47 | 21°49'55 | 1♏16 | 8°53 | 6°44 | 11°0 | 28°21 | 12°7 | 15°8 | 20°12 | 2°18 | 5°43 | 6°23 | 2°37 | 13°4 | M 9 |
| T 10 | 21 37 44 | 22°47'57 | 13°56 | 8°44 | 7°47 | 11°39 | 28°31 | 12°15 | 15°7 | 20°12 | 2°16 | 5°42 | 6°19 | 2°44 | 13°11 | T 10 |
| W11 | 21 41 40 | 23°46'01 | 27°0 | 8°D44 | 8°50 | 12°18 | 28°42 | 12°22 | 15°7 | 20°12 | 2°15 | 5°38 | 6°16 | 2°50 | 13°19 | W11 |
| T 12 | 21 45 37 | 24°44'07 | 10♏33 | 8°51 | 9°54 | 12°58 | 28°52 | 12°30 | 15°7 | 20°12 | 2°14 | 5°31 | 6°13 | 2°57 | 13°27 | T 12 |
| F 13 | 21 49 34 | 25°42'15 | 24°34 | 9°8 | 10°58 | 13°37 | 29°2 | 12°38 | 15°6 | 20°12 | 2°13 | 5°23 | 6°10 | 3°4 | 13°35 | F 13 |
| S 14 | 21 53 30 | 26°40'24 | 9♏1 | 9°32 | 12°2 | 14°17 | 29°12 | 12°45 | 15°6 | 20°13 | 2°12 | 5°13 | 6°7 | 3°10 | 13°42 | S 14 |
| S 15 | 21 57 27 | 27°38'36 | 23°49 | 10°5 | 13°6 | 14°56 | 29°22 | 12°53 | 15°6 | 20°13 | 2°10 | 5°2 | 6°4 | 3°17 | 13°50 | S 15 |
| M16 | 22 1 23 | 28°36'49 | 8♏49 | 10°47 | 14°11 | 15°36 | 29°32 | 13°0 | 15°6 | 20°13 | 2°9 | 4°53 | 6°0 | 3°24 | 13°58 | M16 |
| T 17 | 22 5 20 | 29°35'04 | 23°53 | 11°36 | 15°16 | 16°16 | 29°42 | 13°7 | 15°6 | 20°13 | 2°8 | 4°46 | 5°57 | 3°30 | 14°6 | T 17 |
| W18 | 22 9 16 | 0♏33'21 | 8♏49 | 12°32 | 16°21 | 16°56 | 29°52 | 13°15 | 15°6 | 20°R13 | 2°7 | 4°41 | 5°54 | 3°37 | 14°13 | W18 |
| T 19 | 22 13 13 | 1°31'39 | 23°32 | 13°36 | 17°26 | 17°36 | 0♏1 | 13°22 | 15°D 6 | 20°13 | 2°5 | 4°38 | 5°51 | 3°44 | 14°21 | T 19 |
| F 20 | 22 17 9 | 2°29'59 | 7♏56 | 14°47 | 18°31 | 18°16 | 0°11 | 13°30 | 15°6 | 20°13 | 2°4 | 4°D38 | 5°48 | 3°50 | 14°29 | F 20 |
| S 21 | 22 21 6 | 3°28'20 | 21°59 | 16°4 | 19°37 | 18°56 | 0°20 | 13°37 | 15°6 | 20°13 | 2°3 | 4°38 | 5°45 | 3°57 | 14°36 | S 21 |
| S 22 | 22 25 2 | 4°26'43 | 5♏40 | 17°26 | 20°43 | 19°36 | 0°29 | 13°44 | 15°6 | 20°13 | 2°2 | 4°R39 | 5°41 | 4°4 | 14°44 | S 22 |
| M23 | 22 28 59 | 5°25'08 | 19°2 | 18°54 | 21°49 | 20°17 | 0°38 | 13°52 | 15°6 | 20°12 | 2°0 | 4°38 | 5°38 | 4°10 | 14°51 | M23 |
| T 24 | 22 32 56 | 6°23'34 | 2♏7 | 20°26 | 22°56 | 20°57 | 0°47 | 13°59 | 15°6 | 20°12 | 1°59 | 4°35 | 5°35 | 4°17 | 14°59 | T 24 |
| W25 | 22 36 52 | 7°22'02 | 14°56 | 22°2 | 24°2 | 21°38 | 0°56 | 14°6 | 15°7 | 20°12 | 1°58 | 4°30 | 5°32 | 4°24 | 15°6 | W25 |
| T 26 | 22 40 49 | 8°20'32 | 27°32 | 23°42 | 25°9 | 22°18 | 1°5 | 14°14 | 15°7 | 20°12 | 1°57 | 4°22 | 5°29 | 4°30 | 15°14 | T 26 |
| F 27 | 22 44 45 | 9°19'03 | 9♏56 | 25°24 | 26°16 | 22°59 | 1°14 | 14°21 | 15°7 | 20°11 | 1°55 | 4°13 | 5°25 | 4°37 | 15°21 | F 27 |
| S 28 | 22 48 42 | 10°17'36 | 22°11 | 27°9 | 27°23 | 23°40 | 1°22 | 14°28 | 15°8 | 20°11 | 1°54 | 4°3 | 5°22 | 4°44 | 15°29 | S 28 |
| S 29 | 22 52 38 | 11°16'11 | 4♏18 | 28°56 | 28°31 | 24°20 | 1°30 | 14°35 | 15°8 | 20°11 | 1°53 | 3°53 | 5°19 | 4°50 | 15°36 | S 29 |
| M30 | 22 56 35 | 12°14'48 | 16°16 | 0♏44 | 29°38 | 25°1 | 1°39 | 14°42 | 15°9 | 20°10 | 1°52 | 3°43 | 5°16 | 4°57 | 15°44 | M30 |
| T 31 | 23 0 31 | 13♏13'27 | 28♏9 | 2♏33 | 0♏46 | 25♏42 | 1♏47 | 14♏49 | 15♏10 | 20♏10 | 1♏50 | 3♏36 | 5♏13 | 5♏4 | 15♏51 | T 31 |

Delta T = 19m45s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1064
geocentric

SEPTEMBER 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | Day |
|------|----------|------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|-----|
| W 1 | 23 4 28 | 14 ^h 12'08 | 9 ^h 58' | 4 ^h 23' | 1 ^h 54' | 26 ^h 23' | 1 ^h 55' | 14 ^h 56' | 15 ^h 10' | 20 ^h 9' | 1 ^h R49 | 3 ^h R31 | 5 ^h M10 | 5 ^h Y10 | 15 ^h Ω58 | W 1 | |
| T 2 | 23 8 25 | 15 ^h 10'51 | 21 ^h 46' | 6 ^h 14' | 3 ^h 2' | 27 ^h 4' | 2 ^h 3' | 15 ^h 3' | 15 ^h 11' | 20 ^h 8' | 1 ^h X48 | 3 ^h M28 | 5 ^h 6' | 5 ^h 17' | 16 ^h 6' | T 2 | |
| F 3 | 23 12 21 | 16 ^h 9'37 | 3 ^h 34' | 8 ^h 5' | 4 ^h 10' | 27 ^h 45' | 2 ^h 10' | 15 ^h 10' | 15 ^h 12' | 20 ^h 8' | 1 ^h 47' | 3 ^h D27 | 5 ^h 3' | 5 ^h 24' | 16 ^h 13' | F 3 | |
| S 4 | 23 16 18 | 17 ^h 8'24 | 15 ^h 28 | 9 ^h 56' | 5 ^h 19' | 28 ^h 27' | 2 ^h 18' | 15 ^h 17' | 15 ^h 12' | 20 ^h 8' | 1 ^h 46' | 3 ^h 28' | 5 ^h 0' | 5 ^h 30' | 16 ^h 20' | S 4 | |
| S 5 | 23 20 14 | 18 ^h 7'14 | 27 ^h 31 | 11 ^h 47' | 6 ^h 28' | 29 ^h 8' | 2 ^h 25' | 15 ^h 24' | 15 ^h 13' | 20 ^h 7' | 1 ^h 44' | 3 ^h 29' | 4 ^h 57' | 5 ^h 37' | 16 ^h 27' | S 5 | |
| M 6 | 23 24 11 | 19 ^h 6'06 | 9 ^h II49 | 13 ^h 37' | 7 ^h 36' | 29 ^h 49' | 2 ^h 33' | 15 ^h 31' | 15 ^h 14' | 20 ^h 7' | 1 ^h 43' | 3 ^h 31' | 4 ^h 54' | 5 ^h 44' | 16 ^h 34' | M 6 | |
| T 7 | 23 28 7 | 20 ^h 5'01 | 22 ^h 25 | 15 ^h 27' | 8 ^h 45' | 0 ^h M31 | 2 ^h 40' | 15 ^h 37' | 15 ^h 15' | 20 ^h 6' | 1 ^h 42' | 3 ^h R31 | 4 ^h 51' | 5 ^h 50' | 16 ^h 41' | T 7 | |
| W 8 | 23 32 4 | 21 ^h 3'58 | 5 ^h Ω25 | 17 ^h 17' | 9 ^h 54' | 1 ^h 12' | 2 ^h 47' | 15 ^h 44' | 15 ^h 16' | 20 ^h 5' | 1 ^h 41' | 3 ^h 30' | 4 ^h 47' | 5 ^h 57' | 16 ^h 48' | W 8 | |
| T 9 | 23 36 0 | 22 ^h 2'57 | 18 ^h 52 | 19 ^h 5' | 11 ^h 4' | 1 ^h 54' | 2 ^h 54' | 15 ^h 51' | 15 ^h 17' | 20 ^h 5' | 1 ^h 40' | 3 ^h 27' | 4 ^h 44' | 6 ^h 4' | 16 ^h 55' | T 9 | |
| F 10 | 23 39 57 | 23 ^h 1'59 | 2 ^h Ω48 | 20 ^h 54 | 12 ^h 13 | 2 ^h 36 | 3 ^h 0' | 15 ^h 58' | 15 ^h 18' | 20 ^h 4' | 1 ^h 39' | 3 ^h 23' | 4 ^h 41' | 6 ^h 10' | 17 ^h 2' | F 10 | |
| S 11 | 23 43 54 | 24 ^h 1'03 | 17 ^h 12 | 22 ^h 41 | 13 ^h 23 | 3 ^h 18 | 3 ^h 7' | 16 ^h 4' | 15 ^h 20' | 20 ^h 3' | 1 ^h 37' | 3 ^h 17' | 4 ^h 38' | 6 ^h 17' | 17 ^h 9' | S 11 | |
| S 12 | 23 47 50 | 25 ^h 0'09 | 2 ^h η 1 | 24 ^h 28 | 14 ^h 32 | 4 ^h 0' | 3 ^h 13 | 16 ^h 11 | 15 ^h 21 | 20 ^h 2' | 1 ^h 36' | 3 ^h 11 | 4 ^h 35' | 6 ^h 24 | 17 ^h 16 | S 12 | |
| M13 | 23 51 47 | 25 ^h 59'17 | 17 ^h 7 | 26 ^h 14 | 15 ^h 42 | 4 ^h 41 | 3 ^h 19 | 16 ^h 17 | 15 ^h 22 | 20 ^h 2' | 1 ^h 35' | 3 ^h 6' | 4 ^h 31 | 6 ^h 30 | 17 ^h 23 | M13 | |
| T 14 | 23 55 43 | 26 ^h 58'27 | 2 ^h Ω22 | 27 ^h 59 | 16 ^h 52 | 5 ^h 24 | 3 ^h 25 | 16 ^h 24 | 15 ^h 23 | 20 ^h 1' | 1 ^h 34' | 3 ^h 2' | 4 ^h 28 | 6 ^h 37 | 17 ^h 30 | T 14 | |
| W15 | 23 59 40 | 27 ^h 57'40 | 17 ^h 33 | 29 ^h 43 | 18 ^h 2' | 6 ^h 6' | 3 ^h 31 | 16 ^h 30 | 15 ^h 25 | 20 ^h 0' | 1 ^h 33' | 2 ^h 59 | 4 ^h 25 | 6 ^h 44 | 17 ^h 37 | W15 | |
| T 16 | 0 3 36 | 28 ^h 56'54 | 2 ^h M33 | 1 ^h Ω27 | 19 ^h 13 | 6 ^h 48 | 3 ^h 37 | 16 ^h 36 | 15 ^h 26 | 19 ^h 59 | 1 ^h 32 | 2 ^h D58 | 4 ^h 22 | 6 ^h 50 | 17 ^h 43 | T 16 | |
| F 17 | 0 7 33 | 29 ^h 56'11 | 17 ^h 13 | 3 ^h 10 | 20 ^h 23 | 7 ^h 30 | 3 ^h 43 | 16 ^h 43 | 15 ^h 28 | 19 ^h 58 | 1 ^h 31 | 2 ^h 59 | 4 ^h 19 | 6 ^h 57 | 17 ^h 50 | F 17 | |
| S 18 | 0 11 29 | 0 ^h Ω55'29 | 1 ^h Ω29 | 4 ^h 51 | 21 ^h 34 | 8 ^h 12 | 3 ^h 48 | 16 ^h 49 | 15 ^h 29 | 19 ^h 57 | 1 ^h 30 | 3 ^h 0' | 4 ^h 16 | 7 ^h 4' | 17 ^h 57 | S 18 | |
| S 19 | 0 15 26 | 1 ^h 54'49 | 15 ^h 20 | 6 ^h 33 | 22 ^h 44 | 8 ^h 55 | 3 ^h 53 | 16 ^h 55 | 15 ^h 31 | 19 ^h 56 | 1 ^h 29 | 3 ^h 2' | 4 ^h 12 | 7 ^h 10 | 18 ^h 3' | S 19 | |
| M20 | 0 19 22 | 2 ^h 54'11 | 28 ^h 46 | 8 ^h 13 | 23 ^h 55 | 9 ^h 37 | 3 ^h 59 | 17 ^h 1' | 15 ^h 32 | 19 ^h 55 | 1 ^h 28 | 3 ^h R 2 | 4 ^h 9' | 7 ^h 17 | 18 ^h 10 | M20 | |
| T 21 | 0 23 19 | 3 ^h 53'35 | 11 ^h Ω49 | 9 ^h 53 | 25 ^h 6' | 10 ^h 20 | 4 ^h 3' | 17 ^h 7' | 15 ^h 34 | 19 ^h 54 | 1 ^h 27 | 3 ^h 2' | 4 ^h 6' | 7 ^h 24 | 18 ^h 16 | T 21 | |
| W22 | 0 27 16 | 4 ^h 53'00 | 24 ^h 33 | 11 ^h 32 | 26 ^h 17 | 11 ^h 2' | 4 ^h 8' | 17 ^h 13 | 15 ^h 36 | 19 ^h 53 | 1 ^h 26 | 3 ^h 1' | 4 ^h 3' | 7 ^h 30 | 18 ^h 22 | W22 | |
| T 23 | 0 31 12 | 5 ^h 52'28 | 7 ^h Ω 0 | 13 ^h 10 | 27 ^h 28 | 11 ^h 45 | 4 ^h 13 | 17 ^h 19 | 15 ^h 37 | 19 ^h 52 | 1 ^h 25 | 2 ^h 58 | 4 ^h 0' | 7 ^h 37 | 18 ^h 29 | T 23 | |
| F 24 | 0 35 9 | 6 ^h 51'57 | 19 ^h 14 | 14 ^h 47 | 28 ^h 39 | 12 ^h 28 | 4 ^h 17 | 17 ^h 25 | 15 ^h 39 | 19 ^h 51 | 1 ^h 24 | 2 ^h 54 | 3 ^h 56 | 7 ^h 44 | 18 ^h 35 | F 24 | |
| S 25 | 0 39 5 | 7 ^h 51'28 | 1 ^h X19 | 16 ^h 24 | 29 ^h 51 | 13 ^h 11 | 4 ^h 21 | 17 ^h 31 | 15 ^h 41 | 19 ^h 49 | 1 ^h 23 | 2 ^h 50 | 3 ^h 53 | 7 ^h 50 | 18 ^h 41 | S 25 | |
| S 26 | 0 43 2 | 8 ^h 51'01 | 13 ^h 16 | 18 ^h 0' | 1 ^h η 2 | 13 ^h 54 | 4 ^h 26 | 17 ^h 37 | 15 ^h 43 | 19 ^h 48 | 1 ^h 22 | 2 ^h 46 | 3 ^h 50 | 7 ^h 57 | 18 ^h 47 | S 26 | |
| M27 | 0 46 58 | 9 ^h 50'35 | 25 ^h 8 | 19 ^h 36 | 2 ^h 14 | 14 ^h 37 | 4 ^h 29 | 17 ^h 42 | 15 ^h 45 | 19 ^h 47 | 1 ^h 21 | 2 ^h 42 | 3 ^h 47 | 8 ^h 4' | 18 ^h 53 | M27 | |
| T 28 | 0 50 55 | 10 ^h 50'12 | 6 ^h Y57 | 21 ^h 10 | 3 ^h 25 | 15 ^h 20 | 4 ^h 33 | 17 ^h 48 | 15 ^h 47 | 19 ^h 46 | 1 ^h 20 | 2 ^h 39 | 3 ^h 44 | 8 ^h 10 | 18 ^h 59 | T 28 | |
| W29 | 0 54 51 | 11 ^h 49'51 | 18 ^h 45 | 22 ^h 44 | 4 ^h 37 | 16 ^h 3 | 4 ^h 37 | 17 ^h 53 | 15 ^h 49 | 19 ^h 45 | 1 ^h 19 | 2 ^h 37 | 3 ^h 41 | 8 ^h 17 | 19 ^h 5' | W29 | |
| T 30 | 0 58 48 | 12 ^h Ω49'32 | 0 ^h Ω35 | 24 ^h Ω18 | 5 ^h η49 | 16 ^h M46 | 4 ^h Ω40 | 17 ^h Ω59 | 15 ^h Ω51 | 19 ^h Ω43 | 1 ^h X18 | 2 ^h D36 | 3 ^h M37 | 8 ^h Y24 | 19 ^h Ω11 | T 30 | |

Delta T = 19m45s Julian Calendar 1 Sept. 1064 == Greg. Calendar 7 Sept. 1064

OCTOBER 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | Day |
|------|---------|------------------------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|-----|
| F 1 | 1 2 45 | 13 ^h Ω49'15 | 12 ^h Ω29 | 25 ^h Ω51 | 7 ^h η 1 | 17 ^h M29 | 4 ^h Ω43 | 18 ^h Ω 4 | 15 ^h Ω53 | 19 ^h R42 | 1 ^h R17 | 2 ^h M37 | 3 ^h M34 | 8 ^h Y30 | 19 ^h Ω17 | F 1 | |
| S 2 | 1 6 41 | 14 ^h 49'00 | 24 ^h 28 | 27 ^h 23 | 8 ^h 13 | 18 ^h 12 | 4 ^h 46 | 18 ^h 10 | 15 ^h 55 | 19 ^h Ω41 | 1 ^h X16 | 2 ^h 38 | 3 ^h 31 | 8 ^h 37 | 19 ^h 23 | S 2 | |
| S 3 | 1 10 38 | 15 ^h 48'48 | 6 ^h II37 | 28 ^h 55 | 9 ^h 25 | 18 ^h 56 | 4 ^h 49 | 18 ^h 15 | 15 ^h 57 | 19 ^h 39 | 1 ^h 16 | 2 ^h 39 | 3 ^h 28 | 8 ^h 44 | 19 ^h 28 | S 3 | |
| M 4 | 1 14 34 | 16 ^h 48'37 | 18 ^h 59 | 0 ^h M26 | 10 ^h 37 | 19 ^h 39 | 4 ^h 51 | 18 ^h 20 | 16 ^h 0' | 19 ^h 38 | 1 ^h 15 | 2 ^h 41 | 3 ^h 25 | 8 ^h 50 | 19 ^h 34 | M 4 | |
| T 5 | 1 18 31 | 17 ^h 48'29 | 1 ^h Ω36 | 1 ^h 57 | 11 ^h 50 | 20 ^h 23 | 4 ^h 54 | 18 ^h 25 | 16 ^h 2' | 19 ^h 37 | 1 ^h 14 | 2 ^h 42 | 3 ^h 22 | 8 ^h 57 | 19 ^h 40 | T 5 | |
| W 6 | 1 22 27 | 18 ^h 48'24 | 14 ^h 33 | 3 ^h 27 | 13 ^h 2' | 21 ^h 6' | 4 ^h 56 | 18 ^h 30 | 16 ^h 4' | 19 ^h 35 | 1 ^h 13 | 2 ^h R42 | 3 ^h 18 | 9 ^h 4' | 19 ^h 45 | W 6 | |
| T 7 | 1 26 24 | 19 ^h 48'20 | 27 ^h 53 | 4 ^h 57 | 14 ^h 15 | 21 ^h 50 | 4 ^h 58 | 18 ^h 35 | 16 ^h 7' | 19 ^h 34 | 1 ^h 12 | 2 ^h 42 | 3 ^h 15 | 9 ^h 10 | 19 ^h 50 | T 7 | |
| F 8 | 1 30 20 | 20 ^h 48'19 | 11 ^h Ω38 | 6 ^h 26 | 15 ^h 28 | 22 ^h 34 | 5 ^h 0' | 18 ^h 40 | 16 ^h 9' | 19 ^h 33 | 1 ^h 12 | 2 ^h 41 | 3 ^h 12 | 9 ^h 17 | 19 ^h 56 | F 8 | |
| S 9 | 1 34 17 | 21 ^h 48'20 | 25 ^h 49 | 7 ^h 54 | 16 ^h 40 | 23 ^h 17 | 5 ^h 2' | 18 ^h 45 | 16 ^h 11 | 19 ^h 31 | 1 ^h 11 | 2 ^h 40 | 3 ^h 9' | 9 ^h 24 | 20 ^h 1' | S 9 | |
| S 10 | 1 38 14 | 22 ^h 48'23 | 10 ^h η24 | 9 ^h 22 | 17 ^h 53 | 24 ^h 1' | 5 ^h 3' | 18 ^h 49 | 16 ^h 14 | 19 ^h 30 | 1 ^h 10 | 2 ^h 39 | 3 ^h 6' | 9 ^h 30 | 20 ^h 6' | S 10 | |
| M11 | 1 42 10 | 23 ^h 48'28 | 25 ^h 19 | 10 ^h 49 | 19 ^h 6' | 24 ^h 45 | 5 ^h 4' | 18 ^h 54 | 16 ^h 16 | 19 ^h 28 | 1 ^h 10 | 2 ^h 38 | 3 ^h 2' | 9 ^h 37 | 20 ^h 11 | M11 | |
| T 12 | 1 46 7 | 24 ^h 48'35 | 10 ^h Ω26 | 12 ^h 16 | 20 ^h 19 | 25 ^h 29 | 5 ^h 5' | 18 ^h 59 | 16 ^h 19 | 19 ^h 27 | 1 ^h 9' | 2 ^h 37 | 2 ^h 59 | 9 ^h 43 | 20 ^h 16 | T 12 | |
| W13 | 1 50 3 | 25 ^h 48'44 | 25 ^h 37 | 13 ^h 42 | 21 ^h 32 | 26 ^h 13 | 5 ^h 6' | 19 ^h 3' | 16 ^h 22 | 19 ^h 25 | 1 ^h 8' | 2 ^h D37 | 2 ^h 56 | 9 ^h 50 | 20 ^h 21 | W13 | |
| T 14 | 1 54 0 | 26 ^h 48'56 | 10 ^h M42 | 15 ^h 7 | 22 ^h 45 | 26 ^h 57 | 5 ^h 7' | 19 ^h 7' | 16 ^h 24 | 19 ^h 24 | 1 ^h 8' | 2 ^h 37 | 2 ^h 53 | 9 ^h 57 | 20 ^h 26 | T 14 | |
| F 15 | 1 57 56 | 27 ^h 49'09 | 25 ^h 32 | 16 ^h 32 | 23 ^h 58 | 27 ^h 42 | 5 ^h 7' | 19 ^h 12 | 16 ^h 27 | 19 ^h 22 | 1 ^h 7' | 2 ^h 37 | 2 ^h 50 | 10 ^h 3' | 20 ^h 31 | F 15 | |
| S 16 | 2 1 53 | 28 ^h 49'23 | 10 ^h Ω 0 | 17 ^h 56 | 25 ^h 12 | 28 ^h 26 | 5 ^h 8' | 19 ^h 16 | 16 ^h 29 | 19 ^h 20 | 1 ^h 6' | 2 ^h 38 | 2 ^h 47 | 10 ^h 10 | 20 ^h 35 | S 16 | |
| | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1064
geocentric

NOVEMBER 1064 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|--------|-------|-------|------|-------|--------|------|-----|
| M 1 | 3 4 58 | 14♌56'43 | 28♐37 | 6♂55 | 14♌52 | 10♂22 | 4♃R44 | 20♁11 | 17♂17 | 18♃R54 | 1♃R 0 | 2♃R36 | 1♌56 | 11♃57 | 21♁38 | M 1 | |
| T 2 | 3 8 54 | 15°57'24 | 11♏25 | 7°41 | 16° 7 | 11° 7 | 4♏41 | 20°13 | 17°20 | 18♂52 | 1♃R 0 | 2♌34 | 1°53 | 12° 3 | 21°41 | T 2 | |
| W 3 | 3 12 51 | 16°58'06 | 24♏28 | 8°22 | 17°21 | 11°52 | 4°38 | 20°16 | 17°23 | 18°51 | 1° 0 | 2°32 | 1°49 | 12°10 | 21°44 | W 3 | |
| T 4 | 3 16 47 | 17°58'50 | 7♏47 | 8°56 | 18°35 | 12°38 | 4°34 | 20°18 | 17°27 | 18°49 | 1° 0 | 2°31 | 1°46 | 12°17 | 21°47 | T 4 | |
| F 5 | 3 20 44 | 18°59'35 | 21°26 | 9°24 | 19°50 | 13°23 | 4°31 | 20°20 | 17°30 | 18°47 | 1° 0 | 2°D31 | 1°43 | 12°23 | 21°49 | F 5 | |
| S 6 | 3 24 40 | 20° 0'23 | 5♏23 | 9°44 | 21° 4 | 14° 9 | 4°27 | 20°22 | 17°33 | 18°46 | 1° 0 | 2°32 | 1°40 | 12°30 | 21°52 | S 6 | |
| S 7 | 3 28 37 | 21° 1'11 | 19°38 | 9°55 | 22°19 | 14°54 | 4°23 | 20°24 | 17°37 | 18°44 | 1° 0 | 2°33 | 1°37 | 12°37 | 21°55 | S 7 | |
| M 8 | 3 32 34 | 22° 2'02 | 4♏11 | 9°R57 | 23°33 | 15°40 | 4°19 | 20°26 | 17°40 | 18°42 | 1° 0 | 2°34 | 1°33 | 12°43 | 21°57 | M 8 | |
| T 9 | 3 36 30 | 23° 2'54 | 18°56 | 9°49 | 24°48 | 16°25 | 4°14 | 20°28 | 17°43 | 18°41 | 1°D 0 | 2°35 | 1°30 | 12°50 | 21°59 | T 9 | |
| W10 | 3 40 27 | 24° 3'47 | 3♌48 | 9°30 | 26° 2 | 17°11 | 4° 9 | 20°30 | 17°47 | 18°39 | 1° 0 | 2°R36 | 1°27 | 12°56 | 22° 2 | W10 | |
| T 11 | 3 44 23 | 25° 4'41 | 18°40 | 9° 0 | 27°17 | 17°57 | 4° 5 | 20°32 | 17°50 | 18°37 | 1° 0 | 2°35 | 1°24 | 13° 3 | 22° 4 | T 11 | |
| F 12 | 3 48 20 | 26° 5'37 | 3♂25 | 8°20 | 28°32 | 18°43 | 4° 0 | 20°33 | 17°53 | 18°36 | 1° 0 | 2°33 | 1°21 | 13°10 | 22° 6 | F 12 | |
| S 13 | 3 52 16 | 27° 6'34 | 17°54 | 7°28 | 29°46 | 19°28 | 3°55 | 20°35 | 17°57 | 18°34 | 1° 0 | 2°30 | 1°18 | 13°16 | 22° 8 | S 13 | |
| S 14 | 3 56 13 | 28° 7'32 | 2♃ 2 | 6°27 | 1♌ 1 | 20°14 | 3°49 | 20°36 | 18° 0 | 18°32 | 1° 0 | 2°26 | 1°14 | 13°23 | 22°10 | S 14 | |
| M15 | 4 0 9 | 29° 8'31 | 15°44 | 5°16 | 2°16 | 21° 0 | 3°44 | 20°37 | 18° 4 | 18°30 | 1° 0 | 2°22 | 1°11 | 13°30 | 22°11 | M15 | |
| T 16 | 4 4 6 | 0♂ 9'31 | 29° 1 | 3°59 | 3°30 | 21°46 | 3°38 | 20°38 | 18° 7 | 18°29 | 1° 0 | 2°18 | 1° 8 | 13°36 | 22°13 | T 16 | |
| W17 | 4 8 3 | 1°10'31 | 11♏53 | 2°38 | 4°45 | 22°32 | 3°33 | 20°39 | 18°11 | 18°27 | 1° 1 | 2°15 | 1° 5 | 13°43 | 22°14 | W17 | |
| T 18 | 4 11 59 | 2°11'32 | 24°22 | 1°15 | 6° 0 | 23°18 | 3°27 | 20°40 | 18°14 | 18°26 | 1° 1 | 2°14 | 1° 2 | 13°50 | 22°16 | T 18 | |
| F 19 | 4 15 56 | 3°12'33 | 6♂34 | 29♌53 | 7°15 | 24° 4 | 3°21 | 20°41 | 18°18 | 18°24 | 1° 1 | 2°D14 | 0°59 | 13°56 | 22°17 | F 19 | |
| S 20 | 4 19 52 | 4°13'35 | 18°32 | 28°35 | 8°30 | 24°51 | 3°14 | 20°41 | 18°21 | 18°22 | 1° 1 | 2°14 | 0°55 | 14° 3 | 22°18 | S 20 | |
| S 21 | 4 23 49 | 5°14'38 | 0♃23 | 27°24 | 9°45 | 25°37 | 3° 8 | 20°42 | 18°25 | 18°21 | 1° 2 | 2°16 | 0°52 | 14°10 | 22°19 | S 21 | |
| M22 | 4 27 45 | 6°15'41 | 12°10 | 26°20 | 10°59 | 26°23 | 3° 2 | 20°42 | 18°28 | 18°19 | 1° 2 | 2°18 | 0°49 | 14°16 | 22°20 | M22 | |
| T 23 | 4 31 42 | 7°16'45 | 23°59 | 25°27 | 12°14 | 27° 9 | 2°55 | 20°43 | 18°32 | 18°17 | 1° 2 | 2°19 | 0°46 | 14°23 | 22°21 | T 23 | |
| W24 | 4 35 38 | 8°17'50 | 5♂54 | 24°44 | 13°29 | 27°56 | 2°48 | 20°43 | 18°36 | 18°16 | 1° 3 | 2°R20 | 0°43 | 14°30 | 22°22 | W24 | |
| T 25 | 4 39 35 | 9°18'55 | 17°57 | 24°12 | 14°44 | 28°42 | 2°41 | 20°R43 | 18°39 | 18°14 | 1° 3 | 2°18 | 0°39 | 14°36 | 22°22 | T 25 | |
| F 26 | 4 43 32 | 10°20'00 | 0♐12 | 23°52 | 15°59 | 29°28 | 2°35 | 20°43 | 18°43 | 18°13 | 1° 4 | 2°15 | 0°36 | 14°43 | 22°23 | F 26 | |
| S 27 | 4 47 28 | 11°21'06 | 12°40 | 23°D42 | 17°14 | 0♃15 | 2°27 | 20°43 | 18°46 | 18°11 | 1° 4 | 2°10 | 0°33 | 14°50 | 22°23 | S 27 | |
| S 28 | 4 51 25 | 12°22'13 | 25°22 | 23°43 | 18°29 | 1° 1 | 2°20 | 20°42 | 18°50 | 18°10 | 1° 4 | 2° 3 | 0°30 | 14°56 | 22°23 | S 28 | |
| M29 | 4 55 21 | 13°23'21 | 8♏17 | 23°53 | 19°44 | 1°48 | 2°13 | 20°42 | 18°53 | 18° 8 | 1° 5 | 1°56 | 0°27 | 15° 3 | 22°24 | M29 | |
| T 30 | 4 59 18 | 14♂24'29 | 21♏25 | 24♌11 | 20♌59 | 2♃34 | 2° 6 | 20♁41 | 18♂57 | 18♂ 7 | 1♃R 5 | 1♌48 | 0♌24 | 15♃9 | 22°R24 | T 30 | |

Delta T = 19m44s Julian Calendar 1 Nov. 1064 == Greg. Calendar 7 Nov. 1064

DECEMBER 1064 JC

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| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|-------|--------|------|-----|
| W 1 | 5 3 14 | 15♂25'37 | 4♏45 | 24♌38 | 22♌14 | 3♃21 | 1♃R58 | 20°R41 | 19♂ 1 | 18°R 5 | 1♃R 6 | 1°R41 | 0♌20 | 15♃16 | 22°R24 | W 1 | |
| T 2 | 5 7 11 | 16°26'47 | 18°17 | 25°12 | 23°29 | 4° 8 | 1♏51 | 20°R40 | 19° 4 | 18♂ 4 | 1° 7 | 1♌36 | 0°17 | 15°23 | 22°R23 | T 2 | |
| F 3 | 5 11 7 | 17°27'56 | 2♏ 0 | 25°52 | 24°45 | 4°54 | 1°43 | 20°39 | 19° 8 | 18° 2 | 1° 7 | 1°33 | 0°14 | 15°29 | 22°23 | F 3 | |
| S 4 | 5 15 4 | 18°29'07 | 15°53 | 26°37 | 26° 0 | 5°41 | 1°35 | 20°38 | 19°12 | 18° 1 | 1° 8 | 1°D32 | 0°11 | 15°36 | 22°23 | S 4 | |
| S 5 | 5 19 1 | 19°30'18 | 29°56 | 27°28 | 27°15 | 6°28 | 1°28 | 20°37 | 19°15 | 18° 0 | 1° 8 | 1°32 | 0° 8 | 15°43 | 22°22 | S 5 | |
| M 6 | 5 22 57 | 20°31'30 | 14♏ 9 | 28°24 | 28°30 | 7°14 | 1°20 | 20°36 | 19°19 | 17°58 | 1° 9 | 1°33 | 0° 5 | 15°49 | 22°22 | M 6 | |
| T 7 | 5 26 54 | 21°32'42 | 28°29 | 29°23 | 29°45 | 8° 1 | 1°12 | 20°35 | 19°22 | 17°57 | 1°10 | 1°R34 | 0° 1 | 15°56 | 22°21 | T 7 | |
| W 8 | 5 30 50 | 22°33'55 | 12♌54 | 0♂25 | 1♂ 0 | 8°48 | 1° 4 | 20°34 | 19°26 | 17°55 | 1°11 | 1°33 | 29♏58 | 16° 3 | 22°20 | W 8 | |
| T 9 | 5 34 47 | 23°35'08 | 27°20 | 1°31 | 2°15 | 9°35 | 0°56 | 20°32 | 19°30 | 17°54 | 1°11 | 1°31 | 29°55 | 16° 9 | 22°19 | T 9 | |
| F 10 | 5 38 43 | 24°36'22 | 11♂43 | 2°40 | 3°30 | 10°22 | 0°48 | 20°31 | 19°33 | 17°53 | 1°12 | 1°26 | 29°52 | 16°16 | 22°18 | F 10 | |
| S 11 | 5 42 40 | 25°37'36 | 25°56 | 3°51 | 4°46 | 11° 9 | 0°40 | 20°29 | 19°37 | 17°52 | 1°13 | 1°18 | 29°49 | 16°23 | 22°17 | S 11 | |
| S 12 | 5 46 37 | 26°38'49 | 9♃54 | 5° 3 | 6° 1 | 11°56 | 0°32 | 20°27 | 19°40 | 17°50 | 1°14 | 1° 8 | 29°45 | 16°29 | 22°15 | S 12 | |
| M13 | 5 50 33 | 27°40'03 | 23°32 | 6°18 | 7°16 | 12°43 | 0°24 | 20°25 | 19°44 | 17°49 | 1°14 | 0°58 | 29°42 | 16°36 | 22°14 | M13 | |
| T 14 | 5 54 30 | 28°41'17 | 6♏48 | 7°35 | 8°31 | 13°30 | 0°16 | 20°23 | 19°48 | 17°48 | 1°15 | 0°48 | 29°39 | 16°43 | 22°13 | T 14 | |
| W15 | 5 58 26 | 29°42'30 | 19°42 | 8°53 | 9°46 | 14°17 | 0° 7 | 20°21 | 19°51 | 17°47 | 1°16 | 0°40 | 29°36 | 16°49 | 22°11 | W15 | |
| T 16 | 6 2 23 | 0♃43'43 | 2♂14 | 10°12 | 11° 2 | 15° 4 | 29♐59 | 20°19 | 19°55 | 17°46 | 1°17 | 0°33 | 29°33 | 16°56 | 22° 9 | T 16 | |
| F 17 | 6 6 19 | 1°44'55 | 14°27 | 11°33 | 12°17 | 15°51 | 29°51 | 20°17 | 19°58 | 17°44 | 1°18 | 0°29 | 29°30 | 17° 3 | 22° 7 | F 17 | |
| S 18 | 6 10 16 | 2°46'07 | 26°27 | 12°55 | 13°32 | 16°38 | 29°43 | 20°14 | 20° 2 | 17°43 | 1°19 | 0°28 | 29°26 | 17° 9 | 22° 5 | S 18 | |
| S 19 | 6 14 12 | 3°47'18 | 8♃18 | 14°18 | 14°47 | 17°25 | 29°35 | 20°12 | 20° 6 | 17°42 | 1°20 | 0°D27 | 29°23 | 17°16 | 22° 3 | S 19 | |
| M20 | 6 18 9 | 4°48'29 | 20° 6 | 15°41 | 16° 2 | 18°12 | 29°27 | 20° 9 | 20° 9 | 17°41 | 1°21 | 0°28 | 29°20 | 17°22 | 22° 1 | M20 | |
| T 21 | 6 22 6 | 5°49'40 | 1♂55 | 17° 6 | 17°18 | 19° 0 | 29°19 | 20° 6 | 20°13 | 17°40 | 1°22 | 0°R28 | 29°17 | 17°29 | 21°59 | T 21 | |
| W22 | 6 26 2 | 6°50'49 | 13°52 | 18°31 | 18°33 | 19°47 | 29°11 | 20° 4 | 20°16 | 17°39 | 1°23 | 0°27 | 29°14 | 17°36 | 21°57 | W22 | |
| T 23 | 6 29 59 | 7°51'59 | 26° 1 | 19°57 | 19°48 | 20°34 | 29° 3 | 20° 1 | 20°20 | 17°38 | 1°24 | 0°24 | 29°11 | 17°42 | 21°54 | T 23 | |
| F 24 | 6 33 55 | 8°53'07 | 8♐25 | 21°24 | 21° 3 | 21°21 | 28°55 | 19°58 | 20°23 | 17°37 | 1°25 | 0°18 | 29° 7 | 17°49 | 21°52 | F 24 | |
| S 25 | 6 37 52 | 9°54'15 | 21° 7 | 22°52 | 22°18 | 22° 8 | 28°47 | 19°55 | 20°27 | 17°36 | 1°26 | 0°10 | 29° 4 | 17°56 | 21°49 | S 25 | |
| S 26 | 6 41 48 | 10°55'23 | 4♏ 8 | 24°20 | 23°34 | 22°56 | 28°39 | 19°52 | 20°30 | 17°35 | 1°27 | 29♏59 | 29° 1 | 18° 2 | 21°47 | S 26 | |
| M27 | 6 45 45 | 11°56'30 | 17°26 | 25°49 | 24°49 | 23°43 | 28°32 | 19°48 | 20°33 | 17°35 | 1°28 | 29°47 | 28°58 | 18° 9 | 21°44 | M27 | |
| T 28 | 6 49 41 | 12°57'36 | 1♏ 1 | 27°18 | 26° 4 | 24°30 | 28°24 | 19°45 | 20°37 | 17°34 | 1°29 | 29°34 | 28°55 | 18°16 | 21°41 | T 28 | |
| W29 | 6 53 38 | 13°58'42 | 14°47 | 28°48 | 27°19 | 25°18 | 28°16 | 19°42 | 20°40 | 17°33 | 1°30 | 29°23 | 28°51 | 18°22 | 21°38 | W29 | |
| T 30 | 6 57 35 | 14°59'47 | 28°43 | 0♃19 | 28°34 | 26° 5 | 28° 9 | 19°38 | 20°44 | 17°32 | 1°32 | 29°14 | 28°48 | 18°29 | 21°35 | T 30 | |
| F 31 | 7 1 31 | 16♃ 0'52 | 12♏44 | 1♃50 | 29♂49 | 26♃52 | 28♐ 2 | 19♁35 | 20♂47 | 17♂31 | 1♃R 33 | 29♏ 7 | 28♏45 | 18♃36 | 21♁32 | F 31 | |

Delta T = 19m44s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1065
geocentric

JANUARY 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|----------|---------|-------|----------|---------|--------|--------|--------|-------|--------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 5 28 | 17°15'56 | 26°48'48 | 3°22'22 | 1°5'5 | 27°30'40 | 27°R54 | 19°R31 | 20°A50 | 17°R31 | 1°K34 | 29°R 3 | 28°A42 | 18°V42 | 21°R28 | S 1 | | | | | | | | |
| S 2 | 7 9 24 | 18° 3'00 | 10°A53 | 4°55 | 2°20 | 28°27 | 27°II47 | 19°R27 | 20°54 | 17°R30 | 1°35 | 29°A 2 | 28°39 | 18°49 | 21°R25 | S 2 | | | | | | | | |
| M 3 | 7 13 21 | 19° 4'04 | 24°58 | 6°28 | 3°35 | 29°14 | 27°40 | 19°24 | 20°57 | 17°29 | 1°36 | 29° 2 | 28°36 | 18°56 | 21°22 | M 3 | | | | | | | | |
| T 4 | 7 17 17 | 20° 5'07 | 9°M 2 | 8° 1 | 4°50 | 0°A 2 | 27°33 | 19°20 | 21° 0 | 17°29 | 1°38 | 29° 2 | 28°32 | 19° 2 | 21°18 | T 4 | | | | | | | | |
| W 5 | 7 21 14 | 21° 6'09 | 23° 4 | 9°35 | 6° 5 | 0°49 | 27°26 | 19°16 | 21° 4 | 17°28 | 1°39 | 29° 0 | 28°29 | 19° 9 | 21°15 | W 5 | | | | | | | | |
| T 6 | 7 25 10 | 22° 7'11 | 7°X 4 | 11°10 | 7°21 | 1°37 | 27°19 | 19°12 | 21° 7 | 17°28 | 1°40 | 28°56 | 28°26 | 19°16 | 21°11 | T 6 | | | | | | | | |
| F 7 | 7 29 7 | 23° 8'12 | 20°58 | 12°46 | 8°36 | 2°24 | 27°13 | 19° 8 | 21°10 | 17°27 | 1°42 | 28°49 | 28°23 | 19°22 | 21° 8 | F 7 | | | | | | | | |
| S 8 | 7 33 4 | 24° 9'12 | 4°B45 | 14°22 | 9°51 | 3°11 | 27° 6 | 19° 4 | 21°13 | 17°27 | 1°43 | 28°38 | 28°20 | 19°29 | 21° 4 | S 8 | | | | | | | | |
| S 9 | 7 37 0 | 25°10'12 | 18°21 | 15°59 | 11° 6 | 3°59 | 27° 0 | 19° 0 | 21°16 | 17°26 | 1°44 | 28°26 | 28°17 | 19°35 | 21° 0 | S 9 | | | | | | | | |
| M10 | 7 40 57 | 26°11'10 | 1°A42 | 17°36 | 12°21 | 4°46 | 26°53 | 18°55 | 21°20 | 17°26 | 1°45 | 28°12 | 28°13 | 19°42 | 20°56 | M10 | | | | | | | | |
| T 11 | 7 44 53 | 27°12'07 | 14°47 | 19°14 | 13°37 | 5°34 | 26°47 | 18°51 | 21°23 | 17°26 | 1°47 | 27°59 | 28°10 | 19°49 | 20°52 | T 11 | | | | | | | | |
| W12 | 7 48 50 | 28°13'03 | 27°33 | 20°53 | 14°52 | 6°21 | 26°41 | 18°47 | 21°26 | 17°25 | 1°48 | 27°47 | 28° 7 | 19°55 | 20°48 | W12 | | | | | | | | |
| T 13 | 7 52 46 | 29°13'58 | 10°X 1 | 22°33 | 16° 7 | 7° 9 | 26°36 | 18°42 | 21°29 | 17°25 | 1°50 | 27°37 | 28° 4 | 20° 2 | 20°44 | T 13 | | | | | | | | |
| F 14 | 7 56 43 | 0°A14'51 | 22°13 | 24°13 | 17°22 | 7°56 | 26°30 | 18°38 | 21°32 | 17°25 | 1°51 | 27°30 | 28° 1 | 20° 9 | 20°40 | F 14 | | | | | | | | |
| S 15 | 8 0 39 | 1°15'43 | 4°V13 | 25°54 | 18°37 | 8°44 | 26°24 | 18°33 | 21°35 | 17°24 | 1°52 | 27°26 | 27°57 | 20°15 | 20°36 | S 15 | | | | | | | | |
| S 16 | 8 4 36 | 2°16'33 | 16° 4 | 27°36 | 19°52 | 9°31 | 26°19 | 18°29 | 21°38 | 17°24 | 1°54 | 27°24 | 27°54 | 20°22 | 20°32 | S 16 | | | | | | | | |
| M17 | 8 8 33 | 3°17'22 | 27°51 | 29°18 | 21° 7 | 10°19 | 26°14 | 18°24 | 21°41 | 17°24 | 1°55 | 27°24 | 27°51 | 20°29 | 20°27 | M17 | | | | | | | | |
| T 18 | 8 12 29 | 4°18'10 | 9°B40 | 1°A 2 | 22°23 | 11° 6 | 26° 9 | 18°20 | 21°44 | 17°24 | 1°57 | 27°24 | 27°48 | 20°35 | 20°23 | T 18 | | | | | | | | |
| W19 | 8 16 26 | 5°18'55 | 21°37 | 2°46 | 23°38 | 11°53 | 26° 4 | 18°15 | 21°47 | 17°24 | 1°58 | 27°23 | 27°45 | 20°42 | 20°19 | W19 | | | | | | | | |
| T 20 | 8 20 22 | 6°19'40 | 3°II47 | 4°31 | 24°53 | 12°41 | 25°59 | 18°10 | 21°49 | 17°24 | 2° 0 | 27°20 | 27°42 | 20°49 | 20°14 | T 20 | | | | | | | | |
| F 21 | 8 24 19 | 7°20'22 | 16°15 | 6°16 | 26° 8 | 13°28 | 25°55 | 18° 6 | 21°52 | 17°D24 | 2° 1 | 27°15 | 27°38 | 20°55 | 20°10 | F 21 | | | | | | | | |
| S 22 | 8 28 15 | 8°21'03 | 29° 4 | 8° 3 | 27°23 | 14°16 | 25°51 | 18° 1 | 21°55 | 17°24 | 2° 3 | 27° 7 | 27°35 | 21° 2 | 20° 5 | S 22 | | | | | | | | |
| S 23 | 8 32 12 | 9°21'43 | 12°B16 | 9°50 | 28°38 | 15° 3 | 25°46 | 17°56 | 21°58 | 17°24 | 2° 4 | 26°57 | 27°32 | 21° 8 | 20° 1 | S 23 | | | | | | | | |
| M24 | 8 36 8 | 10°22'20 | 25°52 | 11°38 | 29°53 | 15°51 | 25°42 | 17°52 | 22° 0 | 17°24 | 2° 6 | 26°45 | 27°29 | 21°15 | 19°56 | M24 | | | | | | | | |
| T 25 | 8 40 5 | 11°22'57 | 9°A48 | 13°27 | 1°A 8 | 16°38 | 25°39 | 17°47 | 22° 3 | 17°24 | 2° 7 | 26°32 | 27°26 | 21°22 | 19°52 | T 25 | | | | | | | | |
| W26 | 8 44 2 | 12°23'31 | 24° 1 | 15°16 | 2°23 | 17°25 | 25°35 | 17°42 | 22° 6 | 17°24 | 2° 9 | 26°21 | 27°22 | 21°28 | 19°47 | W26 | | | | | | | | |
| T 27 | 8 47 58 | 13°24'04 | 8°M25 | 17° 6 | 3°38 | 18°13 | 25°32 | 17°37 | 22° 8 | 17°24 | 2°10 | 26°12 | 27°19 | 21°35 | 19°43 | T 27 | | | | | | | | |
| F 28 | 8 51 55 | 14°24'36 | 22°53 | 18°57 | 4°53 | 19° 0 | 25°28 | 17°32 | 22°11 | 17°25 | 2°12 | 26° 5 | 27°16 | 21°42 | 19°38 | F 28 | | | | | | | | |
| S 29 | 8 55 51 | 15°25'06 | 7°A19 | 20°48 | 6° 8 | 19°48 | 25°25 | 17°28 | 22°13 | 17°25 | 2°13 | 26° 1 | 27°13 | 21°48 | 19°34 | S 29 | | | | | | | | |
| S 30 | 8 59 48 | 16°25'35 | 21°41 | 22°40 | 7°23 | 20°35 | 25°23 | 17°23 | 22°16 | 17°25 | 2°15 | 26°D 0 | 27°10 | 21°55 | 19°29 | S 30 | | | | | | | | |
| M31 | 9 3 44 | 17°26'02 | 5°M53 | 24°A32 | 8°A38 | 21°A22 | 25°II20 | 17°R18 | 22°A18 | 17°R25 | 2°K16 | 26°A 0 | 27°A 7 | 22°V 2 | 19°R24 | M31 | | | | | | | | |

Delta T = 19m44s Julian Calendar 1 Jan. 1065 == Greg. Calendar 7 Jan. 1065

FEBRUARY 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|---------|--------|--------|--------|---------|--------|--------|--------|-------|--------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 9 7 41 | 18°A26'28 | 19°M56 | 26°A24 | 9°A53 | 22°A10 | 25°R17 | 17°R13 | 22°A21 | 17°R26 | 2°K18 | 26°R 0 | 27°A 3 | 22°V 8 | 19°R20 | T 1 | | | | | | | | |
| W 2 | 9 11 37 | 19°26'53 | 3°X49 | 28°17 | 11° 8 | 22°57 | 25°II15 | 17°R 8 | 22°23 | 17°26 | 2°19 | 26°A 0 | 27° 0 | 22°15 | 19°R15 | W 2 | | | | | | | | |
| T 3 | 9 15 34 | 20°27'17 | 17°32 | 0°X 9 | 12°23 | 23°44 | 25°13 | 17° 3 | 22°25 | 17°27 | 2°21 | 25°57 | 26°57 | 22°22 | 19°10 | T 3 | | | | | | | | |
| F 4 | 9 19 31 | 21°27'39 | 1°B 4 | 2° 0 | 13°38 | 24°32 | 25°11 | 16°58 | 22°28 | 17°27 | 2°22 | 25°51 | 26°54 | 22°28 | 19° 6 | F 4 | | | | | | | | |
| S 5 | 9 23 27 | 22°27'59 | 14°26 | 3°51 | 14°53 | 25°19 | 25°10 | 16°54 | 22°30 | 17°28 | 2°24 | 25°43 | 26°51 | 22°35 | 19° 1 | S 5 | | | | | | | | |
| S 6 | 9 27 24 | 23°28'18 | 27°37 | 5°42 | 16° 8 | 26° 6 | 25° 8 | 16°49 | 22°32 | 17°28 | 2°26 | 25°32 | 26°48 | 22°42 | 18°56 | S 6 | | | | | | | | |
| M 7 | 9 31 20 | 24°28'35 | 10°A35 | 7°30 | 17°23 | 26°53 | 25° 7 | 16°44 | 22°34 | 17°29 | 2°27 | 25°21 | 26°44 | 22°48 | 18°52 | M 7 | | | | | | | | |
| T 8 | 9 35 17 | 25°28'51 | 23°20 | 9°17 | 18°38 | 27°41 | 25° 6 | 16°39 | 22°36 | 17°29 | 2°29 | 25°10 | 26°41 | 22°55 | 18°47 | T 8 | | | | | | | | |
| W 9 | 9 39 13 | 26°29'04 | 5°K51 | 11° 2 | 19°53 | 28°28 | 25° 5 | 16°35 | 22°39 | 17°30 | 2°30 | 25° 0 | 26°38 | 23° 1 | 18°42 | W 9 | | | | | | | | |
| T 10 | 9 43 10 | 27°29'16 | 18° 9 | 12°44 | 21° 8 | 29°15 | 25° 4 | 16°30 | 22°41 | 17°30 | 2°32 | 24°52 | 26°35 | 23° 8 | 18°38 | T 10 | | | | | | | | |
| F 11 | 9 47 6 | 28°29'25 | 0°V15 | 14°23 | 22°23 | 0°X 2 | 25° 4 | 16°25 | 22°43 | 17°31 | 2°34 | 24°46 | 26°32 | 23°15 | 18°33 | F 11 | | | | | | | | |
| S 12 | 9 51 3 | 29°29'33 | 12°11 | 15°59 | 23°38 | 0°49 | 25° 3 | 16°21 | 22°45 | 17°32 | 2°35 | 24°43 | 26°28 | 23°21 | 18°29 | S 12 | | | | | | | | |
| S 13 | 9 55 0 | 0°X29'38 | 24° 0 | 17°30 | 24°52 | 1°37 | 25°D 3 | 16°16 | 22°46 | 17°33 | 2°37 | 24°D42 | 26°25 | 23°28 | 18°24 | S 13 | | | | | | | | |
| M14 | 9 58 56 | 1°29'42 | 5°B47 | 18°56 | 26° 7 | 2°24 | 25° 3 | 16°11 | 22°48 | 17°33 | 2°38 | 24°42 | 26°22 | 23°35 | 18°20 | M14 | | | | | | | | |
| T 15 | 10 2 53 | 2°29'43 | 17°36 | 20°17 | 27°22 | 3°11 | 25° 4 | 16° 7 | 22°50 | 17°34 | 2°40 | 24°43 | 26°19 | 23°41 | 18°15 | T 15 | | | | | | | | |
| W16 | 10 6 49 | 3°29'42 | 29°31 | 21°31 | 28°37 | 3°58 | 25° 4 | 16° 2 | 22°52 | 17°35 | 2°42 | 24°R44 | 26°16 | 23°48 | 18°11 | W16 | | | | | | | | |
| T 17 | 10 10 46 | 4°29'39 | 11°II40 | 22°40 | 29°52 | 4°45 | 25° 5 | 15°58 | 22°54 | 17°36 | 2°43 | 24°44 | 26°13 | 23°55 | 18° 6 | T 17 | | | | | | | | |
| F 18 | 10 14 42 | 5°29'34 | 24° 6 | 23°41 | 1°X 6 | 5°32 | 25° 6 | 15°53 | 22°55 | 17°37 | 2°45 | 24°42 | 26° 9 | 24° 1 | 18° 2 | F 18 | | | | | | | | |
| S 19 | 10 18 39 | 6°29'26 | 6°B54 | 24°35 | 2°21 | 6°19 | 25° 7 | 15°49 | 22°57 | 17°38 | 2°46 | 24°38 | 26° 6 | 24° 8 | 17°58 | S 19 | | | | | | | | |
| S 20 | 10 22 35 | 7°29'16 | 20° 8 | 25°22 | 3°36 | 7° 6 | 25° 8 | 15°45 | 22°58 | 17°39 | 2°48 | 24°32 | 26° 3 | 24°15 | 17°54 | S 20 | | | | | | | | |
| M21 | 10 26 32 | 8°29'04 | 3°A49 | 26° 0 | 4°51 | 7°53 | 25°10 | 15°40 | 23° 0 | 17°40 | 2°50 | 24°25 | 26° 0 | 24°21 | 17°49 | M21 | | | | | | | | |
| T 22 | 10 30 29 | 9°28'50 | 17°55 | 26°30 | 6° 5 | 8°40 | 25°11 | 15°36 | 23° 1 | 17°41 | 2°51 | 24°18 | 25°57 | 24°28 | 17°45 | T 22 | | | | | | | | |
| W23 | 10 34 25 | 10°28'34 | 2°M24 | 26°51 | 7°20 | 9°27 | 25°13 | 15°32 | 23° 3 | 17°42 | 2°53 | 24°11 | 25°54 | 24°34 | 17°41 | W23 | | | | | | | | |
| T 24 | 10 38 22 | 11°28'15 | 17° 9 | 27° 4 | 8°35 | 10°13 | 25°15 | 15°28 | 23° 4 | 17°43 | 2°54 | 24° 5 | 25°50 | 24°41 | 17°37 | T 24 | | | | | | | | |
| F 25 | 10 42 18 | 12°27'54 | 2°A 1 | 27°R 9 | 9°50 | 11° 0 | 25°18 | 15°24 | 23° 5 | 17°44 | 2°56 | 24° 1 | 25°47 | 24°48 | 17°33 | F 25 | | | | | | | | |
| S 26 | 10 46 15 | 13°27'32 | 16°54 | 27° 5 | 11° 4 | 11°47 | 25°20 | 15°20 | 23° 7 | 17°45 | 2°58 | 24°D 0 | 25°44 | 24°54 | 17°29 | S 26 | | | | | | | | |
| S 27 | 10 50 11 | 14°27'07 | 1°M39 | 26°53 | 12°19 | 12°34 | 25°23 | 15°16 | 23° 8 | 17°47 | 2°59 | 24° 0 | 25°41 | 25° 1 | 17°25 | S 27 | | | | | | | | |
| M28 | 10 54 8 | 15°K26'41 | 16°M11 | 26°K34 | 13°K33 | 13°K20 | 25°II25 | 15°R12 | 23°A 9 | 17°R48 | 3°K 1 | 24°A 1 | 25°A38 | 25°V 8 | 17°R21 | M28 | | | | | | | | |

Delta T = 19m43s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1065
geocentric

MARCH 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|-------|------|--------|-------|-------|--------|------|---|-----|
| T 1 | 10 58 4 | 16♂13 | 0♂27 | 26°R 7 | 14♂48 | 14♂7 | 25♂28 | 15°R 8 | 23♂10 | 17♂49 | 3♂2 | 24♂2 | 25♂34 | 25♂14 | 17°R18 | T 1 | | |
| W 2 | 11 2 1 | 17°25'44 | 14°24 | 25♂34 | 16° 3 | 14°54 | 25°32 | 15°R 5 | 23°11 | 17°50 | 3° 4 | 24°R 3 | 25°31 | 25°21 | 17°R14 | W 2 | | |
| T 3 | 11 5 57 | 18°25'12 | 28° 3 | 24°55 | 17°17 | 15°40 | 25°35 | 15° 1 | 23°12 | 17°52 | 3° 5 | 24° 3 | 25°28 | 25°28 | 17°10 | T 3 | | |
| F 4 | 11 9 54 | 19°24'39 | 11♂35 | 24°12 | 18°32 | 16°27 | 25°38 | 14°57 | 23°13 | 17°53 | 3° 7 | 24° 1 | 25°25 | 25°34 | 17° 7 | F 4 | | |
| S 5 | 11 13 51 | 20°24'04 | 24°31 | 23°25 | 19°46 | 17°14 | 25°42 | 14°54 | 23°14 | 17°54 | 3° 8 | 23°57 | 25°22 | 25°41 | 17° 3 | S 5 | | |
| S 6 | 11 17 47 | 21°23'27 | 7♂22 | 22°35 | 21° 1 | 18° 0 | 25°46 | 14°51 | 23°15 | 17°56 | 3°10 | 23°52 | 25°19 | 25°48 | 17° 0 | S 6 | | |
| M 7 | 11 21 44 | 22°22'48 | 20° 0 | 21°44 | 22°16 | 18°47 | 25°50 | 14°47 | 23°16 | 17°57 | 3°12 | 23°47 | 25°15 | 25°54 | 16°57 | M 7 | | |
| T 8 | 11 25 40 | 23°22'07 | 2♂26 | 20°52 | 23°30 | 19°33 | 25°54 | 14°44 | 23°17 | 17°59 | 3°13 | 23°42 | 25°12 | 26° 1 | 16°53 | T 8 | | |
| W 9 | 11 29 37 | 24°21'25 | 14°41 | 20° 1 | 24°45 | 20°19 | 25°59 | 14°41 | 23°17 | 18° 0 | 3°15 | 23°37 | 25° 9 | 26° 8 | 16°50 | W 9 | | |
| T 10 | 11 33 33 | 25°20'40 | 26°46 | 19°11 | 25°59 | 21° 6 | 26° 3 | 14°38 | 23°18 | 18° 2 | 3°16 | 23°33 | 25° 6 | 26°14 | 16°47 | T 10 | | |
| F 11 | 11 37 30 | 26°19'53 | 8♂43 | 18°23 | 27°14 | 21°52 | 26° 8 | 14°35 | 23°19 | 18° 3 | 3°18 | 23°30 | 25° 3 | 26°21 | 16°44 | F 11 | | |
| S 12 | 11 41 26 | 27°19'04 | 20°34 | 17°39 | 28°28 | 22°39 | 26°13 | 14°32 | 23°19 | 18° 5 | 3°19 | 23°D29 | 24°59 | 26°27 | 16°41 | S 12 | | |
| S 13 | 11 45 23 | 28°18'12 | 2♂21 | 16°58 | 29°42 | 23°25 | 26°18 | 14°29 | 23°20 | 18° 6 | 3°21 | 23°30 | 24°56 | 26°34 | 16°39 | S 13 | | |
| M14 | 11 49 20 | 29°17'19 | 14° 8 | 16°22 | 0♂57 | 24°11 | 26°23 | 14°26 | 23°20 | 18° 8 | 3°22 | 23°31 | 24°53 | 26°41 | 16°36 | M14 | | |
| T 15 | 11 53 16 | 0♂16'23 | 25°58 | 15°51 | 2°11 | 24°57 | 26°29 | 14°24 | 23°21 | 18° 9 | 3°23 | 23°33 | 24°50 | 26°47 | 16°33 | T 15 | | |
| W16 | 11 57 13 | 1°15'25 | 7♂54 | 15°25 | 3°26 | 25°43 | 26°34 | 14°21 | 23°21 | 18°11 | 3°25 | 23°34 | 24°47 | 26°54 | 16°31 | W16 | | |
| T 17 | 12 1 9 | 2°14'25 | 20° 2 | 15° 4 | 4°40 | 26°29 | 26°40 | 14°19 | 23°21 | 18°13 | 3°26 | 23°36 | 24°44 | 27° 1 | 16°28 | T 17 | | |
| F 18 | 12 5 6 | 3°13'22 | 2♂25 | 14°48 | 5°54 | 27°16 | 26°46 | 14°16 | 23°22 | 18°14 | 3°28 | 23°R36 | 24°40 | 27° 7 | 16°26 | F 18 | | |
| S 19 | 12 9 2 | 4°12'17 | 15°10 | 14°39 | 7° 9 | 28° 2 | 26°52 | 14°14 | 23°22 | 18°16 | 3°29 | 23°36 | 24°37 | 27°14 | 16°24 | S 19 | | |
| S 20 | 12 12 59 | 5°11'10 | 28°19 | 14°D34 | 8°23 | 28°48 | 26°58 | 14°12 | 23°22 | 18°18 | 3°31 | 23°34 | 24°34 | 27°21 | 16°21 | S 20 | | |
| M21 | 12 16 55 | 6°10'00 | 11♂54 | 14°35 | 9°37 | 29°33 | 27° 4 | 14°10 | 23°22 | 18°20 | 3°32 | 23°33 | 24°31 | 27°27 | 16°19 | M21 | | |
| T 22 | 12 20 52 | 7° 8'48 | 25°58 | 14°42 | 10°52 | 0♂19 | 27°11 | 14° 8 | 23°R22 | 18°21 | 3°33 | 23°30 | 24°28 | 27°34 | 16°17 | T 22 | | |
| W23 | 12 24 48 | 8° 7'34 | 10♂27 | 14°53 | 12° 6 | 1° 5 | 27°17 | 14° 6 | 23°22 | 18°23 | 3°35 | 23°28 | 24°25 | 27°41 | 16°15 | W23 | | |
| T 24 | 12 28 45 | 9° 6'17 | 25°17 | 15° 9 | 13°20 | 1°51 | 27°24 | 14° 4 | 23°22 | 18°25 | 3°36 | 23°27 | 24°21 | 27°47 | 16°14 | T 24 | | |
| F 25 | 12 32 42 | 10° 4'59 | 10♂21 | 15°30 | 14°34 | 2°37 | 27°31 | 14° 2 | 23°22 | 18°27 | 3°37 | 23°26 | 24°18 | 27°54 | 16°12 | F 25 | | |
| S 26 | 12 36 38 | 11° 3'38 | 25°31 | 15°56 | 15°48 | 3°22 | 27°38 | 14° 1 | 23°22 | 18°29 | 3°39 | 23°D26 | 24°15 | 28° 0 | 16°10 | S 26 | | |
| S 27 | 12 40 35 | 12° 2'16 | 10♂36 | 16°26 | 17° 3 | 4° 8 | 27°45 | 13°59 | 23°22 | 18°31 | 3°40 | 23°26 | 24°12 | 28° 7 | 16° 9 | S 27 | | |
| M28 | 12 44 31 | 13° 0'52 | 25°29 | 17° 0 | 18°17 | 4°54 | 27°53 | 13°58 | 23°21 | 18°32 | 3°41 | 23°27 | 24° 9 | 28°14 | 16° 8 | M28 | | |
| T 29 | 12 48 28 | 13°59'26 | 10♂3 | 17°38 | 19°31 | 5°39 | 28° 0 | 13°57 | 23°21 | 18°34 | 3°43 | 23°27 | 24° 5 | 28°20 | 16° 6 | T 29 | | |
| W30 | 12 52 24 | 14°57'58 | 24°14 | 18°20 | 20°45 | 6°25 | 28° 8 | 13°56 | 23°21 | 18°36 | 3°44 | 23°28 | 24° 2 | 28°27 | 16° 5 | W30 | | |
| T 31 | 12 56 21 | 15°56'29 | 8♂3 | 19♂6 | 21♂59 | 7°10 | 28♂15 | 13♂55 | 23♂20 | 18♂38 | 3♂45 | 23♂29 | 23♂59 | 28♂34 | 16♂4 | T 31 | | |

Delta T = 19m43s Julian Calendar 1 March 1065 == Greg. Calendar 7 March 1065

APRIL 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|-------|------|--------|-------|-------|--------|------|---|-----|
| F 1 | 13 0 17 | 16♂54'58 | 21♂23 | 19♂55 | 23♂13 | 7♂56 | 28♂23 | 13°R54 | 23°R20 | 18♂40 | 3♂46 | 23°R29 | 23♂56 | 28♂40 | 16°R 3 | F 1 | | |
| S 2 | 13 4 14 | 17°53'25 | 4♂24 | 20°47 | 24°27 | 8°41 | 28°31 | 13°R53 | 23♂19 | 18°42 | 3°48 | 23♂28 | 23°53 | 28°47 | 16°R 2 | S 2 | | |
| S 3 | 13 8 11 | 18°51'51 | 17° 6 | 21°43 | 25°41 | 9°27 | 28°39 | 13°52 | 23°19 | 18°44 | 3°49 | 23°28 | 23°50 | 28°54 | 16° 2 | S 3 | | |
| M 4 | 13 12 7 | 19°50'15 | 29°31 | 22°41 | 26°55 | 10°12 | 28°48 | 13°51 | 23°18 | 18°46 | 3°50 | 23°28 | 23°46 | 29° 0 | 16° 1 | M 4 | | |
| T 5 | 13 16 4 | 20°48'38 | 11♂43 | 23°42 | 28° 9 | 10°57 | 28°56 | 13°51 | 23°17 | 18°48 | 3°51 | 23°27 | 23°43 | 29° 7 | 16° 1 | T 5 | | |
| W 6 | 13 20 0 | 21°46'58 | 23°45 | 24°47 | 29°23 | 11°42 | 29° 4 | 13°50 | 23°17 | 18°50 | 3°52 | 23°27 | 23°40 | 29°14 | 16° 0 | W 6 | | |
| T 7 | 13 23 57 | 22°45'17 | 5♂40 | 25°53 | 0♂37 | 12°27 | 29°13 | 13°50 | 23°16 | 18°52 | 3°54 | 23°27 | 23°37 | 29°20 | 16° 0 | T 7 | | |
| F 8 | 13 27 53 | 23°43'34 | 17°30 | 27° 3 | 1°51 | 13°13 | 29°22 | 13°50 | 23°15 | 18°54 | 3°55 | 23°27 | 23°34 | 29°27 | 16° 0 | F 8 | | |
| S 9 | 13 31 50 | 24°41'50 | 29°18 | 28°15 | 3° 5 | 13°58 | 29°31 | 13°D50 | 23°14 | 18°56 | 3°56 | 23°27 | 23°30 | 29°33 | 16°D 0 | S 9 | | |
| S 10 | 13 35 46 | 25°40'03 | 11♂5 | 29°29 | 4°19 | 14°43 | 29°40 | 13°50 | 23°13 | 18°59 | 3°57 | 23°27 | 23°27 | 29°40 | 16° 0 | S 10 | | |
| M11 | 13 39 43 | 26°38'15 | 22°54 | 0♂45 | 5°33 | 15°28 | 29°49 | 13°50 | 23°12 | 19° 1 | 3°58 | 23°26 | 23°24 | 29°47 | 16° 0 | M11 | | |
| T 12 | 13 43 40 | 27°36'25 | 4♂48 | 2° 4 | 6°47 | 16°12 | 29°58 | 13°50 | 23°11 | 19° 3 | 3°59 | 23°26 | 23°21 | 29°53 | 16° 0 | T 12 | | |
| W13 | 13 47 36 | 28°34'33 | 16°49 | 3°25 | 8° 1 | 16°57 | 0♂7 | 13°50 | 23°10 | 19° 5 | 4° 0 | 23°25 | 23°18 | 0♂0 | 16° 0 | W13 | | |
| T 14 | 13 51 33 | 29°32'39 | 29° 0 | 4°48 | 9°15 | 17°42 | 0°17 | 13°51 | 23° 9 | 19° 7 | 4° 1 | 23°25 | 23°15 | 0° 7 | 16° 1 | T 14 | | |
| F 15 | 13 55 29 | 0♂30'44 | 11♂26 | 6°14 | 10°29 | 18°27 | 0°26 | 13°51 | 23° 8 | 19° 9 | 4° 2 | 23°24 | 23°11 | 0°13 | 16° 2 | F 15 | | |
| S 16 | 13 59 26 | 1°28'46 | 24° 9 | 7°41 | 11°43 | 19°12 | 0°36 | 13°52 | 23° 7 | 19°11 | 4° 3 | 23°24 | 23° 8 | 0°20 | 16° 2 | S 16 | | |
| S 17 | 14 3 22 | 2°26'46 | 7♂13 | 9°11 | 12°56 | 19°56 | 0°45 | 13°53 | 23° 6 | 19°13 | 4° 4 | 23°D24 | 23° 5 | 0°27 | 16° 3 | S 17 | | |
| M18 | 14 7 19 | 3°24'45 | 20°40 | 10°42 | 14°10 | 20°41 | 0°55 | 13°54 | 23° 5 | 19°16 | 4° 5 | 23°24 | 23° 2 | 0°33 | 16° 4 | M18 | | |
| T 19 | 14 11 15 | 4°22'41 | 4♂33 | 12°16 | 15°24 | 21°25 | 1° 5 | 13°55 | 23° 3 | 19°18 | 4° 6 | 23°25 | 22°59 | 0°40 | 16° 5 | T 19 | | |
| W20 | 14 15 12 | 5°20'35 | 18°51 | 13°51 | 16°38 | 22°10 | 1°15 | 13°56 | 23° 2 | 19°20 | 4° 7 | 23°26 | 22°56 | 0°47 | 16° 6 | W20 | | |
| T 21 | 14 19 8 | 6°18'28 | 3♂33 | 15°29 | 17°51 | 22°54 | 1°25 | 13°57 | 23° 1 | 19°22 | 4° 8 | 23°26 | 22°52 | 0°53 | 16° 7 | T 21 | | |
| F 22 | 14 23 5 | 7°16'19 | 18°33 | 17° 9 | 19° 5 | 23°39 | 1°35 | 13°58 | 22°59 | 19°24 | 4° 8 | 23°R27 | 22°49 | 1° 0 | 16° 9 | F 22 | | |
| S 23 | 14 27 2 | 8°14'08 | 3♂43 | 18°50 | 20°19 | 24°23 | 1°46 | 13°59 | 22°58 | 19°27 | 4° 9 | 23°27 | 22°46 | 1° 7 | 16°10 | S 23 | | |
| S 24 | 14 30 58 | 9°11'56 | 18°55 | 20°34 | 21°32 | 25° 7 | 1°56 | 14° 1 | 22°56 | 19°29 | 4°10 | 23°26 | 22°43 | 1°13 | 16°12 | S 24 | | |
| M25 | 14 34 55 | 10° 9'43 | 4♂0 | 22°20 | 22°46 | 25°51 | 2° 7 | 14° 3 | 22°55 | 19°31 | 4°11 | 23°24 | 22°40 | 1°20 | 16°13 | M25 | | |
| T 26 | 14 38 51 | 11° 7'28 | 18°47 | 24° 8 | 24° 0 | 26°36 | 2°17 | 14° 4 | 22°53 | 19°33 | 4°12 | 23°22 | 22°36 | 1°26 | 16°15 | T 26 | | |
| W27 | 14 42 48 | 12° 5'12 | 3♂11 | 25°58 | 25°13 | 27°20 | 2°28 | 14° 6 | 22°51 | 19°36 | 4°12 | 23°20 | 22°33 | 1°33 | 16°17 | W27 | | |
| T 28 | 14 46 44 | 13° 2'55 | 17° 9 | 27°49 | 26°27 | 28° 4 | 2°39 | 14° 8 | 22°50 | 19°38 | 4°13 | 23°18 | 22°30 | 1°40 | 16°19 | T 28 | | |
| F 29 | 14 50 41 | 14° 0'36 | 0♂38 | 29°43 | 27°40 | 28°48 | 2°49 | 14°10 | 22°48 | 19°40 | 4°14 | 23°16 | 22°27 | 1°46 | 16°21 | F 29 | | |
| S 30 | 14 54 38 | 14♂58'17 | 13♂42 | 1♂39 | 28♂54 | 29♂32 | 3♂0 | 14♂12 | 22♂46 | 19♂42 | 4♂15 | 23°D16 | 22♂24 | 1♂53 | 16♂23 | S 30 | | |

Delta T = 19m43s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1065
geocentric

MAY 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|--------|-------|-------|--------|-------|------|-------|------|-----|
| S 1 | 14 58 34 | 15♁55'56 | 26♁22 | 3♁37 | 0♁ 8 | 0♁16 | 3♁11 | 14♁14 | 22°R45 | 19♁44 | 4♁15 | 23♁16 | 22♁21 | 2♁ 0 | 16♁26 | S 1 | |
| M 2 | 15 2 31 | 16°53'34 | 8♁42 | 5°36 | 1°21 | 1° 0 | 3°22 | 14°16 | 22°A43 | 19°47 | 4°16 | 23°17 | 22°17 | 2° 6 | 16°28 | M 2 | |
| T 3 | 15 6 27 | 17°51'12 | 20°48 | 7°38 | 2°35 | 1°43 | 3°33 | 14°19 | 22°41 | 19°49 | 4°17 | 23°19 | 22°14 | 2°13 | 16°31 | T 3 | |
| W 4 | 15 10 24 | 18°48'48 | 2°Y44 | 9°41 | 3°48 | 2°27 | 3°45 | 14°21 | 22°39 | 19°51 | 4°17 | 23°21 | 22°11 | 2°20 | 16°33 | W 4 | |
| T 5 | 15 14 20 | 19°46'23 | 14°33 | 11°46 | 5° 2 | 3°11 | 3°56 | 14°24 | 22°37 | 19°53 | 4°18 | 23°22 | 22° 8 | 2°26 | 16°36 | T 5 | |
| F 6 | 15 18 17 | 20°43'57 | 26°20 | 13°53 | 6°15 | 3°54 | 4° 7 | 14°26 | 22°35 | 19°56 | 4°18 | 23°R22 | 22° 5 | 2°33 | 16°39 | F 6 | |
| S 7 | 15 22 13 | 21°41'31 | 8♁ 7 | 16° 1 | 7°28 | 4°38 | 4°19 | 14°29 | 22°33 | 19°58 | 4°19 | 23°21 | 22° 2 | 2°40 | 16°42 | S 7 | |
| S 8 | 15 26 10 | 22°39'03 | 19°57 | 18°10 | 8°42 | 5°22 | 4°30 | 14°32 | 22°31 | 20° 0 | 4°19 | 23°19 | 21°58 | 2°46 | 16°45 | S 8 | |
| M 9 | 15 30 6 | 23°36'34 | 1♁52 | 20°20 | 9°55 | 6° 5 | 4°42 | 14°35 | 22°29 | 20° 2 | 4°20 | 23°15 | 21°55 | 2°53 | 16°48 | M 9 | |
| T 10 | 15 34 3 | 24°34'04 | 13°54 | 22°31 | 11° 9 | 6°48 | 4°53 | 14°38 | 22°27 | 20° 5 | 4°20 | 23°10 | 21°52 | 2°59 | 16°51 | T 10 | |
| W11 | 15 38 0 | 25°31'32 | 26° 5 | 24°43 | 12°22 | 7°32 | 5° 5 | 14°41 | 22°25 | 20° 7 | 4°21 | 23° 4 | 21°49 | 3° 6 | 16°54 | W11 | |
| T 12 | 15 41 56 | 26°29'00 | 8♁27 | 26°55 | 13°35 | 8°15 | 5°17 | 14°44 | 22°23 | 20° 9 | 4°21 | 22°59 | 21°46 | 3°13 | 16°58 | T 12 | |
| F 13 | 15 45 53 | 27°26'26 | 21° 9 | 29° 7 | 14°49 | 8°58 | 5°29 | 14°48 | 22°21 | 20°11 | 4°22 | 22°54 | 21°42 | 3°19 | 17° 1 | F 13 | |
| S 14 | 15 49 49 | 28°23'52 | 3♁50 | 1♁18 | 16° 2 | 9°42 | 5°41 | 14°51 | 22°19 | 20°14 | 4°22 | 22°50 | 21°39 | 3°26 | 17° 5 | S 14 | |
| S 15 | 15 53 46 | 29°21'15 | 16°54 | 3°29 | 17°15 | 10°25 | 5°53 | 14°55 | 22°17 | 20°16 | 4°22 | 22°48 | 21°36 | 3°33 | 17° 9 | S 15 | |
| M16 | 15 57 42 | 0♁18'38 | 0♁18 | 5°40 | 18°29 | 11° 8 | 6° 5 | 14°58 | 22°15 | 20°18 | 4°23 | 22°D47 | 21°33 | 3°39 | 17°12 | M16 | |
| T 17 | 16 1 39 | 1°16'00 | 14° 2 | 7°49 | 19°42 | 11°51 | 6°17 | 15° 2 | 22°12 | 20°20 | 4°23 | 22°48 | 21°30 | 3°46 | 17°16 | T 17 | |
| W18 | 16 5 35 | 2°13'20 | 28° 7 | 9°57 | 20°55 | 12°34 | 6°29 | 15° 6 | 22°10 | 20°23 | 4°23 | 22°49 | 21°27 | 3°53 | 17°20 | W18 | |
| T 19 | 16 9 32 | 3°10'39 | 12♁32 | 12° 4 | 22° 8 | 13°17 | 6°41 | 15°10 | 22° 8 | 20°25 | 4°23 | 22°50 | 21°23 | 3°59 | 17°24 | T 19 | |
| F 20 | 16 13 29 | 4° 7'57 | 27°16 | 14° 9 | 23°22 | 13°59 | 6°53 | 15°14 | 22° 6 | 20°27 | 4°24 | 22°R50 | 21°20 | 4° 6 | 17°28 | F 20 | |
| S 21 | 16 17 25 | 5° 5'15 | 12♁13 | 16°12 | 24°35 | 14°42 | 7° 5 | 15°18 | 22° 3 | 20°29 | 4°24 | 22°49 | 21°17 | 4°13 | 17°33 | S 21 | |
| S 22 | 16 21 22 | 6° 2'31 | 27°16 | 18°14 | 25°48 | 15°25 | 7°18 | 15°22 | 22° 1 | 20°31 | 4°24 | 22°46 | 21°14 | 4°19 | 17°37 | S 22 | |
| M23 | 16 25 18 | 6°59'47 | 12♁16 | 20°13 | 27° 1 | 16° 8 | 7°30 | 15°26 | 21°59 | 20°33 | 4°24 | 22°41 | 21°11 | 4°26 | 17°41 | M23 | |
| T 24 | 16 29 15 | 7°57'02 | 27° 4 | 22°10 | 28°14 | 16°50 | 7°43 | 15°30 | 21°56 | 20°36 | 4°24 | 22°34 | 21° 8 | 4°33 | 17°46 | T 24 | |
| W25 | 16 33 11 | 8°54'17 | 11♁32 | 24° 5 | 29°27 | 17°33 | 7°55 | 15°34 | 21°54 | 20°38 | 4°24 | 22°27 | 21° 4 | 4°39 | 17°51 | W25 | |
| T 26 | 16 37 8 | 9°51'31 | 25°35 | 25°58 | 0♁40 | 18°15 | 8° 8 | 15°39 | 21°52 | 20°40 | 4°25 | 22°21 | 21° 1 | 4°46 | 17°55 | T 26 | |
| F 27 | 16 41 5 | 10°48'45 | 9♁11 | 27°48 | 1°53 | 18°58 | 8°20 | 15°43 | 21°49 | 20°42 | 4°25 | 22°15 | 20°58 | 4°53 | 18° 0 | F 27 | |
| S 28 | 16 45 1 | 11°45'58 | 22°19 | 29°36 | 3° 6 | 19°40 | 8°33 | 15°48 | 21°47 | 20°44 | 4°25 | 22°11 | 20°55 | 4°59 | 18° 5 | S 28 | |
| S 29 | 16 48 58 | 12°43'11 | 5♁ 1 | 19♁22 | 4°19 | 20°23 | 8°45 | 15°53 | 21°45 | 20°46 | 4°R25 | 22°10 | 20°52 | 5° 6 | 18°10 | S 29 | |
| M30 | 16 52 54 | 13°40'24 | 17°22 | 3° 5 | 5°32 | 21° 5 | 8°58 | 15°57 | 21°42 | 20°48 | 4°25 | 22°D 9 | 20°48 | 5°12 | 18°15 | M30 | |
| T 31 | 16 56 51 | 14♁37'37 | 29♁28 | 4♁46 | 6♁45 | 21♁47 | 9♁11 | 16♁ 2 | 21♁40 | 20♁51 | 4♁25 | 22♁10 | 20♁45 | 5♁19 | 18♁20 | T 31 | |

Delta T = 19m42s Julian Calendar 1 May 1065 == Greg. Calendar 7 May 1065

JUNE 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|------|-------|------|
| W 1 | 17 0 47 | 15♁34'49 | 11°Y21 | 6♁24 | 7♁58 | 22♁29 | 9♁24 | 16♁ 7 | 21°R37 | 20♁53 | 4°R25 | 22♁11 | 20♁42 | 5♁26 | 18♁25 | W 1 |
| T 2 | 17 4 44 | 16°32'02 | 23° 9 | 8° 0 | 9°11 | 23°11 | 9°36 | 16°12 | 21°A35 | 20°55 | 4°R25 | 22°R12 | 20°39 | 5°32 | 18°30 | T 2 |
| F 3 | 17 8 40 | 17°29'14 | 4♁56 | 9°34 | 10°24 | 23°54 | 9°49 | 16°17 | 21°32 | 20°57 | 4°24 | 22°11 | 20°36 | 5°39 | 18°36 | F 3 |
| S 4 | 17 12 37 | 18°26'26 | 16°45 | 11° 5 | 11°37 | 24°36 | 10° 2 | 16°22 | 21°30 | 20°59 | 4°24 | 22° 8 | 20°33 | 5°46 | 18°41 | S 4 |
| S 5 | 17 16 34 | 19°23'38 | 28°41 | 12°34 | 12°50 | 25°18 | 10°15 | 16°27 | 21°28 | 21° 1 | 4°24 | 22° 2 | 20°29 | 5°52 | 18°47 | S 5 |
| M 6 | 17 20 30 | 20°20'50 | 10♁45 | 14° 0 | 14° 3 | 25°59 | 10°28 | 16°33 | 21°25 | 21° 3 | 4°24 | 21°55 | 20°26 | 5°59 | 18°52 | M 6 |
| T 7 | 17 24 27 | 21°18'02 | 22°59 | 15°24 | 15°16 | 26°41 | 10°41 | 16°38 | 21°23 | 21° 5 | 4°24 | 21°45 | 20°23 | 6° 6 | 18°58 | T 7 |
| W 8 | 17 28 23 | 22°15'14 | 5♁25 | 16°45 | 16°29 | 27°23 | 10°54 | 16°43 | 21°20 | 21° 7 | 4°24 | 21°35 | 20°20 | 6°12 | 19° 4 | W 8 |
| T 9 | 17 32 20 | 23°12'25 | 18° 3 | 18° 4 | 17°41 | 28° 5 | 11° 7 | 16°49 | 21°18 | 21° 9 | 4°23 | 21°24 | 20°17 | 6°19 | 19° 9 | T 9 |
| F 10 | 17 36 16 | 24° 9'36 | 0♁53 | 19°20 | 18°54 | 28°47 | 11°20 | 16°54 | 21°15 | 21°11 | 4°23 | 21°14 | 20°13 | 6°26 | 19°15 | F 10 |
| S 11 | 17 40 13 | 25° 6'47 | 13°55 | 20°33 | 20° 7 | 29°28 | 11°33 | 17° 0 | 21°13 | 21°13 | 4°23 | 21° 6 | 20°10 | 6°32 | 19°21 | S 11 |
| S 12 | 17 44 9 | 26° 3'57 | 27°10 | 21°44 | 21°20 | 0♁10 | 11°46 | 17° 5 | 21°11 | 21°15 | 4°23 | 21° 0 | 20° 7 | 6°39 | 19°27 | S 12 |
| M13 | 17 48 6 | 27° 1'08 | 10♁38 | 22°52 | 22°32 | 0°51 | 11°59 | 17°11 | 21° 8 | 21°17 | 4°22 | 20°57 | 20° 4 | 6°46 | 19°33 | M13 |
| T 14 | 17 52 3 | 27°58'17 | 24°20 | 23°56 | 23°45 | 1°33 | 12°12 | 17°17 | 21° 6 | 21°19 | 4°22 | 20°D56 | 20° 1 | 6°52 | 19°39 | T 14 |
| W15 | 17 55 59 | 28°55'27 | 8♁17 | 24°58 | 24°58 | 2°14 | 12°26 | 17°23 | 21° 3 | 21°20 | 4°22 | 20°56 | 19°58 | 6°59 | 19°46 | W15 |
| T 16 | 17 59 56 | 29°52'36 | 22°28 | 25°57 | 26°10 | 2°55 | 12°39 | 17°29 | 21° 1 | 21°22 | 4°21 | 20°R56 | 19°54 | 7° 6 | 19°52 | T 16 |
| F 17 | 18 3 52 | 0♁49'46 | 6♁54 | 26°53 | 27°23 | 3°37 | 12°52 | 17°35 | 20°58 | 21°24 | 4°21 | 20°56 | 19°51 | 7°12 | 19°58 | F 17 |
| S 18 | 18 7 49 | 1°46'55 | 21°30 | 27°45 | 28°35 | 4°18 | 13° 5 | 17°40 | 20°56 | 21°26 | 4°20 | 20°53 | 19°48 | 7°19 | 20° 5 | S 18 |
| S 19 | 18 11 45 | 2°44'04 | 6♁12 | 28°34 | 29°48 | 4°59 | 13°18 | 17°47 | 20°54 | 21°28 | 4°20 | 20°47 | 19°45 | 7°26 | 20°11 | S 19 |
| M20 | 18 15 42 | 3°41'13 | 20°54 | 29°20 | 1♁ 1 | 5°40 | 13°32 | 17°53 | 20°51 | 21°30 | 4°19 | 20°39 | 19°42 | 7°32 | 20°17 | M20 |
| T 21 | 18 19 38 | 4°38'23 | 5♁28 | 0♁ 1 | 2°13 | 6°21 | 13°45 | 17°59 | 20°49 | 21°31 | 4°19 | 20°29 | 19°39 | 7°39 | 20°24 | T 21 |
| W22 | 18 23 35 | 5°35'33 | 19°47 | 0°39 | 3°25 | 7° 2 | 13°58 | 18° 5 | 20°47 | 21°33 | 4°18 | 20°18 | 19°35 | 7°45 | 20°31 | W22 |
| T 23 | 18 27 32 | 6°32'43 | 3♁45 | 1°13 | 4°38 | 7°43 | 14°11 | 18°11 | 20°44 | 21°35 | 4°18 | 20° 8 | 19°32 | 7°52 | 20°37 | T 23 |
| F 24 | 18 31 28 | 7°29'53 | 17°19 | 1°43 | 5°50 | 8°24 | 14°25 | 18°18 | 20°42 | 21°36 | 4°17 | 19°58 | 19°29 | 7°59 | 20°44 | F 24 |
| S 25 | 18 35 25 | 8°27'04 | 0♁27 | 2° 9 | 7° 3 | 9° 5 | 14°38 | 18°24 | 20°40 | 21°38 | 4°17 | 19°51 | 19°26 | 8° 5 | 20°51 | S 25 |
| S 26 | 18 39 21 | 9°24'16 | 13°11 | 2°30 | 8°15 | 9°46 | 14°51 | 18°30 | 20°37 | 21°40 | 4°16 | 19°47 | 19°23 | 8°12 | 20°58 | S 26 |
| M27 | 18 43 18 | 10°21'28 | 25°33 | 2°47 | 9°27 | 10°26 | 15° 5 | 18°37 | 20°35 | 21°41 | 4°15 | 19°44 | 19°19 | 8°19 | 21° 5 | M27 |
| T 28 | 18 47 14 | 11°18'41 | 7°Y39 | 2°59 | 10°39 | 11° 7 | 15°18 | 18°43 | 20°33 | 21°43 | 4°15 | 19°D44 | 19°16 | 8°25 | 21°12 | T 28 |
| W29 | 18 51 11 | 12°15'55 | 19°34 | 3° 7 | 11°52 | 11°48 | 15°31 | 18°50 | 20°31 | 21°45 | 4°14 | 19°R44 | 19°13 | 8°32 | 21°19 | W29 |
| T 30 | 18 55 7 | 13♁13'09 | 1♁23 | 3°R 9 | 13♁ 4 | 12♁28 | 15♁45 | 18♁57 | 20♁29 | 21♁46 | 4♁13 | 19♁43 | 19♁10 | 8♁39 | 21♁26 | T 30 |

Delta T = 19m42s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1065
geocentric

JULY 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------------------|---------------------|--------------------|--------------------|----------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|--------------------|-------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| F 1 | 18 59 4 | 14 [☉] 10'25 | 13 [☽] 11 | 3 [♀] R 7 | 14 [♁] 16 | 13 [♂] II 9 | 15 [♃] 58 | 19 [♄] 3 | 20 [♅] R26 | 21 [♆] 48 | 4 [♇] R13 | 19 [♈] R41 | 19 [♉] 7 | 8 [♊] 45 | 21 [♋] 33 | F 1 | | | | | | | | |
| S 2 | 19 3 1 | 15° 7'41 | 25° 4' | 3 [♀] Ω 0 | 15°28 | 13°49 | 16°11 | 19°10 | 20 [♅] 24 | 21°49 | 4 [♇] 12 | 19 [♈] 38 | 19° 4' | 8°52 | 21°40 | S 2 | | | | | | | | |
| S 3 | 19 6 57 | 16° 4'58 | 7 [☽] II 5 | 2°48 | 16°40 | 14°30 | 16°25 | 19°17 | 20°22 | 21°51 | 4°11 | 19°31 | 19° 0' | 8°59 | 21°47 | S 3 | | | | | | | | |
| M 4 | 19 10 54 | 17° 2'16 | 19°18 | 2°30 | 17°52 | 15°10 | 16°38 | 19°23 | 20°20 | 21°52 | 4°11 | 19°22 | 18°57 | 9° 5' | 21°55 | M 4 | | | | | | | | |
| T 5 | 19 14 50 | 17°59'35 | 1 [☽] 45 | 2° 9' | 19° 5' | 15°50 | 16°52 | 19°30 | 20°18 | 21°54 | 4°10 | 19°10 | 18°54 | 9°12 | 22° 2' | T 5 | | | | | | | | |
| W 6 | 19 18 47 | 18°56'54 | 14°27 | 1°42 | 20°17 | 16°30 | 17° 5' | 19°37 | 20°16 | 21°55 | 4° 9' | 18°58 | 18°51 | 9°19 | 22° 9' | W 6 | | | | | | | | |
| T 7 | 19 22 43 | 19°54'15 | 27°24 | 1°12 | 21°29 | 17°11 | 17°18 | 19°44 | 20°14 | 21°56 | 4° 8' | 18°45 | 18°48 | 9°25 | 22°17 | T 7 | | | | | | | | |
| F 8 | 19 26 40 | 20°51'36 | 10 [☽] 35 | 0°38 | 22°41 | 17°51 | 17°32 | 19°51 | 20°12 | 21°58 | 4° 7' | 18°33 | 18°45 | 9°32 | 22°24 | F 8 | | | | | | | | |
| S 9 | 19 30 36 | 21°48'58 | 23°59 | 29 [☽] 59 | 23°52 | 18°31 | 17°45 | 19°58 | 20°10 | 21°59 | 4° 6' | 18°23 | 18°41 | 9°39 | 22°32 | S 9 | | | | | | | | |
| S 10 | 19 34 33 | 22°46'20 | 7 [☽] 32 | 29°19 | 25° 4' | 19°11 | 17°58 | 20° 5' | 20° 8' | 22° 0' | 4° 6' | 18°16 | 18°38 | 9°45 | 22°39 | S 10 | | | | | | | | |
| M 11 | 19 38 30 | 23°43'43 | 21°15 | 28°36 | 26°16 | 19°51 | 18°12 | 20°12 | 20° 6' | 22° 2' | 4° 5' | 18°12 | 18°35 | 9°52 | 22°47 | M 11 | | | | | | | | |
| T 12 | 19 42 26 | 24°41'07 | 5 [☽] 6 | 27°51 | 27°28 | 20°30 | 18°25 | 20°19 | 20° 4' | 22° 3' | 4° 4' | 18°10 | 18°32 | 9°59 | 22°54 | T 12 | | | | | | | | |
| W 13 | 19 46 23 | 25°38'31 | 19° 5' | 27° 6' | 28°40 | 21°10 | 18°38 | 20°26 | 20° 2' | 22° 4' | 4° 3' | 18°10 | 18°29 | 10° 5' | 23° 2' | W 13 | | | | | | | | |
| T 14 | 19 50 19 | 26°35'56 | 3 [☽] 11 | 26°20 | 29°51 | 21°50 | 18°51 | 20°33 | 20° 1' | 22° 5' | 4° 2' | 18°10 | 18°25 | 10°12 | 23°10 | T 14 | | | | | | | | |
| F 15 | 19 54 16 | 27°33'22 | 17°22 | 25°36 | 1 [☽] 3 | 22°30 | 19° 5' | 20°40 | 19°59 | 22° 6' | 4° 1' | 18° 9' | 18°22 | 10°19 | 23°17 | F 15 | | | | | | | | |
| S 16 | 19 58 12 | 28°30'48 | 1 [☽] 39 | 24°53 | 2°15 | 23° 9' | 19°18 | 20°47 | 19°57 | 22° 8' | 4° 0' | 18° 5' | 18°19 | 10°25 | 23°25 | S 16 | | | | | | | | |
| S 17 | 20 2 9 | 29°28'15 | 15°58 | 24°12 | 3°26 | 23°49 | 19°31 | 20°55 | 19°55 | 22° 9' | 3°59 | 18° 0' | 18°16 | 10°32 | 23°33 | S 17 | | | | | | | | |
| M 18 | 20 6 5 | 0 [☽] 25'43 | 0 [☽] 15 | 23°35 | 4°38 | 24°29 | 19°44 | 21° 2' | 19°54 | 22°10 | 3°58 | 17°51 | 18°13 | 10°38 | 23°41 | M 18 | | | | | | | | |
| T 19 | 20 10 2 | 1°23'13 | 14°25 | 23° 2' | 5°49 | 25° 8' | 19°58 | 21° 9' | 19°52 | 22°11 | 3°57 | 17°41 | 18°10 | 10°45 | 23°48 | T 19 | | | | | | | | |
| W 20 | 20 13 59 | 2°20'43 | 18°23 | 22°34 | 7° 1' | 25°47 | 20°11 | 21°16 | 19°51 | 22°12 | 3°56 | 17°30 | 18° 6' | 10°52 | 23°56 | W 20 | | | | | | | | |
| T 21 | 20 17 55 | 3°18'14 | 12 [☽] 5 | 22°11 | 8°12 | 26°27 | 20°24 | 21°24 | 19°49 | 22°13 | 3°55 | 17°19 | 18° 3' | 10°58 | 24° 4' | T 21 | | | | | | | | |
| F 22 | 20 21 52 | 4°15'46 | 25°27 | 21°53 | 9°23 | 27° 6' | 20°37 | 21°31 | 19°47 | 22°14 | 3°54 | 17° 9' | 18° 0' | 11° 5' | 24°12 | F 22 | | | | | | | | |
| S 23 | 20 25 48 | 5°13'20 | 8 [☽] 28 | 21°43 | 10°35 | 27°45 | 20°50 | 21°38 | 19°46 | 22°15 | 3°53 | 17° 1' | 17°57 | 11°12 | 24°20 | S 23 | | | | | | | | |
| S 24 | 20 29 45 | 6°10'55 | 21° 7' | 21°D38 | 11°46 | 28°24 | 21° 3' | 21°46 | 19°45 | 22°16 | 3°52 | 16°56 | 17°54 | 11°18 | 24°28 | S 24 | | | | | | | | |
| M 25 | 20 33 41 | 7° 8'32 | 3 [☽] 28 | 21°41 | 12°57 | 29° 4' | 21°16 | 21°53 | 19°43 | 22°17 | 3°51 | 16°53 | 17°51 | 11°25 | 24°36 | M 25 | | | | | | | | |
| T 26 | 20 37 38 | 8° 6'10 | 15°34 | 21°51 | 14° 8' | 29°43 | 21°29 | 22° 1' | 19°42 | 22°17 | 3°50 | 16°D53 | 17°47 | 11°32 | 24°44 | T 26 | | | | | | | | |
| W 27 | 20 41 34 | 9° 3'49 | 27°29 | 22° 8' | 15°19 | 0 [☽] 22 | 21°42 | 22° 8' | 19°40 | 22°18 | 3°49 | 16°53 | 17°44 | 11°38 | 24°52 | W 27 | | | | | | | | |
| T 28 | 20 45 31 | 10° 1'30 | 9 [☽] 19 | 22°33 | 16°30 | 1° 1' | 21°55 | 22°15 | 19°39 | 22°19 | 3°48 | 16°R53 | 17°41 | 11°45 | 25° 0' | T 28 | | | | | | | | |
| F 29 | 20 49 28 | 10°59'13 | 21° 9' | 23° 5' | 17°41 | 1°40 | 22° 8' | 22°23 | 19°38 | 22°20 | 3°46 | 16°53 | 17°38 | 11°52 | 25° 8' | F 29 | | | | | | | | |
| S 30 | 20 53 24 | 11°56'58 | 3 [☽] 4 | 23°44 | 18°52 | 2°18 | 22°21 | 22°30 | 19°37 | 22°20 | 3°45 | 16°50 | 17°35 | 11°58 | 25°17 | S 30 | | | | | | | | |
| S 31 | 20 57 21 | 12 [☽] 54'44 | 15 [☽] 8 | 24 [☽] 30 | 20 [☽] 3 | 2 [☽] 57 | 22 [☽] 34 | 22 [☽] 38 | 19 [☽] 36 | 22 [☽] 21 | 3 [☽] 44 | 16 [☽] 46 | 17 [☽] 31 | 12 [☽] 8 | 25 [☽] 25 | S 31 | | | | | | | | |

Delta T = 19m42s Julian Calendar 1 July 1065 == Greg. Calendar 7 July 1065

AUGUST 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------------------|-----------------------|--------------------|--------------------|-------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| M 1 | 21 1 17 | 13 [☽] 52'32 | 27 [☽] II 27 | 25 [☽] 24 | 21 [☽] 14 | 3 [☽] 36 | 22 [☽] 47 | 22 [☽] 45 | 19 [☽] R35 | 22 [☽] 22 | 3 [☽] R43 | 16 [☽] R39 | 17 [☽] 28 | 12 [☽] 12 | 25 [☽] 33 | M 1 | | | | | | | | |
| T 2 | 21 5 14 | 14°50'22 | 10 [☽] 4 | 26°24 | 22°25 | 4°15 | 23° 0' | 22°53 | 19 [☽] 34 | 22°22 | 3 [☽] 42 | 16 [☽] 30 | 17°25 | 12°18 | 25°41 | T 2 | | | | | | | | |
| W 3 | 21 9 10 | 15°48'13 | 22°59 | 27°30 | 23°36 | 4°53 | 23°13 | 23° 0' | 19°32 | 22°23 | 3°41 | 16°20 | 17°22 | 12°25 | 25°49 | W 3 | | | | | | | | |
| T 4 | 21 13 7 | 16°46'06 | 6 [☽] 14 | 28°43 | 24°46 | 5°32 | 23°26 | 23° 8' | 19°32 | 22°24 | 3°39 | 16°10 | 17°19 | 12°32 | 25°57 | T 4 | | | | | | | | |
| F 5 | 21 17 3 | 17°44'01 | 19°46 | 0 [☽] 2 | 25°57 | 6°10 | 23°38 | 23°16 | 19°31 | 22°24 | 3°38 | 16° 0' | 17°16 | 12°38 | 26° 6' | F 5 | | | | | | | | |
| S 6 | 21 21 0 | 18°41'57 | 3 [☽] 33 | 1°26 | 27° 7' | 6°49 | 23°51 | 23°23 | 19°30 | 22°25 | 3°37 | 15°53 | 17°12 | 12°45 | 26°14 | S 6 | | | | | | | | |
| S 7 | 21 24 57 | 19°39'54 | 17°32 | 2°55 | 28°18 | 7°27 | 24° 4' | 23°31 | 19°29 | 22°25 | 3°36 | 15°47 | 17° 9' | 12°52 | 26°22 | S 7 | | | | | | | | |
| M 8 | 21 28 53 | 20°37'53 | 1 [☽] 38 | 4°29 | 29°28 | 8° 5' | 24°16 | 23°38 | 19°28 | 22°25 | 3°35 | 15°44 | 17° 6' | 12°58 | 26°30 | M 8 | | | | | | | | |
| T 9 | 21 32 50 | 21°35'53 | 15°48 | 6° 8' | 0 [☽] 39 | 8°44 | 24°29 | 23°46 | 19°27 | 22°26 | 3°33 | 15°D43 | 17° 3' | 13° 5' | 26°39 | T 9 | | | | | | | | |
| W 10 | 21 36 46 | 22°33'55 | 0 [☽] 0 | 7°49 | 1°49 | 9°22 | 24°41 | 23°53 | 19°27 | 22°26 | 3°32 | 15°44 | 17° 0' | 13°12 | 26°47 | W 10 | | | | | | | | |
| T 11 | 21 40 43 | 23°31'58 | 14°11 | 9°34 | 2°59 | 10° 0' | 24°54 | 24° 1' | 19°26 | 22°27 | 3°31 | 15°45 | 16°57 | 13°18 | 26°55 | T 11 | | | | | | | | |
| F 12 | 21 44 39 | 24°30'03 | 28°20 | 11°22 | 4° 9' | 10°38 | 25° 6' | 24° 8' | 19°26 | 22°27 | 3°30 | 15°R45 | 16°53 | 13°25 | 27° 3' | F 12 | | | | | | | | |
| S 13 | 21 48 36 | 25°28'09 | 12 [☽] 25 | 13°12 | 5°19 | 11°16 | 25°19 | 24°16 | 19°25 | 22°27 | 3°29 | 15°44 | 16°50 | 13°32 | 27°12 | S 13 | | | | | | | | |
| S 14 | 21 52 32 | 26°26'17 | 26°26 | 15° 4' | 6°29 | 11°54 | 25°31 | 24°24 | 19°24 | 22°27 | 3°27 | 15°40 | 16°47 | 13°38 | 27°20 | S 14 | | | | | | | | |
| M 15 | 21 56 29 | 27°24'26 | 10 [☽] 19 | 16°58 | 7°39 | 12°32 | 25°43 | 24°31 | 19°24 | 22°27 | 3°26 | 15°35 | 16°44 | 13°45 | 27°28 | M 15 | | | | | | | | |
| T 16 | 22 0 26 | 28°22'36 | 24° 2' | 18°52 | 8°49 | 13°10 | 25°55 | 24°39 | 19°24 | 22°28 | 3°25 | 15°28 | 16°41 | 13°52 | 27°37 | T 16 | | | | | | | | |
| W 17 | 22 4 22 | 29°20'48 | 7 [☽] 33 | 20°47 | 9°59 | 13°47 | 26° 8' | 24°46 | 19°23 | 22°28 | 3°24 | 15°20 | 16°37 | 13°58 | 27°45 | W 17 | | | | | | | | |
| T 18 | 22 8 19 | 0 [☽] 19'02 | 20°53 | 22°43 | 11° 8' | 14°25 | 26°20 | 24°54 | 19°23 | 22°28 | 3°22 | 15°13 | 16°34 | 14° 5' | 27°53 | T 18 | | | | | | | | |
| F 19 | 22 12 15 | 1°17'18 | 3 [☽] 56 | 24°39 | 12°18 | 15° 3' | 26°32 | 25° 1' | 19°23 | 22°28 | 3°21 | 15° 6' | 16°31 | 14°12 | 28° 2' | F 19 | | | | | | | | |
| S 20 | 22 16 12 | 2°15'35 | 16°42 | 26°35 | 13°28 | 15°40 | 26°44 | 25° 9' | 19°23 | 22°R28 | 3°20 | 15° 1' | 16°28 | 14°18 | 28°10 | S 20 | | | | | | | | |
| S 21 | 22 20 8 | 3°13'54 | 29°12 | 28°30 | 14°37 | 16°18 | 26°56 | 25°16 | 19°22 | 22°28 | 3°19 | 14°58 | 16°25 | 14°25 | 28°18 | S 21 | | | | | | | | |
| M 22 | 22 24 5 | 4°12'15 | 11 [☽] 27 | 0 [☽] 25 | 15°46 | 16°55 | 27° 7' | 25°24 | 19°22 | 22°28 | 3°17 | 14°D56 | 16°22 | 14°32 | 28°26 | M 22 | | | | | | | | |
| T 23 | 22 28 1 | 5°10'39 | 23°30 | 2°19 | 16°56 | 17°33 | 27°19 | 25°31 | 19°D22 | 22°28 | 3°16 | 14°57 | 16°18 | 14°38 | 28°35 | T 23 | | | | | | | | |
| W 24 | 22 31 58 | 6° 9'04 | 5 [☽] 24 | 4°13 | 18° 5' | 18°10 | 27°31 | 25°39 | 19°22 | 22°28 | 3°15 | 14°58 | 16°15 | 14°45 | 28°43 | W 24 | | | | | | | | |
| T 25 | 22 35 54 | 7° 7'32 | 17°13 | 6° 6' | 19°14 | 18°47 | 27°43 | 25°46 | 19°22 | 22°28 | 3°14 | 15° 0' | 16°12 | 14°52 | 28°51 | T 25 | | | | | | | | |
| F 26 | 22 39 51 | 8° 6'01 | 29° 3' | 7°58 | 20°23 | 19°24 | 27°54 | 25°54 | 19°23 | 22°27 | 3°12 | 15° 1' | 16° 9' | 14°58 | 29° 0' | F 26 | | | | | | | | |
| S 27 | | | | | | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1065
geocentric

SEPTEMBER 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------|-----|
| T 1 | 23 3 30 | 13 ^h 57'47 | 14 ^h 02'27 | 18 ^h 51' | 27 ^h 15' | 23 ^h 06' | 29 ^h 02' | 26 ^h 03'38 | 19 ^h 27'24 | 22 ^h 20'26 | 3 ^h R 5 | 14 ^h R45 | 15 ^h 05'50 | 15 ^h 08'38 | 29 ^h 02'49 | T 1 | |
| F 2 | 23 7 27 | 14 ^h 56'32 | 28 ^h 0'13 | 20 ^h 36' | 28 ^h 23' | 23 ^h 43' | 29 ^h 14' | 26 ^h 04'46 | 19 ^h 25' | 22 ^h 08'25 | 3 ^h ✠ 4 | 14 ^h 04'40 | 15 ^h 04'47 | 15 ^h 04'45 | 29 ^h 05'57 | F 2 | |
| S 3 | 23 11 23 | 15 ^h 55'19 | 12 ^h 07'20 | 22 ^h 20' | 29 ^h 31' | 24 ^h 19' | 29 ^h 25' | 26 ^h 05'53 | 19 ^h 25' | 22 ^h 25' | 3 ^h 3 | 14 ^h 36' | 15 ^h 04'43 | 15 ^h 05'52 | 0 ^h 07'5 | S 3 | |
| S 4 | 23 15 20 | 16 ^h 54'08 | 26 ^h 43' | 24 ^h 4' | 0 ^h 03'39 | 24 ^h 56' | 29 ^h 35' | 27 ^h 0' | 19 ^h 26' | 22 ^h 24' | 3 ^h 1 | 14 ^h 34' | 15 ^h 04'40 | 15 ^h 05'58 | 0 ^h 13' | S 4 | |
| M 5 | 23 19 17 | 17 ^h 53'00 | 11 ^h 05'15 | 25 ^h 46' | 1 ^h 47' | 25 ^h 32' | 29 ^h 46' | 27 ^h 7' | 19 ^h 27' | 22 ^h 24' | 3 ^h 0 | 14 ^h D33 | 15 ^h 03'47 | 16 ^h 5' | 0 ^h 22' | M 5 | |
| T 6 | 23 23 13 | 18 ^h 51'53 | 25 ^h 52' | 27 ^h 27' | 2 ^h 55' | 26 ^h 9' | 29 ^h 57' | 27 ^h 15' | 19 ^h 27' | 22 ^h 23' | 2 ^h 59' | 14 ^h 33' | 15 ^h 03'34 | 16 ^h 01'11 | 0 ^h 30' | T 6 | |
| W 7 | 23 27 10 | 19 ^h 50'48 | 10 ^h 03'26 | 29 ^h 8' | 4 ^h 3' | 26 ^h 45' | 0 ^h 02' 8 | 27 ^h 22' | 19 ^h 28' | 22 ^h 23' | 2 ^h 58' | 14 ^h 34' | 15 ^h 03'31 | 16 ^h 01'18 | 0 ^h 38' | W 7 | |
| T 8 | 23 31 6 | 20 ^h 49'45 | 24 ^h 55' | 0 ^h 04'47 | 5 ^h 10' | 27 ^h 22' | 0 ^h 18' | 27 ^h 29' | 19 ^h 29' | 22 ^h 22' | 2 ^h 57' | 14 ^h 36' | 15 ^h 02'28 | 16 ^h 02'5 | 0 ^h 46' | T 8 | |
| F 9 | 23 35 3 | 21 ^h 48'44 | 9 ^h 21'12 | 2 ^h 26' | 6 ^h 18' | 27 ^h 58' | 0 ^h 29' | 27 ^h 36' | 19 ^h 30' | 22 ^h 21' | 2 ^h 56' | 14 ^h 37' | 15 ^h 02'24 | 16 ^h 03'1 | 0 ^h 54' | F 9 | |
| S 10 | 23 38 59 | 22 ^h 47'44 | 23 ^h 0'18 | 4 ^h 4' | 7 ^h 25' | 28 ^h 34' | 0 ^h 39' | 27 ^h 43' | 19 ^h 30' | 22 ^h 21' | 2 ^h 54' | 14 ^h R37 | 15 ^h 02'21 | 16 ^h 03'8 | 1 ^h 2' | S 10 | |
| S 11 | 23 42 56 | 23 ^h 46'46 | 7 ^h 03' 9 | 5 ^h 41' | 8 ^h 32' | 29 ^h 10' | 0 ^h 50' | 27 ^h 50' | 19 ^h 31' | 22 ^h 20' | 2 ^h 53' | 14 ^h 37' | 15 ^h 01'18 | 16 ^h 04'5 | 1 ^h 10' | S 11 | |
| M12 | 23 46 52 | 24 ^h 45'50 | 20 ^h 46' | 7 ^h 17' | 9 ^h 39' | 29 ^h 46' | 1 ^h 0' | 27 ^h 57' | 19 ^h 32' | 22 ^h 19' | 2 ^h 52' | 14 ^h 35' | 15 ^h 01'15 | 16 ^h 05'1 | 1 ^h 18' | M12 | |
| T 13 | 23 50 49 | 25 ^h 44'56 | 4 ^h 00' 9 | 8 ^h 52' | 10 ^h 46' | 0 ^h 02'22 | 1 ^h 10' | 28 ^h 4' | 19 ^h 33' | 22 ^h 19' | 2 ^h 51' | 14 ^h 33' | 15 ^h 01'12 | 16 ^h 05'8 | 1 ^h 26' | T 13 | |
| W14 | 23 54 46 | 26 ^h 44'04 | 17 ^h 17' | 10 ^h 26' | 11 ^h 53' | 0 ^h 58' | 1 ^h 20' | 28 ^h 11' | 19 ^h 34' | 22 ^h 18' | 2 ^h 50' | 14 ^h 31' | 15 ^h 8' | 17 ^h 5' | 1 ^h 34' | W14 | |
| T 15 | 23 58 42 | 27 ^h 43'13 | 0 ^h 21'12 | 12 ^h 0' | 12 ^h 59' | 1 ^h 33' | 1 ^h 30' | 28 ^h 08' | 19 ^h 36' | 22 ^h 17' | 2 ^h 49' | 14 ^h 28' | 15 ^h 5' | 17 ^h 11' | 1 ^h 41' | T 15 | |
| F 16 | 0 2 39 | 28 ^h 42'25 | 12 ^h 53' | 13 ^h 33' | 14 ^h 6' | 2 ^h 9' | 1 ^h 40' | 28 ^h 25' | 19 ^h 37' | 22 ^h 16' | 2 ^h 48' | 14 ^h 26' | 15 ^h 2' | 17 ^h 18' | 1 ^h 49' | F 16 | |
| S 17 | 0 6 35 | 29 ^h 41'38 | 25 ^h 21' | 15 ^h 5' | 15 ^h 12' | 2 ^h 44' | 1 ^h 49' | 28 ^h 32' | 19 ^h 38' | 22 ^h 15' | 2 ^h 47' | 14 ^h 24' | 14 ^h 59' | 17 ^h 25' | 1 ^h 57' | S 17 | |
| S 18 | 0 10 32 | 0 ^h 40'54 | 7 ^h 07'37 | 16 ^h 36' | 16 ^h 18' | 3 ^h 20' | 1 ^h 59' | 28 ^h 39' | 19 ^h 39' | 22 ^h 14' | 2 ^h 45' | 14 ^h 23' | 14 ^h 56' | 17 ^h 31' | 2 ^h 5' | S 18 | |
| M19 | 0 14 28 | 1 ^h 40'11 | 19 ^h 44' | 18 ^h 6' | 17 ^h 24' | 3 ^h 55' | 2 ^h 9' | 28 ^h 46' | 19 ^h 41' | 22 ^h 14' | 2 ^h 44' | 14 ^h D23 | 14 ^h 53' | 17 ^h 38' | 2 ^h 12' | M19 | |
| T 20 | 0 18 25 | 2 ^h 39'31 | 1 ^h 04'41 | 19 ^h 36' | 18 ^h 29' | 4 ^h 31' | 2 ^h 18' | 28 ^h 52' | 19 ^h 42' | 22 ^h 13' | 2 ^h 43' | 14 ^h 24' | 14 ^h 49' | 17 ^h 45' | 2 ^h 20' | T 20 | |
| W21 | 0 22 21 | 3 ^h 38'53 | 13 ^h 33' | 21 ^h 5' | 19 ^h 35' | 5 ^h 6' | 2 ^h 27' | 28 ^h 59' | 19 ^h 43' | 22 ^h 12' | 2 ^h 42' | 14 ^h 25' | 14 ^h 46' | 17 ^h 51' | 2 ^h 28' | W21 | |
| T 22 | 0 26 18 | 4 ^h 38'17 | 25 ^h 21' | 22 ^h 33' | 20 ^h 40' | 5 ^h 41' | 2 ^h 37' | 29 ^h 6' | 19 ^h 45' | 22 ^h 11' | 2 ^h 41' | 14 ^h 26' | 14 ^h 43' | 17 ^h 58' | 2 ^h 35' | T 22 | |
| F 23 | 0 30 14 | 5 ^h 37'44 | 7 ^h 02'11 | 24 ^h 0' | 21 ^h 45' | 6 ^h 16' | 2 ^h 46' | 29 ^h 12' | 19 ^h 46' | 22 ^h 10' | 2 ^h 40' | 14 ^h 27' | 14 ^h 40' | 18 ^h 5' | 2 ^h 43' | F 23 | |
| S 24 | 0 34 11 | 6 ^h 37'13 | 19 ^h 5' | 25 ^h 26' | 22 ^h 50' | 6 ^h 51' | 2 ^h 55' | 29 ^h 19' | 19 ^h 48' | 22 ^h 9' | 2 ^h 39' | 14 ^h 28' | 14 ^h 37' | 18 ^h 11' | 2 ^h 50' | S 24 | |
| S 25 | 0 38 8 | 7 ^h 36'44 | 1 ^h 08' 8 | 26 ^h 52' | 23 ^h 55' | 7 ^h 26' | 3 ^h 3' | 29 ^h 25' | 19 ^h 50' | 22 ^h 7' | 2 ^h 38' | 14 ^h 28' | 14 ^h 33' | 18 ^h 18' | 2 ^h 58' | S 25 | |
| M26 | 0 42 4 | 8 ^h 36'18 | 13 ^h 25' | 28 ^h 17' | 24 ^h 59' | 8 ^h 1' | 3 ^h 12' | 29 ^h 32' | 19 ^h 51' | 22 ^h 6' | 2 ^h 37' | 14 ^h R28 | 14 ^h 30' | 18 ^h 25' | 3 ^h 5' | M26 | |
| T 27 | 0 46 1 | 9 ^h 35'54 | 26 ^h 1' | 29 ^h 41' | 26 ^h 4' | 8 ^h 36' | 3 ^h 21' | 29 ^h 38' | 19 ^h 53' | 22 ^h 5' | 2 ^h 36' | 14 ^h 28' | 14 ^h 27' | 18 ^h 31' | 3 ^h 13' | T 27 | |
| W28 | 0 49 57 | 10 ^h 35'32 | 8 ^h 02'59 | 1 ^h 04' 4 | 27 ^h 8' | 9 ^h 10' | 3 ^h 29' | 29 ^h 45' | 19 ^h 55' | 22 ^h 4' | 2 ^h 35' | 14 ^h 28' | 14 ^h 24' | 18 ^h 38' | 3 ^h 20' | W28 | |
| T 29 | 0 53 54 | 11 ^h 35'13 | 22 ^h 22' | 2 ^h 26' | 28 ^h 11' | 9 ^h 45' | 3 ^h 38' | 29 ^h 51' | 19 ^h 57' | 22 ^h 3' | 2 ^h 34' | 14 ^h 27' | 14 ^h 21' | 18 ^h 45' | 3 ^h 27' | T 29 | |
| F 30 | 0 57 50 | 12 ^h 34'55 | 6 ^h 07'11 | 3 ^h 04'47 | 29 ^h 01'5 | 10 ^h 02'19 | 3 ^h 04'46 | 29 ^h 05'7 | 19 ^h 58' | 22 ^h 2' | 2 ^h 34'34 | 14 ^h 27' | 14 ^h 18' | 18 ^h 05'2 | 3 ^h 07'35 | F 30 | |

Delta T = 19m41s Julian Calendar 1 Sept. 1065 == Greg. Calendar 7 Sept. 1065

OCTOBER 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|-----------------------|-----------------------|----------------------|----------------------|-----------------------|----------------------|----------------------|-----------------------|-----------------------|--------------------|-----------------------|-----------------------|-----------------------|----------------------|------|-----|
| S 1 | 1 1 47 | 13 ^h 34'40 | 20 ^h 07'25 | 5 ^h 03' 7 | 0 ^h 27'18 | 10 ^h 02'54 | 3 ^h 02'54 | 0 ^h 07' 3 | 20 ^h 27' 0 | 22 ^h R 0 | 2 ^h R33 | 14 ^h R27 | 14 ^h 05'14 | 18 ^h 05'58 | 3 ^h 07'42 | S 1 | |
| S 2 | 1 5 43 | 14 ^h 34'27 | 5 ^h 05' 1 | 6 ^h 26' | 1 ^h 21' | 11 ^h 28' | 4 ^h 2' | 0 ^h 10' | 20 ^h 2' | 21 ^h 05'59 | 2 ^h ✠32 | 14 ^h D27 | 14 ^h 01'11 | 19 ^h 5' | 3 ^h 49' | S 2 | |
| M 3 | 1 9 40 | 15 ^h 34'17 | 19 ^h 53' | 7 ^h 43' | 2 ^h 24' | 12 ^h 2' | 4 ^h 10' | 0 ^h 16' | 20 ^h 4' | 21 ^h 58' | 2 ^h 31 | 14 ^h R27 | 14 ^h 8' | 19 ^h 12' | 3 ^h 56' | M 3 | |
| T 4 | 1 13 37 | 16 ^h 34'08 | 4 ^h 03'54 | 9 ^h 0' | 3 ^h 27' | 12 ^h 36' | 4 ^h 17' | 0 ^h 22' | 20 ^h 6' | 21 ^h 57' | 2 ^h 30 | 14 ^h 02'27 | 14 ^h 5' | 19 ^h 18' | 4 ^h 3' | T 4 | |
| W 5 | 1 17 33 | 17 ^h 34'01 | 19 ^h 54' | 10 ^h 15' | 4 ^h 29' | 13 ^h 10' | 4 ^h 25' | 0 ^h 28' | 20 ^h 8' | 21 ^h 55' | 2 ^h 29 | 14 ^h 26' | 14 ^h 2' | 19 ^h 25' | 4 ^h 10' | W 5 | |
| T 6 | 1 21 30 | 18 ^h 33'56 | 4 ^h 27'46 | 11 ^h 28' | 5 ^h 31' | 13 ^h 44' | 4 ^h 32' | 0 ^h 34' | 20 ^h 10' | 21 ^h 54' | 2 ^h 28 | 14 ^h 26' | 13 ^h 59' | 19 ^h 32' | 4 ^h 17' | T 6 | |
| F 7 | 1 25 26 | 19 ^h 33'53 | 19 ^h 22' | 12 ^h 40' | 6 ^h 32' | 14 ^h 18' | 4 ^h 40' | 0 ^h 39' | 20 ^h 13' | 21 ^h 53' | 2 ^h 28 | 14 ^h 26' | 13 ^h 55' | 19 ^h 38' | 4 ^h 24' | F 7 | |
| S 8 | 1 29 23 | 20 ^h 33'51 | 3 ^h 03'39 | 13 ^h 50' | 7 ^h 34' | 14 ^h 51' | 4 ^h 47' | 0 ^h 45' | 20 ^h 15' | 21 ^h 51' | 2 ^h 27 | 14 ^h 25' | 13 ^h 52' | 19 ^h 45' | 4 ^h 31' | S 8 | |
| S 9 | 1 33 19 | 21 ^h 33'51 | 17 ^h 33' | 14 ^h 58' | 8 ^h 34' | 15 ^h 25' | 4 ^h 54' | 0 ^h 51' | 20 ^h 17' | 21 ^h 50' | 2 ^h 26 | 14 ^h D25 | 13 ^h 49' | 19 ^h 52' | 4 ^h 37' | S 9 | |
| M10 | 1 37 16 | 22 ^h 33'53 | 1 ^h 00' 6 | 16 ^h 3' | 9 ^h 35' | 15 ^h 58' | 5 ^h 1' | 0 ^h 57' | 20 ^h 19' | 21 ^h 48' | 2 ^h 25 | 14 ^h 25' | 13 ^h 46' | 19 ^h 58' | 4 ^h 44' | M10 | |
| T 11 | 1 41 12 | 23 ^h 33'56 | 14 ^h 17' | 17 ^h 7' | 10 ^h 35' | 16 ^h 32' | 5 ^h 7' | 1 ^h 2' | 20 ^h 22' | 21 ^h 47' | 2 ^h 25 | 14 ^h 25' | 13 ^h 43' | 20 ^h 5' | 4 ^h 51' | T 11 | |
| W12 | 1 45 9 | 24 ^h 34'01 | 27 ^h 10' | 18 ^h 7' | 11 ^h 35' | 17 ^h 5' | 5 ^h 14' | 1 ^h 8' | 20 ^h 24' | 21 ^h 45' | 2 ^h 24 | 14 ^h 26' | 13 ^h 39' | 20 ^h 12' | 4 ^h 57' | W12 | |
| T 13 | 1 49 6 | 25 ^h 34'08 | 9 ^h 27'46 | 19 ^h 4' | 12 ^h 34' | 17 ^h 38' | 5 ^h 20' | 1 ^h 13' | 20 ^h 26' | 21 ^h 44' | 2 ^h 23 | 14 ^h 27' | 13 ^h 36' | 20 ^h 18' | 5 ^h 4' | T 13 | |
| F 14 | 1 53 2 | 26 ^h 34'16 | 22 ^h 9' | 19 ^h 58' | 13 ^h 33' | 18 ^h 11' | 5 ^h 27' | 1 ^h 18' | 20 ^h 29' | 21 ^h 42' | 2 ^h 23 | 14 ^h 28' | 13 ^h 33' | 20 ^h 25' | 5 ^h 10' | F 14 | |
| S 15 | 1 56 59 | 27 ^h 34'26 | 4 ^h 07'21 | 20 ^h 48' | 14 ^h 32' | 18 ^h 44' | 5 ^h 33' | 1 ^h 24' | 20 ^h 31' | 21 ^h 41' | 2 ^h 22 | 14 ^h 29' | 13 ^h 30' | 20 ^h 32' | | | |

ASTRODIENST EPHEMERIS for the year 1065
geocentric

NOVEMBER 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|------|-------|--------|-------|--------|-------|-------|------|------|-----|
| T 1 | 3 4 0 | 14♐41'55 | 13♐ 2 | 16°R51 | 29♐44 | 27♐43 | 6♏52 | 2♐42 | 21♐19 | 21°R13 | 2°R15 | 14°R13 | 12♐36 | 22♐25 | 6♐53 | T 1 | |
| W 2 | 3 7 57 | 15°42'38 | 28°19 | 15♐.29 | 0♏31 | 28°13 | 6°55 | 2°46 | 21°22 | 21♐12 | 2♐15 | 14♐ 9 | 12°33 | 22°32 | 6°58 | W 2 | |
| T 3 | 3 11 53 | 16°43'22 | 13♐30 | 14° 8 | 1°18 | 28°43 | 6°58 | 2°49 | 21°25 | 21°10 | 2°14 | 14° 5 | 12°30 | 22°38 | 7° 3 | T 3 | |
| F 4 | 3 15 50 | 17°44'07 | 28°26 | 12°50 | 2° 3 | 29°13 | 7° 0 | 2°53 | 21°28 | 21° 8 | 2°14 | 13°59 | 12°26 | 22°45 | 7° 8 | F 4 | |
| S 5 | 3 19 46 | 18°44'53 | 13♐ 0 | 11°39 | 2°48 | 29°43 | 7° 3 | 2°57 | 21°31 | 21° 7 | 2°14 | 13°55 | 12°23 | 22°52 | 7°13 | S 5 | |
| S 6 | 3 23 43 | 19°45'40 | 27° 7 | 10°35 | 3°31 | 0♐13 | 7° 5 | 3° 0 | 21°35 | 21° 5 | 2°14 | 13°51 | 12°20 | 22°58 | 7°17 | S 6 | |
| M 7 | 3 27 39 | 20°46'29 | 10♐46 | 9°41 | 4°14 | 0°43 | 7° 7 | 3° 4 | 21°38 | 21° 3 | 2°14 | 13°49 | 12°17 | 23° 5 | 7°22 | M 7 | |
| T 8 | 3 31 36 | 21°47'18 | 23°57 | 8°58 | 4°55 | 1°12 | 7° 9 | 3° 7 | 21°41 | 21° 2 | 2°14 | 13°D49 | 12°14 | 23°12 | 7°26 | T 8 | |
| W 9 | 3 35 32 | 22°48'08 | 6♐45 | 8°26 | 5°36 | 1°41 | 7°11 | 3°10 | 21°44 | 21° 0 | 2°14 | 13°49 | 12°10 | 23°18 | 7°30 | W 9 | |
| T 10 | 3 39 29 | 23°48'59 | 19°13 | 8° 6 | 6°15 | 2°10 | 7°12 | 3°13 | 21°48 | 20°58 | 2°D14 | 13°51 | 12° 7 | 23°25 | 7°35 | T 10 | |
| F 11 | 3 43 26 | 24°49'51 | 1°V25 | 7°D58 | 6°53 | 2°39 | 7°14 | 3°16 | 21°51 | 20°56 | 2°14 | 13°53 | 12° 4 | 23°32 | 7°39 | F 11 | |
| S 12 | 3 47 22 | 25°50'44 | 13°27 | 8° 0 | 7°29 | 3° 8 | 7°15 | 3°19 | 21°54 | 20°55 | 2°14 | 13°R53 | 12° 1 | 23°39 | 7°43 | S 12 | |
| S 13 | 3 51 19 | 26°51'38 | 25°21 | 8°12 | 8° 4 | 3°36 | 7°16 | 3°22 | 21°58 | 20°53 | 2°14 | 13°53 | 11°58 | 23°45 | 7°47 | S 13 | |
| M14 | 3 55 15 | 27°52'33 | 7♐11 | 8°33 | 8°38 | 4° 4 | 7°17 | 3°24 | 22° 1 | 20°51 | 2°14 | 13°50 | 11°55 | 23°52 | 7°50 | M14 | |
| T 15 | 3 59 12 | 28°53'29 | 19° 1 | 9° 3 | 9°10 | 4°32 | 7°17 | 3°27 | 22° 4 | 20°50 | 2°14 | 13°45 | 11°51 | 23°59 | 7°54 | T 15 | |
| W16 | 4 3 8 | 29°54'26 | 0♐51 | 9°41 | 9°41 | 5° 0 | 7°18 | 3°29 | 22° 8 | 20°48 | 2°14 | 13°37 | 11°48 | 24° 5 | 7°58 | W16 | |
| T 17 | 4 7 5 | 0♐55'24 | 12°43 | 10°25 | 10°10 | 5°28 | 7°R18 | 3°32 | 22°11 | 20°46 | 2°14 | 13°28 | 11°45 | 24°12 | 8° 1 | T 17 | |
| F 18 | 4 11 1 | 1°56'23 | 24°40 | 11°16 | 10°38 | 5°55 | 7°18 | 3°34 | 22°14 | 20°45 | 2°15 | 13°19 | 11°42 | 24°19 | 8° 5 | F 18 | |
| S 19 | 4 14 58 | 2°57'23 | 6♐43 | 12°11 | 11° 4 | 6°23 | 7°18 | 3°36 | 22°18 | 20°43 | 2°15 | 13° 9 | 11°39 | 24°25 | 8° 8 | S 19 | |
| S 20 | 4 18 55 | 3°58'24 | 18°53 | 13°11 | 11°28 | 6°50 | 7°17 | 3°38 | 22°21 | 20°41 | 2°15 | 13° 0 | 11°36 | 24°32 | 8°11 | S 20 | |
| M21 | 4 22 51 | 4°59'26 | 1♐12 | 14°15 | 11°50 | 7°16 | 7°17 | 3°40 | 22°25 | 20°40 | 2°15 | 12°53 | 11°32 | 24°39 | 8°14 | M21 | |
| T 22 | 4 26 48 | 6° 0'29 | 13°44 | 15°23 | 12°10 | 7°43 | 7°16 | 3°42 | 22°28 | 20°38 | 2°16 | 12°48 | 11°29 | 24°45 | 8°17 | T 22 | |
| W23 | 4 30 44 | 7° 1'33 | 26°31 | 16°33 | 12°28 | 8° 9 | 7°15 | 3°44 | 22°32 | 20°37 | 2°16 | 12°45 | 11°26 | 24°52 | 8°20 | W23 | |
| T 24 | 4 34 41 | 8° 2'38 | 9♐37 | 17°46 | 12°45 | 8°35 | 7°14 | 3°45 | 22°35 | 20°35 | 2°16 | 12°D45 | 11°23 | 24°59 | 8°23 | T 24 | |
| F 25 | 4 38 37 | 9° 3'44 | 23° 6 | 19° 2 | 12°59 | 9° 1 | 7°12 | 3°47 | 22°39 | 20°33 | 2°17 | 12°45 | 11°20 | 25° 5 | 8°25 | F 25 | |
| S 26 | 4 42 34 | 10° 4'51 | 6♐59 | 20°20 | 13°11 | 9°26 | 7°11 | 3°48 | 22°42 | 20°32 | 2°17 | 12°R46 | 11°16 | 25°12 | 8°28 | S 26 | |
| S 27 | 4 46 30 | 11° 5'59 | 21°17 | 21°39 | 13°21 | 9°52 | 7° 9 | 3°50 | 22°46 | 20°30 | 2°17 | 12°46 | 11°13 | 25°19 | 8°30 | S 27 | |
| M28 | 4 50 27 | 12° 7'08 | 6♐ 0 | 23° 0 | 13°29 | 10°17 | 7° 7 | 3°51 | 22°50 | 20°29 | 2°18 | 12°44 | 11°10 | 25°25 | 8°33 | M28 | |
| T 29 | 4 54 24 | 13° 8'18 | 21° 2 | 24°22 | 13°34 | 10°41 | 7° 5 | 3°52 | 22°53 | 20°27 | 2°18 | 12°39 | 11° 7 | 25°32 | 8°35 | T 29 | |
| W30 | 4 58 20 | 14♐ 9'28 | 6♐15 | 25♐.45 | 13♐37 | 11♐ 6 | 7♏ 2 | 3♐53 | 22♐57 | 20♐25 | 2♐19 | 12♐31 | 11♐ 4 | 25♐39 | 8♐37 | W30 | |

Delta T = 19m41s Julian Calendar 1 Nov. 1065 == Greg. Calendar 7 Nov. 1065

DECEMBER 1065 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|-------|--------|-------|-------|-------|-------|--------|------|--------|-------|-------|-------|------|-----|
| T 1 | 5 2 17 | 15♐10'39 | 21♐30 | 27♐ 9 | 13°R37 | 11♐30 | 7°R 0 | 3♐54 | 23♐ 0 | 20°R24 | 2♐19 | 12°R22 | 11♐ 1 | 25♐45 | 8♐39 | T 1 | |
| F 2 | 5 6 13 | 16°11'50 | 6♐35 | 28°34 | 13♐36 | 11°54 | 6♏57 | 3°55 | 23° 4 | 20♐22 | 2°20 | 12♐12 | 10°57 | 25°52 | 8°41 | F 2 | |
| S 3 | 5 10 10 | 17°13'02 | 21°20 | 0♐ 7 | 13°31 | 12°18 | 6°54 | 3°55 | 23° 7 | 20°21 | 2°20 | 12° 2 | 10°54 | 25°59 | 8°42 | S 3 | |
| S 4 | 5 14 6 | 18°14'14 | 5♐39 | 1°27 | 13°24 | 12°41 | 6°51 | 3°56 | 23°11 | 20°20 | 2°21 | 11°53 | 10°51 | 26° 6 | 8°44 | S 4 | |
| M 5 | 5 18 3 | 19°15'25 | 19°28 | 2°54 | 13°15 | 13° 4 | 6°48 | 3°56 | 23°15 | 20°18 | 2°22 | 11°47 | 10°48 | 26°12 | 8°45 | M 5 | |
| T 6 | 5 22 0 | 20°16'37 | 2♐47 | 4°22 | 13° 3 | 13°27 | 6°44 | 3°56 | 23°18 | 20°17 | 2°22 | 11°43 | 10°45 | 26°19 | 8°47 | T 6 | |
| W 7 | 5 25 56 | 21°17'49 | 15°38 | 5°51 | 12°49 | 13°49 | 6°40 | 3°57 | 23°22 | 20°15 | 2°23 | 11°42 | 10°42 | 26°26 | 8°48 | W 7 | |
| T 8 | 5 29 53 | 22°19'01 | 28° 6 | 7°19 | 12°32 | 14°11 | 6°36 | 3°R57 | 23°25 | 20°14 | 2°24 | 11°D42 | 10°38 | 26°32 | 8°49 | T 8 | |
| F 9 | 5 33 49 | 23°20'12 | 10°V17 | 8°49 | 12°12 | 14°33 | 6°32 | 3°57 | 23°29 | 20°12 | 2°24 | 11°R42 | 10°35 | 26°39 | 8°50 | F 9 | |
| S 10 | 5 37 46 | 24°21'24 | 22°15 | 10°19 | 11°51 | 14°54 | 6°28 | 3°57 | 23°33 | 20°11 | 2°25 | 11°42 | 10°32 | 26°46 | 8°51 | S 10 | |
| S 11 | 5 41 42 | 25°22'35 | 4♐ 6 | 11°49 | 11°27 | 15°15 | 6°24 | 3°56 | 23°36 | 20°10 | 2°26 | 11°39 | 10°29 | 26°52 | 8°52 | S 11 | |
| M12 | 5 45 39 | 26°23'46 | 15°53 | 13°19 | 11° 1 | 15°35 | 6°19 | 3°56 | 23°40 | 20° 8 | 2°26 | 11°35 | 10°26 | 26°59 | 8°53 | M12 | |
| T 13 | 5 49 35 | 27°24'57 | 27°42 | 14°50 | 10°33 | 15°56 | 6°15 | 3°56 | 23°43 | 20° 7 | 2°27 | 11°27 | 10°22 | 27° 6 | 8°53 | T 13 | |
| W14 | 5 53 32 | 28°26'08 | 9♐35 | 16°22 | 10° 3 | 16°16 | 6°10 | 3°55 | 23°47 | 20° 6 | 2°28 | 11°16 | 10°19 | 27°12 | 8°54 | W14 | |
| T 15 | 5 57 29 | 29°27'19 | 21°33 | 17°54 | 9°32 | 16°35 | 6° 5 | 3°54 | 23°51 | 20° 5 | 2°29 | 11° 3 | 10°16 | 27°19 | 8°54 | T 15 | |
| F 16 | 6 1 25 | 0♐28'30 | 3♐39 | 19°26 | 8°59 | 16°54 | 5°59 | 3°53 | 23°54 | 20° 3 | 2°30 | 10°48 | 10°13 | 27°26 | 8°54 | F 16 | |
| S 17 | 6 5 22 | 1°29'40 | 15°53 | 20°58 | 8°24 | 17°13 | 5°54 | 3°53 | 23°58 | 20° 2 | 2°31 | 10°34 | 10°10 | 27°32 | 8°R54 | S 17 | |
| S 18 | 6 9 18 | 2°30'51 | 28°16 | 22°31 | 7°49 | 17°31 | 5°48 | 3°52 | 24° 1 | 20° 1 | 2°32 | 10°20 | 10° 7 | 27°39 | 8°54 | S 18 | |
| M19 | 6 13 15 | 3°32'01 | 10♐48 | 24° 5 | 7°13 | 17°49 | 5°43 | 3°50 | 24° 5 | 20° 0 | 2°32 | 10° 9 | 10° 3 | 27°46 | 8°54 | M19 | |
| T 20 | 6 17 11 | 4°33'11 | 23°31 | 25°38 | 6°37 | 18° 7 | 5°37 | 3°49 | 24° 9 | 19°59 | 2°33 | 10° 1 | 10° 0 | 27°53 | 8°54 | T 20 | |
| W21 | 6 21 8 | 5°34'21 | 6♐26 | 27°13 | 6° 0 | 18°24 | 5°31 | 3°48 | 24°12 | 19°58 | 2°34 | 9°56 | 9°57 | 27°59 | 8°54 | W21 | |
| T 22 | 6 25 4 | 6°35'31 | 19°34 | 28°47 | 5°23 | 18°41 | 5°25 | 3°46 | 24°16 | 19°57 | 2°35 | 9°53 | 9°54 | 28° 6 | 8°53 | T 22 | |
| F 23 | 6 29 1 | 7°36'41 | 2♐59 | 0♐22 | 4°46 | 18°57 | 5°19 | 3°45 | 24°19 | 19°56 | 2°36 | 9°52 | 9°51 | 28°13 | 8°53 | F 23 | |
| S 24 | 6 32 58 | 8°37'51 | 16°42 | 1°58 | 4°10 | 19°12 | 5°12 | 3°43 | 24°23 | 19°55 | 2°37 | 9°52 | 9°48 | 28°19 | 8°52 | S 24 | |
| S 25 | 6 36 54 | 9°39'01 | 0♐44 | 3°34 | 3°35 | 19°28 | 5° 6 | 3°42 | 24°26 | 19°54 | 2°38 | 9°51 | 9°44 | 28°26 | 8°51 | S 25 | |
| M26 | 6 40 51 | 10°40'10 | 15° 7 | 5°10 | 3° 1 | 19°42 | 4°59 | 3°40 | 24°30 | 19°53 | 2°39 | 9°49 | 9°41 | 28°33 | 8°50 | M26 | |
| T 27 | 6 44 47 | 11°41'20 | 29°48 | 6°47 | 2°27 | 19°57 | 4°52 | 3°38 | 24°33 | 19°52 | 2°41 | 9°43 | 9°38 | 28°39 | 8°49 | T 27 | |
| W28 | 6 48 44 | 12°42'29 | 14♐41 | 8°24 | 1°56 | 20°10 | 4°45 | 3°36 | 24°37 | 19°51 | 2°42 | 9°34 | 9°35 | 28°46 | 8°48 | W28 | |
| T 29 | 6 52 40 | 13°43'38 | 29°39 | 10° 2 | 1°26 | 20°24 | 4°38 | 3°34 | 24°40 | 19°50 | 2°43 | 9°24 | 9°32 | 28°53 | 8°47 | T 29 | |
| F 30 | 6 56 37 | 14°44'46 | 14♐33 | 11°41 | 0°57 | 20°36 | 4°31 | 3°31 | 24°44 | 19°49 | 2°44 | 9°11 | 9°28 | 28°59 | 8°45 | F 30 | |
| S 31 | 7 0 33 | 15♐45'53 | 29♐13 | 13♐20 | 0♐31 | 20♐49 | 4♏24 | 3♐29 | 24♐47 | 19♐48 | 2♐45 | 8♐59 | 9♐25 | 29♐ 6 | 8♐44 | S 31 | |

Delta T = 19m40s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1066
geocentric

JANUARY 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|--------|--------|-------|-------|-------|--------|------|-------|------|-------|-------|------|-----|
| S 1 | 7 4 30 | 16♁47'00 | 13♁32 | 15♁0 | 0°R 7 | 21♁0 | 4°R17 | 3°R27 | 24♁51 | 19°R48 | 2♁46 | 8°R49 | 9♁22 | 29♁13 | 8°R42 | S 1 | |
| M 2 | 7 8 27 | 17°48'05 | 27°24 | 16°40 | 29♁44 | 21°11 | 4♁10 | 3♁24 | 24°54 | 19♁47 | 2°47 | 8♁41 | 9°19 | 29°20 | 8♁40 | M 2 | |
| T 3 | 7 12 23 | 18°49'10 | 10♁49 | 18°21 | 29°25 | 21°22 | 4° 2 | 3°21 | 24°57 | 19°46 | 2°49 | 8°35 | 9°16 | 29°26 | 8°38 | T 3 | |
| W 4 | 7 16 20 | 19°50'14 | 23°46 | 20° 2 | 29° 7 | 21°32 | 3°55 | 3°19 | 25° 1 | 19°45 | 2°50 | 8°33 | 9°13 | 29°33 | 8°37 | W 4 | |
| T 5 | 7 20 16 | 20°51'16 | 6♁19 | 21°44 | 28°52 | 21°41 | 3°47 | 3°16 | 25° 4 | 19°45 | 2°51 | 8°D32 | 9° 9 | 29°40 | 8°35 | T 5 | |
| F 6 | 7 24 13 | 21°52'17 | 18°33 | 23°27 | 28°39 | 21°50 | 3°39 | 3°13 | 25° 7 | 19°44 | 2°52 | 8°R32 | 9° 6 | 29°46 | 8°32 | F 6 | |
| S 7 | 7 28 9 | 22°53'18 | 0♁33 | 25°10 | 28°29 | 21°58 | 3°32 | 3°10 | 25°11 | 19°44 | 2°54 | 8°32 | 9° 3 | 29°53 | 8°30 | S 7 | |
| S 8 | 7 32 6 | 23°54'16 | 12°24 | 26°54 | 28°21 | 22° 5 | 3°24 | 3° 7 | 25°14 | 19°43 | 2°55 | 8°30 | 9° 0 | 29°59 | 8°28 | S 8 | |
| M 9 | 7 36 2 | 24°55'14 | 24°13 | 28°38 | 28°16 | 22°12 | 3°16 | 3° 4 | 25°17 | 19°43 | 2°56 | 8°26 | 8°57 | 0♁6 | 8°25 | M 9 | |
| T 10 | 7 39 59 | 25°56'11 | 6♁3 | 0♁23 | 28°13 | 22°18 | 3° 8 | 3° 0 | 25°20 | 19°42 | 2°57 | 8°20 | 8°54 | 0°13 | 8°23 | T 10 | |
| W11 | 7 43 56 | 26°57'06 | 17°59 | 2° 9 | 28°D13 | 22°24 | 3° 0 | 2°57 | 25°24 | 19°42 | 2°59 | 8°10 | 8°50 | 0°20 | 8°20 | W11 | |
| T 12 | 7 47 52 | 27°58'00 | 0♁4 | 3°55 | 28°15 | 22°29 | 2°52 | 2°54 | 25°27 | 19°41 | 3° 0 | 7°59 | 8°47 | 0°26 | 8°17 | T 12 | |
| F 13 | 7 51 49 | 28°58'53 | 12°20 | 5°41 | 28°20 | 22°33 | 2°45 | 2°50 | 25°30 | 19°41 | 3° 1 | 7°46 | 8°44 | 0°33 | 8°15 | F 13 | |
| S 14 | 7 55 45 | 29°59'44 | 24°47 | 7°28 | 28°26 | 22°36 | 2°37 | 2°47 | 25°33 | 19°40 | 3° 3 | 7°33 | 8°41 | 0°40 | 8°12 | S 14 | |
| S 15 | 7 59 42 | 1♁0'35 | 7♁26 | 9°15 | 28°35 | 22°39 | 2°29 | 2°43 | 25°36 | 19°40 | 3° 4 | 7°21 | 8°38 | 0°47 | 8° 9 | S 15 | |
| M16 | 8 3 38 | 2° 1'24 | 20°17 | 11° 2 | 28°47 | 22°41 | 2°21 | 2°39 | 25°39 | 19°40 | 3° 6 | 7°11 | 8°34 | 0°53 | 8° 6 | M16 | |
| T 17 | 8 7 35 | 3° 2'12 | 3♁20 | 12°49 | 29° 0 | 22°43 | 2°13 | 2°36 | 25°42 | 19°40 | 3° 7 | 7° 4 | 8°31 | 1° 0 | 8° 2 | T 17 | |
| W18 | 8 11 31 | 4° 2'58 | 16°33 | 14°36 | 29°16 | 22°R43 | 2° 5 | 2°32 | 25°45 | 19°39 | 3° 8 | 6°59 | 8°28 | 1° 7 | 7°59 | W18 | |
| T 19 | 8 15 28 | 5° 3'44 | 29°57 | 16°23 | 29°33 | 22°43 | 1°57 | 2°28 | 25°48 | 19°39 | 3°10 | 6°57 | 8°25 | 1°13 | 7°56 | T 19 | |
| F 20 | 8 19 25 | 6° 4'28 | 13♁31 | 18° 9 | 29°53 | 22°42 | 1°49 | 2°24 | 25°51 | 19°39 | 3°11 | 6°D57 | 8°22 | 1°20 | 7°52 | F 20 | |
| S 21 | 8 23 21 | 7° 5'12 | 27°17 | 19°54 | 0♁15 | 22°41 | 1°41 | 2°20 | 25°54 | 19°39 | 3°13 | 6°58 | 8°19 | 1°27 | 7°49 | S 21 | |
| S 22 | 8 27 18 | 8° 5'54 | 11♁15 | 21°38 | 0°38 | 22°39 | 1°33 | 2°16 | 25°57 | 19°39 | 3°14 | 6°R58 | 8°15 | 1°33 | 7°45 | S 22 | |
| M23 | 8 31 14 | 9° 6'35 | 25°25 | 23°21 | 1° 3 | 22°35 | 1°25 | 2°11 | 26° 0 | 19°39 | 3°16 | 6°57 | 8°12 | 1°40 | 7°41 | M23 | |
| T 24 | 8 35 11 | 10° 7'16 | 9♁45 | 25° 2 | 1°30 | 22°32 | 1°17 | 2° 7 | 26° 3 | 19°D39 | 3°17 | 6°53 | 8° 9 | 1°47 | 7°38 | T 24 | |
| W25 | 8 39 7 | 11° 7'55 | 24°13 | 26°41 | 1°59 | 22°27 | 1° 9 | 2° 3 | 26° 6 | 19°39 | 3°19 | 6°48 | 8° 6 | 1°53 | 7°34 | W25 | |
| T 26 | 8 43 4 | 12° 8'32 | 8♁44 | 28°16 | 2°29 | 22°22 | 1° 2 | 1°59 | 26° 9 | 19°39 | 3°20 | 6°40 | 8° 3 | 2° 0 | 7°30 | T 26 | |
| F 27 | 8 47 0 | 13° 9'09 | 23°11 | 29°48 | 3° 0 | 22°15 | 0°54 | 1°54 | 26°11 | 19°39 | 3°22 | 6°31 | 8° 0 | 2° 7 | 7°26 | F 27 | |
| S 28 | 8 50 57 | 14° 9'44 | 7♁29 | 1♁17 | 3°34 | 22° 8 | 0°46 | 1°50 | 26°14 | 19°39 | 3°23 | 6°22 | 7°56 | 2°14 | 7°22 | S 28 | |
| S 29 | 8 54 54 | 15°10'17 | 21°32 | 2°40 | 4° 8 | 22° 0 | 0°39 | 1°45 | 26°17 | 19°39 | 3°25 | 6°14 | 7°53 | 2°20 | 7°18 | S 29 | |
| M30 | 8 58 50 | 16°10'49 | 5♁14 | 3°59 | 4°44 | 21°52 | 0°31 | 1°41 | 26°19 | 19°39 | 3°26 | 6° 8 | 7°50 | 2°27 | 7°14 | M30 | |
| T 31 | 9 2 47 | 17♁11'19 | 18♁33 | 5♁11 | 5♁21 | 21♁42 | 0♁24 | 1♁36 | 26♁22 | 19♁40 | 3♁28 | 6♁4 | 7♁47 | 2♁34 | 7♁10 | T 31 | |

Delta T = 19m40s Julian Calendar 1 Jan. 1066 == Greg. Calendar 7 Jan. 1066

FEBRUARY 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|-------|-------|-------|------|-------|------|------|-------|------|-----|
| W 1 | 9 6 43 | 18♁11'47 | 1♁29 | 6♁17 | 5♁59 | 21°R32 | 0°R17 | 1°R32 | 26♁25 | 19♁40 | 3♁29 | 6°D 2 | 7♁44 | 2♁40 | 7°R 5 | W 1 | |
| T 2 | 9 10 40 | 19°12'13 | 14° 5 | 7°15 | 6°39 | 21♁21 | 0♁9 | 1♁27 | 26°27 | 19°40 | 3°31 | 6♁3 | 7°40 | 2°47 | 7♁1 | T 2 | |
| F 3 | 9 14 36 | 20°12'37 | 26°21 | 8° 6 | 7°20 | 21°10 | 0° 2 | 1°23 | 26°30 | 19°41 | 3°32 | 6° 4 | 7°37 | 2°54 | 6°57 | F 3 | |
| S 4 | 9 18 33 | 21°12'59 | 8♁25 | 8°48 | 8° 1 | 20°57 | 29♁55 | 1°18 | 26°32 | 19°41 | 3°34 | 6° 5 | 7°34 | 3° 0 | 6°52 | S 4 | |
| S 5 | 9 22 29 | 22°13'20 | 20°19 | 9°21 | 8°44 | 20°44 | 29°48 | 1°13 | 26°34 | 19°41 | 3°35 | 6°R 6 | 7°31 | 3° 7 | 6°48 | S 5 | |
| M 6 | 9 26 26 | 23°13'38 | 2♁10 | 9°45 | 9°28 | 20°30 | 29°42 | 1° 9 | 26°37 | 19°42 | 3°37 | 6° 6 | 7°28 | 3°14 | 6°44 | M 6 | |
| T 7 | 9 30 23 | 24°13'54 | 14° 2 | 9°59 | 10°13 | 20°15 | 29°35 | 1° 4 | 26°39 | 19°42 | 3°39 | 6° 3 | 7°25 | 3°21 | 6°39 | T 7 | |
| W 8 | 9 34 19 | 25°14'08 | 26° 0 | 10°R 4 | 10°59 | 20° 0 | 29°28 | 0°59 | 26°41 | 19°43 | 3°40 | 5°59 | 7°21 | 3°27 | 6°35 | W 8 | |
| T 9 | 9 38 16 | 26°14'21 | 8♁9 | 9°59 | 11°45 | 19°44 | 29°22 | 0°54 | 26°44 | 19°43 | 3°42 | 5°54 | 7°18 | 3°34 | 6°30 | T 9 | |
| F 10 | 9 42 12 | 27°14'31 | 20°31 | 9°44 | 12°33 | 19°27 | 29°15 | 0°50 | 26°46 | 19°44 | 3°43 | 5°47 | 7°15 | 3°41 | 6°25 | F 10 | |
| S 11 | 9 46 9 | 28°14'39 | 3♁8 | 9°21 | 13°21 | 19°10 | 29° 9 | 0°45 | 26°48 | 19°45 | 3°45 | 5°40 | 7°12 | 3°47 | 6°21 | S 11 | |
| S 12 | 9 50 5 | 29°14'45 | 16° 2 | 8°49 | 14°10 | 18°52 | 29° 3 | 0°40 | 26°50 | 19°45 | 3°47 | 5°34 | 7° 9 | 3°54 | 6°16 | S 12 | |
| M13 | 9 54 2 | 0♁14'49 | 29°12 | 8° 9 | 15° 0 | 18°33 | 28°57 | 0°35 | 26°52 | 19°46 | 3°48 | 5°28 | 7° 5 | 4° 1 | 6°11 | M13 | |
| T 14 | 9 57 58 | 1°14'51 | 12♁38 | 7°23 | 15°51 | 18°14 | 28°52 | 0°31 | 26°54 | 19°47 | 3°50 | 5°25 | 7° 2 | 4° 7 | 6° 7 | T 14 | |
| W15 | 10 1 55 | 2°14'51 | 26°16 | 6°32 | 16°42 | 17°54 | 28°46 | 0°26 | 26°56 | 19°47 | 3°51 | 5°23 | 6°59 | 4°14 | 6° 2 | W15 | |
| T 16 | 10 5 52 | 3°14'50 | 10♁5 | 5°36 | 17°34 | 17°34 | 28°40 | 0°21 | 26°58 | 19°48 | 3°53 | 5°D22 | 6°56 | 4°21 | 5°57 | T 16 | |
| F 17 | 10 9 48 | 4°14'46 | 24° 3 | 4°38 | 18°27 | 17°14 | 28°35 | 0°16 | 27° 0 | 19°49 | 3°54 | 5°23 | 6°53 | 4°28 | 5°53 | F 17 | |
| S 18 | 10 13 45 | 5°14'41 | 8♁6 | 3°38 | 19°20 | 16°52 | 28°30 | 0°11 | 27° 2 | 19°50 | 3°56 | 5°25 | 6°50 | 4°34 | 5°48 | S 18 | |
| S 19 | 10 17 41 | 6°14'35 | 22°14 | 2°39 | 20°14 | 16°31 | 28°25 | 0° 7 | 27° 4 | 19°51 | 3°58 | 5°26 | 6°46 | 4°41 | 5°43 | S 19 | |
| M20 | 10 21 38 | 7°14'26 | 6♁24 | 1°41 | 21° 9 | 16° 9 | 28°20 | 0° 2 | 27° 6 | 19°51 | 3°59 | 5°R27 | 6°43 | 4°48 | 5°38 | M20 | |
| T 21 | 10 25 34 | 8°14'16 | 20°35 | 0°45 | 22° 4 | 15°46 | 28°15 | 29♁57 | 27° 7 | 19°52 | 4° 1 | 5°26 | 6°40 | 4°54 | 5°34 | T 21 | |
| W22 | 10 29 31 | 9°14'05 | 4♁45 | 29♁52 | 23° 0 | 15°24 | 28°11 | 29°53 | 27° 9 | 19°53 | 4° 2 | 5°25 | 6°37 | 5° 1 | 5°29 | W22 | |
| T 23 | 10 33 27 | 10°13'51 | 18°50 | 29° 5 | 23°56 | 15° 1 | 28° 6 | 29°48 | 27°11 | 19°54 | 4° 4 | 5°22 | 6°34 | 5° 8 | 5°24 | T 23 | |
| F 24 | 10 37 24 | 11°13'36 | 2♁49 | 28°22 | 24°52 | 14°38 | 28° 2 | 29°43 | 27°12 | 19°55 | 4° 6 | 5°18 | 6°31 | 5°14 | 5°20 | F 24 | |
| S 25 | 10 41 21 | 12°13'19 | 16°37 | 27°45 | 25°50 | 14°15 | 27°58 | 29°39 | 27°14 | 19°56 | 4° 7 | 5°15 | 6°27 | 5°21 | 5°15 | S 25 | |
| S 26 | 10 45 17 | 13°13'00 | 0♁13 | 27°13 | 26°47 | 13°51 | 27°54 | 29°34 | 27°15 | 19°58 | 4° 9 | 5°12 | 6°24 | 5°28 | 5°10 | S 26 | |
| M27 | 10 49 14 | 14°12'39 | 13°33 | 26°48 | 27°45 | 13°28 | 27°50 | 29°30 | 27°17 | 19°59 | 4°10 | 5° 9 | 6°21 | 5°35 | 5° 6 | M27 | |
| T 28 | 10 53 10 | 15♁12'16 | 26♁37 | 26♁29 | 28♁44 | 13♁4 | 27♁47 | 29♁25 | 27♁18 | 20♁0 | 4♁12 | 5♁8 | 6♁18 | 5♁41 | 5♁1 | T 28 | |

Delta T = 19m40s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1066
geocentric

MARCH 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|--------|--------|--------|--------|-------|------|-------|------|------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 10 57 7 | 16♋11'50 | 9♏23 | 26°R16 | 29♌43 | 12°R41 | 27°R44 | 29°R21 | 27♌20 | 20♌ 1 | 4♋13 | 5°D 8 | 6♌15 | 5♏48 | 4°R56 | W 1 | | | | | | | | |
| T 2 | 11 1 3 | 17°11'23 | 21°53 | 26♌10 | 0♌42 | 12♏17 | 27♌40 | 29♏16 | 27°21 | 20° 2 | 4°15 | 5♌ 9 | 6°11 | 5°55 | 4♏52 | T 2 | | | | | | | | |
| F 3 | 11 5 0 | 18°10'53 | 4♌ 8 | 26°D 9 | 1°42 | 11°54 | 27°38 | 29°12 | 27°22 | 20° 3 | 4°17 | 5°10 | 6° 8 | 6° 1 | 4°47 | F 3 | | | | | | | | |
| S 4 | 11 8 56 | 19°10'21 | 16°12 | 26°14 | 2°42 | 11°31 | 27°35 | 29° 7 | 27°23 | 20° 5 | 4°18 | 5°11 | 6° 5 | 6° 8 | 4°43 | S 4 | | | | | | | | |
| S 5 | 11 12 53 | 20° 9'47 | 28° 7 | 26°25 | 3°42 | 11° 8 | 27°32 | 29° 3 | 27°24 | 20° 6 | 4°20 | 5°13 | 6° 2 | 6°15 | 4°38 | S 5 | | | | | | | | |
| M 6 | 11 16 49 | 21° 9'11 | 9♏59 | 26°41 | 4°43 | 10°45 | 27°30 | 28°59 | 27°26 | 20° 7 | 4°21 | 5°14 | 5°59 | 6°21 | 4°34 | M 6 | | | | | | | | |
| T 7 | 11 20 46 | 22° 8'32 | 21°52 | 27° 2 | 5°44 | 10°22 | 27°28 | 28°55 | 27°27 | 20° 9 | 4°23 | 5°R14 | 5°56 | 6°28 | 4°30 | T 7 | | | | | | | | |
| W 8 | 11 24 43 | 23° 7'51 | 3♌50 | 27°27 | 6°45 | 10° 0 | 27°26 | 28°50 | 27°28 | 20°10 | 4°24 | 5°14 | 5°52 | 6°35 | 4°25 | W 8 | | | | | | | | |
| T 9 | 11 28 39 | 24° 7'07 | 15°59 | 27°58 | 7°47 | 9°38 | 27°24 | 28°46 | 27°28 | 20°11 | 4°26 | 5°13 | 5°49 | 6°42 | 4°21 | T 9 | | | | | | | | |
| F 10 | 11 32 36 | 25° 6'21 | 28°22 | 28°32 | 8°49 | 9°17 | 27°22 | 28°42 | 27°29 | 20°13 | 4°27 | 5°12 | 5°46 | 6°48 | 4°17 | F 10 | | | | | | | | |
| S 11 | 11 36 32 | 26° 5'33 | 11♏ 4 | 29°11 | 9°51 | 8°56 | 27°21 | 28°38 | 27°30 | 20°14 | 4°29 | 5°10 | 5°43 | 6°55 | 4°12 | S 11 | | | | | | | | |
| S 12 | 11 40 29 | 27° 4'42 | 24° 5 | 29°53 | 10°53 | 8°36 | 27°19 | 28°34 | 27°31 | 20°16 | 4°30 | 5° 9 | 5°40 | 7° 2 | 4° 8 | S 12 | | | | | | | | |
| M13 | 11 44 25 | 28° 3'50 | 7♏28 | 0♋39 | 11°56 | 8°16 | 27°18 | 28°31 | 27°32 | 20°17 | 4°32 | 5° 8 | 5°37 | 7° 8 | 4° 4 | M13 | | | | | | | | |
| T 14 | 11 48 22 | 29° 2'55 | 21°12 | 1°29 | 12°59 | 7°56 | 27°17 | 28°27 | 27°32 | 20°19 | 4°33 | 5° 8 | 5°33 | 7°15 | 4° 0 | T 14 | | | | | | | | |
| W15 | 11 52 18 | 0♏ 1'57 | 5♌13 | 2°22 | 14° 3 | 7°37 | 27°17 | 28°23 | 27°33 | 20°20 | 4°35 | 5°D 8 | 5°30 | 7°22 | 3°56 | W15 | | | | | | | | |
| T 16 | 11 56 15 | 1° 0'58 | 19°30 | 3°17 | 15° 6 | 7°19 | 27°16 | 28°19 | 27°34 | 20°22 | 4°36 | 5° 8 | 5°27 | 7°29 | 3°52 | T 16 | | | | | | | | |
| F 17 | 12 0 12 | 1°59'57 | 3♏56 | 4°16 | 16°10 | 7° 1 | 27°16 | 28°16 | 27°34 | 20°24 | 4°38 | 5° 8 | 5°24 | 7°35 | 3°49 | F 17 | | | | | | | | |
| S 18 | 12 4 8 | 2°58'54 | 18°26 | 5°18 | 17°14 | 6°44 | 27°D16 | 28°12 | 27°35 | 20°25 | 4°39 | 5° 8 | 5°21 | 7°42 | 3°45 | S 18 | | | | | | | | |
| S 19 | 12 8 5 | 3°57'49 | 2♌76 | 6°22 | 18°18 | 6°28 | 27°16 | 28° 9 | 27°35 | 20°27 | 4°40 | 5° 9 | 5°17 | 7°49 | 3°41 | S 19 | | | | | | | | |
| M20 | 12 12 1 | 4°56'42 | 17°50 | 7°28 | 19°23 | 6°12 | 27°16 | 28° 6 | 27°36 | 20°29 | 4°42 | 5°R 9 | 5°14 | 7°55 | 3°38 | M20 | | | | | | | | |
| T 21 | 12 15 58 | 5°55'34 | 1♌35 | 8°37 | 20°28 | 5°57 | 27°16 | 28° 2 | 27°36 | 20°30 | 4°43 | 5°D 9 | 5°11 | 8° 2 | 3°34 | T 21 | | | | | | | | |
| W22 | 12 19 54 | 6°54'24 | 15°39 | 9°49 | 21°32 | 5°43 | 27°17 | 27°59 | 27°36 | 20°32 | 4°45 | 5° 9 | 5° 8 | 8° 9 | 3°31 | W22 | | | | | | | | |
| T 23 | 12 23 51 | 7°53'12 | 29°30 | 11° 2 | 22°38 | 5°30 | 27°18 | 27°56 | 27°36 | 20°34 | 4°46 | 5° 9 | 5° 5 | 8°15 | 3°27 | T 23 | | | | | | | | |
| F 24 | 12 27 47 | 8°51'59 | 13♌ 7 | 12°18 | 23°43 | 5°17 | 27°19 | 27°53 | 27°37 | 20°35 | 4°47 | 5° 9 | 5° 2 | 8°22 | 3°24 | F 24 | | | | | | | | |
| S 25 | 12 31 44 | 9°50'43 | 26°30 | 13°36 | 24°48 | 5° 5 | 27°20 | 27°50 | 27°37 | 20°37 | 4°49 | 5° 9 | 4°58 | 8°29 | 3°21 | S 25 | | | | | | | | |
| S 26 | 12 35 40 | 10°49'26 | 9♋39 | 14°56 | 25°54 | 4°53 | 27°21 | 27°47 | 27°37 | 20°39 | 4°50 | 5°10 | 4°55 | 8°36 | 3°17 | S 26 | | | | | | | | |
| M27 | 12 39 37 | 11°48'07 | 22°35 | 16°17 | 27° 0 | 4°43 | 27°23 | 27°44 | 27°R37 | 20°41 | 4°51 | 5°10 | 4°52 | 8°42 | 3°14 | M27 | | | | | | | | |
| T 28 | 12 43 34 | 12°46'46 | 5♏18 | 17°41 | 28° 6 | 4°33 | 27°25 | 27°42 | 27°37 | 20°43 | 4°53 | 5°R11 | 4°49 | 8°49 | 3°11 | T 28 | | | | | | | | |
| W29 | 12 47 30 | 13°45'23 | 17°48 | 19° 7 | 29°12 | 4°24 | 27°27 | 27°39 | 27°37 | 20°45 | 4°54 | 5°10 | 4°46 | 8°56 | 3° 9 | W29 | | | | | | | | |
| T 30 | 12 51 27 | 14°43'58 | 0♋ 7 | 20°34 | 0♋18 | 4°16 | 27°29 | 27°37 | 27°36 | 20°46 | 4°55 | 5°10 | 4°42 | 9° 2 | 3° 6 | T 30 | | | | | | | | |
| F 31 | 12 55 23 | 15°42'31 | 12♌15 | 22°31 | 1♋25 | 4♏ 9 | 27♌31 | 27♏34 | 27♌36 | 20♌48 | 4♋57 | 5♌ 8 | 4♌39 | 9♏ 9 | 3♏ 3 | F 31 | | | | | | | | |

Delta T = 19m39s Julian Calendar 1 March 1066 == Greg. Calendar 7 March 1066

APRIL 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|-------|------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 12 59 20 | 16♏41'02 | 24♌16 | 23♋34 | 2♋31 | 4°R 2 | 27♌33 | 27°R32 | 27°R36 | 20♌50 | 4♋58 | 5°R 7 | 4♌36 | 9♏16 | 3°R 0 | S 1 | | | | | | | | |
| S 2 | 13 3 16 | 17°39'31 | 6♏10 | 25° 7 | 3°38 | 3♏57 | 27°36 | 27♏30 | 27♌36 | 20°52 | 4°59 | 5♌ 5 | 4°33 | 9°23 | 2♏58 | S 2 | | | | | | | | |
| M 3 | 13 7 13 | 18°37'58 | 18° 2 | 26°41 | 4°45 | 3°52 | 27°39 | 27°28 | 27°35 | 20°54 | 5° 0 | 5° 3 | 4°30 | 9°29 | 2°56 | M 3 | | | | | | | | |
| T 4 | 13 11 9 | 19°36'23 | 29°54 | 28°18 | 5°52 | 3°47 | 27°42 | 27°26 | 27°35 | 20°56 | 5° 2 | 5° 2 | 4°27 | 9°36 | 2°53 | T 4 | | | | | | | | |
| W 5 | 13 15 6 | 20°34'45 | 11♌52 | 29°56 | 6°59 | 3°44 | 27°45 | 27°24 | 27°35 | 20°58 | 5° 3 | 5° 1 | 4°23 | 9°43 | 2°51 | W 5 | | | | | | | | |
| T 6 | 13 19 3 | 21°33'06 | 23°58 | 1°Y36 | 8° 6 | 3°42 | 27°48 | 27°22 | 27°34 | 21° 0 | 5° 4 | 5°D 1 | 4°20 | 9°49 | 2°49 | T 6 | | | | | | | | |
| F 7 | 13 22 59 | 22°31'24 | 6♏19 | 3°17 | 9°14 | 3°40 | 27°52 | 27°20 | 27°34 | 21° 2 | 5° 5 | 5° 1 | 4°17 | 9°56 | 2°47 | F 7 | | | | | | | | |
| S 8 | 13 26 56 | 23°29'40 | 18°58 | 5° 0 | 10°21 | 3°39 | 27°56 | 27°18 | 27°33 | 21° 4 | 5° 6 | 5° 2 | 4°14 | 10° 3 | 2°45 | S 8 | | | | | | | | |
| S 9 | 13 30 52 | 24°27'54 | 1♏59 | 6°45 | 11°29 | 3°D38 | 27°59 | 27°17 | 27°32 | 21° 6 | 5° 7 | 5° 4 | 4°11 | 10°10 | 2°43 | S 9 | | | | | | | | |
| M10 | 13 34 49 | 25°26'06 | 15°25 | 8°32 | 12°37 | 3°39 | 28° 3 | 27°15 | 27°32 | 21° 8 | 5° 8 | 5° 5 | 4° 8 | 10°16 | 2°42 | M10 | | | | | | | | |
| T 11 | 13 38 45 | 26°24'16 | 29°16 | 10°21 | 13°45 | 3°40 | 28° 8 | 27°14 | 27°31 | 21°10 | 5°10 | 5°R 6 | 4° 4 | 10°23 | 2°40 | T 11 | | | | | | | | |
| W12 | 13 42 42 | 27°22'25 | 13♌32 | 12°11 | 14°53 | 3°42 | 28°12 | 27°13 | 27°30 | 21°12 | 5°11 | 5° 6 | 4° 1 | 10°30 | 2°38 | W12 | | | | | | | | |
| T 13 | 13 46 38 | 28°20'31 | 28° 8 | 14° 3 | 16° 1 | 3°45 | 28°16 | 27°12 | 27°29 | 21°14 | 5°12 | 5° 5 | 3°58 | 10°36 | 2°37 | T 13 | | | | | | | | |
| F 14 | 13 50 35 | 29°18'35 | 12♏59 | 15°57 | 17° 9 | 3°48 | 28°21 | 27°11 | 27°29 | 21°17 | 5°13 | 5° 2 | 3°55 | 10°43 | 2°36 | F 14 | | | | | | | | |
| S 15 | 13 54 32 | 0♋16'38 | 27°56 | 17°53 | 18°17 | 3°52 | 28°26 | 27°10 | 27°28 | 21°19 | 5°14 | 4°59 | 3°52 | 10°50 | 2°35 | S 15 | | | | | | | | |
| S 16 | 13 58 28 | 1°14'40 | 12♌51 | 19°50 | 19°25 | 3°57 | 28°31 | 27° 9 | 27°27 | 21°21 | 5°15 | 4°56 | 3°48 | 10°57 | 2°34 | S 16 | | | | | | | | |
| M17 | 14 2 25 | 2°12'40 | 27°36 | 21°49 | 20°34 | 4° 3 | 28°36 | 27° 8 | 27°26 | 21°23 | 5°16 | 4°52 | 3°45 | 11° 3 | 2°33 | M17 | | | | | | | | |
| T 18 | 14 6 21 | 3°10'39 | 12♌ 6 | 23°50 | 21°42 | 4° 9 | 28°41 | 27° 8 | 27°25 | 21°25 | 5°17 | 4°50 | 3°42 | 11°10 | 2°32 | T 18 | | | | | | | | |
| W19 | 14 10 18 | 4° 8'36 | 26°15 | 25°52 | 22°51 | 4°16 | 28°47 | 27° 7 | 27°24 | 21°27 | 5°18 | 4°48 | 3°39 | 11°17 | 2°31 | W19 | | | | | | | | |
| T 20 | 14 14 14 | 5° 6'32 | 10♌ 3 | 27°56 | 24° 0 | 4°23 | 28°52 | 27° 7 | 27°22 | 21°29 | 5°19 | 4°D48 | 3°36 | 11°23 | 2°30 | T 20 | | | | | | | | |
| F 21 | 14 18 11 | 6° 4'27 | 23°30 | 0♋ 2 | 25° 9 | 4°31 | 28°58 | 27° 6 | 27°21 | 21°32 | 5°20 | 4°49 | 3°33 | 11°30 | 2°30 | F 21 | | | | | | | | |
| S 22 | 14 22 7 | 7° 2'20 | 6♋38 | 2° 9 | 26°18 | 4°40 | 29° 4 | 27° 6 | 27°20 | 21°34 | 5°20 | 4°51 | 3°29 | 11°37 | 2°29 | S 22 | | | | | | | | |
| S 23 | 14 26 4 | 8° 0'12 | 19°28 | 4°17 | 27°27 | 4°49 | 29°10 | 27° 6 | 27°19 | 21°36 | 5°21 | 4°52 | 3°26 | 11°43 | 2°29 | S 23 | | | | | | | | |
| M24 | 14 30 1 | 8°58'03 | 2°Y 5 | 6°26 | 28°36 | 4°59 | 29°16 | 27°D 6 | 27°17 | 21°38 | 5°22 | 4°R53 | 3°23 | 11°50 | 2°29 | M24 | | | | | | | | |
| T 25 | 14 33 57 | 9°55'52 | 14°29 | 8°36 | 29°45 | 5°10 | 29°23 | 27° 6 | 27°16 | 21°40 | 5°23 | 4°53 | 3°20 | 11°57 | 2°D29 | T 25 | | | | | | | | |
| W26 | 14 37 54 | 10°53'40 | 26°44 | 10°47 | 0♏54 | 5°21 | 29°29 | 27° 6 | 27°15 | 21°43 | 5°24 | 4°51 | 3°17 | 12° 4 | 2°29 | W26 | | | | | | | | |
| T 27 | 14 41 50 | 11°51'27 | 8♌51 | 12°58 | 2° 4 | 5°33 | 29°36 | 27° 7 | 27°13 | 21°45 | 5°25 | 4°47 | 3°13 | 12°10 | 2°29 | T 27 | | | | | | | | |
| F 28 | 14 45 47 | 12°49'12 | 20°51 | 15° 9 | 3°13 | 5°45 | 29°42 | 27° 7 | 27°12 | 21°47 | 5°25 | 4°41 | 3°10 | 12°17 | 2°29 | F 28 | | | | | | | | |
| S 29 | 14 49 43 | 13°46'56 | 2♏46 | 17°20 | 4°22 | 5°58 | 29°49 | 27° 8 | 27°10 | 21°49 | 5°26 | 4°34 | 3° 7 | 12°24 | 2°30 | S 29 | | | | | | | | |
| S 30 | 14 53 40 | 14♌44'39 | 14♏38 | 19♌31 | 5♏32 | 6♏11 | 29♌56 | 27♏ 8 | 27♌ 9 | 21♌52 | 5♋27 | 4♌27 | 3♌ 4 | 12♏30 | 2♏30 | S 30 | | | | | | | | |

Delta T = 19m39s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1066
geocentric

MAY 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|--------|-------|-------|-------|------|-------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 14 57 36 | 15♌42'20 | 26♐30 | 21♌41 | 6♃41 | 6♁25 | 0♄ 4 | 27♄ 9 | 27°R 7 | 21♌54 | 5♃27 | 4°R20 | 3♌ 1 | 12♐37 | 2♁31 | M 1 | | | | | | | | |
| T 2 | 15 1 33 | 16°39'59 | 8♌22 | 23°50 | 7°51 | 6°40 | 0°11 | 27°10 | 27°R 5 | 21°56 | 5°28 | 4♌13 | 2°58 | 12°44 | 2°32 | T 2 | | | | | | | | |
| W 3 | 15 5 29 | 17°37'37 | 20°20 | 25°58 | 9° 1 | 6°55 | 0°18 | 27°11 | 27° 4 | 21°58 | 5°29 | 4° 8 | 2°54 | 12°51 | 2°32 | W 3 | | | | | | | | |
| T 4 | 15 9 26 | 18°35'14 | 2♌25 | 28° 4 | 10°11 | 7°10 | 0°26 | 27°12 | 27° 2 | 22° 0 | 5°29 | 4° 5 | 2°51 | 12°57 | 2°33 | T 4 | | | | | | | | |
| F 5 | 15 13 23 | 19°32'49 | 14°43 | 0♐ 9 | 11°20 | 7°26 | 0°34 | 27°13 | 27° 0 | 22° 3 | 5°30 | 4°D 3 | 2°48 | 13° 4 | 2°34 | F 5 | | | | | | | | |
| S 6 | 15 17 19 | 20°30'22 | 27°18 | 2°12 | 12°30 | 7°43 | 0°41 | 27°14 | 26°59 | 22° 5 | 5°31 | 4° 3 | 2°45 | 13°11 | 2°36 | S 6 | | | | | | | | |
| S 7 | 15 21 16 | 21°27'54 | 10♁14 | 4°13 | 13°40 | 8° 0 | 0°49 | 27°15 | 26°57 | 22° 7 | 5°31 | 4° 4 | 2°42 | 13°17 | 2°37 | S 7 | | | | | | | | |
| M 8 | 15 25 12 | 22°25'25 | 23°35 | 6°11 | 14°50 | 8°17 | 0°57 | 27°17 | 26°55 | 22° 9 | 5°32 | 4° 5 | 2°39 | 13°24 | 2°38 | M 8 | | | | | | | | |
| T 9 | 15 29 9 | 23°22'54 | 7♌24 | 8° 7 | 16° 0 | 8°35 | 1° 5 | 27°18 | 26°53 | 22°12 | 5°32 | 4°R 6 | 2°35 | 13°31 | 2°40 | T 9 | | | | | | | | |
| W10 | 15 33 5 | 24°20'22 | 21°41 | 10° 1 | 17°10 | 8°54 | 1°14 | 27°20 | 26°51 | 22°14 | 5°33 | 4° 4 | 2°32 | 13°38 | 2°41 | W10 | | | | | | | | |
| T 11 | 15 37 2 | 25°17'48 | 6♐23 | 11°52 | 18°21 | 9°13 | 1°22 | 27°22 | 26°49 | 22°16 | 5°33 | 4° 1 | 2°29 | 13°44 | 2°43 | T 11 | | | | | | | | |
| F 12 | 15 40 58 | 26°15'14 | 21°26 | 13°41 | 19°31 | 9°32 | 1°31 | 27°24 | 26°47 | 22°18 | 5°34 | 3°56 | 2°26 | 13°51 | 2°45 | F 12 | | | | | | | | |
| S 13 | 15 44 55 | 27°12'38 | 6♁40 | 15°27 | 20°41 | 9°51 | 1°39 | 27°26 | 26°45 | 22°21 | 5°34 | 3°49 | 2°23 | 13°58 | 2°47 | S 13 | | | | | | | | |
| S 14 | 15 48 52 | 28°10'02 | 21°54 | 17°10 | 21°51 | 10°12 | 1°48 | 27°28 | 26°43 | 22°23 | 5°34 | 3°41 | 2°19 | 14° 5 | 2°49 | S 14 | | | | | | | | |
| M15 | 15 52 48 | 29° 7'24 | 6♌59 | 18°50 | 23° 2 | 10°32 | 1°57 | 27°30 | 26°41 | 22°25 | 5°35 | 3°33 | 2°16 | 14°11 | 2°51 | M15 | | | | | | | | |
| T 16 | 15 56 45 | 0♐ 4'46 | 21°45 | 20°28 | 24°12 | 10°53 | 2° 6 | 27°32 | 26°39 | 22°27 | 5°35 | 3°26 | 2°13 | 14°18 | 2°53 | T 16 | | | | | | | | |
| W17 | 16 0 41 | 1° 2'08 | 6♁ 6 | 22° 3 | 25°23 | 11°14 | 2°15 | 27°34 | 26°37 | 22°30 | 5°36 | 3°22 | 2°10 | 14°25 | 2°56 | W17 | | | | | | | | |
| T 18 | 16 4 38 | 1°59'29 | 20° 0 | 23°35 | 26°33 | 11°36 | 2°24 | 27°37 | 26°35 | 22°32 | 5°36 | 3°19 | 2° 7 | 14°31 | 2°58 | T 18 | | | | | | | | |
| F 19 | 16 8 34 | 2°56'49 | 3♃27 | 25° 4 | 27°44 | 11°58 | 2°33 | 27°39 | 26°33 | 22°34 | 5°36 | 3°D19 | 2° 4 | 14°38 | 3° 1 | F 19 | | | | | | | | |
| S 20 | 16 12 31 | 3°54'08 | 16°30 | 26°30 | 28°55 | 12°20 | 2°43 | 27°42 | 26°31 | 22°36 | 5°36 | 3°19 | 2° 0 | 14°45 | 3° 3 | S 20 | | | | | | | | |
| S 21 | 16 16 27 | 4°51'27 | 29°12 | 27°54 | 0♌ 5 | 12°43 | 2°52 | 27°45 | 26°29 | 22°38 | 5°37 | 3°R20 | 1°57 | 14°52 | 3° 6 | S 21 | | | | | | | | |
| M22 | 16 20 24 | 5°48'46 | 11♃37 | 29°14 | 1°16 | 13° 6 | 3° 2 | 27°48 | 26°26 | 22°41 | 5°37 | 3°19 | 1°54 | 14°58 | 3° 9 | M22 | | | | | | | | |
| T 23 | 16 24 21 | 6°46'04 | 23°50 | 0♌32 | 2°27 | 13°29 | 3°11 | 27°50 | 26°24 | 22°43 | 5°37 | 3°17 | 1°51 | 15° 5 | 3°12 | T 23 | | | | | | | | |
| W24 | 16 28 17 | 7°43'27 | 5♌54 | 1°46 | 3°38 | 13°53 | 3°21 | 27°53 | 26°22 | 22°45 | 5°37 | 3°13 | 1°48 | 15°12 | 3°15 | W24 | | | | | | | | |
| T 25 | 16 32 14 | 8°40'39 | 17°51 | 2°57 | 4°49 | 14°17 | 3°31 | 27°56 | 26°20 | 22°47 | 5°37 | 3° 6 | 1°45 | 15°18 | 3°18 | T 25 | | | | | | | | |
| F 26 | 16 36 10 | 9°37'55 | 29°45 | 4° 6 | 6° 0 | 14°42 | 3°41 | 28° 0 | 26°17 | 22°49 | 5°38 | 2°56 | 1°41 | 15°25 | 3°22 | F 26 | | | | | | | | |
| S 27 | 16 40 7 | 10°35'12 | 11♐37 | 5°11 | 7°11 | 15° 6 | 3°51 | 28° 3 | 26°15 | 22°52 | 5°38 | 2°45 | 1°38 | 15°32 | 3°25 | S 27 | | | | | | | | |
| S 28 | 16 44 3 | 11°32'27 | 23°28 | 6°12 | 8°22 | 15°31 | 4° 1 | 28° 6 | 26°13 | 22°54 | 5°38 | 2°32 | 1°35 | 15°39 | 3°29 | S 28 | | | | | | | | |
| M29 | 16 48 0 | 12°29'42 | 5♌21 | 7°11 | 9°33 | 15°57 | 4°11 | 28°10 | 26°10 | 22°56 | 5°38 | 2°20 | 1°32 | 15°45 | 3°32 | M29 | | | | | | | | |
| T 30 | 16 51 57 | 13°26'57 | 17°17 | 8° 5 | 10°44 | 16°23 | 4°22 | 28°13 | 26° 8 | 22°58 | 5°38 | 2° 8 | 1°29 | 15°52 | 3°36 | T 30 | | | | | | | | |
| W31 | 16 55 53 | 14°24'10 | 29♌17 | 8♌57 | 11♌55 | 16♁49 | 4♄32 | 28♄17 | 26♃ 6 | 23♌ 0 | 5°R38 | 1♌59 | 1♌25 | 15♐59 | 3♁40 | W31 | | | | | | | | |

Delta T = 19m39s Julian Calendar 1 May 1066 == Greg. Calendar 7 May 1066

JUNE 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| T 1 | 16 59 50 | 15♐21'23 | 11♄25 | 9♌44 | 13♌ 6 | 17♁15 | 4♄42 | 28♄21 | 26°R 3 | 23♌ 2 | 5°R38 | 1°R52 | 1♌22 | 16♐ 5 | 3♁44 | T 1 | | | | | | | | |
| F 2 | 17 3 46 | 16°18'36 | 23°44 | 10°28 | 14°18 | 17°42 | 4°53 | 28°24 | 26°R 1 | 23° 4 | 5°R38 | 1♌47 | 1°19 | 16°12 | 3°48 | F 2 | | | | | | | | |
| S 3 | 17 7 43 | 17°15'48 | 6♁17 | 11° 8 | 15°29 | 18° 8 | 5° 4 | 28°28 | 25°59 | 23° 7 | 5°38 | 1°46 | 1°16 | 16°19 | 3°52 | S 3 | | | | | | | | |
| S 4 | 17 11 39 | 18°12'59 | 19°10 | 11°44 | 16°40 | 18°36 | 5°14 | 28°32 | 25°56 | 23° 9 | 5°38 | 1°D45 | 1°13 | 16°26 | 3°56 | S 4 | | | | | | | | |
| M 5 | 17 15 36 | 19°10'10 | 2♌25 | 12°16 | 17°51 | 19° 3 | 5°25 | 28°36 | 25°54 | 23°11 | 5°38 | 1°R45 | 1°10 | 16°32 | 4° 0 | M 5 | | | | | | | | |
| T 6 | 17 19 32 | 20° 7'20 | 16° 6 | 12°44 | 19° 3 | 19°31 | 5°36 | 28°40 | 25°51 | 23°13 | 5°37 | 1°45 | 1° 6 | 16°39 | 4° 5 | T 6 | | | | | | | | |
| W 7 | 17 23 29 | 21° 4'29 | 0♐15 | 13° 7 | 20°14 | 19°59 | 5°47 | 28°45 | 25°49 | 23°15 | 5°37 | 1°42 | 1° 3 | 16°46 | 4° 9 | W 7 | | | | | | | | |
| T 8 | 17 27 25 | 22° 1'39 | 14°51 | 13°26 | 21°26 | 20°27 | 5°58 | 28°49 | 25°46 | 23°17 | 5°37 | 1°38 | 1° 0 | 16°52 | 4°14 | T 8 | | | | | | | | |
| F 9 | 17 31 22 | 22°58'47 | 29°50 | 13°41 | 22°37 | 20°55 | 6° 9 | 28°53 | 25°44 | 23°19 | 5°37 | 1°30 | 0°57 | 16°59 | 4°18 | F 9 | | | | | | | | |
| S 10 | 17 35 19 | 23°55'56 | 15♃ 5 | 13°51 | 23°49 | 21°24 | 6°20 | 28°58 | 25°42 | 23°21 | 5°37 | 1°21 | 0°54 | 17° 6 | 4°23 | S 10 | | | | | | | | |
| S 11 | 17 39 15 | 24°53'05 | 0♌25 | 13°56 | 25° 0 | 21°53 | 6°31 | 29° 2 | 25°39 | 23°23 | 5°36 | 1°10 | 0°51 | 17°13 | 4°28 | S 11 | | | | | | | | |
| M12 | 17 43 12 | 25°50'13 | 15°38 | 13°R57 | 26°12 | 22°22 | 6°43 | 29° 7 | 25°37 | 23°25 | 5°36 | 1° 0 | 0°47 | 17°19 | 4°33 | M12 | | | | | | | | |
| T 13 | 17 47 8 | 26°47'22 | 0♌34 | 13°53 | 27°24 | 22°52 | 6°54 | 29°11 | 25°34 | 23°27 | 5°36 | 0°51 | 0°44 | 17°26 | 4°38 | T 13 | | | | | | | | |
| W14 | 17 51 5 | 27°44'30 | 15° 5 | 13°44 | 28°36 | 23°21 | 7° 5 | 29°16 | 25°32 | 23°29 | 5°36 | 0°44 | 0°41 | 17°33 | 4°43 | W14 | | | | | | | | |
| T 15 | 17 55 1 | 28°41'39 | 29° 7 | 13°31 | 29°47 | 23°51 | 7°17 | 29°21 | 25°29 | 23°31 | 5°35 | 0°40 | 0°38 | 17°40 | 4°48 | T 15 | | | | | | | | |
| F 16 | 17 58 58 | 29°38'48 | 12♃40 | 13°13 | 0♐59 | 24°21 | 7°29 | 29°26 | 25°27 | 23°32 | 5°35 | 0°38 | 0°35 | 17°46 | 4°53 | F 16 | | | | | | | | |
| S 17 | 18 2 55 | 0♌35'58 | 25°45 | 12°52 | 2°11 | 24°52 | 7°40 | 29°31 | 25°25 | 23°34 | 5°34 | 0°37 | 0°31 | 17°53 | 4°59 | S 17 | | | | | | | | |
| S 18 | 18 6 51 | 1°33'08 | 8♃27 | 12°27 | 3°23 | 25°22 | 7°52 | 29°36 | 25°22 | 23°36 | 5°34 | 0°37 | 0°28 | 18° 0 | 5° 4 | S 18 | | | | | | | | |
| M19 | 18 10 48 | 2°30'18 | 20°49 | 11°58 | 4°35 | 25°53 | 8° 4 | 29°41 | 25°20 | 23°38 | 5°34 | 0°36 | 0°25 | 18° 6 | 5° 9 | M19 | | | | | | | | |
| T 20 | 18 14 44 | 3°27'29 | 2♌57 | 11°26 | 5°47 | 26°24 | 8°15 | 29°46 | 25°17 | 23°40 | 5°33 | 0°34 | 0°22 | 18°13 | 5°15 | T 20 | | | | | | | | |
| W21 | 18 18 41 | 4°24'40 | 14°56 | 10°51 | 6°59 | 26°55 | 8°27 | 29°51 | 25°15 | 23°42 | 5°33 | 0°29 | 0°19 | 18°20 | 5°21 | W21 | | | | | | | | |
| T 22 | 18 22 37 | 5°21'52 | 26°50 | 10°14 | 8°11 | 27°27 | 8°39 | 29°57 | 25°13 | 23°43 | 5°32 | 0°21 | 0°16 | 18°27 | 5°26 | T 22 | | | | | | | | |
| F 23 | 18 26 34 | 6°19'04 | 8♐41 | 9°36 | 9°23 | 27°58 | 8°51 | 0♐ 2 | 25°10 | 23°45 | 5°32 | 0°11 | 0°12 | 18°33 | 5°32 | F 23 | | | | | | | | |
| S 24 | 18 30 30 | 7°16'17 | 20°32 | 8°57 | 10°35 | 28°30 | 9° 3 | 0° 7 | 25° 8 | 23°47 | 5°31 | 29♁58 | 0° 9 | 18°40 | 5°38 | S 24 | | | | | | | | |
| S 25 | 18 34 27 | 8°13'30 | 2♌25 | 8°17 | 11°47 | 29° 2 | 9°15 | 0°13 | 25° 6 | 23°49 | 5°31 | 29°45 | 0° 6 | 18°47 | 5°44 | S 25 | | | | | | | | |
| M26 | 18 38 24 | 9°10'44 | 14°22 | 7°38 | 13° 0 | 29°34 | 9°27 | 0°18 | 25° 3 | 23°50 | 5°30 | 29°31 | 0° 3 | 18°53 | 5°50 | M26 | | | | | | | | |
| T 27 | 18 42 20 | 10° 7'58 | 26°25 | 7° 1 | 14°12 | 0♌ 7 | 9°39 | 0°24 | 25° 1 | 23°52 | 5°29 | 29°19 | 29♁59 | 19° 0 | 5°56 | T 27 | | | | | | | | |
| W28 | 18 46 17 | 11° 5'12 | 8♄33 | 6°25 | 15°24 | 0°39 | 9°51 | 0°30 | 24°59 | 23°54 | 5°29 | 29° 8 | 29°57 | 19° 7 | 6° 2 | W28 | | | | | | | | |
| T 29 | 18 50 13 | 12° 2'27 | 20°49 | 5°51 | 16°37 | 1°12 | 10° 4 | 0°36 | 24°56 | 23°55 | 5°28 | 29° 0 | 29°53 | 19°14 | 6° 9 | T 29 | | | | | | | | |
| F 30 | 18 54 10 | 12°59'42 | 3♁16 | 5♌21 | 17♐49 | 1♌45 | 10♄16 | 0♐41 | 24♃54 | 23♌57 | 5♃28 | 28♁55 | 29♁50 | 19♐20 | 6♁15 | F 30 | | | | | | | | |

Delta T = 19m38s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1066
geocentric

JULY 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|----------------------|---------------------|----------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|----------------------|---------------------|----------------------|----------------------|------|---|-----|
| S 1 | 18 58 6 | 13 ⁵⁶ 57 | 15 ¹⁷ 54 | 4 ⁰ R54 | 19 ¹¹ I 1 | 2 ⁰ 18 | 10 ⁰ 28 | 0 ¹⁷ 47 | 24 ⁰ R52 | 23 ⁰ 59 | 5 ⁰ R27 | 28 ⁰ R53 | 29 ¹⁷ 47 | 19 ¹¹ I27 | 6 ¹⁷ 21 | S 1 | | |
| S 2 | 19 2 3 | 14 ⁰ 54'13 | 28 ⁰ 49 | 4 ⁰ 31 | 20 ⁰ 14 | 2 ⁰ 52 | 10 ⁰ 41 | 0 ⁰ 53 | 24 ⁰ 749 | 24 ⁰ 0 | 5 ⁰ 26 | 28 ⁰ D53 | 29 ⁰ 44 | 19 ⁰ 34 | 6 ⁰ 28 | S 2 | | |
| M 3 | 19 5 59 | 15 ⁰ 51'29 | 12 ⁰ 2 | 4 ⁰ 13 | 21 ⁰ 26 | 3 ⁰ 25 | 10 ⁰ 53 | 0 ⁰ 59 | 24 ⁰ 47 | 24 ⁰ 2 | 5 ⁰ 25 | 28 ⁰ R53 | 29 ⁰ 41 | 19 ⁰ 40 | 6 ⁰ 34 | M 3 | | |
| T 4 | 19 9 56 | 16 ⁰ 48'45 | 25 ⁰ 38 | 4 ⁰ 0 | 22 ⁰ 39 | 3 ⁰ 59 | 11 ⁰ 6 | 1 ⁰ 5 | 24 ⁰ 45 | 24 ⁰ 3 | 5 ⁰ 25 | 28 ⁰ 1753 | 29 ⁰ 37 | 19 ⁰ 47 | 6 ⁰ 41 | T 4 | | |
| W 5 | 19 13 53 | 17 ⁰ 46'02 | 9 ⁰ 11'37 | 3 ⁰ 52 | 23 ⁰ 52 | 4 ⁰ 33 | 11 ⁰ 18 | 1 ⁰ 11 | 24 ⁰ 43 | 24 ⁰ 5 | 5 ⁰ 24 | 28 ⁰ 51 | 29 ⁰ 34 | 19 ⁰ 54 | 6 ⁰ 48 | W 5 | | |
| T 6 | 19 17 49 | 18 ⁰ 43'19 | 24 ⁰ 1 | 3 ⁰ D50 | 25 ⁰ 4 | 5 ⁰ 7 | 11 ⁰ 31 | 1 ⁰ 17 | 24 ⁰ 41 | 24 ⁰ 6 | 5 ⁰ 23 | 28 ⁰ 47 | 29 ⁰ 31 | 20 ⁰ 1 | 6 ⁰ 54 | T 6 | | |
| F 7 | 19 21 46 | 19 ⁰ 40'37 | 8 ⁰ 7'46 | 3 ⁰ 54 | 26 ⁰ 17 | 5 ⁰ 41 | 11 ⁰ 43 | 1 ⁰ 23 | 24 ⁰ 39 | 24 ⁰ 8 | 5 ⁰ 22 | 28 ⁰ 41 | 29 ⁰ 28 | 20 ⁰ 7 | 7 ⁰ 1 | F 7 | | |
| S 8 | 19 25 42 | 20 ⁰ 37'55 | 23 ⁰ 47 | 4 ⁰ 4 | 27 ⁰ 29 | 6 ⁰ 15 | 11 ⁰ 56 | 1 ⁰ 30 | 24 ⁰ 36 | 24 ⁰ 9 | 5 ⁰ 22 | 28 ⁰ 32 | 29 ⁰ 25 | 20 ⁰ 14 | 7 ⁰ 8 | S 8 | | |
| S 9 | 19 29 39 | 21 ⁰ 35'14 | 8 ⁰ 3'55 | 4 ⁰ 20 | 28 ⁰ 42 | 6 ⁰ 50 | 12 ⁰ 8 | 1 ⁰ 36 | 24 ⁰ 34 | 24 ⁰ 11 | 5 ⁰ 21 | 28 ⁰ 23 | 29 ⁰ 22 | 20 ⁰ 21 | 7 ⁰ 15 | S 9 | | |
| M10 | 19 33 35 | 22 ⁰ 32'34 | 24 ⁰ 1 | 4 ⁰ 42 | 29 ⁰ 55 | 7 ⁰ 24 | 12 ⁰ 21 | 1 ⁰ 42 | 24 ⁰ 32 | 24 ⁰ 12 | 5 ⁰ 20 | 28 ⁰ 13 | 29 ⁰ 18 | 20 ⁰ 28 | 7 ⁰ 22 | M10 | | |
| T 11 | 19 37 32 | 23 ⁰ 29'54 | 8 ⁰ 3'54 | 5 ⁰ 10 | 1 ⁰ 30 8 | 7 ⁰ 59 | 12 ⁰ 34 | 1 ⁰ 49 | 24 ⁰ 30 | 24 ⁰ 13 | 5 ⁰ 19 | 28 ⁰ 5 | 29 ⁰ 15 | 20 ⁰ 34 | 7 ⁰ 29 | T 11 | | |
| W12 | 19 41 28 | 24 ⁰ 27'16 | 23 ⁰ 26 | 5 ⁰ 44 | 2 ⁰ 21 | 8 ⁰ 34 | 12 ⁰ 46 | 1 ⁰ 55 | 24 ⁰ 28 | 24 ⁰ 15 | 5 ⁰ 18 | 27 ⁰ 59 | 29 ⁰ 12 | 20 ⁰ 41 | 7 ⁰ 36 | W12 | | |
| T 13 | 19 45 25 | 25 ⁰ 24'38 | 7 ⁰ 3'32 | 6 ⁰ 25 | 3 ⁰ 34 | 9 ⁰ 9 | 12 ⁰ 59 | 2 ⁰ 2 | 24 ⁰ 26 | 24 ⁰ 16 | 5 ⁰ 17 | 27 ⁰ 55 | 29 ⁰ 9 | 20 ⁰ 48 | 7 ⁰ 43 | T 13 | | |
| F 14 | 19 49 22 | 26 ⁰ 22'02 | 21 ⁰ 9 | 7 ⁰ 12 | 4 ⁰ 47 | 9 ⁰ 45 | 13 ⁰ 12 | 2 ⁰ 8 | 24 ⁰ 24 | 24 ⁰ 17 | 5 ⁰ 17 | 27 ⁰ 53 | 29 ⁰ 6 | 20 ⁰ 54 | 7 ⁰ 50 | F 14 | | |
| S 15 | 19 53 18 | 27 ⁰ 19'27 | 4 ⁰ 19'19 | 8 ⁰ 4 | 6 ⁰ 0 | 10 ⁰ 20 | 13 ⁰ 25 | 2 ⁰ 15 | 24 ⁰ 22 | 24 ⁰ 18 | 5 ⁰ 16 | 27 ⁰ D53 | 29 ⁰ 2 | 21 ⁰ 1 | 7 ⁰ 58 | S 15 | | |
| S 16 | 19 57 15 | 28 ⁰ 16'53 | 17 ⁰ 4 | 9 ⁰ 3 | 7 ⁰ 13 | 10 ⁰ 56 | 13 ⁰ 38 | 2 ⁰ 21 | 24 ⁰ 21 | 24 ⁰ 20 | 5 ⁰ 15 | 27 ⁰ 54 | 28 ⁰ 59 | 21 ⁰ 8 | 8 ⁰ 5 | S 16 | | |
| M17 | 20 1 11 | 29 ⁰ 14'20 | 29 ⁰ 28 | 10 ⁰ 8 | 8 ⁰ 26 | 11 ⁰ 32 | 13 ⁰ 50 | 2 ⁰ 28 | 24 ⁰ 19 | 24 ⁰ 21 | 5 ⁰ 14 | 27 ⁰ R54 | 28 ⁰ 56 | 21 ⁰ 15 | 8 ⁰ 12 | M17 | | |
| T 18 | 20 5 8 | 0 ⁰ 11'49 | 11 ⁰ 3'38 | 11 ⁰ 18 | 9 ⁰ 39 | 12 ⁰ 8 | 14 ⁰ 3 | 2 ⁰ 35 | 24 ⁰ 17 | 24 ⁰ 22 | 5 ⁰ 13 | 27 ⁰ 53 | 28 ⁰ 53 | 21 ⁰ 21 | 8 ⁰ 20 | T 18 | | |
| W19 | 20 9 4 | 1 ⁰ 9'19 | 23 ⁰ 36 | 12 ⁰ 34 | 10 ⁰ 52 | 12 ⁰ 44 | 14 ⁰ 16 | 2 ⁰ 41 | 24 ⁰ 15 | 24 ⁰ 23 | 5 ⁰ 12 | 27 ⁰ 51 | 28 ⁰ 50 | 21 ⁰ 28 | 8 ⁰ 27 | W19 | | |
| T 20 | 20 13 1 | 2 ⁰ 6'51 | 5 ⁰ 11'29 | 13 ⁰ 55 | 12 ⁰ 5 | 13 ⁰ 20 | 14 ⁰ 29 | 2 ⁰ 48 | 24 ⁰ 13 | 24 ⁰ 24 | 5 ⁰ 11 | 27 ⁰ 46 | 28 ⁰ 47 | 21 ⁰ 35 | 8 ⁰ 35 | T 20 | | |
| F 21 | 20 16 57 | 3 ⁰ 4'24 | 17 ⁰ 20 | 15 ⁰ 21 | 13 ⁰ 18 | 13 ⁰ 56 | 14 ⁰ 42 | 2 ⁰ 55 | 24 ⁰ 12 | 24 ⁰ 25 | 5 ⁰ 10 | 27 ⁰ 39 | 28 ⁰ 43 | 21 ⁰ 42 | 8 ⁰ 42 | F 21 | | |
| S 22 | 20 20 54 | 4 ⁰ 1'58 | 29 ⁰ 13 | 16 ⁰ 52 | 14 ⁰ 32 | 14 ⁰ 33 | 14 ⁰ 55 | 3 ⁰ 2 | 24 ⁰ 10 | 24 ⁰ 26 | 5 ⁰ 9 | 27 ⁰ 30 | 28 ⁰ 40 | 21 ⁰ 48 | 8 ⁰ 50 | S 22 | | |
| S 23 | 20 24 51 | 4 ⁰ 59'34 | 11 ⁰ 3'11 | 18 ⁰ 27 | 15 ⁰ 45 | 15 ⁰ 9 | 15 ⁰ 8 | 3 ⁰ 9 | 24 ⁰ 8 | 24 ⁰ 27 | 5 ⁰ 8 | 27 ⁰ 21 | 28 ⁰ 37 | 21 ⁰ 55 | 8 ⁰ 57 | S 23 | | |
| M24 | 20 28 47 | 5 ⁰ 57'11 | 23 ⁰ 15 | 20 ⁰ 6 | 16 ⁰ 58 | 15 ⁰ 46 | 15 ⁰ 21 | 3 ⁰ 16 | 24 ⁰ 7 | 24 ⁰ 28 | 5 ⁰ 7 | 27 ⁰ 11 | 28 ⁰ 34 | 22 ⁰ 2 | 9 ⁰ 5 | M24 | | |
| T 25 | 20 32 44 | 6 ⁰ 54'49 | 5 ⁰ 12'27 | 21 ⁰ 50 | 18 ⁰ 12 | 16 ⁰ 23 | 15 ⁰ 34 | 3 ⁰ 23 | 24 ⁰ 5 | 24 ⁰ 29 | 5 ⁰ 6 | 27 ⁰ 2 | 28 ⁰ 31 | 22 ⁰ 8 | 9 ⁰ 13 | T 25 | | |
| W26 | 20 36 40 | 7 ⁰ 52'29 | 17 ⁰ 47 | 23 ⁰ 36 | 19 ⁰ 25 | 17 ⁰ 0 | 15 ⁰ 47 | 3 ⁰ 29 | 24 ⁰ 4 | 24 ⁰ 30 | 5 ⁰ 5 | 26 ⁰ 55 | 28 ⁰ 28 | 22 ⁰ 15 | 9 ⁰ 21 | W26 | | |
| T 27 | 20 40 37 | 8 ⁰ 50'10 | 0 ⁰ 17'18 | 25 ⁰ 26 | 20 ⁰ 39 | 17 ⁰ 37 | 16 ⁰ 0 | 3 ⁰ 37 | 24 ⁰ 2 | 24 ⁰ 31 | 5 ⁰ 3 | 26 ⁰ 49 | 28 ⁰ 24 | 22 ⁰ 22 | 9 ⁰ 29 | T 27 | | |
| F 28 | 20 44 33 | 9 ⁰ 47'52 | 12 ⁰ 59 | 27 ⁰ 19 | 21 ⁰ 52 | 18 ⁰ 15 | 16 ⁰ 13 | 3 ⁰ 44 | 24 ⁰ 1 | 24 ⁰ 32 | 5 ⁰ 2 | 26 ⁰ 46 | 28 ⁰ 21 | 22 ⁰ 29 | 9 ⁰ 36 | F 28 | | |
| S 29 | 20 48 30 | 10 ⁰ 45'35 | 25 ⁰ 52 | 29 ⁰ 13 | 23 ⁰ 6 | 18 ⁰ 52 | 16 ⁰ 26 | 3 ⁰ 51 | 23 ⁰ 59 | 24 ⁰ 33 | 5 ⁰ 1 | 26 ⁰ D45 | 28 ⁰ 18 | 22 ⁰ 35 | 9 ⁰ 44 | S 29 | | |
| S 30 | 20 52 26 | 11 ⁰ 43'20 | 8 ⁰ 1'59 | 1 ⁰ 10 | 24 ⁰ 19 | 19 ⁰ 30 | 16 ⁰ 39 | 3 ⁰ 58 | 23 ⁰ 58 | 24 ⁰ 34 | 5 ⁰ 0 | 26 ⁰ 46 | 28 ⁰ 15 | 22 ⁰ 42 | 9 ⁰ 52 | S 30 | | |
| M31 | 20 56 23 | 12 ⁰ 41'05 | 22 ⁰ 1'20 | 3 ⁰ 10 8 | 25 ⁰ 33 | 20 ⁰ 7 | 16 ⁰ 52 | 4 ⁰ 11 5 | 23 ⁰ 56 | 24 ⁰ 34 | 4 ⁰ 59 | 26 ⁰ 47 | 28 ⁰ 12 | 22 ⁰ 49 | 10 ⁰ 11 0 | M31 | | |

Delta T = 19m38s Julian Calendar 1 July 1066 == Greg. Calendar 7 July 1066

AUGUST 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|-----------------------|----------------------|---------------------|--------------------|----------------------|----------------------|---------------------|--------------------|--------------------|----------------------|----------------------|-----------------------|----------------------|------|---|-----|
| T 1 | 21 0 20 | 13 ⁰ 38'52 | 5 ⁰ 11'57 | 5 ⁰ 10 7 | 26 ⁰ 347 | 20 ⁰ 45 | 17 ⁰ 10 5 | 4 ⁰ 11 12 | 23 ⁰ R55 | 24 ⁰ 35 | 4 ⁰ R58 | 26 ⁰ 1748 | 28 ⁰ 17 8 | 22 ⁰ 11'55 | 10 ⁰ 17 8 | T 1 | | |
| W 2 | 21 4 16 | 14 ⁰ 36'40 | 19 ⁰ 52 | 7 ⁰ 6 | 28 ⁰ 0 | 21 ⁰ 23 | 17 ⁰ 18 | 4 ⁰ 19 | 23 ⁰ 54 | 24 ⁰ 36 | 4 ⁰ 57 | 26 ⁰ R48 | 28 ⁰ 5 | 23 ⁰ 2 | 10 ⁰ 16 | W 2 | | |
| T 3 | 21 8 13 | 15 ⁰ 34'29 | 4 ⁰ 7' 4 | 9 ⁰ 7 | 29 ⁰ 14 | 22 ⁰ 1 | 17 ⁰ 31 | 4 ⁰ 26 | 23 ⁰ 53 | 24 ⁰ 36 | 4 ⁰ 56 | 26 ⁰ 47 | 28 ⁰ 2 | 23 ⁰ 9 | 10 ⁰ 24 | T 3 | | |
| F 4 | 21 12 9 | 16 ⁰ 32'20 | 18 ⁰ 32 | 11 ⁰ 7 | 0 ⁰ 128 | 22 ⁰ 40 | 17 ⁰ 44 | 4 ⁰ 34 | 23 ⁰ 52 | 24 ⁰ 37 | 4 ⁰ 54 | 26 ⁰ 44 | 27 ⁰ 59 | 23 ⁰ 16 | 10 ⁰ 32 | F 4 | | |
| S 5 | 21 16 6 | 17 ⁰ 30'11 | 3 ⁰ 3'11 | 13 ⁰ 7 | 1 ⁰ 42 | 23 ⁰ 18 | 17 ⁰ 58 | 4 ⁰ 41 | 23 ⁰ 50 | 24 ⁰ 38 | 4 ⁰ 53 | 26 ⁰ 39 | 27 ⁰ 56 | 23 ⁰ 22 | 10 ⁰ 41 | S 5 | | |
| S 6 | 21 20 2 | 18 ⁰ 28'05 | 17 ⁰ 57 | 15 ⁰ 7 | 2 ⁰ 55 | 23 ⁰ 56 | 18 ⁰ 11 | 4 ⁰ 48 | 23 ⁰ 49 | 24 ⁰ 38 | 4 ⁰ 52 | 26 ⁰ 34 | 27 ⁰ 53 | 23 ⁰ 29 | 10 ⁰ 49 | S 6 | | |
| M 7 | 21 23 59 | 19 ⁰ 25'59 | 2 ⁰ 3'11 | 17 ⁰ 6 | 4 ⁰ 9 | 24 ⁰ 35 | 18 ⁰ 24 | 4 ⁰ 55 | 23 ⁰ 48 | 24 ⁰ 39 | 4 ⁰ 51 | 26 ⁰ 28 | 27 ⁰ 49 | 23 ⁰ 36 | 10 ⁰ 57 | M 7 | | |
| T 8 | 21 27 55 | 20 ⁰ 23'55 | 17 ⁰ 17 | 19 ⁰ 5 | 5 ⁰ 23 | 25 ⁰ 14 | 18 ⁰ 37 | 5 ⁰ 3 | 23 ⁰ 47 | 24 ⁰ 39 | 4 ⁰ 50 | 26 ⁰ 23 | 27 ⁰ 46 | 23 ⁰ 43 | 11 ⁰ 5 | T 8 | | |
| W 9 | 21 31 52 | 21 ⁰ 21'52 | 1 ⁰ 3'37 | 21 ⁰ 2 | 6 ⁰ 37 | 25 ⁰ 53 | 18 ⁰ 50 | 5 ⁰ 10 | 23 ⁰ 46 | 24 ⁰ 40 | 4 ⁰ 49 | 26 ⁰ 20 | 27 ⁰ 43 | 23 ⁰ 49 | 11 ⁰ 14 | W 9 | | |
| T 10 | 21 35 49 | 22 ⁰ 19'52 | 15 ⁰ 36 | 22 ⁰ 59 | 7 ⁰ 51 | 26 ⁰ 31 | 19 ⁰ 3 | 5 ⁰ 17 | 23 ⁰ 45 | 24 ⁰ 40 | 4 ⁰ 47 | 26 ⁰ 18 | 27 ⁰ 40 | 23 ⁰ 56 | 11 ⁰ 22 | T 10 | | |
| F 11 | 21 39 45 | 23 ⁰ 17'53 | 29 ⁰ 10 | 24 ⁰ 55 | 9 ⁰ 5 | 27 ⁰ 11 | 19 ⁰ 16 | 5 ⁰ 25 | 23 ⁰ 45 | 24 ⁰ 41 | 4 ⁰ 46 | 26 ⁰ D17 | 27 ⁰ 37 | 24 ⁰ 3 | 11 ⁰ 30 | F 11 | | |
| S 12 | 21 43 42 | 24 ⁰ 15'55 | 12 ⁰ 19'21 | 26 ⁰ 50 | 10 ⁰ 19 | 27 ⁰ 50 | 19 ⁰ 29 | 5 ⁰ 32 | 23 ⁰ 44 | 24 ⁰ 41 | 4 ⁰ 45 | 26 ⁰ 18 | 27 ⁰ 34 | 24 ⁰ 9 | 11 ⁰ 39 | S 12 | | |
| S 13 | 21 47 38 | 25 ⁰ 14'00 | 25 ⁰ 9 | 28 ⁰ 43 | 11 ⁰ 33 | 28 ⁰ 29 | 19 ⁰ 42 | 5 ⁰ 40 | 23 ⁰ 43 | 24 ⁰ 41 | 4 ⁰ 44 | 26 ⁰ 20 | 27 ⁰ 30 | 24 ⁰ 16 | 11 ⁰ 47 | S 13 | | |
| M14 | 21 51 35 | 26 ⁰ 12'07 | 7 ⁰ 3'36 | 0 ⁰ 17'36 | 12 ⁰ 47 | 29 ⁰ 8 | 19 ⁰ 55 | 5 ⁰ 47 | 23 ⁰ 42 | 24 ⁰ 42 | 4 ⁰ 42 | 26 ⁰ 21 | 27 ⁰ 27 | 24 ⁰ 23 | 11 ⁰ 55 | M14 | | |
| T 15 | 21 55 31 | 27 ⁰ 10'15 | 19 ⁰ 48 | 2 ⁰ 27 | 14 | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1066
geocentric

SEPTEMBER 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|-----|----------|----------|-------|-------|-------|-------|--------|-------|-------|--------|-------|--------|-------|-------|-------|-----|-----|
| F 1 | 23 2 33 | 13♎43'46 | 29♁ 8 | 1♁ 6 | 5♎ 7 | 11♎17 | 23♁47 | 8♎ 1 | 23♁38 | 24°R41 | 4°R20 | 26°R 4 | 26♎30 | 26♎24 | 14♎29 | F 1 | |
| S 2 | 23 6 29 | 14°42'29 | 13♁27 | 2°38 | 6°22 | 11°58 | 24° 0 | 8° 9 | 23°38 | 24♁41 | 4°R19 | 26♎ 3 | 26°27 | 26°31 | 14°38 | S 2 | |
| S 3 | 23 10 26 | 15°41'13 | 27°47 | 4° 8 | 7°37 | 12°40 | 24°12 | 8°16 | 23°38 | 24°41 | 4°18 | 26° 1 | 26°24 | 26°37 | 14°46 | S 3 | |
| M 4 | 23 14 22 | 16°39'59 | 12♁ 3 | 5°38 | 8°51 | 13°21 | 24°25 | 8°24 | 23°39 | 24°40 | 4°17 | 26° 0 | 26°20 | 26°44 | 14°55 | M 4 | |
| T 5 | 23 18 19 | 17°38'47 | 26°12 | 7° 7 | 10° 6 | 14° 3 | 24°38 | 8°31 | 23°39 | 24°40 | 4°15 | 25°59 | 26°17 | 26°51 | 15° 4 | T 5 | |
| W 6 | 23 22 15 | 18°37'37 | 10♁ 8 | 8°34 | 11°21 | 14°45 | 24°50 | 8°38 | 23°40 | 24°39 | 4°14 | 25°59 | 26°14 | 26°58 | 15°12 | W 6 | |
| T 7 | 23 26 12 | 19°36'29 | 23°49 | 10° 1 | 12°36 | 15°27 | 25° 3 | 8°46 | 23°40 | 24°39 | 4°13 | 25°D58 | 26°11 | 27° 4 | 15°21 | T 7 | |
| F 8 | 23 30 9 | 20°35'23 | 7♁11 | 11°26 | 13°51 | 16° 9 | 25°15 | 8°53 | 23°41 | 24°38 | 4°12 | 25°58 | 26° 8 | 27°11 | 15°30 | F 8 | |
| S 9 | 23 34 5 | 21°34'19 | 20°15 | 12°50 | 15° 5 | 16°51 | 25°27 | 9° 1 | 23°41 | 24°38 | 4°11 | 25°59 | 26° 5 | 27°18 | 15°38 | S 9 | |
| S10 | 23 38 2 | 22°33'18 | 3♁ 0 | 14°14 | 16°20 | 17°33 | 25°40 | 9° 8 | 23°42 | 24°37 | 4° 9 | 25°59 | 26° 1 | 27°24 | 15°47 | S10 | |
| M11 | 23 41 58 | 23°32'18 | 15°28 | 15°36 | 17°35 | 18°15 | 25°52 | 9°15 | 23°43 | 24°37 | 4° 8 | 26° 0 | 25°58 | 27°31 | 15°55 | M11 | |
| T12 | 23 45 55 | 24°31'21 | 27°41 | 16°57 | 18°50 | 18°57 | 26° 4 | 9°23 | 23°43 | 24°36 | 4° 7 | 26° 0 | 25°55 | 27°38 | 16° 4 | T12 | |
| W13 | 23 49 51 | 25°30'26 | 9♎43 | 18°17 | 20° 5 | 19°40 | 26°16 | 9°30 | 23°44 | 24°35 | 4° 6 | 26° 0 | 25°52 | 27°45 | 16°13 | W13 | |
| T14 | 23 53 48 | 26°29'34 | 21°38 | 19°35 | 21°20 | 20°22 | 26°29 | 9°37 | 23°45 | 24°35 | 4° 5 | 26° 0 | 25°49 | 27°51 | 16°21 | T14 | |
| F15 | 23 57 44 | 27°28'44 | 3♁31 | 20°53 | 22°35 | 21° 5 | 26°41 | 9°44 | 23°46 | 24°34 | 4° 4 | 26° 0 | 25°45 | 27°58 | 16°30 | F15 | |
| S16 | 0 1 41 | 28°27'56 | 15°27 | 22° 9 | 23°50 | 21°48 | 26°53 | 9°52 | 23°47 | 24°33 | 4° 3 | 26° 0 | 25°42 | 28° 5 | 16°38 | S16 | |
| S17 | 0 5 38 | 29°27'11 | 27°29 | 23°23 | 25° 5 | 22°31 | 27° 5 | 9°59 | 23°48 | 24°32 | 4° 2 | 26° 0 | 25°39 | 28°11 | 16°47 | S17 | |
| M18 | 0 9 34 | 0♁26'28 | 9♁42 | 24°36 | 26°20 | 23°13 | 27°17 | 10° 6 | 23°49 | 24°32 | 4° 0 | 26° 1 | 25°36 | 28°18 | 16°55 | M18 | |
| T19 | 0 13 31 | 1°25'47 | 22°10 | 25°47 | 27°35 | 23°56 | 27°29 | 10°13 | 23°50 | 24°31 | 3°59 | 26° 1 | 25°33 | 28°25 | 17° 4 | T19 | |
| W20 | 0 17 27 | 2°25'09 | 4♎55 | 26°57 | 28°50 | 24°40 | 27°40 | 10°20 | 23°51 | 24°30 | 3°58 | 26° 2 | 25°30 | 28°32 | 17°12 | W20 | |
| T21 | 0 21 24 | 3°24'32 | 17°59 | 28° 5 | 0♁ 5 | 25°23 | 27°52 | 10°27 | 23°52 | 24°29 | 3°57 | 26° 2 | 25°26 | 28°38 | 17°21 | T21 | |
| F22 | 0 25 20 | 4°23'58 | 1♁21 | 29°10 | 1°20 | 26° 6 | 28° 4 | 10°35 | 23°54 | 24°28 | 3°56 | 26°R 2 | 25°23 | 28°45 | 17°29 | F22 | |
| S23 | 0 29 17 | 5°23'26 | 15° 2 | 0♎13 | 2°35 | 26°49 | 28°16 | 10°42 | 23°55 | 24°27 | 3°55 | 26° 2 | 25°20 | 28°52 | 17°38 | S23 | |
| S24 | 0 33 13 | 6°22'56 | 28°58 | 1°14 | 3°51 | 27°33 | 28°27 | 10°49 | 23°56 | 24°26 | 3°54 | 26° 1 | 25°17 | 28°59 | 17°46 | S24 | |
| M25 | 0 37 10 | 7°22'28 | 13♎ 5 | 2°12 | 5° 6 | 28°16 | 28°39 | 10°56 | 23°58 | 24°25 | 3°53 | 26° 0 | 25°14 | 29° 5 | 17°54 | M25 | |
| T26 | 0 41 6 | 8°22'02 | 27°20 | 3° 7 | 6°21 | 29° 0 | 28°50 | 11° 3 | 23°59 | 24°24 | 3°52 | 25°58 | 25°11 | 29°12 | 18° 3 | T26 | |
| W27 | 0 45 3 | 9°21'38 | 11♁39 | 3°59 | 7°36 | 29°43 | 29° 2 | 11° 9 | 24° 1 | 24°23 | 3°51 | 25°57 | 25° 7 | 29°19 | 18°11 | W27 | |
| T28 | 0 49 0 | 10°21'15 | 25°56 | 4°48 | 8°51 | 0♁27 | 29°13 | 11°16 | 24° 2 | 24°22 | 3°50 | 25°56 | 25° 4 | 29°25 | 18°19 | T28 | |
| F29 | 0 52 56 | 11°20'55 | 10♁11 | 5°32 | 10° 6 | 1°11 | 29°24 | 11°23 | 24° 4 | 24°21 | 3°49 | 25°D55 | 25° 1 | 29°32 | 18°28 | F29 | |
| S30 | 0 56 53 | 12°20'36 | 24♁19 | 6♎12 | 11♁22 | 1♁55 | 29°♁35 | 11♎30 | 24♁ 5 | 24♁20 | 3♁48 | 25♎55 | 24♎58 | 29♎39 | 18♎36 | S30 | |

Delta T = 19m37s Julian Calendar 1 Sept. 1066 == Greg. Calendar 7 Sept. 1066

OCTOBER 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|-----|---------|----------|-------|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-----|-----|
| S 1 | 1 0 49 | 13♁20'18 | 8♁19 | 6♎47 | 12♁37 | 2♁39 | 29♁46 | 11♎37 | 24♁ 7 | 24°R18 | 3°R47 | 25♎56 | 24♎55 | 29♎46 | 18♎44 | S 1 | |
| M 2 | 1 4 46 | 14°20'03 | 22° 9 | 7°17 | 13°52 | 3°23 | 29°57 | 11°43 | 24° 9 | 24♁17 | 3♁47 | 25°58 | 24°51 | 29°52 | 18°52 | M 2 | |
| T 3 | 1 8 42 | 15°19'49 | 5♁49 | 7°42 | 15° 7 | 4° 7 | 0♎ 8 | 11°50 | 24°11 | 24°16 | 3°46 | 25°59 | 24°48 | 29°59 | 19° 0 | T 3 | |
| W 4 | 1 12 39 | 16°19'37 | 19°18 | 7°59 | 16°23 | 4°51 | 0°19 | 11°57 | 24°12 | 24°15 | 3°45 | 26°R 0 | 24°45 | 0♁ 6 | 19° 8 | W 4 | |
| T 5 | 1 16 35 | 17°19'27 | 2°R34 | 8°10 | 17°38 | 5°35 | 0°30 | 12° 3 | 24°14 | 24°13 | 3°44 | 26° 0 | 24°42 | 0°12 | 19°16 | T 5 | |
| F 6 | 1 20 32 | 18°19'18 | 15°38 | 8°R14 | 18°53 | 6°20 | 0°41 | 12°10 | 24°16 | 24°12 | 3°43 | 25°59 | 24°39 | 0°19 | 19°24 | F 6 | |
| S 7 | 1 24 29 | 19°19'12 | 28°27 | 8° 9 | 20° 8 | 7° 4 | 0°51 | 12°16 | 24°18 | 24°11 | 3°42 | 25°56 | 24°36 | 0°26 | 19°32 | S 7 | |
| S 8 | 1 28 25 | 20°19'08 | 11♁ 3 | 7°56 | 21°23 | 7°48 | 1° 2 | 12°23 | 24°20 | 24° 9 | 3°42 | 25°53 | 24°32 | 0°33 | 19°40 | S 8 | |
| M 9 | 1 32 22 | 21°19'05 | 23°25 | 7°33 | 22°39 | 8°33 | 1°12 | 12°29 | 24°22 | 24° 8 | 3°41 | 25°49 | 24°29 | 0°39 | 19°48 | M 9 | |
| T10 | 1 36 18 | 22°19'05 | 5♎36 | 7° 2 | 23°54 | 9°18 | 1°23 | 12°36 | 24°24 | 24° 7 | 3°40 | 25°44 | 24°26 | 0°46 | 19°56 | T10 | |
| W11 | 1 40 15 | 23°19'07 | 17°37 | 6°21 | 25° 9 | 10° 2 | 1°33 | 12°42 | 24°26 | 24° 5 | 3°39 | 25°40 | 24°23 | 0°53 | 20° 4 | W11 | |
| T12 | 1 44 11 | 24°19'12 | 29°32 | 5°30 | 26°25 | 10°47 | 1°43 | 12°48 | 24°29 | 24° 4 | 3°39 | 25°36 | 24°20 | 1° 0 | 20°12 | T12 | |
| F13 | 1 48 8 | 25°19'18 | 11♁23 | 4°32 | 27°40 | 11°32 | 1°53 | 12°54 | 24°31 | 24° 3 | 3°38 | 25°34 | 24°16 | 1° 6 | 20°19 | F13 | |
| S14 | 1 52 4 | 26°19'26 | 23°17 | 3°25 | 28°55 | 12°17 | 2° 3 | 13° 0 | 24°33 | 24° 1 | 3°37 | 25°D33 | 24°13 | 1°13 | 20°27 | S14 | |
| S15 | 1 56 1 | 27°19'37 | 5♁17 | 2°13 | 0♎10 | 13° 2 | 2°13 | 13° 6 | 24°35 | 24° 0 | 3°37 | 25°33 | 24°10 | 1°20 | 20°35 | S15 | |
| M16 | 1 59 58 | 28°19'50 | 17°28 | 0°56 | 1°26 | 13°47 | 2°23 | 13°12 | 24°38 | 23°58 | 3°36 | 25°34 | 24° 7 | 1°26 | 20°42 | M16 | |
| T17 | 2 3 54 | 29°20'04 | 29°55 | 29♁37 | 2°41 | 14°32 | 2°33 | 13°18 | 24°40 | 23°57 | 3°35 | 25°36 | 24° 4 | 1°33 | 20°50 | T17 | |
| W18 | 2 7 51 | 0♎20'21 | 12♎43 | 28°19 | 3°56 | 15°17 | 2°42 | 13°24 | 24°42 | 23°55 | 3°35 | 25°38 | 24° 1 | 1°40 | 20°57 | W18 | |
| T19 | 2 11 47 | 1°20'40 | 25°54 | 27° 4 | 5°12 | 16° 2 | 2°52 | 13°30 | 24°45 | 23°54 | 3°34 | 25°R38 | 23°57 | 1°47 | 21° 5 | T19 | |
| F20 | 2 15 44 | 2°21'00 | 9♁30 | 25°53 | 6°27 | 16°47 | 3° 1 | 13°36 | 24°47 | 23°52 | 3°34 | 25°37 | 23°54 | 1°53 | 21°12 | F20 | |
| S21 | 2 19 40 | 3°21'23 | 23°29 | 24°51 | 7°42 | 17°32 | 3°10 | 13°42 | 24°50 | 23°50 | 3°33 | 25°35 | 23°51 | 2° 0 | 21°20 | S21 | |
| S22 | 2 23 37 | 4°21'47 | 7♎50 | 23°57 | 8°58 | 18°18 | 3°20 | 13°47 | 24°53 | 23°49 | 3°33 | 25°30 | 23°48 | 2° 7 | 21°27 | S22 | |
| M23 | 2 27 33 | 5°22'13 | 22°27 | 23°15 | 10°13 | 19° 3 | 3°29 | 13°53 | 24°55 | 23°47 | 3°32 | 25°24 | 23°45 | 2°13 | 21°34 | M23 | |
| T24 | 2 31 30 | 6°22'41 | 7♁11 | 22°43 | 11°28 | 19°49 | 3°38 | 13°58 | 24°58 | 23°46 | 3°32 | 25°18 | 23°42 | 2°20 | 21°41 | T24 | |
| W25 | 2 35 26 | 7°23'10 | 21°56 | 22°23 | 12°44 | 20°34 | 3°46 | 14° 4 | 25° 0 | 23°44 | 3°31 | 25°11 | 23°38 | 2°27 | 21°48 | W25 | |
| T26 | 2 39 23 | 8°23'41 | 6♁35 | 22°D15 | 13°59 | 21°20 | 3°55 | 14° 9 | 25° 3 | 23°42 | 3°31 | 25° 6 | 23°35 | 2°34 | 21°55 | T26 | |
| F27 | 2 43 20 | 9°24'13 | 21° 0 | 22°18 | 15°15 | 22° 6 | 4° 4 | 14°15 | 25° 6 | 23°41 | 3°30 | 25° 3 | 23°32 | 2°40 | 22° 2 | F27 | |
| S28 | 2 47 16 | 10°24'46 | 5♁10 | 22°32 | 16°30 | 22°51 | 4°12 | 14°20 | 25° 9 | 23°39 | 3°30 | 25°D 1 | 23°29 | 2°47 | 22° 9 | S28 | |
| S29 | 2 51 13 | 11°25'21 | 19° 3 | 22°56 | 17°45 | 23°37 | 4°20 | 14°25 | 25°11 | 23°38 | 3°30 | 25° 1 | 23°26 | 2°54 | 22°16 | S29 | |
| M30 | 2 55 9 | 12°25'57 | 2♁39 | 23°28 | 19° 1 | 24°23 | 4°29 | 14°30 | 25°14 | 23°36 | 3°29 | 25° 2 | 23°22 | 3° 1 | 22°23 | M30 | |
| T31 | 2 59 6 | 13♎26'33 | 15♁58 | 24♁ 9 | 20♎16 | 25♁ 9 | 4♎37 | 14♎35 | 25♁17 | 23♁34 | 3♁29 | 25♎ 4 | 23♎19 | 3♁ 7 | 22♎30 | T31 | |

Delta T = 19m37s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1066
geocentric

NOVEMBER 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | Day |
|------|---------|----------|-------|-------|-------|-------|------|-------|-------|--------|-------|--------|-------|------|-------|------|---|---|---|---|-----|
| W 1 | 3 3 2 | 14♍27'12 | 29♋4 | 24♌57 | 21♍31 | 25♌55 | 4♎45 | 14♎40 | 25♌20 | 23°R33 | 3°R29 | 25°R 4 | 23♎16 | 3♌14 | 22♎36 | W 1 | | | | | |
| T 2 | 3 6 59 | 15°27'51 | 11♏57 | 25°51 | 22°47 | 26°41 | 4°52 | 14°45 | 25°23 | 23♌31 | 3♋28 | 25♎2 | 23°13 | 3°21 | 22°43 | T 2 | | | | | |
| F 3 | 3 10 55 | 16°28'32 | 24°39 | 26°50 | 24° 2 | 27°27 | 5° 0 | 14°50 | 25°26 | 23°29 | 3°28 | 24°58 | 23°10 | 3°27 | 22°49 | F 3 | | | | | |
| S 4 | 3 14 52 | 17°29'14 | 7♌11 | 27°55 | 25°17 | 28°13 | 5° 8 | 14°54 | 25°29 | 23°28 | 3°28 | 24°52 | 23° 7 | 3°34 | 22°56 | S 4 | | | | | |
| S 5 | 3 18 49 | 18°29'57 | 19°33 | 29° 4 | 26°33 | 28°59 | 5°15 | 14°59 | 25°32 | 23°26 | 3°28 | 24°43 | 23° 3 | 3°41 | 23° 2 | S 5 | | | | | |
| M 6 | 3 22 45 | 19°30'42 | 1♐46 | 0♍16 | 27°48 | 29°45 | 5°22 | 15° 4 | 25°35 | 23°24 | 3°28 | 24°33 | 23° 0 | 3°48 | 23° 8 | M 6 | | | | | |
| T 7 | 3 26 42 | 20°31'28 | 13°51 | 1°31 | 29° 3 | 0♌31 | 5°30 | 15° 8 | 25°38 | 23°22 | 3°28 | 24°22 | 22°57 | 3°54 | 23°14 | T 7 | | | | | |
| W 8 | 3 30 38 | 21°32'15 | 25°49 | 2°49 | 0♌19 | 1°17 | 5°37 | 15°13 | 25°41 | 23°21 | 3°28 | 24°11 | 22°54 | 4° 1 | 23°21 | W 8 | | | | | |
| T 9 | 3 34 35 | 22°33'04 | 7♌42 | 4°10 | 1°34 | 2° 4 | 5°43 | 15°17 | 25°44 | 23°19 | 3°27 | 24° 1 | 22°51 | 4° 8 | 23°27 | T 9 | | | | | |
| F 10 | 3 38 31 | 23°33'55 | 19°32 | 5°32 | 2°49 | 2°50 | 5°50 | 15°21 | 25°48 | 23°17 | 3°27 | 23°53 | 22°48 | 4°14 | 23°33 | F 10 | | | | | |
| S 11 | 3 42 28 | 24°34'46 | 1♏24 | 6°56 | 4° 5 | 3°36 | 5°57 | 15°25 | 25°51 | 23°16 | 3°27 | 23°47 | 22°44 | 4°21 | 23°38 | S 11 | | | | | |
| S 12 | 3 46 24 | 25°35'39 | 13°21 | 8°21 | 5°20 | 4°23 | 6° 3 | 15°29 | 25°54 | 23°14 | 3°D27 | 23°44 | 22°41 | 4°28 | 23°44 | S 12 | | | | | |
| M13 | 3 50 21 | 26°36'34 | 25°28 | 9°47 | 6°35 | 5° 9 | 6° 9 | 15°33 | 25°57 | 23°12 | 3°27 | 23°D44 | 22°38 | 4°35 | 23°50 | M13 | | | | | |
| T 14 | 3 54 18 | 27°37'30 | 7♎50 | 11°15 | 7°51 | 5°56 | 6°16 | 15°37 | 26° 0 | 23°11 | 3°27 | 23°44 | 22°35 | 4°41 | 23°56 | T 14 | | | | | |
| W15 | 3 58 14 | 28°38'27 | 20°33 | 12°43 | 9° 6 | 6°42 | 6°22 | 15°41 | 26° 4 | 23° 9 | 3°27 | 23°R44 | 22°32 | 4°48 | 24° 1 | W15 | | | | | |
| T 16 | 4 2 11 | 29°39'26 | 3♌41 | 14°12 | 10°21 | 7°29 | 6°27 | 15°45 | 26° 7 | 23° 7 | 3°28 | 23°44 | 22°28 | 4°55 | 24° 7 | T 16 | | | | | |
| F 17 | 4 6 7 | 0♌40'25 | 17°17 | 15°42 | 11°37 | 8°15 | 6°33 | 15°48 | 26°10 | 23° 5 | 3°28 | 23°42 | 22°25 | 5° 2 | 24°12 | F 17 | | | | | |
| S 18 | 4 10 4 | 1°41'26 | 1♍22 | 17°12 | 12°52 | 9° 2 | 6°39 | 15°52 | 26°14 | 23° 4 | 3°28 | 23°37 | 22°22 | 5° 8 | 24°17 | S 18 | | | | | |
| S 19 | 4 14 0 | 2°42'28 | 15°55 | 18°42 | 14° 7 | 9°49 | 6°44 | 15°55 | 26°17 | 23° 2 | 3°28 | 23°29 | 22°19 | 5°15 | 24°22 | S 19 | | | | | |
| M20 | 4 17 57 | 3°43'32 | 0♌49 | 20°13 | 15°23 | 10°35 | 6°49 | 15°58 | 26°20 | 23° 0 | 3°28 | 23°19 | 22°16 | 5°22 | 24°27 | M20 | | | | | |
| T 21 | 4 21 53 | 4°44'36 | 15°57 | 21°44 | 16°38 | 11°22 | 6°54 | 16° 2 | 26°24 | 22°59 | 3°28 | 23° 8 | 22°13 | 5°28 | 24°32 | T 21 | | | | | |
| W22 | 4 25 50 | 5°45'40 | 1♌8 | 23°16 | 17°53 | 12° 9 | 6°59 | 16° 5 | 26°27 | 22°57 | 3°29 | 22°57 | 22° 9 | 5°35 | 24°37 | W22 | | | | | |
| T 23 | 4 29 47 | 6°46'46 | 16°11 | 24°47 | 19° 8 | 12°56 | 7° 4 | 16° 8 | 26°31 | 22°55 | 3°29 | 22°48 | 22° 6 | 5°42 | 24°42 | T 23 | | | | | |
| F 24 | 4 33 43 | 7°47'52 | 0♌57 | 26°19 | 20°24 | 13°43 | 7° 8 | 16°11 | 26°34 | 22°54 | 3°29 | 22°41 | 22° 3 | 5°49 | 24°47 | F 24 | | | | | |
| S 25 | 4 37 40 | 8°48'58 | 15°21 | 27°51 | 21°39 | 14°30 | 7°12 | 16°14 | 26°38 | 22°52 | 3°30 | 22°36 | 22° 0 | 5°55 | 24°52 | S 25 | | | | | |
| S 26 | 4 41 36 | 9°50'05 | 29°20 | 29°24 | 22°54 | 15°16 | 7°17 | 16°16 | 26°41 | 22°51 | 3°30 | 22°35 | 21°57 | 6° 2 | 24°56 | S 26 | | | | | |
| M27 | 4 45 33 | 10°51'12 | 12♋54 | 0♌56 | 24°10 | 16° 3 | 7°21 | 16°19 | 26°45 | 22°49 | 3°30 | 22°D34 | 21°53 | 6° 9 | 25° 0 | M27 | | | | | |
| T 28 | 4 49 29 | 11°52'20 | 26° 7 | 2°29 | 25°25 | 16°50 | 7°24 | 16°21 | 26°48 | 22°47 | 3°31 | 22°R34 | 21°50 | 6°15 | 25° 5 | T 28 | | | | | |
| W29 | 4 53 26 | 12°53'27 | 9♏0 | 4° 1 | 26°40 | 17°37 | 7°28 | 16°24 | 26°52 | 22°46 | 3°31 | 22°33 | 21°47 | 6°22 | 25° 9 | W29 | | | | | |
| T 30 | 4 57 22 | 13°54'35 | 21♏38 | 5♌34 | 27♌55 | 18♌24 | 7♎31 | 16♎26 | 26°55 | 22°44 | 3♋32 | 22♎30 | 21♎44 | 6♌29 | 25♎13 | T 30 | | | | | |

Delta T = 19m37s Julian Calendar 1 Nov. 1066 == Greg. Calendar 7 Nov. 1066

DECEMBER 1066 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|--------|------|--------|-------|------|-------|------|---|---|---|---|-----|
| F 1 | 5 11 19 | 14♌55'43 | 4♌4 | 7♌7 | 29♌11 | 19♌11 | 7♎35 | 16♎28 | 26♌59 | 22°R43 | 3♋32 | 22°R25 | 21♎41 | 6♌36 | 25♎17 | F 1 | | | | | |
| S 2 | 5 5 16 | 15°56'52 | 16°21 | 8°41 | 0♌26 | 19°58 | 7°38 | 16°31 | 27° 2 | 22♌41 | 3°33 | 22♎16 | 21°38 | 6°42 | 25°21 | S 2 | | | | | |
| S 3 | 5 9 12 | 16°58'01 | 28°30 | 10°14 | 1°41 | 20°45 | 7°41 | 16°33 | 27° 6 | 22°40 | 3°33 | 22° 4 | 21°34 | 6°49 | 25°25 | S 3 | | | | | |
| M 4 | 5 13 9 | 17°59'10 | 10♐33 | 11°48 | 2°56 | 21°32 | 7°43 | 16°34 | 27° 9 | 22°38 | 3°34 | 21°50 | 21°31 | 6°56 | 25°28 | M 4 | | | | | |
| T 5 | 5 17 5 | 19° 0'19 | 22°31 | 13°22 | 4°12 | 22°19 | 7°46 | 16°36 | 27°13 | 22°37 | 3°34 | 21°35 | 21°28 | 7° 2 | 25°32 | T 5 | | | | | |
| W 6 | 5 21 2 | 20° 1'29 | 4♌25 | 14°56 | 5°27 | 23° 7 | 7°48 | 16°38 | 27°16 | 22°35 | 3°35 | 21°20 | 21°25 | 7° 9 | 25°36 | W 6 | | | | | |
| T 7 | 5 24 58 | 21° 2'39 | 16°17 | 16°30 | 6°42 | 23°54 | 7°51 | 16°40 | 27°20 | 22°34 | 3°35 | 21° 6 | 21°22 | 7°16 | 25°39 | T 7 | | | | | |
| F 8 | 5 28 55 | 22° 3'50 | 28° 8 | 18° 5 | 7°57 | 24°41 | 7°53 | 16°41 | 27°23 | 22°32 | 3°36 | 20°55 | 21°19 | 7°23 | 25°42 | F 8 | | | | | |
| S 9 | 5 32 52 | 23° 5'01 | 10♏0 | 19°40 | 9°12 | 25°28 | 7°54 | 16°42 | 27°27 | 22°31 | 3°37 | 20°46 | 21°15 | 7°29 | 25°45 | S 9 | | | | | |
| S 10 | 5 36 48 | 24° 6'12 | 21°57 | 21°15 | 10°27 | 26°15 | 7°56 | 16°44 | 27°31 | 22°29 | 3°37 | 20°41 | 21°12 | 7°36 | 25°48 | S 10 | | | | | |
| M11 | 5 40 45 | 25° 7'23 | 4♎3 | 22°51 | 11°43 | 27° 2 | 7°57 | 16°45 | 27°34 | 22°28 | 3°38 | 20°38 | 21° 9 | 7°43 | 25°51 | M11 | | | | | |
| T 12 | 5 44 41 | 26° 8'35 | 16°22 | 24°26 | 12°58 | 27°50 | 7°59 | 16°46 | 27°38 | 22°27 | 3°39 | 20°37 | 21° 6 | 7°50 | 25°54 | T 12 | | | | | |
| W13 | 5 48 38 | 27° 9'47 | 28°59 | 26° 3 | 14°13 | 28°37 | 8° 0 | 16°47 | 27°41 | 22°25 | 3°40 | 20°37 | 21° 3 | 7°56 | 25°57 | W13 | | | | | |
| T 14 | 5 52 34 | 28°10'59 | 11♌59 | 27°39 | 15°28 | 29°24 | 8° 1 | 16°48 | 27°45 | 22°24 | 3°40 | 20°37 | 20°59 | 8° 3 | 25°59 | T 14 | | | | | |
| F 15 | 5 56 31 | 29°12'12 | 25°26 | 29°16 | 16°43 | 0♌11 | 8° 1 | 16°48 | 27°49 | 22°23 | 3°41 | 20°35 | 20°56 | 8°10 | 26° 2 | F 15 | | | | | |
| S 16 | 6 0 27 | 0♌13'25 | 9♍24 | 0♌53 | 17°58 | 0°58 | 8° 2 | 16°49 | 27°52 | 22°21 | 3°42 | 20°30 | 20°53 | 8°16 | 26° 4 | S 16 | | | | | |
| S 17 | 6 4 24 | 1°14'38 | 23°51 | 2°31 | 19°13 | 1°46 | 8° 2 | 16°50 | 27°56 | 22°20 | 3°43 | 20°22 | 20°50 | 8°23 | 26° 7 | S 17 | | | | | |
| M18 | 6 8 21 | 2°15'51 | 8♌46 | 4° 9 | 20°28 | 2°33 | 8°R 2 | 16°50 | 27°59 | 22°19 | 3°44 | 20°13 | 20°47 | 8°30 | 26° 9 | M18 | | | | | |
| T 19 | 6 12 17 | 3°17'04 | 23°59 | 5°47 | 21°44 | 3°20 | 8° 2 | 16°50 | 28° 3 | 22°18 | 3°44 | 20° 1 | 20°44 | 8°37 | 26°11 | T 19 | | | | | |
| W20 | 6 16 14 | 4°18'17 | 9♌20 | 7°26 | 22°59 | 4° 7 | 8° 2 | 16°50 | 28° 7 | 22°17 | 3°45 | 19°50 | 20°40 | 8°43 | 26°13 | W20 | | | | | |
| T 21 | 6 20 10 | 5°19'29 | 24°38 | 9° 5 | 24°14 | 4°55 | 8° 1 | 16°R51 | 28°10 | 22°15 | 3°46 | 19°40 | 20°37 | 8°50 | 26°14 | T 21 | | | | | |
| F 22 | 6 24 7 | 6°20'41 | 9♌42 | 10°45 | 25°29 | 5°42 | 8° 0 | 16°51 | 28°14 | 22°14 | 3°47 | 19°32 | 20°34 | 8°57 | 26°16 | F 22 | | | | | |
| S 23 | 6 28 3 | 7°21'53 | 24°23 | 12°25 | 26°44 | 6°29 | 8° 0 | 16°50 | 28°17 | 22°13 | 3°48 | 19°27 | 20°31 | 9° 3 | 26°18 | S 23 | | | | | |
| S 24 | 6 32 0 | 8°23'04 | 8♋36 | 14° 5 | 27°59 | 7°17 | 7°58 | 16°50 | 28°21 | 22°12 | 3°49 | 19°25 | 20°28 | 9°10 | 26°19 | S 24 | | | | | |
| M25 | 6 35 56 | 9°24'14 | 22°21 | 15°46 | 29°14 | 8° 4 | 7°57 | 16°50 | 28°24 | 22°11 | 3°50 | 19°D25 | 20°25 | 9°17 | 26°20 | M25 | | | | | |
| T 26 | 6 39 53 | 10°25'23 | 5♏38 | 17°27 | 0♌29 | 8°51 | 7°56 | 16°49 | 28°28 | 22°10 | 3°51 | 19°R25 | 20°21 | 9°24 | 26°21 | T 26 | | | | | |
| W27 | 6 43 50 | 11°26'31 | 18°32 | 19° 8 | 1°44 | 9°39 | 7°54 | 16°49 | 28°31 | 22° 9 | 3°52 | 19°25 | 20°18 | 9°30 | 26°23 | W27 | | | | | |
| T 28 | 6 47 46 | 12°27'39 | 1♌6 | 20°50 | 2°59 | 10°26 | 7°52 | 16°48 | 28°35 | 22° 8 | 3°53 | 19°23 | 20°15 | 9°37 | 26°23 | T 28 | | | | | |
| F 29 | 6 51 43 | 13°28'46 | 13°25 | 22°32 | 4°14 | 11°13 | 7°50 | 16°47 | 28°39 | 22° 7 | 3°54 | 19°19 | 20°12 | 9°44 | 26°24 | F 29 | | | | | |
| S 30 | 6 55 39 | 14°29'52 | 25°34 | 24°14 | 5°28 | 12° 0 | 7°48 | 16°46 | 28°42 | 22° 6 | 3°56 | 19°12 | 20° 9 | 9°50 | 26°25 | S 30 | | | | | |
| S 31 | 6 59 36 | 15°30'57 | 7♐34 | 25♌56 | 6♌43 | 12♌48 | 7♎46 | 16♎45 | 28°46 | 22♌5 | 3♋57 | 19♎2 | 20♎5 | 9♌57 | 26♎26 | S 31 | | | | | |

Delta T = 19m37s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1067
geocentric

JANUARY 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|-----------|----------|----------|----------|----------|---------|----------|----------|--------|---------|----------|----------|----------|----------|------|---|-----|
| M 1 | 7 3 32 | 16°32'01 | 19°11'30 | 27°38'38 | 7°58'58 | 13°35'35 | 7°R43 | 16°R44 | 28°47'49 | 22°R 5 | 3°H58 | 18°R51 | 20°M 2 | 10°S 4 | 26°M26 | M 1 | | |
| T 2 | 7 7 29 | 17°33'05 | 18°25'23 | 29°19'09 | 9°13'14 | 14°22'22 | 7°M40 | 16°M43 | 28°52'22 | 22°R 4 | 3°S59 | 18°M39 | 19°S9 | 10°11'10 | 26°26'26 | T 2 | | |
| W 3 | 7 11 25 | 18°34'08 | 13°15'15 | 18°1'10 | 10°28'15 | 15°9'7 | 7°37'16 | 16°42'16 | 28°56'22 | 2°3'4 | 4°0'18 | 18°26'19 | 19°56'10 | 10°17'10 | 26°27'27 | W 3 | | |
| T 4 | 7 15 22 | 19°35'10 | 25°7'2 | 2°42'11 | 11°42'15 | 15°57'7 | 7°34'16 | 16°40'16 | 28°59'22 | 2°2'4 | 4°1'18 | 18°15'19 | 19°53'10 | 10°24'10 | 26°R27 | T 4 | | |
| F 5 | 7 19 19 | 20°36'10 | 7°R 2 | 4°22'12 | 12°57'16 | 16°44'7 | 7°31'16 | 16°39'29 | 29°3'22 | 1°4'3 | 4°3'18 | 18°6'19 | 19°50'10 | 10°31'10 | 26°27'27 | F 5 | | |
| S 6 | 7 23 15 | 21°37'11 | 18°59'6 | 1°14'12 | 17°31'7 | 27°31'7 | 7°27'16 | 16°37'29 | 29°6'22 | 1°4'4 | 4°4'17 | 17°59'19 | 19°46'10 | 10°37'10 | 26°27'27 | S 6 | | |
| S 7 | 7 27 12 | 22°38'10 | 1°M 3 | 7°39'15 | 15°27'18 | 18°18'7 | 7°23'16 | 16°35'29 | 29°10'22 | 0°4'5 | 4°5'17 | 17°55'19 | 19°43'10 | 10°44'10 | 26°26'26 | S 7 | | |
| M 8 | 7 31 8 | 23°39'09 | 13°14'9 | 16°41'19 | 19°5'7 | 27°20'7 | 7°20'16 | 16°34'29 | 29°13'21 | 0°5'6 | 4°6'17 | 17°D53 | 19°40'10 | 10°51'10 | 26°26'26 | M 8 | | |
| T 9 | 7 35 5 | 24°40'06 | 25°37'10 | 10°49'17 | 17°56'19 | 19°53'7 | 7°16'16 | 16°32'29 | 29°16'21 | 0°5'9 | 4°7'17 | 17°53'19 | 19°37'10 | 10°58'10 | 26°25'25 | T 9 | | |
| W10 | 7 39 1 | 25°41'03 | 8°A 15 | 12°20'19 | 19°11'20 | 20°40'7 | 7°11'16 | 16°30'29 | 29°20'21 | 0°5'9 | 4°9'17 | 17°54'19 | 19°34'11 | 11°4'11 | 26°25'25 | W10 | | |
| T 11 | 7 42 58 | 26°42'00 | 21°12'13 | 13°49'20 | 20°25'21 | 21°27'7 | 7°7'16 | 16°27'29 | 29°23'21 | 0°5'10 | 4°10'17 | 17°R55 | 19°31'11 | 11°11'11 | 26°24'24 | T 11 | | |
| F 12 | 7 46 54 | 27°42'55 | 4°M 33 | 15°14'21 | 21°40'22 | 22°14'7 | 7°2'16 | 16°25'29 | 29°26'21 | 0°5'11 | 4°11'17 | 17°55'19 | 19°27'11 | 11°18'18 | 26°23'23 | F 12 | | |
| S 13 | 7 50 51 | 28°43'50 | 18°19'16 | 16°34'22 | 22°54'23 | 23°1'6 | 6°58'16 | 16°23'29 | 29°29'21 | 0°5'13 | 4°13'17 | 17°53'19 | 19°24'11 | 11°24'24 | 26°22'22 | S 13 | | |
| S 14 | 7 54 48 | 29°44'44 | 2°A 32 | 17°50'24 | 24°9'23 | 24°48'6 | 6°53'16 | 16°20'18 | 29°33'21 | 0°5'14 | 4°14'17 | 17°49'19 | 19°21'11 | 11°31'31 | 26°21'21 | S 14 | | |
| M15 | 7 58 44 | 0°A 53'37 | 17°10'18 | 18°59'25 | 25°23'24 | 25°35'6 | 6°48'16 | 16°18'29 | 29°36'21 | 0°5'15 | 4°15'17 | 17°43'19 | 19°18'11 | 11°38'38 | 26°20'20 | M15 | | |
| T 16 | 8 2 41 | 1°46'29 | 2°B 9 | 20°3'26 | 26°38'25 | 25°22'6 | 6°43'16 | 16°15'29 | 29°39'21 | 0°5'17 | 4°17'17 | 17°36'19 | 19°15'11 | 11°45'45 | 26°19'19 | T 16 | | |
| W17 | 8 6 37 | 2°47'20 | 17°21'20 | 20°59'27 | 25°2'26 | 26°9'6 | 6°37'16 | 16°13'29 | 29°42'21 | 0°5'18 | 4°18'17 | 17°29'19 | 19°11'11 | 11°51'51 | 26°17'17 | W17 | | |
| T 18 | 8 10 34 | 3°48'10 | 2°A 34 | 21°47'29 | 26°6'26 | 26°56'6 | 6°32'16 | 16°10'29 | 29°45'21 | 0°5'19 | 4°20'17 | 17°23'19 | 19°8'11 | 11°58'58 | 26°16'16 | T 18 | | |
| F 19 | 8 14 30 | 4°48'58 | 17°40'22 | 22°26'0 | 27°43'6 | 26°26'6 | 6°26'16 | 16°7'29 | 29°48'21 | 0°5'21 | 4°21'17 | 17°18'19 | 19°5'12 | 12°5'12 | 26°14'14 | F 19 | | |
| S 20 | 8 18 27 | 5°49'45 | 2°H 28 | 22°56'1 | 28°30'6 | 26°20'6 | 6°20'16 | 16°4'29 | 29°52'21 | 0°5'22 | 4°22'17 | 17°15'19 | 19°2'12 | 12°11'11 | 26°13'13 | S 20 | | |
| S 21 | 8 22 23 | 6°50'30 | 16°51'23 | 23°15'2 | 29°49'29 | 29°17'6 | 6°14'16 | 16°1'29 | 29°55'21 | 0°5'24 | 4°24'17 | 17°D14 | 18°59'12 | 12°18'18 | 26°11'11 | S 21 | | |
| M22 | 8 26 20 | 7°51'14 | 0°Y 47 | 23°R25 | 4°4'0 | 0°H 4 | 6°8'15 | 15°58'29 | 29°58'21 | 0°5'25 | 4°25'17 | 17°15'18 | 18°56'12 | 12°25'25 | 26°9'9 | M22 | | |
| T 23 | 8 30 17 | 8°51'56 | 14°15'23 | 23°23'5 | 18°05'1 | 6°2'15 | 6°2'15 | 15°55'0 | 29°58'21 | 0°5'27 | 4°27'17 | 17°16'18 | 18°52'12 | 12°32'32 | 26°7'7 | T 23 | | |
| W24 | 8 34 13 | 9°52'37 | 27°17'23 | 11'38'6 | 1°38'13 | 5°56'15 | 5°56'15 | 15°51'0 | 29°58'21 | 0°5'28 | 4°28'17 | 17°17'18 | 18°49'12 | 12°38'38 | 26°5'5 | W24 | | |
| T 25 | 8 38 10 | 10°53'16 | 9°B 56 | 22°49'7 | 7°46'22 | 2°25'5 | 5°49'15 | 15°48'0 | 29°58'21 | 0°5'30 | 4°30'17 | 17°R18 | 18°46'12 | 12°45'45 | 26°2'2 | T 25 | | |
| F 26 | 8 42 6 | 11°53'53 | 22°16'22 | 16'9'0 | 3°12'5 | 5°43'15 | 5°43'15 | 15°45'0 | 29°58'21 | 0°5'31 | 4°31'17 | 17°18'18 | 18°43'12 | 12°52'52 | 26°0'0 | F 26 | | |
| S 27 | 8 46 3 | 12°54'28 | 4°I 24 | 21°34'10 | 10°14'3 | 3°59'5 | 5°36'15 | 15°41'0 | 29°58'21 | 0°5'33 | 4°33'17 | 17°15'18 | 18°40'12 | 12°58'58 | 25°57'57 | S 27 | | |
| S 28 | 8 49 59 | 13°55'01 | 16°22'20 | 20°45'11 | 11°28'4 | 4°46'5 | 5°29'15 | 15°37'0 | 29°58'21 | 0°5'34 | 4°34'17 | 17°12'18 | 18°37'13 | 13°5'5 | 25°55'55 | S 28 | | |
| M29 | 8 53 56 | 14°55'33 | 28°14'19 | 19°48'12 | 12°42'5 | 5°32'15 | 5°23'15 | 15°34'0 | 29°58'21 | 0°5'36 | 4°36'17 | 17°7'18 | 18°33'13 | 13°12'12 | 25°52'52 | M29 | | |
| T 30 | 8 57 52 | 15°56'03 | 10°E 5 | 18°47'13 | 13°56'6 | 6°19'5 | 5°16'15 | 15°30'0 | 29°58'21 | 0°5'37 | 4°37'17 | 17°1'18 | 18°30'13 | 13°19'19 | 25°49'49 | T 30 | | |
| W31 | 9 1 49 | 16°56'31 | 21°S 57 | 17°A 42 | 15°H 10 | 7°H 6 | 5°M 8 | 15°M 26 | 29°58'21 | 0°5'39 | 4°H 39 | 16°M 55 | 18°M 27 | 13°S 25 | 25°M 47 | W31 | | |

Delta T = 19m36s Julian Calendar 1 Jan. 1067 == Greg. Calendar 7 Jan. 1067

FEBRUARY 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|----------|----------|----------|---------|---------|----------|---------|---------|---------|----------|----------|----------|----------|------|---|-----|
| T 1 | 9 5 46 | 17°56'57 | 3°R 52 | 16°R35 | 16°H 24 | 7°H 52 | 5°R 1 | 15°R22 | 0°S 26 | 21°S 54 | 4°H 40 | 16°R50 | 18°M 24 | 13°S 32 | 25°R44 | T 1 | | |
| F 2 | 9 9 42 | 18°57'21 | 15°53'15 | 15°28'17 | 17°38'8 | 8°39'4 | 4°M 54 | 15°M 18 | 0°29'0 | 21°54'4 | 4°42'16 | 16°M 46 | 18°21'13 | 13°39'39 | 25°M 44 | F 2 | | |
| S 3 | 9 13 39 | 19°57'44 | 28°0'14 | 14°23'18 | 18°51'9 | 9°26'4 | 4°47'15 | 15°14'15 | 0°32'0 | 21°55'4 | 4°43'16 | 16°43'18 | 18°17'13 | 13°45'45 | 25°37'37 | S 3 | | |
| S 4 | 9 17 35 | 20°58'05 | 10°M 16 | 13°21'20 | 20°5'10 | 10°12'4 | 4°39'15 | 15°10'0 | 0°34'0 | 21°55'4 | 4°45'16 | 16°41'18 | 18°14'13 | 13°52'52 | 25°34'34 | S 4 | | |
| M 5 | 9 21 32 | 21°58'25 | 22°41'12 | 12°23'21 | 21°19'10 | 10°59'4 | 4°32'15 | 15°6'0 | 0°37'0 | 21°55'4 | 4°46'16 | 16°D41 | 18°11'13 | 13°59'59 | 25°31'31 | M 5 | | |
| T 6 | 9 25 28 | 22°58'42 | 5°A 18 | 11°30'22 | 22°32'11 | 11°45'4 | 4°24'15 | 15°2'0 | 0°39'0 | 21°56'4 | 4°48'16 | 16°42'18 | 18°8'14 | 14°6'6 | 25°28'28 | T 6 | | |
| W 7 | 9 29 25 | 23°58'59 | 18°8'10 | 10°43'23 | 23°46'10 | 12°32'4 | 4°17'14 | 14°58'0 | 0°42'0 | 21°56'4 | 4°49'16 | 16°44'18 | 18°5'14 | 14°12'12 | 25°24'24 | W 7 | | |
| T 8 | 9 33 21 | 24°59'13 | 1°M 14 | 10°4'24 | 24°59'13 | 13°18'4 | 4°9'14 | 14°54'0 | 0°44'0 | 21°56'4 | 4°51'16 | 16°45'18 | 18°2'14 | 14°19'19 | 25°21'21 | T 8 | | |
| F 9 | 9 37 18 | 25°59'26 | 14°37'9 | 9°31'26 | 12°14'5 | 4°2'14 | 4°2'14 | 14°49'0 | 0°47'0 | 21°57'4 | 4°52'16 | 16°47'17 | 17°58'14 | 14°26'26 | 25°17'17 | F 9 | | |
| S 10 | 9 41 15 | 26°59'38 | 28°19'9 | 9°5'27 | 14°51'3 | 3°54'14 | 3°54'14 | 14°45'0 | 0°49'0 | 21°57'4 | 4°54'16 | 16°R47 | 17°55'14 | 14°32'32 | 25°13'13 | S 10 | | |
| S 11 | 9 45 11 | 27°59'48 | 12°A 20 | 8°46'28 | 13°39'15 | 3°46'14 | 3°46'14 | 14°41'0 | 0°51'0 | 21°58'4 | 4°56'16 | 16°46'17 | 17°52'14 | 14°39'39 | 25°9'9 | S 11 | | |
| M12 | 9 49 8 | 28°59'57 | 26°41'8 | 8°34'29 | 12°52'16 | 3°38'14 | 3°38'14 | 14°36'0 | 0°54'0 | 21°58'4 | 4°57'16 | 16°45'17 | 17°49'14 | 14°46'46 | 25°6'6 | M12 | | |
| T 13 | 9 53 4 | 0°H 0'04 | 11°B 17 | 8°D29 | 1°Y 5 | 17°10'3 | 3°31'14 | 14°32'0 | 0°56'0 | 21°59'4 | 4°59'16 | 16°43'17 | 17°46'14 | 14°52'52 | 25°2'2 | T 13 | | |
| W14 | 9 57 1 | 1°0'09 | 26°4'8 | 8°31'2 | 19°17'5 | 17°56'3 | 3°23'14 | 14°27'0 | 0°58'0 | 22°0'5 | 5°0'16 | 16°41'17 | 17°43'14 | 14°59'59 | 24°58'58 | W14 | | |
| T 15 | 10 0 57 | 2°0'13 | 10°A 56 | 8°38'3 | 3°32'18 | 18°42'3 | 3°15'14 | 14°23'0 | 1°0'22 | 22°0'5 | 5°2'16 | 16°39'17 | 17°39'15 | 15°6'6 | 24°54'54 | T 15 | | |
| F 16 | 10 4 54 | 3°0'14 | 25°44'8 | 8°52'4 | 4°45'19 | 19°29'3 | 3°7'14 | 14°18'0 | 1°3'22 | 22°1'5 | 5°4'16 | 16°38'17 | 17°36'15 | 15°13'13 | 24°50'50 | F 16 | | |
| S 17 | 10 8 50 | 4°0'14 | 10°H 22 | 9°11'5 | 5°58'20 | 15°15'2 | 2°59'14 | 14°14'0 | 1°5'22 | 22°2'5 | 5°5'16 | 16°D37 | 17°33'15 | 15°19'19 | 24°45'45 | S 17 | | |
| S 18 | 10 12 47 | 5°0'12 | 24°41'9 | 9°35'7 | 7°10'21 | 1°21'14 | 2°51'14 | 14°9'0 | 1°7'22 | 22°3'5 | 5°7'16 | 16°37'17 | 17°30'15 | 15°26'26 | 24°41'41 | S 18 | | |
| M19 | 10 16 44 | 6°0'07 | 8°Y 39 | 10°4'8 | 8°23'21 | 14°47'2 | 2°44'14 | 14°4'0 | 1°9'22 | 22°3'5 | 5°8'16 | 16°38'17 | 17°27'15 | 15°33'33 | 24°37'37 | M19 | | |
| T 20 | 10 20 40 | 7°0'01 | 22°11'10 | 10°38'9 | 9°36'22 | 13°33'2 | 2°36'14 | 14°0'0 | 1°11'22 | 22°4'5 | 5°10'16 | 16°39'17 | 17°23'15 | 15°39'39 | 24°33'33 | T 20 | | |
| W21 | 10 24 37 | 7°59'52 | 5°B 20 | 11°16'10 | 10°49'23 | 19'22 | 2°28'13 | 13°55'1 | 1°13'22 | 22°5'5 | 5°11'16 | 16°39'17 | 17°20'15 | 15°46'46 | 24°28'28 | W21 | | |
| T 22 | 10 28 33 | 8°59'41 | 18°5'11 | 11°58'12 | 12°1'24 | 2°4'5 | 2°20'13 | 13°50'1 | 1°14'22 | 22°6'5 | 5°13'16 | 16°40'17 | 17°17'15 | 15°53'53 | 24°24'24 | T 22 | | |
| F 23 | 10 32 30 | 9°59'28 | 0°I 31 | 12°43'13 | 13°14'24 | 2°51'13 | 2°13'13 | 13°46'1 | 1°16'22 | 22°7'5 | 5°15'16 | 16°41'17 | 17°14'16 | 16°0'0 | 24°19'19 | F 23 | | |
| S 24 | 10 36 26 | 10°59'12 | 12°41'13 | 13°32'14 | 14°26'25 | 2°37'12 | 2°5'13 | 13°41'1 | 1°18'22 | 22°8'5 | 5°16'16 | 16°R41 | 17°11'16 | 16°6'6 | 24°15'15 | S 24 | | |
| S 25 | 10 40 23 | 11°58'55 | 24°40'14 | 14°25'15 | 15°39'26 | 2°22'1 | 1°57'13 | 13°36'1 | 1°20'22 | 22°9'5 | 5°18'16 | 16°41'17 | 17°8'16 | 16°13'13 | 24°10'10 | S 25 | | |
| M26 | 10 44 19 | 12°58'35 | 6°S 33 | 15°20'16 | 16°51'27 | 8'1°50 | 1°50'13 | 13°31'1 | 1°22'22 | 22°10'5 | 5°19'16 | 16°40'17 | 17°4'16 | 16°20'20 | 24°6'6 | M26 | | |
| T 27 | 10 48 16 | 13°58'12 | 18°24'16 | 16°18'18 | 18°3'27 | 7°54'1 | 1°42'13 | 13°27'1 | 1°23'22 | 2 | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1067
geocentric

MARCH 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|------|--------|-------|-------|--------|------|-----|
| T 1 | 10 56 9 | 15♂57'21 | 12♂16 | 18♂23 | 20♂28 | 29♂25 | 1°R27 | 13°R17 | 1♂26 | 22♂13 | 5♂24 | 16°R39 | 16♂55 | 16♂40 | 23°R52 | T 1 | |
| F 2 | 11 0 6 | 16°56'52 | 24°24 | 19°29 | 21°40 | 0♂11 | 1♂20 | 13♂13 | 1°28 | 22°14 | 5°26 | 16°D39 | 16°52 | 16°46 | 23♂47 | F 2 | |
| S 3 | 11 4 2 | 17°56'20 | 6♂42 | 20°37 | 22°51 | 0°56 | 1°13 | 13° 8 | 1°29 | 22°15 | 5°27 | 16♂39 | 16°48 | 16°53 | 23°43 | S 3 | |
| S 4 | 11 7 59 | 18°55'47 | 19°13 | 21°47 | 24° 3 | 1°42 | 1° 5 | 13° 3 | 1°31 | 22°16 | 5°29 | 16°R39 | 16°45 | 17° 0 | 23°38 | S 4 | |
| M 5 | 11 11 55 | 19°55'11 | 1♂57 | 23° 0 | 25°15 | 2°27 | 0°58 | 12°59 | 1°32 | 22°18 | 5°30 | 16°39 | 16°42 | 17° 7 | 23°33 | M 5 | |
| T 6 | 11 15 52 | 20°54'33 | 14°55 | 24°15 | 26°27 | 3°13 | 0°51 | 12°54 | 1°33 | 22°19 | 5°32 | 16°39 | 16°39 | 17°13 | 23°29 | T 6 | |
| W 7 | 11 19 48 | 21°53'54 | 28° 7 | 25°31 | 27°38 | 3°58 | 0°44 | 12°49 | 1°35 | 22°20 | 5°33 | 16°39 | 16°36 | 17°20 | 23°24 | W 7 | |
| T 8 | 11 23 45 | 22°53'12 | 11♂33 | 26°50 | 28°50 | 4°43 | 0°38 | 12°45 | 1°36 | 22°21 | 5°35 | 16°38 | 16°33 | 17°27 | 23°19 | T 8 | |
| F 9 | 11 27 41 | 23°52'29 | 25°11 | 28°10 | 0♂ 1 | 5°29 | 0°31 | 12°40 | 1°37 | 22°23 | 5°36 | 16°37 | 16°29 | 17°33 | 23°14 | F 9 | |
| S 10 | 11 31 38 | 24°51'44 | 9♂ 1 | 29°32 | 1°12 | 6°14 | 0°24 | 12°35 | 1°38 | 22°24 | 5°38 | 16°36 | 16°26 | 17°40 | 23°10 | S 10 | |
| S 11 | 11 35 35 | 25°50'57 | 23° 2 | 0♂55 | 2°24 | 6°59 | 0°18 | 12°31 | 1°39 | 22°26 | 5°39 | 16°D36 | 16°23 | 17°47 | 23° 5 | S 11 | |
| M12 | 11 39 31 | 26°50'08 | 7♂13 | 2°21 | 3°35 | 7°44 | 0°11 | 12°26 | 1°40 | 22°27 | 5°41 | 16°36 | 16°20 | 17°53 | 23° 0 | M12 | |
| T 13 | 11 43 28 | 27°49'18 | 21°31 | 3°47 | 4°46 | 8°29 | 0° 5 | 12°22 | 1°41 | 22°28 | 5°42 | 16°37 | 16°17 | 18° 0 | 22°55 | T 13 | |
| W14 | 11 47 24 | 28°48'26 | 5♂54 | 5°16 | 5°57 | 9°14 | 29♂59 | 12°18 | 1°42 | 22°30 | 5°44 | 16°38 | 16°14 | 18° 7 | 22°51 | W14 | |
| T 15 | 11 51 21 | 29°47'32 | 20°17 | 6°46 | 7° 8 | 9°59 | 29°53 | 12°13 | 1°43 | 22°31 | 5°45 | 16°39 | 16°10 | 18°14 | 22°46 | T 15 | |
| F 16 | 11 55 17 | 0♂46'36 | 4♂38 | 8°18 | 8°18 | 10°44 | 29°47 | 12° 9 | 1°44 | 22°33 | 5°47 | 16°40 | 16° 7 | 18°20 | 22°41 | F 16 | |
| S 17 | 11 59 14 | 1°45'38 | 18°51 | 9°51 | 9°29 | 11°29 | 29°41 | 12° 4 | 1°45 | 22°34 | 5°48 | 16°R40 | 16° 4 | 18°27 | 22°37 | S 17 | |
| S 18 | 12 3 10 | 2°44'38 | 2♂52 | 11°25 | 10°40 | 12°14 | 29°36 | 12° 0 | 1°45 | 22°36 | 5°50 | 16°39 | 16° 1 | 18°34 | 22°32 | S 18 | |
| M19 | 12 7 7 | 3°43'36 | 16°37 | 13° 2 | 11°50 | 12°59 | 29°30 | 11°56 | 1°46 | 22°38 | 5°51 | 16°38 | 15°58 | 18°40 | 22°28 | M19 | |
| T 20 | 12 11 3 | 4°42'31 | 0♂ 3 | 14°39 | 13° 0 | 13°43 | 29°25 | 11°52 | 1°47 | 22°39 | 5°53 | 16°36 | 15°54 | 18°47 | 22°23 | T 20 | |
| W21 | 12 15 0 | 5°41'25 | 13° 9 | 16°19 | 14°11 | 14°28 | 29°20 | 11°48 | 1°47 | 22°41 | 5°54 | 16°33 | 15°51 | 18°54 | 22°18 | W21 | |
| T 22 | 12 18 57 | 6°40'17 | 25°56 | 17°59 | 15°21 | 15°13 | 29°15 | 11°44 | 1°48 | 22°43 | 5°55 | 16°30 | 15°48 | 19° 0 | 22°14 | T 22 | |
| F 23 | 12 22 53 | 7°39'06 | 8♂24 | 19°42 | 16°31 | 15°57 | 29°10 | 11°40 | 1°48 | 22°44 | 5°57 | 16°27 | 15°45 | 19° 7 | 22°10 | F 23 | |
| S 24 | 12 26 50 | 8°37'53 | 20°36 | 21°26 | 17°41 | 16°42 | 29° 5 | 11°36 | 1°48 | 22°46 | 5°58 | 16°25 | 15°42 | 19°14 | 22° 5 | S 24 | |
| S 25 | 12 30 46 | 9°36'38 | 2♂37 | 23°11 | 18°50 | 17°26 | 29° 1 | 11°32 | 1°49 | 22°48 | 6° 0 | 16°24 | 15°39 | 19°21 | 22° 1 | S 25 | |
| M26 | 12 34 43 | 10°35'20 | 14°31 | 24°58 | 20° 0 | 18°11 | 28°56 | 11°28 | 1°49 | 22°49 | 6° 1 | 16°D24 | 15°35 | 19°27 | 21°56 | M26 | |
| T 27 | 12 38 39 | 11°34'00 | 26°23 | 26°46 | 21°10 | 18°55 | 28°52 | 11°24 | 1°49 | 22°51 | 6° 2 | 16°25 | 15°32 | 19°34 | 21°52 | T 27 | |
| W28 | 12 42 36 | 12°32'38 | 8♂16 | 28°36 | 22°19 | 19°39 | 28°48 | 11°20 | 1°50 | 22°53 | 6° 4 | 16°26 | 15°29 | 19°41 | 21°48 | W28 | |
| T 29 | 12 46 32 | 13°31'14 | 20°17 | 0♂28 | 23°28 | 20°24 | 28°44 | 11°17 | 1°50 | 22°55 | 6° 5 | 16°28 | 15°26 | 19°47 | 21°44 | T 29 | |
| F 30 | 12 50 29 | 14°29'47 | 2♂29 | 2°21 | 24°37 | 21° 8 | 28°40 | 11°13 | 1°50 | 22°57 | 6° 6 | 16°29 | 15°23 | 19°54 | 21°40 | F 30 | |
| S 31 | 12 54 26 | 15°28'18 | 14♂56 | 4♂16 | 25♂46 | 21♂52 | 28♂37 | 11♂10 | 1°R50 | 22♂58 | 6♂ 7 | 16°R30 | 15♂19 | 20♂ 1 | 21♂36 | S 31 | |

Delta T = 19m36s Julian Calendar 1 March 1067 == Greg. Calendar 7 March 1067

APRIL 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|-------|-------|------|--------|-------|-------|--------|------|-----|
| S 1 | 12 58 22 | 16♂26'47 | 27♂41 | 6♂12 | 26♂55 | 22♂36 | 28°R33 | 11°R 6 | 1°R50 | 23♂ 0 | 6♂ 9 | 16°R30 | 15♂16 | 20♂ 7 | 21°R32 | S 1 | |
| M 2 | 13 2 19 | 17°25'15 | 10♂44 | 8°10 | 28° 4 | 23°20 | 28♂30 | 11♂ 3 | 1♂50 | 23° 2 | 6°10 | 16♂28 | 15°13 | 20°14 | 21♂28 | M 2 | |
| T 3 | 13 6 15 | 18°23'40 | 24° 5 | 10° 9 | 29°12 | 24° 4 | 28°27 | 11° 0 | 1°50 | 23° 4 | 6°11 | 16°24 | 15°10 | 20°21 | 21°24 | T 3 | |
| W 4 | 13 10 12 | 19°22'03 | 7♂43 | 12°10 | 0♂21 | 24°48 | 28°24 | 10°57 | 1°50 | 23° 6 | 6°12 | 16°20 | 15° 7 | 20°28 | 21°20 | W 4 | |
| T 5 | 13 14 8 | 20°20'25 | 21°36 | 14°13 | 1°29 | 25°32 | 28°22 | 10°53 | 1°49 | 23° 8 | 6°14 | 16°14 | 15° 4 | 20°34 | 21°16 | T 5 | |
| F 6 | 13 18 5 | 21°18'44 | 5♂39 | 16°16 | 2°37 | 26°16 | 28°19 | 10°50 | 1°49 | 23°10 | 6°15 | 16° 9 | 15° 0 | 20°41 | 21°13 | F 6 | |
| S 7 | 13 22 1 | 22°17'03 | 19°49 | 18°21 | 3°45 | 27° 0 | 28°17 | 10°48 | 1°49 | 23°12 | 6°16 | 16° 5 | 14°57 | 20°48 | 21° 9 | S 7 | |
| S 8 | 13 25 58 | 23°15'19 | 4♂ 2 | 20°27 | 4°53 | 27°44 | 28°15 | 10°45 | 1°48 | 23°14 | 6°17 | 16° 2 | 14°54 | 20°54 | 21° 5 | S 8 | |
| M 9 | 13 29 55 | 24°13'35 | 18°15 | 22°35 | 6° 1 | 28°27 | 28°13 | 10°42 | 1°48 | 23°16 | 6°18 | 16°D 0 | 14°51 | 21° 1 | 21° 2 | M 9 | |
| T 10 | 13 33 51 | 25°11'48 | 2♂26 | 24°43 | 7° 8 | 29°11 | 28°11 | 10°39 | 1°48 | 23°18 | 6°19 | 16° 0 | 14°48 | 21° 8 | 20°59 | T 10 | |
| W11 | 13 37 48 | 26°10'00 | 16°32 | 26°52 | 8°16 | 29°55 | 28° 9 | 10°37 | 1°47 | 23°20 | 6°21 | 16° 1 | 14°45 | 21°14 | 20°55 | W11 | |
| T 12 | 13 41 44 | 27° 8'11 | 0♂33 | 29° 1 | 9°23 | 0♂38 | 28° 8 | 10°34 | 1°47 | 23°22 | 6°22 | 16° 3 | 14°41 | 21°21 | 20°52 | T 12 | |
| F 13 | 13 45 41 | 28° 6'20 | 14°28 | 1♂10 | 10°30 | 1°22 | 28° 7 | 10°32 | 1°46 | 23°24 | 6°23 | 16°R 3 | 14°38 | 21°28 | 20°49 | F 13 | |
| S 14 | 13 49 37 | 29° 4'27 | 28°13 | 3°20 | 11°37 | 2° 5 | 28° 6 | 10°29 | 1°45 | 23°26 | 6°24 | 16° 3 | 14°35 | 21°35 | 20°46 | S 14 | |
| S 15 | 13 53 34 | 0♂ 2'33 | 11♂49 | 5°29 | 12°43 | 2°49 | 28° 5 | 10°27 | 1°45 | 23°28 | 6°25 | 16° 0 | 14°32 | 21°41 | 20°43 | S 15 | |
| M16 | 13 57 30 | 1° 0'38 | 25°12 | 7°38 | 13°50 | 3°32 | 28° 4 | 10°25 | 1°44 | 23°30 | 6°26 | 15°56 | 14°29 | 21°48 | 20°40 | M16 | |
| T 17 | 14 1 27 | 1°58'40 | 8♂22 | 9°46 | 14°56 | 4°15 | 28° 4 | 10°23 | 1°43 | 23°32 | 6°27 | 15°49 | 14°25 | 21°55 | 20°37 | T 17 | |
| W18 | 14 5 24 | 2°56'41 | 21°17 | 11°52 | 16° 2 | 4°59 | 28° 3 | 10°21 | 1°42 | 23°35 | 6°28 | 15°41 | 14°22 | 22° 1 | 20°35 | W18 | |
| T 19 | 14 9 20 | 3°54'41 | 3♂56 | 13°58 | 17° 8 | 5°42 | 28°D 3 | 10°19 | 1°41 | 23°37 | 6°29 | 15°32 | 14°19 | 22° 8 | 20°32 | T 19 | |
| F 20 | 14 13 17 | 4°52'38 | 16°20 | 16° 1 | 18°14 | 6°25 | 28° 3 | 10°17 | 1°40 | 23°39 | 6°30 | 15°24 | 14°16 | 22°15 | 20°30 | F 20 | |
| S 21 | 14 17 13 | 5°50'34 | 28°31 | 18° 3 | 19°19 | 7° 8 | 28° 4 | 10°15 | 1°39 | 23°41 | 6°31 | 15°17 | 14°13 | 22°21 | 20°27 | S 21 | |
| S 22 | 14 21 10 | 6°48'28 | 10♂31 | 20° 2 | 20°24 | 7°51 | 28° 4 | 10°14 | 1°38 | 23°43 | 6°32 | 15°11 | 14°10 | 22°28 | 20°25 | S 22 | |
| M23 | 14 25 6 | 7°46'21 | 22°24 | 21°59 | 21°29 | 8°34 | 28° 5 | 10°12 | 1°37 | 23°45 | 6°33 | 15° 8 | 14° 6 | 22°35 | 20°23 | M23 | |
| T 24 | 14 29 3 | 8°44'11 | 4♂15 | 23°53 | 22°34 | 9°17 | 28° 5 | 10°11 | 1°36 | 23°47 | 6°33 | 15°D 6 | 14° 3 | 22°41 | 20°21 | T 24 | |
| W25 | 14 32 59 | 9°42'00 | 16° 8 | 25°45 | 23°39 | 10° 0 | 28° 6 | 10°10 | 1°35 | 23°50 | 6°34 | 15° 7 | 14° 0 | 22°48 | 20°19 | W25 | |
| T 26 | 14 36 56 | 10°39'47 | 28° 9 | 27°33 | 24°43 | 10°43 | 28° 8 | 10° 9 | 1°34 | 23°52 | 6°35 | 15° 7 | 13°57 | 22°55 | 20°17 | T 26 | |
| F 27 | 14 40 52 | 11°37'32 | 10♂22 | 29°19 | 25°47 | 11°26 | 28° 9 | 10° 7 | 1°33 | 23°54 | 6°36 | 15°R 8 | 13°54 | 23° 2 | 20°15 | F 27 | |
| S 28 | 14 44 49 | 12°35'15 | 22°53 | 1♂ 1 | 26°51 | 12° 9 | 28°10 | 10° 7 | 1°31 | 23°56 | 6°37 | 15° 8 | 13°51 | 23° 8 | 20°13 | S 28 | |
| S 29 | 14 48 46 | 13°32'57 | 5♂45 | 2°41 | 27°55 | 12°51 | 28°12 | 10° 6 | 1°30 | 23°58 | 6°37 | 15° 6 | 13°47 | 23°15 | 20°12 | S 29 | |
| M30 | 14 52 42 | 14♂30'37 | 19♂ 1 | 4♂17 | 28♂58 | 13♂34 | 28♂14 | 10♂ 5 | 1♂29 | 24♂ 1 | 6♂38 | 15♂ 2 | 13♂44 | 23♂22 | 20♂10 | M30 | |

Delta T = 19m35s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1067
geocentric

MAY 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|---------|-------|---------|--------|---------|--------|---------|---------|------|
| T 1 | 14 56 39 | 15♌28'16 | 2♌40 | 5♌50 | 0♌1 | 14♌16 | 28♌16 | 10°R 4 | 1°R27 | 24♌3 | 6♌39 | 14°R55 | 13♌41 | 23♌28 | 20°R 9 | T 1 |
| W 2 | 15 0 35 | 16°25'54 | 16°41 | 7°19 | 1° 4 | 14°59 | 28°18 | 10°R 4 | 1°R26 | 24° 5 | 6°40 | 14°R47 | 13°38 | 23°35 | 20°R 8 | W 2 |
| T 3 | 15 4 32 | 17°23'30 | 1♌0 | 8°45 | 2° 6 | 15°41 | 28°21 | 10° 3 | 1°24 | 24° 7 | 6°40 | 14°37 | 13°35 | 23°42 | 20° 7 | T 3 |
| F 4 | 15 8 28 | 18°21'05 | 15°31 | 10° 8 | 3° 8 | 16°24 | 28°23 | 10° 3 | 1°23 | 24°10 | 6°41 | 14°28 | 13°31 | 23°48 | 20° 6 | F 4 |
| S 5 | 15 12 25 | 19°18'39 | 0♌7 | 11°27 | 4°10 | 17° 6 | 28°26 | 10° 2 | 1°21 | 24°12 | 6°42 | 14°19 | 13°28 | 23°55 | 20° 5 | S 5 |
| S 6 | 15 16 21 | 20°16'12 | 14°41 | 12°42 | 5°12 | 17°49 | 28°29 | 10° 2 | 1°20 | 24°14 | 6°42 | 14°13 | 13°25 | 24° 2 | 20° 4 | S 6 |
| M 7 | 15 20 18 | 21°13'44 | 29° 8 | 13°54 | 6°13 | 18°31 | 28°32 | 10°D 2 | 1°18 | 24°16 | 6°43 | 14° 9 | 13°22 | 24° 8 | 20° 3 | M 7 |
| T 8 | 15 24 15 | 22°11'15 | 13♌23 | 15° 3 | 7°14 | 19°13 | 28°35 | 10° 2 | 1°16 | 24°19 | 6°43 | 14° 7 | 13°19 | 24°15 | 20° 3 | T 8 |
| W 9 | 15 28 11 | 23° 8'45 | 27°26 | 16° 7 | 8°14 | 19°55 | 28°39 | 10° 2 | 1°15 | 24°21 | 6°44 | 14°D 7 | 13°16 | 24°22 | 20° 2 | W 9 |
| T 10 | 15 32 8 | 24° 6'14 | 11♌15 | 17° 8 | 9°14 | 20°37 | 28°42 | 10° 3 | 1°13 | 24°23 | 6°45 | 14°R 7 | 13°12 | 24°29 | 20° 2 | T 10 |
| F 11 | 15 36 4 | 25° 3'43 | 24°51 | 18° 6 | 10°14 | 21°20 | 28°46 | 10° 3 | 1°11 | 24°25 | 6°45 | 14° 7 | 13° 9 | 24°35 | 20° 2 | F 11 |
| S 12 | 15 40 1 | 26° 1'11 | 8♌15 | 18°59 | 11°14 | 22° 2 | 28°50 | 10° 3 | 1° 9 | 24°28 | 6°46 | 14° 5 | 13° 6 | 24°42 | 20° 1 | S 12 |
| S 13 | 15 43 57 | 26°58'38 | 21°28 | 19°48 | 12°13 | 22°44 | 28°54 | 10° 4 | 1° 7 | 24°30 | 6°46 | 14° 0 | 13° 3 | 24°49 | 20°D 1 | S 13 |
| M14 | 15 47 54 | 27°56'04 | 4♌29 | 20°33 | 13°12 | 23°26 | 28°58 | 10° 5 | 1° 6 | 24°32 | 6°46 | 13°52 | 13° 0 | 24°55 | 20° 1 | M14 |
| T 15 | 15 51 50 | 28°53'29 | 17°19 | 21°15 | 14°10 | 24° 7 | 29° 3 | 10° 5 | 1° 4 | 24°34 | 6°47 | 13°42 | 12°56 | 25° 2 | 20° 2 | T 15 |
| W16 | 15 55 47 | 29°50'53 | 29°57 | 21°51 | 15° 8 | 24°49 | 29° 7 | 10° 6 | 1° 2 | 24°37 | 6°47 | 13°30 | 12°53 | 25° 9 | 20° 2 | W16 |
| T 17 | 15 59 44 | 0♌48'17 | 12♌24 | 22°24 | 16° 5 | 25°31 | 29°12 | 10° 7 | 1° 0 | 24°39 | 6°48 | 13°17 | 12°50 | 25°15 | 20° 2 | T 17 |
| F 18 | 16 3 40 | 1°45'40 | 24°39 | 22°52 | 17° 2 | 26°13 | 29°17 | 10° 8 | 0°58 | 24°41 | 6°48 | 13° 5 | 12°47 | 25°22 | 20° 3 | F 18 |
| S 19 | 16 7 37 | 2°43'01 | 6♌44 | 23°16 | 17°59 | 26°55 | 29°22 | 10° 9 | 0°56 | 24°43 | 6°48 | 12°53 | 12°44 | 25°29 | 20° 4 | S 19 |
| S 20 | 16 11 33 | 3°40'22 | 18°40 | 23°35 | 18°55 | 27°36 | 29°27 | 10°10 | 0°54 | 24°45 | 6°49 | 12°44 | 12°41 | 25°35 | 20° 4 | S 20 |
| M21 | 16 15 30 | 4°37'42 | 0♌31 | 23°50 | 19°50 | 28°18 | 29°32 | 10°12 | 0°52 | 24°48 | 6°49 | 12°37 | 12°37 | 25°42 | 20° 5 | M21 |
| T 22 | 16 19 26 | 5°35'01 | 12°20 | 24° 0 | 20°45 | 28°59 | 29°38 | 10°13 | 0°50 | 24°50 | 6°49 | 12°34 | 12°34 | 25°49 | 20° 6 | T 22 |
| W23 | 16 23 23 | 6°32'18 | 24°11 | 24° 6 | 21°40 | 29°41 | 29°43 | 10°15 | 0°47 | 24°52 | 6°49 | 12°32 | 12°31 | 25°55 | 20° 7 | W23 |
| T 24 | 16 27 19 | 7°29'35 | 6♌10 | 24°R 7 | 22°34 | 0♌22 | 29°49 | 10°16 | 0°45 | 24°54 | 6°50 | 12°31 | 12°28 | 26° 2 | 20° 8 | T 24 |
| F 25 | 16 31 16 | 8°26'51 | 18°22 | 24° 4 | 23°27 | 1° 4 | 29°55 | 10°18 | 0°43 | 24°57 | 6°50 | 12°31 | 12°25 | 26° 9 | 20°10 | F 25 |
| S 26 | 16 35 13 | 9°24'06 | 0♌52 | 23°56 | 24°20 | 1°45 | 0♌1 | 10°20 | 0°41 | 24°59 | 6°50 | 12°30 | 12°22 | 26°16 | 20°11 | S 26 |
| S 27 | 16 39 9 | 10°21'20 | 13°45 | 23°44 | 25°12 | 2°26 | 0° 7 | 10°22 | 0°39 | 25° 1 | 6°50 | 12°28 | 12°18 | 26°22 | 20°13 | S 27 |
| M28 | 16 43 6 | 11°18'33 | 27° 5 | 23°28 | 26° 3 | 3° 8 | 0°14 | 10°24 | 0°37 | 25° 3 | 6°50 | 12°23 | 12°15 | 26°29 | 20°14 | M28 |
| T 29 | 16 47 2 | 12°15'46 | 10♌53 | 23° 8 | 26°54 | 3°49 | 0°20 | 10°26 | 0°34 | 25° 5 | 6°50 | 12°16 | 12°12 | 26°36 | 20°16 | T 29 |
| W30 | 16 50 59 | 13°12'58 | 25° 8 | 22°44 | 27°44 | 4°30 | 0°27 | 10°28 | 0°32 | 25° 7 | 6°50 | 12° 6 | 12° 9 | 26°42 | 20°18 | W30 |
| T 31 | 16 54 55 | 14°10'09 | 9♌45 | 22°18 | 28♌34 | 5♌11 | 0♌33 | 10°R 31 | 0°R30 | 25°R 10 | 6°R 50 | 11°R 55 | 12°R 6 | 26°R 49 | 20°R 20 | T 31 |

Delta T = 19m35s Julian Calendar 1 May 1067 == Greg. Calendar 7 May 1067

JUNE 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|--------|-------|--------|--------|--------|---------|-------|--------|------|
| F 1 | 16 58 52 | 15♌7'20 | 24♌38 | 21°R48 | 29♌22 | 5♌52 | 0♌40 | 10°R33 | 0°R27 | 25♌12 | 6°R50 | 11°R44 | 12°R 2 | 26♌56 | 20°R22 | F 1 |
| S 2 | 17 2 49 | 16° 4'31 | 9♌37 | 21°R17 | 0♌10 | 6°33 | 0°47 | 10°36 | 0°R25 | 25°14 | 6°R50 | 11°R34 | 11°59 | 27° 2 | 20°24 | S 2 |
| S 3 | 17 6 45 | 17° 1'41 | 24°34 | 20°44 | 0°57 | 7°14 | 0°54 | 10°38 | 0°23 | 25°16 | 6°50 | 11°27 | 11°56 | 27° 9 | 20°27 | S 3 |
| M 4 | 17 10 42 | 17°58'51 | 9♌19 | 20° 9 | 1°44 | 7°55 | 1° 2 | 10°41 | 0°20 | 25°18 | 6°50 | 11°22 | 11°53 | 27°16 | 20°29 | M 4 |
| T 5 | 17 14 38 | 18°56'01 | 23°48 | 19°34 | 2°29 | 8°36 | 1° 9 | 10°44 | 0°18 | 25°20 | 6°50 | 11°19 | 11°50 | 27°22 | 20°32 | T 5 |
| W 6 | 17 18 35 | 19°53'11 | 7♌58 | 18°59 | 3°14 | 9°17 | 1°16 | 10°47 | 0°16 | 25°22 | 6°50 | 11°D18 | 11°47 | 27°29 | 20°34 | W 6 |
| T 7 | 17 22 31 | 20°50'21 | 21°47 | 18°25 | 3°57 | 9°58 | 1°24 | 10°50 | 0°13 | 25°24 | 6°50 | 11°R18 | 11°43 | 27°36 | 20°37 | T 7 |
| F 8 | 17 26 28 | 21°47'32 | 5♌16 | 17°51 | 4°40 | 10°39 | 1°32 | 10°53 | 0°11 | 25°26 | 6°50 | 11°18 | 11°40 | 27°42 | 20°40 | F 8 |
| S 9 | 17 30 24 | 22°44'42 | 18°28 | 17°20 | 5°22 | 11°19 | 1°40 | 10°56 | 0° 9 | 25°28 | 6°50 | 11°16 | 11°37 | 27°49 | 20°43 | S 9 |
| S 10 | 17 34 21 | 23°41'52 | 1♌26 | 16°51 | 6° 2 | 12° 0 | 1°48 | 10°59 | 0° 6 | 25°30 | 6°49 | 11°11 | 11°34 | 27°56 | 20°46 | S 10 |
| M11 | 17 38 18 | 24°39'03 | 14°10 | 16°24 | 6°42 | 12°41 | 1°56 | 11° 2 | 0° 4 | 25°32 | 6°49 | 11° 4 | 11°31 | 28° 2 | 20°49 | M11 |
| T 12 | 17 42 14 | 25°36'14 | 26°42 | 16° 1 | 7°20 | 13°21 | 2° 4 | 11° 6 | 0° 1 | 25°35 | 6°49 | 10°54 | 11°28 | 28° 9 | 20°52 | T 12 |
| W13 | 17 46 11 | 26°33'24 | 9♌4 | 15°42 | 7°58 | 14° 2 | 2°12 | 11° 9 | 29♌59 | 25°36 | 6°49 | 10°42 | 11°24 | 28°16 | 20°56 | W13 |
| T 14 | 17 50 7 | 27°30'35 | 21°17 | 15°27 | 8°34 | 14°42 | 2°21 | 11°13 | 29°57 | 25°38 | 6°48 | 10°29 | 11°21 | 28°23 | 20°59 | T 14 |
| F 15 | 17 54 4 | 28°27'46 | 3♌22 | 15°16 | 9° 9 | 15°23 | 2°29 | 11°17 | 29°54 | 25°40 | 6°48 | 10°17 | 11°18 | 28°29 | 21° 3 | F 15 |
| S 16 | 17 58 0 | 29°24'57 | 15°20 | 15° 9 | 9°43 | 16° 3 | 2°38 | 11°20 | 29°52 | 25°42 | 6°48 | 10° 5 | 11°15 | 28°36 | 21° 6 | S 16 |
| S 17 | 18 1 57 | 0♌22'08 | 27°11 | 15°D 8 | 10°15 | 16°43 | 2°47 | 11°24 | 29°49 | 25°44 | 6°48 | 9°56 | 11°12 | 28°43 | 21°10 | S 17 |
| M18 | 18 5 53 | 1°19'19 | 9♌0 | 15°11 | 10°46 | 17°24 | 2°56 | 11°28 | 29°47 | 25°46 | 6°47 | 9°50 | 11° 8 | 28°49 | 21°14 | M18 |
| T 19 | 18 9 50 | 2°16'30 | 20°48 | 15°19 | 11°15 | 18° 4 | 3° 5 | 11°32 | 29°44 | 25°48 | 6°47 | 9°46 | 11° 5 | 28°56 | 21°18 | T 19 |
| W20 | 18 13 47 | 3°13'41 | 2♌38 | 15°33 | 11°43 | 18°44 | 3°14 | 11°36 | 29°42 | 25°50 | 6°46 | 9°44 | 11° 2 | 29° 3 | 21°22 | W20 |
| T 21 | 18 17 43 | 4°10'52 | 14°37 | 15°52 | 12°10 | 19°24 | 3°23 | 11°40 | 29°40 | 25°52 | 6°46 | 9°D44 | 10°59 | 29° 9 | 21°26 | T 21 |
| F 22 | 18 21 40 | 5° 8'03 | 26°47 | 16°16 | 12°35 | 20° 5 | 3°32 | 11°45 | 29°37 | 25°54 | 6°45 | 9°44 | 10°56 | 29°16 | 21°30 | F 22 |
| S 23 | 18 25 36 | 6° 5'13 | 9♌15 | 16°45 | 12°58 | 20°45 | 3°42 | 11°49 | 29°35 | 25°56 | 6°45 | 9°R44 | 10°53 | 29°23 | 21°35 | S 23 |
| S 24 | 18 29 33 | 7° 2'24 | 22° 6 | 17°20 | 13°19 | 21°25 | 3°51 | 11°53 | 29°32 | 25°57 | 6°44 | 9°43 | 10°49 | 29°29 | 21°39 | S 24 |
| M25 | 18 33 29 | 7°59'35 | 5♌23 | 18° 0 | 13°39 | 22° 5 | 4° 1 | 11°58 | 29°30 | 25°59 | 6°44 | 9°40 | 10°46 | 29°36 | 21°44 | M25 |
| T 26 | 18 37 26 | 8°56'46 | 19° 9 | 18°45 | 13°57 | 22°45 | 4°11 | 12° 2 | 29°28 | 26° 1 | 6°43 | 9°35 | 10°43 | 29°43 | 21°48 | T 26 |
| W27 | 18 41 22 | 9°53'58 | 3♌25 | 19°35 | 14°13 | 23°25 | 4°20 | 12° 7 | 29°25 | 26° 3 | 6°43 | 9°28 | 10°40 | 29°49 | 21°53 | W27 |
| T 28 | 18 45 19 | 10°51'09 | 18° 7 | 20°30 | 14°26 | 24° 4 | 4°30 | 12°12 | 29°23 | 26° 4 | 6°42 | 9°20 | 10°37 | 29°56 | 21°58 | T 28 |
| F 29 | 18 49 16 | 11°48'22 | 3♌9 | 21°30 | 14°38 | 24°44 | 4°40 | 12°16 | 29°20 | 26° 6 | 6°42 | 9°11 | 10°34 | 0♌3 | 22° 3 | F 29 |
| S 30 | 18 53 12 | 12°45'34 | 18♌21 | 22°13 | 14♌48 | 25°R24 | 4°R50 | 12°R21 | 29♌18 | 26°R 8 | 6°R 41 | 9°R 3 | 10°R 30 | 0♌9 | 22°R 8 | S 30 |

Delta T = 19m35s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1067
geocentric

JULY 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|------------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|-------------------|--------------------|---------------------|-------------------|---------------------|------|
| S 1 | 18 57 9 | 13 ⁵² 42'47 | 3 ³³ 33 | 23 ^{II} 45 | 14 ^Ω 56 | 26 ^{II} 4 | 5 ^{mp} 0 | 12 ^{mp} 26 | 29 ^R 16 | 26 [♁] 9 | 6 ^R 40 | 8 ^R 57 | 10 ^{mp} 27 | 0 ^Ω 16 | 22 ^{mp} 13 | S 1 |
| M 2 | 19 1 5 | 14 ⁴⁰ 0'01 | 18 ³⁶ | 25° 0 | 15° 1 | 26 ⁴⁴ | 5°11 | 12°31 | 29 [♁] 14 | 26 ¹¹ | 6 [♁] 40 | 8 ^{mp} 54 | 10°24 | 0°23 | 22°18 | M 2 |
| T 3 | 19 5 2 | 15 ³⁷ 15 | 3 [♁] 21 | 26°19 | 15° 4 | 27°23 | 5°21 | 12°36 | 29°11 | 26°13 | 6°39 | 8°D52 | 10°21 | 0°29 | 22°23 | T 3 |
| W 4 | 19 8 58 | 16 ³⁴ 30 | 17°43 | 27°43 | 15°R 5 | 28° 3 | 5°31 | 12°41 | 29° 9 | 26°14 | 6°38 | 8°52 | 10°18 | 0°36 | 22°29 | W 4 |
| T 5 | 19 12 55 | 17°31'47 | 1 [♀] 40 | 29°11 | 15° 4 | 28°42 | 5°42 | 12°46 | 29° 7 | 26°16 | 6°38 | 8°53 | 10°14 | 0°43 | 22°34 | T 5 |
| F 6 | 19 16 51 | 18°29'04 | 15°13 | 0 [♁] 44 | 15° 0 | 29°22 | 5°52 | 12°52 | 29° 4 | 26°17 | 6°37 | 8°R54 | 10°11 | 0°49 | 22°39 | F 6 |
| S 7 | 19 20 48 | 19°26'22 | 28°23 | 2°20 | 14°54 | 0 [♁] 2 | 6° 3 | 12°57 | 29° 2 | 26°19 | 6°36 | 8°53 | 10° 8 | 0°56 | 22°45 | S 7 |
| S 8 | 19 24 45 | 20°23'41 | 11 [♁] 14 | 4° 1 | 14°46 | 0°41 | 6°14 | 13° 2 | 29° 0 | 26°20 | 6°35 | 8°51 | 10° 5 | 1° 3 | 22°51 | S 8 |
| M 9 | 19 28 41 | 21°21'02 | 23°49 | 5°45 | 14°35 | 1°20 | 6°24 | 13° 8 | 28°58 | 26°22 | 6°35 | 8°47 | 10° 2 | 1°10 | 22°56 | M 9 |
| T 10 | 19 32 38 | 22°18'23 | 6 ^{II} 10 | 7°33 | 14°22 | 2° 0 | 6°35 | 13°13 | 28°56 | 26°23 | 6°34 | 8°41 | 9°59 | 1°16 | 23° 2 | T 10 |
| W11 | 19 36 34 | 23°15'46 | 18°21 | 9°24 | 14° 6 | 2°39 | 6°46 | 13°19 | 28°53 | 26°25 | 6°33 | 8°34 | 9°55 | 1°23 | 23° 8 | W11 |
| T 12 | 19 40 31 | 24°13'09 | 0 [♁] 23 | 11°18 | 13°48 | 3°19 | 6°57 | 13°24 | 28°51 | 26°26 | 6°32 | 8°26 | 9°52 | 1°30 | 23°14 | T 12 |
| F 13 | 19 44 27 | 25°10'34 | 12°19 | 13°14 | 13°28 | 3°58 | 7° 8 | 13°30 | 28°49 | 26°27 | 6°31 | 8°17 | 9°49 | 1°36 | 23°20 | F 13 |
| S 14 | 19 48 24 | 26°7'59 | 24°11 | 15°12 | 13° 6 | 4°37 | 7°19 | 13°36 | 28°47 | 26°29 | 6°30 | 8°10 | 9°46 | 1°43 | 23°26 | S 14 |
| S 15 | 19 52 20 | 27° 5'26 | 6 ^Ω 0 | 17°12 | 12°42 | 5°16 | 7°31 | 13°42 | 28°45 | 26°30 | 6°29 | 8° 4 | 9°43 | 1°50 | 23°32 | S 15 |
| M16 | 19 56 17 | 28° 2'53 | 17°48 | 19°14 | 12°15 | 5°55 | 7°42 | 13°48 | 28°43 | 26°31 | 6°29 | 8° 0 | 9°40 | 1°56 | 23°39 | M16 |
| T 17 | 20 0 14 | 29° 0'22 | 29°38 | 21°17 | 11°47 | 6°35 | 7°53 | 13°53 | 28°41 | 26°33 | 6°28 | 7°58 | 9°36 | 2° 3 | 23°45 | T 17 |
| W18 | 20 4 10 | 29°57'51 | 11 ^{mp} 32 | 23°20 | 11°17 | 7°14 | 8° 5 | 13°59 | 28°39 | 26°34 | 6°27 | 7°D58 | 9°33 | 2°10 | 23°51 | W18 |
| T 19 | 20 8 7 | 0 ^Ω 55'21 | 23°34 | 25°24 | 10°45 | 7°53 | 8°16 | 14° 5 | 28°37 | 26°35 | 6°26 | 7°59 | 9°30 | 2°16 | 23°58 | T 19 |
| F 20 | 20 12 3 | 1°52'52 | 5 [♁] 47 | 27°28 | 10°12 | 8°32 | 8°28 | 14°12 | 28°35 | 26°36 | 6°25 | 8° 1 | 9°27 | 2°23 | 24° 4 | F 20 |
| S 21 | 20 16 0 | 2°50'24 | 18°16 | 29°32 | 9°38 | 9°11 | 8°39 | 14°18 | 28°33 | 26°37 | 6°24 | 8° 2 | 9°24 | 2°30 | 24°11 | S 21 |
| S 22 | 20 19 56 | 3°47'57 | 1 [♁] 5 | 1 ^Ω 36 | 9° 3 | 9°50 | 8°51 | 14°24 | 28°32 | 26°38 | 6°23 | 8°R 3 | 9°20 | 2°36 | 24°18 | S 22 |
| M23 | 20 23 53 | 4°45'31 | 14°17 | 3°39 | 8°26 | 10°29 | 9° 3 | 14°30 | 28°30 | 26°39 | 6°22 | 8° 3 | 9°17 | 2°43 | 24°25 | M23 |
| T 24 | 20 27 49 | 5°43'06 | 27°56 | 5°42 | 7°50 | 11° 7 | 9°14 | 14°36 | 28°28 | 26°41 | 6°21 | 8° 1 | 9°14 | 2°50 | 24°31 | T 24 |
| W25 | 20 31 46 | 6°40'42 | 12 [♁] 3 | 7°43 | 7°12 | 11°46 | 9°26 | 14°43 | 28°26 | 26°42 | 6°20 | 7°58 | 9°11 | 2°56 | 24°38 | W25 |
| T 26 | 20 35 43 | 7°38'19 | 26°37 | 9°44 | 6°35 | 12°25 | 9°38 | 14°49 | 28°25 | 26°43 | 6°19 | 7°54 | 9° 8 | 3° 3 | 24°45 | T 26 |
| F 27 | 20 39 39 | 8°35'57 | 11 [♁] 32 | 11°43 | 5°58 | 13° 4 | 9°50 | 14°55 | 28°23 | 26°44 | 6°18 | 7°50 | 9° 5 | 3°10 | 24°52 | F 27 |
| S 28 | 20 43 36 | 9°33'36 | 26°42 | 13°41 | 5°21 | 13°42 | 10° 2 | 15° 2 | 28°21 | 26°44 | 6°17 | 7°46 | 9° 1 | 3°16 | 24°59 | S 28 |
| S 29 | 20 47 32 | 10°31'17 | 11 [♁] 56 | 15°38 | 4°45 | 14°21 | 10°14 | 15° 8 | 28°20 | 26°45 | 6°16 | 7°43 | 8°58 | 3°23 | 25° 6 | S 29 |
| M30 | 20 51 29 | 11°28'58 | 27° 6 | 17°34 | 4° 9 | 15° 0 | 10°26 | 15°15 | 28°18 | 26°46 | 6°14 | 7°42 | 8°55 | 3°30 | 25°13 | M30 |
| T 31 | 20 55 25 | 12 ^Ω 26'42 | 12 [♁] 1 | 19 ^Ω 28 | 3 ^Ω 35 | 15 [♁] 38 | 10 ^{mp} 38 | 15 ^{mp} 22 | 28 [♁] 17 | 26 [♁] 47 | 6 [♁] 13 | 7°D42 | 8 ^{mp} 52 | 3 ^Ω 36 | 25 ^{mp} 21 | T 31 |

Delta T = 19m34s Julian Calendar 1 July 1067 == Greg. Calendar 7 July 1067

AUGUST 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|------------------------|---------------------|--------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|-------------------|--------------------|--------------------|-------------------|---------------------|------|
| W 1 | 20 59 22 | 13 ^Ω 24'26 | 26 [♁] 34 | 21 ^Ω 21 | 3°R 2 | 16 [♁] 17 | 10 ^{mp} 50 | 15 ^{mp} 28 | 28°R15 | 26 [♁] 48 | 6°R12 | 7 ^{mp} 42 | 8 ^{mp} 49 | 3 ^Ω 43 | 25 ^{mp} 28 | W 1 |
| T 2 | 21 3 18 | 14°22'13 | 10 [♀] 42 | 23°13 | 2 ^Ω 30 | 16°55 | 11° 3 | 15°35 | 28 [♁] 14 | 26°49 | 6°R11 | 7°44 | 8°45 | 3°50 | 25°35 | T 2 |
| F 3 | 21 7 15 | 15°20'01 | 24°24 | 25° 3 | 2° 0 | 17°34 | 11°15 | 15°42 | 28°12 | 26°49 | 6°10 | 7°45 | 8°42 | 3°56 | 25°43 | F 3 |
| S 4 | 21 11 12 | 16°17'51 | 7 [♁] 39 | 26°52 | 1°32 | 18°12 | 11°27 | 15°48 | 28°11 | 26°50 | 6° 9 | 7°46 | 8°39 | 4° 3 | 25°50 | S 4 |
| S 5 | 21 15 8 | 17°15'43 | 20°32 | 28°39 | 1° 6 | 18°51 | 11°39 | 15°55 | 28°10 | 26°51 | 6° 8 | 7°R46 | 8°36 | 4°10 | 25°58 | S 5 |
| M 6 | 21 19 5 | 18°13'37 | 3 ^{II} 4 | 0 ^{mp} 26 | 0°41 | 19°29 | 11°52 | 16° 2 | 28° 8 | 26°51 | 6° 6 | 7°46 | 8°33 | 4°16 | 26° 5 | M 6 |
| T 7 | 21 23 1 | 19°11'33 | 15°21 | 2°10 | 0°19 | 20° 7 | 12° 4 | 16° 9 | 28° 7 | 26°52 | 6° 5 | 7°44 | 8°30 | 4°23 | 26°13 | T 7 |
| W 8 | 21 26 58 | 20° 9'30 | 27°26 | 3°54 | 29 [♁] 59 | 20°46 | 12°17 | 16°16 | 28° 6 | 26°53 | 6° 4 | 7°42 | 8°26 | 4°30 | 26°20 | W 8 |
| T 9 | 21 30 54 | 21° 7'30 | 9 [♁] 22 | 5°36 | 29°42 | 21°24 | 12°29 | 16°22 | 28° 5 | 26°53 | 6° 3 | 7°39 | 8°23 | 4°36 | 26°28 | T 9 |
| F 10 | 21 34 51 | 22° 5'31 | 21°13 | 7°17 | 29°27 | 22° 2 | 12°42 | 16°29 | 28° 4 | 26°54 | 6° 2 | 7°37 | 8°20 | 4°43 | 26°36 | F 10 |
| S 11 | 21 38 47 | 23° 3'34 | 3 ^Ω 2 | 8°57 | 29°14 | 22°40 | 12°54 | 16°36 | 28° 3 | 26°54 | 6° 1 | 7°35 | 8°17 | 4°50 | 26°44 | S 11 |
| S 12 | 21 42 44 | 24° 1'38 | 14°51 | 10°35 | 29° 3 | 23°18 | 13° 7 | 16°43 | 28° 2 | 26°55 | 5°59 | 7°33 | 8°14 | 4°56 | 26°52 | S 12 |
| M13 | 21 46 41 | 24°59'45 | 26°42 | 12°12 | 28°55 | 23°57 | 13°20 | 16°50 | 28° 1 | 26°55 | 5°58 | 7°32 | 8°11 | 5° 3 | 26°59 | M13 |
| T 14 | 21 50 37 | 25°57'53 | 8 ^{mp} 38 | 13°48 | 28°50 | 24°35 | 13°32 | 16°57 | 28° 0 | 26°56 | 5°57 | 7°D32 | 8° 7 | 5°10 | 27° 7 | T 14 |
| W15 | 21 54 34 | 26°56'03 | 20°41 | 15°23 | 28°46 | 25°13 | 13°45 | 17° 5 | 27°59 | 26°56 | 5°56 | 7°32 | 8° 4 | 5°16 | 27°15 | W15 |
| T 16 | 21 58 30 | 27°54'14 | 2 [♁] 53 | 16°56 | 28°D46 | 25°51 | 13°58 | 17°12 | 27°58 | 26°56 | 5°55 | 7°33 | 8° 1 | 5°23 | 27°23 | T 16 |
| F 17 | 22 2 27 | 28°52'27 | 15°16 | 18°28 | 28°47 | 26°29 | 14°10 | 17°19 | 27°57 | 26°57 | 5°53 | 7°34 | 7°58 | 5°30 | 27°31 | F 17 |
| S 18 | 22 6 23 | 29°50'42 | 27°52 | 19°59 | 28°51 | 27° 7 | 14°23 | 17°26 | 27°56 | 26°57 | 5°52 | 7°34 | 7°55 | 5°36 | 27°39 | S 18 |
| S 19 | 22 10 20 | 0 ^{mp} 48'58 | 10 ^{mp} 46 | 21°29 | 28°57 | 27°44 | 14°36 | 17°33 | 27°56 | 26°57 | 5°51 | 7°35 | 7°51 | 5°43 | 27°47 | S 19 |
| M20 | 22 14 16 | 1°47'16 | 23°58 | 22°58 | 29° 5 | 28°22 | 14°49 | 17°40 | 27°55 | 26°57 | 5°50 | 7°35 | 7°48 | 5°50 | 27°56 | M20 |
| T 21 | 22 18 13 | 2°45'36 | 7 [♁] 32 | 24°25 | 29°15 | 29° 0 | 15° 1 | 17°48 | 27°54 | 26°57 | 5°48 | 7°R35 | 7°45 | 5°56 | 28° 4 | T 21 |
| W22 | 22 22 9 | 3°43'57 | 21°28 | 25°51 | 29°27 | 29°38 | 15°14 | 17°55 | 27°54 | 26°57 | 5°47 | 7°35 | 7°42 | 6° 3 | 28°12 | W22 |
| T 23 | 22 26 6 | 4°42'19 | 5 [♁] 46 | 27°16 | 29°42 | 0 ^Ω 16 | 15°27 | 18° 2 | 27°53 | 26°58 | 5°46 | 7°35 | 7°39 | 6°10 | 28°20 | T 23 |
| F 24 | 22 30 3 | 5°40'44 | 20°24 | 28°39 | 29°58 | 0°53 | 15°40 | 18° 9 | 27°53 | 26°58 | 5°45 | 7°35 | 7°36 | 6°16 | 28°29 | F 24 |
| S 25 | 22 33 59 | 6°39'10 | 5 [♁] 16 | 0 [♁] 1 | 0 ^Ω 17 | 1°31 | 15°53 | 18°17 | 27°53 | 26°R58 | 5°43 | 7°35 | 7°32 | 6°23 | 28°37 | S 25 |
| S 26 | 22 37 56 | 7°37'37 | 20°17 | 1°22 | 0°37 | 2° 9 | 16° 6 | 18°24 | 27°52 | 26°58 | 5°42 | 7°D35 | 7°29 | 6°30 | 28°45 | S 26 |
| M27 | 22 41 52 | 8°36'07 | 5 [♁] 17 | 2°42 | 0°59 | 2°46 | 16°19 | 18°31 | 27°52 | 26°58 | 5°41 | 7°R35 | 7°26 | 6°36 | 28°54 | M27 |
| T 28 | 22 45 49 | 9°34'38 | 20° 9 | 3°59 | 1°23 | 3°24 | 16°32 | 18°39 | 27°52 | 26°58 | 5°40 | 7°35 | 7°23 | 6°43 | 29° 2 | T 28 |
| W29 | 22 49 45 | 10°33'11 | 4 [♀] 45 | 5°16 | 1°48 | 4° 1 | 16°45 | 18°46 | 27°52 | 26°57 | 5°38 | 7°34 | 7°20 | 6°50 | 29°10 | W29 |
| T 30 | 22 53 42 | 11°31'47 | 18°59 | 6°31 | 2°15 | 4°39 | 16°58 | 18°53 | 27°51 | 26°57 | 5°37 | 7°34 | 7°17 | 6°56 | 29°19 | T 30 |
| F 31 | 22 57 38 | 12 ^{mp} 30'25 | 2 [♁] 48 | 7 [♁] 44 | 2 ^Ω 44 | 5 ^Ω 16 | 17 ^{mp} 11 | 19 ^{mp} 1 | 27 [♁] 51 | 26 [♁] 57 | 5 [♁] 36 | 7 ^{mp} 34 | 7 ^{mp} 13 | 7 ^Ω 3 | 29 ^{mp} 27 | F 31 |

Delta T = 19m34s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1067
geocentric

SEPTEMBER 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|--------|-------|-------|------|-------|-------|------|---|-----|
| S 1 | 23 1 35 | 13♐29'05 | 16♌11 | 8♌55 | 3♊15 | 5♊54 | 17♐24 | 19♐ 8 | 27°D51 | 26°R57 | 5°R35 | 7°R33 | 7♐10 | 7♊10 | 29♐36 | S 1 | | |
| S 2 | 23 5 32 | 14°27'47 | 29° 8 | 10° 5 | 3°46 | 6°31 | 17°37 | 19°15 | 27♌51 | 26♌57 | 5♌34 | 7♐32 | 7° 7 | 7°16 | 29°44 | S 2 | | |
| M 3 | 23 9 28 | 15°26'31 | 11♐44 | 11°13 | 4°20 | 7° 8 | 17°50 | 19°23 | 27°51 | 26°56 | 5°32 | 7°D32 | 7° 4 | 7°23 | 29°53 | M 3 | | |
| T 4 | 23 13 25 | 16°25'18 | 24° 1 | 12°19 | 4°54 | 7°46 | 18° 3 | 19°30 | 27°51 | 26°56 | 5°31 | 7°32 | 7° 1 | 7°30 | 0♌ 1 | T 4 | | |
| W 5 | 23 17 21 | 17°24'07 | 6♌ 4 | 13°22 | 5°30 | 8°23 | 18°16 | 19°38 | 27°52 | 26°56 | 5°30 | 7°33 | 6°57 | 7°36 | 0°10 | W 5 | | |
| T 6 | 23 21 18 | 18°22'59 | 17°58 | 14°23 | 6° 7 | 9° 0 | 18°29 | 19°45 | 27°52 | 26°55 | 5°29 | 7°34 | 6°54 | 7°43 | 0°19 | T 6 | | |
| F 7 | 23 25 14 | 19°21'53 | 29°47 | 15°22 | 6°46 | 9°37 | 18°42 | 19°52 | 27°52 | 26°55 | 5°28 | 7°35 | 6°51 | 7°50 | 0°27 | F 7 | | |
| S 8 | 23 29 11 | 20°20'49 | 11♊36 | 16°18 | 7°25 | 10°14 | 18°55 | 20° 0 | 27°52 | 26°55 | 5°26 | 7°36 | 6°48 | 7°56 | 0°36 | S 8 | | |
| S 9 | 23 33 7 | 21°19'47 | 23°27 | 17°11 | 8° 6 | 10°51 | 19° 8 | 20° 7 | 27°53 | 26°54 | 5°25 | 7°37 | 6°45 | 8° 3 | 0°44 | S 9 | | |
| M10 | 23 37 4 | 22°18'47 | 5♐24 | 18° 1 | 8°48 | 11°28 | 19°21 | 20°14 | 27°53 | 26°54 | 5°24 | 7°R37 | 6°42 | 8°10 | 0°53 | M10 | | |
| T 11 | 23 41 1 | 23°17'50 | 17°30 | 18°47 | 9°31 | 12° 5 | 19°34 | 20°22 | 27°54 | 26°53 | 5°23 | 7°37 | 6°38 | 8°16 | 1° 2 | T 11 | | |
| W12 | 23 44 57 | 24°16'54 | 29°46 | 19°30 | 10°15 | 12°42 | 19°47 | 20°29 | 27°54 | 26°52 | 5°22 | 7°36 | 6°35 | 8°23 | 1°10 | W12 | | |
| T 13 | 23 48 54 | 25°16'01 | 12♌14 | 20° 8 | 11° 0 | 13°19 | 20° 0 | 20°37 | 27°55 | 26°52 | 5°20 | 7°34 | 6°32 | 8°30 | 1°19 | T 13 | | |
| F 14 | 23 52 50 | 26°15'09 | 24°54 | 20°42 | 11°46 | 13°56 | 20°13 | 20°44 | 27°55 | 26°51 | 5°19 | 7°31 | 6°29 | 8°36 | 1°28 | F 14 | | |
| S 15 | 23 56 47 | 27°14'20 | 7♐48 | 21°11 | 12°32 | 14°33 | 20°26 | 20°51 | 27°56 | 26°51 | 5°18 | 7°28 | 6°26 | 8°43 | 1°36 | S 15 | | |
| S 16 | 0 0 43 | 28°13'32 | 20°56 | 21°35 | 13°20 | 15°10 | 20°39 | 20°59 | 27°57 | 26°50 | 5°17 | 7°26 | 6°22 | 8°50 | 1°45 | S 16 | | |
| M17 | 0 4 40 | 29°12'47 | 4♌17 | 21°54 | 14° 9 | 15°47 | 20°52 | 21° 6 | 27°57 | 26°49 | 5°16 | 7°23 | 6°19 | 8°56 | 1°54 | M17 | | |
| T 18 | 0 8 36 | 0♌12'03 | 17°54 | 22° 6 | 14°58 | 16°23 | 21° 5 | 21°13 | 27°58 | 26°48 | 5°15 | 7°22 | 6°16 | 9° 3 | 2° 3 | T 18 | | |
| W19 | 0 12 33 | 1°11'21 | 1♌45 | 22°R11 | 15°48 | 17° 0 | 21°17 | 21°21 | 27°59 | 26°48 | 5°14 | 7°D21 | 6°13 | 9°10 | 2°11 | W19 | | |
| T 20 | 0 16 29 | 2°10'41 | 15°50 | 22° 9 | 16°39 | 17°37 | 21°30 | 21°28 | 28° 0 | 26°47 | 5°13 | 7°22 | 6°10 | 9°16 | 2°20 | T 20 | | |
| F 21 | 0 20 26 | 3°10'03 | 0♌ 8 | 22° 0 | 17°30 | 18°13 | 21°43 | 21°35 | 28° 1 | 26°46 | 5°12 | 7°23 | 6° 7 | 9°23 | 2°29 | F 21 | | |
| S 22 | 0 24 23 | 4° 9'26 | 14°37 | 21°43 | 18°22 | 18°50 | 21°56 | 21°43 | 28° 2 | 26°45 | 5°11 | 7°24 | 6° 3 | 9°30 | 2°37 | S 22 | | |
| S 23 | 0 28 19 | 5° 8'52 | 29°13 | 21°17 | 19°15 | 19°26 | 22° 9 | 21°50 | 28° 3 | 26°44 | 5°10 | 7°25 | 6° 0 | 9°36 | 2°46 | S 23 | | |
| M24 | 0 32 16 | 6° 8'19 | 13♌51 | 20°43 | 20° 9 | 20° 3 | 22°22 | 21°57 | 28° 4 | 26°43 | 5° 8 | 7°R26 | 5°57 | 9°43 | 2°55 | M24 | | |
| T 25 | 0 36 12 | 7° 7'48 | 28°26 | 20° 1 | 21° 3 | 20°39 | 22°35 | 22° 4 | 28° 5 | 26°42 | 5° 7 | 7°24 | 5°54 | 9°50 | 3° 4 | T 25 | | |
| W26 | 0 40 9 | 8° 7'19 | 12♐50 | 19°11 | 21°58 | 21°16 | 22°47 | 22°12 | 28° 7 | 26°41 | 5° 6 | 7°21 | 5°51 | 9°56 | 3°12 | W26 | | |
| T 27 | 0 44 5 | 9° 6'52 | 26°58 | 18°13 | 22°54 | 21°52 | 23° 0 | 22°19 | 28° 8 | 26°40 | 5° 5 | 7°17 | 5°48 | 10° 3 | 3°21 | T 27 | | |
| F 28 | 0 48 2 | 10° 6'27 | 10♌45 | 17° 9 | 23°50 | 22°28 | 23°13 | 22°26 | 28° 9 | 26°39 | 5° 4 | 7°12 | 5°44 | 10°10 | 3°30 | F 28 | | |
| S 29 | 0 51 58 | 11° 6'05 | 24° 9 | 15°59 | 24°46 | 23° 4 | 23°26 | 22°33 | 28°11 | 26°38 | 5° 4 | 7° 6 | 5°41 | 10°16 | 3°38 | S 29 | | |
| S 30 | 0 55 55 | 12♌ 5'45 | 7♐10 | 14♌46 | 25♊44 | 23♊41 | 23♐38 | 22♐40 | 28♌12 | 26♌37 | 5♌ 3 | 7♐ 1 | 5♐38 | 10♊23 | 3♌47 | S 30 | | |

Delta T = 19m34s Julian Calendar 1 Sept. 1067 == Greg. Calendar 7 Sept. 1067

OCTOBER 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|--------|-------|-------|------|-------|------|------|---|-----|
| M 1 | 0 59 52 | 13♌ 5'27 | 19♐49 | 13°R32 | 26♊41 | 24♊17 | 23♐51 | 22♐47 | 28♌13 | 26°R36 | 5°R 2 | 6°R57 | 5♐35 | 10♊30 | 3♌56 | M 1 | | |
| T 2 | 1 3 48 | 14° 5'11 | 2♌ 8 | 12♌17 | 27°40 | 24°53 | 24° 4 | 22°55 | 28°15 | 26♌35 | 5♌ 1 | 6♐55 | 5°32 | 10°36 | 4° 4 | T 2 | | |
| W 3 | 1 7 45 | 15° 4'58 | 14°12 | 11° 6 | 28°38 | 25°29 | 24°16 | 23° 2 | 28°16 | 26°34 | 5° 0 | 6°D54 | 5°28 | 10°43 | 4°13 | W 3 | | |
| T 4 | 1 11 41 | 16° 4'47 | 26° 6 | 9°59 | 29°38 | 26° 5 | 24°29 | 23° 9 | 28°18 | 26°33 | 4°59 | 6°55 | 5°25 | 10°49 | 4°22 | T 4 | | |
| F 5 | 1 15 38 | 17° 4'38 | 7♊55 | 9° 0 | 0♐37 | 26°41 | 24°41 | 23°16 | 28°20 | 26°31 | 4°58 | 6°56 | 5°22 | 10°56 | 4°30 | F 5 | | |
| S 6 | 1 19 34 | 18° 4'32 | 19°44 | 8° 8 | 1°37 | 27°17 | 24°54 | 23°23 | 28°21 | 26°30 | 4°57 | 6°58 | 5°19 | 11° 3 | 4°39 | S 6 | | |
| S 7 | 1 23 31 | 19° 4'27 | 1♐38 | 7°27 | 2°38 | 27°53 | 25° 6 | 23°29 | 28°23 | 26°29 | 4°56 | 6°R59 | 5°16 | 11° 9 | 4°47 | S 7 | | |
| M 8 | 1 27 27 | 20° 4'25 | 13°41 | 6°57 | 3°39 | 28°29 | 25°19 | 23°36 | 28°25 | 26°28 | 4°56 | 6°59 | 5°13 | 11°16 | 4°56 | M 8 | | |
| T 9 | 1 31 24 | 21° 4'25 | 25°56 | 6°38 | 4°40 | 29° 4 | 25°31 | 23°43 | 28°27 | 26°26 | 4°55 | 6°57 | 5° 9 | 11°23 | 5° 4 | T 9 | | |
| W10 | 1 35 21 | 22° 4'27 | 8♌27 | 6°D31 | 5°42 | 29°40 | 25°43 | 23°50 | 28°29 | 26°25 | 4°54 | 6°53 | 5° 6 | 11°29 | 5°13 | W10 | | |
| T 11 | 1 39 17 | 23° 4'31 | 21°13 | 6°35 | 6°44 | 0♐16 | 25°56 | 23°57 | 28°31 | 26°24 | 4°53 | 6°47 | 5° 3 | 11°36 | 5°21 | T 11 | | |
| F 12 | 1 43 14 | 24° 4'37 | 4♐16 | 6°49 | 7°47 | 0°51 | 26° 8 | 24° 4 | 28°33 | 26°22 | 4°52 | 6°39 | 5° 0 | 11°43 | 5°30 | F 12 | | |
| S 13 | 1 47 10 | 25° 4'45 | 17°34 | 7°14 | 8°50 | 1°27 | 26°20 | 24°10 | 28°35 | 26°21 | 4°52 | 6°30 | 4°57 | 11°49 | 5°38 | S 13 | | |
| S 14 | 1 51 7 | 26° 4'54 | 1♌ 5 | 7°49 | 9°53 | 2° 2 | 26°32 | 24°17 | 28°37 | 26°19 | 4°51 | 6°22 | 4°53 | 11°56 | 5°47 | S 14 | | |
| M15 | 1 55 3 | 27° 5'06 | 14°47 | 8°32 | 10°57 | 2°38 | 26°44 | 24°24 | 28°39 | 26°18 | 4°50 | 6°14 | 4°50 | 12° 3 | 5°55 | M15 | | |
| T 16 | 1 59 0 | 28° 5'19 | 28°38 | 9°22 | 12° 1 | 3°13 | 26°56 | 24°30 | 28°41 | 26°17 | 4°50 | 6° 8 | 4°47 | 12° 9 | 6° 3 | T 16 | | |
| W17 | 2 2 56 | 29° 5'33 | 12♌36 | 10°20 | 13° 5 | 3°48 | 27° 8 | 24°37 | 28°43 | 26°15 | 4°49 | 6° 5 | 4°44 | 12°16 | 6°12 | W17 | | |
| T 18 | 2 6 53 | 0♐ 5'49 | 26°39 | 11°23 | 14° 9 | 4°24 | 27°20 | 24°43 | 28°45 | 26°14 | 4°48 | 6°D 4 | 4°41 | 12°23 | 6°20 | T 18 | | |
| F 19 | 2 10 50 | 1° 6'07 | 10♌46 | 12°32 | 15°14 | 4°59 | 27°32 | 24°50 | 28°48 | 26°12 | 4°48 | 6° 4 | 4°38 | 12°29 | 6°28 | F 19 | | |
| S 20 | 2 14 46 | 2° 6'26 | 24°55 | 13°45 | 16°19 | 5°34 | 27°44 | 24°56 | 28°50 | 26°11 | 4°47 | 6° 5 | 4°34 | 12°36 | 6°37 | S 20 | | |
| S 21 | 2 18 43 | 3° 6'46 | 9♌ 6 | 15° 2 | 17°25 | 6° 9 | 27°56 | 25° 3 | 28°52 | 26° 9 | 4°47 | 6°R 5 | 4°31 | 12°43 | 6°45 | S 21 | | |
| M22 | 2 22 39 | 4° 7'08 | 23°17 | 16°22 | 18°30 | 6°44 | 28° 7 | 25° 9 | 28°55 | 26° 8 | 4°46 | 6° 4 | 4°28 | 12°49 | 6°53 | M22 | | |
| T 23 | 2 26 36 | 5° 7'31 | 7♐24 | 17°45 | 19°36 | 7°19 | 28°19 | 25°15 | 28°57 | 26° 6 | 4°46 | 6° 0 | 4°25 | 12°56 | 7° 1 | T 23 | | |
| W24 | 2 30 32 | 6° 7'56 | 21°25 | 19°10 | 20°43 | 7°54 | 28°31 | 25°21 | 29° 0 | 26° 4 | 4°45 | 5°54 | 4°22 | 13° 3 | 7° 9 | W24 | | |
| T 25 | 2 34 29 | 7° 8'23 | 5♌14 | 20°37 | 21°49 | 8°29 | 28°42 | 25°27 | 29° 2 | 26° 3 | 4°45 | 5°45 | 4°19 | 13° 9 | 7°17 | T 25 | | |
| F 26 | 2 38 25 | 8° 8'51 | 18°48 | 22° 6 | 22°56 | 9° 4 | 28°54 | 25°34 | 29° 5 | 26° 1 | 4°44 | 5°34 | 4°15 | 13°16 | 7°25 | F 26 | | |
| S 27 | 2 42 22 | 9° 9'21 | 2♐ 4 | 23°36 | 24° 3 | 9°38 | 29° 5 | 25°40 | 29° 7 | 26° 0 | 4°44 | 5°23 | 4°12 | 13°23 | 7°33 | S 27 | | |
| S 28 | 2 46 18 | 10° 9'52 | 15° 1 | 25° 7 | 25°10 | 10°13 | 29°16 | 25°46 | 29°10 | 25°58 | 4°43 | 5°12 | 4° 9 | 13°29 | 7°41 | S 28 | | |
| M29 | 2 50 15 | 11°10'26 | 27°38 | 26°39 | 26°17 | 10°48 | 29°28 | 25°52 | 29°12 | 25°56 | 4°43 | 5° 2 | 4° 6 | 13°36 | 7°49 | M29 | | |
| T 30 | 2 54 12 | 12°11'01 | 9♌57 | 28°11 | 27°25 | 11°22 | 29°39 | 25°57 | 29°15 | 25°55 | 4°43 | 4°55 | 4° 3 | 13°43 | 7°57 | T 30 | | |
| W31 | 2 58 8 | 13♐11'38 | 22♌ 2 | 29♌45 | 28♐33 | 11♐57 | 29♐50 | 26♐ 3 | 29♌18 | 25♌53 | 4♌42 | 4♐50 | 3♐59 | 13♊49 | 8♌ 4 | W31 | | |

Delta T = 19m33s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1067
geocentric

NOVEMBER 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | Day |
|------|---------|----------|-------|-------|-------|-------|------|-------|-------|--------|-------|-------|------|-------|-------|------|-----|
| T 1 | 3 2 5 | 14♐18'12 | 3♊56 | 1♐18 | 29♏41 | 12♏31 | 0♁1 | 26♏9 | 29♏21 | 25♏R51 | 4♏R42 | 4♏R48 | 3♏56 | 13♏56 | 8♏12 | T 1 | |
| F 2 | 3 6 1 | 15°12'57 | 15°44 | 2°52 | 0♁49 | 13° 5 | 0°12 | 26°15 | 29°23 | 25♏50 | 4♏42 | 4°D47 | 3°53 | 14° 3 | 8°20 | F 2 | |
| S 3 | 3 9 58 | 16°13'39 | 27°33 | 4°26 | 1°58 | 13°39 | 0°23 | 26°20 | 29°26 | 25°48 | 4°42 | 4♏48 | 3°50 | 14° 9 | 8°27 | S 3 | |
| S 4 | 3 13 54 | 17°14'22 | 9♏27 | 6° 0 | 3° 6 | 14°14 | 0°33 | 26°26 | 29°29 | 25°46 | 4°41 | 4°R48 | 3°47 | 14°16 | 8°35 | S 4 | |
| M 5 | 3 17 51 | 18°15'07 | 21°32 | 7°35 | 4°15 | 14°48 | 0°44 | 26°31 | 29°32 | 25°45 | 4°41 | 4°47 | 3°44 | 14°22 | 8°43 | M 5 | |
| T 6 | 3 21 47 | 19°15'54 | 3♁53 | 9° 9 | 5°24 | 15°22 | 0°55 | 26°37 | 29°35 | 25°43 | 4°41 | 4°43 | 3°40 | 14°29 | 8°50 | T 6 | |
| W 7 | 3 25 44 | 20°16'43 | 16°33 | 10°44 | 6°34 | 15°56 | 1° 5 | 26°42 | 29°38 | 25°41 | 4°41 | 4°37 | 3°37 | 14°36 | 8°57 | W 7 | |
| T 8 | 3 29 41 | 21°17'32 | 29°34 | 12°18 | 7°43 | 16°30 | 1°16 | 26°48 | 29°41 | 25°40 | 4°41 | 4°28 | 3°34 | 14°42 | 9° 5 | T 8 | |
| F 9 | 3 33 37 | 22°18'24 | 12♐57 | 13°53 | 8°53 | 17° 3 | 1°26 | 26°53 | 29°44 | 25°38 | 4°40 | 4°16 | 3°31 | 14°49 | 9°12 | F 9 | |
| S 10 | 3 37 34 | 23°19'16 | 26°39 | 15°27 | 10° 2 | 17°37 | 1°36 | 26°58 | 29°47 | 25°36 | 4°40 | 4° 4 | 3°28 | 14°56 | 9°19 | S 10 | |
| S 11 | 3 41 30 | 24°20'10 | 10♏38 | 17° 2 | 11°12 | 18°11 | 1°47 | 27° 3 | 29°50 | 25°35 | 4°40 | 3°51 | 3°25 | 15° 2 | 9°26 | S 11 | |
| M12 | 3 45 27 | 25°21'05 | 24°48 | 18°36 | 12°22 | 18°44 | 1°57 | 27° 8 | 29°53 | 25°33 | 4°40 | 3°40 | 3°21 | 15° 9 | 9°34 | M12 | |
| T 13 | 3 49 23 | 26°22'01 | 9♁ 4 | 20°10 | 13°32 | 19°18 | 2° 7 | 27°13 | 29°56 | 25°31 | 4°D40 | 3°31 | 3°18 | 15°16 | 9°41 | T 13 | |
| W14 | 3 53 20 | 27°22'58 | 23°22 | 21°45 | 14°43 | 19°51 | 2°16 | 27°18 | 29°59 | 25°29 | 4°40 | 3°25 | 3°15 | 15°22 | 9°48 | W14 | |
| T 15 | 3 57 16 | 28°23'55 | 7♁36 | 23°19 | 15°53 | 20°24 | 2°26 | 27°23 | 0♁ 2 | 25°28 | 4°40 | 3°21 | 3°12 | 15°29 | 9°55 | T 15 | |
| F 16 | 4 1 13 | 29°24'54 | 21°45 | 24°53 | 17° 4 | 20°57 | 2°36 | 27°27 | 0° 6 | 25°26 | 4°40 | 3°20 | 3° 9 | 15°36 | 10° 1 | F 16 | |
| S 17 | 4 5 10 | 0♁25'52 | 5♏48 | 26°27 | 18°14 | 21°31 | 2°46 | 27°32 | 0° 9 | 25°24 | 4°40 | 3°20 | 3° 5 | 15°42 | 10° 8 | S 17 | |
| S 18 | 4 9 6 | 1°26'52 | 19°45 | 28° 1 | 19°25 | 22° 4 | 2°55 | 27°37 | 0°12 | 25°23 | 4°41 | 3°20 | 3° 2 | 15°49 | 10°15 | S 18 | |
| M19 | 4 13 3 | 2°27'52 | 3♏34 | 29°36 | 20°36 | 22°36 | 3° 4 | 27°41 | 0°15 | 25°21 | 4°41 | 3°18 | 2°59 | 15°56 | 10°22 | M19 | |
| T 20 | 4 16 59 | 3°28'53 | 17°16 | 1♏10 | 21°47 | 23° 9 | 3°14 | 27°45 | 0°19 | 25°19 | 4°41 | 3°13 | 2°56 | 16° 2 | 10°28 | T 20 | |
| W21 | 4 20 56 | 4°29'54 | 0♁50 | 2°44 | 22°58 | 23°42 | 3°23 | 27°50 | 0°22 | 25°18 | 4°41 | 3° 5 | 2°53 | 16° 9 | 10°35 | W21 | |
| T 22 | 4 24 52 | 5°30'57 | 14°14 | 4°18 | 24°10 | 24°15 | 3°32 | 27°54 | 0°25 | 25°16 | 4°41 | 2°54 | 2°50 | 16°16 | 10°41 | T 22 | |
| F 23 | 4 28 49 | 6°31'59 | 27°26 | 5°53 | 25°21 | 24°47 | 3°41 | 27°58 | 0°29 | 25°14 | 4°41 | 2°41 | 2°46 | 16°22 | 10°47 | F 23 | |
| S 24 | 4 32 45 | 7°33'03 | 10♐24 | 7°27 | 26°32 | 25°19 | 3°49 | 28° 2 | 0°32 | 25°13 | 4°42 | 2°27 | 2°43 | 16°29 | 10°54 | S 24 | |
| S 25 | 4 36 42 | 8°34'07 | 23° 8 | 9° 2 | 27°44 | 25°52 | 3°58 | 28° 6 | 0°35 | 25°11 | 4°42 | 2°13 | 2°40 | 16°36 | 11° 0 | S 25 | |
| M26 | 4 40 39 | 9°35'13 | 5♁37 | 10°36 | 28°56 | 26°24 | 4° 7 | 28°10 | 0°39 | 25° 9 | 4°42 | 2° 1 | 2°37 | 16°42 | 11° 6 | M26 | |
| T 27 | 4 44 35 | 10°36'19 | 17°51 | 12°11 | 0♐ 8 | 26°56 | 4°15 | 28°14 | 0°42 | 25° 8 | 4°43 | 1°51 | 2°34 | 16°49 | 11°12 | T 27 | |
| W28 | 4 48 32 | 11°37'25 | 29°53 | 13°46 | 1°20 | 27°28 | 4°23 | 28°17 | 0°45 | 25° 6 | 4°43 | 1°45 | 2°31 | 16°55 | 11°18 | W28 | |
| T 29 | 4 52 28 | 12°38'33 | 11♐46 | 15°21 | 2°32 | 28° 0 | 4°32 | 28°21 | 0°49 | 25° 4 | 4°43 | 1°41 | 2°27 | 17° 2 | 11°24 | T 29 | |
| F 30 | 4 56 25 | 13♏39'41 | 23♐33 | 16♏56 | 3♐44 | 28♏32 | 4♁40 | 28♏25 | 0♁52 | 25♏ 3 | 4♏44 | 1♏39 | 2♏24 | 17♏ 9 | 11♏30 | F 30 | |

Delta T = 19m33s Julian Calendar 1 Nov. 1067 == Greg. Calendar 7 Nov. 1067

DECEMBER 1067 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | Day |
|------|---------|----------|-------|-------|-------|-------|------|-------|------|--------|------|--------|------|-------|-------|------|-----|
| S 1 | 5 0 21 | 14♏40'50 | 5♏21 | 18♏31 | 4♐56 | 29♏ 3 | 4♁48 | 28♏28 | 0♁56 | 25°R 1 | 4♏44 | 1°D39 | 2♏21 | 17♏15 | 11♏35 | S 1 | |
| S 2 | 5 4 18 | 15°41'59 | 17°13 | 20° 7 | 6° 8 | 29°35 | 4°56 | 28°31 | 0°59 | 25♏ 0 | 4°45 | 1°R39 | 2°18 | 17°22 | 11°41 | S 2 | |
| M 3 | 5 8 15 | 16°43'10 | 29°17 | 21°43 | 7°20 | 0♁ 6 | 5° 3 | 28°35 | 1° 3 | 24°58 | 4°45 | 1♏38 | 2°15 | 17°29 | 11°46 | M 3 | |
| T 4 | 5 12 11 | 17°44'21 | 11♐37 | 23°19 | 8°33 | 0°38 | 5°11 | 28°38 | 1° 6 | 24°57 | 4°46 | 1°36 | 2°11 | 17°35 | 11°52 | T 4 | |
| W 5 | 5 16 8 | 18°45'32 | 24°19 | 24°55 | 9°45 | 1° 9 | 5°18 | 28°41 | 1°10 | 24°55 | 4°46 | 1°31 | 2° 8 | 17°42 | 11°57 | W 5 | |
| T 6 | 5 20 4 | 19°46'44 | 7♐25 | 26°31 | 10°58 | 1°40 | 5°25 | 28°44 | 1°13 | 24°54 | 4°47 | 1°23 | 2° 5 | 17°49 | 12° 2 | T 6 | |
| F 7 | 5 24 1 | 20°47'57 | 20°57 | 28° 8 | 12°11 | 2°11 | 5°33 | 28°47 | 1°17 | 24°52 | 4°47 | 1°13 | 2° 2 | 17°55 | 12° 8 | F 7 | |
| S 8 | 5 27 57 | 21°49'10 | 4♏55 | 29°45 | 13°23 | 2°41 | 5°40 | 28°49 | 1°20 | 24°51 | 4°48 | 1° 2 | 1°59 | 18° 2 | 12°13 | S 8 | |
| S 9 | 5 31 54 | 22°50'24 | 19°15 | 1♁21 | 14°36 | 3°12 | 5°46 | 28°52 | 1°24 | 24°49 | 4°49 | 0°50 | 1°56 | 18° 9 | 12°18 | S 9 | |
| M10 | 5 35 50 | 23°51'37 | 3♁50 | 2°59 | 15°49 | 3°42 | 5°53 | 28°55 | 1°28 | 24°48 | 4°49 | 0°40 | 1°52 | 18°15 | 12°22 | M10 | |
| T 11 | 5 39 47 | 24°52'51 | 18°34 | 4°36 | 17° 2 | 4°13 | 6° 0 | 28°57 | 1°31 | 24°46 | 4°50 | 0°32 | 1°49 | 18°22 | 12°27 | T 11 | |
| W12 | 5 43 44 | 25°54'05 | 3♁18 | 6°13 | 18°15 | 4°43 | 6° 6 | 28°59 | 1°35 | 24°45 | 4°51 | 0°26 | 1°46 | 18°29 | 12°32 | W12 | |
| T 13 | 5 47 40 | 26°55'18 | 17°55 | 7°50 | 19°28 | 5°13 | 6°12 | 29° 2 | 1°38 | 24°43 | 4°51 | 0°23 | 1°43 | 18°35 | 12°37 | T 13 | |
| F 14 | 5 51 37 | 27°56'31 | 2♏21 | 9°28 | 20°41 | 5°43 | 6°18 | 29° 4 | 1°42 | 24°42 | 4°52 | 0°D23 | 1°40 | 18°42 | 12°41 | F 14 | |
| S 15 | 5 55 33 | 28°57'44 | 16°33 | 11° 5 | 21°54 | 6°13 | 6°24 | 29° 6 | 1°45 | 24°41 | 4°53 | 0°23 | 1°37 | 18°49 | 12°45 | S 15 | |
| S 16 | 5 59 30 | 29°58'56 | 0♏30 | 12°42 | 23° 7 | 6°42 | 6°30 | 29° 8 | 1°49 | 24°39 | 4°54 | 0°R24 | 1°33 | 18°55 | 12°50 | S 16 | |
| M17 | 6 3 26 | 1♁ 0'08 | 14°11 | 14°18 | 24°20 | 7°12 | 6°36 | 29°10 | 1°53 | 24°38 | 4°54 | 0°23 | 1°30 | 19° 2 | 12°54 | M17 | |
| T 18 | 6 7 23 | 2° 1'19 | 27°38 | 15°55 | 25°34 | 7°41 | 6°41 | 29°11 | 1°56 | 24°37 | 4°55 | 0°20 | 1°27 | 19° 8 | 12°58 | T 18 | |
| W19 | 6 11 19 | 3° 2'30 | 10♁52 | 17°30 | 26°47 | 8°10 | 6°47 | 29°13 | 2° 0 | 24°36 | 4°56 | 0°14 | 1°24 | 19°15 | 13° 2 | W19 | |
| T 20 | 6 15 16 | 4° 3'41 | 23°53 | 19° 5 | 28° 0 | 8°39 | 6°52 | 29°15 | 2° 3 | 24°34 | 4°57 | 0° 6 | 1°21 | 19°22 | 13° 6 | T 20 | |
| F 21 | 6 19 13 | 5° 4'51 | 6♐43 | 20°39 | 29°14 | 9° 8 | 6°57 | 29°16 | 2° 7 | 24°33 | 4°58 | 29♏57 | 1°17 | 19°28 | 13°10 | F 21 | |
| S 22 | 6 23 9 | 6° 6'01 | 19°21 | 22°12 | 0♏27 | 9°36 | 7° 2 | 29°17 | 2°10 | 24°32 | 4°59 | 29°46 | 1°14 | 19°35 | 13°13 | S 22 | |
| S 23 | 6 27 6 | 7° 7'10 | 1♁47 | 23°43 | 1°40 | 10° 5 | 7° 6 | 29°18 | 2°14 | 24°31 | 5° 0 | 29°36 | 1°11 | 19°42 | 13°17 | S 23 | |
| M24 | 6 31 2 | 8° 8'19 | 14° 3 | 25°12 | 2°54 | 10°33 | 7°11 | 29°20 | 2°18 | 24°30 | 5° 1 | 29°27 | 1° 8 | 19°48 | 13°20 | M24 | |
| T 25 | 6 34 59 | 9° 9'27 | 26° 8 | 26°38 | 4° 7 | 11° 1 | 7°15 | 29°21 | 2°21 | 24°28 | 5° 2 | 29°19 | 1° 5 | 19°55 | 13°24 | T 25 | |
| W26 | 6 38 55 | 10°10'35 | 8♐ 4 | 28° 2 | 5°21 | 11°29 | 7°19 | 29°21 | 2°25 | 24°27 | 5° 3 | 29°14 | 1° 2 | 20° 2 | 13°27 | W26 | |
| T 27 | 6 42 52 | 11°11'43 | 19°54 | 29°23 | 6°35 | 11°56 | 7°23 | 29°22 | 2°28 | 24°26 | 5° 4 | 29°12 | 0°58 | 20° 8 | 13°30 | T 27 | |
| F 28 | 6 46 48 | 12°12'50 | 1♏41 | 0♁39 | 7°48 | 12°24 | 7°27 | 29°23 | 2°32 | 24°25 | 5° 5 | 29°D11 | 0°55 | 20°15 | 13°33 | F 28 | |
| S 29 | 6 50 45 | 13°13'57 | 13°28 | 1°51 | 9° 2 | 12°51 | 7°31 | 29°23 | 2°35 | 24°24 | 5° 6 | 29°12 | 0°52 | 20°22 | 13°36 | S 29 | |
| S 30 | 6 54 42 | 14°15'03 | 25°20 | 2°58 | 10°16 | 13°18 | 7°34 | 29°24 | 2°39 | 24°23 | 5° 7 | 29°14 | 0°49 | 20°28 | 13°39 | S 30 | |
| M31 | 6 58 38 | 15♁16'09 | 7♁22 | 3♁59 | 11♏29 | 13♁45 | 7♁37 | 29♏24 | 2♁42 | 24♏22 | 5♏ 8 | 29♏15 | 0♏46 | 20♏35 | 13♁41 | M31 | |

Delta T = 19m33s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1068
geocentric

JANUARY 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|--------|--------|-------|-------|--------|------|--------|------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 7 2 35 | 16♁17'15 | 19♂39 | 4♁52 | 12♁743 | 14♂11 | 7♂41 | 29♁25 | 2♁46 | 24°R21 | 5♁ 9 | 29°R15 | 0♁43 | 20♂42 | 13♂44 | T 1 | | | | | | | | |
| W 2 | 7 6 31 | 17°18'20 | 2♁16 | 5°38 | 13°57 | 14°38 | 7°44 | 29°25 | 2°49 | 24♁20 | 5°10 | 29♂14 | 0°39 | 20°48 | 13°46 | W 2 | | | | | | | | |
| T 3 | 7 10 28 | 18°19'25 | 15°18 | 6°15 | 15°11 | 15° 4 | 7°46 | 29°R25 | 2°53 | 24°20 | 5°11 | 29°11 | 0°36 | 20°55 | 13°48 | T 3 | | | | | | | | |
| F 4 | 7 14 24 | 19°20'29 | 28°48 | 6°42 | 16°25 | 15°30 | 7°49 | 29°25 | 2°56 | 24°19 | 5°12 | 29° 6 | 0°33 | 21° 1 | 13°51 | F 4 | | | | | | | | |
| S 5 | 7 18 21 | 20°21'32 | 12♁746 | 7° 0 | 17°38 | 15°56 | 7°51 | 29°24 | 3° 0 | 24°18 | 5°13 | 29° 0 | 0°30 | 21° 8 | 13°53 | S 5 | | | | | | | | |
| S 6 | 7 22 17 | 21°22'35 | 27°11 | 7°R 6 | 18°52 | 16°21 | 7°53 | 29°24 | 3° 3 | 24°17 | 5°15 | 28°54 | 0°27 | 21°15 | 13°55 | S 6 | | | | | | | | |
| M 7 | 7 26 14 | 22°23'38 | 11♁57 | 7° 1 | 20° 6 | 16°46 | 7°55 | 29°24 | 3° 7 | 24°16 | 5°16 | 28°48 | 0°23 | 21°21 | 13°57 | M 7 | | | | | | | | |
| T 8 | 7 30 11 | 23°24'39 | 26°58 | 6°45 | 21°20 | 17°11 | 7°57 | 29°23 | 3°10 | 24°16 | 5°17 | 28°44 | 0°20 | 21°28 | 13°58 | T 8 | | | | | | | | |
| W 9 | 7 34 7 | 24°25'39 | 12♁ 4 | 6°17 | 22°34 | 17°36 | 7°59 | 29°23 | 3°14 | 24°15 | 5°18 | 28°41 | 0°17 | 21°35 | 14° 0 | W 9 | | | | | | | | |
| T 10 | 7 38 4 | 25°26'39 | 27° 6 | 5°38 | 23°48 | 18° 0 | 8° 0 | 29°22 | 3°17 | 24°14 | 5°20 | 28°D40 | 0°14 | 21°41 | 14° 1 | T 10 | | | | | | | | |
| F 11 | 7 42 0 | 26°27'36 | 11♁55 | 4°50 | 25° 2 | 18°24 | 8° 2 | 29°21 | 3°20 | 24°14 | 5°21 | 28°41 | 0°11 | 21°48 | 14° 3 | F 11 | | | | | | | | |
| S 12 | 7 45 57 | 27°28'33 | 26°26 | 3°53 | 26°16 | 18°48 | 8° 3 | 29°20 | 3°24 | 24°13 | 5°22 | 28°42 | 0° 8 | 21°55 | 14° 4 | S 12 | | | | | | | | |
| S 13 | 7 49 53 | 28°29'28 | 10♁36 | 2°49 | 27°30 | 19°12 | 8° 4 | 29°19 | 3°27 | 24°13 | 5°23 | 28°43 | 0° 4 | 22° 1 | 14° 5 | S 13 | | | | | | | | |
| M14 | 7 53 50 | 29°30'22 | 24°24 | 1°40 | 28°44 | 19°35 | 8° 4 | 29°18 | 3°30 | 24°12 | 5°25 | 28°R44 | 0° 1 | 22° 8 | 14° 6 | M14 | | | | | | | | |
| T 15 | 7 57 46 | 0♁31'14 | 7♁50 | 0°28 | 29°58 | 19°58 | 8° 5 | 29°17 | 3°34 | 24°12 | 5°26 | 28°44 | 29♂58 | 22°15 | 14° 7 | T 15 | | | | | | | | |
| W16 | 8 1 43 | 1°32'05 | 20°56 | 29♁14 | 1♁12 | 20°20 | 8° 5 | 29°15 | 3°37 | 24°11 | 5°27 | 28°43 | 29°55 | 22°21 | 14° 8 | W16 | | | | | | | | |
| T 17 | 8 5 40 | 2°32'54 | 3♁44 | 28° 2 | 2°26 | 20°43 | 8°R 5 | 29°14 | 3°40 | 24°11 | 5°29 | 28°40 | 29°52 | 22°28 | 14° 9 | T 17 | | | | | | | | |
| F 18 | 8 9 36 | 3°33'42 | 16°18 | 26°53 | 3°40 | 21° 5 | 8° 5 | 29°12 | 3°43 | 24°10 | 5°30 | 28°36 | 29°48 | 22°35 | 14° 9 | F 18 | | | | | | | | |
| S 19 | 8 13 33 | 4°34'28 | 28°39 | 25°48 | 4°54 | 21°27 | 8° 5 | 29°11 | 3°47 | 24°10 | 5°32 | 28°32 | 29°45 | 22°41 | 14°10 | S 19 | | | | | | | | |
| S 20 | 8 17 29 | 5°35'13 | 10♁50 | 24°49 | 6° 8 | 21°48 | 8° 4 | 29° 9 | 3°50 | 24°10 | 5°33 | 28°28 | 29°42 | 22°48 | 14°10 | S 20 | | | | | | | | |
| M21 | 8 21 26 | 6°35'57 | 22°53 | 23°57 | 7°22 | 22° 9 | 8° 4 | 29° 7 | 3°53 | 24° 9 | 5°34 | 28°25 | 29°39 | 22°54 | 14°10 | M21 | | | | | | | | |
| T 22 | 8 25 22 | 7°36'38 | 4♂48 | 23°12 | 8°36 | 22°30 | 8° 3 | 29° 5 | 3°56 | 24° 9 | 5°36 | 28°22 | 29°36 | 23° 1 | 14°R10 | T 22 | | | | | | | | |
| W23 | 8 29 19 | 8°37'19 | 16°39 | 22°36 | 9°51 | 22°50 | 8° 2 | 29° 3 | 3°59 | 24° 9 | 5°37 | 28°20 | 29°33 | 23° 8 | 14°10 | W23 | | | | | | | | |
| T 24 | 8 33 15 | 9°37'58 | 28°27 | 22° 7 | 11° 5 | 23°10 | 8° 1 | 29° 1 | 4° 2 | 24° 9 | 5°39 | 28°D20 | 29°29 | 23°14 | 14°10 | T 24 | | | | | | | | |
| F 25 | 8 37 12 | 10°38'35 | 10♁14 | 21°46 | 12°19 | 23°30 | 7°59 | 28°59 | 4° 5 | 24° 9 | 5°40 | 28°20 | 29°26 | 23°21 | 14°10 | F 25 | | | | | | | | |
| S 26 | 8 41 9 | 11°39'12 | 22° 4 | 21°34 | 13°33 | 23°49 | 7°58 | 28°56 | 4° 8 | 24° 9 | 5°42 | 28°21 | 29°23 | 23°28 | 14° 9 | S 26 | | | | | | | | |
| S 27 | 8 45 5 | 12°39'46 | 3♁59 | 21°D28 | 14°47 | 24° 8 | 7°56 | 28°54 | 4°11 | 24° 8 | 5°43 | 28°23 | 29°20 | 23°34 | 14° 9 | S 27 | | | | | | | | |
| M28 | 8 49 2 | 13°40'20 | 16° 3 | 21°30 | 16° 1 | 24°26 | 7°54 | 28°52 | 4°14 | 24° 8 | 5°44 | 28°24 | 29°17 | 23°41 | 14° 8 | M28 | | | | | | | | |
| T 29 | 8 52 58 | 14°40'52 | 28°20 | 21°39 | 17°15 | 24°44 | 7°52 | 28°49 | 4°17 | 24°D 8 | 5°46 | 28°25 | 29°14 | 23°48 | 14° 7 | T 29 | | | | | | | | |
| W30 | 8 56 55 | 15°41'23 | 10♁54 | 21°54 | 18°30 | 25° 2 | 7°50 | 28°46 | 4°20 | 24° 8 | 5°47 | 28°R26 | 29°10 | 23°54 | 14° 6 | W30 | | | | | | | | |
| T 31 | 9 0 51 | 16°41'52 | 23♁50 | 22♁15 | 19♁44 | 25♁19 | 7♁47 | 28♁43 | 4♁23 | 24♁ 8 | 5♁49 | 28♁26 | 29♁ 7 | 24♁ 1 | 14♁ 6 | T 31 | | | | | | | | |

Delta T = 19m33s Julian Calendar 1 Jan. 1068 == Greg. Calendar 7 Jan. 1068

FEBRUARY 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|------|-------|------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 9 4 48 | 17°42'21 | 7♁11 | 22♁41 | 20♁58 | 25♁36 | 7°R44 | 28°R41 | 4♁26 | 24♁ 9 | 5♁50 | 28°R25 | 29♁ 4 | 24♁ 8 | 14°R 4 | F 1 | | | | | | | | |
| S 2 | 9 8 44 | 18°42'48 | 20°59 | 23°12 | 22°12 | 25°52 | 7♁42 | 28♁38 | 4°29 | 24° 9 | 5°52 | 28♁24 | 29° 1 | 24°14 | 14♁ 3 | S 2 | | | | | | | | |
| S 3 | 9 12 41 | 19°43'13 | 5♁14 | 23°48 | 23°26 | 26° 8 | 7°38 | 28°35 | 4°32 | 24° 9 | 5°53 | 28°23 | 28°58 | 24°21 | 14° 2 | S 3 | | | | | | | | |
| M 4 | 9 16 38 | 20°43'37 | 19°54 | 24°29 | 24°40 | 26°24 | 7°35 | 28°31 | 4°34 | 24° 9 | 5°55 | 28°22 | 28°54 | 24°28 | 14° 1 | M 4 | | | | | | | | |
| T 5 | 9 20 34 | 21°44'00 | 4♁54 | 25°13 | 25°55 | 26°39 | 7°32 | 28°28 | 4°37 | 24° 9 | 5°57 | 28°22 | 28°51 | 24°34 | 13°59 | T 5 | | | | | | | | |
| W 6 | 9 24 31 | 22°44'20 | 20° 5 | 26° 1 | 27° 9 | 26°53 | 7°28 | 28°25 | 4°40 | 24°10 | 5°58 | 28°21 | 28°48 | 24°41 | 13°57 | W 6 | | | | | | | | |
| T 7 | 9 28 27 | 23°44'39 | 5♁18 | 26°52 | 28°23 | 27° 7 | 7°24 | 28°22 | 4°42 | 24°10 | 6° 0 | 28°D21 | 28°45 | 24°47 | 13°56 | T 7 | | | | | | | | |
| F 8 | 9 32 24 | 24°44'56 | 20°24 | 27°47 | 29°37 | 27°21 | 7°21 | 28°18 | 4°45 | 24°10 | 6° 1 | 28°21 | 28°42 | 24°54 | 13°54 | F 8 | | | | | | | | |
| S 9 | 9 36 20 | 25°45'11 | 5♁13 | 28°44 | 0♁51 | 27°34 | 7°16 | 28°15 | 4°48 | 24°11 | 6° 3 | 28°22 | 28°39 | 25° 1 | 13°52 | S 9 | | | | | | | | |
| S 10 | 9 40 17 | 26°45'24 | 19°41 | 29°45 | 2° 6 | 27°46 | 7°12 | 28°11 | 4°50 | 24°11 | 6° 4 | 28°22 | 28°35 | 25° 7 | 13°50 | S 10 | | | | | | | | |
| M11 | 9 44 13 | 27°45'35 | 3♁42 | 0♁48 | 3°20 | 27°58 | 7° 8 | 28° 8 | 4°53 | 24°11 | 6° 6 | 28°22 | 28°32 | 25°14 | 13°47 | M11 | | | | | | | | |
| T 12 | 9 48 10 | 28°45'44 | 17°17 | 1°53 | 4°34 | 28° 9 | 7° 3 | 28° 4 | 4°55 | 24°12 | 6° 7 | 28°R22 | 28°29 | 25°21 | 13°45 | T 12 | | | | | | | | |
| W13 | 9 52 7 | 29°45'50 | 0♁26 | 3° 0 | 5°48 | 28°20 | 6°58 | 28° 0 | 4°58 | 24°12 | 6° 9 | 28°D22 | 28°26 | 25°27 | 13°43 | W13 | | | | | | | | |
| T 14 | 9 56 3 | 0♁45'55 | 13°13 | 4°10 | 7° 2 | 28°30 | 6°53 | 27°56 | 5° 0 | 24°13 | 6°11 | 28°22 | 28°23 | 25°34 | 13°40 | T 14 | | | | | | | | |
| F 15 | 10 0 0 | 1°45'57 | 25°41 | 5°21 | 8°17 | 28°40 | 6°48 | 27°52 | 5° 2 | 24°13 | 6°12 | 28°22 | 28°20 | 25°41 | 13°38 | F 15 | | | | | | | | |
| S 16 | 10 3 56 | 2°45'57 | 7♁53 | 6°35 | 9°31 | 28°49 | 6°43 | 27°48 | 5° 5 | 24°14 | 6°14 | 28°23 | 28°16 | 25°47 | 13°35 | S 16 | | | | | | | | |
| S 17 | 10 7 53 | 3°45'55 | 19°55 | 7°50 | 10°45 | 28°58 | 6°38 | 27°44 | 5° 7 | 24°15 | 6°15 | 28°23 | 28°13 | 25°54 | 13°32 | S 17 | | | | | | | | |
| M18 | 10 11 49 | 4°45'51 | 1♂48 | 9° 7 | 11°59 | 29° 5 | 6°32 | 27°40 | 5° 9 | 24°15 | 6°17 | 28°24 | 28°10 | 26° 1 | 13°30 | M18 | | | | | | | | |
| T 19 | 10 15 46 | 5°45'44 | 13°37 | 10°26 | 13°13 | 29°13 | 6°27 | 27°36 | 5°11 | 24°16 | 6°18 | 28°25 | 28° 7 | 26° 7 | 13°27 | T 19 | | | | | | | | |
| W20 | 10 19 42 | 6°45'36 | 25°24 | 11°46 | 14°27 | 29°19 | 6°21 | 27°32 | 5°13 | 24°17 | 6°20 | 28°R25 | 28° 4 | 26°14 | 13°24 | W20 | | | | | | | | |
| T 21 | 10 23 39 | 7°45'25 | 7♁13 | 13° 8 | 15°42 | 29°25 | 6°15 | 27°28 | 5°16 | 24°18 | 6°22 | 28°25 | 28° 0 | 26°20 | 13°20 | T 21 | | | | | | | | |
| F 22 | 10 27 36 | 8°45'13 | 19° 4 | 14°32 | 16°56 | 29°31 | 6° 9 | 27°24 | 5°18 | 24°18 | 6°23 | 28°24 | 27°57 | 26°27 | 13°17 | F 22 | | | | | | | | |
| S 23 | 10 31 32 | 9°44'58 | 1♁ 0 | 15°56 | 18°10 | 29°35 | 6° 3 | 27°19 | 5°20 | 24°19 | 6°25 | 28°23 | 27°54 | 26°34 | 13°14 | S 23 | | | | | | | | |
| S 24 | 10 35 29 | 10°44'41 | 13° 3 | 17°23 | 19°24 | 29°39 | 5°57 | 27°15 | 5°22 | 24°20 | 6°26 | 28°21 | 27°51 | 26°40 | 13°11 | S 24 | | | | | | | | |
| M25 | 10 39 25 | 11°44'23 | 25°16 | 18°50 | 20°38 | 29°42 | 5°50 | 27°11 | 5°24 | 24°21 | 6°28 | 28°19 | 27°48 | 26°47 | 13° 7 | M25 | | | | | | | | |
| T 26 | 10 43 22 | 12°44'03 | 7♁40 | 20°19 | 21°52 | 29°45 | 5°44 | 27° 6 | 5°25 | 24°22 | 6°29 | 28°17 | 27°45 | 26°54 | 13° 4 | T 26 | | | | | | | | |
| W27 | 10 47 18 | 13°43'41 | 20°19 | 21°49 | 23° 6 | 29°47 | 5°37 | 27° 2 | 5°27 | 24°23 | 6°31 | 28°16 | 27°41 | 27° 0 | 13° 0 | W27 | | | | | | | | |
| T 28 | 10 51 15 | 14°43'17 | 3♁15 | 23°21 | 24°21 | 29°48 | 5°30 | 26°57 | 5°29 | 24°24 | 6°33 | 28°14 | 27°38 | 27° 7 | 12°56 | T 28 | | | | | | | | |
| F 29 | 10 55 11 | 15°42'51 | 16♁30 | 24♁54 | 25♁35 | 29°R49 | 5♁24 | 26♁53 | 5♁31 | 24♁25 | 6♁34 | 28°D14 | 27♁35 | 27♁14 | 12♁53 | F 29 | | | | | | | | |

Delta T = 19m32s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1068
geocentric

MARCH 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|------|-------|------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 10 59 8 | 16♋42'24 | 0♉ 8 | 26♌28 | 26♌49 | 29°R48 | 5°R17 | 26°R48 | 5♉33 | 24♉26 | 6♋36 | 28♌14 | 27♌32 | 27♌20 | 12°R49 | S 1 | | | | | | | | |
| S 2 | 11 3 4 | 17°41'55 | 14° 9 | 28° 4 | 28° 3 | 29♌47 | 5♌10 | 26♎44 | 5°34 | 24°27 | 6°37 | 28°16 | 27°29 | 27°27 | 12♌45 | S 2 | | | | | | | | |
| M 3 | 11 7 1 | 18°41'24 | 28°32 | 29°41 | 29°17 | 29°45 | 5° 3 | 26°39 | 5°36 | 24°28 | 6°39 | 28°17 | 27°26 | 27°34 | 12°41 | M 3 | | | | | | | | |
| T 4 | 11 10 58 | 19°40'51 | 13♌15 | 1♋19 | 0♋31 | 29°43 | 4°56 | 26°35 | 5°37 | 24°29 | 6°40 | 28°18 | 27°22 | 27°40 | 12°37 | T 4 | | | | | | | | |
| W 5 | 11 14 54 | 20°40'17 | 28°14 | 2°59 | 1°45 | 29°40 | 4°48 | 26°30 | 5°39 | 24°31 | 6°42 | 28°R19 | 27°19 | 27°47 | 12°33 | W 5 | | | | | | | | |
| T 6 | 11 18 51 | 21°39'40 | 13♋20 | 4°40 | 3° 0 | 29°36 | 4°41 | 26°25 | 5°40 | 24°32 | 6°43 | 28°18 | 27°16 | 27°53 | 12°29 | T 6 | | | | | | | | |
| F 7 | 11 22 47 | 22°39'01 | 28°25 | 6°22 | 4°14 | 29°31 | 4°34 | 26°21 | 5°42 | 24°33 | 6°45 | 28°16 | 27°13 | 28° 0 | 12°25 | F 7 | | | | | | | | |
| S 8 | 11 26 44 | 23°38'21 | 13♎20 | 8° 5 | 5°28 | 29°25 | 4°26 | 26°16 | 5°43 | 24°34 | 6°46 | 28°13 | 27°10 | 28° 7 | 12°20 | S 8 | | | | | | | | |
| S 9 | 11 30 40 | 24°37'37 | 27°56 | 9°50 | 6°42 | 29°19 | 4°19 | 26°11 | 5°45 | 24°36 | 6°48 | 28° 9 | 27° 6 | 28°13 | 12°16 | S 9 | | | | | | | | |
| M10 | 11 34 37 | 25°36'52 | 12♉ 8 | 11°37 | 7°56 | 29°11 | 4°11 | 26° 7 | 5°46 | 24°37 | 6°49 | 28° 6 | 27° 3 | 28°20 | 12°12 | M10 | | | | | | | | |
| T 11 | 11 38 33 | 26°36'05 | 25°53 | 13°24 | 9°10 | 29° 3 | 4° 4 | 26° 2 | 5°47 | 24°38 | 6°51 | 28° 2 | 27° 0 | 28°27 | 12° 7 | T 11 | | | | | | | | |
| W12 | 11 42 30 | 27°35'15 | 9♈10 | 15°13 | 10°24 | 28°55 | 3°56 | 25°57 | 5°48 | 24°40 | 6°52 | 27°59 | 26°57 | 28°33 | 12° 3 | W12 | | | | | | | | |
| T 13 | 11 46 27 | 28°34'22 | 22° 1 | 17° 4 | 11°38 | 28°45 | 3°48 | 25°53 | 5°49 | 24°41 | 6°54 | 27°58 | 26°54 | 28°40 | 11°59 | T 13 | | | | | | | | |
| F 14 | 11 50 23 | 29°33'28 | 4♉30 | 18°56 | 12°52 | 28°35 | 3°41 | 25°48 | 5°51 | 24°42 | 6°55 | 27°D58 | 26°51 | 28°47 | 11°54 | F 14 | | | | | | | | |
| S 15 | 11 54 20 | 0♎32'31 | 16°41 | 20°49 | 14° 6 | 28°24 | 3°33 | 25°43 | 5°52 | 24°44 | 6°57 | 27°59 | 26°47 | 28°53 | 11°50 | S 15 | | | | | | | | |
| S 16 | 11 58 16 | 1°31'32 | 28°39 | 22°43 | 15°20 | 28°12 | 3°25 | 25°39 | 5°53 | 24°45 | 6°58 | 28° 1 | 26°44 | 29° 0 | 11°45 | S 16 | | | | | | | | |
| M17 | 12 2 13 | 2°30'30 | 10♌29 | 24°40 | 16°34 | 28° 0 | 3°18 | 25°34 | 5°53 | 24°47 | 7° 0 | 28° 2 | 26°41 | 29° 7 | 11°41 | M17 | | | | | | | | |
| T 18 | 12 6 9 | 3°29'26 | 22°16 | 26°37 | 17°48 | 27°47 | 3°10 | 25°30 | 5°54 | 24°48 | 7° 1 | 28°R 3 | 26°38 | 29°13 | 11°36 | T 18 | | | | | | | | |
| W19 | 12 10 6 | 4°28'20 | 4♎ 3 | 28°36 | 19° 2 | 27°33 | 3° 2 | 25°25 | 5°55 | 24°50 | 7° 3 | 28° 3 | 26°35 | 29°20 | 11°31 | W19 | | | | | | | | |
| T 20 | 12 14 2 | 5°27'11 | 15°54 | 0♎36 | 20°16 | 27°18 | 2°55 | 25°20 | 5°56 | 24°51 | 7° 4 | 28° 2 | 26°31 | 29°27 | 11°27 | T 20 | | | | | | | | |
| F 21 | 12 17 59 | 6°26'01 | 27°52 | 2°37 | 21°30 | 27° 3 | 2°47 | 25°16 | 5°57 | 24°53 | 7° 6 | 27°58 | 26°28 | 29°33 | 11°22 | F 21 | | | | | | | | |
| S 22 | 12 21 56 | 7°24'48 | 9♌58 | 4°40 | 22°44 | 26°47 | 2°39 | 25°11 | 5°57 | 24°55 | 7° 7 | 27°53 | 26°25 | 29°40 | 11°17 | S 22 | | | | | | | | |
| S 23 | 12 25 52 | 8°23'33 | 22°14 | 6°43 | 23°58 | 26°31 | 2°32 | 25° 7 | 5°58 | 24°56 | 7° 8 | 27°46 | 26°22 | 29°46 | 11°13 | S 23 | | | | | | | | |
| M24 | 12 29 49 | 9°22'17 | 4♎42 | 8°48 | 25°12 | 26°13 | 2°24 | 25° 2 | 5°59 | 24°58 | 7°10 | 27°39 | 26°19 | 29°53 | 11° 8 | M24 | | | | | | | | |
| T 25 | 12 33 45 | 10°20'58 | 17°21 | 10°53 | 26°26 | 25°56 | 2°16 | 24°58 | 5°59 | 25° 0 | 7°11 | 27°32 | 26°16 | 29°59 | 11° 3 | T 25 | | | | | | | | |
| W26 | 12 37 42 | 11°19'38 | 0♌13 | 12°59 | 27°40 | 25°37 | 2° 9 | 24°54 | 6° 0 | 25° 1 | 7°12 | 27°25 | 26°12 | 0♎ 6 | 10°59 | W26 | | | | | | | | |
| T 27 | 12 41 38 | 12°18'16 | 13°19 | 15° 6 | 28°54 | 25°19 | 2° 1 | 24°49 | 6° 0 | 25° 3 | 7°14 | 27°20 | 26° 9 | 0°13 | 10°54 | T 27 | | | | | | | | |
| F 28 | 12 45 35 | 13°16'52 | 26°39 | 17°13 | 0♎ 8 | 24°59 | 1°54 | 24°45 | 6° 0 | 25° 5 | 7°15 | 27°16 | 26° 6 | 0°20 | 10°49 | F 28 | | | | | | | | |
| S 29 | 12 49 31 | 14°15'27 | 10♉14 | 19°20 | 1°22 | 24°40 | 1°46 | 24°41 | 6° 1 | 25° 7 | 7°16 | 27°D15 | 26° 3 | 0°26 | 10°45 | S 29 | | | | | | | | |
| S 30 | 12 53 28 | 15°14'00 | 24° 6 | 21°27 | 2°36 | 24°19 | 1°39 | 24°37 | 6° 1 | 25° 8 | 7°18 | 27°15 | 26° 0 | 0°33 | 10°40 | S 30 | | | | | | | | |
| M31 | 12 57 24 | 16°12'31 | 8♌14 | 23°33 | 3°36 | 23°59 | 1°32 | 24°32 | 6♉ 1 | 25♉10 | 7♋19 | 27♌16 | 25♌57 | 0♎40 | 10♌35 | M31 | | | | | | | | |

Delta T = 19m32s Julian Calendar 1 March 1068 == Greg. Calendar 7 March 1068

APRIL 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|-------|-------|------|--------|-------|------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 13 1 21 | 17°11'01 | 22♌38 | 25♎39 | 5♎ 4 | 23°R38 | 1°R25 | 24°R28 | 6♉ 1 | 25♉12 | 7♋20 | 27°R17 | 25♌53 | 0♎46 | 10°R31 | T 1 | | | | | | | | |
| W 2 | 13 5 18 | 18° 9'28 | 7♋15 | 27°43 | 6°18 | 23♌16 | 1♌11 | 24♎24 | 6° 2 | 25°14 | 7°22 | 27♌17 | 25°50 | 0°53 | 10♌26 | W 2 | | | | | | | | |
| T 3 | 13 9 14 | 19° 7'54 | 22° 0 | 29°46 | 7°32 | 22°55 | 1°10 | 24°20 | 6° 2 | 25°16 | 7°23 | 27°14 | 25°47 | 1° 0 | 10°22 | T 3 | | | | | | | | |
| F 4 | 13 13 11 | 20° 6'19 | 6♎48 | 1♋48 | 8°46 | 22°33 | 1° 3 | 24°16 | 6°R 2 | 25°18 | 7°24 | 27°10 | 25°44 | 1° 6 | 10°17 | F 4 | | | | | | | | |
| S 5 | 13 17 7 | 21° 4'41 | 21°31 | 3°47 | 10° 0 | 22°11 | 0°56 | 24°12 | 6° 2 | 25°20 | 7°25 | 27° 3 | 25°41 | 1°13 | 10°12 | S 5 | | | | | | | | |
| S 6 | 13 21 4 | 22° 3'02 | 6♉ 1 | 5°44 | 11°14 | 21°49 | 0°50 | 24° 8 | 6° 2 | 25°22 | 7°26 | 26°55 | 25°37 | 1°19 | 10° 8 | S 6 | | | | | | | | |
| M 7 | 13 25 0 | 23° 1'21 | 20°12 | 7°38 | 12°28 | 21°26 | 0°43 | 24° 5 | 6° 1 | 25°24 | 7°28 | 26°46 | 25°34 | 1°26 | 10° 3 | M 7 | | | | | | | | |
| T 8 | 13 28 57 | 23°59'38 | 3♈58 | 9°29 | 13°41 | 21° 4 | 0°36 | 24° 1 | 6° 1 | 25°26 | 7°29 | 26°37 | 25°31 | 1°33 | 9°59 | T 8 | | | | | | | | |
| W 9 | 13 32 53 | 24°57'53 | 17°18 | 11°17 | 14°55 | 20°42 | 0°30 | 23°57 | 6° 1 | 25°28 | 7°30 | 26°30 | 25°28 | 1°39 | 9°55 | W 9 | | | | | | | | |
| T 10 | 13 36 50 | 25°56'06 | 0♉13 | 13° 2 | 16° 9 | 20°19 | 0°23 | 23°54 | 6° 1 | 25°30 | 7°31 | 26°24 | 25°25 | 1°46 | 9°50 | T 10 | | | | | | | | |
| F 11 | 13 40 47 | 26°54'16 | 12°45 | 14°43 | 17°23 | 19°57 | 0°17 | 23°50 | 6° 0 | 25°32 | 7°32 | 26°21 | 25°22 | 1°53 | 9°46 | F 11 | | | | | | | | |
| S 12 | 13 44 43 | 27°52'25 | 24°57 | 16°21 | 18°37 | 19°35 | 0°11 | 23°47 | 6° 0 | 25°34 | 7°33 | 26°D20 | 25°18 | 1°59 | 9°42 | S 12 | | | | | | | | |
| S 13 | 13 48 40 | 28°50'32 | 6♌56 | 17°55 | 19°51 | 19°13 | 0° 5 | 23°43 | 6° 0 | 25°36 | 7°34 | 26°20 | 25°15 | 2° 6 | 9°37 | S 13 | | | | | | | | |
| M14 | 13 52 36 | 29°48'37 | 18°47 | 19°25 | 21° 5 | 18°51 | 29♎59 | 23°40 | 5°59 | 25°38 | 7°35 | 26°21 | 25°12 | 2°13 | 9°33 | M14 | | | | | | | | |
| T 15 | 13 56 33 | 0♉46'39 | 0♎34 | 20°51 | 22°18 | 18°30 | 29°53 | 23°37 | 5°59 | 25°40 | 7°36 | 26°R21 | 25° 9 | 2°19 | 9°29 | T 15 | | | | | | | | |
| W16 | 14 0 29 | 1°44'40 | 12°23 | 22°13 | 23°32 | 18° 9 | 29°48 | 23°34 | 5°58 | 25°42 | 7°38 | 26°20 | 25° 6 | 2°26 | 9°25 | W16 | | | | | | | | |
| T 17 | 14 4 26 | 2°42'39 | 24°18 | 23°31 | 24°46 | 17°48 | 29°42 | 23°30 | 5°57 | 25°44 | 7°39 | 26°16 | 25° 2 | 2°33 | 9°21 | T 17 | | | | | | | | |
| F 18 | 14 8 22 | 3°40'36 | 6♌23 | 24°45 | 26° 0 | 17°28 | 29°37 | 23°27 | 5°57 | 25°46 | 7°40 | 26°10 | 24°59 | 2°39 | 9°17 | F 18 | | | | | | | | |
| S 19 | 14 12 19 | 4°38'32 | 18°41 | 25°54 | 27°14 | 17° 8 | 29°31 | 23°25 | 5°56 | 25°48 | 7°40 | 26° 2 | 24°56 | 2°46 | 9°13 | S 19 | | | | | | | | |
| S 20 | 14 16 16 | 5°36'25 | 1♎12 | 26°59 | 28°27 | 16°48 | 29°26 | 23°22 | 5°55 | 25°50 | 7°41 | 25°51 | 24°53 | 2°52 | 9° 9 | S 20 | | | | | | | | |
| M21 | 14 20 12 | 6°34'18 | 13°58 | 28° 0 | 29°41 | 16°29 | 29°21 | 23°19 | 5°54 | 25°52 | 7°42 | 25°39 | 24°50 | 2°59 | 9° 5 | M21 | | | | | | | | |
| T 22 | 14 24 9 | 7°32'08 | 26°58 | 28°56 | 0♉55 | 16°11 | 29°17 | 23°16 | 5°54 | 25°54 | 7°43 | 25°27 | 24°47 | 3° 6 | 9° 2 | T 22 | | | | | | | | |
| W23 | 14 28 5 | 8°29'57 | 10♌10 | 29°48 | 2° 9 | 15°53 | 29°12 | 23°14 | 5°53 | 25°57 | 7°44 | 25°17 | 24°43 | 3°12 | 8°58 | W23 | | | | | | | | |
| T 24 | 14 32 2 | 9°27'45 | 23°35 | 0♈35 | 3°22 | 15°36 | 29° 7 | 23°11 | 5°52 | 25°59 | 7°45 | 25° 8 | 24°40 | 3°19 | 8°54 | T 24 | | | | | | | | |
| F 25 | 14 35 58 | 10°25'32 | 7♉10 | 1°17 | 4°36 | 15°19 | 29° 3 | 23° 9 | 5°51 | 26° 1 | 7°46 | 25° 2 | 24°37 | 3°26 | 8°51 | F 25 | | | | | | | | |
| S 26 | 14 39 55 | 11°23'17 | 20°54 | 1°55 | 5°50 | 15° 3 | 28°59 | 23° 6 | 5°50 | 26° 3 | 7°47 | 24°58 | 24°34 | 3°32 | 8°47 | S 26 | | | | | | | | |
| S 27 | 14 43 51 | 12°21'02 | 4♌48 | 2°28 | 7° 4 | 14°47 | 28°55 | 23° 4 | 5°49 | 26° 5 | 7°48 | 24°57 | 24°31 | 3°39 | 8°44 | S 27 | | | | | | | | |
| M28 | 14 47 48 | 13°18'45 | 18°50 | 2°56 | 8°17 | 14°33 | 28°51 | 23° 2 | 5°48 | 26° 8 | 7°48 | 24°57 | 24°28 | 3°46 | 8°41 | M28 | | | | | | | | |
| T 29 | 14 51 45 | 14°16'27 | 3♋ 0 | 3°20 | 9°31 | 14°19 | 28°47 | 23° 0 | 5°46 | 26°10 | 7°49 | 24°57 | 24°24 | 3°52 | 8°38 | T 29 | | | | | | | | |
| W30 | 14 55 41 | 15°14'08 | 17♋18 | 3♈38 | 10♉45 | 14♌ 5 | 28♎44 | 22♎58 | 5♉45 | 26♉12 | 7♋50 | 24♌55 | 24♌21 | 3♎59 | 8♌35 | W30 | | | | | | | | |

Delta T = 19m32s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1068
geocentric

MAY 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♃ | ♄ | Day |
|------|----------|----------|-------|--------|-------|--------|--------|--------|-------|-------|------|--------|-------|------|-------|------|-----|
| T 1 | 14 59 38 | 16♁11'48 | 1♀40 | 3♁52 | 11♁59 | 13°R53 | 28°R40 | 22°R56 | 5°R44 | 26♁14 | 7♁51 | 24°R52 | 24♁18 | 4♁6 | 8°R31 | T 1 | |
| F 2 | 15 3 34 | 17° 9'26 | 16° 4 | 4° 1 | 13°12 | 13♁41 | 28♁37 | 22♁54 | 5♁43 | 26°16 | 7°51 | 24♁45 | 24°15 | 4°12 | 8♁29 | F 2 | |
| S 3 | 15 7 31 | 18° 7'04 | 0♁23 | 4°R 5 | 14°26 | 13°30 | 28°34 | 22°53 | 5°41 | 26°19 | 7°52 | 24°36 | 24°12 | 4°19 | 8°26 | S 3 | |
| S 4 | 15 11 27 | 19° 4'40 | 14°34 | 4° 5 | 15°40 | 13°20 | 28°31 | 22°51 | 5°40 | 26°21 | 7°53 | 24°25 | 24° 8 | 4°26 | 8°23 | S 4 | |
| M 5 | 15 15 24 | 20° 2'16 | 28°29 | 3°59 | 16°54 | 13°10 | 28°29 | 22°49 | 5°38 | 26°23 | 7°53 | 24°13 | 24° 5 | 4°32 | 8°20 | M 5 | |
| T 6 | 15 19 20 | 20°59'50 | 12♁ 5 | 3°50 | 18° 7 | 13° 2 | 28°26 | 22°48 | 5°37 | 26°25 | 7°54 | 24° 1 | 24° 2 | 4°39 | 8°18 | T 6 | |
| W 7 | 15 23 17 | 21°57'23 | 25°19 | 3°36 | 19°21 | 12°54 | 28°24 | 22°47 | 5°36 | 26°28 | 7°55 | 23°51 | 23°59 | 4°45 | 8°15 | W 7 | |
| T 8 | 15 27 14 | 22°54'54 | 8♁10 | 3°19 | 20°35 | 12°47 | 28°22 | 22°45 | 5°34 | 26°30 | 7°55 | 23°43 | 23°56 | 4°52 | 8°13 | T 8 | |
| F 9 | 15 31 10 | 23°52'25 | 20°41 | 2°57 | 21°49 | 12°41 | 28°20 | 22°44 | 5°32 | 26°32 | 7°56 | 23°38 | 23°53 | 4°59 | 8°10 | F 9 | |
| S 10 | 15 35 7 | 24°49'53 | 2♁54 | 2°33 | 23° 2 | 12°36 | 28°18 | 22°43 | 5°31 | 26°34 | 7°56 | 23°35 | 23°49 | 5° 5 | 8° 8 | S 10 | |
| S 11 | 15 39 3 | 25°47'21 | 14°54 | 2° 6 | 24°16 | 12°31 | 28°16 | 22°42 | 5°29 | 26°37 | 7°57 | 23°34 | 23°46 | 5°12 | 8° 6 | S 11 | |
| M12 | 15 43 0 | 26°44'47 | 26°45 | 1°36 | 25°30 | 12°27 | 28°15 | 22°42 | 5°27 | 26°39 | 7°57 | 23°34 | 23°43 | 5°19 | 8° 4 | M12 | |
| T 13 | 15 46 56 | 27°42'12 | 8♁34 | 1° 5 | 26°43 | 12°25 | 28°14 | 22°41 | 5°26 | 26°41 | 7°58 | 23°34 | 23°40 | 5°25 | 8° 2 | T 13 | |
| W14 | 15 50 53 | 28°39'36 | 20°25 | 0°32 | 27°57 | 12°23 | 28°13 | 22°40 | 5°24 | 26°43 | 7°58 | 23°32 | 23°37 | 5°32 | 8° 0 | W14 | |
| T 15 | 15 54 49 | 29°36'58 | 2♁23 | 29♁58 | 29°11 | 12°21 | 28°12 | 22°40 | 5°22 | 26°45 | 7°59 | 23°29 | 23°34 | 5°39 | 7°59 | T 15 | |
| F 16 | 15 58 46 | 0♁34'20 | 14°34 | 29°25 | 0♁24 | 12°D21 | 28°11 | 22°39 | 5°20 | 26°48 | 7°59 | 23°23 | 23°30 | 5°45 | 7°57 | F 16 | |
| S 17 | 16 2 43 | 1°31'40 | 27° 0 | 28°52 | 1°38 | 12°21 | 28°11 | 22°39 | 5°19 | 26°50 | 7°59 | 23°14 | 23°27 | 5°52 | 7°56 | S 17 | |
| S 18 | 16 6 39 | 2°28'59 | 9♁44 | 28°20 | 2°52 | 12°23 | 28°10 | 22°39 | 5°17 | 26°52 | 8° 0 | 23° 4 | 23°24 | 5°59 | 7°54 | S 18 | |
| M19 | 16 10 36 | 3°26'17 | 22°47 | 27°49 | 4° 5 | 12°25 | 28°D10 | 22°39 | 5°15 | 26°54 | 8° 0 | 22°52 | 23°21 | 6° 5 | 7°53 | M19 | |
| T 20 | 16 14 32 | 4°23'35 | 6♁ 8 | 27°20 | 5°19 | 12°27 | 28°10 | 22°D39 | 5°13 | 26°57 | 8° 0 | 22°40 | 23°18 | 6°12 | 7°52 | T 20 | |
| W21 | 16 18 29 | 5°20'52 | 19°44 | 26°54 | 6°33 | 12°31 | 28°10 | 22°39 | 5°11 | 26°59 | 8° 1 | 22°29 | 23°14 | 6°19 | 7°51 | W21 | |
| T 22 | 16 22 25 | 6°18'08 | 3♁32 | 26°31 | 7°47 | 12°35 | 28°11 | 22°39 | 5° 9 | 27° 1 | 8° 1 | 22°20 | 23°11 | 6°25 | 7°50 | T 22 | |
| F 23 | 16 26 22 | 7°15'24 | 17°30 | 26°12 | 9° 0 | 12°40 | 28°11 | 22°39 | 5° 7 | 27° 3 | 8° 1 | 22°13 | 23° 8 | 6°32 | 7°49 | F 23 | |
| S 24 | 16 30 18 | 8°12'39 | 1♁34 | 25°56 | 10°14 | 12°46 | 28°12 | 22°40 | 5° 5 | 27° 6 | 8° 1 | 22°10 | 23° 5 | 6°39 | 7°48 | S 24 | |
| S 25 | 16 34 15 | 9° 9'54 | 15°41 | 25°44 | 11°28 | 12°52 | 28°13 | 22°40 | 5° 3 | 27° 8 | 8° 2 | 22° 8 | 23° 2 | 6°45 | 7°48 | S 25 | |
| M26 | 16 38 12 | 10° 7'08 | 29°49 | 25°36 | 12°41 | 13° 0 | 28°14 | 22°41 | 5° 1 | 27°10 | 8° 2 | 22°D 8 | 22°59 | 6°52 | 7°47 | M26 | |
| T 27 | 16 42 8 | 11° 4'22 | 13♁57 | 25°D32 | 13°55 | 13° 7 | 28°15 | 22°41 | 4°59 | 27°12 | 8° 2 | 22°R 8 | 22°55 | 6°58 | 7°47 | T 27 | |
| W28 | 16 46 5 | 12° 1'36 | 28° 4 | 25°33 | 15° 9 | 13°16 | 28°17 | 22°42 | 4°56 | 27°14 | 8° 2 | 22° 8 | 22°52 | 7° 5 | 7°46 | W28 | |
| T 29 | 16 50 1 | 12°58'50 | 12♀ 9 | 25°39 | 16°22 | 13°25 | 28°18 | 22°43 | 4°54 | 27°17 | 8° 2 | 22° 5 | 22°49 | 7°12 | 7°46 | T 29 | |
| F 30 | 16 53 58 | 13°56'03 | 26°10 | 25°49 | 17°36 | 13°35 | 28°20 | 22°44 | 4°52 | 27°19 | 8° 2 | 21°59 | 22°46 | 7°18 | 7°D46 | F 30 | |
| S 31 | 16 57 54 | 14♁53'16 | 10♁ 4 | 26♁ 4 | 18♁50 | 13♁46 | 28♁22 | 22♁45 | 4♁50 | 27♁21 | 8♁ 2 | 21♁51 | 22♁43 | 7♁25 | 7♁46 | S 31 | |

Delta T = 19m31s Julian Calendar 1 May 1068 == Greg. Calendar 7 May 1068

JUNE 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♃ | ♄ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|------|------|-----|
| S 1 | 17 1 51 | 15♁50'29 | 23♁49 | 26♁23 | 20♁ 3 | 13♁57 | 28♁24 | 22♁46 | 4°R48 | 27♁23 | 8♁ 2 | 21°R42 | 22♁39 | 7♁32 | 7♁46 | S 1 | |
| M 2 | 17 5 47 | 16°47'42 | 7♁20 | 26°47 | 21°17 | 14° 9 | 28°27 | 22°48 | 4♁45 | 27°25 | 8°R 2 | 21♁31 | 22°36 | 7°38 | 7°46 | M 2 | |
| T 3 | 17 9 44 | 17°44'54 | 20°37 | 27°16 | 22°31 | 14°22 | 28°29 | 22°49 | 4°43 | 27°27 | 8° 2 | 21°21 | 22°33 | 7°45 | 7°47 | T 3 | |
| W 4 | 17 13 41 | 18°42'07 | 3♁36 | 27°49 | 23°45 | 14°35 | 28°32 | 22°50 | 4°41 | 27°29 | 8° 2 | 21°11 | 22°30 | 7°52 | 7°47 | W 4 | |
| T 5 | 17 17 37 | 19°39'18 | 16°17 | 28°27 | 24°58 | 14°49 | 28°35 | 22°52 | 4°38 | 27°32 | 8° 2 | 21° 4 | 22°27 | 7°58 | 7°48 | T 5 | |
| F 6 | 17 21 34 | 20°36'30 | 28°41 | 29° 9 | 26°12 | 15° 3 | 28°38 | 22°54 | 4°36 | 27°34 | 8° 2 | 21° 0 | 22°24 | 8° 5 | 7°48 | F 6 | |
| S 7 | 17 25 30 | 21°33'41 | 10♁50 | 29°56 | 27°26 | 15°18 | 28°41 | 22°56 | 4°34 | 27°36 | 8° 2 | 20°57 | 22°20 | 8°12 | 7°49 | S 7 | |
| S 8 | 17 29 27 | 22°30'52 | 22°48 | 0♁47 | 28°39 | 15°34 | 28°44 | 22°57 | 4°31 | 27°38 | 8° 2 | 20°D57 | 22°17 | 8°18 | 7°50 | S 8 | |
| M 9 | 17 33 23 | 23°28'02 | 4♁39 | 1°42 | 29°53 | 15°50 | 28°48 | 22°59 | 4°29 | 27°40 | 8° 2 | 20°57 | 22°14 | 8°25 | 7°51 | M 9 | |
| T 10 | 17 37 20 | 24°25'12 | 16°28 | 2°41 | 1♁ 7 | 16° 7 | 28°51 | 23° 1 | 4°27 | 27°42 | 8° 2 | 20°58 | 22°11 | 8°32 | 7°52 | T 10 | |
| W11 | 17 41 16 | 25°22'21 | 28°19 | 3°44 | 2°21 | 16°24 | 28°55 | 23° 4 | 4°24 | 27°44 | 8° 1 | 20°R58 | 22° 8 | 8°38 | 7°54 | W11 | |
| T 12 | 17 45 13 | 26°19'30 | 10♁19 | 4°52 | 3°34 | 16°42 | 28°59 | 23° 6 | 4°22 | 27°46 | 8° 1 | 20°57 | 22° 5 | 8°45 | 7°55 | T 12 | |
| F 13 | 17 49 10 | 27°16'39 | 22°32 | 6° 3 | 4°48 | 17° 0 | 29° 3 | 23° 8 | 4°20 | 27°48 | 8° 1 | 20°54 | 22° 1 | 8°52 | 7°56 | F 13 | |
| S 14 | 17 53 6 | 28°13'48 | 5♁ 3 | 7°19 | 6° 2 | 17°19 | 29° 8 | 23°11 | 4°17 | 27°50 | 8° 1 | 20°49 | 21°58 | 8°58 | 7°58 | S 14 | |
| S 15 | 17 57 3 | 29°10'56 | 17°54 | 8°38 | 7°15 | 17°39 | 29°12 | 23°13 | 4°15 | 27°52 | 8° 0 | 20°42 | 21°55 | 9° 5 | 8° 0 | S 15 | |
| M16 | 18 0 59 | 0♁ 8'04 | 1♁ 7 | 10° 2 | 8°29 | 17°59 | 29°17 | 23°16 | 4°12 | 27°54 | 8° 0 | 20°34 | 21°52 | 9°11 | 8° 1 | M16 | |
| T 17 | 18 4 56 | 1° 5'13 | 14°43 | 11°29 | 9°43 | 18°19 | 29°21 | 23°18 | 4°10 | 27°56 | 8° 0 | 20°26 | 21°49 | 9°18 | 8° 3 | T 17 | |
| W18 | 18 8 52 | 2° 2'21 | 28°39 | 13° 0 | 10°57 | 18°40 | 29°26 | 23°21 | 4° 8 | 27°58 | 7°59 | 20°19 | 21°45 | 9°25 | 8° 5 | W18 | |
| T 19 | 18 12 49 | 2°59'30 | 12♁51 | 14°34 | 12°10 | 19° 1 | 29°31 | 23°24 | 4° 5 | 28° 0 | 7°59 | 20°13 | 21°42 | 9°31 | 8° 7 | T 19 | |
| F 20 | 18 16 45 | 3°56'39 | 27°14 | 16°13 | 13°24 | 19°23 | 29°37 | 23°27 | 4° 3 | 28° 2 | 7°58 | 20° 9 | 21°39 | 9°38 | 8°10 | F 20 | |
| S 21 | 18 20 42 | 4°53'48 | 11♁42 | 17°54 | 14°38 | 19°45 | 29°42 | 23°30 | 4° 0 | 28° 4 | 7°58 | 20° 7 | 21°36 | 9°45 | 8°12 | S 21 | |
| S 22 | 18 24 39 | 5°50'58 | 26°11 | 19°39 | 15°51 | 20° 8 | 29°48 | 23°33 | 3°58 | 28° 5 | 7°58 | 20°D 7 | 21°33 | 9°51 | 8°14 | S 22 | |
| M23 | 18 28 35 | 6°48'08 | 10♁36 | 21°28 | 17° 5 | 20°31 | 29°53 | 23°37 | 3°56 | 28° 7 | 7°57 | 20° 8 | 21°30 | 9°58 | 8°17 | M23 | |
| T 24 | 18 32 32 | 7°45'19 | 24°53 | 23°19 | 18°19 | 20°54 | 29°59 | 23°40 | 3°53 | 28° 9 | 7°57 | 20° 9 | 21°26 | 10° 5 | 8°20 | T 24 | |
| W25 | 18 36 28 | 8°42'31 | 9♀ 1 | 25°13 | 19°33 | 21°18 | 0♁ 5 | 23°43 | 3°51 | 28°11 | 7°56 | 20°R 9 | 21°23 | 10°11 | 8°22 | W25 | |
| T 26 | 18 40 25 | 9°39'43 | 22°58 | 27°10 | 20°46 | 21°43 | 0°11 | 23°47 | 3°48 | 28°13 | 7°56 | 20° 9 | 21°20 | 10°18 | 8°25 | T 26 | |
| F 27 | 18 44 21 | 10°36'56 | 6♁44 | 29° 9 | 22° 0 | 22° 7 | 0°17 | 23°50 | 3°46 | 28°15 | 7°55 | 20° 6 | 21°17 | 10°25 | 8°28 | F 27 | |
| S 28 | 18 48 18 | 11°34'10 | 20°18 | 1♁10 | 23°14 | 22°33 | 0°24 | 23°54 | 3°43 | 28°16 | 7°55 | 20° 2 | 21°14 | 10°31 | 8°31 | S 28 | |
| S 29 | 18 52 14 | 12°31'24 | 3♁38 | 3°13 | 24°28 | 22°58 | 0°30 | 23°58 | 3°41 | 28°18 | 7°54 | 19°57 | 21°11 | 10°38 | 8°34 | S 29 | |
| M30 | 18 56 11 | 13♁28'39 | 16♁46 | 5♁18 | 25♁41 | 23♁24 | 0♁37 | 24♁ 2 | 3♁39 | 28♁20 | 7♁53 | 19♁51 | 21♁ 7 | 10♁45 | 8♁38 | M30 | |

Delta T = 19m31s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1068
geocentric

JULY 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| T 1 | 19 0 8 | 14 ⁵⁵ 25'55 | 29 ^{II} 40 | 7 ⁵² 23 | 26 ⁵⁵ 55 | 23 ⁵⁰ 50 | 0 ⁴⁴ 24 | 24 ^{np} 6 | 3 ^R 36 | 28 ⁸ 21 | 7 ^R 53 | 19 ^R 45 | 21 ^Ω 4 | 10 ^{np} 51 | 8 ⁴¹ 41 | T 1 | | | | | | | | |
| W 2 | 19 4 4 | 15 ²³ 12 | 12 ⁵² 20 | 9 ³⁰ | 28 ⁹ | 24 ¹⁷ | 0 ⁵¹ | 24 ¹⁰ | 3 ³³ 34 | 28 ²³ | 7 ⁵² | 19 ^Ω 40 | 21 ¹ | 10 ⁵⁸ | 8 ⁴⁴ | W 2 | | | | | | | | |
| T 3 | 19 8 1 | 16 ²⁰ 29 | 24 ⁴⁶ | 11 ³⁷ | 29 ²³ | 24 ⁴⁴ | 0 ⁵⁸ | 24 ¹⁴ | 3 ³² | 28 ²⁵ | 7 ⁵¹ | 19 ³⁶ | 20 ⁵⁸ | 11 ⁵ | 8 ⁴⁸ | T 3 | | | | | | | | |
| F 4 | 19 11 57 | 17 ¹⁷ 47 | 6 ⁵⁹ 59 | 13 ⁴⁴ | 0 ³⁶ 36 | 25 ¹¹ | 1 ⁵ | 24 ¹⁸ | 3 ²⁹ | 28 ²⁶ | 7 ⁵¹ | 19 ³⁴ | 20 ⁵⁵ | 11 ¹¹ | 8 ⁵² | F 4 | | | | | | | | |
| S 5 | 19 15 54 | 18 ¹⁵ 06 | 19 ² | 15 ⁵² | 1 ⁵⁰ | 25 ³⁹ | 1 ¹² | 24 ²² | 3 ²⁷ | 28 ²⁸ | 7 ⁵⁰ | 19 ^D 33 | 20 ⁵¹ | 11 ¹⁸ | 8 ⁵⁵ | S 5 | | | | | | | | |
| S 6 | 19 19 50 | 19 ¹² 25 | 0 ^{np} 56 | 17 ⁵⁹ | 3 ⁴ | 26 ⁷ | 1 ²⁰ | 24 ²⁶ | 3 ²⁵ | 28 ³⁰ | 7 ⁴⁹ | 19 ³³ | 20 ⁴⁸ | 11 ²⁵ | 8 ⁵⁹ | S 6 | | | | | | | | |
| M 7 | 19 23 47 | 20 ⁹ 44 | 12 ⁴⁵ | 20 ⁵ | 4 ¹⁸ | 26 ³⁶ | 1 ²⁷ | 24 ³¹ | 3 ²² | 28 ³¹ | 7 ⁴⁹ | 19 ³⁵ | 20 ⁴⁵ | 11 ³¹ | 9 ³ | M 7 | | | | | | | | |
| T 8 | 19 27 43 | 21 ⁷ 04 | 24 ³³ | 22 ¹¹ | 5 ³¹ | 27 ⁴ | 1 ³⁵ | 24 ³⁵ | 3 ²⁰ | 28 ³³ | 7 ⁴⁸ | 19 ³⁷ | 20 ⁴² | 11 ³⁸ | 9 ⁷ | T 8 | | | | | | | | |
| W 9 | 19 31 40 | 22 ⁴ 25 | 6 ²⁴ 24 | 24 ¹⁶ | 6 ⁴⁵ | 27 ³³ | 1 ⁴³ | 24 ⁴⁰ | 3 ¹⁸ | 28 ³⁴ | 7 ⁴⁷ | 19 ³⁸ | 20 ³⁹ | 11 ⁴⁵ | 9 ¹¹ | W 9 | | | | | | | | |
| T 10 | 19 35 37 | 23 ¹ 46 | 18 ²³ | 26 ¹⁹ | 7 ⁵⁹ | 28 ³ | 1 ⁵¹ | 24 ⁴⁴ | 3 ¹⁶ | 28 ³⁶ | 7 ⁴⁶ | 19 ^R 39 | 20 ³⁶ | 11 ⁵¹ | 9 ¹⁶ | T 10 | | | | | | | | |
| F 11 | 19 39 33 | 23 ⁵⁹ 08 | 0 ^{ml} 35 | 28 ²² | 9 ¹³ | 28 ³³ | 1 ⁵⁹ | 24 ⁴⁹ | 3 ¹³ | 28 ³⁷ | 7 ⁴⁵ | 19 ³⁹ | 20 ³² | 11 ⁵⁸ | 9 ²⁰ | F 11 | | | | | | | | |
| S 12 | 19 43 30 | 24 ⁵⁶ 31 | 13 ⁵ | 0 ^Ω 23 | 10 ²⁶ | 29 ³ | 2 ⁷ | 24 ⁵⁴ | 3 ¹¹ | 28 ³⁸ | 7 ⁴⁵ | 19 ³⁸ | 20 ²⁹ | 12 ⁴ | 9 ²⁴ | S 12 | | | | | | | | |
| S 13 | 19 47 26 | 25 ⁵³ 54 | 25 ⁵⁶ | 2 ²³ | 11 ⁴⁰ | 29 ³³ | 2 ¹⁵ | 24 ⁵⁹ | 3 ⁹ | 28 ⁴⁰ | 7 ⁴⁴ | 19 ³⁵ | 20 ²⁶ | 12 ¹¹ | 9 ²⁹ | S 13 | | | | | | | | |
| M14 | 19 51 23 | 26 ⁵¹ 18 | 9 ²⁷ 12 | 4 ²¹ | 12 ⁵⁴ | 0 ^{ml} 4 | 2 ²⁴ | 25 ⁴ | 3 ⁷ | 28 ⁴¹ | 7 ⁴³ | 19 ³³ | 20 ²³ | 12 ¹⁸ | 9 ³³ | M14 | | | | | | | | |
| T 15 | 19 55 19 | 27 ⁴⁸ 43 | 22 ⁵³ | 6 ¹⁸ | 14 ⁷ | 0 ³⁴ | 2 ³² | 25 ⁸ | 3 ⁵ | 28 ⁴³ | 7 ⁴² | 19 ³⁰ | 20 ²⁰ | 12 ²⁴ | 9 ³⁸ | T 15 | | | | | | | | |
| W16 | 19 59 16 | 28 ⁴⁶ 09 | 6 ³⁵ 59 | 8 ¹⁴ | 15 ²¹ | 1 ⁶ | 2 ⁴¹ | 25 ¹⁴ | 3 ³ | 28 ⁴⁴ | 7 ⁴¹ | 19 ²⁷ | 20 ¹⁷ | 12 ³¹ | 9 ⁴³ | W16 | | | | | | | | |
| T 17 | 20 3 13 | 29 ⁴³ 36 | 21 ²⁶ | 10 ⁸ | 16 ³⁵ | 1 ³⁷ | 2 ⁵⁰ | 25 ¹⁹ | 3 ¹ | 28 ⁴⁵ | 7 ⁴⁰ | 19 ²⁵ | 20 ¹³ | 12 ³⁸ | 9 ⁴⁸ | T 17 | | | | | | | | |
| F 18 | 20 7 9 | 0 ^Ω 41'04 | 6 ²² 9 | 12 ⁰ | 17 ⁴⁹ | 2 ⁹ | 2 ⁵⁹ | 25 ²⁴ | 2 ⁵⁹ | 28 ⁴⁷ | 7 ³⁹ | 19 ²³ | 20 ¹⁰ | 12 ⁴⁴ | 9 ⁵³ | F 18 | | | | | | | | |
| S 19 | 20 11 6 | 1 ³⁸ 32 | 21 ⁰ | 13 ⁵¹ | 19 ² | 2 ⁴¹ | 3 ⁸ | 25 ²⁹ | 2 ⁵⁷ | 28 ⁴⁸ | 7 ³⁸ | 19 ^D 23 | 20 ⁷ | 12 ⁵¹ | 9 ⁵⁸ | S 19 | | | | | | | | |
| S 20 | 20 15 2 | 2 ³⁶ 02 | 5 ⁵³ 53 | 15 ⁴⁰ | 20 ¹⁶ | 3 ¹³ | 3 ¹⁷ | 25 ³⁴ | 2 ⁵⁵ | 28 ⁴⁹ | 7 ³⁷ | 19 ²³ | 20 ⁴ | 12 ⁵⁸ | 10 ³ | S 20 | | | | | | | | |
| M21 | 20 18 59 | 3 ³³ 34 | 20 ⁴⁰ | 17 ²⁸ | 21 ³⁰ | 3 ⁴⁶ | 3 ²⁶ | 25 ⁴⁰ | 2 ⁵³ | 28 ⁵⁰ | 7 ³⁶ | 19 ²⁴ | 20 ¹ | 13 ⁴ | 10 ⁸ | M21 | | | | | | | | |
| T 22 | 20 22 55 | 4 ³¹ 07 | 5 ⁵⁷ 15 | 19 ¹⁴ | 22 ⁴³ | 4 ¹⁸ | 3 ³⁵ | 25 ⁴⁵ | 2 ⁵¹ | 28 ⁵¹ | 7 ³⁵ | 19 ²⁵ | 19 ⁵⁷ | 13 ¹¹ | 10 ¹³ | T 22 | | | | | | | | |
| W23 | 20 26 52 | 5 ²⁸ 41 | 19 ³⁴ | 20 ⁵⁹ | 23 ⁵⁷ | 4 ⁵¹ | 3 ⁴⁵ | 25 ⁵¹ | 2 ⁴⁹ | 28 ⁵² | 7 ³⁴ | 19 ²⁶ | 19 ⁵⁴ | 13 ¹⁸ | 10 ¹⁹ | W23 | | | | | | | | |
| T 24 | 20 30 48 | 6 ²⁶ 17 | 3 ³³ 34 | 22 ⁴² | 25 ¹¹ | 5 ²⁵ | 3 ⁵⁴ | 25 ⁵⁶ | 2 ⁴⁷ | 28 ⁵⁴ | 7 ³³ | 19 ^R 27 | 19 ⁵¹ | 13 ²⁴ | 10 ²⁴ | T 24 | | | | | | | | |
| F 25 | 20 34 45 | 7 ²³ 54 | 17 ¹⁵ | 24 ²⁴ | 26 ²⁵ | 5 ⁵⁸ | 4 ⁴ | 26 ² | 2 ⁴⁵ | 28 ⁵⁵ | 7 ³² | 19 ²⁷ | 19 ⁴⁸ | 13 ³¹ | 10 ³⁰ | F 25 | | | | | | | | |
| S 26 | 20 38 41 | 8 ²¹ 33 | 0 ^{II} 37 | 26 ⁵ | 27 ³⁸ | 6 ³² | 4 ¹³ | 26 ⁷ | 2 ⁴³ | 28 ⁵⁶ | 7 ³¹ | 19 ²⁶ | 19 ⁴⁵ | 13 ³⁸ | 10 ³⁵ | S 26 | | | | | | | | |
| S 27 | 20 42 38 | 9 ¹⁹ 14 | 13 ⁴² | 27 ⁴³ | 28 ⁵² | 7 ⁶ | 4 ²³ | 26 ¹³ | 2 ⁴¹ | 28 ⁵⁷ | 7 ³⁰ | 19 ²⁵ | 19 ⁴² | 13 ⁴⁴ | 10 ⁴¹ | S 27 | | | | | | | | |
| M28 | 20 46 35 | 10 ¹⁶ 56 | 26 ³⁰ | 29 ²¹ | 0 ^{np} 6 | 7 ⁴⁰ | 4 ³³ | 26 ¹⁹ | 2 ⁴⁰ | 28 ⁵⁸ | 7 ²⁹ | 19 ²⁴ | 19 ³⁸ | 13 ⁵¹ | 10 ⁴⁷ | M28 | | | | | | | | |
| T 29 | 20 50 31 | 11 ¹⁴ 40 | 9 ⁵² 4 | 0 ^{np} 57 | 1 ¹⁹ | 8 ¹⁴ | 4 ⁴³ | 26 ²⁵ | 2 ³⁸ | 28 ⁵⁹ | 7 ²⁸ | 19 ²² | 19 ³⁵ | 13 ⁵⁸ | 10 ⁵³ | T 29 | | | | | | | | |
| W30 | 20 54 28 | 12 ¹² 26 | 21 ²⁶ | 2 ³¹ | 2 ³³ | 8 ⁴⁹ | 4 ⁵³ | 26 ³¹ | 2 ³⁶ | 29 ⁰ | 7 ²⁷ | 19 ²² | 19 ³² | 14 ⁴ | 10 ⁵⁸ | W30 | | | | | | | | |
| T 31 | 20 58 24 | 13 ^Ω 10'13 | 3 ^Ω 37 | 4 ^{np} 4 | 3 ^{np} 47 | 9 ^{ml} 24 | 5 ² 3 | 26 ^{np} 36 | 2 ³⁵ 3 | 29 ⁸ 0 | 7 ⁵² 26 | 19 ^Ω 21 | 19 ^Ω 29 | 14 ^{np} 11 | 11 ² 4 | T 31 | | | | | | | | |

Delta T = 19m31s Julian Calendar 1 July 1068 == Greg. Calendar 7 July 1068

AUGUST 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------------------|---------------------|--------------------|-------------------|--------------------|-------------------|---------------------|--------------------|-------------------|--------------------|--------------------|--------------------|---------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| F 1 | 21 2 21 | 14 ^Ω 8'01 | 15 ^Ω 39 | 5 ^{np} 36 | 5 ^{np} 0 | 9 ^{ml} 59 | 5 ² 13 | 26 ^{np} 42 | 2 ^R 33 | 29 ⁸ 1 | 7 ^R 25 | 19 ^D 21 | 19 ^Ω 26 | 14 ^{np} 18 | 11 ² 11 | F 1 | | | | | | | | |
| S 2 | 21 6 17 | 15 ⁵ 51 | 27 ³⁴ | 7 ⁶ | 6 ¹⁴ | 10 ³⁴ | 5 ²⁴ | 26 ⁴⁸ | 2 ³¹ 31 | 29 ² | 7 ⁵² 24 | 19 ^Ω 21 | 19 ²³ | 14 ²⁴ | 11 ¹⁷ | S 2 | | | | | | | | |
| S 3 | 21 10 14 | 16 ³ 42 | 9 ^{np} 24 | 8 ³⁴ | 7 ²⁸ | 11 ¹⁰ | 5 ³⁴ | 26 ⁵⁵ | 2 ³⁰ | 29 ³ | 7 ²³ | 19 ²¹ | 19 ¹⁹ | 14 ³¹ | 11 ²³ | S 3 | | | | | | | | |
| M 4 | 21 14 10 | 17 ¹ 35 | 21 ¹² | 10 ¹ | 8 ⁴¹ | 11 ⁴⁶ | 5 ⁴⁴ | 27 ¹ | 2 ²⁸ | 29 ⁴ | 7 ²¹ | 19 ²¹ | 19 ¹⁶ | 14 ³⁸ | 11 ²⁹ | M 4 | | | | | | | | |
| T 5 | 21 18 7 | 17 ⁵⁹ 29 | 3 ² 0 | 11 ²⁷ | 9 ⁵⁵ | 12 ²² | 5 ⁵⁵ | 27 ⁷ | 2 ²⁷ | 29 ⁴ | 7 ²⁰ | 19 ²² | 19 ¹³ | 14 ⁴⁴ | 11 ³⁵ | T 5 | | | | | | | | |
| W 6 | 21 22 4 | 18 ⁵⁷ 25 | 14 ⁵² | 12 ⁵¹ | 11 ⁸ | 12 ⁵⁸ | 6 ⁶ | 27 ¹³ | 2 ²⁵ | 29 ⁵ | 7 ¹⁹ | 19 ^R 22 | 19 ¹⁰ | 14 ⁵¹ | 11 ⁴² | W 6 | | | | | | | | |
| T 7 | 21 26 0 | 19 ⁵⁵ 22 | 26 ⁵¹ | 14 ¹⁴ | 12 ²² | 13 ³⁴ | 6 ¹⁶ | 27 ¹⁹ | 2 ²⁴ | 29 ⁶ | 7 ¹⁸ | 19 ²² | 19 ⁷ | 14 ⁵⁸ | 11 ⁴⁸ | T 7 | | | | | | | | |
| F 8 | 21 29 57 | 20 ⁵³ 20 | 9 ^{ml} 2 | 15 ³⁵ | 13 ³⁶ | 14 ¹¹ | 6 ²⁷ | 27 ²⁶ | 2 ²³ | 29 ⁶ | 7 ¹⁷ | 19 ²² | 19 ³ | 15 ⁴ | 11 ⁵⁵ | F 8 | | | | | | | | |
| S 9 | 21 33 53 | 21 ⁵¹ 20 | 21 ²⁹ | 16 ⁵⁴ | 14 ⁴⁹ | 14 ⁴⁸ | 6 ³⁸ | 27 ³² | 2 ²¹ | 29 ⁷ | 7 ¹⁶ | 19 ^D 22 | 19 ⁰ | 15 ¹¹ | 12 ² | S 9 | | | | | | | | |
| S 10 | 21 37 50 | 22 ⁴⁹ 21 | 4 ²⁷ 16 | 18 ¹² | 16 ³ | 15 ²⁴ | 6 ⁴⁹ | 27 ³⁹ | 2 ²⁰ | 29 ⁸ | 7 ¹⁴ | 19 ²² | 18 ⁵⁷ | 15 ¹⁸ | 12 ⁸ | S 10 | | | | | | | | |
| M11 | 21 41 46 | 23 ⁴⁷ 23 | 17 ²⁶ | 19 ²⁸ | 17 ¹⁶ | 16 ² | 7 ⁰ | 27 ⁴⁵ | 2 ¹⁹ | 29 ⁸ | 7 ¹³ | 19 ²² | 18 ⁵⁴ | 15 ²⁴ | 12 ¹⁵ | M11 | | | | | | | | |
| T 12 | 21 45 43 | 24 ⁴⁵ 28 | 1 ³ 3 | 20 ⁴² | 18 ³⁰ | 16 ³⁹ | 7 ¹¹ | 27 ⁵² | 2 ¹⁸ | 29 ⁹ | 7 ¹² | 19 ²² | 18 ⁵¹ | 15 ³¹ | 12 ²² | T 12 | | | | | | | | |
| W13 | 21 49 39 | 25 ⁴³ 33 | 15 ⁶ | 21 ⁵⁵ | 19 ⁴³ | 17 ¹⁶ | 7 ²² | 27 ⁵⁸ | 2 ¹⁷ | 29 ⁹ | 7 ¹¹ | 19 ²³ | 18 ⁴⁸ | 15 ³⁸ | 12 ²⁹ | W13 | | | | | | | | |
| T 14 | 21 53 36 | 26 ⁴¹ 40 | 29 ³⁵ | 23 ⁵ | 20 ⁵⁷ | 17 ⁵⁴ | 7 ³⁴ | 28 ⁵ | 2 ¹⁵ | 29 ¹⁰ | 7 ¹⁰ | 19 ²³ | 18 ⁴⁴ | 15 ⁴⁴ | 12 ³⁶ | T 14 | | | | | | | | |
| F 15 | 21 57 33 | 27 ³⁹ 49 | 14 ²⁵ 25 | 24 ¹⁴ | 22 ¹¹ | 18 ³² | 7 ⁴⁵ | 28 ¹¹ | 2 ¹⁴ | 29 ¹⁰ | 7 ⁸ | 19 ^R 24 | 18 ⁴¹ | 15 ⁵¹ | 12 ⁴³ | F 15 | | | | | | | | |
| S 16 | 22 1 29 | 28 ³⁷ 59 | 29 ³⁰ | 25 ²⁰ | 23 ²⁴ | 19 ¹⁰ | 7 ⁵⁶ | 28 ¹⁸ | 2 ¹³ | 29 ¹⁰ | 7 ⁷ | 19 ²⁴ | 18 ³⁸ | 15 ⁵⁸ | 12 ⁵⁰ | S 16 | | | | | | | | |
| S 17 | 22 5 26 | 29 ³⁶ 11 | 14 ⁵² 40 | 26 ²⁴ | 24 ³⁷ | 19 ⁴⁸ | 8 ⁸ | 28 ²⁵ | 2 ¹³ | 29 ¹¹ | 7 ⁶ | 19 ²³ | 18 ³⁵ | 16 ⁴ | 12 ⁵⁷ | S 17 | | | | | | | | |
| M18 | 22 9 22 | 0 ^{np} 34'25 | 29 ⁴⁷ | 27 ²⁶ | 25 ⁵¹ | 20 ²⁶ | 8 ¹⁹ | 28 ³¹ | 2 ¹² | 29 ¹¹ | 7 ⁵ | 19 ²² | 18 ³² | 16 ¹¹ | 13 ⁴ | M18 | | | | | | | | |
| T 19 | 22 13 19 | 1 ³² 41 | 14 ⁵⁷ 42 | 28 ²⁵ | 27 ⁴ | 21 ⁵ | 8 ³¹ | 28 ³⁸ | 2 ¹¹ | 29 ¹¹ | 7 ⁴ | 19 ²¹ | 18 ²⁹ | 16 ¹⁸ | 13 ¹¹ | T 19 | | | | | | | | |
| W20 | 22 17 15 | 2 ³⁰ 59 | 29 ¹⁷ | 29 ²² | 28 ¹⁸ | 21 ⁴⁴ | 8 ⁴² | 28 ⁴⁵ | 2 ¹ | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1068
geocentric

SEPTEMBER 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|-------|--------|-------|--------|-------|-------|-------|------|-----|
| M 1 | 23 4 34 | 14♐13'24 | 29♐58 | 5°R52 | 12♌58 | 29♍40 | 11♌ 7 | 0♌ 9 | 2°R 4 | 29°R12 | 6°R48 | 19°R16 | 17♏47 | 17♐44 | 14♌49 | M 1 | |
| T 2 | 23 8 31 | 15°12'09 | 11♌50 | 5♌51 | 14°11 | 0♌20 | 11°19 | 0°16 | 2°R 4 | 29°R12 | 6°R46 | 19°R12 | 17°44 | 17°51 | 14°57 | T 2 | |
| W 3 | 23 12 27 | 16°10'57 | 23°46 | 5°44 | 15°25 | 1° 1 | 11°31 | 0°23 | 2° 4 | 29°11 | 6°45 | 19° 7 | 17°41 | 17°57 | 15° 5 | W 3 | |
| T 4 | 23 16 24 | 17° 9'46 | 5♍50 | 5°29 | 16°38 | 1°42 | 11°44 | 0°30 | 2° 4 | 29°11 | 6°44 | 19° 3 | 17°38 | 18° 4 | 15°13 | T 4 | |
| F 5 | 23 20 20 | 18° 8'37 | 18° 3 | 5° 7 | 17°51 | 2°23 | 11°56 | 0°37 | 2°D 3 | 29°11 | 6°43 | 18°59 | 17°34 | 18°11 | 15°21 | F 5 | |
| S 6 | 23 24 17 | 19° 7'30 | 0♌30 | 4°37 | 19° 4 | 3° 4 | 12° 9 | 0°45 | 2° 4 | 29°11 | 6°42 | 18°56 | 17°31 | 18°17 | 15°29 | S 6 | |
| S 7 | 23 28 13 | 20° 6'25 | 13°14 | 4° 1 | 20°18 | 3°45 | 12°21 | 0°52 | 2° 4 | 29°10 | 6°40 | 18°54 | 17°28 | 18°24 | 15°37 | S 7 | |
| M 8 | 23 32 10 | 21° 5'22 | 26°17 | 3°17 | 21°31 | 4°26 | 12°34 | 0°59 | 2° 4 | 29°10 | 6°39 | 18°D54 | 17°25 | 18°31 | 15°45 | M 8 | |
| T 9 | 23 36 6 | 22° 4'20 | 9♌44 | 2°26 | 22°44 | 5° 8 | 12°46 | 1° 6 | 2° 4 | 29° 9 | 6°38 | 18°55 | 17°22 | 18°37 | 15°53 | T 9 | |
| W10 | 23 40 3 | 23° 3'20 | 23°36 | 1°29 | 23°57 | 5°50 | 12°59 | 1°14 | 2° 4 | 29° 9 | 6°37 | 18°57 | 17°19 | 18°44 | 16° 1 | W10 | |
| T 11 | 23 43 59 | 24° 2'22 | 7♌54 | 0°27 | 25°10 | 6°31 | 13°12 | 1°21 | 2° 4 | 29° 8 | 6°36 | 18°58 | 17°15 | 18°51 | 16°10 | T 11 | |
| F 12 | 23 47 56 | 25° 1'26 | 22°36 | 29♐21 | 26°23 | 7°13 | 13°24 | 1°28 | 2° 5 | 29° 8 | 6°34 | 18°R58 | 17°12 | 18°57 | 16°18 | F 12 | |
| S 13 | 23 51 53 | 26° 0'32 | 7♌38 | 28°12 | 27°36 | 7°55 | 13°37 | 1°35 | 2° 5 | 29° 7 | 6°33 | 18°57 | 17° 9 | 19° 4 | 16°26 | S 13 | |
| S 14 | 23 55 49 | 26°59'39 | 22°51 | 27° 3 | 28°49 | 8°37 | 13°50 | 1°43 | 2° 6 | 29° 7 | 6°32 | 18°54 | 17° 6 | 19°11 | 16°34 | S 14 | |
| M15 | 23 59 46 | 27°58'49 | 8♐ 7 | 25°54 | 0♍ 2 | 9°19 | 14° 3 | 1°50 | 2° 6 | 29° 6 | 6°31 | 18°49 | 17° 3 | 19°17 | 16°42 | M15 | |
| T 16 | 0 3 42 | 28°58'01 | 23°14 | 24°49 | 1°15 | 10° 2 | 14°16 | 1°57 | 2° 7 | 29° 6 | 6°30 | 18°44 | 17° 0 | 19°24 | 16°51 | T 16 | |
| W17 | 0 7 39 | 29°57'15 | 8♌ 3 | 23°48 | 2°28 | 10°44 | 14°29 | 2° 5 | 2° 7 | 29° 5 | 6°29 | 18°37 | 16°56 | 19°31 | 16°59 | W17 | |
| T 18 | 0 11 35 | 0♌56'31 | 22°27 | 22°53 | 3°41 | 11°26 | 14°41 | 2°12 | 2° 8 | 29° 4 | 6°28 | 18°32 | 16°53 | 19°37 | 17° 7 | T 18 | |
| F 19 | 0 15 32 | 1°55'50 | 6♐22 | 22° 7 | 4°54 | 12° 9 | 14°54 | 2°19 | 2° 8 | 29° 3 | 6°27 | 18°27 | 16°50 | 19°44 | 17°16 | F 19 | |
| S 20 | 0 19 28 | 2°55'11 | 19°48 | 21°30 | 6° 7 | 12°52 | 15° 7 | 2°27 | 2° 9 | 29° 3 | 6°25 | 18°24 | 16°47 | 19°51 | 17°24 | S 20 | |
| S 21 | 0 23 25 | 3°54'35 | 2♌47 | 21° 2 | 7°20 | 13°35 | 15°20 | 2°34 | 2°10 | 29° 2 | 6°24 | 18°D23 | 16°44 | 19°57 | 17°33 | S 21 | |
| M22 | 0 27 22 | 4°54'01 | 15°22 | 20°46 | 8°32 | 14°17 | 15°33 | 2°41 | 2°11 | 29° 1 | 6°23 | 18°24 | 16°40 | 20° 4 | 17°41 | M22 | |
| T 23 | 0 31 18 | 5°53'29 | 27°38 | 20°D40 | 9°45 | 15° 0 | 15°46 | 2°49 | 2°12 | 29° 0 | 6°22 | 18°25 | 16°37 | 20°11 | 17°49 | T 23 | |
| W24 | 0 35 15 | 6°53'00 | 9♏41 | 20°46 | 10°58 | 15°43 | 15°59 | 2°56 | 2°13 | 28°59 | 6°21 | 18°26 | 16°34 | 20°17 | 17°58 | W24 | |
| T 25 | 0 39 11 | 7°52'33 | 21°34 | 21° 2 | 12°11 | 16°27 | 16°12 | 3° 3 | 2°14 | 28°58 | 6°20 | 18°R27 | 16°31 | 20°24 | 18° 6 | T 25 | |
| F 26 | 0 43 8 | 8°52'08 | 3♐23 | 21°28 | 13°23 | 17°10 | 16°25 | 3°10 | 2°15 | 28°57 | 6°19 | 18°25 | 16°28 | 20°31 | 18°15 | F 26 | |
| S 27 | 0 47 4 | 9°51'45 | 15°10 | 22° 4 | 14°36 | 17°53 | 16°38 | 3°18 | 2°16 | 28°56 | 6°18 | 18°22 | 16°25 | 20°37 | 18°23 | S 27 | |
| S 28 | 0 51 1 | 10°51'24 | 26°59 | 22°48 | 15°49 | 18°37 | 16°51 | 3°25 | 2°17 | 28°55 | 6°17 | 18°16 | 16°21 | 20°44 | 18°32 | S 28 | |
| M29 | 0 54 57 | 11°51'06 | 8♌51 | 23°41 | 17° 2 | 19°20 | 17° 4 | 3°32 | 2°18 | 28°54 | 6°16 | 18° 7 | 16°18 | 20°51 | 18°40 | M29 | |
| T 30 | 0 58 54 | 12♌50'50 | 20♌50 | 24♐41 | 18♍14 | 20♌ 4 | 17♌18 | 3♌40 | 2°R19 | 28°53 | 6°15 | 17♏57 | 16♏15 | 20♐57 | 18♌49 | T 30 | |

Delta T = 19m30s Julian Calendar 1 Sept. 1068 == Greg. Calendar 7 Sept. 1068

OCTOBER 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|--------|-------|--------|-------|-------|-------|------|-----|
| W 1 | 1 2 50 | 13♌50'35 | 2♍56 | 25♐47 | 19♍27 | 20♌48 | 17♌31 | 3♌47 | 2°R21 | 28°R52 | 6°R14 | 17°R46 | 16♏12 | 21♐ 4 | 18♌57 | W 1 | |
| T 2 | 1 6 44 | 14°50'23 | 15° 9 | 26°59 | 20°39 | 21°31 | 17°44 | 3°54 | 2°22 | 28°51 | 6°13 | 17♏35 | 16° 9 | 21°11 | 19° 6 | T 2 | |
| F 3 | 1 10 47 | 15°50'12 | 27°33 | 28°16 | 21°52 | 22°15 | 17°57 | 4° 1 | 2°23 | 28°50 | 6°13 | 17°26 | 16° 5 | 21°17 | 19°15 | F 3 | |
| S 4 | 1 14 40 | 16°50'04 | 10♌ 7 | 29°37 | 23° 4 | 22°59 | 18°10 | 4° 8 | 2°25 | 28°49 | 6°12 | 17°18 | 16° 2 | 21°24 | 19°23 | S 4 | |
| S 5 | 1 18 37 | 17°49'57 | 22°54 | 1♌ 2 | 24°17 | 23°43 | 18°23 | 4°16 | 2°26 | 28°48 | 6°11 | 17°12 | 15°59 | 21°31 | 19°32 | S 5 | |
| M 6 | 1 22 33 | 18°49'52 | 5♌57 | 2°29 | 25°29 | 24°28 | 18°36 | 4°23 | 2°28 | 28°47 | 6°10 | 17° 9 | 15°56 | 21°37 | 19°40 | M 6 | |
| T 7 | 1 26 30 | 19°49'49 | 19°17 | 3°59 | 26°42 | 25°12 | 18°49 | 4°30 | 2°29 | 28°45 | 6° 9 | 17°D 9 | 15°53 | 21°44 | 19°49 | T 7 | |
| W 8 | 1 30 26 | 20°49'47 | 2♌58 | 5°31 | 27°54 | 25°56 | 19° 3 | 4°37 | 2°31 | 28°44 | 6° 8 | 17° 9 | 15°50 | 21°51 | 19°57 | W 8 | |
| T 9 | 1 34 23 | 21°49'47 | 17° 1 | 7° 5 | 29° 6 | 26°40 | 19°16 | 4°44 | 2°33 | 28°43 | 6° 7 | 17°R 9 | 15°46 | 21°57 | 20° 6 | T 9 | |
| F 10 | 1 38 19 | 22°49'48 | 1♌25 | 8°40 | 0♌19 | 27°25 | 19°29 | 4°51 | 2°34 | 28°42 | 6° 7 | 17° 9 | 15°43 | 22° 4 | 20°14 | F 10 | |
| S 11 | 1 42 16 | 23°49'51 | 16°10 | 10°16 | 1°31 | 28° 9 | 19°42 | 4°58 | 2°36 | 28°40 | 6° 6 | 17° 6 | 15°40 | 22°11 | 20°23 | S 11 | |
| S 12 | 1 46 13 | 24°49'56 | 1♐ 9 | 11°53 | 2°43 | 28°54 | 19°55 | 5° 5 | 2°38 | 28°39 | 6° 5 | 17° 0 | 15°37 | 22°18 | 20°31 | S 12 | |
| M13 | 1 50 9 | 25°50'03 | 16°15 | 13°30 | 3°55 | 29°39 | 20° 8 | 5°12 | 2°40 | 28°38 | 6° 4 | 16°52 | 15°34 | 22°24 | 20°40 | M13 | |
| T 14 | 1 54 6 | 26°50'11 | 1♌18 | 15° 8 | 5° 7 | 0♌23 | 20°21 | 5°19 | 2°42 | 28°36 | 6° 4 | 16°42 | 15°31 | 22°31 | 20°49 | T 14 | |
| W15 | 1 58 2 | 27°50'21 | 16° 8 | 16°46 | 6°20 | 1° 8 | 20°34 | 5°26 | 2°44 | 28°35 | 6° 3 | 16°31 | 15°27 | 22°38 | 20°57 | W15 | |
| T 16 | 2 1 59 | 28°50'34 | 0♐37 | 18°24 | 7°32 | 1°53 | 20°47 | 5°33 | 2°46 | 28°33 | 6° 2 | 16°20 | 15°24 | 22°44 | 21° 6 | T 16 | |
| F 17 | 2 5 55 | 29°50'48 | 14°38 | 20° 2 | 8°44 | 2°38 | 21° 1 | 5°40 | 2°48 | 28°32 | 6° 2 | 16°11 | 15°21 | 22°51 | 21°14 | F 17 | |
| S 18 | 2 9 52 | 0♍51'04 | 28°11 | 21°41 | 9°55 | 3°23 | 21°14 | 5°47 | 2°50 | 28°30 | 6° 1 | 16° 5 | 15°18 | 22°58 | 21°23 | S 18 | |
| S 19 | 2 13 48 | 1°51'23 | 11♌15 | 23°19 | 11° 7 | 4° 8 | 21°27 | 5°54 | 2°52 | 28°29 | 6° 0 | 16° 1 | 15°15 | 23° 4 | 21°31 | S 19 | |
| M20 | 2 17 45 | 2°51'43 | 23°54 | 24°57 | 12°19 | 4°53 | 21°40 | 6° 1 | 2°54 | 28°27 | 6° 0 | 15°59 | 15°11 | 23°11 | 21°39 | M20 | |
| T 21 | 2 21 42 | 3°52'06 | 6♏11 | 26°35 | 13°31 | 5°38 | 21°53 | 6° 8 | 2°56 | 28°26 | 5°59 | 15°D59 | 15° 8 | 23°18 | 21°48 | T 21 | |
| W22 | 2 25 38 | 4°52'30 | 18°14 | 28°12 | 14°43 | 6°23 | 22° 6 | 6°14 | 2°59 | 28°24 | 5°59 | 15°R59 | 15° 5 | 23°24 | 21°56 | W22 | |
| T 23 | 2 29 35 | 5°52'56 | 0♐ 6 | 29°50 | 15°54 | 7° 8 | 22°19 | 6°21 | 3° 1 | 28°23 | 5°58 | 15°58 | 15° 2 | 23°31 | 22° 5 | T 23 | |
| F 24 | 2 33 31 | 6°53'25 | 11°54 | 1♍27 | 17° 6 | 7°53 | 22°32 | 6°28 | 3° 3 | 28°21 | 5°58 | 15°56 | 14°59 | 23°38 | 22°13 | F 24 | |
| S 25 | 2 37 28 | 7°53'55 | 23°41 | 3° 4 | 18°18 | 8°39 | 22°44 | 6°34 | 3° 6 | 28°20 | 5°57 | 15°50 | 14°56 | 23°44 | 22°21 | S 25 | |
| S 26 | 2 41 24 | 8°54'27 | 5♌33 | 4°41 | 19°29 | 9°24 | 22°57 | 6°41 | 3° 8 | 28°18 | 5°57 | 15°42 | 14°52 | 23°51 | 22°30 | S 26 | |
| M27 | 2 45 21 | 9°55'00 | 17°32 | 6°17 | 20°41 | 10° 9 | 23°10 | 6°47 | 3°10 | 28°17 | 5°56 | 15°31 | 14°49 | 23°58 | 22°38 | M27 | |
| T 28 | 2 49 17 | 10°55'35 | 29°40 | 7°53 | 21°52 | 10°55 | 23°23 | 6°54 | 3°13 | 28°15 | 5°56 | 15°18 | 14°46 | 24° 4 | 22°46 | T 28 | |
| W29 | 2 53 14 | 11°56'12 | 11♍58 | 9°29 | 23° 3 | 11°40 | 23°36 | 7° 0 | 3°15 | 28°13 | 5°56 | 15° 3 | 14°43 | 24°11 | 22°55 | W29 | |
| T 30 | 2 57 11 | 12°56'51 | 24°27 | 11° 5 | 24°15 | 12°26 | 23°49 | 7° 7 | 3°18 | 28°12 | 5°55 | 14°49 | 14°40 | 24°18 | 23° 3 | T 30 | |
| F 31 | 3 1 7 | 13♍57'31 | 7♌ 7 | 12♍40 | 25♌26 | 13♌12 | 24♌ 2 | 7♌13 | 3°R21 | 28°10 | 5°55 | 14♏36 | 14♏37 | 24♐24 | 23♌11 | F 31 | |

Delta T = 19m30s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1068
geocentric

NOVEMBER 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|-------|-------|-------|------|------|--------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 3 5 4 | 14♌58'12 | 19♌58 | 14♌15 | 26♌37 | 13♌57 | 24♌14 | 7♌20 | 3♌23 | 28°R 9 | 5°R55 | 14°R25 | 14♌33 | 24♌31 | 23♌19 | S 1 | | | | | | | | |
| S 2 | 3 9 0 | 15°58'55 | 2♌59 | 15°50 | 27°48 | 14°43 | 24°27 | 7°26 | 3°26 | 28♌ 7 | 5♌54 | 14♌17 | 14°30 | 24°38 | 23°27 | S 2 | | | | | | | | |
| M 3 | 3 12 57 | 16°59'39 | 16°12 | 17°25 | 28°59 | 15°29 | 24°40 | 7°32 | 3°29 | 28° 5 | 5°54 | 14°12 | 14°27 | 24°44 | 23°36 | M 3 | | | | | | | | |
| T 4 | 3 16 53 | 18° 0'24 | 29°37 | 19° 0 | 0♌10 | 16°15 | 24°52 | 7°38 | 3°31 | 28° 4 | 5°54 | 14°10 | 14°24 | 24°51 | 23°44 | T 4 | | | | | | | | |
| W 5 | 3 20 50 | 19° 1'10 | 13♌16 | 20°34 | 1°21 | 17° 0 | 25° 5 | 7°44 | 3°34 | 28° 2 | 5°54 | 14°10 | 14°21 | 24°58 | 23°52 | W 5 | | | | | | | | |
| T 6 | 3 24 46 | 20° 1'57 | 27° 9 | 22° 8 | 2°32 | 17°46 | 25°17 | 7°50 | 3°37 | 28° 0 | 5°53 | 14°10 | 14°17 | 25° 4 | 24° 0 | T 6 | | | | | | | | |
| F 7 | 3 28 43 | 21° 2'45 | 11♌18 | 23°43 | 3°42 | 18°32 | 25°30 | 7°56 | 3°40 | 27°58 | 5°53 | 14° 9 | 14°14 | 25°11 | 24° 8 | F 7 | | | | | | | | |
| S 8 | 3 32 40 | 22° 3'34 | 25°41 | 25°17 | 4°53 | 19°18 | 25°42 | 8° 2 | 3°43 | 27°57 | 5°53 | 14° 6 | 14°11 | 25°18 | 24°16 | S 8 | | | | | | | | |
| S 9 | 3 36 36 | 23° 4'24 | 10♌16 | 26°51 | 6° 3 | 20° 4 | 25°55 | 8° 8 | 3°45 | 27°55 | 5°53 | 13°59 | 14° 8 | 25°24 | 24°24 | S 9 | | | | | | | | |
| M10 | 3 40 33 | 24° 5'15 | 24°58 | 28°24 | 7°14 | 20°50 | 26° 7 | 8°14 | 3°48 | 27°53 | 5°53 | 13°51 | 14° 5 | 25°31 | 24°31 | M10 | | | | | | | | |
| T 11 | 3 44 29 | 25° 6'07 | 9♌40 | 29°58 | 8°24 | 21°36 | 26°19 | 8°20 | 3°51 | 27°52 | 5°53 | 13°40 | 14° 2 | 25°38 | 24°39 | T 11 | | | | | | | | |
| W12 | 3 48 26 | 26° 7'00 | 24°14 | 1♌32 | 9°34 | 22°22 | 26°32 | 8°26 | 3°54 | 27°50 | 5°53 | 13°28 | 13°58 | 25°44 | 24°47 | W12 | | | | | | | | |
| T 13 | 3 52 22 | 27° 7'54 | 8♌32 | 3° 6 | 10°44 | 23° 8 | 26°44 | 8°31 | 3°57 | 27°48 | 5°53 | 13°16 | 13°55 | 25°51 | 24°55 | T 13 | | | | | | | | |
| F 14 | 3 56 19 | 28° 8'50 | 22°29 | 4°39 | 11°54 | 23°54 | 26°56 | 8°37 | 4° 0 | 27°47 | 5°D53 | 13° 6 | 13°52 | 25°58 | 25° 2 | F 14 | | | | | | | | |
| S 15 | 4 0 15 | 29° 9'46 | 6♌ 1 | 6°13 | 13° 4 | 24°40 | 27° 8 | 8°42 | 4° 3 | 27°45 | 5°53 | 12°58 | 13°49 | 26° 5 | 25°10 | S 15 | | | | | | | | |
| S 16 | 4 4 12 | 0♌10'44 | 19° 7 | 7°47 | 14°14 | 25°26 | 27°20 | 8°48 | 4° 6 | 27°43 | 5°53 | 12°53 | 13°46 | 26°11 | 25°18 | S 16 | | | | | | | | |
| M17 | 4 8 9 | 1°11'43 | 1♌49 | 9°20 | 15°23 | 26°12 | 27°32 | 8°53 | 4°10 | 27°42 | 5°53 | 12°51 | 13°43 | 26°18 | 25°25 | M17 | | | | | | | | |
| T 18 | 4 12 5 | 2°12'43 | 14°10 | 10°54 | 16°33 | 26°58 | 27°44 | 8°59 | 4°13 | 27°40 | 5°53 | 12°D50 | 13°39 | 26°25 | 25°33 | T 18 | | | | | | | | |
| W19 | 4 16 2 | 3°13'44 | 26°15 | 12°28 | 17°42 | 27°45 | 27°56 | 9° 4 | 4°16 | 27°38 | 5°53 | 12°51 | 13°36 | 26°31 | 25°40 | W19 | | | | | | | | |
| T 20 | 4 19 58 | 4°14'47 | 8♌ 9 | 14° 1 | 18°51 | 28°31 | 28° 8 | 9° 9 | 4°19 | 27°36 | 5°53 | 12°R51 | 13°33 | 26°38 | 25°48 | T 20 | | | | | | | | |
| F 21 | 4 23 55 | 5°15'50 | 19°58 | 15°35 | 20° 1 | 29°17 | 28°20 | 9°14 | 4°22 | 27°35 | 5°53 | 12°50 | 13°30 | 26°45 | 25°55 | F 21 | | | | | | | | |
| S 22 | 4 27 51 | 6°16'55 | 1♌48 | 17° 8 | 21° 9 | 0♌ 3 | 28°32 | 9°19 | 4°26 | 27°33 | 5°53 | 12°46 | 13°27 | 26°51 | 26° 2 | S 22 | | | | | | | | |
| S 23 | 4 31 48 | 7°18'00 | 13°42 | 18°42 | 22°18 | 0°50 | 28°43 | 9°24 | 4°29 | 27°31 | 5°54 | 12°40 | 13°23 | 26°58 | 26° 9 | S 23 | | | | | | | | |
| M24 | 4 35 44 | 8°19'07 | 25°46 | 20°15 | 23°27 | 1°36 | 28°55 | 9°29 | 4°32 | 27°30 | 5°54 | 12°32 | 13°20 | 27° 5 | 26°17 | M24 | | | | | | | | |
| T 25 | 4 39 41 | 9°20'14 | 8♌ 1 | 21°49 | 24°35 | 2°22 | 29° 6 | 9°34 | 4°35 | 27°28 | 5°54 | 12°21 | 13°17 | 27°11 | 26°24 | T 25 | | | | | | | | |
| W26 | 4 43 38 | 10°21'22 | 20° 31 | 23°22 | 25°44 | 3° 8 | 29°18 | 9°39 | 4°39 | 27°26 | 5°55 | 12°10 | 13°14 | 27°18 | 26°31 | W26 | | | | | | | | |
| T 27 | 4 47 34 | 11°22'31 | 3♌16 | 24°55 | 26°52 | 3°55 | 29°29 | 9°43 | 4°42 | 27°25 | 5°55 | 11°58 | 13°11 | 27°25 | 26°38 | T 27 | | | | | | | | |
| F 28 | 4 51 31 | 12°23'41 | 16°16 | 26°27 | 28° 0 | 4°41 | 29°40 | 9°48 | 4°45 | 27°23 | 5°55 | 11°47 | 13° 8 | 27°31 | 26°45 | F 28 | | | | | | | | |
| S 29 | 4 55 27 | 13°24'51 | 29°29 | 28° 0 | 29° 8 | 5°27 | 29°52 | 9°53 | 4°49 | 27°21 | 5°56 | 11°38 | 13° 4 | 27°38 | 26°52 | S 29 | | | | | | | | |
| S 30 | 4 59 24 | 14♌26'02 | 12♌53 | 29♌31 | 0♌16 | 6♌14 | 0♌ 3 | 9♌57 | 4♌52 | 27♌20 | 5♌56 | 11♌32 | 13♌ 1 | 27♌45 | 26♌58 | S 30 | | | | | | | | |

Delta T = 19m29s Julian Calendar 1 Nov. 1068 == Greg. Calendar 7 Nov. 1068

DECEMBER 1068 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|------|-------|------|--------|------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 5 3 20 | 15♌27'13 | 26♌28 | 1♌ 3 | 1♌23 | 7♌ 0 | 0♌14 | 10♌ 1 | 4♌56 | 27°R18 | 5♌56 | 11°R28 | 12♌58 | 27♌51 | 27♌ 5 | M 1 | | | | | | | | |
| T 2 | 5 7 17 | 16°28'24 | 10♌11 | 2°33 | 2°30 | 7°46 | 0°25 | 10° 6 | 4°59 | 27♌17 | 5°57 | 11°D27 | 12°55 | 27°58 | 27°12 | T 2 | | | | | | | | |
| W 3 | 5 11 13 | 17°29'35 | 24° 2 | 4° 3 | 3°37 | 8°33 | 0°36 | 10°10 | 5° 2 | 27°15 | 5°57 | 11°D28 | 12°52 | 28° 5 | 27°18 | W 3 | | | | | | | | |
| T 4 | 5 15 10 | 18°30'46 | 8♌ 0 | 5°31 | 4°44 | 9°19 | 0°47 | 10°14 | 5° 6 | 27°13 | 5°58 | 11°29 | 12°48 | 28°12 | 27°25 | T 4 | | | | | | | | |
| F 5 | 5 19 7 | 19°31'58 | 22° 5 | 6°59 | 5°51 | 10° 5 | 0°57 | 10°18 | 5° 9 | 27°12 | 5°58 | 11°R29 | 12°45 | 28°18 | 27°31 | F 5 | | | | | | | | |
| S 6 | 5 23 3 | 20°33'09 | 6♌15 | 8°24 | 6°57 | 10°52 | 1° 8 | 10°22 | 5°13 | 27°10 | 5°59 | 11°28 | 12°42 | 28°25 | 27°38 | S 6 | | | | | | | | |
| S 7 | 5 27 0 | 21°34'20 | 20°28 | 9°48 | 8° 3 | 11°38 | 1°19 | 10°26 | 5°16 | 27° 9 | 5°59 | 11°24 | 12°39 | 28°32 | 27°44 | S 7 | | | | | | | | |
| M 8 | 5 30 56 | 22°35'31 | 4♌44 | 11°10 | 9° 9 | 12°25 | 1°29 | 10°30 | 5°20 | 27° 7 | 6° 0 | 11°19 | 12°36 | 28°38 | 27°50 | M 8 | | | | | | | | |
| T 9 | 5 34 53 | 23°36'42 | 18°56 | 12°29 | 10°15 | 13°11 | 1°39 | 10°33 | 5°23 | 27° 6 | 6° 1 | 11°12 | 12°33 | 28°45 | 27°57 | T 9 | | | | | | | | |
| W10 | 5 38 49 | 24°37'53 | 3♌ 2 | 13°44 | 11°21 | 13°57 | 1°50 | 10°37 | 5°27 | 27° 4 | 6° 1 | 11° 4 | 12°29 | 28°52 | 28° 3 | W10 | | | | | | | | |
| T 11 | 5 42 46 | 25°39'04 | 16°56 | 14°57 | 12°26 | 14°44 | 2° 0 | 10°40 | 5°30 | 27° 3 | 6° 2 | 10°56 | 12°26 | 28°58 | 28° 9 | T 11 | | | | | | | | |
| F 12 | 5 46 42 | 26°40'15 | 0♌33 | 16° 4 | 13°31 | 15°30 | 2°10 | 10°44 | 5°34 | 27° 2 | 6° 3 | 10°49 | 12°23 | 29° 5 | 28°15 | F 12 | | | | | | | | |
| S 13 | 5 50 39 | 27°41'26 | 13°52 | 17° 7 | 14°35 | 16°16 | 2°20 | 10°47 | 5°37 | 27° 0 | 6° 3 | 10°44 | 12°20 | 29°12 | 28°20 | S 13 | | | | | | | | |
| S 14 | 5 54 36 | 28°42'37 | 26°51 | 18° 5 | 15°39 | 17° 3 | 2°30 | 10°50 | 5°41 | 26°59 | 6° 4 | 10°41 | 12°17 | 29°18 | 28°26 | S 14 | | | | | | | | |
| M15 | 5 58 32 | 29°43'48 | 9♌30 | 18°55 | 16°43 | 17°49 | 2°40 | 10°53 | 5°45 | 26°57 | 6° 5 | 10°D40 | 12°14 | 29°25 | 28°32 | M15 | | | | | | | | |
| T 16 | 6 2 29 | 0♌34'59 | 21°52 | 19°38 | 17°47 | 18°35 | 2°49 | 10°57 | 5°48 | 26°56 | 6° 5 | 10°40 | 12°10 | 29°32 | 28°37 | T 16 | | | | | | | | |
| W17 | 6 6 25 | 1°46'11 | 3♌58 | 20°13 | 18°50 | 19°21 | 2°59 | 10°59 | 5°52 | 26°55 | 6° 6 | 10°42 | 12° 7 | 29°38 | 28°43 | W17 | | | | | | | | |
| T 18 | 6 10 22 | 2°47'22 | 15°55 | 20°39 | 19°53 | 20° 8 | 3° 8 | 11° 2 | 5°55 | 26°53 | 6° 7 | 10°44 | 12° 4 | 29°45 | 28°48 | T 18 | | | | | | | | |
| F 19 | 6 14 18 | 3°48'33 | 27°46 | 20°54 | 20°56 | 20°54 | 3°18 | 11° 5 | 5°59 | 26°52 | 6° 8 | 10°45 | 12° 1 | 29°52 | 28°54 | F 19 | | | | | | | | |
| S 20 | 6 18 15 | 4°49'44 | 9♌36 | 20°R59 | 21°58 | 21°40 | 3°27 | 11° 8 | 6° 2 | 26°51 | 6° 9 | 10°R45 | 11°58 | 29°59 | 28°59 | S 20 | | | | | | | | |
| S 21 | 6 22 12 | 5°50'55 | 21°31 | 20°52 | 23° 0 | 22°26 | 3°36 | 11°10 | 6° 6 | 26°49 | 6°10 | 10°43 | 11°54 | 0♌ 5 | 29° 4 | S 21 | | | | | | | | |
| M22 | 6 26 8 | 6°52'06 | 3♌36 | 20°34 | 24° 2 | 23°13 | 3°45 | 11°13 | 6° 9 | 26°48 | 6°11 | 10°40 | 11°51 | 0°12 | 29° 9 | M22 | | | | | | | | |
| T 23 | 6 30 5 | 7°53'17 | 15°55 | 20° 4 | 25° 3 | 23°59 | 3°54 | 11°15 | 6°13 | 26°47 | 6°11 | 10°36 | 11°48 | 0°19 | 29°14 | T 23 | | | | | | | | |
| W24 | 6 34 1 | 8°54'28 | 28°31 | 19°22 | 26° 3 | 24°45 | 4° 3 | 11°17 | 6°17 | 26°46 | 6°12 | 10°31 | 11°45 | 0°25 | 29°19 | W24 | | | | | | | | |
| T 25 | 6 37 58 | 9°55'39 | 11♌25 | 18°30 | 27° 4 | 25°31 | 4°12 | 11°19 | 6°20 | 26°45 | 6°13 | 10°25 | 11°42 | 0°32 | 29°24 | T 25 | | | | | | | | |
| F 26 | 6 41 54 | 10°56'49 | 24°40 | 17°28 | 28° 3 | 26°18 | 4°20 | 11°22 | 6°24 | 26°44 | 6°14 | 10°20 | 11°39 | 0°39 | 29°29 | F 26 | | | | | | | | |
| S 27 | 6 45 51 | 11°57'59 | 8♌33 | 16°19 | 29° 3 | 27° 4 | 4°29 | 11°24 | 6°27 | 26°42 | 6°15 | 10°16 | 11°35 | 0°45 | 29°33 | S 27 | | | | | | | | |
| S 28 | 6 49 47 | 12°59'08 | 22° 2 | 15° 5 | 0♌ 2 | 27°50 | 4°37 | 11°25 | 6°31 | 26°41 | 6°16 | 10°14 | 11°32 | 0°52 | 29°38 | S 28 | | | | | | | | |
| M29 | 6 53 44 | 14° 0'17 | 6♌ 5 | 13°47 | 1° 0 | 28°36 | 4°45 | 11°27 | 6°34 | 26°40 | 6°17 | 10°D12 | 11°29 | 0°59 | 29°42 | M29 | | | | | | | | |
| T 30 | 6 57 41 | 15° 1'25 | 20°16 | 12°29 | 1°58 | 29°22 | 4°53 | 11°29 | 6°38 | 26°39 | 6°18 | 10°13 | 11°26 | 1° 5 | 29°47 | T 30 | | | | | | | | |
| W31 | 7 1 37 | 16♌2'32 | 4♌32 | 11♌13 | 2♌55 | 0♌ 8 | 5♌ 1 | 11♌30 | 6♌42 | 26♌38 | 6♌20 | 10♌14 | 11♌23 | 1♌12 | 29♌51 | W31 | | | | | | | | |

Delta T = 19m29s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1069
geocentric

JANUARY 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|------|--------|------|--------|------|--------|-------|------|-------|------|-----|
| T 1 | 7 5 34 | 17♁3'37 | 18♁49 | 10°R 1 | 3♁52 | 0♁54 | 5♁ 9 | 11♁32 | 6♁45 | 26°R37 | 6♁21 | 10♁15 | 11♁20 | 1♁19 | 29♁55 | T 1 | |
| F 2 | 7 9 30 | 18° 4'42 | 3♁ 5 | 8♁54 | 4°48 | 1°40 | 5°17 | 11°33 | 6°49 | 26♁36 | 6°22 | 10°17 | 11°16 | 1°25 | 29°59 | F 2 | |
| S 3 | 7 13 27 | 19° 5'46 | 17°16 | 7°54 | 5°44 | 2°26 | 5°24 | 11°34 | 6°52 | 26°36 | 6°23 | 10°R17 | 11°13 | 1°32 | 0♁ 3 | S 3 | |
| S 4 | 7 17 23 | 20° 6'48 | 1♁21 | 7° 3 | 6°39 | 3°12 | 5°31 | 11°35 | 6°56 | 26°35 | 6°24 | 10°17 | 11°10 | 1°39 | 0° 7 | S 4 | |
| M 5 | 7 21 20 | 21° 7'50 | 15°18 | 6°20 | 7°33 | 3°58 | 5°39 | 11°36 | 6°59 | 26°34 | 6°25 | 10°16 | 11° 7 | 1°46 | 0°10 | M 5 | |
| T 6 | 7 25 16 | 22° 8'50 | 29° 6 | 5°46 | 8°27 | 4°44 | 5°46 | 11°37 | 7° 3 | 26°33 | 6°26 | 10°13 | 11° 4 | 1°52 | 0°14 | T 6 | |
| W 7 | 7 29 13 | 23° 9'49 | 12♁43 | 5°21 | 9°20 | 5°30 | 5°53 | 11°38 | 7° 6 | 26°32 | 6°28 | 10°11 | 11° 0 | 1°59 | 0°18 | W 7 | |
| T 8 | 7 33 10 | 24°10'47 | 26° 8 | 5° 5 | 10°12 | 6°16 | 6° 0 | 11°39 | 7°10 | 26°31 | 6°29 | 10° 9 | 10°57 | 2° 6 | 0°21 | T 8 | |
| F 9 | 7 37 6 | 25°11'44 | 9♁20 | 4°D58 | 11° 3 | 7° 2 | 6° 6 | 11°39 | 7°13 | 26°31 | 6°30 | 10° 6 | 10°54 | 2°12 | 0°24 | F 9 | |
| S 10 | 7 41 3 | 26°12'40 | 22°17 | 4°58 | 11°54 | 7°48 | 6°13 | 11°40 | 7°16 | 26°30 | 6°31 | 10° 5 | 10°51 | 2°19 | 0°28 | S 10 | |
| S 11 | 7 44 59 | 27°13'35 | 5♁ 0 | 5° 6 | 12°44 | 8°34 | 6°19 | 11°40 | 7°20 | 26°29 | 6°32 | 10°D 4 | 10°48 | 2°26 | 0°31 | S 11 | |
| M12 | 7 48 56 | 28°14'28 | 17°28 | 5°21 | 13°33 | 9°19 | 6°25 | 11°41 | 7°23 | 26°29 | 6°34 | 10° 4 | 10°45 | 2°32 | 0°34 | M12 | |
| T 13 | 7 52 52 | 29°15'20 | 29°44 | 5°42 | 14°21 | 10° 5 | 6°31 | 11°41 | 7°27 | 26°28 | 6°35 | 10° 5 | 10°41 | 2°39 | 0°36 | T 13 | |
| W14 | 7 56 49 | 0♁16'12 | 11♁48 | 6°10 | 15° 8 | 10°51 | 6°37 | 11°R41 | 7°30 | 26°28 | 6°36 | 10° 6 | 10°38 | 2°46 | 0°39 | W14 | |
| T 15 | 8 0 45 | 1°17'02 | 23°45 | 6°42 | 15°54 | 11°36 | 6°43 | 11°41 | 7°33 | 26°27 | 6°38 | 10° 7 | 10°35 | 2°53 | 0°42 | T 15 | |
| F 16 | 8 4 42 | 2°17'51 | 5♁36 | 7°20 | 16°39 | 12°22 | 6°49 | 11°41 | 7°37 | 26°26 | 6°39 | 10° 8 | 10°32 | 2°59 | 0°44 | F 16 | |
| S 17 | 8 8 39 | 3°18'40 | 17°27 | 8° 2 | 17°23 | 13° 8 | 6°54 | 11°40 | 7°40 | 26°26 | 6°40 | 10° 9 | 10°29 | 3° 6 | 0°47 | S 17 | |
| S 18 | 8 12 35 | 4°19'27 | 29°22 | 8°48 | 18° 7 | 13°53 | 7° 0 | 11°40 | 7°43 | 26°26 | 6°42 | 10°R 9 | 10°26 | 3°13 | 0°49 | S 18 | |
| M19 | 8 16 32 | 5°20'13 | 11♁25 | 9°38 | 18°49 | 14°39 | 7° 5 | 11°40 | 7°47 | 26°25 | 6°43 | 10° 9 | 10°22 | 3°19 | 0°51 | M19 | |
| T 20 | 8 20 28 | 6°20'58 | 23°42 | 10°31 | 19°29 | 15°24 | 7°10 | 11°39 | 7°50 | 26°25 | 6°44 | 10° 9 | 10°19 | 3°26 | 0°53 | T 20 | |
| W21 | 8 24 25 | 7°21'42 | 6♁16 | 11°28 | 20° 9 | 16°10 | 7°14 | 11°38 | 7°53 | 26°24 | 6°46 | 10° 8 | 10°16 | 3°33 | 0°55 | W21 | |
| T 22 | 8 28 21 | 8°22'25 | 19°12 | 12°27 | 20°48 | 16°55 | 7°19 | 11°38 | 7°56 | 26°24 | 6°47 | 10° 8 | 10°13 | 3°39 | 0°57 | T 22 | |
| F 23 | 8 32 18 | 9°23'07 | 2♁30 | 13°30 | 21°25 | 17°41 | 7°24 | 11°37 | 7°59 | 26°24 | 6°49 | 10° 8 | 10°10 | 3°46 | 0°59 | F 23 | |
| S 24 | 8 36 14 | 10°23'47 | 16°13 | 14°34 | 22° 0 | 18°26 | 7°28 | 11°36 | 8° 3 | 26°24 | 6°50 | 10°D 8 | 10° 6 | 3°53 | 1° 1 | S 24 | |
| S 25 | 8 40 11 | 11°24'27 | 0♁19 | 15°41 | 22°35 | 19°11 | 7°32 | 11°35 | 8° 6 | 26°23 | 6°51 | 10° 8 | 10° 3 | 3°59 | 1° 2 | S 25 | |
| M26 | 8 44 8 | 12°25'04 | 14°43 | 16°50 | 23° 8 | 19°57 | 7°36 | 11°33 | 8° 9 | 26°23 | 6°53 | 10°R 8 | 10° 0 | 4° 6 | 1° 4 | M26 | |
| T 27 | 8 48 4 | 13°25'40 | 29°22 | 18° 1 | 23°39 | 20°42 | 7°40 | 11°32 | 8°12 | 26°23 | 6°54 | 10° 8 | 9°57 | 4°13 | 1° 5 | T 27 | |
| W28 | 8 52 1 | 14°26'14 | 14♁ 7 | 19°14 | 24° 9 | 21°27 | 7°43 | 11°31 | 8°15 | 26°23 | 6°56 | 10° 8 | 9°54 | 4°20 | 1° 6 | W28 | |
| T 29 | 8 55 57 | 15°26'47 | 28°52 | 20°28 | 24°37 | 22°12 | 7°47 | 11°29 | 8°18 | 26°23 | 6°57 | 10° 7 | 9°51 | 4°26 | 1° 7 | T 29 | |
| F 30 | 8 59 54 | 16°27'18 | 13♁31 | 21°44 | 25° 4 | 22°58 | 7°50 | 11°28 | 8°21 | 26°D23 | 6°59 | 10° 6 | 9°47 | 4°33 | 1° 8 | F 30 | |
| S 31 | 9 3 50 | 17°27'46 | 27♁57 | 23♁ 2 | 25♁29 | 23♁43 | 7♁53 | 11♁26 | 8♁24 | 26♁23 | 7♁ 0 | 10♁ 6 | 9♁44 | 4♁40 | 1♁ 9 | S 31 | |

Delta T = 19m29s Julian Calendar 1 Jan. 1069 == Greg. Calendar 7 Jan. 1069

FEBRUARY 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|--------|--------|-------|--------|------|-------|------|--------|------|------|-------|------|-----|
| S 1 | 9 7 47 | 18°28'13 | 12♁ 8 | 24♁21 | 25♁52 | 24♁28 | 7♁56 | 11°R24 | 8♁27 | 26♁23 | 7♁ 2 | 10°D 5 | 9♁41 | 4♁46 | 1♁10 | S 1 | |
| M 2 | 9 11 43 | 19°28'38 | 26° 1 | 25°42 | 26°13 | 25°13 | 7°59 | 11°22 | 8°30 | 26°23 | 7° 3 | 10°R 5 | 9°38 | 4°53 | 1°10 | M 2 | |
| T 3 | 9 15 40 | 20°29'01 | 9♁36 | 27° 4 | 26°32 | 25°58 | 8° 1 | 11°20 | 8°33 | 26°23 | 7° 5 | 10° 6 | 9°35 | 5° 0 | 1°11 | T 3 | |
| W 4 | 9 19 37 | 21°29'22 | 22°55 | 28°27 | 26°49 | 26°43 | 8° 4 | 11°18 | 8°36 | 26°23 | 7° 6 | 10° 7 | 9°32 | 5° 6 | 1°11 | W 4 | |
| T 5 | 9 23 33 | 22°29'40 | 5♁57 | 29°51 | 27° 4 | 27°28 | 8° 6 | 11°16 | 8°38 | 26°24 | 7° 8 | 10° 8 | 9°28 | 5°13 | 1°11 | T 5 | |
| F 6 | 9 27 30 | 23°29'57 | 18°45 | 1♁17 | 27°16 | 28°13 | 8° 8 | 11°14 | 8°41 | 26°24 | 7° 9 | 10° 9 | 9°25 | 5°20 | 1°11 | F 6 | |
| S 7 | 9 31 26 | 24°30'12 | 1♁20 | 2°44 | 27°27 | 28°58 | 8°10 | 11°11 | 8°44 | 26°24 | 7°11 | 10°10 | 9°22 | 5°27 | 1°R11 | S 7 | |
| S 8 | 9 35 23 | 25°30'25 | 13°45 | 4°12 | 27°35 | 29°42 | 8°11 | 11° 9 | 8°47 | 26°24 | 7°12 | 10°R10 | 9°19 | 5°33 | 1°11 | S 8 | |
| M 9 | 9 39 19 | 26°30'36 | 25°59 | 5°41 | 27°41 | 0♁27 | 8°13 | 11° 6 | 8°49 | 26°25 | 7°14 | 10° 9 | 9°16 | 5°40 | 1°11 | M 9 | |
| T 10 | 9 43 16 | 27°30'45 | 8♁ 5 | 7°11 | 27°45 | 1°12 | 8°14 | 11° 4 | 8°52 | 26°25 | 7°16 | 10° 8 | 9°12 | 5°47 | 1°11 | T 10 | |
| W11 | 9 47 12 | 28°30'53 | 20° 4 | 8°43 | 27°R46 | 1°56 | 8°15 | 11° 1 | 8°55 | 26°25 | 7°17 | 10° 5 | 9° 9 | 5°53 | 1°10 | W11 | |
| T 12 | 9 51 9 | 29°30'58 | 1♁58 | 10°15 | 27°45 | 2°41 | 8°16 | 10°58 | 8°57 | 26°26 | 7°19 | 10° 2 | 9° 6 | 6° 0 | 1°10 | T 12 | |
| F 13 | 9 55 6 | 0♁31'02 | 13°49 | 11°49 | 27°41 | 3°26 | 8°17 | 10°55 | 9° 0 | 26°26 | 7°20 | 9°59 | 9° 3 | 6° 7 | 1° 9 | F 13 | |
| S 14 | 9 59 2 | 1°31'04 | 25°41 | 13°24 | 27°35 | 4°10 | 8°17 | 10°52 | 9° 2 | 26°27 | 7°22 | 9°55 | 9° 0 | 6°13 | 1° 8 | S 14 | |
| S 15 | 10 2 59 | 2°31'04 | 7♁35 | 15° 0 | 27°26 | 4°55 | 8°17 | 10°49 | 9° 5 | 26°27 | 7°23 | 9°52 | 8°57 | 6°20 | 1° 8 | S 15 | |
| M16 | 10 6 55 | 3°31'03 | 19°37 | 16°37 | 27°15 | 5°39 | 8°R17 | 10°46 | 9° 7 | 26°28 | 7°25 | 9°50 | 8°53 | 6°27 | 1° 7 | M16 | |
| T 17 | 10 10 52 | 4°31'00 | 1♁51 | 18°15 | 27° 1 | 6°23 | 8°17 | 10°43 | 9°10 | 26°28 | 7°26 | 9°D50 | 8°50 | 6°34 | 1° 5 | T 17 | |
| W18 | 10 14 48 | 5°30'55 | 14°20 | 19°54 | 26°45 | 7° 8 | 8°17 | 10°40 | 9°12 | 26°29 | 7°28 | 9°50 | 8°47 | 6°40 | 1° 4 | W18 | |
| T 19 | 10 18 45 | 6°30'49 | 27°10 | 21°35 | 26°27 | 7°52 | 8°17 | 10°37 | 9°14 | 26°30 | 7°30 | 9°51 | 8°44 | 6°47 | 1° 3 | T 19 | |
| F 20 | 10 22 41 | 7°30'40 | 10♁24 | 23°16 | 26° 6 | 8°36 | 8°16 | 10°33 | 9°17 | 26°30 | 7°31 | 9°53 | 8°41 | 6°54 | 1° 1 | F 20 | |
| S 21 | 10 26 38 | 8°30'31 | 24° 4 | 24°59 | 25°42 | 9°21 | 8°15 | 10°30 | 9°19 | 26°31 | 7°33 | 9°54 | 8°37 | 7° 0 | 1° 0 | S 21 | |
| S 22 | 10 30 35 | 9°30'19 | 8♁12 | 26°43 | 25°17 | 10° 5 | 8°14 | 10°26 | 9°21 | 26°32 | 7°34 | 9°R55 | 8°34 | 7° 7 | 0°58 | S 22 | |
| M23 | 10 34 31 | 10°30'06 | 22°45 | 28°28 | 24°50 | 10°49 | 8°13 | 10°22 | 9°23 | 26°33 | 7°36 | 9°54 | 8°31 | 7°14 | 0°57 | M23 | |
| T 24 | 10 38 28 | 11°29'50 | 7♁38 | 0♁14 | 24°20 | 11°33 | 8°12 | 10°19 | 9°25 | 26°33 | 7°37 | 9°52 | 8°28 | 7°20 | 0°55 | T 24 | |
| W25 | 10 42 24 | 12°29'32 | 22°44 | 2° 2 | 23°49 | 12°17 | 8°10 | 10°15 | 9°27 | 26°34 | 7°39 | 9°49 | 8°25 | 7°27 | 0°53 | W25 | |
| T 26 | 10 46 21 | 13°29'13 | 7♁54 | 3°51 | 23°16 | 13° 1 | 8° 8 | 10°11 | 9°29 | 26°35 | 7°41 | 9°44 | 8°22 | 7°34 | 0°51 | T 26 | |
| F 27 | 10 50 17 | 14°28'51 | 22°56 | 5°40 | 22°42 | 13°45 | 8° 6 | 10° 7 | 9°31 | 26°36 | 7°42 | 9°39 | 8°18 | 7°41 | 0°49 | F 27 | |
| S 28 | 10 54 14 | 15♁28'27 | 7♁44 | 7♁32 | 22♁ 7 | 14°R29 | 8♁ 4 | 10♁ 3 | 9♁33 | 26♁37 | 7♁44 | 9♁34 | 8♁15 | 7♁47 | 0♁46 | S 28 | |

Delta T = 19m29s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1069
geocentric

MARCH 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|----------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 10 58 10 | 16 ^h 28'00 | 22 ^h 10 | 9 ^h 24 | 21 ^h R30 | 15 ^h V13 | 8°R 2 | 9°R59 | 9 ^h 35 | 26 ^h 38 | 7 ^h K45 | 9°R30 | 8 ^h Ω12 | 7 ^h Δ54 | 0°R44 | S 1 | | | | | | | | |
| M 2 | 11 2 7 | 17°27'32 | 6 ^h II11 | 11°18 | 20 ^h K53 | 15°57 | 7 ^h M59 | 9 ^h Δ55 | 9°37 | 26°39 | 7°47 | 9 ^h Ω28 | 8° 9 | 8° 1 | 0 ^h M42 | M 2 | | | | | | | | |
| T 3 | 11 6 3 | 18°27'01 | 19°46 | 13°13 | 20°16 | 16°41 | 7°57 | 9°51 | 9°39 | 26°40 | 7°48 | 9°D28 | 8° 6 | 8° 7 | 0°39 | T 3 | | | | | | | | |
| W 4 | 11 10 0 | 19°26'27 | 2 ^h Ω58 | 15° 9 | 19°38 | 17°24 | 7°54 | 9°47 | 9°41 | 26°41 | 7°50 | 9°28 | 8° 3 | 8°14 | 0°36 | W 4 | | | | | | | | |
| T 5 | 11 13 57 | 20°25'51 | 15°49 | 17° 6 | 19° 0 | 18° 8 | 7°51 | 9°43 | 9°42 | 26°42 | 7°51 | 9°30 | 7°59 | 8°21 | 0°34 | T 5 | | | | | | | | |
| F 6 | 11 17 53 | 21°25'13 | 28°23 | 19° 5 | 18°22 | 18°52 | 7°48 | 9°39 | 9°44 | 26°43 | 7°53 | 9°31 | 7°56 | 8°27 | 0°31 | F 6 | | | | | | | | |
| S 7 | 11 21 50 | 22°24'33 | 10 ^h Ω43 | 21° 4 | 17°45 | 19°35 | 7°44 | 9°35 | 9°46 | 26°45 | 7°55 | 9°R32 | 7°53 | 8°34 | 0°28 | S 7 | | | | | | | | |
| S 8 | 11 25 46 | 23°23'50 | 22°53 | 23° 5 | 17° 9 | 20°19 | 7°41 | 9°30 | 9°47 | 26°46 | 7°56 | 9°31 | 7°50 | 8°41 | 0°25 | S 8 | | | | | | | | |
| M 9 | 11 29 43 | 24°23'05 | 4 ^h Π55 | 25° 6 | 16°33 | 21° 2 | 7°37 | 9°26 | 9°49 | 26°47 | 7°58 | 9°28 | 7°47 | 8°48 | 0°22 | M 9 | | | | | | | | |
| T 10 | 11 33 39 | 25°22'18 | 16°52 | 27° 8 | 15°59 | 21°46 | 7°33 | 9°22 | 9°50 | 26°48 | 7°59 | 9°22 | 7°43 | 8°54 | 0°19 | T 10 | | | | | | | | |
| W11 | 11 37 36 | 26°21'28 | 28°45 | 29°11 | 15°26 | 22°29 | 7°29 | 9°17 | 9°52 | 26°49 | 8° 1 | 9°15 | 7°40 | 9° 1 | 0°16 | W11 | | | | | | | | |
| T 12 | 11 41 32 | 27°20'37 | 10 ^h Δ37 | 1 ^h V14 | 14°55 | 23°12 | 7°25 | 9°13 | 9°53 | 26°51 | 8° 2 | 9° 6 | 7°37 | 9° 8 | 0°12 | T 12 | | | | | | | | |
| F 13 | 11 45 29 | 28°19'43 | 22°29 | 3°18 | 14°26 | 23°56 | 7°21 | 9° 8 | 9°54 | 26°52 | 8° 4 | 8°57 | 7°34 | 9°14 | 0° 9 | F 13 | | | | | | | | |
| S 14 | 11 49 26 | 29°18'48 | 4 ^h Π23 | 5°22 | 13°58 | 24°39 | 7°16 | 9° 4 | 9°56 | 26°53 | 8° 5 | 8°47 | 7°31 | 9°21 | 0° 6 | S 14 | | | | | | | | |
| S 15 | 11 53 22 | 0 ^h V17'50 | 16°20 | 7°25 | 13°33 | 25°22 | 7°11 | 8°59 | 9°57 | 26°55 | 8° 7 | 8°38 | 7°28 | 9°28 | 0° 2 | S 15 | | | | | | | | |
| M16 | 11 57 19 | 1°16'51 | 28°24 | 9°29 | 13°10 | 26° 5 | 7° 7 | 8°55 | 9°58 | 26°56 | 8° 8 | 8°32 | 7°24 | 9°35 | 29 ^h Δ58 | M16 | | | | | | | | |
| T 17 | 12 1 15 | 2°15'50 | 10 ^h Δ38 | 11°31 | 12°49 | 26°48 | 7° 2 | 8°50 | 9°59 | 26°58 | 8° 9 | 8°27 | 7°21 | 9°41 | 29°55 | T 17 | | | | | | | | |
| W18 | 12 5 12 | 3°14'47 | 23° 5 | 13°32 | 12°30 | 27°31 | 6°56 | 8°46 | 10° 0 | 26°59 | 8°11 | 8°24 | 7°18 | 9°48 | 29°51 | W18 | | | | | | | | |
| T 19 | 12 9 8 | 4°13'43 | 5 ^h Ω50 | 15°32 | 12°14 | 28°14 | 6°51 | 8°41 | 10° 2 | 27° 1 | 8°12 | 8°D24 | 7°15 | 9°55 | 29°47 | T 19 | | | | | | | | |
| F 20 | 12 13 5 | 5°12'36 | 18°56 | 17°30 | 12° 1 | 28°57 | 6°46 | 8°36 | 10° 3 | 27° 2 | 8°14 | 8°24 | 7°12 | 10° 1 | 29°43 | F 20 | | | | | | | | |
| S 21 | 12 17 1 | 6°11'28 | 2 ^h Ω28 | 19°26 | 11°49 | 29°40 | 6°40 | 8°32 | 10° 4 | 27° 4 | 8°15 | 8°R25 | 7° 9 | 10° 8 | 29°40 | S 21 | | | | | | | | |
| S 22 | 12 20 58 | 7°10'18 | 16°27 | 21°19 | 11°41 | 0 ^h Ω23 | 6°34 | 8°27 | 10° 4 | 27° 5 | 8°17 | 8°25 | 7° 5 | 10°15 | 29°36 | S 22 | | | | | | | | |
| M23 | 12 24 55 | 8° 9'07 | 0 ^h K54 | 23° 9 | 11°35 | 1° 6 | 6°29 | 8°23 | 10° 5 | 27° 7 | 8°18 | 8°23 | 7° 2 | 10°21 | 29°32 | M23 | | | | | | | | |
| T 24 | 12 28 51 | 9° 7'53 | 15°46 | 24°57 | 11°31 | 1°49 | 6°23 | 8°18 | 10° 6 | 27° 8 | 8°19 | 8°19 | 6°59 | 10°28 | 29°27 | T 24 | | | | | | | | |
| W25 | 12 32 48 | 10° 6'37 | 0 ^h V56 | 26°40 | 11°D29 | 2°32 | 6°17 | 8°13 | 10° 7 | 27°10 | 8°21 | 8°12 | 6°56 | 10°35 | 29°23 | W25 | | | | | | | | |
| T 26 | 12 36 44 | 11° 5'20 | 16°14 | 28°20 | 11°30 | 3°14 | 6°10 | 8° 9 | 10° 8 | 27°12 | 8°22 | 8° 3 | 6°53 | 10°42 | 29°19 | T 26 | | | | | | | | |
| F 27 | 12 40 41 | 12° 4'01 | 1 ^h Ω31 | 29°56 | 11°34 | 3°57 | 6° 4 | 8° 4 | 10° 8 | 27°13 | 8°23 | 7°54 | 6°49 | 10°48 | 29°15 | F 27 | | | | | | | | |
| S 28 | 12 44 37 | 13° 2'39 | 16°33 | 1 ^h Ω28 | 11°39 | 4°40 | 5°58 | 8° 0 | 10° 9 | 27°15 | 8°25 | 7°44 | 6°46 | 10°55 | 29°11 | S 28 | | | | | | | | |
| S 29 | 12 48 34 | 14° 1'15 | 1 ^h II14 | 2°55 | 11°47 | 5°22 | 5°51 | 7°55 | 10° 9 | 27°17 | 8°26 | 7°37 | 6°43 | 11° 2 | 29° 6 | S 29 | | | | | | | | |
| M30 | 12 52 30 | 14°59'50 | 15°26 | 4°17 | 11°57 | 6° 5 | 5°45 | 7°51 | 10°10 | 27°19 | 8°27 | 7°31 | 6°40 | 11° 8 | 29° 2 | M30 | | | | | | | | |
| T 31 | 12 56 27 | 15 ^h V58'22 | 29 ^h II10 | 5 ^h Ω35 | 12 ^h K 9 | 6 ^h Ω47 | 5 ^h Π38 | 7 ^h Δ46 | 10 ^h Ω10 | 27 ^h Ω20 | 8 ^h K29 | 7 ^h Ω28 | 6 ^h Ω37 | 11 ^h Δ15 | 28 ^h Δ58 | T 31 | | | | | | | | |

Delta T = 19m28s Julian Calendar 1 March 1069 == Greg. Calendar 7 March 1069

APRIL 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|--------------------|-------|--------------------|---------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| W 1 | 13 0 23 | 16 ^h V56'51 | 12 ^h Ω25 | 6 ^h Ω47 | 12 ^h K23 | 7 ^h Ω29 | 5°R31 | 7°R42 | 10 ^h Ω11 | 27 ^h Ω22 | 8 ^h K30 | 7°D26 | 6 ^h Ω34 | 11 ^h Δ22 | 28°R53 | W 1 | | | | | | | | |
| T 2 | 13 4 20 | 17°55'19 | 25°15 | 7°55 | 12°39 | 8°12 | 5 ^h Π24 | 7 ^h Δ37 | 10°11 | 27°24 | 8°31 | 7°Ω26 | 6°30 | 11°29 | 28 ^h Δ49 | T 2 | | | | | | | | |
| F 3 | 13 8 17 | 18°53'44 | 7 ^h Ω44 | 8°57 | 12°57 | 8°54 | 5°17 | 7°33 | 10°11 | 27°26 | 8°33 | 7°R27 | 6°27 | 11°35 | 28°44 | F 3 | | | | | | | | |
| S 4 | 13 12 13 | 19°52'07 | 19°58 | 9°54 | 13°17 | 9°36 | 5°10 | 7°28 | 10°12 | 27°28 | 8°34 | 7°26 | 6°24 | 11°42 | 28°40 | S 4 | | | | | | | | |
| S 5 | 13 16 10 | 20°50'28 | 2 ^h Π 0 | 10°46 | 13°39 | 10°19 | 5° 3 | 7°24 | 10°12 | 27°29 | 8°35 | 7°24 | 6°21 | 11°49 | 28°35 | S 5 | | | | | | | | |
| M 6 | 13 20 6 | 21°48'47 | 13°55 | 11°32 | 14° 2 | 11° 1 | 4°56 | 7°19 | 10°12 | 27°31 | 8°36 | 7°18 | 6°18 | 11°55 | 28°31 | M 6 | | | | | | | | |
| T 7 | 13 24 3 | 22°47'04 | 25°47 | 12°13 | 14°27 | 11°43 | 4°48 | 7°15 | 10°12 | 27°33 | 8°37 | 7°11 | 6°14 | 12° 2 | 28°26 | T 7 | | | | | | | | |
| W 8 | 13 27 59 | 23°45'19 | 7 ^h Δ38 | 12°49 | 14°54 | 12°25 | 4°41 | 7°11 | 10°R12 | 27°35 | 8°39 | 7° 0 | 6°11 | 12° 9 | 28°22 | W 8 | | | | | | | | |
| T 9 | 13 31 56 | 24°43'32 | 19°30 | 13°18 | 15°23 | 13° 7 | 4°34 | 7° 6 | 10°12 | 27°37 | 8°40 | 6°47 | 6° 8 | 12°16 | 28°17 | T 9 | | | | | | | | |
| F 10 | 13 35 52 | 25°41'43 | 1 ^h Π24 | 13°42 | 15°52 | 13°49 | 4°26 | 7° 2 | 10°12 | 27°39 | 8°41 | 6°34 | 6° 5 | 12°22 | 28°13 | F 10 | | | | | | | | |
| S 11 | 13 39 49 | 26°39'53 | 13°23 | 14° 1 | 16°24 | 14°31 | 4°19 | 6°58 | 10°12 | 27°41 | 8°42 | 6°20 | 6° 2 | 12°29 | 28° 8 | S 11 | | | | | | | | |
| S 12 | 13 43 46 | 27°38'01 | 25°27 | 14°14 | 16°56 | 15°13 | 4°11 | 6°54 | 10°12 | 27°43 | 8°43 | 6° 8 | 5°59 | 12°36 | 28° 3 | S 12 | | | | | | | | |
| M13 | 13 47 42 | 28°36'07 | 7 ^h Δ39 | 14°22 | 17°31 | 15°55 | 4° 4 | 6°50 | 10°12 | 27°45 | 8°44 | 5°57 | 5°55 | 12°42 | 27°59 | M13 | | | | | | | | |
| T 14 | 13 51 39 | 29°34'12 | 19°59 | 14°R24 | 18° 6 | 16°37 | 3°56 | 6°46 | 10°11 | 27°47 | 8°45 | 5°50 | 5°52 | 12°49 | 27°54 | T 14 | | | | | | | | |
| W15 | 13 55 35 | 0 ^h Ω32'15 | 2 ^h Ω30 | 14°21 | 18°43 | 17°18 | 3°48 | 6°42 | 10°11 | 27°49 | 8°47 | 5°45 | 5°49 | 12°56 | 27°50 | W15 | | | | | | | | |
| T 16 | 13 59 32 | 1°30'17 | 15°16 | 14°14 | 19°20 | 18° 0 | 3°41 | 6°38 | 10°11 | 27°51 | 8°48 | 5°42 | 5°46 | 13° 3 | 27°45 | T 16 | | | | | | | | |
| F 17 | 14 3 28 | 2°28'17 | 28°20 | 14° 1 | 19°59 | 18°42 | 3°33 | 6°34 | 10°10 | 27°53 | 8°49 | 5°42 | 5°43 | 13° 9 | 27°41 | F 17 | | | | | | | | |
| S 18 | 14 7 25 | 3°26'16 | 11 ^h Ω46 | 13°44 | 20°39 | 19°23 | 3°26 | 6°30 | 10°10 | 27°55 | 8°50 | 5°42 | 5°40 | 13°16 | 27°36 | S 18 | | | | | | | | |
| S 19 | 14 11 21 | 4°24'14 | 25°35 | 13°23 | 21°21 | 20° 5 | 3°18 | 6°26 | 10° 9 | 27°57 | 8°51 | 5°41 | 5°36 | 13°23 | 27°32 | S 19 | | | | | | | | |
| M20 | 14 15 18 | 5°22'10 | 9 ^h K50 | 12°58 | 22° 3 | 20°46 | 3°10 | 6°22 | 10° 9 | 27°59 | 8°52 | 5°39 | 5°33 | 13°29 | 27°27 | M20 | | | | | | | | |
| T 21 | 14 19 15 | 6°20'05 | 24°29 | 12°30 | 22°46 | 21°28 | 3° 3 | 6°19 | 10° 8 | 28° 1 | 8°53 | 5°33 | 5°30 | 13°36 | 27°23 | T 21 | | | | | | | | |
| W22 | 14 23 11 | 7°17'59 | 9 ^h V27 | 12° 0 | 23°30 | 22° 9 | 2°55 | 6°15 | 10° 8 | 28° 4 | 8°53 | 5°26 | 5°27 | 13°43 | 27°18 | W22 | | | | | | | | |
| T 23 | 14 27 8 | 8°15'51 | 24°37 | 11°27 | 24°15 | 22°51 | 2°47 | 6°11 | 10° 7 | 28° 6 | 8°54 | 5°16 | 5°24 | 13°49 | 27°14 | T 23 | | | | | | | | |
| F 24 | 14 31 4 | 9°13'42 | 9 ^h Ω49 | 10°53 | 25° 1 | 23°32 | 2°40 | 6° 8 | 10° 6 | 28° 8 | 8°55 | 5° 5 | 5°20 | 13°56 | 27° 9 | F 24 | | | | | | | | |
| S 25 | 14 35 1 | 10°11'31 | 24°52 | 10°17 | 25°47 | 24°14 | 2°32 | 6° 4 | 10° 5 | 28°10 | 8°56 | 4°54 | 5°17 | 14° 3 | 27° 5 | S 25 | | | | | | | | |
| S 26 | 14 38 57 | 11° 9'19 | 9 ^h II37 | 9°42 | 26°35 | 24°55 | 2°25 | 6° 1 | 10° 5 | 28°12 | 8°57 | 4°45 | 5°14 | 14°10 | 27° 0 | S 26 | | | | | | | | |
| M27 | 14 42 54 | 12° 7'06 | 23°56 | 9° 7 | 27°23 | 25°36 | 2°17 | 5°58 | 10° 4 | 28°14 | 8°58 | 4°38 | 5°11 | 14°16 | 26°56 | M27 | | | | | | | | |
| T 28 | 14 46 50 | 13° 4'51 | 7 ^h Ω45 | 8°32 | 28°12 | 26°17 | 2°10 | 5°55 | 10° 3 | 28°17 | 8°59 | 4°33 | 5° 8 | 14°23 | 26°52 | T 28 | | | | | | | | |
| W29 | 14 50 47 | 14° 2'34 | 21° 6 | 8° 0 | 29° 2 | 26°59 | 2° 3 | 5°52 | 10° 2 | 28°19 | 9° 0 | 4°31 | 5° 5 | 14°30 | 26°48 | W29 | | | | | | | | |
| T 30 | 14 54 44 | 15 ^h Ω 0'15 | 4 ^h Ω 0 | 7 ^h Ω29 | 29 ^h K52 | 27 ^h Ω40 | 1 ^h Π55 | 5 ^h Δ48 | 10 ^h Ω 1 | 28 ^h Ω21 | 9 ^h K 0 | 4°D30 | 5 ^h Ω 1 | 14 ^h Δ37 | 26 ^h Δ43 | T 30 | | | | | | | | |

Delta T = 19m28s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1069
geocentric

MAY 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|--------|-------|-------|-------|--------|-------|-------|-------|------|-------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 14 58 40 | 15♌57'55 | 16♌31 | 7°R 1 | 0°Y43 | 28♌21 | 1°R48 | 5°R46 | 10°R 0 | 28♌23 | 9°R 1 | 4°R31 | 4♌58 | 14♌43 | 26°R39 | F 1 | | | | | | | | |
| S 2 | 15 2 37 | 16°55'33 | 28°45 | 6♌36 | 1°35 | 29° 2 | 1♌41 | 5♌43 | 9♌59 | 28°25 | 9° 2 | 4♌30 | 4°55 | 14°50 | 26♌35 | S 2 | | | | | | | | |
| S 3 | 15 6 33 | 17°53'10 | 10♍47 | 6°14 | 2°27 | 29°43 | 1°34 | 5°40 | 9°57 | 28°28 | 9° 3 | 4°28 | 4°52 | 14°57 | 26°31 | S 3 | | | | | | | | |
| M 4 | 15 10 30 | 18°50'45 | 22°40 | 5°56 | 3°20 | 0♍24 | 1°27 | 5°37 | 9°56 | 28°30 | 9° 3 | 4°24 | 4°49 | 15° 3 | 26°27 | M 4 | | | | | | | | |
| T 5 | 15 14 26 | 19°48'18 | 4♍31 | 5°41 | 4°13 | 1° 5 | 1°20 | 5°34 | 9°55 | 28°32 | 9° 4 | 4°17 | 4°46 | 15°10 | 26°23 | T 5 | | | | | | | | |
| W 6 | 15 18 23 | 20°45'50 | 16°22 | 5°31 | 5° 7 | 1°46 | 1°13 | 5°32 | 9°54 | 28°34 | 9° 5 | 4° 7 | 4°42 | 15°17 | 26°19 | W 6 | | | | | | | | |
| T 7 | 15 22 19 | 21°43'21 | 28°17 | 5°25 | 6° 1 | 2°26 | 1° 6 | 5°29 | 9°52 | 28°36 | 9° 5 | 3°56 | 4°39 | 15°24 | 26°16 | T 7 | | | | | | | | |
| F 8 | 15 26 16 | 22°40'51 | 10♍17 | 5°D24 | 6°56 | 3° 7 | 0°59 | 5°27 | 9°51 | 28°39 | 9° 6 | 3°43 | 4°36 | 15°30 | 26°12 | F 8 | | | | | | | | |
| S 9 | 15 30 12 | 23°38'19 | 22°23 | 5°27 | 7°52 | 3°48 | 0°53 | 5°25 | 9°50 | 28°41 | 9° 6 | 3°31 | 4°33 | 15°37 | 26° 8 | S 9 | | | | | | | | |
| S 10 | 15 34 9 | 24°35'47 | 4♎38 | 5°35 | 8°48 | 4°29 | 0°46 | 5°22 | 9°48 | 28°43 | 9° 7 | 3°19 | 4°30 | 15°44 | 26° 4 | S 10 | | | | | | | | |
| M 11 | 15 38 6 | 25°33'13 | 17° 2 | 5°47 | 9°44 | 5° 9 | 0°40 | 5°20 | 9°47 | 28°45 | 9° 7 | 3°10 | 4°26 | 15°50 | 26° 1 | M 11 | | | | | | | | |
| T 12 | 15 42 2 | 26°30'39 | 29°35 | 6° 3 | 10°41 | 5°50 | 0°34 | 5°18 | 9°45 | 28°48 | 9° 8 | 3° 3 | 4°23 | 15°57 | 25°57 | T 12 | | | | | | | | |
| W 13 | 15 45 59 | 27°28'03 | 12♎19 | 6°24 | 11°38 | 6°31 | 0°27 | 5°16 | 9°44 | 28°50 | 9° 9 | 2°58 | 4°20 | 16° 4 | 25°54 | W 13 | | | | | | | | |
| T 14 | 15 49 55 | 28°25'27 | 25°16 | 6°50 | 12°36 | 7°11 | 0°21 | 5°14 | 9°42 | 28°52 | 9° 9 | 2°57 | 4°17 | 16°11 | 25°51 | T 14 | | | | | | | | |
| F 15 | 15 53 52 | 29°22'50 | 8♎27 | 7°19 | 13°34 | 7°52 | 0°15 | 5°13 | 9°41 | 28°54 | 9° 9 | 2°D56 | 4°14 | 16°17 | 25°47 | F 15 | | | | | | | | |
| S 16 | 15 57 48 | 0♍20'13 | 21°54 | 7°53 | 14°32 | 8°32 | 0°10 | 5°11 | 9°39 | 28°57 | 9°10 | 2°57 | 4°11 | 16°24 | 25°44 | S 16 | | | | | | | | |
| S 17 | 16 1 45 | 1°17'35 | 5♎40 | 8°31 | 15°31 | 9°13 | 0° 4 | 5° 9 | 9°37 | 28°59 | 9°10 | 2°R57 | 4° 7 | 16°31 | 25°41 | S 17 | | | | | | | | |
| M 18 | 16 5 42 | 2°14'56 | 19°45 | 9°13 | 16°30 | 9°53 | 29♌58 | 5° 8 | 9°36 | 29° 1 | 9°11 | 2°56 | 4° 4 | 16°37 | 25°38 | M 18 | | | | | | | | |
| T 19 | 16 9 38 | 3°12'17 | 4♎9 | 9°59 | 17°30 | 10°33 | 29°53 | 5° 6 | 9°34 | 29° 3 | 9°11 | 2°53 | 4° 1 | 16°44 | 25°35 | T 19 | | | | | | | | |
| W 20 | 16 13 35 | 4° 9'37 | 18°49 | 10°48 | 18°30 | 11°14 | 29°48 | 5° 5 | 9°32 | 29° 6 | 9°11 | 2°47 | 3°58 | 16°51 | 25°32 | W 20 | | | | | | | | |
| T 21 | 16 17 31 | 5° 6'56 | 3♎39 | 11°42 | 19°30 | 11°54 | 29°43 | 5° 4 | 9°30 | 29° 8 | 9°12 | 2°40 | 3°55 | 16°58 | 25°29 | T 21 | | | | | | | | |
| F 22 | 16 21 28 | 6° 4'16 | 18°32 | 12°39 | 20°31 | 12°34 | 29°38 | 5° 3 | 9°28 | 29°10 | 9°12 | 2°31 | 3°51 | 17° 4 | 25°27 | F 22 | | | | | | | | |
| S 23 | 16 25 24 | 7° 1'34 | 3♎19 | 13°39 | 21°32 | 13°14 | 29°33 | 5° 2 | 9°26 | 29°12 | 9°12 | 2°23 | 3°48 | 17°11 | 25°24 | S 23 | | | | | | | | |
| S 24 | 16 29 21 | 7°58'52 | 17°52 | 14°44 | 22°33 | 13°55 | 29°28 | 5° 1 | 9°24 | 29°14 | 9°13 | 2°15 | 3°45 | 17°18 | 25°21 | S 24 | | | | | | | | |
| M 25 | 16 33 17 | 8°56'09 | 2♎ 5 | 15°51 | 23°34 | 14°35 | 29°24 | 5° 0 | 9°23 | 29°17 | 9°13 | 2°10 | 3°42 | 17°24 | 25°19 | M 25 | | | | | | | | |
| T 26 | 16 37 14 | 9°53'26 | 15°53 | 17° 2 | 24°36 | 15°15 | 29°19 | 4°59 | 9°21 | 29°19 | 9°13 | 2° 7 | 3°39 | 17°31 | 25°17 | T 26 | | | | | | | | |
| W 27 | 16 41 11 | 10°50'42 | 29°15 | 18°16 | 25°38 | 15°55 | 29°15 | 4°59 | 9°19 | 29°21 | 9°13 | 2°D 5 | 3°36 | 17°38 | 25°14 | W 27 | | | | | | | | |
| T 28 | 16 45 7 | 11°47'57 | 12♎11 | 19°34 | 26°40 | 16°35 | 29°11 | 4°58 | 9°17 | 29°23 | 9°13 | 2° 6 | 3°32 | 17°45 | 25°12 | T 28 | | | | | | | | |
| F 29 | 16 49 4 | 12°45'11 | 24°46 | 20°55 | 27°43 | 17°15 | 29° 7 | 4°58 | 9°14 | 29°26 | 9°13 | 2° 7 | 3°29 | 17°51 | 25°10 | F 29 | | | | | | | | |
| S 30 | 16 53 0 | 13°42'24 | 7♎ 3 | 22°19 | 28°45 | 17°55 | 29° 3 | 4°57 | 9°12 | 29°28 | 9°14 | 2° 8 | 3°26 | 17°58 | 25° 8 | S 30 | | | | | | | | |
| S 31 | 16 56 57 | 14♎39'37 | 19♎ 6 | 23♌46 | 29°Y48 | 18♎35 | 29♌ 0 | 4♌57 | 9♌10 | 29♌30 | 9♌14 | 2°R 8 | 3♌23 | 18♌ 5 | 25♌ 6 | S 31 | | | | | | | | |

Delta T = 19m28s Julian Calendar 1 May 1069 == Greg. Calendar 7 May 1069

JUNE 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|------|-------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 17 0 53 | 15♎36'49 | 1♎ 1 | 25♌16 | 0♌51 | 19♎15 | 28°R56 | 4°R57 | 9°R 8 | 29♌32 | 9°R14 | 2°R 7 | 3♎20 | 18♎11 | 25°R 4 | M 1 | | | | | | | | |
| T 2 | 17 4 50 | 16°34'00 | 12°53 | 26°50 | 1°55 | 19°55 | 28♌53 | 4°D57 | 9♌ 6 | 29°34 | 9°14 | 2♎ 3 | 3°17 | 18°18 | 25° 3 | T 2 | | | | | | | | |
| W 3 | 17 8 46 | 17°31'11 | 24°47 | 28°27 | 2°58 | 20°35 | 28°50 | 4♌57 | 9° 4 | 29°36 | 9°R14 | 1°58 | 3°13 | 18°25 | 25° 1 | W 3 | | | | | | | | |
| T 4 | 17 12 43 | 18°28'21 | 6♎44 | 0♎ 6 | 4° 2 | 21°14 | 28°47 | 4°57 | 9° 2 | 29°39 | 9°14 | 1°52 | 3°10 | 18°32 | 25° 0 | T 4 | | | | | | | | |
| F 5 | 17 16 40 | 19°25'30 | 18°50 | 1°49 | 5° 6 | 21°54 | 28°44 | 4°58 | 8°59 | 29°41 | 9°14 | 1°44 | 3° 7 | 18°38 | 24°58 | F 5 | | | | | | | | |
| S 6 | 17 20 36 | 20°22'40 | 1♎ 6 | 3°35 | 6°11 | 22°34 | 28°42 | 4°58 | 8°57 | 29°43 | 9°14 | 1°37 | 3° 4 | 18°45 | 24°57 | S 6 | | | | | | | | |
| S 7 | 17 24 33 | 21°19'49 | 13°33 | 5°23 | 7°15 | 23°14 | 28°40 | 4°58 | 8°55 | 29°45 | 9°14 | 1°30 | 3° 1 | 18°52 | 24°56 | S 7 | | | | | | | | |
| M 8 | 17 28 29 | 22°16'58 | 26°12 | 7°15 | 8°20 | 23°53 | 28°37 | 4°59 | 8°53 | 29°47 | 9°13 | 1°25 | 2°57 | 18°58 | 24°55 | M 8 | | | | | | | | |
| T 9 | 17 32 26 | 23°14'07 | 9♎ 3 | 9° 9 | 9°25 | 24°33 | 28°35 | 5° 0 | 8°50 | 29°49 | 9°13 | 1°21 | 2°54 | 19° 5 | 24°54 | T 9 | | | | | | | | |
| W 10 | 17 36 22 | 24°11'15 | 22° 7 | 11° 5 | 10°30 | 25°13 | 28°34 | 5° 0 | 8°48 | 29°51 | 9°13 | 1°19 | 2°51 | 19°12 | 24°53 | W 10 | | | | | | | | |
| T 11 | 17 40 19 | 25° 8'24 | 5♎23 | 13° 4 | 11°35 | 25°52 | 28°32 | 5° 1 | 8°46 | 29°53 | 9°13 | 1°D19 | 2°48 | 19°19 | 24°52 | T 11 | | | | | | | | |
| F 12 | 17 44 15 | 26° 5'33 | 18°51 | 15° 5 | 12°40 | 26°32 | 28°30 | 5° 2 | 8°43 | 29°55 | 9°13 | 1°19 | 2°45 | 19°25 | 24°51 | F 12 | | | | | | | | |
| S 13 | 17 48 12 | 27° 2'42 | 2♎31 | 17° 9 | 13°46 | 27°11 | 28°29 | 5° 3 | 8°41 | 29°57 | 9°13 | 1°21 | 2°42 | 19°32 | 24°51 | S 13 | | | | | | | | |
| S 14 | 17 52 9 | 27°59'51 | 16°24 | 19°14 | 14°52 | 27°51 | 28°28 | 5° 4 | 8°39 | 29°59 | 9°12 | 1°22 | 2°38 | 19°39 | 24°50 | S 14 | | | | | | | | |
| M 15 | 17 56 5 | 28°57'01 | 0♎28 | 21°20 | 15°57 | 28°30 | 28°27 | 5° 6 | 8°36 | 0♎ 1 | 9°12 | 1°R23 | 2°35 | 19°46 | 24°50 | M 15 | | | | | | | | |
| T 16 | 18 0 2 | 29°54'10 | 14°42 | 23°28 | 17° 4 | 29°10 | 28°26 | 5° 7 | 8°34 | 0° 3 | 9°12 | 1°22 | 2°32 | 19°52 | 24°50 | T 16 | | | | | | | | |
| W 17 | 18 3 58 | 0♎51'21 | 29° 5 | 25°37 | 18°10 | 29°49 | 28°26 | 5° 9 | 8°32 | 0° 5 | 9°12 | 1°20 | 2°29 | 19°59 | 24°50 | W 17 | | | | | | | | |
| T 18 | 18 7 55 | 1°48'32 | 13♎32 | 27°46 | 19°16 | 0♎28 | 28°25 | 5°10 | 8°29 | 0° 7 | 9°11 | 1°16 | 2°26 | 20° 6 | 24°D50 | T 18 | | | | | | | | |
| F 19 | 18 11 51 | 2°45'43 | 27°59 | 29°55 | 20°23 | 1° 8 | 28°25 | 5°12 | 8°27 | 0° 9 | 9°11 | 1°12 | 2°23 | 20°12 | 24°50 | F 19 | | | | | | | | |
| S 20 | 18 15 48 | 3°42'54 | 12♎21 | 2♎ 5 | 21°29 | 1°47 | 28°D25 | 5°13 | 8°24 | 0°11 | 9°11 | 1° 9 | 2°19 | 20°19 | 24°50 | S 20 | | | | | | | | |
| S 21 | 18 19 44 | 4°40'07 | 26°31 | 4°15 | 22°36 | 2°26 | 28°25 | 5°15 | 8°22 | 0°13 | 9°10 | 1° 5 | 2°16 | 20°26 | 24°50 | S 21 | | | | | | | | |
| M 22 | 18 23 41 | 5°37'19 | 10♎26 | 6°24 | 23°43 | 3° 6 | 28°26 | 5°17 | 8°20 | 0°15 | 9°10 | 1° 3 | 2°13 | 20°33 | 24°50 | M 22 | | | | | | | | |
| T 23 | 18 27 38 | 6°34'32 | 24° 1 | 8°32 | 24°50 | 3°45 | 28°26 | 5°19 | 8°17 | 0°17 | 9° 9 | 1° 1 | 2°10 | 20°39 | 24°51 | T 23 | | | | | | | | |
| W 24 | 18 31 34 | 7°31'44 | 7♎15 | 10°40 | 25°58 | 4°24 | 28°27 | 5°21 | 8°15 | 0°19 | 9° 9 | 1°D 1 | 2° 7 | 20°46 | 24°52 | W 24 | | | | | | | | |
| T 25 | 18 35 31 | 8°28'57 | 20° 9 | 12°46 | 27° 5 | 5° 3 | 28°28 | 5°24 | 8°12 | 0°21 | 9° 8 | 1° 2 | 2° 3 | 20°53 | 24°52 | T 25 | | | | | | | | |
| F 26 | 18 39 27 | 9°26'11 | 2♎43 | 14°51 | 28°12 | 5°43 | 28°29 | 5°26 | 8°10 | 0°23 | 9° 8 | 1° 4 | 2° 0 | 20°59 | 24°53 | F 26 | | | | | | | | |
| S 27 | 18 43 24 | 10°23'24 | 15° 0 | 16°55 | 29°20 | 6°22 | 28°30 | 5°28 | 8° 8 | 0°25 | 9° 7 | 1° 5 | 1°57 | 21° 6 | 24°54 | S 27 | | | | | | | | |
| S 28 | 18 47 20 | 11°20'37 | 27° 6 | 18°58 | 0♎28 | 7° 1 | 28°31 | 5°31 | 8° 5 | 0°26 | 9° 7 | 1° 7 | 1°54 | 21°13 | 24°55 | S 28 | | | | | | | | |
| M 29 | 18 51 17 | 12°17'51 | 9♎ 3 | 20°58 | 1°36 | 7°40 | 28°33 | 5°33 | 8° 3 | 0°28 | 9° 6 | 1°R 7 | 1°51 | 21°20 | 24°56 | M 29 | | | | | | | | |
| T 30 | 18 55 13 | 13♎15'05 | 20♎56 | 22♎58 | 2♎44 | 8♎19 | 28♎35 | 5♎36 | 8♎ 0 | 0♎30 | 9♎ 6 | 1♎ 7 | 1♎48 | 21♎26 | 24♎57 | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1069
geocentric

JULY 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|---|-----|
| W 1 | 18 59 10 | 14 ⁵ 12'20 | 2 ¹¹ 50 | 24 ⁵ 55 | 3 ¹¹ 52 | 8 ⁵ 58 | 28 ⁵ 37 | 5 ⁵ 39 | 7 ⁵ R58 | 0 ¹¹ 32 | 9 ⁵ R 5 | 1 ⁵ R 6 | 1 ⁵ Q44 | 21 ⁵ 33 | 24 ⁵ 59 | W 1 | | |
| T 2 | 19 3 7 | 15 ⁵ 9'34 | 14 ⁵ 50 | 26 ⁵ 51 | 5 ⁵ 0 | 9 ⁵ 37 | 28 ⁵ 39 | 5 ⁵ 42 | 7 ⁵ 56 | 0 ⁵ 33 | 9 ⁵ 4 | 1 ⁵ Q 4 | 1 ⁵ 41 | 21 ⁵ 40 | 25 ⁵ 0 | T 2 | | |
| F 3 | 19 7 3 | 16 ⁵ 6'50 | 27 ⁵ 0 | 28 ⁵ 45 | 6 ⁵ 8 | 10 ⁵ 16 | 28 ⁵ 41 | 5 ⁵ 45 | 7 ⁵ 53 | 0 ⁵ 35 | 9 ⁵ 4 | 1 ⁵ 2 | 1 ⁵ 38 | 21 ⁵ 47 | 25 ⁵ 2 | F 3 | | |
| S 4 | 19 11 0 | 17 ⁵ 4'05 | 9 ⁵ 22 | 0 ⁵ 38 | 7 ⁵ 17 | 10 ⁵ 55 | 28 ⁵ 44 | 5 ⁵ 48 | 7 ⁵ 51 | 0 ⁵ 37 | 9 ⁵ 3 | 1 ⁵ 0 | 1 ⁵ 35 | 21 ⁵ 53 | 25 ⁵ 4 | S 4 | | |
| S 5 | 19 14 56 | 18 ⁵ 1'21 | 21 ⁵ 59 | 2 ⁵ 28 | 8 ⁵ 25 | 11 ⁵ 34 | 28 ⁵ 46 | 5 ⁵ 51 | 7 ⁵ 48 | 0 ⁵ 38 | 9 ⁵ 2 | 0 ⁵ 59 | 1 ⁵ 32 | 22 ⁵ 0 | 25 ⁵ 5 | S 5 | | |
| M 6 | 19 18 53 | 18 ⁵ 58'38 | 4 ⁵ 52 | 4 ⁵ 17 | 9 ⁵ 34 | 12 ⁵ 13 | 28 ⁵ 49 | 5 ⁵ 54 | 7 ⁵ 46 | 0 ⁵ 40 | 9 ⁵ 2 | 0 ⁵ 57 | 1 ⁵ 29 | 22 ⁵ 7 | 25 ⁵ 7 | M 6 | | |
| T 7 | 19 22 49 | 19 ⁵ 55'56 | 18 ⁵ 2 | 6 ⁵ 5 | 10 ⁵ 43 | 12 ⁵ 51 | 28 ⁵ 52 | 5 ⁵ 57 | 7 ⁵ 44 | 0 ⁵ 42 | 9 ⁵ 1 | 0 ⁵ 56 | 1 ⁵ 25 | 22 ⁵ 13 | 25 ⁵ 9 | T 7 | | |
| W 8 | 19 26 46 | 20 ⁵ 53'14 | 1 ⁵ 29 | 7 ⁵ 50 | 11 ⁵ 52 | 13 ⁵ 30 | 28 ⁵ 55 | 6 ⁵ 1 | 7 ⁵ 41 | 0 ⁵ 43 | 9 ⁵ 0 | 0 ⁵ D56 | 1 ⁵ 22 | 22 ⁵ 20 | 25 ⁵ 11 | W 8 | | |
| T 9 | 19 30 43 | 21 ⁵ 50'33 | 15 ⁵ 10 | 9 ⁵ 34 | 13 ⁵ 1 | 14 ⁵ 9 | 28 ⁵ 59 | 6 ⁵ 4 | 7 ⁵ 39 | 0 ⁵ 45 | 9 ⁵ 0 | 0 ⁵ 56 | 1 ⁵ 19 | 22 ⁵ 27 | 25 ⁵ 13 | T 9 | | |
| F 10 | 19 34 39 | 22 ⁵ 47'53 | 29 ⁵ 3 | 11 ⁵ 16 | 14 ⁵ 10 | 14 ⁵ 48 | 29 ⁵ 2 | 6 ⁵ 8 | 7 ⁵ 37 | 0 ⁵ 46 | 8 ⁵ 59 | 0 ⁵ 57 | 1 ⁵ 16 | 22 ⁵ 34 | 25 ⁵ 16 | F 10 | | |
| S 11 | 19 38 36 | 23 ⁵ 45'14 | 13 ⁵ 6 | 12 ⁵ 57 | 15 ⁵ 19 | 15 ⁵ 27 | 29 ⁵ 6 | 6 ⁵ 11 | 7 ⁵ 35 | 0 ⁵ 48 | 8 ⁵ 58 | 0 ⁵ 58 | 1 ⁵ 13 | 22 ⁵ 40 | 25 ⁵ 18 | S 11 | | |
| S 12 | 19 42 32 | 24 ⁵ 42'36 | 27 ⁵ 16 | 14 ⁵ 35 | 16 ⁵ 28 | 16 ⁵ 5 | 29 ⁵ 10 | 6 ⁵ 15 | 7 ⁵ 32 | 0 ⁵ 49 | 8 ⁵ 57 | 0 ⁵ 58 | 1 ⁵ 9 | 22 ⁵ 47 | 25 ⁵ 21 | S 12 | | |
| M13 | 19 46 29 | 25 ⁵ 39'59 | 11 ⁵ 30 | 16 ⁵ 13 | 17 ⁵ 38 | 16 ⁵ 44 | 29 ⁵ 14 | 6 ⁵ 19 | 7 ⁵ 30 | 0 ⁵ 51 | 8 ⁵ 56 | 0 ⁵ 59 | 1 ⁵ 6 | 22 ⁵ 54 | 25 ⁵ 23 | M13 | | |
| T 14 | 19 50 25 | 26 ⁵ 37'24 | 25 ⁵ 45 | 17 ⁵ 48 | 18 ⁵ 47 | 17 ⁵ 23 | 29 ⁵ 18 | 6 ⁵ 22 | 7 ⁵ 28 | 0 ⁵ 52 | 8 ⁵ 56 | 0 ⁵ R59 | 1 ⁵ 3 | 23 ⁵ 0 | 25 ⁵ 26 | T 14 | | |
| W15 | 19 54 22 | 27 ⁵ 34'50 | 9 ⁵ 58 | 19 ⁵ 22 | 19 ⁵ 57 | 18 ⁵ 1 | 29 ⁵ 22 | 6 ⁵ 26 | 7 ⁵ 26 | 0 ⁵ 54 | 8 ⁵ 55 | 0 ⁵ 59 | 1 ⁵ 0 | 23 ⁵ 7 | 25 ⁵ 29 | W15 | | |
| T 16 | 19 58 18 | 28 ⁵ 32'17 | 24 ⁵ 8 | 20 ⁵ 54 | 21 ⁵ 7 | 18 ⁵ 40 | 29 ⁵ 27 | 6 ⁵ 30 | 7 ⁵ 23 | 0 ⁵ 55 | 8 ⁵ 54 | 0 ⁵ 58 | 0 ⁵ 57 | 23 ⁵ 14 | 25 ⁵ 32 | T 16 | | |
| F 17 | 20 2 15 | 29 ⁵ 29'46 | 8 ⁵ 11 | 22 ⁵ 24 | 22 ⁵ 16 | 19 ⁵ 19 | 29 ⁵ 31 | 6 ⁵ 35 | 7 ⁵ 21 | 0 ⁵ 56 | 8 ⁵ 53 | 0 ⁵ 58 | 0 ⁵ 54 | 23 ⁵ 21 | 25 ⁵ 35 | F 17 | | |
| S 18 | 20 6 12 | 0 ⁵ 27'16 | 22 ⁵ 5 | 23 ⁵ 53 | 23 ⁵ 26 | 19 ⁵ 57 | 29 ⁵ 36 | 6 ⁵ 39 | 7 ⁵ 19 | 0 ⁵ 58 | 8 ⁵ 52 | 0 ⁵ D58 | 0 ⁵ 50 | 23 ⁵ 27 | 25 ⁵ 38 | S 18 | | |
| S 19 | 20 10 8 | 1 ⁵ 24'47 | 5 ⁵ 47 | 25 ⁵ 20 | 24 ⁵ 36 | 20 ⁵ 36 | 29 ⁵ 41 | 6 ⁵ 43 | 7 ⁵ 17 | 0 ⁵ 59 | 8 ⁵ 51 | 0 ⁵ 58 | 0 ⁵ 47 | 23 ⁵ 34 | 25 ⁵ 41 | S 19 | | |
| M20 | 20 14 5 | 2 ⁵ 22'19 | 19 ⁵ 17 | 26 ⁵ 45 | 25 ⁵ 47 | 21 ⁵ 15 | 29 ⁵ 46 | 6 ⁵ 47 | 7 ⁵ 15 | 1 ⁵ 0 | 8 ⁵ 50 | 0 ⁵ 58 | 0 ⁵ 44 | 23 ⁵ 41 | 25 ⁵ 44 | M20 | | |
| T 21 | 20 18 1 | 3 ⁵ 19'53 | 2 ⁵ 32 | 28 ⁵ 8 | 26 ⁵ 57 | 21 ⁵ 53 | 29 ⁵ 51 | 6 ⁵ 52 | 7 ⁵ 13 | 1 ⁵ 2 | 8 ⁵ 49 | 0 ⁵ R58 | 0 ⁵ 41 | 23 ⁵ 48 | 25 ⁵ 48 | T 21 | | |
| W22 | 20 21 58 | 4 ⁵ 17'28 | 15 ⁵ 31 | 29 ⁵ 30 | 28 ⁵ 7 | 22 ⁵ 32 | 29 ⁵ 57 | 6 ⁵ 56 | 7 ⁵ 11 | 1 ⁵ 3 | 8 ⁵ 48 | 0 ⁵ 58 | 0 ⁵ 38 | 23 ⁵ 54 | 25 ⁵ 51 | W22 | | |
| T 23 | 20 25 54 | 5 ⁵ 15'04 | 28 ⁵ 14 | 0 ⁵ 49 | 29 ⁵ 17 | 23 ⁵ 10 | 0 ⁵ 2 | 7 ⁵ 1 | 7 ⁵ 9 | 1 ⁵ 4 | 8 ⁵ 47 | 0 ⁵ 58 | 0 ⁵ 35 | 24 ⁵ 1 | 25 ⁵ 55 | T 23 | | |
| F 24 | 20 29 51 | 6 ⁵ 12'41 | 10 ⁵ 43 | 2 ⁵ 7 | 0 ⁵ 28 | 23 ⁵ 49 | 0 ⁵ 8 | 7 ⁵ 5 | 7 ⁵ 7 | 1 ⁵ 5 | 8 ⁵ 46 | 0 ⁵ 57 | 0 ⁵ 31 | 24 ⁵ 8 | 25 ⁵ 58 | F 24 | | |
| S 25 | 20 33 47 | 7 ⁵ 10'19 | 22 ⁵ 58 | 3 ⁵ 23 | 1 ⁵ 38 | 24 ⁵ 27 | 0 ⁵ 14 | 7 ⁵ 10 | 7 ⁵ 5 | 1 ⁵ 6 | 8 ⁵ 45 | 0 ⁵ 57 | 0 ⁵ 28 | 24 ⁵ 14 | 26 ⁵ 2 | S 25 | | |
| S 26 | 20 37 44 | 8 ⁵ 7'59 | 5 ⁵ 2 | 4 ⁵ 37 | 2 ⁵ 49 | 25 ⁵ 6 | 0 ⁵ 20 | 7 ⁵ 15 | 7 ⁵ 3 | 1 ⁵ 7 | 8 ⁵ 44 | 0 ⁵ 56 | 0 ⁵ 25 | 24 ⁵ 21 | 26 ⁵ 6 | S 26 | | |
| M27 | 20 41 41 | 9 ⁵ 5'39 | 16 ⁵ 58 | 5 ⁵ 49 | 4 ⁵ 0 | 25 ⁵ 44 | 0 ⁵ 26 | 7 ⁵ 20 | 7 ⁵ 1 | 1 ⁵ 9 | 8 ⁵ 43 | 0 ⁵ 55 | 0 ⁵ 22 | 24 ⁵ 28 | 26 ⁵ 10 | M27 | | |
| T 28 | 20 45 37 | 10 ⁵ 3'21 | 28 ⁵ 52 | 6 ⁵ 59 | 5 ⁵ 11 | 26 ⁵ 23 | 0 ⁵ 32 | 7 ⁵ 25 | 6 ⁵ 59 | 1 ⁵ 10 | 8 ⁵ 42 | 0 ⁵ 54 | 0 ⁵ 19 | 24 ⁵ 35 | 26 ⁵ 14 | T 28 | | |
| W29 | 20 49 34 | 11 ⁵ 1'03 | 10 ⁵ 46 | 8 ⁵ 6 | 6 ⁵ 21 | 27 ⁵ 1 | 0 ⁵ 39 | 7 ⁵ 30 | 6 ⁵ 57 | 1 ⁵ 11 | 8 ⁵ 41 | 0 ⁵ D54 | 0 ⁵ 15 | 24 ⁵ 41 | 26 ⁵ 18 | W29 | | |
| T 30 | 20 53 30 | 11 ⁵ 58'47 | 22 ⁵ 45 | 9 ⁵ 11 | 7 ⁵ 32 | 27 ⁵ 39 | 0 ⁵ 45 | 7 ⁵ 35 | 6 ⁵ 55 | 1 ⁵ 12 | 8 ⁵ 40 | 0 ⁵ 54 | 0 ⁵ 12 | 24 ⁵ 48 | 26 ⁵ 22 | T 30 | | |
| F 31 | 20 57 27 | 12 ⁵ Q56'32 | 4 ⁵ 54 | 10 ⁵ 14 | 8 ⁵ 43 | 28 ⁵ 18 | 0 ⁵ 52 | 7 ⁵ 40 | 6 ⁵ 53 | 1 ⁵ 13 | 8 ⁵ 39 | 0 ⁵ Q55 | 0 ⁵ Q 9 | 24 ⁵ 55 | 26 ⁵ 27 | F 31 | | |

Delta T = 19m27s Julian Calendar 1 July 1069 == Greg. Calendar 7 July 1069

AUGUST 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|------------------------|--------------------|---------------------|--------------------|--------------------|-------------------|-------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|---|-----|
| S 1 | 21 1 23 | 13 ⁵ Q54'18 | 17 ⁵ 18 | 11 ⁵ 14 | 9 ⁵ 55 | 28 ⁵ 56 | 0 ⁵ 59 | 7 ⁵ 45 | 6 ⁵ R51 | 1 ⁵ 14 | 8 ⁵ R38 | 0 ⁵ Q56 | 0 ⁵ Q 6 | 25 ⁵ 1 | 26 ⁵ 31 | S 1 | | |
| S 2 | 21 5 20 | 14 ⁵ 52'06 | 29 ⁵ 59 | 12 ⁵ 12 | 11 ⁵ 6 | 29 ⁵ 34 | 1 ⁵ 6 | 7 ⁵ 50 | 6 ⁵ 50 | 1 ⁵ 14 | 8 ⁵ 37 | 0 ⁵ 57 | 0 ⁵ 3 | 25 ⁵ 8 | 26 ⁵ 36 | S 2 | | |
| M 3 | 21 9 16 | 15 ⁵ 49'55 | 13 ⁵ 1 | 13 ⁵ 7 | 12 ⁵ 17 | 0 ⁵ 13 | 1 ⁵ 13 | 7 ⁵ 55 | 6 ⁵ 48 | 1 ⁵ 15 | 8 ⁵ 36 | 0 ⁵ 58 | 29 ⁵ 59 | 25 ⁵ 15 | 26 ⁵ 40 | M 3 | | |
| T 4 | 21 13 13 | 16 ⁵ 47'45 | 26 ⁵ 25 | 13 ⁵ 58 | 13 ⁵ 28 | 0 ⁵ 51 | 1 ⁵ 20 | 8 ⁵ 1 | 6 ⁵ 46 | 1 ⁵ 16 | 8 ⁵ 35 | 0 ⁵ R58 | 29 ⁵ 56 | 25 ⁵ 22 | 26 ⁵ 45 | T 4 | | |
| W 5 | 21 17 10 | 17 ⁵ 45'36 | 10 ⁵ 11 | 14 ⁵ 47 | 14 ⁵ 40 | 1 ⁵ 29 | 1 ⁵ 28 | 8 ⁵ 6 | 6 ⁵ 45 | 1 ⁵ 17 | 8 ⁵ 34 | 0 ⁵ 59 | 29 ⁵ 53 | 25 ⁵ 28 | 26 ⁵ 50 | W 5 | | |
| T 6 | 21 21 6 | 18 ⁵ 43'29 | 24 ⁵ 17 | 15 ⁵ 32 | 15 ⁵ 51 | 2 ⁵ 7 | 1 ⁵ 35 | 8 ⁵ 12 | 6 ⁵ 43 | 1 ⁵ 18 | 8 ⁵ 32 | 0 ⁵ 58 | 29 ⁵ 50 | 25 ⁵ 35 | 26 ⁵ 54 | T 6 | | |
| F 7 | 21 25 3 | 19 ⁵ 41'24 | 8 ⁵ 38 | 16 ⁵ 14 | 17 ⁵ 3 | 2 ⁵ 46 | 1 ⁵ 43 | 8 ⁵ 17 | 6 ⁵ 42 | 1 ⁵ 19 | 8 ⁵ 31 | 0 ⁵ 56 | 29 ⁵ 47 | 25 ⁵ 42 | 26 ⁵ 59 | F 7 | | |
| S 8 | 21 28 59 | 20 ⁵ 39'20 | 23 ⁵ 9 | 16 ⁵ 52 | 18 ⁵ 15 | 3 ⁵ 24 | 1 ⁵ 51 | 8 ⁵ 23 | 6 ⁵ 40 | 1 ⁵ 19 | 8 ⁵ 30 | 0 ⁵ 53 | 29 ⁵ 44 | 25 ⁵ 49 | 27 ⁵ 4 | S 8 | | |
| S 9 | 21 32 56 | 21 ⁵ 37'18 | 7 ⁵ 44 | 17 ⁵ 26 | 19 ⁵ 26 | 4 ⁵ 2 | 1 ⁵ 59 | 8 ⁵ 29 | 6 ⁵ 39 | 1 ⁵ 20 | 8 ⁵ 29 | 0 ⁵ 51 | 29 ⁵ 41 | 25 ⁵ 55 | 27 ⁵ 9 | S 9 | | |
| M10 | 21 36 52 | 22 ⁵ 35'18 | 22 ⁵ 17 | 17 ⁵ 55 | 20 ⁵ 38 | 4 ⁵ 40 | 2 ⁵ 7 | 8 ⁵ 34 | 6 ⁵ 37 | 1 ⁵ 21 | 8 ⁵ 28 | 0 ⁵ 48 | 29 ⁵ 37 | 26 ⁵ 2 | 27 ⁵ 15 | M10 | | |
| T 11 | 21 40 49 | 23 ⁵ 33'20 | 6 ⁵ 43 | 18 ⁵ 20 | 21 ⁵ 50 | 5 ⁵ 18 | 2 ⁵ 15 | 8 ⁵ 40 | 6 ⁵ 36 | 1 ⁵ 21 | 8 ⁵ 27 | 0 ⁵ 47 | 29 ⁵ 34 | 26 ⁵ 9 | 27 ⁵ 20 | T 11 | | |
| W12 | 21 44 45 | 24 ⁵ 31'24 | 20 ⁵ 58 | 18 ⁵ 41 | 23 ⁵ 2 | 5 ⁵ 56 | 2 ⁵ 23 | 8 ⁵ 46 | 6 ⁵ 34 | 1 ⁵ 22 | 8 ⁵ 25 | 0 ⁵ D46 | 29 ⁵ 31 | 26 ⁵ 15 | 27 ⁵ 25 | W12 | | |
| T 13 | 21 48 42 | 25 ⁵ 29'30 | 4 ⁵ 59 | 18 ⁵ 56 | 24 ⁵ 14 | 6 ⁵ 34 | 2 ⁵ 32 | 8 ⁵ 52 | 6 ⁵ 33 | 1 ⁵ 22 | 8 ⁵ 24 | 0 ⁵ 46 | 29 ⁵ 28 | 26 ⁵ 22 | 27 ⁵ 31 | T 13 | | |
| F 14 | 21 52 38 | 26 ⁵ 27'39 | 18 ⁵ 46 | 19 ⁵ 6 | 25 ⁵ 26 | 7 ⁵ 13 | 2 ⁵ 40 | 8 ⁵ 58 | 6 ⁵ 32 | 1 ⁵ 23 | 8 ⁵ 23 | 0 ⁵ 47 | 29 ⁵ 25 | 26 ⁵ 29 | 27 ⁵ 36 | F 14 | | |
| S 15 | 21 56 35 | 27 ⁵ 25'49 | 2 ⁵ 19 | 19 ⁵ R10 | 26 ⁵ 39 | 7 ⁵ 51 | 2 ⁵ 49 | 9 ⁵ 4 | 6 ⁵ 30 | 1 ⁵ 23 | 8 ⁵ 22 | 0 ⁵ 49 | 29 ⁵ 21 | 26 ⁵ 36 | 27 ⁵ 42 | S 15 | | |
| S 16 | 22 0 32 | 28 ⁵ 24'01 | 15 | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1069
geocentric

SEPTEMBER 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 23 3 36 | 13♎59'24 | 4♋23 | 7°R13 | 17♏17 | 18♏36 | 5♌32 | 10♌52 | 6°R16 | 1°R27 | 8°R 1 | 0°R15 | 28♌27 | 28♌30 | 29♌26 | T 1 | |
| W 2 | 23 7 33 | 14°58'07 | 18°18 | 6♎26 | 18°30 | 19°14 | 5°43 | 10°59 | 6♌16 | 1♎27 | 8♋ 0 | 0♏13 | 28°24 | 28°37 | 29°33 | W 2 | |
| T 3 | 23 11 30 | 15°56'51 | 2♋39 | 5°47 | 19°44 | 19°51 | 5°53 | 11° 6 | 6°16 | 1°26 | 7°59 | 0°10 | 28°21 | 28°43 | 29°40 | T 3 | |
| F 4 | 23 15 26 | 16°55'38 | 17°21 | 5°16 | 20°57 | 20°29 | 6° 4 | 11°13 | 6°15 | 1°26 | 7°57 | 0° 5 | 28°18 | 28°50 | 29°47 | F 4 | |
| S 5 | 23 19 23 | 17°54'26 | 2°V18 | 4°54 | 22°11 | 21° 7 | 6°15 | 11°19 | 6°15 | 1°26 | 7°56 | 29♌58 | 28°15 | 28°57 | 29°54 | S 5 | |
| S 6 | 23 23 19 | 18°53'16 | 17°20 | 4°42 | 23°24 | 21°45 | 6°26 | 11°26 | 6°15 | 1°26 | 7°55 | 29°50 | 28°12 | 29° 4 | 0♌ 1 | S 6 | |
| M 7 | 23 27 16 | 19°52'09 | 2♌17 | 4°D40 | 24°38 | 22°22 | 6°37 | 11°33 | 6°15 | 1°26 | 7°54 | 29°43 | 28° 8 | 29°10 | 0° 8 | M 7 | |
| T 8 | 23 31 12 | 20°51'04 | 17° 2 | 4°48 | 25°52 | 23° 0 | 6°48 | 11°40 | 6°15 | 1°25 | 7°53 | 29°37 | 28° 5 | 29°17 | 0°15 | T 8 | |
| W 9 | 23 35 9 | 21°50'01 | 1♎29 | 5° 7 | 27° 5 | 23°38 | 6°59 | 11°47 | 6°14 | 1°25 | 7°51 | 29°33 | 28° 2 | 29°24 | 0°22 | W 9 | |
| T 10 | 23 39 5 | 22°49'01 | 15°33 | 5°35 | 28°19 | 24°15 | 7°10 | 11°54 | 6°D14 | 1°25 | 7°50 | 29°32 | 27°59 | 29°30 | 0°29 | T 10 | |
| F 11 | 23 43 2 | 23°48'04 | 29°16 | 6°12 | 29°33 | 24°53 | 7°21 | 12° 1 | 6°15 | 1°24 | 7°49 | 29°D32 | 27°56 | 29°37 | 0°36 | F 11 | |
| S 12 | 23 46 59 | 24°47'08 | 12♌38 | 6°59 | 0♎47 | 25°31 | 7°32 | 12° 8 | 6°15 | 1°24 | 7°48 | 29°32 | 27°52 | 29°44 | 0°43 | S 12 | |
| S 13 | 23 50 55 | 25°46'15 | 25°41 | 7°53 | 2° 1 | 26° 8 | 7°44 | 12°15 | 6°15 | 1°23 | 7°47 | 29°R33 | 27°49 | 29°51 | 0°51 | S 13 | |
| M14 | 23 54 52 | 26°45'24 | 8♏28 | 8°55 | 3°15 | 26°46 | 7°55 | 12°22 | 6°15 | 1°23 | 7°46 | 29°33 | 27°46 | 29°57 | 0°58 | M14 | |
| T 15 | 23 58 48 | 27°44'36 | 21° 2 | 10° 3 | 4°29 | 27°24 | 8° 7 | 12°29 | 6°15 | 1°22 | 7°44 | 29°30 | 27°43 | 0♌ 4 | 1° 5 | T 15 | |
| W16 | 0 2 45 | 28°43'50 | 3♎25 | 11°18 | 5°44 | 28° 1 | 8°18 | 12°36 | 6°16 | 1°22 | 7°43 | 29°26 | 27°40 | 0°11 | 1°13 | W16 | |
| T 17 | 0 6 41 | 29°43'06 | 15°40 | 12°38 | 6°58 | 28°39 | 8°30 | 12°43 | 6°16 | 1°21 | 7°42 | 29°18 | 27°37 | 0°18 | 1°20 | T 17 | |
| F 18 | 0 10 38 | 0♌42'24 | 27°47 | 14° 2 | 8°12 | 29°17 | 8°42 | 12°51 | 6°16 | 1°20 | 7°41 | 29° 8 | 27°33 | 0°24 | 1°28 | F 18 | |
| S 19 | 0 14 34 | 1°41'44 | 9♌48 | 15°30 | 9°26 | 29°54 | 8°54 | 12°58 | 6°17 | 1°20 | 7°40 | 28°56 | 27°30 | 0°31 | 1°35 | S 19 | |
| S 20 | 0 18 31 | 2°41'06 | 21°44 | 17° 2 | 10°41 | 0♎32 | 9° 6 | 13° 5 | 6°17 | 1°19 | 7°39 | 28°44 | 27°27 | 0°38 | 1°43 | S 20 | |
| M21 | 0 22 27 | 3°40'30 | 3♌37 | 18°37 | 11°55 | 1° 9 | 9°18 | 13°12 | 6°18 | 1°18 | 7°38 | 28°32 | 27°24 | 0°44 | 1°50 | M21 | |
| T 22 | 0 26 24 | 4°39'56 | 15°27 | 20°13 | 13° 9 | 1°47 | 9°30 | 13°19 | 6°18 | 1°18 | 7°37 | 28°21 | 27°21 | 0°51 | 1°58 | T 22 | |
| W23 | 0 30 21 | 5°39'25 | 27°19 | 21°52 | 14°24 | 2°24 | 9°42 | 13°26 | 6°19 | 1°17 | 7°36 | 28°12 | 27°18 | 0°58 | 2° 6 | W23 | |
| T 24 | 0 34 17 | 6°38'55 | 9♌14 | 23°32 | 15°38 | 3° 2 | 9°54 | 13°34 | 6°20 | 1°16 | 7°35 | 28° 6 | 27°14 | 1° 5 | 2°13 | T 24 | |
| F 25 | 0 38 14 | 7°38'27 | 21°17 | 25°13 | 16°53 | 3°39 | 10° 6 | 13°41 | 6°21 | 1°15 | 7°33 | 28° 3 | 27°11 | 1°11 | 2°21 | F 25 | |
| S 26 | 0 42 10 | 8°38'00 | 3♌33 | 26°55 | 18° 7 | 4°17 | 10°18 | 13°48 | 6°21 | 1°14 | 7°32 | 28°D 1 | 27° 8 | 1°18 | 2°29 | S 26 | |
| S 27 | 0 46 7 | 9°37'36 | 16° 7 | 28°37 | 19°22 | 4°54 | 10°30 | 13°55 | 6°22 | 1°13 | 7°31 | 28° 1 | 27° 5 | 1°25 | 2°37 | S 27 | |
| M28 | 0 50 3 | 10°37'13 | 29° 3 | 0♌20 | 20°37 | 5°32 | 10°43 | 14° 3 | 6°23 | 1°12 | 7°30 | 28°R 1 | 27° 2 | 1°31 | 2°45 | M28 | |
| T 29 | 0 54 0 | 11°36'52 | 12♌26 | 2° 3 | 21°51 | 6° 9 | 10°55 | 14°10 | 6°24 | 1°11 | 7°29 | 28° 1 | 26°58 | 1°38 | 2°53 | T 29 | |
| W30 | 0 57 56 | 12°36'33 | 26♌18 | 3♌46 | 23♎ 6 | 6♎46 | 11♌ 8 | 14♌17 | 6♌25 | 1♎10 | 7♋28 | 27♌58 | 26♌55 | 1♌45 | 3♌ 0 | W30 | |

Delta T = 19m26s Julian Calendar 1 Sept. 1069 == Greg. Calendar 7 Sept. 1069

OCTOBER 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|-------|-------|-------|-------|-------|------|-------|-------|--------|-------|------|------|------|-----|
| T 1 | 1 1 53 | 13♌36'16 | 10♋40 | 5♌29 | 24♎21 | 7♎24 | 11♌20 | 14♌24 | 6♌26 | 1°R 9 | 7°R28 | 27°R53 | 26♌52 | 1♌52 | 3♌ 8 | T 1 | |
| F 2 | 1 5 50 | 14°36'00 | 25°29 | 7°11 | 25°36 | 8° 1 | 11°33 | 14°31 | 6°27 | 1♎ 8 | 7♋27 | 27♌45 | 26°49 | 1°58 | 3°16 | F 2 | |
| S 3 | 1 9 46 | 15°35'46 | 10°V37 | 8°54 | 26°50 | 8°38 | 11°45 | 14°39 | 6°28 | 1° 7 | 7°26 | 27°35 | 26°46 | 2° 5 | 3°24 | S 3 | |
| S 4 | 1 13 43 | 16°35'35 | 25°56 | 10°36 | 28° 5 | 9°16 | 11°58 | 14°46 | 6°30 | 1° 6 | 7°25 | 27°23 | 26°43 | 2°12 | 3°32 | S 4 | |
| M 5 | 1 17 39 | 17°35'25 | 11♌13 | 12°17 | 29°20 | 9°53 | 12°11 | 14°53 | 6°31 | 1° 5 | 7°24 | 27°13 | 26°39 | 2°19 | 3°40 | M 5 | |
| T 6 | 1 21 36 | 18°35'18 | 26°18 | 13°59 | 0♌35 | 10°30 | 12°23 | 15° 0 | 6°32 | 1° 4 | 7°23 | 27° 3 | 26°36 | 2°25 | 3°48 | T 6 | |
| W 7 | 1 25 32 | 19°35'12 | 11♎12 | 15°40 | 1°50 | 11° 8 | 12°36 | 15° 8 | 6°34 | 1° 3 | 7°22 | 26°57 | 26°33 | 2°32 | 3°56 | W 7 | |
| T 8 | 1 29 29 | 20°35'10 | 25°19 | 17°20 | 3° 5 | 11°45 | 12°49 | 15°15 | 6°35 | 1° 2 | 7°21 | 26°52 | 26°30 | 2°39 | 4° 4 | T 8 | |
| F 9 | 1 33 25 | 21°35'09 | 9♌ 8 | 19° 0 | 4°20 | 12°22 | 13° 2 | 15°22 | 6°36 | 1° 0 | 7°20 | 26°51 | 26°27 | 2°45 | 4°12 | F 9 | |
| S 10 | 1 37 22 | 22°35'10 | 22°30 | 20°40 | 5°35 | 12°59 | 13°15 | 15°29 | 6°38 | 0°59 | 7°20 | 26°50 | 26°23 | 2°52 | 4°21 | S 10 | |
| S 11 | 1 41 19 | 23°35'14 | 5♏29 | 22°19 | 6°50 | 13°37 | 13°28 | 15°37 | 6°40 | 0°58 | 7°19 | 26°50 | 26°20 | 2°59 | 4°29 | S 11 | |
| M12 | 1 45 15 | 24°35'20 | 18° 8 | 23°57 | 8° 5 | 14°14 | 13°41 | 15°44 | 6°41 | 0°57 | 7°18 | 26°49 | 26°17 | 3° 6 | 4°37 | M12 | |
| T 13 | 1 49 12 | 25°35'28 | 0♎32 | 25°35 | 9°20 | 14°51 | 13°54 | 15°51 | 6°43 | 0°55 | 7°17 | 26°46 | 26°14 | 3°12 | 4°45 | T 13 | |
| W14 | 1 53 8 | 26°35'38 | 12°44 | 27°13 | 10°35 | 15°28 | 14° 7 | 15°58 | 6°44 | 0°54 | 7°17 | 26°40 | 26°11 | 3°19 | 4°53 | W14 | |
| T 15 | 1 57 5 | 27°35'50 | 24°48 | 28°50 | 11°50 | 16° 5 | 14°20 | 16° 5 | 6°46 | 0°53 | 7°16 | 26°30 | 26° 8 | 3°26 | 5° 1 | T 15 | |
| F 16 | 2 1 1 | 28°36'04 | 6♌46 | 0♌27 | 13° 6 | 16°43 | 14°33 | 16°12 | 6°48 | 0°51 | 7°15 | 26°18 | 26° 4 | 3°32 | 5° 9 | F 16 | |
| S 17 | 2 4 58 | 29°36'20 | 18°41 | 2° 3 | 14°21 | 17°20 | 14°46 | 16°20 | 6°50 | 0°50 | 7°14 | 26° 4 | 26° 1 | 3°39 | 5°18 | S 17 | |
| S 18 | 2 8 54 | 0♌36'38 | 0♌34 | 3°39 | 15°36 | 17°57 | 14°59 | 16°27 | 6°52 | 0°49 | 7°14 | 25°49 | 25°58 | 3°46 | 5°26 | S 18 | |
| M19 | 2 12 51 | 1°36'58 | 12°26 | 5°15 | 16°51 | 18°34 | 15°12 | 16°34 | 6°54 | 0°47 | 7°13 | 25°34 | 25°55 | 3°53 | 5°34 | M19 | |
| T 20 | 2 16 47 | 2°37'19 | 24°18 | 6°50 | 18° 6 | 19°11 | 15°25 | 16°41 | 6°56 | 0°46 | 7°13 | 25°21 | 25°52 | 3°59 | 5°42 | T 20 | |
| W21 | 2 20 44 | 3°37'42 | 6♌12 | 8°25 | 19°22 | 19°48 | 15°39 | 16°48 | 6°58 | 0°44 | 7°12 | 25°10 | 25°49 | 4° 6 | 5°50 | W21 | |
| T 22 | 2 24 41 | 4°38'07 | 18°11 | 9°59 | 20°37 | 20°25 | 15°52 | 16°55 | 7° 0 | 0°43 | 7°11 | 25° 2 | 25°45 | 4°13 | 5°59 | T 22 | |
| F 23 | 2 28 37 | 5°38'33 | 0♌16 | 11°33 | 21°52 | 21° 2 | 16° 5 | 17° 2 | 7° 2 | 0°41 | 7°11 | 24°57 | 25°42 | 4°20 | 6° 7 | F 23 | |
| S 24 | 2 32 34 | 6°39'01 | 12°33 | 13° 7 | 23° 8 | 21°39 | 16°18 | 17° 9 | 7° 4 | 0°40 | 7°10 | 24°55 | 25°39 | 4°26 | 6°15 | S 24 | |
| S 25 | 2 36 30 | 7°39'30 | 25° 4 | 14°41 | 24°23 | 22°16 | 16°32 | 17°16 | 7° 6 | 0°38 | 7°10 | 24°D54 | 25°36 | 4°33 | 6°23 | S 25 | |
| M26 | 2 40 27 | 8°40'01 | 7♌54 | 16°14 | 25°38 | 22°53 | 16°45 | 17°23 | 7° 8 | 0°37 | 7° 9 | 24°R54 | 25°33 | 4°40 | 6°31 | M26 | |
| T 27 | 2 44 23 | 9°40'32 | 21° 9 | 17°47 | 26°54 | 23°30 | 16°58 | 17°30 | 7°11 | 0°35 | 7° 9 | 24°54 | 25°29 | 4°46 | 6°39 | T 27 | |
| W28 | 2 48 20 | 10°41'05 | 4♋50 | 19°20 | 28° 9 | 24° 7 | 17°12 | 17°37 | 7°13 | 0°33 | 7° 8 | 24°52 | 25°26 | 4°53 | 6°48 | W28 | |
| T 29 | 2 52 16 | 11°41'40 | 19° 1 | 20°52 | 29°24 | 24°44 | 17°25 | 17°43 | 7°15 | 0°32 | 7° 8 | 24°47 | 25°23 | 5° 0 | 6°56 | T 29 | |
| F 30 | 2 56 13 | 12°42'15 | 3°V40 | 22°25 | 0♌40 | 25°21 | 17°39 | 17°50 | 7°18 | 0°30 | 7° 8 | 24°40 | 25°20 | 5° 7 | 7° 4 | F 30 | |
| S 31 | 3 0 10 | 13♌42'52 | 18°V42 | 23♌57 | 1♌55 | 25♎57 | 17♌52 | 17♌57 | 7♌20 | 0♎29 | 7♋ 7 | 24♌31 | 25♌17 | 5♌13 | 7♌12 | S 31 | |

Delta T = 19m26s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1069
geocentric

NOVEMBER 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|-------|-------|--------|-------|------|-------|------|-----|
| S 1 | 3 4 6 | 14♌43'30 | 3♌59 | 25♌28 | 3♌11 | 26♌34 | 18♌ 5 | 18♌ 4 | 7♌22 | 0°R27 | 7°R 7 | 24°R20 | 25♌14 | 5♌20 | 7♌20 | S 1 | |
| M 2 | 3 8 3 | 15°44'10 | 19°20 | 27° 0 | 4°26 | 27°11 | 18°19 | 18°11 | 7°25 | 0II25 | 7♌ 7 | 24♌10 | 25°10 | 5°27 | 7°28 | M 2 | |
| T 3 | 3 11 59 | 16°44'51 | 4II34 | 28°31 | 5°42 | 27°48 | 18°32 | 18°17 | 7°27 | 0°24 | 7° 6 | 24° 1 | 25° 7 | 5°33 | 7°36 | T 3 | |
| W 4 | 3 15 56 | 17°45'33 | 19°29 | 0♌ 3 | 6°57 | 28°25 | 18°46 | 18°24 | 7°30 | 0°22 | 7° 6 | 23°54 | 25° 4 | 5°40 | 7°45 | W 4 | |
| T 5 | 3 19 52 | 18°46'18 | 3♌59 | 1°34 | 8°12 | 29° 1 | 18°59 | 18°30 | 7°33 | 0°21 | 7° 6 | 23°50 | 25° 1 | 5°47 | 7°53 | T 5 | |
| F 6 | 3 23 49 | 19°47'03 | 17°59 | 3° 4 | 9°28 | 29°38 | 19°12 | 18°37 | 7°35 | 0°19 | 7° 5 | 23°D48 | 24°58 | 5°54 | 8° 1 | F 6 | |
| S 7 | 3 27 45 | 20°47'51 | 1♌31 | 4°35 | 10°43 | 0♌15 | 19°26 | 18°44 | 7°38 | 0°17 | 7° 5 | 23°48 | 24°55 | 6° 0 | 8° 9 | S 7 | |
| S 8 | 3 31 42 | 21°48'40 | 14°35 | 6° 5 | 11°59 | 0°51 | 19°39 | 18°50 | 7°41 | 0°16 | 7° 5 | 23°49 | 24°51 | 6° 7 | 8°17 | S 8 | |
| M 9 | 3 35 39 | 22°49'30 | 27°16 | 7°34 | 13°14 | 1°28 | 19°53 | 18°57 | 7°43 | 0°14 | 7° 5 | 23°R49 | 24°48 | 6°14 | 8°25 | M 9 | |
| T 10 | 3 39 35 | 23°50'22 | 9♌38 | 9° 4 | 14°30 | 2° 5 | 20° 6 | 19° 3 | 7°46 | 0°12 | 7° 5 | 23°48 | 24°45 | 6°21 | 8°33 | T 10 | |
| W11 | 3 43 32 | 24°51'15 | 21°47 | 10°33 | 15°45 | 2°41 | 20°19 | 19° 9 | 7°49 | 0°10 | 7° 5 | 23°44 | 24°42 | 6°27 | 8°41 | W11 | |
| T 12 | 3 47 28 | 25°52'10 | 3♌47 | 12° 1 | 17° 1 | 3°18 | 20°33 | 19°16 | 7°52 | 0° 9 | 7° 5 | 23°38 | 24°39 | 6°34 | 8°49 | T 12 | |
| F 13 | 3 51 25 | 26°53'06 | 15°40 | 13°29 | 18°16 | 3°54 | 20°46 | 19°22 | 7°55 | 0° 7 | 7° 5 | 23°29 | 24°35 | 6°41 | 8°57 | F 13 | |
| S 14 | 3 55 21 | 27°54'03 | 27°32 | 14°57 | 19°32 | 4°31 | 21° 0 | 19°28 | 7°58 | 0° 5 | 7° 4 | 23°19 | 24°32 | 6°47 | 9° 5 | S 14 | |
| S 15 | 3 59 18 | 28°55'02 | 9♌23 | 16°23 | 20°47 | 5° 7 | 21°13 | 19°34 | 8° 1 | 0° 4 | 7°D 4 | 23° 7 | 24°29 | 6°54 | 9°13 | S 15 | |
| M16 | 4 3 14 | 29°56'01 | 21°17 | 17°49 | 22° 3 | 5°44 | 21°26 | 19°40 | 8° 4 | 0° 2 | 7° 4 | 22°56 | 24°26 | 7° 1 | 9°20 | M16 | |
| T 17 | 4 7 11 | 0♌57'02 | 3♌14 | 19°13 | 23°19 | 6°20 | 21°40 | 19°46 | 8° 6 | 0° 0 | 7° 5 | 22°46 | 24°23 | 7° 8 | 9°28 | T 17 | |
| W18 | 4 11 8 | 1°58'03 | 15°16 | 20°37 | 24°34 | 6°57 | 21°53 | 19°52 | 8°10 | 29♌59 | 7° 5 | 22°38 | 24°20 | 7°14 | 9°36 | W18 | |
| T 19 | 4 15 4 | 2°59'06 | 27°23 | 21°59 | 25°50 | 7°33 | 22° 6 | 19°58 | 8°13 | 29°57 | 7° 5 | 22°32 | 24°16 | 7°21 | 9°44 | T 19 | |
| F 20 | 4 19 1 | 4° 0'09 | 9♌39 | 23°19 | 27° 5 | 8° 9 | 22°20 | 20° 4 | 8°16 | 29°55 | 7° 5 | 22°29 | 24°13 | 7°28 | 9°51 | F 20 | |
| S 21 | 4 22 57 | 5° 1'13 | 22° 5 | 24°38 | 28°21 | 8°46 | 22°33 | 20°10 | 8°19 | 29°53 | 7° 5 | 22°D28 | 24°10 | 7°34 | 9°59 | S 21 | |
| S 22 | 4 26 54 | 6° 2'18 | 4♌43 | 25°54 | 29°36 | 9°22 | 22°46 | 20°16 | 8°22 | 29°52 | 7° 5 | 22°29 | 24° 7 | 7°41 | 10° 7 | S 22 | |
| M23 | 4 30 50 | 7° 3'23 | 17°36 | 27° 8 | 0♌52 | 9°58 | 23° 0 | 20°22 | 8°25 | 29°50 | 7° 5 | 22°30 | 24° 4 | 7°48 | 10°14 | M23 | |
| T 24 | 4 34 47 | 8° 4'29 | 0♌49 | 28°19 | 2° 7 | 10°34 | 23°13 | 20°27 | 8°28 | 29°48 | 7° 5 | 22°31 | 24° 0 | 7°55 | 10°22 | T 24 | |
| W25 | 4 38 44 | 9° 5'35 | 14°23 | 29°26 | 3°23 | 11°11 | 23°26 | 20°33 | 8°31 | 29°47 | 7° 6 | 22°R31 | 23°57 | 8° 1 | 10°30 | W25 | |
| T 26 | 4 42 40 | 10° 6'41 | 28°20 | 0♌29 | 4°39 | 11°47 | 23°39 | 20°38 | 8°35 | 29°45 | 7° 6 | 22°30 | 23°54 | 8° 8 | 10°37 | T 26 | |
| F 27 | 4 46 37 | 11° 7'47 | 12°41 | 1°28 | 5°54 | 12°23 | 23°52 | 20°44 | 8°38 | 29°43 | 7° 6 | 22°26 | 23°51 | 8°15 | 10°45 | F 27 | |
| S 28 | 4 50 33 | 12° 8'54 | 27°23 | 2°21 | 7°10 | 12°59 | 24° 5 | 20°49 | 8°41 | 29°42 | 7° 7 | 22°21 | 23°48 | 8°21 | 10°52 | S 28 | |
| S 29 | 4 54 30 | 13°10'02 | 12♌21 | 3° 8 | 8°25 | 13°35 | 24°19 | 20°55 | 8°44 | 29°40 | 7° 7 | 22°15 | 23°45 | 8°28 | 10°59 | S 29 | |
| M30 | 4 58 26 | 14°11'09 | 27♌25 | 3♌48 | 9♌41 | 14♌11 | 24♌32 | 21♌ 0 | 8♌48 | 29♌38 | 7♌ 7 | 22♌ 9 | 23♌41 | 8♌35 | 11♌ 7 | M30 | |

Delta T = 19m26s Julian Calendar 1 Nov. 1069 == Greg. Calendar 7 Nov. 1069

DECEMBER 1069 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|-------|-------|-------|--------|------|--------|-------|-------|-------|------|
| T 1 | 5 2 23 | 15♌12'17 | 12II28 | 4♌20 | 10♌56 | 14♌47 | 24♌45 | 21♌ 5 | 8♌51 | 29°R37 | 7♌ 8 | 22°R 4 | 23♌38 | 8♌42 | 11♌14 | T 1 |
| W 2 | 5 6 19 | 16°13'26 | 27°19 | 4°44 | 12°12 | 15°23 | 24°58 | 21°10 | 8°54 | 29♌35 | 7° 8 | 22♌ 0 | 23°35 | 8°48 | 11°21 | W 2 |
| T 3 | 5 10 16 | 17°14'35 | 11♌51 | 4°58 | 13°27 | 15°59 | 25°11 | 21°15 | 8°58 | 29°34 | 7° 8 | 21°58 | 23°32 | 8°55 | 11°28 | T 3 |
| F 4 | 5 14 13 | 18°15'45 | 25°58 | 5°R 1 | 14°43 | 16°35 | 25°24 | 21°20 | 9° 1 | 29°32 | 7° 9 | 21°D58 | 23°29 | 9° 2 | 11°36 | F 4 |
| S 5 | 5 18 9 | 19°16'55 | 9♌37 | 4°54 | 15°58 | 17°10 | 25°36 | 21°25 | 9° 4 | 29°30 | 7° 9 | 21°59 | 23°26 | 9° 9 | 11°43 | S 5 |
| S 6 | 5 22 6 | 20°18'05 | 22°50 | 4°34 | 17°14 | 17°46 | 25°49 | 21°30 | 9° 8 | 29°29 | 7°10 | 22° 0 | 23°22 | 9°15 | 11°50 | S 6 |
| M 7 | 5 26 2 | 21°19'16 | 5♌39 | 4° 3 | 18°29 | 18°22 | 26° 2 | 21°35 | 9°11 | 29°27 | 7°10 | 22° 2 | 23°19 | 9°22 | 11°57 | M 7 |
| T 8 | 5 29 59 | 22°20'27 | 18° 6 | 3°21 | 19°45 | 18°58 | 26°15 | 21°40 | 9°15 | 29°26 | 7°11 | 22°R 3 | 23°16 | 9°29 | 12° 4 | T 8 |
| W 9 | 5 33 55 | 23°21'39 | 0♌18 | 2°27 | 21° 0 | 19°33 | 26°28 | 21°44 | 9°18 | 29°24 | 7°12 | 22° 3 | 23°13 | 9°35 | 12°10 | W 9 |
| T 10 | 5 37 52 | 24°22'51 | 12°18 | 1°24 | 22°16 | 20° 9 | 26°40 | 21°49 | 9°22 | 29°23 | 7°12 | 22° 1 | 23°10 | 9°42 | 12°17 | T 10 |
| F 11 | 5 41 48 | 25°24'04 | 24°11 | 0°12 | 23°31 | 20°45 | 26°53 | 21°53 | 9°25 | 29°21 | 7°13 | 21°59 | 23° 6 | 9°49 | 12°24 | F 11 |
| S 12 | 5 45 45 | 26°25'17 | 6♌ 2 | 28♌55 | 24°47 | 21°20 | 27° 5 | 21°58 | 9°29 | 29°20 | 7°13 | 21°55 | 23° 3 | 9°56 | 12°31 | S 12 |
| S 13 | 5 49 42 | 27°26'30 | 17°54 | 27°34 | 26° 3 | 21°56 | 27°18 | 22° 2 | 9°32 | 29°18 | 7°14 | 21°51 | 23° 0 | 10° 2 | 12°37 | S 13 |
| M14 | 5 53 38 | 28°27'43 | 29°50 | 26°13 | 27°18 | 22°31 | 27°31 | 22° 6 | 9°36 | 29°17 | 7°15 | 21°46 | 22°57 | 10° 9 | 12°44 | M14 |
| T 15 | 5 57 35 | 29°28'57 | 11♌53 | 24°54 | 28°34 | 23° 6 | 27°43 | 22°11 | 9°39 | 29°15 | 7°15 | 21°42 | 22°54 | 10°16 | 12°50 | T 15 |
| W16 | 6 1 31 | 0♌30'10 | 24° 5 | 23°39 | 29°49 | 23°42 | 27°55 | 22°15 | 9°43 | 29°14 | 7°16 | 21°39 | 22°51 | 10°22 | 12°57 | W16 |
| T 17 | 6 5 28 | 1°31'24 | 6♌26 | 22°30 | 1♌ 5 | 24°17 | 28° 8 | 22°19 | 9°46 | 29°12 | 7°17 | 21°37 | 22°47 | 10°29 | 13° 3 | T 17 |
| F 18 | 6 9 24 | 2°32'37 | 18°59 | 21°30 | 2°20 | 24°52 | 28°20 | 22°23 | 9°50 | 29°11 | 7°18 | 21°D37 | 22°44 | 10°36 | 13°10 | F 18 |
| S 19 | 6 13 21 | 3°33'50 | 1♌42 | 20°38 | 3°36 | 25°27 | 28°32 | 22°26 | 9°53 | 29°10 | 7°19 | 21°37 | 22°41 | 10°43 | 13°16 | S 19 |
| S 20 | 6 17 17 | 4°35'02 | 14°39 | 19°56 | 4°51 | 26° 3 | 28°44 | 22°30 | 9°57 | 29° 8 | 7°19 | 21°38 | 22°38 | 10°49 | 13°22 | S 20 |
| M21 | 6 21 14 | 5°36'14 | 27°48 | 19°25 | 6° 7 | 26°38 | 28°56 | 22°34 | 10° 0 | 29° 7 | 7°20 | 21°39 | 22°35 | 10°56 | 13°28 | M21 |
| T 22 | 6 25 11 | 6°37'25 | 11♌12 | 19° 3 | 7°22 | 27°13 | 29° 8 | 22°37 | 10° 4 | 29° 6 | 7°21 | 21°40 | 22°32 | 11° 3 | 13°34 | T 22 |
| W23 | 6 29 7 | 7°38'36 | 24°50 | 18°51 | 8°37 | 27°48 | 29°20 | 22°41 | 10° 7 | 29° 5 | 7°22 | 21°41 | 22°28 | 11° 9 | 13°40 | W23 |
| T 24 | 6 33 4 | 8°39'46 | 8°43 | 18°D47 | 9°53 | 28°23 | 29°32 | 22°44 | 10°11 | 29° 3 | 7°23 | 21°R42 | 22°25 | 11°16 | 13°46 | T 24 |
| F 25 | 6 37 0 | 9°40'55 | 22°51 | 18°53 | 11° 8 | 28°57 | 29°44 | 22°48 | 10°15 | 29° 2 | 7°24 | 21°41 | 22°22 | 11°23 | 13°52 | F 25 |
| S 26 | 6 40 57 | 10°42'03 | 7♌12 | 19° 6 | 12°24 | 29°32 | 29°56 | 22°51 | 10°18 | 29° 1 | 7°25 | 21°41 | 22°19 | 11°30 | 13°58 | S 26 |
| S 27 | 6 44 53 | 11°43'11 | 21°44 | 19°26 | 13°39 | 0♌ 7 | 0♌ 7 | 22°54 | 10°22 | 29° 0 | 7°26 | 21°39 | 22°16 | 11°36 | 14° 3 | S 27 |
| M28 | 6 48 50 | 12°44'18 | 6II20 | 19°53 | 14°55 | 0°42 | 0°19 | 22°57 | 10°25 | 28°59 | 7°27 | 21°38 | 22°12 | 11°43 | 14° 9 | M28 |
| T 29 | 6 52 46 | 13°45'24 | 20°56 | 20°26 | 16°10 | 1°16 | 0°31 | 23° 0 | 10°29 | 28°57 | 7°28 | 21°37 | 22° 9 | 11°50 | 14°14 | T 29 |
| W30 | 6 56 43 | 14°46'29 | 5♌25 | 21° 4 | 17°25 | 1°51 | 0°42 | 23° 3 | 10°32 | 28°56 | 7°29 | 21°37 | 22° 6 | 11°56 | 14°20 | W30 |
| T 31 | 7 0 40 | 15°47'34 | 19♌42 | 21♌48 | 18♌41 | 2♌25 | 0♌53 | 23♌ 5 | 10°36 | 28♌55 | 7♌30 | 21°D36 | 22♌ 3 | 12♌ 3 | 14♌25 | T 31 |

Delta T = 19m26s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1070
geocentric

JANUARY 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|------|--------|-------|-------|------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 7 4 36 | 16♌48'38 | 3♊41 | 22♋35 | 19♌56 | 3♍0 | 1♊5 | 23♌8 | 10♌39 | 28♌54 | 7♋31 | 21♌37 | 22♌0 | 12♍10 | 14♍31 | F 1 | | | | | | | | |
| S 2 | 7 8 33 | 17°49'41 | 17°18 | 23°27 | 21°11 | 3°34 | 1°16 | 23°10 | 10°43 | 28♌53 | 7°32 | 21°37 | 21°57 | 12°17 | 14°36 | S 2 | | | | | | | | |
| S 3 | 7 12 29 | 18°50'44 | 0♍34 | 24°22 | 22°27 | 4°8 | 1°27 | 23°13 | 10°47 | 28°52 | 7°33 | 21°37 | 21°53 | 12°23 | 14°41 | S 3 | | | | | | | | |
| M 4 | 7 16 26 | 19°51'45 | 13°26 | 25°20 | 23°42 | 4°42 | 1°38 | 23°15 | 10°50 | 28°51 | 7°34 | 21°37 | 21°50 | 12°30 | 14°46 | M 4 | | | | | | | | |
| T 5 | 7 20 22 | 20°52'47 | 25°59 | 26°22 | 24°57 | 5°17 | 1°49 | 23°17 | 10°54 | 28°50 | 7°35 | 21°38 | 21°47 | 12°37 | 14°51 | T 5 | | | | | | | | |
| W 6 | 7 24 19 | 21°53'47 | 8♌15 | 27°26 | 26°13 | 5°51 | 2°0 | 23°20 | 10°57 | 28°50 | 7°36 | 21°R38 | 21°44 | 12°43 | 14°56 | W 6 | | | | | | | | |
| T 7 | 7 28 16 | 22°54'47 | 20°19 | 28°32 | 27°28 | 6°25 | 2°11 | 23°22 | 11°1 | 28°49 | 7°38 | 21°D38 | 21°41 | 12°50 | 15°0 | T 7 | | | | | | | | |
| F 8 | 7 32 12 | 23°55'46 | 2♍14 | 29°41 | 28°43 | 6°59 | 2°22 | 23°24 | 11°4 | 28°48 | 7°39 | 21°38 | 21°38 | 12°57 | 15°5 | F 8 | | | | | | | | |
| S 9 | 7 36 9 | 24°56'45 | 14°5 | 0♌51 | 29°59 | 7°33 | 2°32 | 23°25 | 11°8 | 28°47 | 7°40 | 21°38 | 21°34 | 13°4 | 15°10 | S 9 | | | | | | | | |
| S 10 | 7 40 5 | 25°57'42 | 25°58 | 2°4 | 1♌14 | 8°6 | 2°43 | 23°27 | 11°11 | 28°46 | 7°41 | 21°38 | 21°31 | 13°10 | 15°14 | S 10 | | | | | | | | |
| M11 | 7 44 2 | 26°58'39 | 7♌56 | 3°18 | 2°29 | 8°40 | 2°53 | 23°29 | 11°14 | 28°46 | 7°42 | 21°39 | 21°28 | 13°17 | 15°19 | M11 | | | | | | | | |
| T 12 | 7 47 58 | 27°59'35 | 20°4 | 4°34 | 3°45 | 9°14 | 3°3 | 23°30 | 11°18 | 28°45 | 7°44 | 21°39 | 21°25 | 13°24 | 15°23 | T 12 | | | | | | | | |
| W13 | 7 51 55 | 29°0'31 | 2♌24 | 5°51 | 5°0 | 9°47 | 3°14 | 23°32 | 11°21 | 28°44 | 7°45 | 21°40 | 21°22 | 13°30 | 15°27 | W13 | | | | | | | | |
| T 14 | 7 55 51 | 0♌1'25 | 14°58 | 7°10 | 6°15 | 10°21 | 3°24 | 23°33 | 11°25 | 28°44 | 7°46 | 21°40 | 21°18 | 13°37 | 15°31 | T 14 | | | | | | | | |
| F 15 | 7 59 48 | 1°2'18 | 27°48 | 8°30 | 7°30 | 10°54 | 3°34 | 23°34 | 11°28 | 28°43 | 7°47 | 21°R40 | 21°15 | 13°44 | 15°35 | F 15 | | | | | | | | |
| S 16 | 8 3 45 | 2°3'10 | 10♌55 | 9°51 | 8°46 | 11°27 | 3°44 | 23°35 | 11°32 | 28°42 | 7°49 | 21°40 | 21°12 | 13°51 | 15°39 | S 16 | | | | | | | | |
| S 17 | 8 7 41 | 3°4'00 | 24°16 | 11°13 | 10°1 | 12°0 | 3°54 | 23°36 | 11°35 | 28°42 | 7°50 | 21°39 | 21°9 | 13°57 | 15°43 | S 17 | | | | | | | | |
| M18 | 8 11 38 | 4°4'49 | 7♋52 | 12°37 | 11°16 | 12°33 | 4°3 | 23°37 | 11°38 | 28°41 | 7°51 | 21°37 | 21°6 | 14°4 | 15°47 | M18 | | | | | | | | |
| T 19 | 8 15 34 | 5°5'37 | 21°39 | 14°1 | 12°31 | 13°6 | 4°13 | 23°38 | 11°42 | 28°41 | 7°53 | 21°35 | 21°3 | 14°11 | 15°50 | T 19 | | | | | | | | |
| W20 | 8 19 31 | 6°6'22 | 5♋35 | 15°27 | 13°46 | 13°39 | 4°22 | 23°39 | 11°45 | 28°40 | 7°54 | 21°34 | 20°59 | 14°17 | 15°54 | W20 | | | | | | | | |
| T 21 | 8 23 27 | 7°7'07 | 19°39 | 16°53 | 15°1 | 14°12 | 4°32 | 23°39 | 11°48 | 28°40 | 7°55 | 21°32 | 20°56 | 14°24 | 15°57 | T 21 | | | | | | | | |
| F 22 | 8 27 24 | 8°7'49 | 3♌48 | 18°21 | 16°17 | 14°45 | 4°41 | 23°40 | 11°52 | 28°39 | 7°57 | 21°D32 | 20°53 | 14°31 | 16°1 | F 22 | | | | | | | | |
| S 23 | 8 31 20 | 9°8'30 | 17°59 | 19°49 | 17°32 | 15°17 | 4°50 | 23°40 | 11°55 | 28°39 | 7°58 | 21°32 | 20°50 | 14°38 | 16°4 | S 23 | | | | | | | | |
| S 24 | 8 35 17 | 10°9'09 | 2♍10 | 21°19 | 18°47 | 15°50 | 4°59 | 23°41 | 11°58 | 28°39 | 8°0 | 21°33 | 20°47 | 14°44 | 16°7 | S 24 | | | | | | | | |
| M25 | 8 39 14 | 11°9'47 | 16°20 | 22°49 | 20°2 | 16°22 | 5°8 | 23°41 | 12°1 | 28°39 | 8°1 | 21°34 | 20°44 | 14°51 | 16°10 | M25 | | | | | | | | |
| T 26 | 8 43 10 | 12°10'22 | 0♌27 | 24°20 | 21°17 | 16°54 | 5°17 | 23°R41 | 12°5 | 28°38 | 8°2 | 21°35 | 20°40 | 14°58 | 16°13 | T 26 | | | | | | | | |
| W27 | 8 47 7 | 13°10'56 | 14°26 | 25°52 | 22°32 | 17°27 | 5°25 | 23°41 | 12°8 | 28°38 | 8°4 | 21°36 | 20°37 | 15°4 | 16°16 | W27 | | | | | | | | |
| T 28 | 8 51 3 | 14°11'28 | 28°16 | 27°25 | 23°47 | 17°59 | 5°34 | 23°41 | 12°11 | 28°38 | 8°5 | 21°R36 | 20°34 | 15°11 | 16°19 | T 28 | | | | | | | | |
| F 29 | 8 55 0 | 15°11'59 | 11♌54 | 28°59 | 25°2 | 18°31 | 5°42 | 23°40 | 12°14 | 28°38 | 8°7 | 21°35 | 20°31 | 15°18 | 16°21 | F 29 | | | | | | | | |
| S 30 | 8 58 56 | 16°12'28 | 25°16 | 0♌34 | 26°17 | 19°2 | 5°51 | 23°40 | 12°17 | 28°38 | 8°8 | 21°33 | 20°28 | 15°25 | 16°24 | S 30 | | | | | | | | |
| S 31 | 9 2 53 | 17°12'55 | 8♍23 | 2♌10 | 27°32 | 19♍34 | 5♌59 | 23°40 | 12°20 | 28°38 | 8♋10 | 21°32 | 20°24 | 15♍31 | 16♍26 | S 31 | | | | | | | | |

Delta T = 19m25s Julian Calendar 1 Jan. 1070 == Greg. Calendar 7 Jan. 1070

FEBRUARY 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|--------|-------|--------|------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 9 6 49 | 18♌13'20 | 21♍12 | 3♌47 | 28♌47 | 20♍6 | 6♌7 | 23°R39 | 12♌23 | 28°R38 | 8♋11 | 21°R25 | 20♌21 | 15♍38 | 16♍29 | M 1 | | | | | | | | |
| T 2 | 9 10 46 | 19°13'44 | 3♌44 | 5°24 | 0♋4 | 20°37 | 6°15 | 23°38 | 12°26 | 28°D37 | 8°13 | 21°32 | 20°18 | 15°45 | 16°31 | T 2 | | | | | | | | |
| W 3 | 9 14 43 | 20°14'07 | 16°1 | 7°3 | 1°17 | 21°8 | 6°23 | 23°38 | 12°29 | 28°38 | 8°14 | 21°16 | 20°15 | 15°51 | 16°33 | W 3 | | | | | | | | |
| T 4 | 9 18 39 | 21°14'28 | 28°6 | 8°43 | 2°31 | 21°40 | 6°30 | 23°37 | 12°32 | 28°38 | 8°16 | 21°12 | 20°12 | 15°58 | 16°35 | T 4 | | | | | | | | |
| F 5 | 9 22 36 | 22°14'47 | 10♍2 | 10°23 | 3°46 | 22°11 | 6°38 | 23°36 | 12°35 | 28°38 | 8°17 | 21°10 | 20°9 | 16°5 | 16°37 | F 5 | | | | | | | | |
| S 6 | 9 26 32 | 23°15'06 | 21°54 | 12°5 | 5°1 | 22°42 | 6°45 | 23°35 | 12°38 | 28°38 | 8°19 | 21°D 9 | 20°5 | 16°12 | 16°39 | S 6 | | | | | | | | |
| S 7 | 9 30 29 | 24°15'22 | 3♌46 | 13°47 | 6°16 | 23°12 | 6°52 | 23°34 | 12°41 | 28°38 | 8°20 | 21°9 | 20°2 | 16°18 | 16°40 | S 7 | | | | | | | | |
| M 8 | 9 34 25 | 25°15'37 | 15°44 | 15°31 | 7°31 | 23°43 | 6°59 | 23°32 | 12°44 | 28°38 | 8°22 | 21°11 | 19°59 | 16°25 | 16°42 | M 8 | | | | | | | | |
| T 9 | 9 38 22 | 26°15'51 | 27°53 | 17°15 | 8°45 | 24°13 | 7°6 | 23°31 | 12°47 | 28°38 | 8°23 | 21°13 | 19°56 | 16°32 | 16°43 | T 9 | | | | | | | | |
| W10 | 9 42 18 | 27°16'03 | 10♌16 | 19°1 | 10°0 | 24°44 | 7°13 | 23°30 | 12°50 | 28°39 | 8°25 | 21°14 | 19°53 | 16°38 | 16°45 | W10 | | | | | | | | |
| T 11 | 9 46 15 | 28°16'13 | 22°58 | 20°48 | 11°15 | 25°14 | 7°20 | 23°28 | 12°52 | 28°39 | 8°26 | 21°R15 | 19°50 | 16°45 | 16°46 | T 11 | | | | | | | | |
| F 12 | 9 50 12 | 29°16'21 | 6♌1 | 22°36 | 12°30 | 25°44 | 7°26 | 23°26 | 12°55 | 28°39 | 8°28 | 21°14 | 19°46 | 16°52 | 16°47 | F 12 | | | | | | | | |
| S 13 | 9 54 8 | 0♋16'28 | 19°26 | 24°24 | 13°44 | 26°14 | 7°32 | 23°25 | 12°58 | 28°40 | 8°29 | 21°11 | 19°43 | 16°59 | 16°48 | S 13 | | | | | | | | |
| S 14 | 9 58 5 | 1°16'33 | 3♋12 | 26°14 | 14°59 | 26°44 | 7°39 | 23°23 | 13°0 | 28°40 | 8°31 | 21°6 | 19°40 | 17°5 | 16°49 | S 14 | | | | | | | | |
| M15 | 10 2 1 | 2°16'36 | 17°16 | 28°5 | 16°14 | 27°13 | 7°45 | 23°21 | 13°3 | 28°40 | 8°33 | 21°0 | 19°37 | 17°12 | 16°50 | M15 | | | | | | | | |
| T 16 | 10 5 58 | 3°16'37 | 1♋32 | 29°57 | 17°28 | 27°42 | 7°50 | 23°19 | 13°6 | 28°41 | 8°34 | 20°53 | 19°34 | 17°19 | 16°50 | T 16 | | | | | | | | |
| W17 | 10 9 54 | 4°16'35 | 15°56 | 1♋50 | 18°43 | 28°12 | 7°56 | 23°17 | 13°8 | 28°41 | 8°36 | 20°46 | 19°30 | 17°25 | 16°51 | W17 | | | | | | | | |
| T 18 | 10 13 51 | 5°16'32 | 0♌22 | 3°44 | 19°57 | 28°41 | 8°2 | 23°14 | 13°11 | 28°42 | 8°37 | 20°40 | 19°27 | 17°32 | 16°51 | T 18 | | | | | | | | |
| F 19 | 10 17 47 | 6°16'26 | 14°45 | 5°40 | 21°12 | 29°9 | 8°7 | 23°12 | 13°13 | 28°43 | 8°39 | 20°36 | 19°24 | 17°39 | 16°52 | F 19 | | | | | | | | |
| S 20 | 10 21 44 | 7°16'18 | 29°1 | 7°36 | 22°26 | 29°38 | 8°12 | 23°10 | 13°16 | 28°43 | 8°40 | 20°34 | 19°21 | 17°45 | 16°52 | S 20 | | | | | | | | |
| S 21 | 10 25 40 | 8°16'08 | 13♍7 | 9°33 | 23°41 | 0♌6 | 8°17 | 23°7 | 13°18 | 28°44 | 8°42 | 20°D34 | 19°18 | 17°52 | 16°52 | S 21 | | | | | | | | |
| M22 | 10 29 37 | 9°15'56 | 27°2 | 11°30 | 24°55 | 0°35 | 8°22 | 23°5 | 13°20 | 28°44 | 8°44 | 20°35 | 19°15 | 17°59 | 16°R52 | M22 | | | | | | | | |
| T 23 | 10 33 34 | 10°15'41 | 10♌47 | 13°29 | 26°10 | 1°3 | 8°27 | 23°2 | 13°23 | 28°45 | 8°45 | 20°36 | 19°11 | 18°6 | 16°52 | T 23 | | | | | | | | |
| W24 | 10 37 30 | 11°15'24 | 24°21 | 15°28 | 27°24 | 1°30 | 8°32 | 22°59 | 13°25 | 28°46 | 8°47 | 20°R36 | 19°8 | 18°12 | 16°52 | W24 | | | | | | | | |
| T 25 | 10 41 27 | 12°15'04 | 7♌44 | 17°27 | 28°39 | 1°58 | 8°36 | 22°56 | 13°27 | 28°47 | 8°48 | 20°35 | 19°5 | 18°19 | 16°51 | T 25 | | | | | | | | |
| F 26 | 10 45 23 | 13°14'43 | 20°57 | 19°27 | 29°53 | 2°25 | 8°40 | 22°54 | 13°29 | 28°48 | 8°50 | 20°31 | 19°2 | 18°26 | 16°51 | F 26 | | | | | | | | |
| S 27 | 10 49 20 | 14°14'19 | 3♍58 | 21°27 | 1♋7 | 2°53 | 8°44 | 22°51 | 13°32 | 28°48 | 8°51 | 20°25 | 18°59 | 18°32 | 16°50 | S 27 | | | | | | | | |
| S 28 | 10 53 16 | 15♋13'53 | 16♍47 | 23♋26 | 2♋21 | 3♌20 | 8♌48 | 22°48 | 13°34 | 28°49 | 8♋53 | 20°16 | 18°56 | 18♍39 | 16♍50 | S 28 | | | | | | | | |

Delta T = 19m25s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1070
geocentric

MARCH 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|-------|-------|------|--------|-------|-------|--------|------|-----|
| M 1 | 10 57 13 | 16♋13'25 | 29♎24 | 25♋25 | 3♃36 | 3♂46 | 8♂52 | 22°R44 | 13♁36 | 28♁50 | 8♁54 | 20°R 6 | 18♁52 | 18♎46 | 16°R49 | M 1 | |
| T 2 | 11 1 9 | 17°12'55 | 11♁48 | 27°23 | 4°50 | 4°13 | 8°55 | 22♁41 | 13°38 | 28°51 | 8°56 | 19♁56 | 18°49 | 18°53 | 16♎48 | T 2 | |
| W 3 | 11 5 6 | 18°12'23 | 24° 0 | 29°21 | 6° 4 | 4°39 | 8°59 | 22°38 | 13°40 | 28°52 | 8°58 | 19°45 | 18°46 | 18°59 | 16°47 | W 3 | |
| T 4 | 11 9 3 | 19°11'49 | 6♎ 3 | 1♃16 | 7°18 | 5° 5 | 9° 2 | 22°35 | 13°42 | 28°53 | 8°59 | 19°36 | 18°43 | 19° 6 | 16°46 | T 4 | |
| F 5 | 11 12 59 | 20°11'13 | 17°58 | 3°10 | 8°32 | 5°31 | 9° 5 | 22°31 | 13°44 | 28°54 | 9° 1 | 19°29 | 18°40 | 19°13 | 16°45 | F 5 | |
| S 6 | 11 16 56 | 21°10'36 | 29°49 | 5° 2 | 9°46 | 5°57 | 9° 8 | 22°28 | 13°46 | 28°55 | 9° 2 | 19°24 | 18°36 | 19°19 | 16°44 | S 6 | |
| S 7 | 11 20 52 | 22° 9'56 | 11♂40 | 6°50 | 11° 0 | 6°22 | 9°10 | 22°24 | 13°47 | 28°56 | 9° 4 | 19°21 | 18°33 | 19°26 | 16°42 | S 7 | |
| M 8 | 11 24 49 | 23° 9'15 | 23°36 | 8°36 | 12°14 | 6°47 | 9°13 | 22°21 | 13°49 | 28°57 | 9° 5 | 19°D21 | 18°30 | 19°33 | 16°41 | M 8 | |
| T 9 | 11 28 45 | 24° 8'32 | 5♁43 | 10°18 | 13°28 | 7°12 | 9°15 | 22°17 | 13°51 | 28°58 | 9° 7 | 19°21 | 18°27 | 19°39 | 16°39 | T 9 | |
| W10 | 11 32 42 | 25° 7'47 | 18° 5 | 11°57 | 14°42 | 7°36 | 9°17 | 22°13 | 13°53 | 29° 0 | 9° 8 | 19°R21 | 18°24 | 19°46 | 16°38 | W10 | |
| T 11 | 11 36 38 | 26° 7'01 | 0♁48 | 13°30 | 15°56 | 8° 0 | 9°19 | 22° 9 | 13°54 | 29° 1 | 9°10 | 19°21 | 18°21 | 19°53 | 16°36 | T 11 | |
| F 12 | 11 40 35 | 27° 6'12 | 13°55 | 15° 0 | 17°10 | 8°24 | 9°21 | 22° 5 | 13°56 | 29° 2 | 9°11 | 19°18 | 18°17 | 20° 0 | 16°34 | F 12 | |
| S 13 | 11 44 32 | 28° 5'22 | 27°29 | 16°24 | 18°24 | 8°47 | 9°22 | 22° 2 | 13°57 | 29° 3 | 9°13 | 19°13 | 18°14 | 20° 6 | 16°32 | S 13 | |
| S 14 | 11 48 28 | 29° 4'29 | 11♋29 | 17°43 | 19°38 | 9°11 | 9°24 | 21°58 | 13°59 | 29° 5 | 9°14 | 19° 6 | 18°11 | 20°13 | 16°30 | S 14 | |
| M15 | 11 52 25 | 0♃335 | 25°53 | 18°56 | 20°51 | 9°34 | 9°25 | 21°54 | 14° 0 | 29° 6 | 9°16 | 18°56 | 18° 8 | 20°20 | 16°28 | M15 | |
| T 16 | 11 56 21 | 1° 2'38 | 10♃35 | 20° 3 | 22° 5 | 9°56 | 9°26 | 21°49 | 14° 2 | 29° 7 | 9°17 | 18°45 | 18° 5 | 20°26 | 16°26 | T 16 | |
| W17 | 12 0 18 | 2° 1'40 | 25°26 | 21° 5 | 23°19 | 10°18 | 9°27 | 21°45 | 14° 3 | 29° 9 | 9°19 | 18°35 | 18° 1 | 20°33 | 16°23 | W17 | |
| T 18 | 12 4 14 | 3° 0'39 | 10♁18 | 22° 0 | 24°33 | 10°40 | 9°27 | 21°41 | 14° 4 | 29°10 | 9°20 | 18°25 | 17°58 | 20°40 | 16°21 | T 18 | |
| F 19 | 12 8 11 | 3°59'36 | 25° 3 | 22°49 | 25°46 | 11° 2 | 9°28 | 21°37 | 14° 6 | 29°11 | 9°22 | 18°18 | 17°55 | 20°46 | 16°18 | F 19 | |
| S 20 | 12 12 7 | 4°58'30 | 9♁34 | 23°31 | 27° 0 | 11°23 | 9°28 | 21°33 | 14° 7 | 29°13 | 9°23 | 18°14 | 17°52 | 20°53 | 16°16 | S 20 | |
| S 21 | 12 16 4 | 5°57'23 | 23°47 | 24° 7 | 28°13 | 11°44 | 9°R28 | 21°28 | 14° 8 | 29°14 | 9°24 | 18°12 | 17°49 | 21° 0 | 16°13 | S 21 | |
| M22 | 12 20 0 | 6°56'13 | 7♁42 | 24°36 | 29°27 | 12° 4 | 9°28 | 21°24 | 14° 9 | 29°16 | 9°26 | 18°D11 | 17°46 | 21° 7 | 16°10 | M22 | |
| T 23 | 12 23 57 | 7°55'01 | 21°19 | 24°59 | 0♁40 | 12°24 | 9°27 | 21°20 | 14°10 | 29°17 | 9°27 | 18°R11 | 17°42 | 21°13 | 16° 8 | T 23 | |
| W24 | 12 27 54 | 8°53'46 | 4♁38 | 25°15 | 1°54 | 12°44 | 9°27 | 21°15 | 14°11 | 29°19 | 9°29 | 18°10 | 17°39 | 21°20 | 16° 5 | W24 | |
| T 25 | 12 31 50 | 9°52'29 | 17°44 | 25°24 | 3° 7 | 13° 3 | 9°26 | 21°11 | 14°12 | 29°20 | 9°30 | 18° 8 | 17°36 | 21°27 | 16° 2 | T 25 | |
| F 26 | 12 35 47 | 10°51'10 | 0♎36 | 25°R27 | 4°20 | 13°22 | 9°25 | 21° 7 | 14°13 | 29°22 | 9°31 | 18° 2 | 17°33 | 21°33 | 15°59 | F 26 | |
| S 27 | 12 39 43 | 11°49'49 | 13°17 | 25°24 | 5°34 | 13°40 | 9°24 | 21° 2 | 14°14 | 29°24 | 9°33 | 17°54 | 17°30 | 21°40 | 15°55 | S 27 | |
| S 28 | 12 43 40 | 12°48'25 | 25°48 | 25°15 | 6°47 | 13°58 | 9°23 | 20°58 | 14°15 | 29°25 | 9°34 | 17°43 | 17°27 | 21°47 | 15°52 | S 28 | |
| M29 | 12 47 36 | 13°47'00 | 8♁10 | 25° 1 | 8° 0 | 14°16 | 9°22 | 20°53 | 14°16 | 29°27 | 9°35 | 17°30 | 17°23 | 21°53 | 15°49 | M29 | |
| T 30 | 12 51 33 | 14°45'32 | 20°23 | 24°41 | 9°13 | 14°33 | 9°20 | 20°49 | 14°16 | 29°29 | 9°37 | 17°16 | 17°20 | 22° 0 | 15°46 | T 30 | |
| W31 | 12 55 29 | 15°44'02 | 2♎27 | 24°V16 | 10♁26 | 14♂50 | 9♂18 | 20♁44 | 14♁17 | 29♁30 | 9♁38 | 17♁ 2 | 17♁17 | 22♎ 7 | 15♎42 | W31 | |

Delta T = 19m25s Julian Calendar 1 March 1070 == Greg. Calendar 7 March 1070

APRIL 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|--------|-------|-------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 12 59 26 | 16♃42'31 | 14♎25 | 23°R47 | 11♁40 | 15♂ 6 | 9°R16 | 20°R40 | 14♁18 | 29♁32 | 9♁39 | 16°R50 | 17♁14 | 22♎14 | 15°R39 | T 1 | |
| F 2 | 13 3 23 | 17°40'58 | 26°17 | 23°V15 | 12°53 | 15°21 | 9♂14 | 20♁35 | 14°18 | 29°34 | 9°41 | 16♁40 | 17°11 | 22°20 | 15♎35 | F 2 | |
| S 3 | 13 7 19 | 18°39'23 | 8♂ 6 | 22°39 | 14° 6 | 15°37 | 9°12 | 20°31 | 14°19 | 29°36 | 9°42 | 16°32 | 17° 7 | 22°27 | 15°31 | S 3 | |
| S 4 | 13 11 16 | 19°37'47 | 19°57 | 22° 1 | 15°19 | 15°51 | 9° 9 | 20°26 | 14°19 | 29°37 | 9°43 | 16°28 | 17° 4 | 22°34 | 15°28 | S 4 | |
| M 5 | 13 15 12 | 20°36'08 | 1♁52 | 21°22 | 16°31 | 16° 6 | 9° 6 | 20°22 | 14°20 | 29°39 | 9°44 | 16°26 | 17° 1 | 22°40 | 15°24 | M 5 | |
| T 6 | 13 19 9 | 21°34'29 | 13°56 | 20°41 | 17°44 | 16°19 | 9° 3 | 20°17 | 14°20 | 29°41 | 9°46 | 16°25 | 16°58 | 22°47 | 15°20 | T 6 | |
| W 7 | 13 23 5 | 22°32'47 | 26°16 | 20° 1 | 18°57 | 16°32 | 9° 0 | 20°12 | 14°20 | 29°43 | 9°47 | 16°25 | 16°55 | 22°54 | 15°16 | W 7 | |
| T 8 | 13 27 2 | 23°31'04 | 8♁56 | 19°21 | 20°10 | 16°45 | 8°57 | 20° 8 | 14°21 | 29°45 | 9°48 | 16°25 | 16°52 | 23° 0 | 15°12 | T 8 | |
| F 9 | 13 30 58 | 24°29'20 | 22° 1 | 18°42 | 21°23 | 16°57 | 8°54 | 20° 3 | 14°21 | 29°47 | 9°49 | 16°22 | 16°48 | 23° 7 | 15° 8 | F 9 | |
| S 10 | 13 34 55 | 25°27'34 | 5♁34 | 18° 5 | 22°35 | 17° 9 | 8°50 | 19°59 | 14°21 | 29°49 | 9°51 | 16°18 | 16°45 | 23°14 | 15° 4 | S 10 | |
| S 11 | 13 38 52 | 26°25'46 | 19°37 | 17°31 | 23°48 | 17°19 | 8°46 | 19°54 | 14°21 | 29°51 | 9°52 | 16°10 | 16°42 | 23°20 | 15° 0 | S 11 | |
| M12 | 13 42 48 | 27°23'57 | 4♃ 8 | 17° 0 | 25° 1 | 17°30 | 8°42 | 19°50 | 14°21 | 29°53 | 9°53 | 16° 1 | 16°39 | 23°27 | 14°56 | M12 | |
| T 13 | 13 46 45 | 28°22'06 | 19° 1 | 16°33 | 26°13 | 17°39 | 8°38 | 19°45 | 14°21 | 29°54 | 9°54 | 15°50 | 16°36 | 23°34 | 14°52 | T 13 | |
| W14 | 13 50 41 | 29°20'13 | 4♁ 8 | 16° 9 | 27°26 | 17°48 | 8°34 | 19°41 | 14°21 | 29°56 | 9°55 | 15°40 | 16°32 | 23°41 | 14°48 | W14 | |
| T 15 | 13 54 38 | 0♁18'19 | 19°19 | 15°49 | 28°38 | 17°57 | 8°29 | 19°36 | 14°21 | 29°58 | 9°56 | 15°30 | 16°29 | 23°47 | 14°44 | T 15 | |
| F 16 | 13 58 34 | 1°16'23 | 4♁24 | 15°34 | 29°51 | 18° 4 | 8°25 | 19°32 | 14°21 | 0♁ 0 | 9°57 | 15°23 | 16°26 | 23°54 | 14°40 | F 16 | |
| S 17 | 14 2 31 | 2°14'25 | 19°13 | 15°23 | 1♁ 3 | 18°11 | 8°20 | 19°28 | 14°21 | 0° 2 | 9°58 | 15°18 | 16°23 | 24° 1 | 14°35 | S 17 | |
| S 18 | 14 6 27 | 3°12'26 | 3♁41 | 15°17 | 2°15 | 18°18 | 8°15 | 19°23 | 14°21 | 0° 4 | 9°59 | 15°16 | 16°20 | 24° 7 | 14°31 | S 18 | |
| M19 | 14 10 24 | 4°10'24 | 17°45 | 15°D16 | 3°28 | 18°24 | 8°10 | 19°19 | 14°20 | 0° 7 | 10° 0 | 15°D16 | 16°17 | 24°14 | 14°27 | M19 | |
| T 20 | 14 14 21 | 5° 8'21 | 1♁25 | 15°19 | 4°40 | 18°29 | 8° 5 | 19°15 | 14°20 | 0° 9 | 10° 1 | 15°R16 | 16°13 | 24°21 | 14°22 | T 20 | |
| W21 | 14 18 17 | 6° 6'15 | 14°43 | 15°27 | 5°52 | 18°33 | 8° 0 | 19°10 | 14°20 | 0°11 | 10° 2 | 15°16 | 16°10 | 24°27 | 14°18 | W21 | |
| T 22 | 14 22 14 | 7° 4'08 | 27°41 | 15°40 | 7° 4 | 18°37 | 7°54 | 19° 6 | 14°19 | 0°13 | 10° 3 | 15°14 | 16° 7 | 24°34 | 14°14 | T 22 | |
| F 23 | 14 26 10 | 8° 1'59 | 10♎22 | 15°57 | 8°16 | 18°40 | 7°49 | 19° 2 | 14°19 | 0°15 | 10° 4 | 15°10 | 16° 4 | 24°41 | 14° 9 | F 23 | |
| S 24 | 14 30 7 | 8°59'48 | 22°51 | 16°19 | 9°28 | 18°42 | 7°43 | 18°58 | 14°18 | 0°17 | 10° 5 | 15° 3 | 16° 1 | 24°48 | 14° 5 | S 24 | |
| S 25 | 14 34 3 | 9°57'35 | 5♁ 8 | 16°44 | 10°40 | 18°44 | 7°37 | 18°54 | 14°18 | 0°19 | 10° 6 | 14°54 | 15°58 | 24°54 | 14° 0 | S 25 | |
| M26 | 14 38 0 | 10°55'21 | 17°17 | 17°15 | 11°52 | 18°45 | 7°31 | 18°50 | 14°17 | 0°21 | 10° 7 | 14°43 | 15°54 | 25° 1 | 13°56 | M26 | |
| T 27 | 14 41 56 | 11°53'05 | 29°20 | 17°49 | 13° 4 | 18°R45 | 7°25 | 18°46 | 14°16 | 0°23 | 10° 8 | 14°31 | 15°51 | 25° 8 | 13°51 | T 27 | |
| W28 | 14 45 53 | 12°50'48 | 11♎16 | 18°27 | 14°16 | 18°44 | 7°19 | 18°42 | 14°16 | 0°26 | 10° 9 | 14°20 | 15°48 | 25°14 | 13°47 | W28 | |
| T 29 | 14 49 49 | 13°48'29 | 23° 9 | 19° 9 | 15°27 | 18°43 | 7°12 | 18°38 | 14°15 | 0°28 | 10° 9 | 14° 9 | 15°45 | 25°21 | 13°43 | T 29 | |
| F 30 | 14 53 46 | 14♁46'09 | 4♂59 | 19°V54 | 16♁39 | 18♂41 | 7♂ 6 | 18♁34 | 14♁14 | 0♁30 | 10♁10 | 14♁ 1 | 15♁42 | 25♎28 | 13♎38 | F 30 | |

Delta T = 19m24s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1070
geocentric

MAY 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|--------|------|-------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 14 57 43 | 15♃43'48 | 16♁49 | 20♀43 | 17♂51 | 18°R38 | 6°R59 | 18°R30 | 14°R13 | 0♂32 | 10♁11 | 13°R55 | 15♃38 | 25♎34 | 13°R34 | S 1 | | | | | | | | |
| S 2 | 15 1 39 | 16°41'26 | 28°41 | 21°36 | 19° 2 | 18♁34 | 6♁53 | 18♂26 | 14♁12 | 0°34 | 10°12 | 13♃52 | 15°35 | 25°41 | 13♎29 | S 2 | | | | | | | | |
| M 3 | 15 5 36 | 17°39'02 | 10♃38 | 22°32 | 20°14 | 18°30 | 6°46 | 18°23 | 14°12 | 0°36 | 10°13 | 13°D50 | 15°32 | 25°48 | 13°25 | M 3 | | | | | | | | |
| T 4 | 15 9 32 | 18°36'38 | 22°45 | 23°31 | 21°25 | 18°25 | 6°39 | 18°19 | 14°11 | 0°39 | 10°13 | 13°51 | 15°29 | 25°54 | 13°20 | T 4 | | | | | | | | |
| W 5 | 15 13 29 | 19°34'12 | 5♁ 5 | 24°33 | 22°37 | 18°19 | 6°32 | 18°16 | 14°10 | 0°41 | 10°14 | 13°52 | 15°26 | 26° 1 | 13°16 | W 5 | | | | | | | | |
| T 6 | 15 17 25 | 20°31'46 | 17°43 | 25°39 | 23°48 | 18°12 | 6°25 | 18°12 | 14° 8 | 0°43 | 10°15 | 13°R52 | 15°23 | 26° 8 | 13°12 | T 6 | | | | | | | | |
| F 7 | 15 21 22 | 21°29'18 | 0♁45 | 26°47 | 24°59 | 18° 5 | 6°18 | 18° 9 | 14° 7 | 0°45 | 10°15 | 13°52 | 15°19 | 26°15 | 13° 7 | F 7 | | | | | | | | |
| S 8 | 15 25 19 | 22°26'50 | 14°13 | 27°59 | 26°10 | 17°57 | 6°11 | 18° 5 | 14° 6 | 0°47 | 10°16 | 13°50 | 15°16 | 26°21 | 13° 3 | S 8 | | | | | | | | |
| S 9 | 15 29 15 | 23°24'21 | 28° 9 | 29°13 | 27°21 | 17°48 | 6° 4 | 18° 2 | 14° 5 | 0°50 | 10°17 | 13°46 | 15°13 | 26°28 | 12°59 | S 9 | | | | | | | | |
| M10 | 15 33 12 | 24°21'51 | 12♀34 | 0♃30 | 28°32 | 17°38 | 5°56 | 17°59 | 14° 4 | 0°52 | 10°17 | 13°40 | 15°10 | 26°35 | 12°54 | M10 | | | | | | | | |
| T 11 | 15 37 8 | 25°19'20 | 27°23 | 1°50 | 29°43 | 17°28 | 5°49 | 17°56 | 14° 2 | 0°54 | 10°18 | 13°33 | 15° 7 | 26°41 | 12°50 | T 11 | | | | | | | | |
| W12 | 15 41 5 | 26°16'48 | 12♃31 | 3°12 | 0♃54 | 17°17 | 5°42 | 17°53 | 14° 1 | 0°56 | 10°18 | 13°26 | 15° 4 | 26°48 | 12°46 | W12 | | | | | | | | |
| T 13 | 15 45 1 | 27°14'16 | 27°46 | 4°38 | 2° 5 | 17° 5 | 5°34 | 17°50 | 14° 0 | 0°59 | 10°19 | 13°20 | 15° 0 | 26°55 | 12°41 | T 13 | | | | | | | | |
| F 14 | 15 48 58 | 28°11'42 | 13♂ 0 | 6° 6 | 3°16 | 16°53 | 5°27 | 17°47 | 13°58 | 1° 1 | 10°19 | 13°15 | 14°57 | 27° 1 | 12°37 | F 14 | | | | | | | | |
| S 15 | 15 52 54 | 29° 9'07 | 28° 0 | 7°36 | 4°27 | 16°40 | 5°19 | 17°44 | 13°57 | 1° 3 | 10°20 | 13°12 | 14°54 | 27° 8 | 12°33 | S 15 | | | | | | | | |
| S 16 | 15 56 51 | 0♂ 6'32 | 12♃41 | 9° 9 | 5°37 | 16°26 | 5°11 | 17°41 | 13°55 | 1° 5 | 10°20 | 13°D11 | 14°51 | 27°15 | 12°29 | S 16 | | | | | | | | |
| M17 | 16 0 48 | 1° 3'55 | 26°57 | 10°45 | 6°48 | 16°12 | 5° 4 | 17°38 | 13°54 | 1° 8 | 10°21 | 13°12 | 14°48 | 27°21 | 12°25 | M17 | | | | | | | | |
| T 18 | 16 4 44 | 2° 1'17 | 10♂46 | 12°24 | 7°59 | 15°57 | 4°56 | 17°36 | 13°52 | 1°10 | 10°21 | 13°13 | 14°44 | 27°28 | 12°21 | T 18 | | | | | | | | |
| W19 | 16 8 41 | 2°58'38 | 24° 9 | 14° 5 | 9° 9 | 15°42 | 4°49 | 17°33 | 13°51 | 1°12 | 10°22 | 13°14 | 14°41 | 27°35 | 12°17 | W19 | | | | | | | | |
| T 20 | 16 12 37 | 3°55'58 | 7♁ 8 | 15°48 | 10°19 | 15°26 | 4°41 | 17°31 | 13°49 | 1°14 | 10°22 | 13°R14 | 14°38 | 27°41 | 12°13 | T 20 | | | | | | | | |
| F 21 | 16 16 34 | 4°53'16 | 19°48 | 17°34 | 11°30 | 15°10 | 4°33 | 17°28 | 13°47 | 1°17 | 10°22 | 13°13 | 14°35 | 27°48 | 12° 9 | F 21 | | | | | | | | |
| S 22 | 16 20 30 | 5°50'34 | 2♁11 | 19°23 | 12°40 | 14°53 | 4°26 | 17°26 | 13°46 | 1°19 | 10°23 | 13°11 | 14°32 | 27°55 | 12° 5 | S 22 | | | | | | | | |
| S 23 | 16 24 27 | 6°47'51 | 14°22 | 21°14 | 13°50 | 14°36 | 4°18 | 17°24 | 13°44 | 1°21 | 10°23 | 13° 6 | 14°29 | 28° 2 | 12° 2 | S 23 | | | | | | | | |
| M24 | 16 28 23 | 7°45'06 | 26°24 | 23° 7 | 15° 0 | 14°18 | 4°10 | 17°22 | 13°42 | 1°23 | 10°23 | 13° 1 | 14°25 | 28° 8 | 11°58 | M24 | | | | | | | | |
| T 25 | 16 32 20 | 8°42'21 | 8♎19 | 25° 3 | 16°10 | 14° 1 | 4° 3 | 17°20 | 13°40 | 1°25 | 10°23 | 12°55 | 14°22 | 28°15 | 11°54 | T 25 | | | | | | | | |
| W26 | 16 36 17 | 9°39'36 | 20°11 | 27° 2 | 17°20 | 13°43 | 3°55 | 17°18 | 13°39 | 1°28 | 10°24 | 12°49 | 14°19 | 28°22 | 11°51 | W26 | | | | | | | | |
| T 27 | 16 40 13 | 10°36'49 | 2♁ 1 | 29° 2 | 18°29 | 13°24 | 3°48 | 17°16 | 13°37 | 1°30 | 10°24 | 12°43 | 14°16 | 28°28 | 11°47 | T 27 | | | | | | | | |
| F 28 | 16 44 10 | 11°34'02 | 13°52 | 1♂ 4 | 19°39 | 13° 6 | 3°40 | 17°14 | 13°35 | 1°32 | 10°24 | 12°39 | 14°13 | 28°35 | 11°44 | F 28 | | | | | | | | |
| S 29 | 16 48 6 | 12°31'15 | 25°45 | 3° 9 | 20°49 | 12°47 | 3°33 | 17°13 | 13°33 | 1°34 | 10°24 | 12°37 | 14°10 | 28°42 | 11°40 | S 29 | | | | | | | | |
| S 30 | 16 52 3 | 13°28'27 | 7♃43 | 5°15 | 21°58 | 12°28 | 3°25 | 17°11 | 13°31 | 1°37 | 10°24 | 12°D35 | 14° 6 | 28°48 | 11°37 | S 30 | | | | | | | | |
| M31 | 16 55 59 | 14♂25'39 | 19♃48 | 7♂22 | 23♃ 7 | 12♁ 9 | 3♁18 | 17♁10 | 13♃29 | 1♂39 | 10♁25 | 12♃35 | 14♃ 3 | 28♎55 | 11♎34 | M31 | | | | | | | | |

Delta T = 19m24s Julian Calendar 1 May 1070 == Greg. Calendar 7 May 1070

JUNE 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|--------|------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 16 59 56 | 15♂22'50 | 2♁ 2 | 9♂31 | 24♃17 | 11°R50 | 3°R10 | 17°R 8 | 13°R27 | 1♂41 | 10♁25 | 12♃37 | 14♃ 0 | 29♎ 2 | 11°R31 | T 1 | | | | | | | | |
| W 2 | 17 3 52 | 16°20'01 | 14°29 | 11°41 | 25°26 | 11♁32 | 3♁ 3 | 17♁ 7 | 13♃25 | 1°43 | 10°25 | 12°38 | 13°57 | 29° 8 | 11♎28 | W 2 | | | | | | | | |
| T 3 | 17 7 49 | 17°17'12 | 27°13 | 13°52 | 26°35 | 11°13 | 2°56 | 17° 6 | 13°23 | 1°45 | 10°25 | 12°40 | 13°54 | 29°15 | 11°24 | T 3 | | | | | | | | |
| F 4 | 17 11 46 | 18°14'23 | 10♁15 | 16° 3 | 27°44 | 10°54 | 2°49 | 17° 5 | 13°21 | 1°48 | 10°25 | 12°41 | 13°50 | 29°22 | 11°22 | F 4 | | | | | | | | |
| S 5 | 17 15 42 | 19°11'34 | 23°40 | 18°14 | 28°53 | 10°35 | 2°42 | 17° 4 | 13°19 | 1°50 | 10°R25 | 12°R41 | 13°47 | 29°28 | 11°19 | S 5 | | | | | | | | |
| S 6 | 17 19 39 | 20° 8'45 | 7♀28 | 20°25 | 0♂ 2 | 10°17 | 2°35 | 17° 3 | 13°17 | 1°52 | 10°25 | 12°40 | 13°44 | 29°35 | 11°16 | S 6 | | | | | | | | |
| M 7 | 17 23 35 | 21° 5'56 | 21°42 | 22°36 | 1°10 | 9°59 | 2°28 | 17° 2 | 13°14 | 1°54 | 10°25 | 12°38 | 13°41 | 29°42 | 11°13 | M 7 | | | | | | | | |
| T 8 | 17 27 32 | 22° 3'07 | 6♂17 | 24°46 | 2°19 | 9°41 | 2°21 | 17° 1 | 13°12 | 1°56 | 10°25 | 12°36 | 13°38 | 29°48 | 11°10 | T 8 | | | | | | | | |
| W 9 | 17 31 28 | 23° 0'18 | 21°11 | 26°56 | 3°27 | 9°23 | 2°14 | 17° 1 | 13°10 | 1°58 | 10°25 | 12°33 | 13°35 | 29°55 | 11° 8 | W 9 | | | | | | | | |
| T 10 | 17 35 25 | 23°57'30 | 6♂15 | 29° 4 | 4°36 | 9° 6 | 2° 7 | 17° 0 | 13° 8 | 2° 0 | 10°24 | 12°31 | 13°31 | 0♁ 2 | 11° 5 | T 10 | | | | | | | | |
| F 11 | 17 39 21 | 24°54'41 | 21°21 | 1♂11 | 5°44 | 8°49 | 2° 1 | 17° 0 | 13° 6 | 2° 2 | 10°24 | 12°29 | 13°28 | 0° 9 | 11° 3 | F 11 | | | | | | | | |
| S 12 | 17 43 18 | 25°51'52 | 6♃19 | 3°17 | 6°52 | 8°33 | 1°54 | 17° 0 | 13° 3 | 2° 5 | 10°24 | 12°D29 | 13°25 | 0°15 | 11° 1 | S 12 | | | | | | | | |
| S 13 | 17 47 15 | 26°49'04 | 21° 3 | 5°21 | 8° 0 | 8°17 | 1°48 | 16°59 | 13° 1 | 2° 7 | 10°24 | 12°29 | 13°22 | 0°22 | 10°58 | S 13 | | | | | | | | |
| M14 | 17 51 11 | 27°46'15 | 5♂24 | 7°24 | 9° 8 | 8° 2 | 1°42 | 16°59 | 12°59 | 2° 9 | 10°24 | 12°29 | 13°19 | 0°29 | 10°56 | M14 | | | | | | | | |
| T 15 | 17 55 8 | 28°43'26 | 19°21 | 9°25 | 10°16 | 7°47 | 1°36 | 16°D59 | 12°56 | 2°11 | 10°24 | 12°30 | 13°16 | 0°35 | 10°54 | T 15 | | | | | | | | |
| W16 | 17 59 4 | 29°40'36 | 2♁51 | 11°24 | 11°23 | 7°33 | 1°30 | 16°59 | 12°54 | 2°13 | 10°23 | 12°32 | 13°12 | 0°42 | 10°52 | W16 | | | | | | | | |
| T 17 | 18 3 1 | 0♃37'46 | 15°56 | 13°21 | 12°31 | 7°20 | 1°24 | 16°59 | 12°52 | 2°15 | 10°23 | 12°32 | 13° 9 | 0°49 | 10°51 | T 17 | | | | | | | | |
| F 18 | 18 6 57 | 1°34'57 | 28°38 | 15°17 | 13°38 | 7° 7 | 1°18 | 17° 0 | 12°49 | 2°17 | 10°23 | 12°R33 | 13° 6 | 0°55 | 10°49 | F 18 | | | | | | | | |
| S 19 | 18 10 54 | 2°32'07 | 11♁ 2 | 17°10 | 14°45 | 6°55 | 1°12 | 17° 0 | 12°47 | 2°19 | 10°22 | 12°33 | 13° 3 | 1° 2 | 10°47 | S 19 | | | | | | | | |
| S 20 | 18 14 50 | 3°29'17 | 23°12 | 19° 2 | 15°52 | 6°44 | 1° 7 | 17° 1 | 12°45 | 2°21 | 10°22 | 12°32 | 13° 0 | 1° 9 | 10°45 | S 20 | | | | | | | | |
| M21 | 18 18 47 | 4°26'27 | 5♎11 | 20°51 | 16°59 | 6°33 | 1° 2 | 17° 1 | 12°42 | 2°23 | 10°22 | 12°31 | 12°56 | 1°15 | 10°44 | M21 | | | | | | | | |
| T 22 | 18 22 44 | 5°23'37 | 17° 3 | 22°39 | 18° 6 | 6°23 | 0°56 | 17° 2 | 12°40 | 2°25 | 10°21 | 12°30 | 12°53 | 1°22 | 10°43 | T 22 | | | | | | | | |
| W23 | 18 26 40 | 6°20'47 | 28°53 | 24°25 | 19°12 | 6°14 | 0°51 | 17° 3 | 12°38 | 2°27 | 10°21 | 12°29 | 12°50 | 1°29 | 10°41 | W23 | | | | | | | | |
| T 24 | 18 30 37 | 7°17'57 | 10♁44 | 26° 8 | 20°19 | 6° 6 | 0°47 | 17° 3 | 12°35 | 2°29 | 10°21 | 12°29 | 12°47 | 1°35 | 10°40 | T 24 | | | | | | | | |
| F 25 | 18 34 33 | 8°15'08 | 22°38 | 27°50 | 21°25 | 5°59 | 0°42 | 17° 4 | 12°33 | 2°31 | 10°20 | 12°28 | 12°44 | 1°42 | 10°39 | F 25 | | | | | | | | |
| S 26 | 18 38 30 | 9°12'19 | 4♃38 | 29°30 | 22°31 | 5°52 | 0°37 | 17° 6 | 12°30 | 2°32 | 10°20 | 12°28 | 12°41 | 1°49 | 10°38 | S 26 | | | | | | | | |
| S 27 | 18 42 26 | 10° 9'30 | 16°46 | 1♂ 8 | 23°37 | 5°46 | 0°33 | 17° 7 | 12°28 | 2°34 | 10°19 | 12°D28 | 12°37 | 1°55 | 10°37 | S 27 | | | | | | | | |
| M28 | 18 46 23 | 11° 6'42 | 29° 4 | 2°44 | 24°43 | 5°41 | 0°28 | 17° 8 | 12°26 | 2°36 | 10°19 | 12°28 | 12°34 | 2° 2 | 10°36 | M28 | | | | | | | | |
| T 29 | 18 50 20 | 12° 3'55 | 11♁33 | 4°18 | 25°48 | 5°37 | 0°24 | 17° 9 | 12°23 | 2°38 | 10°18 | 12°R28 | 12°31 | 2° 9 | 10°36 | T 29 | | | | | | | | |
| W30 | 18 54 16 | 13♃ 1'08 | 24♁15 | 5♂50 | 26♂54 | 5♁33 | 0♁20 | 17♁11 | 12♃21 | 2♂40 | 10♁18 | 12♃28 | 12♃28 | 2♁15 | 10♎35 | W30 | | | | | | | | |

Delta T = 19m24s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1070
geocentric

JULY 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|------|--------|--------|-------|------|--------|------|-----|
| T 1 | 18 58 13 | 13♄58'21 | 7♂11 | 7♂21 | 27♂59 | 5°R31 | 0°R17 | 17♂12 | 12°R18 | 2♂42 | 10°R17 | 12°R28 | 12♄25 | 2♂22 | 10°R35 | T 1 | |
| F 2 | 19 2 9 | 14°55'36 | 20°23 | 8°49 | 29° 4 | 5♂29 | 0♂13 | 17°14 | 12♄16 | 2°43 | 10♂16 | 12♄28 | 12°22 | 2°29 | 10♂34 | F 2 | |
| S 3 | 19 6 6 | 15°52'51 | 3♂52 | 10°15 | 0♂9 | 5°28 | 0° 9 | 17°16 | 12°14 | 2°45 | 10°16 | 12°28 | 12°18 | 2°36 | 10°34 | S 3 | |
| S 4 | 19 10 2 | 16°50'07 | 17°38 | 11°39 | 1°13 | 5°D28 | 0° 6 | 17°17 | 12°11 | 2°47 | 10°15 | 12°D28 | 12°15 | 2°42 | 10°34 | S 4 | |
| M 5 | 19 13 59 | 17°47'24 | 18♂42 | 13° 1 | 2°17 | 5°29 | 0° 3 | 17°19 | 12° 9 | 2°49 | 10°15 | 12°28 | 12°12 | 2°49 | 10°D34 | M 5 | |
| T 6 | 19 17 55 | 18°44'43 | 16° 2 | 14°21 | 3°22 | 5°30 | 0° 0 | 17°21 | 12° 6 | 2°50 | 10°14 | 12°28 | 12° 9 | 2°56 | 10°34 | T 6 | |
| W 7 | 19 21 52 | 19°42'02 | 0♂35 | 15°39 | 4°26 | 5°33 | 29♂57 | 17°23 | 12° 4 | 2°52 | 10°13 | 12°29 | 12° 6 | 3° 2 | 10°34 | W 7 | |
| T 8 | 19 25 48 | 20°39'23 | 15°17 | 16°55 | 5°29 | 5°36 | 29°55 | 17°26 | 12° 2 | 2°54 | 10°12 | 12°29 | 12° 2 | 3° 9 | 10°34 | T 8 | |
| F 9 | 19 29 45 | 21°36'44 | 0♄3 | 18° 9 | 6°33 | 5°40 | 29°52 | 17°28 | 11°59 | 2°55 | 10°12 | 12°30 | 11°59 | 3°16 | 10°34 | F 9 | |
| S 10 | 19 33 42 | 22°34'06 | 14°46 | 19°20 | 7°36 | 5°45 | 29°50 | 17°30 | 11°57 | 2°57 | 10°11 | 12°R30 | 11°56 | 3°22 | 10°35 | S 10 | |
| S 11 | 19 37 38 | 23°31'30 | 29°18 | 20°29 | 8°39 | 5°51 | 29°48 | 17°33 | 11°55 | 2°58 | 10°10 | 12°30 | 11°53 | 3°29 | 10°35 | S 11 | |
| M12 | 19 41 35 | 24°28'54 | 13♂34 | 21°35 | 9°42 | 5°57 | 29°46 | 17°35 | 11°52 | 3° 0 | 10° 9 | 12°29 | 11°50 | 3°36 | 10°36 | M12 | |
| T 13 | 19 45 31 | 25°26'19 | 27°30 | 22°39 | 10°44 | 6° 4 | 29°44 | 17°38 | 11°50 | 3° 2 | 10° 9 | 12°27 | 11°47 | 3°42 | 10°37 | T 13 | |
| W14 | 19 49 28 | 26°23'44 | 11♂2 | 23°40 | 11°47 | 6°13 | 29°43 | 17°41 | 11°48 | 3° 3 | 10° 8 | 12°25 | 11°43 | 3°49 | 10°37 | W14 | |
| T 15 | 19 53 24 | 27°21'11 | 24°10 | 24°38 | 12°49 | 6°21 | 29°42 | 17°44 | 11°45 | 3° 4 | 10° 7 | 12°24 | 11°40 | 3°56 | 10°38 | T 15 | |
| F 16 | 19 57 21 | 28°18'38 | 6♄56 | 25°34 | 13°50 | 6°31 | 29°40 | 17°47 | 11°43 | 3° 6 | 10° 6 | 12°22 | 11°37 | 4° 2 | 10°39 | F 16 | |
| S 17 | 20 1 18 | 29°16'06 | 19°22 | 26°26 | 14°52 | 6°42 | 29°39 | 17°50 | 11°41 | 3° 7 | 10° 5 | 12°21 | 11°34 | 4° 9 | 10°40 | S 17 | |
| S 18 | 20 5 14 | 0♂13'34 | 1♂32 | 27°16 | 15°53 | 6°53 | 29°39 | 17°53 | 11°39 | 3° 9 | 10° 4 | 12°D21 | 11°31 | 4°16 | 10°42 | S 18 | |
| M19 | 20 9 11 | 1°11'04 | 13°31 | 28° 1 | 16°53 | 7° 5 | 29°38 | 17°56 | 11°36 | 3°10 | 10° 4 | 12°21 | 11°27 | 4°22 | 10°43 | M19 | |
| T 20 | 20 13 7 | 2° 8'34 | 25°23 | 28°44 | 17°54 | 7°17 | 29°38 | 17°59 | 11°34 | 3°12 | 10° 3 | 12°22 | 11°24 | 4°29 | 10°45 | T 20 | |
| W21 | 20 17 4 | 3° 6'06 | 7♂13 | 29°23 | 18°54 | 7°31 | 29°38 | 18° 3 | 11°32 | 3°13 | 10° 2 | 12°24 | 11°21 | 4°36 | 10°46 | W21 | |
| T 22 | 20 21 0 | 4° 3'38 | 19° 6 | 29°57 | 19°54 | 7°45 | 29°D38 | 18° 6 | 11°30 | 3°14 | 10° 1 | 12°25 | 11°18 | 4°42 | 10°48 | T 22 | |
| F 23 | 20 24 57 | 5° 1'11 | 1♄4 | 0♂28 | 20°53 | 7°59 | 29°38 | 18° 9 | 11°28 | 3°15 | 10° 0 | 12°27 | 11°15 | 4°49 | 10°49 | F 23 | |
| S 24 | 20 28 53 | 5°58'46 | 13°12 | 0°55 | 21°52 | 8°15 | 29°38 | 18°13 | 11°25 | 3°17 | 9°59 | 12°R27 | 11°12 | 4°56 | 10°51 | S 24 | |
| S 25 | 20 32 50 | 6°56'21 | 25°33 | 1°16 | 22°51 | 8°31 | 29°39 | 18°17 | 11°23 | 3°18 | 9°58 | 12°26 | 11° 8 | 5° 2 | 10°53 | S 25 | |
| M26 | 20 36 47 | 7°53'58 | 8♄7 | 1°34 | 23°49 | 8°48 | 29°39 | 18°21 | 11°21 | 3°19 | 9°57 | 12°25 | 11° 5 | 5° 9 | 10°55 | M26 | |
| T 27 | 20 40 43 | 8°51'36 | 20°55 | 1°46 | 24°47 | 9° 5 | 29°40 | 18°24 | 11°19 | 3°20 | 9°56 | 12°22 | 11° 2 | 5°16 | 10°57 | T 27 | |
| W28 | 20 44 40 | 9°49'16 | 3♂59 | 1°53 | 25°44 | 9°23 | 29°41 | 18°28 | 11°17 | 3°21 | 9°55 | 12°18 | 10°59 | 5°22 | 11° 0 | W28 | |
| T 29 | 20 48 36 | 10°46'57 | 17°16 | 1°R55 | 26°41 | 9°41 | 29°43 | 18°32 | 11°15 | 3°22 | 9°54 | 12°13 | 10°56 | 5°29 | 11° 2 | T 29 | |
| F 30 | 20 52 33 | 11°44'39 | 0♂47 | 1°51 | 27°38 | 10° 0 | 29°44 | 18°36 | 11°13 | 3°24 | 9°53 | 12° 9 | 10°53 | 5°36 | 11° 4 | F 30 | |
| S 31 | 20 56 29 | 12♂42'23 | 14♂30 | 1♂41 | 28♂34 | 10♂20 | 29♂46 | 18♂41 | 11♄11 | 3♂25 | 9♂52 | 12♄6 | 10♄49 | 5♂42 | 11♂7 | S 31 | |

Delta T = 19m23s Julian Calendar 1 July 1070 == Greg. Calendar 7 July 1070

AUGUST 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|------|-------|--------|-------|------|-------|------|-----|
| S 1 | 21 0 26 | 13♂40'09 | 28♂23 | 1°R26 | 29♂30 | 10♂40 | 29♂47 | 18♂45 | 11°R 9 | 3♂26 | 9°R51 | 12°R 3 | 10♄46 | 5♂49 | 11♂10 | S 1 | |
| M 2 | 21 4 22 | 14°37'57 | 12♄25 | 1♂5 | 0♄25 | 11° 1 | 29°49 | 18°49 | 11♄7 | 3°27 | 9♂50 | 12°D 2 | 10°43 | 5°56 | 11°12 | M 2 | |
| T 3 | 21 8 19 | 15°35'46 | 26°35 | 0°38 | 1°19 | 11°23 | 29°52 | 18°53 | 11° 6 | 3°28 | 9°49 | 12♄3 | 10°40 | 6° 2 | 11°15 | T 3 | |
| W 4 | 21 12 16 | 16°33'37 | 10♂50 | 0° 6 | 2°14 | 11°45 | 29°54 | 18°58 | 11° 4 | 3°28 | 9°47 | 12° 4 | 10°37 | 6° 9 | 11°18 | W 4 | |
| T 5 | 21 16 12 | 17°31'31 | 25°10 | 29♂28 | 3° 7 | 12° 7 | 29°56 | 19° 2 | 11° 2 | 3°29 | 9°46 | 12° 5 | 10°33 | 6°16 | 11°21 | T 5 | |
| F 6 | 21 20 9 | 18°29'26 | 9♄30 | 28°45 | 4° 0 | 12°30 | 29°59 | 19° 7 | 11° 0 | 3°30 | 9°45 | 12°R 6 | 10°30 | 6°22 | 11°24 | F 6 | |
| S 7 | 21 24 5 | 19°27'22 | 23°47 | 27°58 | 4°53 | 12°54 | 0♂2 | 19°12 | 10°59 | 3°31 | 9°44 | 12° 6 | 10°27 | 6°29 | 11°27 | S 7 | |
| S 8 | 21 28 2 | 20°25'21 | 7♂58 | 27° 8 | 5°44 | 13°18 | 0° 5 | 19°16 | 10°57 | 3°32 | 9°43 | 12° 3 | 10°24 | 6°36 | 11°31 | S 8 | |
| M 9 | 21 31 58 | 21°23'21 | 21°57 | 26°14 | 6°36 | 13°42 | 0° 8 | 19°21 | 10°55 | 3°33 | 9°42 | 11°59 | 10°21 | 6°42 | 11°34 | M 9 | |
| T 10 | 21 35 55 | 22°21'23 | 5♂40 | 25°19 | 7°26 | 14° 7 | 0°12 | 19°26 | 10°54 | 3°33 | 9°41 | 11°54 | 10°18 | 6°49 | 11°37 | T 10 | |
| W11 | 21 39 51 | 23°19'26 | 19° 6 | 24°22 | 8°16 | 14°33 | 0°15 | 19°31 | 10°52 | 3°34 | 9°39 | 11°47 | 10°14 | 6°56 | 11°41 | W11 | |
| T 12 | 21 43 48 | 24°17'31 | 2♄10 | 23°26 | 9° 5 | 14°58 | 0°19 | 19°36 | 10°50 | 3°35 | 9°38 | 11°40 | 10°11 | 7° 2 | 11°45 | T 12 | |
| F 13 | 21 47 45 | 25°15'37 | 14°55 | 22°32 | 9°54 | 15°25 | 0°23 | 19°41 | 10°49 | 3°35 | 9°37 | 11°33 | 10° 8 | 7° 9 | 11°48 | F 13 | |
| S 14 | 21 51 41 | 26°13'45 | 27°21 | 21°40 | 10°41 | 15°52 | 0°27 | 19°46 | 10°48 | 3°36 | 9°36 | 11°28 | 10° 5 | 7°16 | 11°52 | S 14 | |
| S 15 | 21 55 38 | 27°11'54 | 9♂32 | 20°52 | 11°28 | 16°19 | 0°32 | 19°52 | 10°46 | 3°37 | 9°35 | 11°24 | 10° 2 | 7°22 | 11°56 | S 15 | |
| M16 | 21 59 34 | 28°10'05 | 21°30 | 20° 9 | 12°14 | 16°47 | 0°36 | 19°57 | 10°45 | 3°37 | 9°34 | 11°22 | 9°59 | 7°29 | 12° 0 | M16 | |
| T 17 | 22 3 31 | 29° 8'18 | 3♂22 | 19°32 | 13° 0 | 17°15 | 0°41 | 20° 2 | 10°43 | 3°38 | 9°32 | 11°D22 | 9°55 | 7°36 | 12° 4 | T 17 | |
| W18 | 22 7 27 | 0♂6'32 | 15°12 | 19° 3 | 13°44 | 17°43 | 0°45 | 20° 8 | 10°42 | 3°38 | 9°31 | 11°23 | 9°52 | 7°42 | 12° 8 | W18 | |
| T 19 | 22 11 24 | 1° 4'47 | 27° 5 | 18°41 | 14°27 | 18°12 | 0°50 | 20°13 | 10°41 | 3°39 | 9°30 | 11°24 | 9°49 | 7°49 | 12°13 | T 19 | |
| F 20 | 22 15 20 | 2° 3'05 | 9♄6 | 18°27 | 15°10 | 18°41 | 0°55 | 20°19 | 10°40 | 3°39 | 9°29 | 11°R25 | 9°46 | 7°56 | 12°17 | F 20 | |
| S 21 | 22 19 17 | 3° 1'24 | 21°21 | 18°D22 | 15°51 | 19°11 | 1° 1 | 20°24 | 10°38 | 3°39 | 9°28 | 11°25 | 9°43 | 8° 2 | 12°21 | S 21 | |
| S 22 | 22 23 13 | 3°59'44 | 3♄51 | 18°26 | 16°32 | 19°41 | 1° 6 | 20°30 | 10°37 | 3°40 | 9°26 | 11°22 | 9°39 | 8° 9 | 12°26 | S 22 | |
| M23 | 22 27 10 | 4°58'06 | 16°40 | 18°39 | 17°11 | 20°11 | 1°12 | 20°35 | 10°36 | 3°40 | 9°25 | 11°18 | 9°36 | 8°16 | 12°30 | M23 | |
| T 24 | 22 31 7 | 5°56'30 | 29°49 | 19° 1 | 17°49 | 20°42 | 1°17 | 20°41 | 10°35 | 3°40 | 9°24 | 11°11 | 9°33 | 8°22 | 12°35 | T 24 | |
| W25 | 22 35 3 | 6°54'56 | 13♂16 | 19°33 | 18°26 | 21°13 | 1°23 | 20°47 | 10°34 | 3°41 | 9°23 | 11° 2 | 9°30 | 8°29 | 12°40 | W25 | |
| T 26 | 22 39 0 | 7°53'24 | 27° 0 | 20°13 | 19° 2 | 21°45 | 1°29 | 20°53 | 10°33 | 3°41 | 9°21 | 10°53 | 9°27 | 8°36 | 12°45 | T 26 | |
| F 27 | 22 42 56 | 8°51'54 | 10♂57 | 21° 1 | 19°36 | 22°16 | 1°36 | 20°59 | 10°32 | 3°41 | 9°20 | 10°43 | 9°24 | 8°42 | 12°50 | F 27 | |
| S 28 | 22 46 53 | 9°50'26 | 25° 2 | 21°57 | 20° 9 | 22°48 | 1°42 | 21° 5 | 10°31 | 3°41 | 9°19 | 10°35 | 9°20 | 8°49 | 12°54 | S 28 | |
| S 29 | 22 50 49 | 10°49'00 | 9♄13 | 23° 1 | 20°41 | 23°21 | 1°48 | 21°11 | 10°31 | 3°41 | 9°18 | 10°29 | 9°17 | 8°56 | 13° 0 | S 29 | |
| M30 | 22 54 46 | 11°47'36 | 23°24 | 24°11 | 21°12 | 23°53 | 1°55 | 21°17 | 10°30 | 3°41 | 9°17 | 10°26 | 9°14 | 9° 2 | 13° 5 | M30 | |
| T 31 | 22 58 42 | 12♂46'15 | 7♂35 | 25♂28 | 21♄41 | 24♂26 | 2♂2 | 21♄23 | 10♄29 | 3♂41 | 9♂15 | 10°D24 | 9♄11 | 9♂9 | 13♂10 | T 31 | |

Delta T = 19m23s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1070
geocentric

SEPTEMBER 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|--------|-------|------|-------|--------|-------|-------|--------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 23 2 39 | 13♎44'56 | 21♎42 | 26♎50 | 22♎ 8 | 24♎59 | 2♎ 9 | 21♎29 | 10°R28 | 3°R41 | 9°R14 | 10♎24 | 9♎ 8 | 9♎16 | 13♎15 | W 1 | | | | | | | | |
| T 2 | 23 6 36 | 14°43'40 | 5♎45 | 28°17 | 22°34 | 25°33 | 2°16 | 21°35 | 10♎28 | 3♎41 | 9°R13 | 10°R25 | 9° 5 | 9°22 | 13°20 | T 2 | | | | | | | | |
| F 3 | 23 10 32 | 15°42'25 | 19°43 | 29°48 | 22°58 | 26° 6 | 2°23 | 21°41 | 10°27 | 3°41 | 9°12 | 10°25 | 9° 1 | 9°29 | 13°26 | F 3 | | | | | | | | |
| S 4 | 23 14 29 | 16°41'14 | 3♎35 | 1♎23 | 23°21 | 26°41 | 2°31 | 21°48 | 10°27 | 3°41 | 9°10 | 10°22 | 8°58 | 9°36 | 13°31 | S 4 | | | | | | | | |
| S 5 | 23 18 25 | 17°40'04 | 17°20 | 3° 1 | 23°41 | 27°15 | 2°38 | 21°54 | 10°26 | 3°41 | 9° 9 | 10°18 | 8°55 | 9°42 | 13°37 | S 5 | | | | | | | | |
| M 6 | 23 22 22 | 18°38'56 | 0♎55 | 4°42 | 24° 0 | 27°49 | 2°46 | 22° 0 | 10°26 | 3°41 | 9° 8 | 10°10 | 8°52 | 9°49 | 13°42 | M 6 | | | | | | | | |
| T 7 | 23 26 18 | 19°37'51 | 14°18 | 6°25 | 24°17 | 28°24 | 2°53 | 22° 7 | 10°25 | 3°41 | 9° 7 | 10° 0 | 8°49 | 9°56 | 13°48 | T 7 | | | | | | | | |
| W 8 | 23 30 15 | 20°36'47 | 27°27 | 8° 9 | 24°33 | 28°59 | 3° 1 | 22°13 | 10°25 | 3°40 | 9° 6 | 9°48 | 8°45 | 10° 2 | 13°54 | W 8 | | | | | | | | |
| T 9 | 23 34 11 | 21°35'46 | 10♎21 | 9°55 | 24°46 | 29°35 | 3° 9 | 22°20 | 10°25 | 3°40 | 9° 4 | 9°36 | 8°42 | 10° 9 | 14° 0 | T 9 | | | | | | | | |
| F 10 | 23 38 8 | 22°34'46 | 22°58 | 11°42 | 24°57 | 0♎10 | 3°18 | 22°26 | 10°25 | 3°40 | 9° 3 | 9°24 | 8°39 | 10°16 | 14° 6 | F 10 | | | | | | | | |
| S 11 | 23 42 5 | 23°33'49 | 5♎19 | 13°30 | 25° 6 | 0°46 | 3°26 | 22°33 | 10°24 | 3°40 | 9° 2 | 9°14 | 8°36 | 10°22 | 14°11 | S 11 | | | | | | | | |
| S 12 | 23 46 1 | 24°32'53 | 17°27 | 15°17 | 25°12 | 1°22 | 3°34 | 22°39 | 10°24 | 3°39 | 9° 1 | 9° 6 | 8°33 | 10°29 | 14°17 | S 12 | | | | | | | | |
| M13 | 23 49 58 | 25°31'59 | 29°24 | 17° 5 | 25°17 | 1°58 | 3°43 | 22°46 | 10°24 | 3°39 | 9° 0 | 9° 1 | 8°30 | 10°36 | 14°23 | M13 | | | | | | | | |
| T 14 | 23 53 54 | 26°31'08 | 11♎14 | 18°53 | 25°R19 | 2°35 | 3°52 | 22°53 | 10°D24 | 3°38 | 8°59 | 8°58 | 8°26 | 10°42 | 14°30 | T 14 | | | | | | | | |
| W15 | 23 57 51 | 27°30'18 | 23° 2 | 20°41 | 25°19 | 3°12 | 4° 0 | 22°59 | 10°24 | 3°38 | 8°57 | 8°D57 | 8°23 | 10°49 | 14°36 | W15 | | | | | | | | |
| T 16 | 0 1 47 | 28°29'30 | 4♎54 | 22°29 | 25°17 | 3°49 | 4° 9 | 23° 6 | 10°24 | 3°37 | 8°56 | 8°R57 | 8°20 | 10°56 | 14°42 | T 16 | | | | | | | | |
| F 17 | 0 5 44 | 29°28'43 | 16°55 | 24°16 | 25°12 | 4°26 | 4°18 | 23°13 | 10°24 | 3°37 | 8°55 | 8°57 | 8°17 | 11° 2 | 14°48 | F 17 | | | | | | | | |
| S 18 | 0 9 40 | 0♎27'59 | 29°10 | 26° 3 | 25° 4 | 5° 3 | 4°28 | 23°20 | 10°25 | 3°36 | 8°54 | 8°55 | 8°14 | 11° 9 | 14°55 | S 18 | | | | | | | | |
| S 19 | 0 13 37 | 1°27'16 | 11♎45 | 27°49 | 24°55 | 5°41 | 4°37 | 23°27 | 10°25 | 3°36 | 8°53 | 8°52 | 8°10 | 11°16 | 15° 1 | S 19 | | | | | | | | |
| M20 | 0 17 34 | 2°26'36 | 24°42 | 29°34 | 24°43 | 6°18 | 4°46 | 23°33 | 10°25 | 3°35 | 8°52 | 8°46 | 8° 7 | 11°22 | 15° 7 | M20 | | | | | | | | |
| T 21 | 0 21 30 | 3°25'57 | 8♎ 4 | 1♎19 | 24°28 | 6°56 | 4°56 | 23°40 | 10°25 | 3°35 | 8°51 | 8°37 | 8° 4 | 11°29 | 15°14 | T 21 | | | | | | | | |
| W22 | 0 25 27 | 4°25'20 | 21°50 | 3° 3 | 24°11 | 7°34 | 5° 5 | 23°47 | 10°26 | 3°34 | 8°50 | 8°26 | 8° 1 | 11°36 | 15°21 | W22 | | | | | | | | |
| T 23 | 0 29 23 | 5°24'45 | 5°R58 | 4°47 | 23°52 | 8°12 | 5°15 | 23°54 | 10°26 | 3°33 | 8°48 | 8°14 | 7°58 | 11°42 | 15°27 | T 23 | | | | | | | | |
| F 24 | 0 33 20 | 6°24'12 | 20°21 | 6°30 | 23°30 | 8°51 | 5°25 | 24° 1 | 10°27 | 3°32 | 8°47 | 8° 2 | 7°55 | 11°49 | 15°34 | F 24 | | | | | | | | |
| S 25 | 0 37 16 | 7°23'41 | 4♎55 | 8°12 | 23° 7 | 9°29 | 5°35 | 24° 8 | 10°27 | 3°32 | 8°46 | 7°51 | 7°51 | 11°56 | 15°40 | S 25 | | | | | | | | |
| S 26 | 0 41 13 | 8°23'13 | 19°30 | 9°53 | 22°41 | 10° 8 | 5°45 | 24°15 | 10°28 | 3°31 | 8°45 | 7°43 | 7°48 | 12° 2 | 15°47 | S 26 | | | | | | | | |
| M27 | 0 45 9 | 9°22'46 | 4♎ 2 | 11°34 | 22°13 | 10°47 | 5°55 | 24°22 | 10°28 | 3°30 | 8°44 | 7°38 | 7°45 | 12° 9 | 15°54 | M27 | | | | | | | | |
| T 28 | 0 49 6 | 10°22'23 | 18°25 | 13°14 | 21°44 | 11°26 | 6° 6 | 24°29 | 10°29 | 3°29 | 8°43 | 7°35 | 7°42 | 12°16 | 16° 1 | T 28 | | | | | | | | |
| W29 | 0 53 2 | 11°22'01 | 2♎37 | 14°54 | 21°13 | 12° 5 | 6°16 | 24°36 | 10°30 | 3°28 | 8°42 | 7°34 | 7°39 | 12°22 | 16° 8 | W29 | | | | | | | | |
| T 30 | 0 56 59 | 12♎21'42 | 16♎36 | 16♎33 | 20♎41 | 12♎44 | 6♎26 | 24♎43 | 10♎31 | 3♎27 | 8♎41 | 7♎34 | 7♎36 | 12♎29 | 16♎15 | T 30 | | | | | | | | |

Delta T = 19m23s Julian Calendar 1 Sept. 1070 == Greg. Calendar 7 Sept. 1070

OCTOBER 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 1 0 56 | 13♎21'26 | 0♎22 | 18♎11 | 20°R 7 | 13♎24 | 6♎37 | 24♎50 | 10♎31 | 3°R26 | 8°R40 | 7°R33 | 7♎32 | 12♎36 | 16♎22 | F 1 | | | | | | | | |
| S 2 | 1 4 52 | 14°21'11 | 13°56 | 19°48 | 19♎32 | 14° 3 | 6°48 | 24°57 | 10°32 | 3♎25 | 8°R39 | 7♎31 | 7°29 | 12°42 | 16°29 | S 2 | | | | | | | | |
| S 3 | 1 8 49 | 15°20'59 | 27°19 | 21°25 | 18°57 | 14°43 | 6°58 | 25° 5 | 10°33 | 3°24 | 8°38 | 7°26 | 7°26 | 12°49 | 16°36 | S 3 | | | | | | | | |
| M 4 | 1 12 45 | 16°20'49 | 10♎31 | 23° 2 | 18°21 | 15°23 | 7° 9 | 25°12 | 10°34 | 3°23 | 8°37 | 7°17 | 7°23 | 12°56 | 16°43 | M 4 | | | | | | | | |
| T 5 | 1 16 42 | 17°20'42 | 23°31 | 24°38 | 17°44 | 16° 3 | 7°20 | 25°19 | 10°35 | 3°22 | 8°37 | 7° 6 | 7°20 | 13° 2 | 16°50 | T 5 | | | | | | | | |
| W 6 | 1 20 38 | 18°20'36 | 6♎20 | 26°13 | 17° 8 | 16°43 | 7°31 | 25°26 | 10°36 | 3°21 | 8°36 | 6°53 | 7°16 | 13° 9 | 16°57 | W 6 | | | | | | | | |
| T 7 | 1 24 35 | 19°20'32 | 18°57 | 27°48 | 16°31 | 17°23 | 7°42 | 25°33 | 10°38 | 3°20 | 8°35 | 6°40 | 7°13 | 13°16 | 17° 4 | T 7 | | | | | | | | |
| F 8 | 1 28 31 | 20°20'31 | 1♎22 | 29°22 | 15°55 | 18° 4 | 7°54 | 25°40 | 10°39 | 3°19 | 8°34 | 6°26 | 7°10 | 13°22 | 17°11 | F 8 | | | | | | | | |
| S 9 | 1 32 28 | 21°20'31 | 13°34 | 0♎56 | 15°20 | 18°44 | 8° 5 | 25°47 | 10°40 | 3°18 | 8°33 | 6°15 | 7° 7 | 13°29 | 17°19 | S 9 | | | | | | | | |
| S 10 | 1 36 25 | 22°20'33 | 25°36 | 2°29 | 14°46 | 19°25 | 8°16 | 25°55 | 10°41 | 3°17 | 8°32 | 6° 6 | 7° 4 | 13°35 | 17°26 | S 10 | | | | | | | | |
| M11 | 1 40 21 | 23°20'37 | 7♎29 | 4° 2 | 14°12 | 20° 5 | 8°28 | 26° 2 | 10°43 | 3°16 | 8°31 | 5°59 | 7° 1 | 13°42 | 17°33 | M11 | | | | | | | | |
| T 12 | 1 44 18 | 24°20'43 | 19°17 | 5°34 | 13°40 | 20°46 | 8°39 | 26° 9 | 10°44 | 3°14 | 8°31 | 5°56 | 6°57 | 13°49 | 17°41 | T 12 | | | | | | | | |
| W13 | 1 48 14 | 25°20'50 | 1♎ 3 | 7° 6 | 13° 9 | 21°27 | 8°51 | 26°16 | 10°45 | 3°13 | 8°30 | 5°D54 | 6°54 | 13°55 | 17°48 | W13 | | | | | | | | |
| T 14 | 1 52 11 | 26°20'59 | 12°53 | 8°38 | 12°40 | 22° 8 | 9° 3 | 26°23 | 10°47 | 3°12 | 8°29 | 5°54 | 6°51 | 14° 2 | 17°55 | T 14 | | | | | | | | |
| F 15 | 1 56 7 | 27°21'10 | 24°51 | 10° 9 | 12°13 | 22°49 | 9°14 | 26°31 | 10°48 | 3°10 | 8°28 | 5°R55 | 6°48 | 14° 9 | 18° 3 | F 15 | | | | | | | | |
| S 16 | 2 0 4 | 28°21'22 | 7♎ 4 | 11°39 | 11°48 | 23°31 | 9°26 | 26°38 | 10°50 | 3° 9 | 8°28 | 5°54 | 6°45 | 14°15 | 18°10 | S 16 | | | | | | | | |
| S 17 | 2 4 0 | 29°21'36 | 19°36 | 13° 9 | 11°25 | 24°12 | 9°38 | 26°45 | 10°52 | 3° 8 | 8°27 | 5°52 | 6°42 | 14°22 | 18°18 | S 17 | | | | | | | | |
| M18 | 2 7 57 | 0♎21'52 | 2♎33 | 14°39 | 11° 4 | 24°53 | 9°50 | 26°52 | 10°53 | 3° 6 | 8°26 | 5°48 | 6°38 | 14°29 | 18°25 | M18 | | | | | | | | |
| T 19 | 2 11 54 | 1°22'08 | 15°57 | 16° 8 | 10°46 | 25°35 | 10° 2 | 26°59 | 10°55 | 3° 5 | 8°26 | 5°41 | 6°35 | 14°35 | 18°33 | T 19 | | | | | | | | |
| W20 | 2 15 50 | 2°22'27 | 29°49 | 17°37 | 10°29 | 26°16 | 10°14 | 27° 6 | 10°57 | 3° 4 | 8°25 | 5°32 | 6°32 | 14°42 | 18°40 | W20 | | | | | | | | |
| T 21 | 2 19 47 | 3°22'47 | 14°R 8 | 19° 5 | 10°16 | 26°58 | 10°27 | 27°14 | 10°59 | 3° 2 | 8°24 | 5°22 | 6°29 | 14°49 | 18°48 | T 21 | | | | | | | | |
| F 22 | 2 23 43 | 4°23'08 | 28°49 | 20°33 | 10° 4 | 27°40 | 10°39 | 27°21 | 11° 0 | 3° 1 | 8°24 | 5°12 | 6°26 | 14°55 | 18°55 | F 22 | | | | | | | | |
| S 23 | 2 27 40 | 5°23'32 | 13♎45 | 22° 1 | 9°55 | 28°22 | 10°51 | 27°28 | 11° 2 | 2°59 | 8°23 | 5° 4 | 6°22 | 15° 2 | 19° 3 | S 23 | | | | | | | | |
| S 24 | 2 31 36 | 6°23'57 | 28°45 | 23°27 | 9°49 | 29° 3 | 11° 4 | 27°35 | 11° 4 | 2°58 | 8°23 | 4°57 | 6°19 | 15° 9 | 19°11 | S 24 | | | | | | | | |
| M25 | 2 35 33 | 7°24'24 | 13♎41 | 24°53 | 9°45 | 29°45 | 11°16 | 27°42 | 11° 6 | 2°56 | 8°22 | 4°52 | 6°16 | 15°15 | 19°18 | M25 | | | | | | | | |
| T 26 | 2 39 29 | 8°24'53 | 28°26 | 26°19 | 9°D44 | 0♎27 | 11°29 | 27°49 | 11° 8 | 2°55 | 8°21 | 4°D51 | 6°13 | 15°22 | 19°26 | T 26 | | | | | | | | |
| W27 | 2 43 26 | 9°25'24 | 12♎34 | 27°44 | 9°45 | 1°10 | 11°41 | 27°56 | 11°10 | 2°53 | 8°21 | 4°51 | 6°10 | 15°29 | 19°34 | W27 | | | | | | | | |
| T 28 | 2 47 23 | 10°25'56 | 27° 2 | 29° 8 | 9°48 | 1°52 | 11°54 | 28° 3 | 11°12 | 2°52 | 8°21 | 4°52 | 6° 7 | 15°35 | 19°41 | T 28 | | | | | | | | |
| F 29 | 2 51 19 | 11°26'31 | 10♎50 | 0♎31 | 9°54 | 2°34 | 12° 6 | 28°11 | 11°15 | 2°50 | 8°20 | 4°R52 | 6° 3 | 15°42 | 19°49 | F 29 | | | | | | | | |
| S 30 | 2 55 16 | 12°27'07 | 24°19 | 1°53 | 10° 2 | 3°16 | 12°19 | 28°18 | 11°17 | 2°49 | 8°20 | 4°51 | 6° 0 | 15°49 | 19°57 | S 30 | | | | | | | | |
| S 31 | 2 59 12 | 13♎27'45 | 7♎31 | 3♎14 | 10♎12 | 3♎59 | 12♎32 | 28♎25 | 11♎19 | 2♎47 | 8♎19 | 4♎49 | 5♎57 | 15♎55 | 20♎ 4 | S 31 | | | | | | | | |

Delta T = 19m22s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1070
geocentric

NOVEMBER 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|
| M 1 | 3 3 9 | 14♌28'25 | 20♎27 | 4♋34 | 10♌25 | 4♋41 | 12♌45 | 28♌32 | 11♌21 | 2♋46 | 8♋19 | 4♋44 | 5♌54 | 16♌2 | 20♌12 | M 1 |
| T 2 | 3 7 5 | 15°29'06 | 3♌9 | 5°53 | 10°40 | 5°23 | 12°58 | 28°39 | 11°24 | 2♋44 | 8♋19 | 4♌36 | 5°51 | 16°9 | 20°20 | T 2 |
| W 3 | 3 11 2 | 16°29'49 | 15°39 | 7°10 | 10°57 | 6°6 | 13°11 | 28°46 | 11°26 | 2°42 | 8°18 | 4°28 | 5°47 | 16°15 | 20°27 | W 3 |
| T 4 | 3 14 58 | 17°30'34 | 27°59 | 8°25 | 11°16 | 6°48 | 13°24 | 28°53 | 11°28 | 2°41 | 8°18 | 4°18 | 5°44 | 16°22 | 20°35 | T 4 |
| F 5 | 3 18 55 | 18°31'20 | 10♌10 | 9°38 | 11°36 | 7°31 | 13°37 | 28°59 | 11°31 | 2°39 | 8°18 | 4°9 | 5°41 | 16°29 | 20°43 | F 5 |
| S 6 | 3 22 52 | 19°32'08 | 22°11 | 10°49 | 11°59 | 8°14 | 13°50 | 29°6 | 11°33 | 2°37 | 8°17 | 4°1 | 5°38 | 16°35 | 20°51 | S 6 |
| S 7 | 3 26 48 | 20°32'57 | 4♌6 | 11°58 | 12°24 | 8°56 | 14°3 | 29°13 | 11°36 | 2°36 | 8°17 | 3°55 | 5°35 | 16°42 | 20°58 | S 7 |
| M 8 | 3 30 45 | 21°33'47 | 15°56 | 13°3 | 12°50 | 9°39 | 14°16 | 29°20 | 11°38 | 2°34 | 8°17 | 3°51 | 5°32 | 16°48 | 21°6 | M 8 |
| T 9 | 3 34 41 | 22°34'39 | 27°42 | 14°5 | 13°18 | 10°22 | 14°30 | 29°27 | 11°41 | 2°32 | 8°17 | 3°49 | 5°28 | 16°55 | 21°14 | T 9 |
| W10 | 3 38 38 | 23°35'31 | 9♌28 | 15°3 | 13°48 | 11°5 | 14°43 | 29°34 | 11°44 | 2°31 | 8°16 | 3°D49 | 5°25 | 17°2 | 21°22 | W10 |
| T 11 | 3 42 34 | 24°36'25 | 21°18 | 15°57 | 14°19 | 11°48 | 14°56 | 29°41 | 11°46 | 2°29 | 8°16 | 3°50 | 5°22 | 17°8 | 21°29 | T 11 |
| F 12 | 3 46 31 | 25°37'19 | 3♌16 | 16°46 | 14°52 | 12°31 | 15°9 | 29°47 | 11°49 | 2°27 | 8°16 | 3°52 | 5°19 | 17°15 | 21°37 | F 12 |
| S 13 | 3 50 27 | 26°38'15 | 15°27 | 17°28 | 15°26 | 13°14 | 15°23 | 29°54 | 11°52 | 2°26 | 8°16 | 3°54 | 5°16 | 17°22 | 21°45 | S 13 |
| S 14 | 3 54 24 | 27°39'11 | 27°55 | 18°5 | 16°1 | 13°57 | 15°36 | 0♌1 | 11°54 | 2°24 | 8°16 | 3°R54 | 5°13 | 17°28 | 21°52 | S 14 |
| M15 | 3 58 21 | 28°40'08 | 10♌45 | 18°34 | 16°38 | 14°40 | 15°50 | 0°7 | 11°57 | 2°22 | 8°16 | 3°53 | 5°9 | 17°35 | 22°0 | M15 |
| T 16 | 4 2 17 | 29°41'05 | 24°2 | 18°55 | 17°17 | 15°23 | 16°3 | 0°14 | 12°0 | 2°21 | 8°16 | 3°51 | 5°6 | 17°42 | 22°8 | T 16 |
| W17 | 4 6 14 | 0♌42'04 | 7♋48 | 19°6 | 17°56 | 16°6 | 16°17 | 0°20 | 12°3 | 2°19 | 8°D16 | 3°47 | 5°3 | 17°48 | 22°15 | W17 |
| T 18 | 4 10 10 | 1°43'03 | 22°3 | 19°R 8 | 18°37 | 16°49 | 16°30 | 0°27 | 12°6 | 2°17 | 8°16 | 3°43 | 5°0 | 17°55 | 22°23 | T 18 |
| F 19 | 4 14 7 | 2°44'02 | 6♌43 | 19°0 | 19°19 | 17°32 | 16°44 | 0°33 | 12°9 | 2°16 | 8°16 | 3°38 | 4°57 | 18°2 | 22°31 | F 19 |
| S 20 | 4 18 3 | 3°45'03 | 21°44 | 18°40 | 20°2 | 18°15 | 16°57 | 0°40 | 12°12 | 2°14 | 8°16 | 3°33 | 4°53 | 18°8 | 22°38 | S 20 |
| S 21 | 4 22 0 | 4°46'05 | 6♌57 | 18°9 | 20°46 | 18°59 | 17°11 | 0°46 | 12°15 | 2°12 | 8°16 | 3°30 | 4°50 | 18°15 | 22°46 | S 21 |
| M22 | 4 25 56 | 5°47'07 | 22°11 | 17°27 | 21°31 | 19°42 | 17°25 | 0°52 | 12°18 | 2°10 | 8°16 | 3°28 | 4°47 | 18°22 | 22°53 | M22 |
| T 23 | 4 29 53 | 6°48'10 | 7♌16 | 16°34 | 22°17 | 20°25 | 17°38 | 0°59 | 12°21 | 2°9 | 8°16 | 3°D28 | 4°44 | 18°28 | 23°1 | T 23 |
| W24 | 4 33 50 | 7°49'15 | 22°4 | 15°30 | 23°4 | 21°8 | 17°52 | 1°5 | 12°24 | 2°7 | 8°17 | 3°29 | 4°41 | 18°35 | 23°8 | W24 |
| T 25 | 4 37 46 | 8°50'20 | 6♌31 | 14°19 | 23°53 | 21°52 | 18°6 | 1°11 | 12°27 | 2°5 | 8°17 | 3°30 | 4°38 | 18°42 | 23°16 | T 25 |
| F 26 | 4 41 43 | 9°51'26 | 20°32 | 13°1 | 24°42 | 22°35 | 18°19 | 1°17 | 12°30 | 2°4 | 8°17 | 3°32 | 4°34 | 18°48 | 23°24 | F 26 |
| S 27 | 4 45 39 | 10°52'33 | 4♎8 | 11°39 | 25°31 | 23°18 | 18°33 | 1°24 | 12°33 | 2°2 | 8°17 | 3°33 | 4°31 | 18°55 | 23°31 | S 27 |
| S 28 | 4 49 36 | 11°53'41 | 17°20 | 10°16 | 26°22 | 24°1 | 18°47 | 1°30 | 12°36 | 2°0 | 8°18 | 3°R33 | 4°28 | 19°2 | 23°38 | S 28 |
| M29 | 4 53 32 | 12°54'49 | 0♌11 | 8°55 | 27°14 | 24°45 | 19°1 | 1°36 | 12°39 | 1°59 | 8°18 | 3°32 | 4°25 | 19°8 | 23°46 | M29 |
| T 30 | 4 57 29 | 13°55'59 | 12♌44 | 7♌38 | 28♌6 | 25°28 | 19°14 | 1°42 | 12°42 | 1°57 | 8♌18 | 3°30 | 4°22 | 19°15 | 23°53 | T 30 |

Delta T = 19m22s Julian Calendar 1 Nov. 1070 == Greg. Calendar 7 Nov. 1070

DECEMBER 1070 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|------|-------|-------|------|
| W 1 | 5 1 25 | 14♌57'09 | 25♌3 | 6°R28 | 28♌59 | 26°11 | 19°28 | 1♌47 | 12♌46 | 1°R55 | 8♌19 | 3°R27 | 4♌19 | 19°21 | 24♌1 | W 1 |
| T 2 | 5 5 22 | 15°58'20 | 7♌10 | 5♌26 | 29°52 | 26°55 | 19°42 | 1°53 | 12°49 | 1°R54 | 8°19 | 3°R24 | 4°15 | 19°28 | 24°8 | T 2 |
| F 3 | 5 9 19 | 16°59'31 | 19°9 | 4°34 | 0♌47 | 27°38 | 19°56 | 1°59 | 12°52 | 1°52 | 8°19 | 3°21 | 4°12 | 19°35 | 24°15 | F 3 |
| S 4 | 5 13 15 | 18°0'43 | 1♌2 | 3°53 | 1°42 | 28°21 | 20°10 | 2°5 | 12°55 | 1°50 | 8°20 | 3°19 | 4°9 | 19°41 | 24°23 | S 4 |
| S 5 | 5 17 12 | 19°1'56 | 12°52 | 3°22 | 2°37 | 29°5 | 20°23 | 2°10 | 12°59 | 1°49 | 8°20 | 3°17 | 4°6 | 19°48 | 24°30 | S 5 |
| M 6 | 5 21 8 | 20°3'09 | 24°39 | 3°2 | 3°33 | 29°48 | 20°37 | 2°16 | 13°2 | 1°47 | 8°21 | 3°16 | 4°3 | 19°55 | 24°37 | M 6 |
| T 7 | 5 25 5 | 21°4'22 | 6♌27 | 2°D53 | 4°30 | 0♌32 | 20°51 | 2°22 | 13°5 | 1°46 | 8°21 | 3°D16 | 3°59 | 20°1 | 24°44 | T 7 |
| W 8 | 5 29 1 | 22°5'35 | 18°17 | 2°53 | 5°27 | 1°15 | 21°5 | 2°27 | 13°9 | 1°44 | 8°22 | 3°17 | 3°56 | 20°8 | 24°51 | W 8 |
| T 9 | 5 32 58 | 23°6'49 | 0♌12 | 3°2 | 6°25 | 1°58 | 21°19 | 2°33 | 13°12 | 1°42 | 8°22 | 3°17 | 3°53 | 20°15 | 24°58 | T 9 |
| F 10 | 5 36 54 | 24°8'02 | 12°15 | 3°20 | 7°24 | 2°42 | 21°33 | 2°38 | 13°16 | 1°41 | 8°23 | 3°18 | 3°50 | 20°21 | 25°6 | F 10 |
| S 11 | 5 40 51 | 25°9'15 | 24°30 | 3°45 | 8°23 | 3°25 | 21°46 | 2°43 | 13°19 | 1°39 | 8°23 | 3°19 | 3°47 | 20°28 | 25°13 | S 11 |
| S 12 | 5 44 48 | 26°10'28 | 6♌59 | 4°17 | 9°22 | 4°9 | 22°0 | 2°48 | 13°22 | 1°38 | 8°24 | 3°20 | 3°44 | 20°35 | 25°20 | S 12 |
| M13 | 5 48 44 | 27°11'41 | 19°46 | 4°55 | 10°22 | 4°52 | 22°14 | 2°54 | 13°26 | 1°36 | 8°25 | 3°20 | 3°40 | 20°41 | 25°26 | M13 |
| T 14 | 5 52 41 | 28°12'54 | 2°R55 | 5°38 | 11°22 | 5°35 | 22°28 | 2°59 | 13°29 | 1°35 | 8°25 | 3°R21 | 3°37 | 20°48 | 25°33 | T 14 |
| W15 | 5 56 37 | 29°14'06 | 16°29 | 6°27 | 12°22 | 6°19 | 22°42 | 3°4 | 13°33 | 1°33 | 8°26 | 3°20 | 3°34 | 20°55 | 25°40 | W15 |
| T 16 | 6 0 34 | 0♌15'17 | 0♌29 | 7°20 | 13°23 | 7°2 | 22°55 | 3°9 | 13°36 | 1°32 | 8°27 | 3°20 | 3°31 | 21°1 | 25°47 | T 16 |
| F 17 | 6 4 30 | 1°16'29 | 14°55 | 8°16 | 14°25 | 7°46 | 23°9 | 3°14 | 13°40 | 1°30 | 8°27 | 3°20 | 3°28 | 21°8 | 25°54 | F 17 |
| S 18 | 6 8 27 | 2°17'40 | 29°43 | 9°16 | 15°27 | 8°29 | 23°23 | 3°18 | 13°43 | 1°29 | 8°28 | 3°20 | 3°25 | 21°15 | 26°0 | S 18 |
| S 19 | 6 12 24 | 3°18'50 | 14♌47 | 10°20 | 16°29 | 9°12 | 23°37 | 3°23 | 13°47 | 1°28 | 8°29 | 3°D20 | 3°21 | 21°21 | 26°7 | S 19 |
| M20 | 6 16 20 | 4°20'01 | 0♌0 | 11°26 | 17°31 | 9°56 | 23°50 | 3°28 | 13°50 | 1°26 | 8°30 | 3°R20 | 3°18 | 21°28 | 26°14 | M20 |
| T 21 | 6 20 17 | 5°21'11 | 15°11 | 12°34 | 18°34 | 10°39 | 24°4 | 3°32 | 13°54 | 1°25 | 8°30 | 3°20 | 3°15 | 21°34 | 26°20 | T 21 |
| W22 | 6 24 13 | 6°22'21 | 0♌12 | 13°45 | 19°38 | 11°22 | 24°18 | 3°37 | 13°57 | 1°24 | 8°31 | 3°19 | 3°12 | 21°41 | 26°27 | W22 |
| T 23 | 6 28 10 | 7°23'30 | 14°53 | 14°57 | 20°41 | 12°6 | 24°31 | 3°41 | 14°1 | 1°22 | 8°32 | 3°19 | 3°9 | 21°48 | 26°33 | T 23 |
| F 24 | 6 32 6 | 8°24'40 | 29°9 | 16°12 | 21°45 | 12°49 | 24°45 | 3°46 | 14°4 | 1°21 | 8°33 | 3°18 | 3°5 | 21°54 | 26°40 | F 24 |
| S 25 | 6 36 3 | 9°25'49 | 12♎58 | 17°28 | 22°49 | 13°32 | 24°59 | 3°50 | 14°8 | 1°20 | 8°34 | 3°18 | 3°2 | 22°1 | 26°46 | S 25 |
| S 26 | 6 39 59 | 10°26'57 | 26°20 | 18°46 | 23°54 | 14°15 | 25°12 | 3°54 | 14°11 | 1°18 | 8°35 | 3°17 | 2°59 | 22°8 | 26°52 | S 26 |
| M27 | 6 43 56 | 11°28'06 | 9♌15 | 20°4 | 24°59 | 14°59 | 25°26 | 3°58 | 14°15 | 1°17 | 8°36 | 3°D17 | 2°56 | 22°14 | 26°59 | M27 |
| T 28 | 6 47 53 | 12°29'14 | 21°49 | 21°25 | 26°4 | 15°42 | 25°39 | 4°2 | 14°18 | 1°16 | 8°37 | 3°17 | 2°53 | 22°21 | 27°5 | T 28 |
| W29 | 6 51 49 | 13°30'22 | 4♎5 | 22°46 | 27°9 | 16°25 | 25°53 | 4°6 | 14°22 | 1°15 | 8°38 | 3°18 | 2°50 | 22°28 | 27°11 | W29 |
| T 30 | 6 55 46 | 14°31'30 | 16°7 | 24°8 | 28°15 | 17°8 | 26°7 | 4°10 | 14°26 | 1°14 | 8°39 | 3°19 | 2°46 | 22°34 | 27°17 | T 30 |
| F 31 | 6 59 42 | 15°32'37 | 28♌0 | 25°32 | 29♌20 | 17°51 | 26°20 | 4°14 | 14°29 | 1°12 | 8°40 | 3°20 | 2°43 | 22°41 | 27°23 | F 31 |

Delta T = 19m22s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1071
geocentric

JANUARY 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 3 39 | 16♁33'44 | 9♁48 | 26♁56 | 0♁26 | 18♁35 | 26♁33 | 4♁18 | 14♁33 | 1♁R11 | 8♁41 | 3♁21 | 2♁40 | 22♁48 | 27♁M29 | S 1 | | | | | | | | |
| S 2 | 7 7 35 | 17°34'50 | 21°34 | 28°21 | 1°33 | 19°18 | 26°47 | 4°21 | 14°36 | 1♁II10 | 8°42 | 3°22 | 2°37 | 22°54 | 27°35 | S 2 | | | | | | | | |
| M 3 | 7 11 32 | 18°35'56 | 3♁22 | 29°47 | 2°39 | 20° 1 | 27° 0 | 4°25 | 14°40 | 1° 9 | 8°43 | 3°R23 | 2°34 | 23° 1 | 27°40 | M 3 | | | | | | | | |
| T 4 | 7 15 28 | 19°37'01 | 15°14 | 1♁14 | 3°46 | 20°44 | 27°14 | 4°28 | 14°43 | 1° 8 | 8°44 | 3°22 | 2°31 | 23° 8 | 27°46 | T 4 | | | | | | | | |
| W 5 | 7 19 25 | 20°38'05 | 27°13 | 2°41 | 4°53 | 21°27 | 27°27 | 4°31 | 14°47 | 1° 7 | 8°45 | 3°21 | 2°27 | 23°14 | 27°52 | W 5 | | | | | | | | |
| T 6 | 7 23 22 | 21°39'08 | 9♁19 | 4°10 | 6° 0 | 22°10 | 27°40 | 4°35 | 14°50 | 1° 6 | 8°46 | 3°19 | 2°24 | 23°21 | 27°57 | T 6 | | | | | | | | |
| F 7 | 7 27 18 | 22°40'10 | 21°34 | 5°39 | 7° 7 | 22°53 | 27°53 | 4°38 | 14°54 | 1° 5 | 8°47 | 3°16 | 2°21 | 23°27 | 28° 3 | F 7 | | | | | | | | |
| S 8 | 7 31 15 | 23°41'11 | 4♁ 1 | 7° 9 | 8°15 | 23°36 | 28° 7 | 4°41 | 14°57 | 1° 4 | 8°48 | 3°12 | 2°18 | 23°34 | 28° 8 | S 8 | | | | | | | | |
| S 9 | 7 35 11 | 24°42'11 | 16°41 | 8°39 | 9°22 | 24°19 | 28°20 | 4°44 | 15° 1 | 1° 4 | 8°50 | 3° 9 | 2°15 | 23°41 | 28°14 | S 9 | | | | | | | | |
| M10 | 7 39 8 | 25°43'09 | 29°35 | 10°10 | 10°30 | 25° 2 | 28°33 | 4°47 | 15° 4 | 1° 3 | 8°51 | 3° 6 | 2°11 | 23°47 | 28°19 | M10 | | | | | | | | |
| T 11 | 7 43 4 | 26°44'06 | 12♁45 | 11°42 | 11°38 | 25°45 | 28°46 | 4°49 | 15° 8 | 1° 2 | 8°52 | 3° 4 | 2° 8 | 23°54 | 28°24 | T 11 | | | | | | | | |
| W12 | 7 47 1 | 27°45'02 | 26°13 | 13°15 | 12°46 | 26°28 | 28°59 | 4°52 | 15°11 | 1° 1 | 8°53 | 3°D 4 | 2° 5 | 24° 1 | 28°29 | W12 | | | | | | | | |
| T 13 | 7 50 57 | 28°45'57 | 10♁ 1 | 14°48 | 13°54 | 27°11 | 29°12 | 4°55 | 15°15 | 1° 0 | 8°54 | 3° 4 | 2° 2 | 24° 7 | 28°34 | T 13 | | | | | | | | |
| F 14 | 7 54 54 | 29°46'50 | 24° 8 | 16°22 | 15° 3 | 27°54 | 29°25 | 4°57 | 15°18 | 1° 0 | 8°56 | 3° 5 | 1°59 | 24°14 | 28°39 | F 14 | | | | | | | | |
| S 15 | 7 58 51 | 0♁47'41 | 8♁34 | 17°57 | 16°11 | 28°37 | 29°38 | 5° 0 | 15°22 | 0°59 | 8°57 | 3° 7 | 1°56 | 24°21 | 28°44 | S 15 | | | | | | | | |
| S 16 | 8 2 47 | 1°48'31 | 23°17 | 19°32 | 17°20 | 29°20 | 29°50 | 5° 2 | 15°25 | 0°58 | 8°58 | 3° 8 | 1°52 | 24°27 | 28°49 | S 16 | | | | | | | | |
| M17 | 8 6 44 | 2°49'20 | 8♁10 | 21° 9 | 18°29 | 0°V 3 | 0♁ 3 | 5° 4 | 15°29 | 0°58 | 8°59 | 3°R 8 | 1°49 | 24°34 | 28°54 | M17 | | | | | | | | |
| T 18 | 8 10 40 | 3°50'08 | 23° 7 | 22°46 | 19°38 | 0°45 | 0°16 | 5° 6 | 15°32 | 0°57 | 9° 1 | 3° 7 | 1°46 | 24°41 | 28°59 | T 18 | | | | | | | | |
| W19 | 8 14 37 | 4°50'53 | 8♁ 1 | 24°23 | 20°47 | 1°28 | 0°28 | 5° 8 | 15°35 | 0°57 | 9° 2 | 3° 4 | 1°43 | 24°47 | 29° 3 | W19 | | | | | | | | |
| T 20 | 8 18 33 | 5°51'38 | 22°42 | 26° 2 | 21°56 | 2°11 | 0°41 | 5°10 | 15°39 | 0°56 | 9° 3 | 3° 0 | 1°40 | 24°54 | 29° 8 | T 20 | | | | | | | | |
| F 21 | 8 22 30 | 6°52'21 | 7♁ 3 | 27°41 | 2°54 | 2°54 | 0°54 | 5°12 | 15°42 | 0°55 | 9° 5 | 2°54 | 1°37 | 25° 1 | 29°12 | F 21 | | | | | | | | |
| S 22 | 8 26 26 | 7°53'03 | 21° 0 | 29°21 | 24°15 | 3°36 | 1° 6 | 5°14 | 15°46 | 0°55 | 9° 6 | 2°49 | 1°33 | 25° 7 | 29°17 | S 22 | | | | | | | | |
| S 23 | 8 30 23 | 8°53'44 | 4♁30 | 1♁ 2 | 25°25 | 4°19 | 1°18 | 5°15 | 15°49 | 0°55 | 9° 8 | 2°44 | 1°30 | 25°14 | 29°21 | S 23 | | | | | | | | |
| M24 | 8 34 20 | 9°54'23 | 17°33 | 2°44 | 26°34 | 5° 1 | 1°31 | 5°17 | 15°52 | 0°54 | 9° 9 | 2°40 | 1°27 | 25°20 | 29°25 | M24 | | | | | | | | |
| T 25 | 8 38 16 | 10°55'01 | 0♁12 | 4°27 | 27°44 | 5°44 | 1°43 | 5°18 | 15°56 | 0°54 | 9°10 | 2°37 | 1°24 | 25°27 | 29°29 | T 25 | | | | | | | | |
| W26 | 8 42 13 | 11°55'38 | 12°30 | 6°10 | 28°54 | 6°27 | 1°55 | 5°19 | 15°59 | 0°53 | 9°12 | 2°D37 | 1°21 | 25°34 | 29°33 | W26 | | | | | | | | |
| T 27 | 8 46 9 | 12°56'14 | 24°33 | 7°55 | 0♁ 4 | 7° 9 | 2° 7 | 5°21 | 16° 2 | 0°53 | 9°13 | 2°37 | 1°17 | 25°40 | 29°37 | T 27 | | | | | | | | |
| F 28 | 8 50 6 | 13°56'49 | 6♁25 | 9°40 | 1°14 | 7°52 | 2°19 | 5°22 | 16° 5 | 0°53 | 9°15 | 2°39 | 1°14 | 25°47 | 29°41 | F 28 | | | | | | | | |
| S 29 | 8 54 2 | 14°57'22 | 18°12 | 11°26 | 2°24 | 8°34 | 2°31 | 5°23 | 16° 9 | 0°53 | 9°16 | 2°41 | 1°11 | 25°54 | 29°45 | S 29 | | | | | | | | |
| S 30 | 8 57 59 | 15°57'54 | 29°59 | 13°14 | 3°35 | 9°16 | 2°43 | 5°24 | 16°12 | 0°52 | 9°17 | 2°R42 | 1° 8 | 26° 0 | 29°48 | S 30 | | | | | | | | |
| M31 | 9 1 55 | 16♁58'24 | 11♁49 | 15♁ 2 | 4♁45 | 9°V59 | 2♁55 | 5♁M24 | 16♁15 | 0♁II52 | 9♁K19 | 2♁41 | 1♁ 5 | 26♁ 7 | 29♁M52 | M31 | | | | | | | | |

Delta T = 19m22s Julian Calendar 1 Jan. 1071 == Greg. Calendar 7 Jan. 1071

FEBRUARY 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|------|-------|-------|--------|--------|-------|---------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 9 5 52 | 17♁58'53 | 23♁47 | 16♁50 | 5♁55 | 10°V41 | 3♁ 7 | 5♁M25 | 16♁18 | 0°R52 | 9♁K20 | 2°R39 | 1♁ 2 | 26♁14 | 29♁M55 | T 1 | | | | | | | | |
| W 2 | 9 9 49 | 18°59'21 | 5♁55 | 18°40 | 7° 6 | 11°24 | 3°18 | 5°26 | 16°21 | 0°II52 | 9°22 | 2♁34 | 0°58 | 26°20 | 29°59 | W 2 | | | | | | | | |
| T 3 | 9 13 45 | 19°59'46 | 18°15 | 20°31 | 8°16 | 12° 6 | 3°30 | 5°26 | 16°24 | 0°52 | 9°23 | 2°27 | 0°55 | 26°27 | 0♁ 2 | T 3 | | | | | | | | |
| F 4 | 9 17 42 | 21° 0'10 | 0♁48 | 22°22 | 9°27 | 12°48 | 3°42 | 5°27 | 16°27 | 0°D52 | 9°25 | 2°19 | 0°52 | 26°34 | 0° 5 | F 4 | | | | | | | | |
| S 5 | 9 21 38 | 22° 0'32 | 13°34 | 24°15 | 10°38 | 13°31 | 3°53 | 5°27 | 16°31 | 0°52 | 9°26 | 2° 9 | 0°49 | 26°40 | 0° 8 | S 5 | | | | | | | | |
| S 6 | 9 25 35 | 23° 0'53 | 26°33 | 26° 8 | 11°49 | 14°13 | 4° 4 | 5°27 | 16°34 | 0°52 | 9°28 | 2° 0 | 0°46 | 26°47 | 0°11 | S 6 | | | | | | | | |
| M 7 | 9 29 31 | 24° 1'11 | 9°V45 | 28° 1 | 13° 0 | 14°55 | 4°16 | 5°R27 | 16°37 | 0°52 | 9°29 | 1°52 | 0°43 | 26°54 | 0°14 | M 7 | | | | | | | | |
| T 8 | 9 33 28 | 25° 1'27 | 23° 8 | 29°55 | 14°11 | 15°37 | 4°27 | 5°27 | 16°40 | 0°52 | 9°31 | 1°46 | 0°39 | 27° 0 | 0°17 | T 8 | | | | | | | | |
| W 9 | 9 37 24 | 26° 1'41 | 6♁43 | 1♁50 | 15°22 | 16°19 | 4°38 | 5°27 | 16°42 | 0°52 | 9°32 | 1°41 | 0°36 | 27° 7 | 0°19 | W 9 | | | | | | | | |
| T 10 | 9 41 21 | 27° 1'53 | 20°30 | 3°45 | 16°33 | 17° 1 | 4°49 | 5°27 | 16°45 | 0°53 | 9°34 | 1°40 | 0°33 | 27°13 | 0°22 | T 10 | | | | | | | | |
| F 11 | 9 45 18 | 28° 2'03 | 4♁28 | 5°40 | 17°44 | 17°43 | 5° 0 | 5°26 | 16°48 | 0°53 | 9°35 | 1°D40 | 0°30 | 27°20 | 0°25 | F 11 | | | | | | | | |
| S 12 | 9 49 14 | 29° 2'11 | 18°37 | 7°35 | 18°55 | 18°25 | 5°11 | 5°26 | 16°51 | 0°53 | 9°37 | 1°40 | 0°27 | 27°27 | 0°27 | S 12 | | | | | | | | |
| S 13 | 9 53 11 | 0♁ 2'17 | 2♁57 | 9°30 | 20° 6 | 19° 7 | 5°21 | 5°25 | 16°54 | 0°53 | 9°38 | 1°R41 | 0°23 | 27°33 | 0°29 | S 13 | | | | | | | | |
| M14 | 9 57 7 | 1° 2'20 | 17°24 | 11°25 | 21°17 | 19°49 | 5°32 | 5°25 | 16°57 | 0°54 | 9°40 | 1°40 | 0°20 | 27°40 | 0°31 | M14 | | | | | | | | |
| T 15 | 10 1 4 | 2° 2'21 | 1♁56 | 13°18 | 22°29 | 20°31 | 5°42 | 5°24 | 16°59 | 0°54 | 9°41 | 1°37 | 0°17 | 27°47 | 0°34 | T 15 | | | | | | | | |
| W16 | 10 5 0 | 3° 2'21 | 16°27 | 15°10 | 23°40 | 21°13 | 5°53 | 5°23 | 17° 2 | 0°54 | 9°43 | 1°31 | 0°14 | 27°53 | 0°36 | W16 | | | | | | | | |
| T 17 | 10 8 57 | 4° 2'18 | 0♁50 | 17° 1 | 24°51 | 21°55 | 6° 3 | 5°22 | 17° 5 | 0°55 | 9°45 | 1°22 | 0°11 | 28° 0 | 0°37 | T 17 | | | | | | | | |
| F 18 | 10 12 53 | 5° 2'13 | 15° 0 | 18°50 | 26° 3 | 22°37 | 6°13 | 5°21 | 17° 8 | 0°55 | 9°46 | 1°12 | 0° 8 | 28° 7 | 0°39 | F 18 | | | | | | | | |
| S 19 | 10 16 50 | 6° 2'06 | 28°51 | 20°36 | 27°14 | 23°19 | 6°23 | 5°20 | 17°10 | 0°56 | 9°48 | 1° 1 | 0° 4 | 28°13 | 0°41 | S 19 | | | | | | | | |
| S 20 | 10 20 47 | 7° 1'57 | 12♁19 | 22°20 | 28°26 | 24° 0 | 6°33 | 5°19 | 17°13 | 0°56 | 9°49 | 0°51 | 0° 1 | 28°20 | 0°42 | S 20 | | | | | | | | |
| M21 | 10 24 43 | 8° 1'46 | 25°24 | 24° 0 | 29°38 | 24°42 | 6°43 | 5°17 | 17°15 | 0°57 | 9°51 | 0°42 | 29♁II58 | 28°27 | 0°44 | M21 | | | | | | | | |
| T 22 | 10 28 40 | 9° 1'34 | 8♁ 5 | 25°36 | 0♁49 | 25°24 | 6°53 | 5°16 | 17°18 | 0°57 | 9°52 | 0°35 | 29°55 | 28°33 | 0°45 | T 22 | | | | | | | | |
| W23 | 10 32 36 | 10° 1'19 | 20°26 | 27° 8 | 2° 1 | 26° 5 | 7° 3 | 5°14 | 17°20 | 0°58 | 9°54 | 0°31 | 29°52 | 28°40 | 0°47 | W23 | | | | | | | | |
| T 24 | 10 36 33 | 11° 1'04 | 2♁31 | 28°35 | 3°13 | 26°47 | 7°12 | 5°13 | 17°23 | 0°59 | 9°55 | 0°29 | 29°48 | 28°46 | 0°48 | T 24 | | | | | | | | |
| F 25 | 10 40 29 | 12° 0'46 | 14°25 | 29°56 | 4°25 | 27°29 | 7°22 | 5°11 | 17°25 | 0°59 | 9°57 | 0°D29 | 29°45 | 28°53 | 0°49 | F 25 | | | | | | | | |
| S 26 | 10 44 26 | 13° 0'26 | 26°13 | 1°V12 | 5°36 | 28°10 | 7°31 | 5° 9 | 17°28 | 1° 0 | 9°59 | 0°R29 | 29°42 | 29° 0 | 0°50 | S 26 | | | | | | | | |
| S 27 | 10 48 22 | 14° 0'05 | 8♁ 1 | 2°21 | 6°48 | 28°52 | 7°40 | 5° 7 | 17°30 | 1° 1 | 10° 0 | 0°29 | 29°39 | 29° 6 | 0°51 | S 27 | | | | | | | | |
| M28 | 10 52 19 | 14♁59'42 | 19♁54 | 3°V24 | 8♁ 0 | 29°V33 | 7♁49 | 5♁M 5 | 17♁32 | 1♁II 2 | 10♁K 2 | 0♁27 | 29♁II36 | 29♁V13 | 0♁51 | M28 | | | | | | | | |

Delta T = 19m21s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1071
geocentric

MARCH 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|--------|--------|--------|--------|--------|-------|--------|--------|--------|---------|---------|--------|-------|------|-----|
| T 1 | 10 56 16 | 15°59'17 | 1°57 | 4°20 | 9°12 | 0°15 | 7°58 | 5°R 3 | 17°35 | 1°II 2 | 10°H 3 | 0°R23 | 29°II33 | 29°A20 | 0°A52 | T 1 | |
| W 2 | 11 0 12 | 16°58'50 | 14°13 | 5° 9 | 10°24 | 0°56 | 8° 7 | 5°M 1 | 17°37 | 1° 3 | 10° 5 | 0°B 16 | 29°29 | 29°26 | 0°53 | W 2 | |
| T 3 | 11 4 9 | 17°58'22 | 26°45 | 5°50 | 11°36 | 1°37 | 8°16 | 4°59 | 17°39 | 1° 4 | 10° 6 | 0° 7 | 29°26 | 29°33 | 0°53 | T 3 | |
| F 4 | 11 8 5 | 18°57'51 | 9°H35 | 6°24 | 12°48 | 2°19 | 8°24 | 4°56 | 17°41 | 1° 5 | 10° 8 | 29°II55 | 29°23 | 29°40 | 0°53 | F 4 | |
| S 5 | 11 12 2 | 19°57'18 | 22°42 | 6°49 | 14° 0 | 3° 0 | 8°33 | 4°54 | 17°43 | 1° 6 | 10° 9 | 29°43 | 29°20 | 29°46 | 0°54 | S 5 | |
| S 6 | 11 15 58 | 20°56'43 | 6°V 5 | 7° 7 | 15°12 | 3°41 | 8°41 | 4°51 | 17°45 | 1° 7 | 10°11 | 29°30 | 29°17 | 29°53 | 0°54 | S 6 | |
| M 7 | 11 19 55 | 21°56'06 | 19°41 | 7°17 | 16°25 | 4°23 | 8°49 | 4°49 | 17°47 | 1° 8 | 10°12 | 29°18 | 29°14 | 29°59 | 0°R54 | M 7 | |
| T 8 | 11 23 51 | 22°55'26 | 3°B27 | 7°R20 | 17°37 | 5° 4 | 8°57 | 4°46 | 17°49 | 1° 9 | 10°14 | 29° 9 | 29°10 | 0°B 6 | 0°54 | T 8 | |
| W 9 | 11 27 48 | 23°54'45 | 17°21 | 7°15 | 18°49 | 5°45 | 9° 5 | 4°43 | 17°51 | 1°10 | 10°16 | 29° 2 | 29° 7 | 0°13 | 0°54 | W 9 | |
| T 10 | 11 31 44 | 24°54'01 | 1°II20 | 7° 3 | 20° 1 | 6°26 | 9°13 | 4°40 | 17°53 | 1°11 | 10°17 | 28°59 | 29° 4 | 0°19 | 0°53 | T 10 | |
| F 11 | 11 35 41 | 25°53'15 | 15°23 | 6°44 | 21°13 | 7° 7 | 9°21 | 4°37 | 17°55 | 1°12 | 10°19 | 28°57 | 29° 1 | 0°26 | 0°53 | F 11 | |
| S 12 | 11 39 38 | 26°52'26 | 29°28 | 6°19 | 22°26 | 7°48 | 9°28 | 4°34 | 17°57 | 1°13 | 10°20 | 28°57 | 28°58 | 0°33 | 0°52 | S 12 | |
| S 13 | 11 43 34 | 27°51'35 | 13°B35 | 5°48 | 23°38 | 8°29 | 9°36 | 4°31 | 17°58 | 1°15 | 10°22 | 28°57 | 28°54 | 0°39 | 0°52 | S 13 | |
| M14 | 11 47 31 | 28°50'41 | 27°42 | 5°13 | 24°50 | 9°10 | 9°43 | 4°28 | 18° 0 | 1°16 | 10°23 | 28°55 | 28°51 | 0°46 | 0°51 | M14 | |
| T 15 | 11 51 27 | 29°49'46 | 11°L50 | 4°33 | 26° 2 | 9°51 | 9°50 | 4°25 | 18° 2 | 1°17 | 10°25 | 28°51 | 28°48 | 0°53 | 0°50 | T 15 | |
| W16 | 11 55 24 | 0°V48'47 | 25°53 | 3°50 | 27°15 | 10°32 | 9°57 | 4°22 | 18° 3 | 1°18 | 10°26 | 28°44 | 28°45 | 0°59 | 0°50 | W16 | |
| T 17 | 11 59 20 | 1°47'47 | 9°M50 | 3° 4 | 28°27 | 11°13 | 10° 4 | 4°18 | 18° 5 | 1°20 | 10°27 | 28°34 | 28°42 | 1° 6 | 0°49 | T 17 | |
| F 18 | 12 3 17 | 2°46'44 | 23°37 | 2°17 | 29°39 | 11°54 | 10°10 | 4°15 | 18° 6 | 1°21 | 10°29 | 28°22 | 28°39 | 1°13 | 0°48 | F 18 | |
| S 19 | 12 7 13 | 3°45'39 | 7°A 9 | 1°30 | 0°H52 | 12°35 | 10°17 | 4°11 | 18° 8 | 1°22 | 10°30 | 28°10 | 28°35 | 1°19 | 0°46 | S 19 | |
| S 20 | 12 11 10 | 4°44'32 | 20°24 | 0°42 | 2° 4 | 13°15 | 10°23 | 4° 8 | 18° 9 | 1°24 | 10°32 | 27°57 | 28°32 | 1°26 | 0°45 | S 20 | |
| M21 | 12 15 7 | 5°43'23 | 3°M19 | 29°H56 | 3°17 | 13°56 | 10°29 | 4° 4 | 18°11 | 1°25 | 10°33 | 27°47 | 28°29 | 1°33 | 0°44 | M21 | |
| T 22 | 12 19 3 | 6°42'13 | 15°56 | 29°13 | 4°29 | 14°37 | 10°35 | 4° 0 | 18°12 | 1°27 | 10°35 | 27°38 | 28°26 | 1°39 | 0°42 | T 22 | |
| W23 | 12 23 0 | 7°41'00 | 28°15 | 28°31 | 5°41 | 15°18 | 10°41 | 3°57 | 18°13 | 1°28 | 10°36 | 27°32 | 28°23 | 1°46 | 0°41 | W23 | |
| T 24 | 12 26 56 | 8°39'46 | 10°A20 | 27°54 | 6°54 | 15°58 | 10°47 | 3°53 | 18°15 | 1°30 | 10°38 | 27°29 | 28°20 | 1°53 | 0°39 | T 24 | |
| F 25 | 12 30 53 | 9°38'29 | 22°14 | 27°20 | 8° 6 | 16°39 | 10°52 | 3°49 | 18°16 | 1°31 | 10°39 | 27°28 | 28°16 | 1°59 | 0°37 | F 25 | |
| S 26 | 12 34 49 | 10°37'12 | 4°B 3 | 26°51 | 9°19 | 17°19 | 10°58 | 3°45 | 18°17 | 1°33 | 10°40 | 27°D28 | 28°13 | 2° 6 | 0°36 | S 26 | |
| S 27 | 12 38 46 | 11°35'52 | 15°52 | 26°26 | 10°31 | 18° 0 | 11° 3 | 3°41 | 18°18 | 1°34 | 10°42 | 27°R28 | 28°10 | 2°12 | 0°34 | S 27 | |
| M28 | 12 42 42 | 12°34'30 | 27°46 | 26° 6 | 11°44 | 18°41 | 11° 8 | 3°37 | 18°19 | 1°36 | 10°43 | 27°27 | 28° 7 | 2°19 | 0°32 | M28 | |
| T 29 | 12 46 39 | 13°33'07 | 9°A51 | 25°52 | 12°57 | 19°21 | 11°13 | 3°33 | 18°20 | 1°37 | 10°44 | 27°24 | 28° 4 | 2°26 | 0°30 | T 29 | |
| W30 | 12 50 36 | 14°31'42 | 22°12 | 25°42 | 14° 9 | 20° 1 | 11°18 | 3°29 | 18°21 | 1°39 | 10°46 | 27°19 | 28° 0 | 2°32 | 0°27 | W30 | |
| T 31 | 12 54 32 | 15°V30'16 | 4°H51 | 25°D38 | 15°H22 | 20°B42 | 11°B22 | 3°M25 | 18°B22 | 1°II41 | 10°H47 | 27°II11 | 27°II57 | 2°B39 | 0°A25 | T 31 | |

Delta T = 19m21s Julian Calendar 1 March 1071 == Greg. Calendar 7 March 1071

APRIL 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|---------|--------|--------|---------|--------|-------|--------|--------|--------|---------|---------|-------|--------|------|-----|
| F 1 | 12 58 29 | 16°V28'47 | 17°H53 | 25°H38 | 16°H34 | 21°B22 | 11°B27 | 3°R21 | 18°B23 | 1°II42 | 10°H48 | 27°R 1 | 27°II54 | 2°B46 | 0°R23 | F 1 | |
| S 2 | 13 2 25 | 17°27'17 | 1°V15 | 25°44 | 17°47 | 22° 3 | 11°31 | 3°M16 | 18°23 | 1°44 | 10°50 | 26°II50 | 27°51 | 2°52 | 0°A20 | S 2 | |
| S 3 | 13 6 22 | 18°25'45 | 14°59 | 25°55 | 19° 0 | 22°43 | 11°35 | 3°12 | 18°24 | 1°46 | 10°51 | 26°39 | 27°48 | 2°59 | 0°18 | S 3 | |
| M 4 | 13 10 18 | 19°24'11 | 28°59 | 26°11 | 20°12 | 23°23 | 11°39 | 3° 8 | 18°25 | 1°47 | 10°52 | 26°29 | 27°45 | 3° 6 | 0°15 | M 4 | |
| T 5 | 13 14 15 | 20°22'35 | 13°B11 | 26°31 | 21°25 | 24° 4 | 11°42 | 3° 3 | 18°26 | 1°49 | 10°54 | 26°20 | 27°41 | 3°12 | 0°13 | T 5 | |
| W 6 | 13 18 11 | 21°20'57 | 27°30 | 26°55 | 22°38 | 24°44 | 11°46 | 2°59 | 18°26 | 1°51 | 10°55 | 26°15 | 27°38 | 3°19 | 0°10 | W 6 | |
| T 7 | 13 22 8 | 22°19'17 | 11°II51 | 27°24 | 23°50 | 25°24 | 11°49 | 2°55 | 18°27 | 1°53 | 10°56 | 26°12 | 27°35 | 3°26 | 0° 7 | T 7 | |
| F 8 | 13 26 5 | 23°17'35 | 26°11 | 27°57 | 25° 3 | 26° 4 | 11°52 | 2°50 | 18°27 | 1°55 | 10°57 | 26°D11 | 27°32 | 3°32 | 0° 4 | F 8 | |
| S 9 | 13 30 1 | 24°15'51 | 10°B25 | 28°35 | 26°16 | 26°44 | 11°55 | 2°46 | 18°28 | 1°56 | 10°58 | 26°12 | 27°29 | 3°39 | 0° 1 | S 9 | |
| S 10 | 13 33 58 | 25°14'05 | 24°33 | 29°15 | 27°28 | 27°24 | 11°58 | 2°41 | 18°28 | 1°58 | 11° 0 | 26°R12 | 27°25 | 3°45 | 29°M58 | S 10 | |
| M11 | 13 37 54 | 26°12'16 | 8°L33 | 29°59 | 28°41 | 28° 4 | 12° 1 | 2°37 | 18°28 | 2° 0 | 11° 1 | 26°11 | 27°22 | 3°52 | 29°55 | M11 | |
| T 12 | 13 41 51 | 27°10'26 | 22°24 | 0°V48 | 29°54 | 28°45 | 12° 3 | 2°33 | 18°29 | 2° 2 | 11° 2 | 26° 9 | 27°19 | 3°59 | 29°52 | T 12 | |
| W13 | 13 45 47 | 28° 8'33 | 6°M 7 | 1°39 | 1°V 6 | 29°25 | 12° 5 | 2°28 | 18°29 | 2° 4 | 11° 3 | 26° 4 | 27°16 | 4° 5 | 29°49 | W13 | |
| T 14 | 13 49 44 | 29° 6'39 | 19°39 | 2°34 | 2°19 | 0°II 5 | 12° 7 | 2°24 | 18°29 | 2° 6 | 11° 4 | 25°57 | 27°13 | 4°12 | 29°45 | T 14 | |
| F 15 | 13 53 40 | 0°B 4'42 | 3°A 0 | 3°32 | 3°32 | 0°44 | 12° 9 | 2°19 | 18°29 | 2° 8 | 11° 5 | 25°48 | 27°10 | 4°19 | 29°42 | F 15 | |
| S 16 | 13 57 37 | 1° 2'44 | 16° 9 | 4°32 | 4°45 | 1°24 | 12°11 | 2°15 | 18°29 | 2°10 | 11° 6 | 25°38 | 27° 6 | 4°25 | 29°38 | S 16 | |
| S 17 | 14 1 33 | 2° 0'44 | 29° 3 | 5°36 | 5°57 | 2° 4 | 12°12 | 2°10 | 18°R29 | 2°12 | 11° 7 | 25°29 | 27° 3 | 4°32 | 29°35 | S 17 | |
| M18 | 14 5 30 | 2°58'42 | 11°M42 | 6°42 | 7°10 | 2°44 | 12°14 | 2° 6 | 18°29 | 2°14 | 11° 9 | 25°21 | 27° 0 | 4°39 | 29°31 | M18 | |
| T 19 | 14 9 27 | 3°56'39 | 24° 7 | 7°52 | 8°23 | 3°24 | 12°15 | 2° 1 | 18°29 | 2°16 | 11°10 | 25°15 | 26°57 | 4°45 | 29°28 | T 19 | |
| W20 | 14 13 23 | 4°54'34 | 6°A19 | 9° 3 | 9°36 | 4° 4 | 12°16 | 1°57 | 18°29 | 2°18 | 11°11 | 25°11 | 26°54 | 4°52 | 29°24 | W20 | |
| T 21 | 14 17 20 | 5°52'28 | 18°20 | 10°18 | 10°48 | 4°43 | 12°17 | 1°52 | 18°29 | 2°20 | 11°12 | 25° 9 | 26°51 | 4°59 | 29°20 | T 21 | |
| F 22 | 14 21 16 | 6°50'20 | 0°B 12 | 11°34 | 12° 1 | 5°23 | 12°17 | 1°48 | 18°29 | 2°22 | 11°13 | 25°D 9 | 26°47 | 5° 5 | 29°17 | F 22 | |
| S 23 | 14 25 13 | 7°48'11 | 12° 0 | 12°53 | 13°14 | 6° 3 | 12°18 | 1°43 | 18°29 | 2°24 | 11°14 | 25°10 | 26°44 | 5°12 | 29°13 | S 23 | |
| S 24 | 14 29 9 | 8°46'01 | 23°49 | 14°15 | 14°27 | 6°43 | 12°18 | 1°39 | 18°28 | 2°26 | 11°14 | 25°11 | 26°41 | 5°19 | 29° 9 | S 24 | |
| M25 | 14 33 6 | 9°43'50 | 5°A44 | 15°39 | 15°40 | 7°22 | 12°R18 | 1°34 | 18°28 | 2°28 | 11°15 | 25°R12 | 26°38 | 5°25 | 29° 5 | M25 | |
| T 26 | 14 37 3 | 10°41'37 | 17°49 | 17° 5 | 16°53 | 8° 2 | 12°18 | 1°30 | 18°28 | 2°30 | 11°16 | 25°12 | 26°35 | 5°32 | 29° 1 | T 26 | |
| W27 | 14 40 59 | 11°39'23 | 0°H10 | 18°33 | 18° 5 | 8°42 | 12°17 | 1°25 | 18°27 | 2°32 | 11°17 | 25°10 | 26°31 | 5°38 | 28°57 | W27 | |
| T 28 | 14 44 56 | 12°37'08 | 12°51 | 20° 4 | 19°18 | 9°21 | 12°17 | 1°21 | 18°27 | 2°35 | 11°18 | 25° 6 | 26°28 | 5°45 | 28°53 | T 28 | |
| F 29 | 14 48 52 | 13°34'51 | 25°56 | 21°37 | 20°31 | 10° 1 | 12°16 | 1°17 | 18°26 | 2°37 | 11°19 | 25° 1 | 26°25 | 5°52 | 28°49 | F 29 | |
| S 30 | 14 52 49 | 14°B32'34 | 9°V25 | 23°V12 | 21°V44 | 10°II40 | 12°B15 | 1°M12 | 18°B25 | 2°II39 | 11°H20 | 24°II55 | 26°II22 | 5°B58 | 28°M45 | S 30 | |

Delta T = 19m21s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1071
geocentric

MAY 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|------|-------|--------|-------|------|--------|------|-----|
| S 1 | 14 56 45 | 15♂30'15 | 23♀19 | 24♀50 | 22♀57 | 11♂20 | 12°R14 | 1°R 8 | 18°R25 | 2♂41 | 11♂21 | 24°R49 | 26♂19 | 6♂ 5 | 28°R41 | S 1 | |
| M 2 | 15 0 42 | 16°27'55 | 7♂35 | 26°29 | 24°10 | 11°59 | 12♂13 | 1♂ 4 | 18♂24 | 2°43 | 11°21 | 24♂43 | 26°16 | 6°12 | 28♂37 | M 2 | |
| T 3 | 15 4 38 | 17°25'34 | 22° 8 | 28°11 | 25°23 | 12°39 | 12°11 | 1° 0 | 18°23 | 2°45 | 11°22 | 24°39 | 26°12 | 6°18 | 28°33 | T 3 | |
| W 4 | 15 8 35 | 18°23'12 | 6♂51 | 29°55 | 26°36 | 13°18 | 12° 9 | 0°55 | 18°23 | 2°48 | 11°23 | 24°36 | 26° 9 | 6°25 | 28°28 | W 4 | |
| T 5 | 15 12 31 | 19°20'48 | 21°36 | 1♂41 | 27°49 | 13°57 | 12° 7 | 0°51 | 18°22 | 2°50 | 11°24 | 24°D35 | 26° 6 | 6°32 | 28°24 | T 5 | |
| F 6 | 15 16 28 | 20°18'23 | 6♂19 | 3°30 | 29° 2 | 14°37 | 12° 5 | 0°47 | 18°21 | 2°52 | 11°24 | 24°35 | 26° 3 | 6°38 | 28°20 | F 6 | |
| S 7 | 15 20 25 | 21°15'57 | 20°51 | 5°20 | 0♂15 | 15°16 | 12° 3 | 0°43 | 18°20 | 2°54 | 11°25 | 24°36 | 26° 0 | 6°45 | 28°16 | S 7 | |
| S 8 | 15 24 21 | 22°13'29 | 5♂11 | 7°13 | 1°28 | 15°55 | 12° 1 | 0°39 | 18°19 | 2°56 | 11°26 | 24°38 | 25°57 | 6°52 | 28°11 | S 8 | |
| M 9 | 15 28 18 | 23°10'59 | 19°15 | 9° 8 | 2°41 | 16°35 | 11°58 | 0°35 | 18°18 | 2°59 | 11°26 | 24°R38 | 25°53 | 6°58 | 28° 7 | M 9 | |
| T 10 | 15 32 14 | 24° 8'28 | 3♂ 3 | 11° 5 | 3°54 | 17°14 | 11°55 | 0°31 | 18°17 | 3° 1 | 11°27 | 24°R38 | 25°50 | 7° 5 | 28° 3 | T 10 | |
| W11 | 15 36 11 | 25° 5'56 | 16°34 | 13° 4 | 5° 7 | 17°53 | 11°52 | 0°27 | 18°16 | 3° 3 | 11°28 | 24°37 | 25°47 | 7°12 | 27°59 | W11 | |
| T 12 | 15 40 7 | 26° 3'22 | 29°50 | 15° 5 | 6°19 | 18°33 | 11°49 | 0°23 | 18°15 | 3° 5 | 11°28 | 24°34 | 25°44 | 7°18 | 27°54 | T 12 | |
| F 13 | 15 44 4 | 27° 0'47 | 12♂51 | 17° 8 | 7°32 | 19°12 | 11°46 | 0°19 | 18°14 | 3° 7 | 11°29 | 24°30 | 25°41 | 7°25 | 27°50 | F 13 | |
| S 14 | 15 48 0 | 27°58'11 | 25°38 | 19°12 | 8°45 | 19°51 | 11°42 | 0°16 | 18°12 | 3°10 | 11°29 | 24°26 | 25°37 | 7°31 | 27°46 | S 14 | |
| S 15 | 15 51 57 | 28°55'34 | 8♂12 | 21°18 | 9°58 | 20°30 | 11°39 | 0°12 | 18°11 | 3°12 | 11°30 | 24°22 | 25°34 | 7°38 | 27°41 | S 15 | |
| M16 | 15 55 54 | 29°52'56 | 20°34 | 23°26 | 11°12 | 21° 9 | 11°35 | 0° 8 | 18°10 | 3°14 | 11°30 | 24°18 | 25°31 | 7°45 | 27°37 | M16 | |
| T 17 | 15 59 50 | 0♂50'17 | 2♂45 | 25°35 | 12°25 | 21°48 | 11°31 | 0° 5 | 18° 8 | 3°16 | 11°31 | 24°16 | 25°28 | 7°51 | 27°33 | T 17 | |
| W18 | 16 3 47 | 1°47'37 | 14°47 | 27°45 | 13°38 | 22°27 | 11°27 | 0° 1 | 18° 7 | 3°19 | 11°31 | 24°14 | 25°25 | 7°58 | 27°29 | W18 | |
| T 19 | 16 7 43 | 2°44'56 | 26°42 | 29°56 | 14°51 | 23° 6 | 11°22 | 29♂58 | 18° 6 | 3°21 | 11°32 | 24°D14 | 25°22 | 8° 5 | 27°24 | T 19 | |
| F 20 | 16 11 40 | 3°42'14 | 8♂31 | 2♂ 8 | 16° 4 | 23°45 | 11°18 | 29°55 | 18° 4 | 3°23 | 11°32 | 24°15 | 25°18 | 8°11 | 27°20 | F 20 | |
| S 21 | 16 15 36 | 4°39'32 | 20°19 | 4°20 | 17°17 | 24°24 | 11°13 | 29°51 | 18° 3 | 3°25 | 11°32 | 24°16 | 25°15 | 8°18 | 27°16 | S 21 | |
| S 22 | 16 19 33 | 5°36'50 | 2♂ 8 | 6°32 | 18°30 | 25° 3 | 11° 8 | 29°48 | 18° 1 | 3°28 | 11°33 | 24°17 | 25°12 | 8°25 | 27°12 | S 22 | |
| M23 | 16 23 30 | 6°34'06 | 14° 4 | 8°43 | 19°43 | 25°42 | 11° 3 | 29°45 | 18° 0 | 3°30 | 11°33 | 24°19 | 25° 9 | 8°31 | 27° 7 | M23 | |
| T 24 | 16 27 26 | 7°31'23 | 26° 9 | 10°55 | 20°56 | 26°21 | 10°58 | 29°42 | 17°58 | 3°32 | 11°33 | 24°20 | 25° 6 | 8°38 | 27° 3 | T 24 | |
| W25 | 16 31 23 | 8°28'39 | 8♂29 | 13° 5 | 22° 9 | 27° 0 | 10°53 | 29°39 | 17°56 | 3°34 | 11°34 | 24°R20 | 25° 3 | 8°45 | 26°59 | W25 | |
| T 26 | 16 35 19 | 9°25'54 | 21° 8 | 15°15 | 23°22 | 27°39 | 10°48 | 29°36 | 17°55 | 3°37 | 11°34 | 24°20 | 24°59 | 8°51 | 26°55 | T 26 | |
| F 27 | 16 39 16 | 10°23'09 | 4♀ 9 | 17°23 | 24°36 | 28°18 | 10°42 | 29°33 | 17°53 | 3°39 | 11°34 | 24°19 | 24°56 | 8°58 | 26°51 | F 27 | |
| S 28 | 16 43 12 | 11°20'24 | 17°37 | 19°30 | 25°49 | 28°57 | 10°36 | 29°30 | 17°51 | 3°41 | 11°34 | 24°17 | 24°53 | 9° 5 | 26°47 | S 28 | |
| S 29 | 16 47 9 | 12°17'38 | 1♂31 | 21°35 | 27° 2 | 29°36 | 10°30 | 29°27 | 17°49 | 3°43 | 11°35 | 24°16 | 24°50 | 9°11 | 26°43 | S 29 | |
| M30 | 16 51 5 | 13°14'53 | 15°50 | 23°39 | 28°15 | 0♂15 | 10°24 | 29°25 | 17°48 | 3°45 | 11°35 | 24°15 | 24°47 | 9°18 | 26°39 | M30 | |
| T 31 | 16 55 2 | 14♂12'07 | 0♂31 | 25♂41 | 29♂28 | 0♂53 | 10♂18 | 29♂22 | 17♂46 | 3♂48 | 11♂35 | 24♂14 | 24♂43 | 9♂24 | 26♂35 | T 31 | |

Delta T = 19m20s Julian Calendar 1 May 1071 == Greg. Calendar 7 May 1071

JUNE 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|------|--------|--------|-------|-------|--------|------|
| W 1 | 16 58 59 | 15♂ 9'21 | 15♂28 | 27♂40 | 0♂42 | 1♂32 | 10°R12 | 29°R20 | 17°R44 | 3♂50 | 11♂35 | 24°R13 | 24♂40 | 9♂31 | 26°R31 | W 1 |
| T 2 | 17 2 55 | 16° 6'34 | 0♂31 | 29°38 | 1°55 | 2°11 | 10♂ 6 | 29♂17 | 17♂42 | 3°52 | 11°35 | 24°D13 | 24°37 | 9°38 | 26♂26 | T 2 |
| F 3 | 17 6 52 | 17° 3'47 | 15°34 | 1♂34 | 3° 8 | 2°50 | 9°59 | 29°15 | 17°40 | 3°54 | 11°35 | 24♂13 | 24°34 | 9°44 | 26°23 | F 3 |
| S 4 | 17 10 48 | 18° 0'59 | 0♂27 | 3°28 | 4°21 | 3°29 | 9°53 | 29°13 | 17°38 | 3°56 | 11°35 | 24°14 | 24°31 | 9°51 | 26°19 | S 4 |
| S 5 | 17 14 45 | 18°58'11 | 15° 4 | 5°19 | 5°35 | 4° 7 | 9°46 | 29°11 | 17°36 | 3°59 | 11°35 | 24°14 | 24°28 | 9°58 | 26°16 | S 5 |
| M 6 | 17 18 41 | 19°55'22 | 29°20 | 7° 9 | 6°48 | 4°46 | 9°39 | 29° 9 | 17°34 | 4° 1 | 11°R35 | 24°15 | 24°24 | 10° 4 | 26°12 | M 6 |
| T 7 | 17 22 38 | 20°52'33 | 13♂13 | 8°56 | 8° 1 | 5°25 | 9°33 | 29° 7 | 17°32 | 4° 3 | 11°35 | 24°15 | 24°21 | 10°11 | 26° 8 | T 7 |
| W 8 | 17 26 34 | 21°49'43 | 26°44 | 10°41 | 9°15 | 6° 3 | 9°26 | 29° 5 | 17°30 | 4° 5 | 11°35 | 24°R15 | 24°18 | 10°18 | 26° 5 | W 8 |
| T 9 | 17 30 31 | 22°46'53 | 9♂52 | 12°24 | 10°28 | 6°42 | 9°19 | 29° 3 | 17°28 | 4° 7 | 11°35 | 24°15 | 24°15 | 10°24 | 26° 1 | T 9 |
| F 10 | 17 34 28 | 23°44'02 | 22°42 | 14° 4 | 11°41 | 7°21 | 9°12 | 29° 1 | 17°26 | 4° 9 | 11°35 | 24°D15 | 24°12 | 10°31 | 25°58 | F 10 |
| S 11 | 17 38 24 | 24°41'11 | 5♂14 | 15°43 | 12°55 | 7°59 | 9° 4 | 29° 0 | 17°24 | 4°12 | 11°35 | 24°15 | 24° 8 | 10°38 | 25°54 | S 11 |
| S 12 | 17 42 21 | 25°38'19 | 17°33 | 17°19 | 14° 8 | 8°38 | 8°57 | 28°58 | 17°21 | 4°14 | 11°35 | 24°15 | 24° 5 | 10°44 | 25°51 | S 12 |
| M13 | 17 46 17 | 26°35'28 | 29°41 | 18°53 | 15°22 | 9°17 | 8°50 | 28°57 | 17°19 | 4°16 | 11°35 | 24°15 | 24° 2 | 10°51 | 25°48 | M13 |
| T 14 | 17 50 14 | 27°32'36 | 11♂41 | 20°24 | 16°35 | 9°55 | 8°42 | 28°56 | 17°17 | 4°18 | 11°35 | 24°15 | 23°59 | 10°58 | 25°44 | T 14 |
| W15 | 17 54 10 | 28°29'44 | 23°34 | 21°54 | 17°48 | 10°34 | 8°35 | 28°54 | 17°15 | 4°20 | 11°35 | 24°R15 | 23°56 | 11° 4 | 25°41 | W15 |
| T 16 | 17 58 7 | 29°26'53 | 5♂24 | 23°21 | 19° 2 | 11°12 | 8°27 | 28°53 | 17°13 | 4°22 | 11°34 | 24°15 | 23°53 | 11°11 | 25°38 | T 16 |
| F 17 | 18 2 3 | 0♂24'01 | 17°12 | 24°45 | 20°15 | 11°51 | 8°20 | 28°52 | 17°10 | 4°24 | 11°34 | 24°15 | 23°49 | 11°18 | 25°35 | F 17 |
| S 18 | 18 6 0 | 1°21'10 | 29° 1 | 26° 8 | 21°29 | 12°29 | 8°12 | 28°51 | 17° 8 | 4°26 | 11°34 | 24°14 | 23°46 | 11°24 | 25°32 | S 18 |
| S 19 | 18 9 57 | 2°18'18 | 10♂53 | 27°28 | 22°42 | 13° 8 | 8° 5 | 28°50 | 17° 6 | 4°28 | 11°34 | 24°13 | 23°43 | 11°31 | 25°29 | S 19 |
| M20 | 18 13 53 | 3°15'28 | 22°52 | 28°46 | 23°56 | 13°46 | 7°57 | 28°50 | 17° 4 | 4°30 | 11°33 | 24°12 | 23°40 | 11°38 | 25°26 | M20 |
| T 21 | 18 17 50 | 4°12'37 | 5♂ 0 | 0♂ 1 | 25° 9 | 14°25 | 7°49 | 28°49 | 17° 1 | 4°32 | 11°33 | 24°11 | 23°37 | 11°44 | 25°24 | T 21 |
| W22 | 18 21 46 | 5° 9'47 | 17°21 | 1°13 | 26°23 | 15° 3 | 7°42 | 28°48 | 16°59 | 4°34 | 11°33 | 24°10 | 23°34 | 11°51 | 25°21 | W22 |
| T 23 | 18 25 43 | 6° 6'58 | 29°59 | 2°23 | 27°37 | 15°42 | 7°34 | 28°48 | 16°57 | 4°36 | 11°32 | 24° 9 | 23°30 | 11°57 | 25°18 | T 23 |
| F 24 | 18 29 39 | 7° 4'09 | 12♀56 | 3°31 | 28°50 | 16°20 | 7°26 | 28°48 | 16°54 | 4°38 | 11°32 | 24°D 9 | 23°27 | 12° 4 | 25°16 | F 24 |
| S 25 | 18 33 36 | 8° 1'20 | 26°17 | 4°35 | 0♂ 4 | 16°59 | 7°18 | 28°47 | 16°52 | 4°40 | 11°31 | 24°10 | 23°24 | 12°11 | 25°13 | S 25 |
| S 26 | 18 37 32 | 8°58'33 | 10♂ 3 | 5°37 | 1°18 | 17°37 | 7°11 | 28°47 | 16°49 | 4°42 | 11°31 | 24°11 | 23°21 | 12°17 | 25°11 | S 26 |
| M27 | 18 41 29 | 9°55'46 | 24°15 | 6°36 | 2°31 | 18°15 | 7° 3 | 28°D47 | 16°47 | 4°44 | 11°30 | 24°12 | 23°18 | 12°24 | 25° 9 | M27 |
| T 28 | 18 45 26 | 10°53'00 | 8♂51 | 7°32 | 3°45 | 18°54 | 6°55 | 28°47 | 16°45 | 4°46 | 11°30 | 24°13 | 23°14 | 12°31 | 25° 7 | T 28 |
| W29 | 18 49 22 | 11°50'15 | 23°47 | 8°25 | 4°59 | 19°32 | 6°48 | 28°47 | 16°42 | 4°48 | 11°30 | 24°R13 | 23°11 | 12°37 | 25° 4 | W29 |
| T 30 | 18 53 19 | 12♂47'30 | 8♂55 | 9♂14 | 6♂12 | 20♂11 | 6♂40 | 28♂47 | 16♂40 | 4♂50 | 11♂29 | 24♂13 | 23♂ 8 | 12♂44 | 25♂ 2 | T 30 |

Delta T = 19m20s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1071
geocentric

JULY 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 18 57 15 | 13♌44'46 | 24♌ 8 | 10♌ 0 | 7♌26 | 20♌49 | 6°R32 | 28♌48 | 16°R38 | 4♌51 | 11°R28 | 24°R12 | 23♌ 5 | 12♌51 | 25°R 0 | F 1 | | | | | | | | |
| S 2 | 19 1 12 | 14°42'02 | 9♌14 | 10°42 | 8°40 | 21°27 | 6♌25 | 28°48 | 16♌35 | 4°53 | 11♌28 | 24♌ 9 | 23° 2 | 12°57 | 24♌59 | S 2 | | | | | | | | |
| S 3 | 19 5 8 | 15°39'19 | 24° 5 | 11°21 | 9°54 | 22° 6 | 6°17 | 28°49 | 16°33 | 4°55 | 11°27 | 24° 7 | 22°59 | 13° 4 | 24°57 | S 3 | | | | | | | | |
| M 4 | 19 9 5 | 16°36'36 | 8♌34 | 11°56 | 11° 7 | 22°44 | 6°10 | 28°49 | 16°30 | 4°57 | 11°27 | 24° 4 | 22°55 | 13°11 | 24°55 | M 4 | | | | | | | | |
| T 5 | 19 13 2 | 17°33'53 | 22°37 | 12°27 | 12°21 | 23°23 | 6° 2 | 28°50 | 16°28 | 4°59 | 11°26 | 24° 1 | 22°52 | 13°17 | 24°54 | T 5 | | | | | | | | |
| W 6 | 19 16 58 | 18°31'11 | 6♌13 | 12°53 | 13°35 | 24° 1 | 5°55 | 28°51 | 16°26 | 5° 0 | 11°26 | 24° 0 | 22°49 | 13°24 | 24°52 | W 6 | | | | | | | | |
| T 7 | 19 20 55 | 19°28'29 | 19°23 | 13°15 | 14°49 | 24°39 | 5°47 | 28°52 | 16°23 | 5° 2 | 11°25 | 23°D59 | 22°46 | 13°31 | 24°51 | T 7 | | | | | | | | |
| F 8 | 19 24 51 | 20°25'48 | 2♌ 8 | 13°33 | 16° 3 | 25°18 | 5°40 | 28°53 | 16°21 | 5° 4 | 11°24 | 24° 0 | 22°43 | 13°37 | 24°49 | F 8 | | | | | | | | |
| S 9 | 19 28 48 | 21°23'07 | 14°35 | 13°46 | 17°17 | 25°56 | 5°33 | 28°54 | 16°18 | 5° 6 | 11°23 | 24° 1 | 22°40 | 13°44 | 24°48 | S 9 | | | | | | | | |
| S 10 | 19 32 44 | 22°20'27 | 26°45 | 13°54 | 18°31 | 26°34 | 5°26 | 28°55 | 16°16 | 5° 7 | 11°23 | 24° 3 | 22°36 | 13°51 | 24°47 | S 10 | | | | | | | | |
| M 11 | 19 36 41 | 23°17'48 | 8♌45 | 13°R57 | 19°45 | 27°12 | 5°19 | 28°56 | 16°14 | 5° 9 | 11°22 | 24° 4 | 22°33 | 13°57 | 24°46 | M 11 | | | | | | | | |
| T 12 | 19 40 37 | 24°15'09 | 20°37 | 13°54 | 20°59 | 27°51 | 5°12 | 28°58 | 16°11 | 5°10 | 11°21 | 24°R 5 | 22°30 | 14° 4 | 24°45 | T 12 | | | | | | | | |
| W 13 | 19 44 34 | 25°12'31 | 2♌26 | 13°47 | 22°12 | 28°29 | 5° 5 | 28°59 | 16° 9 | 5°12 | 11°21 | 24° 5 | 22°27 | 14°11 | 24°44 | W 13 | | | | | | | | |
| T 14 | 19 48 31 | 26° 9'54 | 14°14 | 13°35 | 23°26 | 29° 7 | 4°58 | 29° 1 | 16° 6 | 5°14 | 11°20 | 24° 3 | 22°24 | 14°17 | 24°43 | T 14 | | | | | | | | |
| F 15 | 19 52 27 | 27° 7'18 | 26° 3 | 13°17 | 24°40 | 29°45 | 4°52 | 29° 2 | 16° 4 | 5°15 | 11°19 | 24° 0 | 22°20 | 14°24 | 24°43 | F 15 | | | | | | | | |
| S 16 | 19 56 24 | 28° 4'42 | 7♌57 | 12°54 | 25°54 | 0♌24 | 4°45 | 29° 4 | 16° 2 | 5°17 | 11°18 | 23°55 | 22°17 | 14°31 | 24°42 | S 16 | | | | | | | | |
| S 17 | 20 0 20 | 29° 2'08 | 19°56 | 12°26 | 27° 8 | 1° 2 | 4°39 | 29° 6 | 15°59 | 5°18 | 11°17 | 23°49 | 22°14 | 14°37 | 24°42 | S 17 | | | | | | | | |
| M 18 | 20 4 17 | 29°59'35 | 2♌ 3 | 11°54 | 28°23 | 1°40 | 4°32 | 29° 8 | 15°57 | 5°20 | 11°16 | 23°43 | 22°11 | 14°44 | 24°41 | M 18 | | | | | | | | |
| T 19 | 20 8 13 | 0♌57'03 | 14°19 | 11°17 | 29°37 | 2°18 | 4°26 | 29°10 | 15°55 | 5°21 | 11°16 | 23°37 | 22° 8 | 14°51 | 24°41 | T 19 | | | | | | | | |
| W 20 | 20 12 10 | 1°54'33 | 26°47 | 10°37 | 0♌51 | 2°57 | 4°20 | 29°12 | 15°53 | 5°22 | 11°15 | 23°31 | 22° 5 | 14°57 | 24°41 | W 20 | | | | | | | | |
| T 21 | 20 16 6 | 2°52'03 | 9♌28 | 9°53 | 2° 5 | 3°35 | 4°14 | 29°14 | 15°50 | 5°24 | 11°14 | 23°27 | 22° 1 | 15° 4 | 24°41 | T 21 | | | | | | | | |
| F 22 | 20 20 3 | 3°49'36 | 22°26 | 9° 7 | 3°19 | 4°13 | 4° 8 | 29°17 | 15°48 | 5°25 | 11°13 | 23°25 | 21°58 | 15°11 | 24°D41 | F 22 | | | | | | | | |
| S 23 | 20 24 0 | 4°47'09 | 5♌42 | 8°18 | 4°33 | 4°51 | 4° 3 | 29°19 | 15°46 | 5°27 | 11°12 | 23°D25 | 21°55 | 15°17 | 24°41 | S 23 | | | | | | | | |
| S 24 | 20 27 56 | 5°44'45 | 19°20 | 7°29 | 5°47 | 5°30 | 3°57 | 29°22 | 15°44 | 5°28 | 11°11 | 23°25 | 21°52 | 15°24 | 24°41 | S 24 | | | | | | | | |
| M 25 | 20 31 53 | 6°42'21 | 3♌20 | 6°40 | 7° 1 | 6° 8 | 3°52 | 29°24 | 15°41 | 5°29 | 11°10 | 23°26 | 21°49 | 15°30 | 24°41 | M 25 | | | | | | | | |
| T 26 | 20 35 49 | 7°40'00 | 17°42 | 5°51 | 8°16 | 6°46 | 3°46 | 29°27 | 15°39 | 5°30 | 11° 9 | 23°R27 | 21°46 | 15°37 | 24°42 | T 26 | | | | | | | | |
| W 27 | 20 39 46 | 8°37'40 | 2♌25 | 5° 4 | 9°30 | 7°24 | 3°41 | 29°30 | 15°37 | 5°32 | 11° 8 | 23°27 | 21°42 | 15°44 | 24°42 | W 27 | | | | | | | | |
| T 28 | 20 43 42 | 9°35'22 | 17°23 | 4°20 | 10°44 | 8° 3 | 3°36 | 29°32 | 15°35 | 5°33 | 11° 7 | 23°25 | 21°39 | 15°50 | 24°43 | T 28 | | | | | | | | |
| F 29 | 20 47 39 | 10°33'05 | 2♌29 | 3°40 | 11°58 | 8°41 | 3°32 | 29°35 | 15°33 | 5°34 | 11° 6 | 23°21 | 21°36 | 15°57 | 24°43 | F 29 | | | | | | | | |
| S 30 | 20 51 35 | 11°30'49 | 17°35 | 3° 4 | 13°13 | 9°19 | 3°27 | 29°38 | 15°31 | 5°35 | 11° 5 | 23°15 | 21°33 | 16° 4 | 24°44 | S 30 | | | | | | | | |
| S 31 | 20 55 32 | 12♌28'35 | 2♌30 | 2♌34 | 14♌27 | 9♌57 | 3♌22 | 29♌42 | 15♌29 | 5♌36 | 11♌ 4 | 23♌ 8 | 21♌30 | 16♌10 | 24♌45 | S 31 | | | | | | | | |

Delta T = 19m20s Julian Calendar 1 July 1071 == Greg. Calendar 7 July 1071

AUGUST 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 20 59 29 | 13♌26'22 | 17♌ 5 | 2°R10 | 15♌41 | 10♌35 | 3°R18 | 29♌45 | 15°R27 | 5♌37 | 11°R 3 | 23°R 0 | 21♌26 | 16♌17 | 24♌46 | M 1 | | | | | | | | |
| T 2 | 21 3 25 | 14°24'10 | 1♌15 | 1♌52 | 16°56 | 11°14 | 3♌14 | 29°48 | 15♌25 | 5°38 | 11♌ 2 | 22♌53 | 21°23 | 16°24 | 24°47 | T 2 | | | | | | | | |
| W 3 | 21 7 22 | 15°22'00 | 14°57 | 1°41 | 18°10 | 11°52 | 3°10 | 29°51 | 15°23 | 5°40 | 11° 1 | 22°47 | 21°20 | 16°30 | 24°48 | W 3 | | | | | | | | |
| T 4 | 21 11 18 | 16°19'51 | 28°11 | 1°D38 | 19°24 | 12°30 | 3° 6 | 29°55 | 15°21 | 5°41 | 11° 0 | 22°44 | 21°17 | 16°37 | 24°49 | T 4 | | | | | | | | |
| F 5 | 21 15 15 | 17°17'43 | 10♌58 | 1°42 | 20°39 | 13° 8 | 3° 2 | 29°58 | 15°19 | 5°41 | 10°59 | 22°42 | 21°14 | 16°44 | 24°51 | F 5 | | | | | | | | |
| S 6 | 21 19 11 | 18°15'36 | 23°24 | 1°55 | 21°53 | 13°46 | 2°59 | 0♌ 2 | 15°17 | 5°42 | 10°58 | 22°D42 | 21°11 | 16°50 | 24°52 | S 6 | | | | | | | | |
| S 7 | 21 23 8 | 19°13'31 | 5♌32 | 2°15 | 23° 7 | 14°25 | 2°56 | 0° 6 | 15°15 | 5°43 | 10°56 | 22°43 | 21° 7 | 16°57 | 24°54 | S 7 | | | | | | | | |
| M 8 | 21 27 4 | 20°11'27 | 17°29 | 2°43 | 24°22 | 15° 3 | 2°53 | 0° 9 | 15°13 | 5°44 | 10°55 | 22°R44 | 21° 4 | 17° 4 | 24°56 | M 8 | | | | | | | | |
| T 9 | 21 31 1 | 21° 9'24 | 29°18 | 3°20 | 25°36 | 15°41 | 2°50 | 0°13 | 15°11 | 5°45 | 10°54 | 22°44 | 21° 1 | 17°10 | 24°57 | T 9 | | | | | | | | |
| W 10 | 21 34 58 | 22° 7'23 | 11♌ 6 | 4° 4 | 26°50 | 16°19 | 2°47 | 0°17 | 15°10 | 5°46 | 10°53 | 22°42 | 20°58 | 17°17 | 24°59 | W 10 | | | | | | | | |
| T 11 | 21 38 54 | 23° 5'24 | 22°55 | 4°55 | 28° 5 | 16°57 | 2°44 | 0°21 | 15° 8 | 5°47 | 10°52 | 22°38 | 20°55 | 17°24 | 25° 1 | T 11 | | | | | | | | |
| F 12 | 21 42 51 | 24° 3'26 | 4♌49 | 5°54 | 29°19 | 17°36 | 2°42 | 0°25 | 15° 6 | 5°47 | 10°51 | 22°31 | 20°52 | 17°30 | 25° 3 | F 12 | | | | | | | | |
| S 13 | 21 46 47 | 25° 1'29 | 16°50 | 7° 0 | 0♌34 | 18°14 | 2°40 | 0°30 | 15° 4 | 5°48 | 10°50 | 22°22 | 20°48 | 17°37 | 25° 5 | S 13 | | | | | | | | |
| S 14 | 21 50 44 | 25°59'35 | 29° 0 | 8°12 | 1°48 | 18°52 | 2°38 | 0°34 | 15° 3 | 5°49 | 10°48 | 22°11 | 20°45 | 17°44 | 25° 7 | S 14 | | | | | | | | |
| M 15 | 21 54 40 | 26°57'41 | 11♌20 | 9°30 | 3° 3 | 19°30 | 2°36 | 0°38 | 15° 1 | 5°50 | 10°47 | 21°59 | 20°42 | 17°50 | 25°10 | M 15 | | | | | | | | |
| T 16 | 21 58 37 | 27°55'50 | 23°51 | 10°54 | 4°17 | 20° 8 | 2°34 | 0°43 | 15° 0 | 5°50 | 10°46 | 21°48 | 20°39 | 17°57 | 25°12 | T 16 | | | | | | | | |
| W 17 | 22 2 33 | 28°54'01 | 6♌32 | 12°23 | 5°32 | 20°47 | 2°33 | 0°47 | 14°58 | 5°51 | 10°45 | 21°37 | 20°36 | 18° 4 | 25°15 | W 17 | | | | | | | | |
| T 18 | 22 6 30 | 29°52'13 | 19°26 | 13°56 | 6°46 | 21°25 | 2°31 | 0°52 | 14°57 | 5°51 | 10°44 | 21°29 | 20°32 | 18°10 | 25°17 | T 18 | | | | | | | | |
| F 19 | 22 10 27 | 0♌50'28 | 2♌32 | 15°34 | 8° 1 | 22° 3 | 2°30 | 0°56 | 14°55 | 5°52 | 10°43 | 21°24 | 20°29 | 18°17 | 25°20 | F 19 | | | | | | | | |
| S 20 | 22 14 23 | 1°48'45 | 15°51 | 17°15 | 9°15 | 22°41 | 2°30 | 1° 1 | 14°54 | 5°52 | 10°41 | 21°21 | 20°26 | 18°24 | 25°23 | S 20 | | | | | | | | |
| S 21 | 22 18 20 | 2°47'03 | 29°26 | 18°59 | 10°30 | 23°19 | 2°29 | 1° 6 | 14°52 | 5°53 | 10°40 | 21°D19 | 20°23 | 18°30 | 25°25 | S 21 | | | | | | | | |
| M 22 | 22 22 16 | 3°45'25 | 13♌17 | 20°45 | 11°44 | 23°58 | 2°28 | 1°10 | 14°51 | 5°53 | 10°39 | 21°20 | 20°20 | 18°37 | 25°28 | M 22 | | | | | | | | |
| T 23 | 22 26 13 | 4°43'48 | 27°25 | 22°34 | 12°59 | 24°36 | 2°28 | 1°15 | 14°50 | 5°54 | 10°38 | 21°R20 | 20°17 | 18°44 | 25°31 | T 23 | | | | | | | | |
| W 24 | 22 30 9 | 5°42'14 | 11♌50 | 24°24 | 14°13 | 25°14 | 2°D28 | 1°20 | 14°49 | 5°54 | 10°36 | 21°18 | 20°13 | 18°50 | 25°34 | W 24 | | | | | | | | |
| T 25 | 22 34 6 | 6°40'41 | 26°28 | 26°15 | 15°28 | 25°52 | 2°28 | 1°25 | 14°47 | 5°54 | 10°35 | 21°15 | 20°10 | 18°57 | 25°38 | T 25 | | | | | | | | |
| F 26 | 22 38 2 | 7°39'11 | 11♌16 | 28° 7 | 16°42 | 26°31 | 2°28 | 1°30 | 14°46 | 5°55 | 10°34 | 21° 8 | 20° 7 | 19° 4 | 25°41 | F 26 | | | | | | | | |
| S 27 | 22 41 59 | 8°37'43 | 26° 5 | 29°59 | 17°57 | 27° 9 | 2°29 | 1°35 | 14°45 | 5°55 | 10°33 | 20°59 | 20° 4 | 19°10 | 25°44 | S 27 | | | | | | | | |
| S 28 | 22 45 56 | 9°36'17 | 10♌48 | 1♌53 | 19°12 | 27°47 | 2°29 | 1°41 | 14°44 | 5°55 | 10°32 | 20°48 | 20° 1 | 19°17 | 25°48 | S 28 | | | | | | | | |
| M 29 | 22 49 52 | 10°34'53 | 25°17 | 3°46 | 20°26 | 28°25 | 2°30 | 1°46 | 14°43 | 5°55 | 10°30 | 20°37 | 19°58 | 19°24 | 25°51 | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1071
geocentric

SEPTEMBER 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|------|------|--------|-------|--------|--------|-------|-------|-------|------|-----|
| T 1 | 23 1 42 | 13♎30'51 | 6♎22 | 9♎23 | 24♎10 | 0♎20 | 2♎34 | 2♎ 2 | 14°R40 | 5♎56 | 10°R27 | 20°R10 | 19♎48 | 19♎44 | 26♎ 2 | T 1 | |
| F 2 | 23 5 38 | 14°29'34 | 19°11 | 11°15 | 25°25 | 0°58 | 2°36 | 2° 8 | 14♎39 | 5°56 | 10♎26 | 20♎ 5 | 19°45 | 19°50 | 26° 6 | F 2 | |
| S 3 | 23 9 35 | 15°28'19 | 1♎39 | 13° 6 | 26°39 | 1°37 | 2°37 | 2°13 | 14°39 | 5°R56 | 10°24 | 20° 4 | 19°42 | 19°57 | 26°10 | S 3 | |
| S 4 | 23 13 31 | 16°27'06 | 13°48 | 14°56 | 27°54 | 2°15 | 2°39 | 2°19 | 14°38 | 5°56 | 10°23 | 20° 3 | 19°38 | 20° 4 | 26°14 | S 4 | |
| M 5 | 23 17 28 | 17°25'54 | 25°45 | 16°45 | 29° 9 | 2°53 | 2°42 | 2°25 | 14°37 | 5°56 | 10°22 | 20° 3 | 19°35 | 20°10 | 26°18 | M 5 | |
| T 6 | 23 21 24 | 18°24'44 | 7♎35 | 18°34 | 0♎23 | 3°31 | 2°44 | 2°30 | 14°37 | 5°56 | 10°21 | 20° 2 | 19°32 | 20°17 | 26°23 | T 6 | |
| W 7 | 23 25 21 | 19°23'36 | 19°23 | 20°21 | 1°38 | 4°10 | 2°47 | 2°36 | 14°36 | 5°56 | 10°19 | 20° 0 | 19°29 | 20°24 | 26°27 | W 7 | |
| T 8 | 23 29 18 | 20°22'30 | 1♎15 | 22° 8 | 2°52 | 4°48 | 2°49 | 2°42 | 14°35 | 5°55 | 10°18 | 19°55 | 19°26 | 20°30 | 26°31 | T 8 | |
| F 9 | 23 33 14 | 21°21'26 | 13°14 | 23°54 | 4° 7 | 5°26 | 2°52 | 2°48 | 14°35 | 5°55 | 10°17 | 19°47 | 19°23 | 20°37 | 26°36 | F 9 | |
| S 10 | 23 37 11 | 22°20'24 | 25°23 | 25°39 | 5°22 | 6° 5 | 2°55 | 2°54 | 14°34 | 5°55 | 10°16 | 19°37 | 19°19 | 20°44 | 26°40 | S 10 | |
| S 11 | 23 41 7 | 23°19'23 | 7♎45 | 27°23 | 6°36 | 6°43 | 2°59 | 3° 0 | 14°34 | 5°55 | 10°15 | 19°24 | 19°16 | 20°50 | 26°45 | S 11 | |
| M12 | 23 45 4 | 24°18'25 | 20°20 | 29° 6 | 7°51 | 7°21 | 3° 2 | 3° 6 | 14°34 | 5°54 | 10°14 | 19°11 | 19°13 | 20°57 | 26°49 | M12 | |
| T 13 | 23 49 0 | 25°17'28 | 3♎ 9 | 0♎48 | 9° 6 | 7°59 | 3° 6 | 3°12 | 14°33 | 5°54 | 10°12 | 18°58 | 19°10 | 21° 4 | 26°54 | T 13 | |
| W14 | 23 52 57 | 26°16'34 | 16°11 | 2°30 | 10°20 | 8°38 | 3°10 | 3°18 | 14°33 | 5°54 | 10°11 | 18°46 | 19° 7 | 21°10 | 26°59 | W14 | |
| T 15 | 23 56 53 | 27°15'42 | 29°24 | 4°10 | 11°35 | 9°16 | 3°14 | 3°24 | 14°33 | 5°53 | 10°10 | 18°36 | 19° 3 | 21°17 | 27° 4 | T 15 | |
| F 16 | 0 0 50 | 28°14'52 | 12♎48 | 5°50 | 12°49 | 9°54 | 3°18 | 3°30 | 14°33 | 5°53 | 10° 9 | 18°29 | 19° 0 | 21°24 | 27° 9 | F 16 | |
| S 17 | 0 4 47 | 29°14'04 | 26°22 | 7°29 | 14° 4 | 10°33 | 3°22 | 3°37 | 14°33 | 5°53 | 10° 8 | 18°25 | 18°57 | 21°30 | 27°14 | S 17 | |
| S 18 | 0 8 43 | 0♎13'19 | 10♎ 5 | 9° 7 | 15°19 | 11°11 | 3°27 | 3°43 | 14°33 | 5°52 | 10° 7 | 18°24 | 18°54 | 21°37 | 27°19 | S 18 | |
| M19 | 0 12 40 | 1°12'36 | 23°57 | 10°45 | 16°33 | 11°49 | 3°32 | 3°49 | 14°D33 | 5°52 | 10° 5 | 18°24 | 18°51 | 21°44 | 27°24 | M19 | |
| T 20 | 0 16 36 | 2°11'56 | 7♎59 | 12°22 | 17°48 | 12°28 | 3°37 | 3°56 | 14°33 | 5°51 | 10° 4 | 18°24 | 18°48 | 21°50 | 27°29 | T 20 | |
| W21 | 0 20 33 | 3°11'18 | 22°10 | 13°57 | 19° 3 | 13° 6 | 3°42 | 4° 2 | 14°33 | 5°51 | 10° 3 | 18°22 | 18°44 | 21°57 | 27°34 | W21 | |
| T 22 | 0 24 29 | 4°10'43 | 6♎28 | 15°33 | 20°17 | 13°45 | 3°47 | 4° 9 | 14°33 | 5°50 | 10° 2 | 18°19 | 18°41 | 22° 4 | 27°39 | T 22 | |
| F 23 | 0 28 26 | 5°10'09 | 20°52 | 17° 7 | 21°32 | 14°23 | 3°52 | 4°15 | 14°33 | 5°49 | 10° 1 | 18°13 | 18°38 | 22°10 | 27°45 | F 23 | |
| S 24 | 0 32 22 | 6° 9'39 | 5♎16 | 18°41 | 22°47 | 15° 1 | 3°58 | 4°22 | 14°33 | 5°49 | 10° 0 | 18° 4 | 18°35 | 22°17 | 27°50 | S 24 | |
| S 25 | 0 36 19 | 7° 9'10 | 19°35 | 20°14 | 24° 1 | 15°40 | 4° 4 | 4°28 | 14°34 | 5°48 | 9°59 | 17°54 | 18°32 | 22°24 | 27°56 | S 25 | |
| M26 | 0 40 16 | 8° 8'43 | 3♎43 | 21°46 | 25°16 | 16°18 | 4°10 | 4°35 | 14°34 | 5°47 | 9°58 | 17°42 | 18°29 | 22°30 | 28° 1 | M26 | |
| T 27 | 0 44 12 | 9° 8'19 | 17°35 | 23°18 | 26°30 | 16°57 | 4°16 | 4°42 | 14°34 | 5°46 | 9°57 | 17°31 | 18°25 | 22°37 | 28° 7 | T 27 | |
| W28 | 0 48 9 | 10° 7'56 | 1♎ 7 | 24°49 | 27°45 | 17°35 | 4°22 | 4°48 | 14°35 | 5°46 | 9°56 | 17°22 | 18°22 | 22°44 | 28°13 | W28 | |
| T 29 | 0 52 5 | 11° 7'36 | 14°17 | 26°20 | 29° 0 | 18°14 | 4°28 | 4°55 | 14°35 | 5°45 | 9°55 | 17°15 | 18°19 | 22°50 | 28°18 | T 29 | |
| F 30 | 0 56 2 | 12♎ 7'17 | 27♎ 4 | 27♎50 | 0♎14 | 18♎52 | 4♎35 | 5♎ 2 | 14♎36 | 5♎44 | 9♎54 | 17♎11 | 18♎16 | 22♎57 | 28♎24 | F 30 | |

Delta T = 19m19s Julian Calendar 1 Sept. 1071 == Greg. Calendar 7 Sept. 1071

OCTOBER 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|------|------|-------|-------|-------|--------|-------|-------|-------|------|-----|
| S 1 | 0 59 58 | 13♎ 7'01 | 9♎31 | 29♎19 | 1♎29 | 19♎31 | 4♎24 | 5♎ 9 | 14♎37 | 5°R43 | 9°R53 | 17°R 9 | 18♎13 | 23♎ 4 | 28♎30 | S 1 | |
| S 2 | 1 3 55 | 14° 6'46 | 21°41 | 0♎47 | 2°44 | 20° 9 | 4°49 | 5°15 | 14°37 | 5♎42 | 9♎52 | 17°D 8 | 18° 9 | 23°10 | 28°36 | S 2 | |
| M 3 | 1 7 51 | 15° 6'33 | 3♎39 | 2°15 | 3°58 | 20°47 | 4°56 | 5°22 | 14°38 | 5°41 | 9°51 | 17°R 9 | 18° 6 | 23°17 | 28°42 | M 3 | |
| T 4 | 1 11 48 | 16° 6'22 | 15°30 | 3°42 | 5°13 | 21°26 | 5° 3 | 5°29 | 14°39 | 5°40 | 9°50 | 17°R10 | 18° 3 | 23°24 | 28°48 | T 4 | |
| W 5 | 1 15 45 | 17° 6'12 | 27°19 | 5° 9 | 6°28 | 22° 4 | 5°10 | 5°36 | 14°39 | 5°39 | 9°49 | 17° 9 | 18° 0 | 23°30 | 28°54 | W 5 | |
| T 6 | 1 19 41 | 18° 6'04 | 9♎12 | 6°34 | 7°42 | 22°43 | 5°18 | 5°43 | 14°40 | 5°38 | 9°48 | 17° 6 | 17°57 | 23°37 | 29° 0 | T 6 | |
| F 7 | 1 23 38 | 19° 5'58 | 21°14 | 7°59 | 8°57 | 23°21 | 5°25 | 5°50 | 14°41 | 5°37 | 9°47 | 17° 2 | 17°54 | 23°44 | 29° 6 | F 7 | |
| S 8 | 1 27 34 | 20° 5'54 | 3♎28 | 9°23 | 10°11 | 24° 0 | 5°33 | 5°57 | 14°42 | 5°36 | 9°46 | 16°55 | 17°50 | 23°50 | 29°12 | S 8 | |
| S 9 | 1 31 31 | 21° 5'51 | 15°58 | 10°47 | 11°26 | 24°38 | 5°41 | 6° 4 | 14°43 | 5°35 | 9°45 | 16°46 | 17°47 | 23°57 | 29°19 | S 9 | |
| M10 | 1 35 27 | 22° 5'50 | 28°46 | 12° 9 | 12°40 | 25°17 | 5°49 | 6°11 | 14°44 | 5°34 | 9°44 | 16°36 | 17°44 | 24° 4 | 29°25 | M10 | |
| T 11 | 1 39 24 | 23° 5'51 | 11♎51 | 13°31 | 13°55 | 25°56 | 5°57 | 6°18 | 14°45 | 5°33 | 9°44 | 16°26 | 17°41 | 24°10 | 29°31 | T 11 | |
| W12 | 1 43 20 | 24° 5'54 | 25°14 | 14°51 | 15°10 | 26°34 | 6° 6 | 6°25 | 14°47 | 5°32 | 9°43 | 16°17 | 17°38 | 24°17 | 29°38 | W12 | |
| T 13 | 1 47 17 | 25° 5'59 | 8♎52 | 16°11 | 16°24 | 27°13 | 6°14 | 6°32 | 14°48 | 5°31 | 9°42 | 16°10 | 17°35 | 24°24 | 29°44 | T 13 | |
| F 14 | 1 51 13 | 26° 6'05 | 22°41 | 17°29 | 17°39 | 27°51 | 6°23 | 6°39 | 14°49 | 5°29 | 9°41 | 16° 5 | 17°31 | 24°30 | 29°50 | F 14 | |
| S 15 | 1 55 10 | 27° 6'14 | 6♎39 | 18°46 | 18°53 | 28°30 | 6°31 | 6°46 | 14°50 | 5°28 | 9°40 | 16° 3 | 17°28 | 24°37 | 29°57 | S 15 | |
| S 16 | 1 59 7 | 28° 6'25 | 20°43 | 20° 2 | 20° 8 | 29° 8 | 6°40 | 6°53 | 14°52 | 5°27 | 9°40 | 16°D 3 | 17°25 | 24°44 | 0♎ 3 | S 16 | |
| M17 | 2 3 3 | 29° 6'38 | 4♎59 | 21°16 | 21°22 | 29°47 | 6°49 | 7° 0 | 14°53 | 5°26 | 9°39 | 16° 4 | 17°22 | 24°50 | 0°10 | M17 | |
| T 18 | 2 7 0 | 0♎ 6'54 | 18°59 | 22°28 | 22°37 | 0♎26 | 6°58 | 7° 7 | 14°55 | 5°24 | 9°38 | 16° 5 | 17°19 | 24°57 | 0°17 | T 18 | |
| W19 | 2 10 56 | 1° 7'11 | 3♎ 7 | 23°38 | 23°51 | 1° 4 | 7° 8 | 7°14 | 14°56 | 5°23 | 9°38 | 16°R 5 | 17°15 | 25° 4 | 0°23 | W19 | |
| T 20 | 2 14 53 | 2° 7'30 | 17°14 | 24°47 | 25° 6 | 1°43 | 7°17 | 7°21 | 14°58 | 5°22 | 9°37 | 16° 4 | 17°12 | 25°10 | 0°30 | T 20 | |
| F 21 | 2 18 49 | 3° 7'52 | 1♎18 | 25°52 | 26°20 | 2°21 | 7°26 | 7°28 | 14°59 | 5°20 | 9°36 | 16° 1 | 17° 9 | 25°17 | 0°37 | F 21 | |
| S 22 | 2 22 46 | 4° 8'15 | 15°16 | 26°55 | 27°35 | 3° 0 | 7°36 | 7°36 | 15° 1 | 5°19 | 9°36 | 15°56 | 17° 6 | 25°24 | 0°43 | S 22 | |
| S 23 | 2 26 42 | 5° 8'40 | 29° 8 | 27°55 | 28°50 | 3°39 | 7°46 | 7°43 | 15° 3 | 5°17 | 9°35 | 15°50 | 17° 3 | 25°30 | 0°50 | S 23 | |
| M24 | 2 30 39 | 6° 9'07 | 12♎48 | 28°52 | 0♎ 4 | 4°17 | 7°56 | 7°50 | 15° 4 | 5°16 | 9°34 | 15°43 | 17° 0 | 25°37 | 0°57 | M24 | |
| T 25 | 2 34 36 | 7° 9'36 | 26°16 | 29°45 | 1°19 | 4°56 | 8° 6 | 7°57 | 15° 6 | 5°15 | 9°34 | 15°36 | 16°56 | 25°44 | 1° 4 | T 25 | |
| W26 | 2 38 32 | 8°10'07 | 9♎27 | 0♎33 | 2°33 | 5°35 | 8°16 | 8° 4 | 15° 8 | 5°13 | 9°33 | 15°31 | 16°53 | 25°50 | 1°11 | W26 | |
| T 27 | 2 42 29 | 9°10'39 | 22°22 | 1°17 | 3°48 | 6°14 | 8°26 | 8°11 | 15°10 | 5°12 | 9°33 | 15°26 | 16°50 | 25°57 | 1°18 | T 27 | |
| F 28 | 2 46 25 | 10°11'13 | 5♎ 2 | 1°55 | 5° 2 | 6°52 | 8°36 | 8°18 | 15°12 | 5°10 | 9°32 | 15°24 | 16°47 | 26° 4 | 1°25 | F 28 | |
| S 29 | 2 50 22 | 11°11'49 | 17°22 | 2°26 | 6°16 | 7°31 | 8°47 | 8°26 | 15°14 | 5° 9 | 9°32 | 15°D24 | 16°44 | 26°10 | 1°32 | S 29 | |
| S 30 | 2 54 18 | 12°12'26 | 29°30 | 2°51 | 7°31 | 8°10 | 8°57 | 8°33 | 15°16 | 5° 7 | 9°31 | 15°25 | 16°40 | 26°17 | 1°39 | S 30 | |
| M31 | 2 58 15 | 13♎13'04 | 11♎27 | 3♎ 9 | 8♎45 | 8♎48 | 9♎ 8 | 8♎40 | 15♎18 | 5♎ 6 | 9♎31 | 15♎26 | 16♎37 | 26♎24 | 1♎46 | M31 | |

Delta T = 19m19s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1071
geocentric

NOVEMBER 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|------|------|---|-----|
| T 1 | 3 2 11 | 14♐13'43 | 23♋18 | 3°R18 | 10♌0 | 9♌27 | 9♋19 | 8♐47 | 15♋20 | 5°R 4 | 9°R30 | 15♐28 | 16♐34 | 26♋30 | 1♌53 | T 1 | | |
| W 2 | 3 6 8 | 15°14'24 | 5♌7 | 3♌17 | 11°14 | 10° 6 | 9°29 | 8°54 | 15°22 | 5♐2 | 9♐30 | 15°29 | 16°31 | 26°37 | 2° 0 | W 2 | | |
| T 3 | 3 10 5 | 16°15'06 | 17° 0 | 3° 8 | 12°29 | 10°45 | 9°40 | 9° 1 | 15°24 | 5° 1 | 9°30 | 15°R30 | 16°28 | 26°44 | 2° 7 | T 3 | | |
| F 4 | 3 14 1 | 17°15'49 | 29° 1 | 2°47 | 13°43 | 11°23 | 9°51 | 9° 8 | 15°26 | 4°59 | 9°29 | 15°29 | 16°25 | 26°51 | 2°14 | F 4 | | |
| S 5 | 3 17 58 | 18°16'33 | 11♌15 | 2°16 | 14°58 | 12° 2 | 10° 3 | 9°15 | 15°29 | 4°58 | 9°29 | 15°27 | 16°21 | 26°57 | 2°21 | S 5 | | |
| S 6 | 3 21 54 | 19°17'18 | 23°46 | 1°34 | 16°12 | 12°41 | 10°14 | 9°22 | 15°31 | 4°56 | 9°29 | 15°24 | 16°18 | 27° 4 | 2°28 | S 6 | | |
| M 7 | 3 25 51 | 20°18'04 | 6♌38 | 0°42 | 17°26 | 13°20 | 10°25 | 9°30 | 15°33 | 4°54 | 9°28 | 15°20 | 16°15 | 27°11 | 2°35 | M 7 | | |
| T 8 | 3 29 47 | 21°18'51 | 19°52 | 29♐40 | 18°41 | 13°59 | 10°36 | 9°37 | 15°36 | 4°53 | 9°28 | 15°16 | 16°12 | 27°17 | 2°42 | T 8 | | |
| W 9 | 3 33 44 | 22°19'40 | 3♋29 | 28°29 | 19°55 | 14°37 | 10°48 | 9°44 | 15°38 | 4°51 | 9°28 | 15°13 | 16° 9 | 27°24 | 2°49 | W 9 | | |
| T 10 | 3 37 40 | 23°20'30 | 17°26 | 27°12 | 21° 9 | 15°16 | 11° 0 | 9°51 | 15°40 | 4°49 | 9°28 | 15°10 | 16° 6 | 27°31 | 2°56 | T 10 | | |
| F 11 | 3 41 37 | 24°21'21 | 1♐40 | 25°51 | 22°24 | 15°55 | 11°11 | 9°58 | 15°43 | 4°48 | 9°28 | 15° 8 | 16° 2 | 27°37 | 3° 4 | F 11 | | |
| S 12 | 3 45 34 | 25°22'13 | 16° 6 | 24°29 | 23°38 | 16°34 | 11°23 | 10° 5 | 15°45 | 4°46 | 9°27 | 15°D 8 | 15°59 | 27°44 | 3°11 | S 12 | | |
| S 13 | 3 49 30 | 26°23'06 | 0♋38 | 23° 7 | 24°52 | 17°13 | 11°35 | 10°12 | 15°48 | 4°44 | 9°27 | 15° 8 | 15°56 | 27°51 | 3°18 | S 13 | | |
| M14 | 3 53 27 | 27°24'01 | 15°12 | 21°50 | 26° 6 | 17°52 | 11°47 | 10°19 | 15°51 | 4°43 | 9°27 | 15°10 | 15°53 | 27°57 | 3°25 | M14 | | |
| T 15 | 3 57 23 | 28°24'57 | 29°40 | 20°39 | 27°21 | 18°30 | 11°59 | 10°25 | 15°53 | 4°41 | 9°27 | 15°11 | 15°50 | 28° 4 | 3°32 | T 15 | | |
| W16 | 4 1 20 | 29°25'55 | 14♌1 | 19°36 | 28°35 | 19° 9 | 12°11 | 10°32 | 15°56 | 4°39 | 9°27 | 15°12 | 15°46 | 28°11 | 3°40 | W16 | | |
| T 17 | 4 5 16 | 0♌26'53 | 28°10 | 18°43 | 29°49 | 19°48 | 12°23 | 10°39 | 15°59 | 4°38 | 9°27 | 15°R12 | 15°43 | 28°17 | 3°47 | T 17 | | |
| F 18 | 4 9 13 | 1°27'53 | 12♐6 | 18° 2 | 1♋3 | 20°27 | 12°35 | 10°46 | 16° 1 | 4°36 | 9°D27 | 15°12 | 15°40 | 28°24 | 3°54 | F 18 | | |
| S 19 | 4 13 9 | 2°28'54 | 25°49 | 17°32 | 2°17 | 21° 6 | 12°48 | 10°53 | 16° 4 | 4°34 | 9°27 | 15°11 | 15°37 | 28°31 | 4° 1 | S 19 | | |
| S 20 | 4 17 6 | 3°29'57 | 9♌18 | 17°13 | 3°32 | 21°45 | 13° 0 | 11° 0 | 16° 7 | 4°33 | 9°27 | 15°10 | 15°34 | 28°37 | 4° 8 | S 20 | | |
| M21 | 4 21 3 | 4°31'00 | 22°33 | 17°D 5 | 4°46 | 22°24 | 13°13 | 11° 6 | 16°10 | 4°31 | 9°27 | 15° 8 | 15°31 | 28°44 | 4°16 | M21 | | |
| T 22 | 4 24 59 | 5°32'05 | 5♐35 | 17° 7 | 6° 0 | 23° 3 | 13°25 | 11°13 | 16°13 | 4°29 | 9°27 | 15° 7 | 15°27 | 28°51 | 4°23 | T 22 | | |
| W23 | 4 28 56 | 6°33'10 | 18°23 | 17°19 | 7°14 | 23°42 | 13°38 | 11°20 | 16°16 | 4°27 | 9°27 | 15° 6 | 15°24 | 28°57 | 4°30 | W23 | | |
| T 24 | 4 32 52 | 7°34'17 | 0♌58 | 17°40 | 8°28 | 24°21 | 13°51 | 11°27 | 16°18 | 4°26 | 9°27 | 15° 5 | 15°21 | 29° 4 | 4°37 | T 24 | | |
| F 25 | 4 36 49 | 8°35'24 | 13°21 | 18° 9 | 9°42 | 25° 0 | 14° 3 | 11°33 | 16°21 | 4°24 | 9°28 | 15°D 5 | 15°18 | 29°11 | 4°45 | F 25 | | |
| S 26 | 4 40 45 | 9°36'32 | 25°33 | 18°46 | 10°56 | 25°39 | 14°16 | 11°40 | 16°24 | 4°22 | 9°28 | 15° 5 | 15°15 | 29°18 | 4°52 | S 26 | | |
| S 27 | 4 44 42 | 10°37'40 | 7♋35 | 19°28 | 12°10 | 26°18 | 14°29 | 11°46 | 16°27 | 4°21 | 9°28 | 15° 5 | 15°12 | 29°24 | 4°59 | S 27 | | |
| M28 | 4 48 39 | 11°38'49 | 19°30 | 20°17 | 13°24 | 26°57 | 14°42 | 11°53 | 16°30 | 4°19 | 9°28 | 15° 6 | 15° 8 | 29°31 | 5° 6 | M28 | | |
| T 29 | 4 52 35 | 12°39'59 | 1♌20 | 21°10 | 14°38 | 27°36 | 14°55 | 11°59 | 16°34 | 4°17 | 9°29 | 15° 6 | 15° 5 | 29°38 | 5°13 | T 29 | | |
| W30 | 4 56 32 | 13°41'09 | 13♌9 | 22♐8 | 15♋52 | 28♌15 | 15♋8 | 12♐6 | 16♋37 | 4♐16 | 9♐29 | 15♐6 | 15♐2 | 29♋44 | 5♌20 | W30 | | |

Delta T = 19m19s Julian Calendar 1 Nov. 1071 == Greg. Calendar 7 Nov. 1071

DECEMBER 1071 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|------|------|---|-----|
| T 1 | 5 0 28 | 14♐42'19 | 25♌1 | 23♐10 | 17♋6 | 28♌53 | 15♋21 | 12♐12 | 16♋40 | 4°R14 | 9♐29 | 15°R 7 | 14♐59 | 29♋51 | 5♌28 | T 1 | | |
| F 2 | 5 4 25 | 15°43'29 | 7♌0 | 24°15 | 18°20 | 29°32 | 15°34 | 12°19 | 16°43 | 4♐12 | 9°29 | 15°D 7 | 14°56 | 29°58 | 5°35 | F 2 | | |
| S 3 | 5 8 21 | 16°44'39 | 19°10 | 25°23 | 19°34 | 0♐11 | 15°48 | 12°25 | 16°46 | 4°11 | 9°30 | 15°D 7 | 14°52 | 0♌4 | 5°42 | S 3 | | |
| S 4 | 5 12 18 | 17°45'49 | 1♌37 | 26°33 | 20°47 | 0°50 | 16° 1 | 12°31 | 16°49 | 4° 9 | 9°30 | 15° 7 | 14°49 | 0°11 | 5°49 | S 4 | | |
| M 5 | 5 16 14 | 18°47'00 | 14°24 | 27°47 | 22° 1 | 1°30 | 16°14 | 12°38 | 16°52 | 4° 7 | 9°31 | 15° 7 | 14°46 | 0°18 | 5°56 | M 5 | | |
| T 6 | 5 20 11 | 19°48'11 | 27°35 | 29° 2 | 23°15 | 2° 9 | 16°28 | 12°44 | 16°56 | 4° 6 | 9°31 | 15° 7 | 14°43 | 0°24 | 6° 3 | T 6 | | |
| W 7 | 5 24 8 | 20°49'21 | 11♋18 | 0♌18 | 24°28 | 2°48 | 16°41 | 12°50 | 16°59 | 4° 4 | 9°31 | 15° 8 | 14°40 | 0°31 | 6°10 | W 7 | | |
| T 8 | 5 28 4 | 21°50'32 | 25°16 | 1°37 | 25°42 | 3°27 | 16°55 | 12°56 | 17° 2 | 4° 2 | 9°32 | 15° 8 | 14°37 | 0°38 | 6°17 | T 8 | | |
| F 9 | 5 32 1 | 22°51'43 | 9♐43 | 2°57 | 26°56 | 4° 6 | 17° 8 | 13° 2 | 17° 5 | 4° 1 | 9°32 | 15°R 9 | 14°33 | 0°44 | 6°24 | F 9 | | |
| S 10 | 5 35 57 | 23°52'54 | 24°29 | 4°18 | 28° 9 | 4°45 | 17°22 | 13° 8 | 17° 9 | 3°59 | 9°33 | 15° 9 | 14°30 | 0°51 | 6°31 | S 10 | | |
| S 11 | 5 39 54 | 24°54'05 | 9♋27 | 5°40 | 29°23 | 5°24 | 17°35 | 13°14 | 17°12 | 3°58 | 9°34 | 15° 8 | 14°27 | 0°58 | 6°38 | S 11 | | |
| M12 | 5 43 50 | 25°55'16 | 24°28 | 7° 3 | 0♌36 | 6° 3 | 17°49 | 13°20 | 17°15 | 3°56 | 9°34 | 15° 7 | 14°24 | 1° 4 | 6°45 | M12 | | |
| T 13 | 5 47 47 | 26°56'28 | 9♌24 | 8°28 | 1°50 | 6°42 | 18° 3 | 13°26 | 17°19 | 3°55 | 9°35 | 15° 6 | 14°21 | 1°11 | 6°52 | T 13 | | |
| W14 | 5 51 43 | 27°57'39 | 24° 7 | 9°53 | 3° 3 | 7°21 | 18°16 | 13°31 | 17°22 | 3°53 | 9°35 | 15° 4 | 14°18 | 1°18 | 6°59 | W14 | | |
| T 15 | 5 55 40 | 28°58'51 | 8♐31 | 11°18 | 4°16 | 8° 0 | 18°30 | 13°37 | 17°26 | 3°52 | 9°36 | 15° 3 | 14°14 | 1°25 | 7° 5 | T 15 | | |
| F 16 | 5 59 37 | 0♋0'03 | 22°34 | 12°45 | 5°30 | 8°39 | 18°44 | 13°43 | 17°29 | 3°50 | 9°37 | 15° 2 | 14°11 | 1°31 | 7°12 | F 16 | | |
| S 17 | 6 3 33 | 1° 1'15 | 6♌15 | 14°12 | 6°43 | 9°18 | 18°58 | 13°48 | 17°32 | 3°49 | 9°37 | 15°D 2 | 14° 8 | 1°38 | 7°19 | S 17 | | |
| S 18 | 6 7 30 | 2° 2'28 | 19°34 | 15°40 | 7°56 | 9°57 | 19°12 | 13°54 | 17°36 | 3°47 | 9°38 | 15° 3 | 14° 5 | 1°45 | 7°26 | S 18 | | |
| M19 | 6 11 26 | 3° 3'40 | 2♐34 | 17° 8 | 9° 9 | 10°36 | 19°25 | 14° 0 | 17°39 | 3°46 | 9°39 | 15° 4 | 14° 2 | 1°51 | 7°33 | M19 | | |
| T 20 | 6 15 23 | 4° 4'53 | 15°16 | 18°37 | 10°22 | 11°16 | 19°39 | 14° 5 | 17°43 | 3°44 | 9°40 | 15° 5 | 13°58 | 1°58 | 7°39 | T 20 | | |
| W21 | 6 19 19 | 5° 6'05 | 27°45 | 20° 7 | 11°35 | 11°55 | 19°53 | 14°10 | 17°46 | 3°43 | 9°40 | 15° 7 | 13°55 | 2° 5 | 7°46 | W21 | | |
| T 22 | 6 23 16 | 6° 7'18 | 10♌2 | 21°37 | 12°48 | 12°34 | 20° 7 | 14°16 | 17°50 | 3°41 | 9°41 | 15°R 8 | 13°52 | 2°11 | 7°53 | T 22 | | |
| F 23 | 6 27 12 | 7° 8'30 | 22°10 | 23° 7 | 14° 1 | 13°13 | 20°21 | 14°21 | 17°53 | 3°40 | 9°42 | 15° 8 | 13°49 | 2°18 | 7°59 | F 23 | | |
| S 24 | 6 31 9 | 8° 9'42 | 4♋11 | 24°38 | 15°14 | 13°52 | 20°35 | 14°26 | 17°57 | 3°39 | 9°43 | 15° 6 | 13°46 | 2°25 | 8° 6 | S 24 | | |
| S 25 | 6 35 6 | 9°10'53 | 16° 6 | 26°10 | 16°27 | 14°31 | 20°49 | 14°31 | 18° 0 | 3°37 | 9°44 | 15° 4 | 13°43 | 2°31 | 8°12 | S 25 | | |
| M26 | 6 39 2 | 10°12'04 | 27°58 | 27°42 | 17°40 | 15°10 | 21° 3 | 14°36 | 18° 4 | 3°36 | 9°44 | 15° 0 | 13°39 | 2°38 | 8°19 | M26 | | |
| T 27 | 6 42 59 | 11°13'15 | 9♌48 | 29°14 | 18°52 | 15°49 | 21°18 | 14°41 | 18° 7 | 3°35 | 9°45 | 14°55 | 13°36 | 2°45 | 8°25 | T 27 | | |
| W28 | 6 46 55 | 12°14'24 | 21°38 | 0♌47 | 20° 5 | 16°29 | 21°32 | 14°46 | 18°11 | 3°33 | 9°46 | 14°50 | 13°33 | 2°52 | 8°31 | W28 | | |
| T 29 | 6 50 52 | 13°15'33 | 3♋31 | 2°21 | 21°17 | 17° 8 | 21°46 | 14°51 | 18°14 | 3°32 | 9°47 | 14°45 | 13°30 | 2°58 | 8°38 | T 29 | | |
| F 30 | 6 54 48 | 14°16'41 | 15°30 | 3°55 | 22°30 | 17°47 | 22° 0 | 14°56 | 18°18 | 3°31 | 9°48 | 14°41 | 13°27 | 3° 5 | 8°44 | F 30 | | |
| S 31 | 6 58 45 | 15♋17'49 | 27♌39 | 5♋29 | 23♌42 | 18♐26 | 22♋14 | 15♐0 | 18♋21 | 3♐30 | 9♐49 | 14♐38 | 13♐24 | 3♌12 | 8♌50 | S 31 | | |

Delta T = 19m18s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1072
geocentric

JANUARY 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|------|-----|
| S 1 | 7 2 42 | 16♁18'55 | 10♃ 1 | 7♁ 4 | 24♁55 | 19♁ 5 | 22♁28 | 15♁ 5 | 18♁25 | 3°R29 | 9♁50 | 14°R37 | 13♁20 | 3♁18 | 8♁56 | S 1 | |
| M 2 | 7 6 38 | 17°20'00 | 22°41 | 8°40 | 26° 7 | 19°44 | 22°42 | 15° 9 | 18°28 | 3♁28 | 9°51 | 14°D36 | 13°17 | 3°25 | 9° 3 | M 2 | |
| T 3 | 7 10 35 | 18°21'04 | 5♁43 | 10°16 | 27°19 | 20°23 | 22°57 | 15°14 | 18°32 | 3°26 | 9°52 | 14♁38 | 13°14 | 3°32 | 9° 9 | T 3 | |
| W 4 | 7 14 31 | 19°22'07 | 19°11 | 11°53 | 28°31 | 21° 3 | 23°11 | 15°18 | 18°35 | 3°25 | 9°53 | 14°39 | 13°11 | 3°38 | 9°15 | W 4 | |
| T 5 | 7 18 28 | 20°23'09 | 3♁ 6 | 13°31 | 29°43 | 21°42 | 23°25 | 15°22 | 18°39 | 3°24 | 9°54 | 14°41 | 13° 8 | 3°45 | 9°21 | T 5 | |
| F 6 | 7 22 24 | 21°24'10 | 17°29 | 15° 9 | 0♁55 | 22°21 | 23°39 | 15°27 | 18°42 | 3°23 | 9°55 | 14°R41 | 13° 4 | 3°52 | 9°27 | F 6 | |
| S 7 | 7 26 21 | 22°25'10 | 2♁18 | 16°47 | 2° 6 | 23° 0 | 23°53 | 15°31 | 18°46 | 3°22 | 9°57 | 14°40 | 13° 1 | 3°58 | 9°32 | S 7 | |
| S 8 | 7 30 17 | 23°26'09 | 17°25 | 18°27 | 3°18 | 23°39 | 24° 8 | 15°35 | 18°50 | 3°21 | 9°58 | 14°37 | 12°58 | 4° 5 | 9°38 | S 8 | |
| M 9 | 7 34 14 | 24°27'07 | 2♁42 | 20° 7 | 4°30 | 24°18 | 24°22 | 15°39 | 18°53 | 3°20 | 9°59 | 14°32 | 12°55 | 4°12 | 9°44 | M 9 | |
| T 10 | 7 38 11 | 25°28'04 | 17°59 | 21°47 | 5°41 | 24°57 | 24°36 | 15°43 | 18°57 | 3°19 | 10° 0 | 14°26 | 12°52 | 4°19 | 9°50 | T 10 | |
| W11 | 7 42 7 | 26°29'00 | 3♁ 4 | 23°29 | 6°52 | 25°37 | 24°50 | 15°47 | 19° 0 | 3°19 | 10° 1 | 14°19 | 12°49 | 4°25 | 9°55 | W11 | |
| T 12 | 7 46 4 | 27°29'55 | 17°48 | 25°11 | 8° 4 | 26°16 | 25° 5 | 15°50 | 19° 4 | 3°18 | 10° 2 | 14°13 | 12°45 | 4°32 | 10° 1 | T 12 | |
| F 13 | 7 50 0 | 28°30'49 | 2♁ 6 | 26°53 | 9°15 | 26°55 | 25°19 | 15°54 | 19° 7 | 3°17 | 10° 4 | 14° 8 | 12°42 | 4°39 | 10° 6 | F 13 | |
| S 14 | 7 53 57 | 29°31'42 | 15°56 | 28°37 | 10°26 | 27°34 | 25°33 | 15°57 | 19°11 | 3°16 | 10° 5 | 14° 5 | 12°39 | 4°45 | 10°12 | S 14 | |
| S 15 | 7 57 53 | 0♁32'35 | 29°18 | 0♁21 | 11°37 | 28°13 | 25°47 | 16° 1 | 19°14 | 3°15 | 10° 6 | 14°D 4 | 12°36 | 4°52 | 10°17 | S 15 | |
| M16 | 8 1 50 | 1°33'26 | 12♁15 | 2° 6 | 12°47 | 28°52 | 26° 1 | 16° 4 | 19°18 | 3°15 | 10° 7 | 14° 5 | 12°33 | 4°59 | 10°23 | M16 | |
| T 17 | 8 5 46 | 2°34'17 | 24°50 | 3°51 | 13°58 | 29°32 | 26°16 | 16° 8 | 19°21 | 3°14 | 10° 9 | 14° 6 | 12°30 | 5° 5 | 10°28 | T 17 | |
| W18 | 8 9 43 | 3°35'06 | 7♁ 9 | 5°38 | 15° 9 | 0♁11 | 26°30 | 16°11 | 19°24 | 3°13 | 10°10 | 14° 7 | 12°26 | 5°12 | 10°33 | W18 | |
| T 19 | 8 13 40 | 4°35'55 | 19°15 | 7°25 | 16°19 | 0°50 | 26°44 | 16°14 | 19°28 | 3°12 | 10°11 | 14°R 7 | 12°23 | 5°19 | 10°38 | T 19 | |
| F 20 | 8 17 36 | 5°36'42 | 1♁12 | 9°12 | 17°29 | 1°29 | 26°58 | 16°17 | 19°31 | 3°12 | 10°12 | 14° 6 | 12°20 | 5°25 | 10°43 | F 20 | |
| S 21 | 8 21 33 | 6°37'29 | 13° 5 | 11° 0 | 18°40 | 2° 8 | 27°12 | 16°20 | 19°35 | 3°11 | 10°14 | 14° 2 | 12°17 | 5°32 | 10°48 | S 21 | |
| S 22 | 8 25 29 | 7°38'14 | 24°55 | 12°49 | 19°50 | 2°47 | 27°26 | 16°23 | 19°38 | 3°11 | 10°15 | 13°55 | 12°14 | 5°39 | 10°53 | S 22 | |
| M23 | 8 29 26 | 8°38'57 | 6♁45 | 14°38 | 21° 0 | 3°26 | 27°41 | 16°25 | 19°42 | 3°10 | 10°16 | 13°46 | 12°10 | 5°46 | 10°58 | M23 | |
| T 24 | 8 33 22 | 9°39'39 | 18°36 | 16°28 | 22° 9 | 4° 6 | 27°55 | 16°28 | 19°45 | 3°10 | 10°18 | 13°35 | 12° 7 | 5°52 | 11° 3 | T 24 | |
| W25 | 8 37 19 | 10°40'20 | 0♁30 | 18°18 | 23°19 | 4°45 | 28° 9 | 16°30 | 19°48 | 3° 9 | 10°19 | 13°23 | 12° 4 | 5°59 | 11° 8 | W25 | |
| T 26 | 8 41 15 | 11°40'59 | 12°29 | 20° 8 | 24°28 | 5°24 | 28°23 | 16°33 | 19°52 | 3° 9 | 10°21 | 13°12 | 12° 1 | 6° 6 | 11°12 | T 26 | |
| F 27 | 8 45 12 | 12°41'36 | 24°33 | 21°58 | 25°38 | 6° 3 | 28°37 | 16°35 | 19°55 | 3° 8 | 10°22 | 13° 1 | 11°58 | 6°12 | 11°17 | F 27 | |
| S 28 | 8 49 9 | 13°42'11 | 6♁46 | 23°48 | 26°47 | 6°42 | 28°51 | 16°38 | 19°58 | 3° 8 | 10°23 | 12°53 | 11°55 | 6°19 | 11°22 | S 28 | |
| S 29 | 8 53 5 | 14°42'45 | 19°10 | 25°38 | 27°56 | 7°21 | 29° 5 | 16°40 | 20° 2 | 3° 8 | 10°25 | 12°47 | 11°51 | 6°26 | 11°26 | S 29 | |
| M30 | 8 57 2 | 15°43'17 | 1♁48 | 27°27 | 29° 5 | 8° 0 | 29°19 | 16°42 | 20° 5 | 3° 8 | 10°26 | 12°44 | 11°48 | 6°32 | 11°30 | M30 | |
| T 31 | 9 0 58 | 16♁43'47 | 14♁44 | 29♁15 | 0♁13 | 8♁39 | 29♁33 | 16♁44 | 20♁ 8 | 3♁ 7 | 10♁28 | 12°D43 | 11♁45 | 6♁39 | 11♁35 | T 31 | |

Delta T = 19m18s Julian Calendar 1 Jan. 1072 == Greg. Calendar 7 Jan. 1072

FEBRUARY 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|------|-------|------|-----|
| W 1 | 9 4 55 | 17♁44'15 | 28♁ 2 | 1♁ 2 | 1♁22 | 9♁18 | 29♁47 | 16♁46 | 20♁11 | 3°R 7 | 10♁29 | 12♁43 | 11♁42 | 6♁46 | 11♁39 | W 1 | |
| T 2 | 9 8 51 | 18°44'41 | 11♁45 | 2°47 | 2°30 | 9°57 | 0♁ 0 | 16°47 | 20°15 | 3♁ 7 | 10°30 | 12°R44 | 11°39 | 6°53 | 11°43 | T 2 | |
| F 3 | 9 12 48 | 19°45'05 | 25°54 | 4°30 | 3°38 | 10°36 | 0°14 | 16°49 | 20°18 | 3° 7 | 10°32 | 12°43 | 11°36 | 6°59 | 11°47 | F 3 | |
| S 4 | 9 16 44 | 20°45'28 | 10♁29 | 6°10 | 4°46 | 11°15 | 0°28 | 16°51 | 20°21 | 3° 7 | 10°33 | 12°40 | 11°32 | 7° 6 | 11°51 | S 4 | |
| S 5 | 9 20 41 | 21°45'48 | 25°27 | 7°47 | 5°54 | 11°55 | 0°42 | 16°52 | 20°24 | 3° 7 | 10°35 | 12°35 | 11°29 | 7°13 | 11°55 | S 5 | |
| M 6 | 9 24 38 | 22°46'06 | 10♁40 | 9°21 | 7° 1 | 12°34 | 0°56 | 16°53 | 20°27 | 3° 7 | 10°36 | 12°27 | 11°26 | 7°19 | 11°59 | M 6 | |
| T 7 | 9 28 34 | 23°46'23 | 25°59 | 10°50 | 8° 8 | 13°13 | 1° 9 | 16°55 | 20°30 | 3°D 7 | 10°38 | 12°17 | 11°23 | 7°26 | 12° 2 | T 7 | |
| W 8 | 9 32 31 | 24°46'37 | 11♁11 | 12°15 | 9°15 | 13°52 | 1°23 | 16°56 | 20°33 | 3° 7 | 10°39 | 12° 6 | 11°20 | 7°33 | 12° 6 | W 8 | |
| T 9 | 9 36 27 | 25°46'50 | 26° 7 | 13°34 | 10°22 | 14°31 | 1°37 | 16°57 | 20°37 | 3° 7 | 10°41 | 11°56 | 11°16 | 7°39 | 12°10 | T 9 | |
| F 10 | 9 40 24 | 26°47'01 | 10♁38 | 14°47 | 11°29 | 15°10 | 1°50 | 16°58 | 20°40 | 3° 7 | 10°42 | 11°47 | 11°13 | 7°46 | 12°13 | F 10 | |
| S 11 | 9 44 20 | 27°47'11 | 24°39 | 15°54 | 12°35 | 15°49 | 2° 4 | 16°59 | 20°43 | 3° 7 | 10°44 | 11°40 | 11°10 | 7°53 | 12°16 | S 11 | |
| S 12 | 9 48 17 | 28°47'19 | 8♁ 9 | 16°53 | 13°41 | 16°28 | 2°17 | 16°59 | 20°46 | 3° 7 | 10°45 | 11°37 | 11° 7 | 8° 0 | 12°20 | S 12 | |
| M13 | 9 52 13 | 29°47'25 | 21°11 | 17°44 | 14°47 | 17° 6 | 2°31 | 17° 0 | 20°48 | 3° 7 | 10°47 | 11°35 | 11° 4 | 8° 6 | 12°23 | M13 | |
| T 14 | 9 56 10 | 0♁47'30 | 3♁49 | 18°28 | 15°53 | 17°45 | 2°44 | 17° 1 | 20°51 | 3° 7 | 10°48 | 11°D35 | 11° 1 | 8°13 | 12°26 | T 14 | |
| W15 | 10 0 7 | 1°47'33 | 16° 7 | 19° 3 | 16°58 | 18°24 | 2°58 | 17° 1 | 20°54 | 3° 8 | 10°50 | 11°R35 | 10°57 | 8°20 | 12°29 | W15 | |
| T 16 | 10 4 3 | 2°47'34 | 28°10 | 19°29 | 18° 3 | 19° 3 | 3°11 | 17° 2 | 20°57 | 3° 8 | 10°52 | 11°34 | 10°54 | 8°26 | 12°32 | T 16 | |
| F 17 | 10 8 0 | 3°47'34 | 10♁ 4 | 19°46 | 19° 8 | 19°42 | 3°24 | 17° 2 | 21° 0 | 3° 8 | 10°53 | 11°31 | 10°51 | 8°33 | 12°35 | F 17 | |
| S 18 | 10 11 56 | 4°47'32 | 21°53 | 19°R54 | 20°12 | 20°21 | 3°37 | 17° 2 | 21° 3 | 3° 9 | 10°55 | 11°25 | 10°48 | 8°40 | 12°38 | S 18 | |
| S 19 | 10 15 53 | 5°47'28 | 3♁42 | 19°53 | 21°17 | 21° 0 | 3°51 | 17°R 2 | 21° 6 | 3° 9 | 10°56 | 11°17 | 10°45 | 8°46 | 12°40 | S 19 | |
| M20 | 10 19 49 | 6°47'23 | 15°32 | 19°44 | 22°21 | 21°39 | 4° 4 | 17° 2 | 21° 8 | 3°10 | 10°58 | 11° 5 | 10°42 | 8°53 | 12°43 | M20 | |
| T 21 | 10 23 46 | 7°47'15 | 27°27 | 19°26 | 23°24 | 22°18 | 4°17 | 17° 2 | 21°11 | 3°10 | 10°59 | 10°52 | 10°38 | 9° 0 | 12°45 | T 21 | |
| W22 | 10 27 42 | 8°47'05 | 9♁28 | 19° 0 | 24°28 | 22°56 | 4°30 | 17° 1 | 21°14 | 3°10 | 11° 1 | 10°37 | 10°35 | 9° 7 | 12°48 | W22 | |
| T 23 | 10 31 39 | 9°46'54 | 21°36 | 18°27 | 25°31 | 23°35 | 4°43 | 17° 1 | 21°16 | 3°11 | 11° 2 | 10°23 | 10°32 | 9°13 | 12°50 | T 23 | |
| F 24 | 10 35 36 | 10°46'40 | 3♁51 | 17°47 | 26°34 | 24°14 | 4°56 | 17° 1 | 21°19 | 3°12 | 11° 4 | 10° 9 | 10°29 | 9°20 | 12°52 | F 24 | |
| S 25 | 10 39 32 | 11°46'24 | 16°16 | 17° 2 | 27°36 | 24°53 | 5° 8 | 17° 0 | 21°21 | 3°12 | 11° 5 | 9°58 | 10°26 | 9°27 | 12°54 | S 25 | |
| S 26 | 10 43 29 | 12°46'06 | 28°50 | 16°13 | 28°38 | 25°31 | 5°21 | 16°59 | 21°24 | 3°13 | 11° 7 | 9°51 | 10°22 | 9°33 | 12°56 | S 26 | |
| M27 | 10 47 25 | 13°45'46 | 11♁36 | 15°21 | 29°40 | 26°10 | 5°34 | 16°59 | 21°26 | 3°14 | 11° 9 | 9°46 | 10°19 | 9°40 | 12°58 | M27 | |
| T 28 | 10 51 22 | 14°45'23 | 24°36 | 14°26 | 0♁41 | 26°49 | 5°46 | 16°58 | 21°29 | 3°14 | 11°10 | 9°43 | 10°16 | 9°47 | 13° 0 | T 28 | |
| W29 | 10 55 18 | 15♁44'58 | 7♁53 | 13♁31 | 1♁42 | 27♁27 | 5♁59 | 16♁57 | 21♁31 | 3♁15 | 11♁12 | 9♁43 | 10♁13 | 9♁53 | 13♁ 2 | W29 | |

Delta T = 19m18s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1072
geocentric

MARCH 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|------------|-----------|--------|--------|--------|--------|---------|--------|--------|--------|--------|---------|--------|--------|------|
| T 1 | 10 59 15 | 16°44'31" | 21°11'28" | 12°R36 | 2°R42 | 28°♂ 6 | 6°♁11 | 16°R56 | 21°♁34 | 3°II16 | 11°K13 | 9°R43 | 10°II10 | 10°≈ 0 | 13°♂ 3 | T 1 |
| F 2 | 11 3 11 | 17°44'01" | 5°♁25 | 11°K43 | 3°42 | 28°45 | 6°24 | 16°II55 | 21°36 | 3°17 | 11°15 | 9°II42 | 10° 7 | 10° 7 | 13° 5 | F 2 |
| S 3 | 11 7 8 | 18°43'29" | 19°44 | 10°52 | 4°42 | 29°23 | 6°36 | 16°53 | 21°38 | 3°17 | 11°16 | 9°39 | 10° 3 | 10°14 | 13° 6 | S 3 |
| S 4 | 11 11 5 | 19°42'55" | 4°♁23 | 10° 4 | 5°41 | 0°♁ 2 | 6°48 | 16°52 | 21°41 | 3°18 | 11°18 | 9°34 | 10° 0 | 10°20 | 13° 8 | S 4 |
| M 5 | 11 15 1 | 20°42'18" | 19°16 | 9°21 | 6°40 | 0°40 | 7° 1 | 16°51 | 21°43 | 3°19 | 11°19 | 9°26 | 9°57 | 10°27 | 13° 9 | M 5 |
| T 6 | 11 18 58 | 21°41'39" | 4°♁18 | 8°42 | 7°38 | 1°19 | 7°13 | 16°49 | 21°45 | 3°20 | 11°21 | 9°16 | 9°54 | 10°34 | 13°10 | T 6 |
| W 7 | 11 22 54 | 22°40'58" | 19°19 | 8° 8 | 8°36 | 1°57 | 7°25 | 16°47 | 21°47 | 3°21 | 11°22 | 9° 5 | 9°51 | 10°40 | 13°11 | W 7 |
| T 8 | 11 26 51 | 23°40'14" | 4°♁ 8 | 7°40 | 9°33 | 2°36 | 7°37 | 16°46 | 21°49 | 3°22 | 11°24 | 8°54 | 9°47 | 10°47 | 13°12 | T 8 |
| F 9 | 11 30 47 | 24°39'29" | 18°37 | 7°17 | 10°30 | 3°14 | 7°49 | 16°44 | 21°51 | 3°23 | 11°25 | 8°45 | 9°44 | 10°54 | 13°13 | F 9 |
| S 10 | 11 34 44 | 25°38'41" | 2°II41 | 7° 0 | 11°26 | 3°52 | 8° 1 | 16°42 | 21°53 | 3°24 | 11°27 | 8°38 | 9°41 | 11° 1 | 13°14 | S 10 |
| S 11 | 11 38 40 | 26°37'52" | 16°16 | 6°49 | 12°22 | 4°31 | 8°12 | 16°40 | 21°55 | 3°25 | 11°28 | 8°33 | 9°38 | 11° 7 | 13°15 | S 11 |
| M12 | 11 42 37 | 27°37'01" | 29°24 | 6°D44 | 13°17 | 5° 9 | 8°24 | 16°38 | 21°57 | 3°26 | 11°30 | 8°31 | 9°35 | 11°14 | 13°15 | M12 |
| T 13 | 11 46 33 | 28°36'08" | 12°♂ 7 | 6°45 | 14°11 | 5°47 | 8°35 | 16°36 | 21°59 | 3°27 | 11°31 | 8°D31 | 9°32 | 11°21 | 13°16 | T 13 |
| W14 | 11 50 30 | 29°35'13" | 24°28 | 6°51 | 15° 5 | 6°25 | 8°47 | 16°34 | 22° 1 | 3°29 | 11°33 | 8°R31 | 9°28 | 11°27 | 13°16 | W14 |
| T 15 | 11 54 27 | 0°Y34'17" | 6°♁34 | 7° 2 | 15°58 | 7° 4 | 8°58 | 16°31 | 22° 3 | 3°30 | 11°34 | 8°31 | 9°25 | 11°34 | 13°16 | T 15 |
| F 16 | 11 58 23 | 1°33'18" | 18°30 | 7°18 | 16°51 | 7°42 | 9°10 | 16°29 | 22° 5 | 3°31 | 11°36 | 8°30 | 9°22 | 11°41 | 13°16 | F 16 |
| S 17 | 12 2 20 | 2°32'18" | 0°≈21 | 7°39 | 17°43 | 8°20 | 9°21 | 16°26 | 22° 6 | 3°32 | 11°37 | 8°26 | 9°19 | 11°47 | 13°R17 | S 17 |
| S 18 | 12 6 16 | 3°31'16" | 12°10 | 8° 5 | 18°34 | 8°58 | 9°32 | 16°24 | 22° 8 | 3°34 | 11°39 | 8°20 | 9°16 | 11°54 | 13°17 | S 18 |
| M19 | 12 10 13 | 4°30'12" | 24° 4 | 8°35 | 19°25 | 9°36 | 9°43 | 16°21 | 22°10 | 3°35 | 11°40 | 8°11 | 9°13 | 12° 1 | 13°16 | M19 |
| T 20 | 12 14 9 | 5°29'06" | 6°K 3 | 9°10 | 20°14 | 10°14 | 9°54 | 16°18 | 22°11 | 3°36 | 11°42 | 8° 1 | 9° 9 | 12° 8 | 13°16 | T 20 |
| W21 | 12 18 6 | 6°27'58" | 18°12 | 9°48 | 21° 3 | 10°52 | 10° 5 | 16°15 | 22°13 | 3°38 | 11°43 | 7°49 | 9° 6 | 12°14 | 13°16 | W21 |
| T 22 | 12 22 2 | 7°26'48" | 0°Y31 | 10°30 | 21°52 | 11°30 | 10°15 | 16°12 | 22°14 | 3°39 | 11°45 | 7°38 | 9° 3 | 12°21 | 13°16 | T 22 |
| F 23 | 12 25 59 | 8°25'36" | 13° 0 | 11°16 | 22°39 | 12° 8 | 10°26 | 16° 9 | 22°16 | 3°40 | 11°46 | 7°27 | 9° 0 | 12°28 | 13°15 | F 23 |
| S 24 | 12 29 56 | 9°24'22" | 25°41 | 12° 5 | 23°25 | 12°45 | 10°37 | 16° 6 | 22°17 | 3°42 | 11°47 | 7°19 | 8°57 | 12°34 | 13°14 | S 24 |
| S 25 | 12 33 52 | 10°23'06" | 8°K33 | 12°58 | 24°11 | 13°23 | 10°47 | 16° 3 | 22°18 | 3°43 | 11°49 | 7°13 | 8°53 | 12°41 | 13°14 | S 25 |
| M26 | 12 37 49 | 11°21'48" | 11°21'48" | 13°53 | 24°55 | 14° 1 | 10°57 | 16° 0 | 22°20 | 3°45 | 11°50 | 7° 9 | 8°50 | 12°48 | 13°13 | M26 |
| T 27 | 12 41 45 | 12°20'28" | 4°II52 | 14°52 | 25°39 | 14°38 | 11° 8 | 15°57 | 22°21 | 3°46 | 11°52 | 7°D 8 | 8°47 | 12°55 | 13°12 | T 27 |
| W28 | 12 45 42 | 13°19'06" | 18°20 | 15°53 | 26°22 | 15°16 | 11°18 | 15°53 | 22°22 | 3°48 | 11°53 | 7° 8 | 8°44 | 13° 1 | 13°11 | W28 |
| T 29 | 12 49 38 | 14°17'41" | 2°♁ 0 | 16°57 | 27° 3 | 15°53 | 11°28 | 15°50 | 22°23 | 3°49 | 11°54 | 7° 9 | 8°41 | 13° 8 | 13°10 | T 29 |
| F 30 | 12 53 35 | 15°16'14" | 15°55 | 18° 4 | 27°44 | 16°31 | 11°37 | 15°47 | 22°24 | 3°51 | 11°56 | 7°R10 | 8°38 | 13°15 | 13° 9 | F 30 |
| S 31 | 12 57 31 | 16°Y14'45" | 0°II 4 | 19°K13 | 28°R23 | 17°♁ 8 | 11°≈47 | 15°II43 | 22°R25 | 3°II53 | 11°K57 | 7°II 9 | 8°II34 | 13°≈21 | 13°♂ 8 | S 31 |

Delta T = 19m17s Julian Calendar 1 March 1072 == Greg. Calendar 7 March 1072

APRIL 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|------------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|------|
| S 1 | 13 1 28 | 17°Y13'13" | 14°II26 | 20°K25 | 29°R 1 | 17°♁45 | 11°≈57 | 15°R39 | 22°♁26 | 3°II54 | 11°K58 | 7°R 6 | 8°II31 | 13°≈28 | 13°R 6 | S 1 |
| M 2 | 13 5 25 | 18°11'40" | 28°57 | 21°39 | 29°38 | 18°23 | 12° 6 | 15°II36 | 22°27 | 3°56 | 12° 0 | 7°II 1 | 8°28 | 13°35 | 13°♂ 5 | M 2 |
| T 3 | 13 9 21 | 19°10'04" | 13°II33 | 22°55 | 0°II14 | 19° 0 | 12°16 | 15°32 | 22°28 | 3°58 | 12° 1 | 6°55 | 8°25 | 13°42 | 13° 4 | T 3 |
| W 4 | 13 13 18 | 20° 8'26" | 28° 8 | 24°13 | 0°48 | 19°37 | 12°25 | 15°28 | 22°29 | 3°59 | 12° 2 | 6°48 | 8°22 | 13°48 | 13° 2 | W 4 |
| T 5 | 13 17 14 | 21° 6'45" | 12°♁35 | 25°33 | 1°21 | 20°14 | 12°34 | 15°24 | 22°30 | 4° 1 | 12° 3 | 6°41 | 8°19 | 13°55 | 13° 0 | T 5 |
| F 6 | 13 21 11 | 22° 5'03" | 26°47 | 26°56 | 1°52 | 20°51 | 12°43 | 15°21 | 22°31 | 4° 3 | 12° 5 | 6°34 | 8°15 | 14° 2 | 12°59 | F 6 |
| S 7 | 13 25 7 | 23° 3'20" | 10°II40 | 28°20 | 2°22 | 21°28 | 12°52 | 15°17 | 22°31 | 4° 5 | 12° 6 | 6°30 | 8°12 | 14° 8 | 12°57 | S 7 |
| S 8 | 13 29 4 | 24° 1'34" | 24° 9 | 29°47 | 2°50 | 22° 4 | 13° 1 | 15°13 | 22°32 | 4° 6 | 12° 7 | 6°27 | 8° 9 | 14°15 | 12°55 | S 8 |
| M 9 | 13 33 0 | 24°59'47" | 7°K16 | 1°Y16 | 3°17 | 22°41 | 13°10 | 15° 9 | 22°33 | 4° 8 | 12° 8 | 6°D27 | 8° 6 | 14°22 | 12°53 | M 9 |
| T 10 | 13 36 57 | 25°57'58" | 20° 0 | 2°46 | 3°42 | 23°18 | 13°18 | 15° 5 | 22°33 | 4°10 | 12° 9 | 6°27 | 8° 3 | 14°28 | 12°51 | T 10 |
| W11 | 13 40 54 | 26°56'08" | 2°♁34 | 4°18 | 4° 6 | 23°54 | 13°27 | 15° 0 | 22°34 | 4°12 | 12°11 | 6°29 | 7°59 | 14°35 | 12°49 | W11 |
| T 12 | 13 44 50 | 27°54'16" | 14°33 | 5°53 | 4°27 | 24°31 | 13°35 | 14°56 | 22°34 | 4°14 | 12°12 | 6°30 | 7°56 | 14°42 | 12°46 | T 12 |
| F 13 | 13 48 47 | 28°52'23" | 26°32 | 7°29 | 4°47 | 25° 7 | 13°43 | 14°52 | 22°35 | 4°16 | 12°13 | 6°R31 | 7°53 | 14°49 | 12°44 | F 13 |
| S 14 | 13 52 43 | 29°50'28" | 8°≈25 | 9° 7 | 5° 5 | 25°43 | 13°51 | 14°48 | 22°35 | 4°18 | 12°14 | 6°31 | 7°50 | 14°55 | 12°42 | S 14 |
| S 15 | 13 56 40 | 0°K48'32" | 20°17 | 10°47 | 5°21 | 26°19 | 13°59 | 14°44 | 22°35 | 4°19 | 12°15 | 6°29 | 7°47 | 15° 2 | 12°39 | S 15 |
| M16 | 14 0 36 | 1°46'34" | 2°K13 | 12°29 | 5°35 | 26°56 | 14° 7 | 14°39 | 22°36 | 4°21 | 12°16 | 6°25 | 7°44 | 15° 9 | 12°37 | M16 |
| T 17 | 14 4 33 | 2°44'35" | 14°17 | 14°13 | 5°47 | 27°32 | 14°14 | 14°35 | 22°36 | 4°23 | 12°17 | 6°21 | 7°40 | 15°15 | 12°34 | T 17 |
| W18 | 14 8 29 | 3°42'34" | 26°31 | 15°59 | 5°57 | 28° 7 | 14°22 | 14°31 | 22°36 | 4°25 | 12°18 | 6°15 | 7°37 | 15°22 | 12°31 | W18 |
| T 19 | 14 12 26 | 4°40'32" | 8°Y59 | 17°46 | 6° 4 | 28°43 | 14°29 | 14°26 | 22°36 | 4°27 | 12°19 | 6°10 | 7°34 | 15°29 | 12°29 | T 19 |
| F 20 | 14 16 22 | 5°38'28" | 21°42 | 19°36 | 6°10 | 29°19 | 14°36 | 14°22 | 22°36 | 4°29 | 12°20 | 6° 5 | 7°31 | 15°36 | 12°26 | F 20 |
| S 21 | 14 20 19 | 6°36'23" | 4°K41 | 21°27 | 6°13 | 29°54 | 14°43 | 14°18 | 22°R36 | 4°31 | 12°22 | 6° 1 | 7°28 | 15°42 | 12°23 | S 21 |
| S 22 | 14 24 16 | 7°34'16" | 17°54 | 23°21 | 6°R14 | 0°≈30 | 14°50 | 14°13 | 22°36 | 4°33 | 12°22 | 5°58 | 7°24 | 15°49 | 12°20 | S 22 |
| M23 | 14 28 12 | 8°32'08" | 1°II20 | 25°16 | 6°12 | 1° 5 | 14°57 | 14° 9 | 22°36 | 4°35 | 12°23 | 5°D57 | 7°21 | 15°56 | 12°17 | M23 |
| T 24 | 14 32 9 | 9°29'58" | 14°59 | 27°13 | 6° 8 | 1°40 | 15° 3 | 14° 4 | 22°36 | 4°37 | 12°24 | 5°57 | 7°18 | 16° 2 | 12°14 | T 24 |
| W25 | 14 36 5 | 10°27'47" | 28°49 | 29°12 | 6° 2 | 2°15 | 15° 9 | 14° 0 | 22°36 | 4°40 | 12°25 | 5°59 | 7°15 | 16° 9 | 12°11 | W25 |
| T 26 | 14 40 2 | 11°25'34" | 12°♁47 | 1°K13 | 5°53 | 2°50 | 15°16 | 13°55 | 22°36 | 4°42 | 12°26 | 6° 0 | 7°12 | 16°16 | 12° 7 | T 26 |
| F 27 | 14 43 58 | 12°23'19" | 26°52 | 3°15 | 5°42 | 3°25 | 15°22 | 13°51 | 22°35 | 4°44 | 12°27 | 6° 1 | 7° 9 | 16°23 | 12° 4 | F 27 |
| S 28 | 14 47 55 | 13°21'02" | 11°II 3 | 5°20 | 5°28 | 3°59 | 15°28 | 13°46 | 22°35 | 4°46 | 12°28 | 6°R 2 | 7° 5 | 16°29 | 12° 1 | S 28 |
| S 29 | 14 51 52 | 14°18'44" | 25°17 | 7°25 | 5°12 | 4°34 | 15°33 | 13°42 | 22°35 | 4°48 | 12°29 | 6° 1 | 7° 2 | 16°36 | 11°57 | S 29 |
| M30 | 14 55 48 | 15°K16'24" | 9°II32 | 9°K32 | 4°II53 | 5°≈ 8 | 15°≈39 | 13°II38 | 22°K34 | 4°II50 | 12°K30 | 6°II 0 | 6°II59 | 16°≈43 | 11°♂54 | M30 |

Delta T = 19m17s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1072
geocentric

MAY 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | Day |
|------|----------|------------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|------|-----|
| T 1 | 14 59 45 | 16♁14'02 | 23♎44 | 11♁41 | 4♁R33 | 5♁42 | 15♁44 | 13°R33 | 22°R34 | 4♁II52 | 12♁K31 | 5°R58 | 6♁II56 | 16♁49 | 11°R50 | T 1 | |
| W 2 | 15 3 41 | 17°11'39 | 7♁♁52 | 13°50 | 4♁II10 | 6°16 | 15°50 | 13♁L29 | 22♁Z33 | 4°54 | 12°31 | 5♁II56 | 6°53 | 16°56 | 11♁A47 | W 2 | |
| T 3 | 15 7 38 | 18° 9'14 | 21°50 | 16° 1 | 3°44 | 6°50 | 15°55 | 13°24 | 22°33 | 4°57 | 12°32 | 5°53 | 6°50 | 17° 3 | 11°43 | T 3 | |
| F 4 | 15 11 34 | 19° 6'48 | 5♁L36 | 18°12 | 3°17 | 7°23 | 16° 0 | 13°20 | 22°32 | 4°59 | 12°33 | 5°51 | 6°46 | 17°10 | 11°40 | F 4 | |
| S 5 | 15 15 31 | 20° 4'20 | 19° 7 | 20°23 | 2°48 | 7°57 | 16° 5 | 13°15 | 22°31 | 5° 1 | 12°34 | 5°50 | 6°43 | 17°16 | 11°36 | S 5 | |
| S 6 | 15 19 27 | 21° 1'52 | 2♁A20 | 22°35 | 2°17 | 8°30 | 16° 9 | 13°11 | 22°31 | 5° 3 | 12°34 | 5°D49 | 6°40 | 17°23 | 11°32 | S 6 | |
| M 7 | 15 23 24 | 21°59'22 | 15°16 | 24°47 | 1°45 | 9° 3 | 16°14 | 13° 7 | 22°30 | 5° 5 | 12°35 | 5°49 | 6°37 | 17°30 | 11°28 | M 7 | |
| T 8 | 15 27 20 | 22°56'52 | 27°54 | 26°58 | 1°11 | 9°36 | 16°18 | 13° 2 | 22°29 | 5° 7 | 12°36 | 5°50 | 6°34 | 17°36 | 11°25 | T 8 | |
| W 9 | 15 31 17 | 23°54'20 | 10♁Z16 | 29° 9 | 0°36 | 10° 9 | 16°22 | 12°58 | 22°28 | 5°10 | 12°36 | 5°51 | 6°30 | 17°43 | 11°21 | W 9 | |
| T 10 | 15 35 14 | 24°51'47 | 22°25 | 1♁II18 | 29♁Z59 | 10°42 | 16°26 | 12°53 | 22°27 | 5°12 | 12°37 | 5°52 | 6°27 | 17°50 | 11°17 | T 10 | |
| F 11 | 15 39 10 | 25°49'14 | 4♁A25 | 3°27 | 29°23 | 11°14 | 16°29 | 12°49 | 22°26 | 5°14 | 12°38 | 5°53 | 6°24 | 17°57 | 11°13 | F 11 | |
| S 12 | 15 43 7 | 26°46'40 | 16°19 | 5°34 | 28°45 | 11°46 | 16°33 | 12°45 | 22°25 | 5°16 | 12°38 | 5°54 | 6°21 | 18° 3 | 11° 9 | S 12 | |
| S 13 | 15 47 3 | 27°44'05 | 28°13 | 7°40 | 28° 7 | 12°18 | 16°36 | 12°41 | 22°24 | 5°18 | 12°39 | 5°R54 | 6°18 | 18°10 | 11° 5 | S 13 | |
| M14 | 15 51 0 | 28°41'29 | 10♁K10 | 9°43 | 27°30 | 12°50 | 16°40 | 12°36 | 22°23 | 5°21 | 12°39 | 5°54 | 6°15 | 18°17 | 11° 1 | M14 | |
| T 15 | 15 54 56 | 29°38'53 | 22°14 | 11°45 | 26°52 | 13°21 | 16°43 | 12°32 | 22°22 | 5°23 | 12°40 | 5°53 | 6°11 | 18°23 | 10°57 | T 15 | |
| W16 | 15 58 53 | 0♁II36'15 | 4♁V32 | 13°45 | 26°15 | 13°53 | 16°45 | 12°28 | 22°21 | 5°25 | 12°40 | 5°53 | 6° 8 | 18°30 | 10°53 | W16 | |
| T 17 | 16 2 49 | 1°33'37 | 17° 5 | 15°43 | 25°39 | 14°24 | 16°48 | 12°24 | 22°20 | 5°27 | 12°41 | 5°52 | 6° 5 | 18°37 | 10°49 | T 17 | |
| F 18 | 16 6 46 | 2°30'59 | 29°56 | 17°38 | 25° 3 | 14°55 | 16°51 | 12°20 | 22°19 | 5°30 | 12°41 | 5°52 | 6° 2 | 18°44 | 10°45 | F 18 | |
| S 19 | 16 10 43 | 3°28'20 | 13♁Z 8 | 19°31 | 24°29 | 15°25 | 16°53 | 12°16 | 22°17 | 5°32 | 12°42 | 5°51 | 5°59 | 18°50 | 10°41 | S 19 | |
| S 20 | 16 14 39 | 4°25'40 | 26°39 | 21°21 | 23°56 | 15°55 | 16°55 | 12°12 | 22°16 | 5°34 | 12°42 | 5°51 | 5°56 | 18°57 | 10°37 | S 20 | |
| M21 | 16 18 36 | 5°23'00 | 10♁II28 | 23° 9 | 23°24 | 16°25 | 16°57 | 12° 8 | 22°15 | 5°36 | 12°43 | 5°51 | 5°52 | 19° 4 | 10°33 | M21 | |
| T 22 | 16 22 32 | 6°20'19 | 24°33 | 24°55 | 22°54 | 16°55 | 16°58 | 12° 4 | 22°13 | 5°39 | 12°43 | 5°51 | 5°49 | 19°11 | 10°29 | T 22 | |
| W23 | 16 26 29 | 7°17'37 | 8♁Z50 | 26°38 | 22°26 | 17°25 | 17° 0 | 12° 0 | 22°12 | 5°41 | 12°43 | 5°51 | 5°46 | 19°17 | 10°24 | W23 | |
| T 24 | 16 30 25 | 8°14'54 | 23°13 | 28°19 | 22° 0 | 17°54 | 17° 1 | 11°56 | 22°10 | 5°43 | 12°44 | 5°51 | 5°43 | 19°24 | 10°20 | T 24 | |
| F 25 | 16 34 22 | 9°12'11 | 7♁L39 | 29°57 | 21°36 | 18°23 | 17° 2 | 11°53 | 22° 9 | 5°45 | 12°44 | 5°51 | 5°40 | 19°31 | 10°16 | F 25 | |
| S 26 | 16 38 19 | 10° 9'26 | 22° 3 | 1♁Z32 | 21°14 | 18°51 | 17° 3 | 11°49 | 22° 7 | 5°48 | 12°44 | 5°50 | 5°36 | 19°37 | 10°12 | S 26 | |
| S 27 | 16 42 15 | 11° 6'40 | 6♁L20 | 3° 5 | 20°54 | 19°19 | 17° 4 | 11°45 | 22° 6 | 5°50 | 12°44 | 5°D50 | 5°33 | 19°44 | 10° 8 | S 27 | |
| M28 | 16 46 12 | 12° 3'54 | 20°29 | 4°35 | 20°37 | 19°47 | 17° 5 | 11°42 | 22° 4 | 5°52 | 12°45 | 5°50 | 5°30 | 19°51 | 10° 4 | M28 | |
| T 29 | 16 50 8 | 13° 1'07 | 4♁L26 | 6° 3 | 20°22 | 20°15 | 17° 5 | 11°38 | 22° 2 | 5°54 | 12°45 | 5°51 | 5°27 | 19°58 | 10° 0 | T 29 | |
| W30 | 16 54 5 | 13°58'19 | 18°12 | 7°27 | 20° 9 | 20°42 | 17°R 5 | 11°35 | 22° 1 | 5°57 | 12°45 | 5°51 | 5°24 | 20° 4 | 9°56 | W30 | |
| T 31 | 16 58 1 | 14♁II55'30 | 1♁L45 | 8♁Z50 | 19♁Z59 | 21°A 9 | 17°A 5 | 11♁L32 | 21♁Z59 | 5♁II59 | 12♁K45 | 5♁II52 | 5♁II21 | 20°A11 | 9°A51 | T 31 | |

Delta T = 19m17s Julian Calendar 1 May 1072 == Greg. Calendar 7 May 1072

JUNE 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | Day |
|------|----------|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|------|-----|
| F 1 | 17 1 58 | 15♁II22'41 | 15♁L 5 | 10♁Z 9 | 19°R51 | 21°A36 | 17°R 5 | 11°R28 | 21°R57 | 6♁II 1 | 12♁K45 | 5♁II53 | 5♁II17 | 20°A18 | 9°R47 | F 1 | |
| S 2 | 17 5 54 | 16°49'51 | 28°11 | 11°26 | 19♁Z45 | 22° 2 | 17°A 5 | 11♁L25 | 21♁Z55 | 6° 3 | 12°45 | 5°53 | 5°14 | 20°24 | 9°A43 | S 2 | |
| S 3 | 17 9 51 | 17°47'01 | 11♁A 3 | 12°40 | 19°42 | 22°28 | 17° 4 | 11°22 | 21°54 | 6° 5 | 12°46 | 5°R53 | 5°11 | 20°31 | 9°39 | S 3 | |
| M 4 | 17 13 48 | 18°44'11 | 23°43 | 13°51 | 19°D41 | 22°53 | 17° 3 | 11°19 | 21°52 | 6° 8 | 12°46 | 5°53 | 5° 8 | 20°38 | 9°35 | M 4 | |
| T 5 | 17 17 44 | 19°41'20 | 6♁Z 9 | 14°59 | 19°43 | 23°18 | 17° 2 | 11°16 | 21°50 | 6°10 | 12°46 | 5°52 | 5° 5 | 20°45 | 9°31 | T 5 | |
| W 6 | 17 21 41 | 20°38'29 | 18°25 | 16° 4 | 19°46 | 23°43 | 17° 1 | 11°13 | 21°48 | 6°12 | 12°46 | 5°50 | 5° 2 | 20°51 | 9°27 | W 6 | |
| T 7 | 17 25 37 | 21°35'38 | 0♁A30 | 17° 6 | 19°52 | 24° 7 | 17° 0 | 11°10 | 21°46 | 6°14 | 12°R46 | 5°47 | 4°58 | 20°58 | 9°23 | T 7 | |
| F 8 | 17 29 34 | 22°32'47 | 12°28 | 18° 5 | 20° 1 | 24°31 | 16°58 | 11° 7 | 21°44 | 6°16 | 12°46 | 5°45 | 4°55 | 21° 5 | 9°19 | F 8 | |
| S 9 | 17 33 30 | 23°29'56 | 24°22 | 19° 0 | 20°11 | 24°55 | 16°56 | 11° 5 | 21°42 | 6°18 | 12°46 | 5°43 | 4°52 | 21°11 | 9°15 | S 9 | |
| S 10 | 17 37 27 | 24°27'05 | 6♁K15 | 19°52 | 20°23 | 25°18 | 16°54 | 11° 2 | 21°40 | 6°21 | 12°46 | 5°41 | 4°49 | 21°18 | 9°11 | S 10 | |
| M11 | 17 41 23 | 25°24'15 | 18°11 | 20°41 | 20°38 | 25°40 | 16°52 | 10°59 | 21°38 | 6°23 | 12°45 | 5°40 | 4°46 | 21°25 | 9° 8 | M11 | |
| T 12 | 17 45 20 | 26°21'24 | 0♁V14 | 21°26 | 20°54 | 26° 2 | 16°50 | 10°57 | 21°36 | 6°25 | 12°45 | 5°D40 | 4°42 | 21°32 | 9° 4 | T 12 | |
| W13 | 17 49 17 | 27°18'34 | 12°30 | 22° 7 | 21°12 | 26°24 | 16°47 | 10°54 | 21°34 | 6°27 | 12°45 | 5°41 | 4°39 | 21°38 | 9° 0 | W13 | |
| T 14 | 17 53 13 | 28°15'43 | 25° 3 | 22°45 | 21°33 | 26°45 | 16°45 | 10°52 | 21°32 | 6°29 | 12°45 | 5°42 | 4°36 | 21°45 | 8°56 | T 14 | |
| F 15 | 17 57 10 | 29°12'54 | 7♁Z56 | 23°18 | 21°54 | 27° 5 | 16°42 | 10°50 | 21°30 | 6°31 | 12°45 | 5°43 | 4°33 | 21°52 | 8°52 | F 15 | |
| S 16 | 18 1 6 | 0♁II10'04 | 21°13 | 23°47 | 22°18 | 27°25 | 16°39 | 10°48 | 21°27 | 6°33 | 12°45 | 5°45 | 4°30 | 21°59 | 8°49 | S 16 | |
| S 17 | 18 5 3 | 1° 7'15 | 4♁II54 | 24°12 | 22°43 | 27°45 | 16°36 | 10°46 | 21°25 | 6°35 | 12°44 | 5°R45 | 4°27 | 22° 5 | 8°45 | S 17 | |
| M18 | 18 8 59 | 2° 4'27 | 18°59 | 24°33 | 23°10 | 28° 4 | 16°32 | 10°44 | 21°23 | 6°38 | 12°44 | 5°45 | 4°23 | 22°12 | 8°42 | M18 | |
| T 19 | 18 12 56 | 3° 1'38 | 3♁Z25 | 24°50 | 23°38 | 28°22 | 16°29 | 10°42 | 21°21 | 6°40 | 12°44 | 5°43 | 4°20 | 22°19 | 8°38 | T 19 | |
| W20 | 18 16 52 | 3°58'50 | 18° 7 | 25° 1 | 24° 8 | 28°40 | 16°25 | 10°40 | 21°18 | 6°42 | 12°44 | 5°40 | 4°17 | 22°25 | 8°35 | W20 | |
| T 21 | 18 20 49 | 4°56'02 | 2♁L57 | 25° 8 | 24°40 | 28°57 | 16°21 | 10°38 | 21°16 | 6°44 | 12°43 | 5°36 | 4°14 | 22°32 | 8°31 | T 21 | |
| F 22 | 18 24 46 | 5°53'14 | 17°48 | 25°R10 | 25°12 | 29°14 | 16°17 | 10°37 | 21°14 | 6°46 | 12°43 | 5°32 | 4°11 | 22°39 | 8°28 | F 22 | |
| S 23 | 18 28 42 | 6°50'26 | 2♁L31 | 25° 8 | 25°46 | 29°30 | 16°13 | 10°35 | 21°12 | 6°48 | 12°43 | 5°28 | 4° 8 | 22°46 | 8°24 | S 23 | |
| S 24 | 18 32 39 | 7°47'38 | 17° 1 | 25° 1 | 26°21 | 29°45 | 16° 8 | 10°34 | 21° 9 | 6°50 | 12°42 | 5°25 | 4° 4 | 22°52 | 8°21 | S 24 | |
| M25 | 18 36 35 | 8°44'50 | 1♁L14 | 24°49 | 26°58 | 0♁K 0 | 16° 3 | 10°32 | 21° 7 | 6°52 | 12°42 | 5°24 | 4° 1 | 22°59 | 8°18 | M25 | |
| T 26 | 18 40 32 | 9°42'02 | 15° 7 | 24°32 | 27°35 | 0°14 | 15°59 | 10°31 | 21° 5 | 6°54 | 12°41 | 5°D24 | 3°58 | 23° 6 | 8°15 | T 26 | |
| W27 | 18 44 28 | 10°39'15 | 28°41 | 24°11 | 28°14 | 0°28 | 15°54 | 10°30 | 21° 2 | 6°56 | 12°41 | 5°25 | 3°55 | 23°12 | 8°12 | W27 | |
| T 28 | 18 48 25 | 11°36'27 | 11♁L57 | 23°45 | 28°54 | 0°41 | 15°49 | 10°29 | 21° 0 | 6°57 | 12°41 | 5°26 | 3°52 | 23°19 | 8° 9 | T 28 | |
| F 29 | 18 52 22 | 12°33'40 | 24°56 | 23°16 | 29°34 | 0°53 | 15°43 | 10°28 | 20°58 | 6°59 | 12°40 | 5°28 | 3°48 | 23°26 | 8° 6 | F 29 | |
| S 30 | 18 56 18 | 13♁Z30'53 | 7♁A42 | 22°Z43 | 0♁II16 | 1°K 4 | 15°A38 | 10♁L27 | 20♁Z55 | 7♁II 1 | 12♁K40 | 5°R28 | 3♁II45 | 23°A33 | 8°A 3 | S 30 | |

Delta T = 19m16s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1072
geocentric

JULY 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|---------------------|---------------------|---------------------|-------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------------------|------|---|-----|
| S 1 | 19 0 15 | 14 ²⁸ 07 | 20 ¹⁵ 15 | 22 ^R 6 | 0 ^{II} 59 | 1 ^H 15 | 15 ^R 32 | 10 ^R 26 | 20 ^R 53 | 7 ^{II} 3 | 12 ^R 39 | 5 ^R 27 | 3 ^{II} 42 | 23 ³³ 39 | 8 ^R 0 | S 1 | | |
| M 2 | 19 4 11 | 15 ²⁵ 21 | 2 ³ 38 | 21 ²⁸ 28 | 1 ⁴ 43 | 1 ²⁵ | 15 ²⁷ | 10 ^{II} 26 | 20 ³ 51 | 7 ⁵ | 12 ^H 38 | 5 ^{II} 24 | 3 ³⁹ | 23 ⁴⁶ | 7 ⁵⁷ | M 2 | | |
| T 3 | 19 8 8 | 16 ²² 36 | 14 ⁵² | 20 ⁴⁷ | 2 ²⁷ | 1 ³⁵ | 15 ²¹ | 10 ²⁵ | 20 ⁴⁸ | 7 ⁷ | 12 ³⁸ | 5 ¹⁹ | 3 ³⁶ | 23 ⁵³ | 7 ⁵⁴ | T 3 | | |
| W 4 | 19 12 4 | 17 ¹⁹ 52 | 26 ⁵⁸ | 20 ⁵ | 3 ¹³ | 1 ⁴³ | 15 ¹⁵ | 10 ²⁴ | 20 ⁴⁶ | 7 ⁹ | 12 ³⁷ | 5 ¹³ | 3 ³³ | 24 ⁰ | 7 ⁵² | W 4 | | |
| T 5 | 19 16 1 | 18 ¹⁷ 08 | 8 ⁵⁸ | 19 ²² | 3 ⁵⁹ | 1 ⁵¹ | 15 ⁹ | 10 ²⁴ | 20 ⁴³ | 7 ¹⁰ | 12 ³⁷ | 5 ⁵ | 3 ²⁹ | 24 ⁶ | 7 ⁴⁹ | T 5 | | |
| F 6 | 19 19 57 | 19 ¹⁴ 25 | 20 ⁵³ | 18 ³⁹ | 4 ⁴⁶ | 1 ⁵⁸ | 15 ³ | 10 ²⁴ | 20 ⁴¹ | 7 ¹² | 12 ³⁶ | 4 ⁵⁷ | 3 ²⁶ | 24 ¹³ | 7 ⁴⁷ | F 6 | | |
| S 7 | 19 23 54 | 20 ¹¹ 42 | 2 ^H 45 | 17 ⁵⁷ | 5 ³⁴ | 2 ⁵ | 14 ⁵⁶ | 10 ²⁴ | 20 ³⁹ | 7 ¹⁴ | 12 ³⁵ | 4 ⁴⁹ | 3 ²³ | 24 ²⁰ | 7 ⁴⁴ | S 7 | | |
| S 8 | 19 27 51 | 21 ⁰ 9'01 | 14 ³⁷ | 17 ¹⁷ | 6 ²³ | 2 ¹⁰ | 14 ⁵⁰ | 10 ²³ | 20 ³⁶ | 7 ¹⁶ | 12 ³⁵ | 4 ⁴³ | 3 ²⁰ | 24 ²⁶ | 7 ⁴² | S 8 | | |
| M 9 | 19 31 47 | 22 ⁶ 21 | 26 ³² | 16 ³⁹ | 7 ¹² | 2 ¹⁵ | 14 ⁴³ | 10 ^D 23 | 20 ³⁴ | 7 ¹⁷ | 12 ³⁴ | 4 ³⁸ | 3 ¹⁷ | 24 ³³ | 7 ⁴⁰ | M 9 | | |
| T 10 | 19 35 44 | 23 ³ 3'41 | 8 ^Y 34 | 16 ⁵ | 8 ³ | 2 ¹⁹ | 14 ³⁷ | 10 ²³ | 20 ³¹ | 7 ¹⁹ | 12 ³³ | 4 ³⁴ | 3 ¹⁴ | 24 ⁴⁰ | 7 ³⁷ | T 10 | | |
| W 11 | 19 39 40 | 24 ¹ 1'03 | 20 ⁴⁸ | 15 ³⁴ | 8 ⁵³ | 2 ²³ | 14 ³⁰ | 10 ²⁴ | 20 ²⁹ | 7 ²¹ | 12 ³³ | 4 ^D 33 | 3 ¹⁰ | 24 ⁴⁷ | 7 ³⁵ | W 11 | | |
| T 12 | 19 43 37 | 24 ⁵⁸ 26 | 3 ^B 17 | 15 ⁷ | 9 ⁴⁵ | 2 ²⁵ | 14 ²³ | 10 ²⁴ | 20 ²⁷ | 7 ²² | 12 ³² | 4 ³³ | 3 ⁷ | 24 ⁵³ | 7 ³³ | T 12 | | |
| F 13 | 19 47 33 | 25 ⁵⁵ 51 | 16 ⁶ | 14 ⁴⁶ | 10 ³⁷ | 2 ²⁷ | 14 ¹⁶ | 10 ²⁴ | 20 ²⁴ | 7 ²⁴ | 12 ³¹ | 4 ³⁴ | 3 ⁴ | 25 ⁰ | 7 ³¹ | F 13 | | |
| S 14 | 19 51 30 | 26 ⁵³ 16 | 29 ²⁰ | 14 ³⁰ | 11 ³⁰ | 2 ^R 27 | 14 ⁹ | 10 ²⁵ | 20 ²² | 7 ²⁶ | 12 ³⁰ | 4 ^R 35 | 3 ¹ | 25 ⁷ | 7 ²⁹ | S 14 | | |
| S 15 | 19 55 26 | 27 ⁵⁰ 43 | 13 ^{II} 2 | 14 ²⁰ | 12 ²³ | 2 ²⁷ | 14 ² | 10 ²⁵ | 20 ¹⁹ | 7 ²⁷ | 12 ³⁰ | 4 ³⁵ | 2 ⁵⁸ | 25 ¹³ | 7 ²⁸ | S 15 | | |
| M 16 | 19 59 23 | 28 ⁴⁸ 12 | 27 ¹¹ | 14 ^D 16 | 13 ¹⁷ | 2 ²⁷ | 13 ⁵⁴ | 10 ²⁶ | 20 ¹⁷ | 7 ²⁹ | 12 ²⁹ | 4 ³³ | 2 ⁵⁴ | 25 ²⁰ | 7 ²⁶ | M 16 | | |
| T 17 | 20 3 20 | 29 ⁴⁵ 41 | 11 ²⁴ 7 | 14 ¹⁸ | 14 ¹¹ | 2 ²⁵ | 13 ⁴⁷ | 10 ²⁷ | 20 ¹⁵ | 7 ³⁰ | 12 ²⁸ | 4 ²⁹ | 2 ⁵¹ | 25 ²⁷ | 7 ²⁴ | T 17 | | |
| W 18 | 20 7 16 | 0 ^Ω 43'12 | 26 ⁴⁴ | 14 ²⁷ | 15 ⁶ | 2 ²² | 13 ³⁹ | 10 ²⁸ | 20 ¹² | 7 ³² | 12 ²⁷ | 4 ²² | 2 ⁴⁸ | 25 ³⁴ | 7 ²³ | W 18 | | |
| T 19 | 20 11 13 | 1 ⁴⁰ 43 | 11 ^Ω 53 | 14 ⁴³ | 16 ² | 2 ¹⁹ | 13 ³² | 10 ²⁹ | 20 ¹⁰ | 7 ³³ | 12 ²⁶ | 4 ¹⁴ | 2 ⁴⁵ | 25 ⁴⁰ | 7 ²¹ | T 19 | | |
| F 20 | 20 15 9 | 2 ³⁸ 16 | 27 ⁵ | 15 ⁶ | 16 ⁵⁸ | 2 ¹⁵ | 13 ²⁴ | 10 ³⁰ | 20 ⁸ | 7 ³⁵ | 12 ²⁵ | 4 ⁶ | 2 ⁴² | 25 ⁴⁷ | 7 ²⁰ | F 20 | | |
| S 21 | 20 19 6 | 3 ³⁵ 50 | 12 ^{II} 8 | 15 ³⁵ | 17 ⁵⁴ | 2 ¹⁰ | 13 ¹⁷ | 10 ³¹ | 20 ⁵ | 7 ³⁶ | 12 ²⁵ | 3 ⁵⁸ | 2 ³⁹ | 25 ⁵⁴ | 7 ¹⁹ | S 21 | | |
| S 22 | 20 23 2 | 4 ³³ 25 | 26 ⁵⁵ | 16 ¹¹ | 18 ⁵¹ | 2 ⁴ | 13 ⁹ | 10 ³² | 20 ³ | 7 ³⁸ | 12 ²⁴ | 3 ⁵¹ | 2 ³⁵ | 26 ¹ | 7 ¹⁷ | S 22 | | |
| M 23 | 20 26 59 | 5 ³¹ 00 | 11 ²¹ 18 | 16 ⁵⁴ | 19 ⁴⁸ | 1 ⁵⁸ | 13 ¹ | 10 ³³ | 20 ¹ | 7 ³⁹ | 12 ²³ | 3 ⁴⁶ | 2 ³² | 26 ⁷ | 7 ¹⁶ | M 23 | | |
| T 24 | 20 30 55 | 6 ²⁸ 37 | 25 ¹⁶ | 17 ⁴⁴ | 20 ⁴⁶ | 1 ⁵¹ | 12 ⁵⁴ | 10 ³⁵ | 19 ⁵⁸ | 7 ⁴⁰ | 12 ²² | 3 ⁴⁴ | 2 ²⁹ | 26 ¹⁴ | 7 ¹⁵ | T 24 | | |
| W 25 | 20 34 52 | 7 ²⁶ 15 | 8 ^{II} 49 | 18 ⁴⁰ | 21 ⁴⁴ | 1 ⁴³ | 12 ⁴⁶ | 10 ³⁶ | 19 ⁵⁶ | 7 ⁴² | 12 ²¹ | 3 ^D 44 | 2 ²⁶ | 26 ²¹ | 7 ¹⁴ | W 25 | | |
| T 26 | 20 38 49 | 8 ²³ 53 | 21 ⁵⁸ | 19 ⁴³ | 22 ⁴³ | 1 ³⁴ | 12 ³⁸ | 10 ³⁸ | 19 ⁵⁴ | 7 ⁴³ | 12 ²⁰ | 3 ⁴⁴ | 2 ²³ | 26 ²⁷ | 7 ¹³ | T 26 | | |
| F 27 | 20 42 45 | 9 ²¹ 33 | 4 ² 47 | 20 ⁵¹ | 23 ⁴² | 1 ²⁵ | 12 ³⁰ | 10 ⁴⁰ | 19 ⁵² | 7 ⁴⁴ | 12 ¹⁹ | 3 ^R 44 | 2 ²⁰ | 26 ³⁴ | 7 ¹³ | F 27 | | |
| S 28 | 20 46 42 | 10 ¹⁹ 14 | 17 ¹⁹ | 22 ⁶ | 24 ⁴¹ | 1 ¹⁵ | 12 ²² | 10 ⁴¹ | 19 ⁵⁰ | 7 ⁴⁶ | 12 ¹⁸ | 3 ⁴⁴ | 2 ¹⁶ | 26 ⁴¹ | 7 ¹² | S 28 | | |
| S 29 | 20 50 38 | 11 ¹⁶ 56 | 29 ³⁹ | 23 ²⁶ | 25 ⁴¹ | 1 ⁴ | 12 ¹⁵ | 10 ⁴³ | 19 ⁴⁷ | 7 ⁴⁷ | 12 ¹⁷ | 3 ⁴¹ | 2 ¹³ | 26 ⁴⁸ | 7 ¹¹ | S 29 | | |
| M 30 | 20 54 35 | 12 ¹⁴ 39 | 11 ² 49 | 24 ⁵² | 26 ⁴¹ | 0 ⁵³ | 12 ⁷ | 10 ⁴⁵ | 19 ⁴⁵ | 7 ⁴⁸ | 12 ¹⁶ | 3 ³⁵ | 2 ¹⁰ | 26 ⁵⁴ | 7 ¹¹ | M 30 | | |
| T 31 | 20 58 31 | 13 ^Ω 12'24 | 23 ³ 52 | 26 ²² | 27 ^{II} 41 | 0 ^H 41 | 11 ⁵⁹ | 10 ^{II} 47 | 19 ³ 43 | 7 ^{II} 49 | 12 ^H 15 | 3 ^{II} 27 | 2 ^{II} 7 | 27 ³ 1 | 7 ¹⁰ | T 31 | | |

Delta T = 19m16s Julian Calendar 1 July 1072 == Greg. Calendar 7 July 1072

AUGUST 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|-----------------------|--------------------|---------------------|---------------------|-------------------|--------------------|---------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|------|-----|
| W 1 | 21 2 28 | 14 ^Ω 10'10 | 5 ⁵ 51 | 27 ²⁵ 57 | 28 ^{II} 42 | 0 ^R 29 | 11 ^R 51 | 10 ^{II} 50 | 19 ^R 41 | 7 ^{II} 50 | 12 ^R 14 | 3 ^R 16 | 2 ^{II} 4 | 27 ³ 8 | 7 ^R 10 | W 1 | |
| T 2 | 21 6 24 | 15 ⁷ 57 | 17 ⁴⁵ | 29 ³⁶ | 29 ⁴³ | 0 ^H 16 | 11 ⁴³ | 10 ⁵² | 19 ³ 39 | 7 ⁵¹ | 12 ^H 13 | 3 ^{II} 4 | 2 ⁰ | 27 ¹⁴ | 7 ¹⁰ | T 2 | |
| F 3 | 21 10 21 | 16 ⁵ 46 | 29 ³⁸ | 1 ^Ω 19 | 0 ² 45 | 0 ² | 11 ³⁵ | 10 ⁵⁴ | 19 ³⁷ | 7 ⁵² | 12 ¹² | 2 ⁵¹ | 1 ⁵⁷ | 27 ²¹ | 7 ¹⁰ | F 3 | |
| S 4 | 21 14 18 | 17 ³ 3'36 | 11 ^H 31 | 3 ⁵ | 1 ⁴⁷ | 29 ⁴⁸ | 11 ²⁷ | 10 ⁵⁷ | 19 ³⁵ | 7 ⁵³ | 12 ¹¹ | 2 ³⁸ | 1 ⁵⁴ | 27 ²⁸ | 7 ^D 10 | S 4 | |
| S 5 | 21 18 14 | 18 ¹ 1'28 | 23 ²⁴ | 4 ⁵⁵ | 2 ⁴⁹ | 29 ³⁴ | 11 ²⁰ | 10 ⁵⁹ | 19 ³³ | 7 ⁵⁵ | 12 ¹⁰ | 2 ²⁶ | 1 ⁵¹ | 27 ³⁵ | 7 ¹⁰ | S 5 | |
| M 6 | 21 22 11 | 18 ⁵⁹ 22 | 5 ^Y 21 | 6 ⁴⁶ | 3 ⁵¹ | 29 ¹⁹ | 11 ¹² | 11 ² | 19 ³¹ | 7 ⁵⁵ | 12 ⁸ | 2 ¹⁷ | 1 ⁴⁸ | 27 ⁴¹ | 7 ¹⁰ | M 6 | |
| T 7 | 21 26 7 | 19 ⁵⁷ 17 | 17 ²⁴ | 8 ³⁹ | 4 ⁵⁴ | 29 ⁴ | 11 ⁴ | 11 ⁵ | 19 ²⁹ | 7 ⁵⁶ | 12 ⁷ | 2 ¹¹ | 1 ⁴⁵ | 27 ⁴⁸ | 7 ¹⁰ | T 7 | |
| W 8 | 21 30 4 | 20 ⁵⁵ 15 | 29 ³⁷ | 10 ³⁴ | 5 ⁵⁷ | 28 ⁴⁹ | 10 ⁵⁷ | 11 ⁷ | 19 ²⁷ | 7 ⁵⁷ | 12 ⁶ | 2 ⁷ | 1 ⁴¹ | 27 ⁵⁵ | 7 ¹¹ | W 8 | |
| T 9 | 21 34 0 | 21 ⁵³ 14 | 12 ^B 4 | 12 ³¹ | 7 ⁰ | 28 ³³ | 10 ⁴⁹ | 11 ¹⁰ | 19 ²⁵ | 7 ⁵⁸ | 12 ⁵ | 2 ⁵ | 1 ³⁸ | 28 ² | 7 ¹¹ | T 9 | |
| F 10 | 21 37 57 | 22 ⁵¹ 15 | 24 ⁴⁹ | 14 ²⁸ | 8 ⁴ | 28 ¹⁷ | 10 ⁴¹ | 11 ¹³ | 19 ²³ | 7 ⁵⁹ | 12 ⁴ | 2 ⁵ | 1 ³⁵ | 28 ⁸ | 7 ¹¹ | F 10 | |
| S 11 | 21 41 53 | 23 ⁴⁹ 18 | 7 ^{II} 58 | 16 ²⁵ | 9 ⁸ | 28 ¹ | 10 ³⁴ | 11 ¹⁶ | 19 ²¹ | 8 ⁰ | 12 ³ | 2 ⁵ | 1 ³² | 28 ¹⁵ | 7 ¹² | S 11 | |
| S 12 | 21 45 50 | 24 ⁴⁷ 24 | 21 ³² | 18 ²³ | 10 ¹² | 27 ⁴⁵ | 10 ²⁷ | 11 ²⁰ | 19 ¹⁹ | 8 ¹ | 12 ² | 2 ⁴ | 1 ²⁹ | 28 ²² | 7 ¹³ | S 12 | |
| M 13 | 21 49 47 | 25 ⁴⁵ 31 | 5 ² 36 | 20 ²¹ | 11 ¹⁶ | 27 ²⁸ | 10 ¹⁹ | 11 ²³ | 19 ¹⁸ | 8 ² | 12 ¹ | 2 ¹ | 1 ²⁵ | 28 ²⁸ | 7 ¹⁴ | M 13 | |
| T 14 | 21 53 43 | 26 ⁴³ 40 | 20 ⁷ | 22 ¹⁸ | 12 ²¹ | 27 ¹² | 10 ¹² | 11 ²⁶ | 19 ¹⁶ | 8 ² | 11 ⁵⁹ | 1 ⁵⁵ | 1 ²² | 28 ³⁵ | 7 ¹⁴ | T 14 | |
| W 15 | 21 57 40 | 27 ⁴¹ 52 | 5 ^Ω 4 | 24 ¹⁵ | 13 ²⁶ | 26 ⁵⁶ | 10 ⁵ | 11 ³⁰ | 19 ¹⁴ | 8 ³ | 11 ⁵⁸ | 1 ⁴⁷ | 1 ¹⁹ | 28 ⁴² | 7 ¹⁵ | W 15 | |
| T 16 | 22 1 36 | 28 ⁴⁰ 05 | 20 ¹⁷ | 26 ¹² | 14 ³¹ | 26 ³⁹ | 9 ⁵⁸ | 11 ³³ | 19 ¹² | 8 ⁴ | 11 ⁵⁷ | 1 ³⁷ | 1 ¹⁶ | 28 ⁴⁹ | 7 ¹⁶ | T 16 | |
| F 17 | 22 5 33 | 29 ³⁸ 20 | 5 ^{II} 37 | 28 ⁷ | 15 ³⁶ | 26 ²³ | 9 ⁵¹ | 11 ³⁷ | 19 ¹¹ | 8 ⁴ | 11 ⁵⁶ | 1 ²⁶ | 1 ¹³ | 28 ⁵⁵ | 7 ¹⁸ | F 17 | |
| S 18 | 22 9 29 | 0 ^{II} 36'36 | 20 ⁵² | 0 ^{II} 2 | 16 ⁴² | 26 ⁷ | 9 ⁴⁴ | 11 ⁴⁰ | 19 ⁹ | 8 ⁵ | 11 ⁵⁵ | 1 ¹⁵ | 1 ¹⁰ | 29 ² | 7 ¹⁹ | S 18 | |
| S 19 | 22 13 26 | 1 ³⁴ 54 | 5 ² 52 | 1 ⁵⁶ | 17 ⁴⁸ | 25 ⁵¹ | 9 ³⁷ | 11 ⁴⁴ | 19 ⁸ | 8 ⁶ | 11 ⁵³ | 1 ⁶ | 1 ⁶ | 29 ⁹ | 7 ²⁰ | S 19 | |
| M 20 | 22 17 22 | 2 ³³ 14 | 20 ²⁸ | 3 ⁴⁹ | 18 ⁵⁴ | 25 ³⁶ | 9 ³⁰ | 11 ⁴⁸ | 19 ⁶ | 8 ⁶ | 11 ⁵² | 1 ⁰ | 1 ³ | 29 ¹⁶ | 7 ²² | M 20 | |
| T 21 | 22 21 19 | 3 ³¹ 36 | 4 ^{II} 35 | 5 ⁴ | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1072
geocentric

SEPTEMBER 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | Day |
|------|----------|------------------------|---------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|------|---|---|-----|
| S 1 | 23 4 41 | 14 ^h 15'25" | 20 ^h 28' | 25 ^h 4' | 2 ^h 21' | 23 ^h R 4 | 8 ^h R21 | 12 ^h 40' | 18 ^h R51 | 8 ^h II10 | 11 ^h R38 | 29 ^h R43 | 0 ^h II25 | 0 ^h 36' | 7 ^h 46' | S 1 | | | |
| S 2 | 23 8 38 | 15°14'07" | 2 ^h 26' | 26°43' | 3°29' | 22 ^h 56' | 8 ^h 16' | 12°44' | 18 ^h 50' | 8°10' | 11 ^h 37' | 29 ^h 31' | 0°22' | 0°43' | 7°48' | S 2 | | | |
| M 3 | 23 12 34 | 16°12'52" | 14°30' | 28°22' | 4°38' | 22°48' | 8°11' | 12°49' | 18°49' | 8°10' | 11°35' | 29°22' | 0°19' | 0°50' | 7°51' | M 3 | | | |
| T 4 | 23 16 31 | 17°11'39" | 26°40' | 29°59' | 5°46' | 22°40' | 8° 6' | 12°54' | 18°48' | 8°10' | 11°34' | 29°14' | 0°16' | 0°56' | 7°54' | T 4 | | | |
| W 5 | 23 20 27 | 18°10'29" | 8 ^h 59' | 1 ^h 36' | 6°55' | 22°34' | 8° 2' | 12°59' | 18°47' | 8°10' | 11°33' | 29°10' | 0°12' | 1° 3' | 7°57' | W 5 | | | |
| T 6 | 23 24 24 | 19° 9'20" | 21°30' | 3°11' | 8° 4' | 22°28' | 7°58' | 13° 4' | 18°46' | 8°10' | 11°32' | 29° 9' | 0° 9' | 1°10' | 8° 0' | T 6 | | | |
| F 7 | 23 28 20 | 20° 8'14" | 4 ^h 16' | 4°46' | 9°14' | 22°23' | 7°54' | 13° 9' | 18°45' | 8°10' | 11°30' | 29°D 8 | 0° 6' | 1°17' | 8° 3' | F 7 | | | |
| S 8 | 23 32 17 | 21° 7'10" | 17°22' | 6°20' | 10°23' | 22°19' | 7°50' | 13°15' | 18°45' | 8°10' | 11°29' | 29°R 9 | 0° 3' | 1°23' | 8° 6' | S 8 | | | |
| S 9 | 23 36 13 | 22° 6'09" | 0 ^h 50' | 7°53' | 11°33' | 22°15' | 7°46' | 13°20' | 18°44' | 8°10' | 11°28' | 29° 8 | 29 ^h 59' | 1°30' | 8° 9' | S 9 | | | |
| M10 | 23 40 10 | 23° 5'10" | 14°43' | 9°25' | 12°42' | 22°12' | 7°43' | 13°25' | 18°43' | 8°10' | 11°27' | 29° 7 | 29°57' | 1°37' | 8°12' | M10 | | | |
| T 11 | 23 44 7 | 24° 4'13" | 29° 2' | 10°56' | 13°52' | 22°10' | 7°40' | 13°30' | 18°43' | 8°10' | 11°26' | 29° 2 | 29°53' | 1°43' | 8°15' | T 11 | | | |
| W12 | 23 48 3 | 25° 3'19" | 13 ^h 44' | 12°27' | 15° 2' | 22° 9' | 7°37' | 13°36' | 18°42' | 8° 9' | 11°25' | 28°56' | 29°50' | 1°50' | 8°19' | W12 | | | |
| T 13 | 23 52 0 | 26° 2'27" | 28°45' | 13°56' | 16°12' | 22°D 9 | 7°34' | 13°41' | 18°42' | 8° 9' | 11°23' | 28°47' | 29°47' | 1°57' | 8°22' | T 13 | | | |
| F 14 | 23 55 56 | 27° 1'37" | 13 ^h 56' | 15°25' | 17°22' | 22° 9' | 7°31' | 13°47' | 18°41' | 8° 9' | 11°22' | 28°38' | 29°44' | 2° 4' | 8°26' | F 14 | | | |
| S 15 | 23 59 53 | 28° 0'49" | 29° 7' | 16°52' | 18°33' | 22°11' | 7°29' | 13°53' | 18°41' | 8° 9' | 11°21' | 28°29' | 29°41' | 2°10' | 8°29' | S 15 | | | |
| S 16 | 0 3 49 | 29° 0'04" | 14 ^h 7' | 18°19' | 19°43' | 22°13' | 7°26' | 13°58' | 18°41' | 8° 8' | 11°20' | 28°21' | 29°37' | 2°17' | 8°33' | S 16 | | | |
| M17 | 0 7 46 | 29°59'20" | 28°47' | 19°45' | 20°54' | 22°15' | 7°24' | 14° 4' | 18°40' | 8° 8' | 11°19' | 28°15' | 29°34' | 2°24' | 8°37' | M17 | | | |
| T 18 | 0 11 42 | 0 ^h 58'38" | 13 ^h 1' | 21°10' | 22° 5' | 22°19' | 7°22' | 14°10' | 18°40' | 8° 7' | 11°18' | 28°12' | 29°31' | 2°31' | 8°41' | T 18 | | | |
| W19 | 0 15 39 | 1°57'59" | 26°46' | 22°34' | 23°16' | 22°23' | 7°20' | 14°15' | 18°40' | 8° 7' | 11°16' | 28°D11 | 29°28' | 2°37' | 8°45' | W19 | | | |
| T 20 | 0 19 36 | 2°57'21" | 10 ^h 7' | 23°57' | 24°27' | 22°29' | 7°19' | 14°21' | 18°40' | 8° 6' | 11°15' | 28°11' | 29°25' | 2°44' | 8°49' | T 20 | | | |
| F 21 | 0 23 32 | 3°56'45" | 22°55' | 25°19' | 25°38' | 22°35' | 7°18' | 14°27' | 18°40' | 8° 6' | 11°14' | 28°12' | 29°22' | 2°51' | 8°53' | F 21 | | | |
| S 22 | 0 27 29 | 4°56'11" | 5 ^h 25' | 26°40' | 26°49' | 22°41' | 7°16' | 14°33' | 18°D40 | 8° 5' | 11°13' | 28°R13 | 29°18' | 2°57' | 8°57' | S 22 | | | |
| S 23 | 0 31 25 | 5°55'38" | 17°39' | 28° 0' | 28° 0' | 22°49' | 7°16' | 14°39' | 18°40' | 8° 5' | 11°12' | 28°12' | 29°15' | 3° 4' | 9° 1' | S 23 | | | |
| M24 | 0 35 22 | 6°55'08" | 29°42' | 29°19' | 29°12' | 22°57' | 7°15' | 14°45' | 18°40' | 8° 4' | 11°11' | 28° 9 | 29°12' | 3°11' | 9° 6' | M24 | | | |
| T 25 | 0 39 18 | 7°54'39" | 11 ^h 37' | 0 ^h 36' | 0 ^h 23' | 23° 6' | 7°14' | 14°51' | 18°40' | 8° 4' | 11°10' | 28° 4 | 29° 9 | 3°18' | 9°10' | T 25 | | | |
| W26 | 0 43 15 | 8°54'12" | 23°29' | 1°52' | 1°35' | 23°16' | 7°14' | 14°58' | 18°40' | 8° 3' | 11° 9 | 27°57' | 29° 6 | 3°24' | 9°14' | W26 | | | |
| T 27 | 0 47 11 | 9°53'47" | 5 ^h 21' | 3° 7' | 2°47' | 23°26' | 7°D14 | 15° 4' | 18°40' | 8° 2' | 11° 8 | 27°49' | 29° 3 | 3°31' | 9°19' | T 27 | | | |
| F 28 | 0 51 8 | 10°53'23" | 17°16' | 4°20' | 3°58' | 23°37' | 7°14' | 15°10' | 18°41' | 8° 1' | 11° 7 | 27°39' | 28°59' | 3°38' | 9°23' | F 28 | | | |
| S 29 | 0 55 5 | 11°53'02" | 29°17' | 5°32' | 5°10' | 23°49' | 7°14' | 15°16' | 18°41' | 8° 1' | 11° 6 | 27°30' | 28°56' | 3°44' | 9°28' | S 29 | | | |
| S 30 | 0 59 1 | 12 ^h 52'42" | 11 ^h 24' | 6 ^h 41' | 6 ^h 22' | 24 ^h 1 | 7 ^h 15 | 15 ^h 23 | 18 ^h 41 | 8 ^h II 0 | 11 ^h 5 | 27 ^h 22 | 28 ^h 53 | 3 ^h 51 | 9 ^h 33 | S 30 | | | |

Delta T = 19m16s Julian Calendar 1 Sept. 1072 == Greg. Calendar 7 Sept. 1072

OCTOBER 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | Day |
|------|---------|------------------------|---------------------|--------------------|---------------------|---------------------|-------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|------|---|---|-----|
| M 1 | 1 2 58 | 13 ^h 52'25" | 23 ^h 38' | 7 ^h 49' | 7 ^h 34' | 24 ^h 14' | 7 ^h 15 | 15 ^h 29 | 18 ^h 42' | 7 ^h R59 | 11 ^h R 4 | 27 ^h R16 | 28 ^h 50' | 3 ^h 58' | 9 ^h 37' | M 1 | | | |
| T 2 | 1 6 54 | 14°52'10" | 6 ^h 3' | 8°55' | 8°47' | 24°28' | 7°16' | 15°35' | 18°42' | 7 ^h II58 | 11 ^h 3 | 27 ^h 12 | 28°47' | 4° 5' | 9°42' | T 2 | | | |
| W 3 | 1 10 51 | 15°51'57" | 18°35' | 9°58' | 9°59' | 24°42' | 7°17' | 15°42' | 18°43' | 7°57' | 11° 2 | 27° 9 | 28°43' | 4°11' | 9°47' | W 3 | | | |
| T 4 | 1 14 47 | 16°51'46" | 1 ^h 19' | 10°59' | 11°11' | 24°57' | 7°19' | 15°48' | 18°43' | 7°56' | 11° 1 | 27°D 9 | 28°40' | 4°18' | 9°52' | T 4 | | | |
| F 5 | 1 18 44 | 17°51'37" | 14°17' | 11°57' | 12°24' | 25°13' | 7°20' | 15°55' | 18°44' | 7°55' | 11° 0 | 27°10 | 28°37' | 4°25' | 9°57' | F 5 | | | |
| S 6 | 1 22 40 | 18°51'31" | 27°29' | 12°51' | 13°37' | 25°29' | 7°22' | 16° 1' | 18°45' | 7°54' | 10°59' | 27°12 | 28°34' | 4°32' | 10° 2 | S 6 | | | |
| S 7 | 1 26 37 | 19°51'27" | 10 ^h 59' | 13°42' | 14°49' | 25°45' | 7°24' | 16° 8 | 18°45' | 7°53' | 10°58' | 27°13 | 28°31' | 4°38' | 10° 7 | S 7 | | | |
| M 8 | 1 30 34 | 20°51'25" | 24°46' | 14°29' | 16° 2 | 26° 3 | 7°26' | 16°15' | 18°46' | 7°52' | 10°57' | 27°R13 | 28°28' | 4°45' | 10°12' | M 8 | | | |
| T 9 | 1 34 30 | 21°51'25" | 8 ^h 53' | 15°12' | 17°15' | 26°20' | 7°28' | 16°21' | 18°47' | 7°51' | 10°56' | 27°12 | 28°24' | 4°52' | 10°18' | T 9 | | | |
| W10 | 1 38 27 | 22°51'28" | 23°17' | 15°50' | 18°28' | 26°39' | 7°30' | 16°28' | 18°48' | 7°50' | 10°55' | 27° 9 | 28°21' | 4°58' | 10°23' | W10 | | | |
| T 11 | 1 42 23 | 23°51'32" | 7 ^h 56' | 16°23' | 19°41' | 26°58' | 7°33' | 16°35' | 18°49' | 7°49' | 10°55' | 27° 5 | 28°18' | 5° 5' | 10°28' | T 11 | | | |
| F 12 | 1 46 20 | 24°51'39" | 22°44' | 16°50' | 20°54' | 27°17' | 7°36' | 16°41' | 18°50' | 7°48' | 10°54' | 27° 0 | 28°15' | 5°12' | 10°34' | F 12 | | | |
| S 13 | 1 50 16 | 25°51'48" | 7 ^h 33' | 17°10' | 22° 7 | 27°37' | 7°39' | 16°48' | 18°51' | 7°47' | 10°53' | 26°55' | 28°12' | 5°19' | 10°39' | S 13 | | | |
| S 14 | 1 54 13 | 26°51'59" | 22°17' | 17°23' | 23°21' | 27°57' | 7°42' | 16°55' | 18°52' | 7°46' | 10°52' | 26°51' | 28° 8 | 5°25' | 10°45' | S 14 | | | |
| M15 | 1 58 9 | 27°52'12" | 6 ^h 46' | 17°R28 | 24°34' | 28°18' | 7°46' | 17° 2 | 18°53' | 7°45' | 10°51' | 26°49' | 28° 5 | 5°32' | 10°50' | M15 | | | |
| T 16 | 2 2 6 | 28°52'26" | 20°55' | 17°24' | 25°47' | 28°39' | 7°49' | 17° 9 | 18°54' | 7°43' | 10°51' | 26°D47 | 28° 2 | 5°39' | 10°56' | T 16 | | | |
| W17 | 2 6 3 | 29°52'43" | 4 ^h 41' | 17°12' | 27° 1 | 29° 1 | 7°53' | 17°16' | 18°56' | 7°42' | 10°50' | 26°47' | 27°59' | 5°45' | 11° 1 | W17 | | | |
| T 18 | 2 9 59 | 0 ^h 53'01" | 18° 2 | 16°50' | 28°14' | 29°24' | 7°57' | 17°23' | 18°57' | 7°41' | 10°49' | 26°49' | 27°56' | 5°52' | 11° 7 | T 18 | | | |
| F 19 | 2 13 56 | 1°53'20" | 0 ^h 58' | 16°18' | 29°28' | 29°46' | 8° 1 | 17°29' | 18°58' | 7°39' | 10°48' | 26°50' | 27°53' | 5°59' | 11°13' | F 19 | | | |
| S 20 | 2 17 52 | 2°53'41" | 13°34' | 15°36' | 0 ^h 42' | 0 ^h 9 | 8° 6 | 17°36' | 19° 0 | 7°38' | 10°48' | 26°52' | 27°49' | 6° 6 | 11°19' | S 20 | | | |
| S 21 | 2 21 49 | 3°54'04" | 25°51' | 14°45' | 1°55' | 0°33' | 8°10' | 17°43' | 19° 1 | 7°37' | 10°47' | 26°53' | 27°46' | 6°12' | 11°24' | S 21 | | | |
| M22 | 2 25 45 | 4°54'28" | 7 ^h 55' | 13°45' | 3° 9 | 0°57' | 8°15' | 17°50' | 19° 3 | 7°35' | 10°47' | 26°R53 | 27°43' | 6°19' | 11°30' | M22 | | | |
| T 23 | 2 29 42 | 5°54'53" | 19°52' | 12°36' | 4°23' | 1°21' | 8°20' | 17°57' | 19° 4 | 7°34' | 10°46' | 26°52' | 27°40' | 6°26' | 11°36' | T 23 | | | |
| W24 | 2 33 38 | 6°55'20" | 1 ^h 44' | 11°22' | 5°37' | 1°46' | 8°25' | 18° 4 | 19° 6 | 7°33' | 10°45' | 26°51' | 27°37' | 6°33' | 11°42' | W24 | | | |
| T 25 | 2 37 35 | 7°55'48" | 13°37' | 10° 3 | 6°51' | 2°11' | 8°30' | 18°11' | 19° 7 | 7°31' | 10°45' | 26°48' | 27°34' | 6°39' | 11°48' | T 25 | | | |
| F 26 | 2 41 32 | 8°56'18" | 25°35' | 8°42' | 8° 5 | 2°37' | 8°36' | 18°18' | 19° 9 | 7°30' | 10°44' | 26°45' | 27°30' | 6°46' | 11°54' | F 26 | | | |
| S 27 | 2 45 28 | 9°56'49" | 7 ^h 40' | 7°22' | 9°19' | 3° 3 | 8°41' | 18°25' | 19°11' | 7°28' | 10°44' | 26°42' | 27°27' | 6°53' | 12° 0 | S 27 | | | |
| S 28 | 2 49 25 | 10°57'21" | 19°55' | 6° 6 | 10°33' | 3°29' | 8°47' | 18°32' | 19°12' | 7°27' | 10°43' | 26°40' | 27°24' | 6°59' | 12° 6 | S 28 | | | |
| M29 | 2 53 21 | 11°57'55" | 2 ^h 23' | 4°55' | 11°47' | 3°56' | 8°53' | 18°40' | 19°14' | 7°25' | 10°43' | 26°38' | 27°21' | 7° 6 | 12°13' | M29 | | | |
| T 30 | 2 57 18 | 12°58'30" | 15° 3 | 3°53' | 13° 1 | 4°22' | 8°59' | 18°47' | 19°16' | 7°24' | 10°42' | 26°37' | 27°18' | 7°13' | 12°19' | T 30 | | | |
| W31 | 3 1 14 | 13 ^h 59'07" | 27 ^h 56' | 3 ^h 0 | 14 ^h 15' | 4 ^h 50' | 9 ^h 6 | 18 ^h 54 | 19 ^h 18 | 7 ^h II22 | 10 ^h 42 | 26°D37 | 27 ^h 14 | 7 ^h 20 | 12 ^h 25 | W31 | | | |

Delta T = 19m15s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1072
geocentric

NOVEMBER 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|------|---|-----|
| T 1 | 3 5 11 | 14♌59°46 | 11♐ 3 | 2°R18 | 15♊30 | 5♄17 | 9♁12 | 19♎ 1 | 19♌20 | 7°R21 | 10°R41 | 26♋37 | 27♉11 | 7♃26 | 12♌31 | T 1 | | |
| F 2 | 3 9 7 | 16° 0'26 | 24°23 | 1♎48 | 16°44 | 5°45 | 9°19 | 19° 8 | 19°22 | 7♐19 | 10♄41 | 26°38 | 27° 8 | 7°33 | 12°38 | F 2 | | |
| S 3 | 3 13 4 | 17° 1'08 | 7♄55 | 1°29 | 17°58 | 6°13 | 9°26 | 19°15 | 19°24 | 7°18 | 10°41 | 26°39 | 27° 5 | 7°40 | 12°44 | S 3 | | |
| S 4 | 3 17 1 | 18° 1'51 | 21°38 | 1°D22 | 19°13 | 6°42 | 9°33 | 19°22 | 19°26 | 7°16 | 10°40 | 26°40 | 27° 2 | 7°46 | 12°50 | S 4 | | |
| M 5 | 3 20 57 | 19° 2'37 | 5♊32 | 1°26 | 20°27 | 7°10 | 9°40 | 19°29 | 19°28 | 7°15 | 10°40 | 26°40 | 26°59 | 7°53 | 12°57 | M 5 | | |
| T 6 | 3 24 54 | 20° 3'23 | 19°36 | 1°40 | 21°42 | 7°39 | 9°47 | 19°36 | 19°30 | 7°13 | 10°40 | 26°R40 | 26°55 | 8° 0 | 13° 3 | T 6 | | |
| W 7 | 3 28 50 | 21° 4'11 | 3♎49 | 2° 3 | 22°56 | 8° 8 | 9°54 | 19°43 | 19°32 | 7°11 | 10°39 | 26°40 | 26°52 | 8° 7 | 13° 9 | W 7 | | |
| T 8 | 3 32 47 | 22° 5'01 | 18° 7 | 2°35 | 24°11 | 8°38 | 10° 2 | 19°50 | 19°35 | 7°10 | 10°39 | 26°40 | 26°49 | 8°13 | 13°16 | T 8 | | |
| F 9 | 3 36 43 | 23° 5'52 | 2♊28 | 3°15 | 25°25 | 9° 8 | 10°10 | 19°58 | 19°37 | 7° 8 | 10°39 | 26°39 | 26°46 | 8°20 | 13°22 | F 9 | | |
| S 10 | 3 40 40 | 24° 6'45 | 16°48 | 4° 2 | 26°40 | 9°38 | 10°18 | 20° 5 | 19°39 | 7° 6 | 10°39 | 26°39 | 26°43 | 8°27 | 13°29 | S 10 | | |
| S 11 | 3 44 36 | 25° 7'39 | 1♎ 3 | 4°55 | 27°55 | 10° 8 | 10°26 | 20°12 | 19°42 | 7° 5 | 10°38 | 26°39 | 26°40 | 8°34 | 13°35 | S 11 | | |
| M12 | 3 48 33 | 26° 8'35 | 15° 8 | 5°52 | 29° 9 | 10°38 | 10°34 | 20°19 | 19°44 | 7° 3 | 10°38 | 26°39 | 26°36 | 8°40 | 13°42 | M12 | | |
| T 13 | 3 52 30 | 27° 9'32 | 28°59 | 6°55 | 0♎24 | 11° 9 | 10°42 | 20°26 | 19°46 | 7° 1 | 10°38 | 26°39 | 26°33 | 8°47 | 13°48 | T 13 | | |
| W14 | 3 56 26 | 28°10'29 | 12♌33 | 8° 2 | 1°39 | 11°40 | 10°51 | 20°33 | 19°49 | 7° 0 | 10°38 | 26°39 | 26°30 | 8°54 | 13°55 | W14 | | |
| T 15 | 4 0 23 | 29°11'28 | 25°48 | 9°12 | 2°54 | 12°11 | 10°59 | 20°40 | 19°51 | 6°58 | 10°38 | 26°39 | 26°27 | 9° 0 | 14° 2 | T 15 | | |
| F 16 | 4 4 19 | 0♌12'28 | 8♋43 | 10°25 | 4° 9 | 12°42 | 11° 8 | 20°47 | 19°54 | 6°56 | 10°38 | 26°38 | 26°24 | 9° 7 | 14° 8 | F 16 | | |
| S 17 | 4 8 16 | 1°13'29 | 21°20 | 11°40 | 5°23 | 13°14 | 11°17 | 20°54 | 19°57 | 6°55 | 10°38 | 26°38 | 26°20 | 9°14 | 14°15 | S 17 | | |
| S 18 | 4 12 12 | 2°14'30 | 3♌39 | 12°58 | 6°38 | 13°46 | 11°26 | 21° 1 | 19°59 | 6°53 | 10°D38 | 26°37 | 26°17 | 9°21 | 14°21 | S 18 | | |
| M19 | 4 16 9 | 3°15'32 | 15°46 | 14°18 | 7°53 | 14°18 | 11°35 | 21° 8 | 20° 2 | 6°51 | 10°38 | 26°36 | 26°14 | 9°27 | 14°28 | M19 | | |
| T 20 | 4 20 5 | 4°16'34 | 27°44 | 15°39 | 9° 8 | 14°50 | 11°45 | 21°15 | 20° 5 | 6°50 | 10°38 | 26°36 | 26°11 | 9°34 | 14°35 | T 20 | | |
| W21 | 4 24 2 | 5°17'37 | 9♄36 | 17° 2 | 10°23 | 15°22 | 11°54 | 21°22 | 20° 7 | 6°48 | 10°38 | 26°D36 | 26° 8 | 9°41 | 14°41 | W21 | | |
| T 22 | 4 27 59 | 6°18'41 | 21°29 | 18°26 | 11°38 | 15°55 | 12° 4 | 21°29 | 20°10 | 6°46 | 10°38 | 26°36 | 26° 5 | 9°47 | 14°48 | T 22 | | |
| F 23 | 4 31 55 | 7°19'45 | 3♑27 | 19°51 | 12°53 | 16°28 | 12°13 | 21°36 | 20°13 | 6°45 | 10°38 | 26°37 | 26° 1 | 9°54 | 14°55 | F 23 | | |
| S 24 | 4 35 52 | 8°20'50 | 15°34 | 21°17 | 14° 8 | 17° 0 | 12°23 | 21°43 | 20°16 | 6°43 | 10°38 | 26°38 | 25°58 | 10° 1 | 15° 1 | S 24 | | |
| S 25 | 4 39 48 | 9°21'55 | 27°54 | 22°43 | 15°23 | 17°34 | 12°33 | 21°50 | 20°18 | 6°41 | 10°38 | 26°40 | 25°55 | 10° 8 | 15° 8 | S 25 | | |
| M26 | 4 43 45 | 10°23'00 | 10♋30 | 24°11 | 16°38 | 18° 7 | 12°43 | 21°57 | 20°21 | 6°39 | 10°38 | 26°41 | 25°52 | 10°14 | 15°15 | M26 | | |
| T 27 | 4 47 41 | 11°24'06 | 23°24 | 25°39 | 17°53 | 18°40 | 12°53 | 22° 4 | 20°24 | 6°38 | 10°39 | 26°R41 | 25°49 | 10°21 | 15°22 | T 27 | | |
| W28 | 4 51 38 | 12°25'13 | 6♐38 | 27° 8 | 19° 8 | 19°14 | 13° 4 | 22°10 | 20°27 | 6°36 | 10°39 | 26°41 | 25°46 | 10°28 | 15°28 | W28 | | |
| T 29 | 4 55 34 | 13°26'20 | 20° 9 | 28°37 | 20°23 | 19°47 | 13°14 | 22°17 | 20°30 | 6°34 | 10°39 | 26°40 | 25°42 | 10°35 | 15°35 | T 29 | | |
| F 30 | 4 59 31 | 14♌27'28 | 3♄57 | 0♌ 6 | 21♎38 | 20♄21 | 13♌24 | 22♎24 | 20♋33 | 6♐33 | 10♄39 | 26♋38 | 25♉39 | 10♄41 | 15♌42 | F 30 | | |

Delta T = 19m15s Julian Calendar 1 Nov. 1072 == Greg. Calendar 7 Nov. 1072

DECEMBER 1072 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|------|---|-----|
| S 1 | 5 3 28 | 15♌28°36 | 17♄58 | 1♌36 | 22♎53 | 20♄55 | 13♌35 | 22♎31 | 20♋36 | 6°R31 | 10♄40 | 26°R35 | 25♉36 | 10♄48 | 15♌48 | S 1 | | |
| S 2 | 5 7 24 | 16°29'45 | 2♊ 8 | 3° 7 | 24° 8 | 21°29 | 13°46 | 22°37 | 20°39 | 6♐29 | 10°40 | 26♋32 | 25°33 | 10°55 | 15°55 | S 2 | | |
| M 3 | 5 11 21 | 17°30'55 | 16°22 | 4°37 | 25°23 | 22° 3 | 13°57 | 22°44 | 20°42 | 6°28 | 10°40 | 26°30 | 25°30 | 11° 1 | 16° 2 | M 3 | | |
| T 4 | 5 15 17 | 18°32'05 | 0♎38 | 6° 8 | 26°38 | 22°37 | 14° 8 | 22°51 | 20°45 | 6°26 | 10°41 | 26°28 | 25°26 | 11° 8 | 16° 9 | T 4 | | |
| W 5 | 5 19 14 | 19°33'16 | 14°51 | 7°40 | 27°54 | 23°12 | 14°19 | 22°57 | 20°48 | 6°24 | 10°41 | 26°D27 | 25°23 | 11°15 | 16°15 | W 5 | | |
| T 6 | 5 23 10 | 20°34'27 | 29° 0 | 9°11 | 29° 9 | 23°46 | 14°30 | 23° 4 | 20°52 | 6°23 | 10°41 | 26°27 | 25°20 | 11°22 | 16°22 | T 6 | | |
| F 7 | 5 27 7 | 21°35'39 | 13♊ 3 | 10°43 | 0♌24 | 24°21 | 14°41 | 23°11 | 20°55 | 6°21 | 10°42 | 26°28 | 25°17 | 11°28 | 16°29 | F 7 | | |
| S 8 | 5 31 3 | 22°36'51 | 26°57 | 12°15 | 1°39 | 24°56 | 14°53 | 23°17 | 20°58 | 6°19 | 10°42 | 26°30 | 25°14 | 11°35 | 16°35 | S 8 | | |
| S 9 | 5 35 0 | 23°38'04 | 10♎43 | 13°48 | 2°54 | 25°31 | 15° 4 | 23°24 | 21° 1 | 6°18 | 10°43 | 26°31 | 25°11 | 11°42 | 16°42 | S 9 | | |
| M10 | 5 38 57 | 24°39'17 | 24°19 | 15°21 | 4° 9 | 26° 6 | 15°16 | 23°30 | 21° 4 | 6°16 | 10°43 | 26°R32 | 25° 7 | 11°48 | 16°49 | M10 | | |
| T 11 | 5 42 53 | 25°40'31 | 7♌44 | 16°54 | 5°25 | 26°41 | 15°27 | 23°36 | 21° 8 | 6°15 | 10°44 | 26°31 | 25° 4 | 11°55 | 16°55 | T 11 | | |
| W12 | 5 46 50 | 26°41'45 | 20°57 | 18°27 | 6°40 | 27°16 | 15°39 | 23°43 | 21°11 | 6°13 | 10°44 | 26°29 | 25° 1 | 12° 2 | 17° 2 | W12 | | |
| T 13 | 5 50 46 | 27°42'59 | 3♋56 | 20° 1 | 7°55 | 27°51 | 15°51 | 23°49 | 21°14 | 6°11 | 10°45 | 26°26 | 24°58 | 12° 9 | 17° 9 | T 13 | | |
| F 14 | 5 54 43 | 28°44'12 | 16°41 | 21°35 | 9°10 | 28°27 | 16° 3 | 23°55 | 21°18 | 6°10 | 10°46 | 26°20 | 24°55 | 12°15 | 17°15 | F 14 | | |
| S 15 | 5 58 39 | 29°45'26 | 29°12 | 23° 9 | 10°26 | 29° 2 | 16°15 | 24° 2 | 21°21 | 6° 8 | 10°46 | 26°14 | 24°52 | 12°22 | 17°22 | S 15 | | |
| S 16 | 6 2 36 | 0♋46'39 | 11♌29 | 24°44 | 11°41 | 29°38 | 16°27 | 24° 8 | 21°24 | 6° 7 | 10°47 | 26° 8 | 24°48 | 12°29 | 17°29 | S 16 | | |
| M17 | 6 6 33 | 1°47'52 | 23°35 | 26°19 | 12°56 | 0♑14 | 16°39 | 24°14 | 21°28 | 6° 5 | 10°48 | 26° 2 | 24°45 | 12°35 | 17°35 | M17 | | |
| T 18 | 6 10 29 | 2°49'04 | 5♄32 | 27°55 | 14°11 | 0°49 | 16°51 | 24°20 | 21°31 | 6° 4 | 10°48 | 25°57 | 24°42 | 12°42 | 17°42 | T 18 | | |
| W19 | 6 14 26 | 3°50'16 | 17°24 | 29°31 | 15°26 | 1°25 | 17° 4 | 24°26 | 21°34 | 6° 2 | 10°49 | 25°54 | 24°39 | 12°49 | 17°48 | W19 | | |
| T 20 | 6 18 22 | 4°51'28 | 29°16 | 1♋ 7 | 16°42 | 2° 1 | 17°16 | 24°32 | 21°38 | 6° 1 | 10°50 | 25°52 | 24°36 | 12°56 | 17°55 | T 20 | | |
| F 21 | 6 22 19 | 5°52'39 | 11♑11 | 2°44 | 17°57 | 2°37 | 17°29 | 24°38 | 21°41 | 5°59 | 10°51 | 25°D52 | 24°32 | 13° 2 | 18° 1 | F 21 | | |
| S 22 | 6 26 15 | 6°53'49 | 23°16 | 4°21 | 19°12 | 3°14 | 17°41 | 24°44 | 21°45 | 5°58 | 10°51 | 25°53 | 24°29 | 13° 9 | 18° 8 | S 22 | | |
| S 23 | 6 30 12 | 7°54'59 | 5♉34 | 5°58 | 20°27 | 3°50 | 17°54 | 24°50 | 21°48 | 5°57 | 10°52 | 25°55 | 24°26 | 13°16 | 18°14 | S 23 | | |
| M24 | 6 34 8 | 8°56'08 | 18°12 | 7°37 | 21°43 | 4°26 | 18° 7 | 24°56 | 21°51 | 5°55 | 10°53 | 25°56 | 24°23 | 13°22 | 18°20 | M24 | | |
| T 25 | 6 38 5 | 9°57'16 | 1♐12 | 9°15 | 22°58 | 5° 2 | 18°20 | 25° 1 | 21°55 | 5°54 | 10°54 | 25°R56 | 24°20 | 13°29 | 18°27 | T 25 | | |
| W26 | 6 42 2 | 10°58'24 | 14°36 | 10°54 | 24°13 | 5°39 | 18°32 | 25° 7 | 21°58 | 5°53 | 10°55 | 25°55 | 24°17 | 13°36 | 18°33 | W26 | | |
| T 27 | 6 45 58 | 11°59'31 | 28°26 | 12°34 | 25°28 | 6°15 | 18°45 | 25°13 | 22° 2 | 5°51 | 10°56 | 25°51 | 24°13 | 13°43 | 18°39 | T 27 | | |
| F 28 | 6 49 55 | 13° 0'38 | 12♋38 | 14°14 | 26°43 | 6°52 | 18°58 | 25°18 | 22° 5 | 5°50 | 10°56 | 25°45 | 24°10 | 13°49 | 18°46 | F 28 | | |
| S 29 | 6 53 51 | 14° 1'44 | 27° 7 | 15°55 | 27°59 | 7°28 | 19°12 | 25°24 | 22° 9 | 5°49 | 10°57 | 25°37 | 24° 7 | 13°56 | 18°52 | S 29 | | |
| S 30 | 6 57 48 | 15° 2'49 | 11♎47 | 17°36 | 29°14 | 8° 5 | 19°25 | 25°29 | 22°12 | 5°47 | 10°58 | 25°29 | 24° 4 | 14° 3 | 18°58 | S 30 | | |
| M31 | 7 1 44 | 16♋ 3'54 | 26♊31 | 19♋17 | 0♋29 | 8°42 | 19♌38 | 25♎34 | 22♋16 | 5♐46 | 10♄59 | 25♉21 | 24♉ 1 | 14♄ 9 | 19♌ 4 | M31 | | |

Delta T = 19m15s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1073
geocentric

JANUARY 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|------|
| T 1 | 7 5 41 | 17♌4'58 | 11♍10 | 21♋0 | 1♋44 | 9♍18 | 19♌51 | 25♍40 | 22♋19 | 5♍R45 | 11♋0 | 25♍R15 | 23♋58 | 14♋16 | 19♌11 | T 1 |
| W 2 | 7 9 37 | 18° 6'02 | 25°39 | 22°42 | 2°59 | 9°55 | 20° 4 | 25°45 | 22°23 | 5♍II44 | 11° 1 | 25♋10 | 23°54 | 14°23 | 19°17 | W 2 |
| T 3 | 7 13 34 | 19° 7'05 | 9♌54 | 24°25 | 4°15 | 10°32 | 20°18 | 25°50 | 22°26 | 5°43 | 11° 2 | 25° 8 | 23°51 | 14°30 | 19°23 | T 3 |
| F 4 | 7 17 31 | 20° 8'07 | 23°52 | 26° 9 | 5°30 | 11° 9 | 20°31 | 25°55 | 22°30 | 5°42 | 11° 3 | 25°D 8 | 23°48 | 14°36 | 19°29 | F 4 |
| S 5 | 7 21 27 | 21° 9'09 | 7♍34 | 27°53 | 6°45 | 11°46 | 20°45 | 26° 0 | 22°33 | 5°40 | 11° 4 | 25° 8 | 23°45 | 14°43 | 19°35 | S 5 |
| S 6 | 7 25 24 | 22°10'11 | 21° 1 | 29°37 | 8° 0 | 12°23 | 20°58 | 26° 5 | 22°37 | 5°39 | 11° 6 | 25°R 9 | 23°42 | 14°50 | 19°41 | S 6 |
| M 7 | 7 29 20 | 23°11'12 | 4♌14 | 1♌22 | 9°15 | 13° 0 | 21°12 | 26°10 | 22°41 | 5°38 | 11° 7 | 25° 9 | 23°38 | 14°56 | 19°47 | M 7 |
| T 8 | 7 33 17 | 24°12'12 | 17°15 | 3° 7 | 10°31 | 13°37 | 21°25 | 26°15 | 22°44 | 5°37 | 11° 8 | 25° 6 | 23°35 | 15° 3 | 19°53 | T 8 |
| W 9 | 7 37 13 | 25°13'12 | 0♋5 | 4°52 | 11°46 | 14°14 | 21°39 | 26°20 | 22°48 | 5°36 | 11° 9 | 25° 1 | 23°32 | 15°10 | 19°58 | W 9 |
| T 10 | 7 41 10 | 26°14'10 | 12°45 | 6°37 | 13° 1 | 14°51 | 21°53 | 26°24 | 22°51 | 5°35 | 11°10 | 24°53 | 23°29 | 15°17 | 20° 4 | T 10 |
| F 11 | 7 45 7 | 27°15'08 | 25°14 | 8°22 | 14°16 | 15°28 | 22° 7 | 26°29 | 22°55 | 5°34 | 11°11 | 24°43 | 23°26 | 15°23 | 20°10 | F 11 |
| S 12 | 7 49 3 | 28°16'04 | 7♌33 | 10° 6 | 15°31 | 16° 6 | 22°21 | 26°34 | 22°58 | 5°34 | 11°12 | 24°31 | 23°23 | 15°30 | 20°16 | S 12 |
| S 13 | 7 53 0 | 29°17'00 | 19°43 | 11°50 | 16°47 | 16°43 | 22°34 | 26°38 | 23° 2 | 5°33 | 11°14 | 24°18 | 23°19 | 15°37 | 20°21 | S 13 |
| M14 | 7 56 56 | 0♌17'54 | 1♋45 | 13°33 | 18° 2 | 17°20 | 22°48 | 26°42 | 23° 5 | 5°32 | 11°15 | 24° 6 | 23°16 | 15°44 | 20°27 | M14 |
| T 15 | 8 0 53 | 1°18'46 | 13°40 | 15°15 | 19°17 | 17°58 | 23° 2 | 26°47 | 23° 9 | 5°31 | 11°16 | 23°55 | 23°13 | 15°50 | 20°33 | T 15 |
| W16 | 8 4 49 | 2°19'37 | 25°30 | 16°56 | 20°32 | 18°35 | 23°16 | 26°51 | 23°12 | 5°30 | 11°17 | 23°46 | 23°10 | 15°57 | 20°38 | W16 |
| T 17 | 8 8 46 | 3°20'27 | 7♍20 | 18°34 | 21°47 | 19°12 | 23°30 | 26°55 | 23°16 | 5°29 | 11°18 | 23°40 | 23° 7 | 16° 4 | 20°44 | T 17 |
| F 18 | 8 12 42 | 4°21'15 | 19°12 | 20°11 | 23° 2 | 19°50 | 23°44 | 26°59 | 23°19 | 5°29 | 11°20 | 23°37 | 23° 4 | 16°10 | 20°49 | F 18 |
| S 19 | 8 16 39 | 5°22'01 | 1♋13 | 21°44 | 24°18 | 20°27 | 23°58 | 27° 3 | 23°23 | 5°28 | 11°21 | 23°D35 | 23° 0 | 16°17 | 20°54 | S 19 |
| S 20 | 8 20 35 | 6°22'46 | 13°28 | 23°15 | 25°33 | 21° 5 | 24°13 | 27° 7 | 23°26 | 5°27 | 11°22 | 23°36 | 22°57 | 16°24 | 21° 0 | S 20 |
| M21 | 8 24 32 | 7°23'30 | 26° 1 | 24°41 | 26°48 | 21°42 | 24°27 | 27°11 | 23°29 | 5°27 | 11°24 | 23°R36 | 22°54 | 16°30 | 21° 5 | M21 |
| T 22 | 8 28 29 | 8°24'12 | 8♍57 | 26° 3 | 28° 3 | 22°20 | 24°41 | 27°15 | 23°33 | 5°26 | 11°25 | 23°35 | 22°51 | 16°37 | 21°10 | T 22 |
| W23 | 8 32 25 | 9°24'52 | 22°22 | 27°20 | 29°18 | 22°58 | 24°55 | 27°18 | 23°36 | 5°26 | 11°26 | 23°32 | 22°48 | 16°44 | 21°15 | W23 |
| T 24 | 8 36 22 | 10°25'30 | 6♌15 | 28°30 | 0♌33 | 23°35 | 25° 9 | 27°22 | 23°40 | 5°25 | 11°28 | 23°26 | 22°44 | 16°51 | 21°20 | T 24 |
| F 25 | 8 40 18 | 11°26'07 | 20°37 | 29°34 | 1°48 | 24°13 | 25°24 | 27°25 | 23°43 | 5°25 | 11°29 | 23°18 | 22°41 | 16°57 | 21°25 | F 25 |
| S 26 | 8 44 15 | 12°26'42 | 5♌23 | 0♋31 | 3° 3 | 24°51 | 25°38 | 27°29 | 23°47 | 5°24 | 11°30 | 23° 7 | 22°38 | 17° 4 | 21°30 | S 26 |
| S 27 | 8 48 11 | 13°27'15 | 20°26 | 1°19 | 4°18 | 25°28 | 25°52 | 27°32 | 23°50 | 5°24 | 11°32 | 22°56 | 22°35 | 17°11 | 21°35 | S 27 |
| M28 | 8 52 8 | 14°27'47 | 5♍35 | 1°59 | 5°33 | 26° 6 | 26° 6 | 27°35 | 23°53 | 5°23 | 11°33 | 22°45 | 22°32 | 17°17 | 21°40 | M28 |
| T 29 | 8 56 5 | 15°28'18 | 20°39 | 2°29 | 6°48 | 26°44 | 26°21 | 27°38 | 23°57 | 5°23 | 11°35 | 22°35 | 22°29 | 17°24 | 21°45 | T 29 |
| W30 | 9 0 1 | 16°28'46 | 5♌31 | 2°50 | 8° 3 | 27°21 | 26°35 | 27°41 | 24° 0 | 5°23 | 11°36 | 22°28 | 22°25 | 17°31 | 21°49 | W30 |
| T 31 | 9 3 58 | 17°29'14 | 20♌2 | 3♋0 | 9♌18 | 27°59 | 26°49 | 27♍44 | 24♋3 | 5♍II22 | 11♋37 | 22♋23 | 22♋22 | 17♋38 | 21♌54 | T 31 |

Delta T = 19m14s Julian Calendar 1 Jan. 1073 == Greg. Calendar 7 Jan. 1073

FEBRUARY 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|-------|-------|--------|-------|--------|-------|-------|-------|------|
| F 1 | 9 7 54 | 18♌29'40 | 4♍10 | 3°R 1 | 10♌33 | 28°V37 | 27♌4 | 27♍47 | 24♋7 | 5°R22 | 11♋39 | 22°R21 | 22♋19 | 17♋44 | 21♌59 | F 1 |
| S 2 | 9 11 51 | 19°30'05 | 17°54 | 2♋51 | 11°48 | 29°15 | 27°18 | 27°50 | 24°10 | 5♍II22 | 11°40 | 22♋21 | 22°16 | 17°51 | 22° 3 | S 2 |
| S 3 | 9 15 47 | 20°30'28 | 1♌17 | 2°32 | 13° 3 | 29°52 | 27°33 | 27°53 | 24°13 | 5°22 | 11°42 | 22°21 | 22°13 | 17°58 | 22° 8 | S 3 |
| M 4 | 9 19 44 | 21°30'50 | 14°20 | 2° 3 | 14°18 | 0♋30 | 27°47 | 27°55 | 24°16 | 5°21 | 11°43 | 22°19 | 22°10 | 18° 4 | 22°12 | M 4 |
| T 5 | 9 23 40 | 22°31'11 | 27° 7 | 1°26 | 15°33 | 1° 8 | 28° 2 | 27°58 | 24°20 | 5°21 | 11°45 | 22°16 | 22° 6 | 18°11 | 22°16 | T 5 |
| W 6 | 9 27 37 | 23°31'30 | 9♋40 | 0°41 | 16°48 | 1°46 | 28°16 | 28° 0 | 24°23 | 5°21 | 11°46 | 22°10 | 22° 3 | 18°18 | 22°21 | W 6 |
| T 7 | 9 31 34 | 24°31'48 | 22° 3 | 29°50 | 18° 3 | 2°24 | 28°30 | 28° 3 | 24°26 | 5°21 | 11°48 | 22° 1 | 22° 0 | 18°25 | 22°25 | T 7 |
| F 8 | 9 35 30 | 25°32'03 | 4♌18 | 28°53 | 19°18 | 3° 2 | 28°45 | 28° 5 | 24°29 | 5°D21 | 11°49 | 21°49 | 21°57 | 18°31 | 22°29 | F 8 |
| S 9 | 9 39 27 | 26°32'17 | 16°25 | 27°53 | 20°33 | 3°39 | 28°59 | 28° 7 | 24°32 | 5°21 | 11°51 | 21°35 | 21°54 | 18°38 | 22°33 | S 9 |
| S 10 | 9 43 23 | 27°32'30 | 28°26 | 26°51 | 21°48 | 4°17 | 29°14 | 28° 9 | 24°35 | 5°21 | 11°52 | 21°20 | 21°50 | 18°45 | 22°37 | S 10 |
| M11 | 9 47 20 | 28°32'40 | 10♋21 | 25°48 | 23° 3 | 4°55 | 29°28 | 28°11 | 24°38 | 5°21 | 11°54 | 21° 6 | 21°47 | 18°51 | 22°41 | M11 |
| T 12 | 9 51 16 | 29°32'48 | 22°13 | 24°46 | 24°18 | 5°33 | 29°43 | 28°13 | 24°41 | 5°21 | 11°55 | 20°53 | 21°44 | 18°58 | 22°44 | T 12 |
| W13 | 9 55 13 | 0♋32'54 | 4♍3 | 23°46 | 25°33 | 6°11 | 29°57 | 28°14 | 24°44 | 5°22 | 11°57 | 20°42 | 21°41 | 19° 5 | 22°48 | W13 |
| T 14 | 9 59 9 | 1°32'59 | 15°53 | 22°50 | 26°47 | 6°49 | 0♋12 | 28°16 | 24°47 | 5°22 | 11°58 | 20°35 | 21°38 | 19°12 | 22°52 | T 14 |
| F 15 | 10 3 6 | 2°33'01 | 27°46 | 21°58 | 28° 2 | 7°27 | 0°26 | 28°17 | 24°50 | 5°22 | 12° 0 | 20°30 | 21°35 | 19°18 | 22°55 | F 15 |
| S 16 | 10 7 2 | 3°33'01 | 9♋46 | 21°11 | 29°17 | 8° 5 | 0°41 | 28°19 | 24°53 | 5°22 | 12° 1 | 20°28 | 21°31 | 19°25 | 22°59 | S 16 |
| S 17 | 10 10 59 | 4°32'58 | 21°58 | 20°30 | 0♋32 | 8°43 | 0°55 | 28°20 | 24°56 | 5°22 | 12° 3 | 20°D27 | 21°28 | 19°32 | 23° 2 | S 17 |
| M18 | 10 14 56 | 5°32'54 | 4♍27 | 19°55 | 1°47 | 9°21 | 1°10 | 28°21 | 24°59 | 5°23 | 12° 4 | 20°R28 | 21°25 | 19°38 | 23° 6 | M18 |
| T 19 | 10 18 52 | 6°32'47 | 17°18 | 19°27 | 3° 2 | 9°59 | 1°24 | 28°23 | 25° 2 | 5°23 | 12° 6 | 20°27 | 21°22 | 19°45 | 23° 9 | T 19 |
| W20 | 10 22 49 | 7°32'39 | 0♌35 | 19° 5 | 4°16 | 10°37 | 1°39 | 28°24 | 25° 5 | 5°23 | 12° 7 | 20°25 | 21°19 | 19°52 | 23°12 | W20 |
| T 21 | 10 26 45 | 8°32'28 | 14°22 | 18°50 | 5°31 | 11°15 | 1°53 | 28°24 | 25° 8 | 5°24 | 12° 9 | 20°21 | 21°15 | 19°58 | 23°15 | T 21 |
| F 22 | 10 30 42 | 9°32'14 | 28°40 | 18°41 | 6°46 | 11°53 | 2° 7 | 28°25 | 25°10 | 5°24 | 12°10 | 20°14 | 21°12 | 20° 5 | 23°18 | F 22 |
| S 23 | 10 34 38 | 10°31'58 | 13♌25 | 18°D38 | 8° 0 | 12°31 | 2°22 | 28°26 | 25°13 | 5°25 | 12°12 | 20° 5 | 21° 9 | 20°12 | 23°21 | S 23 |
| S 24 | 10 38 35 | 11°31'41 | 28°31 | 18°42 | 9°15 | 13° 9 | 2°36 | 28°27 | 25°16 | 5°25 | 12°13 | 19°55 | 21° 6 | 20°19 | 23°24 | S 24 |
| M25 | 10 42 31 | 12°31'20 | 13♍50 | 18°51 | 10°30 | 13°47 | 2°51 | 28°27 | 25°19 | 5°26 | 12°15 | 19°44 | 21° 3 | 20°25 | 23°27 | M25 |
| T 26 | 10 46 28 | 13°30'58 | 29° 9 | 19° 6 | 11°45 | 14°25 | 3° 5 | 28°28 | 25°21 | 5°27 | 12°17 | 19°36 | 21° 0 | 20°32 | 23°29 | T 26 |
| W27 | 10 50 25 | 14°30'34 | 14♌17 | 19°27 | 12°59 | 15° 3 | 3°19 | 28°28 | 25°24 | 5°27 | 12°18 | 19°29 | 20°56 | 20°39 | 23°32 | W27 |
| T 28 | 10 54 21 | 15°30'08 | 29♌6 | 19°52 | 14♋14 | 15°41 | 3♋34 | 28♍28 | 25♋26 | 5♍II28 | 12♋20 | 19♋25 | 20♋53 | 20♋45 | 23♌35 | T 28 |

Delta T = 19m14s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1073
geocentric

MARCH 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|------|-------|--------|-------|-------|--------|------|
| F 1 | 10 58 18 | 16♌29°40 | 13♍29 | 20♋21 | 15♌28 | 16♌18 | 3♌48 | 28♍28 | 25♎29 | 5♏28 | 12♌21 | 19°D23 | 20♌50 | 20♌52 | 23♌37 | F 1 |
| S 2 | 11 2 14 | 17°29'11 | 27°25 | 20°56 | 16°43 | 16°56 | 4° 2 | 28°R28 | 25°31 | 5°29 | 12°23 | 19♌23 | 20°47 | 20°59 | 23°39 | S 2 |
| S 3 | 11 6 11 | 18°28'39 | 10♌54 | 21°34 | 17°58 | 17°34 | 4°16 | 28°28 | 25°34 | 5°30 | 12°24 | 19°24 | 20°44 | 21° 6 | 23°42 | S 3 |
| M 4 | 11 10 7 | 19°28'06 | 23°58 | 22°16 | 19°12 | 18°12 | 4°31 | 28°28 | 25°36 | 5°31 | 12°26 | 19°R24 | 20°41 | 21°12 | 23°44 | M 4 |
| T 5 | 11 14 4 | 20°27'31 | 6♌32 | 23° 2 | 20°27 | 18°50 | 4°45 | 28°28 | 25°39 | 5°32 | 12°27 | 19°23 | 20°37 | 21°19 | 23°46 | T 5 |
| W 6 | 11 18 0 | 21°26'55 | 19°10 | 23°51 | 21°41 | 19°28 | 4°59 | 28°27 | 25°41 | 5°32 | 12°29 | 19°19 | 20°34 | 21°26 | 23°48 | W 6 |
| T 7 | 11 21 57 | 22°26'16 | 1♌24 | 24°44 | 22°56 | 20° 6 | 5°13 | 28°27 | 25°43 | 5°33 | 12°30 | 19°13 | 20°31 | 21°32 | 23°50 | T 7 |
| F 8 | 11 25 54 | 23°25'36 | 13°29 | 25°40 | 24°10 | 20°44 | 5°27 | 28°26 | 25°46 | 5°34 | 12°32 | 19° 5 | 20°28 | 21°39 | 23°52 | F 8 |
| S 9 | 11 29 50 | 24°24'53 | 25°28 | 26°38 | 25°25 | 21°22 | 5°41 | 28°26 | 25°48 | 5°35 | 12°33 | 18°55 | 20°25 | 21°46 | 23°53 | S 9 |
| S 10 | 11 33 47 | 25°24'09 | 7♌22 | 27°39 | 26°40 | 22° 0 | 5°56 | 28°25 | 25°50 | 5°36 | 12°35 | 18°44 | 20°21 | 21°52 | 23°55 | S 10 |
| M 11 | 11 37 43 | 26°23'22 | 19°13 | 28°43 | 27°54 | 22°38 | 6°10 | 28°24 | 25°52 | 5°37 | 12°36 | 18°34 | 20°18 | 21°59 | 23°56 | M 11 |
| T 12 | 11 41 40 | 27°22'34 | 1♌3 | 29°49 | 29° 8 | 23°16 | 6°24 | 28°23 | 25°54 | 5°38 | 12°38 | 18°24 | 20°15 | 22° 6 | 23°58 | T 12 |
| W 13 | 11 45 36 | 28°21'43 | 12°54 | 0♌58 | 0♌23 | 23°54 | 6°38 | 28°22 | 25°56 | 5°39 | 12°39 | 18°17 | 20°12 | 22°13 | 23°59 | W 13 |
| T 14 | 11 49 33 | 29°20'50 | 24°48 | 2° 9 | 1°37 | 24°32 | 6°51 | 28°21 | 25°58 | 5°40 | 12°41 | 18°12 | 20° 9 | 22°19 | 24° 1 | T 14 |
| F 15 | 11 53 29 | 0♌19'55 | 6♌46 | 3°22 | 2°52 | 25°10 | 7° 5 | 28°20 | 26° 0 | 5°41 | 12°42 | 18° 9 | 20° 6 | 22°26 | 24° 2 | F 15 |
| S 16 | 11 57 26 | 1°18'58 | 18°52 | 4°37 | 4° 6 | 25°48 | 7°19 | 28°18 | 26° 2 | 5°43 | 12°44 | 18°D 8 | 20° 2 | 22°33 | 24° 3 | S 16 |
| S 17 | 12 1 23 | 2°17'58 | 1♌9 | 5°55 | 5°21 | 26°26 | 7°33 | 28°17 | 26° 4 | 5°44 | 12°45 | 18° 9 | 19°59 | 22°39 | 24° 4 | S 17 |
| M 18 | 12 5 19 | 3°16'57 | 13°40 | 7°14 | 6°35 | 27° 4 | 7°47 | 28°15 | 26° 6 | 5°45 | 12°47 | 18°10 | 19°56 | 22°46 | 24° 5 | M 18 |
| T 19 | 12 9 16 | 4°15'53 | 26°30 | 8°35 | 7°49 | 27°42 | 8° 1 | 28°14 | 26° 8 | 5°46 | 12°48 | 18°11 | 19°53 | 22°53 | 24° 6 | T 19 |
| W 20 | 12 13 12 | 5°14'46 | 9♌43 | 9°58 | 9° 4 | 28°20 | 8°14 | 28°12 | 26°10 | 5°48 | 12°50 | 18°R12 | 19°50 | 22°59 | 24° 6 | W 20 |
| T 21 | 12 17 9 | 6°13'38 | 23°21 | 11°22 | 10°18 | 28°58 | 8°28 | 28°10 | 26°11 | 5°49 | 12°51 | 18°10 | 19°47 | 23° 6 | 24° 7 | T 21 |
| F 22 | 12 21 5 | 7°12'27 | 7♌27 | 12°49 | 11°32 | 29°36 | 8°41 | 28° 8 | 26°13 | 5°50 | 12°53 | 18° 7 | 19°43 | 23°13 | 24° 7 | F 22 |
| S 23 | 12 25 2 | 8°11'13 | 21°59 | 14°17 | 12°46 | 0♌14 | 8°55 | 28° 6 | 26°15 | 5°51 | 12°54 | 18° 2 | 19°40 | 23°20 | 24° 8 | S 23 |
| S 24 | 12 28 58 | 9° 9'58 | 6♌53 | 15°47 | 14° 1 | 0°52 | 9° 8 | 28° 4 | 26°16 | 5°53 | 12°55 | 17°57 | 19°37 | 23°26 | 24° 8 | S 24 |
| M 25 | 12 32 55 | 10° 8'39 | 22° 2 | 17°18 | 15°15 | 1°30 | 9°22 | 28° 2 | 26°18 | 5°54 | 12°57 | 17°51 | 19°34 | 23°33 | 24° 9 | M 25 |
| T 26 | 12 36 52 | 11° 7'19 | 7♌17 | 18°51 | 16°29 | 2° 8 | 9°35 | 28° 0 | 26°19 | 5°56 | 12°58 | 17°46 | 19°31 | 23°40 | 24° 9 | T 26 |
| W 27 | 12 40 48 | 12° 5'57 | 22°26 | 20°26 | 17°43 | 2°45 | 9°49 | 27°57 | 26°21 | 5°57 | 13° 0 | 17°43 | 19°27 | 23°46 | 24° 9 | W 27 |
| T 28 | 12 44 45 | 13° 4'33 | 7♌21 | 22° 3 | 18°57 | 3°23 | 10° 2 | 27°55 | 26°22 | 5°59 | 13° 1 | 17°41 | 19°24 | 23°53 | 24°R 9 | T 28 |
| F 29 | 12 48 41 | 14° 3'07 | 21°54 | 23°41 | 20°11 | 4° 1 | 10°15 | 27°52 | 26°24 | 6° 0 | 13° 2 | 17°D40 | 19°21 | 24° 0 | 24° 9 | F 29 |
| S 30 | 12 52 38 | 15° 1'40 | 6♌0 | 25°20 | 21°25 | 4°39 | 10°28 | 27°50 | 26°25 | 6° 2 | 13° 4 | 17°41 | 19°18 | 24° 6 | 24° 9 | S 30 |
| S 31 | 12 56 34 | 16°0'11 | 19♌39 | 27♌2 | 22°40 | 5♏17 | 10♌41 | 27♌47 | 26♌26 | 6♏3 | 13♌5 | 17♌43 | 19♌15 | 24♌13 | 24♌8 | S 31 |

Delta T = 19m14s Julian Calendar 1 March 1073 == Greg. Calendar 7 March 1073

APRIL 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|---------|-------|-------|--------|--------|------|-------|--------|-------|-------|--------|------|
| M 1 | 13 0 31 | 16♌58°40 | 2♌52 | 28♌45 | 23♌54 | 5♏55 | 10♌55 | 27°R44 | 26♌27 | 6♏5 | 13♌6 | 17♌44 | 19♌12 | 24♌20 | 24°R 8 | M 1 |
| T 2 | 13 4 27 | 17°57'07 | 15°41 | 0♌30 | 25° 8 | 6°33 | 11° 7 | 27♌42 | 26°29 | 6° 6 | 13° 8 | 17°R45 | 19° 8 | 24°27 | 24°R 8 | T 2 |
| W 3 | 13 8 24 | 18°55'33 | 28°10 | 2°16 | 26°22 | 7°11 | 11°20 | 27°39 | 26°30 | 6° 8 | 13° 9 | 17°45 | 19° 5 | 24°33 | 24° 7 | W 3 |
| T 4 | 13 12 21 | 19°53'57 | 10♌23 | 4° 4 | 27°36 | 7°48 | 11°33 | 27°36 | 26°31 | 6°10 | 13°10 | 17°43 | 19° 2 | 24°40 | 24° 6 | T 4 |
| F 5 | 13 16 17 | 20°52'20 | 22°25 | 5°54 | 28°50 | 8°26 | 11°46 | 27°33 | 26°32 | 6°11 | 13°12 | 17°40 | 18°59 | 24°47 | 24° 6 | F 5 |
| S 6 | 13 20 14 | 21°50'40 | 4♌20 | 7°46 | 0♌4 | 9° 4 | 11°59 | 27°30 | 26°33 | 6°13 | 13°13 | 17°36 | 18°56 | 24°53 | 24° 5 | S 6 |
| S 7 | 13 24 10 | 22°48'59 | 16°10 | 9°39 | 1°18 | 9°42 | 12°12 | 27°26 | 26°34 | 6°15 | 13°14 | 17°32 | 18°52 | 25° 0 | 24° 4 | S 7 |
| M 8 | 13 28 7 | 23°47'17 | 28° 0 | 11°34 | 2°32 | 10°20 | 12°24 | 27°23 | 26°35 | 6°17 | 13°15 | 17°28 | 18°49 | 25° 7 | 24° 3 | M 8 |
| T 9 | 13 32 3 | 24°45'32 | 9♌52 | 13°30 | 3°46 | 10°58 | 12°37 | 27°20 | 26°35 | 6°18 | 13°17 | 17°24 | 18°46 | 25°13 | 24° 2 | T 9 |
| W 10 | 13 36 0 | 25°43'46 | 21°47 | 15°28 | 5° 0 | 11°36 | 12°49 | 27°16 | 26°36 | 6°20 | 13°18 | 17°22 | 18°43 | 25°20 | 24° 1 | W 10 |
| T 11 | 13 39 56 | 26°41'58 | 3♌48 | 17°28 | 6°14 | 12°13 | 13° 2 | 27°13 | 26°37 | 6°22 | 13°19 | 17°20 | 18°40 | 25°27 | 24° 0 | T 11 |
| F 12 | 13 43 53 | 27°40'09 | 15°57 | 19°30 | 7°27 | 12°51 | 13°14 | 27° 9 | 26°38 | 6°24 | 13°20 | 17°D19 | 18°37 | 25°33 | 23°58 | F 12 |
| S 13 | 13 47 49 | 28°38'17 | 28°15 | 21°32 | 8°41 | 13°29 | 13°26 | 27° 6 | 26°38 | 6°26 | 13°21 | 17°20 | 18°33 | 25°40 | 23°57 | S 13 |
| S 14 | 13 51 46 | 29°36'24 | 10♏44 | 23°37 | 9°55 | 14° 7 | 13°38 | 27° 2 | 26°39 | 6°27 | 13°22 | 17°21 | 18°30 | 25°47 | 23°55 | S 14 |
| M 15 | 13 55 43 | 0♌34'29 | 23°26 | 25°43 | 11° 9 | 14°45 | 13°50 | 26°58 | 26°39 | 6°29 | 13°24 | 17°22 | 18°27 | 25°54 | 23°54 | M 15 |
| T 16 | 13 59 39 | 1°32'32 | 6♌25 | 27°50 | 12°23 | 15°23 | 14° 2 | 26°55 | 26°40 | 6°31 | 13°25 | 17°23 | 18°24 | 26° 0 | 23°52 | T 16 |
| W 17 | 14 3 36 | 2°30'33 | 19°41 | 29°58 | 13°37 | 16° 0 | 14°14 | 26°51 | 26°40 | 6°33 | 13°26 | 17°24 | 18°21 | 26° 7 | 23°51 | W 17 |
| T 18 | 14 7 32 | 3°28'32 | 3♌18 | 2♌7 | 14°50 | 16°38 | 14°26 | 26°47 | 26°41 | 6°35 | 13°27 | 17°R24 | 18°18 | 26°14 | 23°49 | T 18 |
| F 19 | 14 11 29 | 4°26'30 | 17°15 | 4°16 | 16° 4 | 17°16 | 14°38 | 26°43 | 26°41 | 6°37 | 13°28 | 17°24 | 18°14 | 26°20 | 23°47 | F 19 |
| S 20 | 14 15 25 | 5°24'25 | 1♌32 | 6°27 | 17°18 | 17°54 | 14°49 | 26°39 | 26°41 | 6°39 | 13°29 | 17°23 | 18°11 | 26°27 | 23°45 | S 20 |
| S 21 | 14 19 22 | 6°22'18 | 16° 7 | 8°37 | 18°32 | 18°32 | 15° 1 | 26°35 | 26°41 | 6°41 | 13°30 | 17°22 | 18° 8 | 26°34 | 23°43 | S 21 |
| M 22 | 14 23 18 | 7°20'09 | 0♌55 | 10°48 | 19°45 | 19° 9 | 15°13 | 26°31 | 26°42 | 6°43 | 13°31 | 17°21 | 18° 5 | 26°40 | 23°41 | M 22 |
| T 23 | 14 27 15 | 8°17'59 | 15°50 | 12°58 | 20°59 | 19°47 | 15°24 | 26°27 | 26°42 | 6°45 | 13°32 | 17°20 | 18° 2 | 26°47 | 23°39 | T 23 |
| W 24 | 14 31 12 | 9°15'47 | 0♌43 | 15° 8 | 22°13 | 20°25 | 15°35 | 26°23 | 26°42 | 6°47 | 13°33 | 17°19 | 17°58 | 26°54 | 23°36 | W 24 |
| T 25 | 14 35 8 | 10°13'34 | 15°28 | 17°17 | 23°26 | 21° 3 | 15°46 | 26°19 | 26°R42 | 6°49 | 13°34 | 17°D19 | 17°55 | 27° 1 | 23°34 | T 25 |
| F 26 | 14 39 5 | 11°11'19 | 29°57 | 19°25 | 24°40 | 21°40 | 15°58 | 26°15 | 26°42 | 6°51 | 13°35 | 17°19 | 17°52 | 27° 7 | 23°32 | F 26 |
| S 27 | 14 43 1 | 12° 9'03 | 14♌7 | 21°31 | 25°53 | 22°18 | 16° 9 | 26°10 | 26°42 | 6°53 | 13°36 | 17°19 | 17°49 | 27°14 | 23°29 | S 27 |
| S 28 | 14 46 58 | 13° 6'45 | 27°48 | 23°36 | 27° 7 | 22°56 | 16°19 | 26° 6 | 26°42 | 6°55 | 13°37 | 17°20 | 17°46 | 27°21 | 23°27 | S 28 |
| M 29 | 14 50 54 | 14° 4'27 | 11♌6 | 25°39 | 28°20 | 23°34 | 16°30 | 26° 2 | 26°42 | 6°57 | 13°38 | 17°20 | 17°43 | 27°27 | 23°24 | M 29 |
| T 30 | 14 54 51 | 15♌2'07 | 24♌1 | 27♌40 | 29♌34</ | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1073
geocentric

MAY 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|------|-------|--------|-------|-------|--------|------|---|---|-----|
| W 1 | 14 58 47 | 15♁59'46 | 6♁34 | 29♁39 | 0♁47 | 24♁49 | 16♁52 | 25°R53 | 26°R41 | 7♁ 1 | 13♁39 | 17♁21 | 17♁36 | 27♁41 | 23°R19 | W 1 | | | |
| T 2 | 15 2 44 | 16°57'25 | 18°50 | 1♁35 | 2° 1 | 25°27 | 17° 2 | 25♁49 | 26♁41 | 7° 4 | 13°40 | 17°21 | 17°33 | 27°47 | 23°16 | T 2 | | | |
| F 3 | 15 6 41 | 17°55'02 | 0♁53 | 3°29 | 3°14 | 26° 4 | 17°13 | 25°45 | 26°40 | 7° 6 | 13°41 | 17°21 | 17°30 | 27°54 | 23°13 | F 3 | | | |
| S 4 | 15 10 37 | 18°52'38 | 12°48 | 5°20 | 4°28 | 26°42 | 17°23 | 25°40 | 26°40 | 7° 8 | 13°42 | 17°21 | 17°27 | 28° 1 | 23°10 | S 4 | | | |
| S 5 | 15 14 34 | 19°50'13 | 24°38 | 7° 8 | 5°41 | 27°20 | 17°33 | 25°36 | 26°40 | 7°10 | 13°42 | 17°21 | 17°24 | 28° 7 | 23° 7 | S 5 | | | |
| M 6 | 15 18 30 | 20°47'46 | 6♁29 | 8°54 | 6°55 | 27°58 | 17°43 | 25°31 | 26°39 | 7°12 | 13°43 | 17°21 | 17°20 | 28°14 | 23° 4 | M 6 | | | |
| T 7 | 15 22 27 | 21°45'19 | 18°23 | 10°37 | 8° 8 | 28°35 | 17°53 | 25°27 | 26°39 | 7°14 | 13°44 | 17°22 | 17°17 | 28°21 | 23° 1 | T 7 | | | |
| W 8 | 15 26 23 | 22°42'51 | 0♁25 | 12°16 | 9°22 | 29°13 | 18° 3 | 25°23 | 26°38 | 7°16 | 13°45 | 17°22 | 17°14 | 28°27 | 22°58 | W 8 | | | |
| T 9 | 15 30 20 | 23°40'22 | 12°35 | 13°53 | 10°35 | 29°51 | 18°13 | 25°18 | 26°37 | 7°19 | 13°45 | 17°R22 | 17°11 | 28°34 | 22°55 | T 9 | | | |
| F 10 | 15 34 16 | 24°37'52 | 24°57 | 15°27 | 11°48 | 0♁28 | 18°22 | 25°14 | 26°37 | 7°21 | 13°46 | 17°22 | 17° 8 | 28°41 | 22°52 | F 10 | | | |
| S 11 | 15 38 13 | 25°35'21 | 7♁32 | 16°58 | 13° 2 | 1° 6 | 18°32 | 25° 9 | 26°36 | 7°23 | 13°47 | 17°22 | 17° 4 | 28°48 | 22°48 | S 11 | | | |
| S 12 | 15 42 10 | 26°32'49 | 20°21 | 18°25 | 14°15 | 1°44 | 18°41 | 25° 5 | 26°35 | 7°25 | 13°47 | 17°21 | 17° 1 | 28°54 | 22°45 | S 12 | | | |
| M13 | 15 46 6 | 27°30'16 | 3♁23 | 19°50 | 15°28 | 2°22 | 18°51 | 25° 0 | 26°34 | 7°27 | 13°48 | 17°20 | 16°58 | 29° 1 | 22°41 | M13 | | | |
| T 14 | 15 50 3 | 28°27'42 | 16°40 | 21°11 | 16°42 | 2°59 | 19° 0 | 24°56 | 26°33 | 7°30 | 13°48 | 17°18 | 16°55 | 29° 8 | 22°38 | T 14 | | | |
| W15 | 15 53 59 | 29°25'06 | 0♁10 | 22°29 | 17°55 | 3°37 | 19° 9 | 24°51 | 26°33 | 7°32 | 13°49 | 17°17 | 16°52 | 29°14 | 22°35 | W15 | | | |
| T 16 | 15 57 56 | 0♁22'29 | 13°54 | 23°44 | 19° 8 | 4°15 | 19°18 | 24°47 | 26°32 | 7°34 | 13°49 | 17°16 | 16°49 | 29°21 | 22°31 | T 16 | | | |
| F 17 | 16 1 52 | 1°19'51 | 27°51 | 24°56 | 20°21 | 4°52 | 19°26 | 24°43 | 26°31 | 7°36 | 13°50 | 17°D16 | 16°45 | 29°28 | 22°27 | F 17 | | | |
| S 18 | 16 5 49 | 2°17'12 | 12♁ 0 | 26° 5 | 21°35 | 5°30 | 19°35 | 24°38 | 26°30 | 7°39 | 13°50 | 17°16 | 16°42 | 29°34 | 22°24 | S 18 | | | |
| S 19 | 16 9 46 | 3°14'32 | 26°19 | 27°10 | 22°48 | 6° 8 | 19°43 | 24°34 | 26°28 | 7°41 | 13°51 | 17°17 | 16°39 | 29°41 | 22°20 | S 19 | | | |
| M20 | 16 13 42 | 4°11'50 | 10♁44 | 28°11 | 24° 1 | 6°45 | 19°52 | 24°30 | 26°27 | 7°43 | 13°51 | 17°18 | 16°36 | 29°48 | 22°17 | M20 | | | |
| T 21 | 16 17 39 | 5° 9'08 | 25°14 | 29° 9 | 25°14 | 7°23 | 20° 0 | 24°25 | 26°26 | 7°45 | 13°52 | 17°19 | 16°33 | 29°54 | 22°13 | T 21 | | | |
| W22 | 16 21 35 | 6° 6'24 | 9♁42 | 0♁ 3 | 26°27 | 8° 1 | 20° 8 | 24°21 | 26°25 | 7°48 | 13°52 | 17°20 | 16°30 | 0♁ 1 | 22° 9 | W22 | | | |
| T 23 | 16 25 32 | 7° 3'40 | 24° 5 | 0°54 | 27°40 | 8°39 | 20°16 | 24°17 | 26°24 | 7°50 | 13°53 | 17°R20 | 16°26 | 0° 8 | 22° 5 | T 23 | | | |
| F 24 | 16 29 28 | 8° 0'55 | 8♁16 | 1°41 | 28°53 | 9°16 | 20°24 | 24°12 | 26°22 | 7°52 | 13°53 | 17°19 | 16°23 | 0°15 | 22° 2 | F 24 | | | |
| S 25 | 16 33 25 | 8°58'09 | 2°12 | 2°24 | 0♁ 6 | 9°54 | 20°32 | 24° 8 | 26°21 | 7°54 | 13°53 | 17°17 | 16°20 | 0°21 | 21°58 | S 25 | | | |
| S 26 | 16 37 21 | 9°55'23 | 5♁49 | 3° 3 | 1°19 | 10°32 | 20°39 | 24° 4 | 26°20 | 7°57 | 13°54 | 17°14 | 16°17 | 0°28 | 21°54 | S 26 | | | |
| M27 | 16 41 18 | 10°52'37 | 19° 6 | 3°37 | 2°32 | 11° 9 | 20°47 | 24° 0 | 26°18 | 7°59 | 13°54 | 17°10 | 16°14 | 0°35 | 21°50 | M27 | | | |
| T 28 | 16 45 15 | 11°49'50 | 2♁ 1 | 4° 8 | 3°45 | 11°47 | 20°54 | 23°56 | 26°17 | 8° 1 | 13°54 | 17° 7 | 16°10 | 0°41 | 21°46 | T 28 | | | |
| W29 | 16 49 11 | 12°47'03 | 14°36 | 4°34 | 4°58 | 12°25 | 21° 1 | 23°52 | 26°15 | 8° 3 | 13°54 | 17° 4 | 16° 7 | 0°48 | 21°42 | W29 | | | |
| T 30 | 16 53 8 | 13°44'15 | 26°53 | 4°56 | 6°11 | 13° 2 | 21° 8 | 23°47 | 26°14 | 8° 5 | 13°55 | 17° 2 | 16° 4 | 0°55 | 21°38 | T 30 | | | |
| F 31 | 16 57 4 | 14♁41'27 | 8♁58 | 5♁14 | 7♁24 | 13♁40 | 21♁15 | 23♁43 | 26♁12 | 8♁ 8 | 13♁55 | 17♁ 0 | 16♁ 1 | 1° 1 | 21♁34 | F 31 | | | |

Delta T = 19m13s Julian Calendar 1 May 1073 == Greg. Calendar 7 May 1073

JUNE 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|------|--------|--------|-------|-------|--------|------|---|---|-----|
| S 1 | 17 1 1 | 15♁38'39 | 20♁53 | 5♁27 | 8♁37 | 14♁18 | 21♁21 | 23°R39 | 26°R11 | 8♁10 | 13♁55 | 17°D 0 | 15♁58 | 1° 8 | 21°R30 | S 1 | | | |
| S 2 | 17 4 57 | 16°35'51 | 2° 44 | 5°35 | 9°50 | 14°55 | 21°28 | 23♁36 | 26♁ 9 | 8°12 | 13°55 | 17♁ 1 | 15°55 | 1°15 | 21°26 | S 2 | | | |
| M 3 | 17 8 54 | 17°33'03 | 14°36 | 5°R39 | 11° 3 | 15°33 | 21°34 | 23°32 | 26° 7 | 8°14 | 13°55 | 17° 3 | 15°51 | 1°21 | 21°23 | M 3 | | | |
| T 4 | 17 12 50 | 18°30'14 | 26°33 | 5°39 | 12°16 | 16°11 | 21°40 | 23°28 | 26° 6 | 8°17 | 13°55 | 17° 5 | 15°48 | 1°28 | 21°19 | T 4 | | | |
| W 5 | 17 16 47 | 19°27'26 | 8♁39 | 5°34 | 13°28 | 16°48 | 21°46 | 23°24 | 26° 4 | 8°19 | 13°55 | 17° 6 | 15°45 | 1°35 | 21°15 | W 5 | | | |
| T 6 | 17 20 44 | 20°24'37 | 20°59 | 5°24 | 14°41 | 17°26 | 21°52 | 23°20 | 26° 2 | 8°21 | 13°55 | 17°R 6 | 15°42 | 1°41 | 21°11 | T 6 | | | |
| F 7 | 17 24 40 | 21°21'49 | 3♁34 | 5°10 | 15°54 | 18° 4 | 21°58 | 23°17 | 26° 0 | 8°23 | 13°55 | 17° 5 | 15°39 | 1°48 | 21° 7 | F 7 | | | |
| S 8 | 17 28 37 | 22°19'00 | 16°27 | 4°52 | 17° 7 | 18°41 | 22° 3 | 23°13 | 25°58 | 8°25 | 13°R56 | 17° 2 | 15°36 | 1°55 | 21° 3 | S 8 | | | |
| S 9 | 17 32 33 | 23°16'12 | 29°37 | 4°30 | 18°20 | 19°19 | 22° 9 | 23°10 | 25°57 | 8°28 | 13°55 | 16°58 | 15°32 | 2° 1 | 20°59 | S 9 | | | |
| M10 | 17 36 30 | 24°13'23 | 13♁ 4 | 4° 5 | 19°32 | 19°57 | 22°14 | 23° 6 | 25°55 | 8°30 | 13°55 | 16°52 | 15°29 | 2° 8 | 20°55 | M10 | | | |
| T 11 | 17 40 26 | 25°10'34 | 26°46 | 3°36 | 20°45 | 20°35 | 22°19 | 23° 3 | 25°53 | 8°32 | 13°55 | 16°46 | 15°26 | 2°15 | 20°51 | T 11 | | | |
| W12 | 17 44 23 | 26° 7'45 | 10♁39 | 3° 5 | 21°58 | 21°12 | 22°24 | 22°59 | 25°51 | 8°34 | 13°55 | 16°40 | 15°23 | 2°22 | 20°47 | W12 | | | |
| T 13 | 17 48 19 | 27° 4'55 | 24°41 | 2°31 | 23°10 | 21°50 | 22°28 | 22°56 | 25°49 | 8°36 | 13°55 | 16°36 | 15°20 | 2°28 | 20°43 | T 13 | | | |
| F 14 | 17 52 16 | 28° 2'05 | 8♁49 | 1°55 | 24°23 | 22°28 | 22°33 | 22°53 | 25°47 | 8°38 | 13°55 | 16°32 | 15°16 | 2°35 | 20°39 | F 14 | | | |
| S 15 | 17 56 13 | 28°59'15 | 22°59 | 1°19 | 25°35 | 23° 5 | 22°37 | 22°50 | 25°45 | 8°41 | 13°55 | 16°D31 | 15°13 | 2°42 | 20°35 | S 15 | | | |
| S 16 | 18 0 9 | 29°56'25 | 7♁10 | 0°41 | 26°48 | 23°43 | 22°41 | 22°47 | 25°43 | 8°43 | 13°55 | 16°31 | 15°10 | 2°48 | 20°31 | S 16 | | | |
| M17 | 18 4 6 | 0♁53'34 | 21°21 | 0° 4 | 28° 1 | 24°21 | 22°45 | 22°43 | 25°41 | 8°45 | 13°55 | 16°32 | 15° 7 | 2°55 | 20°27 | M17 | | | |
| T 18 | 18 8 2 | 1°50'43 | 5♁28 | 29♁28 | 29°13 | 24°59 | 22°49 | 22°41 | 25°38 | 8°47 | 13°54 | 16°33 | 15° 4 | 3° 2 | 20°23 | T 18 | | | |
| W19 | 18 11 59 | 2°47'52 | 19°31 | 28°52 | 0♁25 | 25°36 | 22°53 | 22°38 | 25°36 | 8°49 | 13°54 | 16°R33 | 15° 1 | 3° 8 | 20°20 | W19 | | | |
| T 20 | 18 15 55 | 3°45'02 | 3♁27 | 28°19 | 1°38 | 26°14 | 22°56 | 22°35 | 25°34 | 8°51 | 13°54 | 16°32 | 14°57 | 3°15 | 20°16 | T 20 | | | |
| F 21 | 18 19 52 | 4°42'11 | 17°14 | 27°49 | 2°50 | 26°52 | 23° 0 | 22°32 | 25°32 | 8°53 | 13°54 | 16°29 | 14°54 | 3°22 | 20°12 | F 21 | | | |
| S 22 | 18 23 49 | 5°39'20 | 0♁50 | 27°21 | 4° 3 | 27°30 | 23° 3 | 22°30 | 25°30 | 8°55 | 13°53 | 16°23 | 14°51 | 3°28 | 20° 8 | S 22 | | | |
| S 23 | 18 27 45 | 6°36'30 | 14°11 | 26°57 | 5°15 | 28° 7 | 23° 5 | 22°27 | 25°28 | 8°57 | 13°53 | 16°16 | 14°48 | 3°35 | 20° 5 | S 23 | | | |
| M24 | 18 31 42 | 7°33'41 | 27°16 | 26°37 | 6°27 | 28°45 | 23° 8 | 22°24 | 25°25 | 8°59 | 13°53 | 16° 8 | 14°45 | 3°42 | 20° 1 | M24 | | | |
| T 25 | 18 35 38 | 8°30'51 | 10♁ 4 | 26°22 | 7°40 | 29°23 | 23°11 | 22°22 | 25°23 | 9° 1 | 13°52 | 15°59 | 14°42 | 3°48 | 19°57 | T 25 | | | |
| W26 | 18 39 35 | 9°28'02 | 22°35 | 26°11 | 8°52 | 0♁ 1 | 23°13 | 22°20 | 25°21 | 9° 3 | 13°52 | 15°50 | 14°38 | 3°55 | 19°54 | W26 | | | |
| T 27 | 18 43 31 | 10°25'14 | 4♁51 | 26° 6 | 10° 4 | 0°38 | 23°15 | 22°17 | 25°19 | 9° 5 | 13°51 | 15°43 | 14°35 | 4° 2 | 19°50 | T 27 | | | |
| F 28 | 18 47 28 | 11°22'26 | 16°54 | 26°D 6 | 11°16 | 1°16 | 23°17 | 22°15 | 25°16 | 9° 7 | 13°51 | 15°38 | 14°32 | 4° 8 | 19°47 | F 28 | | | |
| S 29 | 18 51 24 | 12°19'39 | 28°49 | 26°11 | 12°28 | 1°54 | 23°19 | 22°13 | 25°14 | 9° 9 | 13°51 | 15°35 | 14°29 | 4°15 | 19°43 | S 29 | | | |
| S 30 | 18 55 21 | 13♁16'53 | 10♁39 | 26♁22 | 13♁40 | 2♁32 | 23♁20 | 22♁11 | 25♁12 | 9♁11 | 13♁50 | 15°D34 | 14♁26 | 4° 22 | 19♁40 | S 30 | | | |

Delta T = 19m13s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1073
geocentric

JULY 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|-------|--------|--------|-------|------|--------|------|
| M 1 | 18 59 18 | 14☾14'08 | 22♃30 | 26♁38 | 14♁52 | 3♁10 | 23♁22 | 22°R 9 | 25°R 9 | 9♁13 | 13°R50 | 15♁34 | 14♁22 | 4♃28 | 19°R36 | M 1 |
| T 2 | 19 3 14 | 15°11'23 | 4♁28 | 27° 0 | 16° 5 | 3°47 | 23°23 | 22♁ 8 | 25♁ 7 | 9°15 | 13♁49 | 15°35 | 14°19 | 4°35 | 19♁33 | T 2 |
| W 3 | 19 7 11 | 16° 8'39 | 16°37 | 27°29 | 17°17 | 4°25 | 23°24 | 22° 6 | 25° 5 | 9°17 | 13°49 | 15°R35 | 14°16 | 4°42 | 19°29 | W 3 |
| T 4 | 19 11 7 | 17° 5'57 | 29° 1 | 28° 2 | 18°28 | 5° 3 | 23°25 | 22° 4 | 25° 2 | 9°19 | 13°48 | 15°34 | 14°13 | 4°48 | 19°26 | T 4 |
| F 5 | 19 15 4 | 18° 3'15 | 11♁46 | 28°42 | 19°40 | 5°41 | 23°25 | 22° 3 | 25° 0 | 9°20 | 13°47 | 15°32 | 14°10 | 4°55 | 19°23 | F 5 |
| S 6 | 19 19 0 | 19° 0'34 | 24°52 | 29°27 | 20°52 | 6°19 | 23°26 | 22° 1 | 24°57 | 9°22 | 13°47 | 15°26 | 14° 7 | 5° 2 | 19°20 | S 6 |
| S 7 | 19 22 57 | 19°57'54 | 8☾22 | 0☾18 | 22° 4 | 6°57 | 23°R26 | 22° 0 | 24°55 | 9°24 | 13°46 | 15°19 | 14° 3 | 5° 9 | 19°17 | S 7 |
| M 8 | 19 26 53 | 20°55'15 | 22°12 | 1°15 | 23°16 | 7°35 | 23°26 | 21°59 | 24°53 | 9°26 | 13°46 | 15° 9 | 14° 0 | 5°15 | 19°14 | M 8 |
| T 9 | 19 30 50 | 21°52'37 | 6♁20 | 2°17 | 24°28 | 8°12 | 23°26 | 21°57 | 24°50 | 9°28 | 13°45 | 14°59 | 13°57 | 5°22 | 19°11 | T 9 |
| W10 | 19 34 47 | 22°49'59 | 20°40 | 3°24 | 25°40 | 8°50 | 23°25 | 21°56 | 24°48 | 9°29 | 13°44 | 14°49 | 13°54 | 5°29 | 19° 8 | W10 |
| T 11 | 19 38 43 | 23°47'22 | 5♁ 7 | 4°37 | 26°51 | 9°28 | 23°25 | 21°55 | 24°45 | 9°31 | 13°44 | 14°40 | 13°51 | 5°35 | 19° 5 | T 11 |
| F 12 | 19 42 40 | 24°44'46 | 19°34 | 5°55 | 28° 3 | 10° 6 | 23°24 | 21°54 | 24°43 | 9°33 | 13°43 | 14°34 | 13°48 | 5°42 | 19° 2 | F 12 |
| S 13 | 19 46 36 | 25°42'11 | 3♁56 | 7°17 | 29°15 | 10°44 | 23°23 | 21°54 | 24°41 | 9°35 | 13°42 | 14°30 | 13°44 | 5°49 | 18°59 | S 13 |
| S 14 | 19 50 33 | 26°39'36 | 18°11 | 8°45 | 0♁26 | 11°22 | 23°22 | 21°53 | 24°38 | 9°36 | 13°41 | 14°28 | 13°41 | 5°55 | 18°57 | S 14 |
| M15 | 19 54 29 | 27°37'01 | 2♁16 | 10°17 | 1°38 | 12° 0 | 23°20 | 21°52 | 24°36 | 9°38 | 13°41 | 14°D28 | 13°38 | 6° 2 | 18°54 | M15 |
| T 16 | 19 58 26 | 28°34'28 | 16°10 | 11°53 | 2°49 | 12°38 | 23°19 | 21°52 | 24°34 | 9°39 | 13°40 | 14°R28 | 13°35 | 6° 9 | 18°51 | T 16 |
| W17 | 20 2 22 | 29°31'55 | 29°54 | 13°34 | 4° 1 | 13°16 | 23°17 | 21°51 | 24°31 | 9°41 | 13°39 | 14°27 | 13°32 | 6°15 | 18°49 | W17 |
| T 18 | 20 6 19 | 0♁29'23 | 13♁28 | 15°18 | 5°12 | 13°54 | 23°15 | 21°51 | 24°29 | 9°43 | 13°38 | 14°25 | 13°28 | 6°22 | 18°46 | T 18 |
| F 19 | 20 10 16 | 1°26'52 | 26°51 | 17° 5 | 6°23 | 14°32 | 23°13 | 21°51 | 24°26 | 9°44 | 13°37 | 14°19 | 13°25 | 6°29 | 18°44 | F 19 |
| S 20 | 20 14 12 | 2°24'22 | 10♁ 4 | 18°56 | 7°35 | 15°10 | 23°10 | 21°51 | 24°24 | 9°46 | 13°37 | 14°11 | 13°22 | 6°35 | 18°42 | S 20 |
| S 21 | 20 18 9 | 3°21'53 | 23° 5 | 20°49 | 8°46 | 15°48 | 23° 8 | 21°D51 | 24°22 | 9°47 | 13°36 | 14° 0 | 13°19 | 6°42 | 18°40 | S 21 |
| M22 | 20 22 5 | 4°19'26 | 5♁53 | 22°45 | 9°57 | 16°26 | 23° 5 | 21°51 | 24°19 | 9°49 | 13°35 | 13°48 | 13°16 | 6°49 | 18°37 | M22 |
| T 23 | 20 26 2 | 5°16'59 | 18°28 | 24°42 | 11° 8 | 17° 4 | 23° 2 | 21°51 | 24°17 | 9°50 | 13°34 | 13°35 | 13°13 | 6°55 | 18°35 | T 23 |
| W24 | 20 29 58 | 6°14'34 | 0♁50 | 26°42 | 12°19 | 17°42 | 22°59 | 21°51 | 24°15 | 9°52 | 13°33 | 13°23 | 13° 9 | 7° 2 | 18°33 | W24 |
| T 25 | 20 33 55 | 7°12'09 | 12°59 | 28°42 | 13°30 | 18°20 | 22°56 | 21°52 | 24°12 | 9°53 | 13°32 | 13°12 | 13° 6 | 7° 9 | 18°31 | T 25 |
| F 26 | 20 37 51 | 8° 9'47 | 24°59 | 0♁43 | 14°41 | 18°58 | 22°52 | 21°52 | 24°10 | 9°54 | 13°31 | 13° 3 | 13° 3 | 7°15 | 18°30 | F 26 |
| S 27 | 20 41 48 | 9° 7'26 | 6°51 | 2°45 | 15°52 | 19°36 | 22°49 | 21°52 | 24° 8 | 9°56 | 13°30 | 12°58 | 13° 0 | 7°22 | 18°28 | S 27 |
| S 28 | 20 45 45 | 10° 5'06 | 18°39 | 4°47 | 17° 3 | 20°14 | 22°45 | 21°53 | 24° 5 | 9°57 | 13°29 | 12°54 | 12°57 | 7°29 | 18°26 | S 28 |
| M29 | 20 49 41 | 11° 2'48 | 0♁29 | 6°49 | 18°14 | 20°53 | 22°41 | 21°54 | 24° 3 | 9°58 | 13°28 | 12°53 | 12°54 | 7°35 | 18°25 | M29 |
| T 30 | 20 53 38 | 12° 0'32 | 12°25 | 8°51 | 19°25 | 21°31 | 22°36 | 21°55 | 24° 1 | 10° 0 | 13°27 | 12°53 | 12°50 | 7°42 | 18°23 | T 30 |
| W31 | 20 57 34 | 12♁58'18 | 24♁33 | 10♁52 | 20♁35 | 22♁ 9 | 22♁32 | 21♁56 | 23♁59 | 10♁ 1 | 13♁26 | 12♁53 | 12♁47 | 7♁49 | 18♁22 | W31 |

Delta T = 19m13s Julian Calendar 1 July 1073 == Greg. Calendar 7 July 1073

AUGUST 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|-------|--------|--------|-------|-------|--------|------|
| T 1 | 21 1 31 | 13♁56'05 | 6♁58 | 12♁52 | 21♁46 | 22♁47 | 22°R27 | 21♁57 | 23°R56 | 10♁ 2 | 13°R25 | 12°R51 | 12♁44 | 7♁55 | 18°R20 | T 1 |
| F 2 | 21 5 27 | 14°53'54 | 19°45 | 14°52 | 22°57 | 23°25 | 22♁23 | 21°58 | 23♁54 | 10° 3 | 13°R24 | 12♁48 | 12°41 | 8° 2 | 18♁19 | F 2 |
| S 3 | 21 9 24 | 15°51'45 | 2☾57 | 16°51 | 24° 7 | 24° 3 | 22°18 | 21°59 | 23°52 | 10° 4 | 13°23 | 12°42 | 12°38 | 8° 9 | 18°18 | S 3 |
| S 4 | 21 13 20 | 16°49'37 | 16°36 | 18°48 | 25°18 | 24°42 | 22°13 | 22° 0 | 23°50 | 10° 5 | 13°22 | 12°34 | 12°34 | 8°15 | 18°17 | S 4 |
| M 5 | 21 17 17 | 17°47'32 | 0♁42 | 20°45 | 26°28 | 25°20 | 22° 8 | 22° 2 | 23°48 | 10° 7 | 13°21 | 12°24 | 12°31 | 8°22 | 18°16 | M 5 |
| T 6 | 21 21 14 | 18°45'27 | 15°10 | 22°41 | 27°38 | 25°58 | 22° 2 | 22° 3 | 23°46 | 10° 8 | 13°20 | 12°12 | 12°28 | 8°29 | 18°15 | T 6 |
| W 7 | 21 25 10 | 19°43'25 | 29°54 | 24°35 | 28°49 | 26°37 | 21°57 | 22° 5 | 23°44 | 10° 9 | 13°19 | 12° 1 | 12°25 | 8°35 | 18°14 | W 7 |
| T 8 | 21 29 7 | 20°41'24 | 14♁45 | 26°28 | 29°59 | 27°15 | 21°51 | 22° 7 | 23°42 | 10°10 | 13°18 | 11°51 | 12°22 | 8°42 | 18°13 | T 8 |
| F 9 | 21 33 3 | 21°39'24 | 29°35 | 28°20 | 1♁ 9 | 27°53 | 21°45 | 22° 8 | 23°39 | 10°11 | 13°17 | 11°44 | 12°19 | 8°49 | 18°12 | F 9 |
| S 10 | 21 37 0 | 22°37'26 | 14♁17 | 0♁10 | 2°19 | 28°31 | 21°39 | 22°10 | 23°37 | 10°12 | 13°16 | 11°39 | 12°15 | 8°55 | 18°12 | S 10 |
| S 11 | 21 40 56 | 23°35'29 | 28°45 | 2° 0 | 3°29 | 29°10 | 21°33 | 22°12 | 23°35 | 10°12 | 13°14 | 11°37 | 12°12 | 9° 2 | 18°11 | S 11 |
| M12 | 21 44 53 | 24°33'34 | 12♁56 | 3°48 | 4°39 | 29°48 | 21°27 | 22°14 | 23°34 | 10°13 | 13°13 | 11°D37 | 12° 9 | 9° 9 | 18°11 | M12 |
| T 13 | 21 48 49 | 25°31'40 | 26°50 | 5°34 | 5°49 | 0♁27 | 21°20 | 22°16 | 23°32 | 10°14 | 13°12 | 11°R37 | 12° 6 | 9°15 | 18°10 | T 13 |
| W14 | 21 52 46 | 26°29'48 | 10♁25 | 7°20 | 6°59 | 1° 5 | 21°14 | 22°19 | 23°30 | 10°15 | 13°11 | 11°36 | 12° 3 | 9°22 | 18°10 | W14 |
| T 15 | 21 56 43 | 27°27'57 | 23°46 | 9° 4 | 8° 8 | 1°43 | 21° 7 | 22°21 | 23°28 | 10°16 | 13°10 | 11°34 | 11°59 | 9°29 | 18°10 | T 15 |
| F 16 | 22 0 39 | 28°26'07 | 6♁51 | 10°47 | 9°18 | 2°22 | 21° 0 | 22°24 | 23°26 | 10°17 | 13° 9 | 11°29 | 11°56 | 9°35 | 18°10 | F 16 |
| S 17 | 22 4 36 | 29°24'19 | 19°45 | 12°29 | 10°28 | 3° 0 | 20°54 | 22°26 | 23°24 | 10°17 | 13° 8 | 11°21 | 11°53 | 9°42 | 18°D10 | S 17 |
| S 18 | 22 8 32 | 0♁22'33 | 2♁26 | 14°10 | 11°37 | 3°39 | 20°47 | 22°29 | 23°22 | 10°18 | 13° 6 | 11°11 | 11°50 | 9°49 | 18°10 | S 18 |
| M19 | 22 12 29 | 1°20'49 | 14°56 | 15°49 | 12°46 | 4°17 | 20°39 | 22°31 | 23°21 | 10°19 | 13° 5 | 10°59 | 11°47 | 9°55 | 18°10 | M19 |
| T 20 | 22 16 25 | 2°19'06 | 27°17 | 17°28 | 13°56 | 4°56 | 20°32 | 22°34 | 23°19 | 10°19 | 13° 4 | 10°47 | 11°44 | 10° 2 | 18°10 | T 20 |
| W21 | 22 20 22 | 3°17'25 | 9♁27 | 19° 5 | 15° 5 | 5°34 | 20°25 | 22°37 | 23°17 | 10°20 | 13° 3 | 10°35 | 11°40 | 10° 9 | 18°10 | W21 |
| T 22 | 22 24 18 | 4°15'46 | 21°28 | 20°41 | 16°14 | 6°13 | 20°18 | 22°40 | 23°16 | 10°20 | 13° 2 | 10°24 | 11°37 | 10°15 | 18°11 | T 22 |
| F 23 | 22 28 15 | 5°14'08 | 3♁23 | 22°16 | 17°23 | 6°51 | 20°10 | 22°43 | 23°14 | 10°21 | 13° 0 | 10°16 | 11°34 | 10°22 | 18°11 | F 23 |
| S 24 | 22 32 12 | 6°12'33 | 15°12 | 23°50 | 18°32 | 7°30 | 20° 3 | 22°46 | 23°13 | 10°21 | 12°59 | 10°10 | 11°31 | 10°29 | 18°12 | S 24 |
| S 25 | 22 36 8 | 7°11'00 | 26°59 | 25°23 | 19°40 | 8° 9 | 19°55 | 22°49 | 23°11 | 10°22 | 12°58 | 10° 7 | 11°28 | 10°35 | 18°13 | S 25 |
| M26 | 22 40 5 | 8° 9'29 | 8♁47 | 26°54 | 20°49 | 8°47 | 19°47 | 22°53 | 23°10 | 10°22 | 12°57 | 10°D 6 | 11°25 | 10°42 | 18°13 | M26 |
| T 27 | 22 44 1 | 9° 8'00 | 20°42 | 28°25 | 21°58 | 9°26 | 19°40 | 22°56 | 23° 8 | 10°23 | 12°56 | 10° 7 | 11°21 | 10°49 | 18°14 | T 27 |
| W28 | 22 47 58 | 10° 6'34 | 2♁48 | 29°54 | 23° 6 | 10° 4 | 19°32 | 23° 0 | 23° 7 | 10°23 | 12°54 | 10° 8 | 11°18 | 10°55 | 18°15 | W28 |
| T 29 | 22 51 54 | 11° 5'10 | 15°11 | 1♁23 | 24°15 | 10°43 | 19°24 | 23° 3 | 23° 5 | 10°23 | 12°53 | 10°R 8 | 11°15 | 11° 2 | 18°16 | T 29 |
| F 30 | 22 55 51 | 12° 3'48 | 27°55 | 2°50 | 25°23 | 11°22 | 19°16 | 23° 7 | 23° 4 | 10°24 | 12°52 | 10° 6 | 11°12 | 11° 9 | 18°17 | F 30 |
| S 31 | 22 59 47 | 13♁ 2'28 | 11☾ 5 | 4♁16 | 26♁31 | 12♁ 1 | 19♁ 8 | 23♁11 | 23♁ 3 | 10♁24 | 12♁51 | 10♁ 3 | 11♁ 9 | 11♁15 | 18♁19 | S 31 |

Delta T = 19m12s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1073
geocentric

SEPTEMBER 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|--------|--------|-------|-------|--------|-------|------|---|-----|
| S 1 | 23 3 44 | 14♎1'11 | 24♏43 | 5♏41 | 27♏39 | 12♎39 | 19°R 0 | 23♎14 | 23°R 2 | 10♎24 | 12°R50 | 9°R57 | 11♎5 | 11°V22 | 18♏20 | S 1 | | |
| M 2 | 23 7 41 | 14°59'56 | 8♏251 | 7° 5 | 28°47 | 13°18 | 18♎52 | 23°18 | 23°0 | 10°24 | 12♎48 | 9♎50 | 11° 2 | 11°29 | 18°21 | M 2 | | |
| T 3 | 23 11 37 | 15°58'43 | 23°25 | 8°28 | 29°55 | 13°57 | 18°44 | 23°22 | 22°59 | 10°25 | 12°47 | 9°42 | 10°59 | 11°35 | 18°23 | T 3 | | |
| W 4 | 23 15 34 | 16°57'32 | 8♎20 | 9°49 | 1♎3 | 14°36 | 18°36 | 23°26 | 22°58 | 10°25 | 12°46 | 9°34 | 10°56 | 11°42 | 18°24 | W 4 | | |
| T 5 | 23 19 30 | 17°56'23 | 23°28 | 11° 9 | 2°10 | 15°15 | 18°28 | 23°30 | 22°57 | 10°25 | 12°45 | 9°26 | 10°53 | 11°49 | 18°26 | T 5 | | |
| F 6 | 23 23 27 | 18°55'16 | 8♏37 | 12°28 | 3°18 | 15°54 | 18°20 | 23°35 | 22°56 | 10°25 | 12°43 | 9°21 | 10°50 | 11°55 | 18°28 | F 6 | | |
| S 7 | 23 27 23 | 19°54'11 | 23°39 | 13°46 | 4°25 | 16°33 | 18°12 | 23°39 | 22°55 | 10°R25 | 12°42 | 9°18 | 10°46 | 12° 2 | 18°29 | S 7 | | |
| S 8 | 23 31 20 | 20°53'08 | 8♎25 | 15° 2 | 5°32 | 17°11 | 18° 4 | 23°43 | 22°54 | 10°25 | 12°41 | 9°D17 | 10°43 | 12° 9 | 18°31 | S 8 | | |
| M 9 | 23 35 16 | 21°52'07 | 22°51 | 16°16 | 6°39 | 17°50 | 17°56 | 23°48 | 22°53 | 10°25 | 12°40 | 9°17 | 10°40 | 12°15 | 18°33 | M 9 | | |
| T 10 | 23 39 13 | 22°51'07 | 6♎53 | 17°29 | 7°46 | 18°29 | 17°48 | 23°52 | 22°52 | 10°25 | 12°39 | 9°18 | 10°37 | 12°22 | 18°35 | T 10 | | |
| W11 | 23 43 10 | 23°50'10 | 20°32 | 18°41 | 8°53 | 19° 8 | 17°40 | 23°57 | 22°52 | 10°25 | 12°37 | 9°R19 | 10°34 | 12°29 | 18°37 | W11 | | |
| T 12 | 23 47 6 | 24°49'14 | 3♎50 | 19°50 | 9°59 | 19°47 | 17°32 | 24° 1 | 22°51 | 10°25 | 12°36 | 9°19 | 10°31 | 12°35 | 18°40 | T 12 | | |
| F 13 | 23 51 3 | 25°48'20 | 16°47 | 20°58 | 11° 6 | 20°26 | 17°24 | 24° 6 | 22°50 | 10°24 | 12°35 | 9°17 | 10°27 | 12°42 | 18°42 | F 13 | | |
| S 14 | 23 54 59 | 26°47'28 | 29°29 | 22° 4 | 12°12 | 21° 6 | 17°16 | 24°11 | 22°50 | 10°24 | 12°34 | 9°13 | 10°24 | 12°49 | 18°44 | S 14 | | |
| S 15 | 23 58 56 | 27°46'38 | 11♎57 | 23° 7 | 13°18 | 21°45 | 17° 9 | 24°16 | 22°49 | 10°24 | 12°33 | 9° 7 | 10°21 | 12°55 | 18°47 | S 15 | | |
| M16 | 0 2 52 | 28°45'49 | 24°13 | 24° 8 | 14°24 | 22°24 | 17° 1 | 24°21 | 22°48 | 10°24 | 12°32 | 9° 0 | 10°18 | 13° 2 | 18°49 | M16 | | |
| T 17 | 0 6 49 | 29°45'03 | 6♎20 | 25° 7 | 15°30 | 23° 3 | 16°53 | 24°26 | 22°48 | 10°23 | 12°30 | 8°52 | 10°15 | 13° 9 | 18°52 | T 17 | | |
| W18 | 0 10 45 | 0♏44'18 | 18°20 | 26° 2 | 16°35 | 23°42 | 16°46 | 24°31 | 22°47 | 10°23 | 12°29 | 8°45 | 10°11 | 13°15 | 18°55 | W18 | | |
| T 19 | 0 14 42 | 1°43'36 | 0°V14 | 26°55 | 17°41 | 24°21 | 16°38 | 24°36 | 22°47 | 10°23 | 12°28 | 8°39 | 10° 8 | 13°22 | 18°57 | T 19 | | |
| F 20 | 0 18 38 | 2°42'55 | 12° 4 | 27°44 | 18°46 | 25° 0 | 16°31 | 24°41 | 22°47 | 10°22 | 12°27 | 8°34 | 10° 5 | 13°29 | 19° 0 | F 20 | | |
| S 21 | 0 22 35 | 3°42'17 | 23°52 | 28°29 | 19°51 | 25°40 | 16°23 | 24°46 | 22°46 | 10°22 | 12°26 | 8°31 | 10° 2 | 13°35 | 19° 3 | S 21 | | |
| S 22 | 0 26 32 | 4°41'40 | 5♎40 | 29°11 | 20°55 | 26°19 | 16°16 | 24°51 | 22°46 | 10°21 | 12°25 | 8°D30 | 9°59 | 13°42 | 19° 6 | S 22 | | |
| M23 | 0 30 28 | 5°41'06 | 17°32 | 29°48 | 22° 0 | 26°58 | 16° 9 | 24°57 | 22°46 | 10°21 | 12°24 | 8°31 | 9°56 | 13°49 | 19° 9 | M23 | | |
| T 24 | 0 34 25 | 6°40'35 | 29°29 | 0♎20 | 23° 4 | 27°38 | 16° 2 | 25° 2 | 22°46 | 10°20 | 12°23 | 8°32 | 9°52 | 13°55 | 19°13 | T 24 | | |
| W25 | 0 38 21 | 7°40'05 | 11♎37 | 0°47 | 24° 8 | 28°17 | 15°55 | 25° 8 | 22°46 | 10°20 | 12°22 | 8°34 | 9°49 | 14° 2 | 19°16 | W25 | | |
| T 26 | 0 42 18 | 8°39'38 | 23°59 | 1° 8 | 25°12 | 28°56 | 15°48 | 25°13 | 22°D46 | 10°19 | 12°20 | 8°35 | 9°46 | 14° 9 | 19°19 | T 26 | | |
| F 27 | 0 46 14 | 9°39'14 | 6♎40 | 1°22 | 26°16 | 29°36 | 15°42 | 25°19 | 22°46 | 10°18 | 12°19 | 8°R36 | 9°43 | 14°15 | 19°22 | F 27 | | |
| S 28 | 0 50 11 | 10°38'52 | 19°45 | 1°30 | 27°19 | 0♏15 | 15°35 | 25°25 | 22°46 | 10°18 | 12°18 | 8°36 | 9°40 | 14°22 | 19°26 | S 28 | | |
| S 29 | 0 54 7 | 11°38'32 | 3♎15 | 1°R30 | 28°22 | 0°55 | 15°29 | 25°30 | 22°46 | 10°17 | 12°17 | 8°34 | 9°36 | 14°29 | 19°29 | S 29 | | |
| M30 | 0 58 4 | 12°38'14 | 17°14 | 1♎23 | 29♎25 | 1♏34 | 15°22 | 25♎36 | 22°46 | 10°16 | 12°16 | 8°32 | 9°33 | 14°V35 | 19°33 | M30 | | |

Delta T = 19m12s Julian Calendar 1 Sept. 1073 == Greg. Calendar 7 Sept. 1073

OCTOBER 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|-------|-------|--------|--------|-------|------|--------|-------|------|-----|
| T 1 | 1 2 1 | 13♏37'58 | 1♎39 | 1°R 7 | 0♏27 | 2♏14 | 15°R16 | 25♎42 | 22°46 | 10°R16 | 12°R15 | 8°R28 | 9♎30 | 14°V42 | 19♏37 | T 1 | |
| W 2 | 1 5 57 | 14°37'45 | 16°29 | 0♎42 | 1°30 | 2°53 | 15°16 | 25°48 | 22°46 | 10°R15 | 12°R14 | 8°25 | 9°27 | 14°49 | 19°40 | W 2 | |
| T 3 | 1 9 54 | 15°37'34 | 1♏35 | 0° 9 | 2°31 | 3°33 | 15° 4 | 25°54 | 22°47 | 10°14 | 12°13 | 8°22 | 9°24 | 14°55 | 19°44 | T 3 | |
| F 4 | 1 13 50 | 16°37'25 | 16°49 | 29♏27 | 3°33 | 4°12 | 14°58 | 26° 0 | 22°47 | 10°13 | 12°12 | 8°20 | 9°21 | 15° 2 | 19°48 | F 4 | |
| S 5 | 1 17 47 | 17°37'18 | 2♎2 | 28°36 | 4°34 | 4°52 | 14°53 | 26° 6 | 22°48 | 10°12 | 12°11 | 8°D19 | 9°17 | 15° 9 | 19°52 | S 5 | |
| S 6 | 1 21 43 | 18°37'13 | 17° 2 | 27°37 | 5°35 | 5°32 | 14°47 | 26°12 | 22°48 | 10°11 | 12°10 | 8°19 | 9°14 | 15°15 | 19°56 | S 6 | |
| M 7 | 1 25 40 | 19°37'10 | 1♎43 | 26°30 | 6°36 | 6°11 | 14°42 | 26°18 | 22°48 | 10°11 | 12°10 | 8°20 | 9°11 | 15°22 | 20° 0 | M 7 | |
| T 8 | 1 29 36 | 20°37'09 | 15°59 | 25°19 | 7°36 | 6°51 | 14°37 | 26°24 | 22°49 | 10°10 | 12° 9 | 8°21 | 9° 8 | 15°28 | 20° 4 | T 8 | |
| W 9 | 1 33 33 | 21°37'09 | 29°49 | 24° 3 | 8°36 | 7°31 | 14°32 | 26°30 | 22°50 | 10° 9 | 12° 8 | 8°22 | 9° 5 | 15°35 | 20° 9 | W 9 | |
| T 10 | 1 37 30 | 22°37'11 | 13♎13 | 22°46 | 9°36 | 8°11 | 14°27 | 26°36 | 22°50 | 10° 8 | 12° 7 | 8°23 | 9° 2 | 15°42 | 20°13 | T 10 | |
| F 11 | 1 41 26 | 23°37'15 | 26°12 | 21°29 | 10°35 | 8°50 | 14°23 | 26°43 | 22°51 | 10° 7 | 12° 6 | 8°R23 | 8°58 | 15°48 | 20°17 | F 11 | |
| S 12 | 1 45 23 | 24°37'20 | 8♎51 | 20°16 | 11°34 | 9°30 | 14°18 | 26°49 | 22°52 | 10° 5 | 12° 5 | 8°23 | 8°55 | 15°55 | 20°22 | S 12 | |
| S 13 | 1 49 19 | 25°37'27 | 21°13 | 19° 8 | 12°32 | 10°10 | 14°14 | 26°55 | 22°53 | 10° 4 | 12° 4 | 8°22 | 8°52 | 16° 2 | 20°26 | S 13 | |
| M14 | 1 53 16 | 26°37'35 | 3♎22 | 18° 7 | 13°30 | 10°50 | 14°10 | 27° 2 | 22°54 | 10° 3 | 12° 3 | 8°20 | 8°49 | 16° 8 | 20°31 | M14 | |
| T 15 | 1 57 12 | 27°37'45 | 15°21 | 17°15 | 14°27 | 11°30 | 14° 6 | 27° 8 | 22°54 | 10° 2 | 12° 3 | 8°18 | 8°46 | 16°15 | 20°35 | T 15 | |
| W16 | 2 1 9 | 28°37'56 | 27°13 | 16°34 | 15°24 | 12°10 | 14° 3 | 27°15 | 22°55 | 10° 1 | 12° 2 | 8°17 | 8°42 | 16°22 | 20°40 | W16 | |
| T 17 | 2 5 5 | 29°38'10 | 9°V 3 | 16° 4 | 16°21 | 12°50 | 13°59 | 27°21 | 22°56 | 10° 0 | 12° 1 | 8°16 | 8°39 | 16°28 | 20°44 | T 17 | |
| F 18 | 2 9 2 | 0♎38'25 | 20°51 | 15°46 | 17°17 | 13°30 | 13°56 | 27°28 | 22°57 | 9°59 | 12° 0 | 8°15 | 8°36 | 16°35 | 20°49 | F 18 | |
| S 19 | 2 12 59 | 1°38'42 | 2♎41 | 15°D39 | 18°12 | 14°10 | 13°53 | 27°34 | 22°59 | 9°57 | 12° 0 | 8°D15 | 8°33 | 16°42 | 20°54 | S 19 | |
| S 20 | 2 16 55 | 2°39'00 | 14°34 | 15°44 | 19° 7 | 14°50 | 13°50 | 27°41 | 23° 0 | 9°56 | 11°59 | 8°15 | 8°30 | 16°48 | 20°59 | S 20 | |
| M21 | 2 20 52 | 3°39'20 | 26°33 | 15°59 | 20° 1 | 15°30 | 13°47 | 27°48 | 23° 1 | 9°55 | 11°58 | 8°15 | 8°27 | 16°55 | 21° 4 | M21 | |
| T 22 | 2 24 48 | 4°39'43 | 8♎40 | 16°25 | 20°54 | 16°10 | 13°45 | 27°54 | 23° 2 | 9°53 | 11°58 | 8°15 | 8°23 | 17° 2 | 21° 9 | T 22 | |
| W23 | 2 28 45 | 5°40'07 | 20°56 | 16°59 | 21°47 | 16°50 | 13°42 | 28° 1 | 23° 4 | 9°52 | 11°57 | 8°16 | 8°20 | 17° 8 | 21°14 | W23 | |
| T 24 | 2 32 41 | 6°40'33 | 3♎26 | 17°42 | 22°39 | 17°30 | 13°40 | 28° 8 | 23° 5 | 9°51 | 11°56 | 8°16 | 8°17 | 17°15 | 21°19 | T 24 | |
| F 25 | 2 36 38 | 7°41'01 | 16°11 | 18°31 | 23°31 | 18°10 | 13°38 | 28°14 | 23° 6 | 9°49 | 11°56 | 8°16 | 8°14 | 17°22 | 21°24 | F 25 | |
| S 26 | 2 40 34 | 8°41'31 | 29°14 | 19°28 | 24°22 | 18°51 | 13°37 | 28°21 | 23° 8 | 9°48 | 11°55 | 8°R16 | 8°11 | 17°28 | 21°29 | S 26 | |
| S 27 | 2 44 31 | 9°42'02 | 12♎38 | 20°30 | 25°12 | 19°31 | 13°35 | 28°28 | 23° 9 | 9°47 | 11°55 | 8°D16 | 8° 8 | 17°35 | 21°34 | S 27 | |
| M28 | 2 48 28 | 10°42'36 | 26°24 | 21°37 | 26° 1 | 20°11 | 13°34 | 28°35 | 23°11 | 9°45 | 11°54 | 8°16 | 8° 4 | 17°42 | 21°40 | M28 | |
| T 29 | 2 52 24 | 11°43'11 | 10♎34 | 22°48 | 26°50 | 20°51 | 13°33 | 28°42 | 23°12 | 9°44 | 11°54 | 8°16 | 8° 1 | 17°48 | 21°45 | T 29 | |
| W30 | 2 56 21 | 12°43'49 | 25° 5 | 24° 2 | 27°38 | 21°32 | 13°32 | 28°49 | 23°14 | 9°42 | 11°53 | 8°17 | 7°58 | 17°55 | 21°50 | W30 | |
| T 31 | 3 0 17 | 13♎44'27 | 9♏54 | 25♏20 | 28♏25 | 22♏12 | 13°31 | 28♎56 | 23°16 | 9♎41 | 11°53 | 8°17 | 7°55 | 18°V 2 | 21°56 | T 31 | |

Delta T = 19m12s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1073
geocentric

NOVEMBER 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|--------|-------|--------|-------|-------|-------|--------|-------|------|-------|-------|------|
| F 1 | 3 4 14 | 14♌45'08 | 24♌55 | 26♌41 | 29♌10 | 22♌53 | 13°R31 | 29♌ 2 | 23♌18 | 9°R39 | 11°R52 | 8♌17 | 7♌52 | 18♌ 8 | 22♌ 1 | F 1 |
| S 2 | 3 8 10 | 15°45'50 | 9♌59 | 28° 3 | 29°55 | 23°33 | 13♌31 | 29° 9 | 23°19 | 9♌38 | 11♌52 | 8°R18 | 7°48 | 18°15 | 22° 6 | S 2 |
| S 3 | 3 12 7 | 16°46'34 | 24°59 | 29°28 | 0♌40 | 24°14 | 13°D31 | 29°16 | 23°21 | 9°36 | 11°51 | 8°17 | 7°45 | 18°22 | 22°12 | S 3 |
| M 4 | 3 16 3 | 17°47'19 | 9♌45 | 0♌54 | 1°23 | 24°54 | 13°31 | 29°23 | 23°23 | 9°35 | 11°51 | 8°17 | 7°42 | 18°28 | 22°18 | M 4 |
| T 5 | 3 20 0 | 18°48'05 | 24°10 | 2°21 | 2° 5 | 25°35 | 13°31 | 29°30 | 23°25 | 9°33 | 11°51 | 8°15 | 7°39 | 18°35 | 22°23 | T 5 |
| W 6 | 3 23 57 | 19°48'53 | 8♌10 | 3°50 | 2°45 | 26°15 | 13°32 | 29°37 | 23°27 | 9°32 | 11°50 | 8°14 | 7°36 | 18°41 | 22°29 | W 6 |
| T 7 | 3 27 53 | 20°49'42 | 21°44 | 5°19 | 3°25 | 26°56 | 13°33 | 29°44 | 23°29 | 9°30 | 11°50 | 8°12 | 7°33 | 18°48 | 22°34 | T 7 |
| F 8 | 3 31 50 | 21°50'31 | 4♌50 | 6°49 | 4° 4 | 27°36 | 13°34 | 29°51 | 23°31 | 9°28 | 11°50 | 8°11 | 7°29 | 18°55 | 22°40 | F 8 |
| S 9 | 3 35 46 | 22°51'22 | 17°33 | 8°20 | 4°41 | 28°17 | 13°35 | 29°58 | 23°33 | 9°27 | 11°49 | 8°D11 | 7°26 | 19° 1 | 22°46 | S 9 |
| S 10 | 3 39 43 | 23°52'13 | 29°56 | 9°51 | 5°17 | 28°58 | 13°36 | 0♌ 5 | 23°35 | 9°25 | 11°49 | 8°11 | 7°23 | 19° 8 | 22°52 | S 10 |
| M11 | 3 43 39 | 24°53'06 | 12♌ 3 | 11°23 | 5°51 | 29°38 | 13°38 | 0°13 | 23°37 | 9°24 | 11°49 | 8°11 | 7°20 | 19°15 | 22°57 | M11 |
| T 12 | 3 47 36 | 25°53'59 | 23°59 | 12°55 | 6°24 | 0♌19 | 13°40 | 0°20 | 23°40 | 9°22 | 11°49 | 8°13 | 7°17 | 19°21 | 23° 3 | T 12 |
| W13 | 3 51 32 | 26°54'53 | 5♌48 | 14°27 | 6°56 | 1° 0 | 13°42 | 0°27 | 23°42 | 9°20 | 11°48 | 8°14 | 7°14 | 19°28 | 23° 9 | W13 |
| T 14 | 3 55 29 | 27°55'48 | 17°36 | 16° 0 | 7°26 | 1°41 | 13°44 | 0°34 | 23°44 | 9°19 | 11°48 | 8°16 | 7°10 | 19°35 | 23°15 | T 14 |
| F 15 | 3 59 26 | 28°56'44 | 29°25 | 17°32 | 7°54 | 2°22 | 13°46 | 0°41 | 23°47 | 9°17 | 11°48 | 8°17 | 7° 7 | 19°41 | 23°21 | F 15 |
| S 16 | 4 3 22 | 29°57'41 | 11♌19 | 19° 5 | 8°21 | 3° 3 | 13°49 | 0°48 | 23°49 | 9°15 | 11°48 | 8°R17 | 7° 4 | 19°48 | 23°27 | S 16 |
| S 17 | 4 7 19 | 0♌58'38 | 23°21 | 20°38 | 8°46 | 3°43 | 13°52 | 0°55 | 23°51 | 9°14 | 11°48 | 8°16 | 7° 1 | 19°55 | 23°33 | S 17 |
| M18 | 4 11 15 | 1°59'37 | 5♌31 | 22°11 | 9° 9 | 4°24 | 13°55 | 1° 2 | 23°54 | 9°12 | 11°48 | 8°14 | 6°58 | 20° 1 | 23°39 | M18 |
| T 19 | 4 15 12 | 3° 0'37 | 17°53 | 23°44 | 9°30 | 5° 5 | 13°58 | 1° 9 | 23°56 | 9°10 | 11°48 | 8°11 | 6°54 | 20° 8 | 23°45 | T 19 |
| W20 | 4 19 8 | 4° 1'37 | 0♌27 | 25°18 | 9°50 | 5°46 | 14° 2 | 1°16 | 23°59 | 9° 9 | 11°D48 | 8° 7 | 6°51 | 20°15 | 23°51 | W20 |
| T 21 | 4 23 5 | 5° 2'39 | 13°13 | 26°51 | 10° 7 | 6°27 | 14° 5 | 1°23 | 24° 1 | 9° 7 | 11°48 | 8° 2 | 6°48 | 20°21 | 23°57 | T 21 |
| F 22 | 4 27 1 | 6° 3'42 | 26°12 | 28°24 | 10°22 | 7° 8 | 14° 9 | 1°30 | 24° 4 | 9° 5 | 11°48 | 7°58 | 6°45 | 20°28 | 24° 3 | F 22 |
| S 23 | 4 30 58 | 7° 4'45 | 9♌25 | 29°58 | 10°35 | 7°49 | 14°13 | 1°37 | 24° 7 | 9° 3 | 11°48 | 7°54 | 6°42 | 20°35 | 24° 9 | S 23 |
| S 24 | 4 34 55 | 8° 5'50 | 22°52 | 1♌31 | 10°46 | 8°31 | 14°17 | 1°45 | 24° 9 | 9° 2 | 11°48 | 7°52 | 6°39 | 20°41 | 24°15 | S 24 |
| M25 | 4 38 51 | 9° 6'55 | 6♌34 | 3° 5 | 10°55 | 9°12 | 14°22 | 1°52 | 24°12 | 9° 0 | 11°48 | 7°D51 | 6°35 | 20°48 | 24°21 | M25 |
| T 26 | 4 42 48 | 10° 8'02 | 20°31 | 4°39 | 11° 2 | 9°53 | 14°26 | 1°59 | 24°15 | 8°58 | 11°48 | 7°51 | 6°32 | 20°55 | 24°28 | T 26 |
| W27 | 4 46 44 | 11° 9'09 | 4♌43 | 6°12 | 11° 6 | 10°34 | 14°31 | 2° 6 | 24°17 | 8°57 | 11°49 | 7°52 | 6°29 | 21° 1 | 24°34 | W27 |
| T 28 | 4 50 41 | 12°10'18 | 19° 8 | 7°46 | 11°R 8 | 11°15 | 14°36 | 2°13 | 24°20 | 8°55 | 11°49 | 7°54 | 6°26 | 21° 8 | 24°40 | T 28 |
| F 29 | 4 54 37 | 13°11'27 | 3♌44 | 9°21 | 11° 7 | 11°57 | 14°41 | 2°20 | 24°23 | 8°53 | 11°49 | 7°R55 | 6°23 | 21°14 | 24°46 | F 29 |
| S 30 | 4 58 34 | 14♌12'37 | 18♌25 | 10♌55 | 11♌ 4 | 12♌38 | 14♌46 | 2♌27 | 24♌26 | 8♌52 | 11♌49 | 7♌54 | 6♌20 | 21♌21 | 24♌52 | S 30 |

Delta T = 19m11s Julian Calendar 1 Nov. 1073 == Greg. Calendar 7 Nov. 1073

DECEMBER 1073 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|--------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|------|
| S 1 | 5 2 30 | 15♌13'47 | 3♌ 6 | 12♌29 | 10°R58 | 13♌19 | 14♌52 | 2♌34 | 24♌29 | 8°R50 | 11♌49 | 7°R52 | 6♌16 | 21♌28 | 24♌58 | S 1 |
| M 2 | 5 6 27 | 16°14'59 | 17°40 | 14° 4 | 10♌50 | 14° 1 | 14°58 | 2°41 | 24°32 | 8♌48 | 11°50 | 7♌48 | 6°13 | 21°34 | 25° 5 | M 2 |
| T 3 | 5 10 24 | 17°16'10 | 2♌ 0 | 15°39 | 10°39 | 14°42 | 15° 3 | 2°48 | 24°35 | 8°46 | 11°50 | 7°42 | 6°10 | 21°41 | 25°11 | T 3 |
| W 4 | 5 14 20 | 18°17'22 | 16° 0 | 17°14 | 10°26 | 15°24 | 15° 9 | 2°54 | 24°38 | 8°45 | 11°50 | 7°35 | 6° 7 | 21°48 | 25°17 | W 4 |
| T 5 | 5 18 17 | 19°18'34 | 29°37 | 18°49 | 10°11 | 16° 5 | 15°16 | 3° 1 | 24°41 | 8°43 | 11°51 | 7°28 | 6° 4 | 21°54 | 25°23 | T 5 |
| F 6 | 5 22 13 | 20°19'46 | 12♌48 | 20°25 | 9°53 | 16°47 | 15°22 | 3° 8 | 24°44 | 8°41 | 11°51 | 7°22 | 6° 0 | 22° 1 | 25°30 | F 6 |
| S 7 | 5 26 10 | 21°20'59 | 25°36 | 22° 0 | 9°33 | 17°28 | 15°29 | 3°15 | 24°47 | 8°40 | 11°52 | 7°17 | 5°57 | 22° 8 | 25°36 | S 7 |
| S 8 | 5 30 6 | 22°22'11 | 8♌ 2 | 23°36 | 9°10 | 18°10 | 15°35 | 3°22 | 24°50 | 8°38 | 11°52 | 7°13 | 5°54 | 22°14 | 25°42 | S 8 |
| M 9 | 5 34 3 | 23°23'23 | 20°11 | 25°13 | 8°45 | 18°51 | 15°42 | 3°29 | 24°53 | 8°36 | 11°52 | 7°D12 | 5°51 | 22°21 | 25°49 | M 9 |
| T 10 | 5 38 0 | 24°24'34 | 2♌ 7 | 26°49 | 8°18 | 19°33 | 15°49 | 3°36 | 24°56 | 8°35 | 11°53 | 7°12 | 5°48 | 22°28 | 25°55 | T 10 |
| W11 | 5 41 56 | 25°25'46 | 13°56 | 28°26 | 7°50 | 20°15 | 15°56 | 3°42 | 24°59 | 8°33 | 11°53 | 7°14 | 5°45 | 22°34 | 26° 1 | W11 |
| T 12 | 5 45 53 | 26°26'57 | 25°44 | 0♌ 3 | 7°19 | 20°56 | 16° 4 | 3°49 | 25° 2 | 8°32 | 11°54 | 7°15 | 5°41 | 22°41 | 26° 7 | T 12 |
| F 13 | 5 49 49 | 27°28'09 | 7♌34 | 1°41 | 6°47 | 21°38 | 16°11 | 3°56 | 25° 6 | 8°30 | 11°54 | 7°R16 | 5°38 | 22°48 | 26°14 | F 13 |
| S 14 | 5 53 46 | 28°29'20 | 19°32 | 3°19 | 6°13 | 22°20 | 16°19 | 4° 2 | 25° 9 | 8°28 | 11°55 | 7°15 | 5°35 | 22°54 | 26°20 | S 14 |
| S 15 | 5 57 42 | 29°30'31 | 1♌42 | 4°57 | 5°39 | 23° 1 | 16°27 | 4° 9 | 25°12 | 8°27 | 11°56 | 7°11 | 5°32 | 23° 1 | 26°26 | S 15 |
| M16 | 6 1 39 | 0♌31'41 | 14° 5 | 6°36 | 5° 3 | 23°43 | 16°35 | 4°16 | 25°15 | 8°25 | 11°56 | 7° 6 | 5°29 | 23° 8 | 26°32 | M16 |
| T 17 | 6 5 35 | 1°32'52 | 26°44 | 8°14 | 4°27 | 24°25 | 16°43 | 4°22 | 25°19 | 8°24 | 11°57 | 6°58 | 5°26 | 23°14 | 26°39 | T 17 |
| W18 | 6 9 32 | 2°34'02 | 9♌39 | 9°53 | 3°50 | 25° 7 | 16°51 | 4°29 | 25°22 | 8°22 | 11°58 | 6°48 | 5°22 | 23°21 | 26°45 | W18 |
| T 19 | 6 13 29 | 3°35'12 | 22°48 | 11°33 | 3°13 | 25°49 | 16°59 | 4°35 | 25°25 | 8°21 | 11°58 | 6°38 | 5°19 | 23°28 | 26°51 | T 19 |
| F 20 | 6 17 25 | 4°36'22 | 6♌11 | 13°12 | 2°36 | 26°31 | 17° 8 | 4°42 | 25°28 | 8°19 | 11°59 | 6°28 | 5°16 | 23°34 | 26°57 | F 20 |
| S 21 | 6 21 22 | 5°37'32 | 19°45 | 14°52 | 2° 0 | 27°13 | 17°17 | 4°48 | 25°32 | 8°18 | 12° 0 | 6°19 | 5°13 | 23°41 | 27° 4 | S 21 |
| S 22 | 6 25 18 | 6°38'42 | 3♌29 | 16°32 | 1°24 | 27°55 | 17°26 | 4°55 | 25°35 | 8°16 | 12° 0 | 6°12 | 5°10 | 23°47 | 27°10 | S 22 |
| M23 | 6 29 15 | 7°39'51 | 17°20 | 18°12 | 0°49 | 28°37 | 17°35 | 5° 1 | 25°39 | 8°15 | 12° 1 | 6° 7 | 5° 6 | 23°54 | 27°16 | M23 |
| T 24 | 6 33 11 | 8°41'01 | 1♌17 | 19°52 | 0°15 | 29°19 | 17°44 | 5° 7 | 25°42 | 8°13 | 12° 2 | 6° 5 | 5° 3 | 24° 1 | 27°22 | T 24 |
| W25 | 6 37 8 | 9°42'10 | 15°21 | 21°31 | 29♌43 | 0♌ 1 | 17°53 | 5°14 | 25°45 | 8°12 | 12° 3 | 6°D 5 | 5° 0 | 24° 7 | 27°28 | W25 |
| T 26 | 6 41 4 | 10°43'19 | 29°29 | 23°11 | 29°12 | 0°43 | 18° 2 | 5°20 | 25°49 | 8°11 | 12° 4 | 6°R 6 | 4°57 | 24°14 | 27°34 | T 26 |
| F 27 | 6 45 1 | 11°44'28 | 13♌40 | 24°50 | 28°43 | 1°25 | 18°12 | 5°26 | 25°52 | 8° 9 | 12° 4 | 6° 6 | 4°54 | 24°21 | 27°41 | F 27 |
| S 28 | 6 48 58 | 12°45'37 | 27°55 | 26°29 | 28°15 | 2° 7 | 18°21 | 5°32 | 25°56 | 8° 8 | 12° 5 | 6° 4 | 4°51 | 24°27 | 27°47 | S 28 |
| S 29 | 6 52 54 | 13°46'45 | 12♌ 8 | 28° 7 | 27°50 | 2°50 | 18°31 | 5°38 | 25°59 | 8° 7 | 12° 6 | 5°59 | 4°47 | 24°34 | 27°53 | S 29 |
| M30 | 6 56 51 | 14°47'53 | 26°16 | 29°43 | 27°27 | 3°32 | 18°41 | 5°44 | 26° 3 | 8° 5 | 12° 7 | 5°52 | 4°44 | 24°41 | 27°59 | M30 |
| T 31 | 7 0 47 | 15♌49'01 | 10♌16 | 1♌19 | 27♌ 6 | 4♌14 | 18♌51 | 5♌50 | 26♌ 6 | 8♌ 4 | 12♌ 8 | 5♌42 | 4♌41 | 24♌47 | 28♌ 5 | T 31 |

Delta T = 19m11s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1074
geocentric

JANUARY 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|--------|-------|-------|------|-------|--------|-------|-------|------|-------|-------|------|-----|
| W 1 | 7 4 44 | 16♁50'07 | 24♁ 1 | 2♁53 | 26°R47 | 4♁56 | 19♁ 1 | 5♁56 | 26♁10 | 8°R 3 | 12♁ 9 | 5°R30 | 4♁38 | 24♁54 | 28♁11 | W 1 | |
| T 2 | 7 8 40 | 17°51'13 | 7♁28 | 4°24 | 26♁31 | 5°39 | 19°12 | 6° 2 | 26°13 | 8°II 2 | 12°10 | 5♁17 | 4°35 | 25° 1 | 28°17 | T 2 | |
| F 3 | 7 12 37 | 18°52'18 | 20°35 | 5°54 | 26°17 | 6°21 | 19°22 | 6° 8 | 26°16 | 8° 0 | 12°11 | 5° 5 | 4°32 | 25° 7 | 28°23 | F 3 | |
| S 4 | 7 16 34 | 19°53'22 | 3♁22 | 7°20 | 26° 6 | 7° 4 | 19°32 | 6°14 | 26°20 | 7°59 | 12°12 | 4°55 | 4°28 | 25°14 | 28°29 | S 4 | |
| S 5 | 7 20 30 | 20°54'25 | 15°48 | 8°43 | 25°57 | 7°46 | 19°43 | 6°20 | 26°23 | 7°58 | 12°13 | 4°47 | 4°25 | 25°21 | 28°35 | S 5 | |
| M 6 | 7 24 27 | 21°55'27 | 27°58 | 10° 1 | 25°50 | 8°28 | 19°54 | 6°25 | 26°27 | 7°57 | 12°14 | 4°42 | 4°22 | 25°27 | 28°41 | M 6 | |
| T 7 | 7 28 23 | 22°56'28 | 9♁55 | 11°15 | 25°46 | 9°11 | 20° 5 | 6°31 | 26°30 | 7°56 | 12°15 | 4°40 | 4°19 | 25°34 | 28°46 | T 7 | |
| W 8 | 7 32 20 | 23°57'27 | 21°45 | 12°22 | 25°D45 | 9°53 | 20°16 | 6°36 | 26°34 | 7°55 | 12°16 | 4°D39 | 4°16 | 25°40 | 28°52 | W 8 | |
| T 9 | 7 36 16 | 24°58'25 | 3♁32 | 13°24 | 25°46 | 10°36 | 20°27 | 6°42 | 26°38 | 7°54 | 12°17 | 4°R39 | 4°12 | 25°47 | 28°58 | T 9 | |
| F 10 | 7 40 13 | 25°59'22 | 15°23 | 14°18 | 25°49 | 11°18 | 20°38 | 6°47 | 26°41 | 7°53 | 12°18 | 4°39 | 4° 9 | 25°54 | 29° 4 | F 10 | |
| S 11 | 7 44 9 | 27° 0'18 | 27°23 | 15° 4 | 25°54 | 12° 1 | 20°49 | 6°53 | 26°45 | 7°52 | 12°20 | 4°37 | 4° 6 | 26° 0 | 29°10 | S 11 | |
| S 12 | 7 48 6 | 28° 1'13 | 9♁37 | 15°41 | 26° 2 | 12°44 | 21° 0 | 6°58 | 26°48 | 7°51 | 12°21 | 4°33 | 4° 3 | 26° 7 | 29°15 | S 12 | |
| M13 | 7 52 3 | 29° 2'06 | 22° 8 | 16° 9 | 26°13 | 13°26 | 21°12 | 7° 3 | 26°52 | 7°50 | 12°22 | 4°26 | 4° 0 | 26°14 | 29°21 | M13 | |
| T 14 | 7 55 59 | 0♁ 2'57 | 5♁ 0 | 16°26 | 26°25 | 14° 9 | 21°23 | 7° 8 | 26°55 | 7°49 | 12°23 | 4°16 | 3°57 | 26°20 | 29°27 | T 14 | |
| W15 | 7 59 56 | 1° 3'48 | 18°12 | 16°R32 | 26°39 | 14°52 | 21°35 | 7°14 | 26°59 | 7°48 | 12°24 | 4° 4 | 3°53 | 26°27 | 29°32 | W15 | |
| T 16 | 8 3 52 | 2° 4'37 | 1♁44 | 16°28 | 26°56 | 15°34 | 21°47 | 7°19 | 27° 2 | 7°47 | 12°26 | 3°51 | 3°50 | 26°34 | 29°38 | T 16 | |
| F 17 | 8 7 49 | 3° 5'25 | 15°33 | 16°12 | 27°15 | 16°17 | 21°58 | 7°24 | 27° 6 | 7°46 | 12°27 | 3°38 | 3°47 | 26°40 | 29°43 | F 17 | |
| S 18 | 8 11 45 | 4° 6'12 | 29°35 | 15°46 | 27°35 | 17° 0 | 22°10 | 7°28 | 27° 9 | 7°45 | 12°28 | 3°27 | 3°44 | 26°47 | 29°49 | S 18 | |
| S 19 | 8 15 42 | 5° 6'57 | 13♁45 | 15° 9 | 27°58 | 17°43 | 22°22 | 7°33 | 27°13 | 7°45 | 12°29 | 3°17 | 3°41 | 26°54 | 29°54 | S 19 | |
| M20 | 8 19 38 | 6° 7'42 | 27°58 | 14°23 | 28°22 | 18°26 | 22°34 | 7°38 | 27°16 | 7°44 | 12°31 | 3°11 | 3°38 | 27° 0 | 29°59 | M20 | |
| T 21 | 8 23 35 | 7° 8'25 | 12♁10 | 13°29 | 28°48 | 19° 8 | 22°47 | 7°43 | 27°20 | 7°43 | 12°32 | 3° 8 | 3°34 | 27° 7 | 0♁ 5 | T 21 | |
| W22 | 8 27 32 | 8° 9'07 | 26°20 | 12°29 | 29°16 | 19°51 | 22°59 | 7°47 | 27°23 | 7°42 | 12°33 | 3° 7 | 3°31 | 27°14 | 0°10 | W22 | |
| T 23 | 8 31 28 | 9° 9'48 | 10♁25 | 11°23 | 29°45 | 20°34 | 23°11 | 7°52 | 27°26 | 7°42 | 12°34 | 3° 7 | 3°28 | 27°20 | 0°15 | T 23 | |
| F 24 | 8 35 25 | 10°10'28 | 24°26 | 10°14 | 0♁16 | 21°17 | 23°24 | 7°56 | 27°30 | 7°41 | 12°36 | 3° 7 | 3°25 | 27°27 | 0°21 | F 24 | |
| S 25 | 8 39 21 | 11°11'07 | 8♁21 | 9° 5 | 0°48 | 22° 0 | 23°36 | 8° 1 | 27°33 | 7°41 | 12°37 | 3° 4 | 3°22 | 27°33 | 0°26 | S 25 | |
| S 26 | 8 43 18 | 12°11'44 | 22°10 | 7°56 | 1°22 | 22°43 | 23°49 | 8° 5 | 27°37 | 7°40 | 12°38 | 3° 0 | 3°18 | 27°40 | 0°31 | S 26 | |
| M27 | 8 47 14 | 13°12'21 | 5♁52 | 6°49 | 1°57 | 23°26 | 24° 1 | 8° 9 | 27°40 | 7°40 | 12°40 | 2°52 | 3°15 | 27°47 | 0°36 | M27 | |
| T 28 | 8 51 11 | 14°12'56 | 19°24 | 5°46 | 2°34 | 24° 9 | 24°14 | 8°14 | 27°44 | 7°39 | 12°41 | 2°41 | 3°12 | 27°53 | 0°41 | T 28 | |
| W29 | 8 55 7 | 15°13'29 | 2♁45 | 4°48 | 3°12 | 24°52 | 24°27 | 8°18 | 27°47 | 7°39 | 12°43 | 2°29 | 3° 9 | 28° 0 | 0°46 | W29 | |
| T 30 | 8 59 4 | 16°14'01 | 15°53 | 3°57 | 3°51 | 25°36 | 24°40 | 8°22 | 27°50 | 7°38 | 12°44 | 2°15 | 3° 6 | 28° 7 | 0°51 | T 30 | |
| F 31 | 9 3 1 | 17°14'32 | 28♁45 | 3♁12 | 4♁31 | 26°19 | 24°52 | 8♁26 | 27♁54 | 7♁38 | 12♁45 | 2♁ 3 | 3♁ 3 | 28♁13 | 0♁56 | F 31 | |

Delta T = 19m11s Julian Calendar 1 Jan. 1074 == Greg. Calendar 7 Jan. 1074

FEBRUARY 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|------|-------|------|------|-----|
| S 1 | 9 6 57 | 18°15'00 | 11♁21 | 2°R34 | 5♁12 | 27♁ 2 | 25♁ 5 | 8♁30 | 27♁57 | 7°R37 | 12♁47 | 1°R52 | 2♁59 | 28♁20 | 1♁ 1 | S 1 | |
| S 2 | 9 10 54 | 19°15'27 | 23°42 | 2♁ 4 | 5°55 | 27°45 | 25°18 | 8°33 | 28° 0 | 7°II37 | 12°48 | 1♁43 | 2°56 | 28°27 | 1° 5 | S 2 | |
| M 3 | 9 14 50 | 20°15'52 | 5♁48 | 1°41 | 6°38 | 28°28 | 25°32 | 8°37 | 28° 4 | 7°37 | 12°50 | 1°37 | 2°53 | 28°33 | 1°10 | M 3 | |
| T 4 | 9 18 47 | 21°16'15 | 17°44 | 1°26 | 7°22 | 29°12 | 25°45 | 8°41 | 28° 7 | 7°37 | 12°51 | 1°34 | 2°50 | 28°40 | 1°15 | T 4 | |
| W 5 | 9 22 43 | 22°16'36 | 29°33 | 1°18 | 8° 8 | 29°55 | 25°58 | 8°44 | 28°10 | 7°36 | 12°52 | 1°D33 | 2°47 | 28°47 | 1°19 | W 5 | |
| T 6 | 9 26 40 | 23°16'55 | 11♁20 | 1°D17 | 8°54 | 0♁38 | 26°11 | 8°48 | 28°14 | 7°36 | 12°54 | 1°34 | 2°44 | 28°53 | 1°24 | T 6 | |
| F 7 | 9 30 36 | 24°17'12 | 23°10 | 1°22 | 9°41 | 1°21 | 26°25 | 8°51 | 28°17 | 7°36 | 12°55 | 1°R34 | 2°40 | 29° 0 | 1°28 | F 7 | |
| S 8 | 9 34 33 | 25°17'27 | 5♁10 | 1°33 | 10°29 | 2° 5 | 26°38 | 8°54 | 28°20 | 7°36 | 12°57 | 1°33 | 2°37 | 29° 6 | 1°33 | S 8 | |
| S 9 | 9 38 30 | 26°17'39 | 17°23 | 1°51 | 11°18 | 2°48 | 26°51 | 8°57 | 28°23 | 7°36 | 12°58 | 1°31 | 2°34 | 29°13 | 1°37 | S 9 | |
| M10 | 9 42 26 | 27°17'50 | 29°56 | 2°14 | 12° 7 | 3°31 | 27° 5 | 9° 0 | 28°27 | 7°36 | 13° 0 | 1°26 | 2°31 | 29°20 | 1°41 | M10 | |
| T 11 | 9 46 23 | 28°17'59 | 12♁52 | 2°41 | 12°58 | 4°15 | 27°19 | 9° 3 | 28°30 | 7°D36 | 13° 1 | 1°19 | 2°28 | 29°26 | 1°46 | T 11 | |
| W12 | 9 50 19 | 29°18'06 | 26°12 | 3°14 | 13°49 | 4°58 | 27°32 | 9° 6 | 28°33 | 7°36 | 13° 3 | 1°11 | 2°24 | 29°33 | 1°50 | W12 | |
| T 13 | 9 54 16 | 0♁18'10 | 9♁58 | 3°51 | 14°41 | 5°42 | 27°46 | 9° 9 | 28°36 | 7°36 | 13° 4 | 1° 0 | 2°21 | 29°40 | 1°54 | T 13 | |
| F 14 | 9 58 12 | 1°18'13 | 24° 5 | 4°32 | 15°33 | 6°25 | 27°59 | 9°12 | 28°39 | 7°36 | 13° 6 | 0°50 | 2°18 | 29°46 | 1°58 | F 14 | |
| S 15 | 10 2 9 | 2°18'14 | 8♁31 | 5°17 | 16°26 | 7° 9 | 28°13 | 9°14 | 28°42 | 7°36 | 13° 7 | 0°41 | 2°15 | 29°53 | 2° 2 | S 15 | |
| S 16 | 10 6 5 | 3°18'12 | 23° 7 | 6° 6 | 17°20 | 7°52 | 28°27 | 9°17 | 28°45 | 7°36 | 13° 9 | 0°34 | 2°12 | 29°59 | 2° 6 | S 16 | |
| M17 | 10 10 2 | 4°18'09 | 7♁47 | 6°58 | 18°14 | 8°36 | 28°41 | 9°19 | 28°48 | 7°37 | 13°10 | 0°30 | 2° 9 | 0♁ 6 | 2°10 | M17 | |
| T 18 | 10 13 59 | 5°18'04 | 22°24 | 7°53 | 19° 9 | 9°19 | 28°55 | 9°22 | 28°51 | 7°37 | 13°12 | 0°28 | 2° 5 | 0°13 | 2°13 | T 18 | |
| W19 | 10 17 55 | 6°17'57 | 6♁53 | 8°51 | 20° 4 | 10° 3 | 29° 9 | 9°24 | 28°54 | 7°37 | 13°13 | 0°D27 | 2° 2 | 0°20 | 2°17 | W19 | |
| T 20 | 10 21 52 | 7°17'49 | 21°11 | 9°51 | 21° 0 | 10°46 | 29°22 | 9°26 | 28°57 | 7°37 | 13°15 | 0°28 | 1°59 | 0°26 | 2°21 | T 20 | |
| F 21 | 10 25 48 | 8°17'39 | 5♁15 | 10°54 | 21°57 | 11°30 | 29°36 | 9°28 | 29° 0 | 7°38 | 13°17 | 0°R29 | 1°56 | 0°33 | 2°24 | F 21 | |
| S 22 | 10 29 45 | 9°17'27 | 19° 5 | 12° 0 | 22°54 | 12°14 | 29°50 | 9°30 | 29° 3 | 7°38 | 13°18 | 0°29 | 1°53 | 0°40 | 2°28 | S 22 | |
| S 23 | 10 33 41 | 10°17'14 | 2♁42 | 13° 8 | 23°51 | 12°57 | 0♁ 4 | 9°32 | 29° 6 | 7°38 | 13°20 | 0°26 | 1°49 | 0°46 | 2°31 | S 23 | |
| M24 | 10 37 38 | 11°16'59 | 16° 5 | 14°18 | 24°49 | 13°41 | 0°19 | 9°34 | 29° 9 | 7°39 | 13°21 | 0°22 | 1°46 | 0°53 | 2°35 | M24 | |
| T 25 | 10 41 34 | 12°16'42 | 29°15 | 15°30 | 25°47 | 14°25 | 0°33 | 9°36 | 29°11 | 7°39 | 13°23 | 0°15 | 1°43 | 0°59 | 2°38 | T 25 | |
| W26 | 10 45 31 | 13°16'23 | 12♁13 | 16°44 | 26°46 | 15° 8 | 0°47 | 9°37 | 29°14 | 7°40 | 13°24 | 0° 7 | 1°40 | 1° 6 | 2°41 | W26 | |
| T 27 | 10 49 28 | 14°16'02 | 24°58 | 18° 0 | 27°45 | 15°52 | 1° 1 | 9°39 | 29°17 | 7°40 | 13°26 | 29♁59 | 1°37 | 1°13 | 2°44 | T 27 | |
| F 28 | 10 53 24 | 15°15'40 | 7♁31 | 19°18 | 28♁45 | 16°36 | 1°15 | 9♁40 | 29♁20 | 7♁41 | 13♁27 | 29♁50 | 1♁34 | 1♁19 | 2♁47 | F 28 | |

Delta T = 19m10s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1074
geocentric

MARCH 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|------|-------|--------|--------|------|------|------|---|-----|
| S 1 | 10 57 21 | 16♋15'15 | 19♋51 | 20♋37 | 29♋45 | 17♋20 | 1♃29 | 9♃41 | 29♋22 | 7♃42 | 13♋29 | 29♃R43 | 1♃30 | 1♃26 | 2♃50 | S 1 | | |
| S 2 | 11 1 17 | 17°14'48 | 2♃1 | 21°59 | 0♋45 | 18° 3 | 1°44 | 9°43 | 29°25 | 7°42 | 13°30 | 29♃R38 | 1°27 | 1°33 | 2°53 | S 2 | | |
| M 3 | 11 5 14 | 18°14'19 | 14° 0 | 23°21 | 1°46 | 18°47 | 1°58 | 9°44 | 29°28 | 7°43 | 13°32 | 29°34 | 1°24 | 1°39 | 2°56 | M 3 | | |
| T 4 | 11 9 10 | 19°13'47 | 25°53 | 24°46 | 2°47 | 19°31 | 2°12 | 9°45 | 29°30 | 7°44 | 13°33 | 29°D33 | 1°21 | 1°46 | 2°59 | T 4 | | |
| W 5 | 11 13 7 | 20°13'14 | 7♃40 | 26°12 | 3°48 | 20°15 | 2°26 | 9°46 | 29°33 | 7°44 | 13°35 | 29°33 | 1°18 | 1°53 | 3° 1 | W 5 | | |
| T 6 | 11 17 3 | 21°12'38 | 19°27 | 27°39 | 4°50 | 20°59 | 2°41 | 9°46 | 29°35 | 7°45 | 13°36 | 29°35 | 1°15 | 1°59 | 3° 4 | T 6 | | |
| F 7 | 11 21 0 | 22°12'00 | 1♃17 | 29° 8 | 5°51 | 21°42 | 2°55 | 9°47 | 29°38 | 7°46 | 13°38 | 29°36 | 1°11 | 2° 6 | 3° 7 | F 7 | | |
| S 8 | 11 24 57 | 23°11'20 | 13°15 | 0♋38 | 6°54 | 22°26 | 3° 9 | 9°48 | 29°40 | 7°47 | 13°39 | 29°38 | 1° 8 | 2°13 | 3° 9 | S 8 | | |
| S 9 | 11 28 53 | 24°10'38 | 25°27 | 2°10 | 7°56 | 23°10 | 3°24 | 9°48 | 29°42 | 7°48 | 13°41 | 29°R38 | 1° 5 | 2°19 | 3°11 | S 9 | | |
| M10 | 11 32 50 | 25° 9'53 | 7♃57 | 3°44 | 8°59 | 23°54 | 3°38 | 9°48 | 29°45 | 7°48 | 13°43 | 29°37 | 1° 2 | 2°26 | 3°14 | M10 | | |
| T 11 | 11 36 46 | 26° 9'05 | 20°50 | 5°18 | 10° 2 | 24°38 | 3°53 | 9°49 | 29°47 | 7°49 | 13°44 | 29°35 | 0°59 | 2°32 | 3°16 | T 11 | | |
| W12 | 11 40 43 | 27° 8'16 | 4♃9 | 6°54 | 11° 5 | 25°22 | 4° 7 | 9°49 | 29°49 | 7°50 | 13°46 | 29°31 | 0°55 | 2°39 | 3°18 | W12 | | |
| T 13 | 11 44 39 | 28° 7'24 | 17°55 | 8°32 | 12° 9 | 26° 6 | 4°21 | 9°R49 | 29°52 | 7°51 | 13°47 | 29°27 | 0°52 | 2°46 | 3°20 | T 13 | | |
| F 14 | 11 48 36 | 29° 6'29 | 2♃8 | 10°11 | 13°12 | 26°50 | 4°36 | 9°49 | 29°54 | 7°52 | 13°49 | 29°22 | 0°49 | 2°52 | 3°22 | F 14 | | |
| S 15 | 11 52 32 | 0♃5'33 | 16°44 | 11°51 | 14°16 | 27°33 | 4°50 | 9°49 | 29°56 | 7°53 | 13°50 | 29°18 | 0°46 | 2°59 | 3°24 | S 15 | | |
| S 16 | 11 56 29 | 1° 4'34 | 1♃36 | 13°33 | 15°20 | 28°17 | 5° 5 | 9°49 | 29°58 | 7°55 | 13°52 | 29°15 | 0°43 | 3° 6 | 3°26 | S 16 | | |
| M17 | 12 0 25 | 2° 3'33 | 16°37 | 15°17 | 16°25 | 29° 1 | 5°19 | 9°48 | 0♋0 | 7°56 | 13°53 | 29°13 | 0°40 | 3°12 | 3°27 | M17 | | |
| T 18 | 12 4 22 | 3° 2'30 | 1♃38 | 17° 1 | 17°30 | 29°45 | 5°34 | 9°48 | 0° 2 | 7°57 | 13°54 | 29°D12 | 0°36 | 3°19 | 3°29 | T 18 | | |
| W19 | 12 8 19 | 4° 1'26 | 16°30 | 18°48 | 18°34 | 0♋29 | 5°48 | 9°48 | 0° 4 | 7°58 | 13°56 | 29°13 | 0°33 | 3°26 | 3°30 | W19 | | |
| T 20 | 12 12 15 | 5° 0'19 | 1♃8 | 20°35 | 19°39 | 1°13 | 6° 3 | 9°47 | 0° 6 | 7°59 | 13°57 | 29°14 | 0°30 | 3°32 | 3°32 | T 20 | | |
| F 21 | 12 16 12 | 5°59'11 | 15°27 | 22°25 | 20°45 | 1°57 | 6°17 | 9°46 | 0° 8 | 8° 0 | 13°59 | 29°16 | 0°27 | 3°39 | 3°33 | F 21 | | |
| S 22 | 12 20 8 | 6°58'01 | 29°24 | 24°15 | 21°50 | 2°41 | 6°31 | 9°46 | 0°10 | 8° 2 | 14° 0 | 29°17 | 0°24 | 3°46 | 3°35 | S 22 | | |
| S 23 | 12 24 5 | 7°56'49 | 13♋1 | 26° 8 | 22°56 | 3°25 | 6°46 | 9°45 | 0°12 | 8° 3 | 14° 2 | 29°R17 | 0°21 | 3°52 | 3°36 | S 23 | | |
| M24 | 12 28 1 | 8°55'36 | 26°17 | 28° 1 | 24° 2 | 4° 9 | 7° 0 | 9°44 | 0°14 | 8° 4 | 14° 3 | 29°16 | 0°17 | 3°59 | 3°37 | M24 | | |
| T 25 | 12 31 58 | 9°54'21 | 9♋15 | 29°56 | 25° 8 | 4°53 | 7°15 | 9°43 | 0°15 | 8° 6 | 14° 5 | 29°14 | 0°14 | 4° 6 | 3°38 | T 25 | | |
| W26 | 12 35 54 | 10°53'04 | 21°57 | 1♃53 | 26°14 | 5°37 | 7°29 | 9°41 | 0°17 | 8° 7 | 14° 6 | 29°12 | 0°11 | 4°12 | 3°39 | W26 | | |
| T 27 | 12 39 51 | 11°51'45 | 4♋25 | 3°51 | 27°20 | 6°21 | 7°44 | 9°40 | 0°19 | 8° 8 | 14° 7 | 29° 9 | 0° 8 | 4°19 | 3°40 | T 27 | | |
| F 28 | 12 43 48 | 12°50'24 | 16°41 | 5°51 | 28°27 | 7° 5 | 7°58 | 9°39 | 0°20 | 8°10 | 14° 9 | 29° 6 | 0° 5 | 4°25 | 3°40 | F 28 | | |
| S 29 | 12 47 44 | 13°49'02 | 28°47 | 7°52 | 29°33 | 7°49 | 8°12 | 9°37 | 0°22 | 8°11 | 14°10 | 29° 4 | 0° 1 | 4°32 | 3°41 | S 29 | | |
| S 30 | 12 51 41 | 14°47'37 | 10♃45 | 9°54 | 0♋40 | 8°33 | 8°27 | 9°36 | 0°23 | 8°13 | 14°11 | 29° 3 | 29♃R58 | 4°39 | 3°42 | S 30 | | |
| M31 | 12 55 37 | 15°46'11 | 22♃37 | 11♃58 | 1♋47 | 9°17 | 8♃41 | 9♃34 | 0°25 | 8♃14 | 14♋13 | 29♃R 2 | 29♃R55 | 4♃45 | 3♃42 | M31 | | |

Delta T = 19m10s Julian Calendar 1 March 1074 == Greg. Calendar 7 March 1074

APRIL 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|------|-------|--------|--------|------|-------|------|---|-----|
| T 1 | 12 59 34 | 16♃44'42 | 4♃26 | 14♃3 | 2♋54 | 10♋1 | 8♃56 | 9°R32 | 0°26 | 8♃16 | 14♋14 | 29°D 2 | 29♃R52 | 4♃52 | 3♃43 | T 1 | | |
| W 2 | 13 3 30 | 17°43'12 | 16°13 | 16° 9 | 4° 1 | 10°45 | 9°10 | 9°31 | 0°28 | 8°17 | 14°15 | 29°R 3 | 29°49 | 4°59 | 3°43 | W 2 | | |
| T 3 | 13 7 27 | 18°41'40 | 28° 1 | 18°16 | 5° 8 | 11°29 | 9°24 | 9°29 | 0°29 | 8°19 | 14°17 | 29° 3 | 29°46 | 5° 5 | 3°43 | T 3 | | |
| F 4 | 13 11 23 | 19°40'05 | 9♃53 | 20°23 | 6°16 | 12°13 | 9°39 | 9°27 | 0°30 | 8°20 | 14°18 | 29° 4 | 29°42 | 5°12 | 3°43 | F 4 | | |
| S 5 | 13 15 20 | 20°38'29 | 21°53 | 22°32 | 7°23 | 12°57 | 9°53 | 9°25 | 0°31 | 8°22 | 14°19 | 29° 5 | 29°39 | 5°19 | 3°44 | S 5 | | |
| S 6 | 13 19 17 | 21°36'50 | 4♃6 | 24°40 | 8°31 | 13°41 | 10° 7 | 9°22 | 0°33 | 8°24 | 14°21 | 29° 6 | 29°36 | 5°25 | 3°R44 | S 6 | | |
| M 7 | 13 23 13 | 22°35'10 | 16°34 | 26°49 | 9°39 | 14°25 | 10°22 | 9°20 | 0°34 | 8°25 | 14°22 | 29° 6 | 29°33 | 5°32 | 3°43 | M 7 | | |
| T 8 | 13 27 10 | 23°33'27 | 29°23 | 28°57 | 10°46 | 15° 9 | 10°36 | 9°18 | 0°35 | 8°27 | 14°23 | 29°R 6 | 29°30 | 5°39 | 3°43 | T 8 | | |
| W 9 | 13 31 6 | 24°31'42 | 12♃36 | 1♃5 | 11°54 | 15°52 | 10°50 | 9°15 | 0°36 | 8°29 | 14°24 | 29° 6 | 29°26 | 5°45 | 3°43 | W 9 | | |
| T 10 | 13 35 3 | 25°29'55 | 26°15 | 3°12 | 13° 2 | 16°36 | 11° 4 | 9°13 | 0°37 | 8°30 | 14°26 | 29° 6 | 29°23 | 5°52 | 3°43 | T 10 | | |
| F 11 | 13 38 59 | 26°28'06 | 10♃21 | 5°19 | 14°11 | 17°20 | 11°18 | 9°10 | 0°38 | 8°32 | 14°27 | 29° 5 | 29°20 | 5°58 | 3°42 | F 11 | | |
| S 12 | 13 42 56 | 27°26'14 | 24°52 | 7°23 | 15°19 | 18° 4 | 11°33 | 9° 8 | 0°39 | 8°34 | 14°28 | 29° 5 | 29°17 | 6° 5 | 3°42 | S 12 | | |
| S 13 | 13 46 52 | 28°24'21 | 9♃45 | 9°27 | 16°27 | 18°48 | 11°47 | 9° 5 | 0°40 | 8°36 | 14°29 | 29° 5 | 29°14 | 6°12 | 3°41 | S 13 | | |
| M14 | 13 50 49 | 29°22'26 | 24°52 | 11°28 | 17°36 | 19°32 | 12° 1 | 9° 2 | 0°40 | 8°37 | 14°30 | 29° 5 | 29°11 | 6°18 | 3°41 | M14 | | |
| T 15 | 13 54 46 | 0♃20'30 | 10♃4 | 13°27 | 18°44 | 20°15 | 12°15 | 8°59 | 0°41 | 8°39 | 14°31 | 29° 5 | 29° 7 | 6°25 | 3°40 | T 15 | | |
| W16 | 13 58 42 | 1°18'31 | 25°12 | 15°24 | 19°53 | 20°59 | 12°29 | 8°56 | 0°42 | 8°41 | 14°33 | 29° 5 | 29° 4 | 6°32 | 3°39 | W16 | | |
| T 17 | 14 2 39 | 2°16'32 | 10♃8 | 17°18 | 21° 2 | 21°43 | 12°43 | 8°53 | 0°42 | 8°43 | 14°34 | 29° 5 | 29° 1 | 6°38 | 3°38 | T 17 | | |
| F 18 | 14 6 35 | 3°14'30 | 24°43 | 19° 9 | 22°10 | 22°27 | 12°57 | 8°50 | 0°43 | 8°45 | 14°35 | 29° 4 | 28°58 | 6°45 | 3°37 | F 18 | | |
| S 19 | 14 10 32 | 4°12'28 | 8♃54 | 20°57 | 23°19 | 23°11 | 13°11 | 8°47 | 0°44 | 8°47 | 14°36 | 29° 4 | 28°55 | 6°52 | 3°36 | S 19 | | |
| S 20 | 14 14 28 | 5°10'24 | 22°39 | 22°42 | 24°28 | 23°54 | 13°25 | 8°44 | 0°44 | 8°49 | 14°37 | 29° 4 | 28°52 | 6°58 | 3°35 | S 20 | | |
| M21 | 14 18 25 | 6° 8'19 | 5♋58 | 24°24 | 25°37 | 24°38 | 13°39 | 8°40 | 0°45 | 8°51 | 14°38 | 29°D 3 | 28°48 | 7° 5 | 3°34 | M21 | | |
| T 22 | 14 22 21 | 7° 6'12 | 18°54 | 26° 2 | 26°47 | 25°22 | 13°52 | 8°37 | 0°45 | 8°53 | 14°39 | 29° 4 | 28°45 | 7°12 | 3°32 | T 22 | | |
| W23 | 14 26 18 | 8° 4'04 | 1♋29 | 27°37 | 27°56 | 26° 5 | 14° 6 | 8°34 | 0°45 | 8°55 | 14°40 | 29° 4 | 28°42 | 7°18 | 3°31 | W23 | | |
| T 24 | 14 30 15 | 9° 1'55 | 13°47 | 29° 8 | 29° 5 | 26°49 | 14°20 | 8°30 | 0°46 | 8°57 | 14°41 | 29° 5 | 28°39 | 7°25 | 3°29 | T 24 | | |
| F 25 | 14 34 11 | 9°59'45 | 25°53 | 0♃36 | 0♃15 | 27°32 | 14°34 | 8°26 | 0°46 | 8°59 | 14°42 | 29° 6 | 28°36 | 7°32 | 3°28 | F 25 | | |
| S 26 | 14 38 8 | 10°57'33 | 7♃49 | 2° 0 | 1°24 | 28°16 | 14°47 | 8°23 | 0°46 | 9° 1 | 14°43 | 29° 7 | 28°32 | 7°38 | 3°26 | S 26 | | |
| S 27 | 14 42 4 | 11°55'20 | 19°40 | 3°20 | 2°34 | 29° 0 | 15° 1 | 8°19 | 0°46 | 9° 3 | 14°44 | 29° 8 | 28°29 | 7°45 | 3°25 | S 27 | | |
| M28 | 14 46 1 | 12°53'05 | 1♃27 | 4°37 | 3°43 | 29°43 | 15°15 | 8°15 | 0°46 | 9° 5 | 14°45 | 29°R 8 | 28°26 | 7°51 | 3°23 | M28 | | |
| T 29 | 14 49 57 | 13°50'49 | 13°14 | 5°49 | 4°53 | 0♋27 | 15°28 | 8°12 | 0°46 | 9° 7 | 14°46 | 29° 7 | 28°23 | 7°58 | 3°21 | T 29 | | |
| W30 | 14 53 54 | 14°48'32 | 25♃3 | 6♃58 | 6♃3 | 1♋10 | 15°42 | 8♃8 | 0°R46 | 9♃9 | 14♋47 | 29♃R 6 | 28♃R20 | 8♃5 | 3♃19 | W30 | | |

Delta T = 19m10s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1074
geocentric

MAY 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|------------|--------|--------|--------|--------|--------|-------|-------|---------|--------|--------|--------|--------|-------|------|---|-----|
| T 1 | 14 57 50 | 15♁46'14 | 6♂II55 | 8♂II 3 | 7♂V12 | 1♂K53 | 15♂V55 | 8°R 4 | 0°R46 | 9♂II11 | 14♂K48 | 29°R 4 | 28♂V17 | 8♂B11 | 3°R17 | T 1 | | |
| F 2 | 15 1 47 | 16°43'54 | 18°54 | 9° 4 | 8°22 | 2°37 | 16° 8 | 8♂A 0 | 0♂A46 | 9°13 | 14°48 | 29♂V 2 | 28°13 | 8°18 | 3♂B15 | F 2 | | |
| S 3 | 15 5 44 | 17°41'33 | 1♂B 2 | 10° 1 | 9°32 | 3°20 | 16°22 | 7°56 | 0°46 | 9°15 | 14°49 | 28°59 | 28°10 | 8°25 | 3°13 | S 3 | | |
| S 4 | 15 9 40 | 18°39'10 | 13°20 | 10°54 | 10°42 | 4° 3 | 16°35 | 7°52 | 0°46 | 9°17 | 14°50 | 28°56 | 28° 7 | 8°31 | 3°11 | S 4 | | |
| M 5 | 15 13 37 | 19°36'46 | 25°53 | 11°42 | 11°52 | 4°46 | 16°48 | 7°48 | 0°46 | 9°19 | 14°51 | 28°54 | 28° 4 | 8°38 | 3° 8 | M 5 | | |
| T 6 | 15 17 33 | 20°34'20 | 8♂Q42 | 12°26 | 13° 2 | 5°29 | 17° 2 | 7°44 | 0°45 | 9°21 | 14°52 | 28°52 | 28° 1 | 8°45 | 3° 6 | T 6 | | |
| W 7 | 15 21 30 | 21°31'53 | 21°50 | 13° 6 | 14°12 | 6°13 | 17°15 | 7°40 | 0°45 | 9°24 | 14°52 | 28°D52 | 27°58 | 8°51 | 3° 4 | W 7 | | |
| T 8 | 15 25 26 | 22°29'24 | 5♂P21 | 13°42 | 15°23 | 6°56 | 17°28 | 7°35 | 0°45 | 9°26 | 14°53 | 28°52 | 27°54 | 8°58 | 3° 1 | T 8 | | |
| F 9 | 15 29 23 | 23°26'54 | 19°16 | 14°13 | 16°33 | 7°39 | 17°41 | 7°31 | 0°44 | 9°28 | 14°54 | 28°53 | 27°51 | 9° 5 | 2°59 | F 9 | | |
| S 10 | 15 33 19 | 24°24'22 | 3♂A34 | 14°39 | 17°43 | 8°22 | 17°54 | 7°27 | 0°44 | 9°30 | 14°54 | 28°55 | 27°48 | 9°11 | 2°56 | S 10 | | |
| S 11 | 15 37 16 | 25°21'49 | 18°14 | 15° 1 | 18°53 | 9° 4 | 18° 7 | 7°23 | 0°43 | 9°32 | 14°55 | 28°56 | 27°45 | 9°18 | 2°54 | S 11 | | |
| M12 | 15 41 13 | 26°19'15 | 3♂L12 | 15°18 | 20° 4 | 9°47 | 18°19 | 7°18 | 0°43 | 9°34 | 14°56 | 28°R56 | 27°42 | 9°25 | 2°51 | M12 | | |
| T 13 | 15 45 9 | 27°16'40 | 18°20 | 15°31 | 21°14 | 10°30 | 18°32 | 7°14 | 0°42 | 9°37 | 14°56 | 28°55 | 27°38 | 9°31 | 2°48 | T 13 | | |
| W14 | 15 49 6 | 28°14'04 | 3♂A29 | 15°39 | 22°25 | 11°13 | 18°45 | 7°10 | 0°41 | 9°39 | 14°57 | 28°53 | 27°35 | 9°38 | 2°45 | W14 | | |
| T 15 | 15 53 2 | 29°11'27 | 18°30 | 15°R42 | 23°35 | 11°55 | 18°57 | 7° 6 | 0°41 | 9°41 | 14°58 | 28°49 | 27°32 | 9°44 | 2°42 | T 15 | | |
| F 16 | 15 56 59 | 0♂II 8'49 | 3♂B15 | 15°41 | 24°46 | 12°38 | 19°10 | 7° 1 | 0°40 | 9°43 | 14°58 | 28°45 | 27°29 | 9°51 | 2°39 | F 16 | | |
| S 17 | 16 0 55 | 1° 6'10 | 17°36 | 15°35 | 25°57 | 13°21 | 19°22 | 6°57 | 0°39 | 9°45 | 14°59 | 28°40 | 27°26 | 9°58 | 2°37 | S 17 | | |
| S 18 | 16 4 52 | 2° 3'31 | 1♂A30 | 15°25 | 27° 7 | 14° 3 | 19°35 | 6°52 | 0°38 | 9°48 | 14°59 | 28°36 | 27°23 | 10° 4 | 2°33 | S 18 | | |
| M19 | 16 8 48 | 3° 0'51 | 14°55 | 15°11 | 28°18 | 14°46 | 19°47 | 6°48 | 0°37 | 9°50 | 15° 0 | 28°34 | 27°19 | 10°11 | 2°30 | M19 | | |
| T 20 | 16 12 45 | 3°58'10 | 27°54 | 14°53 | 29°29 | 15°28 | 19°59 | 6°44 | 0°36 | 9°52 | 15° 0 | 28°32 | 27°16 | 10°18 | 2°27 | T 20 | | |
| W21 | 16 16 42 | 4°55'29 | 10♂K29 | 14°31 | 0♂A40 | 16°10 | 20°12 | 6°39 | 0°35 | 9°54 | 15° 1 | 28°D32 | 27°13 | 10°24 | 2°24 | W21 | | |
| T 22 | 16 20 38 | 5°52'47 | 22°45 | 14° 7 | 1°51 | 16°52 | 20°24 | 6°35 | 0°34 | 9°57 | 15° 1 | 28°33 | 27°10 | 10°31 | 2°21 | T 22 | | |
| F 23 | 16 24 35 | 6°50'05 | 4♂V47 | 13°39 | 3° 2 | 17°35 | 20°36 | 6°30 | 0°33 | 9°59 | 15° 1 | 28°35 | 27° 7 | 10°38 | 2°18 | F 23 | | |
| S 24 | 16 28 31 | 7°47'22 | 16°39 | 13° 9 | 4°13 | 18°17 | 20°48 | 6°26 | 0°32 | 10° 1 | 15° 2 | 28°36 | 27° 4 | 10°44 | 2°14 | S 24 | | |
| S 25 | 16 32 28 | 8°44'39 | 28°26 | 12°38 | 5°24 | 18°59 | 21° 0 | 6°21 | 0°31 | 10° 3 | 15° 2 | 28°R37 | 27° 0 | 10°51 | 2°11 | S 25 | | |
| M26 | 16 36 24 | 9°41'56 | 10♂L12 | 12° 5 | 6°35 | 19°41 | 21°12 | 6°17 | 0°30 | 10° 6 | 15° 3 | 28°36 | 26°57 | 10°58 | 2° 8 | M26 | | |
| T 27 | 16 40 21 | 10°39'12 | 22° 1 | 11°31 | 7°46 | 20°22 | 21°23 | 6°13 | 0°29 | 10° 8 | 15° 3 | 28°34 | 26°54 | 11° 4 | 2° 4 | T 27 | | |
| W28 | 16 44 17 | 11°36'28 | 3♂II55 | 10°57 | 8°57 | 21° 4 | 21°35 | 6° 8 | 0°27 | 10°10 | 15° 3 | 28°29 | 26°51 | 11°11 | 2° 1 | W28 | | |
| T 29 | 16 48 14 | 12°33'43 | 15°56 | 10°23 | 10° 8 | 21°46 | 21°46 | 6° 4 | 0°26 | 10°12 | 15° 3 | 28°23 | 26°48 | 11°18 | 1°57 | T 29 | | |
| F 30 | 16 52 11 | 13°30'58 | 28° 6 | 9°51 | 11°19 | 22°27 | 21°58 | 5°59 | 0°25 | 10°15 | 15° 4 | 28°15 | 26°44 | 11°24 | 1°54 | F 30 | | |
| S 31 | 16 56 7 | 14♂II28'12 | 10♂B26 | 9♂II19 | 12♂B31 | 23♂K 9 | 22♂V 9 | 5♂A55 | 0♂A23 | 10♂II17 | 15♂K 4 | 28♂V 7 | 26♂V41 | 11♂B31 | 1♂B50 | S 31 | | |

Delta T = 19m10s Julian Calendar 1 May 1074 == Greg. Calendar 7 May 1074

JUNE 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|------------|--------|---------|---------|--------|--------|-------|--------|---------|--------|--------|--------|--------|--------|------|---|-----|
| S 1 | 17 0 4 | 15♂II25'25 | 22♂B57 | 8°R50 | 13♂B42 | 23♂K50 | 22♂V21 | 5°R51 | 0°R22 | 10♂II19 | 15♂K 4 | 27°R59 | 26♂V38 | 11♂B38 | 1°R46 | S 1 | | |
| M 2 | 17 4 0 | 16°22'38 | 5♂Q41 | 8♂II24 | 14°53 | 24°31 | 22°32 | 5♂A46 | 0♂A20 | 10°21 | 15° 4 | 27°V52 | 26°35 | 11°44 | 1♂B43 | M 2 | | |
| T 3 | 17 7 57 | 17°19'51 | 18°38 | 8° 0 | 16° 5 | 25°12 | 22°43 | 5°42 | 0°19 | 10°23 | 15° 4 | 27°46 | 26°32 | 11°51 | 1°39 | T 3 | | |
| W 4 | 17 11 53 | 18°17'02 | 1♂P50 | 7°40 | 17°16 | 25°54 | 22°54 | 5°38 | 0°17 | 10°26 | 15° 5 | 27°43 | 26°29 | 11°57 | 1°36 | W 4 | | |
| T 5 | 17 15 50 | 19°14'14 | 15°19 | 7°24 | 18°28 | 26°34 | 23° 5 | 5°34 | 0°16 | 10°28 | 15° 5 | 27°D42 | 26°25 | 12° 4 | 1°32 | T 5 | | |
| F 6 | 17 19 47 | 20°11'24 | 29° 5 | 7°12 | 19°39 | 27°15 | 23°16 | 5°29 | 0°14 | 10°30 | 15° 5 | 27°42 | 26°22 | 12°11 | 1°28 | F 6 | | |
| S 7 | 17 23 43 | 21° 8'34 | 13♂A10 | 7° 3 | 20°51 | 27°56 | 23°26 | 5°25 | 0°12 | 10°32 | 15° 5 | 27°43 | 26°19 | 12°17 | 1°24 | S 7 | | |
| S 8 | 17 27 40 | 22° 5'43 | 27°34 | 7°D 0 | 22° 2 | 28°37 | 23°37 | 5°21 | 0°11 | 10°35 | 15° 5 | 27°R43 | 26°16 | 12°24 | 1°21 | S 8 | | |
| M 9 | 17 31 36 | 23° 2'53 | 12♂L13 | 7° 1 | 23°14 | 29°17 | 23°47 | 5°17 | 0° 9 | 10°37 | 15°R 5 | 27°42 | 26°13 | 12°31 | 1°17 | M 9 | | |
| T 10 | 17 35 33 | 24° 0'01 | 27° 4 | 7° 7 | 24°25 | 29°57 | 23°58 | 5°13 | 0° 7 | 10°39 | 15° 5 | 27°40 | 26°10 | 12°37 | 1°13 | T 10 | | |
| W11 | 17 39 29 | 24°57'10 | 11♂A59 | 7°18 | 25°37 | 0♂V38 | 24° 8 | 5° 9 | 0° 6 | 10°41 | 15° 5 | 27°34 | 26° 6 | 12°44 | 1° 9 | W11 | | |
| T 12 | 17 43 26 | 25°54'18 | 26°51 | 7°34 | 26°49 | 1°18 | 24°18 | 5° 5 | 0° 4 | 10°43 | 15° 5 | 27°27 | 26° 3 | 12°51 | 1° 6 | T 12 | | |
| F 13 | 17 47 22 | 26°51'27 | 11♂B31 | 7°54 | 28° 1 | 1°58 | 24°28 | 5° 1 | 0° 2 | 10°45 | 15° 5 | 27°18 | 26° 0 | 12°57 | 1° 2 | F 13 | | |
| S 14 | 17 51 19 | 27°48'35 | 25°51 | 8°20 | 29°13 | 2°38 | 24°38 | 4°57 | 29♂B59 | 10°48 | 15° 5 | 27° 9 | 25°57 | 13° 4 | 0°58 | S 14 | | |
| S 15 | 17 55 16 | 28°45'44 | 9♂A47 | 8°51 | 0♂II24 | 3°17 | 24°48 | 4°53 | 29°58 | 10°50 | 15° 5 | 27° 1 | 25°54 | 13°11 | 0°54 | S 15 | | |
| M16 | 17 59 12 | 29°42'53 | 23°15 | 9°26 | 1°36 | 3°57 | 24°58 | 4°49 | 29°56 | 10°52 | 15° 4 | 26°54 | 25°50 | 13°17 | 0°50 | M16 | | |
| T 17 | 18 3 9 | 0♂A40'02 | 6♂K17 | 10° 7 | 2°48 | 4°36 | 25° 7 | 4°45 | 29°54 | 10°54 | 15° 4 | 26°49 | 25°47 | 13°24 | 0°46 | T 17 | | |
| W18 | 18 7 5 | 1°37'11 | 18°54 | 10°52 | 4° 0 | 5°16 | 25°17 | 4°42 | 29°52 | 10°56 | 15° 4 | 26°46 | 25°44 | 13°31 | 0°43 | W18 | | |
| T 19 | 18 11 2 | 2°34'21 | 1°V11 | 11°42 | 5°12 | 5°55 | 25°26 | 4°38 | 29°50 | 10°58 | 15° 4 | 26°D45 | 25°41 | 13°37 | 0°39 | T 19 | | |
| F 20 | 18 14 58 | 3°31'31 | 13°13 | 12°36 | 6°24 | 6°34 | 25°36 | 4°34 | 29°48 | 11° 0 | 15° 4 | 26°46 | 25°38 | 13°44 | 0°35 | F 20 | | |
| S 21 | 18 18 55 | 4°28'42 | 25° 5 | 13°36 | 7°36 | 7°13 | 25°45 | 4°31 | 29°46 | 11° 3 | 15° 3 | 26°R46 | 25°35 | 13°51 | 0°31 | S 21 | | |
| S 22 | 18 22 51 | 5°25'53 | 6♂B53 | 14°39 | 8°49 | 7°52 | 25°54 | 4°27 | 29°44 | 11° 5 | 15° 3 | 26°46 | 25°31 | 13°57 | 0°27 | S 22 | | |
| M23 | 18 26 48 | 6°23'05 | 18°40 | 15°48 | 10° 1 | 8°30 | 26° 3 | 4°24 | 29°42 | 11° 7 | 15° 3 | 26°43 | 25°28 | 14° 4 | 0°24 | M23 | | |
| T 24 | 18 30 45 | 7°20'17 | 0♂II33 | 17° 1 | 11°13 | 9° 9 | 26°11 | 4°21 | 29°40 | 11° 9 | 15° 2 | 26°39 | 25°25 | 14°11 | 0°20 | T 24 | | |
| W25 | 18 34 41 | 8°17'30 | 12°34 | 18°18 | 12°25 | 9°47 | 26°20 | 4°17 | 29°37 | 11°11 | 15° 2 | 26°32 | 25°22 | 14°17 | 0°16 | W25 | | |
| T 26 | 18 38 38 | 9°14'44 | 24°45 | 19°39 | 13°38 | 10°25 | 26°29 | 4°14 | 29°35 | 11°13 | 15° 2 | 26°22 | 25°19 | 14°24 | 0°12 | T 26 | | |
| F 27 | 18 42 34 | 10°11'57 | 7♂B 9 | 21° 5 | 14°50 | 11° 3 | 26°37 | 4°11 | 29°33 | 11°15 | 15° 1 | 26°10 | 25°16 | 14°30 | 0° 9 | F 27 | | |
| S 28 | 18 46 31 | 11° 9'12 | 19°45 | 22°35 | 16° 2 | 11°41 | 26°45 | 4° 8 | 29°31 | 11°17 | 15° 1 | 25°58 | 25°12 | 14°37 | 0° 5 | S 28 | | |
| S 29 | 18 50 27 | 12° 6'27 | 2♂Q35 | 24° 9 | 17°15 | 12°18 | 26°53 | 4° 5 | 29°29 | 11°19 | 15° 1 | 25°46 | 25° 9 | 14°44 | 0° 1 | S 29 | | |
| M30 | 18 54 24 | 13♂B 3'42 | 15♂Q36 | 25♂II47 | 18♂II27 | 12♂V55 | 27♂V 1 | 4♂A 2 | 29♂B26 | 11♂II21 | 15♂K 0 | 25♂V35 | 25♂V 6 | 14♂B50 | 29♂A57 | M30 | | |

Delta T = 19m09s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1074
geocentric

JULY 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|--------|------|
| T 1 | 18 58 21 | 14☾ 0'57 | 28♌50 | 27♂28 | 19♂40 | 13♂33 | 27♂9 | 3°R59 | 29°R24 | 11♂23 | 15°R 0 | 25°R26 | 25♂3 | 14♂57 | 29°R54 | T 1 |
| W 2 | 19 2 17 | 14°58'13 | 12♍15 | 29°13 | 20°52 | 14°10 | 27°17 | 3♂56 | 29♂22 | 11°25 | 14♂59 | 25♂20 | 25° 0 | 15° 4 | 29♂50 | W 2 |
| T 3 | 19 6 14 | 15°55'29 | 25°51 | 19☾ 1 | 22° 5 | 14°46 | 27°24 | 3°53 | 29°19 | 11°27 | 14°59 | 25°17 | 24°56 | 15°10 | 29°47 | T 3 |
| F 4 | 19 10 10 | 16°52'46 | 9♌39 | 2°53 | 23°17 | 15°23 | 27°32 | 3°51 | 29°17 | 11°29 | 14°58 | 25°16 | 24°53 | 15°17 | 29°43 | F 4 |
| S 5 | 19 14 7 | 17°50'03 | 23°38 | 4°47 | 24°30 | 15°59 | 27°39 | 3°48 | 29°15 | 11°30 | 14°58 | 25°16 | 24°50 | 15°24 | 29°40 | S 5 |
| S 6 | 19 18 3 | 18°47'20 | 7♍48 | 6°44 | 25°43 | 16°35 | 27°46 | 3°46 | 29°13 | 11°32 | 14°57 | 25°16 | 24°47 | 15°30 | 29°36 | S 6 |
| M 7 | 19 22 0 | 19°44'38 | 22° 9 | 8°43 | 26°56 | 17°11 | 27°53 | 3°43 | 29°10 | 11°34 | 14°56 | 25°14 | 24°44 | 15°37 | 29°33 | M 7 |
| T 8 | 19 25 56 | 20°41'56 | 6♌38 | 10°44 | 28° 8 | 17°47 | 28° 0 | 3°41 | 29° 8 | 11°36 | 14°56 | 25°10 | 24°41 | 15°44 | 29°29 | T 8 |
| W 9 | 19 29 53 | 21°39'15 | 2°11 | 12°46 | 29°21 | 18°22 | 28° 6 | 3°39 | 29° 5 | 11°38 | 14°55 | 25° 3 | 24°37 | 15°50 | 29°26 | W 9 |
| T 10 | 19 33 50 | 22°36'35 | 5♌41 | 14°50 | 0♂34 | 18°57 | 28°13 | 3°37 | 29° 3 | 11°40 | 14°55 | 24°54 | 24°34 | 15°57 | 29°22 | T 10 |
| F 11 | 19 37 46 | 23°33'55 | 20° 3 | 16°55 | 1°47 | 19°32 | 28°19 | 3°35 | 29° 1 | 11°41 | 14°54 | 24°43 | 24°31 | 16° 4 | 29°19 | F 11 |
| S 12 | 19 41 43 | 24°31'16 | 4♌ 9 | 19° 0 | 3° 0 | 20° 7 | 28°25 | 3°33 | 28°58 | 11°43 | 14°53 | 24°31 | 24°28 | 16°10 | 29°16 | S 12 |
| S 13 | 19 45 39 | 25°28'38 | 17°56 | 21° 6 | 4°13 | 20°42 | 28°31 | 3°31 | 28°56 | 11°45 | 14°53 | 24°20 | 24°25 | 16°17 | 29°13 | S 13 |
| M14 | 19 49 36 | 26°26'01 | 1♌19 | 23°11 | 5°26 | 21°16 | 28°37 | 3°29 | 28°54 | 11°47 | 14°52 | 24°11 | 24°22 | 16°24 | 29° 9 | M14 |
| T 15 | 19 53 32 | 27°23'26 | 14°18 | 25°16 | 6°39 | 21°50 | 28°43 | 3°27 | 28°51 | 11°48 | 14°51 | 24° 4 | 24°18 | 16°30 | 29° 6 | T 15 |
| W16 | 19 57 29 | 28°20'51 | 26°55 | 27°21 | 7°52 | 22°24 | 28°48 | 3°26 | 28°49 | 11°50 | 14°50 | 23°59 | 24°15 | 16°37 | 29° 3 | W16 |
| T 17 | 20 1 25 | 29°18'18 | 9♂13 | 29°25 | 9° 5 | 22°57 | 28°54 | 3°24 | 28°46 | 11°52 | 14°50 | 23°57 | 24°12 | 16°44 | 29° 0 | T 17 |
| F 18 | 20 5 22 | 0♌15'46 | 21°16 | 1♌29 | 10°18 | 23°30 | 28°59 | 3°23 | 28°44 | 11°53 | 14°49 | 23°D56 | 24° 9 | 16°50 | 28°57 | F 18 |
| S 19 | 20 9 19 | 1°13'15 | 3♌ 9 | 3°31 | 11°31 | 24° 3 | 29° 4 | 3°21 | 28°42 | 11°55 | 14°48 | 23°R56 | 24° 6 | 16°57 | 28°54 | S 19 |
| S 20 | 20 13 15 | 2°10'46 | 14°58 | 5°32 | 12°45 | 24°36 | 29° 9 | 3°20 | 28°39 | 11°56 | 14°47 | 23°56 | 24° 2 | 17° 4 | 28°51 | S 20 |
| M21 | 20 17 12 | 3° 8'18 | 26°47 | 7°32 | 13°58 | 25° 8 | 29°13 | 3°19 | 28°37 | 11°58 | 14°46 | 23°54 | 23°59 | 17°10 | 28°49 | M21 |
| T 22 | 20 21 8 | 4° 5'52 | 8♂43 | 9°31 | 15°11 | 25°40 | 29°18 | 3°18 | 28°34 | 12° 0 | 14°45 | 23°50 | 23°56 | 17°17 | 28°46 | T 22 |
| W23 | 20 25 5 | 5° 3'27 | 20°50 | 11°28 | 16°25 | 26°12 | 29°22 | 3°17 | 28°32 | 12° 1 | 14°45 | 23°43 | 23°53 | 17°24 | 28°43 | W23 |
| T 24 | 20 29 1 | 6° 1'03 | 3♌10 | 13°24 | 17°38 | 26°43 | 29°26 | 3°16 | 28°30 | 12° 3 | 14°44 | 23°34 | 23°50 | 17°30 | 28°40 | T 24 |
| F 25 | 20 32 58 | 6°58'41 | 15°46 | 15°19 | 18°51 | 27°14 | 29°30 | 3°15 | 28°27 | 12° 4 | 14°43 | 23°22 | 23°47 | 17°37 | 28°38 | F 25 |
| S 26 | 20 36 54 | 7°56'20 | 28°40 | 17°12 | 20° 5 | 27°45 | 29°34 | 3°14 | 28°25 | 12° 6 | 14°42 | 23°10 | 23°43 | 17°44 | 28°35 | S 26 |
| S 27 | 20 40 51 | 8°54'01 | 11♌49 | 19° 3 | 21°18 | 28°16 | 29°38 | 3°14 | 28°23 | 12° 7 | 14°41 | 22°58 | 23°40 | 17°50 | 28°33 | S 27 |
| M28 | 20 44 48 | 9°51'43 | 25°13 | 20°54 | 22°32 | 28°46 | 29°41 | 3°13 | 28°20 | 12° 8 | 14°40 | 22°47 | 23°37 | 17°57 | 28°30 | M28 |
| T 29 | 20 48 44 | 10°49'26 | 8♍50 | 22°42 | 23°46 | 29°15 | 29°44 | 3°13 | 28°18 | 12°10 | 14°39 | 22°39 | 23°34 | 18° 3 | 28°28 | T 29 |
| W30 | 20 52 41 | 11°47'11 | 22°36 | 24°30 | 24°59 | 29°45 | 29°47 | 3°12 | 28°16 | 12°11 | 14°38 | 22°33 | 23°31 | 18°10 | 28°26 | W30 |
| T 31 | 20 56 37 | 12♌44'56 | 6♌30 | 26♌16 | 26♌13 | 0♌14 | 29♂50 | 3♂12 | 28♂13 | 12♂12 | 14♂37 | 22♂30 | 23♂28 | 18♂17 | 28♂24 | T 31 |

Delta T = 19m09s Julian Calendar 1 July 1074 == Greg. Calendar 7 July 1074

AUGUST 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|--------|------|
| F 1 | 21 0 34 | 13♌42'43 | 20♌30 | 28♌ 0 | 27♂27 | 0♌42 | 29♂53 | 3°R12 | 28°R11 | 12♂14 | 14°R36 | 22°D29 | 23♂24 | 18♂23 | 28°R22 | F 1 |
| S 2 | 21 4 30 | 14°40'31 | 4♍34 | 29°43 | 28°40 | 1°10 | 29°55 | 3°D12 | 28♂ 9 | 12°15 | 14♂35 | 22♂29 | 23°21 | 18°30 | 28♂19 | S 2 |
| S 3 | 21 8 27 | 15°38'20 | 18°41 | 1♍25 | 29°54 | 1°38 | 29°58 | 3♂12 | 28° 6 | 12°16 | 14°34 | 22°R29 | 23°18 | 18°37 | 28°18 | S 3 |
| M 4 | 21 12 23 | 16°36'10 | 2♌51 | 3° 6 | 1♌ 8 | 2° 5 | 29°59 | 3°12 | 28° 4 | 12°17 | 14°33 | 22°28 | 23°15 | 18°43 | 28°16 | M 4 |
| T 5 | 21 16 20 | 17°34'02 | 17° 1 | 4°45 | 2°22 | 2°32 | 0♌ 1 | 3°12 | 28° 2 | 12°18 | 14°32 | 22°25 | 23°12 | 18°50 | 28°14 | T 5 |
| W 6 | 21 20 17 | 18°31'55 | 1♌10 | 6°22 | 3°36 | 2°59 | 0° 3 | 3°13 | 28° 0 | 12°20 | 14°31 | 22°20 | 23° 8 | 18°57 | 28°12 | W 6 |
| T 7 | 21 24 13 | 19°29'50 | 15°15 | 7°59 | 4°50 | 3°25 | 0° 5 | 3°13 | 27°58 | 12°21 | 14°30 | 22°12 | 23° 5 | 19° 3 | 28°10 | T 7 |
| F 8 | 21 28 10 | 20°27'46 | 29°10 | 9°34 | 6° 3 | 3°51 | 0° 6 | 3°14 | 27°55 | 12°22 | 14°29 | 22° 2 | 23° 2 | 19°10 | 28° 9 | F 8 |
| S 9 | 21 32 6 | 21°25'43 | 12♌54 | 11° 7 | 7°17 | 4°16 | 0° 7 | 3°14 | 27°53 | 12°23 | 14°28 | 21°52 | 22°59 | 19°17 | 28° 7 | S 9 |
| S 10 | 21 36 3 | 22°23'42 | 26°21 | 12°40 | 8°31 | 4°41 | 0° 8 | 3°15 | 27°51 | 12°24 | 14°27 | 21°43 | 22°56 | 19°23 | 28° 6 | S 10 |
| M11 | 21 39 59 | 23°21'42 | 9♌30 | 14°11 | 9°46 | 5° 5 | 0° 9 | 3°16 | 27°49 | 12°25 | 14°26 | 21°35 | 22°53 | 19°30 | 28° 4 | M11 |
| T 12 | 21 43 56 | 24°19'44 | 22°20 | 15°40 | 11° 0 | 5°29 | 0° 9 | 3°17 | 27°47 | 12°26 | 14°24 | 21°29 | 22°49 | 19°37 | 28° 3 | T 12 |
| W13 | 21 47 52 | 25°17'48 | 4♂52 | 17° 9 | 12°14 | 5°52 | 0°10 | 3°18 | 27°45 | 12°27 | 14°23 | 21°25 | 22°46 | 19°43 | 28° 2 | W13 |
| T 14 | 21 51 49 | 26°15'54 | 17° 6 | 18°36 | 13°28 | 6°15 | 0°R10 | 3°19 | 27°43 | 12°28 | 14°22 | 21°D24 | 22°43 | 19°50 | 28° 0 | T 14 |
| F 15 | 21 55 46 | 27°14'02 | 29° 8 | 20° 1 | 14°42 | 6°37 | 0°10 | 3°20 | 27°41 | 12°28 | 14°21 | 21°24 | 22°40 | 19°57 | 27°59 | F 15 |
| S 16 | 21 59 42 | 28°12'12 | 11♌ 1 | 21°26 | 15°56 | 6°59 | 0° 9 | 3°22 | 27°39 | 12°29 | 14°20 | 21°25 | 22°37 | 20° 3 | 27°58 | S 16 |
| S 17 | 22 3 39 | 29°10'24 | 22°51 | 22°49 | 17°11 | 7°21 | 0° 9 | 3°23 | 27°37 | 12°30 | 14°19 | 21°26 | 22°34 | 20°10 | 27°57 | S 17 |
| M18 | 22 7 35 | 0♍ 8'38 | 4♂41 | 24°10 | 18°25 | 7°41 | 0° 8 | 3°25 | 27°35 | 12°31 | 14°18 | 21°R26 | 22°30 | 20°17 | 27°57 | M18 |
| T 19 | 22 11 32 | 1° 6'54 | 16°39 | 25°30 | 19°39 | 8° 1 | 0° 7 | 3°26 | 27°33 | 12°32 | 14°16 | 21°24 | 22°27 | 20°23 | 27°56 | T 19 |
| W20 | 22 15 28 | 2° 5'12 | 28°47 | 26°49 | 20°53 | 8°21 | 0° 6 | 3°28 | 27°31 | 12°32 | 14°15 | 21°21 | 22°24 | 20°30 | 27°55 | W20 |
| T 21 | 22 19 25 | 3° 3'33 | 11♌12 | 28° 6 | 22° 8 | 8°40 | 0° 5 | 3°30 | 27°30 | 12°33 | 14°14 | 21°16 | 22°21 | 20°37 | 27°54 | T 21 |
| F 22 | 22 23 21 | 4° 1'55 | 23°56 | 29°21 | 23°22 | 8°58 | 0° 3 | 3°32 | 27°28 | 12°34 | 14°13 | 21° 9 | 22°18 | 20°43 | 27°54 | F 22 |
| S 23 | 22 27 18 | 5° 0'20 | 7♌ 0 | 0♌35 | 24°37 | 9°16 | 0° 2 | 3°34 | 27°26 | 12°34 | 14°12 | 21° 1 | 22°14 | 20°50 | 27°53 | S 23 |
| S 24 | 22 31 15 | 5°58'46 | 20°25 | 1°46 | 25°51 | 9°33 | 29♂59 | 3°36 | 27°24 | 12°35 | 14°10 | 20°53 | 22°11 | 20°57 | 27°53 | S 24 |
| M25 | 22 35 11 | 6°57'15 | 4♍10 | 2°57 | 27° 6 | 9°50 | 29°58 | 3°38 | 27°23 | 12°35 | 14° 9 | 20°46 | 22° 8 | 21° 3 | 27°53 | M25 |
| T 26 | 22 39 8 | 7°55'45 | 18°10 | 4° 5 | 28°20 | 10° 6 | 29°55 | 3°40 | 27°21 | 12°36 | 14° 8 | 20°41 | 22° 5 | 21°10 | 27°53 | T 26 |
| W27 | 22 43 4 | 8°54'17 | 2♌23 | 5°11 | 29°35 | 10°21 | 29°53 | 3°42 | 27°19 | 12°36 | 14° 7 | 20°38 | 22° 2 | 21°17 | 27°52 | W27 |
| T 28 | 22 47 1 | 9°52'51 | 16°42 | 6°15 | 0♍49 | 10°35 | 29°50 | 3°45 | 27°18 | 12°37 | 14° 6 | 20°D36 | 21°59 | 21°23 | 27°D52 | T 28 |
| F 29 | 22 50 57 | 10°51'27 | 1♌ 4 | 7°16 | 2° 4 | 10°49 | 29°47 | 3°47 | 27°16 | 12°37 | 14° 4 | 20°36 | 21°55 | 21°30 | 27°52 | F 29 |
| S 30 | 22 54 54 | 11°50'05 | 15°24 | 8°15 | 3°19 | 11° 2 | 29°44 | 3°50 | 27°15 | 12°38 | 14° 3 | 20°38 | 21°52 | 21°37 | 27°53 | S 30 |
| S 31 | 22 58 50 | 12♍48'44 | 29♍40 | 9♌11 | 4♍33 | 11♌15 | 29♂41 | 3♂53 | 27♂13 | 12♂38 | 14♂ 2 | 20♂39 | 21♂49 | 21♂43 | 27♂53 | S 31 |

Delta T = 19m09s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1074
geocentric

SEPTEMBER 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|--------|--------|------|--------|--------|--------|--------|--------|-------|-------|------|
| M 1 | 23 2 47 | 13♏47'25 | 13♏50 | 10♌ 5 | 5♏48 | 11♏26 | 29°R37 | 3♏55 | 27°R12 | 12♏38 | 14°R 1 | 20°R40 | 21°Y46 | 21♌50 | 27♏53 | M 1 |
| T 2 | 23 6 44 | 14°46'08 | 27°51 | 10°55 | 7° 3 | 11°37 | 29°Y34 | 3°58 | 27♏11 | 12°39 | 14°R 0 | 20°Y39 | 21°43 | 21°57 | 27°53 | T 2 |
| W 3 | 23 10 40 | 15°44'52 | 11♏44 | 11°42 | 8°17 | 11°47 | 29°30 | 4° 1 | 27° 9 | 12°39 | 13°58 | 20°37 | 21°39 | 22° 3 | 27°54 | W 3 |
| T 4 | 23 14 37 | 16°43'39 | 25°25 | 12°26 | 9°32 | 11°57 | 29°26 | 4° 4 | 27° 8 | 12°39 | 13°57 | 20°33 | 21°36 | 22°10 | 27°54 | T 4 |
| F 5 | 23 18 33 | 17°42'27 | 8♏56 | 13° 5 | 10°47 | 12° 5 | 29°22 | 4° 8 | 27° 7 | 12°39 | 13°56 | 20°28 | 21°33 | 22°17 | 27°55 | F 5 |
| S 6 | 23 22 30 | 18°41'17 | 22°13 | 13°41 | 12° 2 | 12°13 | 29°17 | 4°11 | 27° 6 | 12°39 | 13°55 | 20°23 | 21°30 | 22°23 | 27°56 | S 6 |
| S 7 | 23 26 26 | 19°40'08 | 5♏17 | 14°12 | 13°17 | 12°20 | 29°13 | 4°14 | 27° 4 | 12°40 | 13°54 | 20°18 | 21°27 | 22°30 | 27°57 | S 7 |
| M 8 | 23 30 23 | 20°39'02 | 18° 6 | 14°37 | 14°31 | 12°26 | 29° 8 | 4°18 | 27° 3 | 12°40 | 13°52 | 20°13 | 21°24 | 22°37 | 27°57 | M 8 |
| T 9 | 23 34 19 | 21°37'58 | 0♏41 | 14°58 | 15°46 | 12°32 | 29° 3 | 4°21 | 27° 2 | 12°40 | 13°51 | 20°11 | 21°20 | 22°43 | 27°58 | T 9 |
| W10 | 23 38 16 | 22°36'55 | 13° 1 | 15°13 | 17° 1 | 12°36 | 28°58 | 4°25 | 27° 1 | 12°R40 | 13°50 | 20° 9 | 21°17 | 22°50 | 27°59 | W10 |
| T 11 | 23 42 12 | 23°35'55 | 25°10 | 15°21 | 18°16 | 12°40 | 28°53 | 4°28 | 27° 0 | 12°40 | 13°49 | 20°D 9 | 21°14 | 22°57 | 28° 1 | T 11 |
| F 12 | 23 46 9 | 24°34'58 | 7♏ 8 | 15°R23 | 19°31 | 12°43 | 28°48 | 4°32 | 26°59 | 12°40 | 13°48 | 20°10 | 21°11 | 23° 3 | 28° 2 | F 12 |
| S 13 | 23 50 6 | 25°34'02 | 19° 0 | 15°18 | 20°46 | 12°45 | 28°42 | 4°36 | 26°58 | 12°39 | 13°46 | 20°12 | 21° 8 | 23°10 | 28° 3 | S 13 |
| S 14 | 23 54 2 | 26°33'09 | 0♏49 | 15° 6 | 22° 1 | 12°46 | 28°36 | 4°40 | 26°57 | 12°39 | 13°45 | 20°13 | 21° 5 | 23°17 | 28° 4 | S 14 |
| M15 | 23 57 59 | 27°32'18 | 12°39 | 14°45 | 23°16 | 12°R46 | 28°30 | 4°44 | 26°57 | 12°39 | 13°44 | 20°15 | 21° 1 | 23°23 | 28° 6 | M15 |
| T 16 | 0 1 55 | 28°31'30 | 24°35 | 14°17 | 24°31 | 12°46 | 28°24 | 4°48 | 26°56 | 12°39 | 13°43 | 20°R16 | 20°58 | 23°30 | 28° 7 | T 16 |
| W17 | 0 5 52 | 29°30'44 | 6♏43 | 13°41 | 25°46 | 12°44 | 28°18 | 4°52 | 26°55 | 12°39 | 13°42 | 20°15 | 20°55 | 23°37 | 28° 9 | W17 |
| T 18 | 0 9 48 | 0♏30'00 | 19° 6 | 12°58 | 27° 1 | 12°42 | 28°12 | 4°56 | 26°54 | 12°39 | 13°41 | 20°14 | 20°52 | 23°43 | 28°11 | T 18 |
| F 19 | 0 13 45 | 1°29'19 | 1♏50 | 12° 6 | 28°16 | 12°38 | 28° 5 | 5° 0 | 26°54 | 12°38 | 13°39 | 20°12 | 20°49 | 23°50 | 28°12 | F 19 |
| S 20 | 0 17 41 | 2°28'40 | 14°56 | 11° 8 | 29°31 | 12°34 | 27°59 | 5° 5 | 26°53 | 12°38 | 13°38 | 20°10 | 20°45 | 23°57 | 28°14 | S 20 |
| S 21 | 0 21 38 | 3°28'03 | 28°27 | 10° 5 | 0♏46 | 12°29 | 27°52 | 5° 9 | 26°53 | 12°38 | 13°37 | 20° 8 | 20°42 | 24° 3 | 28°16 | S 21 |
| M22 | 0 25 35 | 4°27'28 | 12♏23 | 8°56 | 2° 1 | 12°23 | 27°45 | 5°14 | 26°52 | 12°37 | 13°36 | 20° 5 | 20°39 | 24°10 | 28°18 | M22 |
| T 23 | 0 29 31 | 5°26'56 | 26°40 | 7°45 | 3°16 | 12°16 | 27°38 | 5°18 | 26°52 | 12°37 | 13°35 | 20° 4 | 20°36 | 24°17 | 28°20 | T 23 |
| W24 | 0 33 28 | 6°26'26 | 11♏14 | 6°32 | 4°31 | 12° 8 | 27°31 | 5°23 | 26°51 | 12°36 | 13°34 | 20° 3 | 20°33 | 24°23 | 28°22 | W24 |
| T 25 | 0 37 24 | 7°25'58 | 25°59 | 5°20 | 5°47 | 11°59 | 27°24 | 5°28 | 26°51 | 12°36 | 13°33 | 20°D 3 | 20°30 | 24°30 | 28°25 | T 25 |
| F 26 | 0 41 21 | 8°25'31 | 10♏47 | 4°12 | 7° 2 | 11°50 | 27°17 | 5°32 | 26°51 | 12°35 | 13°32 | 20° 4 | 20°26 | 24°37 | 28°27 | F 26 |
| S 27 | 0 45 17 | 9°25'07 | 25°32 | 3° 8 | 8°17 | 11°39 | 27° 9 | 5°37 | 26°51 | 12°35 | 13°31 | 20° 4 | 20°23 | 24°43 | 28°29 | S 27 |
| S 28 | 0 49 14 | 10°24'45 | 10♏ 8 | 2°11 | 9°32 | 11°28 | 27° 2 | 5°42 | 26°50 | 12°34 | 13°29 | 20° 5 | 20°20 | 24°50 | 28°32 | S 28 |
| M29 | 0 53 10 | 11°24'24 | 24°29 | 1°23 | 10°47 | 11°16 | 26°54 | 5°47 | 26°50 | 12°34 | 13°28 | 20° 6 | 20°17 | 24°57 | 28°34 | M29 |
| T 30 | 0 57 7 | 12°24'06 | 8♏34 | 0♏44 | 12♏ 3 | 11♏ 3 | 26°Y47 | 5♏52 | 26♏50 | 12♏33 | 13♏27 | 20°R 6 | 20°Y14 | 25♏ 3 | 28♏37 | T 30 |

Delta T = 19m08s Julian Calendar 1 Sept. 1074 == Greg. Calendar 7 Sept. 1074

OCTOBER 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|--------|--------|------|--------|--------|--------|--------|--------|-------|-------|------|
| W 1 | 1 1 4 | 13♏23'49 | 22♏21 | 0°R16 | 13♏18 | 10°R49 | 26°R39 | 5♏57 | 26°D50 | 12°R32 | 13°R26 | 20°R 6 | 20°Y11 | 25♏10 | 28♏40 | W 1 |
| T 2 | 1 5 0 | 14°23'33 | 5♏50 | 29°Y59 | 14°33 | 10♏35 | 26°Y31 | 6° 3 | 26°50 | 12°R32 | 13°R25 | 20°Y 6 | 20° 7 | 25°17 | 28°43 | T 2 |
| F 3 | 1 8 57 | 15°23'20 | 19° 1 | 29°D54 | 15°48 | 10°20 | 26°23 | 6° 8 | 26°50 | 12°31 | 13°24 | 20° 5 | 20° 4 | 25°23 | 28°45 | F 3 |
| S 4 | 1 12 53 | 16°23'08 | 1♏57 | 29°59 | 17° 3 | 10° 4 | 26°16 | 6°13 | 26°51 | 12°30 | 13°23 | 20° 5 | 20° 1 | 25°30 | 28°48 | S 4 |
| S 5 | 1 16 50 | 17°22'57 | 14°39 | 0♏16 | 18°19 | 9°47 | 26° 8 | 6°19 | 26°51 | 12°29 | 13°22 | 20° 4 | 19°58 | 25°37 | 28°51 | S 5 |
| M 6 | 1 20 46 | 18°22'49 | 27° 8 | 0°42 | 19°34 | 9°30 | 26° 0 | 6°24 | 26°51 | 12°28 | 13°21 | 20° 4 | 19°55 | 25°43 | 28°54 | M 6 |
| T 7 | 1 24 43 | 19°22'43 | 9°Y26 | 1°18 | 20°49 | 9°12 | 25°52 | 6°30 | 26°51 | 12°28 | 13°20 | 20° 4 | 19°51 | 25°50 | 28°57 | T 7 |
| W 8 | 1 28 39 | 20°22'38 | 21°34 | 2° 3 | 22° 4 | 8°54 | 25°43 | 6°35 | 26°52 | 12°27 | 13°20 | 20° 4 | 19°48 | 25°57 | 29° 1 | W 8 |
| T 9 | 1 32 36 | 21°22'36 | 3♏34 | 2°55 | 23°20 | 8°35 | 25°35 | 6°41 | 26°52 | 12°26 | 13°19 | 20° 4 | 19°45 | 26° 3 | 29° 4 | T 9 |
| F 10 | 1 36 33 | 22°22'35 | 15°28 | 3°54 | 24°35 | 8°16 | 25°27 | 6°46 | 26°52 | 12°25 | 13°18 | 20° 4 | 19°42 | 26°10 | 29° 7 | F 10 |
| S 11 | 1 40 29 | 23°22'37 | 27°18 | 5° 0 | 25°50 | 7°56 | 25°19 | 6°52 | 26°53 | 12°24 | 13°17 | 20° 3 | 19°39 | 26°17 | 29°11 | S 11 |
| S 12 | 1 44 26 | 24°22'40 | 9♏ 7 | 6°10 | 27° 5 | 7°35 | 25°11 | 6°58 | 26°53 | 12°23 | 13°16 | 20° 3 | 19°36 | 26°23 | 29°14 | S 12 |
| M13 | 1 48 22 | 25°22'46 | 20°57 | 7°26 | 28°21 | 7°15 | 25° 3 | 7° 4 | 26°54 | 12°22 | 13°15 | 20° 2 | 19°32 | 26°30 | 29°18 | M13 |
| T 14 | 1 52 19 | 26°22'54 | 2♏54 | 8°45 | 29°36 | 6°54 | 24°55 | 7°10 | 26°55 | 12°21 | 13°14 | 20° 2 | 19°29 | 26°37 | 29°21 | T 14 |
| W15 | 1 56 15 | 27°23'04 | 14°59 | 10° 7 | 0♏51 | 6°33 | 24°46 | 7°15 | 26°55 | 12°20 | 13°13 | 20° 1 | 19°26 | 26°43 | 29°25 | W15 |
| T 16 | 2 0 12 | 28°23'16 | 27°19 | 11°32 | 2° 7 | 6°11 | 24°38 | 7°21 | 26°56 | 12°19 | 13°13 | 20°D 1 | 19°23 | 26°50 | 29°29 | T 16 |
| F 17 | 2 4 8 | 29°23'30 | 9♏57 | 13° 0 | 3°22 | 5°50 | 24°30 | 7°27 | 26°57 | 12°17 | 13°12 | 20° 1 | 19°20 | 26°57 | 29°32 | F 17 |
| S 18 | 2 8 5 | 0♏23'46 | 22°57 | 14°29 | 4°37 | 5°28 | 24°22 | 7°34 | 26°58 | 12°16 | 13°11 | 20° 2 | 19°16 | 27° 3 | 29°36 | S 18 |
| S 19 | 2 12 2 | 1°24'05 | 6♏23 | 16° 0 | 5°52 | 5° 6 | 24°14 | 7°40 | 26°59 | 12°15 | 13°10 | 20° 3 | 19°13 | 27°10 | 29°40 | S 19 |
| M20 | 2 15 58 | 2°24'25 | 20°16 | 17°33 | 7° 8 | 4°44 | 24° 6 | 7°46 | 27° 0 | 12°14 | 13°10 | 20° 4 | 19°10 | 27°17 | 29°44 | M20 |
| T 21 | 2 19 55 | 3°24'47 | 4♏35 | 19° 6 | 8°23 | 4°22 | 23°58 | 7°52 | 27° 1 | 12°13 | 13° 9 | 20° 4 | 19° 7 | 27°23 | 29°48 | T 21 |
| W22 | 2 23 51 | 4°25'11 | 19°17 | 20°40 | 9°38 | 4° 1 | 23°50 | 7°58 | 27° 2 | 12°11 | 13° 8 | 20°R 5 | 19° 4 | 27°30 | 29°52 | W22 |
| T 23 | 2 27 48 | 5°25'37 | 4♏17 | 22°15 | 10°54 | 3°39 | 23°42 | 8° 5 | 27° 3 | 12°10 | 13° 8 | 20° 4 | 19° 1 | 27°37 | 29°56 | T 23 |
| F 24 | 2 31 44 | 6°26'05 | 19°27 | 23°50 | 12° 9 | 3°18 | 23°35 | 8°11 | 27° 4 | 12° 9 | 13° 7 | 20° 3 | 18°57 | 27°43 | 0♏ 1 | F 24 |
| S 25 | 2 35 41 | 7°26'34 | 4♏35 | 25°25 | 13°24 | 2°57 | 23°27 | 8°17 | 27° 5 | 12° 8 | 13° 6 | 20° 1 | 18°54 | 27°50 | 0° 5 | S 25 |
| S 26 | 2 39 37 | 8°27'05 | 19°34 | 27° 1 | 14°40 | 2°36 | 23°19 | 8°24 | 27° 6 | 12° 6 | 13° 6 | 19°59 | 18°51 | 27°57 | 0° 9 | S 26 |
| M27 | 2 43 34 | 9°27'37 | 4♏15 | 28°37 | 15°55 | 2°15 | 23°12 | 8°30 | 27° 8 | 12° 5 | 13° 5 | 19°56 | 18°48 | 28° 4 | 0°14 | M27 |
| T 28 | 2 47 31 | 10°28'11 | 18°33 | 0♏13 | 17°10 | 1°55 | 23° 4 | 8°37 | 27° 9 | 12° 3 | 13° 5 | 19°54 | 18°45 | 28°10 | 0°18 | T 28 |
| W29 | 2 51 27 | 11°28'46 | 2♏26 | 1°49 | 18°26 | 1°36 | 22°57 | 8°43 | 27°10 | 12° 2 | 13° 4 | 19°53 | 18°42 | 28°17 | 0°23 | W29 |
| T 30 | 2 55 24 | 12°29'22 | 15°54 | 3°25 | 19°41 | 1°17 | 22°50 | 8°50 | 27°12 | 12° 1 | 13° 3 | 19°D53 | 18°38 | 28°24 | 0°27 | T 30 |
| F 31 | 2 59 20 | 13♏29'59 | 28♏58 | 5♏ 0 | 20♏57 | 0♏58 | 22°Y43 | 8♏56 | 27♏13 | 11♏59 | 13♏ 3 | 19°Y54 | 18°Y35 | 28♏30 | 0♏32 | F 31 |

Delta T = 19m08s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1074
geocentric

NOVEMBER 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|--------|--------|-------|-------|--------|--------|--------|--------|-------|------|------|-----|
| S 1 | 3 3 17 | 14♐30'38 | 11♋42 | 6♐36 | 22♐12 | 0°R40 | 22°R35 | 9♌ 3 | 27♌15 | 11°R58 | 13°R 2 | 19♍55 | 18♍32 | 28♌37 | 0♌36 | S 1 | |
| S 2 | 3 7 13 | 15°31'17 | 24°10 | 8°12 | 23°27 | 0♌22 | 22°V29 | 9°10 | 27°16 | 11♐56 | 13♋ 2 | 19°57 | 18°29 | 28°44 | 0°41 | S 2 | |
| M 3 | 3 11 10 | 16°31'58 | 6♍24 | 9°47 | 24°42 | 0° 5 | 22°22 | 9°16 | 27°18 | 11°55 | 13° 2 | 19°58 | 18°26 | 28°50 | 0°46 | M 3 | |
| T 4 | 3 15 6 | 17°32'40 | 18°28 | 11°23 | 25°58 | 29♍49 | 22°15 | 9°23 | 27°20 | 11°53 | 13° 1 | 19°R59 | 18°22 | 28°57 | 0°50 | T 4 | |
| W 5 | 3 19 3 | 18°33'23 | 0♌25 | 12°58 | 27°13 | 29°34 | 22° 9 | 9°30 | 27°21 | 11°52 | 13° 1 | 19°59 | 18°19 | 29° 4 | 0°55 | W 5 | |
| T 6 | 3 23 0 | 19°34'08 | 12°18 | 14°33 | 28°28 | 29°19 | 22° 2 | 9°37 | 27°23 | 11°50 | 13° 0 | 19°57 | 18°16 | 29°10 | 1° 0 | T 6 | |
| F 7 | 3 26 56 | 20°34'54 | 24° 8 | 16° 8 | 29°44 | 29° 5 | 21°56 | 9°43 | 27°25 | 11°49 | 13° 0 | 19°53 | 18°13 | 29°17 | 1° 5 | F 7 | |
| S 8 | 3 30 53 | 21°35'41 | 5♐58 | 17°43 | 0♌59 | 28°51 | 21°50 | 9°50 | 27°27 | 11°47 | 13° 0 | 19°48 | 18°10 | 29°24 | 1°10 | S 8 | |
| S 9 | 3 34 49 | 22°36'30 | 17°49 | 19°17 | 2°14 | 28°39 | 21°44 | 9°57 | 27°29 | 11°46 | 12°59 | 19°42 | 18° 7 | 29°30 | 1°15 | S 9 | |
| M10 | 3 38 46 | 23°37'20 | 29°43 | 20°52 | 3°30 | 28°27 | 21°38 | 10° 4 | 27°31 | 11°44 | 12°59 | 19°35 | 18° 3 | 29°37 | 1°20 | M10 | |
| T 11 | 3 42 42 | 24°38'11 | 11♌43 | 22°27 | 4°45 | 28°16 | 21°32 | 10°11 | 27°33 | 11°42 | 12°59 | 19°29 | 18° 0 | 29°44 | 1°25 | T 11 | |
| W12 | 3 46 39 | 25°39'04 | 23°51 | 24° 1 | 6° 0 | 28° 5 | 21°27 | 10°18 | 27°35 | 11°41 | 12°59 | 19°24 | 17°57 | 29°50 | 1°30 | W12 | |
| T 13 | 3 50 35 | 26°39'58 | 6♎10 | 25°35 | 7°16 | 27°56 | 21°22 | 10°25 | 27°37 | 11°39 | 12°58 | 19°20 | 17°54 | 29°57 | 1°35 | T 13 | |
| F 14 | 3 54 32 | 27°40'53 | 18°44 | 27°10 | 8°31 | 27°47 | 21°16 | 10°32 | 27°39 | 11°37 | 12°58 | 19°18 | 17°51 | 0♐ 4 | 1°41 | F 14 | |
| S 15 | 3 58 29 | 28°41'50 | 1♐37 | 28°44 | 9°46 | 27°39 | 21°11 | 10°39 | 27°41 | 11°36 | 12°58 | 19°D17 | 17°48 | 0°10 | 1°46 | S 15 | |
| S 16 | 4 2 25 | 29°42'48 | 14°53 | 0♌18 | 11° 2 | 27°32 | 21° 7 | 10°46 | 27°43 | 11°34 | 12°58 | 19°18 | 17°44 | 0°17 | 1°51 | S 16 | |
| M17 | 4 6 22 | 0♌43'47 | 28°33 | 1°53 | 12°17 | 27°26 | 21° 2 | 10°53 | 27°46 | 11°33 | 12°58 | 19°20 | 17°41 | 0°24 | 1°56 | M17 | |
| T 18 | 4 10 18 | 1°44'48 | 12♌41 | 3°27 | 13°32 | 27°21 | 20°57 | 11° 0 | 27°48 | 11°31 | 12°58 | 19°R21 | 17°38 | 0°30 | 2° 2 | T 18 | |
| W19 | 4 14 15 | 2°45'50 | 27°15 | 5° 1 | 14°47 | 27°16 | 20°53 | 11° 7 | 27°50 | 11°29 | 12°58 | 19°21 | 17°35 | 0°37 | 2° 7 | W19 | |
| T 20 | 4 18 11 | 3°46'53 | 12♐12 | 6°35 | 16° 3 | 27°12 | 20°49 | 11°14 | 27°53 | 11°27 | 12°58 | 19°19 | 17°32 | 0°44 | 2°13 | T 20 | |
| F 21 | 4 22 8 | 4°47'57 | 27°24 | 8°10 | 17°18 | 27° 9 | 20°45 | 11°21 | 27°55 | 11°26 | 12°D58 | 19°15 | 17°28 | 0°51 | 2°18 | F 21 | |
| S 22 | 4 26 4 | 5°49'01 | 12♌43 | 9°44 | 18°33 | 27° 7 | 20°42 | 11°28 | 27°57 | 11°24 | 12°58 | 19° 8 | 17°25 | 0°57 | 2°23 | S 22 | |
| S 23 | 4 30 1 | 6°50'07 | 27°56 | 11°19 | 19°49 | 27° 6 | 20°38 | 11°35 | 28° 0 | 11°22 | 12°58 | 19° 1 | 17°22 | 1° 4 | 2°29 | S 23 | |
| M24 | 4 33 58 | 7°51'13 | 12♌54 | 12°53 | 21° 4 | 27°D 5 | 20°35 | 11°42 | 28° 2 | 11°21 | 12°58 | 18°53 | 17°19 | 1°11 | 2°34 | M24 | |
| T 25 | 4 37 54 | 8°52'20 | 27°28 | 14°28 | 22°19 | 27° 6 | 20°32 | 11°49 | 28° 5 | 11°19 | 12°58 | 18°46 | 17°16 | 1°17 | 2°40 | T 25 | |
| W26 | 4 41 51 | 9°53'28 | 11♌34 | 16° 3 | 23°34 | 27° 7 | 20°29 | 11°56 | 28° 7 | 11°17 | 12°58 | 18°40 | 17°13 | 1°24 | 2°46 | W26 | |
| T 27 | 4 45 47 | 10°54'35 | 25°10 | 17°38 | 24°50 | 27° 9 | 20°26 | 12° 3 | 28°10 | 11°16 | 12°58 | 18°37 | 17° 9 | 1°31 | 2°51 | T 27 | |
| F 28 | 4 49 44 | 11°55'43 | 8♋17 | 19°13 | 26° 5 | 27°11 | 20°23 | 12°10 | 28°13 | 11°14 | 12°58 | 18°D36 | 17° 6 | 1°37 | 2°57 | F 28 | |
| S 29 | 4 53 40 | 12°56'51 | 21° 0 | 20°48 | 27°20 | 27°15 | 20°21 | 12°17 | 28°15 | 11°12 | 12°58 | 18°36 | 17° 3 | 1°44 | 3° 2 | S 29 | |
| S 30 | 4 57 37 | 13♌57'59 | 3♍22 | 22♌23 | 28♌35 | 27°V19 | 20°V19 | 12♌24 | 28♌18 | 11♐11 | 12♋59 | 18♍37 | 17°V 0 | 1♐51 | 3♌ 8 | S 30 | |

Delta T = 19m08s Julian Calendar 1 Nov. 1074 == Greg. Calendar 7 Nov. 1074

DECEMBER 1074 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|--------|--------|-------|-------|--------|-------|--------|--------|------|------|------|
| M 1 | 5 1 33 | 14♍59'08 | 15♍29 | 23♌59 | 29♌51 | 27°V24 | 20°R17 | 12♌31 | 28♌21 | 11°R 9 | 12♋59 | 18°R38 | 16♍57 | 1♐57 | 3♌14 | M 1 |
| T 2 | 5 5 30 | 16° 0'16 | 27°26 | 25°34 | 1♌ 6 | 27°29 | 20°V15 | 12°38 | 28°24 | 11♐ 7 | 12°59 | 18°V37 | 16°54 | 2° 4 | 3°20 | T 2 |
| W 3 | 5 9 27 | 17° 1'25 | 9♌17 | 27°10 | 2°21 | 27°36 | 20°14 | 12°45 | 28°26 | 11° 5 | 12°59 | 18°35 | 16°50 | 2°11 | 3°25 | W 3 |
| T 4 | 5 13 23 | 18° 2'35 | 21° 6 | 28°45 | 3°36 | 27°43 | 20°13 | 12°53 | 28°29 | 11° 4 | 13° 0 | 18°30 | 16°47 | 2°17 | 3°31 | T 4 |
| F 5 | 5 17 20 | 19° 3'44 | 2♐55 | 0♌21 | 4°52 | 27°50 | 20°12 | 13° 0 | 28°32 | 11° 2 | 13° 0 | 18°22 | 16°44 | 2°24 | 3°37 | F 5 |
| S 6 | 5 21 16 | 20° 4'54 | 14°47 | 1°56 | 6° 7 | 27°59 | 20°11 | 13° 7 | 28°35 | 11° 0 | 13° 0 | 18°12 | 16°41 | 2°31 | 3°42 | S 6 |
| S 7 | 5 25 13 | 21° 6'04 | 26°43 | 3°31 | 7°22 | 28° 8 | 20°10 | 13°14 | 28°38 | 10°59 | 13° 1 | 18° 0 | 16°38 | 2°37 | 3°48 | S 7 |
| M 8 | 5 29 9 | 22° 7'14 | 8♌46 | 5° 6 | 8°37 | 28°17 | 20°10 | 13°21 | 28°41 | 10°57 | 13° 1 | 17°47 | 16°34 | 2°44 | 3°54 | M 8 |
| T 9 | 5 33 6 | 23° 8'25 | 20°55 | 6°41 | 9°52 | 28°28 | 20°10 | 13°28 | 28°44 | 10°55 | 13° 1 | 17°34 | 16°31 | 2°51 | 4° 0 | T 9 |
| W10 | 5 37 3 | 24° 9'36 | 3♎12 | 8°16 | 11° 7 | 28°39 | 20°D 9 | 13°35 | 28°47 | 10°54 | 13° 2 | 17°23 | 16°28 | 2°58 | 4° 6 | W10 |
| T 11 | 5 40 59 | 25°10'47 | 15°38 | 9°50 | 12°22 | 28°50 | 20°10 | 13°42 | 28°50 | 10°52 | 13° 2 | 17°14 | 16°25 | 3° 4 | 4°12 | T 11 |
| F 12 | 5 44 56 | 26°11'58 | 28°17 | 11°23 | 13°38 | 29° 2 | 20°10 | 13°49 | 28°53 | 10°50 | 13° 3 | 17° 8 | 16°22 | 3°11 | 4°17 | F 12 |
| S 13 | 5 48 52 | 27°13'10 | 11♐ 9 | 12°56 | 14°53 | 29°15 | 20°11 | 13°56 | 28°56 | 10°49 | 13° 3 | 17° 4 | 16°19 | 3°18 | 4°23 | S 13 |
| S 14 | 5 52 49 | 28°14'22 | 24°19 | 14°27 | 16° 8 | 29°28 | 20°11 | 14° 3 | 28°59 | 10°47 | 13° 4 | 17°D 3 | 16°15 | 3°24 | 4°29 | S 14 |
| M15 | 5 56 45 | 29°15'34 | 7♌50 | 15°57 | 17°23 | 29°42 | 20°12 | 14°10 | 29° 2 | 10°46 | 13° 4 | 17° 3 | 16°12 | 3°31 | 4°35 | M15 |
| T 16 | 6 0 42 | 0♌16'46 | 21°43 | 17°26 | 18°38 | 29°56 | 20°14 | 14°16 | 29° 6 | 10°44 | 13° 5 | 17°R 3 | 16° 9 | 3°38 | 4°41 | T 16 |
| W17 | 6 4 38 | 1°17'58 | 5♐59 | 18°52 | 19°53 | 0♌11 | 20°15 | 14°23 | 29° 9 | 10°42 | 13° 6 | 17° 2 | 16° 6 | 3°44 | 4°47 | W17 |
| T 18 | 6 8 35 | 2°19'11 | 20°38 | 20°17 | 21° 8 | 0°26 | 20°17 | 14°30 | 29°12 | 10°41 | 13° 6 | 16°59 | 16° 3 | 3°51 | 4°53 | T 18 |
| F 19 | 6 12 32 | 3°20'24 | 5♌35 | 21°38 | 22°23 | 0°42 | 20°19 | 14°37 | 29°15 | 10°39 | 13° 7 | 16°52 | 16° 0 | 3°58 | 4°58 | F 19 |
| S 20 | 6 16 28 | 4°21'37 | 20°43 | 22°56 | 23°38 | 0°59 | 20°21 | 14°44 | 29°18 | 10°38 | 13° 8 | 16°43 | 15°56 | 4° 4 | 5° 4 | S 20 |
| S 21 | 6 20 25 | 5°22'49 | 5♌52 | 24°11 | 24°53 | 1°15 | 20°23 | 14°51 | 29°22 | 10°36 | 13° 8 | 16°32 | 15°53 | 4°11 | 5°10 | S 21 |
| M22 | 6 24 21 | 6°24'02 | 20°51 | 25°20 | 26° 8 | 1°33 | 20°25 | 14°57 | 29°25 | 10°35 | 13° 9 | 16°20 | 15°50 | 4°18 | 5°16 | M22 |
| T 23 | 6 28 18 | 7°25'13 | 5♌31 | 26°25 | 27°23 | 1°51 | 20°28 | 15° 4 | 29°28 | 10°33 | 13°10 | 16° 9 | 15°47 | 4°25 | 5°22 | T 23 |
| W24 | 6 32 14 | 8°26'25 | 19°45 | 27°23 | 28°38 | 2° 9 | 20°31 | 15°11 | 29°32 | 10°32 | 13°11 | 15°59 | 15°44 | 4°31 | 5°28 | W24 |
| T 25 | 6 36 11 | 9°27'35 | 3♋29 | 28°15 | 29°53 | 2°28 | 20°34 | 15°18 | 29°35 | 10°30 | 13°11 | 15°52 | 15°40 | 4°38 | 5°34 | T 25 |
| F 26 | 6 40 8 | 10°28'45 | 16°44 | 28°59 | 1♌ 8 | 2°47 | 20°37 | 15°24 | 29°38 | 10°29 | 13°12 | 15°48 | 15°37 | 4°45 | 5°39 | F 26 |
| S 27 | 6 44 4 | 11°29'54 | 29°32 | 29°34 | 2°23 | 3° 6 | 20°41 | 15°31 | 29°42 | 10°28 | 13°13 | 15°47 | 15°34 | 4°51 | 5°45 | S 27 |
| S 28 | 6 48 1 | 12°31'02 | 11♍57 | 29°59 | 3°38 | 3°26 | 20°44 | 15°37 | 29°45 | 10°26 | 13°14 | 15°46 | 15°31 | 4°58 | 5°51 | S 28 |
| M29 | 6 51 57 | 13°32'09 | 24° 5 | 0♌15 | 4°53 | 3°47 | 20°48 | 15°44 | 29°48 | 10°25 | 13°15 | 15°46 | 15°28 | 5° 5 | 5°57 | M29 |
| T 30 | 6 55 54 | 14°33'15 | 6♌ 1 | 0°R19 | 6° 8 | 4° 7 | 20°52 | 15°51 | 29°52 | 10°23 | 13°15 | 15°45 | 15°25 | 5°11 | 6° 3 | T 30 |
| W31 | 6 59 50 | 15♌34'21 | 17♌51 | 0♌12 | 7♌22 | 4♌29 | 20°V56 | 15♌57 | 29♌55 | 10♐22 | 13♋16 | 15°V42 | 15°V21 | 5♐18 | 6♌ 9 | W31 |

Delta T = 19m07s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1075
geocentric

JANUARY 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|-------|-------|--------|-------|--------|--------|------|------|------|---|---|---|---|---|---|---|-----|
| T 1 | 7 3 47 | 16♁35'26 | 29♁39 | 29°R53 | 8♁37 | 4♁50 | 21°V 1 | 16♁ 3 | 29♁59 | 10°R21 | 13♁17 | 15°R36 | 15°V18 | 5♁25 | 6♁14 | T 1 | | | | | | | | |
| F 2 | 7 7 43 | 17°36'29 | 11♁29 | 29♁23 | 9°52 | 5°12 | 21° 5 | 16°10 | 0♁ 2 | 10♁19 | 13°18 | 15°V27 | 15°15 | 5°31 | 6°20 | F 2 | | | | | | | | |
| S 3 | 7 11 40 | 18°37'32 | 23°25 | 28°41 | 11° 7 | 5°34 | 21°10 | 16°16 | 0° 6 | 10°18 | 13°19 | 15°16 | 15°12 | 5°38 | 6°26 | S 3 | | | | | | | | |
| S 4 | 7 15 37 | 19°38'34 | 5♁29 | 27°50 | 12°21 | 5°57 | 21°15 | 16°23 | 0° 9 | 10°17 | 13°20 | 15° 2 | 15° 9 | 5°45 | 6°32 | S 4 | | | | | | | | |
| M 5 | 7 19 33 | 20°39'35 | 17°42 | 26°49 | 13°36 | 6°20 | 21°20 | 16°29 | 0°12 | 10°16 | 13°21 | 14°47 | 15° 6 | 5°51 | 6°37 | M 5 | | | | | | | | |
| T 6 | 7 23 30 | 21°40'35 | 0♁ 4 | 25°42 | 14°51 | 6°43 | 21°25 | 16°35 | 0°16 | 10°15 | 13°22 | 14°33 | 15° 2 | 5°58 | 6°43 | T 6 | | | | | | | | |
| W 7 | 7 27 26 | 22°41'35 | 12°37 | 24°30 | 16° 6 | 7° 6 | 21°31 | 16°41 | 0°19 | 10°13 | 13°23 | 14°20 | 14°59 | 6° 5 | 6°49 | W 7 | | | | | | | | |
| T 8 | 7 31 23 | 23°42'33 | 25°19 | 23°15 | 17°20 | 7°30 | 21°37 | 16°47 | 0°23 | 10°12 | 13°24 | 14°10 | 14°56 | 6°12 | 6°54 | T 8 | | | | | | | | |
| F 9 | 7 35 19 | 24°43'30 | 8♁12 | 21°59 | 18°35 | 7°54 | 21°42 | 16°53 | 0°26 | 10°11 | 13°25 | 14° 2 | 14°53 | 6°18 | 7° 0 | F 9 | | | | | | | | |
| S 10 | 7 39 16 | 25°44'27 | 21°17 | 20°46 | 19°49 | 8°19 | 21°48 | 17° 0 | 0°30 | 10°10 | 13°26 | 13°58 | 14°50 | 6°25 | 7° 6 | S 10 | | | | | | | | |
| S 11 | 7 43 12 | 26°45'23 | 4♁34 | 19°35 | 21° 4 | 8°43 | 21°55 | 17° 6 | 0°33 | 10° 9 | 13°28 | 13°56 | 14°46 | 6°32 | 7°11 | S 11 | | | | | | | | |
| M12 | 7 47 9 | 27°46'18 | 18° 5 | 18°30 | 22°18 | 9° 8 | 22° 1 | 17°11 | 0°37 | 10° 8 | 13°29 | 13°D56 | 14°43 | 6°38 | 7°17 | M12 | | | | | | | | |
| T 13 | 7 51 6 | 28°47'12 | 1♁51 | 17°32 | 23°33 | 9°33 | 22° 7 | 17°17 | 0°40 | 10° 7 | 13°30 | 13°R56 | 14°40 | 6°45 | 7°23 | T 13 | | | | | | | | |
| W14 | 7 55 2 | 29°48'05 | 15°55 | 16°41 | 24°47 | 9°59 | 22°14 | 17°23 | 0°44 | 10° 6 | 13°31 | 13°55 | 14°37 | 6°52 | 7°28 | W14 | | | | | | | | |
| T 15 | 7 58 59 | 0♁48'58 | 0♁14 | 15°58 | 26° 2 | 10°25 | 22°21 | 17°29 | 0°47 | 10° 5 | 13°32 | 13°52 | 14°34 | 6°58 | 7°34 | T 15 | | | | | | | | |
| F 16 | 8 2 55 | 1°49'50 | 14°48 | 15°24 | 27°16 | 10°51 | 22°28 | 17°35 | 0°51 | 10° 4 | 13°33 | 13°46 | 14°31 | 7° 5 | 7°39 | F 16 | | | | | | | | |
| S 17 | 8 6 52 | 2°50'41 | 29°32 | 14°58 | 28°30 | 11°17 | 22°35 | 17°40 | 0°54 | 10° 3 | 13°35 | 13°38 | 14°27 | 7°12 | 7°45 | S 17 | | | | | | | | |
| S 18 | 8 10 48 | 3°51'31 | 14♁18 | 14°41 | 29°45 | 11°43 | 22°42 | 17°46 | 0°58 | 10° 2 | 13°36 | 13°28 | 14°24 | 7°19 | 7°50 | S 18 | | | | | | | | |
| M19 | 8 14 45 | 4°52'19 | 28°59 | 14°31 | 0♁59 | 12°10 | 22°50 | 17°52 | 1° 1 | 10° 1 | 13°37 | 13°16 | 14°21 | 7°25 | 7°55 | M19 | | | | | | | | |
| T 20 | 8 18 41 | 5°53'06 | 13♁27 | 14°D29 | 2°13 | 12°37 | 22°57 | 17°57 | 1° 5 | 10° 1 | 13°38 | 13° 6 | 14°18 | 7°32 | 8° 1 | T 20 | | | | | | | | |
| W21 | 8 22 38 | 6°53'52 | 27°34 | 14°35 | 3°28 | 13° 4 | 23° 5 | 18° 3 | 1° 8 | 10° 0 | 13°40 | 12°57 | 14°15 | 7°39 | 8° 6 | W21 | | | | | | | | |
| T 22 | 8 26 35 | 7°54'36 | 11♁17 | 14°47 | 4°42 | 13°32 | 23°13 | 18° 8 | 1°12 | 9°59 | 13°41 | 12°50 | 14°12 | 7°45 | 8°11 | T 22 | | | | | | | | |
| F 23 | 8 30 31 | 8°55'19 | 24°34 | 15° 5 | 5°56 | 13°59 | 23°21 | 18°13 | 1°15 | 9°58 | 13°42 | 12°46 | 14° 8 | 7°52 | 8°17 | F 23 | | | | | | | | |
| S 24 | 8 34 28 | 9°56'00 | 7°V26 | 15°30 | 7°10 | 14°27 | 23°29 | 18°19 | 1°19 | 9°58 | 13°43 | 12°D44 | 14° 5 | 7°59 | 8°22 | S 24 | | | | | | | | |
| S 25 | 8 38 24 | 10°56'39 | 19°56 | 15°59 | 8°24 | 14°55 | 23°38 | 18°24 | 1°22 | 9°57 | 13°45 | 12°44 | 14° 2 | 8° 5 | 8°27 | S 25 | | | | | | | | |
| M26 | 8 42 21 | 11°57'16 | 2♁ 7 | 16°34 | 9°38 | 15°23 | 23°46 | 18°29 | 1°26 | 9°56 | 13°46 | 12°45 | 13°59 | 8°12 | 8°32 | M26 | | | | | | | | |
| T 27 | 8 46 17 | 12°57'52 | 14° 7 | 17°13 | 10°52 | 15°52 | 23°55 | 18°34 | 1°29 | 9°56 | 13°47 | 12°R45 | 13°56 | 8°19 | 8°37 | T 27 | | | | | | | | |
| W28 | 8 50 14 | 13°58'26 | 25°58 | 17°56 | 12° 6 | 16°20 | 24° 4 | 18°39 | 1°33 | 9°55 | 13°49 | 12°44 | 13°52 | 8°25 | 8°42 | W28 | | | | | | | | |
| T 29 | 8 54 10 | 14°58'58 | 7♁48 | 18°44 | 13°20 | 16°49 | 24°12 | 18°44 | 1°36 | 9°55 | 13°50 | 12°42 | 13°49 | 8°32 | 8°47 | T 29 | | | | | | | | |
| F 30 | 8 58 7 | 15°59'28 | 19°40 | 19°34 | 14°34 | 17°18 | 24°21 | 18°49 | 1°40 | 9°54 | 13°51 | 12°36 | 13°46 | 8°39 | 8°52 | F 30 | | | | | | | | |
| S 31 | 9 2 4 | 16°59'57 | 1♁40 | 20♁28 | 15♁48 | 17♁47 | 24°V31 | 18♁54 | 1°43 | 9♁54 | 13♁53 | 12°V29 | 13°V43 | 8♁46 | 8♁57 | S 31 | | | | | | | | |

Delta T = 19m07s Julian Calendar 1 Jan. 1075 == Greg. Calendar 7 Jan. 1075

FEBRUARY 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|--------|-------|--------|-------|------|-------|-------|--------|--------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 9 6 0 | 18♁ 0'23 | 13♁49 | 21♁25 | 17♁ 1 | 18♁16 | 24°V40 | 18♁58 | 1♁46 | 9°R53 | 13♁54 | 12°R19 | 13°V40 | 8♁52 | 9♁ 2 | S 1 | | | | | | | | |
| M 2 | 9 9 57 | 19° 0'48 | 26°12 | 22°25 | 18°15 | 18°46 | 24°49 | 19° 3 | 1°50 | 9♁53 | 13°56 | 12°V 9 | 13°37 | 8°59 | 9° 7 | M 2 | | | | | | | | |
| T 3 | 9 13 53 | 20° 1'11 | 8♁47 | 23°28 | 19°29 | 19°15 | 24°59 | 19° 8 | 1°53 | 9°53 | 13°57 | 11°59 | 13°33 | 9° 6 | 9°12 | T 3 | | | | | | | | |
| W 4 | 9 17 50 | 21° 1'32 | 21°37 | 24°32 | 20°42 | 19°45 | 25° 9 | 19°12 | 1°56 | 9°52 | 13°58 | 11°50 | 13°30 | 9°12 | 9°17 | W 4 | | | | | | | | |
| T 5 | 9 21 46 | 22° 1'52 | 4♁40 | 25°39 | 21°56 | 20°15 | 25°18 | 19°17 | 2° 0 | 9°52 | 14° 0 | 11°43 | 13°27 | 9°19 | 9°21 | T 5 | | | | | | | | |
| F 6 | 9 25 43 | 23° 2'09 | 17°56 | 26°49 | 23° 9 | 20°45 | 25°28 | 19°21 | 2° 3 | 9°52 | 14° 1 | 11°38 | 13°24 | 9°26 | 9°26 | F 6 | | | | | | | | |
| S 7 | 9 29 39 | 24° 2'25 | 1♁23 | 28° 0 | 24°23 | 21°15 | 25°38 | 19°25 | 2° 6 | 9°51 | 14° 3 | 11°35 | 13°21 | 9°32 | 9°31 | S 7 | | | | | | | | |
| S 8 | 9 33 36 | 25° 2'40 | 14°59 | 29°13 | 25°36 | 21°46 | 25°48 | 19°29 | 2°10 | 9°51 | 14° 4 | 11°D35 | 13°18 | 9°39 | 9°35 | S 8 | | | | | | | | |
| M 9 | 9 37 33 | 26° 2'52 | 28°45 | 0♁28 | 26°49 | 22°16 | 25°59 | 19°34 | 2°13 | 9°51 | 14° 6 | 11°36 | 13°14 | 9°46 | 9°40 | M 9 | | | | | | | | |
| T 10 | 9 41 29 | 27° 3'04 | 12♁40 | 1°44 | 28° 2 | 22°47 | 26° 9 | 19°38 | 2°16 | 9°51 | 14° 7 | 11°37 | 13°11 | 9°53 | 9°44 | T 10 | | | | | | | | |
| W11 | 9 45 26 | 28° 3'14 | 26°43 | 3° 3 | 29°16 | 23°17 | 26°19 | 19°42 | 2°20 | 9°51 | 14° 9 | 11°R38 | 13° 8 | 9°59 | 9°49 | W11 | | | | | | | | |
| T 12 | 9 49 22 | 29° 3'22 | 10♁53 | 4°22 | 0°V29 | 23°48 | 26°30 | 19°46 | 2°23 | 9°51 | 14°10 | 11°37 | 13° 5 | 10° 6 | 9°53 | T 12 | | | | | | | | |
| F 13 | 9 53 19 | 0♁ 3'29 | 25° 9 | 5°43 | 1°42 | 24°19 | 26°41 | 19°49 | 2°26 | 9°D51 | 14°12 | 11°35 | 13° 2 | 10°13 | 9°57 | F 13 | | | | | | | | |
| S 14 | 9 57 15 | 1° 3'34 | 9♁28 | 7° 6 | 2°55 | 24°50 | 26°51 | 19°53 | 2°29 | 9°51 | 14°13 | 11°31 | 12°58 | 10°19 | 10° 2 | S 14 | | | | | | | | |
| S 15 | 10 1 12 | 2° 3'37 | 23°46 | 8°30 | 4° 8 | 25°22 | 27° 2 | 19°57 | 2°32 | 9°51 | 14°15 | 11°25 | 12°55 | 10°26 | 10° 6 | S 15 | | | | | | | | |
| M16 | 10 5 8 | 3° 3'39 | 7♁58 | 9°56 | 5°21 | 25°53 | 27°13 | 20° 0 | 2°35 | 9°51 | 14°16 | 11°19 | 12°52 | 10°33 | 10°10 | M16 | | | | | | | | |
| T 17 | 10 9 5 | 4° 3'39 | 22° 0 | 11°22 | 6°34 | 26°24 | 27°24 | 20° 4 | 2°39 | 9°51 | 14°18 | 11°13 | 12°49 | 10°39 | 10°14 | T 17 | | | | | | | | |
| W18 | 10 13 2 | 5° 3'37 | 5♁46 | 12°50 | 7°46 | 26°56 | 27°35 | 20° 7 | 2°42 | 9°51 | 14°19 | 11° 7 | 12°46 | 10°46 | 10°18 | W18 | | | | | | | | |
| T 19 | 10 16 58 | 6° 3'33 | 19°15 | 14°19 | 8°59 | 27°28 | 27°47 | 20°10 | 2°45 | 9°51 | 14°21 | 11° 4 | 12°43 | 10°53 | 10°22 | T 19 | | | | | | | | |
| F 20 | 10 20 55 | 7° 3'27 | 2°V23 | 15°50 | 10°12 | 28° 0 | 27°58 | 20°14 | 2°48 | 9°51 | 14°22 | 11° 2 | 12°39 | 11° 0 | 10°26 | F 20 | | | | | | | | |
| S 21 | 10 24 51 | 8° 3'18 | 15°10 | 17°22 | 11°24 | 28°31 | 28°10 | 20°17 | 2°51 | 9°52 | 14°24 | 11°D 2 | 12°36 | 11° 6 | 10°30 | S 21 | | | | | | | | |
| S 22 | 10 28 48 | 9° 3'08 | 27°40 | 18°55 | 12°37 | 29° 3 | 28°21 | 20°20 | 2°54 | 9°52 | 14°25 | 11° 3 | 12°33 | 11°13 | 10°34 | S 22 | | | | | | | | |
| M23 | 10 32 44 | 10° 2'55 | 9♁53 | 20°29 | 13°49 | 29°36 | 28°33 | 20°23 | 2°57 | 9°52 | 14°27 | 11° 4 | 12°30 | 11°20 | 10°38 | M23 | | | | | | | | |
| T 24 | 10 36 41 | 11° 2'41 | 21°54 | 22° 4 | 15° 2 | 0♁ 8 | 28°44 | 20°26 | 3° 0 | 9°53 | 14°28 | 11° 6 | 12°27 | 11°26 | 10°41 | T 24 | | | | | | | | |
| W25 | 10 40 37 | 12° 2'23 | 3♁48 | 23°41 | 16°14 | 0°40 | 28°56 | 20°28 | 3° 3 | 9°53 | 14°30 | 11° 7 | 12°24 | 11°33 | 10°45 | W25 | | | | | | | | |
| T 26 | 10 44 34 | 13° 2'04 | 15°40 | 25°19 | 17°26 | 1°13 | 29° 8 | 20°31 | 3° 6 | 9°53 | 14°31 | 11°R 8 | 12°20 | 11°40 | 10°48 | T 26 | | | | | | | | |
| F 27 | 10 48 31 | 14° 1'42 | 27°34 | 26°58 | 18°38 | 1°45 | 29°20 | 20°34 | 3° 8 | 9°54 | 14°33 | 11° 7 | 12°17 | 11°47 | 10°52 | F 27 | | | | | | | | |
| S 28 | 10 52 27 | 15♁ 1'19 | 9♁34 | 28♁38 | 19°V50 | 2♁18 | 29°V32 | 20♁36 | 3♁11 | 9♁54 | 14♁34 | 11°V 4 | 12°V14 | 11♁53 | 10♁55 | S 28 | | | | | | | | |

Delta T = 19m07s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1075
geocentric

MARCH 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|--------|--------|--------|--------|---------|-------|--------|--------|----------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 10 56 24 | 16♈ 0'52 | 21♉ 47 | 0♊ 20 | 21♋ 2 | 2♌ 50 | 29♍ 44 | 20♎ 39 | 3♏ 14 | 9♐ 55 | 14♑ 36 | 11°R 1 | 12♒ 11 | 12♓ 0 | 10♈ 59 | S 1 | | | | | | | | |
| M 2 | 11 0 20 | 17° 0'24 | 4♌ 14 | 2° 3 | 22° 14 | 3° 23 | 29° 56 | 20° 41 | 3° 17 | 9° 56 | 14° 37 | 10°Y 58 | 12° 8 | 12° 7 | 11° 2 | M 2 | | | | | | | | |
| T 3 | 11 4 17 | 17° 59'53 | 16° 58 | 3° 47 | 23° 26 | 3° 56 | 08° 9 | 20° 43 | 3° 20 | 9° 56 | 14° 39 | 10° 54 | 12° 4 | 12° 13 | 11° 5 | T 3 | | | | | | | | |
| W 4 | 11 8 13 | 18° 59'20 | 0♍ 1 | 5° 32 | 24° 38 | 4° 29 | 0° 21 | 20° 45 | 3° 22 | 9° 57 | 14° 41 | 10° 50 | 12° 1 | 12° 20 | 11° 8 | W 4 | | | | | | | | |
| T 5 | 11 12 10 | 19° 58'44 | 13° 22 | 7° 19 | 25° 49 | 5° 2 | 0° 33 | 20° 47 | 3° 25 | 9° 57 | 14° 42 | 10° 48 | 11° 58 | 12° 27 | 11° 11 | T 5 | | | | | | | | |
| F 6 | 11 16 6 | 20° 58'07 | 27° 1 | 9° 7 | 27° 1 | 5° 35 | 0° 46 | 20° 49 | 3° 28 | 9° 58 | 14° 44 | 10° 46 | 11° 55 | 12° 33 | 11° 14 | F 6 | | | | | | | | |
| S 7 | 11 20 3 | 21° 57'27 | 10♎ 54 | 10° 56 | 28° 12 | 6° 8 | 0° 58 | 20° 51 | 3° 30 | 9° 59 | 14° 45 | 10° D 46 | 11° 52 | 12° 40 | 11° 17 | S 7 | | | | | | | | |
| S 8 | 11 24 0 | 22° 56'46 | 24° 58 | 12° 47 | 29° 23 | 6° 41 | 1° 11 | 20° 53 | 3° 33 | 10° 0 | 14° 47 | 10° 46 | 11° 49 | 12° 47 | 11° 20 | S 8 | | | | | | | | |
| M 9 | 11 27 56 | 23° 56'02 | 9♏ 10 | 14° 39 | 08° 35 | 7° 14 | 1° 24 | 20° 54 | 3° 35 | 10° 0 | 14° 48 | 10° 47 | 11° 45 | 12° 54 | 11° 23 | M 9 | | | | | | | | |
| T 10 | 11 31 53 | 24° 55'17 | 23° 25 | 16° 32 | 1° 46 | 7° 48 | 1° 36 | 20° 56 | 3° 38 | 10° 1 | 14° 50 | 10° 49 | 11° 42 | 13° 0 | 11° 26 | T 10 | | | | | | | | |
| W 11 | 11 35 49 | 25° 54'30 | 7♐ 42 | 18° 27 | 2° 57 | 8° 21 | 1° 49 | 20° 57 | 3° 40 | 10° 2 | 14° 51 | 10° 50 | 11° 39 | 13° 7 | 11° 29 | W 11 | | | | | | | | |
| T 12 | 11 39 46 | 26° 53'42 | 21° 57 | 20° 23 | 4° 8 | 8° 55 | 2° 2 | 20° 59 | 3° 43 | 10° 3 | 14° 53 | 10° R 50 | 11° 36 | 13° 14 | 11° 31 | T 12 | | | | | | | | |
| F 13 | 11 43 42 | 27° 52'51 | 6♑ 7 | 22° 20 | 5° 19 | 9° 28 | 2° 15 | 21° 0 | 3° 45 | 10° 4 | 14° 54 | 10° 50 | 11° 33 | 13° 20 | 11° 34 | F 13 | | | | | | | | |
| S 14 | 11 47 39 | 28° 51'59 | 20° 11 | 24° 19 | 6° 29 | 10° 2 | 2° 28 | 21° 1 | 3° 47 | 10° 5 | 14° 56 | 10° 49 | 11° 29 | 13° 27 | 11° 36 | S 14 | | | | | | | | |
| S 15 | 11 51 35 | 29° 51'05 | 4♒ 6 | 26° 19 | 7° 40 | 10° 35 | 2° 41 | 21° 2 | 3° 50 | 10° 6 | 14° 57 | 10° 48 | 11° 26 | 13° 34 | 11° 38 | S 15 | | | | | | | | |
| M 16 | 11 55 32 | 0♓ 50'09 | 17° 51 | 28° 20 | 8° 51 | 11° 9 | 2° 54 | 21° 3 | 3° 52 | 10° 7 | 14° 59 | 10° 47 | 11° 23 | 13° 41 | 11° 41 | M 16 | | | | | | | | |
| T 17 | 11 59 29 | 1° 49'11 | 1♈ 24 | 0♓ 22 | 10° 1 | 11° 43 | 3° 7 | 21° 4 | 3° 54 | 10° 8 | 15° 0 | 10° 46 | 11° 20 | 13° 47 | 11° 43 | T 17 | | | | | | | | |
| W 18 | 12 3 25 | 2° 48'11 | 14° 43 | 2° 25 | 11° 11 | 12° 17 | 3° 20 | 21° 5 | 3° 57 | 10° 9 | 15° 2 | 10° 45 | 11° 17 | 13° 54 | 11° 45 | W 18 | | | | | | | | |
| T 19 | 12 7 22 | 3° 47'09 | 27° 49 | 4° 29 | 12° 22 | 12° 51 | 3° 34 | 21° 6 | 3° 59 | 10° 10 | 15° 3 | 10° 44 | 11° 14 | 14° 1 | 11° 47 | T 19 | | | | | | | | |
| F 20 | 12 11 18 | 4° 46'06 | 10♑ 39 | 6° 33 | 13° 32 | 13° 25 | 3° 47 | 21° 6 | 4° 1 | 10° 11 | 15° 4 | 10° D 44 | 11° 10 | 14° 7 | 11° 49 | F 20 | | | | | | | | |
| S 21 | 12 15 15 | 5° 45'00 | 23° 15 | 8° 39 | 14° 42 | 13° 59 | 4° 0 | 21° 7 | 4° 3 | 10° 12 | 15° 6 | 10° 44 | 11° 7 | 14° 14 | 11° 51 | S 21 | | | | | | | | |
| S 22 | 12 19 11 | 6° 43'52 | 5♊ 37 | 10° 44 | 15° 52 | 14° 33 | 4° 14 | 21° 7 | 4° 5 | 10° 13 | 15° 7 | 10° 45 | 11° 4 | 14° 21 | 11° 53 | S 22 | | | | | | | | |
| M 23 | 12 23 8 | 7° 42'42 | 17° 47 | 12° 50 | 17° 1 | 15° 7 | 4° 27 | 21° 7 | 4° 7 | 10° 15 | 15° 9 | 10° 45 | 11° 1 | 14° 27 | 11° 55 | M 23 | | | | | | | | |
| T 24 | 12 27 4 | 8° 41'29 | 29° 47 | 14° 56 | 18° 11 | 15° 41 | 4° 40 | 21° 7 | 4° 9 | 10° 16 | 15° 10 | 10° 45 | 10° 58 | 14° 34 | 11° 56 | T 24 | | | | | | | | |
| W 25 | 12 31 1 | 9° 40'15 | 11♌ 41 | 17° 1 | 19° 21 | 16° 15 | 4° 54 | 21° R 8 | 4° 11 | 10° 17 | 15° 12 | 10° 45 | 10° 55 | 14° 41 | 11° 58 | W 25 | | | | | | | | |
| T 26 | 12 34 57 | 10° 38'58 | 23° 33 | 19° 6 | 20° 30 | 16° 50 | 5° 8 | 21° 7 | 4° 13 | 10° 18 | 15° 13 | 10° R 45 | 10° 51 | 14° 48 | 12° 0 | T 26 | | | | | | | | |
| F 27 | 12 38 54 | 11° 37'39 | 5♌ 27 | 21° 9 | 21° 39 | 17° 24 | 5° 21 | 21° 7 | 4° 15 | 10° 20 | 15° 14 | 10° D 45 | 10° 48 | 14° 54 | 12° 1 | F 27 | | | | | | | | |
| S 28 | 12 42 51 | 12° 36'18 | 17° 27 | 23° 12 | 22° 49 | 17° 58 | 5° 35 | 21° 7 | 4° 16 | 10° 21 | 15° 16 | 10° 45 | 10° 45 | 15° 1 | 12° 2 | S 28 | | | | | | | | |
| S 29 | 12 46 47 | 13° 34'54 | 29° 39 | 25° 12 | 23° 58 | 18° 33 | 5° 48 | 21° 7 | 4° 18 | 10° 22 | 15° 17 | 10° 46 | 10° 42 | 15° 8 | 12° 4 | S 29 | | | | | | | | |
| M 30 | 12 50 44 | 14° 33'29 | 12♎ 5 | 27° 11 | 25° 6 | 19° 7 | 6° 2 | 21° 6 | 4° 20 | 10° 24 | 15° 19 | 10° 46 | 10° 39 | 15° 14 | 12° 5 | M 30 | | | | | | | | |
| T 31 | 12 54 40 | 15° 32'01 | 24♏ 51 | 29° 7 | 26♑ 15 | 19♒ 42 | 6♓ 16 | 21♓ 6 | 4♓ 21 | 10♓ 25 | 15♈ 20 | 10♑ 46 | 10♒ 35 | 15♓ 21 | 12♈ 6 | T 31 | | | | | | | | |

Delta T = 19m07s Julian Calendar 1 March 1075 == Greg. Calendar 7 March 1075

APRIL 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|----------|--------|--------|--------|--------|-------|--------|--------|----------|--------|--------|----------|------|---|---|---|---|---|---|---|-----|
| W 1 | 12 58 37 | 16♓ 30'38 | 7♎ 59 | 18° 0 | 27♈ 24 | 20♓ 17 | 6♊ 30 | 21°R 5 | 4♓ 23 | 10♓ 27 | 15♈ 21 | 10♑ 47 | 10♒ 32 | 15♓ 28 | 12♈ 7 | W 1 | | | | | | | | |
| T 2 | 13 2 33 | 17° 28'58 | 21° 30 | 2° 51 | 28° 32 | 20° 51 | 6° 43 | 21° 5 | 4° 25 | 10° 28 | 15° 23 | 10° 47 | 10° 29 | 15° 35 | 12° 8 | T 2 | | | | | | | | |
| F 3 | 13 6 30 | 18° 27'24 | 5♌ 24 | 4° 38 | 29° 40 | 21° 26 | 6° 57 | 21° 4 | 4° 26 | 10° 30 | 15° 24 | 10° R 48 | 10° 26 | 15° 41 | 12° 9 | F 3 | | | | | | | | |
| S 4 | 13 10 26 | 19° 25'47 | 19° 39 | 6° 22 | 0♓ 49 | 22° 1 | 7° 11 | 21° 3 | 4° 28 | 10° 31 | 15° 25 | 10° 47 | 10° 23 | 15° 48 | 12° 10 | S 4 | | | | | | | | |
| S 5 | 13 14 23 | 20° 24'09 | 4♎ 9 | 8° 3 | 1° 57 | 22° 35 | 7° 25 | 21° 2 | 4° 29 | 10° 33 | 15° 27 | 10° 47 | 10° 20 | 15° 55 | 12° 10 | S 5 | | | | | | | | |
| M 6 | 13 18 20 | 21° 22'29 | 18° 49 | 9° 39 | 3° 4 | 23° 10 | 7° 39 | 21° 1 | 4° 30 | 10° 34 | 15° 28 | 10° 46 | 10° 16 | 16° 1 | 12° 11 | M 6 | | | | | | | | |
| T 7 | 13 22 16 | 22° 20'47 | 3♐ 32 | 11° 12 | 4° 12 | 23° 45 | 7° 53 | 21° 0 | 4° 32 | 10° 36 | 15° 29 | 10° 45 | 10° 13 | 16° 8 | 12° 12 | T 7 | | | | | | | | |
| W 8 | 13 26 13 | 23° 19'04 | 18° 12 | 12° 40 | 5° 20 | 24° 20 | 8° 7 | 20° 58 | 4° 33 | 10° 38 | 15° 30 | 10° 43 | 10° 10 | 16° 15 | 12° 12 | W 8 | | | | | | | | |
| T 9 | 13 30 9 | 24° 17'19 | 2♊ 42 | 14° 4 | 6° 27 | 24° 55 | 8° 21 | 20° 57 | 4° 34 | 10° 39 | 15° 32 | 10° 42 | 10° 7 | 16° 22 | 12° 13 | T 9 | | | | | | | | |
| F 10 | 13 34 6 | 25° 15'33 | 16° 59 | 15° 24 | 7° 34 | 25° 30 | 8° 35 | 20° 56 | 4° 35 | 10° 41 | 15° 33 | 10° 41 | 10° 4 | 16° 28 | 12° 13 | F 10 | | | | | | | | |
| S 11 | 13 38 2 | 26° 13'45 | 1♓ 0 | 16° 39 | 8° 41 | 26° 5 | 8° 49 | 20° 54 | 4° 37 | 10° 43 | 15° 34 | 10° D 41 | 10° 1 | 16° 35 | 12° 13 | S 11 | | | | | | | | |
| S 12 | 13 41 59 | 27° 11'56 | 14° 43 | 17° 49 | 9° 48 | 26° 40 | 9° 3 | 20° 52 | 4° 38 | 10° 44 | 15° 35 | 10° 42 | 9° 57 | 16° 42 | 12° 13 | S 12 | | | | | | | | |
| M 13 | 13 45 55 | 28° 10'05 | 28° 10 | 18° 55 | 10° 54 | 27° 15 | 9° 17 | 20° 51 | 4° 39 | 10° 46 | 15° 37 | 10° 43 | 9° 54 | 16° 48 | 12° 13 | M 13 | | | | | | | | |
| T 14 | 13 49 52 | 29° 8'13 | 11♈ 21 | 19° 57 | 12° 1 | 27° 50 | 9° 31 | 20° 49 | 4° 40 | 10° 48 | 15° 38 | 10° 44 | 9° 51 | 16° 55 | 12° R 13 | T 14 | | | | | | | | |
| W 15 | 13 53 49 | 08° 6'19 | 24° 18 | 20° 53 | 13° 7 | 28° 25 | 9° 45 | 20° 47 | 4° 41 | 10° 50 | 15° 39 | 10° 46 | 9° 48 | 17° 2 | 12° 13 | W 15 | | | | | | | | |
| T 16 | 13 57 45 | 1° 4'23 | 7♑ 1 | 21° 45 | 14° 13 | 29° 0 | 9° 59 | 20° 45 | 4° 42 | 10° 51 | 15° 40 | 10° R 46 | 9° 45 | 17° 9 | 12° 13 | T 16 | | | | | | | | |
| F 17 | 14 1 42 | 2° 2'26 | 19° 32 | 22° 31 | 15° 19 | 29° 35 | 10° 13 | 20° 43 | 4° 43 | 10° 53 | 15° 41 | 10° 46 | 9° 41 | 17° 15 | 12° 13 | F 17 | | | | | | | | |
| S 18 | 14 5 38 | 3° 0'28 | 1♊ 52 | 23° 13 | 16° 25 | 08° 11 | 10° 27 | 20° 41 | 4° 43 | 10° 55 | 15° 42 | 10° 45 | 9° 38 | 17° 22 | 12° 13 | S 18 | | | | | | | | |
| S 19 | 14 9 35 | 3° 58'28 | 14° 3 | 23° 50 | 17° 30 | 0° 46 | 10° 41 | 20° 38 | 4° 44 | 10° 57 | 15° 43 | 10° 42 | 9° 35 | 17° 29 | 12° 12 | S 19 | | | | | | | | |
| M 20 | 14 13 31 | 4° 56'26 | 26° 6 | 24° 22 | 18° 35 | 1° 21 | 10° 55 | 20° 36 | 4° 45 | 10° 59 | 15° 44 | 10° 39 | 9° 32 | 17° 35 | 12° 12 | M 20 | | | | | | | | |
| T 21 | 14 17 28 | 5° 54'22 | 8♓ 3 | 24° 48 | 19° 40 | 1° 57 | 11° 9 | 20° 34 | 4° 46 | 11° 1 | 15° 46 | 10° 35 | 9° 29 | 17° 42 | 12° 11 | T 21 | | | | | | | | |
| W 22 | 14 21 24 | 6° 52'17 | 19° 55 | 25° 10 | 20° 45 | 2° 32 | 11° 23 | 20° 31 | 4° 46 | 11° 3 | 15° 47 | 10° 30 | 9° 26 | 17° 49 | 12° 11 | W 22 | | | | | | | | |
| T 23 | 14 25 21 | 7° 50'10 | 1♌ 47 | 25° 26 | 21° 50 | 3° 7 | 11° 38 | 20° 28 | 4° 47 | 11° 4 | 15° 48 | 10° 26 | 9° 22 | 17° 55 | 12° 10 | T 23 | | | | | | | | |
| F 24 | 14 29 18 | 8° 48'02 | 13° 40 | 25° 38 | 22° 54 | 3° 43 | 11° 52 | 20° 26 | 4° 47 | 11° 6 | 15° 49 | 10° 23 | 9° 19 | 18° 2 | 12° 9 | F 24 | | | | | | | | |
| S 25 | 14 33 14 | 9° 45'51 | 25° 39 | 25° 44 | 23° 58 | 4° 18 | 12° 6 | 20° 23 | 4° 48 | 11° 8 | 15° 50 | 10° 20 | 9° 16 | 18° 9 | 12° 8 | S 25 | | | | | | | | |
| S 26 | 14 37 11 | 10° 43'39 | 7♎ 48 | 25° R 45 | 25° 2 | 4° 54 | 12° 20 | 20° 20 | 4° 48 | 11° 10 | 15° 51 | 10° D 19 | 9° 13 | 18° 16 | 12° 7 | S 26 | | | | | | | | |
| M 27 | 14 41 7 | 11° 41'25 | 20° 12 | 25° 42 | 26° 5 | 5° 29 | 12° 34 | 20° 17 | 4° 48 | 11° 12 | 15° 52 | 10° 20 | 9° 10 | 18° 22 | 12° 6 | M 27 | | | | | | | | |
| T 28 | 14 45 4 | 12° 39'10 | 2♎ 54 | 25° 34 | 27° 9 | 6° 5 | 12° 48 | 20° 14 | 4° 49 | 11° 14 | 15° 53 | 10° 21 | 9° 7 | 18° 29 | 12° 5 | T 28 | | | | | | | | |
| W 29 | 14 49 0 | 13° 36'52 | 15° 59 | 25° 21 | 28° 12 | 6° 41 | 13° 3 | 20° 11 | 4° 49 | 11° 16 | 15° 53 | 10° 22 | 9° 3 | 18° 36 | 12° 4 | W 29 | | | | | | | | |
| T 30 | 14 52 57 | 14♓ 34'33 | 29♎ 31 | 25♑ 5 | 29♒ 14 | 7♓ 16 | 13♈ 17 | 20♓ 8 | 4♓ 49 | 11♓ 18 | 15♈ 54 | 10♑ 24 | 9♑ 0 | 18♓ 42 | 12♈ 3 | T 30 | | | | | | | | |

Delta T = 19m06s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1075
geocentric

MAY 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♆ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|-------|-------|-------|--------|-------|-------|--------|------|
| F 1 | 14 56 53 | 15♁32'13 | 13♂29 | 24°R44 | 0♁17 | 7♁52 | 13♁31 | 20°R 5 | 4♁49 | 11♁20 | 15♁55 | 10°R24 | 8°V57 | 18♁49 | 12°R 1 | F 1 |
| S 2 | 15 0 50 | 16°29'51 | 27°53 | 24♁20 | 1°19 | 8°27 | 13°45 | 20♁ 2 | 4°50 | 11°22 | 15°56 | 10°V23 | 8°54 | 18°56 | 12♁ 0 | S 2 |
| S 3 | 15 4 47 | 17°27'27 | 12♁39 | 23°53 | 2°21 | 9° 3 | 13°59 | 19°58 | 4°50 | 11°25 | 15°57 | 10°20 | 8°51 | 19° 3 | 11°59 | S 3 |
| M 4 | 15 8 43 | 18°25'02 | 27°40 | 23°24 | 3°22 | 9°39 | 14°13 | 19°55 | 4°R50 | 11°27 | 15°58 | 10°16 | 8°47 | 19° 9 | 11°57 | M 4 |
| T 5 | 15 12 40 | 19°22'37 | 12♁47 | 22°53 | 4°23 | 10°15 | 14°27 | 19°52 | 4°50 | 11°29 | 15°59 | 10°11 | 8°44 | 19°16 | 11°55 | T 5 |
| W 6 | 15 16 36 | 20°20'10 | 27°50 | 22°20 | 5°24 | 10°50 | 14°41 | 19°48 | 4°50 | 11°31 | 15°59 | 10° 5 | 8°41 | 19°23 | 11°54 | W 6 |
| T 7 | 15 20 33 | 21°17'42 | 12♁40 | 21°46 | 6°24 | 11°26 | 14°55 | 19°45 | 4°50 | 11°33 | 16° 0 | 10° 0 | 8°38 | 19°30 | 11°52 | T 7 |
| F 8 | 15 24 29 | 22°15'13 | 27°11 | 21°12 | 7°25 | 12° 2 | 15°10 | 19°41 | 4°49 | 11°35 | 16° 1 | 9°56 | 8°35 | 19°36 | 11°50 | F 8 |
| S 9 | 15 28 26 | 23°12'43 | 11♁19 | 20°38 | 8°24 | 12°38 | 15°24 | 19°37 | 4°49 | 11°37 | 16° 2 | 9°53 | 8°32 | 19°43 | 11°48 | S 9 |
| S 10 | 15 32 22 | 24°10'13 | 25° 3 | 20° 6 | 9°24 | 13°14 | 15°38 | 19°34 | 4°49 | 11°39 | 16° 2 | 9°D53 | 8°28 | 19°50 | 11°46 | S 10 |
| M 11 | 15 36 19 | 25° 7'41 | 8♁23 | 19°34 | 10°23 | 13°50 | 15°52 | 19°30 | 4°49 | 11°42 | 16° 3 | 9°53 | 8°25 | 19°56 | 11°44 | M 11 |
| T 12 | 15 40 16 | 26° 5'09 | 21°22 | 19° 5 | 11°21 | 14°26 | 16° 6 | 19°26 | 4°48 | 11°44 | 16° 4 | 9°55 | 8°22 | 20° 3 | 11°42 | T 12 |
| W 13 | 15 44 12 | 27° 2'36 | 4°V 3 | 18°38 | 12°19 | 15° 2 | 16°20 | 19°22 | 4°48 | 11°46 | 16° 4 | 9°R56 | 8°19 | 20°10 | 11°40 | W 13 |
| T 14 | 15 48 9 | 28° 0'02 | 16°31 | 18°14 | 13°17 | 15°38 | 16°34 | 19°18 | 4°47 | 11°48 | 16° 5 | 9°55 | 8°16 | 20°17 | 11°38 | T 14 |
| F 15 | 15 52 5 | 28°57'28 | 28°46 | 17°53 | 14°14 | 16°14 | 16°48 | 19°14 | 4°47 | 11°50 | 16° 6 | 9°54 | 8°12 | 20°23 | 11°36 | F 15 |
| S 16 | 15 56 2 | 29°54'52 | 10♁54 | 17°36 | 15°11 | 16°50 | 17° 2 | 19°10 | 4°46 | 11°52 | 16° 6 | 9°50 | 8° 9 | 20°30 | 11°33 | S 16 |
| S 17 | 15 59 58 | 0♁52'16 | 22°54 | 17°22 | 16° 7 | 17°26 | 17°16 | 19° 6 | 4°46 | 11°55 | 16° 7 | 9°43 | 8° 6 | 20°37 | 11°31 | S 17 |
| M 18 | 16 3 55 | 1°49'39 | 4♁50 | 17°13 | 17° 3 | 18° 2 | 17°29 | 19° 2 | 4°45 | 11°57 | 16° 7 | 9°35 | 8° 3 | 20°43 | 11°29 | M 18 |
| T 19 | 16 7 51 | 2°47'01 | 16°43 | 17° 8 | 17°59 | 18°38 | 17°43 | 18°58 | 4°44 | 11°59 | 16° 8 | 9°25 | 8° 0 | 20°50 | 11°26 | T 19 |
| W 20 | 16 11 48 | 3°44'23 | 28°35 | 17°D 7 | 18°54 | 19°15 | 17°57 | 18°54 | 4°44 | 12° 1 | 16° 8 | 9°15 | 7°57 | 20°57 | 11°24 | W 20 |
| T 21 | 16 15 45 | 4°41'43 | 10♁27 | 17°11 | 19°48 | 19°51 | 18°11 | 18°50 | 4°43 | 12° 4 | 16° 9 | 9° 5 | 7°53 | 21° 4 | 11°21 | T 21 |
| F 22 | 16 19 41 | 5°39'03 | 22°21 | 17°19 | 20°42 | 20°27 | 18°25 | 18°45 | 4°42 | 12° 6 | 16° 9 | 8°56 | 7°50 | 21°10 | 11°18 | F 22 |
| S 23 | 16 23 38 | 6°36'21 | 4♁21 | 17°32 | 21°35 | 21° 3 | 18°39 | 18°41 | 4°41 | 12° 8 | 16°10 | 8°49 | 7°47 | 21°17 | 11°16 | S 23 |
| S 24 | 16 27 34 | 7°33'39 | 16°30 | 17°50 | 22°27 | 21°40 | 18°52 | 18°37 | 4°40 | 12°10 | 16°10 | 8°45 | 7°44 | 21°24 | 11°13 | S 24 |
| M 25 | 16 31 31 | 8°30'55 | 28°51 | 18°11 | 23°19 | 22°16 | 19° 6 | 18°32 | 4°39 | 12°12 | 16°11 | 8°43 | 7°41 | 21°30 | 11°10 | M 25 |
| T 26 | 16 35 27 | 9°28'11 | 11♁29 | 18°38 | 24°11 | 22°52 | 19°20 | 18°28 | 4°38 | 12°15 | 16°11 | 8°D42 | 7°38 | 21°37 | 11° 7 | T 26 |
| W 27 | 16 39 24 | 10°25'26 | 24°29 | 19° 8 | 25° 1 | 23°29 | 19°33 | 18°24 | 4°37 | 12°17 | 16°11 | 8°43 | 7°34 | 21°44 | 11° 4 | W 27 |
| T 28 | 16 43 20 | 11°22'40 | 7♁54 | 19°43 | 25°51 | 24° 5 | 19°47 | 18°19 | 4°36 | 12°19 | 16°12 | 8°R43 | 7°31 | 21°51 | 11° 1 | T 28 |
| F 29 | 16 47 17 | 12°19'53 | 21°48 | 20°23 | 26°40 | 24°41 | 20° 1 | 18°15 | 4°35 | 12°21 | 16°12 | 8°43 | 7°28 | 21°57 | 10°58 | F 29 |
| S 30 | 16 51 14 | 13°17'05 | 6♁ 9 | 21° 6 | 27°29 | 25°18 | 20°14 | 18°11 | 4°34 | 12°24 | 16°12 | 8°40 | 7°25 | 22° 4 | 10°55 | S 30 |
| S 31 | 16 55 10 | 14♁14'17 | 20♁57 | 21♁54 | 28♁17 | 25♁54 | 20♁28 | 18♁ 6 | 4♁33 | 12♁26 | 16♁12 | 8°V35 | 7°V22 | 22♁11 | 10♁52 | S 31 |

Delta T = 19m06s Julian Calendar 1 May 1075 == Greg. Calendar 7 May 1075

JUNE 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♆ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|--------|------|
| M 1 | 16 59 7 | 15♁11'28 | 6♁ 4 | 22♁45 | 29♁ 3 | 26♁31 | 20♁41 | 18°R 2 | 4°R31 | 12♁28 | 16♁13 | 8°R28 | 7°V18 | 22♁17 | 10°R49 | M 1 |
| T 2 | 17 3 3 | 16° 8'39 | 21°22 | 23°41 | 29°49 | 27° 7 | 20°54 | 17♁57 | 4♁30 | 12°30 | 16°13 | 8°V19 | 7°15 | 22°24 | 10♁46 | T 2 |
| W 3 | 17 7 0 | 17° 5'50 | 6♁40 | 24°41 | 0♁35 | 27°44 | 21° 8 | 17°53 | 4°29 | 12°33 | 16°13 | 8° 9 | 7°12 | 22°31 | 10°42 | W 3 |
| T 4 | 17 10 56 | 18° 3'00 | 21°46 | 25°44 | 1°19 | 28°20 | 21°21 | 17°49 | 4°27 | 12°35 | 16°13 | 8° 0 | 7° 9 | 22°38 | 10°39 | T 4 |
| F 5 | 17 14 53 | 19° 0'10 | 6♁31 | 26°51 | 2° 2 | 28°57 | 21°34 | 17°44 | 4°26 | 12°37 | 16°13 | 7°52 | 7° 6 | 22°44 | 10°36 | F 5 |
| S 6 | 17 18 50 | 19°57'20 | 20°50 | 28° 2 | 2°44 | 29°34 | 21°48 | 17°40 | 4°24 | 12°39 | 16°14 | 7°47 | 7° 3 | 22°51 | 10°32 | S 6 |
| S 7 | 17 22 46 | 20°54'30 | 4♁40 | 29°17 | 3°26 | 0♁10 | 22° 1 | 17°35 | 4°23 | 12°42 | 16°14 | 7°44 | 6°59 | 22°58 | 10°29 | S 7 |
| M 8 | 17 26 43 | 21°51'40 | 18° 2 | 0♁35 | 4° 6 | 0°47 | 22°14 | 17°31 | 4°21 | 12°44 | 16°14 | 7°D43 | 6°56 | 23° 5 | 10°26 | M 8 |
| T 9 | 17 30 39 | 22°48'50 | 0°V59 | 1°57 | 4°45 | 1°24 | 22°27 | 17°27 | 4°20 | 12°46 | 16°14 | 7°R44 | 6°53 | 23°11 | 10°22 | T 9 |
| W 10 | 17 34 36 | 23°46'00 | 13°35 | 3°22 | 5°23 | 2° 0 | 22°40 | 17°22 | 4°18 | 12°48 | 16°14 | 7°44 | 6°50 | 23°18 | 10°19 | W 10 |
| T 11 | 17 38 32 | 24°43'11 | 25°54 | 4°51 | 6° 0 | 2°37 | 22°53 | 17°18 | 4°17 | 12°50 | 16°R14 | 7°42 | 6°47 | 23°25 | 10°15 | T 11 |
| F 12 | 17 42 29 | 25°40'21 | 8♁ 2 | 6°24 | 6°36 | 3°14 | 23° 6 | 17°13 | 4°15 | 12°53 | 16°14 | 7°39 | 6°44 | 23°31 | 10°12 | F 12 |
| S 13 | 17 46 25 | 26°37'32 | 20° 1 | 8° 0 | 7°11 | 3°51 | 23°19 | 17° 9 | 4°13 | 12°55 | 16°14 | 7°33 | 6°40 | 23°38 | 10° 8 | S 13 |
| S 14 | 17 50 22 | 27°34'43 | 1♁55 | 9°39 | 7°44 | 4°28 | 23°32 | 17° 5 | 4°11 | 12°57 | 16°14 | 7°24 | 6°37 | 23°45 | 10° 5 | S 14 |
| M 15 | 17 54 19 | 28°31'54 | 13°47 | 11°22 | 8°16 | 5° 4 | 23°45 | 17° 0 | 4°10 | 12°59 | 16°14 | 7°13 | 6°34 | 23°52 | 10° 1 | M 15 |
| T 16 | 17 58 15 | 29°29'05 | 25°38 | 13° 7 | 8°46 | 5°41 | 23°57 | 16°56 | 4° 8 | 13° 1 | 16°13 | 7° 0 | 6°31 | 23°58 | 9°58 | T 16 |
| W 17 | 18 2 12 | 0♁26'16 | 7♁31 | 14°56 | 9°15 | 6°18 | 24°10 | 16°52 | 4° 6 | 13° 3 | 16°13 | 6°46 | 6°28 | 24° 5 | 9°54 | W 17 |
| T 18 | 18 6 8 | 1°23'27 | 19°26 | 16°48 | 9°43 | 6°55 | 24°22 | 16°48 | 4° 4 | 13° 6 | 16°13 | 6°32 | 6°24 | 24°12 | 9°50 | T 18 |
| F 19 | 18 10 5 | 2°20'39 | 1♁25 | 18°42 | 10° 9 | 7°32 | 24°35 | 16°44 | 4° 2 | 13° 8 | 16°13 | 6°20 | 6°21 | 24°18 | 9°47 | F 19 |
| S 20 | 18 14 1 | 3°17'50 | 13°30 | 20°39 | 10°33 | 8° 9 | 24°47 | 16°39 | 4° 0 | 13°10 | 16°13 | 6°11 | 6°18 | 24°25 | 9°43 | S 20 |
| S 21 | 18 17 58 | 4°15'01 | 25°43 | 22°39 | 10°55 | 8°46 | 25° 0 | 16°35 | 3°58 | 13°12 | 16°13 | 6° 4 | 6°15 | 24°32 | 9°39 | S 21 |
| M 22 | 18 21 54 | 5°12'13 | 8♁ 7 | 24°40 | 11°16 | 9°23 | 25°12 | 16°31 | 3°56 | 13°14 | 16°12 | 6° 0 | 6°12 | 24°39 | 9°36 | M 22 |
| T 23 | 18 25 51 | 6° 9'24 | 20°46 | 26°44 | 11°35 | 10° 0 | 25°24 | 16°27 | 3°54 | 13°16 | 16°12 | 5°58 | 6° 9 | 24°45 | 9°32 | T 23 |
| W 24 | 18 29 48 | 7° 6'36 | 3♁43 | 28°49 | 11°53 | 10°37 | 25°37 | 16°23 | 3°52 | 13°18 | 16°12 | 5°58 | 6° 5 | 24°52 | 9°28 | W 24 |
| T 25 | 18 33 44 | 8° 3'47 | 17° 3 | 0♁55 | 12° 8 | 11°15 | 25°49 | 16°19 | 3°50 | 13°20 | 16°12 | 5°57 | 6° 2 | 24°59 | 9°25 | T 25 |
| F 26 | 18 37 41 | 9° 0'58 | 0♁48 | 3° 2 | 12°21 | 11°52 | 26° 1 | 16°15 | 3°48 | 13°22 | 16°11 | 5°56 | 5°59 | 25° 5 | 9°21 | F 26 |
| S 27 | 18 41 37 | 9°58'10 | 15° 0 | 5°10 | 12°32 | 12°29 | 26°13 | 16°11 | 3°46 | 13°25 | 16°11 | 5°53 | 5°56 | 25°12 | 9°17 | S 27 |
| S 28 | 18 45 34 | 10°55'22 | 29°37 | 7°19 | 12°41 | 13° 6 | 26°25 | 16° 8 | 3°44 | 13°27 | 16°10 | 5°48 | 5°53 | 25°19 | 9°14 | S 28 |
| M 29 | 18 49 30 | 11°52'34 | 14♁37 | 9°27 | 12°48 | 13°43 | 26°37 | 16° 4 | 3°42 | 13°29 | 16°10 | 5°40 | 5°50 | 25°26 | 9°10 | M 29 |
| T 30 | 18 53 27 | 12♁49'47 | 29♁50 | 11♁35 | 12♁53 | 14♁21 | 26♁48 | 16♁ 0 | 3♁40 | 13♁31 | 16♁10 | 5°V30 | | | | |

ASTRODIENST EPHEMERIS for the year 1075
geocentric

JULY 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|------|-------|-------|------|---|-----|
| W 1 | 18 57 24 | 13☾47'00 | 15☾6 | 13☾43 | 12♂55 | 14♂58 | 27♂0 | 15°R56 | 3°R37 | 13♂33 | 16°R 9 | 5°R20 | 5♂43 | 25♂39 | 9°R 3 | W 1 | | |
| T 2 | 19 1 20 | 14°44'14 | 0♂15 | 15°50 | 12°R55 | 15°35 | 27°12 | 15°A53 | 3♂35 | 13°35 | 16°R 9 | 5°Y 9 | 5°40 | 25°46 | 8♂59 | T 2 | | |
| F 3 | 19 5 17 | 15°41'28 | 15° 6 | 17°57 | 12°53 | 16°13 | 27°23 | 15°49 | 3°33 | 13°37 | 16° 8 | 5° 1 | 5°37 | 25°53 | 8°55 | F 3 | | |
| S 4 | 19 9 13 | 16°38'43 | 29°32 | 20° 2 | 12°49 | 16°50 | 27°35 | 15°46 | 3°31 | 13°38 | 16° 8 | 4°55 | 5°34 | 25°59 | 8°52 | S 4 | | |
| S 5 | 19 13 10 | 17°35'59 | 13♂29 | 22° 6 | 12°42 | 17°27 | 27°46 | 15°42 | 3°28 | 13°40 | 16° 7 | 4°51 | 5°31 | 26° 6 | 8°48 | S 5 | | |
| M 6 | 19 17 6 | 18°33'15 | 26°56 | 24° 9 | 12°32 | 18° 5 | 27°57 | 15°39 | 3°26 | 13°42 | 16° 7 | 4°50 | 5°27 | 26°13 | 8°44 | M 6 | | |
| T 7 | 19 21 3 | 19°30'33 | 9♂56 | 26°10 | 12°21 | 18°42 | 28° 8 | 15°36 | 3°24 | 13°44 | 16° 6 | 4°D50 | 5°24 | 26°19 | 8°41 | T 7 | | |
| W 8 | 19 24 59 | 20°27'52 | 22°34 | 28°10 | 12° 7 | 19°20 | 28°19 | 15°33 | 3°22 | 13°46 | 16° 6 | 4°R50 | 5°21 | 26°26 | 8°37 | W 8 | | |
| T 9 | 19 28 56 | 21°25'12 | 4♂52 | 0♂9 | 11°50 | 19°57 | 28°30 | 15°29 | 3°19 | 13°48 | 16° 5 | 4°49 | 5°18 | 26°33 | 8°34 | T 9 | | |
| F 10 | 19 32 53 | 22°22'33 | 16°58 | 2° 6 | 11°32 | 20°35 | 28°41 | 15°26 | 3°17 | 13°50 | 16° 4 | 4°46 | 5°15 | 26°40 | 8°30 | F 10 | | |
| S 11 | 19 36 49 | 23°19'55 | 28°54 | 4° 1 | 11°11 | 21°12 | 28°52 | 15°23 | 3°15 | 13°52 | 16° 4 | 4°41 | 5°11 | 26°46 | 8°27 | S 11 | | |
| S 12 | 19 40 46 | 24°17'18 | 10♂46 | 5°55 | 10°48 | 21°50 | 29° 3 | 15°20 | 3°12 | 13°53 | 16° 3 | 4°34 | 5° 8 | 26°53 | 8°23 | S 12 | | |
| M13 | 19 44 42 | 25°14'42 | 22°37 | 7°47 | 10°23 | 22°28 | 29°13 | 15°17 | 3°10 | 13°55 | 16° 2 | 4°24 | 5° 5 | 27° 0 | 8°20 | M13 | | |
| T 14 | 19 48 39 | 26°12'07 | 4♂30 | 9°38 | 9°55 | 23° 5 | 29°24 | 15°15 | 3° 7 | 13°57 | 16° 2 | 4°12 | 5° 2 | 27° 7 | 8°16 | T 14 | | |
| W15 | 19 52 35 | 27° 9'34 | 16°26 | 11°26 | 9°27 | 23°43 | 29°34 | 15°12 | 3° 5 | 13°59 | 16° 1 | 4° 0 | 4°59 | 27°13 | 8°13 | W15 | | |
| T 16 | 19 56 32 | 28° 7'01 | 28°27 | 13°14 | 8°56 | 24°21 | 29°45 | 15° 9 | 3° 3 | 14° 1 | 16° 0 | 3°48 | 4°56 | 27°20 | 8°10 | T 16 | | |
| F 17 | 20 0 28 | 29° 4'30 | 10♂35 | 14°59 | 8°24 | 24°58 | 29°55 | 15° 7 | 3° 0 | 14° 2 | 16° 0 | 3°37 | 4°52 | 27°27 | 8° 6 | F 17 | | |
| S 18 | 20 4 25 | 0♂1'59 | 22°51 | 16°43 | 7°50 | 25°36 | 0♂5 | 15° 4 | 2°58 | 14° 4 | 15°59 | 3°29 | 4°49 | 27°33 | 8° 3 | S 18 | | |
| S 19 | 20 8 22 | 0°59'30 | 5♂15 | 18°26 | 7°16 | 26°14 | 0°15 | 15° 2 | 2°56 | 14° 6 | 15°58 | 3°23 | 4°46 | 27°40 | 8° 0 | S 19 | | |
| M20 | 20 12 18 | 1°57'01 | 17°50 | 20° 7 | 6°40 | 26°52 | 0°25 | 14°59 | 2°53 | 14° 7 | 15°57 | 3°19 | 4°43 | 27°47 | 7°57 | M20 | | |
| T 21 | 20 16 15 | 2°54'33 | 0♂37 | 21°46 | 6° 4 | 27°30 | 0°35 | 14°57 | 2°51 | 14° 9 | 15°56 | 3°D18 | 4°40 | 27°54 | 7°53 | T 21 | | |
| W22 | 20 20 11 | 3°52'06 | 13°40 | 23°24 | 5°27 | 28° 8 | 0°44 | 14°55 | 2°48 | 14°10 | 15°56 | 3°18 | 4°36 | 28° 0 | 7°50 | W22 | | |
| T 23 | 20 24 8 | 4°49'40 | 27° 0 | 25° 0 | 4°50 | 28°46 | 0°54 | 14°53 | 2°46 | 14°12 | 15°55 | 3°19 | 4°33 | 28° 7 | 7°47 | T 23 | | |
| F 24 | 20 28 4 | 5°47'15 | 10♂40 | 26°35 | 4°12 | 29°24 | 1° 3 | 14°51 | 2°44 | 14°14 | 15°54 | 3°R19 | 4°30 | 28°14 | 7°44 | F 24 | | |
| S 25 | 20 32 1 | 6°44'51 | 24°43 | 28° 8 | 3°35 | 0♂2 | 1°13 | 14°49 | 2°41 | 14°15 | 15°53 | 3°18 | 4°27 | 28°20 | 7°41 | S 25 | | |
| S 26 | 20 35 57 | 7°42'28 | 9♂6 | 29°40 | 2°59 | 0°40 | 1°22 | 14°47 | 2°39 | 14°17 | 15°52 | 3°14 | 4°24 | 28°27 | 7°38 | S 26 | | |
| M27 | 20 39 54 | 8°40'06 | 23°48 | 1♂10 | 2°23 | 1°18 | 1°31 | 14°46 | 2°36 | 14°18 | 15°51 | 3° 9 | 4°21 | 28°34 | 7°35 | M27 | | |
| T 28 | 20 43 51 | 9°37'46 | 8♂42 | 2°38 | 1°47 | 1°56 | 1°40 | 14°44 | 2°34 | 14°20 | 15°50 | 3° 2 | 4°17 | 28°41 | 7°32 | T 28 | | |
| W29 | 20 47 47 | 10°35'26 | 23°42 | 4° 5 | 1°13 | 2°34 | 1°49 | 14°42 | 2°32 | 14°21 | 15°49 | 2°54 | 4°14 | 28°47 | 7°30 | W29 | | |
| T 30 | 20 51 44 | 11°33'08 | 8♂38 | 5°30 | 0°41 | 3°12 | 1°57 | 14°41 | 2°29 | 14°22 | 15°48 | 2°46 | 4°11 | 28°54 | 7°27 | T 30 | | |
| F 31 | 20 55 40 | 12♂30'51 | 23♂21 | 6♂54 | 0♂10 | 3♂50 | 2♂6 | 14°A40 | 2♂27 | 14♂24 | 15♂47 | 2♂40 | 4♂8 | 29♂1 | 7♂24 | F 31 | | |

Delta T = 19m05s Julian Calendar 1 July 1075 == Greg. Calendar 7 July 1075

AUGUST 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|--------|-------|------|--------|-------|-------|--------|-------|------|-------|-------|------|---|-----|
| S 1 | 20 59 37 | 13♂28'35 | 7♂43 | 8♂16 | 29°R40 | 4♂29 | 2♂14 | 14°R38 | 2°R25 | 14♂25 | 15°R46 | 2°R35 | 4♂5 | 29♂8 | 7°R22 | S 1 | | |
| S 2 | 21 3 33 | 14°26'21 | 21°40 | 9°36 | 29☾12 | 5° 7 | 2°23 | 14°A37 | 2♂22 | 14°26 | 15♂45 | 2♂33 | 4° 2 | 29°14 | 7♂19 | S 2 | | |
| M 3 | 21 7 30 | 15°24'09 | 5♂11 | 10°55 | 28°47 | 5°45 | 2°31 | 14°36 | 2°20 | 14°28 | 15°44 | 2°D32 | 3°58 | 29°21 | 7°16 | M 3 | | |
| T 4 | 21 11 26 | 16°21'58 | 18°15 | 12°12 | 28°23 | 6°23 | 2°39 | 14°35 | 2°18 | 14°29 | 15°43 | 2°33 | 3°55 | 29°28 | 7°14 | T 4 | | |
| W 5 | 21 15 23 | 17°19'49 | 0♂56 | 13°27 | 28° 2 | 7° 2 | 2°47 | 14°34 | 2°15 | 14°30 | 15°42 | 2°34 | 3°52 | 29°34 | 7°12 | W 5 | | |
| T 6 | 21 19 20 | 18°17'42 | 13°18 | 14°40 | 27°42 | 7°40 | 2°55 | 14°33 | 2°13 | 14°31 | 15°41 | 2°R35 | 3°49 | 29°41 | 7° 9 | T 6 | | |
| F 7 | 21 23 16 | 19°15'37 | 25°25 | 15°51 | 27°26 | 8°19 | 3° 2 | 14°33 | 2°11 | 14°33 | 15°40 | 2°35 | 3°46 | 29°48 | 7° 7 | F 7 | | |
| S 8 | 21 27 13 | 20°13'34 | 7♂22 | 17° 0 | 27°11 | 8°57 | 3°10 | 14°32 | 2° 9 | 14°34 | 15°39 | 2°34 | 3°42 | 29°55 | 7° 5 | S 8 | | |
| S 9 | 21 31 9 | 21°11'32 | 19°15 | 18° 7 | 26°59 | 9°36 | 3°17 | 14°32 | 2° 6 | 14°35 | 15°38 | 2°30 | 3°39 | 0♂1 | 7° 3 | S 9 | | |
| M10 | 21 35 6 | 22° 9'33 | 1♂7 | 19°11 | 26°49 | 10°14 | 3°24 | 14°31 | 2° 4 | 14°36 | 15°37 | 2°25 | 3°36 | 0° 8 | 7° 0 | M10 | | |
| T 11 | 21 39 2 | 23° 7'35 | 13° 2 | 20°14 | 26°42 | 10°53 | 3°31 | 14°31 | 2° 2 | 14°37 | 15°36 | 2°19 | 3°33 | 0°15 | 6°58 | T 11 | | |
| W12 | 21 42 59 | 24° 5'40 | 25° 3 | 21°13 | 26°37 | 11°31 | 3°38 | 14°31 | 2° 0 | 14°38 | 15°35 | 2°12 | 3°30 | 0°22 | 6°56 | W12 | | |
| T 13 | 21 46 55 | 25° 3'46 | 7♂12 | 22°10 | 26°35 | 12°10 | 3°45 | 14°30 | 1°58 | 14°39 | 15°34 | 2° 5 | 3°27 | 0°28 | 6°55 | T 13 | | |
| F 14 | 21 50 52 | 26° 1'53 | 19°31 | 23° 5 | 26°D35 | 12°49 | 3°52 | 14°D30 | 1°55 | 14°40 | 15°33 | 1°59 | 3°23 | 0°35 | 6°53 | F 14 | | |
| S 15 | 21 54 49 | 27° 0'03 | 2♂1 | 23°56 | 26°37 | 13°27 | 3°58 | 14°30 | 1°53 | 14°41 | 15°32 | 1°54 | 3°20 | 0°42 | 6°51 | S 15 | | |
| S 16 | 21 58 45 | 27°58'14 | 14°42 | 24°44 | 26°41 | 14° 6 | 4° 4 | 14°31 | 1°51 | 14°42 | 15°30 | 1°51 | 3°17 | 0°48 | 6°49 | S 16 | | |
| M17 | 22 2 42 | 28°56'27 | 27°35 | 25°29 | 26°48 | 14°45 | 4°10 | 14°31 | 1°49 | 14°43 | 15°29 | 1°D50 | 3°14 | 0°55 | 6°48 | M17 | | |
| T 18 | 22 6 38 | 29°54'42 | 10♂40 | 26°10 | 26°57 | 15°24 | 4°16 | 14°31 | 1°47 | 14°44 | 15°28 | 1°50 | 3°11 | 1° 2 | 6°46 | T 18 | | |
| W19 | 22 10 35 | 0♂52'58 | 23°59 | 26°48 | 27° 8 | 16° 3 | 4°22 | 14°32 | 1°45 | 14°44 | 15°27 | 1°51 | 3° 8 | 1° 9 | 6°44 | W19 | | |
| T 20 | 22 14 31 | 1°51'16 | 7♂30 | 27°21 | 27°21 | 16°41 | 4°28 | 14°32 | 1°43 | 14°45 | 15°26 | 1°53 | 3° 4 | 1°15 | 6°43 | T 20 | | |
| F 21 | 22 18 28 | 2°49'35 | 21°16 | 27°50 | 27°36 | 17°20 | 4°33 | 14°33 | 1°41 | 14°46 | 15°25 | 1°54 | 3° 1 | 1°22 | 6°42 | F 21 | | |
| S 22 | 22 22 24 | 3°47'56 | 5♂15 | 28°14 | 27°53 | 17°59 | 4°39 | 14°34 | 1°39 | 14°47 | 15°23 | 1°R55 | 2°58 | 1°29 | 6°40 | S 22 | | |
| S 23 | 22 26 21 | 4°46'19 | 19°28 | 28°33 | 28°12 | 18°38 | 4°44 | 14°35 | 1°37 | 14°47 | 15°22 | 1°54 | 2°55 | 1°35 | 6°39 | S 23 | | |
| M24 | 22 30 18 | 5°44'43 | 3♂52 | 28°46 | 28°33 | 19°17 | 4°49 | 14°36 | 1°36 | 14°48 | 15°21 | 1°52 | 2°52 | 1°42 | 6°38 | M24 | | |
| T 25 | 22 34 14 | 6°43'09 | 18°23 | 28°54 | 28°56 | 19°56 | 4°54 | 14°37 | 1°34 | 14°49 | 15°20 | 1°49 | 2°48 | 1°49 | 6°37 | T 25 | | |
| W26 | 22 38 11 | 7°41'37 | 2♂57 | 28°R56 | 29°20 | 20°36 | 4°58 | 14°38 | 1°32 | 14°49 | 15°19 | 1°46 | 2°45 | 1°56 | 6°36 | W26 | | |
| T 27 | 22 42 7 | 8°40'06 | 17°27 | 28°52 | 29°46 | 21°15 | 5° 3 | 14°39 | 1°30 | 14°50 | 15°18 | 1°43 | 2°42 | 2° 2 | 6°35 | T 27 | | |
| F 28 | 22 46 4 | 9°38'37 | 1♂48 | 28°40 | 0♂14 | 21°54 | 5° 7 | 14°40 | 1°29 | 14°50 | 15°16 | 1°40 | 2°39 | 2° 9 | 6°34 | F 28 | | |
| S 29 | 22 50 0 | 10°37'10 | 15°54 | 28°22 | 0°43 | 22°33 | 5°11 | 14°42 | 1°27 | 14°51 | 15°15 | 1°38 | 2°36 | 2°16 | 6°34 | S 29 | | |
| S 30 | 22 53 57 | 11°35'45 | 29°41 | 27°57 | 1°13 | 23°12 | 5°15 | 14°43 | 1°25 | 14°51 | 15°14 | 1°D37 | 2°33 | 2°23 | 6°33 | S 30 | | |
| M31 | 22 57 53 | 12♂34'22 | 13♂6 | 27♂25 | 1♂46 | 23♂52 | 5♂19 | 14°A45 | 1♂24 | 14♂52 | 15♂13 | 1♂38 | 2♂29 | 2♂29 | 6♂32 | M31 | | |

Delta T = 19m05s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1075
geocentric

SEPTEMBER 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|--------|--------|-------|------|------|-------|------|---|-----|
| T 1 | 23 1 50 | 13♎33'01 | 26♏10 | 26°R46 | 2♂19 | 24♎31 | 5♂22 | 14♎47 | 1°R22 | 14♏52 | 15°R12 | 1♏39 | 2♏26 | 2♏36 | 6°R32 | T 1 | | |
| W 2 | 23 5 47 | 14°31'42 | 8♏52 | 26♎1 | 2°54 | 25°10 | 5°26 | 14°48 | 1♎20 | 14°53 | 15°R10 | 1°40 | 2°23 | 2°43 | 6♏31 | W 2 | | |
| T 3 | 23 9 43 | 15°30'26 | 21°16 | 25° 9 | 3°31 | 25°50 | 5°29 | 14°50 | 1°19 | 14°53 | 15° 9 | 1°42 | 2°20 | 2°49 | 6°31 | T 3 | | |
| F 4 | 23 13 40 | 16°29'12 | 3♏26 | 24°12 | 4° 8 | 26°29 | 5°32 | 14°52 | 1°17 | 14°53 | 15° 8 | 1°43 | 2°17 | 2°56 | 6°31 | F 4 | | |
| S 5 | 23 17 36 | 17°28'00 | 15°25 | 23°11 | 4°47 | 27° 9 | 5°35 | 14°54 | 1°16 | 14°54 | 15° 7 | 1°R43 | 2°14 | 3° 3 | 6°31 | S 5 | | |
| S 6 | 23 21 33 | 18°26'51 | 27°19 | 22° 6 | 5°27 | 27°48 | 5°37 | 14°57 | 1°15 | 14°54 | 15° 6 | 1°43 | 2°10 | 3°10 | 6°30 | S 6 | | |
| M 7 | 23 25 29 | 19°25'44 | 9♏12 | 20°59 | 6° 8 | 28°28 | 5°40 | 14°59 | 1°13 | 14°54 | 15° 4 | 1°42 | 2° 7 | 3°16 | 6°D30 | M 7 | | |
| T 8 | 23 29 26 | 20°24'39 | 21° 9 | 19°53 | 6°50 | 29° 8 | 5°42 | 15° 1 | 1°12 | 14°54 | 15° 3 | 1°41 | 2° 4 | 3°23 | 6°30 | T 8 | | |
| W 9 | 23 33 22 | 21°23'37 | 3♏13 | 18°47 | 7°33 | 29°47 | 5°44 | 15° 4 | 1°11 | 14°54 | 15° 2 | 1°39 | 2° 1 | 3°30 | 6°31 | W 9 | | |
| T 10 | 23 37 19 | 22°22'36 | 15°28 | 17°45 | 8°17 | 0♏27 | 5°46 | 15° 6 | 1° 9 | 14°54 | 15° 1 | 1°38 | 1°58 | 3°37 | 6°31 | T 10 | | |
| F 11 | 23 41 16 | 23°21'38 | 27°57 | 16°48 | 9° 3 | 1° 7 | 5°47 | 15° 9 | 1° 8 | 14°54 | 15° 0 | 1°37 | 1°54 | 3°43 | 6°31 | F 11 | | |
| S 12 | 23 45 12 | 24°20'42 | 10♎41 | 15°58 | 9°49 | 1°46 | 5°49 | 15°12 | 1° 7 | 14°R54 | 14°58 | 1°36 | 1°51 | 3°50 | 6°31 | S 12 | | |
| S 13 | 23 49 9 | 25°19'48 | 23°40 | 15°15 | 10°36 | 2°26 | 5°50 | 15°14 | 1° 6 | 14°54 | 14°57 | 1°36 | 1°48 | 3°57 | 6°32 | S 13 | | |
| M14 | 23 53 5 | 26°18'57 | 6♏56 | 14°41 | 11°23 | 3° 6 | 5°51 | 15°17 | 1° 5 | 14°54 | 14°56 | 1°D36 | 1°45 | 4° 3 | 6°32 | M14 | | |
| T 15 | 23 57 2 | 27°18'07 | 20°26 | 14°17 | 12°12 | 3°46 | 5°52 | 15°20 | 1° 4 | 14°54 | 14°55 | 1°36 | 1°42 | 4°10 | 6°33 | T 15 | | |
| W16 | 0 0 58 | 28°17'19 | 4♏10 | 14° 3 | 13° 2 | 4°26 | 5°53 | 15°24 | 1° 3 | 14°54 | 14°54 | 1°36 | 1°39 | 4°17 | 6°34 | W16 | | |
| T 17 | 0 4 55 | 29°16'34 | 18° 4 | 14°D 0 | 13°52 | 5° 6 | 5°53 | 15°27 | 1° 2 | 14°54 | 14°52 | 1°36 | 1°35 | 4°24 | 6°34 | T 17 | | |
| F 18 | 0 8 51 | 0♏15'50 | 2♏ 6 | 14° 8 | 14°43 | 5°46 | 5°53 | 15°30 | 1° 1 | 14°54 | 14°51 | 1°37 | 1°32 | 4°30 | 6°35 | F 18 | | |
| S 19 | 0 12 48 | 1°15'08 | 16°14 | 14°26 | 15°35 | 6°26 | 5°R53 | 15°33 | 1° 0 | 14°54 | 14°50 | 1°37 | 1°29 | 4°37 | 6°36 | S 19 | | |
| S 20 | 0 16 44 | 2°14'28 | 0♏26 | 14°54 | 16°27 | 7° 6 | 5°53 | 15°37 | 1° 0 | 14°53 | 14°49 | 1°37 | 1°26 | 4°44 | 6°37 | S 20 | | |
| M21 | 0 20 41 | 3°13'50 | 14°40 | 15°31 | 17°20 | 7°46 | 5°53 | 15°40 | 0°59 | 14°53 | 14°48 | 1°37 | 1°23 | 4°50 | 6°38 | M21 | | |
| T 22 | 0 24 38 | 4°13'13 | 28°52 | 16°17 | 18°14 | 8°27 | 5°52 | 15°44 | 0°58 | 14°53 | 14°47 | 1°37 | 1°19 | 4°57 | 6°39 | T 22 | | |
| W23 | 0 28 34 | 5°12'38 | 13♏ 0 | 17°12 | 19° 8 | 9° 7 | 5°52 | 15°48 | 0°58 | 14°53 | 14°46 | 1°37 | 1°16 | 5° 4 | 6°40 | W23 | | |
| T 24 | 0 32 31 | 6°12'05 | 27° 2 | 18°13 | 20° 3 | 9°47 | 5°51 | 15°51 | 0°57 | 14°52 | 14°44 | 1°38 | 1°13 | 5°11 | 6°42 | T 24 | | |
| F 25 | 0 36 27 | 7°11'34 | 10♏54 | 19°21 | 20°59 | 10°27 | 5°50 | 15°55 | 0°56 | 14°52 | 14°43 | 1°38 | 1°10 | 5°17 | 6°43 | F 25 | | |
| S 26 | 0 40 24 | 8°11'05 | 24°35 | 20°35 | 21°55 | 11° 8 | 5°48 | 15°59 | 0°56 | 14°51 | 14°42 | 1°38 | 1° 7 | 5°24 | 6°45 | S 26 | | |
| S 27 | 0 44 20 | 9°10'38 | 8♏ 1 | 21°53 | 22°52 | 11°48 | 5°47 | 16° 3 | 0°55 | 14°51 | 14°41 | 1°R38 | 1° 4 | 5°31 | 6°46 | S 27 | | |
| M28 | 0 48 17 | 10°10'12 | 21°12 | 23°16 | 23°49 | 12°28 | 5°45 | 16° 7 | 0°55 | 14°50 | 14°40 | 1°38 | 1° 0 | 5°38 | 6°48 | M28 | | |
| T 29 | 0 52 13 | 11° 9'49 | 4♏ 6 | 24°43 | 24°47 | 13° 9 | 5°43 | 16°11 | 0°55 | 14°50 | 14°39 | 1°37 | 0°57 | 5°44 | 6°49 | T 29 | | |
| W30 | 0 56 10 | 12♏ 9'29 | 16♏44 | 26♎13 | 25♏45 | 13♏49 | 5♂41 | 16♎16 | 0♏54 | 14♏19 | 14♏38 | 1♏36 | 0♏54 | 5♏51 | 6♏51 | W30 | | |

Delta T = 19m05s Julian Calendar 1 Sept. 1075 == Greg. Calendar 7 Sept. 1075

OCTOBER 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|------|------|------|---|-----|
| T 1 | 1 0 7 | 13♏ 9'10 | 29♏ 6 | 27♎45 | 26♏44 | 14♏30 | 5°R38 | 16♎20 | 0°R54 | 14°R49 | 14°R37 | 1°R34 | 0♏51 | 5♏58 | 6♏53 | T 1 | | |
| F 2 | 1 4 3 | 14° 8'54 | 11♏16 | 29°19 | 27°43 | 15°11 | 5♂36 | 16°24 | 0♏54 | 14°R48 | 14°R36 | 1°R32 | 0°48 | 6° 4 | 6°55 | F 2 | | |
| S 3 | 1 8 0 | 15° 8'40 | 23°16 | 0♏55 | 28°43 | 15°51 | 5°33 | 16°29 | 0°54 | 14°47 | 14°35 | 1°31 | 0°45 | 6°11 | 6°57 | S 3 | | |
| S 4 | 1 11 56 | 16° 8'28 | 5♏10 | 2°32 | 29°43 | 16°32 | 5°30 | 16°33 | 0°54 | 14°47 | 14°34 | 1°30 | 0°41 | 6°18 | 6°59 | S 4 | | |
| M 5 | 1 15 53 | 17° 8'18 | 17° 3 | 4°11 | 0♎44 | 17°13 | 5°27 | 16°38 | 0°D54 | 14°46 | 14°33 | 1°D29 | 0°38 | 6°25 | 7° 1 | M 5 | | |
| T 6 | 1 19 49 | 18° 8'11 | 28°58 | 5°50 | 1°45 | 17°54 | 5°24 | 16°43 | 0°54 | 14°45 | 14°32 | 1°30 | 0°35 | 6°31 | 7° 3 | T 6 | | |
| W 7 | 1 23 46 | 19° 8'06 | 11♏ 2 | 7°29 | 2°46 | 18°34 | 5°20 | 16°47 | 0°54 | 14°44 | 14°31 | 1°31 | 0°32 | 6°38 | 7° 6 | W 7 | | |
| T 8 | 1 27 42 | 20° 8'03 | 23°18 | 9° 9 | 3°48 | 19°15 | 5°17 | 16°52 | 0°54 | 14°44 | 14°30 | 1°32 | 0°29 | 6°45 | 7° 8 | T 8 | | |
| F 9 | 1 31 39 | 21° 8'02 | 5♎51 | 10°49 | 4°50 | 19°56 | 5°13 | 16°57 | 0°54 | 14°43 | 14°29 | 1°34 | 0°25 | 6°51 | 7°10 | F 9 | | |
| S 10 | 1 35 36 | 22° 8'04 | 18°43 | 12°30 | 5°53 | 20°37 | 5° 9 | 17° 2 | 0°54 | 14°42 | 14°28 | 1°35 | 0°22 | 6°58 | 7°13 | S 10 | | |
| S 11 | 1 39 32 | 23° 8'07 | 1♏57 | 14°10 | 6°56 | 21°18 | 5° 4 | 17° 7 | 0°55 | 14°41 | 14°27 | 1°R35 | 0°19 | 7° 5 | 7°15 | S 11 | | |
| M12 | 1 43 29 | 24° 8'13 | 15°33 | 15°50 | 7°59 | 21°59 | 5° 0 | 17°12 | 0°55 | 14°40 | 14°26 | 1°35 | 0°16 | 7°12 | 7°18 | M12 | | |
| T 13 | 1 47 25 | 25° 8'20 | 29°28 | 17°30 | 9° 3 | 22°40 | 4°55 | 17°17 | 0°55 | 14°39 | 14°25 | 1°33 | 0°13 | 7°18 | 7°21 | T 13 | | |
| W14 | 1 51 22 | 26° 8'30 | 13♏40 | 19° 9 | 10° 7 | 23°21 | 4°50 | 17°23 | 0°56 | 14°38 | 14°25 | 1°30 | 0°10 | 7°25 | 7°24 | W14 | | |
| T 15 | 1 55 18 | 27° 8'41 | 28° 3 | 20°49 | 11°11 | 24° 3 | 4°45 | 17°28 | 0°56 | 14°37 | 14°24 | 1°26 | 0° 6 | 7°32 | 7°26 | T 15 | | |
| F 16 | 1 59 15 | 28° 8'54 | 12♎33 | 22°28 | 12°16 | 24°44 | 4°40 | 17°33 | 0°57 | 14°36 | 14°23 | 1°23 | 0° 3 | 7°39 | 7°29 | F 16 | | |
| S 17 | 2 3 11 | 29° 9'09 | 27° 2 | 24° 7 | 13°21 | 25°25 | 4°35 | 17°39 | 0°57 | 14°35 | 14°22 | 1°19 | 0° 0 | 7°45 | 7°32 | S 17 | | |
| S 18 | 2 7 8 | 0♏ 9'25 | 11♏26 | 25°45 | 14°26 | 26° 6 | 4°29 | 17°44 | 0°58 | 14°34 | 14°21 | 1°17 | 29♏57 | 7°52 | 7°35 | S 18 | | |
| M19 | 2 11 5 | 1° 9'43 | 25°41 | 27°23 | 15°31 | 26°48 | 4°24 | 17°50 | 0°59 | 14°33 | 14°21 | 1°D15 | 29°54 | 7°59 | 7°38 | M19 | | |
| T 20 | 2 15 1 | 2°10'02 | 9♏45 | 29° 1 | 16°37 | 27°29 | 4°18 | 17°55 | 0°59 | 14°32 | 14°20 | 1°15 | 29°51 | 8° 5 | 7°42 | T 20 | | |
| W21 | 2 18 58 | 3°10'22 | 23°37 | 0♏38 | 17°43 | 28°11 | 4°12 | 18° 1 | 1° 0 | 14°31 | 14°19 | 1°17 | 29°47 | 8°12 | 7°45 | W21 | | |
| T 22 | 2 22 54 | 4°10'44 | 7♏15 | 2°15 | 18°49 | 28°52 | 4° 6 | 18° 7 | 1° 1 | 14°29 | 14°18 | 1°18 | 29°44 | 8°19 | 7°48 | T 22 | | |
| F 23 | 2 26 51 | 5°11'08 | 20°42 | 3°52 | 19°56 | 29°34 | 4° 0 | 18°12 | 1° 2 | 14°28 | 14°18 | 1°20 | 29°41 | 8°26 | 7°51 | F 23 | | |
| S 24 | 2 30 47 | 6°11'33 | 3♏56 | 5°28 | 21° 2 | 0♏15 | 3°53 | 18°18 | 1° 3 | 14°27 | 14°17 | 1°R20 | 29°38 | 8°32 | 7°55 | S 24 | | |
| S 25 | 2 34 44 | 7°11'59 | 16°58 | 7° 4 | 22° 9 | 0°57 | 3°47 | 18°24 | 1° 4 | 14°26 | 14°16 | 1°19 | 29°35 | 8°39 | 7°58 | S 25 | | |
| M26 | 2 38 40 | 8°12'27 | 29°49 | 8°40 | 23°16 | 1°39 | 3°40 | 18°30 | 1° 5 | 14°24 | 14°16 | 1°16 | 29°31 | 8°46 | 8° 2 | M26 | | |
| T 27 | 2 42 37 | 9°12'56 | 12♏28 | 10°16 | 24°24 | 2°20 | 3°33 | 18°36 | 1° 6 | 14°23 | 14°15 | 1°11 | 29°28 | 8°52 | 8° 6 | T 27 | | |
| W28 | 2 46 34 | 10°13'28 | 24°55 | 11°51 | 25°32 | 3° 2 | 3°27 | 18°42 | 1° 7 | 14°22 | 14°15 | 1° 4 | 29°25 | 8°59 | 8° 9 | W28 | | |
| T 29 | 2 50 30 | 11°14'01 | 7♏11 | 13°26 | 26°39 | 3°44 | 3°20 | 18°48 | 1° 8 | 14°20 | 14°14 | 0°57 | 29°22 | 9° 6 | 8°13 | T 29 | | |
| F 30 | 2 54 27 | 12°14'35 | 19°17 | 15° 0 | 27°48 | 4°26 | 3°12 | 18°54 | 1° 9 | 14°19 | 14°13 | 0°49 | 29°19 | 9°13 | 8°17 | F 30 | | |
| S 31 | 2 58 23 | 13♏15'12 | 1♏15 | 16♏35 | 28♎56 | 5♏ 8 | 3♂5 | 19♎ 0 | 1♏11 | 14♏18 | 14♏13 | 0♏41 | 29♏16 | 9♏19 | 8♏21 | S 31 | | |

Delta T = 19m04s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1075
geocentric

NOVEMBER 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|--------|--------|--------|-------|-------|-------|------|---|-----|
| S 1 | 3 2 20 | 14♈15'50 | 13♉8 | 18♊9 | 0♈4 | 5♈50 | 2°R58 | 19♌6 | 1♈12 | 14°R16 | 14°R12 | 0°R35 | 29♋12 | 9♉26 | 8♉24 | S 1 | | |
| M 2 | 3 6 16 | 15°16'29 | 24°59 | 19°43 | 1°13 | 6°32 | 2♈50 | 19°13 | 1°13 | 14♈15 | 14♈12 | 0°Y31 | 29°9 | 9°33 | 8°28 | M 2 | | |
| T 3 | 3 10 13 | 16°17'11 | 6♈52 | 21°17 | 2°22 | 7°14 | 2°43 | 19°19 | 1°15 | 14°13 | 14°11 | 0°28 | 29°6 | 9°40 | 8°32 | T 3 | | |
| W 4 | 3 14 9 | 17°17'54 | 18°53 | 22°51 | 3°31 | 7°56 | 2°35 | 19°25 | 1°16 | 14°12 | 14°11 | 0°D28 | 29°3 | 9°46 | 8°36 | W 4 | | |
| T 5 | 3 18 6 | 18°18'38 | 1♈6 | 24°24 | 4°40 | 8°38 | 2°28 | 19°32 | 1°18 | 14°10 | 14°11 | 0°28 | 29°0 | 9°53 | 8°41 | T 5 | | |
| F 6 | 3 22 3 | 19°19'25 | 13°35 | 25°57 | 5°50 | 9°20 | 2°20 | 19°38 | 1°19 | 14°9 | 14°10 | 0°30 | 28°57 | 10°0 | 8°45 | F 6 | | |
| S 7 | 3 25 59 | 20°20'12 | 26°27 | 27°31 | 6°59 | 10°2 | 2°12 | 19°45 | 1°21 | 14°7 | 14°10 | 0°R31 | 28°53 | 10°6 | 8°49 | S 7 | | |
| S 8 | 3 29 56 | 21°21'02 | 9♈44 | 29°4 | 8°9 | 10°44 | 2°4 | 19°51 | 1°23 | 14°6 | 14°9 | 0°30 | 28°50 | 10°13 | 8°53 | S 8 | | |
| M 9 | 3 33 52 | 22°21'53 | 23°29 | 0♈37 | 9°19 | 11°27 | 1°56 | 19°58 | 1°24 | 14°4 | 14°9 | 0°28 | 28°47 | 10°20 | 8°57 | M 9 | | |
| T 10 | 3 37 49 | 23°22'45 | 7♈39 | 2°10 | 10°29 | 12°9 | 1°48 | 20°4 | 1°26 | 14°3 | 14°9 | 0°23 | 28°44 | 10°27 | 9°2 | T 10 | | |
| W 11 | 3 41 45 | 24°23'39 | 22°13 | 3°43 | 11°39 | 12°51 | 1°40 | 20°11 | 1°28 | 14°1 | 14°8 | 0°16 | 28°41 | 10°33 | 9°6 | W 11 | | |
| T 12 | 3 45 42 | 25°24'34 | 7♈3 | 5°15 | 12°49 | 13°34 | 1°32 | 20°17 | 1°30 | 14°0 | 14°8 | 0°8 | 28°37 | 10°40 | 9°11 | T 12 | | |
| F 13 | 3 49 38 | 26°25'30 | 22°1 | 6°48 | 14°0 | 14°16 | 1°24 | 20°24 | 1°32 | 13°58 | 14°8 | 29♋58 | 28°34 | 10°47 | 9°15 | F 13 | | |
| S 14 | 3 53 35 | 27°26'27 | 6♉58 | 8°20 | 15°10 | 14°59 | 1°16 | 20°31 | 1°33 | 13°56 | 14°8 | 29°50 | 28°31 | 10°53 | 9°20 | S 14 | | |
| S 15 | 3 57 32 | 28°27'25 | 21°44 | 9°53 | 16°21 | 15°42 | 1°8 | 20°37 | 1°35 | 13°55 | 14°8 | 29°43 | 28°28 | 11°0 | 9°24 | S 15 | | |
| M 16 | 4 1 28 | 29°28'23 | 6♈14 | 11°25 | 17°32 | 16°24 | 0°59 | 20°44 | 1°37 | 13°53 | 14°7 | 29°38 | 28°25 | 11°7 | 9°29 | M 16 | | |
| T 17 | 4 5 25 | 0♈29'23 | 20°23 | 12°57 | 18°43 | 17°7 | 0°51 | 20°51 | 1°39 | 13°51 | 14°7 | 29°36 | 28°22 | 11°14 | 9°34 | T 17 | | |
| W 18 | 4 9 21 | 1°30'23 | 4♈12 | 14°29 | 19°54 | 17°49 | 0°43 | 20°58 | 1°42 | 13°50 | 14°7 | 29°D35 | 28°18 | 11°20 | 9°38 | W 18 | | |
| T 19 | 4 13 18 | 2°31'23 | 17°40 | 16°1 | 21°5 | 18°32 | 0°35 | 21°5 | 1°44 | 13°48 | 14°7 | 29°36 | 28°15 | 11°27 | 9°43 | T 19 | | |
| F 20 | 4 17 14 | 3°32'24 | 0♈51 | 17°32 | 22°17 | 19°15 | 0°27 | 21°11 | 1°46 | 13°46 | 14°7 | 29°R36 | 28°12 | 11°34 | 9°48 | F 20 | | |
| S 21 | 4 21 11 | 4°33'26 | 13°46 | 19°3 | 23°28 | 19°58 | 0°19 | 21°18 | 1°48 | 13°45 | 14°7 | 29°35 | 28°9 | 11°41 | 9°53 | S 21 | | |
| S 22 | 4 25 7 | 5°34'28 | 26°28 | 20°34 | 24°40 | 20°41 | 0°10 | 21°25 | 1°50 | 13°43 | 14°7 | 29°32 | 28°6 | 11°47 | 9°58 | S 22 | | |
| M 23 | 4 29 4 | 6°35'31 | 8♈59 | 22°4 | 25°51 | 21°24 | 0°2 | 21°32 | 1°53 | 13°41 | 14°D7 | 29°26 | 28°3 | 11°54 | 10°2 | M 23 | | |
| T 24 | 4 33 1 | 7°36'35 | 21°22 | 23°34 | 27°3 | 22°7 | 29♈54 | 21°39 | 1°55 | 13°40 | 14°7 | 29°17 | 27°59 | 12°1 | 10°7 | T 24 | | |
| W 25 | 4 36 57 | 8°37'39 | 3♈36 | 25°3 | 28°15 | 22°50 | 29°46 | 21°46 | 1°57 | 13°38 | 14°7 | 29°5 | 27°56 | 12°7 | 10°12 | W 25 | | |
| T 26 | 4 40 54 | 9°38'44 | 15°42 | 26°32 | 29°27 | 23°33 | 29°38 | 21°53 | 2°0 | 13°36 | 14°7 | 28°52 | 27°53 | 12°14 | 10°17 | T 26 | | |
| F 27 | 4 44 50 | 10°39'50 | 27°43 | 27°59 | 0♈39 | 24°16 | 29°30 | 22°0 | 2°2 | 13°35 | 14°7 | 28°38 | 27°50 | 12°21 | 10°22 | F 27 | | |
| S 28 | 4 48 47 | 11°40'57 | 9♉38 | 29°25 | 1°51 | 24°59 | 29°23 | 22°7 | 2°5 | 13°33 | 14°7 | 28°24 | 27°47 | 12°28 | 10°27 | S 28 | | |
| S 29 | 4 52 43 | 12°42'04 | 21°29 | 0♈50 | 3°3 | 25°42 | 29°15 | 22°14 | 2°7 | 13°31 | 14°7 | 28°13 | 27°43 | 12°34 | 10°32 | S 29 | | |
| M 30 | 4 56 40 | 13♈43'12 | 3♈20 | 2♈13 | 4♈15 | 26♈25 | 29♈7 | 22♈21 | 2♈10 | 13♈30 | 14♈7 | 28♈3 | 27♈40 | 12♈41 | 10♈38 | M 30 | | |

Delta T = 19m04s Julian Calendar 1 Nov. 1075 == Greg. Calendar 7 Nov. 1075

DECEMBER 1075 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|-------|------|--------|-------|--------|-------|-------|-------|------|---|-----|
| T 1 | 5 0 37 | 14♈44'20 | 15♈12 | 3♈34 | 5♈28 | 27♈9 | 28°R59 | 22♌28 | 2♈12 | 13°R28 | 14♈8 | 27°R57 | 27♋37 | 12♉48 | 10♉43 | T 1 | | |
| W 2 | 5 4 33 | 15°45'29 | 27°10 | 4°53 | 6°40 | 27°52 | 28♈52 | 22°35 | 2°15 | 13♈26 | 14°8 | 27♋53 | 27°34 | 12°54 | 10°48 | W 2 | | |
| T 3 | 5 8 30 | 16°46'39 | 9♈18 | 6°10 | 7°53 | 28°35 | 28°44 | 22°42 | 2°18 | 13°24 | 14°8 | 27°52 | 27°31 | 13°1 | 10°53 | T 3 | | |
| F 4 | 5 12 26 | 17°47'50 | 21°43 | 7°23 | 9°5 | 29°19 | 28°37 | 22°49 | 2°20 | 13°23 | 14°8 | 27°51 | 27°28 | 13°8 | 10°58 | F 4 | | |
| S 5 | 5 16 23 | 18°49'01 | 4♈28 | 8°33 | 10°18 | 0♈2 | 28°30 | 22°56 | 2°23 | 13°21 | 14°9 | 27°51 | 27°24 | 13°15 | 11°4 | S 5 | | |
| S 6 | 5 20 19 | 19°50'13 | 17°39 | 9°38 | 11°31 | 0°46 | 28°23 | 23°3 | 2°26 | 13°19 | 14°9 | 27°50 | 27°21 | 13°21 | 11°9 | S 6 | | |
| M 7 | 5 24 16 | 20°51'25 | 1♈19 | 10°39 | 12°43 | 1°29 | 28°16 | 23°10 | 2°29 | 13°18 | 14°9 | 27°47 | 27°18 | 13°28 | 11°14 | M 7 | | |
| T 8 | 5 28 12 | 21°52'38 | 15°30 | 11°34 | 13°56 | 2°13 | 28°9 | 23°17 | 2°32 | 13°16 | 14°10 | 27°41 | 27°15 | 13°35 | 11°19 | T 8 | | |
| W 9 | 5 32 9 | 22°53'51 | 0♈9 | 12°22 | 15°9 | 2°56 | 28°2 | 23°25 | 2°34 | 13°14 | 14°10 | 27°32 | 27°12 | 13°41 | 11°25 | W 9 | | |
| T 10 | 5 36 6 | 23°55'05 | 15°11 | 13°3 | 16°22 | 3°40 | 27°55 | 23°32 | 2°37 | 13°13 | 14°10 | 27°21 | 27°9 | 13°48 | 11°30 | T 10 | | |
| F 11 | 5 40 2 | 24°56'19 | 0♈26 | 13°36 | 17°35 | 4°24 | 27°49 | 23°39 | 2°40 | 13°11 | 14°11 | 27°9 | 27°5 | 13°55 | 11°36 | F 11 | | |
| S 12 | 5 43 59 | 25°57'33 | 15°44 | 14°0 | 18°48 | 5°8 | 27°42 | 23°46 | 2°43 | 13°9 | 14°11 | 26°57 | 27°2 | 14°2 | 11°41 | S 12 | | |
| S 13 | 5 47 55 | 26°58'46 | 0♈52 | 14°14 | 20°2 | 5°51 | 27°36 | 23°53 | 2°46 | 13°8 | 14°12 | 26°47 | 26°59 | 14°8 | 11°46 | S 13 | | |
| M 14 | 5 51 52 | 28°0'00 | 15°42 | 14°R17 | 21°15 | 6°35 | 27°30 | 24°0 | 2°49 | 13°6 | 14°12 | 26°40 | 26°56 | 14°15 | 11°52 | M 14 | | |
| T 15 | 5 55 48 | 29°1'13 | 0♈7 | 14°8 | 22°28 | 7°19 | 27°24 | 24°7 | 2°52 | 13°4 | 14°13 | 26°36 | 26°53 | 14°22 | 11°57 | T 15 | | |
| W 16 | 5 59 45 | 0♈2'26 | 14°5 | 13°48 | 23°41 | 8°3 | 27°18 | 24°14 | 2°55 | 13°3 | 14°13 | 26°35 | 26°49 | 14°29 | 12°3 | W 16 | | |
| T 17 | 6 3 41 | 1°3'38 | 27°37 | 13°16 | 24°55 | 8°47 | 27°13 | 24°21 | 2°58 | 13°1 | 14°14 | 26°34 | 26°46 | 14°35 | 12°8 | T 17 | | |
| F 18 | 6 7 38 | 2°4'50 | 10♈45 | 12°32 | 26°8 | 9°31 | 27°7 | 24°28 | 3°1 | 13°0 | 14°15 | 26°34 | 26°43 | 14°42 | 12°14 | F 18 | | |
| S 19 | 6 11 35 | 3°6'01 | 23°33 | 11°38 | 27°21 | 10°15 | 27°2 | 24°35 | 3°5 | 12°58 | 14°15 | 26°33 | 26°40 | 14°49 | 12°19 | S 19 | | |
| S 20 | 6 15 31 | 4°7'12 | 6♈4 | 10°35 | 28°35 | 10°59 | 26°57 | 24°42 | 3°8 | 12°56 | 14°16 | 26°29 | 26°37 | 14°55 | 12°25 | S 20 | | |
| M 21 | 6 19 28 | 5°8'23 | 18°24 | 9°23 | 29°48 | 11°43 | 26°52 | 24°49 | 3°11 | 12°55 | 14°16 | 26°23 | 26°34 | 15°2 | 12°30 | M 21 | | |
| T 22 | 6 23 24 | 6°9'33 | 0♈33 | 8°7 | 1♈2 | 12°27 | 26°47 | 24°56 | 3°14 | 12°53 | 14°17 | 26°13 | 26°30 | 15°9 | 12°36 | T 22 | | |
| W 23 | 6 27 21 | 7°10'42 | 12°36 | 6°48 | 2°15 | 13°12 | 26°43 | 25°3 | 3°17 | 12°52 | 14°18 | 26°0 | 26°27 | 15°16 | 12°41 | W 23 | | |
| T 24 | 6 31 17 | 8°11'51 | 24°35 | 5°28 | 3°29 | 13°56 | 26°38 | 25°10 | 3°21 | 12°50 | 14°19 | 25°47 | 26°24 | 15°22 | 12°47 | T 24 | | |
| F 25 | 6 35 14 | 9°13'00 | 6♈29 | 4°11 | 4°43 | 14°40 | 26°34 | 25°17 | 3°24 | 12°49 | 14°19 | 25°32 | 26°21 | 15°29 | 12°52 | F 25 | | |
| S 26 | 6 39 11 | 10°14'08 | 18°22 | 2°58 | 5°56 | 15°24 | 26°30 | 25°24 | 3°27 | 12°47 | 14°20 | 25°18 | 26°18 | 15°36 | 12°58 | S 26 | | |
| S 27 | 6 43 7 | 11°15'16 | 0♈14 | 1°51 | 7°10 | 16°9 | 26°26 | 25°31 | 3°30 | 12°46 | 14°21 | 25°6 | 26°15 | 15°42 | 13°3 | S 27 | | |
| M 28 | 6 47 4 | 12°16'23 | 12°6 | 0°52 | 8°24 | 16°53 | 26°22 | 25°38 | 3°34 | 12°44 | 14°22 | 24°56 | 26°11 | 15°49 | 13°9 | M 28 | | |
| T 29 | 6 51 0 | 13°17'29 | 24°1 | 0°1 | 9°38 | 17°37 | 26°19 | 25°45 | 3°37 | 12°43 | 14°23 | 24°48 | 26°8 | 15°56 | 13°14 | T 29 | | |
| W 30 | 6 54 57 | 14°18'36 | 6♈1 | 29♈20 | 10°51 | 18°22 | 26°15 | 25°52 | 3°40 | 12°42 | 14°23 | 24°44 | 26°5 | 16°3 | 13°20 | W 30 | | |
| T 31 | 6 58 53 | 15♈19'41 | 18♈11 | 28♈48 | 12♈5 | 19♈6 | 26♈12 | 25♈59 | 3♈44 | 12♈40 | 14♈24 | 24♈43 | 26♈2 | 16♈9 | 13♈25 | T 31 | | |

Delta T = 19m04s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1076
geocentric

JANUARY 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|---------------------|--------------------|----------------------|---------------------|---------------------|----------------------|---------------------|--------------------|-----------------------|---------------------|----------------------|---------------------|---------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| F 1 | 7 2 50 | 16 ²⁰ 46 | 0 ²³ 34 | 28 ²⁸ R26 | 13 ²⁷ 19 | 19 ²⁷ 51 | 26 ²⁶ R 9 | 26 ²⁷ 5 | 3 ²⁷ 47 | 12 ²⁸ R39 | 14 ²⁸ 25 | 24 ²⁸ D42 | 25 ²⁸ 59 | 16 ²⁸ 16 | 13 ²⁸ 31 | F 1 | | | | | | | | |
| S 2 | 7 6 46 | 17 ²¹ 51 | 13 ¹⁶ | 28 ²⁷ 13 | 14 ³³ | 20 ³⁶ | 26 ²⁶ 7 | 26 ²⁶ 12 | 3 ³⁰ 50 | 12 ²⁸ II38 | 14 ²⁶ | 24 ²⁸ R43 | 25 ²⁵ 55 | 16 ²³ | 13 ³⁶ | S 2 | | | | | | | | |
| S 3 | 7 10 43 | 18 ²² 55 | 26 ²⁰ | 28 ²⁸ D 8 | 15 ⁴⁷ | 21 ²⁰ | 26 ²⁶ 4 | 26 ²⁶ 19 | 3 ³⁵ 4 | 12 ²⁸ 36 | 14 ²⁷ | 24 ²⁸ 43 | 25 ²⁵ 52 | 16 ²⁹ | 13 ⁴² | S 3 | | | | | | | | |
| M 4 | 7 14 40 | 19 ²³ 59 | 9 ¹⁶ 50 | 28 ²⁸ 12 | 17 ¹ | 22 ⁵ | 26 ²⁶ 2 | 26 ²⁶ 26 | 3 ³⁵ 7 | 12 ²⁸ 35 | 14 ²⁸ | 24 ²⁸ 41 | 25 ²⁵ 49 | 16 ²³ 6 | 13 ⁴⁷ | M 4 | | | | | | | | |
| T 5 | 7 18 36 | 20 ²⁵ 03 | 23 ⁵⁰ | 28 ²⁸ 23 | 18 ¹⁵ | 22 ⁵⁰ | 26 ²⁶ 0 | 26 ²⁶ 32 | 4 ¹ | 12 ²⁸ 34 | 14 ²⁹ | 24 ²⁸ 37 | 25 ²⁵ 46 | 16 ²³ 43 | 13 ⁵³ | T 5 | | | | | | | | |
| W 6 | 7 22 33 | 21 ²⁶ 05 | 8 ²⁷ 18 | 28 ²⁸ 41 | 19 ²⁹ | 23 ³⁴ | 25 ²⁵ 58 | 26 ²⁶ 39 | 4 ⁴ | 12 ²⁸ 32 | 14 ³⁰ | 24 ²⁸ 30 | 25 ²⁵ 43 | 16 ²³ 50 | 13 ⁵⁸ | W 6 | | | | | | | | |
| T 7 | 7 26 29 | 22 ²⁷ 08 | 23 ¹² | 29 ⁶ | 20 ⁴³ | 24 ¹⁹ | 25 ²⁵ 56 | 26 ²⁶ 46 | 4 ⁷ | 12 ²⁸ 31 | 14 ³¹ | 24 ²⁸ 21 | 25 ²⁵ 40 | 16 ²³ 56 | 14 ⁴ | T 7 | | | | | | | | |
| F 8 | 7 30 26 | 23 ²⁸ 09 | 8 ²³ 24 | 29 ³⁶ | 21 ⁵⁷ | 25 ⁴ | 25 ²⁵ 55 | 26 ²⁶ 52 | 4 ¹¹ | 12 ²⁸ 30 | 14 ³² | 24 ²⁸ 11 | 25 ²⁵ 36 | 17 ³ | 14 ⁹ | F 8 | | | | | | | | |
| S 9 | 7 34 22 | 24 ²⁹ 10 | 23 ⁴⁴ | 0 ²³ 12 | 23 ¹¹ | 25 ⁴⁹ | 25 ²⁵ 53 | 26 ²⁶ 59 | 4 ¹⁴ | 12 ²⁸ 29 | 14 ³³ | 24 ²⁸ 2 | 25 ²⁵ 33 | 17 ¹⁰ | 14 ¹⁵ | S 9 | | | | | | | | |
| S 10 | 7 38 19 | 25 ³⁰ 09 | 9 ²² 1 | 0 ⁵² | 24 ²⁵ | 26 ³⁴ | 25 ²⁵ 52 | 27 ⁵ | 4 ¹⁸ | 12 ²⁸ 28 | 14 ³⁴ | 23 ²⁸ 54 | 25 ²⁵ 30 | 17 ¹⁶ | 14 ²⁰ | S 10 | | | | | | | | |
| M 11 | 7 42 15 | 26 ³¹ 07 | 24 ³ | 1 ³⁷ | 25 ³⁹ | 27 ¹⁹ | 25 ²⁵ 51 | 27 ¹² | 4 ²¹ | 12 ²⁸ 26 | 14 ³⁵ | 23 ²⁸ 48 | 25 ²⁵ 27 | 17 ²³ | 14 ²⁵ | M 11 | | | | | | | | |
| T 12 | 7 46 12 | 27 ³² 04 | 8 ²⁶ 43 | 2 ²⁶ | 26 ⁵³ | 28 ⁴ | 25 ²⁵ 51 | 27 ¹⁸ | 4 ²⁵ | 12 ²⁸ 25 | 14 ³⁶ | 23 ²⁸ 45 | 25 ²⁵ 24 | 17 ³⁰ | 14 ³¹ | T 12 | | | | | | | | |
| W 13 | 7 50 9 | 28 ³³ 00 | 22 ⁵⁵ | 3 ¹⁹ | 28 ⁷ | 28 ⁴⁹ | 25 ²⁵ 50 | 27 ²⁵ | 4 ²⁸ | 12 ²⁸ 24 | 14 ³⁷ | 23 ²⁸ D44 | 25 ²⁵ 21 | 17 ³⁷ | 14 ³⁶ | W 13 | | | | | | | | |
| T 14 | 7 54 5 | 29 ³³ 54 | 6 ²⁷ 38 | 4 ¹⁵ | 29 ²¹ | 29 ³⁴ | 25 ²⁵ 50 | 27 ³¹ | 4 ³² | 12 ²⁸ 23 | 14 ³⁸ | 23 ²⁸ 44 | 25 ²⁵ 17 | 17 ⁴³ | 14 ⁴² | T 14 | | | | | | | | |
| F 15 | 7 58 2 | 0 ²³ 47 | 19 ⁵⁴ | 5 ¹⁴ | 0 ²³ 35 | 0 ²³ 19 | 25 ²⁵ D50 | 27 ³⁷ | 4 ³⁵ | 12 ²⁸ 22 | 14 ⁴⁰ | 23 ²⁸ 45 | 25 ²⁵ 14 | 17 ⁵⁰ | 14 ⁴⁷ | F 15 | | | | | | | | |
| S 16 | 8 1 58 | 1 ³⁵ 38 | 2 ²⁸ 45 | 6 ¹⁵ | 1 ⁴⁹ | 1 ⁴ | 25 ²⁵ 50 | 27 ⁴⁴ | 4 ³⁹ | 12 ²⁸ 21 | 14 ⁴¹ | 23 ²⁸ R46 | 25 ²⁵ 11 | 17 ⁵⁷ | 14 ⁵² | S 16 | | | | | | | | |
| S 17 | 8 5 55 | 2 ³⁶ 28 | 15 ¹⁷ | 7 ²⁰ | 3 ³ | 1 ⁴⁹ | 25 ²⁵ 50 | 27 ⁵⁰ | 4 ⁴² | 12 ²⁸ 20 | 14 ⁴² | 23 ²⁸ 45 | 25 ²⁵ 8 | 18 ³ | 14 ⁵⁸ | S 17 | | | | | | | | |
| M 18 | 8 9 51 | 3 ³⁷ 16 | 27 ³² | 8 ²⁶ | 4 ¹⁷ | 2 ³⁴ | 25 ²⁵ 51 | 27 ⁵⁶ | 4 ⁴⁶ | 12 ²⁸ 19 | 14 ⁴³ | 23 ²⁸ 42 | 25 ²⁵ 5 | 18 ¹⁰ | 15 ³ | M 18 | | | | | | | | |
| T 19 | 8 13 48 | 4 ³⁸ 03 | 9 ²⁷ 37 | 9 ³⁵ | 5 ³² | 3 ¹⁹ | 25 ²⁵ 52 | 28 ² | 4 ⁴⁹ | 12 ²⁸ 18 | 14 ⁴⁴ | 23 ²⁸ 36 | 25 ²⁵ 1 | 18 ¹⁷ | 15 ⁸ | T 19 | | | | | | | | |
| W 20 | 8 17 44 | 5 ³⁸ 48 | 21 ³⁴ | 10 ⁴⁶ | 6 ⁴⁶ | 4 ⁴ | 25 ²⁵ 53 | 28 ⁹ | 4 ⁵³ | 12 ²⁸ 17 | 14 ⁴⁶ | 23 ²⁸ 29 | 24 ²⁸ 58 | 18 ²⁴ | 15 ¹³ | W 20 | | | | | | | | |
| T 21 | 8 21 41 | 6 ³⁹ 32 | 3 ²³ 27 | 11 ⁵⁸ | 8 ⁰ | 4 ⁵⁰ | 25 ²⁵ 54 | 28 ¹⁵ | 4 ⁵⁶ | 12 ²⁸ 17 | 14 ⁴⁷ | 23 ²⁸ 20 | 24 ²⁸ 55 | 18 ³⁰ | 15 ¹⁹ | T 21 | | | | | | | | |
| F 22 | 8 25 38 | 7 ⁴⁰ 14 | 15 ¹⁹ | 13 ¹² | 9 ¹⁴ | 5 ³⁵ | 25 ²⁵ 55 | 28 ²¹ | 5 ⁰ | 12 ²⁸ 16 | 14 ⁴⁸ | 23 ²⁸ 11 | 24 ²⁸ 52 | 18 ³⁷ | 15 ²⁴ | F 22 | | | | | | | | |
| S 23 | 8 29 34 | 8 ⁴⁰ 55 | 27 ¹¹ | 14 ²⁸ | 10 ²⁸ | 6 ²⁰ | 25 ²⁵ 57 | 28 ²⁷ | 5 ³ | 12 ²⁸ 15 | 14 ⁴⁹ | 23 ²⁸ 2 | 24 ²⁸ 49 | 18 ⁴⁴ | 15 ²⁹ | S 23 | | | | | | | | |
| S 24 | 8 33 31 | 9 ⁴¹ 34 | 9 ²⁸ 5 | 15 ⁴⁵ | 11 ⁴² | 7 ⁵ | 25 ²⁵ 58 | 28 ³³ | 5 ⁷ | 12 ²⁸ 14 | 14 ⁵¹ | 22 ²⁸ 54 | 24 ²⁸ 46 | 18 ⁵⁰ | 15 ³⁴ | S 24 | | | | | | | | |
| M 25 | 8 37 27 | 10 ⁴² 12 | 21 ³ | 17 ⁴ | 12 ⁵⁷ | 7 ⁵¹ | 26 ²⁶ 0 | 28 ³⁸ | 5 ¹⁰ | 12 ²⁸ 14 | 14 ⁵² | 22 ²⁸ 48 | 24 ²⁸ 42 | 18 ⁵⁷ | 15 ³⁹ | M 25 | | | | | | | | |
| T 26 | 8 41 24 | 11 ⁴² 48 | 3 ²⁷ 6 | 18 ²⁴ | 14 ¹¹ | 8 ³⁶ | 26 ²⁶ 2 | 28 ⁴⁴ | 5 ¹⁴ | 12 ²⁸ 13 | 14 ⁵³ | 22 ²⁸ 44 | 24 ²⁸ 39 | 19 ⁴ | 15 ⁴⁴ | T 26 | | | | | | | | |
| W 27 | 8 45 20 | 12 ⁴³ 23 | 15 ¹⁶ | 19 ⁴⁶ | 15 ²⁵ | 9 ²² | 26 ²⁶ 5 | 28 ⁵⁰ | 5 ¹⁷ | 12 ²⁸ 12 | 14 ⁵⁴ | 22 ²⁸ 42 | 24 ²⁸ 36 | 19 ¹¹ | 15 ⁵⁰ | W 27 | | | | | | | | |
| T 28 | 8 49 17 | 13 ⁴³ 56 | 27 ³⁵ | 21 ⁸ | 16 ³⁹ | 10 ⁷ | 26 ²⁶ 7 | 28 ⁵⁶ | 5 ²⁰ | 12 ²⁸ 12 | 14 ⁵⁶ | 22 ²⁸ D41 | 24 ²⁸ 33 | 19 ¹⁷ | 15 ⁵⁵ | T 28 | | | | | | | | |
| F 29 | 8 53 13 | 14 ⁴⁴ 28 | 10 ² 7 | 22 ³² | 17 ⁵³ | 10 ⁵² | 26 ²⁶ 10 | 29 ¹ | 5 ²⁴ | 12 ²⁸ 11 | 14 ⁵⁷ | 22 ²⁸ 43 | 24 ²⁸ 30 | 19 ²⁴ | 16 ⁰ | F 29 | | | | | | | | |
| S 30 | 8 57 10 | 15 ⁴⁴ 58 | 22 ⁵³ | 23 ⁵⁷ | 19 ⁸ | 11 ³⁸ | 26 ²⁶ 13 | 29 ⁷ | 5 ²⁷ | 12 ²⁸ 10 | 14 ⁵⁸ | 22 ²⁸ 44 | 24 ²⁸ 27 | 19 ³¹ | 16 ⁵ | S 30 | | | | | | | | |
| S 31 | 9 1 7 | 16 ⁴⁵ 27 | 5 ²⁸ 57 | 25 ²³ 24 | 20 ²³ 22 | 12 ²³ 23 | 26 ²⁶ 16 | 29 ²⁷ 13 | 5 ²⁸ 31 | 12 ²⁸ II10 | 15 ²⁸ 0 | 22 ²⁸ 46 | 24 ²⁸ 23 | 19 ³⁷ | 16 ²³ 10 | S 31 | | | | | | | | |

Delta T = 19m04s Julian Calendar 1 Jan. 1076 == Greg. Calendar 7 Jan. 1076

FEBRUARY 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|-----------------------|--------------------|----------------------|---------------------|---------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| M 1 | 9 5 3 | 17 ⁴⁵ 55 | 19 ¹⁶ 23 | 26 ²³ 51 | 21 ²³ 36 | 13 ²³ 9 | 26 ²⁶ 19 | 29 ²⁷ 18 | 5 ²⁸ 34 | 12 ²⁸ R 9 | 15 ²⁸ 1 | 22 ²⁸ R46 | 24 ²⁸ 20 | 19 ²⁸ 44 | 16 ²⁸ 14 | M 1 | | | | | | | | |
| T 2 | 9 9 0 | 18 ⁴⁶ 22 | 3 ²⁷ 12 | 28 ¹⁹ | 22 ⁵⁰ | 13 ⁵⁵ | 26 ²⁶ 23 | 29 ²³ | 5 ³⁸ | 12 ²⁸ II 9 | 15 ³ | 22 ²⁸ 45 | 24 ²⁸ 17 | 19 ⁵¹ | 16 ¹⁹ | T 2 | | | | | | | | |
| W 3 | 9 12 56 | 19 ⁴⁶ 47 | 17 ²⁵ | 29 ⁴⁹ | 24 ⁵ | 14 ⁴⁰ | 26 ²⁶ 27 | 29 ²⁹ | 5 ⁴¹ | 12 ²⁸ 8 | 15 ⁴ | 22 ²⁸ 43 | 24 ²⁸ 14 | 19 ⁵⁸ | 16 ²⁴ | W 3 | | | | | | | | |
| T 4 | 9 16 53 | 20 ⁴⁷ 11 | 2 ²³ 0 | 1 ²⁸ 19 | 25 ¹⁹ | 15 ²⁶ | 26 ²⁶ 30 | 29 ³⁴ | 5 ⁴⁵ | 12 ²⁸ 8 | 15 ⁵ | 22 ²⁸ 39 | 24 ²⁸ 11 | 20 ⁴ | 16 ²⁹ | T 4 | | | | | | | | |
| F 5 | 9 20 49 | 21 ⁴⁷ 33 | 16 ⁵³ | 2 ⁵¹ | 26 ³³ | 16 ¹² | 26 ²⁶ 34 | 29 ³⁹ | 5 ⁴⁸ | 12 ²⁸ 8 | 15 ⁷ | 22 ²⁸ 35 | 24 ²⁸ 7 | 20 ¹¹ | 16 ³⁴ | F 5 | | | | | | | | |
| S 6 | 9 24 46 | 22 ⁴⁷ 54 | 1 ²⁸ 56 | 4 ²³ | 27 ⁴⁷ | 16 ⁵⁷ | 26 ²⁶ 39 | 29 ⁴⁵ | 5 ⁵¹ | 12 ²⁸ 7 | 15 ⁸ | 22 ²⁸ 30 | 24 ²⁸ 4 | 20 ¹⁸ | 16 ³⁸ | S 6 | | | | | | | | |
| S 7 | 9 28 43 | 23 ⁴⁸ 13 | 17 ¹ | 5 ⁵⁷ | 29 ² | 17 ⁴³ | 26 ²⁶ 43 | 29 ⁵⁰ | 5 ⁵⁵ | 12 ²⁸ 7 | 15 ¹⁰ | 22 ²⁸ 26 | 24 ²⁸ 1 | 20 ²⁴ | 16 ⁴³ | S 7 | | | | | | | | |
| M 8 | 9 32 39 | 24 ⁴⁸ 30 | 1 ²⁷ 57 | 7 ³¹ | 0 ²³ 16 | 18 ²⁹ | 26 ²⁶ 48 | 29 ⁵⁵ | 5 ⁵⁸ | 12 ²⁸ 7 | 15 ¹¹ | 22 ²⁸ 24 | 23 ²⁸ 58 | 20 ³¹ | 16 ⁴⁸ | M 8 | | | | | | | | |
| T 9 | 9 36 36 | 25 ⁴⁸ 46 | 16 ³⁸ | 9 ⁷ | 1 ³⁰ | 19 ¹⁴ | 26 ²⁶ 52 | 29 ⁵⁹ | 6 ¹ | 12 ²⁸ 6 | 15 ¹³ | 22 ²⁸ D22 | 23 ²⁸ 55 | 20 ³⁸ | 16 ⁵² | T 9 | | | | | | | | |
| W 10 | 9 40 32 | 26 ⁴⁸ 59 | 0 ²⁷ 55 | 10 ⁴³ | 2 ⁴⁴ | 20 ⁰ | 26 ²⁶ 57 | 0 ²³ 5 | 6 ⁵ | 12 ²⁸ 6 | 15 ¹⁴ | 22 ²⁸ 22 | 23 ²⁸ 52 | 20 ⁴⁴ | 16 ⁵⁷ | W 10 | | | | | | | | |
| T 11 | 9 44 29 | 27 ⁴⁹ 10 | 14 ⁴⁷ | 12 ²¹ | 3 ⁵⁸ | 20 ⁴⁶ | 27 ² | 0 ⁹ | 6 ⁸ | 12 ²⁸ 6 | 15 ¹⁵ | 22 ²⁸ 24 | 23 ²⁸ 48 | 20 ⁵¹ | 17 ¹ | T 11 | | | | | | | | |
| F 12 | 9 48 25 | 28 ⁴⁹ 20 | 28 ¹¹ | 14 ⁰ | 5 ¹³ | 21 ³² | 27 ⁸ | 0 ¹⁴ | 6 ¹¹ | 12 ²⁸ 6 | 15 ¹⁷ | 22 ²⁸ 25 | 23 ²⁸ 45 | 20 ⁵⁸ | 17 ⁶ | F 12 | | | | | | | | |
| S 13 | 9 52 22 | 29 ⁴⁹ 27 | 11 ²⁸ 11 | 15 ⁴⁰ | 6 ²⁷ | 22 ¹⁸ | 27 ¹³ | 0 ¹⁹ | 6 ¹⁵ | 12 ²⁸ 6 | 15 ¹⁸ | 22 ²⁸ 27 | 23 ²⁸ 42 | 21 ⁵ | 17 ¹⁰ | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1076
geocentric

MARCH 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|------|-------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 10 59 23 | 16♋46'03 | 13♌35 | 16♋47 | 27♎28 | 5♍19 | 29♏10 | 1♃27 | 7♉7 | 12♐9 | 15♋44 | 22°R16 | 22♋48 | 22♉59 | 18♌18 | T 1 | |
| W 2 | 11 3 20 | 17°45'34 | 27°39 | 18°47 | 28°42 | 6° 5 | 29°18 | 1°30 | 7°10 | 12°10 | 15°46 | 22°K16 | 22°45 | 23° 5 | 18°22 | W 2 | |
| T 3 | 11 7 16 | 18°45'03 | 11♌35 | 20°47 | 29°57 | 6°52 | 29°26 | 1°34 | 7°13 | 12°10 | 15°47 | 22°16 | 22°42 | 23°12 | 18°25 | T 3 | |
| F 4 | 11 11 13 | 19°44'30 | 26°26 | 22°48 | 1♋11 | 7°38 | 29°35 | 1°37 | 7°16 | 12°11 | 15°49 | 22°15 | 22°38 | 23°19 | 18°28 | F 4 | |
| S 5 | 11 15 9 | 20°43'56 | 11♎3 | 24°50 | 2°25 | 8°24 | 29°43 | 1°40 | 7°18 | 12°11 | 15°50 | 22°15 | 22°35 | 23°25 | 18°32 | S 5 | |
| S 6 | 11 19 6 | 21°43'19 | 25°42 | 26°52 | 3°39 | 9°10 | 29°52 | 1°43 | 7°21 | 12°12 | 15°52 | 22°15 | 22°32 | 23°32 | 18°35 | S 6 | |
| M 7 | 11 23 3 | 22°42'40 | 10♋17 | 28°54 | 4°53 | 9°56 | 0♐1 | 1°46 | 7°24 | 12°13 | 15°53 | 22°D15 | 22°29 | 23°39 | 18°38 | M 7 | |
| T 8 | 11 26 59 | 23°42'00 | 24°41 | 0♐56 | 6° 7 | 10°42 | 0°10 | 1°48 | 7°26 | 12°13 | 15°55 | 22°R15 | 22°26 | 23°46 | 18°41 | T 8 | |
| W 9 | 11 30 56 | 24°41'17 | 8♐49 | 2°58 | 7°22 | 11°29 | 0°19 | 1°51 | 7°29 | 12°14 | 15°56 | 22°15 | 22°23 | 23°52 | 18°44 | W 9 | |
| T 10 | 11 34 52 | 25°40'32 | 22°37 | 4°59 | 8°36 | 12°15 | 0°28 | 1°54 | 7°32 | 12°15 | 15°58 | 22°15 | 22°19 | 23°59 | 18°47 | T 10 | |
| F 11 | 11 38 49 | 26°39'45 | 6♉3 | 6°59 | 9°50 | 13° 1 | 0°37 | 1°56 | 7°34 | 12°16 | 15°59 | 22°14 | 22°16 | 24° 6 | 18°50 | F 11 | |
| S 12 | 11 42 45 | 27°38'55 | 19° 6 | 8°58 | 11° 4 | 13°47 | 0°47 | 1°58 | 7°37 | 12°16 | 16° 1 | 22°14 | 22°13 | 24°12 | 18°53 | S 12 | |
| S 13 | 11 46 42 | 28°38'04 | 1♐47 | 10°55 | 12°18 | 14°33 | 0°56 | 2° 1 | 7°39 | 12°17 | 16° 2 | 22°13 | 22°10 | 24°19 | 18°56 | S 13 | |
| M14 | 11 50 38 | 29°37'10 | 14°11 | 12°49 | 13°32 | 15°19 | 1° 6 | 2° 3 | 7°42 | 12°18 | 16° 4 | 22°12 | 22° 7 | 24°26 | 18°59 | M14 | |
| T 15 | 11 54 35 | 0♐36'13 | 26°19 | 14°42 | 14°46 | 16° 5 | 1°16 | 2° 5 | 7°44 | 12°19 | 16° 5 | 22°D12 | 22° 4 | 24°32 | 19° 1 | T 15 | |
| W16 | 11 58 32 | 1°35'15 | 8♉17 | 16°31 | 16° 0 | 16°52 | 1°26 | 2° 7 | 7°47 | 12°20 | 16° 7 | 22°12 | 22° 0 | 24°39 | 19° 4 | W16 | |
| T 17 | 12 2 28 | 2°34'14 | 20°10 | 18°18 | 17°14 | 17°38 | 1°36 | 2° 9 | 7°49 | 12°21 | 16° 8 | 22°13 | 21°57 | 24°46 | 19° 7 | T 17 | |
| F 18 | 12 6 25 | 3°33'11 | 2♐1 | 20° 0 | 18°28 | 18°24 | 1°46 | 2°11 | 7°51 | 12°22 | 16°10 | 22°13 | 21°54 | 24°53 | 19° 9 | F 18 | |
| S 19 | 12 10 21 | 4°32'05 | 13°56 | 21°39 | 19°42 | 19°10 | 1°56 | 2°12 | 7°54 | 12°23 | 16°11 | 22°15 | 21°51 | 24°59 | 19°11 | S 19 | |
| S 20 | 12 14 18 | 5°30'57 | 25°58 | 23°13 | 20°56 | 19°56 | 2° 6 | 2°14 | 7°56 | 12°24 | 16°13 | 22°16 | 21°48 | 25° 6 | 19°14 | S 20 | |
| M21 | 12 18 14 | 6°29'47 | 8♐11 | 24°43 | 22°10 | 20°42 | 2°17 | 2°16 | 7°58 | 12°25 | 16°14 | 22°17 | 21°44 | 25°13 | 19°16 | M21 | |
| T 22 | 12 22 11 | 7°28'34 | 20°37 | 26° 9 | 23°24 | 21°29 | 2°27 | 2°17 | 8° 0 | 12°26 | 16°15 | 22°R17 | 21°41 | 25°19 | 19°18 | T 22 | |
| W23 | 12 26 7 | 8°27'20 | 3♌18 | 27°29 | 24°38 | 22°15 | 2°38 | 2°18 | 8° 2 | 12°28 | 16°17 | 22°17 | 21°38 | 25°26 | 19°20 | W23 | |
| T 24 | 12 30 4 | 9°26'03 | 16°15 | 28°44 | 25°52 | 23° 1 | 2°48 | 2°20 | 8° 4 | 12°29 | 16°18 | 22°16 | 21°35 | 25°33 | 19°22 | T 24 | |
| F 25 | 12 34 0 | 10°24'45 | 29°28 | 29°54 | 27° 6 | 23°47 | 2°59 | 2°21 | 8° 7 | 12°30 | 16°20 | 22°14 | 21°32 | 25°39 | 19°24 | F 25 | |
| S 26 | 12 37 57 | 11°23'25 | 12♐55 | 0♉58 | 28°20 | 24°33 | 3°10 | 2°22 | 8° 9 | 12°31 | 16°21 | 22°11 | 21°29 | 25°46 | 19°26 | S 26 | |
| S 27 | 12 41 54 | 12°22'02 | 26°35 | 1°56 | 29°34 | 25°19 | 3°21 | 2°23 | 8°11 | 12°33 | 16°23 | 22° 8 | 21°25 | 25°53 | 19°28 | S 27 | |
| M28 | 12 45 50 | 13°20'39 | 10♌26 | 2°49 | 0♐48 | 26° 5 | 3°32 | 2°24 | 8°12 | 12°34 | 16°24 | 22° 6 | 21°22 | 26° 0 | 19°30 | M28 | |
| T 29 | 12 49 47 | 14°19'13 | 24°27 | 3°36 | 2° 2 | 26°51 | 3°43 | 2°24 | 8°14 | 12°35 | 16°25 | 22° 4 | 21°19 | 26° 6 | 19°32 | T 29 | |
| W30 | 12 53 43 | 15°17'46 | 8♉33 | 4°18 | 3°16 | 27°37 | 3°54 | 2°25 | 8°16 | 12°37 | 16°27 | 22° 3 | 21°16 | 26°13 | 19°33 | W30 | |
| T 31 | 12 57 40 | 16°16'17 | 22♌45 | 4♉53 | 4♐30 | 28°24 | 4♐6 | 2♃26 | 8°18 | 12♐38 | 16♋28 | 22°D 3 | 21♋13 | 26♉20 | 19♌35 | T 31 | |

Delta T = 19m03s Julian Calendar 1 March 1076 == Greg. Calendar 7 March 1076

APRIL 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|------|-------|-------|--------|-------|-------|--------|------|-----|
| F 1 | 13 1 36 | 17♐14'46 | 6♎58 | 5♉22 | 5♐44 | 29°10 | 4♐17 | 2♃26 | 8°20 | 12♐39 | 16♋29 | 22°K 4 | 21♋10 | 26♉26 | 19♌36 | F 1 | |
| S 2 | 13 5 33 | 18°13'14 | 21°12 | 5°45 | 6°58 | 29°56 | 4°28 | 2°26 | 8°21 | 12°41 | 16°31 | 22° 5 | 21° 6 | 26°33 | 19°38 | S 2 | |
| S 3 | 13 9 30 | 19°11'40 | 5♋24 | 6° 3 | 8°12 | 0♋42 | 4°40 | 2°27 | 8°23 | 12°42 | 16°32 | 22° 6 | 21° 3 | 26°40 | 19°39 | S 3 | |
| M 4 | 13 13 26 | 20°10'05 | 19°30 | 6°14 | 9°26 | 1°28 | 4°52 | 2°27 | 8°25 | 12°44 | 16°33 | 22°R 7 | 21° 0 | 26°46 | 19°40 | M 4 | |
| T 5 | 13 17 23 | 21° 8'27 | 3♐28 | 6°20 | 10°40 | 2°14 | 5° 3 | 2°R27 | 8°26 | 12°45 | 16°35 | 22° 7 | 20°57 | 26°53 | 19°41 | T 5 | |
| W 6 | 13 21 19 | 22° 6'48 | 17°15 | 6°R20 | 11°54 | 3° 0 | 5°15 | 2°27 | 8°28 | 12°47 | 16°36 | 22° 5 | 20°54 | 27° 0 | 19°42 | W 6 | |
| T 7 | 13 25 16 | 23° 5'07 | 0♉47 | 6°15 | 13° 8 | 3°46 | 5°27 | 2°27 | 8°29 | 12°48 | 16°37 | 22° 1 | 20°50 | 27° 7 | 19°43 | T 7 | |
| F 8 | 13 29 12 | 24° 3'25 | 14° 3 | 6° 4 | 14°22 | 4°32 | 5°39 | 2°26 | 8°31 | 12°50 | 16°38 | 21°57 | 20°47 | 27°13 | 19°44 | F 8 | |
| S 9 | 13 33 9 | 25° 1'40 | 27° 0 | 5°48 | 15°36 | 5°18 | 5°51 | 2°26 | 8°32 | 12°52 | 16°40 | 21°51 | 20°44 | 27°20 | 19°45 | S 9 | |
| S 10 | 13 37 5 | 25°59'53 | 9♐40 | 5°28 | 16°50 | 6° 4 | 6° 3 | 2°26 | 8°34 | 12°53 | 16°41 | 21°46 | 20°41 | 27°27 | 19°46 | S 10 | |
| M11 | 13 41 2 | 26°58'05 | 22° 3 | 5° 4 | 18° 3 | 6°49 | 6°15 | 2°25 | 8°35 | 12°55 | 16°42 | 21°41 | 20°38 | 27°33 | 19°47 | M11 | |
| T 12 | 13 44 58 | 27°56'15 | 4♉12 | 4°36 | 19°17 | 7°35 | 6°27 | 2°25 | 8°36 | 12°57 | 16°43 | 21°37 | 20°35 | 27°40 | 19°47 | T 12 | |
| W13 | 13 48 55 | 28°54'22 | 16°11 | 4° 5 | 20°31 | 8°21 | 6°39 | 2°24 | 8°37 | 12°58 | 16°45 | 21°34 | 20°31 | 27°47 | 19°48 | W13 | |
| T 14 | 13 52 52 | 29°52'28 | 28° 3 | 3°32 | 21°45 | 9° 7 | 6°52 | 2°23 | 8°39 | 13° 0 | 16°46 | 21°D33 | 20°28 | 27°53 | 19°48 | T 14 | |
| F 15 | 13 56 48 | 0♉50'31 | 9♏55 | 2°56 | 22°59 | 9°53 | 7° 4 | 2°22 | 8°40 | 13° 2 | 16°47 | 21°33 | 20°25 | 28° 0 | 19°49 | F 15 | |
| S 16 | 14 0 45 | 1°48'33 | 21°50 | 2°19 | 24°13 | 10°38 | 7°16 | 2°21 | 8°41 | 13° 3 | 16°48 | 21°35 | 20°22 | 28° 7 | 19°49 | S 16 | |
| S 17 | 14 4 41 | 2°46'32 | 3♐54 | 1°42 | 25°27 | 11°24 | 7°29 | 2°20 | 8°42 | 13° 5 | 16°49 | 21°36 | 20°19 | 28°13 | 19°49 | S 17 | |
| M18 | 14 8 38 | 3°44'30 | 16°11 | 1° 5 | 26°40 | 12°10 | 7°41 | 2°19 | 8°43 | 13° 7 | 16°50 | 21°R37 | 20°15 | 28°20 | 19°50 | M18 | |
| T 19 | 14 12 34 | 4°42'26 | 28°45 | 0°28 | 27°54 | 12°56 | 7°54 | 2°18 | 8°44 | 13° 9 | 16°51 | 21°37 | 20°12 | 28°27 | 19°50 | T 19 | |
| W20 | 14 16 31 | 5°40'20 | 11♌39 | 29♐53 | 29° 8 | 13°41 | 8° 6 | 2°16 | 8°44 | 13°11 | 16°53 | 21°35 | 20° 9 | 28°34 | 19°R50 | W20 | |
| T 21 | 14 20 27 | 6°38'13 | 24°53 | 29°20 | 0♉22 | 14°27 | 8°19 | 2°15 | 8°45 | 13°13 | 16°54 | 21°32 | 20° 6 | 28°40 | 19°50 | T 21 | |
| F 22 | 14 24 24 | 7°36'03 | 8♐29 | 28°49 | 1°36 | 15°12 | 8°32 | 2°13 | 8°46 | 13°14 | 16°55 | 21°26 | 20° 3 | 28°47 | 19°49 | F 22 | |
| S 23 | 14 28 21 | 8°33'53 | 22°23 | 28°21 | 2°49 | 15°58 | 8°45 | 2°12 | 8°47 | 13°16 | 16°56 | 21°19 | 20° 0 | 28°54 | 19°49 | S 23 | |
| S 24 | 14 32 17 | 9°31'41 | 6♌31 | 27°57 | 4° 3 | 16°43 | 8°57 | 2°10 | 8°48 | 13°18 | 16°57 | 21°11 | 19°56 | 29° 0 | 19°49 | S 24 | |
| M25 | 14 36 14 | 10°29'28 | 20°48 | 27°36 | 5°17 | 17°29 | 9°10 | 2° 8 | 8°48 | 13°20 | 16°58 | 21° 4 | 19°53 | 29° 7 | 19°49 | M25 | |
| T 26 | 14 40 10 | 11°27'13 | 5♉10 | 27°19 | 6°31 | 18°14 | 9°23 | 2° 6 | 8°49 | 13°22 | 16°59 | 20°58 | 19°50 | 29°14 | 19°48 | T 26 | |
| W27 | 14 44 7 | 12°24'57 | 19°31 | 27° 6 | 7°44 | 19° 0 | 9°36 | 2° 4 | 8°49 | 13°24 | 17° 0 | 20°54 | 19°47 | 29°20 | 19°48 | W27 | |
| T 28 | 14 48 3 | 13°22'41 | 3♎47 | 26°58 | 8°58 | 19°45 | 9°49 | 2° 2 | 8°50 | 13°26 | 17° 1 | 20°52 | 19°44 | 29°27 | 19°47 | T 28 | |
| F 29 | 14 52 0 | 14°20'23 | 17°57 | 26°D54 | 10°12 | 20°31 | 10° 2 | 2° 0 | 8°50 | 13°28 | 17° 2 | 20°D51 | 19°41 | 29°34 | 19°46 | F 29 | |
| S 30 | 14 55 56 | 15♌18'04 | 1♋58 | 26♐55 | 11♉26 | 21♋16 | 10♐15 | 1♃58 | 8°51 | 13♐30 | 17♋ 2 | 20♋52 | 19♋37 | 29♉40 | 19♌46 | S 30 | |

Delta T = 19m03s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1076
geocentric

MAY 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|------|
| S 1 | 14 59 53 | 16♁15'43 | 15♃50 | 27♀0 | 12♂39 | 22♃1 | 10♁28 | 1°R55 | 8♁51 | 13♁32 | 17♃3 | 20°R53 | 19♃34 | 29♁47 | 19°R45 | S 1 |
| M 2 | 15 3 50 | 17°13'22 | 29°32 | 27°10 | 13°53 | 22°46 | 10°42 | 1♁53 | 8°51 | 13°34 | 17°4 | 20♃53 | 19°31 | 29°54 | 19♁44 | M 2 |
| T 3 | 15 7 46 | 18°11'00 | 13♀5 | 27°25 | 15°7 | 23°32 | 10°55 | 1°50 | 8°51 | 13°36 | 17°5 | 20°50 | 19°28 | 0♁1 | 19°43 | T 3 |
| W 4 | 15 11 43 | 19°8'36 | 26°27 | 27°43 | 16°21 | 24°17 | 11°8 | 1°48 | 8°52 | 13°38 | 17°6 | 20°46 | 19°25 | 0°7 | 19°42 | W 4 |
| T 5 | 15 15 39 | 20°6'12 | 9♂38 | 28°7 | 17°34 | 25°2 | 11°21 | 1°45 | 8°52 | 13°40 | 17°7 | 20°39 | 19°21 | 0°14 | 19°41 | T 5 |
| F 6 | 15 19 36 | 21°3'46 | 22°35 | 28°34 | 18°48 | 25°47 | 11°35 | 1°42 | 8°52 | 13°42 | 17°8 | 20°30 | 19°18 | 0°21 | 19°40 | F 6 |
| S 7 | 15 23 32 | 22°1'20 | 5♁20 | 29°6 | 20°2 | 26°32 | 11°48 | 1°39 | 8°R52 | 13°45 | 17°8 | 20°19 | 19°15 | 0°27 | 19°39 | S 7 |
| S 8 | 15 27 29 | 22°58'52 | 17°50 | 29°41 | 21°16 | 27°17 | 12°1 | 1°37 | 8°52 | 13°47 | 17°9 | 20°8 | 19°12 | 0°34 | 19°37 | S 8 |
| M 9 | 15 31 25 | 23°56'23 | 0♁7 | 0♁21 | 22°29 | 28°2 | 12°15 | 1°34 | 8°52 | 13°49 | 17°10 | 19°57 | 19°9 | 0°41 | 19°36 | M 9 |
| T 10 | 15 35 22 | 24°53'52 | 12°13 | 1°4 | 23°43 | 28°47 | 12°28 | 1°31 | 8°52 | 13°51 | 17°11 | 19°48 | 19°6 | 0°47 | 19°35 | T 10 |
| W11 | 15 39 19 | 25°51'21 | 24°10 | 1°52 | 24°57 | 29°32 | 12°42 | 1°27 | 8°52 | 13°53 | 17°11 | 19°42 | 19°2 | 0°54 | 19°33 | W11 |
| T 12 | 15 43 15 | 26°48'48 | 6♁1 | 2°42 | 26°11 | 0♀16 | 12°55 | 1°24 | 8°51 | 13°55 | 17°12 | 19°37 | 18°59 | 1°1 | 19°31 | T 12 |
| F 13 | 15 47 12 | 27°46'14 | 17°51 | 3°37 | 27°24 | 1°1 | 13°8 | 1°21 | 8°51 | 13°57 | 17°13 | 19°35 | 18°56 | 1°7 | 19°30 | F 13 |
| S 14 | 15 51 8 | 28°43'38 | 29°44 | 4°35 | 28°38 | 1°46 | 13°22 | 1°18 | 8°51 | 14°0 | 17°13 | 19°D35 | 18°53 | 1°14 | 19°28 | S 14 |
| S 15 | 15 55 5 | 29°41'01 | 11♁47 | 5°36 | 29°52 | 2°30 | 13°35 | 1°14 | 8°51 | 14°2 | 17°14 | 19°35 | 18°50 | 1°21 | 19°26 | S 15 |
| M16 | 15 59 1 | 0♁38'23 | 24°5 | 6°40 | 1♁5 | 3°15 | 13°49 | 1°11 | 8°50 | 14°4 | 17°14 | 19°R35 | 18°47 | 1°28 | 19°25 | M16 |
| T 17 | 16 2 58 | 1°35'44 | 6♁41 | 7°48 | 2°19 | 3°59 | 14°3 | 1°7 | 8°50 | 14°6 | 17°15 | 19°34 | 18°43 | 1°34 | 19°23 | T 17 |
| W18 | 16 6 54 | 2°33'04 | 19°41 | 8°59 | 3°33 | 4°44 | 14°16 | 1°4 | 8°49 | 14°8 | 17°16 | 19°31 | 18°40 | 1°41 | 19°21 | W18 |
| T 19 | 16 10 51 | 3°30'23 | 3♁6 | 10°13 | 4°46 | 5°28 | 14°30 | 1°0 | 8°49 | 14°10 | 17°16 | 19°25 | 18°37 | 1°48 | 19°19 | T 19 |
| F 20 | 16 14 48 | 4°27'41 | 16°57 | 11°30 | 6°0 | 6°13 | 14°43 | 0°57 | 8°48 | 14°13 | 17°17 | 19°17 | 18°34 | 1°54 | 19°17 | F 20 |
| S 21 | 16 18 44 | 5°24'58 | 1♁12 | 12°50 | 7°14 | 6°57 | 14°57 | 0°53 | 8°47 | 14°15 | 17°17 | 19°7 | 18°31 | 2°1 | 19°14 | S 21 |
| S 22 | 16 22 41 | 6°22'15 | 15°45 | 14°13 | 8°27 | 7°41 | 15°11 | 0°49 | 8°47 | 14°17 | 17°17 | 18°56 | 18°27 | 2°8 | 19°12 | S 22 |
| M23 | 16 26 37 | 7°19'31 | 0♁29 | 15°40 | 9°41 | 8°25 | 15°24 | 0°45 | 8°46 | 14°19 | 17°18 | 18°45 | 18°24 | 2°14 | 19°10 | M23 |
| T 24 | 16 30 34 | 8°16'46 | 15°15 | 17°9 | 10°55 | 9°9 | 15°38 | 0°41 | 8°45 | 14°22 | 17°18 | 18°36 | 18°21 | 2°21 | 19°8 | T 24 |
| W25 | 16 34 30 | 9°14'01 | 29°57 | 18°41 | 12°9 | 9°53 | 15°52 | 0°37 | 8°45 | 14°24 | 17°19 | 18°30 | 18°18 | 2°28 | 19°5 | W25 |
| T 26 | 16 38 27 | 10°11'15 | 14♁28 | 20°16 | 13°22 | 10°37 | 16°5 | 0°33 | 8°44 | 14°26 | 17°19 | 18°26 | 18°15 | 2°34 | 19°3 | T 26 |
| F 27 | 16 42 24 | 11°8'29 | 28°45 | 21°53 | 14°36 | 11°21 | 16°19 | 0°29 | 8°43 | 14°28 | 17°19 | 18°24 | 18°12 | 2°41 | 19°0 | F 27 |
| S 28 | 16 46 20 | 12°5'43 | 12♃45 | 23°34 | 15°50 | 12°5 | 16°33 | 0°25 | 8°42 | 14°31 | 17°20 | 18°24 | 18°8 | 2°48 | 18°58 | S 28 |
| S 29 | 16 50 17 | 13°2'57 | 26°28 | 25°17 | 17°3 | 12°49 | 16°46 | 0°21 | 8°41 | 14°33 | 17°20 | 18°24 | 18°5 | 2°54 | 18°55 | S 29 |
| M30 | 16 54 13 | 14°0'10 | 9♀57 | 27°4 | 18°17 | 13°33 | 17°0 | 0°17 | 8°40 | 14°35 | 17°20 | 18°23 | 18°2 | 3°1 | 18°53 | M30 |
| T 31 | 16 58 10 | 14♁57'23 | 23♀11 | 28♂53 | 19♁31 | 14♀16 | 17♁14 | 0♁13 | 8♁39 | 14♁37 | 17♃21 | 18♃19 | 17♃59 | 3♁8 | 18♁50 | T 31 |

Delta T = 19m02s Julian Calendar 1 May 1076 == Greg. Calendar 7 May 1076

JUNE 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|------|--------|------|
| W 1 | 17 2 6 | 15♁54'36 | 6♂13 | 0♁44 | 20♁44 | 15♀0 | 17♁28 | 0°R9 | 8°R38 | 14♁39 | 17♃21 | 18°R13 | 17♃56 | 3♁14 | 18°R47 | W 1 |
| T 2 | 17 6 3 | 16°51'49 | 19°3 | 2°38 | 21°58 | 15°43 | 17°41 | 0♁5 | 8♁36 | 14°42 | 17°21 | 18♃5 | 17°53 | 3°21 | 18♁44 | T 2 |
| F 3 | 17 9 59 | 17°49'02 | 1♁41 | 4°35 | 23°12 | 16°27 | 17°55 | 0°0 | 8°35 | 14°44 | 17°21 | 17°53 | 17°49 | 3°28 | 18°42 | F 3 |
| S 4 | 17 13 56 | 18°46'14 | 14°10 | 6°34 | 24°26 | 17°10 | 18°9 | 29♁56 | 8°34 | 14°46 | 17°22 | 17°40 | 17°46 | 3°35 | 18°39 | S 4 |
| S 5 | 17 17 53 | 19°43'26 | 26°27 | 8°35 | 25°39 | 17°53 | 18°22 | 29°52 | 8°33 | 14°48 | 17°22 | 17°27 | 17°43 | 3°41 | 18°36 | S 5 |
| M 6 | 17 21 49 | 20°40'38 | 8♁35 | 10°39 | 26°53 | 18°37 | 18°36 | 29°47 | 8°31 | 14°51 | 17°22 | 17°14 | 17°40 | 3°48 | 18°33 | M 6 |
| T 7 | 17 25 46 | 21°37'50 | 20°35 | 12°44 | 28°7 | 19°20 | 18°50 | 29°43 | 8°30 | 14°53 | 17°22 | 17°3 | 17°37 | 3°55 | 18°30 | T 7 |
| W 8 | 17 29 42 | 22°35'01 | 2♁27 | 14°50 | 29°20 | 20°3 | 19°4 | 29°39 | 8°29 | 14°55 | 17°22 | 16°54 | 17°33 | 4°1 | 18°27 | W 8 |
| T 9 | 17 33 39 | 23°32'12 | 14°16 | 16°58 | 0♁34 | 20°46 | 19°17 | 29°34 | 8°27 | 14°57 | 17°22 | 16°48 | 17°30 | 4°8 | 18°24 | T 9 |
| F 10 | 17 37 35 | 24°29'23 | 26°4 | 19°7 | 1°48 | 21°29 | 19°31 | 29°30 | 8°26 | 15°0 | 17°22 | 16°44 | 17°27 | 4°15 | 18°21 | F 10 |
| S 11 | 17 41 32 | 25°26'33 | 7♁57 | 21°17 | 3°1 | 22°11 | 19°45 | 29°26 | 8°24 | 15°2 | 17°R22 | 16°43 | 17°24 | 4°21 | 18°17 | S 11 |
| S 12 | 17 45 28 | 26°23'43 | 19°58 | 23°27 | 4°15 | 22°54 | 19°58 | 29°21 | 8°23 | 15°4 | 17°22 | 16°43 | 17°21 | 4°28 | 18°14 | S 12 |
| M13 | 17 49 25 | 27°20'53 | 2♁13 | 25°38 | 5°29 | 23°37 | 20°12 | 29°17 | 8°21 | 15°6 | 17°22 | 16°43 | 17°18 | 4°35 | 18°11 | M13 |
| T 14 | 17 53 22 | 28°18'02 | 14°48 | 27°48 | 6°43 | 24°19 | 20°26 | 29°12 | 8°19 | 15°8 | 17°22 | 16°42 | 17°14 | 4°41 | 18°8 | T 14 |
| W15 | 17 57 18 | 29°15'11 | 27°47 | 29°58 | 7°56 | 25°2 | 20°39 | 29°8 | 8°18 | 15°11 | 17°22 | 16°39 | 17°11 | 4°48 | 18°4 | W15 |
| T 16 | 18 1 15 | 0♁12'20 | 11♁14 | 2♁8 | 9°10 | 25°44 | 20°53 | 29°3 | 8°16 | 15°13 | 17°22 | 16°34 | 17°8 | 4°55 | 18°1 | T 16 |
| F 17 | 18 5 11 | 1°9'29 | 25°10 | 4°16 | 10°24 | 26°26 | 21°6 | 28°59 | 8°14 | 15°15 | 17°22 | 16°26 | 17°5 | 5°1 | 17°58 | F 17 |
| S 18 | 18 9 8 | 2°6'38 | 9♁34 | 6°24 | 11°37 | 27°9 | 21°20 | 28°55 | 8°13 | 15°17 | 17°22 | 16°17 | 17°2 | 5°8 | 17°54 | S 18 |
| S 19 | 18 13 4 | 3°3'47 | 24°21 | 8°31 | 12°51 | 27°51 | 21°33 | 28°50 | 8°11 | 15°19 | 17°21 | 16°7 | 16°59 | 5°15 | 17°51 | S 19 |
| M20 | 18 17 1 | 4°0'56 | 9♁22 | 10°36 | 14°5 | 28°33 | 21°47 | 28°46 | 8°9 | 15°21 | 17°21 | 15°57 | 16°55 | 5°21 | 17°48 | M20 |
| T 21 | 18 20 58 | 4°58'06 | 24°29 | 12°39 | 15°19 | 29°15 | 22°1 | 28°41 | 8°7 | 15°24 | 17°21 | 15°48 | 16°52 | 5°28 | 17°44 | T 21 |
| W22 | 18 24 54 | 5°55'15 | 9♁32 | 14°42 | 16°32 | 29°56 | 22°14 | 28°37 | 8°5 | 15°26 | 17°21 | 15°42 | 16°49 | 5°35 | 17°41 | W22 |
| T 23 | 18 28 51 | 6°52'26 | 24°21 | 16°42 | 17°46 | 0♁38 | 22°27 | 28°33 | 8°3 | 15°28 | 17°21 | 15°38 | 16°46 | 5°42 | 17°37 | T 23 |
| F 24 | 18 32 47 | 7°49'36 | 8♃52 | 18°41 | 19°0 | 1°20 | 22°41 | 28°28 | 8°1 | 15°30 | 17°20 | 15°36 | 16°43 | 5°48 | 17°34 | F 24 |
| S 25 | 18 36 44 | 8°46'48 | 23°0 | 20°38 | 20°13 | 2°1 | 22°54 | 28°24 | 7°59 | 15°32 | 17°20 | 15°D36 | 16°39 | 5°55 | 17°30 | S 25 |
| S 26 | 18 40 40 | 9°44'00 | 6♀46 | 22°33 | 21°27 | 2°43 | 23°8 | 28°20 | 7°57 | 15°34 | 17°20 | 15°R37 | 16°36 | 6°2 | 17°27 | S 26 |
| M27 | 18 44 37 | 10°41'12 | 20°11 | 24°27 | 22°41 | 3°24 | 23°21 | 28°15 | 7°55 | 15°36 | 17°19 | 15°36 | 16°33 | 6°8 | 17°23 | M27 |
| T 28 | 18 48 33 | 11°38'26 | 3♁17 | 26°19 | 23°55 | 4°5 | 23°34 | 28°11 | 7°53 | 15°38 | 17°19 | 15°34 | 16°30 | 6°15 | 17°20 | T 28 |
| W29 | 18 52 30 | 12°35'40 | 16°6 | 28°9 | 25°8 | 4°47 | 23°48 | 28°7 | 7°51 | 15°40 | 17°19 | 15°30 | 16°27 | 6°22 | 17°16 | W29 |
| T 30 | 18 56 27 | 13♁32'55 | 28♂42 | 29♁57 | 26♁22 | 5♂28 | 24♁1 | 28♁3 | 7♁49 | 15♁42 | 17♃18 | 15♃23 | 16♃24 | 6♁28 | 17♁13 | T 30 |

Delta T = 19m02s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1076
geocentric

JULY 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 19 0 23 | 14☉30'11 | 11♐ 6 | 1♌43 | 27☉36 | 6♈ 9 | 24♐14 | 27°R59 | 7°R47 | 15♐44 | 17°R18 | 15°R14 | 16♋20 | 6♌35 | 17°R 9 | F 1 | | | | | | | | |
| S 2 | 19 4 20 | 15°27'28 | 23°20 | 3°28 | 28°49 | 6°49 | 24°27 | 27♌54 | 7♋45 | 15°46 | 17♋17 | 15♋ 4 | 16°17 | 6°42 | 17☉ 6 | S 2 | | | | | | | | |
| S 3 | 19 8 16 | 16°24'45 | 5☉26 | 5°10 | 0♌ 3 | 7°30 | 24°41 | 27°50 | 7°43 | 15°48 | 17°17 | 14°53 | 16°14 | 6°48 | 17° 2 | S 3 | | | | | | | | |
| M 4 | 19 12 13 | 17°22'03 | 17°24 | 6°51 | 1°17 | 8°11 | 24°54 | 27°46 | 7°41 | 15°50 | 17°16 | 14°42 | 16°11 | 6°55 | 16°59 | M 4 | | | | | | | | |
| T 5 | 19 16 9 | 18°19'22 | 29°17 | 8°30 | 2°31 | 8°51 | 25° 7 | 27°42 | 7°38 | 15°52 | 17°16 | 14°33 | 16° 8 | 7° 2 | 16°55 | T 5 | | | | | | | | |
| W 6 | 19 20 6 | 19°16'42 | 11♌ 7 | 10° 8 | 3°44 | 9°32 | 25°20 | 27°38 | 7°36 | 15°54 | 17°15 | 14°26 | 16° 5 | 7° 8 | 16°51 | W 6 | | | | | | | | |
| T 7 | 19 24 2 | 20°14'02 | 22°54 | 11°43 | 4°58 | 10°12 | 25°33 | 27°34 | 7°34 | 15°56 | 17°15 | 14°21 | 16° 1 | 7°15 | 16°48 | T 7 | | | | | | | | |
| F 8 | 19 27 59 | 21°11'22 | 4♐43 | 13°17 | 6°12 | 10°52 | 25°46 | 27°30 | 7°32 | 15°58 | 17°14 | 14°19 | 15°58 | 7°22 | 16°44 | F 8 | | | | | | | | |
| S 9 | 19 31 56 | 22° 8'44 | 16°36 | 14°49 | 7°26 | 11°32 | 25°59 | 27°27 | 7°29 | 16° 0 | 17°14 | 14°D18 | 15°55 | 7°28 | 16°41 | S 9 | | | | | | | | |
| S 10 | 19 35 52 | 23° 6'05 | 28°38 | 16°19 | 8°39 | 12°12 | 26°12 | 27°23 | 7°27 | 16° 2 | 17°13 | 14°19 | 15°52 | 7°35 | 16°37 | S 10 | | | | | | | | |
| M 11 | 19 39 49 | 24° 3'28 | 10♌53 | 17°47 | 9°53 | 12°52 | 26°25 | 27°19 | 7°25 | 16° 4 | 17°12 | 14°20 | 15°49 | 7°42 | 16°34 | M 11 | | | | | | | | |
| T 12 | 19 43 45 | 25° 0'51 | 23°26 | 19°14 | 11° 7 | 13°31 | 26°38 | 27°16 | 7°22 | 16° 5 | 17°12 | 14°R21 | 15°45 | 7°48 | 16°30 | T 12 | | | | | | | | |
| W 13 | 19 47 42 | 25°58'15 | 6♐22 | 20°38 | 12°20 | 14°11 | 26°50 | 27°12 | 7°20 | 16° 7 | 17°11 | 14°20 | 15°42 | 7°55 | 16°27 | W 13 | | | | | | | | |
| T 14 | 19 51 38 | 26°55'39 | 19°44 | 22° 1 | 13°34 | 14°50 | 27° 3 | 27° 8 | 7°18 | 16° 9 | 17°10 | 14°18 | 15°39 | 8° 2 | 16°23 | T 14 | | | | | | | | |
| F 15 | 19 55 35 | 27°53'05 | 3♌35 | 23°22 | 14°48 | 15°29 | 27°16 | 27° 5 | 7°15 | 16°11 | 17°10 | 14°14 | 15°36 | 8° 8 | 16°20 | F 15 | | | | | | | | |
| S 16 | 19 59 31 | 28°50'31 | 17°56 | 24°41 | 16° 2 | 16° 8 | 27°28 | 27° 1 | 7°13 | 16°13 | 17° 9 | 14° 8 | 15°33 | 8°15 | 16°16 | S 16 | | | | | | | | |
| S 17 | 20 3 28 | 29°47'58 | 2☉41 | 25°58 | 17°15 | 16°47 | 27°41 | 26°58 | 7°11 | 16°14 | 17° 8 | 14° 2 | 15°30 | 8°22 | 16°13 | S 17 | | | | | | | | |
| M 18 | 20 7 25 | 0♌45'26 | 17°46 | 27°12 | 18°29 | 17°26 | 27°53 | 26°55 | 7° 8 | 16°16 | 17° 7 | 13°56 | 15°26 | 8°28 | 16°10 | M 18 | | | | | | | | |
| T 19 | 20 11 21 | 1°42'55 | 3♋ 1 | 28°25 | 19°43 | 18° 5 | 28° 6 | 26°52 | 7° 6 | 16°18 | 17° 7 | 13°50 | 15°23 | 8°35 | 16° 6 | T 19 | | | | | | | | |
| W 20 | 20 15 18 | 2°40'25 | 18°15 | 29°35 | 20°56 | 18°43 | 28°18 | 26°48 | 7° 4 | 16°20 | 17° 6 | 13°46 | 15°20 | 8°42 | 16° 3 | W 20 | | | | | | | | |
| T 21 | 20 19 14 | 3°37'56 | 3♋18 | 0♐43 | 22°10 | 19°22 | 28°30 | 26°45 | 7° 1 | 16°21 | 17° 5 | 13°44 | 15°17 | 8°48 | 16° 0 | T 21 | | | | | | | | |
| F 22 | 20 23 11 | 4°35'28 | 18° 3 | 1°49 | 23°24 | 20° 0 | 28°43 | 26°42 | 6°59 | 16°23 | 17° 4 | 13°D44 | 15°14 | 8°55 | 15°56 | F 22 | | | | | | | | |
| S 23 | 20 27 7 | 5°33'02 | 2♌25 | 2°52 | 24°37 | 20°38 | 28°55 | 26°39 | 6°56 | 16°24 | 17° 3 | 13°45 | 15°11 | 9° 2 | 15°53 | S 23 | | | | | | | | |
| S 24 | 20 31 4 | 6°30'38 | 16°20 | 3°53 | 25°51 | 21°16 | 29° 7 | 26°36 | 6°54 | 16°26 | 17° 3 | 13°46 | 15° 7 | 9° 8 | 15°50 | S 24 | | | | | | | | |
| M 25 | 20 35 0 | 7°28'15 | 29°50 | 4°51 | 27° 4 | 21°54 | 29°19 | 26°34 | 6°52 | 16°28 | 17° 2 | 13°47 | 15° 4 | 9°15 | 15°47 | M 25 | | | | | | | | |
| T 26 | 20 38 57 | 8°25'53 | 12♌56 | 5°46 | 28°18 | 22°32 | 29°31 | 26°31 | 6°49 | 16°29 | 17° 1 | 13°R47 | 15° 1 | 9°22 | 15°44 | T 26 | | | | | | | | |
| W 27 | 20 42 54 | 9°23'33 | 25°42 | 6°38 | 29°32 | 23° 9 | 29°43 | 26°28 | 6°47 | 16°31 | 17° 0 | 13°46 | 14°58 | 9°28 | 15°40 | W 27 | | | | | | | | |
| T 28 | 20 46 50 | 10°21'15 | 8♐11 | 7°27 | 0♐45 | 23°47 | 29°55 | 26°26 | 6°44 | 16°32 | 16°59 | 13°43 | 14°55 | 9°35 | 15°37 | T 28 | | | | | | | | |
| F 29 | 20 50 47 | 11°18'59 | 20°26 | 8°13 | 1°59 | 24°24 | 0♌ 7 | 26°23 | 6°42 | 16°34 | 16°58 | 13°39 | 14°51 | 9°42 | 15°34 | F 29 | | | | | | | | |
| S 30 | 20 54 43 | 12°16'44 | 2☉31 | 8°55 | 3°13 | 25° 1 | 0°19 | 26°21 | 6°40 | 16°35 | 16°57 | 13°34 | 14°48 | 9°49 | 15°31 | S 30 | | | | | | | | |
| S 31 | 20 58 40 | 13♌14'31 | 14☉28 | 9♐34 | 4♐26 | 25♌38 | 0♌30 | 26♌18 | 6♋37 | 16♐36 | 16♋56 | 13♋29 | 14♋45 | 9♌55 | 15☉28 | S 31 | | | | | | | | |

Delta T = 19m02s Julian Calendar 1 July 1076 == Greg. Calendar 7 July 1076

AUGUST 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|------|--------|-------|-------|--------|--------|-------|---------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 21 2 36 | 14♌12'19 | 26☉20 | 10♐ 8 | 5♐40 | 26♌15 | 0♌42 | 26°R16 | 6°R35 | 16♐38 | 16°R55 | 13°R24 | 14♋42 | 10♌ 2 | 15°R25 | M 1 | | | | | | | | |
| T 2 | 21 6 33 | 15°10'09 | 8♌10 | 10°39 | 6°53 | 26°51 | 0°54 | 26♌14 | 6♋33 | 16°39 | 16♋54 | 13♋19 | 14°39 | 10° 9 | 15☉23 | T 2 | | | | | | | | |
| W 3 | 21 10 29 | 16° 8'00 | 19°58 | 11° 5 | 8° 7 | 27°28 | 1° 5 | 26°12 | 6°30 | 16°41 | 16°53 | 13°16 | 14°36 | 10°15 | 15°20 | W 3 | | | | | | | | |
| T 4 | 21 14 26 | 17° 5'53 | 1♐48 | 11°26 | 9°21 | 28° 4 | 1°16 | 26°10 | 6°28 | 16°42 | 16°52 | 13°14 | 14°32 | 10°22 | 15°17 | T 4 | | | | | | | | |
| F 5 | 21 18 23 | 18° 3'47 | 13°41 | 11°43 | 10°34 | 28°40 | 1°28 | 26° 8 | 6°25 | 16°43 | 16°51 | 13°D13 | 14°29 | 10°29 | 15°14 | F 5 | | | | | | | | |
| S 6 | 21 22 19 | 19° 1'43 | 25°40 | 11°54 | 11°48 | 29°16 | 1°39 | 26° 6 | 6°23 | 16°44 | 16°50 | 13°14 | 14°26 | 10°35 | 15°12 | S 6 | | | | | | | | |
| S 7 | 21 26 16 | 19°59'40 | 7♌48 | 12° 0 | 13° 1 | 29°52 | 1°50 | 26° 4 | 6°21 | 16°46 | 16°49 | 13°15 | 14°23 | 10°42 | 15° 9 | S 7 | | | | | | | | |
| M 8 | 21 30 12 | 20°57'39 | 20° 8 | 12°R 0 | 14°15 | 0♐27 | 2° 1 | 26° 3 | 6°19 | 16°47 | 16°48 | 13°17 | 14°20 | 10°49 | 15° 6 | M 8 | | | | | | | | |
| T 9 | 21 34 9 | 21°55'39 | 2♐44 | 11°55 | 15°28 | 1° 2 | 2°12 | 26° 1 | 6°16 | 16°48 | 16°47 | 13°18 | 14°17 | 10°55 | 15° 4 | T 9 | | | | | | | | |
| W 10 | 21 38 5 | 22°53'40 | 15°39 | 11°43 | 16°42 | 1°38 | 2°23 | 26° 0 | 6°14 | 16°49 | 16°46 | 13°19 | 14°13 | 11° 2 | 15° 1 | W 10 | | | | | | | | |
| T 11 | 21 42 5 | 23°51'43 | 28°57 | 11°25 | 17°55 | 2°12 | 2°34 | 25°58 | 6°12 | 16°50 | 16°45 | 13°R19 | 14°10 | 11° 9 | 14°59 | T 11 | | | | | | | | |
| F 12 | 21 45 58 | 24°49'47 | 12♌39 | 11° 1 | 19° 9 | 2°47 | 2°44 | 25°57 | 6° 9 | 16°51 | 16°44 | 13°19 | 14° 7 | 11°15 | 14°57 | F 12 | | | | | | | | |
| S 13 | 21 49 55 | 25°47'53 | 26°48 | 10°31 | 20°22 | 3°22 | 2°55 | 25°56 | 6° 7 | 16°52 | 16°43 | 13°17 | 14° 4 | 11°22 | 14°54 | S 13 | | | | | | | | |
| S 14 | 21 53 52 | 26°46'00 | 11☉21 | 9°55 | 21°36 | 3°56 | 3° 6 | 25°55 | 6° 5 | 16°53 | 16°42 | 13°15 | 14° 1 | 11°29 | 14°52 | S 14 | | | | | | | | |
| M 15 | 21 57 48 | 27°44'09 | 26°13 | 9°13 | 22°49 | 4°30 | 3°16 | 25°54 | 6° 3 | 16°54 | 16°40 | 13°13 | 13°57 | 11°35 | 14°50 | M 15 | | | | | | | | |
| T 16 | 22 1 45 | 28°42'19 | 11♋20 | 8°26 | 24° 3 | 5° 4 | 3°26 | 25°53 | 6° 1 | 16°55 | 16°39 | 13°11 | 13°54 | 11°42 | 14°48 | T 16 | | | | | | | | |
| W 17 | 22 5 41 | 29°40'31 | 26°30 | 7°35 | 25°16 | 5°38 | 3°37 | 25°52 | 5°59 | 16°56 | 16°38 | 13°10 | 13°51 | 11°49 | 14°46 | W 17 | | | | | | | | |
| T 18 | 22 9 38 | 0♐38'44 | 11♋35 | 6°39 | 26°30 | 6°11 | 3°47 | 25°52 | 5°56 | 16°57 | 16°37 | 13°D10 | 13°48 | 11°55 | 14°44 | T 18 | | | | | | | | |
| F 19 | 22 13 34 | 1°37'00 | 26°27 | 5°41 | 27°43 | 6°44 | 3°57 | 25°51 | 5°54 | 16°58 | 16°36 | 13°10 | 13°45 | 12° 2 | 14°42 | F 19 | | | | | | | | |
| S 20 | 22 17 31 | 2°35'17 | 10♌57 | 4°41 | 28°56 | 7°17 | 4° 7 | 25°51 | 5°52 | 16°59 | 16°35 | 13°11 | 13°42 | 12° 9 | 14°40 | S 20 | | | | | | | | |
| S 21 | 22 21 27 | 3°33'37 | 25° 2 | 3°41 | 0♌10 | 7°50 | 4°16 | 25°50 | 5°50 | 17° 0 | 16°34 | 13°12 | 13°38 | 12°15 | 14°38 | S 21 | | | | | | | | |
| M 22 | 22 25 24 | 4°31'58 | 8♌41 | 2°41 | 1°23 | 8°23 | 4°26 | 25°50 | 5°48 | 17° 0 | 16°32 | 13°12 | 13°35 | 12°22 | 14°36 | M 22 | | | | | | | | |
| T 23 | 22 29 21 | 5°30'22 | 21°53 | 1°44 | 2°36 | 8°55 | 4°36 | 25°50 | 5°46 | 17° 1 | 16°31 | 13°13 | 13°32 | 12°29 | 14°34 | T 23 | | | | | | | | |
| W 24 | 22 33 17 | 6°28'48 | 4♐42 | 0°51 | 3°50 | 9°27 | 4°45 | 25°49 | 5°44 | 17° 2 | 16°30 | 13°R13 | 13°29 | 12°35 | 14°33 | W 24 | | | | | | | | |
| T 25 | 22 37 14 | 7°27'17 | 17°11 | 0° 2 | 5° 3 | 9°59 | 4°55 | 25°D49 | 5°42 | 17° 3 | 16°29 | 13°13 | 13°26 | 12°42 | 14°31 | T 25 | | | | | | | | |
| F 26 | 22 41 10 | 8°25'47 | 29°23 | 29♌20 | 6°16 | 10°30 | 5° 4 | 25°50 | 5°40 | 17° 3 | 16°28 | 13°13 | 13°22 | 12°49 | 14°30 | F 26 | | | | | | | | |
| S 27 | 22 45 7 | 9°24'20 | 11☉24 | 28°46 | 7°30 | 11° 2 | 5°13 | 25°50 | 5°39 | 17° 4 | 16°26 | 13°12 | 13°19 | 12°55 | 14°28 | S 27 | | | | | | | | |
| S 28 | 22 49 3 | 10°22'55 | 23°17 | 28°19 | 8°43 | 11°33 | 5°22 | 25°50 | 5°37 | 17° 4 | 16°25 | 13°12 | 13°16 | 13° 2 | 14°27 | S 28 | | | | | | | | |
| M 29 | 22 53 0 | 11°21'32 | 5♌ 6 | 28° 1 | 9°56 | 12° 4 | 5°31 | 25°50 | 5°35 | 17° 5 | 16°24 | 13°12 | 13°13 | 13° 9</ | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1076
geocentric

SEPTEMBER 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|--------|--------|--------|-------|-------|--------|------|-----|
| T 1 | 23 4 50 | 14♐17'35 | 10♐40 | 28♂6 | 13♄36 | 13♁34 | 5♁57 | 25♁52 | 5°R30 | 17♁6 | 16°R20 | 13°R11 | 13♁3 | 13♁29 | 14°R22 | T 1 | |
| F 2 | 23 8 46 | 15°16'20 | 22°42 | 28°27 | 14°49 | 14° 4 | 6° 6 | 25°53 | 5♁28 | 17° 7 | 16♁19 | 13♁11 | 13° 0 | 13°35 | 14♁21 | F 2 | |
| S 3 | 23 12 43 | 16°15'07 | 4♄53 | 28°57 | 16° 2 | 14°33 | 6°14 | 25°54 | 5°26 | 17° 7 | 16°18 | 13°11 | 12°57 | 13°42 | 14°20 | S 3 | |
| S 4 | 23 16 39 | 17°13'57 | 17°14 | 29°37 | 17°15 | 15° 2 | 6°22 | 25°55 | 5°25 | 17° 8 | 16°17 | 13°11 | 12°54 | 13°49 | 14°19 | S 4 | |
| M 5 | 23 20 36 | 18°12'48 | 29°47 | 0♐25 | 18°28 | 15°31 | 6°30 | 25°56 | 5°23 | 17° 8 | 16°16 | 13°10 | 12°51 | 13°55 | 14°19 | M 5 | |
| T 6 | 23 24 32 | 19°11'40 | 12♐34 | 1°21 | 19°42 | 15°59 | 6°38 | 25°57 | 5°22 | 17° 8 | 16°14 | 13°10 | 12°48 | 14° 2 | 14°18 | T 6 | |
| W 7 | 23 28 29 | 20°10'35 | 25°37 | 2°24 | 20°55 | 16°27 | 6°46 | 25°58 | 5°20 | 17° 8 | 16°13 | 13° 9 | 12°44 | 14° 9 | 14°17 | W 7 | |
| T 8 | 23 32 25 | 21° 9'32 | 8♁756 | 3°34 | 22° 8 | 16°55 | 6°53 | 26° 0 | 5°19 | 17° 9 | 16°12 | 13° 8 | 12°41 | 14°15 | 14°17 | T 8 | |
| F 9 | 23 36 22 | 22° 8'30 | 22°35 | 4°50 | 23°21 | 17°23 | 7° 1 | 26° 1 | 5°17 | 17° 9 | 16°11 | 13°D 8 | 12°38 | 14°22 | 14°16 | F 9 | |
| S 10 | 23 40 19 | 23° 7'31 | 6♁32 | 6°11 | 24°34 | 17°50 | 7° 8 | 26° 3 | 5°16 | 17° 9 | 16°10 | 13° 8 | 12°35 | 14°29 | 14°16 | S 10 | |
| S 11 | 23 44 15 | 24° 6'33 | 20°48 | 7°37 | 25°47 | 18°16 | 7°15 | 26° 4 | 5°15 | 17° 9 | 16° 8 | 13° 9 | 12°32 | 14°35 | 14°15 | S 11 | |
| M12 | 23 48 12 | 25° 5'37 | 5♁20 | 9° 8 | 27° 0 | 18°43 | 7°22 | 26° 6 | 5°13 | 17° 9 | 16° 7 | 13°10 | 12°28 | 14°42 | 14°15 | M12 | |
| T 13 | 23 52 8 | 26° 4'42 | 20° 5 | 10°41 | 28°13 | 19° 9 | 7°29 | 26° 8 | 5°12 | 17° 9 | 16° 6 | 13°11 | 12°25 | 14°48 | 14°15 | T 13 | |
| W14 | 23 56 5 | 27° 3'49 | 4♁56 | 12°17 | 29°26 | 19°34 | 7°36 | 26°10 | 5°11 | 17°R 9 | 16° 5 | 13°12 | 12°22 | 14°55 | 14°15 | W14 | |
| T 15 | 0 0 1 | 28° 2'59 | 19°47 | 13°56 | 0♐38 | 20° 0 | 7°43 | 26°12 | 5°10 | 17° 9 | 16° 4 | 13°R12 | 12°19 | 15° 2 | 14°D15 | T 15 | |
| F 16 | 0 3 58 | 29° 2'10 | 4♁31 | 15°37 | 1°51 | 20°25 | 7°49 | 26°14 | 5° 9 | 17° 9 | 16° 3 | 13°11 | 12°16 | 15° 8 | 14°15 | F 16 | |
| S 17 | 0 7 54 | 0♄1'23 | 18°59 | 17°19 | 3° 4 | 20°49 | 7°55 | 26°16 | 5° 8 | 17° 9 | 16° 1 | 13° 9 | 12°13 | 15°15 | 14°15 | S 17 | |
| S 18 | 0 11 51 | 1° 0'39 | 3♁7 | 19° 2 | 4°17 | 21°13 | 8° 2 | 26°19 | 5° 7 | 17° 9 | 16° 0 | 13° 7 | 12° 9 | 15°22 | 14°15 | S 18 | |
| M19 | 0 15 48 | 1°59'57 | 16°50 | 20°46 | 5°30 | 21°37 | 8° 8 | 26°21 | 5° 6 | 17° 9 | 15°59 | 13° 4 | 12° 6 | 15°28 | 14°15 | M19 | |
| T 20 | 0 19 44 | 2°59'17 | 0♐8 | 22°31 | 6°43 | 22° 0 | 8°13 | 26°23 | 5° 5 | 17° 9 | 15°58 | 13° 2 | 12° 3 | 15°35 | 14°16 | T 20 | |
| W21 | 0 23 41 | 3°58'40 | 13° 2 | 24°16 | 7°55 | 22°23 | 8°19 | 26°26 | 5° 4 | 17° 8 | 15°57 | 13° 0 | 12° 0 | 15°42 | 14°16 | W21 | |
| T 22 | 0 27 37 | 4°58'05 | 25°34 | 26° 1 | 9° 8 | 22°46 | 8°25 | 26°29 | 5° 3 | 17° 8 | 15°56 | 12°58 | 11°57 | 15°48 | 14°17 | T 22 | |
| F 23 | 0 31 34 | 5°57'32 | 7♁47 | 27°46 | 10°21 | 23° 8 | 8°30 | 26°32 | 5° 2 | 17° 8 | 15°55 | 12°D58 | 11°54 | 15°55 | 14°17 | F 23 | |
| S 24 | 0 35 30 | 6°57'02 | 19°48 | 29°31 | 11°33 | 23°29 | 8°35 | 26°34 | 5° 1 | 17° 8 | 15°53 | 12°59 | 11°50 | 16° 2 | 14°18 | S 24 | |
| S 25 | 0 39 27 | 7°56'34 | 1♁40 | 1♄16 | 12°46 | 23°50 | 8°40 | 26°37 | 5° 1 | 17° 7 | 15°52 | 13° 0 | 11°47 | 16° 8 | 14°19 | S 25 | |
| M26 | 0 43 23 | 8°56'09 | 13°28 | 3° 0 | 13°59 | 24°11 | 8°45 | 26°40 | 5° 0 | 17° 7 | 15°51 | 13° 2 | 11°44 | 16°15 | 14°19 | M26 | |
| T 27 | 0 47 20 | 9°55'45 | 25°17 | 4°44 | 15°11 | 24°31 | 8°50 | 26°44 | 4°59 | 17° 6 | 15°50 | 13° 4 | 11°41 | 16°22 | 14°20 | T 27 | |
| W28 | 0 51 17 | 10°55'24 | 7♐12 | 6°27 | 16°24 | 24°51 | 8°54 | 26°47 | 4°59 | 17° 6 | 15°49 | 13°R 5 | 11°38 | 16°28 | 14°21 | W28 | |
| T 29 | 0 55 13 | 11°55'05 | 19°14 | 8°10 | 17°36 | 25°10 | 8°59 | 26°50 | 4°58 | 17° 5 | 15°48 | 13° 5 | 11°34 | 16°35 | 14°22 | T 29 | |
| F 30 | 0 59 10 | 12°54'48 | 1♄27 | 9♄53 | 18♐49 | 25♁28 | 9♁3 | 26♁53 | 4♁58 | 17♁5 | 15♁47 | 13♁3 | 11♁31 | 16♁42 | 14♁23 | F 30 | |

Delta T = 19m01s Julian Calendar 1 Sept. 1076 == Greg. Calendar 7 Sept. 1076

OCTOBER 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|-------|-------|--------|--------|--------|-------|-------|-------|------|-----|
| S 1 | 1 3 6 | 13♄54'33 | 13♄54 | 11♄35 | 20♐1 | 25♁46 | 9♁7 | 26♁57 | 4°R57 | 17°R 4 | 15°R46 | 13°R 0 | 11♁28 | 16♁48 | 14♁24 | S 1 | |
| S 2 | 1 7 3 | 14°54'20 | 26°33 | 13°16 | 21°14 | 26° 4 | 9°10 | 27° 0 | 4♁57 | 17♁4 | 15♁45 | 12♁56 | 11°25 | 16°55 | 14°26 | S 2 | |
| M 3 | 1 10 59 | 15°54'09 | 9♐27 | 14°57 | 22°26 | 26°21 | 9°14 | 27° 4 | 4°57 | 17° 3 | 15°44 | 12°50 | 11°22 | 17° 2 | 14°27 | M 3 | |
| T 4 | 1 14 56 | 16°54'01 | 22°35 | 16°37 | 23°39 | 26°37 | 9°17 | 27° 8 | 4°57 | 17° 3 | 15°43 | 12°44 | 11°19 | 17° 8 | 14°28 | T 4 | |
| W 5 | 1 18 52 | 17°53'54 | 5♁55 | 18°17 | 24°51 | 26°53 | 9°21 | 27°12 | 4°56 | 17° 2 | 15°42 | 12°39 | 11°15 | 17°15 | 14°30 | W 5 | |
| T 6 | 1 22 49 | 18°53'49 | 19°28 | 19°56 | 26° 3 | 27° 8 | 9°24 | 27°16 | 4°56 | 17° 1 | 15°41 | 12°34 | 11°12 | 17°22 | 14°31 | T 6 | |
| F 7 | 1 26 45 | 19°53'45 | 3♁11 | 21°35 | 27°15 | 27°23 | 9°27 | 27°20 | 4°56 | 17° 0 | 15°40 | 12°31 | 11° 9 | 17°28 | 14°33 | F 7 | |
| S 8 | 1 30 42 | 20°53'44 | 17° 6 | 23°13 | 28°28 | 27°37 | 9°29 | 27°24 | 4°56 | 17° 0 | 15°39 | 12°D30 | 11° 6 | 17°35 | 14°35 | S 8 | |
| S 9 | 1 34 39 | 21°53'43 | 1♁11 | 24°50 | 29°40 | 27°51 | 9°32 | 27°28 | 4°D56 | 16°59 | 15°38 | 12°31 | 11° 3 | 17°42 | 14°36 | S 9 | |
| M10 | 1 38 35 | 22°53'45 | 15°24 | 26°27 | 0♁52 | 28° 3 | 9°34 | 27°32 | 4°56 | 16°58 | 15°37 | 12°32 | 11° 0 | 17°48 | 14°38 | M10 | |
| T 11 | 1 42 32 | 23°53'48 | 29°45 | 28° 4 | 2° 4 | 28°16 | 9°36 | 27°36 | 4°56 | 16°57 | 15°36 | 12°33 | 10°56 | 17°55 | 14°40 | T 11 | |
| W12 | 1 46 28 | 24°53'53 | 14♁9 | 29°40 | 3°16 | 28°27 | 9°38 | 27°41 | 4°56 | 16°56 | 15°35 | 12°R34 | 10°53 | 18° 2 | 14°42 | W12 | |
| T 13 | 1 50 25 | 25°53'59 | 28°35 | 1♐15 | 4°28 | 28°38 | 9°40 | 27°45 | 4°57 | 16°55 | 15°34 | 12°32 | 10°50 | 18° 8 | 14°44 | T 13 | |
| F 14 | 1 54 21 | 26°54'07 | 12♁56 | 2°50 | 5°40 | 28°48 | 9°41 | 27°50 | 4°57 | 16°54 | 15°34 | 12°29 | 10°47 | 18°15 | 14°46 | F 14 | |
| S 15 | 1 58 18 | 27°54'17 | 27° 8 | 4°25 | 6°52 | 28°58 | 9°43 | 27°54 | 4°57 | 16°53 | 15°33 | 12°24 | 10°44 | 18°22 | 14°48 | S 15 | |
| S 16 | 2 2 14 | 28°54'28 | 11♁5 | 5°59 | 8° 4 | 29° 6 | 9°44 | 27°59 | 4°57 | 16°52 | 15°32 | 12°17 | 10°40 | 18°28 | 14°51 | S 16 | |
| M17 | 2 6 11 | 29°54'42 | 24°44 | 7°33 | 9°16 | 29°14 | 9°45 | 28° 4 | 4°58 | 16°51 | 15°31 | 12° 8 | 10°37 | 18°35 | 14°53 | M17 | |
| T 18 | 2 10 8 | 0♐54'58 | 8♁0 | 9° 7 | 10°28 | 29°22 | 9°46 | 28° 8 | 4°58 | 16°50 | 15°30 | 12° 0 | 10°34 | 18°42 | 14°55 | T 18 | |
| W19 | 2 14 4 | 1°55'15 | 20°55 | 10°40 | 11°39 | 29°28 | 9°46 | 28°13 | 4°59 | 16°49 | 15°29 | 11°52 | 10°31 | 18°48 | 14°58 | W19 | |
| T 20 | 2 18 1 | 2°55'35 | 3♁28 | 12°13 | 12°51 | 29°34 | 9°46 | 28°18 | 4°59 | 16°48 | 15°29 | 11°46 | 10°28 | 18°55 | 15° 0 | T 20 | |
| F 21 | 2 21 57 | 3°55'56 | 15°44 | 13°45 | 14° 3 | 29°39 | 9°R47 | 28°23 | 5° 0 | 16°47 | 15°28 | 11°42 | 10°25 | 19° 2 | 15° 3 | F 21 | |
| S 22 | 2 25 54 | 4°56'20 | 27°45 | 15°17 | 15°14 | 29°44 | 9°47 | 28°28 | 5° 1 | 16°46 | 15°27 | 11°40 | 10°21 | 19° 8 | 15° 6 | S 22 | |
| S 23 | 2 29 50 | 5°56'45 | 9♁27 | 16°49 | 16°26 | 29°47 | 9°46 | 28°33 | 5° 1 | 16°45 | 15°27 | 11°D40 | 10°18 | 19°15 | 15° 8 | S 23 | |
| M24 | 2 33 47 | 6°57'13 | 21°25 | 18°21 | 17°37 | 29°50 | 9°46 | 28°39 | 5° 2 | 16°44 | 15°26 | 11°41 | 10°15 | 19°21 | 15°11 | M24 | |
| T 25 | 2 37 43 | 7°57'42 | 3♐15 | 19°52 | 18°48 | 29°52 | 9°45 | 28°44 | 5° 3 | 16°42 | 15°25 | 11°42 | 10°12 | 19°28 | 15°14 | T 25 | |
| W26 | 2 41 40 | 8°58'13 | 15°12 | 21°23 | 20° 0 | 29°53 | 9°44 | 28°49 | 5° 4 | 16°41 | 15°25 | 11°R42 | 10° 9 | 19°35 | 15°17 | W26 | |
| T 27 | 2 45 37 | 9°58'46 | 27°19 | 22°53 | 21°11 | 29°R53 | 9°43 | 28°55 | 5° 5 | 16°40 | 15°24 | 11°40 | 10° 5 | 19°41 | 15°20 | T 27 | |
| F 28 | 2 49 33 | 10°59'21 | 9♄42 | 24°24 | 22°22 | 29°53 | 9°42 | 29° 0 | 5° 6 | 16°38 | 15°23 | 11°37 | 10° 2 | 19°48 | 15°23 | F 28 | |
| S 29 | 2 53 30 | 11°59'57 | 22°22 | 25°54 | 23°33 | 29°51 | 9°41 | 29° 6 | 5° 7 | 16°37 | 15°23 | 11°30 | 9°59 | 19°55 | 15°26 | S 29 | |
| S 30 | 2 57 26 | 13° 0'35 | 5♐21 | 27°23 | 24°44 | 29°49 | 9°39 | 29°11 | 5° 8 | 16°36 | 15°22 | 11°22 | 9°56 | 20° 1 | 15°29 | S 30 | |
| M31 | 3 1 23 | 14♐1'15 | 18♐38 | 28♐52 | 25♁55 | 29♁46 | 9♁37 | 29♁17 | 5♁9 | 16♁34 | 15♁22 | 11♁11 | 9♁53 | 20♁8 | 15♁32 | M31 | |

Delta T = 19m01s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1076
geocentric

NOVEMBER 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|--------|-------|-------|------|--------|--------|--------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 3 5 19 | 15♈ 1'56 | 2♌12 | 0♋21 | 27♌6 | 29°R42 | 9°R35 | 29♌23 | 5♈10 | 16°R33 | 15°R21 | 11°R 0 | 9♋50 | 20♈15 | 15♌36 | T 1 | | | | | | | | |
| W 2 | 3 9 16 | 16° 2'39 | 15°58 | 1°50 | 28°17 | 29♈37 | 9♌33 | 29°28 | 5°11 | 16♈32 | 15♋21 | 10♋49 | 9°46 | 20°21 | 15°39 | W 2 | | | | | | | | |
| T 3 | 3 13 12 | 17° 3'22 | 29°55 | 3°18 | 29°28 | 29°31 | 9°30 | 29°34 | 5°12 | 16°30 | 15°20 | 10°39 | 9°43 | 20°28 | 15°42 | T 3 | | | | | | | | |
| F 4 | 3 17 9 | 18° 4'08 | 13♌57 | 4°45 | 0♌39 | 29°24 | 9°28 | 29°40 | 5°14 | 16°29 | 15°20 | 10°32 | 9°40 | 20°35 | 15°46 | F 4 | | | | | | | | |
| S 5 | 3 21 6 | 19° 4'54 | 28° 2 | 6°12 | 1°49 | 29°17 | 9°25 | 29°46 | 5°15 | 16°27 | 15°19 | 10°28 | 9°37 | 20°41 | 15°49 | S 5 | | | | | | | | |
| S 6 | 3 25 2 | 20° 5'41 | 12♈ 8 | 7°38 | 3° 0 | 29° 9 | 9°22 | 29°52 | 5°17 | 16°26 | 15°19 | 10°26 | 9°34 | 20°48 | 15°53 | S 6 | | | | | | | | |
| M 7 | 3 28 59 | 21° 6'29 | 26°14 | 9° 3 | 4°10 | 28°59 | 9°19 | 29°58 | 5°18 | 16°24 | 15°18 | 10°D26 | 9°31 | 20°55 | 15°56 | M 7 | | | | | | | | |
| T 8 | 3 32 55 | 22° 7'18 | 10♋18 | 10°28 | 5°20 | 28°49 | 9°15 | 0♌ 4 | 5°19 | 16°23 | 15°18 | 10°R27 | 9°27 | 21° 1 | 16° 0 | T 8 | | | | | | | | |
| W 9 | 3 36 52 | 23° 8'08 | 24°20 | 11°51 | 6°31 | 28°38 | 9°12 | 0°10 | 5°21 | 16°21 | 15°18 | 10°26 | 9°24 | 21° 8 | 16° 4 | W 9 | | | | | | | | |
| T 10 | 3 40 48 | 24° 8'59 | 8♈19 | 13°14 | 7°41 | 28°27 | 9° 8 | 0°16 | 5°23 | 16°20 | 15°17 | 10°23 | 9°21 | 21°15 | 16° 8 | T 10 | | | | | | | | |
| F 11 | 3 44 45 | 25° 9'51 | 22°13 | 14°35 | 8°51 | 28°14 | 9° 4 | 0°22 | 5°24 | 16°18 | 15°17 | 10°17 | 9°18 | 21°21 | 16°11 | F 11 | | | | | | | | |
| S 12 | 3 48 41 | 26°10'44 | 5♌59 | 15°55 | 10° 1 | 28° 1 | 9° 0 | 0°29 | 5°26 | 16°17 | 15°17 | 10° 9 | 9°15 | 21°28 | 16°15 | S 12 | | | | | | | | |
| S 13 | 3 52 38 | 27°11'38 | 19°34 | 17°13 | 11°10 | 27°47 | 8°55 | 0°35 | 5°28 | 16°15 | 15°17 | 9°58 | 9°11 | 21°35 | 16°19 | S 13 | | | | | | | | |
| M14 | 3 56 35 | 28°12'33 | 2♈55 | 18°29 | 12°20 | 27°32 | 8°51 | 0°41 | 5°29 | 16°14 | 15°16 | 9°45 | 9° 8 | 21°41 | 16°23 | M14 | | | | | | | | |
| T 15 | 4 0 31 | 29°13'29 | 16° 0 | 19°43 | 13°30 | 27°16 | 8°46 | 0°48 | 5°31 | 16°12 | 15°16 | 9°31 | 9° 5 | 21°48 | 16°27 | T 15 | | | | | | | | |
| W16 | 4 4 28 | 0♌14'26 | 28°48 | 20°54 | 14°39 | 27° 0 | 8°41 | 0°54 | 5°33 | 16°10 | 15°16 | 9°19 | 9° 2 | 21°54 | 16°31 | W16 | | | | | | | | |
| T 17 | 4 8 24 | 1°15'25 | 11♌18 | 22° 2 | 15°48 | 26°43 | 8°36 | 1° 1 | 5°35 | 16° 9 | 15°16 | 9° 8 | 8°59 | 22° 1 | 16°35 | T 17 | | | | | | | | |
| F 18 | 4 12 21 | 2°16'24 | 23°31 | 23° 6 | 16°57 | 26°25 | 8°31 | 1° 7 | 5°37 | 16° 7 | 15°16 | 9° 0 | 8°56 | 22° 8 | 16°40 | F 18 | | | | | | | | |
| S 19 | 4 16 17 | 3°17'25 | 5♈32 | 24° 7 | 18° 6 | 26° 6 | 8°26 | 1°14 | 5°39 | 16° 5 | 15°16 | 8°55 | 8°52 | 22°14 | 16°44 | S 19 | | | | | | | | |
| S 20 | 4 20 14 | 4°18'26 | 17°24 | 25° 3 | 19°15 | 25°47 | 8°20 | 1°20 | 5°41 | 16° 4 | 15°16 | 8°52 | 8°49 | 22°21 | 16°48 | S 20 | | | | | | | | |
| M21 | 4 24 11 | 5°19'29 | 29°11 | 25°53 | 20°24 | 25°27 | 8°15 | 1°27 | 5°43 | 16° 2 | 15°15 | 8°51 | 8°46 | 22°28 | 16°52 | M21 | | | | | | | | |
| T 22 | 4 28 7 | 6°20'33 | 11♈ 0 | 26°38 | 21°32 | 25° 7 | 8° 9 | 1°33 | 5°45 | 16° 0 | 15°15 | 8°51 | 8°43 | 22°34 | 16°57 | T 22 | | | | | | | | |
| W23 | 4 32 4 | 7°21'38 | 22°56 | 27°16 | 22°41 | 24°46 | 8° 3 | 1°40 | 5°47 | 15°59 | 15°D15 | 8°51 | 8°40 | 22°41 | 17° 1 | W23 | | | | | | | | |
| T 24 | 4 36 0 | 8°22'44 | 5♌ 5 | 27°46 | 23°49 | 24°25 | 7°57 | 1°47 | 5°50 | 15°57 | 15°15 | 8°49 | 8°37 | 22°48 | 17° 5 | T 24 | | | | | | | | |
| F 25 | 4 39 57 | 9°23'50 | 17°31 | 28° 7 | 24°57 | 24° 3 | 7°50 | 1°53 | 5°52 | 15°55 | 15°15 | 8°44 | 8°33 | 22°54 | 17°10 | F 25 | | | | | | | | |
| S 26 | 4 43 53 | 10°24'58 | 0♈18 | 28°19 | 26° 5 | 23°40 | 7°44 | 2° 0 | 5°54 | 15°54 | 15°15 | 8°37 | 8°30 | 23° 1 | 17°14 | S 26 | | | | | | | | |
| S 27 | 4 47 50 | 11°26'07 | 13°29 | 28°R21 | 27°13 | 23°18 | 7°38 | 2° 7 | 5°56 | 15°52 | 15°16 | 8°28 | 8°27 | 23° 8 | 17°19 | S 27 | | | | | | | | |
| M28 | 4 51 46 | 12°27'16 | 27° 3 | 28°12 | 28°20 | 22°55 | 7°31 | 2°14 | 5°59 | 15°50 | 15°16 | 8°16 | 8°24 | 23°14 | 17°23 | M28 | | | | | | | | |
| T 29 | 4 55 43 | 13°28'26 | 10♌59 | 27°51 | 29°28 | 22°32 | 7°24 | 2°21 | 6° 1 | 15°49 | 15°16 | 8° 3 | 8°21 | 23°21 | 17°28 | T 29 | | | | | | | | |
| W30 | 4 59 40 | 14°29'37 | 25♌13 | 27♌19 | 0♋35 | 22♈ 8 | 7♌17 | 2♌27 | 6♈ 4 | 15♈47 | 15♋16 | 7♋50 | 8♋17 | 23♈28 | 17♌33 | W30 | | | | | | | | |

Delta T = 19m01s Julian Calendar 1 Nov. 1076 == Greg. Calendar 7 Nov. 1076

DECEMBER 1076 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|--------|-------|------|------|--------|-------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 5 3 36 | 15♈30'48 | 9♌37 | 26°R35 | 1♋42 | 21°R44 | 7°R10 | 2♌34 | 6♈ 6 | 15°R45 | 15♋16 | 7°R39 | 8♋14 | 23♈34 | 17♌37 | T 1 | | | | | | | | |
| F 2 | 5 7 33 | 16°31'59 | 24° 7 | 25♌40 | 2°49 | 21♈21 | 7♌ 3 | 2°41 | 6° 9 | 15♈44 | 15°16 | 7♋31 | 8°11 | 23°41 | 17°42 | F 2 | | | | | | | | |
| S 3 | 5 11 29 | 17°33'11 | 8♋35 | 24°36 | 3°55 | 20°57 | 6°56 | 2°48 | 6°11 | 15°42 | 15°17 | 7°25 | 8° 8 | 23°48 | 17°47 | S 3 | | | | | | | | |
| S 4 | 5 15 26 | 18°34'23 | 22°57 | 23°23 | 5° 2 | 20°33 | 6°49 | 2°55 | 6°14 | 15°40 | 15°17 | 7°23 | 8° 5 | 23°54 | 17°51 | S 4 | | | | | | | | |
| M 5 | 5 19 22 | 19°35'34 | 7♋10 | 22° 5 | 6° 8 | 20° 9 | 6°41 | 3° 2 | 6°16 | 15°38 | 15°17 | 7°D22 | 8° 2 | 24° 1 | 17°56 | M 5 | | | | | | | | |
| T 6 | 5 23 19 | 20°36'46 | 21°12 | 20°43 | 7°14 | 19°45 | 6°34 | 3° 9 | 6°19 | 15°37 | 15°17 | 7°R22 | 7°58 | 24° 8 | 18° 1 | T 6 | | | | | | | | |
| W 7 | 5 27 15 | 21°37'57 | 5♈ 4 | 19°21 | 8°19 | 19°22 | 6°26 | 3°16 | 6°22 | 15°35 | 15°18 | 7°22 | 7°55 | 24°14 | 18° 6 | W 7 | | | | | | | | |
| T 8 | 5 31 12 | 22°39'08 | 18°45 | 18° 1 | 9°25 | 18°58 | 6°18 | 3°23 | 6°25 | 15°33 | 15°18 | 7°19 | 7°52 | 24°21 | 18°11 | T 8 | | | | | | | | |
| F 9 | 5 35 9 | 23°40'20 | 2♌17 | 16°46 | 10°30 | 18°35 | 6°11 | 3°30 | 6°27 | 15°32 | 15°18 | 7°14 | 7°49 | 24°27 | 18°16 | F 9 | | | | | | | | |
| S 10 | 5 39 5 | 24°41'31 | 15°38 | 15°37 | 11°34 | 18°12 | 6° 3 | 3°37 | 6°30 | 15°30 | 15°19 | 7° 6 | 7°46 | 24°34 | 18°21 | S 10 | | | | | | | | |
| S 11 | 5 43 2 | 25°42'42 | 28°48 | 14°37 | 12°39 | 17°49 | 5°55 | 3°44 | 6°33 | 15°28 | 15°19 | 6°55 | 7°43 | 24°41 | 18°26 | S 11 | | | | | | | | |
| M12 | 5 46 58 | 26°43'53 | 11♈47 | 13°47 | 13°43 | 17°27 | 5°47 | 3°51 | 6°36 | 15°27 | 15°20 | 6°43 | 7°39 | 24°47 | 18°31 | M12 | | | | | | | | |
| T 13 | 5 50 55 | 27°45'04 | 24°33 | 13° 6 | 14°47 | 17° 5 | 5°39 | 3°58 | 6°39 | 15°25 | 15°20 | 6°30 | 7°36 | 24°54 | 18°36 | T 13 | | | | | | | | |
| W14 | 5 54 51 | 28°46'15 | 7♌ 5 | 12°36 | 15°50 | 16°44 | 5°31 | 4° 5 | 6°42 | 15°23 | 15°21 | 6°18 | 7°33 | 25° 1 | 18°41 | W14 | | | | | | | | |
| T 15 | 5 58 48 | 29°47'26 | 19°25 | 12°17 | 16°54 | 16°23 | 5°23 | 4°13 | 6°44 | 15°22 | 15°21 | 6° 7 | 7°30 | 25° 7 | 18°46 | T 15 | | | | | | | | |
| F 16 | 6 2 45 | 0♌48'37 | 1♈33 | 12° 7 | 17°57 | 16° 2 | 5°15 | 4°20 | 6°47 | 15°20 | 15°22 | 5°59 | 7°27 | 25°14 | 18°51 | F 16 | | | | | | | | |
| S 17 | 6 6 41 | 1°49'48 | 13°30 | 12°D 6 | 18°59 | 15°42 | 5° 7 | 4°27 | 6°50 | 15°18 | 15°22 | 5°54 | 7°23 | 25°21 | 18°56 | S 17 | | | | | | | | |
| S 18 | 6 10 38 | 2°50'59 | 25°20 | 12°14 | 20° 1 | 15°23 | 4°59 | 4°34 | 6°53 | 15°17 | 15°23 | 5°51 | 7°20 | 25°27 | 19° 1 | S 18 | | | | | | | | |
| M19 | 6 14 34 | 3°52'10 | 7♈ 7 | 12°30 | 21° 3 | 15° 4 | 4°51 | 4°41 | 6°56 | 15°15 | 15°23 | 5°D50 | 7°17 | 25°34 | 19° 6 | M19 | | | | | | | | |
| T 20 | 6 18 31 | 4°53'20 | 18°54 | 12°53 | 22° 4 | 14°46 | 4°43 | 4°48 | 6°59 | 15°14 | 15°24 | 5°51 | 7°14 | 25°41 | 19°11 | T 20 | | | | | | | | |
| W21 | 6 22 27 | 5°54'31 | 0♌49 | 13°23 | 23° 5 | 14°28 | 4°35 | 4°55 | 7° 3 | 15°12 | 15°25 | 5°R52 | 7°11 | 25°47 | 19°16 | W21 | | | | | | | | |
| T 22 | 6 26 24 | 6°55'42 | 12°55 | 13°59 | 24° 6 | 14°12 | 4°27 | 5° 2 | 7° 6 | 15°10 | 15°25 | 5°52 | 7° 8 | 25°54 | 19°21 | T 22 | | | | | | | | |
| F 23 | 6 30 20 | 7°56'52 | 25°19 | 14°40 | 25° 6 | 13°56 | 4°18 | 5° 9 | 7° 9 | 15° 9 | 15°26 | 5°50 | 7° 4 | 26° 1 | 19°26 | F 23 | | | | | | | | |
| S 24 | 6 34 17 | 8°58'03 | 8♈ 5 | 15°26 | 26° 6 | 13°40 | 4°10 | 5°17 | 7°12 | 15° 7 | 15°27 | 5°46 | 7° 1 | 26° 7 | 19°32 | S 24 | | | | | | | | |
| S 25 | 6 38 14 | 9°59'13 | 21°16 | 16°17 | 27° 5 | 13°26 | 4° 2 | 5°24 | 7°15 | 15° 6 | 15°28 | 5°40 | 6°58 | 26°14 | 19°37 | S 25 | | | | | | | | |
| M26 | 6 42 10 | 11° 0'23 | 4♌56 | 17°11 | 28° 3 | 13°12 | 3°54 | 5°31 | 7°18 | 15° 4 | 15°28 | 5°32 | 6°55 | 26°21 | 19°42 | M26 | | | | | | | | |
| T 27 | 6 46 7 | 12° 1'33 | 19° 2 | 18° 9 | 29° 2 | 12°59 | 3°46 | 5°38 | 7°22 | 15° 3 | 15°29 | 5°23 | 6°52 | 26°27 | 19°47 | T 27 | | | | | | | | |
| W28 | 6 50 3 | 13° 2'42 | 3♌31 | 19°10 | 29°59 | 12°46 | 3°38 | 5°45 | 7°25 | 15° 1 | 15°30 | 5°13 | 6°49 | 26°34 | 19°52 | W28 | | | | | | | | |
| T 29 | 6 54 0 | 14° 3'51 | 18°17 | 20°13 | 0♋56 | 12°35 | 3°31 | 5°52 | 7°28 | 15° 0 | 15°31 | 5° 6 | 6°45 | 26°40 | 19°57 | T 29 | | | | | | | | |
| F 30 | 6 57 56 | 15° 4'59 | 3♈11 | 21°19 | 1°53 | 12°24 | 3°23 | 5°59 | 7°31 | 14°59 | 15°32 | 5° 0 | 6°42 | 26°47 | 20° 3 | F 30 | | | | | | | | |
| S 31 | 7 1 53 | 16♌ 6'07 | 18♈ 5 | 22♌28 | 2♋49 | 12♈14 | 3♌15 | 6♌ 6 | 7♈35 | 14♈57 | 15♋32 | 4♋56 | 6♋39 | 26♈54 | 20♌ 8 | S 31 | | | | | | | | |

Delta T = 19m00s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1077
geocentric

JANUARY 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|------|------|--------|-------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 5 49 | 17♁7 13 | 2♂52 | 23♁38 | 3♂45 | 12°R 5 | 3°R 7 | 6♁13 | 7♁38 | 14°R56 | 15♂33 | 4°D55 | 6♂36 | 27♁0 | 20♁13 | S 1 | | | | | | | | |
| M 2 | 7 9 46 | 18° 8'18 | 17°25 | 24°51 | 4°39 | 11♂57 | 3♁0 | 6°20 | 7°41 | 14♂54 | 15°34 | 4♂55 | 6°33 | 27° 7 | 20°18 | M 2 | | | | | | | | |
| T 3 | 7 13 43 | 19° 9'22 | 1°40 | 26° 5 | 5°33 | 11°49 | 2°52 | 6°27 | 7°45 | 14°53 | 15°35 | 4°57 | 6°29 | 27°14 | 20°24 | T 3 | | | | | | | | |
| W 4 | 7 17 39 | 20°10'25 | 15°37 | 27°21 | 6°27 | 11°43 | 2°45 | 6°34 | 7°48 | 14°52 | 15°36 | 4°R58 | 6°26 | 27°20 | 20°29 | W 4 | | | | | | | | |
| T 5 | 7 21 36 | 21°11'27 | 29°15 | 28°38 | 7°20 | 11°37 | 2°37 | 6°41 | 7°51 | 14°50 | 15°37 | 4°57 | 6°23 | 27°27 | 20°34 | T 5 | | | | | | | | |
| F 6 | 7 25 32 | 22°12'28 | 12♁36 | 29°57 | 8°12 | 11°32 | 2°30 | 6°48 | 7°55 | 14°49 | 15°38 | 4°55 | 6°20 | 27°34 | 20°39 | F 6 | | | | | | | | |
| S 7 | 7 29 29 | 23°13'28 | 25°41 | 1♁17 | 9° 3 | 11°28 | 2°23 | 6°55 | 7°58 | 14°48 | 15°39 | 4°51 | 6°17 | 27°40 | 20°44 | S 7 | | | | | | | | |
| S 8 | 7 33 25 | 24°14'26 | 8♂32 | 2°38 | 9°53 | 11°25 | 2°16 | 7° 2 | 8° 1 | 14°47 | 15°40 | 4°46 | 6°14 | 27°47 | 20°50 | S 8 | | | | | | | | |
| M 9 | 7 37 22 | 25°15'23 | 21°11 | 4° 0 | 10°43 | 11°22 | 2° 9 | 7° 9 | 8° 5 | 14°45 | 15°41 | 4°39 | 6°10 | 27°54 | 20°55 | M 9 | | | | | | | | |
| T 10 | 7 41 18 | 26°16'19 | 3♁37 | 5°23 | 11°31 | 11°20 | 2° 2 | 7°16 | 8° 8 | 14°44 | 15°42 | 4°31 | 6° 7 | 28° 0 | 21° 0 | T 10 | | | | | | | | |
| W 11 | 7 45 15 | 27°17'14 | 15°54 | 6°47 | 12°19 | 11°19 | 1°56 | 7°22 | 8°12 | 14°43 | 15°43 | 4°24 | 6° 4 | 28° 7 | 21° 5 | W 11 | | | | | | | | |
| T 12 | 7 49 12 | 28°18'08 | 28° 1 | 8°12 | 13° 6 | 11°D19 | 1°49 | 7°29 | 8°15 | 14°42 | 15°44 | 4°18 | 6° 1 | 28°14 | 21°10 | T 12 | | | | | | | | |
| F 13 | 7 53 8 | 29°19'01 | 9♁59 | 9°39 | 13°52 | 11°20 | 1°43 | 7°36 | 8°19 | 14°41 | 15°45 | 4°14 | 5°58 | 28°20 | 21°16 | F 13 | | | | | | | | |
| S 14 | 7 57 5 | 0♁19'52 | 21°52 | 11° 6 | 14°37 | 11°21 | 1°36 | 7°43 | 8°22 | 14°40 | 15°46 | 4°11 | 5°55 | 28°27 | 21°21 | S 14 | | | | | | | | |
| S 15 | 8 1 1 | 1°20'42 | 3♂40 | 12°33 | 15°21 | 11°23 | 1°30 | 7°50 | 8°26 | 14°39 | 15°48 | 4°D10 | 5°51 | 28°33 | 21°26 | S 15 | | | | | | | | |
| M 16 | 8 4 58 | 2°21'31 | 15°26 | 14° 2 | 16° 3 | 11°26 | 1°24 | 7°56 | 8°29 | 14°38 | 15°49 | 4°11 | 5°48 | 28°40 | 21°31 | M 16 | | | | | | | | |
| T 17 | 8 8 54 | 3°22'19 | 27°15 | 15°32 | 16°45 | 11°29 | 1°18 | 8° 3 | 8°33 | 14°37 | 15°50 | 4°12 | 5°45 | 28°47 | 21°36 | T 17 | | | | | | | | |
| W 18 | 8 12 51 | 4°23'06 | 9♁10 | 17° 2 | 17°25 | 11°33 | 1°12 | 8°10 | 8°36 | 14°36 | 15°51 | 4°14 | 5°42 | 28°53 | 21°41 | W 18 | | | | | | | | |
| T 19 | 8 16 47 | 5°23'52 | 21°15 | 18°34 | 18° 5 | 11°38 | 1° 7 | 8°16 | 8°39 | 14°35 | 15°52 | 4°16 | 5°39 | 29° 0 | 21°46 | T 19 | | | | | | | | |
| F 20 | 8 20 44 | 6°24'37 | 3♂36 | 20° 6 | 18°43 | 11°43 | 1° 1 | 8°23 | 8°43 | 14°34 | 15°53 | 4°R17 | 5°35 | 29° 7 | 21°51 | F 20 | | | | | | | | |
| S 21 | 8 24 41 | 7°25'21 | 16°17 | 21°39 | 19°19 | 11°49 | 0°56 | 8°29 | 8°46 | 14°33 | 15°55 | 4°16 | 5°32 | 29°13 | 21°57 | S 21 | | | | | | | | |
| S 22 | 8 28 37 | 8°26'03 | 29°23 | 23°12 | 19°55 | 11°56 | 0°51 | 8°36 | 8°50 | 14°32 | 15°56 | 4°15 | 5°29 | 29°20 | 22° 2 | S 22 | | | | | | | | |
| M 23 | 8 32 34 | 9°26'45 | 12♁55 | 24°47 | 20°28 | 12° 4 | 0°46 | 8°42 | 8°53 | 14°31 | 15°57 | 4°12 | 5°26 | 29°27 | 22° 7 | M 23 | | | | | | | | |
| T 24 | 8 36 30 | 10°27'25 | 26°56 | 26°23 | 21° 1 | 12°12 | 0°41 | 8°49 | 8°57 | 14°30 | 15°58 | 4° 9 | 5°23 | 29°33 | 22°12 | T 24 | | | | | | | | |
| W 25 | 8 40 27 | 11°28'05 | 11♁24 | 27°59 | 21°32 | 12°21 | 0°37 | 8°55 | 9° 0 | 14°29 | 16° 0 | 4° 6 | 5°20 | 29°40 | 22°17 | W 25 | | | | | | | | |
| T 26 | 8 44 23 | 12°28'42 | 26°14 | 29°36 | 22° 1 | 12°30 | 0°32 | 9° 1 | 9° 4 | 14°29 | 16° 1 | 4° 3 | 5°16 | 29°47 | 22°22 | T 26 | | | | | | | | |
| F 27 | 8 48 20 | 13°29'19 | 11♁20 | 1♁14 | 22°29 | 12°40 | 0°28 | 9° 8 | 9° 7 | 14°28 | 16° 2 | 4° 0 | 5°13 | 29°53 | 22°27 | F 27 | | | | | | | | |
| S 28 | 8 52 17 | 14°29'53 | 26°31 | 2°53 | 22°55 | 12°50 | 0°24 | 9°14 | 9°11 | 14°27 | 16° 4 | 3°59 | 5°10 | 29°59 | 22°32 | S 28 | | | | | | | | |
| S 29 | 8 56 13 | 15°30'26 | 11♂38 | 4°33 | 23°19 | 13° 1 | 0°20 | 9°20 | 9°14 | 14°27 | 16° 5 | 3°D59 | 5° 7 | 0♂7 | 22°36 | S 29 | | | | | | | | |
| M 30 | 9 0 10 | 16°30'57 | 26°32 | 6°13 | 23°41 | 13°13 | 0°16 | 9°26 | 9°18 | 14°26 | 16° 6 | 4° 0 | 5° 4 | 0°13 | 22°41 | M 30 | | | | | | | | |
| T 31 | 9 4 6 | 17°31'27 | 11♂8 | 7♁55 | 24♂1 | 13♂25 | 0♁13 | 9♁32 | 9♁21 | 14♂25 | 16♂8 | 4♂1 | 5♂1 | 0♂20 | 22♁46 | T 31 | | | | | | | | |

Delta T = 19m00s Julian Calendar 1 Jan. 1077 == Greg. Calendar 7 Jan. 1077

FEBRUARY 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|--------|-------|--------|-------|-------|--------|-------|-------|------|------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 9 8 3 | 18♁31'54 | 25♂20 | 9♁38 | 24♂20 | 13♂38 | 0°R10 | 9♁39 | 9♁25 | 14°R25 | 16♂9 | 4♂3 | 4♂57 | 0♂26 | 22♁51 | W 1 | | | | | | | | |
| T 2 | 9 11 59 | 19°32'19 | 9♁7 | 11°21 | 24°36 | 13°51 | 0♁6 | 9°45 | 9°28 | 14♂24 | 16°10 | 4° 3 | 4°54 | 0°33 | 22°56 | T 2 | | | | | | | | |
| F 3 | 9 15 56 | 20°32'43 | 22°31 | 13° 6 | 24°51 | 14° 5 | 0° 3 | 9°51 | 9°32 | 14°24 | 16°12 | 4°R 4 | 4°51 | 0°40 | 23° 1 | F 3 | | | | | | | | |
| S 4 | 9 19 52 | 21°33'04 | 5♂32 | 14°51 | 25° 3 | 14°19 | 0° 1 | 9°56 | 9°35 | 14°23 | 16°13 | 4° 3 | 4°48 | 0°46 | 23° 5 | S 4 | | | | | | | | |
| S 5 | 9 23 49 | 22°33'24 | 18°15 | 16°37 | 25°12 | 14°34 | 29♂58 | 10° 2 | 9°38 | 14°23 | 16°15 | 4° 2 | 4°45 | 0°53 | 23°10 | S 5 | | | | | | | | |
| M 6 | 9 27 46 | 23°33'41 | 0♁41 | 18°25 | 25°20 | 14°49 | 29°56 | 10° 8 | 9°42 | 14°23 | 16°16 | 4° 1 | 4°41 | 1° 0 | 23°15 | M 6 | | | | | | | | |
| T 7 | 9 31 42 | 24°33'56 | 12°54 | 20°13 | 25°25 | 15° 5 | 29°54 | 10°14 | 9°45 | 14°22 | 16°17 | 3°59 | 4°38 | 1° 6 | 23°19 | T 7 | | | | | | | | |
| W 8 | 9 35 39 | 25°34'10 | 24°57 | 22° 3 | 25°28 | 15°21 | 29°52 | 10°20 | 9°49 | 14°22 | 16°19 | 3°58 | 4°35 | 1°13 | 23°24 | W 8 | | | | | | | | |
| T 9 | 9 39 35 | 26°34'21 | 6♁53 | 23°53 | 25°R28 | 15°37 | 29°50 | 10°25 | 9°52 | 14°22 | 16°20 | 3°57 | 4°32 | 1°20 | 23°29 | T 9 | | | | | | | | |
| F 10 | 9 43 32 | 27°34'31 | 18°44 | 25°44 | 25°26 | 15°54 | 29°48 | 10°31 | 9°55 | 14°21 | 16°22 | 3°57 | 4°29 | 1°26 | 23°33 | F 10 | | | | | | | | |
| S 11 | 9 47 28 | 28°34'38 | 0♂33 | 27°37 | 25°22 | 16°12 | 29°47 | 10°36 | 9°59 | 14°21 | 16°23 | 3°D56 | 4°26 | 1°33 | 23°38 | S 11 | | | | | | | | |
| S 12 | 9 51 25 | 29°34'44 | 12°20 | 29°30 | 25°15 | 16°30 | 29°46 | 10°42 | 10° 2 | 14°21 | 16°25 | 3°56 | 4°22 | 1°40 | 23°42 | S 12 | | | | | | | | |
| M 13 | 9 55 21 | 0♂34'47 | 24°10 | 1♂24 | 25° 5 | 16°48 | 29°45 | 10°47 | 10° 5 | 14°21 | 16°26 | 3°57 | 4°19 | 1°46 | 23°46 | M 13 | | | | | | | | |
| T 14 | 9 59 18 | 1°34'49 | 6♁3 | 3°19 | 24°53 | 17° 7 | 29°44 | 10°53 | 10° 9 | 14°21 | 16°28 | 3°57 | 4°16 | 1°53 | 23°51 | T 14 | | | | | | | | |
| W 15 | 10 3 14 | 2°34'49 | 18° 3 | 5°15 | 24°38 | 17°26 | 29°43 | 10°58 | 10°12 | 14°20 | 16°29 | 3°57 | 4°13 | 1°59 | 23°55 | W 15 | | | | | | | | |
| T 16 | 10 7 11 | 3°34'48 | 0♂13 | 7°11 | 24°21 | 17°45 | 29°43 | 11° 3 | 10°15 | 14°20 | 16°31 | 3°R57 | 4°10 | 2° 6 | 24° 0 | T 16 | | | | | | | | |
| F 17 | 10 11 8 | 4°34'45 | 12°37 | 9° 8 | 24° 1 | 18° 5 | 29°43 | 11° 8 | 10°18 | 14°D20 | 16°32 | 3°57 | 4° 7 | 2°13 | 24° 4 | F 17 | | | | | | | | |
| S 18 | 10 15 4 | 5°34'40 | 25°17 | 11° 6 | 23°40 | 18°25 | 29°D43 | 11°14 | 10°22 | 14°20 | 16°34 | 3°57 | 4° 3 | 2°19 | 24° 8 | S 18 | | | | | | | | |
| S 19 | 10 19 1 | 6°34'33 | 8♁17 | 13° 4 | 23°15 | 18°45 | 29°43 | 11°19 | 10°25 | 14°20 | 16°35 | 3°D57 | 4° 0 | 2°26 | 24°12 | S 19 | | | | | | | | |
| M 20 | 10 22 57 | 7°34'25 | 21°41 | 15° 2 | 22°49 | 19° 6 | 29°43 | 11°24 | 10°28 | 14°21 | 16°37 | 3°57 | 3°57 | 2°33 | 24°16 | M 20 | | | | | | | | |
| T 21 | 10 26 54 | 8°34'15 | 5♁30 | 16°59 | 22°21 | 19°27 | 29°44 | 11°28 | 10°31 | 14°21 | 16°38 | 3°57 | 3°54 | 2°39 | 24°21 | T 21 | | | | | | | | |
| W 22 | 10 30 50 | 9°34'03 | 19°45 | 18°57 | 21°51 | 19°49 | 29°45 | 11°33 | 10°34 | 14°21 | 16°40 | 3°58 | 3°51 | 2°46 | 24°25 | W 22 | | | | | | | | |
| T 23 | 10 34 47 | 10°33'50 | 4♁23 | 20°53 | 21°19 | 20°11 | 29°45 | 11°38 | 10°38 | 14°21 | 16°41 | 3°59 | 3°47 | 2°53 | 24°29 | T 23 | | | | | | | | |
| F 24 | 10 38 43 | 11°33'34 | 19°20 | 22°49 | 20°46 | 20°33 | 29°47 | 11°43 | 10°41 | 14°21 | 16°43 | 3°59 | 3°44 | 2°59 | 24°33 | F 24 | | | | | | | | |
| S 25 | 10 42 40 | 12°33'17 | 4♂30 | 24°43 | 20°11 | 20°55 | 29°48 | 11°47 | 10°44 | 14°21 | 16°44 | 3°R59 | 3°41 | 3° 6 | 24°37 | S 25 | | | | | | | | |
| S 26 | 10 46 37 | 13°32'57 | 19°42 | 26°36 | 19°35 | 21°18 | 29°49 | 11°52 | 10°47 | 14°22 | 16°46 | 3°59 | 3°38 | 3°13 | 24°40 | S 26 | | | | | | | | |
| M 27 | 10 50 33 | 14°32'36 | 4♂47 | 28°26 | 18°59 | 21°41 | 29°51 | 11°56 | 10°50 | 14°22 | 16°47 | 3°58 | 3°35 | 3°19 | 24°44 | M 27 | | | | | | | | |
| T 28 | 10 54 30 | 15°32'12 | 19♂36 | 0♂13 | 18♂22 | 22♂4 | 29♂53 | 12♁1 | 10♁53 | 14♂22 | 16♂49 | 3♂57 | 3♂32 | 3♂26 | 24♁48 | T 28 | | | | | | | | |

Delta T = 19m00s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1077
geocentric

MARCH 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|--------|--------|---------|---------|--------|--------|---------|--------|-------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| W 1 | 10 58 26 | 16°31'46 | 4♃ 3 | 1°58 | 17°R44 | 22°II28 | 29°II55 | 12°3 5 | 10°56 | 14°II23 | 16°X50 | 3°R55 | 3°X28 | 3°M32 | 24°352 | W 1 | | | | | | | | |
| T 2 | 11 2 23 | 17°31'18 | 18° 4 | 3°39 | 17°X 6 | 22°51 | 29°58 | 12° 9 | 10°59 | 14°23 | 16°52 | 3°X54 | 3°25 | 3°39 | 24°55 | T 2 | | | | | | | | |
| F 3 | 11 6 19 | 18°30'48 | 1°II37 | 5°16 | 16°28 | 23°16 | 0°0 | 12°14 | 11° 2 | 14°24 | 16°53 | 3°53 | 3°22 | 3°46 | 24°59 | F 3 | | | | | | | | |
| S 4 | 11 10 16 | 19°30'15 | 14°43 | 6°48 | 15°51 | 23°40 | 0° 3 | 12°18 | 11° 5 | 14°24 | 16°55 | 3°D52 | 3°19 | 3°52 | 25° 3 | S 4 | | | | | | | | |
| S 5 | 11 14 12 | 20°29'40 | 27°26 | 8°16 | 15°14 | 24° 5 | 0° 6 | 12°22 | 11° 8 | 14°25 | 16°56 | 3°52 | 3°16 | 3°59 | 25° 6 | S 5 | | | | | | | | |
| M 6 | 11 18 9 | 21°29'02 | 9°349 | 9°38 | 14°38 | 24°29 | 0° 9 | 12°26 | 11°11 | 14°25 | 16°58 | 3°53 | 3°13 | 4° 6 | 25°10 | M 6 | | | | | | | | |
| T 7 | 11 22 6 | 22°28'22 | 21°57 | 10°55 | 14° 3 | 24°55 | 0°12 | 12°29 | 11°13 | 14°26 | 16°59 | 3°54 | 3° 9 | 4°12 | 25°13 | T 7 | | | | | | | | |
| W 8 | 11 26 2 | 23°27'40 | 3°Ω53 | 12° 6 | 13°30 | 25°20 | 0°15 | 12°33 | 11°16 | 14°26 | 17° 1 | 3°56 | 3° 6 | 4°19 | 25°16 | W 8 | | | | | | | | |
| T 9 | 11 29 59 | 24°26'55 | 15°43 | 13°11 | 12°57 | 25°46 | 0°19 | 12°37 | 11°19 | 14°27 | 17° 2 | 3°57 | 3° 3 | 4°26 | 25°20 | T 9 | | | | | | | | |
| F 10 | 11 33 55 | 25°26'09 | 27°30 | 14° 9 | 12°27 | 26°11 | 0°23 | 12°41 | 11°22 | 14°28 | 17° 4 | 3°58 | 3° 0 | 4°32 | 25°23 | F 10 | | | | | | | | |
| S 11 | 11 37 52 | 26°25'20 | 9°M18 | 15° 0 | 11°58 | 26°37 | 0°26 | 12°44 | 11°24 | 14°28 | 17° 5 | 3°R58 | 2°57 | 4°39 | 25°26 | S 11 | | | | | | | | |
| S 12 | 11 41 48 | 27°24'28 | 21° 8 | 15°45 | 11°32 | 27° 4 | 0°31 | 12°47 | 11°27 | 14°29 | 17° 7 | 3°57 | 2°53 | 4°46 | 25°29 | S 12 | | | | | | | | |
| M13 | 11 45 45 | 28°23'35 | 3°Ω 3 | 16°22 | 11° 7 | 27°30 | 0°35 | 12°51 | 11°30 | 14°30 | 17° 8 | 3°55 | 2°50 | 4°52 | 25°32 | M13 | | | | | | | | |
| T 14 | 11 49 41 | 29°22'39 | 15° 5 | 16°53 | 10°45 | 27°57 | 0°39 | 12°54 | 11°32 | 14°31 | 17°10 | 3°51 | 2°47 | 4°59 | 25°35 | T 14 | | | | | | | | |
| W15 | 11 53 38 | 0°Y21'42 | 27°17 | 17°16 | 10°25 | 28°23 | 0°44 | 12°57 | 11°35 | 14°32 | 17°11 | 3°47 | 2°44 | 5° 6 | 25°38 | W15 | | | | | | | | |
| T 16 | 11 57 35 | 1°20'43 | 9°M38 | 17°33 | 10° 7 | 28°50 | 0°49 | 13° 0 | 11°37 | 14°33 | 17°13 | 3°42 | 2°41 | 5°12 | 25°41 | T 16 | | | | | | | | |
| F 17 | 12 1 31 | 2°19'41 | 22°12 | 17°42 | 9°52 | 29°18 | 0°54 | 13° 3 | 11°40 | 14°33 | 17°14 | 3°38 | 2°38 | 5°19 | 25°44 | F 17 | | | | | | | | |
| S 18 | 12 5 28 | 3°18'38 | 4°X59 | 17°R45 | 9°39 | 29°45 | 0°59 | 13° 6 | 11°42 | 14°34 | 17°16 | 3°34 | 2°34 | 5°25 | 25°47 | S 18 | | | | | | | | |
| S 19 | 12 9 24 | 4°17'34 | 18° 2 | 17°40 | 9°29 | 0°513 | 1° 4 | 13° 9 | 11°45 | 14°35 | 17°17 | 3°32 | 2°31 | 5°32 | 25°49 | S 19 | | | | | | | | |
| M20 | 12 13 21 | 5°16'27 | 1°3 23 | 17°30 | 9°21 | 0°40 | 1° 9 | 13°12 | 11°47 | 14°36 | 17°19 | 3°D31 | 2°28 | 5°39 | 25°52 | M20 | | | | | | | | |
| T 21 | 12 17 17 | 6°15'19 | 15° 4 | 17°13 | 9°16 | 1° 8 | 1°15 | 13°15 | 11°50 | 14°37 | 17°20 | 3°31 | 2°25 | 5°45 | 25°55 | T 21 | | | | | | | | |
| W22 | 12 21 14 | 7°14'09 | 29° 4 | 16°51 | 9°13 | 1°37 | 1°21 | 13°17 | 11°52 | 14°38 | 17°21 | 3°32 | 2°22 | 5°52 | 25°57 | W22 | | | | | | | | |
| T 23 | 12 25 10 | 8°12'57 | 13°≈25 | 16°23 | 9°D13 | 2° 5 | 1°27 | 13°20 | 11°54 | 14°40 | 17°23 | 3°33 | 2°18 | 5°59 | 26° 0 | T 23 | | | | | | | | |
| F 24 | 12 29 7 | 9°11'43 | 28° 4 | 15°52 | 9°15 | 2°33 | 1°33 | 13°22 | 11°57 | 14°41 | 17°24 | 3°R34 | 2°15 | 6° 5 | 26° 2 | F 24 | | | | | | | | |
| S 25 | 12 33 4 | 10°10'28 | 12°X56 | 15°16 | 9°19 | 3° 2 | 1°39 | 13°24 | 11°59 | 14°42 | 17°26 | 3°34 | 2°12 | 6°12 | 26° 4 | S 25 | | | | | | | | |
| S 26 | 12 37 0 | 11° 9'10 | 27°55 | 14°37 | 9°25 | 3°31 | 1°45 | 13°26 | 12° 1 | 14°43 | 17°27 | 3°32 | 2° 9 | 6°19 | 26° 7 | S 26 | | | | | | | | |
| M27 | 12 40 57 | 12° 7'51 | 12°Y53 | 13°56 | 9°34 | 4° 0 | 1°52 | 13°29 | 12° 3 | 14°44 | 17°29 | 3°29 | 2° 6 | 6°25 | 26° 9 | M27 | | | | | | | | |
| T 28 | 12 44 53 | 13° 6'30 | 27°41 | 13°14 | 9°45 | 4°29 | 1°58 | 13°31 | 12° 5 | 14°45 | 17°30 | 3°23 | 2° 3 | 6°32 | 26°11 | T 28 | | | | | | | | |
| W29 | 12 48 50 | 14° 5'07 | 12°X12 | 12°30 | 9°58 | 4°58 | 2° 5 | 13°33 | 12° 7 | 14°47 | 17°31 | 3°17 | 1°59 | 6°39 | 26°13 | W29 | | | | | | | | |
| T 30 | 12 52 46 | 15° 3'41 | 26°18 | 11°47 | 10°13 | 5°27 | 2°12 | 13°34 | 12° 9 | 14°48 | 17°33 | 3°11 | 1°56 | 6°45 | 26°15 | T 30 | | | | | | | | |
| F 31 | 12 56 43 | 16°Y 2'14 | 9°II58 | 11°Y 5 | 10°X30 | 5°57 | 2°19 | 13°36 | 12°≈11 | 14°II49 | 17°X34 | 3°X 5 | 1°X53 | 6°M52 | 26°X17 | F 31 | | | | | | | | |

Delta T = 18m59s Julian Calendar 1 March 1077 == Greg. Calendar 7 March 1077

APRIL 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|---------|--------|--------|--------|-------|---------|--------|---------|--------|-------|-------|--------|---------|------|---|---|---|---|---|---|---|-----|
| S 1 | 13 0 39 | 17°Y 0'44 | 23°II10 | 10°R24 | 10°X49 | 6°527 | 2°526 | 13°3 38 | 12°≈13 | 14°II51 | 17°X35 | 3°R 0 | 1°X50 | 6°M58 | 26°3 19 | S 1 | | | | | | | | |
| S 2 | 13 4 36 | 17°59'12 | 5°57 | 9°Y46 | 11° 9 | 6°56 | 2°34 | 13°39 | 12°15 | 14°52 | 17°37 | 2°X58 | 1°47 | 7° 5 | 26°20 | S 2 | | | | | | | | |
| M 3 | 13 8 33 | 18°57'38 | 18°22 | 9°10 | 11°32 | 7°26 | 2°41 | 13°41 | 12°17 | 14°53 | 17°38 | 2°D57 | 1°44 | 7°12 | 26°22 | M 3 | | | | | | | | |
| T 4 | 13 12 29 | 19°56'02 | 0°Ω30 | 8°38 | 11°56 | 7°57 | 2°49 | 13°42 | 12°19 | 14°55 | 17°39 | 2°58 | 1°40 | 7°18 | 26°24 | T 4 | | | | | | | | |
| W 5 | 13 16 26 | 20°54'24 | 12°26 | 8°10 | 12°22 | 8°27 | 2°56 | 13°43 | 12°20 | 14°56 | 17°41 | 2°59 | 1°37 | 7°25 | 26°25 | W 5 | | | | | | | | |
| T 6 | 13 20 22 | 21°52'43 | 24°14 | 7°46 | 12°49 | 8°57 | 3° 4 | 13°44 | 12°22 | 14°58 | 17°42 | 3° 0 | 1°34 | 7°32 | 26°27 | T 6 | | | | | | | | |
| F 7 | 13 24 19 | 22°51'01 | 6°M 1 | 7°26 | 13°18 | 9°28 | 3°12 | 13°45 | 12°24 | 14°59 | 17°43 | 3°R 0 | 1°31 | 7°38 | 26°28 | F 7 | | | | | | | | |
| S 8 | 13 28 15 | 23°49'16 | 17°50 | 7°12 | 13°49 | 9°58 | 3°21 | 13°46 | 12°26 | 15° 1 | 17°45 | 2°59 | 1°28 | 7°45 | 26°30 | S 8 | | | | | | | | |
| S 9 | 13 32 12 | 24°47'30 | 29°45 | 7° 1 | 14°21 | 10°29 | 3°29 | 13°47 | 12°27 | 15° 2 | 17°46 | 2°56 | 1°24 | 7°52 | 26°31 | S 9 | | | | | | | | |
| M10 | 13 36 8 | 25°45'41 | 11°Ω48 | 6°56 | 14°54 | 11° 0 | 3°37 | 13°48 | 12°29 | 15° 4 | 17°47 | 2°50 | 1°21 | 7°58 | 26°32 | M10 | | | | | | | | |
| T 11 | 13 40 5 | 26°43'51 | 24° 2 | 6°D56 | 15°29 | 11°31 | 3°46 | 13°49 | 12°30 | 15° 5 | 17°48 | 2°42 | 1°18 | 8° 5 | 26°33 | T 11 | | | | | | | | |
| W12 | 13 44 1 | 27°41'59 | 6°M29 | 7° 0 | 16° 4 | 12° 2 | 3°54 | 13°49 | 12°32 | 15° 7 | 17°50 | 2°33 | 1°15 | 8°12 | 26°34 | W12 | | | | | | | | |
| T 13 | 13 47 58 | 28°40'05 | 19° 7 | 7° 9 | 16°42 | 12°33 | 4° 3 | 13°50 | 12°33 | 15° 9 | 17°51 | 2°23 | 1°12 | 8°18 | 26°35 | T 13 | | | | | | | | |
| F 14 | 13 51 55 | 29°38'09 | 1°X59 | 7°23 | 17°20 | 13° 4 | 4°12 | 13°50 | 12°34 | 15°10 | 17°52 | 2°13 | 1° 9 | 8°25 | 26°36 | F 14 | | | | | | | | |
| S 15 | 13 55 51 | 0°X36'13 | 15° 2 | 7°42 | 17°59 | 13°36 | 4°21 | 13°50 | 12°36 | 15°12 | 17°53 | 2° 4 | 1° 5 | 8°32 | 26°37 | S 15 | | | | | | | | |
| S 16 | 13 59 48 | 1°34'14 | 28°19 | 8° 5 | 18°40 | 14° 7 | 4°30 | 13°50 | 12°37 | 15°14 | 17°54 | 1°58 | 1° 2 | 8°38 | 26°38 | S 16 | | | | | | | | |
| M17 | 14 3 44 | 2°32'15 | 11°3 47 | 8°32 | 19°21 | 14°39 | 4°39 | 13°R51 | 12°38 | 15°16 | 17°56 | 1°54 | 0°59 | 8°45 | 26°39 | M17 | | | | | | | | |
| T 18 | 14 7 41 | 3°30'13 | 25°28 | 9° 4 | 20° 4 | 15°10 | 4°48 | 13°50 | 12°39 | 15°17 | 17°57 | 1°52 | 0°56 | 8°51 | 26°39 | T 18 | | | | | | | | |
| W19 | 14 11 37 | 4°28'11 | 9°≈23 | 9°39 | 20°47 | 15°42 | 4°58 | 13°50 | 12°41 | 15°19 | 17°58 | 1°D52 | 0°53 | 8°58 | 26°40 | W19 | | | | | | | | |
| T 20 | 14 15 34 | 5°26'07 | 23°30 | 10°19 | 21°32 | 16°14 | 5° 7 | 13°50 | 12°42 | 15°21 | 17°59 | 1°52 | 0°50 | 9° 5 | 26°40 | T 20 | | | | | | | | |
| F 21 | 14 19 30 | 6°24'02 | 7°X50 | 11° 2 | 22°17 | 16°46 | 5°17 | 13°50 | 12°43 | 15°23 | 18° 0 | 1°R52 | 0°46 | 9°11 | 26°41 | F 21 | | | | | | | | |
| S 22 | 14 23 27 | 7°21'56 | 22°20 | 11°48 | 23° 4 | 17°18 | 5°27 | 13°49 | 12°44 | 15°25 | 18° 1 | 1°51 | 0°43 | 9°18 | 26°41 | S 22 | | | | | | | | |
| S 23 | 14 27 24 | 8°19'48 | 6°Y57 | 12°39 | 23°51 | 17°50 | 5°36 | 13°49 | 12°45 | 15°26 | 18° 2 | 1°47 | 0°40 | 9°25 | 26°42 | S 23 | | | | | | | | |
| M24 | 14 31 20 | 9°17'39 | 21°X 4 | 13°32 | 24°38 | 18°23 | 5°46 | 13°48 | 12°46 | 15°28 | 18° 3 | 1°40 | 0°37 | 9°31 | 26°42 | M24 | | | | | | | | |
| T 25 | 14 35 17 | 10°15'28 | 6°X 5 | 14°29 | 25°27 | 18°55 | 5°56 | 13°48 | 12°46 | 15°30 | 18° 4 | 1°31 | 0°34 | 9°38 | 26°42 | T 25 | | | | | | | | |
| W26 | 14 39 13 | 11°13'16 | 20°24 | 15°29 | 26°16 | 19°27 | 6° 6 | 13°47 | 12°47 | 15°32 | 18° 5 | 1°21 | 0°30 | 9°45 | 26°R42 | W26 | | | | | | | | |
| T 27 | 14 43 10 | 12°11'03 | 4°II24 | 16°32 | 27° 6 | 20° 0 | 6°17 | 13°46 | 12°48 | 15°34 | 18° 6 | 1°10 | 0°27 | 9°51 | 26°42 | T 27 | | | | | | | | |
| F 28 | 14 47 6 | 13° 8'48 | 18° 1 | 17°38 | 27°57 | 20°33 | 6°27 | 13°45 | 12°49 | 15°36 | 18° 7 | 1° 0 | 0°24 | 9°58 | 26°42 | F 28 | | | | | | | | |
| S 29 | 14 51 3 | 14° 6'32 | 1°3 13 | 18°46 | 28°48 | 21° 5 | 6°37 | 13°44 | 12°49 | 15°38 | 18° 8 | 0°51 | 0°21 | 10° 5 | 26°42 | S 29 | | | | | | | | |
| S 30 | 14 54 59 | 15°X 4'14 | 14°3 1 | 19°Y58 | 29°X40 | 21°538 | 6°548 | 13°3 43 | 12°≈50 | 15°II40 | 18°X 9 | 0°X45 | 0°X18 | 10°M11 | 26°3 42 | S 30 | | | | | | | | |

Delta T = 18m59s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1077
geocentric

MAY 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|-------|-------|--------|-------|-------|--------|------|-----|
| M 1 | 14 58 56 | 16♈ 1'55 | 26♉27 | 21♊12 | 0♋33 | 22♌11 | 6♍58 | 13°R41 | 12♎50 | 15♏42 | 18♐10 | 0°R42 | 0♑15 | 10♒18 | 26°R41 | M 1 | |
| T 2 | 15 2 53 | 16°59'34 | 8♌36 | 22°29 | 1°26 | 22°44 | 7° 9 | 13♈40 | 12°51 | 15°44 | 18°11 | 0♑40 | 0°11 | 10°25 | 26♈41 | T 2 | |
| W 3 | 15 6 49 | 17°57'11 | 20°33 | 23°48 | 2°19 | 23°17 | 7°20 | 13°38 | 12°51 | 15°46 | 18°12 | 0°D40 | 0° 8 | 10°31 | 26°40 | W 3 | |
| T 4 | 15 10 46 | 18°54'47 | 2♎23 | 25°10 | 3°13 | 23°50 | 7°30 | 13°37 | 12°52 | 15°48 | 18°13 | 0°R40 | 0° 5 | 10°38 | 26°40 | T 4 | |
| F 5 | 15 14 42 | 19°52'21 | 14°11 | 26°35 | 4° 8 | 24°24 | 7°41 | 13°35 | 12°52 | 15°50 | 18°13 | 0°39 | 0° 2 | 10°44 | 26°39 | F 5 | |
| S 6 | 15 18 39 | 20°49'54 | 26° 2 | 28° 2 | 5° 3 | 24°57 | 7°52 | 13°34 | 12°52 | 15°52 | 18°14 | 0°37 | 29♌59 | 10°51 | 26°39 | S 6 | |
| S 7 | 15 22 35 | 21°47'25 | 8♌ 2 | 29°31 | 5°59 | 25°30 | 8° 3 | 13°32 | 12°53 | 15°54 | 18°15 | 0°32 | 29°55 | 10°58 | 26°38 | S 7 | |
| M 8 | 15 26 32 | 22°44'55 | 20°13 | 1♌ 3 | 6°55 | 26° 4 | 8°14 | 13°30 | 12°53 | 15°56 | 18°16 | 0°25 | 29°52 | 11° 4 | 26°37 | M 8 | |
| T 9 | 15 30 28 | 23°42'24 | 2♎39 | 2°37 | 7°52 | 26°37 | 8°26 | 13°28 | 12°53 | 15°58 | 18°17 | 0°15 | 29°49 | 11°11 | 26°36 | T 9 | |
| W10 | 15 34 25 | 24°39'51 | 15°21 | 4°14 | 8°49 | 27°11 | 8°37 | 13°26 | 12°53 | 16° 0 | 18°17 | 0° 3 | 29°46 | 11°18 | 26°35 | W10 | |
| T 11 | 15 38 22 | 25°37'18 | 28°19 | 5°54 | 9°46 | 27°45 | 8°48 | 13°24 | 12°53 | 16° 2 | 18°18 | 29♌51 | 29°43 | 11°24 | 26°34 | T 11 | |
| F 12 | 15 42 18 | 26°34'44 | 11♌32 | 7°35 | 10°44 | 28°18 | 9° 0 | 13°21 | 12°R53 | 16° 5 | 18°19 | 29°38 | 29°40 | 11°31 | 26°33 | F 12 | |
| S 13 | 15 46 15 | 27°32'08 | 24°58 | 9°19 | 11°42 | 28°52 | 9°11 | 13°19 | 12°53 | 16° 7 | 18°19 | 29°27 | 29°36 | 11°38 | 26°32 | S 13 | |
| S 14 | 15 50 11 | 28°29'32 | 8♌35 | 11° 6 | 12°41 | 29°26 | 9°23 | 13°17 | 12°53 | 16° 9 | 18°20 | 29°19 | 29°33 | 11°44 | 26°31 | S 14 | |
| M15 | 15 54 8 | 29°26'55 | 22°21 | 12°55 | 13°40 | 0♌ 0 | 9°34 | 13°14 | 12°53 | 16°11 | 18°21 | 29°13 | 29°30 | 11°51 | 26°30 | M15 | |
| T 16 | 15 58 4 | 0♐24'18 | 6♌15 | 14°46 | 14°39 | 0°34 | 9°46 | 13°12 | 12°53 | 16°13 | 18°21 | 29°10 | 29°27 | 11°58 | 26°28 | T 16 | |
| W17 | 16 2 1 | 1°21'39 | 20°14 | 16°39 | 15°39 | 1° 8 | 9°58 | 13° 9 | 12°53 | 16°15 | 18°22 | 29° 9 | 29°24 | 12° 4 | 26°27 | W17 | |
| T 18 | 16 5 58 | 2°19'01 | 4♌19 | 18°35 | 16°39 | 1°43 | 10°10 | 13° 6 | 12°52 | 16°17 | 18°23 | 29° 9 | 29°21 | 12°11 | 26°26 | T 18 | |
| F 19 | 16 9 54 | 3°16'21 | 18°28 | 20°33 | 17°40 | 2°17 | 10°21 | 13° 3 | 12°52 | 16°20 | 18°23 | 29° 8 | 29°17 | 12°18 | 26°24 | F 19 | |
| S 20 | 16 13 51 | 4°13'41 | 2♊41 | 22°33 | 18°40 | 2°51 | 10°33 | 13° 0 | 12°52 | 16°22 | 18°24 | 29° 7 | 29°14 | 12°24 | 26°22 | S 20 | |
| S 21 | 16 17 47 | 5°11'01 | 16°55 | 24°35 | 19°41 | 3°25 | 10°45 | 12°57 | 12°51 | 16°24 | 18°24 | 29° 2 | 29°11 | 12°31 | 26°21 | S 21 | |
| M22 | 16 21 44 | 6° 8'20 | 1♌ 7 | 26°39 | 20°43 | 4° 0 | 10°57 | 12°54 | 12°51 | 16°26 | 18°25 | 28°55 | 29° 8 | 12°37 | 26°19 | M22 | |
| T 23 | 16 25 40 | 7° 5'38 | 15°14 | 28°45 | 21°44 | 4°34 | 11° 9 | 12°51 | 12°50 | 16°28 | 18°25 | 28°45 | 29° 5 | 12°44 | 26°17 | T 23 | |
| W24 | 16 29 37 | 8° 2'57 | 29°10 | 0♐52 | 22°46 | 5° 9 | 11°22 | 12°48 | 12°50 | 16°31 | 18°26 | 28°34 | 29° 1 | 12°51 | 26°15 | W24 | |
| T 25 | 16 33 33 | 9° 0'14 | 12♐51 | 3° 1 | 23°48 | 5°44 | 11°34 | 12°45 | 12°49 | 16°33 | 18°26 | 28°22 | 28°58 | 12°57 | 26°14 | T 25 | |
| F 26 | 16 37 30 | 9°57'31 | 26°14 | 5°11 | 24°50 | 6°18 | 11°46 | 12°42 | 12°48 | 16°35 | 18°26 | 28°11 | 28°55 | 13° 4 | 26°12 | F 26 | |
| S 27 | 16 41 27 | 10°54'47 | 9♌17 | 7°22 | 25°53 | 6°53 | 11°58 | 12°38 | 12°48 | 16°37 | 18°27 | 28° 1 | 28°52 | 13°11 | 26°10 | S 27 | |
| S 28 | 16 45 23 | 11°52'03 | 21°59 | 9°33 | 26°56 | 7°28 | 12°11 | 12°35 | 12°47 | 16°40 | 18°27 | 27°54 | 28°49 | 13°17 | 26° 8 | S 28 | |
| M29 | 16 49 20 | 12°49'18 | 4♌23 | 11°45 | 27°59 | 8° 3 | 12°23 | 12°31 | 12°46 | 16°42 | 18°27 | 27°50 | 28°46 | 13°24 | 26° 5 | M29 | |
| T 30 | 16 53 16 | 13°46'32 | 16°31 | 13°56 | 29° 2 | 8°38 | 12°36 | 12°28 | 12°45 | 16°44 | 18°28 | 27°48 | 28°42 | 13°31 | 26° 3 | T 30 | |
| W31 | 16 57 13 | 14♐43'45 | 28♌27 | 16♐ 8 | 0♌ 6 | 9♌13 | 12♌48 | 12♌24 | 12♌44 | 16♐46 | 18♐28 | 27°D47 | 28♌39 | 13♐37 | 26♌ 1 | W31 | |

Delta T = 18m59s Julian Calendar 1 May 1077 = Greg. Calendar 7 May 1077

JUNE 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|--------|------|-----|
| T 1 | 17 1 9 | 15♐40'58 | 10♑18 | 18♒19 | 1♌10 | 9♌48 | 13♌ 1 | 12°R20 | 12°R43 | 16♐49 | 18♐28 | 27°R47 | 28♌36 | 13♑44 | 25°R59 | T 1 | |
| F 2 | 17 5 6 | 16°38'10 | 22° 7 | 20°29 | 2°14 | 10°23 | 13°13 | 12♌17 | 12♌42 | 16°51 | 18°29 | 27♌47 | 28°33 | 13°51 | 25♌56 | F 2 | |
| S 3 | 17 9 2 | 17°35'21 | 4♌ 0 | 22°38 | 3°18 | 10°58 | 13°26 | 12°13 | 12°41 | 16°53 | 18°29 | 27°46 | 28°30 | 13°57 | 25°54 | S 3 | |
| S 4 | 17 12 59 | 18°32'32 | 16° 2 | 24°46 | 4°22 | 11°34 | 13°38 | 12° 9 | 12°40 | 16°55 | 18°29 | 27°43 | 28°27 | 14° 4 | 25°52 | S 4 | |
| M 5 | 17 16 56 | 19°29'42 | 28°19 | 26°53 | 5°27 | 12° 9 | 13°51 | 12° 5 | 12°39 | 16°57 | 18°29 | 27°37 | 28°23 | 14°11 | 25°49 | M 5 | |
| T 6 | 17 20 52 | 20°26'52 | 10♎52 | 28°59 | 6°31 | 12°44 | 14° 4 | 12° 1 | 12°38 | 17° 0 | 18°29 | 27°29 | 28°20 | 14°17 | 25°46 | T 6 | |
| W 7 | 17 24 49 | 21°24'02 | 23°46 | 19° 2 | 7°36 | 13°20 | 14°17 | 11°57 | 12°37 | 17° 2 | 18°30 | 27°20 | 28°17 | 14°24 | 25°44 | W 7 | |
| T 8 | 17 28 45 | 22°21'11 | 7♌ 0 | 3° 4 | 8°41 | 13°55 | 14°29 | 11°53 | 12°36 | 17° 4 | 18°30 | 27° 9 | 28°14 | 14°31 | 25°41 | T 8 | |
| F 9 | 17 32 42 | 23°18'20 | 20°33 | 5° 4 | 9°47 | 14°31 | 14°42 | 11°49 | 12°34 | 17° 6 | 18°30 | 26°59 | 28°11 | 14°37 | 25°39 | F 9 | |
| S 10 | 17 36 38 | 24°15'29 | 4♌22 | 7° 2 | 10°52 | 15° 6 | 14°55 | 11°45 | 12°33 | 17° 9 | 18°30 | 26°50 | 28° 7 | 14°44 | 25°36 | S 10 | |
| S 11 | 17 40 35 | 25°12'38 | 18°24 | 8°59 | 11°58 | 15°42 | 15° 8 | 11°41 | 12°32 | 17°11 | 18°30 | 26°43 | 28° 4 | 14°51 | 25°33 | S 11 | |
| M12 | 17 44 31 | 26° 9'47 | 2♌35 | 10°53 | 13° 4 | 16°18 | 15°21 | 11°37 | 12°30 | 17°13 | 18°30 | 26°38 | 28° 1 | 14°57 | 25°30 | M12 | |
| T 13 | 17 48 28 | 27° 6'56 | 16°50 | 12°45 | 14°10 | 16°54 | 15°34 | 11°33 | 12°29 | 17°15 | 18°R30 | 26°36 | 27°58 | 15° 4 | 25°27 | T 13 | |
| W14 | 17 52 25 | 28° 4'05 | 1♌ 5 | 14°35 | 15°16 | 17°29 | 15°47 | 11°28 | 12°28 | 17°18 | 18°30 | 26°D36 | 27°55 | 15°10 | 25°25 | W14 | |
| T 15 | 17 56 21 | 29° 1'14 | 15°19 | 16°24 | 16°22 | 18° 5 | 16° 0 | 11°24 | 12°26 | 17°20 | 18°30 | 26°36 | 27°52 | 15°17 | 25°22 | T 15 | |
| F 16 | 18 0 18 | 29°58'24 | 29°29 | 18°10 | 17°28 | 18°41 | 16°13 | 11°20 | 12°25 | 17°22 | 18°30 | 26°R37 | 27°48 | 15°24 | 25°19 | F 16 | |
| S 17 | 18 4 14 | 0♌55'34 | 13♊33 | 19°54 | 18°35 | 19°17 | 16°26 | 11°16 | 12°23 | 17°24 | 18°30 | 26°36 | 27°45 | 15°30 | 25°16 | S 17 | |
| S 18 | 18 8 11 | 1°52'45 | 27°32 | 21°36 | 19°42 | 19°53 | 16°39 | 11°11 | 12°21 | 17°26 | 18°30 | 26°33 | 27°42 | 15°37 | 25°13 | S 18 | |
| M19 | 18 12 7 | 2°49'56 | 11♌23 | 23°16 | 20°49 | 20°29 | 16°52 | 11° 7 | 12°20 | 17°28 | 18°29 | 26°29 | 27°39 | 15°44 | 25°10 | M19 | |
| T 20 | 18 16 4 | 3°47'08 | 25° 5 | 24°54 | 21°56 | 21° 5 | 17° 5 | 11° 2 | 12°18 | 17°31 | 18°29 | 26°22 | 27°36 | 15°50 | 25° 6 | T 20 | |
| W21 | 18 20 0 | 4°44'20 | 8♐35 | 26°30 | 23° 3 | 21°42 | 17°19 | 10°58 | 12°16 | 17°33 | 18°29 | 26°14 | 27°33 | 15°57 | 25° 3 | W21 | |
| T 22 | 18 23 57 | 5°41'33 | 21°52 | 28° 4 | 24°10 | 22°18 | 17°32 | 10°54 | 12°15 | 17°35 | 18°29 | 26° 5 | 27°29 | 16° 4 | 25° 0 | T 22 | |
| F 23 | 18 27 54 | 6°38'45 | 4♌55 | 29°36 | 25°18 | 22°54 | 17°45 | 10°49 | 12°13 | 17°37 | 18°29 | 25°57 | 27°26 | 16°10 | 24°57 | F 23 | |
| S 24 | 18 31 50 | 7°35'59 | 17°41 | 1♌ 6 | 26°25 | 23°31 | 17°58 | 10°45 | 12°11 | 17°39 | 18°28 | 25°50 | 27°23 | 16°17 | 24°54 | S 24 | |
| S 25 | 18 35 47 | 8°33'12 | 0♌12 | 2°33 | 27°33 | 24° 7 | 18°11 | 10°40 | 12° 9 | 17°41 | 18°28 | 25°45 | 27°20 | 16°24 | 24°50 | S 25 | |
| M26 | 18 39 43 | 9°30'26 | 12°28 | 3°59 | 28°41 | 24°44 | 18°25 | 10°36 | 12° 7 | 17°43 | 18°28 | 25°42 | 27°17 | 16°30 | 24°47 | M26 | |
| T 27 | 18 43 40 | 10°27'40 | 24°31 | 5°22 | 29°49 | 25°20 | 18°38 | 10°31 | 12° 5 | 17°46 | 18°28 | 25°D41 | 27°13 | 16°37 | 24°44 | T 27 | |
| W28 | 18 47 36 | 11°24'54 | 6♑26 | 6°43 | 0♐57 | 25°57 | 18°51 | 10°27 | 12° 3 | 17°48 | 18°27 | 25°42 | 27°10 | 16°44 | 24°41 | W28 | |
| T 29 | 18 51 33 | 12°22'09 | 18°15 | 8° 2 | 2° 5 | 26°33 | 19° 4 | 10°23 | 12° 1 | 17°50 | 18°27 | 25°43 | 27° 7 | 16°50 | 24°37 | T 29 | |
| F 30 | 18 55 30 | 13♌19'23 | 0♌ 4 | 9♌19 | 3♐13 | 27♌10 | 19♌18 | 10♌18 | 11♌59 | 17♐52 | 18♐26 | 25♌44 | 27♌ 4 | 16♑57 | 24♌34 | F 30 | |

Delta T = 18m59s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1077
geocentric

JULY 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 18 59 26 | 14 ⁵ 16'38 | 11 ⁵ 57 | 10 ⁰ 33 | 4 ^{II} 21 | 27 ⁰ 47 | 19 ⁵ 31 | 10°R14 | 11°R57 | 17 ^{II} 54 | 18°R26 | 25°R45 | 27 [♋] 1 | 17 [♌] 4 | 24°R31 | S 1 | | | | | | | | |
| S 2 | 19 3 23 | 15°13'54 | 24° 0 | 11°45 | 5°30 | 28°24 | 19°44 | 10 [♈] 9 | 11 [♉] 55 | 17°56 | 18 [♊] 26 | 25 [♋] 45 | 26°58 | 17°10 | 24 [♌] 27 | S 2 | | | | | | | | |
| M 3 | 19 7 19 | 16°11'10 | 6 [♌] 17 | 12°55 | 6°38 | 29° 1 | 19°58 | 10° 5 | 11°53 | 17°58 | 18°25 | 25°43 | 26°54 | 17°17 | 24°24 | M 3 | | | | | | | | |
| T 4 | 19 11 16 | 17° 8'26 | 18°53 | 14° 2 | 7°47 | 29°37 | 20°11 | 10° 0 | 11°51 | 18° 0 | 18°25 | 25°39 | 26°51 | 17°24 | 24°20 | T 4 | | | | | | | | |
| W 5 | 19 15 12 | 18° 5'43 | 1 [♌] 51 | 15° 6 | 8°56 | 0 [♌] 14 | 20°24 | 9°56 | 11°49 | 18° 2 | 18°24 | 25°35 | 26°48 | 17°30 | 24°17 | W 5 | | | | | | | | |
| T 6 | 19 19 9 | 19° 3'00 | 15°13 | 16° 7 | 10° 5 | 0°51 | 20°38 | 9°52 | 11°47 | 18° 4 | 18°24 | 25°29 | 26°45 | 17°37 | 24°14 | T 6 | | | | | | | | |
| F 7 | 19 23 5 | 20° 0'18 | 28°58 | 17° 6 | 11°14 | 1°29 | 20°51 | 9°47 | 11°45 | 18° 6 | 18°23 | 25°23 | 26°42 | 17°44 | 24°10 | F 7 | | | | | | | | |
| S 8 | 19 27 2 | 20°57'36 | 13 [♌] 5 | 18° 2 | 12°23 | 2° 6 | 21° 4 | 9°43 | 11°43 | 18° 8 | 18°23 | 25°18 | 26°39 | 17°50 | 24° 7 | S 8 | | | | | | | | |
| S 9 | 19 30 59 | 21°54'56 | 27°29 | 18°55 | 13°32 | 2°43 | 21°17 | 9°39 | 11°40 | 18°10 | 18°22 | 25°15 | 26°35 | 17°57 | 24° 3 | S 9 | | | | | | | | |
| M10 | 19 34 55 | 22°52'16 | 12 [♋] 4 | 19°44 | 14°41 | 3°20 | 21°31 | 9°35 | 11°38 | 18°12 | 18°22 | 25°13 | 26°32 | 18° 3 | 24° 0 | M10 | | | | | | | | |
| T 11 | 19 38 52 | 23°49'37 | 26°44 | 20°30 | 15°51 | 3°57 | 21°44 | 9°30 | 11°36 | 18°14 | 18°21 | 25°D12 | 26°29 | 18°10 | 23°56 | T 11 | | | | | | | | |
| W12 | 19 42 48 | 24°46'59 | 11 [♋] 22 | 21°13 | 17° 0 | 4°35 | 21°57 | 9°26 | 11°34 | 18°16 | 18°20 | 25°13 | 26°26 | 18°17 | 23°53 | W12 | | | | | | | | |
| T 13 | 19 46 45 | 25°44'22 | 25°54 | 21°52 | 18°10 | 5°12 | 22°11 | 9°22 | 11°32 | 18°17 | 18°20 | 25°14 | 26°23 | 18°23 | 23°50 | T 13 | | | | | | | | |
| F 14 | 19 50 41 | 26°41'46 | 10 [♌] 16 | 22°27 | 19°20 | 5°49 | 22°24 | 9°18 | 11°29 | 18°19 | 18°19 | 25°15 | 26°19 | 18°30 | 23°46 | F 14 | | | | | | | | |
| S 15 | 19 54 38 | 27°39'12 | 24°24 | 22°58 | 20°30 | 6°27 | 22°37 | 9°14 | 11°27 | 18°21 | 18°18 | 25°R16 | 26°16 | 18°37 | 23°43 | S 15 | | | | | | | | |
| S 16 | 19 58 34 | 28°36'39 | 8 [♌] 17 | 23°25 | 21°39 | 7° 4 | 22°51 | 9°10 | 11°25 | 18°23 | 18°18 | 25°16 | 26°13 | 18°43 | 23°39 | S 16 | | | | | | | | |
| M17 | 20 2 31 | 29°34'07 | 21°56 | 23°47 | 22°50 | 7°42 | 23° 4 | 9° 6 | 11°22 | 18°25 | 18°17 | 25°14 | 26°10 | 18°50 | 23°36 | M17 | | | | | | | | |
| T 18 | 20 6 28 | 0 [♌] 31'37 | 5 [♌] 19 | 24° 5 | 24° 0 | 8°20 | 23°17 | 9° 2 | 11°20 | 18°26 | 18°16 | 25°12 | 26° 7 | 18°57 | 23°32 | T 18 | | | | | | | | |
| W19 | 20 10 24 | 1°29'08 | 18°28 | 24°18 | 25°10 | 8°57 | 23°30 | 8°58 | 11°18 | 18°28 | 18°16 | 25° 9 | 26° 4 | 19° 3 | 23°29 | W19 | | | | | | | | |
| T 20 | 20 14 21 | 2°26'41 | 1 [♌] 22 | 24°25 | 26°20 | 9°35 | 23°44 | 8°54 | 11°15 | 18°30 | 18°15 | 25° 5 | 26° 0 | 19°10 | 23°26 | T 20 | | | | | | | | |
| F 21 | 20 18 17 | 3°24'14 | 14° 3 | 24°R28 | 27°30 | 10°13 | 23°57 | 8°50 | 11°13 | 18°32 | 18°14 | 25° 2 | 25°57 | 19°17 | 23°22 | F 21 | | | | | | | | |
| S 22 | 20 22 14 | 4°21'49 | 26°31 | 24°26 | 28°41 | 10°51 | 24°10 | 8°46 | 11°11 | 18°33 | 18°13 | 24°59 | 25°54 | 19°23 | 23°19 | S 22 | | | | | | | | |
| S 23 | 20 26 10 | 5°19'26 | 8 [♌] 47 | 24°18 | 29°52 | 11°29 | 24°23 | 8°42 | 11° 8 | 18°35 | 18°12 | 24°57 | 25°51 | 19°30 | 23°16 | S 23 | | | | | | | | |
| M24 | 20 30 7 | 6°17'03 | 20°53 | 24° 4 | 1 [♌] 2 | 12° 7 | 24°36 | 8°39 | 11° 6 | 18°37 | 18°12 | 24°D57 | 25°48 | 19°37 | 23°12 | M24 | | | | | | | | |
| T 25 | 20 34 3 | 7°14'42 | 2 [♌] 50 | 23°45 | 2°13 | 12°45 | 24°50 | 8°35 | 11° 3 | 18°38 | 18°11 | 24°57 | 25°45 | 19°43 | 23° 9 | T 25 | | | | | | | | |
| W26 | 20 38 0 | 8°12'21 | 14°41 | 23°20 | 3°24 | 13°23 | 25° 3 | 8°31 | 11° 1 | 18°40 | 18°10 | 24°58 | 25°41 | 19°50 | 23° 6 | W26 | | | | | | | | |
| T 27 | 20 41 57 | 9°10'02 | 26°29 | 22°51 | 4°35 | 14° 1 | 25°16 | 8°28 | 10°59 | 18°41 | 18° 9 | 24°59 | 25°38 | 19°57 | 23° 3 | T 27 | | | | | | | | |
| F 28 | 20 45 53 | 10° 7'44 | 8 [♌] 17 | 22°16 | 5°45 | 14°39 | 25°29 | 8°24 | 10°56 | 18°43 | 18° 8 | 25° 0 | 25°35 | 20° 3 | 22°59 | F 28 | | | | | | | | |
| S 29 | 20 49 50 | 11° 5'27 | 20°10 | 21°36 | 6°57 | 15°17 | 25°42 | 8°21 | 10°54 | 18°45 | 18° 7 | 25° 1 | 25°32 | 20°10 | 22°56 | S 29 | | | | | | | | |
| S 30 | 20 53 46 | 12° 3'12 | 2 [♌] 12 | 20°52 | 8° 8 | 15°56 | 25°55 | 8°18 | 10°51 | 18°46 | 18° 6 | 25° 2 | 25°29 | 20°17 | 22°53 | S 30 | | | | | | | | |
| M31 | 20 57 43 | 13 [♌] 0'57 | 14 [♌] 27 | 20 [♌] 5 | 9 [♌] 19 | 16 [♌] 34 | 26 [♌] 8 | 8 [♌] 15 | 10 [♌] 49 | 18 [♌] 48 | 18 [♌] 5 | 25°R 2 | 25 [♌] 25 | 20 [♌] 23 | 22 [♌] 50 | M31 | | | | | | | | |

Delta T = 18m58s Julian Calendar 1 July 1077 == Greg. Calendar 7 July 1077

AUGUST 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| T 1 | 21 1 39 | 13 [♌] 58'44 | 27 [♌] 1 | 19°R15 | 10 [♌] 30 | 17 [♌] 12 | 26 [♌] 21 | 8°R11 | 10°R47 | 18 [♌] 49 | 18°R 4 | 25°R 2 | 25 [♌] 22 | 20 [♌] 30 | 22°R47 | T 1 | | | | | | | | |
| W 2 | 21 5 36 | 14°56'32 | 9 [♌] 57 | 18 [♌] 23 | 11°41 | 17°51 | 26°34 | 8 [♌] 8 | 10 [♌] 44 | 18°50 | 18 [♌] 3 | 25 [♌] 1 | 25°19 | 20°37 | 22 [♌] 44 | W 2 | | | | | | | | |
| T 3 | 21 9 32 | 15°54'21 | 23°17 | 17°29 | 12°53 | 18°29 | 26°47 | 8° 5 | 10°42 | 18°52 | 18° 2 | 25° 0 | 25°16 | 20°43 | 22°41 | T 3 | | | | | | | | |
| F 4 | 21 13 29 | 16°52'12 | 7 [♌] 4 | 16°36 | 14° 4 | 19° 8 | 27° 0 | 8° 2 | 10°39 | 18°53 | 18° 1 | 24°59 | 25°13 | 20°50 | 22°38 | F 4 | | | | | | | | |
| S 5 | 21 17 26 | 17°50'04 | 21°16 | 15°43 | 15°16 | 19°46 | 27°13 | 7°59 | 10°37 | 18°55 | 18° 0 | 24°58 | 25°10 | 20°57 | 22°35 | S 5 | | | | | | | | |
| S 6 | 21 21 22 | 18°47'57 | 5 [♌] 51 | 14°53 | 16°28 | 20°25 | 27°25 | 7°57 | 10°35 | 18°56 | 17°59 | 24°58 | 25° 6 | 21° 3 | 22°32 | S 6 | | | | | | | | |
| M 7 | 21 25 19 | 19°45'52 | 20°43 | 14° 6 | 17°39 | 21° 4 | 27°38 | 7°54 | 10°32 | 18°57 | 17°58 | 24°D58 | 25° 3 | 21°10 | 22°29 | M 7 | | | | | | | | |
| T 8 | 21 29 15 | 20°43'48 | 5 [♌] 44 | 13°24 | 18°51 | 21°42 | 27°51 | 7°51 | 10°30 | 18°58 | 17°57 | 24°58 | 25° 0 | 21°17 | 22°26 | T 8 | | | | | | | | |
| W 9 | 21 33 12 | 21°41'46 | 20°45 | 12°47 | 20° 3 | 22°21 | 28° 4 | 7°49 | 10°28 | 19° 0 | 17°56 | 24°58 | 24°57 | 21°23 | 22°23 | W 9 | | | | | | | | |
| T 10 | 21 37 8 | 22°39'46 | 5 [♌] 40 | 12°16 | 21°15 | 23° 0 | 28°16 | 7°46 | 10°25 | 19° 1 | 17°55 | 24°58 | 24°54 | 21°30 | 22°20 | T 10 | | | | | | | | |
| F 11 | 21 41 5 | 23°37'47 | 20°19 | 11°51 | 22°27 | 23°39 | 28°29 | 7°44 | 10°23 | 19° 2 | 17°54 | 24°58 | 24°51 | 21°37 | 22°18 | F 11 | | | | | | | | |
| S 12 | 21 45 1 | 24°35'51 | 4 [♌] 40 | 11°35 | 23°39 | 24°18 | 28°42 | 7°41 | 10°21 | 19° 3 | 17°53 | 24°R58 | 24°47 | 21°43 | 22°15 | S 12 | | | | | | | | |
| S 13 | 21 48 58 | 25°33'56 | 18°38 | 11°26 | 24°51 | 24°57 | 28°54 | 7°39 | 10°18 | 19° 4 | 17°52 | 24°D58 | 24°44 | 21°50 | 22°12 | S 13 | | | | | | | | |
| M14 | 21 52 55 | 26°32'04 | 2 [♌] 15 | 11°D26 | 26° 4 | 25°36 | 29° 7 | 7°37 | 10°16 | 19° 5 | 17°51 | 24°58 | 24°41 | 21°57 | 22°10 | M14 | | | | | | | | |
| T 15 | 21 56 51 | 27°30'14 | 15°29 | 11°34 | 27°16 | 26°15 | 29°19 | 7°35 | 10°14 | 19° 7 | 17°50 | 24°58 | 24°38 | 22° 3 | 22° 7 | T 15 | | | | | | | | |
| W16 | 22 0 48 | 28°28'26 | 28°25 | 11°51 | 28°28 | 26°54 | 29°31 | 7°33 | 10°12 | 19° 8 | 17°49 | 24°59 | 24°35 | 22°10 | 22° 5 | W16 | | | | | | | | |
| T 17 | 22 4 44 | 29°26'40 | 11 [♌] 3 | 12°17 | 29°41 | 27°34 | 29°44 | 7°31 | 10° 9 | 19° 9 | 17°48 | 24°59 | 24°31 | 22°17 | 22° 2 | T 17 | | | | | | | | |
| F 18 | 22 8 41 | 0 [♌] 24'56 | 23°27 | 12°51 | 0 [♌] 53 | 28°13 | 29°56 | 7°29 | 10° 7 | 19°10 | 17°46 | 25° 0 | 24°28 | 22°23 | 22° 0 | F 18 | | | | | | | | |
| S 19 | 22 12 37 | 1°23'13 | 5 [♌] 39 | 13°34 | 2° 6 | 28°52 | 0 [♌] 8 | 7°27 | 10° 5 | 19°11 | 17°45 | 25° 0 | 24°25 | 22°30 | 21°58 | S 19 | | | | | | | | |
| S 20 | 22 16 34 | 2°21'33 | 17°42 | 14°24 | 3°19 | 29°32 | 0°21 | 7°26 | 10° 3 | 19°11 | 17°44 | 25° 1 | 24°22 | 22°37 | 21°55 | S 20 | | | | | | | | |
| M21 | 22 20 30 | 3°19'55 | 29°38 | 15°22 | 4°31 | 0 [♌] 11 | 0°33 | 7°24 | 10° 1 | 19°12 | 17°43 | 25°R 1 | 24°19 | 22°43 | 21°53 | M21 | | | | | | | | |
| T 22 | 22 24 27 | 4°18'18 | 11 [♌] 29 | 16°27 | 5°44 | 0°51 | 0°45 | 7°23 | 9°59 | 19°13 | 17°42 | 25° 0 | 24°16 | 22°50 | 21°51 | T 22 | | | | | | | | |
| W23 | 22 28 24 | 5°16'43 | 23°18 | 17°39 | 6°57 | 1°30 | 0°57 | 7°21 | 9°56 | 19°14 | 17°41 | 24°59 | 24°12 | 22°56 | 21°49 | W23 | | | | | | | | |
| T 24 | 22 32 20 | 6°15'10 | 5 [♌] 6 | 18°57 | 8°10 | 2°10 | 1° 9 | 7°20 | 9°54 | 19°15 | 17°40 | 24°58 | 24° 9 | 23° 3 | 21°47 | T 24 | | | | | | | | |
| F 25 | 22 36 17 | 7°13'39 | 16°56 | 20°20 | 9°23 | 2°49 | 1°21 | 7°19 | 9°52 | 19°16 | 17°38 | 24°56 | 24° 6 | 23°10 | 21°45 | F 25 | | | | | | | | |
| S 26 | 22 40 13 | 8°12'10 | 28°50 | 21°49 | 10°36 | 3°29 | 1°33 | 7°18 | 9°50 | 19°16 | 17°37 | 24°54 | 24° 3 | 23°16 | 21°43 | S 26 | | | | | | | | |
| S 27 | 22 44 10 | 9°10'42 | 10 [♌] 53 | 23°22 | 11°49 | 4° 9 | 1°45 | 7°17 | 9°48 | 19°17 | 17°36 | 24°52 | 24° 0 | 23°23 | 21°41 | S 27 | | | | | | | | |
| M28 | 22 48 6 | 10° 9'16 | 23° 8 | 24°58 | 13° 2 | 4°49 | 1°56 | 7°16 | 9°46 | 19°18 | 17°35 | 24°51 | 23°57 | 23°30 | 21°39 | M28 | | | | | | | | |
| T 29 | 22 52 3 | 11° 7'52 | 5 [♌] 39 | 26°38 | 14°16 | 5°29 | 2° 8 | 7°15 | 9°44 | 19°18 | 17°34 | 24°D50 | 23°53 | 23°36 | 21°37 | T 29 | | | | | | | | |
| W30 | 22 55 59 | 12° 6'30 | 18°29 | 28°21 | 15°29 | 6° 9 | 2°20 | 7°14 | 9°42 | 19°19 | 17°32 | 24°50 | 23°50 | 23°43 | 21°36 | W30 | | | | | | | | |
| T 31 | 22 59 56 | 13 [♌] 5'09 | 1 [♌] 42 | 0 [♌] 5 | 16 [♌] 42 | 6 [♌] 49 | 2 [♌] 31 | 7 [♌] 14 | 9 [♌] 41 | 19 [♌] 19 | 17 [♌] 31 | 24 [♌] 51 | 23 [♌] 47 | 23 [♌] 50 | 21 [♌] 34 | T 31 | | | | | | | | |

Delta T = 18m58s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1077
geocentric

SEPTEMBER 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|--------|--------|--------|-------|-------|--------|------|---|---|---|---|-----|
| F 1 | 23 3 53 | 14♐ 3'50 | 15♌21 | 1♍52 | 17♌56 | 7♄29 | 2♃43 | 7°R13 | 9°R39 | 19♐20 | 17°R30 | 24♋52 | 23♋44 | 23♍56 | 21°R32 | F 1 | | | | | |
| S 2 | 23 7 49 | 15° 2'33 | 29°26 | 3°40 | 19° 9 | 8° 9 | 2°54 | 7♌13 | 9♋37 | 19°20 | 17♋29 | 24°54 | 23°41 | 24° 3 | 21♌31 | S 2 | | | | | |
| S 3 | 23 11 46 | 16° 1'18 | 13♋58 | 5°29 | 20°23 | 8°49 | 3° 5 | 7°13 | 9°35 | 19°21 | 17°28 | 24°55 | 23°37 | 24°10 | 21°29 | S 3 | | | | | |
| M 4 | 23 15 42 | 17° 0'04 | 28°51 | 7°18 | 21°36 | 9°29 | 3°17 | 7°13 | 9°33 | 19°21 | 17°26 | 24°R55 | 23°34 | 24°16 | 21°28 | M 4 | | | | | |
| T 5 | 23 19 39 | 17°58'52 | 14♋ 0 | 9° 8 | 22°50 | 10° 9 | 3°28 | 7°D12 | 9°32 | 19°22 | 17°25 | 24°54 | 23°31 | 24°23 | 21°27 | T 5 | | | | | |
| W 6 | 23 23 35 | 18°57'42 | 29°15 | 10°58 | 22° 4 | 10°50 | 3°39 | 7°12 | 9°30 | 19°22 | 17°24 | 24°52 | 23°28 | 24°30 | 21°25 | W 6 | | | | | |
| T 7 | 23 27 32 | 19°56'34 | 14♍26 | 12°48 | 25°17 | 11°30 | 3°50 | 7°13 | 9°28 | 19°22 | 17°23 | 24°49 | 23°25 | 24°36 | 21°24 | T 7 | | | | | |
| F 8 | 23 31 28 | 20°55'29 | 29°24 | 14°38 | 26°31 | 12°10 | 4° 1 | 7°13 | 9°27 | 19°23 | 17°22 | 24°45 | 23°22 | 24°43 | 21°23 | F 8 | | | | | |
| S 9 | 23 35 25 | 21°54'26 | 14♌ 1 | 16°28 | 27°45 | 12°51 | 4°12 | 7°13 | 9°25 | 19°23 | 17°20 | 24°42 | 23°18 | 24°50 | 21°22 | S 9 | | | | | |
| S 10 | 23 39 22 | 22°53'25 | 28°11 | 18°17 | 28°59 | 13°31 | 4°23 | 7°13 | 9°24 | 19°23 | 17°19 | 24°39 | 23°15 | 24°56 | 21°21 | S 10 | | | | | |
| M11 | 23 43 18 | 23°52'26 | 11♐53 | 20° 6 | 0♐13 | 14°12 | 4°33 | 7°14 | 9°22 | 19°23 | 17°18 | 24°37 | 23°12 | 25° 3 | 21°20 | M11 | | | | | |
| T 12 | 23 47 15 | 24°51'30 | 25° 9 | 21°54 | 1°27 | 14°53 | 4°44 | 7°15 | 9°21 | 19°24 | 17°17 | 24°D36 | 23° 9 | 25°10 | 21°19 | T 12 | | | | | |
| W13 | 23 51 11 | 25°50'37 | 8♌ 0 | 23°41 | 2°41 | 15°33 | 4°54 | 7°15 | 9°19 | 19°24 | 17°16 | 24°37 | 23° 6 | 25°16 | 21°19 | W13 | | | | | |
| T 14 | 23 55 8 | 26°49'45 | 20°30 | 25°28 | 3°55 | 16°14 | 5° 5 | 7°16 | 9°18 | 19°24 | 17°14 | 24°38 | 23° 2 | 25°23 | 21°18 | T 14 | | | | | |
| F 15 | 23 59 4 | 27°48'56 | 2♌44 | 27°13 | 5° 9 | 16°55 | 5°15 | 7°17 | 9°17 | 19°24 | 17°13 | 24°40 | 22°59 | 25°30 | 21°17 | F 15 | | | | | |
| S 16 | 0 3 1 | 28°48'09 | 14°47 | 28°59 | 6°23 | 17°36 | 5°25 | 7°18 | 9°15 | 19°R24 | 17°12 | 24°42 | 22°56 | 25°36 | 21°17 | S 16 | | | | | |
| S 17 | 0 6 57 | 29°47'25 | 26°41 | 0♄43 | 7°38 | 18°17 | 5°36 | 7°19 | 9°14 | 19°24 | 17°11 | 24°R42 | 22°53 | 25°43 | 21°16 | S 17 | | | | | |
| M18 | 0 10 54 | 0♄46'42 | 8♐31 | 2°27 | 8°52 | 18°58 | 5°46 | 7°20 | 9°13 | 19°24 | 17°10 | 24°41 | 22°50 | 25°50 | 21°16 | M18 | | | | | |
| T 19 | 0 14 51 | 1°46'02 | 20°18 | 4°10 | 10° 6 | 19°39 | 5°56 | 7°22 | 9°12 | 19°24 | 17° 9 | 24°38 | 22°47 | 25°56 | 21°15 | T 19 | | | | | |
| W20 | 0 18 47 | 2°45'24 | 2♌ 7 | 5°52 | 11°21 | 20°20 | 6° 5 | 7°23 | 9°10 | 19°24 | 17° 7 | 24°33 | 22°43 | 26° 3 | 21°15 | W20 | | | | | |
| T 21 | 0 22 44 | 3°44'48 | 13°58 | 7°33 | 12°35 | 21° 1 | 6°15 | 7°24 | 9° 9 | 19°24 | 17° 6 | 24°27 | 22°40 | 26°10 | 21°15 | T 21 | | | | | |
| F 22 | 0 26 40 | 4°44'14 | 25°54 | 9°13 | 13°49 | 21°42 | 6°25 | 7°26 | 9° 8 | 19°23 | 17° 5 | 24°19 | 22°37 | 26°16 | 21°15 | F 22 | | | | | |
| S 23 | 0 30 37 | 5°43'42 | 7♌55 | 10°53 | 15° 4 | 22°23 | 6°34 | 7°28 | 9° 7 | 19°23 | 17° 4 | 24°11 | 22°34 | 26°23 | 21°D15 | S 23 | | | | | |
| S 24 | 0 34 33 | 6°43'12 | 20° 5 | 12°32 | 16°19 | 23° 5 | 6°44 | 7°29 | 9° 6 | 19°23 | 17° 3 | 24° 4 | 22°31 | 26°30 | 21°15 | S 24 | | | | | |
| M25 | 0 38 30 | 7°42'44 | 2♌24 | 14°11 | 17°33 | 23°46 | 6°53 | 7°31 | 9° 5 | 19°23 | 17° 2 | 23°57 | 22°28 | 26°36 | 21°15 | M25 | | | | | |
| T 26 | 0 42 26 | 8°42'18 | 14°57 | 15°49 | 18°48 | 24°28 | 7° 2 | 7°33 | 9° 5 | 19°22 | 17° 1 | 23°53 | 22°24 | 26°43 | 21°15 | T 26 | | | | | |
| W27 | 0 46 23 | 9°41'53 | 27°45 | 17°26 | 20° 2 | 25° 9 | 7°11 | 7°35 | 9° 4 | 19°22 | 17° 0 | 23°50 | 22°21 | 26°50 | 21°15 | W27 | | | | | |
| T 28 | 0 50 19 | 10°41'31 | 10♌52 | 19° 2 | 21°17 | 25°51 | 7°20 | 7°38 | 9° 3 | 19°22 | 16°59 | 23°D49 | 22°18 | 26°56 | 21°16 | T 28 | | | | | |
| F 29 | 0 54 16 | 11°41'10 | 24°20 | 20°38 | 22°32 | 26°32 | 7°29 | 7°40 | 9° 2 | 19°21 | 16°57 | 23°50 | 22°15 | 27° 3 | 21°16 | F 29 | | | | | |
| S 30 | 0 58 13 | 12°40'51 | 8♋12 | 22°13 | 23♍47 | 27°14 | 7♌38 | 7♌42 | 9♋ 2 | 19♐21 | 16♋56 | 23♋51 | 22♋12 | 27♍10 | 21♌17 | S 30 | | | | | |

Delta T = 18m58s Julian Calendar 1 Sept. 1077 == Greg. Calendar 7 Sept. 1077

OCTOBER 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|---------|--------|--------|-------|-------|-------|------|---|---|---|---|-----|
| S 1 | 1 2 9 | 13♄40'33 | 22♋30 | 23♄47 | 25♍1 | 27♄56 | 7♌47 | 7♌45 | 9°R 1 | 19°R20 | 16°R55 | 23°R52 | 22♋ 8 | 27♍16 | 21♌17 | S 1 | | | | | |
| M 2 | 1 6 6 | 14°40'18 | 7♋10 | 25°21 | 26°16 | 28°37 | 7°55 | 7°47 | 9♋ 0 | 19♐20 | 16♋54 | 23♋51 | 22° 5 | 27°23 | 21°18 | M 2 | | | | | |
| T 3 | 1 10 2 | 15°40'04 | 22°10 | 26°55 | 27°31 | 29°19 | 8° 4 | 7°50 | 9° 0 | 19°19 | 16°53 | 23°48 | 22° 2 | 27°30 | 21°18 | T 3 | | | | | |
| W 4 | 1 13 59 | 16°39'52 | 7♍21 | 28°28 | 28°46 | 0♌ 1 | 8°12 | 7°53 | 8°59 | 19°19 | 16°52 | 23°43 | 21°59 | 27°36 | 21°19 | W 4 | | | | | |
| T 5 | 1 17 55 | 17°39'41 | 22°35 | 29°59 | 0♄ 1 | 0°43 | 8°20 | 7°55 | 8°59 | 19°18 | 16°51 | 23°36 | 21°56 | 27°43 | 21°20 | T 5 | | | | | |
| F 6 | 1 21 52 | 18°39'33 | 7♌39 | 1♌31 | 1°16 | 1°25 | 8°28 | 7°58 | 8°59 | 19°18 | 16°50 | 23°27 | 21°53 | 27°50 | 21°21 | F 6 | | | | | |
| S 7 | 1 25 48 | 19°39'27 | 22°26 | 3° 3 | 2°31 | 2° 7 | 8°36 | 8° 1 | 8°58 | 19°17 | 16°49 | 23°18 | 21°49 | 27°57 | 21°22 | S 7 | | | | | |
| S 8 | 1 29 45 | 20°39'24 | 6♐46 | 4°33 | 3°46 | 2°49 | 8°44 | 8° 4 | 8°58 | 19°16 | 16°48 | 23°10 | 21°46 | 28° 3 | 21°23 | S 8 | | | | | |
| M 9 | 1 33 42 | 21°39'22 | 20°38 | 6° 3 | 5° 1 | 3°31 | 8°51 | 8° 8 | 8°58 | 19°16 | 16°47 | 23° 4 | 21°43 | 28°10 | 21°24 | M 9 | | | | | |
| T 10 | 1 37 38 | 22°39'23 | 4♌ 0 | 7°33 | 6°16 | 4°13 | 8°59 | 8°11 | 8°58 | 19°15 | 16°46 | 23° 0 | 21°40 | 28°17 | 21°25 | T 10 | | | | | |
| W11 | 1 41 35 | 23°39'26 | 16°54 | 9° 2 | 7°31 | 4°56 | 9° 6 | 8°14 | 8°57 | 19°14 | 16°45 | 22°59 | 21°37 | 28°23 | 21°26 | W11 | | | | | |
| T 12 | 1 45 31 | 24°39'31 | 29°25 | 10°30 | 8°46 | 5°38 | 9°13 | 8°18 | 8°57 | 19°13 | 16°45 | 22°D58 | 21°34 | 28°30 | 21°28 | T 12 | | | | | |
| F 13 | 1 49 28 | 25°39'38 | 11♌37 | 11°58 | 10° 1 | 6°20 | 9°20 | 8°21 | 8°D57 | 19°12 | 16°44 | 22°59 | 21°30 | 28°37 | 21°29 | F 13 | | | | | |
| S 14 | 1 53 24 | 26°39'47 | 23°35 | 13°26 | 11°16 | 7° 3 | 9°27 | 8°25 | 8°57 | 19°11 | 16°43 | 22°R59 | 21°27 | 28°43 | 21°31 | S 14 | | | | | |
| S 15 | 1 57 21 | 27°39'58 | 5♍26 | 14°53 | 12°31 | 7°45 | 9°34 | 8°29 | 8°57 | 19°11 | 16°42 | 22°59 | 21°24 | 28°50 | 21°32 | S 15 | | | | | |
| M16 | 2 1 17 | 28°40'12 | 17°13 | 16°19 | 13°46 | 8°28 | 9°41 | 8°32 | 8°58 | 19°10 | 16°41 | 22°56 | 21°21 | 28°57 | 21°34 | M16 | | | | | |
| T 17 | 2 5 14 | 29°40'27 | 29° 1 | 17°44 | 15° 2 | 9°10 | 9°47 | 8°36 | 8°58 | 19° 9 | 16°40 | 22°50 | 21°18 | 29° 3 | 21°36 | T 17 | | | | | |
| W18 | 2 9 11 | 0♌40'44 | 10♄52 | 19° 9 | 16°17 | 9°53 | 9°53 | 8°40 | 8°58 | 19° 8 | 16°39 | 22°41 | 21°14 | 29°10 | 21°37 | W18 | | | | | |
| T 19 | 2 13 7 | 1°41'03 | 22°50 | 20°33 | 17°32 | 10°36 | 9°59 | 8°44 | 8°58 | 19° 7 | 16°39 | 22°30 | 21°11 | 29°17 | 21°39 | T 19 | | | | | |
| F 20 | 2 17 4 | 2°41'24 | 4♌54 | 21°57 | 18°47 | 11°19 | 10° 5 | 8°48 | 8°59 | 19° 6 | 16°38 | 22°17 | 21° 8 | 29°23 | 21°41 | F 20 | | | | | |
| S 21 | 2 21 0 | 3°41'47 | 17° 8 | 23°19 | 20° 3 | 12° 1 | 10°11 | 8°52 | 8°59 | 19° 5 | 16°37 | 22° 4 | 21° 5 | 29°30 | 21°43 | S 21 | | | | | |
| S 22 | 2 24 57 | 4°42'11 | 29°30 | 24°40 | 21°18 | 12°44 | 10°17 | 8°57 | 8°59 | 19° 3 | 16°36 | 21°51 | 21° 2 | 29°37 | 21°45 | S 22 | | | | | |
| M23 | 2 28 53 | 5°42'37 | 12♌ 3 | 26° 1 | 22°33 | 13°27 | 10°23 | 9° 1 | 9° 0 | 19° 2 | 16°36 | 21°39 | 20°59 | 29°43 | 21°47 | M23 | | | | | |
| T 24 | 2 32 50 | 6°43'05 | 24°46 | 27°20 | 23°49 | 14°10 | 10°28 | 9° 6 | 9° 0 | 19° 1 | 16°35 | 21°30 | 20°55 | 29°50 | 21°49 | T 24 | | | | | |
| W25 | 2 36 46 | 7°43'34 | 7♌41 | 28°38 | 25° 4 | 14°53 | 10°33 | 9°10 | 9° 1 | 19° 0 | 16°34 | 21°24 | 20°52 | 29°57 | 21°51 | W25 | | | | | |
| T 26 | 2 40 43 | 8°44'05 | 20°50 | 29°54 | 26°19 | 15°36 | 10°38 | 9°15 | 9° 2 | 18°59 | 16°33 | 21°21 | 20°49 | 0♄ 3 | 21°54 | T 26 | | | | | |
| F 27 | 2 44 40 | 9°44'36 | 4♋15 | 1♌ 9 | 27°35 | 16°20 | 10°43 | 9°19 | 9° 2 | 18°58 | 16°33 | 21°20 | 20°46 | 0°10 | 21°56 | F 27 | | | | | |
| S 28 | 2 48 36 | 10°45'09 | 17°57 | 2°22 | 28°50 | 17° 3 | 10°48 | 9°24 | 9° 3 | 18°56 | 16°32 | 21°19 | 20°43 | 0°17 | 21°58 | S 28 | | | | | |
| S 29 | 2 52 33 | 11°45'44 | 1♋59 | 3°33 | 0♌ 6 | 17°46 | 10°52 | 9°29 | 9° 4 | 18°55 | 16°32 | 21°19 | 20°40 | 0°23 | 22° 1 | S 29 | | | | | |
| M30 | 2 56 29 | 12°46'19 | 16°21 | 4°42 | 1°21 | 18°29 | 10°57 | 9°34 | 9° 5 | 18°54 | 16°31 | 21°17 | 20°36 | 0°30 | 22° 3 | M30 | | | | | |
| T 31 | 3 0 26 | 13♌46'55 | 1°0 | 5♌47 | 2♌36 | 19♌13 | 11♌ 1 | 9♌39 | 9♋ 6 | 18♐53</ | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1077
geocentric

NOVEMBER 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|-------|------|--------|--------|--------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 3 4 22 | 14♌47'33 | 15♍51 | 6♂50 | 3♏52 | 19♎56 | 11♏ 5 | 9♃44 | 9♁ 7 | 18°R51 | 16°R30 | 21°R 6 | 20♌30 | 0♌43 | 22♃ 9 | W 1 | | | | | | | | |
| T 2 | 3 8 19 | 15°48'12 | 0♌48 | 7°49 | 5° 7 | 20°40 | 11° 9 | 9°49 | 9° 8 | 18♎50 | 16♏29 | 20♌56 | 20°27 | 0°50 | 22°11 | T 2 | | | | | | | | |
| F 3 | 3 12 15 | 16°48'53 | 15°42 | 8°45 | 6°23 | 21°23 | 11°12 | 9°54 | 9° 9 | 18°48 | 16°29 | 20°45 | 20°24 | 0°57 | 22°14 | F 3 | | | | | | | | |
| S 4 | 3 16 12 | 17°49'35 | 0♎23 | 9°35 | 7°38 | 22° 7 | 11°16 | 9°59 | 9°10 | 18°47 | 16°28 | 20°32 | 20°20 | 1° 3 | 22°17 | S 4 | | | | | | | | |
| S 5 | 3 20 9 | 18°50'19 | 14°44 | 10°21 | 8°54 | 22°50 | 11°19 | 10° 4 | 9°11 | 18°46 | 16°28 | 20°21 | 20°17 | 1°10 | 22°20 | S 5 | | | | | | | | |
| M 6 | 3 24 5 | 19°51'04 | 28°38 | 11° 1 | 10° 9 | 23°34 | 11°22 | 10°10 | 9°12 | 18°44 | 16°27 | 20°12 | 20°14 | 1°17 | 22°23 | M 6 | | | | | | | | |
| T 7 | 3 28 2 | 20°51'50 | 12♌ 5 | 11°35 | 11°24 | 24°18 | 11°25 | 10°15 | 9°13 | 18°43 | 16°27 | 20° 5 | 20°11 | 1°23 | 22°26 | T 7 | | | | | | | | |
| W 8 | 3 31 58 | 21°52'38 | 25° 4 | 12° 2 | 12°40 | 25° 1 | 11°28 | 10°20 | 9°15 | 18°41 | 16°27 | 20° 1 | 20° 8 | 1°30 | 22°29 | W 8 | | | | | | | | |
| T 9 | 3 35 55 | 22°53'28 | 7♏38 | 12°20 | 13°55 | 25°45 | 11°30 | 10°26 | 9°16 | 18°40 | 16°26 | 19°59 | 20° 5 | 1°37 | 22°32 | T 9 | | | | | | | | |
| F 10 | 3 39 51 | 23°54'19 | 19°53 | 12°30 | 15°11 | 26°29 | 11°33 | 10°32 | 9°17 | 18°38 | 16°26 | 19°59 | 20° 1 | 1°44 | 22°35 | F 10 | | | | | | | | |
| S 11 | 3 43 48 | 24°55'11 | 1♏53 | 12°R30 | 16°26 | 27°13 | 11°35 | 10°37 | 9°19 | 18°37 | 16°26 | 19°59 | 19°58 | 1°50 | 22°39 | S 11 | | | | | | | | |
| S 12 | 3 47 44 | 25°56'05 | 13°45 | 12°20 | 17°42 | 27°57 | 11°37 | 10°43 | 9°20 | 18°35 | 16°25 | 19°58 | 19°55 | 1°57 | 22°42 | S 12 | | | | | | | | |
| M13 | 3 51 41 | 26°57'00 | 25°33 | 11°59 | 18°57 | 28°41 | 11°39 | 10°49 | 9°22 | 18°34 | 16°25 | 19°55 | 19°52 | 2° 4 | 22°45 | M13 | | | | | | | | |
| T 14 | 3 55 38 | 27°57'56 | 7♌22 | 11°26 | 20°13 | 29°25 | 11°40 | 10°54 | 9°23 | 18°32 | 16°25 | 19°49 | 19°49 | 2°10 | 22°49 | T 14 | | | | | | | | |
| W15 | 3 59 34 | 28°58'54 | 19°17 | 10°43 | 21°29 | 0♌ 9 | 11°42 | 11° 0 | 9°25 | 18°31 | 16°24 | 19°40 | 19°45 | 2°17 | 22°52 | W15 | | | | | | | | |
| T 16 | 4 3 31 | 29°59'53 | 1♎21 | 9°49 | 22°44 | 0°54 | 11°43 | 11° 6 | 9°27 | 18°29 | 16°24 | 19°29 | 19°42 | 2°24 | 22°56 | T 16 | | | | | | | | |
| F 17 | 4 7 27 | 1♌ 0'53 | 13°35 | 8°45 | 24° 0 | 1°38 | 11°44 | 11°12 | 9°28 | 18°27 | 16°24 | 19°16 | 19°39 | 2°30 | 22°59 | F 17 | | | | | | | | |
| S 18 | 4 11 24 | 2° 1'54 | 26° 2 | 7°33 | 25°15 | 2°22 | 11°45 | 11°18 | 9°30 | 18°26 | 16°24 | 19° 2 | 19°36 | 2°37 | 23° 3 | S 18 | | | | | | | | |
| S 19 | 4 15 20 | 3° 2'57 | 8♌42 | 6°15 | 26°31 | 3° 7 | 11°45 | 11°24 | 9°32 | 18°24 | 16°24 | 18°48 | 19°33 | 2°44 | 23° 6 | S 19 | | | | | | | | |
| M20 | 4 19 17 | 4° 4'00 | 21°34 | 4°53 | 27°46 | 3°51 | 11°46 | 11°30 | 9°34 | 18°23 | 16°24 | 18°36 | 19°30 | 2°50 | 23°10 | M20 | | | | | | | | |
| T 21 | 4 23 13 | 5° 5'04 | 4♃37 | 3°30 | 29° 2 | 4°35 | 11°46 | 11°37 | 9°36 | 18°21 | 16°24 | 18°26 | 19°26 | 2°57 | 23°14 | T 21 | | | | | | | | |
| W22 | 4 27 10 | 6° 6'08 | 17°50 | 2° 9 | 0♌17 | 5°20 | 11°R46 | 11°43 | 9°38 | 18°19 | 16°24 | 18°20 | 19°23 | 3° 4 | 23°18 | W22 | | | | | | | | |
| T 23 | 4 31 7 | 7° 7'13 | 1♌14 | 0°52 | 1°33 | 6° 5 | 11°46 | 11°49 | 9°40 | 18°18 | 16°23 | 18°16 | 19°20 | 3°10 | 23°22 | T 23 | | | | | | | | |
| F 24 | 4 35 3 | 8° 8'19 | 14°48 | 29♎42 | 2°49 | 6°49 | 11°46 | 11°55 | 9°42 | 18°16 | 16°D23 | 18°D15 | 19°17 | 3°17 | 23°25 | F 24 | | | | | | | | |
| S 25 | 4 39 0 | 9° 9'25 | 28°33 | 28°41 | 4° 4 | 7°34 | 11°45 | 12° 2 | 9°44 | 18°14 | 16°23 | 18°15 | 19°14 | 3°24 | 23°29 | S 25 | | | | | | | | |
| S 26 | 4 42 56 | 10°10'31 | 12♌29 | 27°50 | 5°20 | 8°19 | 11°44 | 12° 8 | 9°46 | 18°13 | 16°23 | 18°R16 | 19°11 | 3°30 | 23°33 | S 26 | | | | | | | | |
| M27 | 4 46 53 | 11°11'38 | 26°37 | 27°10 | 6°35 | 9° 3 | 11°43 | 12°15 | 9°48 | 18°11 | 16°24 | 18°15 | 19° 7 | 3°37 | 23°37 | M27 | | | | | | | | |
| T 28 | 4 50 49 | 12°12'45 | 10♍55 | 26°41 | 7°51 | 9°48 | 11°42 | 12°21 | 9°50 | 18° 9 | 16°24 | 18°11 | 19° 4 | 3°44 | 23°41 | T 28 | | | | | | | | |
| W29 | 4 54 46 | 13°13'52 | 25°22 | 26°22 | 9° 6 | 10°33 | 11°41 | 12°28 | 9°53 | 18° 8 | 16°24 | 18° 6 | 19° 1 | 3°50 | 23°46 | W29 | | | | | | | | |
| T 30 | 4 58 43 | 14♌14'59 | 9♃52 | 26°D15 | 10♌22 | 11♌18 | 11♏39 | 12♃34 | 9♁55 | 18♎ 6 | 16♏24 | 17♌57 | 18♌58 | 3♌57 | 23♃50 | T 30 | | | | | | | | |

Delta T = 18m57s Julian Calendar 1 Nov. 1077 == Greg. Calendar 7 Nov. 1077

DECEMBER 1077 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|-------|--------|-------|--------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 5 2 39 | 15♌16'07 | 24♌19 | 26♎17 | 11♌37 | 12♌ 3 | 11°R38 | 12♃41 | 9♁57 | 18°R 4 | 16♏24 | 17°R47 | 18♌55 | 4♌ 4 | 23♃54 | F 1 | | | | | | | | |
| S 2 | 5 6 36 | 16°17'16 | 8♎39 | 26°29 | 12°53 | 12°48 | 11♏36 | 12°47 | 9°59 | 18♎ 2 | 16°24 | 17♌37 | 18°51 | 4°11 | 23°58 | S 2 | | | | | | | | |
| S 3 | 5 10 32 | 17°18'24 | 22°43 | 26°49 | 14° 8 | 13°33 | 11°34 | 12°54 | 10° 2 | 18° 1 | 16°24 | 17°27 | 18°48 | 4°17 | 24° 2 | S 3 | | | | | | | | |
| M 4 | 5 14 29 | 18°19'33 | 6♌27 | 27°16 | 15°24 | 14°18 | 11°31 | 13° 1 | 10° 4 | 17°59 | 16°25 | 17°19 | 18°45 | 4°24 | 24° 7 | M 4 | | | | | | | | |
| T 5 | 5 18 25 | 19°20'43 | 19°49 | 27°51 | 16°39 | 15° 3 | 11°29 | 13° 7 | 10° 7 | 17°57 | 16°25 | 17°13 | 18°42 | 4°31 | 24°11 | T 5 | | | | | | | | |
| W 6 | 5 22 22 | 20°21'53 | 2♏47 | 28°32 | 17°55 | 15°48 | 11°26 | 13°14 | 10° 9 | 17°56 | 16°25 | 17° 9 | 18°39 | 4°37 | 24°15 | W 6 | | | | | | | | |
| T 7 | 5 26 18 | 21°23'03 | 15°24 | 29°18 | 19°10 | 16°33 | 11°23 | 13°21 | 10°12 | 17°54 | 16°25 | 17°D 8 | 18°36 | 4°44 | 24°20 | T 7 | | | | | | | | |
| F 8 | 5 30 15 | 22°24'14 | 27°41 | 0♌ 9 | 20°26 | 17°18 | 11°20 | 13°28 | 10°14 | 17°52 | 16°26 | 17° 9 | 18°32 | 4°51 | 24°24 | F 8 | | | | | | | | |
| S 9 | 5 34 12 | 23°25'25 | 9♎44 | 1° 4 | 21°41 | 18° 4 | 11°17 | 13°35 | 10°17 | 17°51 | 16°26 | 17°10 | 18°29 | 4°57 | 24°29 | S 9 | | | | | | | | |
| S 10 | 5 38 8 | 24°26'36 | 21°38 | 2° 4 | 22°57 | 18°49 | 11°14 | 13°41 | 10°20 | 17°49 | 16°26 | 17°R11 | 18°26 | 5° 4 | 24°33 | S 10 | | | | | | | | |
| M11 | 5 42 5 | 25°27'48 | 3♌28 | 3° 6 | 24°13 | 19°34 | 11°10 | 13°48 | 10°22 | 17°47 | 16°27 | 17°10 | 18°23 | 5°11 | 24°38 | M11 | | | | | | | | |
| T 12 | 5 46 1 | 26°29'00 | 15°19 | 4°12 | 25°28 | 20°20 | 11° 6 | 13°55 | 10°25 | 17°45 | 16°27 | 17° 8 | 18°20 | 5°17 | 24°42 | T 12 | | | | | | | | |
| W13 | 5 49 58 | 27°30'13 | 27°16 | 5°20 | 26°44 | 21° 5 | 11° 2 | 14° 2 | 10°28 | 17°44 | 16°28 | 17° 4 | 18°17 | 5°24 | 24°47 | W13 | | | | | | | | |
| T 14 | 5 53 54 | 28°31'26 | 9♎23 | 6°31 | 27°59 | 21°51 | 10°58 | 14° 9 | 10°30 | 17°42 | 16°28 | 16°57 | 18°13 | 5°31 | 24°51 | T 14 | | | | | | | | |
| F 15 | 5 57 51 | 29°32'39 | 21°45 | 7°44 | 29°15 | 22°36 | 10°54 | 14°16 | 10°33 | 17°40 | 16°28 | 16°49 | 18°10 | 5°37 | 24°56 | F 15 | | | | | | | | |
| S 16 | 6 1 47 | 0♃33'52 | 4♌22 | 8°58 | 0♃30 | 23°22 | 10°49 | 14°23 | 10°36 | 17°39 | 16°29 | 16°40 | 18° 7 | 5°44 | 25° 1 | S 16 | | | | | | | | |
| S 17 | 6 5 44 | 1°35'05 | 17°17 | 10°15 | 1°46 | 24° 8 | 10°44 | 14°30 | 10°39 | 17°37 | 16°29 | 16°32 | 18° 4 | 5°51 | 25° 5 | S 17 | | | | | | | | |
| M18 | 6 9 41 | 2°36'18 | 0♃28 | 11°32 | 3° 1 | 24°53 | 10°40 | 14°37 | 10°42 | 17°36 | 16°30 | 16°24 | 18° 1 | 5°58 | 25°10 | M18 | | | | | | | | |
| T 19 | 6 13 37 | 3°37'31 | 13°54 | 12°52 | 4°17 | 25°39 | 10°35 | 14°44 | 10°45 | 17°34 | 16°31 | 16°18 | 17°57 | 6° 4 | 25°15 | T 19 | | | | | | | | |
| W20 | 6 17 34 | 4°38'43 | 27°33 | 14°12 | 5°32 | 26°25 | 10°29 | 14°51 | 10°48 | 17°32 | 16°31 | 16°14 | 17°54 | 6°11 | 25°19 | W20 | | | | | | | | |
| T 21 | 6 21 30 | 5°39'55 | 11♌22 | 15°34 | 6°47 | 27°11 | 10°24 | 14°58 | 10°51 | 17°31 | 16°32 | 16°D13 | 17°51 | 6°18 | 25°24 | T 21 | | | | | | | | |
| F 22 | 6 25 27 | 6°41'07 | 25°19 | 16°56 | 8° 3 | 27°56 | 10°19 | 15° 5 | 10°54 | 17°29 | 16°32 | 16°13 | 17°48 | 6°24 | 25°29 | F 22 | | | | | | | | |
| S 23 | 6 29 23 | 7°42'18 | 9♌21 | 18°20 | 9°18 | 28°42 | 10°13 | 15°13 | 10°57 | 17°27 | 16°33 | 16°14 | 17°45 | 6°31 | 25°34 | S 23 | | | | | | | | |
| S 24 | 6 33 20 | 8°43'28 | 23°27 | 19°44 | 10°34 | 29°28 | 10° 7 | 15°20 | 11° 0 | 17°26 | 16°34 | 16°16 | 17°42 | 6°38 | 25°38 | S 24 | | | | | | | | |
| M25 | 6 37 17 | 9°44'37 | 7♍35 | 21° 9 | 11°49 | 0♃14 | 10° 1 | 15°27 | 11° 3 | 17°24 | 16°35 | 16°R16 | 17°38 | 6°44 | 25°43 | M25 | | | | | | | | |
| T 26 | 6 41 13 | 10°45'46 | 21°44 | 22°35 | 13° 5 | 1° 0 | 9°55 | 15°34 | 11° 6 | 17°23 | 16°35 | 16°16 | 17°35 | 6°51 | 25°48 | T 26 | | | | | | | | |
| W27 | 6 45 10 | 11°46'54 | 5♃52 | 24° 2 | 14°20 | 1°46 | 9°49 | 15°41 | 11° 9 | 17°21 | 16°36 | 16°14 | 17°32 | 6°58 | 25°53 | W27 | | | | | | | | |
| T 28 | 6 49 6 | 12°48'01 | 19°57 | 25°30 | 15°36 | 2°32 | 9°43 | 15°48 | 11°12 | 17°20 | 16°37 | 16°10 | 17°29 | 7° 4 | 25°58 | T 28 | | | | | | | | |
| F 29 | 6 53 3 | 13°49'07 | 3♎55 | 26°58 | 16°51 | 3°18 | 9°36 | 15°55 | 11°15 | 17°18 | 16°38 | 16° 5 | 17°26 | 7°11 | 26° 3 | F 29 | | | | | | | | |
| S 30 | 6 56 59 | 14°50'13 | 17°44 | 28°27 | 18° 6 | 4° 4 | 9°30 | 16° 2 | 11°19 | 17°17 | 16°38 | 16° 0 | 17°23 | 7°18 | 26° 8 | S 30 | | | | | | | | |
| S 31 | 7 0 56 | 15♃51'17 | 1♌22 | 29♌56 | 19♃22 | 4♃51 | 9♏23 | 16♃10 | 11♌22 | 17♎15 | 16♏39 | 15♌55 | 17♌19 | 7♌25 | 26♃13 | S 31 | | | | | | | | |

Delta T = 18m57s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1078
geocentric

JANUARY 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|------|
| M 1 | 7 4 52 | 16♌52'21 | 14♋44 | 1♋26 | 20♋37 | 5♋37 | 9°R16 | 16♌17 | 11♌25 | 17°R14 | 16♋40 | 15°R51 | 17♌16 | 7♌31 | 26♌17 | M 1 |
| T 2 | 7 8 49 | 17°53'24 | 27°49 | 2°57 | 21°52 | 6°23 | 9♌ 9 | 16°24 | 11°28 | 17♌13 | 16°41 | 15♌48 | 17°13 | 7°38 | 26°22 | T 2 |
| W 3 | 7 12 46 | 18°54'27 | 10♌23 | 4°28 | 23° 8 | 7° 9 | 9° 2 | 16°31 | 11°32 | 17°11 | 16°42 | 15°D47 | 17°10 | 7°45 | 26°27 | W 3 |
| T 4 | 7 16 42 | 19°55'28 | 23° 8 | 6° 0 | 24°23 | 7°55 | 8°55 | 16°38 | 11°35 | 17°10 | 16°43 | 15°47 | 17° 7 | 7°51 | 26°32 | T 4 |
| F 5 | 7 20 39 | 20°56'29 | 5♍24 | 7°33 | 25°38 | 8°42 | 8°48 | 16°45 | 11°38 | 17° 8 | 16°44 | 15°48 | 17° 4 | 7°58 | 26°37 | F 5 |
| S 6 | 7 24 35 | 21°57'29 | 17°28 | 9° 6 | 26°54 | 9°28 | 8°41 | 16°52 | 11°41 | 17° 7 | 16°45 | 15°50 | 17° 0 | 8° 5 | 26°42 | S 6 |
| S 7 | 7 28 32 | 22°58'29 | 29°23 | 10°40 | 28° 9 | 10°14 | 8°33 | 17° 0 | 11°45 | 17° 6 | 16°46 | 15°52 | 16°57 | 8°11 | 26°47 | S 7 |
| M 8 | 7 32 28 | 23°59'27 | 11♌14 | 12°14 | 29°24 | 11° 1 | 8°26 | 17° 7 | 11°48 | 17° 4 | 16°47 | 15°53 | 16°54 | 8°18 | 26°52 | M 8 |
| T 9 | 7 36 25 | 25° 0'25 | 23° 6 | 13°49 | 0♌40 | 11°47 | 8°18 | 17°14 | 11°51 | 17° 3 | 16°48 | 15°R54 | 16°51 | 8°25 | 26°57 | T 9 |
| W10 | 7 40 21 | 26° 1'23 | 5♍ 3 | 15°25 | 1°55 | 12°34 | 8°11 | 17°21 | 11°55 | 17° 2 | 16°49 | 15°53 | 16°48 | 8°31 | 27° 2 | W10 |
| T 11 | 7 44 18 | 27° 2'19 | 17°10 | 17° 2 | 3°10 | 13°20 | 8° 3 | 17°28 | 11°58 | 17° 1 | 16°50 | 15°52 | 16°44 | 8°38 | 27° 7 | T 11 |
| F 12 | 7 48 15 | 28° 3'15 | 29°32 | 18°39 | 4°25 | 14° 7 | 7°55 | 17°35 | 12° 2 | 16°59 | 16°51 | 15°50 | 16°41 | 8°45 | 27°12 | F 12 |
| S 13 | 7 52 11 | 29° 4'10 | 12♌13 | 20°17 | 5°41 | 14°53 | 7°47 | 17°42 | 12° 5 | 16°58 | 16°52 | 15°48 | 16°38 | 8°52 | 27°17 | S 13 |
| S 14 | 7 56 8 | 0♍ 5'04 | 25°14 | 21°55 | 6°56 | 15°40 | 7°40 | 17°49 | 12° 8 | 16°57 | 16°53 | 15°45 | 16°35 | 8°58 | 27°22 | S 14 |
| M15 | 8 0 4 | 1° 5'57 | 8♌37 | 23°35 | 8°11 | 16°26 | 7°32 | 17°56 | 12°12 | 16°56 | 16°54 | 15°43 | 16°32 | 9° 5 | 27°27 | M15 |
| T 16 | 8 4 1 | 2° 6'49 | 22°21 | 25°15 | 9°26 | 17°13 | 7°24 | 18° 3 | 12°15 | 16°55 | 16°55 | 15°42 | 16°29 | 9°12 | 27°32 | T 16 |
| W17 | 8 7 57 | 3° 7'40 | 6♌23 | 26°56 | 10°42 | 18° 0 | 7°16 | 18°10 | 12°19 | 16°54 | 16°56 | 15°41 | 16°25 | 9°18 | 27°37 | W17 |
| T 18 | 8 11 54 | 4° 8'29 | 20°40 | 28°37 | 11°57 | 18°46 | 7° 8 | 18°17 | 12°22 | 16°53 | 16°57 | 15°D41 | 16°22 | 9°25 | 27°42 | T 18 |
| F 19 | 8 15 50 | 5° 9'17 | 5♍ 6 | 0♌19 | 13°12 | 19°33 | 7° 0 | 18°24 | 12°26 | 16°52 | 16°58 | 15°41 | 16°19 | 9°32 | 27°47 | F 19 |
| S 20 | 8 19 47 | 6°10'03 | 19°36 | 2° 3 | 14°27 | 20°20 | 6°52 | 18°31 | 12°29 | 16°51 | 17° 0 | 15°42 | 16°16 | 9°38 | 27°51 | S 20 |
| S 21 | 8 23 44 | 7°10'48 | 4♍ 5 | 3°47 | 15°42 | 21° 6 | 6°44 | 18°38 | 12°33 | 16°50 | 17° 1 | 15°43 | 16°13 | 9°45 | 27°56 | S 21 |
| M22 | 8 27 40 | 8°11'31 | 18°28 | 5°31 | 16°57 | 21°53 | 6°36 | 18°45 | 12°36 | 16°49 | 17° 2 | 15°43 | 16° 9 | 9°52 | 28° 1 | M22 |
| T 23 | 8 31 37 | 9°12'12 | 2♌43 | 7°17 | 18°12 | 22°40 | 6°28 | 18°52 | 12°39 | 16°48 | 17° 3 | 15°44 | 16° 6 | 9°59 | 28° 6 | T 23 |
| W24 | 8 35 33 | 10°12'52 | 16°46 | 9° 3 | 19°28 | 23°27 | 6°20 | 18°59 | 12°43 | 16°47 | 17° 5 | 15°R44 | 16° 3 | 10° 5 | 28°11 | W24 |
| T 25 | 8 39 30 | 11°13'30 | 0♍36 | 10°51 | 20°43 | 24°14 | 6°12 | 19° 5 | 12°46 | 16°46 | 17° 6 | 15°44 | 16° 0 | 10°12 | 28°16 | T 25 |
| F 26 | 8 43 26 | 12°14'06 | 14°14 | 12°39 | 21°58 | 25° 0 | 6° 4 | 19°12 | 12°50 | 16°45 | 17° 7 | 15°43 | 15°57 | 10°19 | 28°21 | F 26 |
| S 27 | 8 47 23 | 13°14'40 | 27°37 | 14°28 | 23°13 | 25°47 | 5°57 | 19°19 | 12°53 | 16°45 | 17° 8 | 15°43 | 15°54 | 10°25 | 28°26 | S 27 |
| S 28 | 8 51 19 | 14°15'13 | 10♌47 | 16°17 | 24°28 | 26°34 | 5°49 | 19°26 | 12°57 | 16°44 | 17°10 | 15°43 | 15°50 | 10°32 | 28°30 | S 28 |
| M29 | 8 55 16 | 15°15'44 | 23°44 | 18° 7 | 25°43 | 27°21 | 5°41 | 19°32 | 13° 0 | 16°43 | 17°11 | 15°D42 | 15°47 | 10°39 | 28°35 | M29 |
| T 30 | 8 59 13 | 16°16'13 | 6♍28 | 19°58 | 26°58 | 28° 8 | 5°33 | 19°39 | 13° 4 | 16°42 | 17°12 | 15°42 | 15°44 | 10°45 | 28°40 | T 30 |
| W31 | 9 3 9 | 17°16'40 | 18♌59 | 21°50 | 28°13 | 28♌55 | 5♌26 | 19°46 | 13° 7 | 16♌42 | 17°14 | 15°R42 | 15°44 | 10°52 | 28♌45 | W31 |

Delta T = 18m56s Julian Calendar 1 Jan. 1078 == Greg. Calendar 7 Jan. 1078

FEBRUARY 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|------|
| T 1 | 9 7 6 | 18°17'06 | 1♍19 | 23°42 | 29°27 | 29♌42 | 5°R18 | 19♌52 | 13°11 | 16°R41 | 17°15 | 15°R42 | 15°38 | 10♌59 | 28♌49 | T 1 |
| F 2 | 9 11 2 | 19°17'30 | 13°28 | 25°35 | 0♍42 | 0♌28 | 5♌10 | 19°59 | 13°14 | 16♌40 | 17°16 | 15°42 | 15°35 | 11° 5 | 28°54 | F 2 |
| S 3 | 9 14 59 | 20°17'52 | 25°28 | 27°28 | 1°57 | 1°15 | 5° 3 | 20° 5 | 13°18 | 16°40 | 17°18 | 15°42 | 15°31 | 11°12 | 28°59 | S 3 |
| S 4 | 9 18 55 | 21°18'13 | 7♌22 | 29°21 | 3°12 | 2° 2 | 4°56 | 20°12 | 13°21 | 16°39 | 17°19 | 15°41 | 15°28 | 11°19 | 29° 3 | S 4 |
| M 5 | 9 22 52 | 22°18'33 | 19°14 | 1♍14 | 4°27 | 2°49 | 4°48 | 20°18 | 13°25 | 16°39 | 17°20 | 15°40 | 15°25 | 11°26 | 29° 8 | M 5 |
| T 6 | 9 26 48 | 23°18'50 | 1♍ 5 | 3° 6 | 5°42 | 3°36 | 4°41 | 20°25 | 13°28 | 16°38 | 17°22 | 15°39 | 15°22 | 11°32 | 29°13 | T 6 |
| W 7 | 9 30 45 | 24°19'07 | 13° 1 | 4°59 | 6°56 | 4°23 | 4°34 | 20°31 | 13°31 | 16°38 | 17°23 | 15°39 | 15°19 | 11°39 | 29°17 | W 7 |
| T 8 | 9 34 42 | 25°19'22 | 25° 7 | 6°50 | 8°11 | 5°10 | 4°27 | 20°37 | 13°35 | 16°37 | 17°25 | 15°D38 | 15°15 | 11°46 | 29°22 | T 8 |
| F 9 | 9 38 38 | 26°19'35 | 7♌26 | 8°41 | 9°26 | 5°57 | 4°20 | 20°44 | 13°38 | 16°37 | 17°26 | 15°39 | 15°12 | 11°52 | 29°26 | F 9 |
| S 10 | 9 42 35 | 27°19'47 | 20° 3 | 10°30 | 10°41 | 6°44 | 4°13 | 20°50 | 13°42 | 16°37 | 17°27 | 15°39 | 15° 9 | 11°59 | 29°31 | S 10 |
| S 11 | 9 46 31 | 28°19'57 | 3♌ 2 | 12°17 | 11°55 | 7°31 | 4° 6 | 20°56 | 13°45 | 16°36 | 17°29 | 15°40 | 15° 6 | 12° 6 | 29°36 | S 11 |
| M12 | 9 50 28 | 29°20'05 | 16°25 | 14° 1 | 13°10 | 8°18 | 4° 0 | 21° 2 | 13°48 | 16°36 | 17°30 | 15°41 | 15° 3 | 12°12 | 29°40 | M12 |
| T 13 | 9 54 24 | 0♍20'12 | 0♌14 | 15°43 | 14°25 | 9° 5 | 3°53 | 21° 8 | 13°52 | 16°36 | 17°32 | 15°42 | 15° 0 | 12°19 | 29°44 | T 13 |
| W14 | 9 58 21 | 1°20'17 | 14°28 | 17°22 | 15°39 | 9°52 | 3°47 | 21°14 | 13°55 | 16°36 | 17°33 | 15°R43 | 14°56 | 12°26 | 29°49 | W14 |
| T 15 | 10 2 17 | 2°20'20 | 29° 3 | 18°57 | 16°54 | 10°39 | 3°40 | 21°20 | 13°59 | 16°35 | 17°35 | 15°43 | 14°53 | 12°33 | 29°53 | T 15 |
| F 16 | 10 6 14 | 3°20'22 | 13♌53 | 20°27 | 18° 9 | 11°26 | 3°34 | 21°26 | 14° 2 | 16°35 | 17°36 | 15°41 | 14°50 | 12°39 | 29°58 | F 16 |
| S 17 | 10 10 11 | 4°20'21 | 28°51 | 21°52 | 19°23 | 12°14 | 3°28 | 21°32 | 14° 5 | 16°35 | 17°38 | 15°39 | 14°47 | 12°46 | 0♌ 2 | S 17 |
| S 18 | 10 14 7 | 5°20'18 | 13♌47 | 23°12 | 20°38 | 13° 1 | 3°23 | 21°38 | 14° 8 | 16°35 | 17°39 | 15°37 | 14°44 | 12°53 | 0° 6 | S 18 |
| M19 | 10 18 4 | 6°20'13 | 28°34 | 24°26 | 21°52 | 13°48 | 3°17 | 21°44 | 14°12 | 16°35 | 17°41 | 15°34 | 14°41 | 12°59 | 0°10 | M19 |
| T 20 | 10 22 0 | 7°20'06 | 13♌ 6 | 25°34 | 23° 7 | 14°35 | 3°11 | 21°50 | 14°15 | 16°D35 | 17°42 | 15°32 | 14°37 | 13° 6 | 0°15 | T 20 |
| W21 | 10 25 57 | 8°19'56 | 27°18 | 26°34 | 24°21 | 15°22 | 3° 6 | 21°55 | 14°18 | 16°35 | 17°44 | 15°30 | 14°34 | 13°13 | 0°19 | W21 |
| T 22 | 10 29 53 | 9°19'44 | 11♌ 8 | 27°27 | 25°36 | 16° 9 | 3° 1 | 22° 1 | 14°22 | 16°35 | 17°45 | 15°D30 | 14°31 | 13°20 | 0°23 | T 22 |
| F 23 | 10 33 50 | 10°19'30 | 24°37 | 28°12 | 26°50 | 16°56 | 2°56 | 22° 6 | 14°25 | 16°35 | 17°47 | 15°31 | 14°28 | 13°26 | 0°27 | F 23 |
| S 24 | 10 37 46 | 11°19'14 | 7♌46 | 28°50 | 28° 4 | 17°43 | 2°51 | 22°12 | 14°28 | 16°35 | 17°48 | 15°32 | 14°25 | 13°33 | 0°31 | S 24 |
| S 25 | 10 41 43 | 12°18'55 | 20°37 | 29°19 | 29°19 | 18°30 | 2°46 | 22°17 | 14°31 | 16°36 | 17°50 | 15°34 | 14°21 | 13°40 | 0°35 | S 25 |
| M26 | 10 45 40 | 13°18'34 | 3♌14 | 29°40 | 0♍33 | 19°17 | 2°41 | 22°23 | 14°34 | 16°36 | 17°51 | 15°35 | 14°18 | 13°46 | 0°39 | M26 |
| T 27 | 10 49 36 | 14°18'11 | 15°39 | 29°52 | 1°47 | 20° 4 | 2°37 | 22°28 | 14°37 | 16°36 | 17°53 | 15°R36 | 14°15 | 13°53 | 0°43 | T 27 |
| W28 | 10 53 33 | 15°17'45 | 27♌53 | 29°R57 | 3♍ 2 | 20°51 | 2♌33 | 22♌33 | 14°41 | 16♌36 | 17°54 | 15°35 | 14°12 | 14° 0 | 0°47 | W28 |

Delta T = 18m56s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1078
geocentric

MARCH 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|------|------|---|-----|
| T 1 | 10 57 29 | 16♋17'18 | 10♏0 | 29°R53 | 4♃16 | 21♋38 | 2°R29 | 22♁38 | 14♋44 | 16♏37 | 17♋56 | 15°R33 | 14♋9 | 14♏6 | 0♋51 | T 1 | | |
| F 2 | 11 1 26 | 17°16'48 | 22°0 | 29♋41 | 5°30 | 22°25 | 2♁25 | 22°44 | 14°47 | 16°37 | 17°57 | 15♋29 | 14°6 | 14°13 | 0°54 | F 2 | | |
| S 3 | 11 5 22 | 18°16'16 | 3♁56 | 29°22 | 6°44 | 23°12 | 2°21 | 22°49 | 14°50 | 16°37 | 17°59 | 15°24 | 14°2 | 14°20 | 0°58 | S 3 | | |
| S 4 | 11 9 19 | 19°15'42 | 15°48 | 28°56 | 7°58 | 23°59 | 2°17 | 22°54 | 14°53 | 16°38 | 18°0 | 15°17 | 13°59 | 14°27 | 1°2 | S 4 | | |
| M 5 | 11 13 15 | 20°15'06 | 27°40 | 28°24 | 9°12 | 24°46 | 2°14 | 22°59 | 14°56 | 16°38 | 18°2 | 15°11 | 13°56 | 14°33 | 1°5 | M 5 | | |
| T 6 | 11 17 12 | 21°14'28 | 9♏32 | 27°46 | 10°26 | 25°33 | 2°11 | 23°3 | 14°59 | 16°39 | 18°3 | 15°5 | 13°53 | 14°40 | 1°9 | T 6 | | |
| W 7 | 11 21 9 | 22°13'49 | 21°29 | 27°4 | 11°40 | 26°20 | 2°8 | 23°8 | 15°2 | 16°39 | 18°5 | 15°0 | 13°50 | 14°47 | 1°13 | W 7 | | |
| T 8 | 11 25 5 | 23°13'07 | 3♁34 | 26°18 | 12°54 | 27°7 | 2°5 | 23°13 | 15°5 | 16°40 | 18°6 | 14°56 | 13°47 | 14°53 | 1°16 | T 8 | | |
| F 9 | 11 29 2 | 24°12'24 | 15°50 | 25°29 | 14°8 | 27°53 | 2°2 | 23°18 | 15°7 | 16°40 | 18°8 | 14°54 | 13°43 | 15°0 | 1°20 | F 9 | | |
| S 10 | 11 32 58 | 25°11'39 | 28°23 | 24°39 | 15°22 | 28°40 | 2°0 | 23°22 | 15°10 | 16°41 | 18°9 | 14°D54 | 13°40 | 15°7 | 1°23 | S 10 | | |
| S 11 | 11 36 55 | 26°10'52 | 11♁15 | 23°48 | 16°36 | 29°27 | 1°57 | 23°27 | 15°13 | 16°41 | 18°11 | 14°54 | 13°37 | 15°13 | 1°26 | S 11 | | |
| M12 | 11 40 51 | 27°10'04 | 24°32 | 22°58 | 17°50 | 0♋14 | 1°55 | 23°31 | 15°16 | 16°42 | 18°12 | 14°56 | 13°34 | 15°20 | 1°30 | M12 | | |
| T 13 | 11 44 48 | 28°9'13 | 8♋16 | 22°9 | 19°3 | 1°1 | 1°53 | 23°35 | 15°19 | 16°43 | 18°14 | 14°R57 | 13°31 | 15°27 | 1°33 | T 13 | | |
| W14 | 11 48 44 | 29°8'21 | 22°27 | 21°22 | 20°17 | 1°48 | 1°52 | 23°40 | 15°21 | 16°43 | 18°15 | 14°57 | 13°27 | 15°34 | 1°36 | W14 | | |
| T 15 | 11 52 41 | 0♃7'27 | 7♋5 | 20°39 | 21°31 | 2°35 | 1°50 | 23°44 | 15°24 | 16°44 | 18°17 | 14°55 | 13°24 | 15°40 | 1°39 | T 15 | | |
| F 16 | 11 56 38 | 1°6'31 | 22°5 | 19°59 | 22°45 | 3°22 | 1°49 | 23°48 | 15°27 | 16°45 | 18°18 | 14°51 | 13°21 | 15°47 | 1°42 | F 16 | | |
| S 17 | 12 0 34 | 2°5'32 | 7♃17 | 19°23 | 23°58 | 4°8 | 1°47 | 23°52 | 15°29 | 16°46 | 18°20 | 14°45 | 13°18 | 15°54 | 1°45 | S 17 | | |
| S 18 | 12 4 31 | 3°4'32 | 22°33 | 18°52 | 25°12 | 4°55 | 1°46 | 23°56 | 15°32 | 16°47 | 18°21 | 14°38 | 13°15 | 16°0 | 1°48 | S 18 | | |
| M19 | 12 8 27 | 4°3'29 | 7♁40 | 18°26 | 26°25 | 5°42 | 1°46 | 24°0 | 15°35 | 16°48 | 18°23 | 14°30 | 13°12 | 16°7 | 1°51 | M19 | | |
| T 20 | 12 12 24 | 5°2'25 | 22°31 | 18°5 | 27°39 | 6°29 | 1°45 | 24°4 | 15°37 | 16°49 | 18°24 | 14°24 | 13°8 | 16°14 | 1°54 | T 20 | | |
| W21 | 12 16 20 | 6°1'18 | 6♏57 | 17°50 | 28°53 | 7°15 | 1°45 | 24°7 | 15°40 | 16°50 | 18°26 | 14°18 | 13°5 | 16°21 | 1°57 | W21 | | |
| T 22 | 12 20 17 | 7°0'09 | 20°56 | 17°40 | 0♁6 | 8°2 | 1°44 | 24°11 | 15°42 | 16°50 | 18°27 | 14°15 | 13°2 | 16°27 | 2°0 | T 22 | | |
| F 23 | 12 24 13 | 7°58'57 | 4♁28 | 17°D35 | 1°19 | 8°49 | 1°D44 | 24°14 | 15°45 | 16°52 | 18°28 | 14°D14 | 12°59 | 16°34 | 2°3 | F 23 | | |
| S 24 | 12 28 10 | 8°57'43 | 17°34 | 17°36 | 2°33 | 9°35 | 1°45 | 24°18 | 15°47 | 16°53 | 18°30 | 14°14 | 12°56 | 16°41 | 2°5 | S 24 | | |
| S 25 | 12 32 6 | 9°56'27 | 0♁19 | 17°42 | 3°46 | 10°22 | 1°45 | 24°21 | 15°49 | 16°54 | 18°31 | 14°15 | 12°52 | 16°47 | 2°8 | S 25 | | |
| M26 | 12 36 3 | 10°55'08 | 12°45 | 17°53 | 4°59 | 11°9 | 1°45 | 24°25 | 15°52 | 16°55 | 18°33 | 14°R16 | 12°49 | 16°54 | 2°10 | M26 | | |
| T 27 | 12 40 0 | 11°53'48 | 24°58 | 18°9 | 6°13 | 11°55 | 1°46 | 24°28 | 15°54 | 16°56 | 18°34 | 14°15 | 12°46 | 17°1 | 2°13 | T 27 | | |
| W28 | 12 43 56 | 12°52'25 | 7♏2 | 18°29 | 7°26 | 12°42 | 1°47 | 24°31 | 15°56 | 16°57 | 18°36 | 14°12 | 12°43 | 17°8 | 2°15 | W28 | | |
| T 29 | 12 47 53 | 13°50'59 | 18°59 | 18°55 | 8°39 | 13°28 | 1°48 | 24°34 | 15°59 | 16°58 | 18°37 | 14°7 | 12°40 | 17°14 | 2°18 | T 29 | | |
| F 30 | 12 51 49 | 14°49'32 | 0♁52 | 19°24 | 9°52 | 14°15 | 1°49 | 24°37 | 16°1 | 16°59 | 18°38 | 14°0 | 12°37 | 17°21 | 2°20 | F 30 | | |
| S 31 | 12 55 46 | 15°48'03 | 12♁44 | 19♋58 | 11♁5 | 15♋1 | 1♁51 | 24♁40 | 16♋3 | 17♏1 | 18♋40 | 13♋50 | 12♋33 | 17♏28 | 2♋22 | S 31 | | |

Delta T = 18m56s Julian Calendar 1 March 1078 == Greg. Calendar 7 March 1078

APRIL 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|------|--------|-------|-------|-------|--------|-------|-------|------|------|---|-----|
| S 1 | 12 59 42 | 16♃46'32 | 24♁36 | 20♋35 | 12♁18 | 15♋48 | 1♁52 | 24♁43 | 16♋5 | 17♏2 | 18♋41 | 13°R38 | 12♋30 | 17♏34 | 2♋24 | S 1 | | |
| M 2 | 13 3 39 | 17°44'58 | 6♏30 | 21°17 | 13°31 | 16°34 | 1°54 | 24°45 | 16°7 | 17°3 | 18°42 | 13♋26 | 12°27 | 17°41 | 2°26 | M 2 | | |
| T 3 | 13 7 35 | 18°43'24 | 18°26 | 22°2 | 14°44 | 17°20 | 1°56 | 24°48 | 16°9 | 17°5 | 18°44 | 13°14 | 12°24 | 17°48 | 2°28 | T 3 | | |
| W 4 | 13 11 32 | 19°41'47 | 0♁27 | 22°51 | 15°57 | 18°7 | 1°58 | 24°50 | 16°11 | 17°6 | 18°45 | 13°4 | 12°21 | 17°54 | 2°30 | W 4 | | |
| T 5 | 13 15 29 | 20°40'09 | 12°36 | 23°43 | 17°10 | 18°53 | 2°1 | 24°53 | 16°13 | 17°7 | 18°46 | 12°55 | 12°18 | 18°1 | 2°32 | T 5 | | |
| F 6 | 13 19 25 | 21°38'29 | 24°54 | 24°38 | 18°23 | 19°39 | 2°3 | 24°55 | 16°15 | 17°9 | 18°48 | 12°50 | 12°14 | 18°8 | 2°34 | F 6 | | |
| S 7 | 13 23 22 | 22°36'47 | 7♁26 | 25°36 | 19°35 | 20°26 | 2°6 | 24°57 | 16°17 | 17°10 | 18°49 | 12°47 | 12°11 | 18°15 | 2°36 | S 7 | | |
| S 8 | 13 27 18 | 23°35'04 | 20°15 | 26°37 | 20°48 | 21°12 | 2°9 | 24°59 | 16°19 | 17°12 | 18°50 | 12°D46 | 12°8 | 18°21 | 2°38 | S 8 | | |
| M 9 | 13 31 15 | 24°33'19 | 3♋26 | 27°41 | 22°1 | 21°58 | 2°12 | 25°1 | 16°20 | 17°13 | 18°52 | 12°46 | 12°5 | 18°28 | 2°39 | M 9 | | |
| T 10 | 13 35 11 | 25°31'33 | 17°1 | 28°47 | 23°13 | 22°44 | 2°15 | 25°3 | 16°22 | 17°15 | 18°53 | 12°R46 | 12°2 | 18°35 | 2°41 | T 10 | | |
| W11 | 13 39 8 | 26°29'45 | 1♋2 | 29°56 | 24°26 | 23°30 | 2°19 | 25°5 | 16°24 | 17°16 | 18°54 | 12°45 | 11°58 | 18°41 | 2°42 | W11 | | |
| T 12 | 13 43 4 | 27°27'56 | 15°31 | 1♃8 | 25°39 | 24°16 | 2°22 | 25°7 | 16°25 | 17°18 | 18°55 | 12°42 | 11°55 | 18°48 | 2°44 | T 12 | | |
| F 13 | 13 47 1 | 28°26'05 | 0♃24 | 2°22 | 26°51 | 25°2 | 2°26 | 25°9 | 16°27 | 17°19 | 18°57 | 12°36 | 11°52 | 18°55 | 2°45 | F 13 | | |
| S 14 | 13 50 58 | 29°24'13 | 15°34 | 3°39 | 28°3 | 25°48 | 2°30 | 25°10 | 16°29 | 17°21 | 18°58 | 12°27 | 11°49 | 19°2 | 2°46 | S 14 | | |
| S 15 | 13 54 54 | 0♁22'19 | 0♁52 | 4°57 | 29°16 | 26°34 | 2°34 | 25°12 | 16°30 | 17°23 | 18°59 | 12°17 | 11°46 | 19°8 | 2°48 | S 15 | | |
| M16 | 13 58 51 | 1°20'23 | 16°6 | 6°19 | 0♏28 | 27°20 | 2°38 | 25°13 | 16°32 | 17°24 | 19°0 | 12°6 | 11°43 | 19°15 | 2°49 | M16 | | |
| T 17 | 14 2 47 | 2°18'26 | 1♏6 | 7°42 | 1°40 | 28°6 | 2°43 | 25°14 | 16°33 | 17°26 | 19°1 | 11°56 | 11°39 | 19°22 | 2°50 | T 17 | | |
| W18 | 14 6 44 | 3°16'27 | 15°43 | 9°7 | 2°53 | 28°52 | 2°47 | 25°15 | 16°34 | 17°28 | 19°2 | 11°48 | 11°36 | 19°28 | 2°51 | W18 | | |
| T 19 | 14 10 40 | 4°14'26 | 29°52 | 10°35 | 4°5 | 29°38 | 2°52 | 25°16 | 16°36 | 17°29 | 19°4 | 11°42 | 11°33 | 19°35 | 2°52 | T 19 | | |
| F 20 | 14 14 37 | 5°12'23 | 13♁31 | 12°5 | 5°17 | 0♃23 | 2°57 | 25°17 | 16°37 | 17°31 | 19°5 | 11°39 | 11°30 | 19°42 | 2°53 | F 20 | | |
| S 21 | 14 18 33 | 6°10'18 | 26°42 | 13°36 | 6°29 | 1°9 | 3°2 | 25°18 | 16°38 | 17°33 | 19°6 | 11°37 | 11°27 | 19°49 | 2°54 | S 21 | | |
| S 22 | 14 22 30 | 7°8'11 | 9♁27 | 15°10 | 7°41 | 1°55 | 3°7 | 25°19 | 16°39 | 17°35 | 19°7 | 11°37 | 11°24 | 19°55 | 2°54 | S 22 | | |
| M23 | 14 26 27 | 8°6'03 | 21°52 | 16°46 | 8°53 | 2°40 | 3°12 | 25°20 | 16°41 | 17°36 | 19°8 | 11°37 | 11°20 | 20°2 | 2°55 | M23 | | |
| T 24 | 14 30 23 | 9°3'52 | 4♏2 | 18°24 | 10°5 | 3°26 | 3°18 | 25°20 | 16°42 | 17°38 | 19°9 | 11°36 | 11°17 | 20°9 | 2°56 | T 24 | | |
| W25 | 14 34 20 | 10°1'40 | 16°1 | 20°4 | 11°17 | 4°12 | 3°24 | 25°21 | 16°43 | 17°40 | 19°10 | 11°32 | 11°14 | 20°15 | 2°56 | W25 | | |
| T 26 | 14 38 16 | 10°59'27 | 27°54 | 21°46 | 12°29 | 4°57 | 3°29 | 25°21 | 16°44 | 17°42 | 19°11 | 11°26 | 11°11 | 20°22 | 2°57 | T 26 | | |
| F 27 | 14 42 13 | 11°57'11 | 9♁45 | 23°31 | 13°40 | 5°42 | 3°35 | 25°21 | 16°45 | 17°44 | 19°12 | 11°17 | 11°8 | 20°29 | 2°57 | F 27 | | |
| S 28 | 14 46 9 | 12°54'54 | 21°36 | 25°17 | 14°52 | 6°28 | 3°42 | 25°22 | 16°46 | 17°46 | 19°13 | 11°6 | 11°4 | 20°36 | 2°58 | S 28 | | |
| S 29 | 14 50 6 | 13°52'36 | 3♏30 | 27°5 | 16°4 | 7°13 | 3°48 | 25°R22 | 16°46 | 17°48 | 19°14 | 10°53 | 11°1 | 20°42 | 2°58 | S 29 | | |
| M30 | 14 54 2 | 14°50'16 | 15♏28 | 28°56 | 17♏15 | 7°58 | 3♁54 | 25♁22 | 16♋47 | 17♏49 | 19♋15 | 10♋39 | 10♋58 | 20♏49 | 2♋58 | M30 | | |

Delta T = 18m56s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1078
geocentric

MAY 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|------|--------|--------|-------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 14 57 59 | 15♁47'55 | 27♄31 | 0♃48 | 18♂27 | 8♃44 | 4♁1 | 25°R22 | 16♁48 | 17♂51 | 19♂16 | 10°R25 | 10♁55 | 20♁56 | 2♁58 | T 1 | |
| W 2 | 15 1 56 | 16°45'32 | 9♁42 | 2°43 | 19°38 | 9°29 | 4° 7 | 25♁21 | 16°49 | 17°53 | 19°17 | 10♁33 | 10°52 | 21° 2 | 2°58 | W 2 | |
| T 3 | 15 5 52 | 17°43'09 | 22° 0 | 4°39 | 20°49 | 10°14 | 4°14 | 25°21 | 16°49 | 17°55 | 19°18 | 10° 4 | 10°49 | 21° 9 | 2°R58 | T 3 | |
| F 4 | 15 9 49 | 18°40'44 | 4♁27 | 6°38 | 22° 1 | 10°59 | 4°21 | 25°21 | 16°50 | 17°57 | 19°19 | 9°57 | 10°45 | 21°16 | 2°58 | F 4 | |
| S 5 | 15 13 45 | 19°38'19 | 17° 7 | 8°38 | 23°12 | 11°44 | 4°28 | 25°20 | 16°51 | 17°59 | 19°20 | 9°53 | 10°42 | 21°23 | 2°58 | S 5 | |
| S 6 | 15 17 42 | 20°35'52 | 0♁ 0 | 10°40 | 24°23 | 12°29 | 4°35 | 25°20 | 16°51 | 18° 1 | 19°20 | 9°51 | 10°39 | 21°29 | 2°58 | S 6 | |
| M 7 | 15 21 38 | 21°33'24 | 13°11 | 12°44 | 25°34 | 13°14 | 4°43 | 25°19 | 16°52 | 18° 3 | 19°21 | 9°D51 | 10°36 | 21°36 | 2°58 | M 7 | |
| T 8 | 15 25 35 | 22°30'56 | 26°41 | 14°50 | 26°45 | 13°59 | 4°50 | 25°18 | 16°52 | 18° 5 | 19°22 | 9°R51 | 10°33 | 21°43 | 2°57 | T 8 | |
| W 9 | 15 29 31 | 23°28'26 | 10♂34 | 16°57 | 27°56 | 14°44 | 4°58 | 25°17 | 16°52 | 18° 8 | 19°23 | 9°50 | 10°30 | 21°49 | 2°57 | W 9 | |
| T 10 | 15 33 28 | 24°25'56 | 24°50 | 19° 6 | 29° 7 | 15°29 | 5° 5 | 25°16 | 16°53 | 18°10 | 19°24 | 9°47 | 10°26 | 21°56 | 2°56 | T 10 | |
| F 11 | 15 37 25 | 25°23'25 | 9♃28 | 21°15 | 0♁18 | 16°13 | 5°13 | 25°15 | 16°53 | 18°12 | 19°24 | 9°42 | 10°23 | 22° 3 | 2°56 | F 11 | |
| S 12 | 15 41 21 | 26°20'53 | 24°22 | 23°26 | 1°29 | 16°58 | 5°21 | 25°14 | 16°53 | 18°14 | 19°25 | 9°34 | 10°20 | 22°10 | 2°55 | S 12 | |
| S 13 | 15 45 18 | 27°18'20 | 9♁26 | 25°37 | 2°39 | 17°43 | 5°29 | 25°13 | 16°53 | 18°16 | 19°26 | 9°25 | 10°17 | 22°16 | 2°55 | S 13 | |
| M14 | 15 49 14 | 28°15'47 | 24°30 | 27°49 | 3°50 | 18°27 | 5°37 | 25°12 | 16°54 | 18°18 | 19°26 | 9°15 | 10°14 | 22°23 | 2°54 | M14 | |
| T 15 | 15 53 11 | 29°13'13 | 9♂24 | 0♂ 1 | 5° 1 | 19°12 | 5°46 | 25°10 | 16°54 | 18°20 | 19°27 | 9° 5 | 10°10 | 22°30 | 2°53 | T 15 | |
| W16 | 15 57 7 | 0♂10'37 | 24° 0 | 2°13 | 6°11 | 19°56 | 5°54 | 25° 9 | 16°R54 | 18°22 | 19°28 | 8°57 | 10° 7 | 22°36 | 2°52 | W16 | |
| T 17 | 16 1 4 | 1° 8'01 | 8♁10 | 4°24 | 7°22 | 20°41 | 6° 3 | 25° 7 | 16°54 | 18°24 | 19°28 | 8°51 | 10° 4 | 22°43 | 2°51 | T 17 | |
| F 18 | 16 5 0 | 2° 5'24 | 21°53 | 6°35 | 8°32 | 21°25 | 6°11 | 25° 5 | 16°54 | 18°27 | 19°29 | 8°48 | 10° 1 | 22°50 | 2°50 | F 18 | |
| S 19 | 16 8 57 | 3° 2'45 | 5♁ 8 | 8°45 | 9°42 | 22° 9 | 6°20 | 25° 3 | 16°53 | 18°29 | 19°30 | 8°D47 | 9°58 | 22°57 | 2°49 | S 19 | |
| S 20 | 16 12 54 | 4° 0'06 | 17°57 | 10°54 | 10°52 | 22°54 | 6°29 | 25° 2 | 16°53 | 18°31 | 19°30 | 8°47 | 9°55 | 23° 3 | 2°48 | S 20 | |
| M21 | 16 16 50 | 4°57'25 | 0♂25 | 13° 2 | 12° 2 | 23°38 | 6°38 | 25° 0 | 16°53 | 18°33 | 19°31 | 8°R47 | 9°51 | 23°10 | 2°47 | M21 | |
| T 22 | 16 20 47 | 5°54'43 | 12°36 | 15° 8 | 13°12 | 24°22 | 6°47 | 24°57 | 16°53 | 18°35 | 19°31 | 8°47 | 9°48 | 23°17 | 2°45 | T 22 | |
| W23 | 16 24 43 | 6°52'00 | 24°36 | 17°12 | 14°22 | 25° 6 | 6°56 | 24°55 | 16°53 | 18°37 | 19°32 | 8°45 | 9°45 | 23°23 | 2°44 | W23 | |
| T 24 | 16 28 40 | 7°49'17 | 6♁29 | 19°15 | 15°32 | 25°50 | 7° 6 | 24°53 | 16°52 | 18°40 | 19°32 | 8°42 | 9°42 | 23°30 | 2°43 | T 24 | |
| F 25 | 16 32 36 | 8°46'32 | 18°20 | 21°16 | 16°42 | 26°34 | 7°15 | 24°51 | 16°52 | 18°42 | 19°33 | 8°35 | 9°39 | 23°37 | 2°41 | F 25 | |
| S 26 | 16 36 33 | 9°43'47 | 0♂13 | 23°14 | 17°52 | 27°18 | 7°24 | 24°48 | 16°51 | 18°44 | 19°33 | 8°27 | 9°35 | 23°44 | 2°40 | S 26 | |
| S 27 | 16 40 29 | 10°41'01 | 12°11 | 25°10 | 19° 1 | 28° 1 | 7°34 | 24°46 | 16°51 | 18°46 | 19°33 | 8°18 | 9°32 | 23°50 | 2°38 | S 27 | |
| M28 | 16 44 26 | 11°38'14 | 24°15 | 27° 5 | 20°11 | 28°45 | 7°44 | 24°43 | 16°50 | 18°49 | 19°34 | 8° 7 | 9°29 | 23°57 | 2°37 | M28 | |
| T 29 | 16 48 23 | 12°35'27 | 6♁28 | 28°56 | 21°20 | 29°29 | 7°53 | 24°41 | 16°50 | 18°51 | 19°34 | 7°57 | 9°26 | 24° 4 | 2°35 | T 29 | |
| W30 | 16 52 19 | 13°32'39 | 18°51 | 0♁46 | 22°29 | 0♂12 | 8° 3 | 24°38 | 16°49 | 18°53 | 19°35 | 7°48 | 9°23 | 24°11 | 2°33 | W30 | |
| T 31 | 16 56 16 | 14♂29'51 | 1♁24 | 2♁33 | 23♁38 | 0♂56 | 8♁13 | 24♁35 | 16♁48 | 18♂55 | 19♂35 | 7♁41 | 9♁20 | 24♁17 | 2♁31 | T 31 | |

Delta T = 18m55s Julian Calendar 1 May 1078 == Greg. Calendar 7 May 1078

JUNE 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|-------|--------|-------|------|-------|-------|------|-----|
| F 1 | 17 0 12 | 15♂27'02 | 14♁ 7 | 4♁19 | 24♁47 | 1♁39 | 8♁23 | 24°R32 | 16°R48 | 18♂57 | 19♂35 | 7°R36 | 9♁16 | 24♁24 | 2°R29 | F 1 | |
| S 2 | 17 4 9 | 16°24'13 | 27° 2 | 6° 1 | 25°56 | 2°23 | 8°34 | 24♁29 | 16♁47 | 19° 0 | 19°35 | 7♁34 | 9°13 | 24°31 | 2♁27 | S 2 | |
| S 3 | 17 8 5 | 17°21'24 | 10♁10 | 7°42 | 27° 5 | 3° 6 | 8°44 | 24°26 | 16°46 | 19° 2 | 19°36 | 7°D33 | 9°10 | 24°37 | 2°25 | S 3 | |
| M 4 | 17 12 2 | 18°18'35 | 23°31 | 9°20 | 28°14 | 3°49 | 8°54 | 24°23 | 16°45 | 19° 4 | 19°36 | 7°34 | 9° 7 | 24°44 | 2°23 | M 4 | |
| T 5 | 17 15 59 | 19°15'46 | 7♂ 7 | 10°55 | 29°22 | 4°33 | 9° 4 | 24°20 | 16°44 | 19° 6 | 19°36 | 7°35 | 9° 4 | 24°51 | 2°21 | T 5 | |
| W 6 | 17 19 55 | 20°12'56 | 20°59 | 12°28 | 0♂31 | 5°16 | 9°15 | 24°17 | 16°43 | 19° 9 | 19°36 | 7°R36 | 9° 1 | 24°58 | 2°19 | W 6 | |
| T 7 | 17 23 52 | 21°10'07 | 5♃ 6 | 13°59 | 1°39 | 5°59 | 9°25 | 24°13 | 16°42 | 19°11 | 19°37 | 7°35 | 8°57 | 25° 4 | 2°17 | T 7 | |
| F 8 | 17 27 48 | 22° 7'18 | 19°29 | 15°28 | 2°48 | 6°42 | 9°36 | 24°10 | 16°41 | 19°13 | 19°37 | 7°32 | 8°54 | 25°11 | 2°15 | F 8 | |
| S 9 | 17 31 45 | 23° 4'29 | 4♁ 3 | 16°54 | 3°56 | 7°25 | 9°47 | 24° 7 | 16°40 | 19°15 | 19°37 | 7°28 | 8°51 | 25°18 | 2°12 | S 9 | |
| S 10 | 17 35 41 | 24° 1'40 | 18°44 | 18°17 | 5° 4 | 8° 8 | 9°58 | 24° 3 | 16°39 | 19°18 | 19°37 | 7°22 | 8°48 | 25°24 | 2°10 | S 10 | |
| M11 | 17 39 38 | 24°58'51 | 3♂25 | 19°39 | 6°12 | 8°51 | 10° 8 | 24° 0 | 16°38 | 19°20 | 19°37 | 7°16 | 8°45 | 25°31 | 2° 8 | M11 | |
| T 12 | 17 43 34 | 25°56'03 | 17°59 | 20°57 | 7°20 | 9°33 | 10°19 | 23°56 | 16°37 | 19°22 | 19°37 | 7° 9 | 8°41 | 25°38 | 2° 5 | T 12 | |
| W13 | 17 47 31 | 26°53'14 | 2♁19 | 22°13 | 8°27 | 10°16 | 10°30 | 23°52 | 16°35 | 19°24 | 19°37 | 7° 4 | 8°38 | 25°45 | 2° 3 | W13 | |
| T 14 | 17 51 28 | 27°50'26 | 16°19 | 23°26 | 9°35 | 10°59 | 10°42 | 23°49 | 16°34 | 19°26 | 19°R37 | 7° 1 | 8°35 | 25°51 | 2° 0 | T 14 | |
| F 15 | 17 55 24 | 28°47'37 | 29°57 | 24°37 | 10°42 | 11°41 | 10°53 | 23°45 | 16°33 | 19°29 | 19°37 | 6°59 | 8°32 | 25°58 | 1°58 | F 15 | |
| S 16 | 17 59 21 | 29°44'48 | 13♁10 | 25°45 | 11°50 | 12°24 | 11° 4 | 23°41 | 16°31 | 19°31 | 19°37 | 6°D59 | 8°29 | 26° 5 | 1°55 | S 16 | |
| S 17 | 18 3 17 | 0♁41'59 | 26° 0 | 26°50 | 12°57 | 13° 6 | 11°15 | 23°37 | 16°30 | 19°33 | 19°37 | 7° 0 | 8°26 | 26°12 | 1°52 | S 17 | |
| M18 | 18 7 14 | 1°39'10 | 8♂30 | 27°52 | 14° 4 | 13°48 | 11°27 | 23°33 | 16°29 | 19°35 | 19°37 | 7° 2 | 8°22 | 26°18 | 1°50 | M18 | |
| T 19 | 18 11 10 | 2°36'21 | 20°44 | 28°51 | 15°11 | 14°31 | 11°38 | 23°29 | 16°27 | 19°38 | 19°37 | 7° 3 | 8°19 | 26°25 | 1°47 | T 19 | |
| W20 | 18 15 7 | 3°33'31 | 2♁46 | 29°47 | 16°17 | 15°13 | 11°50 | 23°25 | 16°26 | 19°40 | 19°37 | 7°R 4 | 8°16 | 26°32 | 1°44 | W20 | |
| T 21 | 18 19 3 | 4°30'42 | 14°41 | 0♂40 | 17°24 | 15°55 | 12° 1 | 23°21 | 16°24 | 19°42 | 19°37 | 7° 3 | 8°13 | 26°38 | 1°41 | T 21 | |
| F 22 | 18 23 0 | 5°27'53 | 26°34 | 1°29 | 18°30 | 16°37 | 12°13 | 23°17 | 16°22 | 19°44 | 19°36 | 7° 1 | 8°10 | 26°45 | 1°39 | F 22 | |
| S 23 | 18 26 57 | 6°25'03 | 8♂29 | 2°15 | 19°36 | 17°19 | 12°24 | 23°13 | 16°21 | 19°46 | 19°36 | 6°58 | 8° 7 | 26°52 | 1°36 | S 23 | |
| S 24 | 18 30 53 | 7°22'14 | 20°30 | 2°57 | 20°42 | 18° 1 | 12°36 | 23° 9 | 16°19 | 19°48 | 19°36 | 6°54 | 8° 3 | 26°59 | 1°33 | S 24 | |
| M25 | 18 34 50 | 8°19'25 | 2♁40 | 3°36 | 21°48 | 18°42 | 12°48 | 23° 4 | 16°17 | 19°51 | 19°36 | 6°49 | 8° 0 | 27° 5 | 1°30 | M25 | |
| T 26 | 18 38 46 | 9°16'37 | 15° 2 | 4°10 | 22°54 | 19°24 | 13° 0 | 23° 0 | 16°16 | 19°53 | 19°35 | 6°45 | 7°57 | 27°12 | 1°27 | T 26 | |
| W27 | 18 42 43 | 10°13'48 | 27°37 | 4°41 | 23°59 | 20° 6 | 13°12 | 22°56 | 16°14 | 19°55 | 19°35 | 6°41 | 7°54 | 27°19 | 1°24 | W27 | |
| T 28 | 18 46 39 | 11°11'00 | 10♁27 | 5° 7 | 25° 5 | 20°47 | 13°24 | 22°52 | 16°12 | 19°57 | 19°35 | 6°38 | 7°51 | 27°25 | 1°21 | T 28 | |
| F 29 | 18 50 36 | 12° 8'13 | 23°30 | 5°29 | 26°10 | 21°29 | 13°36 | 22°47 | 16°10 | 19°59 | 19°35 | 6°36 | 7°48 | 27°32 | 1°18 | F 29 | |
| S 30 | 18 54 32 | 13♁ 5'26 | 6♁47 | 5♁46 | 27♁14 | 22♁10 | 13♁48 | 22♁43 | 16♁ 8 | 20♂ 1 | 19♂34 | 6°D35 | 7♁44 | 27♁39 | 1♁15 | S 30 | |

Delta T = 18m55s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1078
geocentric

JULY 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|-------|--------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 18 58 29 | 14☾ 2'39 | 20♋17 | 5♊59 | 28♌19 | 22♍51 | 14♎0 | 22°R39 | 16°R 7 | 20♏ 3 | 19°R34 | 6♋36 | 7♋41 | 27♌46 | 1°R11 | S 1 | | | | | | | | |
| M 2 | 19 2 26 | 14°59'54 | 3☾59 | 6° 7 | 29°24 | 23°33 | 14°12 | 22☾34 | 16♋ 5 | 20° 5 | 19♋33 | 6°37 | 7°38 | 27°52 | 1♋ 8 | M 2 | | | | | | | | |
| T 3 | 19 6 22 | 15°57'09 | 17°51 | 6°R10 | 0♎28 | 24°14 | 14°24 | 22°30 | 16° 3 | 20° 7 | 19°33 | 6°38 | 7°35 | 27°59 | 1° 5 | T 3 | | | | | | | | |
| W 4 | 19 10 19 | 16°54'25 | 17°52 | 6° 8 | 1°32 | 24°55 | 14°36 | 22°25 | 16° 1 | 20° 9 | 19°33 | 6°40 | 7°32 | 28° 6 | 1° 2 | W 4 | | | | | | | | |
| T 5 | 19 14 15 | 17°51'42 | 16° 1 | 6° 1 | 2°36 | 25°36 | 14°49 | 22°21 | 15°59 | 20°11 | 19°32 | 6°R40 | 7°28 | 28°13 | 0°59 | T 5 | | | | | | | | |
| F 6 | 19 18 12 | 18°49'00 | 0♌15 | 5°49 | 3°39 | 26°17 | 15° 1 | 22°16 | 15°57 | 20°13 | 19°32 | 6°40 | 7°25 | 28°19 | 0°55 | F 6 | | | | | | | | |
| S 7 | 19 22 8 | 19°46'19 | 14°33 | 5°32 | 4°43 | 26°58 | 15°13 | 22°12 | 15°55 | 20°15 | 19°31 | 6°39 | 7°22 | 28°26 | 0°52 | S 7 | | | | | | | | |
| S 8 | 19 26 5 | 20°43'40 | 28°51 | 5°11 | 5°46 | 27°38 | 15°26 | 22° 7 | 15°53 | 20°17 | 19°31 | 6°37 | 7°19 | 28°33 | 0°49 | S 8 | | | | | | | | |
| M 9 | 19 30 1 | 21°41'01 | 13♏ 6 | 4°44 | 6°49 | 28°19 | 15°38 | 22° 3 | 15°50 | 20°19 | 19°30 | 6°35 | 7°16 | 28°39 | 0°46 | M 9 | | | | | | | | |
| T 10 | 19 33 58 | 22°38'23 | 27°12 | 4°14 | 7°51 | 29° 0 | 15°51 | 21°59 | 15°48 | 20°21 | 19°30 | 6°33 | 7°13 | 28°46 | 0°42 | T 10 | | | | | | | | |
| W11 | 19 37 55 | 23°35'47 | 11☾ 7 | 3°39 | 8°54 | 29°40 | 16° 3 | 21°54 | 15°46 | 20°23 | 19°29 | 6°32 | 7° 9 | 28°53 | 0°39 | W11 | | | | | | | | |
| T 12 | 19 41 51 | 24°33'11 | 24°47 | 3° 1 | 9°56 | 0♏21 | 16°16 | 21°50 | 15°44 | 20°25 | 19°28 | 6°31 | 7° 6 | 29° 0 | 0°36 | T 12 | | | | | | | | |
| F 13 | 19 45 48 | 25°30'36 | 8♌ 9 | 2°19 | 10°58 | 1° 1 | 16°28 | 21°45 | 15°42 | 20°27 | 19°28 | 6°D31 | 7° 3 | 29° 6 | 0°32 | F 13 | | | | | | | | |
| S 14 | 19 49 44 | 26°28'02 | 21°12 | 1°36 | 11°59 | 1°41 | 16°41 | 21°41 | 15°40 | 20°29 | 19°27 | 6°31 | 7° 0 | 29°13 | 0°29 | S 14 | | | | | | | | |
| S 15 | 19 53 41 | 27°25'29 | 3♎57 | 0°50 | 13° 0 | 2°21 | 16°54 | 21°36 | 15°37 | 20°31 | 19°27 | 6°32 | 6°57 | 29°20 | 0°26 | S 15 | | | | | | | | |
| M16 | 19 57 37 | 28°22'57 | 16°25 | 0° 4 | 14° 1 | 3° 1 | 17° 6 | 21°32 | 15°35 | 20°33 | 19°26 | 6°33 | 6°53 | 29°26 | 0°22 | M16 | | | | | | | | |
| T 17 | 20 1 34 | 29°20'25 | 28°39 | 29☾18 | 15° 2 | 3°41 | 17°19 | 21°27 | 15°33 | 20°35 | 19°25 | 6°34 | 6°50 | 29°33 | 0°19 | T 17 | | | | | | | | |
| W18 | 20 5 31 | 0♎17'55 | 10♌42 | 28°32 | 16° 2 | 4°21 | 17°32 | 21°23 | 15°31 | 20°36 | 19°25 | 6°34 | 6°47 | 29°40 | 0°16 | W18 | | | | | | | | |
| T 19 | 20 9 27 | 1°15'25 | 22°38 | 27°48 | 17° 2 | 5° 1 | 17°44 | 21°19 | 15°28 | 20°38 | 19°24 | 6°34 | 6°44 | 29°47 | 0°12 | T 19 | | | | | | | | |
| F 20 | 20 13 24 | 2°12'56 | 4♏31 | 27° 6 | 18° 2 | 5°41 | 17°57 | 21°14 | 15°26 | 20°40 | 19°23 | 6°R34 | 6°41 | 29°53 | 0° 9 | F 20 | | | | | | | | |
| S 21 | 20 17 20 | 3°10'28 | 16°26 | 26°28 | 19° 1 | 6°20 | 18°10 | 21°10 | 15°24 | 20°42 | 19°22 | 6°34 | 6°38 | 0♏ 0 | 0° 6 | S 21 | | | | | | | | |
| S 22 | 20 21 17 | 4° 8'01 | 28°29 | 25°54 | 20° 0 | 7° 0 | 18°23 | 21° 6 | 15°21 | 20°44 | 19°22 | 6°34 | 6°34 | 0° 7 | 0° 3 | S 22 | | | | | | | | |
| M23 | 20 25 13 | 5° 5'35 | 10♌41 | 25°24 | 20°58 | 7°39 | 18°36 | 21° 1 | 15°19 | 20°45 | 19°21 | 6°34 | 6°31 | 0°14 | 29☾59 | M23 | | | | | | | | |
| T 24 | 20 29 10 | 6° 3'10 | 23° 9 | 25° 0 | 21°56 | 8°18 | 18°49 | 20°57 | 15°17 | 20°47 | 19°20 | 6°34 | 6°28 | 0°20 | 29°56 | T 24 | | | | | | | | |
| W25 | 20 33 6 | 7° 0'46 | 5☾53 | 24°42 | 22°54 | 8°58 | 19° 2 | 20°53 | 15°14 | 20°49 | 19°19 | 6°D34 | 6°25 | 0°27 | 29°53 | W25 | | | | | | | | |
| T 26 | 20 37 3 | 7°58'23 | 18°56 | 24°31 | 23°51 | 9°37 | 19°14 | 20°49 | 15°12 | 20°50 | 19°18 | 6°34 | 6°22 | 0°34 | 29°49 | T 26 | | | | | | | | |
| F 27 | 20 41 0 | 8°56'01 | 2♋19 | 24°D26 | 24°48 | 10°16 | 19°27 | 20°45 | 15°10 | 20°52 | 19°17 | 6°R34 | 6°19 | 0°40 | 29°46 | F 27 | | | | | | | | |
| S 28 | 20 44 56 | 9°53'41 | 15°59 | 24°29 | 25°44 | 10°55 | 19°40 | 20°41 | 15° 7 | 20°54 | 19°17 | 6°34 | 6°15 | 0°47 | 29°43 | S 28 | | | | | | | | |
| S 29 | 20 48 53 | 10°51'22 | 29°55 | 24°39 | 26°40 | 11°34 | 19°53 | 20°36 | 15° 5 | 20°55 | 19°16 | 6°34 | 6°12 | 0°54 | 29°40 | S 29 | | | | | | | | |
| M30 | 20 52 49 | 11°49'04 | 14♏ 4 | 24°56 | 27°36 | 12°12 | 20° 6 | 20°32 | 15° 2 | 20°57 | 19°15 | 6°33 | 6° 9 | 1° 1 | 29°36 | M30 | | | | | | | | |
| T 31 | 20 56 46 | 12♎46'48 | 28♏21 | 25☾21 | 28♏31 | 12♏51 | 20♎19 | 20☾28 | 15♋ 0 | 20♏58 | 19♏14 | 6♋33 | 6♋ 6 | 1♏ 7 | 29☾33 | T 31 | | | | | | | | |

Delta T = 18m55s Julian Calendar 1 July 1078 == Greg. Calendar 7 July 1078

AUGUST 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|-------|--------|-------|------|-------|--------|------|---|---|---|---|---|---|---|-----|
| W 1 | 21 0 42 | 13♏44'34 | 12♏42 | 25☾53 | 29♎25 | 13♏29 | 20♏32 | 20°R25 | 14°R58 | 21♏ 0 | 19°R13 | 6°R32 | 6♋ 3 | 11♏14 | 29°R30 | W 1 | | | | | | | | |
| T 2 | 21 4 39 | 14°42'21 | 27° 3 | 26°33 | 0♏19 | 14° 8 | 20°45 | 20☾21 | 14♋55 | 21° 1 | 19♏12 | 6♋31 | 5°59 | 1°21 | 29☾27 | T 2 | | | | | | | | |
| F 3 | 21 8 35 | 15°40'11 | 11♌20 | 27°20 | 1°12 | 14°46 | 20°58 | 20°17 | 14°53 | 21° 3 | 19°11 | 6°D31 | 5°56 | 1°27 | 29°24 | F 3 | | | | | | | | |
| S 4 | 21 12 32 | 16°38'02 | 25°31 | 28°14 | 2° 5 | 15°25 | 21°11 | 20°13 | 14°50 | 21° 4 | 19°10 | 6°31 | 5°53 | 1°34 | 29°20 | S 4 | | | | | | | | |
| S 5 | 21 16 29 | 17°35'55 | 9♏32 | 29°15 | 2°57 | 16° 3 | 21°24 | 20° 9 | 14°48 | 21° 6 | 19° 9 | 6°32 | 5°50 | 1°41 | 29°17 | S 5 | | | | | | | | |
| M 6 | 21 20 25 | 18°33'49 | 23°24 | 0♏23 | 3°48 | 16°41 | 21°37 | 20° 6 | 14°46 | 21° 7 | 19° 8 | 6°32 | 5°47 | 1°48 | 29°14 | M 6 | | | | | | | | |
| T 7 | 21 24 22 | 19°31'46 | 7☾ 4 | 1°37 | 4°39 | 17°19 | 21°51 | 20° 2 | 14°43 | 21° 8 | 19° 7 | 6°34 | 5°44 | 1°54 | 29°11 | T 7 | | | | | | | | |
| W 8 | 21 28 18 | 20°29'45 | 20°32 | 2°57 | 5°29 | 17°56 | 22° 4 | 19°59 | 14°41 | 21°10 | 19° 6 | 6°34 | 5°40 | 2° 1 | 29° 8 | W 8 | | | | | | | | |
| T 9 | 21 32 15 | 21°27'45 | 3♏47 | 4°22 | 6°19 | 18°34 | 22°17 | 19°55 | 14°38 | 21°11 | 19° 5 | 6°R35 | 5°37 | 2° 8 | 29° 5 | T 9 | | | | | | | | |
| F 10 | 21 36 11 | 22°25'47 | 16°48 | 5°52 | 7° 8 | 19°12 | 22°30 | 19°52 | 14°36 | 21°12 | 19° 4 | 6°35 | 5°34 | 2°15 | 29° 2 | F 10 | | | | | | | | |
| S 11 | 21 40 8 | 23°23'50 | 29°36 | 7°27 | 7°56 | 19°49 | 22°43 | 19°48 | 14°34 | 21°14 | 19° 3 | 6°34 | 5°31 | 2°21 | 28°59 | S 11 | | | | | | | | |
| S 12 | 21 44 4 | 24°21'55 | 12♎10 | 9° 5 | 8°43 | 20°27 | 22°56 | 19°45 | 14°31 | 21°15 | 19° 2 | 6°32 | 5°28 | 2°28 | 28°57 | S 12 | | | | | | | | |
| M13 | 21 48 1 | 25°20'02 | 24°31 | 10°48 | 9°29 | 21° 4 | 23° 9 | 19°42 | 14°29 | 21°16 | 19° 1 | 6°29 | 5°25 | 2°35 | 28°54 | M13 | | | | | | | | |
| T 14 | 21 51 58 | 26°18'10 | 6♌41 | 12°33 | 10°15 | 21°41 | 23°22 | 19°39 | 14°27 | 21°17 | 19° 0 | 6°26 | 5°21 | 2°41 | 28°51 | T 14 | | | | | | | | |
| W15 | 21 55 54 | 27°16'20 | 18°42 | 14°21 | 11° 0 | 22°18 | 23°35 | 19°36 | 14°24 | 21°18 | 18°59 | 6°23 | 5°18 | 2°48 | 28°48 | W15 | | | | | | | | |
| T 16 | 21 59 51 | 28°14'32 | 0♏36 | 16°11 | 11°44 | 22°55 | 23°48 | 19°33 | 14°22 | 21°19 | 18°58 | 6°20 | 5°15 | 2°55 | 28°45 | T 16 | | | | | | | | |
| F 17 | 22 3 47 | 29°12'45 | 12°29 | 18° 3 | 12°27 | 23°32 | 24° 1 | 19°30 | 14°20 | 21°21 | 18°56 | 6°18 | 5°12 | 3° 2 | 28°43 | F 17 | | | | | | | | |
| S 18 | 22 7 44 | 0♎10'59 | 24°23 | 19°56 | 13° 9 | 24° 8 | 24°14 | 19°27 | 14°17 | 21°22 | 18°55 | 6°17 | 5° 9 | 3° 8 | 28°40 | S 18 | | | | | | | | |
| S 19 | 22 11 40 | 1° 9'15 | 6♌23 | 21°50 | 13°50 | 24°45 | 24°27 | 19°24 | 14°15 | 21°23 | 18°54 | 6°D17 | 5° 5 | 3°15 | 28°37 | S 19 | | | | | | | | |
| M20 | 22 15 37 | 2° 7'33 | 18°34 | 23°45 | 14°30 | 25°21 | 24°40 | 19°21 | 14°13 | 21°24 | 18°53 | 6°18 | 5° 2 | 3°22 | 28°35 | M20 | | | | | | | | |
| T 21 | 22 19 33 | 3° 5'53 | 1☾ 1 | 25°40 | 15° 8 | 25°57 | 24°53 | 19°19 | 14°11 | 21°25 | 18°52 | 6°19 | 4°59 | 3°29 | 28°32 | T 21 | | | | | | | | |
| W22 | 22 23 30 | 4° 4'14 | 13°47 | 27°35 | 15°46 | 26°34 | 25° 6 | 19°16 | 14° 9 | 21°26 | 18°51 | 6°21 | 4°56 | 3°35 | 28°30 | W22 | | | | | | | | |
| T 23 | 22 27 27 | 5° 2'36 | 26°57 | 29°30 | 16°22 | 27°10 | 25°19 | 19°14 | 14° 6 | 21°26 | 18°50 | 6°22 | 4°53 | 3°42 | 28°27 | T 23 | | | | | | | | |
| F 24 | 22 31 23 | 6° 1'01 | 10♋30 | 1♎24 | 16°58 | 27°45 | 25°32 | 19°12 | 14° 4 | 21°27 | 18°48 | 6°R22 | 4°50 | 3°49 | 28°25 | F 24 | | | | | | | | |
| S 25 | 22 35 20 | 6°59'27 | 24°28 | 3°19 | 17°31 | 28°21 | 25°45 | 19° 9 | 14° 2 | 21°28 | 18°47 | 6°21 | 4°46 | 3°55 | 28°23 | S 25 | | | | | | | | |
| S 26 | 22 39 16 | 7°57'55 | 8♏47 | 5°12 | 18° 4 | 28°57 | 25°58 | 19° 7 | 14° 0 | 21°29 | 18°46 | 6°19 | 4°43 | 4° 2 | 28°20 | S 26 | | | | | | | | |
| M27 | 22 43 13 | 8°56'24 | 23°23 | 7° 5 | 18°35 | 29°32 | 26°11 | 19° 5 | 13°58 | 21°30 | 18°45 | 6°15 | 4°40 | 4° 9 | 28°18 | M27 | | | | | | | | |
| T 28 | 22 47 9 | 9°54'56 | 8♏ 8 | 8°57 | 19° 5 | 0♏ 8 | 26°24 | 19° 3 | 13°56 | 21°30 | 18°44 | 6°10 | 4°37 | 4°16 | 28°16 | T 28 | | | | | | | | |
| W29 | 22 51 6 | 10°53'30 | 22°56 | 10°48 | 19°33 | 0°43 | 26°37 | 19° 1 | 13°54 | 21°31 | 18°43 | 6° 5 | 4°34 | 4°22 | 28°14 | W29 | | | | | | | | |
| T 30 | 22 55 2 | 11°52'06 | 7♏37 | 12°38 | 20° 0 | 1°18 | 26°50 | 18°59 | 13°52 | 21°32 | 18°41 | 6° 0 | 4°31 | 4°29 | 28°12 | T 30 | | | | | | | | |
| F 31 | 22 58 59 | 12♎50'45 | 22♏ 7 | 14♎28 | 20♏25 | 1♏53 | 27♎ 2 | 18☾57 | 13♋50 | 21♏32 | 18♏40 | 5♋57 | 4♋27 | 4♏36 | 28☾10 | F 31 | | | | | | | | |

Delta T = 18m54s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1078
geocentric

SEPTEMBER 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|--|--|---|---|--|---|---------------------------------|--|---|--|--|--|--|---------------------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 23 2 55 | 13 ^h 49 ^m 25 ^s | 6 ^h 11 ^m 22 ^s | 16 ^h 11 ^m 16 ^s | 20 ^h 48 ^m 48 ^s | 2 ^h 28 ^m 28 ^s | 27 ^h 01 ^m 15 ^s | 18°R56 | 13°R48 | 21 ^h 11 ^m 33 ^s | 18°R39 | 5°R56 | 4 ^h 24 ^m | 4 ^h 11 ^m 42 ^s | 28°R 8 | S 1 | | | | | | | | |
| S 2 | 23 6 52 | 14°48'08 | 20°18 | 18° 4 | 21°10 | 3° 2 | 27°28 | 18 ^h 54 ^m | 13 ^h 46 ^m | 21°34 | 18 ^h 38 ^m | 5°D55 | 4°21 | 4°49 | 28 ^h 06 ^m | S 2 | | | | | | | | |
| M 3 | 23 10 49 | 15°46'54 | 3 ^h 57 ^m | 19°50 | 21°30 | 3°37 | 27°41 | 18°53 | 13°44 | 21°34 | 18°37 | 5 ^h 56 ^m | 4°18 | 4°56 | 28° 4 | M 3 | | | | | | | | |
| T 4 | 23 14 45 | 16°45'42 | 17°19 | 21°36 | 21°48 | 4°11 | 27°53 | 18°51 | 13°42 | 21°35 | 18°35 | 5°58 | 4°15 | 5° 3 | 28° 2 | T 4 | | | | | | | | |
| W 5 | 23 18 42 | 17°44'32 | 0 ^h 02 ^m 25 ^s | 23°20 | 22° 4 | 4°45 | 28° 6 | 18°50 | 13°40 | 21°35 | 18°34 | 5°R59 | 4°11 | 5° 9 | 28° 1 | W 5 | | | | | | | | |
| T 6 | 23 22 38 | 18°43'24 | 13°18 | 25° 4 | 22°18 | 5°19 | 28°19 | 18°49 | 13°38 | 21°36 | 18°33 | 5°59 | 4° 8 | 5°16 | 27°59 | T 6 | | | | | | | | |
| F 7 | 23 26 35 | 19°42'18 | 25°58 | 26°46 | 22°30 | 5°53 | 28°31 | 18°48 | 13°36 | 21°36 | 18°32 | 5°57 | 4° 5 | 5°23 | 27°57 | F 7 | | | | | | | | |
| S 8 | 23 30 31 | 20°41'15 | 8 ^h 11 ^m 28 ^s | 28°28 | 22°40 | 6°27 | 28°44 | 18°47 | 13°35 | 21°37 | 18°31 | 5°53 | 4° 2 | 5°30 | 27°56 | S 8 | | | | | | | | |
| S 9 | 23 34 28 | 21°40'13 | 20°48 | 0 ^h 05 ^m 9 ^s | 22°48 | 7° 1 | 28°56 | 18°46 | 13°33 | 21°37 | 18°29 | 5°46 | 3°59 | 5°36 | 27°54 | S 9 | | | | | | | | |
| M10 | 23 38 24 | 22°39'14 | 3 ^h 05 ^m 0 ^s | 1°49 | 22°53 | 7°34 | 29° 9 | 18°45 | 13°31 | 21°37 | 18°28 | 5°38 | 3°56 | 5°43 | 27°53 | M10 | | | | | | | | |
| T 11 | 23 42 21 | 23°38'16 | 15° 3 | 3°28 | 22°57 | 8° 7 | 29°21 | 18°45 | 13°29 | 21°37 | 18°27 | 5°29 | 3°52 | 5°50 | 27°52 | T 11 | | | | | | | | |
| W12 | 23 46 18 | 24°37'21 | 27° 0 | 5° 6 | 22°R58 | 8°40 | 29°34 | 18°44 | 13°28 | 21°38 | 18°26 | 5°20 | 3°49 | 5°56 | 27°50 | W12 | | | | | | | | |
| T 13 | 23 50 14 | 25°36'28 | 8 ^h 11 ^m 53 ^s | 6°43 | 22°57 | 9°13 | 29°46 | 18°44 | 13°26 | 21°38 | 18°25 | 5°11 | 3°46 | 6° 3 | 27°49 | T 13 | | | | | | | | |
| F 14 | 23 54 11 | 26°35'36 | 20°43 | 8°20 | 22°53 | 9°46 | 29°59 | 18°43 | 13°25 | 21°38 | 18°24 | 5° 3 | 3°43 | 6°10 | 27°48 | F 14 | | | | | | | | |
| S 15 | 23 58 7 | 27°34'47 | 2 ^h 07 ^m 35 ^s | 9°55 | 22°47 | 10°18 | 0 ^h 11 ^m 18 ^s | 18°43 | 13°23 | 21°38 | 18°22 | 4°58 | 3°40 | 6°17 | 27°47 | S 15 | | | | | | | | |
| S 16 | 0 2 4 | 28°33'59 | 14°33 | 11°30 | 22°39 | 10°51 | 0°23 | 18°43 | 13°22 | 21°38 | 18°21 | 4°55 | 3°36 | 6°23 | 27°46 | S 16 | | | | | | | | |
| M17 | 0 6 0 | 29°33'13 | 26°40 | 13° 4 | 22°28 | 11°23 | 0°35 | 18°D43 | 13°20 | 21°38 | 18°20 | 4°D53 | 3°33 | 6°30 | 27°45 | M17 | | | | | | | | |
| T 18 | 0 9 57 | 0 ^h 03 ^m 22 ^s 29 ^s | 9 ^h 03 ^m 2 ^s | 14°38 | 22°15 | 11°55 | 0°48 | 18°43 | 13°19 | 21°39 | 18°19 | 4°54 | 3°30 | 6°37 | 27°44 | T 18 | | | | | | | | |
| W19 | 0 13 53 | 1°31'47 | 21°45 | 16°10 | 22° 0 | 12°27 | 1° 0 | 18°43 | 13°18 | 21°R39 | 18°18 | 4°55 | 3°27 | 6°44 | 27°43 | W19 | | | | | | | | |
| T 20 | 0 17 50 | 2°31'06 | 4 ^h 05 ^m 11 ^s | 17°42 | 21°42 | 12°58 | 1°12 | 18°43 | 13°16 | 21°39 | 18°16 | 4°R55 | 3°24 | 6°50 | 27°42 | T 20 | | | | | | | | |
| F 21 | 0 21 47 | 3°30'28 | 18°25 | 19°13 | 21°21 | 13°30 | 1°24 | 18°43 | 13°15 | 21°38 | 18°15 | 4°54 | 3°21 | 6°57 | 27°42 | F 21 | | | | | | | | |
| S 22 | 0 25 43 | 4°29'51 | 2 ^h 07 ^m 28 ^s | 20°43 | 20°59 | 14° 1 | 1°36 | 18°44 | 13°14 | 21°38 | 18°14 | 4°51 | 3°17 | 7° 4 | 27°41 | S 22 | | | | | | | | |
| S 23 | 0 29 40 | 5°29'16 | 16°58 | 22°13 | 20°34 | 14°32 | 1°48 | 18°44 | 13°12 | 21°38 | 18°13 | 4°46 | 3°14 | 7°10 | 27°40 | S 23 | | | | | | | | |
| M24 | 0 33 36 | 6°28'43 | 1 ^h 07 ^m 51 ^s | 23°41 | 20° 8 | 15° 3 | 1°59 | 18°45 | 13°11 | 21°38 | 18°12 | 4°38 | 3°11 | 7°17 | 27°40 | M24 | | | | | | | | |
| T 25 | 0 37 33 | 7°28'12 | 16°58 | 25° 9 | 19°39 | 15°33 | 2°11 | 18°46 | 13°10 | 21°38 | 18°11 | 4°29 | 3° 8 | 7°24 | 27°40 | T 25 | | | | | | | | |
| W26 | 0 41 29 | 8°27'43 | 2 ^h 08 ^m 9 ^s | 26°37 | 19° 9 | 16° 3 | 2°23 | 18°46 | 13° 9 | 21°38 | 18°10 | 4°19 | 3° 5 | 7°31 | 27°39 | W26 | | | | | | | | |
| T 27 | 0 45 26 | 9°27'16 | 17°14 | 28° 3 | 18°37 | 16°34 | 2°35 | 18°47 | 13° 8 | 21°37 | 18° 9 | 4°10 | 3° 2 | 7°37 | 27°39 | T 27 | | | | | | | | |
| F 28 | 0 49 22 | 10°26'52 | 2 ^h 11 ^m 4 ^s | 29°29 | 18° 4 | 17° 4 | 2°46 | 18°48 | 13° 7 | 21°37 | 18° 7 | 4° 3 | 2°58 | 7°44 | 27°39 | F 28 | | | | | | | | |
| S 29 | 0 53 19 | 11°26'30 | 16°32 | 0 ^h 11 ^m 54 ^s | 17°30 | 17°33 | 2°58 | 18°49 | 13° 6 | 21°37 | 18° 6 | 3°58 | 2°55 | 7°51 | 27°39 | S 29 | | | | | | | | |
| S 30 | 0 57 16 | 12 ^h 06 ^m 11 ^s | 0 ^h 05 ^m 35 ^s | 2 ^h 11 ^m 18 ^s | 16 ^h 05 ^m 55 ^s | 18 ^h 03 ^m 3 ^s | 3 ^h 11 ^m 9 ^s | 18 ^h 51 ^m | 13 ^h 05 ^m 5 ^s | 21 ^h 11 ^m 36 ^s | 18 ^h 05 ^m 5 ^s | 3 ^h 55 ^m 56 ^s | 2 ^h 55 ^m 52 ^s | 7 ^h 11 ^m 57 ^s | 27 ^h 38 ^m | S 30 | | | | | | | | |

Delta T = 18m54s Julian Calendar 1 Sept. 1078 == Greg. Calendar 7 Sept. 1078

OCTOBER 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|---|---|--|--------|---|--|---------------------------------|---------------------------------|---|--|--------------------------------|--------------------------------|---|---------------------------------|------|---|---|---|---|---|---|---|-----|
| M 1 | 1 1 12 | 13 ^h 05 ^m 25 ^s 54 ^s | 14 ^h 02 ^m 12 ^s | 3 ^h 11 ^m 41 ^s | 16°R19 | 18 ^h 03 ^m 32 ^s | 3 ^h 11 ^m 21 ^s | 18 ^h 52 ^m | 13°R 5 | 21°R36 | 18°R 4 | 3°D55 | 2 ^h 49 ^m | 8 ^h 11 ^m 4 ^s | 27°D38 | M 1 | | | | | | | | |
| T 2 | 1 5 9 | 14°25'39 | 27°27 | 5° 3 | 15°43 | 19° 1 | 3°32 | 18°53 | 13 ^h 44 ^m | 21 ^h 11 ^m 36 ^s | 18 ^h 03 ^m 3 ^s | 3°R56 | 2°46 | 8°11 | 27 ^h 39 ^m | T 2 | | | | | | | | |
| W 3 | 1 9 5 | 15°25'26 | 10 ^h 02 ^m 22 ^s | 6°24 | 15° 6 | 19°30 | 3°43 | 18°55 | 13° 3 | 21°35 | 18° 2 | 3 ^h 56 ^m | 2°42 | 8°18 | 27°39 | W 3 | | | | | | | | |
| T 4 | 1 13 2 | 16°25'16 | 23° 0 | 7°44 | 14°30 | 19°58 | 3°54 | 18°57 | 13° 2 | 21°35 | 18° 1 | 3°54 | 2°39 | 8°24 | 27°39 | T 4 | | | | | | | | |
| F 5 | 1 16 58 | 17°25'07 | 5 ^h 11 ^m 26 ^s | 9° 3 | 13°53 | 20°27 | 4° 5 | 18°58 | 13° 2 | 21°34 | 18° 0 | 3°50 | 2°36 | 8°31 | 27°39 | F 5 | | | | | | | | |
| S 6 | 1 20 55 | 18°25'01 | 17°41 | 10°21 | 13°18 | 20°55 | 4°17 | 19° 0 | 13° 1 | 21°34 | 17°59 | 3°43 | 2°33 | 8°38 | 27°40 | S 6 | | | | | | | | |
| S 7 | 1 24 51 | 19°24'57 | 29°49 | 11°38 | 12°43 | 21°22 | 4°27 | 19° 2 | 13° 1 | 21°33 | 17°58 | 3°33 | 2°30 | 8°45 | 27°40 | S 7 | | | | | | | | |
| M 8 | 1 28 48 | 20°24'55 | 11 ^h 05 ^m 50 ^s | 12°53 | 12° 8 | 21°50 | 4°38 | 19° 4 | 13° 0 | 21°32 | 17°57 | 3°21 | 2°27 | 8°51 | 27°40 | M 8 | | | | | | | | |
| T 9 | 1 32 44 | 21°24'55 | 23°47 | 14° 7 | 11°36 | 22°17 | 4°49 | 19° 6 | 13° 0 | 21°32 | 17°56 | 3° 7 | 2°23 | 8°58 | 27°41 | T 9 | | | | | | | | |
| W10 | 1 36 41 | 22°24'57 | 5 ^h 11 ^m 41 ^s | 15°19 | 11° 4 | 22°44 | 5° 0 | 19° 8 | 12°59 | 21°31 | 17°55 | 2°52 | 2°20 | 9° 5 | 27°42 | W10 | | | | | | | | |
| T 11 | 1 40 38 | 23°25'01 | 17°32 | 16°29 | 10°34 | 23°10 | 5°11 | 19°11 | 12°59 | 21°30 | 17°54 | 2°38 | 2°17 | 9°11 | 27°42 | T 11 | | | | | | | | |
| F 12 | 1 44 34 | 24°25'07 | 29°23 | 17°37 | 10° 6 | 23°37 | 5°21 | 19°13 | 12°59 | 21°30 | 17°53 | 2°26 | 2°14 | 9°18 | 27°43 | F 12 | | | | | | | | |
| S 13 | 1 48 31 | 25°25'15 | 11 ^h 07 ^m 16 ^s | 18°43 | 9°40 | 24° 3 | 5°32 | 19°16 | 12°58 | 21°29 | 17°52 | 2°16 | 2°11 | 9°25 | 27°44 | S 13 | | | | | | | | |
| S 14 | 1 52 27 | 26°25'24 | 23°13 | 19°46 | 9°16 | 24°28 | 5°42 | 19°18 | 12°58 | 21°28 | 17°51 | 2°10 | 2° 8 | 9°32 | 27°45 | S 14 | | | | | | | | |
| M15 | 1 56 24 | 27°25'35 | 5 ^h 03 ^m 19 ^s | 20°47 | 8°53 | 24°54 | 5°52 | 19°21 | 12°58 | 21°27 | 17°51 | 2° 6 | 2° 4 | 9°38 | 27°46 | M15 | | | | | | | | |
| T 16 | 2 0 20 | 28°25'47 | 17°38 | 21°44 | 8°34 | 25°19 | 6° 2 | 19°24 | 12°58 | 21°26 | 17°50 | 2° 5 | 2° 1 | 9°45 | 27°47 | T 16 | | | | | | | | |
| W17 | 2 4 17 | 29°26'01 | 0 ^h 08 ^m 14 ^s | 22°38 | 8°16 | 25°44 | 6°12 | 19°27 | 12°D58 | 21°26 | 17°49 | 2° 4 | 1°58 | 9°52 | 27°48 | W17 | | | | | | | | |
| T 18 | 2 8 13 | 0 ^h 11 ^m 26 ^s 17 ^s | 13°13 | 23°28 | 8° 1 | 26° 8 | 6°22 | 19°30 | 12°58 | 21°25 | 17°48 | 2° 4 | 1°55 | 9°58 | 27°49 | T 18 | | | | | | | | |
| F 19 | 2 12 10 | 1°26'34 | 26°39 | 24°13 | 7°48 | 26°32 | 6°32 | 19°33 | 12°58 | 21°24 | 17°47 | 2° 3 | 1°52 | 10° 5 | 27°50 | F 19 | | | | | | | | |
| S 20 | 2 16 7 | 2°26'52 | 10 ^h 07 ^m 34 ^s | 24°54 | 7°38 | 26°56 | 6°42 | 19°36 | 12°58 | 21°23 | 17°46 | 1°59 | 1°48 | 10°12 | 27°52 | S 20 | | | | | | | | |
| S 21 | 2 20 3 | 3°27'12 | 25° 0 | 25°29 | 7°30 | 27°19 | 6°52 | 19°39 | 12°58 | 21°22 | 17°46 | 1°53 | 1°45 | 10°19 | 27°53 | S 21 | | | | | | | | |
| M22 | 2 24 0 | 4°27'34 | 9 ^h 07 ^m 52 ^s | 25°58 | 7°24 | 27°42 | 7° 1 | 19°42 | 12°59 | 21°21 | 17°45 | 1°44 | 1°42 | 10°25 | 27°55 | M22 | | | | | | | | |
| T 23 | 2 27 56 | 5°27'57 | 25° 5 | 26°20 | 7°22 | 28° 5 | 7°11 | 19°46 | 12°59 | 21°20 | 17°44 | 1°33 | 1°39 | 10°32 | 27°56 | T 23 | | | | | | | | |
| W24 | 2 31 53 | 6°28'21 | 10 ^h 08 ^m 27 ^s | 26°35 | 7°D21 | 28°27 | 7°20 | 19°49 | 12°59 | 21°19 | 17°43 | 1°22 | 1°36 | 10°39 | 27°58 | W24 | | | | | | | | |
| T 25 | 2 35 49 | 7°28'48 | 25°47 | 26°R41 | 7°23 | 28°49 | 7°30 | 19°53 | 12°59 | 21°17 | 17°43 | 1°11 | 1°33 | 10°46 | 27°59 | T 25 | | | | | | | | |
| F 26 | 2 39 46 | 8°29'16 | 10 ^h 11 ^m 53 ^s | 26°39 | 7°27 | 29°11 | 7°39 | 19°56 | 13° 0 | 21°16 | 17°42 | 1° 2 | 1°29 | 10°52 | 28° 1 | F 26 | | | | | | | | |
| S 27 | 2 43 42 | 9°29'46 | 25°37 | 26°27 | 7°34 | 29°32 | 7°48 | 20° 0 | 13° 0 | 21°15 | 17°41 | 0°55 | 1°26 | 10°59 | 28° 3 | S 27 | | | | | | | | |
| S 28 | 2 47 39 | 10°30'18 | 9 ^h 05 ^m 53 ^s | 26° 4 | 7°43 | 29°53 | 7°57 | 20° 4 | 13° 1 | 21°14 | 17°41 | 0°52 | 1°23 | 11° 6 | 28° 5 | S 28 | | | | | | | | |
| M29 | 2 51 36 | 11°30'52 | 23°40 | 25°32 | 7°54 | 0 ^h 01 ^m 13 ^s | 8° 6 | 20° 8 | 13° 1 | 21°13 | 17°40 | 0°50 | 1°20 | 11°12 | 28° 7 | M29 | | | | | | | | |
| T 30 | 2 55 32 | 12°31'27 | 6 ^h 02 ^m 59 ^s | 24°49 | 8° 8 | 0°33 | 8°14 | 20°12 | 13° 2 | 21°12 | 17°39 | 0°50 | 1°17 | 11°19 | 28° 9 | T 30 | | | | | | | | |
| W31 | 2 59 29 | 13 ^h 13 ^m 32 ^{s</} | | | | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1078
geocentric

NOVEMBER 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|------|-------|-------|-------|--------|--------|--------|-------|-------|-------|------|
| T 1 | 3 3 25 | 14♌32'44 | 2♍28 | 22°R54 | 8♌41 | 1♌12 | 8♍31 | 20♌20 | 13♌4 | 21°R 9 | 17°R38 | 0°R49 | 1♌10 | 11♌33 | 28♌13 | T 1 |
| F 2 | 3 7 22 | 15°33'24 | 14°46 | 21♌43 | 9° 1 | 1°30 | 8°40 | 20°25 | 13° 4 | 21♌ 8 | 17°R38 | 0°R45 | 1° 7 | 11°39 | 28°15 | F 2 |
| S 3 | 3 11 18 | 16°34'07 | 26°54 | 20°27 | 9°22 | 1°49 | 8°48 | 20°29 | 13° 5 | 21° 6 | 17°37 | 0°39 | 1° 4 | 11°46 | 28°17 | S 3 |
| S 4 | 3 15 15 | 17°34'51 | 8♌53 | 19° 6 | 9°46 | 2° 6 | 8°56 | 20°33 | 13° 6 | 21° 5 | 17°37 | 0°30 | 1° 1 | 11°53 | 28°20 | S 4 |
| M 5 | 3 19 11 | 18°35'36 | 20°48 | 17°44 | 10°11 | 2°23 | 9° 4 | 20°38 | 13° 7 | 21° 4 | 17°36 | 0°18 | 0°58 | 11°59 | 28°22 | M 5 |
| T 6 | 3 23 8 | 19°36'23 | 2♌41 | 16°23 | 10°38 | 2°40 | 9°12 | 20°42 | 13° 8 | 21° 2 | 17°36 | 0° 5 | 0°54 | 12° 6 | 28°24 | T 6 |
| W 7 | 3 27 5 | 20°37'12 | 14°33 | 15° 7 | 11° 7 | 2°56 | 9°20 | 20°47 | 13° 9 | 21° 1 | 17°35 | 29♌51 | 0°51 | 12°13 | 28°27 | W 7 |
| T 8 | 3 31 1 | 21°38'02 | 26°25 | 13°56 | 11°37 | 3°12 | 9°27 | 20°52 | 13°10 | 20°59 | 17°35 | 29°37 | 0°48 | 12°20 | 28°29 | T 8 |
| F 9 | 3 34 58 | 22°38'53 | 8♌20 | 12°55 | 12° 9 | 3°27 | 9°35 | 20°56 | 13°11 | 20°58 | 17°34 | 29°26 | 0°45 | 12°26 | 28°32 | F 9 |
| S 10 | 3 38 54 | 23°39'45 | 20°18 | 12° 3 | 12°42 | 3°42 | 9°42 | 21° 1 | 13°12 | 20°57 | 17°34 | 29°16 | 0°42 | 12°33 | 28°35 | S 10 |
| S 11 | 3 42 51 | 24°40'39 | 2♌21 | 11°23 | 13°17 | 3°56 | 9°49 | 21° 6 | 13°14 | 20°55 | 17°34 | 29°10 | 0°39 | 12°40 | 28°37 | S 11 |
| M12 | 3 46 47 | 25°41'33 | 14°32 | 10°54 | 13°53 | 4° 9 | 9°56 | 21°11 | 13°15 | 20°54 | 17°33 | 29° 6 | 0°35 | 12°47 | 28°40 | M12 |
| T 13 | 3 50 44 | 26°42'29 | 26°54 | 10°36 | 14°31 | 4°22 | 10° 3 | 21°16 | 13°16 | 20°52 | 17°33 | 29°D 5 | 0°32 | 12°53 | 28°43 | T 13 |
| W14 | 3 54 41 | 27°43'25 | 9♌31 | 10°D30 | 15°10 | 4°35 | 10°10 | 21°21 | 13°18 | 20°51 | 17°33 | 29° 6 | 0°29 | 13° 0 | 28°46 | W14 |
| T 15 | 3 58 37 | 28°44'22 | 22°27 | 10°34 | 15°50 | 4°47 | 10°16 | 21°27 | 13°19 | 20°49 | 17°32 | 29°R 6 | 0°26 | 13° 7 | 28°49 | T 15 |
| F 16 | 4 2 34 | 29°45'19 | 5♌45 | 10°48 | 16°31 | 4°58 | 10°23 | 21°32 | 13°20 | 20°47 | 17°32 | 29° 6 | 0°23 | 13°13 | 28°52 | F 16 |
| S 17 | 4 6 30 | 0♌46'18 | 19°29 | 11°12 | 17°13 | 5° 8 | 10°29 | 21°37 | 13°22 | 20°46 | 17°32 | 29° 5 | 0°19 | 13°20 | 28°55 | S 17 |
| S 18 | 4 10 27 | 1°47'17 | 3♌40 | 11°43 | 17°57 | 5°18 | 10°35 | 21°43 | 13°24 | 20°44 | 17°32 | 29° 1 | 0°16 | 13°27 | 28°58 | S 18 |
| M19 | 4 14 23 | 2°48'16 | 18°17 | 12°21 | 18°41 | 5°28 | 10°41 | 21°48 | 13°25 | 20°43 | 17°31 | 28°54 | 0°13 | 13°34 | 29° 1 | M19 |
| T 20 | 4 18 20 | 3°49'17 | 3♌16 | 13° 7 | 19°27 | 5°36 | 10°47 | 21°54 | 13°27 | 20°41 | 17°31 | 28°47 | 0°10 | 13°40 | 29° 4 | T 20 |
| W21 | 4 22 16 | 4°50'18 | 18°28 | 13°57 | 20°13 | 5°44 | 10°53 | 21°59 | 13°29 | 20°39 | 17°31 | 28°38 | 0° 7 | 13°47 | 29° 8 | W21 |
| T 22 | 4 26 13 | 5°51'20 | 3♌44 | 14°53 | 21° 1 | 5°52 | 10°58 | 22° 5 | 13°30 | 20°38 | 17°31 | 28°30 | 0° 4 | 13°54 | 29°11 | T 22 |
| F 23 | 4 30 10 | 6°52'22 | 18°52 | 15°54 | 21°49 | 5°58 | 11° 4 | 22°11 | 13°32 | 20°36 | 17°31 | 28°23 | 0° 0 | 14° 0 | 29°14 | F 23 |
| S 24 | 4 34 6 | 7°53'26 | 3♌43 | 16°58 | 22°39 | 6° 4 | 11° 9 | 22°16 | 13°34 | 20°35 | 17°31 | 28°18 | 29♌57 | 14° 7 | 29°18 | S 24 |
| S 25 | 4 38 3 | 8°54'31 | 18° 9 | 18° 5 | 23°29 | 6°10 | 11°14 | 22°22 | 13°36 | 20°33 | 17°31 | 28°15 | 29°54 | 14°14 | 29°21 | S 25 |
| M26 | 4 41 59 | 9°55'36 | 2♌ 7 | 19°16 | 24°20 | 6°14 | 11°19 | 22°28 | 13°38 | 20°31 | 17°D31 | 28°D15 | 29°51 | 14°21 | 29°25 | M26 |
| T 27 | 4 45 56 | 10°56'42 | 15°35 | 20°29 | 25°11 | 6°18 | 11°24 | 22°34 | 13°40 | 20°30 | 17°31 | 28°16 | 29°48 | 14°27 | 29°28 | T 27 |
| W28 | 4 49 52 | 11°57'49 | 28°37 | 21°44 | 26° 4 | 6°21 | 11°28 | 22°40 | 13°42 | 20°28 | 17°31 | 28°17 | 29°45 | 14°34 | 29°32 | W28 |
| T 29 | 4 53 49 | 12°58'57 | 11♌16 | 23° 1 | 26°57 | 6°24 | 11°33 | 22°46 | 13°44 | 20°26 | 17°31 | 28°R18 | 29°41 | 14°41 | 29°35 | T 29 |
| F 30 | 4 57 45 | 14♌ 0'05 | 23♌37 | 24♌20 | 27♌51 | 6♌25 | 11♌37 | 22♌52 | 13♌46 | 20♌25 | 17♌31 | 28♌18 | 29♌38 | 14♌48 | 29♌39 | F 30 |

Delta T = 18m54s Julian Calendar 1 Nov. 1078 == Greg. Calendar 7 Nov. 1078

DECEMBER 1078 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|------|
| S 1 | 5 1 42 | 15♌ 1'15 | 5♌43 | 25♌41 | 28♌46 | 6♌26 | 11♌41 | 22♌58 | 13♌48 | 20°R23 | 17°R31 | 28°R15 | 29♌35 | 14♌54 | 29♌43 | S 1 |
| S 2 | 5 5 39 | 16° 2'25 | 17°40 | 27° 2 | 29°41 | 6°R26 | 11°45 | 23° 4 | 13°50 | 20♌21 | 17°31 | 28♌11 | 29°32 | 15° 1 | 29°47 | S 2 |
| M 3 | 5 9 35 | 17° 3'35 | 29°33 | 28°25 | 0♌37 | 6°26 | 11°48 | 23°11 | 13°52 | 20°19 | 17°32 | 28° 5 | 29°29 | 15° 8 | 29°50 | M 3 |
| T 4 | 5 13 32 | 18° 4'47 | 11♌24 | 29°49 | 1°33 | 6°24 | 11°52 | 23°17 | 13°55 | 20°18 | 17°32 | 27°57 | 29°25 | 15°14 | 29°54 | T 4 |
| W 5 | 5 17 28 | 19° 5'59 | 23°16 | 1♌14 | 2°30 | 6°22 | 11°55 | 23°23 | 13°57 | 20°16 | 17°32 | 27°49 | 29°22 | 15°21 | 29°58 | W 5 |
| T 6 | 5 21 25 | 20° 7'11 | 5♌11 | 2°40 | 3°28 | 6°19 | 11°58 | 23°30 | 13°59 | 20°14 | 17°32 | 27°42 | 29°19 | 15°28 | 0♌ 2 | T 6 |
| F 7 | 5 25 21 | 21° 8'24 | 17°12 | 4° 6 | 4°26 | 6°15 | 12° 1 | 23°36 | 14° 2 | 20°13 | 17°32 | 27°35 | 29°16 | 15°35 | 0° 6 | F 7 |
| S 8 | 5 29 18 | 22° 9'37 | 29°20 | 5°33 | 5°24 | 6°10 | 12° 4 | 23°43 | 14° 4 | 20°11 | 17°33 | 27°30 | 29°13 | 15°41 | 0°10 | S 8 |
| S 9 | 5 33 14 | 23°10'50 | 11♌36 | 7° 1 | 6°23 | 6° 4 | 12° 7 | 23°49 | 14° 7 | 20° 9 | 17°33 | 27°27 | 29°10 | 15°48 | 0°14 | S 9 |
| M10 | 5 37 11 | 24°12'03 | 24° 1 | 8°29 | 7°23 | 5°58 | 12° 9 | 23°56 | 14° 9 | 20° 8 | 17°33 | 27°D26 | 29° 6 | 15°55 | 0°18 | M10 |
| T 11 | 5 41 8 | 25°13'16 | 6♌36 | 9°58 | 8°23 | 5°51 | 12°11 | 24° 2 | 14°12 | 20° 6 | 17°34 | 27°26 | 29° 3 | 16° 1 | 0°22 | T 11 |
| W12 | 5 45 4 | 26°14'29 | 19°25 | 11°27 | 9°23 | 5°43 | 12°13 | 24° 9 | 14°14 | 20° 4 | 17°34 | 27°27 | 29° 0 | 16° 8 | 0°26 | W12 |
| T 13 | 5 49 1 | 27°15'42 | 2♌28 | 12°56 | 10°24 | 5°34 | 12°15 | 24°16 | 14°17 | 20° 2 | 17°34 | 27°29 | 28°57 | 16°15 | 0°31 | T 13 |
| F 14 | 5 52 57 | 28°16'55 | 15°48 | 14°27 | 11°25 | 5°24 | 12°17 | 24°22 | 14°19 | 20° 1 | 17°35 | 27°30 | 28°54 | 16°22 | 0°35 | F 14 |
| S 15 | 5 56 54 | 29°18'07 | 29°27 | 15°57 | 12°27 | 5°14 | 12°18 | 24°29 | 14°22 | 19°59 | 17°35 | 27°R31 | 28°51 | 16°28 | 0°39 | S 15 |
| S 16 | 6 0 50 | 0♌19'19 | 13♌26 | 17°28 | 13°29 | 5° 2 | 12°19 | 24°36 | 14°25 | 19°57 | 17°36 | 27°30 | 28°47 | 16°35 | 0°43 | S 16 |
| M17 | 6 4 47 | 1°20'30 | 27°45 | 18°59 | 14°31 | 4°50 | 12°20 | 24°42 | 14°27 | 19°56 | 17°36 | 27°28 | 28°44 | 16°42 | 0°48 | M17 |
| T 18 | 6 8 43 | 2°21'41 | 12♌20 | 20°31 | 15°34 | 4°37 | 12°21 | 24°49 | 14°30 | 19°54 | 17°37 | 27°25 | 28°41 | 16°48 | 0°52 | T 18 |
| W19 | 6 12 40 | 3°22'51 | 27° 8 | 22° 3 | 16°37 | 4°24 | 12°22 | 24°56 | 14°33 | 19°52 | 17°37 | 27°22 | 28°38 | 16°55 | 0°56 | W19 |
| T 20 | 6 16 37 | 4°24'02 | 12♌ 1 | 23°36 | 17°41 | 4° 9 | 12°23 | 25° 3 | 14°36 | 19°51 | 17°38 | 27°19 | 28°35 | 17° 2 | 1° 1 | T 20 |
| F 21 | 6 20 33 | 5°25'11 | 26°52 | 25° 9 | 18°44 | 3°54 | 12°23 | 25°10 | 14°39 | 19°49 | 17°38 | 27°16 | 28°31 | 17° 9 | 1° 5 | F 21 |
| S 22 | 6 24 30 | 6°26'21 | 11♌31 | 26°42 | 19°48 | 3°38 | 12°R23 | 25°17 | 14°42 | 19°48 | 17°39 | 27°14 | 28°28 | 17°15 | 1° 9 | S 22 |
| S 23 | 6 28 26 | 7°27'30 | 25°53 | 28°16 | 20°53 | 3°22 | 12°23 | 25°24 | 14°44 | 19°46 | 17°40 | 27°D13 | 28°25 | 17°22 | 1°14 | S 23 |
| M24 | 6 32 23 | 8°28'39 | 9♌27 | 29°51 | 21°57 | 3° 4 | 12°23 | 25°31 | 14°47 | 19°44 | 17°40 | 27°14 | 28°22 | 17°29 | 1°18 | M24 |
| T 25 | 6 36 19 | 9°29'47 | 23°27 | 1♌25 | 23° 2 | 2°46 | 12°22 | 25°38 | 14°50 | 19°43 | 17°41 | 27°15 | 28°19 | 17°35 | 1°23 | T 25 |
| W26 | 6 40 16 | 10°30'55 | 6♌36 | 3° 1 | 24° 7 | 2°28 | 12°22 | 25°45 | 14°53 | 19°41 | 17°42 | 27°16 | 28°16 | 17°42 | 1°27 | W26 |
| T 27 | 6 44 13 | 11°32'03 | 19°22 | 4°36 | 25°13 | 2° 8 | 12°21 | 25°52 | 14°56 | 19°40 | 17°42 | 27°18 | 28°12 | 17°49 | 1°32 | T 27 |
| F 28 | 6 48 9 | 12°33'10 | 1♌48 | 6°13 | 26°18 | 1°49 | 12°20 | 25°59 | 14°59 | 19°38 | 17°43 | 27°19 | 28° 9 | 17°56 | 1°36 | F 28 |
| S 29 | 6 52 6 | 13°34'18 | 13°58 | 7°49 | 27°24 | 1°28 | 12°18 | 26° 6 | 15° 2 | 19°37 | 17°44 | 27°R19 | 28° 6 | 18° 2 | 1°41 | S 29 |
| S 30 | 6 56 2 | 14°35'25 | 25°57 | 9°27 | 28°31 | 1° 7 | 12°17 | 26°13 | 15° 6 | 19°35 | 17°45 | 27°19 | 28° 3 | 18° 9 | 1°46 | S 30 |
| M31 | 6 59 59 | 15♌36'31 | 7♌50 | 11♌ 5 | 29♌37 | 0♌46 | 12♌15 | 26♌20 | 15♌ 9 | 19♌34 | 17♌45 | 27♌18 | 28♌ 0 | 18♌16 | 1♌50 | M31 |

Delta T = 18m53s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1079
geocentric

JANUARY 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|---------|----------|--------|-------|-------|-------|--------|-------|-------|--------|-------|--------|-------|-------|------|------|-----|
| T 1 | 7 3 55 | 16♁37'37 | 19♂41 | 12♁43 | 0♁744 | 0°R24 | 12°R14 | 26♁27 | 15♁12 | 19°R32 | 17♁46 | 27°R16 | 27♁57 | 18♂22 | 1♁55 | T 1 | |
| W 2 | 7 7 52 | 17°38'43 | 1♁34 | 14°22 | 1°50 | 0♁ 2 | 12♂12 | 26°34 | 15°15 | 19♂31 | 17°47 | 27♁15 | 27°53 | 18°29 | 1°59 | W 2 | |
| T 3 | 7 11 48 | 18°39'48 | 13°33 | 16° 2 | 2°57 | 29♁39 | 12° 9 | 26°42 | 15°18 | 19°29 | 17°48 | 27°13 | 27°50 | 18°36 | 2° 4 | T 3 | |
| F 4 | 7 15 45 | 19°40'52 | 25°41 | 17°42 | 4° 5 | 29°16 | 12° 7 | 26°49 | 15°21 | 19°28 | 17°49 | 27°12 | 27°47 | 18°43 | 2° 9 | F 4 | |
| S 5 | 7 19 42 | 20°41'56 | 7♁59 | 19°23 | 5°12 | 28°53 | 12° 5 | 26°56 | 15°25 | 19°26 | 17°50 | 27°12 | 27°44 | 18°49 | 2°13 | S 5 | |
| S 6 | 7 23 38 | 21°42'59 | 20°30 | 21° 4 | 6°20 | 28°29 | 12° 2 | 27° 3 | 15°28 | 19°25 | 17°51 | 27°11 | 27°41 | 18°56 | 2°18 | S 6 | |
| M 7 | 7 27 35 | 22°44'01 | 3♁14 | 22°46 | 7°27 | 28° 5 | 11°59 | 27°10 | 15°31 | 19°24 | 17°52 | 27°D11 | 27°37 | 19° 3 | 2°23 | M 7 | |
| T 8 | 7 31 31 | 23°45'02 | 16°11 | 24°29 | 8°35 | 27°41 | 11°56 | 27°17 | 15°34 | 19°22 | 17°53 | 27°11 | 27°34 | 19° 9 | 2°28 | T 8 | |
| W 9 | 7 35 28 | 24°46'02 | 29°22 | 26°12 | 9°43 | 27°17 | 11°52 | 27°25 | 15°38 | 19°21 | 17°54 | 27°12 | 27°31 | 19°16 | 2°32 | W 9 | |
| T 10 | 7 39 24 | 25°47'01 | 12♁45 | 27°56 | 10°52 | 26°53 | 11°49 | 27°32 | 15°41 | 19°20 | 17°55 | 27°12 | 27°28 | 19°23 | 2°37 | T 10 | |
| F 11 | 7 43 21 | 26°47'58 | 26°22 | 29°41 | 12° 0 | 26°29 | 11°45 | 27°39 | 15°44 | 19°18 | 17°56 | 27°R12 | 27°25 | 19°30 | 2°42 | F 11 | |
| S 12 | 7 47 17 | 27°48'54 | 10°P10 | 1♁26 | 13° 9 | 26° 5 | 11°41 | 27°46 | 15°48 | 19°17 | 17°57 | 27°12 | 27°22 | 19°36 | 2°46 | S 12 | |
| S 13 | 7 51 14 | 28°49'49 | 24° 9 | 3°12 | 14°17 | 25°41 | 11°37 | 27°53 | 15°51 | 19°16 | 17°58 | 27°D12 | 27°18 | 19°43 | 2°51 | S 13 | |
| M14 | 7 55 11 | 29°50'42 | 8♁17 | 4°58 | 15°26 | 25°17 | 11°33 | 28° 1 | 15°54 | 19°15 | 17°59 | 27°12 | 27°15 | 19°50 | 2°56 | M14 | |
| T 15 | 7 59 7 | 0♁51'34 | 22°34 | 6°45 | 16°35 | 24°54 | 11°29 | 28° 8 | 15°58 | 19°13 | 18° 0 | 27°12 | 27°12 | 19°56 | 3° 1 | T 15 | |
| W16 | 8 3 4 | 1°52'24 | 6♂56 | 8°32 | 17°44 | 24°30 | 11°24 | 28°15 | 16° 1 | 19°12 | 18° 1 | 27°13 | 27° 9 | 20° 3 | 3° 5 | W16 | |
| T 17 | 8 7 0 | 2°53'13 | 21°19 | 10°19 | 18°53 | 24° 7 | 11°20 | 28°22 | 16° 4 | 19°11 | 18° 2 | 27°13 | 27° 6 | 20°10 | 3°10 | T 17 | |
| F 18 | 8 10 57 | 3°54'00 | 5♁40 | 12° 7 | 20° 3 | 23°44 | 11°15 | 28°29 | 16° 8 | 19°10 | 18° 3 | 27°14 | 27° 3 | 20°17 | 3°15 | F 18 | |
| S 19 | 8 14 53 | 4°54'46 | 19°54 | 13°55 | 21°12 | 23°22 | 11°10 | 28°36 | 16°11 | 19° 9 | 18° 4 | 27°14 | 26°59 | 20°23 | 3°19 | S 19 | |
| S 20 | 8 18 50 | 5°55'31 | 3♁56 | 15°43 | 22°22 | 23° 0 | 11° 5 | 28°44 | 16°15 | 19° 8 | 18° 5 | 27°R14 | 26°56 | 20°30 | 3°24 | S 20 | |
| M21 | 8 22 46 | 6°56'14 | 17°42 | 17°31 | 23°31 | 22°38 | 10°59 | 28°51 | 16°18 | 19° 7 | 18° 7 | 27°13 | 26°53 | 20°37 | 3°29 | M21 | |
| T 22 | 8 26 43 | 7°56'55 | 1♂10 | 19°18 | 24°41 | 22°17 | 10°54 | 28°58 | 16°21 | 19° 6 | 18° 8 | 27°12 | 26°50 | 20°43 | 3°34 | T 22 | |
| W23 | 8 30 40 | 8°57'36 | 14°17 | 21° 5 | 25°51 | 21°56 | 10°48 | 29° 5 | 16°25 | 19° 5 | 18° 9 | 27°11 | 26°47 | 20°50 | 3°38 | W23 | |
| T 24 | 8 34 36 | 9°58'15 | 27° 5 | 22°51 | 27° 1 | 21°36 | 10°43 | 29°12 | 16°28 | 19° 4 | 18°10 | 27° 9 | 26°43 | 20°57 | 3°43 | T 24 | |
| F 25 | 8 38 33 | 10°58'52 | 9♁34 | 24°35 | 28°11 | 21°16 | 10°37 | 29°19 | 16°32 | 19° 3 | 18°11 | 27° 7 | 26°40 | 21° 4 | 3°48 | F 25 | |
| S 26 | 8 42 29 | 11°59'29 | 21°48 | 26°18 | 29°21 | 20°57 | 10°31 | 29°26 | 16°35 | 19° 2 | 18°13 | 27° 6 | 26°37 | 21°10 | 3°52 | S 26 | |
| S 27 | 8 46 26 | 13° 0'04 | 3♂50 | 27°59 | 0♁31 | 20°39 | 10°25 | 29°33 | 16°39 | 19° 1 | 18°14 | 27° 5 | 26°34 | 21°17 | 3°57 | S 27 | |
| M28 | 8 50 22 | 14° 0'38 | 15°44 | 29°38 | 1°42 | 20°21 | 10°18 | 29°41 | 16°42 | 19° 0 | 18°15 | 27°D 4 | 26°31 | 21°24 | 4° 2 | M28 | |
| T 29 | 8 54 19 | 15° 1'11 | 27°36 | 1♁13 | 2°52 | 20° 4 | 10°12 | 29°48 | 16°46 | 18°59 | 18°16 | 27° 5 | 26°28 | 21°30 | 4° 7 | T 29 | |
| W30 | 8 58 15 | 16° 1'42 | 9♁29 | 2°45 | 4° 3 | 19°48 | 10° 6 | 29°55 | 16°49 | 18°59 | 18°18 | 27° 6 | 26°24 | 21°37 | 4°11 | W30 | |
| T 31 | 9 2 12 | 17° 2'12 | 21♁30 | 4♁13 | 5♁13 | 19°32 | 9♂59 | 0♁ 2 | 16°53 | 18♂58 | 18♁19 | 27♁ 8 | 26♁21 | 21♂44 | 4°16 | T 31 | |

Delta T = 18m53s Julian Calendar 1 Jan. 1079 == Greg. Calendar 7 Jan. 1079

FEBRUARY 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|------|-------|--------|-------|--------|-------|-------|------|------|-----|
| F 1 | 9 6 9 | 18° 2'41 | 3♁41 | 5♁36 | 6♁24 | 19°R17 | 9°R52 | 0♁ 9 | 16°56 | 18°R57 | 18♁20 | 27♁ 9 | 26♁18 | 21♂51 | 4°20 | F 1 | |
| S 2 | 9 10 5 | 19° 3'08 | 16° 7 | 6°53 | 7°35 | 19°3 3 | 9♂45 | 0°16 | 17° 0 | 18♂56 | 18°22 | 27°11 | 26°15 | 21°57 | 4°25 | S 2 | |
| S 3 | 9 14 2 | 20° 3'34 | 28°50 | 8° 5 | 8°46 | 18°49 | 9°39 | 0°23 | 17° 3 | 18°56 | 18°23 | 27°R11 | 26°12 | 22° 4 | 4°30 | S 3 | |
| M 4 | 9 17 58 | 21° 3'58 | 11♁52 | 9° 9 | 9°57 | 18°36 | 9°31 | 0°29 | 17° 6 | 18°55 | 18°24 | 27°10 | 26° 9 | 22°11 | 4°34 | M 4 | |
| T 5 | 9 21 55 | 22° 4'20 | 25°12 | 10° 6 | 11° 8 | 18°24 | 9°24 | 0°36 | 17°10 | 18°55 | 18°26 | 27° 8 | 26° 5 | 22°17 | 4°39 | T 5 | |
| W 6 | 9 25 51 | 23° 4'40 | 8♁49 | 10°55 | 12°19 | 18°13 | 9°17 | 0°43 | 17°13 | 18°54 | 18°27 | 27° 5 | 26° 2 | 22°24 | 4°43 | W 6 | |
| T 7 | 9 29 48 | 24° 4'59 | 22°41 | 11°36 | 13°30 | 18° 3 | 9°10 | 0°50 | 17°17 | 18°54 | 18°29 | 27° 1 | 25°59 | 22°31 | 4°48 | T 7 | |
| F 8 | 9 33 44 | 25° 5'15 | 6°P44 | 12° 8 | 14°41 | 17°53 | 9° 3 | 0°57 | 17°20 | 18°53 | 18°30 | 26°57 | 25°56 | 22°38 | 4°52 | F 8 | |
| S 9 | 9 37 41 | 26° 5'30 | 20°54 | 12°30 | 15°52 | 17°45 | 8°55 | 1° 4 | 17°24 | 18°53 | 18°31 | 26°53 | 25°53 | 22°44 | 4°57 | S 9 | |
| S 10 | 9 41 38 | 27° 5'42 | 5♁ 7 | 12°43 | 17° 3 | 17°37 | 8°48 | 1°10 | 17°27 | 18°52 | 18°33 | 26°50 | 25°49 | 22°51 | 5° 1 | S 10 | |
| M11 | 9 45 34 | 28° 5'53 | 19°20 | 12°R47 | 18°15 | 17°29 | 8°40 | 1°17 | 17°31 | 18°52 | 18°34 | 26°48 | 25°46 | 22°58 | 5° 6 | M11 | |
| T 12 | 9 49 31 | 29° 6'01 | 3♂31 | 12°41 | 19°26 | 17°23 | 8°32 | 1°24 | 17°34 | 18°51 | 18°36 | 26°D48 | 25°43 | 23° 4 | 5°10 | T 12 | |
| W13 | 9 53 27 | 0♁ 6'07 | 17°37 | 12°26 | 20°37 | 17°17 | 8°25 | 1°30 | 17°37 | 18°51 | 18°37 | 26°49 | 25°40 | 23°11 | 5°15 | W13 | |
| T 14 | 9 57 24 | 1° 6'11 | 1♁37 | 12° 2 | 21°49 | 17°13 | 8°17 | 1°37 | 17°41 | 18°51 | 18°39 | 26°50 | 25°37 | 23°18 | 5°19 | T 14 | |
| F 15 | 10 1 20 | 2° 6'13 | 15°30 | 11°30 | 23° 0 | 17° 8 | 8° 9 | 1°43 | 17°44 | 18°51 | 18°40 | 26°52 | 25°34 | 23°24 | 5°23 | F 15 | |
| S 16 | 10 5 17 | 3° 6'12 | 29°15 | 10°51 | 24°12 | 17° 5 | 8° 2 | 1°50 | 17°48 | 18°50 | 18°41 | 26°R52 | 25°30 | 23°31 | 5°28 | S 16 | |
| S 17 | 10 9 13 | 4° 6'10 | 12♁49 | 10° 5 | 25°24 | 17° 3 | 7°54 | 1°56 | 17°51 | 18°50 | 18°43 | 26°51 | 25°27 | 23°38 | 5°32 | S 17 | |
| M18 | 10 13 10 | 5° 6'05 | 26°13 | 9°14 | 26°35 | 17° 1 | 7°46 | 2° 3 | 17°54 | 18°50 | 18°44 | 26°48 | 25°24 | 23°45 | 5°36 | M18 | |
| T 19 | 10 17 7 | 6° 5'58 | 9♂23 | 8°20 | 27°47 | 17° 0 | 7°38 | 2° 9 | 17°58 | 18°50 | 18°46 | 26°43 | 25°21 | 23°51 | 5°40 | T 19 | |
| W20 | 10 21 3 | 7° 5'49 | 22°18 | 7°23 | 28°59 | 17°D 0 | 7°31 | 2°16 | 18° 1 | 18°50 | 18°47 | 26°36 | 25°18 | 23°58 | 5°45 | W20 | |
| T 21 | 10 25 0 | 8° 5'38 | 4♁59 | 6°24 | 0♁10 | 17° 0 | 7°23 | 2°22 | 18° 4 | 18°50 | 18°49 | 26°29 | 25°15 | 24° 5 | 5°49 | T 21 | |
| F 22 | 10 28 56 | 9° 5'26 | 17°25 | 5°26 | 1°22 | 17° 2 | 7°15 | 2°28 | 18° 8 | 18°D50 | 18°50 | 26°21 | 25°11 | 24°11 | 5°53 | F 22 | |
| S 23 | 10 32 53 | 10° 5'11 | 29°38 | 4°29 | 2°34 | 17° 3 | 7° 7 | 2°34 | 18°11 | 18°50 | 18°52 | 26°14 | 25° 8 | 24°18 | 5°57 | S 23 | |
| S 24 | 10 36 49 | 11° 4'55 | 11♂39 | 3°34 | 3°46 | 17° 6 | 6°59 | 2°41 | 18°14 | 18°50 | 18°53 | 26° 8 | 25° 5 | 24°25 | 6° 1 | S 24 | |
| M25 | 10 40 46 | 12° 4'37 | 23°34 | 2°43 | 4°58 | 17° 9 | 6°52 | 2°47 | 18°17 | 18°50 | 18°55 | 26° 4 | 25° 2 | 24°32 | 6° 5 | M25 | |
| T 26 | 10 44 42 | 13° 4'17 | 5♁25 | 1°56 | 6°10 | 17°13 | 6°44 | 2°53 | 18°21 | 18°50 | 18°56 | 26° 2 | 24°59 | 24°38 | 6° 9 | T 26 | |
| W27 | 10 48 39 | 14° 3'56 | 17°17 | 1°14 | 7°22 | 17°18 | 6°36 | 2°59 | 18°24 | 18°50 | 18°58 | 26°D 2 | 24°55 | 24°45 | 6°13 | W27 | |
| T 28 | 10 52 36 | 15♁ 3'33 | 29♁17 | 0♁37 | 8°34 | 17°32 | 6♂28 | 3° 5 | 18°27 | 18°50 | 18♁59 | 26♁ 3 | 24♁52 | 24♂52 | 6°17 | T 28 | |

Delta T = 18m53s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1079
geocentric

MARCH 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|-------|-------|-------|--------|-------|-------|------|------|
| F 1 | 10 56 32 | 16♋ 3'07 | 11♌28 | 0°R 6 | 9♍46 | 17♎29 | 6°R21 | 3♏11 | 18♐30 | 18♑50 | 19♒ 1 | 26♓ 4 | 24♌49 | 24♍58 | 6♎21 | F 1 |
| S 2 | 11 0 29 | 17° 2'41 | 23°56 | 29♌41 | 10°58 | 17°36 | 6♎13 | 3°17 | 18°33 | 18°51 | 19° 2 | 26°R 5 | 24°46 | 25° 5 | 6°25 | S 2 |
| S 3 | 11 4 25 | 18° 2'12 | 6♌45 | 29°23 | 12°10 | 17°43 | 6° 6 | 3°23 | 18°37 | 18°51 | 19° 4 | 26° 4 | 24°43 | 25°12 | 6°29 | S 3 |
| M 4 | 11 8 22 | 19° 1'41 | 19°57 | 29°10 | 13°22 | 17°51 | 5°58 | 3°28 | 18°40 | 18°51 | 19° 5 | 26° 2 | 24°40 | 25°18 | 6°33 | M 4 |
| T 5 | 11 12 18 | 20° 1'08 | 3♌33 | 29° 4 | 14°35 | 18° 0 | 5°51 | 3°34 | 18°43 | 18°52 | 19° 7 | 25°57 | 24°36 | 25°25 | 6°36 | T 5 |
| W 6 | 11 16 15 | 21° 0'33 | 17°33 | 29°D 3 | 15°47 | 18° 9 | 5°43 | 3°40 | 18°46 | 18°52 | 19° 8 | 25°50 | 24°33 | 25°32 | 6°40 | W 6 |
| T 7 | 11 20 11 | 21°59'57 | 1♌51 | 29° 8 | 16°59 | 18°19 | 5°36 | 3°45 | 18°49 | 18°52 | 19°10 | 25°41 | 24°30 | 25°39 | 6°44 | T 7 |
| F 8 | 11 24 8 | 22°59'18 | 16°23 | 29°19 | 18°11 | 18°29 | 5°29 | 3°51 | 18°52 | 18°53 | 19°11 | 25°32 | 24°27 | 25°45 | 6°47 | F 8 |
| S 9 | 11 28 5 | 23°58'36 | 1♌ 1 | 29°34 | 19°24 | 18°40 | 5°22 | 3°56 | 18°55 | 18°53 | 19°13 | 25°23 | 24°24 | 25°52 | 6°51 | S 9 |
| S 10 | 11 32 1 | 24°57'53 | 15°38 | 29°55 | 20°36 | 18°51 | 5°15 | 4° 2 | 18°58 | 18°54 | 19°14 | 25°16 | 24°20 | 25°59 | 6°54 | S 10 |
| M 11 | 11 35 58 | 25°57'07 | 0♌ 7 | 0♋21 | 21°48 | 19° 3 | 5° 8 | 4° 7 | 19° 1 | 18°54 | 19°16 | 25°11 | 24°17 | 26° 5 | 6°58 | M 11 |
| T 12 | 11 39 54 | 26°56'19 | 14°25 | 0°51 | 23° 1 | 19°15 | 5° 1 | 4°12 | 19° 4 | 18°55 | 19°17 | 25° 8 | 24°14 | 26°12 | 7° 1 | T 12 |
| W 13 | 11 43 51 | 27°55'29 | 28°30 | 1°25 | 24°13 | 19°28 | 4°54 | 4°18 | 19° 7 | 18°56 | 19°19 | 25°D 7 | 24°11 | 26°19 | 7° 5 | W 13 |
| T 14 | 11 47 47 | 28°54'36 | 12♌20 | 2° 4 | 25°26 | 19°42 | 4°48 | 4°23 | 19° 9 | 18°56 | 19°20 | 25° 8 | 24° 8 | 26°26 | 7° 8 | T 14 |
| F 15 | 11 51 44 | 29°53'41 | 25°56 | 2°46 | 26°38 | 19°56 | 4°41 | 4°28 | 19°12 | 18°57 | 19°22 | 25°R 8 | 24° 5 | 26°32 | 7°11 | F 15 |
| S 16 | 11 55 40 | 0♌52'43 | 9♌19 | 3°32 | 27°50 | 20°10 | 4°35 | 4°33 | 19°15 | 18°58 | 19°23 | 25° 7 | 24° 1 | 26°39 | 7°15 | S 16 |
| S 17 | 11 59 37 | 1°51'43 | 22°30 | 4°21 | 29° 3 | 20°25 | 4°28 | 4°38 | 19°18 | 18°58 | 19°25 | 25° 4 | 23°58 | 26°46 | 7°18 | S 17 |
| M 18 | 12 3 34 | 2°50'41 | 5♌30 | 5°13 | 0♋15 | 20°41 | 4°22 | 4°43 | 19°21 | 18°59 | 19°26 | 24°58 | 23°55 | 26°52 | 7°21 | M 18 |
| T 19 | 12 7 30 | 3°49'37 | 18°19 | 6° 9 | 1°28 | 20°56 | 4°16 | 4°48 | 19°23 | 19° 0 | 19°28 | 24°50 | 23°52 | 26°59 | 7°24 | T 19 |
| W 20 | 12 11 27 | 4°48'30 | 0♌57 | 7° 7 | 2°40 | 21°13 | 4°10 | 4°52 | 19°26 | 19° 1 | 19°29 | 24°39 | 23°49 | 27° 6 | 7°27 | W 20 |
| T 21 | 12 15 23 | 5°47'21 | 13°25 | 8° 9 | 3°53 | 21°29 | 4° 5 | 4°57 | 19°29 | 19° 2 | 19°31 | 24°26 | 23°46 | 27°12 | 7°30 | T 21 |
| F 22 | 12 19 20 | 6°46'10 | 25°41 | 9°12 | 5° 5 | 21°47 | 3°59 | 5° 2 | 19°31 | 19° 3 | 19°32 | 24°14 | 23°42 | 27°19 | 7°33 | F 22 |
| S 23 | 12 23 16 | 7°44'58 | 7♌48 | 10°19 | 6°18 | 22° 4 | 3°53 | 5° 6 | 19°34 | 19° 4 | 19°33 | 24° 1 | 23°39 | 27°26 | 7°36 | S 23 |
| S 24 | 12 27 13 | 8°43'43 | 19°47 | 11°28 | 7°30 | 22°22 | 3°48 | 5°11 | 19°36 | 19° 4 | 19°35 | 23°51 | 23°36 | 27°32 | 7°39 | S 24 |
| M 25 | 12 31 9 | 9°42'27 | 1♌39 | 12°39 | 8°43 | 22°40 | 3°43 | 5°15 | 19°39 | 19° 5 | 19°36 | 23°42 | 23°33 | 27°39 | 7°42 | M 25 |
| T 26 | 12 35 6 | 10°41'09 | 13°29 | 13°53 | 9°56 | 22°59 | 3°38 | 5°19 | 19°41 | 19° 6 | 19°38 | 23°37 | 23°30 | 27°46 | 7°44 | T 26 |
| W 27 | 12 39 2 | 11°39'49 | 25°20 | 15° 8 | 11° 8 | 23°18 | 3°33 | 5°24 | 19°44 | 19° 8 | 19°39 | 23°34 | 23°26 | 27°53 | 7°47 | W 27 |
| T 28 | 12 42 59 | 12°38'27 | 7♌17 | 16°26 | 12°21 | 23°38 | 3°28 | 5°28 | 19°46 | 19° 9 | 19°41 | 23°33 | 23°23 | 27°59 | 7°50 | T 28 |
| F 29 | 12 46 56 | 13°37'04 | 19°27 | 17°46 | 13°33 | 23°58 | 3°24 | 5°32 | 19°49 | 19°10 | 19°42 | 23°33 | 23°20 | 28° 6 | 7°52 | F 29 |
| S 30 | 12 50 52 | 14°35'39 | 1♌53 | 19° 8 | 14°46 | 24°18 | 3°19 | 5°36 | 19°51 | 19°11 | 19°43 | 23°33 | 23°17 | 28°13 | 7°55 | S 30 |
| S 31 | 12 54 49 | 15°34'12 | 14♌40 | 20♋32 | 15♋59 | 24♌38 | 3♌15 | 5♌40 | 19♍53 | 19♎12 | 19♏45 | 23♐31 | 23♑14 | 28♒19 | 7♓57 | S 31 |

Delta T = 18m52s Julian Calendar 1 March 1079 == Greg. Calendar 7 March 1079

APRIL 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|-------|-------|--------|-------|-------|--------|------|
| M 1 | 12 58 45 | 16♌32'43 | 27♌54 | 21♋57 | 17♋11 | 24♌59 | 3°R11 | 5♌44 | 19♍56 | 19♎13 | 19♏46 | 23°R28 | 23♑11 | 28♒26 | 8♓ 0 | M 1 |
| T 2 | 13 2 42 | 17°31'13 | 11♋36 | 23°25 | 18°24 | 25°20 | 3♌ 7 | 5°47 | 19°58 | 19°15 | 19°48 | 23♑22 | 23° 7 | 28°33 | 8° 2 | T 2 |
| W 3 | 13 6 38 | 18°29'41 | 25°46 | 24°54 | 19°37 | 25°42 | 3° 3 | 5°51 | 20° 0 | 19°16 | 19°49 | 23°13 | 23° 4 | 28°39 | 8° 4 | W 3 |
| T 4 | 13 10 35 | 19°28'07 | 10♌21 | 26°26 | 20°50 | 26° 4 | 2°59 | 5°55 | 20° 2 | 19°17 | 19°50 | 23° 3 | 23° 1 | 28°46 | 8° 7 | T 4 |
| F 5 | 13 14 31 | 20°26'32 | 25°13 | 27°59 | 22° 2 | 26°26 | 2°56 | 5°58 | 20° 4 | 19°18 | 19°52 | 22°51 | 22°58 | 28°53 | 8° 9 | F 5 |
| S 6 | 13 18 28 | 21°24'54 | 10♌15 | 29°34 | 23°15 | 26°48 | 2°53 | 6° 2 | 20° 6 | 19°20 | 19°53 | 22°40 | 22°55 | 29° 0 | 8°11 | S 6 |
| S 7 | 13 22 25 | 22°23'15 | 25°15 | 1♌10 | 24°28 | 27°11 | 2°50 | 6° 5 | 20° 8 | 19°21 | 19°54 | 22°31 | 22°52 | 29° 6 | 8°13 | S 7 |
| M 8 | 13 26 21 | 23°21'33 | 10♌ 6 | 2°49 | 25°41 | 27°34 | 2°47 | 6° 8 | 20°10 | 19°22 | 19°55 | 22°24 | 22°48 | 29°13 | 8°15 | M 8 |
| T 9 | 13 30 18 | 24°19'50 | 24°40 | 4°29 | 26°53 | 27°58 | 2°44 | 6°11 | 20°12 | 19°24 | 19°57 | 22°20 | 22°45 | 29°20 | 8°17 | T 9 |
| W 10 | 13 34 14 | 25°18'04 | 8♌55 | 6°11 | 28° 6 | 28°21 | 2°41 | 6°14 | 20°14 | 19°25 | 19°58 | 22°18 | 22°42 | 29°26 | 8°19 | W 10 |
| T 11 | 13 38 11 | 26°16'17 | 22°47 | 7°55 | 29°19 | 28°45 | 2°39 | 6°17 | 20°16 | 19°27 | 19°59 | 22°18 | 22°39 | 29°33 | 8°20 | T 11 |
| F 12 | 13 42 7 | 27°14'27 | 6♌19 | 9°40 | 0♌32 | 29°10 | 2°37 | 6°20 | 20°18 | 19°28 | 20° 1 | 22°18 | 22°36 | 29°40 | 8°22 | F 12 |
| S 13 | 13 46 4 | 28°12'35 | 19°32 | 11°28 | 1°44 | 29°34 | 2°35 | 6°23 | 20°20 | 19°30 | 20° 2 | 22°17 | 22°32 | 29°46 | 8°24 | S 13 |
| S 14 | 13 50 0 | 29°10'41 | 2♌29 | 13°17 | 2°57 | 29°59 | 2°33 | 6°26 | 20°21 | 19°31 | 20° 3 | 22°13 | 22°29 | 29°53 | 8°26 | S 14 |
| M 15 | 13 53 57 | 0♌ 8'45 | 15°12 | 15° 8 | 4°10 | 0♌24 | 2°31 | 6°28 | 20°23 | 19°33 | 20° 4 | 22° 7 | 22°26 | 29°59 | 8°27 | M 15 |
| T 16 | 13 57 54 | 1° 6'47 | 27°44 | 17° 1 | 5°23 | 0°49 | 2°30 | 6°31 | 20°25 | 19°35 | 20° 5 | 21°58 | 22°23 | 0♌ 7 | 8°29 | T 16 |
| W 17 | 14 1 50 | 2° 4'47 | 10♌ 7 | 18°55 | 6°36 | 1°15 | 2°29 | 6°33 | 20°26 | 19°36 | 20° 7 | 21°47 | 22°20 | 0°13 | 8°30 | W 17 |
| T 18 | 14 5 47 | 3° 2'46 | 22° 0 | 20°52 | 7°48 | 1°40 | 2°28 | 6°36 | 20°28 | 19°38 | 20° 8 | 21°34 | 22°17 | 0°20 | 8°31 | T 18 |
| F 19 | 14 9 43 | 4° 0'43 | 4♌26 | 22°50 | 9° 1 | 2° 6 | 2°27 | 6°38 | 20°30 | 19°39 | 20° 9 | 21°21 | 22°13 | 0°27 | 8°33 | F 19 |
| S 20 | 14 13 40 | 4°58'38 | 16°25 | 24°50 | 10°14 | 2°32 | 2°26 | 6°40 | 20°31 | 19°41 | 20°10 | 21° 8 | 22°10 | 0°33 | 8°34 | S 20 |
| S 21 | 14 17 36 | 5°56'32 | 28°19 | 26°51 | 11°27 | 2°59 | 2°25 | 6°42 | 20°32 | 19°43 | 20°11 | 20°57 | 22° 7 | 0°40 | 8°35 | S 21 |
| M 22 | 14 21 33 | 6°54'24 | 10♌ 9 | 28°55 | 12°40 | 3°25 | 2°25 | 6°44 | 20°34 | 19°45 | 20°12 | 20°48 | 22° 4 | 0°47 | 8°36 | M 22 |
| T 23 | 14 25 29 | 7°52'15 | 21°58 | 0♌59 | 13°53 | 3°52 | 2°25 | 6°46 | 20°35 | 19°46 | 20°13 | 20°42 | 22° 1 | 0°53 | 8°37 | T 23 |
| W 24 | 14 29 26 | 8°50'05 | 3♌50 | 3° 5 | 15° 6 | 4°19 | 2°D25 | 6°48 | 20°36 | 19°48 | 20°14 | 20°38 | 21°58 | 1° 0 | 8°38 | W 24 |
| T 25 | 14 33 23 | 9°47'53 | 15°47 | 5°13 | 16°19 | 4°46 | 2°25 | 6°50 | 20°38 | 19°50 | 20°16 | 20°D37 | 21°54 | 1° 7 | 8°39 | T 25 |
| F 26 | 14 37 19 | 10°45'40 | 27°55 | 7°22 | 17°31 | 5°14 | 2°25 | 6°51 | 20°39 | 19°52 | 20°17 | 20°37 | 21°51 | 1°13 | 8°40 | F 26 |
| S 27 | 14 41 16 | 11°43'26 | 10♌19 | 9°31 | 18°44 | 5°42 | 2°26 | 6°53 | 20°40 | 19°54 | 20°18 | 20°R37 | 21°48 | 1°20 | 8°41 | S 27 |
| S 28 | 14 45 12 | 12°41'10 | 23° 4 | 11°42 | 19°57 | 6° 9 | 2°27 | 6°54 | 20°41 | 19°55 | 20°19 | 20°37 | 21°45 | 1°27 | 8°41 | S 28 |
| M 29 | 14 49 9 | 13°38'54 | 6♌14 | 13°53 | 21°10 | 6°37 | 2°27 | 6°56 | 20°42 | 19°57 | 20°20 | 20°35 | 21°42 | 1°34 | 8°42 | M 29 |
| T 30 | 14 53 5 | 14♌36'36 | 19♋53 | 16♌ 4 | 22♌23 | 7♌ 6 | 2♌29 | 6♌57 | 20♎43 | 19♏59 | 20♐21 | 20♑30 | 21♒38 | 1♓40 | 8♓43</ | |

ASTRODIENST EPHEMERIS for the year 1079
geocentric

MAY 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|--------|------|-------|--------|-------|-------|--------|-------|------|-------|------|-----|
| W 1 | 14 57 2 | 15♂34'17 | 4♃ 2 | 18♂15 | 23♃36 | 7♁34 | 2♃30 | 6♁58 | 20♁44 | 20♁ 1 | 20♁22 | 20♁R24 | 21♂35 | 1♂47 | 8♁43 | W 1 | |
| T 2 | 15 0 58 | 16°31'57 | 18°38 | 20°27 | 24°49 | 8° 3 | 2°31 | 6°59 | 20°45 | 20° 3 | 20°22 | 20♂15 | 21°32 | 1°54 | 8°44 | T 2 | |
| F 3 | 15 4 55 | 17°29'36 | 3♂36 | 22°37 | 26° 2 | 8°31 | 2°33 | 7° 0 | 20°46 | 20° 5 | 20°23 | 20° 6 | 21°29 | 2° 0 | 8°44 | F 3 | |
| S 4 | 15 8 52 | 18°27'14 | 18°48 | 24°47 | 27°15 | 9° 0 | 2°35 | 7° 1 | 20°47 | 20° 7 | 20°24 | 19°57 | 21°26 | 2° 7 | 8°44 | S 4 | |
| S 5 | 15 12 48 | 19°24'51 | 4♁ 2 | 26°56 | 28°28 | 9°30 | 2°37 | 7° 1 | 20°48 | 20° 9 | 20°25 | 19°49 | 21°23 | 2°14 | 8°45 | S 5 | |
| M 6 | 15 16 45 | 20°22'26 | 19° 9 | 29° 3 | 29°41 | 9°59 | 2°39 | 7° 2 | 20°48 | 20°11 | 20°26 | 19°44 | 21°19 | 2°20 | 8°45 | M 6 | |
| T 7 | 15 20 41 | 21°20'00 | 4♁ 0 | 1♁ 9 | 0♂54 | 10°28 | 2°41 | 7° 3 | 20°49 | 20°13 | 20°27 | 19°41 | 21°16 | 2°27 | 8°45 | T 7 | |
| W 8 | 15 24 38 | 22°17'33 | 18°28 | 3°14 | 2° 7 | 10°58 | 2°44 | 7° 3 | 20°50 | 20°15 | 20°28 | 19°D40 | 21°13 | 2°34 | 8°R45 | W 8 | |
| T 9 | 15 28 34 | 23°15'04 | 2♁30 | 5°16 | 3°20 | 11°28 | 2°46 | 7° 3 | 20°50 | 20°17 | 20°29 | 19°40 | 21°10 | 2°40 | 8°45 | T 9 | |
| F 10 | 15 32 31 | 24°12'34 | 16° 8 | 7°16 | 4°33 | 11°58 | 2°49 | 7° 4 | 20°51 | 20°19 | 20°29 | 19°41 | 21° 7 | 2°47 | 8°45 | F 10 | |
| S 11 | 15 36 27 | 25°10'02 | 29°21 | 9°14 | 5°46 | 12°28 | 2°52 | 7° 4 | 20°51 | 20°21 | 20°30 | 19°R41 | 21° 3 | 2°54 | 8°45 | S 11 | |
| S 12 | 15 40 24 | 26° 7'29 | 12♃14 | 11° 9 | 6°59 | 12°58 | 2°55 | 7°R 4 | 20°52 | 20°23 | 20°31 | 19°40 | 21° 0 | 3° 1 | 8°44 | S 12 | |
| M13 | 15 44 21 | 27° 4'55 | 24°50 | 13° 2 | 8°12 | 13°29 | 2°59 | 7° 4 | 20°52 | 20°25 | 20°32 | 19°36 | 20°57 | 3° 7 | 8°44 | M13 | |
| T 14 | 15 48 17 | 28° 2'19 | 7♁12 | 14°53 | 9°25 | 13°59 | 3° 2 | 7° 4 | 20°52 | 20°27 | 20°32 | 19°31 | 20°54 | 3°14 | 8°44 | T 14 | |
| W15 | 15 52 14 | 28°59'42 | 19°24 | 16°41 | 10°38 | 14°30 | 3° 6 | 7° 3 | 20°53 | 20°29 | 20°33 | 19°23 | 20°51 | 3°21 | 8°43 | W15 | |
| T 16 | 15 56 10 | 29°57'04 | 1♁27 | 18°26 | 11°51 | 15° 1 | 3°10 | 7° 3 | 20°53 | 20°31 | 20°34 | 19°15 | 20°48 | 3°27 | 8°43 | T 16 | |
| F 17 | 16 0 7 | 0♁54'25 | 13°24 | 20° 9 | 13° 4 | 15°32 | 3°14 | 7° 3 | 20°53 | 20°33 | 20°34 | 19° 6 | 20°44 | 3°34 | 8°42 | F 17 | |
| S 18 | 16 4 3 | 1°51'45 | 25°18 | 21°49 | 14°17 | 16° 3 | 3°18 | 7° 2 | 20°53 | 20°36 | 20°35 | 18°57 | 20°41 | 3°41 | 8°42 | S 18 | |
| S 19 | 16 8 0 | 2°49'05 | 7♁ 8 | 23°26 | 15°31 | 16°34 | 3°22 | 7° 1 | 20°53 | 20°38 | 20°36 | 18°50 | 20°38 | 3°47 | 8°41 | S 19 | |
| M20 | 16 11 56 | 3°46'23 | 18°58 | 25° 0 | 16°44 | 17° 6 | 3°27 | 7° 1 | 20°53 | 20°40 | 20°36 | 18°44 | 20°35 | 3°54 | 8°40 | M20 | |
| T 21 | 16 15 53 | 4°43'41 | 0♂50 | 26°32 | 17°57 | 17°37 | 3°31 | 7° 0 | 20°R53 | 20°42 | 20°37 | 18°40 | 20°32 | 4° 1 | 8°40 | T 21 | |
| W22 | 16 19 50 | 5°40'58 | 12°45 | 28° 1 | 19°10 | 18° 9 | 3°36 | 6°59 | 20°53 | 20°44 | 20°37 | 18°38 | 20°29 | 4° 7 | 8°39 | W22 | |
| T 23 | 16 23 46 | 6°38'15 | 24°47 | 29°27 | 20°23 | 18°41 | 3°41 | 6°58 | 20°53 | 20°46 | 20°38 | 18°D38 | 20°25 | 4°14 | 8°38 | T 23 | |
| F 24 | 16 27 43 | 7°35'31 | 6♁59 | 0♂50 | 21°36 | 19°13 | 3°46 | 6°57 | 20°53 | 20°49 | 20°38 | 18°39 | 20°22 | 4°21 | 8°37 | F 24 | |
| S 25 | 16 31 39 | 8°32'46 | 19°25 | 2°11 | 22°49 | 19°45 | 3°51 | 6°56 | 20°53 | 20°51 | 20°39 | 18°41 | 20°19 | 4°27 | 8°36 | S 25 | |
| S 26 | 16 35 36 | 9°30'01 | 2♁10 | 3°28 | 24° 3 | 20°17 | 3°57 | 6°54 | 20°53 | 20°53 | 20°39 | 18°42 | 20°16 | 4°34 | 8°35 | S 26 | |
| M27 | 16 39 32 | 10°27'16 | 15°18 | 4°43 | 25°16 | 20°49 | 4° 2 | 6°53 | 20°52 | 20°55 | 20°40 | 18°R42 | 20°13 | 4°41 | 8°33 | M27 | |
| T 28 | 16 43 29 | 11°24'31 | 28°51 | 5°54 | 26°29 | 21°22 | 4° 8 | 6°51 | 20°52 | 20°57 | 20°40 | 18°41 | 20° 9 | 4°48 | 8°32 | T 28 | |
| W29 | 16 47 25 | 12°21'45 | 12♃51 | 7° 2 | 27°42 | 21°54 | 4°14 | 6°50 | 20°52 | 21° 0 | 20°40 | 18°38 | 20° 6 | 4°54 | 8°31 | W29 | |
| T 30 | 16 51 22 | 13°18'59 | 27°18 | 8° 8 | 28°55 | 22°27 | 4°20 | 6°48 | 20°51 | 21° 2 | 20°41 | 18°34 | 20° 3 | 5° 1 | 8°30 | T 30 | |
| F 31 | 16 55 19 | 14°16'13 | 12♂ 7 | 9♁ 9 | 0♁ 9 | 23°Ω 0 | 4♃26 | 6♁46 | 20♁51 | 21♁ 4 | 20♁41 | 18♂29 | 20♂ 0 | 5♁ 8 | 8♁28 | F 31 | |

Delta T = 18m52s Julian Calendar 1 May 1079 == Greg. Calendar 7 May 1079

JUNE 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|------|-------|--------|-------|--------|--------|-------|------|-------|------|-----|
| S 1 | 16 59 15 | 15♁13'27 | 27♂13 | 10♁ 8 | 11♁22 | 23♁32 | 4♃32 | 6°R44 | 20°R50 | 21♁ 6 | 20♁42 | 18°R25 | 19♂57 | 5♁14 | 8°R27 | S 1 | |
| S 2 | 17 3 12 | 16°10'40 | 12♁26 | 11° 3 | 2°35 | 24° 6 | 4°39 | 6♁43 | 20♁50 | 21° 8 | 20°42 | 18♂21 | 19°54 | 5°21 | 8♁25 | S 2 | |
| M 3 | 17 7 8 | 17° 7'53 | 27°36 | 11°55 | 3°49 | 24°39 | 4°45 | 6°40 | 20°49 | 21°11 | 20°42 | 18°18 | 19°50 | 5°28 | 8°24 | M 3 | |
| T 4 | 17 11 5 | 18° 5'06 | 12♁34 | 12°43 | 5° 2 | 25°12 | 4°52 | 6°38 | 20°48 | 21°13 | 20°42 | 18°D17 | 19°47 | 5°34 | 8°22 | T 4 | |
| W 5 | 17 15 1 | 19° 2'18 | 27°11 | 13°28 | 6°15 | 25°45 | 4°59 | 6°36 | 20°48 | 21°15 | 20°43 | 18°17 | 19°44 | 5°41 | 8°20 | W 5 | |
| T 6 | 17 18 58 | 19°59'30 | 11♁24 | 14° 8 | 7°29 | 26°19 | 5° 5 | 6°34 | 20°47 | 21°17 | 20°43 | 18°18 | 19°41 | 5°48 | 8°18 | T 6 | |
| F 7 | 17 22 55 | 20°56'41 | 25°10 | 14°45 | 8°42 | 26°52 | 5°13 | 6°31 | 20°46 | 21°20 | 20°43 | 18°19 | 19°38 | 5°54 | 8°17 | F 7 | |
| S 8 | 17 26 51 | 21°53'52 | 8♃29 | 15°18 | 9°55 | 27°26 | 5°20 | 6°29 | 20°45 | 21°22 | 20°43 | 18°21 | 19°35 | 6° 1 | 8°15 | S 8 | |
| S 9 | 17 30 48 | 22°51'02 | 21°25 | 15°46 | 11° 9 | 28° 0 | 5°27 | 6°26 | 20°44 | 21°24 | 20°43 | 18°R21 | 19°31 | 6° 8 | 8°13 | S 9 | |
| M10 | 17 34 44 | 23°48'12 | 4♁ 1 | 16°10 | 12°22 | 28°34 | 5°35 | 6°24 | 20°44 | 21°26 | 20°44 | 18°21 | 19°28 | 6°14 | 8°11 | M10 | |
| T 11 | 17 38 41 | 24°45'21 | 16°20 | 16°30 | 13°36 | 29° 8 | 5°42 | 6°21 | 20°43 | 21°29 | 20°44 | 18°19 | 19°25 | 6°21 | 8° 9 | T 11 | |
| W12 | 17 42 37 | 25°42'30 | 28°27 | 16°46 | 14°49 | 29°42 | 5°50 | 6°18 | 20°41 | 21°31 | 20°44 | 18°17 | 19°22 | 6°28 | 8° 7 | W12 | |
| T 13 | 17 46 34 | 26°39'39 | 10♁25 | 16°56 | 16° 2 | 0♃16 | 5°58 | 6°15 | 20°40 | 21°33 | 20°44 | 18°14 | 19°19 | 6°34 | 8° 5 | T 13 | |
| F 14 | 17 50 30 | 27°36'47 | 22°18 | 17° 2 | 17°16 | 0°51 | 6° 6 | 6°13 | 20°39 | 21°35 | 20°44 | 18°11 | 19°15 | 6°41 | 8° 2 | F 14 | |
| S 15 | 17 54 27 | 28°33'56 | 4♁ 8 | 17°R 4 | 18°29 | 1°25 | 6°14 | 6°10 | 20°38 | 21°37 | 20°R44 | 18° 7 | 19°12 | 6°48 | 8° 0 | S 15 | |
| S 16 | 17 58 24 | 29°31'04 | 15°58 | 17° 0 | 19°43 | 1°59 | 6°22 | 6° 6 | 20°37 | 21°40 | 20°44 | 18° 5 | 19° 9 | 6°54 | 7°58 | S 16 | |
| M17 | 18 2 20 | 0♁28'13 | 27°51 | 16°52 | 20°56 | 2°34 | 6°30 | 6° 3 | 20°36 | 21°42 | 20°44 | 18° 3 | 19° 6 | 7° 1 | 7°56 | M17 | |
| T 18 | 18 6 17 | 1°25'21 | 9♂48 | 16°40 | 22°10 | 3° 9 | 6°38 | 6° 0 | 20°34 | 21°44 | 20°44 | 18° 2 | 19° 3 | 7° 8 | 7°53 | T 18 | |
| W19 | 18 10 13 | 2°22'30 | 21°52 | 16°23 | 23°23 | 3°44 | 6°47 | 5°57 | 20°33 | 21°46 | 20°44 | 18°D 2 | 19° 0 | 7°15 | 7°51 | W19 | |
| T 20 | 18 14 10 | 3°19'39 | 4♁ 5 | 16° 2 | 24°37 | 4°18 | 6°56 | 5°53 | 20°32 | 21°49 | 20°44 | 18° 2 | 18°56 | 7°21 | 7°48 | T 20 | |
| F 21 | 18 18 6 | 4°16'49 | 16°28 | 15°37 | 25°50 | 4°53 | 7° 4 | 5°50 | 20°30 | 21°51 | 20°43 | 18° 3 | 18°53 | 7°28 | 7°46 | F 21 | |
| S 22 | 18 22 3 | 5°13'58 | 29° 4 | 15° 8 | 27° 4 | 5°29 | 7°13 | 5°47 | 20°29 | 21°53 | 20°43 | 18° 4 | 18°50 | 7°35 | 7°43 | S 22 | |
| S 23 | 18 25 59 | 6°11'09 | 11♁56 | 14°36 | 28°18 | 6° 4 | 7°22 | 5°43 | 20°28 | 21°55 | 20°43 | 18° 5 | 18°47 | 7°41 | 7°41 | S 23 | |
| M24 | 18 29 56 | 7° 8'19 | 25° 7 | 14° 1 | 29°31 | 6°39 | 7°31 | 5°39 | 20°26 | 21°57 | 20°43 | 18° 6 | 18°44 | 7°48 | 7°38 | M24 | |
| T 25 | 18 33 53 | 8° 5'31 | 8♃38 | 13°24 | 0♁45 | 7°14 | 7°40 | 5°36 | 20°24 | 21°59 | 20°43 | 18°R 6 | 18°41 | 7°55 | 7°35 | T 25 | |
| W26 | 18 37 49 | 9° 2'43 | 22°30 | 12°45 | 1°59 | 7°50 | 7°50 | 5°32 | 20°23 | 22° 2 | 20°43 | 18° 6 | 18°37 | 8° 1 | 7°33 | W26 | |
| T 27 | 18 41 46 | 9°59'56 | 6♂44 | 12° 5 | 3°12 | 8°25 | 7°59 | 5°28 | 20°21 | 22° 4 | 20°42 | 18° 5 | 18°34 | 8° 8 | 7°30 | T 27 | |
| F 28 | 18 45 42 | 10°57'09 | 21°17 | 11°25 | 4°26 | 9° 1 | 8° 8 | 5°24 | 20°20 | 22° 6 | 20°42 | 18° 5 | 18°31 | 8°15 | 7°27 | F 28 | |
| S 29 | 18 49 39 | 11°54'24 | 6♁ 5 | 10°45 | 5°40 | 9°37 | 8°18 | 5°20 | 20°18 | 22° 8 | 20°42 | 18° 4 | 18°28 | 8°21 | 7°24 | S 29 | |
| S 30 | 18 53 35 | 12♁51'39 | 21♁ 2 | 10♁ 6 | 6♁53 | 10♃13 | 8♃28 | 5♁17 | 20♁16 | 22♁10 | 20♁41 | 18♂ 3 | 18♂25 | 8♁28 | 7♁22 | S 30 | |

Delta T = 18m51s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1079
geocentric

JULY 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|-------|------|-----|
| M 1 | 18 57 32 | 13♄48'55 | 6♄ 0 | 9°R29 | 8♄ 7 | 10♍48 | 8♍37 | 5°R13 | 20°R14 | 22♈12 | 20°R41 | 18°R 3 | 18♃21 | 8♃35 | 7°R19 | M 1 | |
| T 2 | 19 1 28 | 14°46'11 | 20°50 | 8♄54 | 9°21 | 11°24 | 8°47 | 5♁ 8 | 20♁13 | 22°14 | 20♁41 | 18°D 3 | 18°18 | 8°41 | 7♁16 | T 2 | |
| W 3 | 19 5 25 | 15°43'28 | 5♁26 | 8°22 | 10°35 | 12° 1 | 8°57 | 5° 4 | 20°11 | 22°17 | 20°40 | 18♃ 3 | 18°15 | 8°48 | 7°13 | W 3 | |
| T 4 | 19 9 22 | 16°40'46 | 19°41 | 7°54 | 11°49 | 12°37 | 9° 7 | 5° 0 | 20° 9 | 22°19 | 20°40 | 18° 3 | 18°12 | 8°55 | 7°10 | T 4 | |
| F 5 | 19 13 18 | 17°38'03 | 3♍32 | 7°30 | 13° 3 | 13°13 | 9°17 | 4°56 | 20° 7 | 22°21 | 20°40 | 18°R 3 | 18° 9 | 9° 1 | 7° 7 | F 5 | |
| S 6 | 19 17 15 | 18°35'22 | 16°57 | 7°11 | 14°16 | 13°49 | 9°27 | 4°52 | 20° 5 | 22°23 | 20°39 | 18° 3 | 18° 6 | 9° 8 | 7° 4 | S 6 | |
| S 7 | 19 21 11 | 19°32'41 | 29°58 | 6°57 | 15°30 | 14°26 | 9°38 | 4°48 | 20° 3 | 22°25 | 20°39 | 18° 3 | 18° 2 | 9°15 | 7° 1 | S 7 | |
| M 8 | 19 25 8 | 20°30'00 | 12♄37 | 6°48 | 16°44 | 15° 2 | 9°48 | 4°43 | 20° 1 | 22°27 | 20°38 | 18° 3 | 17°59 | 9°21 | 6°58 | M 8 | |
| T 9 | 19 29 4 | 21°27'20 | 24°57 | 6°D45 | 17°58 | 15°39 | 9°58 | 4°39 | 19°59 | 22°29 | 20°38 | 18°D 3 | 17°56 | 9°28 | 6°55 | T 9 | |
| W10 | 19 33 1 | 22°24'40 | 7♍ 4 | 6°48 | 19°12 | 16°16 | 10° 9 | 4°35 | 19°57 | 22°31 | 20°37 | 18° 3 | 17°53 | 9°35 | 6°52 | W10 | |
| T 11 | 19 36 57 | 23°22'01 | 19° 0 | 6°57 | 20°26 | 16°52 | 10°20 | 4°30 | 19°55 | 22°33 | 20°37 | 18° 4 | 17°50 | 9°41 | 6°49 | T 11 | |
| F 12 | 19 40 54 | 24°19'23 | 0♃51 | 7°12 | 21°40 | 17°29 | 10°30 | 4°26 | 19°53 | 22°35 | 20°36 | 18° 4 | 17°47 | 9°48 | 6°45 | F 12 | |
| S 13 | 19 44 51 | 25°16'45 | 12°41 | 7°34 | 22°54 | 18° 6 | 10°41 | 4°22 | 19°51 | 22°37 | 20°35 | 18° 5 | 17°43 | 9°55 | 6°42 | S 13 | |
| S 14 | 19 48 47 | 26°14'08 | 24°34 | 8° 2 | 24° 8 | 18°43 | 10°52 | 4°17 | 19°49 | 22°39 | 20°35 | 18° 6 | 17°40 | 10° 1 | 6°39 | S 14 | |
| M15 | 19 52 44 | 27°11'32 | 6♃31 | 8°36 | 25°22 | 19°20 | 11° 3 | 4°13 | 19°47 | 22°41 | 20°34 | 18° 6 | 17°37 | 10° 8 | 6°36 | M15 | |
| T 16 | 19 56 40 | 28° 8'57 | 18°37 | 9°17 | 26°36 | 19°57 | 11°14 | 4° 8 | 19°45 | 22°42 | 20°34 | 18°R 7 | 17°34 | 10°15 | 6°33 | T 16 | |
| W17 | 20 0 37 | 29° 6'23 | 0♁54 | 10° 4 | 27°50 | 20°35 | 11°25 | 4° 4 | 19°42 | 22°44 | 20°33 | 18° 6 | 17°31 | 10°22 | 6°30 | W17 | |
| T 18 | 20 4 33 | 0♁ 3'50 | 13°22 | 10°57 | 29° 4 | 21°12 | 11°36 | 3°59 | 19°40 | 22°46 | 20°32 | 18° 5 | 17°27 | 10°28 | 6°26 | T 18 | |
| F 19 | 20 8 30 | 1° 1'18 | 26° 3 | 11°56 | 0♁18 | 21°49 | 11°47 | 3°55 | 19°38 | 22°48 | 20°32 | 18° 4 | 17°24 | 10°35 | 6°23 | F 19 | |
| S 20 | 20 12 26 | 1°58'48 | 8♁57 | 13° 1 | 1°32 | 22°27 | 11°58 | 3°50 | 19°36 | 22°50 | 20°31 | 18° 2 | 17°21 | 10°42 | 6°20 | S 20 | |
| S 21 | 20 16 23 | 2°56'18 | 22° 5 | 14°12 | 2°46 | 23° 4 | 12°10 | 3°46 | 19°34 | 22°52 | 20°30 | 18° 0 | 17°18 | 10°48 | 6°17 | S 21 | |
| M22 | 20 20 20 | 3°53'50 | 5♁28 | 15°29 | 4° 0 | 23°42 | 12°21 | 3°41 | 19°31 | 22°54 | 20°29 | 17°59 | 17°15 | 10°55 | 6°13 | M22 | |
| T 23 | 20 24 16 | 4°51'23 | 19° 5 | 16°50 | 5°14 | 24°20 | 12°32 | 3°37 | 19°29 | 22°55 | 20°29 | 17°57 | 17°12 | 11° 2 | 6°10 | T 23 | |
| W24 | 20 28 13 | 5°48'58 | 2♃57 | 18°17 | 6°29 | 24°58 | 12°44 | 3°32 | 19°27 | 22°57 | 20°28 | 17°D57 | 17° 8 | 11° 8 | 6° 7 | W24 | |
| T 25 | 20 32 9 | 6°46'35 | 17° 2 | 19°49 | 7°43 | 25°35 | 12°55 | 3°28 | 19°24 | 22°59 | 20°27 | 17°57 | 17° 5 | 11°15 | 6° 4 | T 25 | |
| F 26 | 20 36 6 | 7°44'13 | 1♈19 | 21°25 | 8°57 | 26°13 | 13° 7 | 3°23 | 19°22 | 23° 0 | 20°26 | 17°58 | 17° 2 | 11°22 | 6° 0 | F 26 | |
| S 27 | 20 40 2 | 8°41'53 | 15°46 | 23° 5 | 10°11 | 26°51 | 13°19 | 3°19 | 19°20 | 23° 2 | 20°25 | 17°59 | 16°59 | 11°28 | 5°57 | S 27 | |
| S 28 | 20 43 59 | 9°39'35 | 0♄19 | 24°49 | 11°25 | 27°30 | 13°30 | 3°14 | 19°17 | 23° 4 | 20°25 | 18° 0 | 16°56 | 11°35 | 5°54 | S 28 | |
| M29 | 20 47 55 | 10°37'18 | 14°53 | 26°36 | 12°40 | 28° 8 | 13°42 | 3°10 | 19°15 | 23° 6 | 20°24 | 18°R 1 | 16°53 | 11°42 | 5°51 | M29 | |
| T 30 | 20 51 52 | 11°35'02 | 29°24 | 28°27 | 13°54 | 28°46 | 13°54 | 3° 6 | 19°13 | 23° 7 | 20°23 | 18° 1 | 16°49 | 11°48 | 5°48 | T 30 | |
| W31 | 20 55 49 | 12♁32'48 | 13♁44 | 0♁19 | 15♁ 8 | 29♍24 | 14♍ 6 | 3♁ 1 | 19♁10 | 23♈ 9 | 20♁22 | 17♃59 | 16♃46 | 11♃55 | 5♁44 | W31 | |

Delta T = 18m51s Julian Calendar 1 July 1079 == Greg. Calendar 7 July 1079

AUGUST 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|-------|------|-----|
| T 1 | 20 59 45 | 13♁30'35 | 27♁50 | 2♁14 | 16♁23 | 0♁ 3 | 14♍18 | 2°R57 | 19°R 8 | 23♈10 | 20°R21 | 17°R56 | 16♃43 | 12♃ 2 | 5°R41 | T 1 | |
| F 2 | 21 3 42 | 14°28'24 | 11♍37 | 4°11 | 17°37 | 0°41 | 14°30 | 2♁52 | 19♁ 6 | 23°12 | 20♁20 | 17♃53 | 16°40 | 12° 8 | 5♁38 | F 2 | |
| S 3 | 21 7 38 | 15°26'14 | 25° 1 | 6° 8 | 18°51 | 1°20 | 14°42 | 2°48 | 19° 3 | 23°13 | 20°19 | 17°48 | 16°37 | 12°15 | 5°35 | S 3 | |
| S 4 | 21 11 35 | 16°24'05 | 8♁ 4 | 8° 7 | 20° 6 | 1°59 | 14°54 | 2°44 | 19° 1 | 23°15 | 20°18 | 17°44 | 16°33 | 12°22 | 5°32 | S 4 | |
| M 5 | 21 15 31 | 17°21'58 | 20°44 | 10° 6 | 21°20 | 2°37 | 15° 6 | 2°39 | 18°58 | 23°16 | 20°17 | 17°41 | 16°30 | 12°28 | 5°28 | M 5 | |
| T 6 | 21 19 28 | 18°19'52 | 3♍ 6 | 12° 6 | 22°34 | 3°16 | 15°18 | 2°35 | 18°56 | 23°18 | 20°16 | 17°39 | 16°27 | 12°35 | 5°25 | T 6 | |
| W 7 | 21 23 24 | 19°17'47 | 15°13 | 14° 5 | 23°49 | 3°55 | 15°31 | 2°31 | 18°54 | 23°19 | 20°15 | 17°D37 | 16°24 | 12°42 | 5°22 | W 7 | |
| T 8 | 21 27 21 | 20°15'44 | 27°10 | 16° 5 | 25° 3 | 4°34 | 15°43 | 2°27 | 18°51 | 23°21 | 20°14 | 17°38 | 16°21 | 12°48 | 5°19 | T 8 | |
| F 9 | 21 31 18 | 21°13'42 | 9♃ 0 | 18° 4 | 26°17 | 5°13 | 15°55 | 2°23 | 18°49 | 23°22 | 20°13 | 17°39 | 16°18 | 12°55 | 5°16 | F 9 | |
| S 10 | 21 35 14 | 22°11'42 | 20°51 | 20° 2 | 27°32 | 5°52 | 16° 8 | 2°19 | 18°46 | 23°23 | 20°12 | 17°40 | 16°14 | 13° 2 | 5°13 | S 10 | |
| S 11 | 21 39 11 | 23° 9'42 | 2♃45 | 22° 0 | 28°46 | 6°31 | 16°20 | 2°14 | 18°44 | 23°25 | 20°11 | 17°42 | 16°11 | 13° 8 | 5°10 | S 11 | |
| M12 | 21 43 7 | 24° 7'45 | 14°48 | 23°57 | 0♍ 1 | 7°11 | 16°33 | 2°10 | 18°42 | 23°26 | 20°10 | 17°R43 | 16° 8 | 13°15 | 5° 7 | M12 | |
| T 13 | 21 47 4 | 25° 5'49 | 27° 3 | 25°53 | 1°15 | 7°50 | 16°45 | 2° 7 | 18°39 | 23°27 | 20° 9 | 17°42 | 16° 5 | 13°22 | 5° 4 | T 13 | |
| W14 | 21 51 0 | 26° 3'54 | 9♁32 | 27°48 | 2°30 | 8°29 | 16°57 | 2° 3 | 18°37 | 23°29 | 20° 8 | 17°40 | 16° 2 | 13°28 | 5° 1 | W14 | |
| T 15 | 21 54 57 | 27° 2'01 | 22°18 | 29°41 | 3°44 | 9° 9 | 17°10 | 1°59 | 18°34 | 23°30 | 20° 7 | 17°37 | 15°59 | 13°35 | 4°58 | T 15 | |
| F 16 | 21 58 53 | 28° 0'10 | 5♁20 | 1♍34 | 4°59 | 9°48 | 17°23 | 1°55 | 18°32 | 23°31 | 20° 6 | 17°31 | 15°55 | 13°42 | 4°55 | F 16 | |
| S 17 | 22 2 50 | 28°58'21 | 18°38 | 3°26 | 6°13 | 10°28 | 17°35 | 1°51 | 18°30 | 23°32 | 20° 5 | 17°24 | 15°52 | 13°48 | 4°52 | S 17 | |
| S 18 | 22 6 47 | 29°56'33 | 2♁11 | 5°16 | 7°27 | 11° 8 | 17°48 | 1°47 | 18°27 | 23°33 | 20° 4 | 17°17 | 15°49 | 13°55 | 4°50 | S 18 | |
| M19 | 22 10 43 | 0♍54'48 | 15°55 | 7° 6 | 8°42 | 11°47 | 18° 1 | 1°44 | 18°25 | 23°34 | 20° 3 | 17°11 | 15°46 | 14° 2 | 4°47 | M19 | |
| T 20 | 22 14 40 | 1°53'04 | 29°49 | 8°54 | 9°56 | 12°27 | 18°13 | 1°40 | 18°23 | 23°35 | 20° 1 | 17° 6 | 15°43 | 14° 8 | 4°44 | T 20 | |
| W21 | 22 18 36 | 2°51'23 | 13♃50 | 10°41 | 11°11 | 13° 7 | 18°26 | 1°37 | 18°20 | 23°36 | 20° 0 | 17° 2 | 15°39 | 14°15 | 4°41 | W21 | |
| T 22 | 22 22 33 | 3°49'44 | 27°55 | 12°27 | 12°25 | 13°47 | 18°39 | 1°33 | 18°18 | 23°37 | 19°59 | 17°D 1 | 15°36 | 14°22 | 4°39 | T 22 | |
| F 23 | 22 26 29 | 4°48'07 | 12♈ 4 | 14°11 | 13°40 | 14°27 | 18°51 | 1°30 | 18°16 | 23°38 | 19°58 | 17° 1 | 15°33 | 14°28 | 4°36 | F 23 | |
| S 24 | 22 30 26 | 5°46'32 | 26°15 | 15°55 | 14°55 | 15° 7 | 19° 4 | 1°27 | 18°14 | 23°39 | 19°57 | 17° 2 | 15°30 | 14°35 | 4°33 | S 24 | |
| S 25 | 22 34 22 | 6°45'00 | 10♄25 | 17°38 | 16° 9 | 15°48 | 19°17 | 1°23 | 18°11 | 23°40 | 19°56 | 17°R 2 | 15°27 | 14°42 | 4°31 | S 25 | |
| M26 | 22 38 19 | 7°43'29 | 24°34 | 19°19 | 17°24 | 16°28 | 19°30 | 1°20 | 18° 9 | 23°41 | 19°55 | 17° 2 | 15°24 | 14°48 | 4°28 | M26 | |
| T 27 | 22 42 16 | 8°42'01 | 8♁28 | 20°59 | 18°38 | 17° 8 | 19°43 | 1°17 | 18° 7 | 23°42 | 19°53 | 17° 0 | 15°20 | 14°55 | 4°26 | T 27 | |
| W28 | 22 46 12 | 9°40'35 | 22°35 | 22°39 | 19°53 | 17°49 | 19°56 | 1°14 | 18° 5 | 23°43 | 19°52 | 16°56 | 15°17 | 15° 2 | 4°23 | W28 | |
| T 29 | 22 50 9 | 10°39'11 | 6♍21 | 24°17 | 21° 7 | 18°29 | 20° 9 | 1°11 | 18° 3 | 23°44 | 19°51 | 16°49 | 15°14 | 15° 8 | 4°21 | T 29 | |
| F 30 | 22 54 5 | 11°37'49 | 19°53 | 25°54 | 22°22 | 19°10 | 20°21 | 1° 8 | 18° 1 | 23°44 | 19°50 | 16°41 | 15°11 | 15°15 | 4°19 | F 30 | |
| S 31 | 22 58 2 | 12♍36'29 | 3♁ 8 | 27♍30 | 23♍37 | 19♁50 | 20♍34 | 1♁ 5 | 17♁58 | 23♈45 | 19♁49 | 16♃31 | 15♃ 8 | 15♃22 | 4♁16 | S 31 | |

Delta T = 18m51s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1079
geocentric

SEPTEMBER 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|-------|------|-----|
| S 1 | 23 1 58 | 13♐35'10 | 16♌ 4 | 29♍ 5 | 24♍51 | 20♌31 | 20♍47 | 1°R 3 | 17°R56 | 23♐46 | 19°R48 | 16°R21 | 15♌ 4 | 15♌28 | 4°R14 | S 1 | |
| M 2 | 23 5 55 | 14°33'54 | 28°41 | 0♌40 | 26° 6 | 21°12 | 21° 0 | 1♌ 0 | 17♌54 | 23°47 | 19♐46 | 16♌12 | 15° 1 | 15°35 | 4♌12 | M 2 | |
| T 3 | 23 9 51 | 15°32'39 | 11♌ 2 | 2°13 | 27°20 | 21°53 | 21°13 | 0°57 | 17°52 | 23°47 | 19°45 | 16° 5 | 14°58 | 15°42 | 4°10 | T 3 | |
| W 4 | 23 13 48 | 16°31'27 | 23° 8 | 3°45 | 28°35 | 22°34 | 21°26 | 0°55 | 17°50 | 23°48 | 19°44 | 16° 0 | 14°55 | 15°48 | 4° 8 | W 4 | |
| T 5 | 23 17 45 | 17°30'16 | 5♌ 3 | 5°16 | 29°50 | 23°15 | 21°39 | 0°53 | 17°48 | 23°48 | 19°43 | 15°57 | 14°52 | 15°55 | 4° 6 | T 5 | |
| F 6 | 23 21 41 | 18°29'07 | 16°53 | 6°46 | 1♌ 4 | 23°56 | 21°52 | 0°50 | 17°46 | 23°49 | 19°42 | 15°D56 | 14°49 | 16° 2 | 4° 4 | F 6 | |
| S 7 | 23 25 38 | 19°27'59 | 28°43 | 8°16 | 2°19 | 24°37 | 22° 5 | 0°48 | 17°44 | 23°49 | 19°40 | 15°56 | 14°45 | 16° 8 | 4° 2 | S 7 | |
| S 8 | 23 29 34 | 20°26'54 | 10♌37 | 9°44 | 3°33 | 25°18 | 22°18 | 0°46 | 17°42 | 23°50 | 19°39 | 15°R57 | 14°42 | 16°15 | 4° 0 | S 8 | |
| M 9 | 23 33 31 | 21°25'50 | 22°42 | 11°12 | 4°48 | 25°59 | 22°31 | 0°44 | 17°40 | 23°50 | 19°38 | 15°57 | 14°39 | 16°22 | 3°58 | M 9 | |
| T 10 | 23 37 27 | 22°24'48 | 5♌ 2 | 12°38 | 6° 3 | 26°41 | 22°44 | 0°42 | 17°39 | 23°51 | 19°37 | 15°55 | 14°36 | 16°28 | 3°56 | T 10 | |
| W11 | 23 41 24 | 23°23'48 | 17°40 | 14° 3 | 7°17 | 27°22 | 22°57 | 0°40 | 17°37 | 23°51 | 19°36 | 15°51 | 14°33 | 16°35 | 3°55 | W11 | |
| T 12 | 23 45 20 | 24°22'50 | 0♐40 | 15°28 | 8°32 | 28° 4 | 23°10 | 0°38 | 17°35 | 23°51 | 19°34 | 15°44 | 14°30 | 16°42 | 3°53 | T 12 | |
| F 13 | 23 49 17 | 25°21'53 | 14° 1 | 16°51 | 9°46 | 28°45 | 23°23 | 0°37 | 17°33 | 23°52 | 19°33 | 15°35 | 14°26 | 16°48 | 3°51 | F 13 | |
| S 14 | 23 53 13 | 26°20'59 | 27°43 | 18°13 | 11° 1 | 29°27 | 23°36 | 0°35 | 17°32 | 23°52 | 19°32 | 15°24 | 14°23 | 16°55 | 3°50 | S 14 | |
| S 15 | 23 57 10 | 27°20'07 | 11♍42 | 19°34 | 12°16 | 0♌ 8 | 23°49 | 0°34 | 17°30 | 23°52 | 19°31 | 15°13 | 14°20 | 17° 2 | 3°48 | S 15 | |
| M16 | 0 1 7 | 28°19'17 | 25°54 | 20°54 | 13°30 | 0°50 | 24° 2 | 0°32 | 17°28 | 23°52 | 19°30 | 15° 2 | 14°17 | 17° 8 | 3°47 | M16 | |
| T 17 | 0 5 3 | 29°18'29 | 10♌13 | 22°13 | 14°45 | 1°32 | 24°15 | 0°31 | 17°27 | 23°53 | 19°28 | 14°53 | 14°14 | 17°15 | 3°46 | T 17 | |
| W18 | 0 9 0 | 0♌1744 | 24°34 | 23°30 | 15°59 | 2°14 | 24°28 | 0°30 | 17°25 | 23°53 | 19°27 | 14°46 | 14°10 | 17°22 | 3°44 | W18 | |
| T 19 | 0 12 56 | 1°17'01 | 8♐52 | 24°46 | 17°14 | 2°56 | 24°41 | 0°29 | 17°24 | 23°53 | 19°26 | 14°42 | 14° 7 | 17°28 | 3°43 | T 19 | |
| F 20 | 0 16 53 | 2°16'20 | 23° 5 | 26° 1 | 18°29 | 3°38 | 24°54 | 0°28 | 17°22 | 23°53 | 19°25 | 14°41 | 14° 4 | 17°35 | 3°42 | F 20 | |
| S 21 | 0 20 49 | 3°15'42 | 7♌10 | 27°14 | 19°43 | 4°20 | 25° 7 | 0°27 | 17°21 | 23°R53 | 19°24 | 14°40 | 14° 1 | 17°42 | 3°41 | S 21 | |
| S 22 | 0 24 46 | 4°15'06 | 21° 7 | 28°25 | 20°58 | 5° 2 | 25°20 | 0°26 | 17°19 | 23°53 | 19°23 | 14°40 | 13°58 | 17°48 | 3°40 | S 22 | |
| M23 | 0 28 42 | 5°14'33 | 4♌56 | 29°35 | 22°12 | 5°44 | 25°33 | 0°25 | 17°18 | 23°53 | 19°22 | 14°39 | 13°55 | 17°55 | 3°39 | M23 | |
| T 24 | 0 32 39 | 6°14'02 | 18°37 | 0♌43 | 23°27 | 6°27 | 25°46 | 0°25 | 17°17 | 23°53 | 19°20 | 14°36 | 13°51 | 18° 1 | 3°38 | T 24 | |
| W25 | 0 36 36 | 7°13'33 | 2♍ 9 | 1°48 | 24°42 | 7° 9 | 25°59 | 0°24 | 17°15 | 23°53 | 19°19 | 14°29 | 13°48 | 18° 8 | 3°37 | W25 | |
| T 26 | 0 40 32 | 8°13'06 | 15°30 | 2°52 | 25°56 | 7°51 | 26°12 | 0°24 | 17°14 | 23°53 | 19°18 | 14°20 | 13°45 | 18°15 | 3°36 | T 26 | |
| F 27 | 0 44 29 | 9°12'42 | 28°41 | 3°53 | 27°11 | 8°34 | 26°25 | 0°24 | 17°13 | 23°52 | 19°17 | 14° 8 | 13°42 | 18°21 | 3°35 | F 27 | |
| S 28 | 0 48 25 | 10°12'19 | 11♌38 | 4°51 | 28°26 | 9°17 | 26°38 | 0°23 | 17°12 | 23°52 | 19°16 | 13°55 | 13°39 | 18°28 | 3°35 | S 28 | |
| S 29 | 0 52 22 | 11°11'59 | 24°21 | 5°46 | 29°40 | 9°59 | 26°50 | 0°D23 | 17°11 | 23°52 | 19°15 | 13°41 | 13°36 | 18°35 | 3°34 | S 29 | |
| M30 | 0 56 18 | 12♌11'41 | 6♌49 | 6♌38 | 0♌55 | 10♌42 | 27♍ 3 | 0♌23 | 17♌ 9 | 23♐52 | 19♐14 | 13♌28 | 13♌32 | 18♌41 | 3♌34 | M30 | |

Delta T = 18m51s Julian Calendar 1 Sept. 1079 == Greg. Calendar 7 Sept. 1079

OCTOBER 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|------|--------|--------|--------|--------|-------|-------|-------|------|-----|
| T 1 | 1 0 15 | 13♌11'25 | 19♌ 3 | 7♌26 | 2♌ 9 | 11♌25 | 27♍16 | 0♌23 | 17°R 8 | 23°R51 | 19°R13 | 13°R17 | 13♌29 | 18♌48 | 3°R33 | T 1 | |
| W 2 | 1 4 11 | 14°11'10 | 1♌ 6 | 8°11 | 3°24 | 12° 8 | 27°29 | 0°24 | 17° 7 | 23♐51 | 19♐12 | 13♌ 9 | 13°26 | 18°55 | 3♌33 | W 2 | |
| T 3 | 1 8 8 | 15°10'58 | 12°59 | 8°51 | 4°39 | 12°51 | 27°41 | 0°24 | 17° 7 | 23°51 | 19°10 | 13° 3 | 13°23 | 19° 1 | 3°33 | T 3 | |
| F 4 | 1 12 5 | 16°10'47 | 24°47 | 9°26 | 5°53 | 13°33 | 27°54 | 0°24 | 17° 6 | 23°50 | 19° 9 | 13° 1 | 13°20 | 19° 8 | 3°32 | F 4 | |
| S 5 | 1 16 1 | 17°10'38 | 6♌34 | 9°55 | 7° 8 | 14°17 | 28° 7 | 0°25 | 17° 5 | 23°50 | 19° 8 | 13° 0 | 13°16 | 19°15 | 3°32 | S 5 | |
| S 6 | 1 19 58 | 18°10'31 | 18°27 | 10°19 | 8°22 | 15° 0 | 28°19 | 0°26 | 17° 4 | 23°49 | 19° 7 | 13° 0 | 13°13 | 19°21 | 3°32 | S 6 | |
| M 7 | 1 23 54 | 19°10'25 | 0♌30 | 10°36 | 9°37 | 15°43 | 28°32 | 0°26 | 17° 3 | 23°49 | 19° 6 | 12°59 | 13°10 | 19°28 | 3°D32 | M 7 | |
| T 8 | 1 27 51 | 20°10'21 | 12°49 | 10°46 | 10°51 | 16°26 | 28°45 | 0°27 | 17° 3 | 23°48 | 19° 5 | 12°58 | 13° 7 | 19°35 | 3°32 | T 8 | |
| W 9 | 1 31 47 | 21°10'19 | 25°29 | 10°R48 | 12° 6 | 17° 9 | 28°57 | 0°28 | 17° 2 | 23°48 | 19° 4 | 12°54 | 13° 4 | 19°41 | 3°32 | W 9 | |
| T 10 | 1 35 44 | 22°10'18 | 8♐34 | 10°42 | 13°20 | 17°53 | 29°10 | 0°29 | 17° 1 | 23°47 | 19° 3 | 12°47 | 13° 1 | 19°48 | 3°32 | T 10 | |
| F 11 | 1 39 40 | 23°10'20 | 22° 5 | 10°28 | 14°35 | 18°36 | 29°22 | 0°30 | 17° 1 | 23°46 | 19° 2 | 12°38 | 12°57 | 19°55 | 3°32 | F 11 | |
| S 12 | 1 43 37 | 24°10'22 | 6♍ 2 | 10° 3 | 15°50 | 19°20 | 29°35 | 0°32 | 17° 0 | 23°46 | 19° 1 | 12°27 | 12°54 | 20° 1 | 3°33 | S 12 | |
| S 13 | 1 47 34 | 25°10'27 | 20°22 | 9°30 | 17° 4 | 20° 3 | 29°47 | 0°33 | 17° 0 | 23°45 | 19° 1 | 12°15 | 12°51 | 20° 8 | 3°33 | S 13 | |
| M14 | 1 51 30 | 26°10'34 | 4♌59 | 8°47 | 18°19 | 20°47 | 29°59 | 0°34 | 16°59 | 23°44 | 19° 0 | 12° 4 | 12°48 | 20°15 | 3°33 | M14 | |
| T 15 | 1 55 27 | 27°10'42 | 19°45 | 7°55 | 19°33 | 21°30 | 0♌12 | 0°36 | 16°59 | 23°44 | 18°59 | 11°54 | 12°45 | 20°21 | 3°34 | T 15 | |
| W16 | 1 59 23 | 28°10'53 | 4♐32 | 6°54 | 20°48 | 22°14 | 0°24 | 0°38 | 16°59 | 23°43 | 18°58 | 11°47 | 12°41 | 20°28 | 3°35 | W16 | |
| T 17 | 2 3 20 | 29°11'06 | 19°12 | 5°46 | 22° 2 | 22°58 | 0°36 | 0°39 | 16°58 | 23°42 | 18°57 | 11°43 | 12°38 | 20°35 | 3°35 | T 17 | |
| F 18 | 2 7 16 | 0♌11'21 | 3♌41 | 4°32 | 23°17 | 23°42 | 0°48 | 0°41 | 16°58 | 23°41 | 18°56 | 11°41 | 12°35 | 20°41 | 3°36 | F 18 | |
| S 19 | 2 11 13 | 1°11'37 | 17°54 | 3°14 | 24°31 | 24°26 | 1° 0 | 0°43 | 16°58 | 23°40 | 18°55 | 11°D41 | 12°32 | 20°48 | 3°37 | S 19 | |
| S 20 | 2 15 9 | 2°11'56 | 1♌52 | 1°54 | 25°46 | 25°10 | 1°12 | 0°45 | 16°58 | 23°39 | 18°54 | 11°R41 | 12°29 | 20°55 | 3°37 | S 20 | |
| M21 | 2 19 6 | 3°12'17 | 15°33 | 0°36 | 27° 0 | 25°54 | 1°24 | 0°47 | 16°58 | 23°38 | 18°54 | 11°40 | 12°26 | 21° 1 | 3°38 | M21 | |
| T 22 | 2 23 3 | 4°12'40 | 29° 0 | 29♌21 | 28°14 | 26°38 | 1°36 | 0°50 | 16°D58 | 23°38 | 18°53 | 11°38 | 12°22 | 21° 8 | 3°39 | T 22 | |
| W23 | 2 26 59 | 5°13'05 | 12♍13 | 28°12 | 29°29 | 27°22 | 1°48 | 0°52 | 16°58 | 23°37 | 18°52 | 11°33 | 12°19 | 21°15 | 3°40 | W23 | |
| T 24 | 2 30 56 | 6°13'32 | 25°13 | 27°11 | 0♌43 | 28° 6 | 2° 0 | 0°54 | 16°58 | 23°36 | 18°51 | 11°25 | 12°16 | 21°21 | 3°41 | T 24 | |
| F 25 | 2 34 52 | 7°14'01 | 8♌ 2 | 26°20 | 1°58 | 28°51 | 2°12 | 0°57 | 16°58 | 23°34 | 18°51 | 11°14 | 12°13 | 21°28 | 3°43 | F 25 | |
| S 26 | 2 38 49 | 8°14'31 | 20°39 | 25°39 | 3°12 | 29°35 | 2°24 | 0°59 | 16°58 | 23°33 | 18°50 | 11° 3 | 12°10 | 21°35 | 3°44 | S 26 | |
| S 27 | 2 42 45 | 9°15'03 | 3♌ 5 | 25°10 | 4°27 | 0♌19 | 2°35 | 1° 2 | 16°59 | 23°32 | 18°49 | 10°50 | 12° 7 | 21°41 | 3°45 | S 27 | |
| M28 | 2 46 42 | 10°15'37 | 15°21 | 24°53 | 5°41 | 1° 4 | 2°47 | 1° 5 | 16°59 | 23°31 | 18°48 | 10°39 | 12° 3 | 21°48 | 3°47 | M28 | |
| T 29 | 2 50 38 | 11°16'12 | 27°26 | 24°D48 | 6°56 | 1°48 | 2°58 | 1° 8 | 16°59 | 23°30 | 18°48 | 10°29 | 12° 0 | 21°54 | 3°48 | T 29 | |
| W30 | 2 54 35 | 12°16'49 | 9♌22 | 24°53 | 8°10 | 2°33 | 3°10 | 1°11 | 17° 0 | 23°29 | 18°47 | 10°22 | 11°57 | 22° 1 | 3°49 | W30 | |
| T 31 | 2 58 32 | 13♌17'28 | 21♌12 | 25♌ 9 | 9♌24 | 3♌18 | 3♌21 | 1♌14 | 17♌ 0 | 23♐28 | 18♐47 | 10♌17 | 11♌54 | 22♌ 8 | 3♌51 | T 31 | |

Delta T = 18m50s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1079
geocentric

NOVEMBER 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|-------|-------|------|------|-------|--------|--------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| F 1 | 3 2 28 | 14♌18'07 | 2♋58 | 25♄34 | 10♃39 | 4♂ 2 | 3♂33 | 1♁17 | 17♁ 1 | 23°R26 | 18°R46 | 10°R15 | 11♋51 | 22♎14 | 3♁53 | F 1 | | | | | | | | |
| S 2 | 3 6 25 | 15°18'48 | 14°45 | 26° 9 | 11°53 | 4°47 | 3°44 | 1°21 | 17° 1 | 23II25 | 18♁45 | 10°D15 | 11°47 | 22°21 | 3°54 | S 2 | | | | | | | | |
| S 3 | 3 10 21 | 16°19'31 | 26°36 | 26°50 | 13° 8 | 5°32 | 3°55 | 1°24 | 17° 2 | 23°24 | 18°45 | 10♋16 | 11°44 | 22°28 | 3°56 | S 3 | | | | | | | | |
| M 4 | 3 14 18 | 17°20'14 | 8♁36 | 27°39 | 14°22 | 6°17 | 4° 6 | 1°27 | 17° 3 | 23°23 | 18°44 | 10°17 | 11°41 | 22°34 | 3°58 | M 4 | | | | | | | | |
| T 5 | 3 18 14 | 18°20'58 | 20°52 | 28°34 | 15°36 | 7° 2 | 4°17 | 1°31 | 17° 3 | 23°21 | 18°44 | 10°R17 | 11°38 | 22°41 | 4° 0 | T 5 | | | | | | | | |
| W 6 | 3 22 11 | 19°21'44 | 3♁28 | 29°34 | 16°51 | 7°47 | 4°28 | 1°35 | 17° 4 | 23°20 | 18°43 | 10°16 | 11°35 | 22°48 | 4° 2 | W 6 | | | | | | | | |
| T 7 | 3 26 7 | 20°22'30 | 16°28 | 0♌39 | 18° 5 | 8°32 | 4°39 | 1°38 | 17° 5 | 23°19 | 18°43 | 10°13 | 11°32 | 22°54 | 4° 4 | T 7 | | | | | | | | |
| F 8 | 3 30 4 | 21°23'18 | 29°57 | 1°48 | 19°19 | 9°17 | 4°50 | 1°42 | 17° 6 | 23°17 | 18°42 | 10° 8 | 11°28 | 23° 1 | 4° 6 | F 8 | | | | | | | | |
| S 9 | 3 34 1 | 22°24'06 | 13♁55 | 3° 1 | 20°33 | 10° 2 | 5° 1 | 1°46 | 17° 7 | 23°16 | 18°42 | 10° 1 | 11°25 | 23° 8 | 4° 8 | S 9 | | | | | | | | |
| S 10 | 3 37 57 | 23°24'56 | 28°20 | 4°16 | 21°48 | 10°47 | 5°11 | 1°50 | 17° 8 | 23°14 | 18°41 | 9°53 | 11°22 | 23°14 | 4°10 | S 10 | | | | | | | | |
| M11 | 3 41 54 | 24°25'47 | 13♁ 8 | 5°34 | 22° 2 | 11°32 | 5°22 | 1°54 | 17° 9 | 23°13 | 18°41 | 9°46 | 11°19 | 23°21 | 4°12 | M11 | | | | | | | | |
| T 12 | 3 45 50 | 25°26'38 | 28°11 | 6°54 | 24°16 | 12°18 | 5°32 | 1°58 | 17°10 | 23°12 | 18°41 | 9°39 | 11°16 | 23°28 | 4°15 | T 12 | | | | | | | | |
| W13 | 3 49 47 | 26°27'32 | 13II20 | 8°16 | 25°30 | 13° 3 | 5°43 | 2° 2 | 17°11 | 23°10 | 18°40 | 9°35 | 11°13 | 23°34 | 4°17 | W13 | | | | | | | | |
| T 14 | 3 53 43 | 27°28'26 | 28°24 | 9°39 | 26°45 | 13°48 | 5°53 | 2° 7 | 17°12 | 23° 9 | 18°40 | 9°33 | 11° 9 | 23°41 | 4°19 | T 14 | | | | | | | | |
| F 15 | 3 57 40 | 28°29'22 | 13♁15 | 11° 4 | 27°59 | 14°34 | 6° 3 | 2°11 | 17°13 | 23° 7 | 18°40 | 9°D32 | 11° 6 | 23°48 | 4°22 | F 15 | | | | | | | | |
| S 16 | 4 1 36 | 29°30'18 | 27°47 | 12°30 | 29°13 | 15°19 | 6°13 | 2°16 | 17°14 | 23° 6 | 18°39 | 9°33 | 11° 3 | 23°54 | 4°24 | S 16 | | | | | | | | |
| S 17 | 4 5 33 | 0♃31'16 | 11♌58 | 13°57 | 0♋27 | 16° 5 | 6°23 | 2°20 | 17°16 | 23° 4 | 18°39 | 9°35 | 11° 0 | 24° 1 | 4°27 | S 17 | | | | | | | | |
| M18 | 4 9 30 | 1°32'16 | 25°45 | 15°25 | 1°41 | 16°50 | 6°33 | 2°25 | 17°17 | 23° 3 | 18°39 | 9°R36 | 10°57 | 24° 8 | 4°30 | M18 | | | | | | | | |
| T 19 | 4 13 26 | 2°33'16 | 9♎11 | 16°53 | 2°55 | 17°36 | 6°43 | 2°30 | 17°19 | 23° 1 | 18°39 | 9°36 | 10°53 | 24°14 | 4°32 | T 19 | | | | | | | | |
| W20 | 4 17 23 | 3°34'18 | 22°16 | 18°22 | 4° 9 | 18°22 | 6°53 | 2°34 | 17°20 | 22°59 | 18°39 | 9°34 | 10°50 | 24°21 | 4°35 | W20 | | | | | | | | |
| T 21 | 4 21 19 | 4°35'21 | 5♁ 5 | 19°52 | 5°23 | 19° 7 | 7° 2 | 2°39 | 17°22 | 22°58 | 18°38 | 9°30 | 10°47 | 24°27 | 4°38 | T 21 | | | | | | | | |
| F 22 | 4 25 16 | 5°36'25 | 17°38 | 21°22 | 6°37 | 19°53 | 7°12 | 2°44 | 17°23 | 22°56 | 18°38 | 9°26 | 10°44 | 24°34 | 4°41 | F 22 | | | | | | | | |
| S 23 | 4 29 12 | 6°37'30 | 29°59 | 22°53 | 7°51 | 20°39 | 7°21 | 2°49 | 17°25 | 22°55 | 18°38 | 9°20 | 10°41 | 24°41 | 4°44 | S 23 | | | | | | | | |
| S 24 | 4 33 9 | 7°38'36 | 12♌10 | 24°23 | 9° 5 | 21°25 | 7°30 | 2°54 | 17°26 | 22°53 | 18°38 | 9°14 | 10°38 | 24°47 | 4°47 | S 24 | | | | | | | | |
| M25 | 4 37 5 | 8°39'42 | 24°13 | 25°54 | 10°19 | 22°11 | 7°39 | 2°59 | 17°28 | 22°51 | 18°38 | 9° 8 | 10°34 | 24°54 | 4°50 | M25 | | | | | | | | |
| T 26 | 4 41 2 | 9°40'50 | 6♁ 9 | 27°26 | 11°33 | 22°57 | 7°49 | 3° 4 | 17°30 | 22°50 | 18°38 | 9° 3 | 10°31 | 25° 1 | 4°53 | T 26 | | | | | | | | |
| W27 | 4 44 59 | 10°41'58 | 18° 0 | 28°57 | 12°47 | 23°43 | 7°57 | 3°10 | 17°32 | 22°48 | 18°D38 | 9° 0 | 10°28 | 25° 7 | 4°56 | W27 | | | | | | | | |
| T 28 | 4 48 55 | 11°43'07 | 29°47 | 0♃29 | 14° 1 | 24°29 | 8° 6 | 3°15 | 17°33 | 22°46 | 18°38 | 8°58 | 10°25 | 25°14 | 4°59 | T 28 | | | | | | | | |
| F 29 | 4 52 52 | 12°44'16 | 11♋34 | 2° 1 | 15°15 | 25°15 | 8°15 | 3°21 | 17°35 | 22°45 | 18°38 | 8°D58 | 10°22 | 25°21 | 5° 2 | F 29 | | | | | | | | |
| S 30 | 4 56 48 | 13♎45'26 | 23♋22 | 3♁34 | 16♋29 | 26♁ 1 | 8♁24 | 3♁26 | 17♁37 | 22II43 | 18♁38 | 8♋58 | 10♋19 | 25♎27 | 5♁ 5 | S 30 | | | | | | | | |

Delta T = 18m50s Julian Calendar 1 Nov. 1079 == Greg. Calendar 7 Nov. 1079

DECEMBER 1079 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| S 1 | 5 0 45 | 14♎46'36 | 5♁15 | 5♁ 6 | 17♋43 | 26♎47 | 8♁32 | 3♁32 | 17♁39 | 22°R41 | 18♁38 | 9♋ 0 | 10♋15 | 25♎34 | 5♁ 9 | S 1 | | | | | | | | |
| M 2 | 5 4 41 | 15°47'47 | 17°17 | 6°39 | 18°56 | 27°34 | 8°40 | 3°37 | 17°41 | 22II40 | 18°38 | 9° 2 | 10°12 | 25°41 | 5°12 | M 2 | | | | | | | | |
| T 3 | 5 8 38 | 16°48'57 | 29°32 | 8°12 | 20°10 | 28°20 | 8°49 | 3°43 | 17°43 | 22°38 | 18°38 | 9° 3 | 10° 9 | 25°47 | 5°15 | T 3 | | | | | | | | |
| W 4 | 5 12 34 | 17°50'08 | 12♁ 4 | 9°45 | 21°24 | 29° 6 | 8°57 | 3°49 | 17°45 | 22°36 | 18°38 | 9°R 4 | 10° 6 | 25°54 | 5°19 | W 4 | | | | | | | | |
| T 5 | 5 16 31 | 18°51'18 | 24°59 | 11°18 | 22°38 | 29°53 | 9° 5 | 3°54 | 17°47 | 22°35 | 18°39 | 9° 4 | 10° 3 | 26° 1 | 5°22 | T 5 | | | | | | | | |
| F 6 | 5 20 28 | 19°52'29 | 8♁18 | 12°51 | 23°51 | 0♋39 | 9°13 | 4° 0 | 17°50 | 22°33 | 18°39 | 9° 3 | 9°59 | 26° 7 | 5°26 | F 6 | | | | | | | | |
| S 7 | 5 24 24 | 20°53'40 | 22° 5 | 14°25 | 25° 5 | 1°25 | 9°20 | 4° 6 | 17°52 | 22°31 | 18°39 | 9° 1 | 9°56 | 26°14 | 5°29 | S 7 | | | | | | | | |
| S 8 | 5 28 21 | 21°54'50 | 6♁20 | 15°59 | 26°18 | 2°12 | 9°28 | 4°12 | 17°54 | 22°29 | 18°39 | 8°59 | 9°53 | 26°21 | 5°33 | S 8 | | | | | | | | |
| M 9 | 5 32 17 | 22°56'01 | 21° 1 | 17°33 | 27°32 | 2°58 | 9°35 | 4°18 | 17°56 | 22°28 | 18°40 | 8°57 | 9°50 | 26°27 | 5°37 | M 9 | | | | | | | | |
| T 10 | 5 36 14 | 23°57'12 | 6II 2 | 19° 8 | 28°45 | 3°45 | 9°43 | 4°24 | 17°59 | 22°26 | 18°40 | 8°55 | 9°47 | 26°34 | 5°40 | T 10 | | | | | | | | |
| W11 | 5 40 10 | 24°58'22 | 21°16 | 20°43 | 29°59 | 4°31 | 9°50 | 4°30 | 18° 1 | 22°24 | 18°40 | 8°54 | 9°44 | 26°40 | 5°44 | W11 | | | | | | | | |
| T 12 | 5 44 7 | 25°59'33 | 6♁31 | 22°18 | 1♁12 | 5°18 | 9°57 | 4°36 | 18° 3 | 22°23 | 18°41 | 8°D53 | 9°40 | 26°47 | 5°48 | T 12 | | | | | | | | |
| F 13 | 5 48 4 | 27° 0'44 | 21°39 | 23°53 | 2°25 | 6° 5 | 10° 4 | 4°43 | 18° 6 | 22°21 | 18°41 | 8°54 | 9°37 | 26°54 | 5°52 | F 13 | | | | | | | | |
| S 14 | 5 52 0 | 28° 1'55 | 6♁30 | 25°29 | 3°39 | 6°51 | 10°10 | 4°49 | 18° 8 | 22°19 | 18°41 | 8°54 | 9°34 | 27° 0 | 5°55 | S 14 | | | | | | | | |
| S 15 | 5 55 57 | 29° 3'06 | 20°58 | 27° 5 | 4°52 | 7°38 | 10°17 | 4°55 | 18°11 | 22°18 | 18°42 | 8°55 | 9°31 | 27° 7 | 5°59 | S 15 | | | | | | | | |
| M16 | 5 59 53 | 0♋ 4'18 | 5♎ 0 | 28°41 | 6° 5 | 8°25 | 10°23 | 5° 1 | 18°13 | 22°16 | 18°42 | 8°56 | 9°28 | 27°14 | 6° 3 | M16 | | | | | | | | |
| T 17 | 6 3 50 | 1° 5'29 | 18°36 | 0♋18 | 7°18 | 9°12 | 10°30 | 5° 8 | 18°16 | 22°14 | 18°43 | 8°57 | 9°25 | 27°20 | 6° 7 | T 17 | | | | | | | | |
| W18 | 6 7 46 | 2° 6'41 | 1♁46 | 1°55 | 8°31 | 9°58 | 10°36 | 5°14 | 18°19 | 22°13 | 18°43 | 8°R57 | 9°21 | 27°27 | 6°11 | W18 | | | | | | | | |
| T 19 | 6 11 43 | 3° 7'52 | 14°33 | 3°33 | 9°44 | 10°45 | 10°42 | 5°21 | 18°21 | 22°11 | 18°44 | 8°57 | 9°18 | 27°34 | 6°15 | T 19 | | | | | | | | |
| F 20 | 6 15 39 | 4° 9'04 | 27° 1 | 5°11 | 10°57 | 11°32 | 10°48 | 5°27 | 18°24 | 22° 9 | 18°44 | 8°56 | 9°15 | 27°40 | 6°19 | F 20 | | | | | | | | |
| S 21 | 6 19 36 | 5°10'16 | 9♌14 | 6°50 | 12°10 | 12°19 | 10°53 | 5°34 | 18°27 | 22° 8 | 18°45 | 8°56 | 9°12 | 27°47 | 6°23 | S 21 | | | | | | | | |
| S 22 | 6 23 33 | 6°11'27 | 21°15 | 8°29 | 13°23 | 13° 6 | 10°59 | 5°40 | 18°29 | 22° 6 | 18°45 | 8°55 | 9° 9 | 27°54 | 6°27 | S 22 | | | | | | | | |
| M23 | 6 27 29 | 7°12'39 | 3♁ 9 | 10° 8 | 14°36 | 13°53 | 11° 4 | 5°47 | 18°32 | 22° 4 | 18°46 | 8°55 | 9° 5 | 28° 0 | 6°31 | M23 | | | | | | | | |
| T 24 | 6 31 26 | 8°13'50 | 14°58 | 11°48 | 15°48 | 14°40 | 11° 9 | 5°54 | 18°35 | 22° 3 | 18°46 | 8°55 | 9° 2 | 28° 7 | 6°36 | T 24 | | | | | | | | |
| W25 | 6 35 22 | 9°15'01 | 26°46 | 13°28 | 17° 1 | 15°27 | 11°14 | 6° 1 | 18°38 | 22° 1 | 18°47 | 8°D55 | 8°59 | 28°14 | 6°40 | W25 | | | | | | | | |
| T 26 | 6 39 19 | 10°16'12 | 8♋33 | 15° 8 | 18°14 | 16°14 | 11°19 | 6° 7 | 18°41 | 21°59 | 18°48 | 8°R55 | 8°56 | 28°20 | 6°44 | T 26 | | | | | | | | |
| F 27 | 6 43 15 | 11°17'22 | 20°23 | 16°49 | 19°26 | 17° 1 | 11°24 | 6°14 | 18°44 | 21°58 | 18°48 | 8°55 | 8°53 | 28°27 | 6°48 | F 27 | | | | | | | | |
| S 28 | 6 47 12 | 12°18'32 | 2♁18 | 18°31 | 20°39 | 17°48 | 11°29 | 6°21 | 18°46 | 21°56 | 18°49 | 8°55 | 8°50 | 28°34 | 6°52 | S 28 | | | | | | | | |
| S 29 | 6 51 8 | 13°19'40 | 14°20 | 20°13 | 21°51 | 18°35 | 11°33 | 6°28 | 18°49 | 21°55 | 18°50 | 8°54 | 8°46 | 28°40 | 6°57 | S 29 | | | | | | | | |
| M30 | 6 55 5 | 14°20'48 | 26°30 | 21°55 | 23° 3 | 19°22 | 11°37 | 6°35 | 18°52 | 21°53 | 18°51 | 8°53 | 8°43 | 28°47 | 7° 1 | M30 | | | | | | | | |
| T 31 | 6 59 2 | 15♋21'56 | 8♁52 | 23♋37 | 24♁15 | 20♋ 9 | 11♁41 | 6♁42 | 18♁55 | 22II52 | 18♁51 | 8♋53 | 8 | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1080
geocentric

JANUARY 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|---------|----------|----------|----------|----------|----------|----------|---------|----------|---------|----------|-------|---------|---------|---------|------|
| W 1 | 7 2 58 | 16°23'02 | 21°18'29 | 25°20'20 | 25°27'27 | 20°56'11 | 11°45'45 | 6°49'18 | 18°58'21 | 21°R50 | 18°52'18 | 8°R52 | 8°37'29 | 29°07'7 | 7°10'10 | W 1 |
| T 2 | 7 6 55 | 17°24'07 | 4°17'22 | 27° 3' | 26°40' | 21°44' | 11°49' | 6°56' | 19° 1' | 21°II49 | 18°53' | 8°35' | 8°34' | 29° 7' | 7°14' | T 2 |
| F 3 | 7 10 51 | 18°25'11 | 17°36' | 28°45' | 27°51' | 22°31' | 11°52' | 7° 3' | 19° 5' | 21°47' | 18°54' | 8°D51 | 8°31' | 29°13' | 7°18' | F 3 |
| S 4 | 7 14 48 | 19°26'15 | 18°11' | 0°28' | 29° 3' | 23°18' | 11°55' | 7°10' | 19° 8' | 21°46' | 18°55' | 8°51' | 8°27' | 29°20' | 7°23' | S 4 |
| S 5 | 7 18 44 | 20°27'17 | 15°11' | 2°11' | 0°15' | 24° 5' | 11°59' | 7°17' | 19°11' | 21°44' | 18°55' | 8°52' | 8°24' | 29°27' | 7°27' | S 5 |
| M 6 | 7 22 41 | 21°28'18 | 29°33' | 3°53' | 1°27' | 24°52' | 12° 2' | 7°24' | 19°14' | 21°43' | 18°56' | 8°53' | 8°21' | 29°33' | 7°31' | M 6 |
| T 7 | 7 26 37 | 22°29'17 | 14°II16 | 5°34' | 2°38' | 25°40' | 12° 4' | 7°31' | 19°17' | 21°41' | 18°57' | 8°54' | 8°18' | 29°40' | 7°36' | T 7 |
| W 8 | 7 30 34 | 23°30'16 | 29°14' | 7°15' | 3°50' | 26°27' | 12° 7' | 7°38' | 19°20' | 21°40' | 18°58' | 8°55' | 8°15' | 29°47' | 7°40' | W 8 |
| T 9 | 7 34 31 | 24°31'14 | 14°21' | 8°55' | 5° 1' | 27°14' | 12° 9' | 7°45' | 19°24' | 21°38' | 18°59' | 8°R55 | 8°11' | 29°53' | 7°45' | T 9 |
| F 10 | 7 38 27 | 25°32'10 | 29°27' | 10°33' | 6°12' | 28° 2' | 12°12' | 7°52' | 19°27' | 21°37' | 19° 0' | 8°54' | 8° 8' | 29°59' | 7°49' | F 10 |
| S 11 | 7 42 24 | 26°33'06 | 14°Q24 | 12° 9' | 7°23' | 28°49' | 12°14' | 7°59' | 19°30' | 21°36' | 19° 1' | 8°52' | 8° 5' | 0° 7' | 7°54' | S 11 |
| S 12 | 7 46 20 | 27°34'00 | 29° 2' | 13°44' | 8°34' | 29°36' | 12°16' | 8° 6' | 19°33' | 21°34' | 19° 2' | 8°50' | 8° 2' | 0°13' | 7°58' | S 12 |
| M13 | 7 50 17 | 28°34'54 | 13°II17 | 15°15' | 9°45' | 0°23' | 12°17' | 8°14' | 19°37' | 21°33' | 19° 3' | 8°47' | 7°59' | 0°20' | 8° 3' | M13 |
| T 14 | 7 54 13 | 29°35'46 | 27° 4' | 16°43' | 10°56' | 1°11' | 12°19' | 8°21' | 19°40' | 21°32' | 19° 4' | 8°44' | 7°56' | 0°27' | 8° 7' | T 14 |
| W15 | 7 58 10 | 0°36'38 | 10°23' | 18° 8' | 12° 7' | 1°58' | 12°20' | 8°28' | 19°43' | 21°31' | 19° 5' | 8°42' | 7°52' | 0°33' | 8°12' | W15 |
| T 16 | 8 2 6 | 1°37'28 | 23°16' | 19°28' | 13°17' | 2°45' | 12°21' | 8°35' | 19°46' | 21°29' | 19° 6' | 8°41' | 7°49' | 0°40' | 8°16' | T 16 |
| F 17 | 8 6 3 | 2°38'18 | 5°II47 | 20°42' | 14°28' | 3°33' | 12°22' | 8°42' | 19°50' | 21°28' | 19° 7' | 8°D41 | 7°46' | 0°46' | 8°21' | F 17 |
| S 18 | 8 10 0 | 3°39'07 | 17°59' | 21°51' | 15°38' | 4°20' | 12°23' | 8°50' | 19°53' | 21°27' | 19° 8' | 8°41' | 7°43' | 0°53' | 8°25' | S 18 |
| S 19 | 8 13 56 | 4°39'55 | 29°58' | 22°53' | 16°48' | 5° 8' | 12°23' | 8°57' | 19°56' | 21°26' | 19°10' | 8°43' | 7°40' | 1° 0' | 8°30' | S 19 |
| M20 | 8 17 53 | 5°40'42 | 11°749 | 23°48' | 17°58' | 5°55' | 12°24' | 9° 4' | 20° 0' | 21°25' | 19°11' | 8°45' | 7°37' | 1° 6' | 8°34' | M20 |
| T 21 | 8 21 49 | 6°41'27 | 23°35' | 24°34' | 19° 8' | 6°42' | 12°R24 | 9°11' | 20° 3' | 21°24' | 19°12' | 8°47' | 7°33' | 1°13' | 8°39' | T 21 |
| W22 | 8 25 46 | 7°42'12 | 5°322 | 25°12' | 20°18' | 7°30' | 12°24' | 9°19' | 20° 7' | 21°23' | 19°13' | 8°R47 | 7°30' | 1°20' | 8°43' | W22 |
| T 23 | 8 29 42 | 8°42'55 | 17°12' | 25°40' | 21°27' | 8°17' | 12°24' | 9°26' | 20°10' | 21°22' | 19°14' | 8°47' | 7°27' | 1°26' | 8°48' | T 23 |
| F 24 | 8 33 39 | 9°43'37 | 29° 8' | 25°57' | 22°37' | 9° 5' | 12°23' | 9°33' | 20°13' | 21°20' | 19°15' | 8°45' | 7°24' | 1°33' | 8°53' | F 24 |
| S 25 | 8 37 36 | 10°44'17 | 11°13 | 26°R 5' | 23°46' | 9°52' | 12°23' | 9°40' | 20°17' | 21°20' | 19°17' | 8°42' | 7°21' | 1°40' | 8°57' | S 25 |
| S 26 | 8 41 32 | 11°44'56 | 23°28' | 26° 2' | 24°55' | 10°39' | 12°22' | 9°48' | 20°20' | 21°19' | 19°18' | 8°37' | 7°17' | 1°46' | 9° 2' | S 26 |
| M27 | 8 45 29 | 12°45'33 | 5°II54 | 25°48' | 26° 4' | 11°27' | 12°21' | 9°55' | 20°24' | 21°18' | 19°19' | 8°31' | 7°14' | 1°53' | 9° 6' | M27 |
| T 28 | 8 49 25 | 13°46'09 | 18°32' | 25°24' | 27°13' | 12°14' | 12°20' | 10° 2' | 20°27' | 21°17' | 19°20' | 8°24' | 7°11' | 2° 0' | 9°11' | T 28 |
| W29 | 8 53 22 | 14°46'42 | 1°V23 | 24°51' | 28°22' | 13° 2' | 12°18' | 10°10' | 20°31' | 21°16' | 19°22' | 8°18' | 7° 8' | 2° 6' | 9°15' | W29 |
| T 30 | 8 57 18 | 15°47'14 | 14°27' | 24° 9' | 29°30' | 13°49' | 12°17' | 10°17' | 20°34' | 21°15' | 19°23' | 8°13' | 7° 5' | 2°13' | 9°20' | T 30 |
| F 31 | 9 1 15 | 16°47'44 | 27°V45 | 23°19' | 0°V38 | 14°37' | 12°15' | 10°24' | 20°38' | 21°II14 | 19°24' | 8°10' | 7° 2' | 2°20' | 9°24' | F 31 |

Delta T = 18m49s Julian Calendar 1 Jan. 1080 == Greg. Calendar 7 Jan. 1080

FEBRUARY 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|----------|----------|--------|--------|--------|--------|--------|--------|----------|----------|--------|--------|---------|---------|------|
| S 1 | 9 5 11 | 17°48'13 | 11°18'19 | 22°R22 | 1°V46 | 15°24' | 12°R13 | 10°31' | 20°41' | 21°R13 | 19°25' | 8°R 8' | 6°35'8 | 2°33'26 | 9°29'29 | S 1 |
| S 2 | 9 9 8 | 18°48'39 | 25° 8' | 21°21' | 2°54' | 16°11' | 12°11' | 10°38' | 20°44' | 21°II13 | 19°27' | 8°D 8' | 6°55' | 2°33' | 9°33' | S 2 |
| M 3 | 9 13 4 | 19°49'03 | 9°II14 | 20°17' | 4° 2' | 16°59' | 12° 9' | 10°46' | 20°48' | 21°12' | 19°28' | 8°3 9' | 6°52' | 2°39' | 9°38' | M 3 |
| T 4 | 9 17 1 | 20°49'26 | 23°35' | 19°11' | 5° 9' | 17°46' | 12° 6' | 10°53' | 20°51' | 21°11' | 19°29' | 8°11' | 6°49' | 2°46' | 9°42' | T 4 |
| W 5 | 9 20 58 | 21°49'46 | 8°3 9' | 18° 5' | 6°17' | 18°33' | 12° 4' | 11° 0' | 20°55' | 21°10' | 19°31' | 8°R11' | 6°46' | 2°53' | 9°47' | W 5 |
| T 6 | 9 24 54 | 22°50'05 | 22°53' | 17° 1' | 7°24' | 19°21' | 12° 1' | 11° 7' | 20°58' | 21°10' | 19°32' | 8°10' | 6°43' | 2°59' | 9°51' | T 6 |
| F 7 | 9 28 51 | 23°50'21 | 7°Q40 | 16° 0' | 8°31' | 20° 8' | 11°58' | 11°14' | 21° 2' | 21° 9' | 19°34' | 8° 7' | 6°39' | 3° 6' | 9°56' | F 7 |
| S 8 | 9 32 47 | 24°50'35 | 22°23' | 15° 4' | 9°37' | 20°55' | 11°55' | 11°22' | 21° 5' | 21° 9' | 19°35' | 8° 2' | 6°36' | 3°13' | 10° 0' | S 8 |
| S 9 | 9 36 44 | 25°50'48 | 6°II54 | 14°12' | 10°43' | 21°43' | 11°51' | 11°29' | 21° 9' | 21° 8' | 19°36' | 7°55' | 6°33' | 3°19' | 10° 4' | S 9 |
| M10 | 9 40 40 | 26°50'59 | 21° 7' | 13°27' | 11°50' | 22°30' | 11°48' | 11°36' | 21°12' | 21° 8' | 19°38' | 7°47' | 6°30' | 3°26' | 10° 9' | M10 |
| T 11 | 9 44 37 | 27°51'08 | 4°3 9' | 12°48' | 12°55' | 23°17' | 11°44' | 11°43' | 21°16' | 21° 7' | 19°39' | 7°39' | 6°27' | 3°33' | 10°13' | T 11 |
| W12 | 9 48 33 | 28°51'15 | 18°21' | 12°16' | 14° 1' | 24° 5' | 11°40' | 11°50' | 21°19' | 21° 7' | 19°40' | 7°31' | 6°23' | 3°39' | 10°18' | W12 |
| T 13 | 9 52 30 | 29°51'21 | 1°II20 | 11°51' | 15° 6' | 24°52' | 11°36' | 11°57' | 21°22' | 21° 6' | 19°42' | 7°25' | 6°20' | 3°46' | 10°22' | T 13 |
| F 14 | 9 56 27 | 0°35'25 | 13°55' | 11°33' | 16°11' | 25°39' | 11°32' | 12° 4' | 21°26' | 21° 6' | 19°43' | 7°21' | 6°17' | 3°53' | 10°26' | F 14 |
| S 15 | 10 0 23 | 1°51'27 | 26°10' | 11°21' | 17°16' | 26°26' | 11°28' | 12°11' | 21°29' | 21° 6' | 19°45' | 7°20' | 6°14' | 3°59' | 10°30' | S 15 |
| S 16 | 10 4 20 | 2°51'28 | 8°711 | 11°D17 | 18°21' | 27°14' | 11°23' | 12°18' | 21°33' | 21° 5' | 19°46' | 7°D20 | 6°11' | 4° 6' | 10°35' | S 16 |
| M17 | 10 8 16 | 3°51'28 | 20° 2' | 11°18' | 19°25' | 28° 1' | 11°18' | 12°25' | 21°36' | 21° 5' | 19°48' | 7°21' | 6° 8' | 4°12' | 10°39' | M17 |
| T 18 | 10 12 13 | 4°51'25 | 1°3 9' | 11°26' | 20°29' | 28°48' | 11°14' | 12°32' | 21°39' | 21° 5' | 19°49' | 7°R21 | 6° 4' | 4°19' | 10°43' | T 18 |
| W19 | 10 16 9 | 5°51'21 | 13°37' | 11°40' | 21°32' | 29°35' | 11° 9' | 12°39' | 21°43' | 21° 4' | 19°51' | 7°21' | 6° 1' | 4°26' | 10°47' | W19 |
| T 20 | 10 20 6 | 6°51'15 | 25°30' | 11°59' | 22°36' | 0°II22 | 11° 3' | 12°46' | 21°46' | 21° 4' | 19°52' | 7°20' | 5°58' | 4°32' | 10°52' | T 20 |
| F 21 | 10 24 2 | 7°51'07 | 7°33 | 12°23' | 23°39' | 1°10' | 10°58' | 12°52' | 21°50' | 21° 4' | 19°53' | 7°15' | 5°55' | 4°39' | 10°56' | F 21 |
| S 22 | 10 27 59 | 8°50'57 | 19°49' | 12°52' | 24°41' | 1°57' | 10°53' | 12°59' | 21°53' | 21° 4' | 19°55' | 7° 8' | 5°52' | 4°46' | 11° 0' | S 22 |
| S 23 | 10 31 56 | 9°50'45 | 2°II18 | 13°26' | 25°44' | 2°44' | 10°47' | 13° 6' | 21°56' | 21° 4' | 19°56' | 6°59' | 5°48' | 4°52' | 11° 4' | S 23 |
| M24 | 10 35 52 | 10°50'32 | 15° 3' | 14° 4' | 26°46' | 3°31' | 10°41' | 13°13' | 22° 0' | 21° 4' | 19°58' | 6°48' | 5°45' | 4°59' | 11° 8' | M24 |
| T 25 | 10 39 49 | 11°50'16 | 28° 2' | 14°45' | 27°47' | 4°18' | 10°35' | 13°19' | 22° 3' | 21°D 4' | 19°59' | 6°36' | 5°42' | 5° 6' | 11°12' | T 25 |
| W26 | 10 43 45 | 12°49'58 | 11°V15 | 15°31' | 28°49' | 5° 5' | 10°29' | 13°26' | 22° 6' | 21° 4' | 20° 1' | 6°25' | 5°39' | 5°12' | 11°16' | W26 |
| T 27 | 10 47 42 | 13°49'38 | 24°40' | 16°20' | 29°49' | 5°52' | 10°23' | 13°33' | 22°10' | 21° 4' | 20° 2' | 6°15' | 5°36' | 5°19' | 11°20' | T 27 |
| F 28 | 10 51 38 | 14°49'16 | 8°315 | 17°12' | 0°350 | 6°39' | 10°17' | 13°39' | 22°13' | 21° 4' | 20° 4' | 6° 8' | 5°33' | 5°26' | 11°24' | F 28 |
| S 29 | 10 55 35 | 15°48'51 | 21°359 | 18° 7' | 1°350 | 7°26' | 10°11' | 13°46' | 22°16' | 21°II 4' | 20°II 5' | 6° 3' | 5°29' | 5°32' | 11°28' | S 29 |

Delta T = 18m49s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1080
geocentric

MARCH 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|-----------|----------|-----------|----------|---------|-----------|-----------|----------|---------|---------|---------|---------|-----------|------|-----|
| S 1 | 10 59 31 | 16°48'24 | 5°11'52 | 19°55' 5 | 2°49' 28 | 8°13' 8 | 10°R 4 | 13°52' 13 | 22°19' 22 | 21°11' 4 | 20°7' 7 | 6°R 1 | 5°26' 5 | 5°39' 5 | 11°32' 11 | S 1 | |
| M 2 | 11 3 28 | 17°47'55 | 19°52' 20 | 20° 6 | 3°49' 3 | 9° 0 | 9°58' 9 | 13°59' 13 | 22°22' 21 | 21° 5 | 20° 8 | 6°D 0 | 5°23' 5 | 5°45' 5 | 11°36' 11 | M 2 | |
| T 3 | 11 7 25 | 18°47'23 | 4°50' 0 | 21°10 | 4°47' 9 | 9°47' 9 | 9°51' 9 | 14° 5 | 22°26' 21 | 21° 5 | 20°10 | 6°R 1 | 5°20' 5 | 5°52' 5 | 11°40' 11 | T 3 | |
| W 4 | 11 11 21 | 19°46'49 | 18°14' 22 | 22°16 | 5°45' 5 | 10°34' 9 | 9°44' 9 | 14°12' 14 | 22°29' 21 | 21° 5 | 20°11 | 6°R 0 | 5°17' 5 | 5°59' 5 | 11°44' 11 | W 4 | |
| T 5 | 11 15 18 | 20°46'13 | 2°02'33 | 23°24 | 6°43' 6 | 11°20' 9 | 9°37' 9 | 14°18' 14 | 22°32' 21 | 21° 5 | 20°13 | 5°58' 5 | 5°14' 5 | 6° 5 | 11°47' 11 | T 5 | |
| F 6 | 11 19 14 | 21°45'34 | 16°53' 24 | 24°34 | 7°40' 7 | 12° 7 | 9°31' 9 | 14°24' 14 | 22°35' 21 | 21° 6 | 20°14 | 5°53' 5 | 5°10' 5 | 6°12' 6 | 11°51' 11 | F 6 | |
| S 7 | 11 23 11 | 22°44'53 | 1°10'10 | 25°47 | 8°37' 8 | 12°54' 9 | 9°23' 9 | 14°30' 14 | 22°38' 21 | 21° 6 | 20°16 | 5°45' 5 | 5° 7 | 6°19' 6 | 11°55' 11 | S 7 | |
| S 8 | 11 27 7 | 23°44'10 | 15°20' 27 | 27° 2 | 9°33' 9 | 13°41' 9 | 9°16' 9 | 14°37' 14 | 22°41' 21 | 21° 6 | 20°17 | 5°35' 5 | 5° 4 | 6°25' 6 | 11°58' 11 | S 8 | |
| M 9 | 11 31 4 | 24°43'24 | 29°17' 28 | 28°18 | 10°29' 10 | 14°27' 9 | 9° 9 | 14°43' 14 | 22°44' 21 | 21° 7 | 20°19 | 5°23' 5 | 5° 1 | 6°32' 6 | 12° 2 | M 9 | |
| T 10 | 11 35 0 | 25°42'37 | 12°56' 29 | 29°37 | 11°24' 11 | 15°14' 9 | 9° 2 | 14°49' 14 | 22°47' 21 | 21° 7 | 20°20 | 5°11' 5 | 4°58' 4 | 6°39' 6 | 12° 6 | T 10 | |
| W 11 | 11 38 57 | 26°41'47 | 26°14' 0 | 30°57 | 12°18' 12 | 16° 1 | 8°55' 8 | 14°55' 14 | 22°50' 21 | 21° 8 | 20°22 | 4°59' 4 | 4°54' 4 | 6°45' 6 | 12° 9 | W 11 | |
| T 12 | 11 42 53 | 27°40'56 | 9°11'10 | 2°19 | 13°12' 13 | 16°47' 8 | 8°47' 8 | 15° 1 | 22°53' 21 | 21° 8 | 20°23 | 4°50' 4 | 4°51' 4 | 6°52' 6 | 12°13' 12 | T 12 | |
| F 13 | 11 46 50 | 28°40'02 | 21°45' 3 | 3°43 | 14° 5 | 17°34' 8 | 8°40' 8 | 15° 7 | 22°56' 21 | 21° 9 | 20°25 | 4°43' 4 | 4°48' 4 | 6°59' 6 | 12°16' 12 | F 13 | |
| S 14 | 11 50 47 | 29°39'07 | 4°1' 5 | 5° 8 | 14°57' 14 | 18°20' 8 | 8°32' 8 | 15°13' 15 | 22°59' 21 | 21°10 | 20°26 | 4°38' 4 | 4°45' 4 | 7° 5 | 12°19' 12 | S 14 | |
| S 15 | 11 54 43 | 0°Y38'10 | 16° 3 | 6°35 | 15°49' 15 | 19° 7 | 8°25' 8 | 15°19' 15 | 23° 2 | 21°10 | 20°28 | 4°36' 4 | 4°42' 4 | 7°12' 7 | 12°23' 12 | S 15 | |
| M 16 | 11 58 40 | 1°37'11 | 27°55' 8 | 8° 4 | 16°40' 16 | 19°53' 8 | 8°17' 8 | 15°24' 15 | 23° 5 | 21°11 | 20°29 | 4°36' 4 | 4°39' 4 | 7°19' 7 | 12°26' 12 | M 16 | |
| T 17 | 12 2 36 | 2°36'11 | 9°34'3 | 9°34 | 17°30' 20 | 20°40' 8 | 8°10' 8 | 15°30' 15 | 23° 8 | 21°12 | 20°31 | 4°36' 4 | 4°35' 4 | 7°25' 7 | 12°29' 12 | T 17 | |
| W 18 | 12 6 33 | 3°35'08 | 21°33' 11 | 6 | 18°20' 18 | 21°26' 8 | 8° 2 | 15°36' 15 | 23°11' 21 | 21°12 | 20°32 | 4°35' 4 | 4°32' 4 | 7°32' 7 | 12°33' 12 | W 18 | |
| T 19 | 12 10 29 | 4°34'04 | 3°38'29 | 12°40 | 19° 8 | 22°13' 7 | 7°54' 7 | 15°41' 15 | 23°14' 21 | 21°13 | 20°34 | 4°33' 4 | 4°29' 4 | 7°38' 7 | 12°36' 12 | T 19 | |
| F 20 | 12 14 26 | 5°32'58 | 15°36' 14 | 15 | 19°56' 20 | 22°59' 7 | 7°47' 7 | 15°47' 15 | 23°16' 21 | 21°14 | 20°35 | 4°28' 4 | 4°26' 4 | 7°45' 7 | 12°39' 12 | F 20 | |
| S 21 | 12 18 22 | 6°31'50 | 27°59' 15 | 51 | 20°43' 23 | 23°45' 7 | 7°39' 7 | 15°52' 15 | 23°19' 21 | 21°15 | 20°37 | 4°21' 4 | 4°23' 4 | 7°52' 7 | 12°42' 12 | S 21 | |
| S 22 | 12 22 19 | 7°30'40 | 10°41'17 | 30 | 21°30' 24 | 24°32' 7 | 7°31' 7 | 15°58' 15 | 23°22' 21 | 21°15 | 20°38 | 4°11' 4 | 4°20' 4 | 7°58' 7 | 12°45' 12 | S 22 | |
| M 23 | 12 26 16 | 8°29'28 | 23°42' 19 | 9 | 22°15' 25 | 25°18' 7 | 7°23' 7 | 16° 3 | 23°25' 21 | 21°16 | 20°39 | 3°59' 3 | 4°16' 3 | 8° 5 | 12°48' 12 | M 23 | |
| T 24 | 12 30 12 | 9°28'15 | 7°Y 1 | 20°51 | 22°59' 26 | 26° 4 | 7°16' 7 | 16° 9 | 23°27' 21 | 21°17 | 20°41 | 3°46' 3 | 4°13' 3 | 8°12' 8 | 12°51' 12 | T 24 | |
| W 25 | 12 34 9 | 10°26'59 | 20°38' 22 | 33 | 23°43' 26 | 26°50' 7 | 7° 8 | 16°14' 16 | 23°30' 21 | 21°18 | 20°42 | 3°33' 3 | 4°10' 3 | 8°18' 8 | 12°54' 12 | W 25 | |
| T 26 | 12 38 5 | 11°25'41 | 4°B 28 | 24°18 | 24°25' 27 | 27°36' 7 | 7° 0 | 16°19' 16 | 23°33' 21 | 21°19 | 20°44 | 3°23' 3 | 4° 7 | 8°25' 8 | 12°57' 12 | T 26 | |
| F 27 | 12 42 2 | 12°24'21 | 18°28' 26 | 4 | 25° 6 | 28°22' 6 | 6°53' 6 | 16°24' 16 | 23°35' 21 | 21°20 | 20°45 | 3°14' 3 | 4° 4 | 8°32' 8 | 13° 0 | F 27 | |
| S 28 | 12 45 58 | 13°22'59 | 2°II 34 | 27°51 | 25°46' 29 | 29° 8 | 6°45' 6 | 16°29' 16 | 23°38' 21 | 21°21 | 20°47 | 3° 9 | 4° 0 | 8°38' 8 | 13° 3 | S 28 | |
| S 29 | 12 49 55 | 14°21'35 | 16°42' 29 | 40 | 26°25' 29 | 29°54' 6 | 6°38' 6 | 16°34' 16 | 23°40' 21 | 21°22 | 20°48 | 3° 6 | 3°57' 3 | 8°45' 8 | 13° 5 | S 29 | |
| M 30 | 12 53 51 | 15°20'09 | 0°E 51 | 1°Y 31 | 27° 3 | 0°Y 40 | 6°30' 6 | 16°39' 16 | 23°43' 21 | 21°23 | 20°49 | 3°D 5 | 3°54' 3 | 8°52' 8 | 13° 8 | M 30 | |
| T 31 | 12 57 48 | 16°Y18'40 | 14°E 58 | 3°Y 24 | 27°40' 27 | 1°Y 26 | 6°22' 6 | 16°44' 16 | 23°45' 21 | 21°25 | 20°51 | 3°R 5 | 3°51' 3 | 8°58' 8 | 13°11' 13 | T 31 | |

Delta T = 18m49s Julian Calendar 1 March 1080 == Greg. Calendar 7 March 1080

APRIL 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|-----------|-------|-----------|-----------|---------|-----------|-----------|-------|-------|-----------|---------|-----------|-----------|------|-----|
| W 1 | 13 1 45 | 17°Y17'09 | 29°E 3 | 5°Y17 | 28°B 15 | 2°Y12 | 6°R15 | 16°49' 16 | 23°47' 23 | 21°11 | 20°52 | 3°R 5 | 3°38' 3 | 9°3' 5 | 13°13' 13 | W 1 | |
| T 2 | 13 5 41 | 18°15'36 | 13°0' 6 | 7°13 | 28°49' 28 | 2°58' 2 | 6° 8 | 16°53' 16 | 23°50' 21 | 21°27 | 20°54 | 3°3' 3 | 3°45' 3 | 9°11' 9 | 13°16' 13 | T 2 | |
| F 3 | 13 9 38 | 19°14'01 | 27° 3 | 9°10 | 29°21' 29 | 3°44' 3 | 6° 0 | 16°58' 16 | 23°52' 21 | 21°28 | 20°55 | 2°58' 2 | 3°41' 3 | 9°18' 9 | 13°18' 13 | F 3 | |
| S 4 | 13 13 34 | 20°12'23 | 10°11'55 | 11° 9 | 29°52' 30 | 4°29' 4 | 5°53' 5 | 17° 2 | 23°54' 21 | 21°29 | 20°56 | 2°51' 2 | 3°38' 3 | 9°25' 9 | 13°20' 13 | S 4 | |
| S 5 | 13 17 31 | 21°10'43 | 24°39' 13 | 9 | 0°II 22 | 5°15' 5 | 5°46' 5 | 17° 7 | 23°57' 21 | 21°31 | 20°58 | 2°42' 2 | 3°35' 3 | 9°31' 9 | 13°23' 13 | S 5 | |
| M 6 | 13 21 27 | 22° 9'01 | 8°11'10 | 15°11 | 0°50' 0 | 6° 1 | 5°39' 5 | 17°11' 17 | 23°59' 21 | 21°32 | 20°59 | 2°31' 2 | 3°32' 3 | 9°38' 9 | 13°25' 13 | M 6 | |
| T 7 | 13 25 24 | 23° 7'18 | 21°28' 17 | 14 | 1°16' 1 | 6°46' 6 | 5°31' 5 | 17°16' 17 | 24° 1 | 21°33 | 21° 0 | 2°19' 2 | 3°29' 3 | 9°45' 9 | 13°27' 13 | T 7 | |
| W 8 | 13 29 20 | 24° 5'32 | 4°11'30 | 19°18 | 1°41' 1 | 7°32' 7 | 5°24' 5 | 17°20' 17 | 24° 3 | 21°35 | 21° 1 | 2° 8 | 3°25' 3 | 9°51' 9 | 13°29' 13 | W 8 | |
| T 9 | 13 33 17 | 25° 3'45 | 17°14' 21 | 24 | 2° 4 | 8°17' 8 | 5°18' 5 | 17°24' 17 | 24° 5 | 21°36 | 21° 3 | 1°59' 1 | 3°22' 3 | 9°58' 9 | 13°32' 13 | T 9 | |
| F 10 | 13 37 14 | 26° 1'56 | 29°42' 23 | 31 | 2°25' 2 | 9° 3 | 5°11' 5 | 17°28' 17 | 24° 7 | 21°37 | 21° 4 | 1°52' 1 | 3°19' 3 | 10° 5 | 13°34' 13 | F 10 | |
| S 11 | 13 41 10 | 27° 0'06 | 11°17'54 | 25°39 | 2°44' 2 | 9°48' 9 | 5° 4 | 17°32' 17 | 24° 9 | 21°39 | 21° 5 | 1°48' 1 | 3°16' 3 | 10°11' 10 | 13°36' 13 | S 11 | |
| S 12 | 13 45 7 | 27°58'14 | 23°55' 27 | 48 | 3° 1 | 10°33' 10 | 4°57' 4 | 17°36' 17 | 24°11' 21 | 21°40 | 21° 7 | 1°46' 1 | 3°13' 3 | 10°18' 10 | 13°38' 13 | S 12 | |
| M 13 | 13 49 3 | 28°56'20 | 5°34'47 | 29 | 3°17' 11 | 11°19' 10 | 4°51' 4 | 17°40' 17 | 24°13' 21 | 21°42 | 21° 8 | 1°D46 | 3°10' 3 | 10°25' 10 | 13°39' 13 | M 13 | |
| T 14 | 13 53 0 | 29°54'25 | 17°35' 27 | 3 | 3°30' 3 | 12° 4 | 4°44' 4 | 17°44' 17 | 24°15' 21 | 21°43 | 21° 9 | 1°46' 1 | 3° 6 | 10°31' 10 | 13°41' 13 | T 14 | |
| W 15 | 13 56 56 | 0°B 52'29 | 29°25' 4 | 17 | 3°41' 12 | 12°49' 4 | 4°38' 4 | 17°47' 17 | 24°17' 21 | 21°45 | 21°10 | 1°R47 | 3° 3 | 10°38' 10 | 13°43' 13 | W 15 | |
| T 16 | 14 0 53 | 1°50'31 | 11°11'32 | 6 | 26' 3 | 13°34' 13 | 4°32' 4 | 17°51' 17 | 24°19' 21 | 21°46 | 21°11 | 1°46' 1 | 3° 0 | 10°45' 10 | 13°45' 13 | T 16 | |
| F 17 | 14 4 49 | 2°48'31 | 23°31' 8 | 36 | 3°57' 14 | 14°19' 4 | 4°26' 4 | 17°54' 17 | 24°20' 21 | 21°48 | 21°13 | 1°44' 1 | 2°57' 2 | 10°51' 10 | 13°46' 13 | F 17 | |
| S 18 | 14 8 46 | 3°46'30 | 5°K 57 | 10 | 4° 2 | 15° 4 | 4°20' 4 | 17°58' 17 | 24°22' 21 | 21°50 | 21°14 | 1°40' 1 | 2°54' 2 | 10°58' 10 | 13°48' 13 | S 18 | |
| S 19 | 14 12 43 | 4°44'28 | 18°44' 12 | 52 | 4° 4 | 15°49' 15 | 4°14' 4 | 18° 1 | 24°24' 21 | 21°51 | 21°15 | 1°33' 1 | 2°51' 2 | 11° 4 | 13°49' 13 | S 19 | |
| M 20 | 14 16 39 | 5°42'24 | 1°Y 53 | 14 | 4°R 4 | 16°34' 16 | 4° 8 | 18° 4 | 24°25' 21 | 21°53 | 21°16 | 1°25' 1 | 2°47' 2 | 11°11' 10 | 13°51' 13 | M 20 | |
| T 21 | 14 20 36 | 6°40'19 | 15°26' 17 | 3 | 4° 2 | 17°19' 17 | 4° 3 | 18° 8 | 24°27' 21 | 21°55 | 21°17 | 1°16' 1 | 2°44' 2 | 11°18' 10 | 13°52' 13 | T 21 | |
| W 22 | 14 24 32 | 7°38'13 | 29°21' 19 | 6 | 3°57' 18 | 18° 4 | 3°57' 3 | 18°11' 18 | 24°28' 21 | 21°56 | 21°18 | 1° 7 | 2°41' 2 | 11°24' 10 | 13°54' 13 | W 22 | |
| T 23 | 14 28 29 | 8°36'05 | 13°B 33 | 21 | 7 | 3°50' 18 | 3°52' 3 | 18°14' 18 | 24°30' 21 | 21°58 | 21°19 | 0°59' 0 | 2°38' 2 | 11°31' 10 | 13°55' 13 | T 23 | |
| F 24 | 14 32 25 | 9°33'55 | 27°58' 23 | 6 | 3°40' 19 | 19°34' 19 | 3°47' 3 | 18°17' 18 | 24°31' 21 | 22° 0 | 21°20 | 0°53' 0 | 2°35' 2 | 11°38' 10 | 13°56' 13 | F 24 | |
| S 25 | 14 36 22 | 10°31'44 | 12°II 29 | 25 | 2° 2 | 3°28' 20 | 3°42' 3 | 18°19' 18 | 24°33' 21 | 22° 1 | 21°22 | 0°50' 0 | 2°31' 2 | 11°44' 10 | 13°57' 13 | S 25 | |
| S 26 | 14 40 18 | 11°29'32 | 27° 1 | 26 | 56' 3 | 14' 21 | 3°37' 3 | 18°22' 18 | 24°34' 21 | 22° 3 | 21°23 | 0°D49 | 2°28' 2 | 11°51' 10 | 13°58' 13 | S 26 | |
| M 27 | 14 44 15 | 12°27'18 | 11°E 29 | 28 | 47' 2 | 57' 21 | 3°32' 3 | 18°25' 18 | 24°35' 21 | 22° 5 | 21°24 | 0°49' 0 | 2°25' 2 | 11°58' 10 | 13°59' 13 | M 27 | |
| T 28 | 14 48 12 | 13°25'02 | 25°48' 0 | II 35 | 2°38' 2 | 23°32' 3 | 3°28' 3 | 18°27' 18 | 24°37' 21 | 22° 7 | 21°25 | 0°50' 0</ | | | | | |

ASTRODIENST EPHEMERIS for the year 1080
geocentric

MAY 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|-------|-------|--------|------|-------|--------|------|-----|---|---|---|---|---|---|-----|
| F 1 | 15 0 1 | 16♁18'03 | 7♎41 | 5♈41 | 1°R27 | 24♋45 | 3°R15 | 18♁34 | 24♁40 | 22♈12 | 21♋28 | 0°R49 | 2♁12 | 12♁24 | 14♁3 | 3 | F 1 | | | | | | | |
| S 2 | 15 3 58 | 17°15'41 | 21°14 | 7°16 | 0♈59 | 25°30 | 3♁11 | 18°36 | 24°41 | 22°14 | 21°28 | 0♁45 | 2° 9 | 12°31 | 14° 4 | S 2 | | | | | | | | |
| S 3 | 15 7 54 | 18°13'16 | 4♁35 | 8°49 | 0°30 | 26°14 | 3° 7 | 18°39 | 24°42 | 22°16 | 21°29 | 0°39 | 2° 6 | 12°38 | 14° 4 | S 3 | | | | | | | | |
| M 4 | 15 11 51 | 19°10'51 | 17°43 | 10°18 | 29♁58 | 26°58 | 3° 4 | 18°40 | 24°43 | 22°18 | 21°30 | 0°33 | 2° 3 | 12°44 | 14° 5 | M 4 | | | | | | | | |
| T 5 | 15 15 47 | 20° 8'23 | 0♈38 | 11°44 | 29°25 | 27°42 | 3° 1 | 18°42 | 24°44 | 22°20 | 21°31 | 0°26 | 2° 0 | 12°51 | 14° 5 | T 5 | | | | | | | | |
| W 6 | 15 19 44 | 21° 5'55 | 13°19 | 13° 6 | 28°51 | 28°26 | 2°57 | 18°44 | 24°45 | 22°22 | 21°32 | 0°19 | 1°57 | 12°57 | 14° 6 | W 6 | | | | | | | | |
| T 7 | 15 23 41 | 22° 3'25 | 25°47 | 14°25 | 28°15 | 29°10 | 2°54 | 18°46 | 24°46 | 22°24 | 21°33 | 0°14 | 1°53 | 13° 4 | 14° 6 | T 7 | | | | | | | | |
| F 8 | 15 27 37 | 23° 0'55 | 8♁3 | 15°41 | 27°39 | 29°54 | 2°51 | 18°47 | 24°47 | 22°26 | 21°34 | 0°10 | 1°50 | 13°11 | 14° 7 | F 8 | | | | | | | | |
| S 9 | 15 31 34 | 23°58'23 | 20° 7 | 16°53 | 27° 2 | 0♁38 | 2°49 | 18°49 | 24°48 | 22°28 | 21°35 | 0° 8 | 1°47 | 13°17 | 14° 7 | S 9 | | | | | | | | |
| S 10 | 15 35 30 | 24°55'51 | 2♁3 | 18° 1 | 26°24 | 1°22 | 2°46 | 18°50 | 24°48 | 22°30 | 21°35 | 0°D 7 | 1°44 | 13°24 | 14° 7 | S 10 | | | | | | | | |
| M 11 | 15 39 27 | 25°53'17 | 13°53 | 19° 6 | 25°46 | 2° 6 | 2°44 | 18°52 | 24°49 | 22°32 | 21°36 | 0° 8 | 1°41 | 13°31 | 14° 7 | M 11 | | | | | | | | |
| T 12 | 15 43 23 | 26°50'43 | 25°41 | 20° 8 | 25° 9 | 2°50 | 2°41 | 18°53 | 24°49 | 22°34 | 21°37 | 0°10 | 1°37 | 13°37 | 14° 7 | T 12 | | | | | | | | |
| W 13 | 15 47 20 | 27°48'07 | 7♁31 | 21° 5 | 24°31 | 3°33 | 2°39 | 18°54 | 24°50 | 22°36 | 21°38 | 0°11 | 1°34 | 13°44 | 14°R 7 | W 13 | | | | | | | | |
| T 14 | 15 51 16 | 28°45'31 | 19°28 | 21°59 | 23°54 | 4°17 | 2°38 | 18°55 | 24°51 | 22°38 | 21°38 | 0°13 | 1°31 | 13°51 | 14° 7 | T 14 | | | | | | | | |
| F 15 | 15 55 13 | 29°42'55 | 1♁37 | 22°49 | 23°18 | 5° 1 | 2°36 | 18°56 | 24°51 | 22°40 | 21°39 | 0°R13 | 1°28 | 13°57 | 14° 7 | F 15 | | | | | | | | |
| S 16 | 15 59 10 | 0♈40'17 | 14° 2 | 23°35 | 22°43 | 5°44 | 2°34 | 18°57 | 24°51 | 22°42 | 21°40 | 0°12 | 1°25 | 14° 4 | 14° 7 | S 16 | | | | | | | | |
| S 17 | 16 3 6 | 1°37'39 | 26°49 | 24°17 | 22° 9 | 6°28 | 2°33 | 18°57 | 24°52 | 22°44 | 21°40 | 0°10 | 1°22 | 14°11 | 14° 7 | S 17 | | | | | | | | |
| M 18 | 16 7 3 | 2°35'01 | 9♋59 | 24°54 | 21°36 | 7°11 | 2°32 | 18°58 | 24°52 | 22°47 | 21°41 | 0° 7 | 1°18 | 14°17 | 14° 6 | M 18 | | | | | | | | |
| T 19 | 16 10 59 | 3°32'21 | 23°35 | 25°28 | 21° 5 | 7°54 | 2°31 | 18°59 | 24°52 | 22°49 | 21°42 | 0° 3 | 1°15 | 14°24 | 14° 6 | T 19 | | | | | | | | |
| W 20 | 16 14 56 | 4°29'42 | 7♁37 | 25°57 | 20°36 | 8°38 | 2°30 | 18°59 | 24°53 | 22°51 | 21°42 | 29♁59 | 1°12 | 14°31 | 14° 5 | W 20 | | | | | | | | |
| T 21 | 16 18 52 | 5°27'01 | 2♁2 | 26°22 | 20° 8 | 9°21 | 2°30 | 18°59 | 24°53 | 22°53 | 21°43 | 29°56 | 1° 9 | 14°37 | 14° 5 | T 21 | | | | | | | | |
| F 22 | 16 22 49 | 6°24'20 | 6♈43 | 26°42 | 19°43 | 10° 4 | 2°29 | 19° 0 | 24°53 | 22°55 | 21°43 | 29°54 | 1° 6 | 14°44 | 14° 4 | F 22 | | | | | | | | |
| S 23 | 16 26 45 | 7°21'39 | 21°35 | 26°58 | 19°19 | 10°47 | 2°29 | 19° 0 | 24°53 | 22°57 | 21°44 | 29°53 | 1° 2 | 14°50 | 14° 4 | S 23 | | | | | | | | |
| S 24 | 16 30 42 | 8°18'56 | 6♁30 | 27° 9 | 18°58 | 11°30 | 2°D29 | 19°R 0 | 24°R53 | 22°59 | 21°44 | 29°D53 | 0°59 | 14°57 | 14° 3 | S 24 | | | | | | | | |
| M 25 | 16 34 39 | 9°16'13 | 21°20 | 27°16 | 18°39 | 12°13 | 2°29 | 19° 0 | 24°53 | 23° 2 | 21°45 | 29°54 | 0°56 | 15° 4 | 14° 2 | M 25 | | | | | | | | |
| T 26 | 16 38 35 | 10°13'29 | 5♁59 | 27°R18 | 18°23 | 12°56 | 2°30 | 18°59 | 24°53 | 23° 4 | 21°45 | 29°55 | 0°53 | 15°10 | 14° 1 | T 26 | | | | | | | | |
| W 27 | 16 42 32 | 11°10'44 | 20°21 | 27°16 | 18° 8 | 13°39 | 2°30 | 18°59 | 24°53 | 23° 6 | 21°46 | 29°56 | 0°50 | 15°17 | 14° 1 | W 27 | | | | | | | | |
| T 28 | 16 46 28 | 12° 7'59 | 4♎25 | 27° 9 | 17°57 | 14°22 | 2°31 | 18°59 | 24°52 | 23° 8 | 21°46 | 29°57 | 0°47 | 15°24 | 14° 0 | T 28 | | | | | | | | |
| F 29 | 16 50 25 | 13° 5'12 | 18° 9 | 26°58 | 17°47 | 15° 5 | 2°32 | 18°58 | 24°52 | 23°10 | 21°47 | 29°R57 | 0°43 | 15°30 | 13°59 | F 29 | | | | | | | | |
| S 30 | 16 54 21 | 14° 2'24 | 1♁35 | 26°43 | 17°40 | 15°48 | 2°33 | 18°58 | 24°52 | 23°13 | 21°47 | 29°56 | 0°40 | 15°37 | 13°58 | S 30 | | | | | | | | |
| S 31 | 16 58 18 | 14♈59'36 | 14♁42 | 26♈24 | 17♁35 | 16♁30 | 2♁34 | 18♁57 | 24♁52 | 23♈15 | 21♋47 | 29♁55 | 0♁37 | 15♁44 | 13♁56 | S 31 | | | | | | | | |

Delta T = 18m48s Julian Calendar 1 May 1080 == Greg. Calendar 7 May 1080

JUNE 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|--------|-------|------|--------|--------|---------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 17 2 14 | 15♈56'47 | 27♁32 | 26°R 1 | 17°R33 | 17♁13 | 2♁35 | 18°R56 | 24°R51 | 23♈17 | 21♋48 | 29°R53 | 0♁34 | 15♁50 | 13°R55 | M 1 | | | | | | | | |
| T 2 | 17 6 11 | 16°53'58 | 10♈8 | 25♈35 | 17°D33 | 17°55 | 2°37 | 18°55 | 24°51 | 23°19 | 21°48 | 29♁51 | 0°31 | 15°57 | 13°R54 | T 2 | | | | | | | | |
| W 3 | 17 10 8 | 17°51'08 | 22°32 | 25° 6 | 17♁35 | 18°38 | 2°39 | 18°54 | 24°50 | 23°21 | 21°48 | 29°50 | 0°28 | 16° 4 | 13°53 | W 3 | | | | | | | | |
| T 4 | 17 14 4 | 18°48'18 | 4♁44 | 24°34 | 17°39 | 19°20 | 2°40 | 18°53 | 24°50 | 23°24 | 21°49 | 29°48 | 0°24 | 16°10 | 13°51 | T 4 | | | | | | | | |
| F 5 | 17 18 1 | 19°45'27 | 16°47 | 24° 1 | 17°46 | 20° 3 | 2°43 | 18°52 | 24°49 | 23°26 | 21°49 | 29°47 | 0°21 | 16°17 | 13°50 | F 5 | | | | | | | | |
| S 6 | 17 21 57 | 20°42'37 | 28°43 | 23°27 | 17°55 | 20°45 | 2°45 | 18°51 | 24°49 | 23°28 | 21°49 | 29°D47 | 0°18 | 16°24 | 13°49 | S 6 | | | | | | | | |
| S 7 | 17 25 54 | 21°39'46 | 10♁34 | 22°51 | 18° 6 | 21°27 | 2°47 | 18°50 | 24°48 | 23°30 | 21°49 | 29°47 | 0°15 | 16°30 | 13°47 | S 7 | | | | | | | | |
| M 8 | 17 29 50 | 22°36'54 | 22°22 | 22°16 | 18°19 | 22° 9 | 2°50 | 18°48 | 24°47 | 23°33 | 21°49 | 29°48 | 0°12 | 16°37 | 13°45 | M 8 | | | | | | | | |
| T 9 | 17 33 47 | 23°34'03 | 4♁11 | 21°40 | 18°34 | 22°51 | 2°53 | 18°47 | 24°47 | 23°35 | 21°50 | 29°48 | 0° 8 | 16°44 | 13°44 | T 9 | | | | | | | | |
| W 10 | 17 37 43 | 24°31'12 | 16° 2 | 21° 6 | 18°51 | 23°33 | 2°56 | 18°45 | 24°46 | 23°37 | 21°50 | 29°49 | 0° 5 | 16°50 | 13°42 | W 10 | | | | | | | | |
| T 11 | 17 41 40 | 25°28'21 | 28° 1 | 20°34 | 19°10 | 24°15 | 2°59 | 18°43 | 24°45 | 23°39 | 21°50 | 29°50 | 0° 2 | 16°57 | 13°40 | T 11 | | | | | | | | |
| F 12 | 17 45 37 | 26°25'30 | 10♁10 | 20° 3 | 19°30 | 24°57 | 3° 2 | 18°42 | 24°44 | 23°42 | 21°50 | 29°50 | 29♁59 | 17° 3 | 13°39 | F 12 | | | | | | | | |
| S 13 | 17 49 33 | 27°22'39 | 22°34 | 19°36 | 19°53 | 25°39 | 3° 5 | 18°40 | 24°43 | 23°44 | 21°50 | 29°R50 | 29°56 | 17°10 | 13°37 | S 13 | | | | | | | | |
| S 14 | 17 53 30 | 28°19'49 | 5♋18 | 19°11 | 20°17 | 26°21 | 3° 9 | 18°38 | 24°42 | 23°46 | 21°50 | 29°50 | 29°53 | 17°17 | 13°35 | S 14 | | | | | | | | |
| M 15 | 17 57 26 | 29°16'59 | 18°24 | 18°50 | 20°43 | 27° 3 | 3°13 | 18°36 | 24°41 | 23°48 | 21°50 | 29°50 | 29°49 | 17°23 | 13°33 | M 15 | | | | | | | | |
| T 16 | 18 1 23 | 0♁14'09 | 1♁55 | 18°34 | 21°10 | 27°45 | 3°17 | 18°33 | 24°40 | 23°50 | 21°R50 | 29°D50 | 29°46 | 17°30 | 13°31 | T 16 | | | | | | | | |
| W 17 | 18 5 19 | 1°11'20 | 15°53 | 18°21 | 21°39 | 28°26 | 3°21 | 18°31 | 24°39 | 23°53 | 21°50 | 29°50 | 29°43 | 17°37 | 13°29 | W 17 | | | | | | | | |
| T 18 | 18 9 16 | 2° 8'31 | 0♈17 | 18°13 | 22° 9 | 29° 8 | 3°25 | 18°29 | 24°38 | 23°55 | 21°50 | 29°50 | 29°40 | 17°43 | 13°27 | T 18 | | | | | | | | |
| F 19 | 18 13 12 | 3° 5'43 | 15° 2 | 18°D10 | 22°41 | 29°49 | 3°29 | 18°26 | 24°37 | 23°57 | 21°50 | 29°50 | 29°37 | 17°50 | 13°25 | F 19 | | | | | | | | |
| S 20 | 18 17 9 | 4° 2'54 | 0♁3 | 18°13 | 23°14 | 0♈31 | 3°34 | 18°24 | 24°36 | 23°59 | 21°50 | 29°R50 | 29°34 | 17°57 | 13°22 | S 20 | | | | | | | | |
| S 21 | 18 21 6 | 5° 0'07 | 15°12 | 18°20 | 23°49 | 1°12 | 3°39 | 18°21 | 24°34 | 24° 2 | 21°50 | 29°50 | 29°30 | 18° 3 | 13°20 | S 21 | | | | | | | | |
| M 22 | 18 25 2 | 5°57'19 | 0♈20 | 18°32 | 24°24 | 1°54 | 3°44 | 18°19 | 24°33 | 24° 4 | 21°50 | 29°50 | 29°27 | 18°10 | 13°18 | M 22 | | | | | | | | |
| T 23 | 18 28 59 | 6°54'31 | 15°16 | 18°50 | 25° 1 | 2°35 | 3°49 | 18°16 | 24°32 | 24° 6 | 21°50 | 29°49 | 29°24 | 18°17 | 13°16 | T 23 | | | | | | | | |
| W 24 | 18 32 55 | 7°51'44 | 29°55 | 19°14 | 25°39 | 3°16 | 3°54 | 18°13 | 24°30 | 24° 8 | 21°49 | 29°48 | 29°21 | 18°23 | 13°13 | W 24 | | | | | | | | |
| T 25 | 18 36 52 | 8°48'56 | 14♎11 | 19°42 | 26°18 | 3°57 | 3°59 | 18°10 | 24°29 | 24°10 | 21°49 | 29°48 | 29°18 | 18°30 | 13°11 | T 25 | | | | | | | | |
| F 26 | 18 40 48 | 9°46'09 | 28° 2 | 20°16 | 26°58 | 4°38 | 4° 5 | 18° 7 | 24°27 | 24°13 | 21°49 | 29°47 | 29°14 | 18°37 | 13° 8 | F 26 | | | | | | | | |
| S 27 | 18 44 45 | 10°43'22 | 11♁28 | 20°55 | 27°39 | 5°19 | 4°10 | 18° 4 | 24°26 | 24°15 | 21°49 | 29°D47 | 29°11 | 18°43 | 13° 6 | S 27 | | | | | | | | |
| S 28 | 18 48 42 | 11°40'35 | 24°30 | 21°40 | 28°21 | 6° 0 | 4°16 | 18° 1 | 24°24 | 24°17 | 21°48 | 29°47 | 29° 8 | 18°50 | 13° 3 | S 28 | | | | | | | | |
| M 29 | 18 52 38 | 12°37'48 | 7♈12 | 22°30 | 29° 5 | 6°41 | 4°22 | 17°58 | 24°23 | 24°19</ | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1080
geocentric

JULY 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------------------|--------------------|---------------------|---------------------|---------------------|-------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|
| W 1 | 19 0 31 | 14 ⁵³ 2'16 | 1 ⁷ 48 | 24 ^{II} 25 | 0 ^{II} 33 | 8 ^{II} 3 | 4 ^Ω 34 | 17°R51 | 24°R20 | 24 ^{II} 23 | 21°R47 | 29 [♂] 50 | 28 [♂] 59 | 19 [♂] 10 | 12°R56 | W 1 |
| T 2 | 19 4 28 | 15°29'30 | 13°49 | 25°30 | 1°19 | 8°43 | 4°41 | 17 [♂] 48 | 24 [♂] 18 | 24°25 | 21 [♂] 47 | 29°51 | 28°55 | 19°17 | 12 [♂] 53 | T 2 |
| F 3 | 19 8 24 | 16°26'45 | 25°43 | 26°40 | 2° 6 | 9°24 | 4°47 | 17°44 | 24°16 | 24°27 | 21°47 | 29°R52 | 28°52 | 19°23 | 12°50 | F 3 |
| S 4 | 19 12 21 | 17°24'01 | 7 [♂] 33 | 27°55 | 2°53 | 10° 5 | 4°54 | 17°41 | 24°14 | 24°30 | 21°46 | 29°52 | 28°49 | 19°30 | 12°47 | S 4 |
| S 5 | 19 16 17 | 18°21'17 | 19°21 | 29°15 | 3°41 | 10°45 | 5° 1 | 17°37 | 24°13 | 24°32 | 21°46 | 29°51 | 28°46 | 19°37 | 12°45 | S 5 |
| M 6 | 19 20 14 | 19°18'34 | 1 [♂] 10 | 0 [♂] 40 | 4°30 | 11°26 | 5° 8 | 17°34 | 24°11 | 24°34 | 21°46 | 29°49 | 28°43 | 19°43 | 12°42 | M 6 |
| T 7 | 19 24 11 | 20°15'51 | 13° 2 | 2° 9 | 5°20 | 12° 6 | 5°15 | 17°30 | 24° 9 | 24°36 | 21°45 | 29°46 | 28°40 | 19°50 | 12°39 | T 7 |
| W 8 | 19 28 7 | 21°13'10 | 24°58 | 3°42 | 6°10 | 12°46 | 5°22 | 17°26 | 24° 7 | 24°38 | 21°45 | 29°43 | 28°36 | 19°57 | 12°36 | W 8 |
| T 9 | 19 32 4 | 22°10'29 | 7 [♂] 2 | 5°19 | 7° 1 | 13°27 | 5°29 | 17°22 | 24° 5 | 24°40 | 21°44 | 29°39 | 28°33 | 20° 3 | 12°33 | T 9 |
| F 10 | 19 36 0 | 23° 7'49 | 19°16 | 7° 1 | 7°53 | 14° 7 | 5°36 | 17°18 | 24° 3 | 24°42 | 21°44 | 29°36 | 28°30 | 20°10 | 12°30 | F 10 |
| S 11 | 19 39 57 | 24° 5'11 | 1 [♂] 43 | 8°46 | 8°45 | 14°47 | 5°44 | 17°14 | 24° 1 | 24°44 | 21°43 | 29°33 | 28°27 | 20°16 | 12°27 | S 11 |
| S 12 | 19 43 53 | 25° 2'34 | 14°25 | 10°34 | 9°38 | 15°27 | 5°52 | 17°10 | 23°59 | 24°46 | 21°43 | 29°32 | 28°24 | 20°23 | 12°25 | S 12 |
| M13 | 19 47 50 | 25°59'58 | 27°27 | 12°25 | 10°32 | 16° 7 | 5°59 | 17° 6 | 23°57 | 24°48 | 21°42 | 29°D31 | 28°20 | 20°30 | 12°22 | M13 |
| T 14 | 19 51 46 | 26°57'23 | 10 [♂] 51 | 14°19 | 11°26 | 16°47 | 6° 7 | 17° 2 | 23°55 | 24°50 | 21°41 | 29°32 | 28°17 | 20°36 | 12°19 | T 14 |
| W15 | 19 55 43 | 27°54'49 | 24°40 | 16°16 | 12°20 | 17°27 | 6°15 | 16°58 | 23°53 | 24°52 | 21°41 | 29°33 | 28°14 | 20°43 | 12°16 | W15 |
| T 16 | 19 59 40 | 28°52'17 | 8 ^{II} 53 | 18°15 | 13°15 | 18° 7 | 6°23 | 16°54 | 23°51 | 24°54 | 21°40 | 29°35 | 28°11 | 20°50 | 12°12 | T 16 |
| F 17 | 20 3 36 | 29°49'46 | 23°29 | 20°15 | 14°11 | 18°47 | 6°32 | 16°50 | 23°49 | 24°56 | 21°39 | 29°R36 | 28° 8 | 20°56 | 12° 9 | F 17 |
| S 18 | 20 7 33 | 0 ^Ω 47'17 | 8 [♂] 25 | 22°17 | 15° 7 | 19°26 | 6°40 | 16°46 | 23°47 | 24°58 | 21°39 | 29°36 | 28° 5 | 21° 3 | 12° 6 | S 18 |
| S 19 | 20 11 29 | 1°44'49 | 23°33 | 24°19 | 16° 4 | 20° 6 | 6°49 | 16°41 | 23°45 | 24°59 | 21°38 | 29°34 | 28° 1 | 21°10 | 12° 3 | S 19 |
| M20 | 20 15 26 | 2°42'22 | 8 ^Ω 45 | 26°22 | 17° 1 | 20°46 | 6°57 | 16°37 | 23°43 | 25° 1 | 21°37 | 29°31 | 27°58 | 21°16 | 12° 0 | M20 |
| T 21 | 20 19 22 | 3°39'56 | 23°51 | 28°26 | 17°58 | 21°25 | 7° 6 | 16°33 | 23°40 | 25° 3 | 21°37 | 29°27 | 27°55 | 21°23 | 11°57 | T 21 |
| W22 | 20 23 19 | 4°37'31 | 8 [♂] 40 | 0 ^Ω 30 | 18°56 | 22° 4 | 7°15 | 16°28 | 23°38 | 25° 5 | 21°36 | 29°21 | 27°52 | 21°30 | 11°54 | W22 |
| T 23 | 20 27 15 | 5°35'07 | 23° 7 | 2°33 | 19°54 | 22°44 | 7°24 | 16°24 | 23°36 | 25° 7 | 21°35 | 29°16 | 27°49 | 21°36 | 11°51 | T 23 |
| F 24 | 20 31 12 | 6°32'44 | 7 [♂] 7 | 4°36 | 20°53 | 23°23 | 7°33 | 16°19 | 23°34 | 25° 9 | 21°34 | 29°12 | 27°46 | 21°43 | 11°48 | F 24 |
| S 25 | 20 35 9 | 7°30'22 | 20°38 | 6°38 | 21°52 | 24° 2 | 7°42 | 16°15 | 23°32 | 25°10 | 21°34 | 29° 9 | 27°42 | 21°50 | 11°45 | S 25 |
| S 26 | 20 39 5 | 8°28'01 | 3 [♂] 42 | 8°40 | 22°51 | 24°42 | 7°51 | 16°10 | 23°29 | 25°12 | 21°33 | 29°D 8 | 27°39 | 21°56 | 11°41 | S 26 |
| M27 | 20 43 2 | 9°25'41 | 16°23 | 10°40 | 23°51 | 25°21 | 8° 1 | 16° 6 | 23°27 | 25°14 | 21°32 | 29° 8 | 27°36 | 22° 3 | 11°38 | M27 |
| T 28 | 20 46 58 | 10°23'22 | 28°43 | 12°40 | 24°51 | 26° 0 | 8°10 | 16° 1 | 23°25 | 25°15 | 21°31 | 29° 9 | 27°33 | 22°10 | 11°35 | T 28 |
| W29 | 20 50 55 | 11°21'05 | 10 [♂] 49 | 14°39 | 25°52 | 26°39 | 8°20 | 15°57 | 23°22 | 25°17 | 21°30 | 29°11 | 27°30 | 22°16 | 11°32 | W29 |
| T 30 | 20 54 51 | 12°18'48 | 22°44 | 16°36 | 26°53 | 27°17 | 8°29 | 15°52 | 23°20 | 25°19 | 21°29 | 29°12 | 27°26 | 22°23 | 11°29 | T 30 |
| F 31 | 20 58 48 | 13 ^Ω 16'33 | 4 [♂] 33 | 18 ^Ω 32 | 27 ^{II} 54 | 27 ^{II} 56 | 8 [♂] 39 | 15 [♂] 48 | 23 [♂] 18 | 25 ^{II} 20 | 21 [♂] 29 | 29°R12 | 27 [♂] 23 | 22 [♂] 30 | 11 [♂] 26 | F 31 |

Delta T = 18m48s Julian Calendar 1 July 1080 == Greg. Calendar 7 July 1080

AUGUST 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|
| S 1 | 21 2 44 | 14 ^Ω 14'19 | 16 [♂] 21 | 20 ^Ω 26 | 28 ^{II} 56 | 28 ^{II} 35 | 8 [♂] 49 | 15°R43 | 23°R15 | 25 ^{II} 22 | 21°R28 | 29°R10 | 27 [♂] 20 | 22 [♂] 36 | 11°R22 | S 1 |
| S 2 | 21 6 41 | 15°12'07 | 28°10 | 22°20 | 29°57 | 29°14 | 8°59 | 15 [♂] 39 | 23 [♂] 13 | 25°24 | 21 [♂] 27 | 29 [♂] 7 | 27°17 | 22°43 | 11 [♂] 19 | S 2 |
| M 3 | 21 10 38 | 16° 9'56 | 10 [♂] 2 | 24°12 | 1 [♂] 0 | 29°52 | 9° 9 | 15°34 | 23°11 | 25°25 | 21°26 | 29° 1 | 27°14 | 22°50 | 11°16 | M 3 |
| T 4 | 21 14 34 | 17° 7'46 | 22° 1 | 26° 3 | 2° 2 | 0 [♂] 31 | 9°19 | 15°30 | 23° 8 | 25°27 | 21°25 | 28°53 | 27°11 | 22°56 | 11°13 | T 4 |
| W 5 | 21 18 31 | 18° 5'38 | 4 [♂] 7 | 27°52 | 3° 5 | 1° 9 | 9°29 | 15°25 | 23° 6 | 25°28 | 21°24 | 28°45 | 27° 7 | 23° 3 | 11°10 | W 5 |
| T 6 | 21 22 27 | 19° 3'31 | 16°21 | 29°40 | 4° 8 | 1°48 | 9°39 | 15°21 | 23° 3 | 25°30 | 21°23 | 28°35 | 27° 4 | 23°10 | 11° 7 | T 6 |
| F 7 | 21 26 24 | 20° 1'27 | 28°46 | 1 [♂] 27 | 5°11 | 2°26 | 9°50 | 15°16 | 23° 1 | 25°31 | 21°22 | 28°27 | 27° 1 | 23°16 | 11° 4 | F 7 |
| S 8 | 21 30 20 | 20°59'23 | 11 [♂] 27 | 3°12 | 6°15 | 3° 4 | 10° 0 | 15°12 | 22°59 | 25°33 | 21°21 | 28°19 | 26°58 | 23°23 | 11° 1 | S 8 |
| S 9 | 21 34 17 | 21°57'22 | 24°11 | 4°56 | 7°19 | 3°43 | 10°11 | 15° 7 | 22°56 | 25°34 | 21°20 | 28°13 | 26°55 | 23°30 | 10°57 | S 9 |
| M10 | 21 38 13 | 22°55'23 | 7 [♂] 14 | 6°39 | 8°23 | 4°21 | 10°21 | 15° 3 | 22°54 | 25°35 | 21°19 | 28°10 | 26°52 | 23°36 | 10°54 | M10 |
| T 11 | 21 42 10 | 23°53'26 | 20°35 | 8°21 | 9°27 | 4°59 | 10°32 | 14°58 | 22°51 | 25°37 | 21°18 | 28°D 9 | 26°48 | 23°43 | 10°51 | T 11 |
| W12 | 21 46 7 | 24°51'31 | 4 ^{II} 15 | 10° 1 | 10°32 | 5°37 | 10°43 | 14°54 | 22°49 | 25°38 | 21°17 | 28° 9 | 26°45 | 23°50 | 10°48 | W12 |
| T 13 | 21 50 3 | 25°49'38 | 18°15 | 11°40 | 11°37 | 6°15 | 10°54 | 14°49 | 22°47 | 25°40 | 21°16 | 28°10 | 26°42 | 23°56 | 10°45 | T 13 |
| F 14 | 21 54 0 | 26°47'47 | 2 [♂] 36 | 13°18 | 12°42 | 6°53 | 11° 5 | 14°45 | 22°44 | 25°41 | 21°15 | 28°R10 | 26°39 | 24° 3 | 10°42 | F 14 |
| S 15 | 21 57 56 | 27°45'58 | 17°16 | 14°55 | 13°47 | 7°30 | 11°16 | 14°40 | 22°42 | 25°42 | 21°14 | 28° 9 | 26°36 | 24°10 | 10°39 | S 15 |
| S 16 | 22 1 53 | 28°44'11 | 2 [♂] 9 | 16°30 | 14°53 | 8° 8 | 11°27 | 14°36 | 22°39 | 25°43 | 21°13 | 28° 5 | 26°32 | 24°16 | 10°36 | S 16 |
| M17 | 22 5 49 | 29°42'26 | 17°10 | 18° 4 | 15°59 | 8°46 | 11°38 | 14°32 | 22°37 | 25°44 | 21°12 | 27°59 | 26°29 | 24°23 | 10°34 | M17 |
| T 18 | 22 9 46 | 0 [♂] 40'42 | 2 [♂] 9 | 19°37 | 17° 5 | 9°23 | 11°49 | 14°28 | 22°35 | 25°46 | 21°11 | 27°50 | 26°26 | 24°30 | 10°31 | T 18 |
| W19 | 22 13 42 | 1°39'01 | 16°57 | 21° 9 | 18°11 | 10° 1 | 12° 1 | 14°23 | 22°32 | 25°47 | 21° 9 | 27°41 | 26°23 | 24°36 | 10°28 | W19 |
| T 20 | 22 17 39 | 2°37'21 | 1 [♂] 26 | 22°40 | 19°17 | 10°38 | 12°12 | 14°19 | 22°30 | 25°48 | 21° 8 | 27°31 | 26°20 | 24°43 | 10°25 | T 20 |
| F 21 | 22 21 36 | 3°35'43 | 15°30 | 24° 9 | 20°24 | 11°15 | 12°24 | 14°15 | 22°28 | 25°49 | 21° 7 | 27°22 | 26°17 | 24°49 | 10°22 | F 21 |
| S 22 | 22 25 32 | 4°34'07 | 29° 5 | 25°37 | 21°31 | 11°53 | 12°35 | 14°11 | 22°25 | 25°50 | 21° 6 | 27°15 | 26°13 | 24°56 | 10°19 | S 22 |
| S 23 | 22 29 29 | 5°32'32 | 12 [♂] 13 | 27° 4 | 22°38 | 12°30 | 12°47 | 14° 7 | 22°23 | 25°51 | 21° 5 | 27°10 | 26°10 | 25° 3 | 10°17 | S 23 |
| M24 | 22 33 25 | 6°30'59 | 24°55 | 28°30 | 23°45 | 13° 7 | 12°58 | 14° 3 | 22°21 | 25°52 | 21° 4 | 27° 8 | 26° 7 | 25° 9 | 10°14 | M24 |
| T 25 | 22 37 22 | 7°29'28 | 7 [♂] 16 | 29°55 | 24°52 | 13°44 | 13°10 | 13°59 | 22°18 | 25°53 | 21° 3 | 27°D 7 | 26° 4 | 25°16 | 10°11 | T 25 |
| W26 | 22 41 18 | 8°27'58 | 19°21 | 1 [♂] 18 | 26° 0 | 14°21 | 13°22 | 13°55 | 22°16 | 25°54 | 21° 1 | 27° 8 | 26° 1 | 25°23 | 10° 8 | W26 |
| T 27 | 22 45 15 | 9°26'30 | 1 [♂] 15 | 2°40 | 27° 8 | 14°57 | 13°34 | 13°51 | 22°14 | 25°55 | 21° 0 | 27°R 8 | 25°58 | 25°29 | 10° 6 | T 27 |
| F 28 | 22 49 11 | 10°25'04 | 13° 4 | 4° 1 | 28°15 | 15°34 | 13°45 | 13°47 | 22°12 | 25°56 | 20°59 | 27° 6 | 25°54 | 25°36 | 10° 3 | F 28 |
| S 29 | 22 53 8 | 11°23'39 | 24°52 | 5°20 | 29°24 | 16°11 | 13°57 | 13°43 | 22° 9 | 25°57 | 20°58 | 27° 3 | 25°51 | 25°43 | 10° 1 | S 29 |
| S 30 | 22 57 5 | 12°22'16 | 6 [♂] 43 | 6°38 | 0 ^Ω 32 | 16°47 | 14° 9 | 13°40 | 22° 7 | 25°57 | 20°57 | 26°57 | 25°48 | 25°49 | 9°58 | S 30 |
| M31 | 23 1 1 | 13 [♂] 20'55 | 18 [♂] 42 | 7 [♂] 54 | 1 ^Ω 40 | 17 [♂] 24 | 14 [♂] 21 | 13 [♂] 36 | 22 [♂] 5 | 25 ^{II} 58 | 20 [♂] 56 | 26 [♂] 49 | 25 [♂] 45 | 25 [♂] 56 | 9 [♂] 56 | M31 |

Delta T = 18m47s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1080
geocentric

SEPTEMBER 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|------|
| T 1 | 23 4 58 | 14♐19'36 | 0♋49 | 9♌ 9 | 2♌49 | 18♌ 0 | 14♌34 | 13°R32 | 22°R 3 | 25II59 | 20°R54 | 26°R38 | 25♌42 | 26♌ 3 | 9°R53 | T 1 |
| W 2 | 23 8 54 | 15°18'19 | 13° 8 | 10°23 | 3°58 | 18°37 | 14°46 | 13♌29 | 22♌ 1 | 26° 0 | 20♋53 | 26♌25 | 25°38 | 26° 9 | 9♌51 | W 2 |
| T 3 | 23 12 51 | 16°17'04 | 25°37 | 11°34 | 5° 6 | 19°13 | 14°58 | 13°25 | 21°59 | 26° 0 | 20°52 | 26°12 | 25°35 | 26°16 | 9°49 | T 3 |
| F 4 | 23 16 47 | 17°15'51 | 8♏19 | 12°44 | 6°15 | 19°49 | 15°10 | 13°22 | 21°56 | 26° 1 | 20°51 | 25°59 | 25°32 | 26°23 | 9°46 | F 4 |
| S 5 | 23 20 44 | 18°14'40 | 21°12 | 13°52 | 7°25 | 20°25 | 15°22 | 13°19 | 21°54 | 26° 2 | 20°50 | 25°48 | 25°29 | 26°29 | 9°44 | S 5 |
| S 6 | 23 24 40 | 19°13'31 | 4♌16 | 14°57 | 8°34 | 21° 1 | 15°35 | 13°15 | 21°52 | 26° 2 | 20°48 | 25°39 | 25°26 | 26°36 | 9°42 | S 6 |
| M 7 | 23 28 37 | 20°12'25 | 17°31 | 16° 1 | 9°44 | 21°37 | 15°47 | 13°12 | 21°50 | 26° 3 | 20°47 | 25°33 | 25°23 | 26°43 | 9°40 | M 7 |
| T 8 | 23 32 33 | 21°11'21 | 0II58 | 17° 2 | 10°53 | 22°13 | 16° 0 | 13° 9 | 21°48 | 26° 3 | 20°46 | 25°30 | 25°19 | 26°49 | 9°38 | T 8 |
| W 9 | 23 36 30 | 22°10'19 | 14°38 | 18° 1 | 12° 3 | 22°48 | 16°12 | 13° 6 | 21°46 | 26° 4 | 20°45 | 25°29 | 25°16 | 26°56 | 9°36 | W 9 |
| T 10 | 23 40 27 | 23° 9'20 | 28°32 | 18°57 | 13°13 | 23°24 | 16°25 | 13° 3 | 21°44 | 26° 4 | 20°44 | 25°29 | 25°13 | 27° 3 | 9°34 | T 10 |
| F 11 | 23 44 23 | 24° 8'23 | 12♌39 | 19°50 | 14°23 | 24° 0 | 16°37 | 13° 0 | 21°42 | 26° 5 | 20°43 | 25°29 | 25°10 | 27° 9 | 9°32 | F 11 |
| S 12 | 23 48 20 | 25° 7'29 | 27° 0 | 20°40 | 15°33 | 24°35 | 16°50 | 12°58 | 21°41 | 26° 5 | 20°41 | 25°26 | 25° 7 | 27°16 | 9°30 | S 12 |
| S 13 | 23 52 16 | 26° 6'36 | 11♌31 | 21°26 | 16°44 | 25°10 | 17° 2 | 12°55 | 21°39 | 26° 5 | 20°40 | 25°22 | 25° 3 | 27°23 | 9°28 | S 13 |
| M14 | 23 56 13 | 27° 5'47 | 26° 9 | 22° 9 | 17°54 | 25°46 | 17°15 | 12°52 | 21°37 | 26° 6 | 20°39 | 25°14 | 25° 0 | 27°29 | 9°26 | M14 |
| T 15 | 0 0 9 | 28° 4'59 | 10♐48 | 22°47 | 19° 5 | 26°21 | 17°28 | 12°50 | 21°35 | 26° 6 | 20°38 | 25° 4 | 24°57 | 27°36 | 9°25 | T 15 |
| W16 | 0 4 6 | 29° 4'13 | 25°19 | 23°21 | 20°15 | 26°56 | 17°40 | 12°47 | 21°33 | 26° 6 | 20°37 | 24°52 | 24°54 | 27°43 | 9°23 | W16 |
| T 17 | 0 8 2 | 0♌ 3'30 | 9♌36 | 23°50 | 21°26 | 27°31 | 17°53 | 12°45 | 21°32 | 26° 6 | 20°35 | 24°40 | 24°51 | 27°49 | 9°21 | T 17 |
| F 18 | 0 11 59 | 1° 2'48 | 23°33 | 24°14 | 22°37 | 28° 5 | 18° 6 | 12°43 | 21°30 | 26° 7 | 20°34 | 24°29 | 24°48 | 27°56 | 9°20 | F 18 |
| S 19 | 0 15 56 | 2° 2'09 | 7♌ 5 | 24°32 | 23°48 | 28°40 | 18°19 | 12°41 | 21°28 | 26° 7 | 20°33 | 24°20 | 24°44 | 28° 3 | 9°18 | S 19 |
| S 20 | 0 19 52 | 3° 1'32 | 20°13 | 24°43 | 24°59 | 29°15 | 18°32 | 12°38 | 21°27 | 26° 7 | 20°32 | 24°13 | 24°41 | 28° 9 | 9°17 | S 20 |
| M21 | 0 23 49 | 4° 0'56 | 2♌56 | 24°R48 | 26°11 | 29°49 | 18°45 | 12°36 | 21°25 | 26° 7 | 20°31 | 24° 9 | 24°38 | 28°16 | 9°15 | M21 |
| T 22 | 0 27 45 | 5° 0'23 | 15°19 | 24°45 | 27°22 | 0♌24 | 18°57 | 12°35 | 21°24 | 26° 7 | 20°30 | 24° 8 | 24°35 | 28°23 | 9°14 | T 22 |
| W23 | 0 31 42 | 5°59'51 | 27°25 | 24°35 | 28°34 | 0°58 | 19°10 | 12°33 | 21°22 | 26°R 7 | 20°28 | 24°D 8 | 24°32 | 28°29 | 9°13 | W23 |
| T 24 | 0 35 38 | 6°59'21 | 9♌20 | 24°16 | 29°45 | 1°32 | 19°23 | 12°31 | 21°21 | 26° 7 | 20°27 | 24°R 8 | 24°29 | 28°36 | 9°11 | T 24 |
| F 25 | 0 39 35 | 7°58'53 | 21° 9 | 23°49 | 0♐57 | 2° 6 | 19°36 | 12°29 | 21°19 | 26° 7 | 20°26 | 24° 7 | 24°25 | 28°43 | 9°10 | F 25 |
| S 26 | 0 43 31 | 8°58'26 | 2♌59 | 23°14 | 2° 9 | 2°40 | 19°49 | 12°28 | 21°18 | 26° 7 | 20°25 | 24° 4 | 24°22 | 28°49 | 9° 9 | S 26 |
| S 27 | 0 47 28 | 9°58'02 | 14°53 | 22°30 | 3°21 | 3°14 | 20° 2 | 12°27 | 21°16 | 26° 7 | 20°24 | 23°59 | 24°19 | 28°56 | 9° 8 | S 27 |
| M28 | 0 51 25 | 10°57'39 | 26°56 | 21°38 | 4°33 | 3°48 | 20°15 | 12°25 | 21°15 | 26° 7 | 20°23 | 23°52 | 24°16 | 29° 3 | 9° 7 | M28 |
| T 29 | 0 55 21 | 11°57'18 | 9♋12 | 20°39 | 5°45 | 4°21 | 20°28 | 12°24 | 21°14 | 26° 6 | 20°22 | 23°42 | 24°13 | 29° 9 | 9° 6 | T 29 |
| W30 | 0 59 18 | 12♌56'59 | 21♋42 | 19♌33 | 6♐57 | 4♌55 | 20♌41 | 12♌23 | 21♌13 | 26II 6 | 20♋21 | 23♌30 | 24♌ 9 | 29♌16 | 9♌ 5 | W30 |

Delta T = 18m47s Julian Calendar 1 Sept. 1080 == Greg. Calendar 7 Sept. 1080

OCTOBER 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|------|
| T 1 | 1 3 14 | 13♌56'41 | 4♏27 | 18°R22 | 8♐ 9 | 5♌28 | 20♌55 | 12°R22 | 21°R11 | 26°R 6 | 20°R20 | 23°R18 | 24♌ 6 | 29♌23 | 9°R 5 | T 1 |
| F 2 | 1 7 11 | 14°56'26 | 17°28 | 17♌ 8 | 9°22 | 6° 1 | 21° 8 | 12♌21 | 21♌10 | 26II 6 | 20♋18 | 23♌ 6 | 24° 3 | 29°29 | 9♌ 4 | F 2 |
| S 3 | 1 11 7 | 15°56'13 | 0♋43 | 15°52 | 10°34 | 6°34 | 21°21 | 12°20 | 21° 9 | 26° 5 | 20°17 | 22°55 | 24° 0 | 29°36 | 9° 3 | S 3 |
| S 4 | 1 15 4 | 16°56'02 | 14°10 | 14°38 | 11°47 | 7° 7 | 21°34 | 12°19 | 21° 8 | 26° 5 | 20°16 | 22°47 | 23°57 | 29°43 | 9° 3 | S 4 |
| M 5 | 1 19 0 | 17°55'53 | 27°47 | 13°26 | 12°59 | 7°40 | 21°47 | 12°19 | 21° 7 | 26° 5 | 20°15 | 22°42 | 23°54 | 29°49 | 9° 2 | M 5 |
| T 6 | 1 22 57 | 18°55'47 | 11II32 | 12°20 | 14°12 | 8°13 | 22° 0 | 12°18 | 21° 6 | 26° 4 | 20°14 | 22°39 | 23°50 | 29°56 | 9° 2 | T 6 |
| W 7 | 1 26 53 | 19°55'42 | 25°25 | 11°22 | 15°25 | 8°46 | 22°13 | 12°18 | 21° 5 | 26° 4 | 20°13 | 22°D39 | 23°47 | 0♌ 3 | 9° 1 | W 7 |
| T 8 | 1 30 50 | 20°55'40 | 9♌23 | 10°32 | 16°38 | 9°18 | 22°26 | 12°18 | 21° 5 | 26° 3 | 20°12 | 22°40 | 23°44 | 0°10 | 9° 1 | T 8 |
| F 9 | 1 34 47 | 21°55'41 | 23°27 | 9°53 | 17°51 | 9°50 | 22°40 | 12°17 | 21° 4 | 26° 3 | 20°11 | 22°R40 | 23°41 | 0°16 | 9° 1 | F 9 |
| S 10 | 1 38 43 | 22°55'43 | 7♌36 | 9°25 | 19° 4 | 10°22 | 22°53 | 12°D17 | 21° 3 | 26° 2 | 20°10 | 22°39 | 23°38 | 0°23 | 9° 1 | S 10 |
| S 11 | 1 42 40 | 23°55'47 | 21°49 | 9° 9 | 20°17 | 10°55 | 23° 6 | 12°17 | 21° 2 | 26° 2 | 20° 9 | 22°36 | 23°35 | 0°30 | 9° 0 | S 11 |
| M12 | 1 46 36 | 24°55'54 | 6♐ 2 | 9°D 4 | 21°31 | 11°26 | 23°19 | 12°17 | 21° 2 | 26° 1 | 20° 8 | 22°30 | 23°31 | 0°36 | 9° 0 | M12 |
| T 13 | 1 50 33 | 25°56'03 | 20°14 | 9°10 | 22°44 | 11°58 | 23°32 | 12°18 | 21° 1 | 26° 0 | 20° 7 | 22°23 | 23°28 | 0°43 | 9°D 0 | T 13 |
| W14 | 1 54 29 | 26°56'14 | 4♌18 | 9°27 | 23°57 | 12°30 | 23°45 | 12°18 | 21° 0 | 26° 0 | 20° 7 | 22°13 | 23°25 | 0°50 | 9° 0 | W14 |
| T 15 | 1 58 26 | 27°56'27 | 18°11 | 9°54 | 25°11 | 13° 1 | 23°59 | 12°18 | 21° 0 | 25°59 | 20° 6 | 22° 4 | 23°22 | 0°56 | 9° 1 | T 15 |
| F 16 | 2 2 22 | 28°56'41 | 1♌48 | 10°30 | 26°24 | 13°32 | 24°12 | 12°19 | 20°59 | 25°58 | 20° 5 | 21°55 | 23°19 | 1° 3 | 9° 1 | F 16 |
| S 17 | 2 6 19 | 29°56'58 | 15° 7 | 11°15 | 27°38 | 14° 4 | 24°25 | 12°20 | 20°59 | 25°57 | 20° 4 | 21°48 | 23°15 | 1°10 | 9° 1 | S 17 |
| S 18 | 2 10 16 | 0♌57'16 | 28° 6 | 12° 7 | 28°51 | 14°35 | 24°38 | 12°20 | 20°59 | 25°57 | 20° 3 | 21°43 | 23°12 | 1°16 | 9° 1 | S 18 |
| M19 | 2 14 12 | 1°57'36 | 10♌45 | 13° 5 | 0♌ 5 | 15° 5 | 24°51 | 12°21 | 20°58 | 25°56 | 20° 2 | 21°40 | 23° 9 | 1°23 | 9° 2 | M19 |
| T 20 | 2 18 9 | 2°57'58 | 23° 6 | 14° 9 | 1°19 | 15°36 | 25° 4 | 12°22 | 20°58 | 25°55 | 20° 1 | 21°D39 | 23° 6 | 1°30 | 9° 2 | T 20 |
| W21 | 2 22 5 | 3°58'21 | 5♌13 | 15°18 | 2°33 | 16° 6 | 25°17 | 12°23 | 20°58 | 25°54 | 20° 0 | 21°40 | 23° 3 | 1°36 | 9° 3 | W21 |
| T 22 | 2 26 2 | 4°58'46 | 17° 8 | 16°32 | 3°47 | 16°37 | 25°30 | 12°24 | 20°58 | 25°53 | 20° 0 | 21°41 | 23° 0 | 1°43 | 9° 3 | T 22 |
| F 23 | 2 29 58 | 5°59'12 | 28°59 | 17°49 | 5° 0 | 17° 7 | 25°43 | 12°26 | 20°57 | 25°52 | 19°59 | 21°43 | 22°56 | 1°50 | 9° 4 | F 23 |
| S 24 | 2 33 55 | 6°59'39 | 10♌48 | 19° 9 | 6°14 | 17°37 | 25°57 | 12°27 | 20°57 | 25°51 | 19°58 | 21°R43 | 22°53 | 1°56 | 9° 5 | S 24 |
| S 25 | 2 37 51 | 8° 0'08 | 22°43 | 20°32 | 7°28 | 18° 6 | 26°10 | 12°28 | 20°D57 | 25°50 | 19°57 | 21°41 | 22°50 | 2° 3 | 9° 6 | S 25 |
| M26 | 2 41 48 | 9° 0'38 | 4♋48 | 21°57 | 8°42 | 18°36 | 26°23 | 12°30 | 20°57 | 25°49 | 19°57 | 21°38 | 22°47 | 2°10 | 9° 6 | M26 |
| T 27 | 2 45 45 | 10° 1'10 | 17° 6 | 23°23 | 9°57 | 19° 5 | 26°36 | 12°32 | 20°58 | 25°48 | 19°56 | 21°33 | 22°44 | 2°16 | 9° 7 | T 27 |
| W28 | 2 49 41 | 11° 1'42 | 29°42 | 24°52 | 11°11 | 19°34 | 26°49 | 12°33 | 20°58 | 25°47 | 19°55 | 21°27 | 22°40 | 2°23 | 9° 8 | W28 |
| T 29 | 2 53 38 | 12° 2'17 | 12♏38 | 26°21 | 12°25 | 20° 3 | 27° 1 | 12°35 | 20°58 | 25°46 | 19°55 | 21°20 | 22°37 | 2°30 | 9° 9 | T 29 |
| F 30 | 2 57 34 | 13° 2'52 | 25°54 | 27°52 | 13°39 | 20°32 | 27°14 | 12°37 | 20°58 | 25°45 | 19°54 | 21°13 | 22°34 | 2°36 | 9°10 | F 30 |
| S 31 | 3 1 31 | 14♌ 3'29 | 9♌29 | 29♌23 | 14♌54 | 21♌ 1 | 27♌27 | 12♌39 | 20♌58 | 25II44 | 19♋53 | 21♌ 7 | 22♌31 | 2♌43 | 9♌12 | S 31 |

Delta T = 18m47s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1080
geocentric

NOVEMBER 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|---------|--------|--------|--------|------|-------|------|---|-----|
| S 1 | 3 5 27 | 15♌ 4'08 | 23♋20 | 0♌55 | 16♌ 8 | 21♌29 | 27♌40 | 12♌41 | 20♌59 | 25°R42 | 19°R53 | 21°R 2 | 22♌28 | 2♌50 | 9♌13 | S 1 | | |
| M 2 | 3 9 24 | 16° 4'48 | 7♌24 | 2°28 | 17°22 | 21°57 | 27°53 | 12°44 | 20°59 | 25°II41 | 19°K52 | 21°K 0 | 22°25 | 2°56 | 9°14 | M 2 | | |
| T 3 | 3 13 20 | 17° 5'30 | 21°36 | 4° 1 | 18°37 | 22°25 | 28° 6 | 12°46 | 21° 0 | 25°40 | 19°52 | 20°D59 | 22°21 | 3° 3 | 9°16 | T 3 | | |
| W 4 | 3 17 17 | 18° 6'13 | 5♌53 | 5°34 | 19°51 | 22°53 | 28°19 | 12°49 | 21° 0 | 25°39 | 19°51 | 21° 0 | 22°18 | 3°10 | 9°17 | W 4 | | |
| T 5 | 3 21 14 | 19° 6'58 | 20°11 | 7° 8 | 21° 6 | 23°20 | 28°31 | 12°51 | 21° 1 | 25°37 | 19°51 | 21° 1 | 22°15 | 3°16 | 9°19 | T 5 | | |
| F 6 | 3 25 10 | 20° 7'44 | 4♌26 | 8°42 | 22°20 | 23°48 | 28°44 | 12°54 | 21° 1 | 25°36 | 19°50 | 21° 3 | 22°12 | 3°23 | 9°20 | F 6 | | |
| S 7 | 3 29 7 | 21° 8'32 | 18°37 | 10°16 | 23°35 | 24°15 | 28°57 | 12°57 | 21° 2 | 25°35 | 19°50 | 21°R 4 | 22° 9 | 3°30 | 9°22 | S 7 | | |
| S 8 | 3 33 3 | 22° 9'22 | 2♌42 | 11°50 | 24°50 | 24°42 | 29°10 | 12°59 | 21° 3 | 25°33 | 19°49 | 21° 3 | 22° 6 | 3°36 | 9°23 | S 8 | | |
| M 9 | 3 37 0 | 23°10'13 | 16°38 | 13°24 | 26° 4 | 25° 8 | 29°22 | 13° 2 | 21° 3 | 25°32 | 19°49 | 21° 1 | 22° 2 | 3°43 | 9°25 | M 9 | | |
| T 10 | 3 40 56 | 24°11'05 | 0♌26 | 14°58 | 27°19 | 25°34 | 29°35 | 13° 5 | 21° 4 | 25°31 | 19°48 | 20°58 | 21°59 | 3°50 | 9°27 | T 10 | | |
| W11 | 3 44 53 | 25°11'59 | 14° 3 | 16°32 | 28°34 | 26° 1 | 29°47 | 13° 9 | 21° 5 | 25°29 | 19°48 | 20°55 | 21°56 | 3°57 | 9°29 | W11 | | |
| T 12 | 3 48 49 | 26°12'55 | 27°28 | 18° 6 | 29°48 | 26°26 | 29°59 | 13°12 | 21° 6 | 25°28 | 19°47 | 20°50 | 21°53 | 4° 3 | 9°31 | T 12 | | |
| F 13 | 3 52 46 | 27°13'51 | 10♌40 | 19°40 | 1♌ 3 | 26°52 | 0♌12 | 13°15 | 21° 7 | 25°26 | 19°47 | 20°47 | 21°50 | 4°10 | 9°33 | F 13 | | |
| S 14 | 3 56 43 | 28°14'49 | 23°37 | 21°14 | 2°18 | 27°17 | 0°25 | 13°19 | 21° 8 | 25°25 | 19°47 | 20°44 | 21°46 | 4°17 | 9°35 | S 14 | | |
| S 15 | 4 0 39 | 29°15'48 | 6♌20 | 22°48 | 3°33 | 27°42 | 0°37 | 13°22 | 21° 9 | 25°23 | 19°46 | 20°42 | 21°43 | 4°23 | 9°37 | S 15 | | |
| M16 | 4 4 36 | 0♌16'48 | 18°48 | 24°22 | 4°48 | 28° 7 | 0°49 | 13°26 | 21°10 | 25°22 | 19°46 | 20°D41 | 21°40 | 4°30 | 9°39 | M16 | | |
| T 17 | 4 8 32 | 1°17'49 | 1♌ 2 | 25°56 | 6° 3 | 28°31 | 1° 2 | 13°29 | 21°11 | 25°20 | 19°46 | 20°41 | 21°37 | 4°37 | 9°41 | T 17 | | |
| W18 | 4 12 29 | 2°18'50 | 13° 5 | 27°30 | 7°18 | 28°55 | 1°14 | 13°33 | 21°12 | 25°19 | 19°46 | 20°42 | 21°34 | 4°43 | 9°44 | W18 | | |
| T 19 | 4 16 25 | 3°19'53 | 25° 0 | 29° 4 | 8°33 | 29°19 | 1°26 | 13°37 | 21°14 | 25°17 | 19°45 | 20°44 | 21°31 | 4°50 | 9°46 | T 19 | | |
| F 20 | 4 20 22 | 4°20'56 | 6♌50 | 0♌38 | 9°47 | 29°43 | 1°38 | 13°41 | 21°15 | 25°16 | 19°45 | 20°46 | 21°27 | 4°57 | 9°48 | F 20 | | |
| S 21 | 4 24 18 | 5°21'59 | 18°40 | 2°12 | 11° 2 | 0♌ 6 | 1°50 | 13°45 | 21°16 | 25°14 | 19°45 | 20°47 | 21°24 | 5° 3 | 9°51 | S 21 | | |
| S 22 | 4 28 15 | 6°23'04 | 0♌34 | 3°47 | 12°17 | 0°29 | 2° 2 | 13°49 | 21°18 | 25°13 | 19°45 | 20°48 | 21°21 | 5°10 | 9°53 | S 22 | | |
| M23 | 4 32 12 | 7°24'08 | 12°36 | 5°21 | 13°32 | 0°51 | 2°14 | 13°53 | 21°19 | 25°11 | 19°45 | 20°R48 | 21°18 | 5°17 | 9°56 | M23 | | |
| T 24 | 4 36 8 | 8°25'13 | 24°52 | 6°55 | 14°47 | 1°13 | 2°26 | 13°58 | 21°21 | 25° 9 | 19°45 | 20°47 | 21°15 | 5°23 | 9°58 | T 24 | | |
| W25 | 4 40 5 | 9°26'19 | 7♌27 | 8°30 | 16° 3 | 1°35 | 2°38 | 14° 2 | 21°22 | 25° 8 | 19°45 | 20°46 | 21°12 | 5°30 | 10° 1 | W25 | | |
| T 26 | 4 44 1 | 10°27'25 | 20°23 | 10° 4 | 17°18 | 1°57 | 2°50 | 14° 6 | 21°24 | 25° 6 | 19°45 | 20°44 | 21° 8 | 5°37 | 10° 4 | T 26 | | |
| F 27 | 4 47 58 | 11°28'31 | 3♌43 | 11°39 | 18°33 | 2°18 | 3° 1 | 14°11 | 21°25 | 25° 5 | 19°45 | 20°43 | 21° 5 | 5°43 | 10° 6 | F 27 | | |
| S 28 | 4 51 54 | 12°29'38 | 17°27 | 13°14 | 19°48 | 2°39 | 3°13 | 14°16 | 21°27 | 25° 3 | 19°D45 | 20°42 | 21° 2 | 5°50 | 10° 9 | S 28 | | |
| S 29 | 4 55 51 | 13°30'45 | 1♌34 | 14°49 | 21° 3 | 2°59 | 3°24 | 14°20 | 21°29 | 25° 1 | 19°45 | 20°41 | 20°59 | 5°57 | 10°12 | S 29 | | |
| M30 | 4 59 47 | 14°31'53 | 16♌ 0 | 16°24 | 22♌18 | 3♌19 | 3♌36 | 14°25 | 21°31 | 25°II 0 | 19°K45 | 20°D41 | 20°K56 | 6° 3 | 10°15 | M30 | | |

Delta T = 18m46s Julian Calendar 1 Nov. 1080 == Greg. Calendar 7 Nov. 1080

DECEMBER 1080 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|-------|-------|------|------|-------|-------|---------|--------|--------|--------|------|-------|------|---|-----|
| T 1 | 5 3 44 | 15♌33'01 | 0♌40 | 17♌59 | 23♌33 | 3♌39 | 3♌47 | 14°30 | 21°32 | 24°R58 | 19°K45 | 20°K41 | 20°K52 | 6°10 | 10°18 | T 1 | | |
| W 2 | 5 7 41 | 16°34'10 | 15°26 | 19°34 | 24°48 | 3°58 | 3°59 | 14°35 | 21°34 | 24°II56 | 19°45 | 20°41 | 20°49 | 6°17 | 10°21 | W 2 | | |
| T 3 | 5 11 37 | 17°35'19 | 0♌12 | 21°10 | 26° 3 | 4°17 | 4°10 | 14°40 | 21°36 | 24°55 | 19°45 | 20°42 | 20°46 | 6°24 | 10°24 | T 3 | | |
| F 4 | 5 15 34 | 18°36'29 | 14°51 | 22°46 | 27°18 | 4°36 | 4°21 | 14°45 | 21°38 | 24°53 | 19°45 | 20°42 | 20°43 | 6°30 | 10°27 | F 4 | | |
| S 5 | 5 19 30 | 19°37'39 | 29°17 | 24°22 | 28°34 | 4°54 | 4°32 | 14°50 | 21°40 | 24°51 | 19°45 | 20°42 | 20°40 | 6°37 | 10°30 | S 5 | | |
| S 6 | 5 23 27 | 20°38'50 | 13♌28 | 25°59 | 29°49 | 5°11 | 4°43 | 14°55 | 21°42 | 24°49 | 19°45 | 20°42 | 20°37 | 6°44 | 10°33 | S 6 | | |
| M 7 | 5 27 23 | 21°40'01 | 27°22 | 27°35 | 1♌ 4 | 5°28 | 4°54 | 15° 0 | 21°44 | 24°48 | 19°46 | 20°42 | 20°33 | 6°50 | 10°37 | M 7 | | |
| T 8 | 5 31 20 | 22°41'13 | 10♌57 | 29°12 | 2°19 | 5°45 | 5° 5 | 15° 6 | 21°46 | 24°46 | 19°46 | 20°42 | 20°30 | 6°57 | 10°40 | T 8 | | |
| W 9 | 5 35 17 | 23°42'26 | 24°16 | 0♌49 | 3°34 | 6° 1 | 5°16 | 15°11 | 21°48 | 24°44 | 19°46 | 20°42 | 20°27 | 7° 4 | 10°43 | W 9 | | |
| T 10 | 5 39 13 | 24°43'38 | 7♌18 | 2°27 | 4°50 | 6°17 | 5°26 | 15°17 | 21°51 | 24°43 | 19°46 | 20°43 | 20°24 | 7°10 | 10°47 | T 10 | | |
| F 11 | 5 43 10 | 25°44'52 | 20° 7 | 4° 4 | 6° 5 | 6°33 | 5°37 | 15°22 | 21°53 | 24°41 | 19°47 | 20°43 | 20°21 | 7°17 | 10°50 | F 11 | | |
| S 12 | 5 47 6 | 26°46'05 | 2♌42 | 5°42 | 7°20 | 6°47 | 5°48 | 15°28 | 21°55 | 24°39 | 19°47 | 20°44 | 20°18 | 7°24 | 10°53 | S 12 | | |
| S 13 | 5 51 3 | 27°47'19 | 15° 5 | 7°20 | 8°35 | 7° 2 | 5°58 | 15°33 | 21°58 | 24°38 | 19°47 | 20°R44 | 20°14 | 7°30 | 10°57 | S 13 | | |
| M14 | 5 54 59 | 28°48'32 | 27°19 | 8°57 | 9°51 | 7°15 | 6° 8 | 15°39 | 22° 0 | 24°36 | 19°48 | 20°44 | 20°11 | 7°37 | 11° 0 | M14 | | |
| T 15 | 5 58 56 | 29°49'46 | 9♌24 | 10°35 | 11° 6 | 7°29 | 6°19 | 15°45 | 22° 2 | 24°34 | 19°48 | 20°44 | 20° 8 | 7°44 | 11° 4 | T 15 | | |
| W16 | 6 2 52 | 0♌50'59 | 21°21 | 12°13 | 12°21 | 7°41 | 6°29 | 15°51 | 22° 5 | 24°32 | 19°49 | 20°43 | 20° 5 | 7°50 | 11° 8 | W16 | | |
| T 17 | 6 6 49 | 1°52'12 | 3♌14 | 13°51 | 13°36 | 7°54 | 6°39 | 15°57 | 22° 7 | 24°31 | 19°49 | 20°41 | 20° 2 | 7°57 | 11°11 | T 17 | | |
| F 18 | 6 10 46 | 2°53'25 | 15° 3 | 15°29 | 14°52 | 8° 5 | 6°49 | 16° 3 | 22°10 | 24°29 | 19°49 | 20°39 | 19°58 | 8° 4 | 11°15 | F 18 | | |
| S 19 | 6 14 42 | 3°54'37 | 26°53 | 17° 6 | 16° 7 | 8°16 | 6°59 | 16° 9 | 22°12 | 24°27 | 19°50 | 20°37 | 19°55 | 8°11 | 11°19 | S 19 | | |
| S 20 | 6 18 39 | 4°55'49 | 8♌46 | 18°43 | 17°22 | 8°27 | 7° 8 | 16°15 | 22°15 | 24°26 | 19°50 | 20°35 | 19°52 | 8°17 | 11°22 | S 20 | | |
| M21 | 6 22 35 | 5°57'00 | 20°47 | 20°19 | 18°37 | 8°37 | 7°18 | 16°21 | 22°17 | 24°24 | 19°51 | 20°34 | 19°49 | 8°24 | 11°26 | M21 | | |
| T 22 | 6 26 32 | 6°58'11 | 2°Y59 | 21°55 | 19°53 | 8°46 | 7°27 | 16°27 | 22°20 | 24°22 | 19°52 | 20°D33 | 19°46 | 8°31 | 11°30 | T 22 | | |
| W23 | 6 30 28 | 7°59'21 | 15°28 | 23°29 | 21° 8 | 8°55 | 7°37 | 16°33 | 22°23 | 24°21 | 19°52 | 20°33 | 19°43 | 8°37 | 11°34 | W23 | | |
| T 24 | 6 34 25 | 9° 0'30 | 28°17 | 25° 2 | 22°23 | 9° 3 | 7°46 | 16°40 | 22°25 | 24°19 | 19°53 | 20°34 | 19°39 | 8°44 | 11°38 | T 24 | | |
| F 25 | 6 38 21 | 10° 1'39 | 11♌30 | 26°34 | 23°38 | 9°10 | 7°55 | 16°46 | 22°28 | 24°17 | 19°53 | 20°36 | 19°36 | 8°51 | 11°41 | F 25 | | |
| S 26 | 6 42 18 | 11° 2'46 | 25°11 | 28° 3 | 24°54 | 9°17 | 8° 4 | 16°52 | 22°31 | 24°16 | 19°54 | 20°37 | 19°33 | 8°57 | 11°45 | S 26 | | |
| S 27 | 6 46 15 | 12° 3'54 | 9♌18 | 29°30 | 26° 9 | 9°23 | 8°13 | 16°59 | 22°34 | 24°14 | 19°55 | 20°38 | 19°30 | 9° 4 | 11°49 | S 27 | | |
| M28 | 6 50 11 | 13° 5'00 | 23°51 | 0♌54 | 27°24 | 9°29 | 8°22 | 17° 5 | 22°37 | 24°13 | 19°55 | 20°R39 | 19°27 | 9°11 | 11°53 | M28 | | |
| T 29 | 6 54 8 | 14° 6'06 | 8♌45 | 2°14 | 28°39 | 9°34 | 8°31 | 17°12 | 22°39 | 24°11 | 19°56 | 20°38 | 19°24 | 9°17 | 11°57 | T 29 | | |
| W30 | 6 58 4 | 15° 7'11 | 23°52 | 3°30 | 29°54 | 9°38 | 8°40 | 17°18 | 22°42 | 24°10 | 19°57 | 20°36 | 19°20 | 9°24 | 12° 1 | W30 | | |
| T 31 | 7 2 1 | 16° 8'15 | 9♌ 3 | 4°42 | 1♌10 | 9♌41 | 8♌48 | 17°25 | 22°44 | 24°II 8 | 19°K58 | 20°K32 | 19°K17 | 9°31 | 12° 5 | T 31 | | |

Delta T = 18m46s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1081
geocentric

JANUARY 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|---------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 7 5 57 | 17♌9'19 | 24♋8 | 5♉48 | 2♊25 | 9♍44 | 8♌56 | 17♌31 | 22♌48 | 24♋6 | 19♌58 | 20♋R29 | 19♌14 | 9♉38 | 12♌9 | F 1 | | | | | | | | |
| S 2 | 7 9 54 | 18°10'22 | 8♍57 | 6°47 | 3°40 | 9°46 | 9°5 | 17°38 | 22°51 | 24♋II 5 | 19°59 | 20♌25 | 19°11 | 9°44 | 12°14 | S 2 | | | | | | | | |
| S 3 | 7 13 50 | 19°11'25 | 23°26 | 7°39 | 4°55 | 9°47 | 9°13 | 17°45 | 22°54 | 24°3 | 20°0 | 20°22 | 19°8 | 9°51 | 12°18 | S 3 | | | | | | | | |
| M 4 | 7 17 47 | 20°12'27 | 7♌29 | 8°23 | 6°11 | 9°R48 | 9°21 | 17°52 | 22°57 | 24°2 | 20°1 | 20°20 | 19°4 | 9°58 | 12°22 | M 4 | | | | | | | | |
| T 5 | 7 21 44 | 21°13'28 | 21°6 | 8°59 | 7°26 | 9°48 | 9°29 | 17°58 | 23°0 | 24°0 | 20°2 | 20°D19 | 19°1 | 10°4 | 12°26 | T 5 | | | | | | | | |
| W 6 | 7 25 40 | 22°14'29 | 4♌20 | 9°24 | 8°41 | 9°47 | 9°36 | 18°5 | 23°3 | 23°59 | 20°3 | 20°19 | 18°58 | 10°11 | 12°30 | W 6 | | | | | | | | |
| T 7 | 7 29 37 | 23°15'30 | 17°11 | 9°39 | 9°56 | 9°45 | 9°44 | 18°12 | 23°6 | 23°57 | 20°3 | 20°21 | 18°55 | 10°18 | 12°34 | T 7 | | | | | | | | |
| F 8 | 7 33 33 | 24°16'29 | 29°45 | 9°R43 | 11°11 | 9°42 | 9°51 | 18°19 | 23°9 | 23°56 | 20°4 | 20°23 | 18°52 | 10°24 | 12°39 | F 8 | | | | | | | | |
| S 9 | 7 37 30 | 25°17'28 | 12♌5 | 9°36 | 12°27 | 9°39 | 9°59 | 18°26 | 23°13 | 23°55 | 20°5 | 20°24 | 18°49 | 10°31 | 12°43 | S 9 | | | | | | | | |
| S 10 | 7 41 26 | 26°18'26 | 24°13 | 9°18 | 13°42 | 9°35 | 10°6 | 18°33 | 23°16 | 23°53 | 20°6 | 20°R24 | 18°45 | 10°38 | 12°47 | S 10 | | | | | | | | |
| M11 | 7 45 23 | 27°19'23 | 6♌14 | 8°48 | 14°57 | 9°30 | 10°13 | 18°40 | 23°19 | 23°52 | 20°7 | 20°23 | 18°42 | 10°44 | 12°51 | M11 | | | | | | | | |
| T 12 | 7 49 20 | 28°20'19 | 18°10 | 8°8 | 16°12 | 9°25 | 10°20 | 18°47 | 23°22 | 23°51 | 20°8 | 20°20 | 18°39 | 10°51 | 12°56 | T 12 | | | | | | | | |
| W13 | 7 53 16 | 29°21'14 | 0♌2 | 7°18 | 17°27 | 9°18 | 10°26 | 18°54 | 23°25 | 23°49 | 20°9 | 20°14 | 18°36 | 10°58 | 13°0 | W13 | | | | | | | | |
| T 14 | 7 57 13 | 0♌22'08 | 11°52 | 6°20 | 18°43 | 9°11 | 10°33 | 19°1 | 23°29 | 23°48 | 20°10 | 20°7 | 18°33 | 11°5 | 13°4 | T 14 | | | | | | | | |
| F 15 | 8 1 9 | 1°23'01 | 23°43 | 5°16 | 19°58 | 9°3 | 10°39 | 19°8 | 23°32 | 23°47 | 20°11 | 19°59 | 18°30 | 11°11 | 13°8 | F 15 | | | | | | | | |
| S 16 | 8 5 6 | 2°23'52 | 5♌35 | 4°7 | 21°13 | 8°54 | 10°46 | 19°15 | 23°35 | 23°45 | 20°12 | 19°50 | 18°26 | 11°18 | 13°13 | S 16 | | | | | | | | |
| S 17 | 8 9 2 | 3°24'42 | 17°31 | 2°55 | 22°28 | 8°45 | 10°52 | 19°22 | 23°38 | 23°44 | 20°13 | 19°42 | 18°23 | 11°25 | 13°17 | S 17 | | | | | | | | |
| M18 | 8 12 59 | 4°25'30 | 29°34 | 1°43 | 23°43 | 8°34 | 10°58 | 19°29 | 23°42 | 23°43 | 20°15 | 19°36 | 18°20 | 11°31 | 13°21 | M18 | | | | | | | | |
| T 19 | 8 16 55 | 5°26'17 | 11♌46 | 0°32 | 24°58 | 8°23 | 11°4 | 19°37 | 23°45 | 23°42 | 20°16 | 19°31 | 18°17 | 11°38 | 13°26 | T 19 | | | | | | | | |
| W20 | 8 20 52 | 6°27'02 | 24°12 | 29♌24 | 26°14 | 8°11 | 11°9 | 19°44 | 23°48 | 23°41 | 20°17 | 19°28 | 18°14 | 11°45 | 13°30 | W20 | | | | | | | | |
| T 21 | 8 24 48 | 7°27'45 | 6♌54 | 28°21 | 27°29 | 7°58 | 11°15 | 19°51 | 23°52 | 23°39 | 20°18 | 19°D27 | 18°10 | 11°51 | 13°35 | T 21 | | | | | | | | |
| F 22 | 8 28 45 | 8°28'27 | 19°58 | 27°23 | 28°44 | 7°45 | 11°20 | 19°58 | 23°55 | 23°38 | 20°19 | 19°27 | 18°7 | 11°58 | 13°39 | F 22 | | | | | | | | |
| S 23 | 8 32 42 | 9°29'07 | 3♌27 | 26°33 | 29°59 | 7°31 | 11°25 | 20°6 | 23°58 | 23°37 | 20°20 | 19°28 | 18°4 | 12°5 | 13°43 | S 23 | | | | | | | | |
| S 24 | 8 36 38 | 10°29'46 | 17°24 | 25°50 | 1♌14 | 7°16 | 11°30 | 20°13 | 24°2 | 23°36 | 20°21 | 19°R29 | 18°1 | 12°12 | 13°48 | S 24 | | | | | | | | |
| M25 | 8 40 35 | 11°30'23 | 1♌48 | 25°14 | 2°29 | 7°0 | 11°35 | 20°20 | 24°5 | 23°35 | 20°23 | 19°29 | 17°58 | 12°18 | 13°52 | M25 | | | | | | | | |
| T 26 | 8 44 31 | 12°30'58 | 16°38 | 24°47 | 3°44 | 6°44 | 11°40 | 20°27 | 24°9 | 23°34 | 20°24 | 19°26 | 17°55 | 12°25 | 13°56 | T 26 | | | | | | | | |
| W27 | 8 48 28 | 13°31'31 | 1♌47 | 24°27 | 4°59 | 6°27 | 11°44 | 20°35 | 24°12 | 23°33 | 20°25 | 19°21 | 17°51 | 12°32 | 14°1 | W27 | | | | | | | | |
| T 28 | 8 52 24 | 14°32'02 | 17°7 | 24°15 | 6°14 | 6°9 | 11°49 | 20°42 | 24°15 | 23°32 | 20°26 | 19°13 | 17°48 | 12°38 | 14°5 | T 28 | | | | | | | | |
| F 29 | 8 56 21 | 15°32'32 | 2♌25 | 24°D11 | 7°29 | 5°51 | 11°53 | 20°49 | 24°19 | 23°31 | 20°28 | 19°5 | 17°45 | 12°45 | 14°9 | F 29 | | | | | | | | |
| S 30 | 9 0 18 | 16°33'01 | 17°32 | 24°13 | 8°44 | 5°32 | 11°57 | 20°57 | 24°22 | 23°30 | 20°29 | 18°56 | 17°42 | 12°52 | 14°14 | S 30 | | | | | | | | |
| S 31 | 9 4 14 | 17°33'28 | 2♌18 | 24♌22 | 9♉59 | 5♍13 | 12♌1 | 21°4 | 24°26 | 23♌29 | 20♌30 | 18♌48 | 17♌39 | 12°58 | 14°18 | S 31 | | | | | | | | |

Delta T = 18m46s Julian Calendar 1 Jan. 1081 == Greg. Calendar 7 Jan. 1081

FEBRUARY 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|---------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 9 8 11 | 18°33'53 | 16♌35 | 24♌37 | 11♌14 | 4°R53 | 12♌5 | 21°11 | 24°29 | 23°R29 | 20♌31 | 18°R41 | 17♌36 | 13°5 | 14°23 | M 1 | | | | | | | | |
| T 2 | 9 12 7 | 19°34'17 | 0♌23 | 24°58 | 12°29 | 4♍32 | 12°8 | 21°19 | 24°32 | 23♌II28 | 20°33 | 18♌37 | 17°32 | 13°12 | 14°27 | T 2 | | | | | | | | |
| W 3 | 9 16 4 | 20°34'40 | 13°42 | 25°25 | 13°44 | 4°11 | 12°11 | 21°26 | 24°36 | 23°27 | 20°34 | 18°36 | 17°29 | 13°19 | 14°31 | W 3 | | | | | | | | |
| T 4 | 9 20 0 | 21°35'01 | 26°34 | 25°56 | 14°59 | 3°50 | 12°15 | 21°33 | 24°39 | 23°26 | 20°35 | 18°D35 | 17°26 | 13°25 | 14°36 | T 4 | | | | | | | | |
| F 5 | 9 23 57 | 22°35'21 | 9♌4 | 26°32 | 16°14 | 3°28 | 12°18 | 21°41 | 24°43 | 23°26 | 20°37 | 18°36 | 17°23 | 13°32 | 14°40 | F 5 | | | | | | | | |
| S 6 | 9 27 53 | 23°35'39 | 21°18 | 27°13 | 17°29 | 3°6 | 12°20 | 21°48 | 24°46 | 23°25 | 20°38 | 18°R36 | 17°20 | 13°39 | 14°44 | S 6 | | | | | | | | |
| S 7 | 9 31 50 | 24°35'56 | 3♌19 | 27°57 | 18°44 | 2°43 | 12°23 | 21°55 | 24°50 | 23°24 | 20°39 | 18°35 | 17°16 | 13°45 | 14°49 | S 7 | | | | | | | | |
| M 8 | 9 35 47 | 25°36'12 | 15°13 | 28°45 | 19°59 | 2°20 | 12°25 | 22°3 | 24°53 | 23°24 | 20°41 | 18°32 | 17°13 | 13°52 | 14°53 | M 8 | | | | | | | | |
| T 9 | 9 39 43 | 26°36'25 | 27°3 | 29°36 | 21°14 | 1°57 | 12°28 | 22°10 | 24°57 | 23°23 | 20°42 | 18°25 | 17°10 | 13°59 | 14°57 | T 9 | | | | | | | | |
| W10 | 9 43 40 | 27°36'37 | 8♌52 | 0♌31 | 22°29 | 1°34 | 12°30 | 22°17 | 25°0 | 23°22 | 20°44 | 18°16 | 17°7 | 14°5 | 15°2 | W10 | | | | | | | | |
| T 11 | 9 47 36 | 28°36'47 | 20°42 | 1°28 | 23°44 | 1°10 | 12°32 | 22°24 | 25°4 | 23°22 | 20°45 | 18°5 | 17°4 | 14°12 | 15°6 | T 11 | | | | | | | | |
| F 12 | 9 51 33 | 29°36'55 | 2♌36 | 2°29 | 24°59 | 0°46 | 12°33 | 22°32 | 25°7 | 23°21 | 20°46 | 17°51 | 17°1 | 14°19 | 15°10 | F 12 | | | | | | | | |
| S 13 | 9 55 29 | 0♌37'01 | 14°34 | 3°31 | 26°14 | 0°23 | 12°35 | 22°39 | 25°10 | 23°21 | 20°48 | 17°37 | 16°57 | 14°26 | 15°14 | S 13 | | | | | | | | |
| S 14 | 9 59 26 | 1°37'05 | 26°38 | 4°37 | 27°28 | 29♌59 | 12°36 | 22°46 | 25°14 | 23°21 | 20°49 | 17°24 | 16°54 | 14°32 | 15°19 | S 14 | | | | | | | | |
| M15 | 10 3 22 | 2°37'07 | 8♌49 | 5°44 | 28°43 | 29°35 | 12°37 | 22°54 | 25°17 | 23°20 | 20°51 | 17°12 | 16°51 | 14°39 | 15°23 | M15 | | | | | | | | |
| T 16 | 10 7 19 | 3°37'07 | 21°8 | 6°54 | 29°58 | 29°12 | 12°38 | 23°1 | 25°21 | 23°20 | 20°52 | 17°3 | 16°48 | 14°46 | 15°27 | T 16 | | | | | | | | |
| W17 | 10 11 15 | 4°37'05 | 3♌38 | 8°5 | 1♌13 | 28°48 | 12°39 | 23°8 | 25°24 | 23°19 | 20°53 | 16°57 | 16°45 | 14°52 | 15°31 | W17 | | | | | | | | |
| T 18 | 10 15 12 | 5°37'01 | 16°23 | 9°19 | 2°28 | 28°25 | 12°39 | 23°15 | 25°28 | 23°19 | 20°55 | 16°53 | 16°41 | 14°59 | 15°35 | T 18 | | | | | | | | |
| F 19 | 10 19 9 | 6°36'55 | 29°24 | 10°34 | 3°43 | 28°1 | 12°40 | 23°23 | 25°31 | 23°19 | 20°56 | 16°52 | 16°38 | 15°6 | 15°40 | F 19 | | | | | | | | |
| S 20 | 10 23 5 | 7°36'46 | 12♌45 | 11°51 | 4°57 | 27°38 | 12°40 | 23°30 | 25°34 | 23°19 | 20°58 | 16°52 | 16°35 | 15°12 | 15°44 | S 20 | | | | | | | | |
| S 21 | 10 27 2 | 8°36'35 | 26°29 | 13°10 | 6°12 | 27°16 | 12°R40 | 23°37 | 25°38 | 23°18 | 20°59 | 16°52 | 16°32 | 15°19 | 15°48 | S 21 | | | | | | | | |
| M22 | 10 30 58 | 9°36'22 | 10♌39 | 14°30 | 7°27 | 26°53 | 12°40 | 23°44 | 25°41 | 23°18 | 21°1 | 16°50 | 16°29 | 15°26 | 15°52 | M22 | | | | | | | | |
| T 23 | 10 34 55 | 10°36'06 | 25°12 | 15°52 | 8°42 | 26°32 | 12°40 | 23°51 | 25°45 | 23°18 | 21°2 | 16°46 | 16°26 | 15°33 | 15°56 | T 23 | | | | | | | | |
| W24 | 10 38 51 | 11°35'48 | 10♌7 | 17°16 | 9°56 | 26°10 | 12°39 | 23°58 | 25°48 | 23°18 | 21°4 | 16°40 | 16°22 | 15°39 | 16°0 | W24 | | | | | | | | |
| T 25 | 10 42 48 | 12°35'28 | 25°16 | 18°41 | 11°11 | 25°49 | 12°38 | 24°6 | 25°51 | 23°18 | 21°5 | 16°30 | 16°19 | 15°46 | 16°4 | T 25 | | | | | | | | |
| F 26 | 10 46 44 | 13°35'06 | 10♌29 | 20°7 | 12°26 | 25°28 | 12°37 | 24°13 | 25°55 | 23°D18 | 21°7 | 16°19 | 16°16 | 15°53 | 16°8 | F 26 | | | | | | | | |
| S 27 | 10 50 41 | 14°34'41 | 25°35 | 21°35 | 13°40 | 25°8 | 12°36 | 24°20 | 25°58 | 23°18 | 21°8 | 16°8 | 16°13 | 15°59 | 16°12 | S 27 | | | | | | | | |
| S 28 | 10 54 38 | 15°34'15 | 10♌25 | 23°4 | 14♌55 | 24♌49 | 12♌35 | 24°27 | 26°1 | 23♌II18 | 21♌10 | 15♌57 | 16♌10 | 16°6 | 16°16 | S 28 | | | | | | | | |

Delta T = 18m46s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1081
geocentric

MARCH 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------|-------|--------|--------|--------|--------|-------|-------|-------|-------|--------|--------|-------|-------|------|---|-----|
| M 1 | 10 58 34 | 16♋33'46 | 24♌50 | 24♋35 | 16♋10 | 24°R30 | 12°R33 | 24♋34 | 26♋5 | 23♌18 | 21♋11 | 15°R48 | 16♋7 | 16♋13 | 16♋20 | M 1 | | |
| T 2 | 11 2 31 | 17°33'16 | 8♌46 | 26° 7 | 17°24 | 24♌11 | 12♌32 | 24°41 | 26° 8 | 23°18 | 21°13 | 15♋42 | 16° 3 | 16°19 | 16°24 | T 2 | | |
| W 3 | 11 6 27 | 18°32'44 | 22°12 | 27°40 | 18°39 | 23°53 | 12°30 | 24°48 | 26°11 | 23°18 | 21°14 | 15°38 | 16° 0 | 16°26 | 16°28 | W 3 | | |
| T 4 | 11 10 24 | 19°32'10 | 5♌11 | 29°15 | 19°53 | 23°36 | 12°28 | 24°54 | 26°14 | 23°19 | 21°16 | 15°37 | 15°57 | 16°33 | 16°31 | T 4 | | |
| F 5 | 11 14 20 | 20°31'35 | 17°45 | 0♋51 | 21° 8 | 23°20 | 12°26 | 25° 1 | 26°18 | 23°19 | 21°17 | 15°37 | 15°54 | 16°40 | 16°35 | F 5 | | |
| S 6 | 11 18 17 | 21°30'58 | 0♋0 | 2°28 | 22°22 | 23° 4 | 12°23 | 25° 8 | 26°21 | 23°19 | 21°19 | 15°37 | 15°51 | 16°46 | 16°39 | S 6 | | |
| S 7 | 11 22 13 | 22°30'18 | 12° 1 | 4° 7 | 23°37 | 22°49 | 12°21 | 25°15 | 26°24 | 23°19 | 21°20 | 15°35 | 15°47 | 16°53 | 16°43 | S 7 | | |
| M 8 | 11 26 10 | 23°29'37 | 23°54 | 5°47 | 24°52 | 22°34 | 12°18 | 25°22 | 26°27 | 23°20 | 21°22 | 15°32 | 15°44 | 17° 0 | 16°46 | M 8 | | |
| T 9 | 11 30 7 | 24°28'54 | 5♋43 | 7°28 | 26° 6 | 22°20 | 12°15 | 25°29 | 26°30 | 23°20 | 21°23 | 15°26 | 15°41 | 17° 6 | 16°50 | T 9 | | |
| W10 | 11 34 3 | 25°28'10 | 17°33 | 9°11 | 27°21 | 22° 8 | 12°12 | 25°35 | 26°33 | 23°20 | 21°25 | 15°17 | 15°38 | 17°13 | 16°54 | W10 | | |
| T 11 | 11 38 0 | 26°27'23 | 29°26 | 10°55 | 28°35 | 21°55 | 12° 8 | 25°42 | 26°37 | 23°21 | 21°26 | 15° 6 | 15°35 | 17°20 | 16°57 | T 11 | | |
| F 12 | 11 41 56 | 27°26'34 | 11♋24 | 12°41 | 29°49 | 21°44 | 12° 5 | 25°49 | 26°40 | 23°21 | 21°28 | 14°53 | 15°32 | 17°27 | 17° 1 | F 12 | | |
| S 13 | 11 45 53 | 28°25'43 | 23°31 | 14°28 | 1°Y 4 | 21°33 | 12° 1 | 25°55 | 26°43 | 23°22 | 21°29 | 14°39 | 15°28 | 17°33 | 17° 4 | S 13 | | |
| S 14 | 11 49 49 | 29°24'50 | 5°Y45 | 16°16 | 2°18 | 21°23 | 11°57 | 26° 2 | 26°46 | 23°22 | 21°30 | 14°26 | 15°25 | 17°40 | 17° 8 | S 14 | | |
| M15 | 11 53 46 | 0°Y23'55 | 18° 9 | 18° 6 | 3°33 | 21°14 | 11°53 | 26° 8 | 26°49 | 23°23 | 21°32 | 14°14 | 15°22 | 17°47 | 17°11 | M15 | | |
| T 16 | 11 57 42 | 1°22'58 | 0♋43 | 19°57 | 4°47 | 21° 6 | 11°49 | 26°15 | 26°52 | 23°23 | 21°33 | 14° 4 | 15°19 | 17°53 | 17°15 | T 16 | | |
| W17 | 12 1 39 | 2°21'59 | 13°27 | 21°50 | 6° 2 | 20°59 | 11°45 | 26°21 | 26°55 | 23°24 | 21°35 | 13°58 | 15°16 | 18° 0 | 17°18 | W17 | | |
| T 18 | 12 5 35 | 3°20'57 | 26°23 | 23°44 | 7°16 | 20°52 | 11°41 | 26°28 | 26°58 | 23°25 | 21°36 | 13°54 | 15°12 | 18° 7 | 17°22 | T 18 | | |
| F 19 | 12 9 32 | 4°19'53 | 9♌32 | 25°39 | 8°30 | 20°46 | 11°36 | 26°34 | 27° 1 | 23°25 | 21°38 | 13°D53 | 15° 9 | 18°13 | 17°25 | F 19 | | |
| S 20 | 12 13 29 | 5°18'47 | 22°56 | 27°36 | 9°45 | 20°41 | 11°31 | 26°40 | 27° 4 | 23°26 | 21°39 | 13°53 | 15° 6 | 18°20 | 17°28 | S 20 | | |
| S 21 | 12 17 25 | 6°17'39 | 6♋37 | 29°34 | 10°59 | 20°37 | 11°26 | 26°46 | 27° 6 | 23°27 | 21°41 | 13°R54 | 15° 3 | 18°27 | 17°31 | S 21 | | |
| M22 | 12 21 22 | 7°16'28 | 20°37 | 1°Y34 | 12°13 | 20°33 | 11°21 | 26°53 | 27° 9 | 23°27 | 21°42 | 13°53 | 15° 0 | 18°34 | 17°35 | M22 | | |
| T 23 | 12 25 18 | 8°15'15 | 4♌55 | 3°35 | 13°27 | 20°30 | 11°16 | 26°59 | 27°12 | 23°28 | 21°44 | 13°50 | 14°57 | 18°40 | 17°38 | T 23 | | |
| W24 | 12 29 15 | 9°14'00 | 19°29 | 5°37 | 14°42 | 20°28 | 11°11 | 27° 5 | 27°15 | 23°29 | 21°45 | 13°45 | 14°53 | 18°47 | 17°41 | W24 | | |
| T 25 | 12 33 11 | 10°12'42 | 4♌16 | 7°40 | 15°56 | 20°27 | 11° 5 | 27°11 | 27°18 | 23°30 | 21°47 | 13°38 | 14°50 | 18°54 | 17°44 | T 25 | | |
| F 26 | 12 37 8 | 11°11'22 | 19° 7 | 9°45 | 17°10 | 20°D27 | 10°59 | 27°17 | 27°20 | 23°31 | 21°48 | 13°29 | 14°47 | 19° 0 | 17°47 | F 26 | | |
| S 27 | 12 41 4 | 12°10'00 | 3♌55 | 11°50 | 18°24 | 20°27 | 10°54 | 27°23 | 27°23 | 23°32 | 21°49 | 13°19 | 14°44 | 19° 7 | 17°50 | S 27 | | |
| S 28 | 12 45 1 | 13° 8'35 | 18°32 | 13°56 | 19°38 | 20°28 | 10°48 | 27°29 | 27°26 | 23°33 | 21°51 | 13°10 | 14°41 | 19°14 | 17°53 | S 28 | | |
| M29 | 12 48 58 | 14° 7'09 | 2♌50 | 16° 3 | 20°52 | 20°30 | 10°42 | 27°35 | 27°28 | 23°34 | 21°52 | 13° 3 | 14°38 | 19°21 | 17°56 | M29 | | |
| T 30 | 12 52 54 | 15° 5'41 | 16°43 | 18°11 | 22° 6 | 20°32 | 10°36 | 27°40 | 27°31 | 23°35 | 21°54 | 12°58 | 14°34 | 19°27 | 17°58 | T 30 | | |
| W31 | 12 56 51 | 16°Y 4'12 | 0♋11 | 20°Y18 | 23°Y21 | 20°Ω35 | 10♌29 | 27°46 | 27°33 | 23°36 | 21°55 | 12°Y55 | 14°Y31 | 19°34 | 18° 1 | W31 | | |

Delta T = 18m45s Julian Calendar 1 March 1081 == Greg. Calendar 7 March 1081

APRIL 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|-----------|-------|--------|--------|--------|--------|-------|-------|-------|-------|--------|--------|--------|-------|------|-----|
| T 1 | 13 0 47 | 17°Y 2'40 | 13♋12 | 22°Y25 | 24°Y35 | 20°Ω39 | 10°R23 | 27°52 | 27°36 | 23°37 | 21°56 | 12°D54 | 14°Y28 | 19°441 | 18° 4 | T 1 | |
| F 2 | 13 4 44 | 18° 1'07 | 25°50 | 24°33 | 25°49 | 20°44 | 10♌17 | 27°57 | 27°38 | 23°38 | 21°58 | 12°Y55 | 14°25 | 19°47 | 18° 7 | F 2 | |
| S 3 | 13 8 40 | 18°59'33 | 8♌10 | 26°39 | 27° 3 | 20°49 | 10°10 | 28° 3 | 27°41 | 23°39 | 21°59 | 12°56 | 14°22 | 19°54 | 18° 9 | S 3 | |
| S 4 | 13 12 37 | 19°57'56 | 20°14 | 28°45 | 28°17 | 20°55 | 10° 3 | 28° 8 | 27°43 | 23°40 | 22° 0 | 12°R56 | 14°18 | 20° 1 | 18°12 | S 4 | |
| M 5 | 13 16 33 | 20°56'18 | 2♋9 | 0♋49 | 29°31 | 21° 1 | 9°57 | 28°14 | 27°46 | 23°42 | 22° 2 | 12°55 | 14°15 | 20° 8 | 18°14 | M 5 | |
| T 6 | 13 20 30 | 21°54'39 | 14° 1 | 2°52 | 0♋45 | 21° 9 | 9°50 | 28°19 | 27°48 | 23°43 | 22° 3 | 12°53 | 14°12 | 20°14 | 18°17 | T 6 | |
| W 7 | 13 24 27 | 22°52'57 | 25°52 | 4°53 | 1°59 | 21°16 | 9°43 | 28°24 | 27°50 | 23°44 | 22° 4 | 12°48 | 14° 9 | 20°21 | 18°19 | W 7 | |
| T 8 | 13 28 23 | 23°51'14 | 7♋48 | 6°51 | 3°13 | 21°25 | 9°36 | 28°29 | 27°53 | 23°45 | 22° 6 | 12°41 | 14° 6 | 20°28 | 18°22 | T 8 | |
| F 9 | 13 32 20 | 24°49'30 | 19°52 | 8°48 | 4°26 | 21°34 | 9°29 | 28°35 | 27°55 | 23°47 | 22° 7 | 12°33 | 14° 3 | 20°34 | 18°24 | F 9 | |
| S 10 | 13 36 16 | 25°47'44 | 2°Y 7 | 10°41 | 5°40 | 21°43 | 9°21 | 28°40 | 27°57 | 23°48 | 22° 8 | 12°25 | 13°59 | 20°41 | 18°26 | S 10 | |
| S 11 | 13 40 13 | 26°45'56 | 14°33 | 12°32 | 6°54 | 21°54 | 9°14 | 28°45 | 27°59 | 23°49 | 22°10 | 12°16 | 13°56 | 20°48 | 18°28 | S 11 | |
| M12 | 13 44 9 | 27°44'06 | 27°12 | 14°19 | 8° 8 | 22° 4 | 9° 7 | 28°50 | 28° 1 | 23°51 | 22°11 | 12° 9 | 13°53 | 20°54 | 18°30 | M12 | |
| T 13 | 13 48 6 | 28°42'15 | 10♋4 | 16° 4 | 9°22 | 22°16 | 8°59 | 28°55 | 28° 4 | 23°52 | 22°12 | 12° 3 | 13°50 | 21° 1 | 18°33 | T 13 | |
| W14 | 13 52 2 | 29°40'22 | 23° 8 | 17°44 | 10°36 | 22°28 | 8°52 | 28°59 | 28° 6 | 23°54 | 22°13 | 11°59 | 13°47 | 21° 8 | 18°35 | W14 | |
| T 15 | 13 55 59 | 0♋38'27 | 6♌25 | 19°21 | 11°50 | 22°40 | 8°45 | 29° 4 | 28° 8 | 23°55 | 22°15 | 11°D58 | 13°44 | 21°15 | 18°37 | T 15 | |
| F 16 | 13 59 56 | 1°36'30 | 19°52 | 20°55 | 13° 3 | 22°53 | 8°37 | 29° 9 | 28°10 | 23°57 | 22°16 | 11°58 | 13°40 | 21°21 | 18°39 | F 16 | |
| S 17 | 14 3 52 | 2°34'32 | 3♋32 | 22°25 | 14°17 | 23° 7 | 8°29 | 29°13 | 28°12 | 23°58 | 22°17 | 11°59 | 13°37 | 21°28 | 18°40 | S 17 | |
| S 18 | 14 7 49 | 3°32'31 | 17°22 | 23°50 | 15°31 | 23°21 | 8°22 | 29°18 | 28°13 | 24° 0 | 22°18 | 12° 1 | 13°34 | 21°35 | 18°42 | S 18 | |
| M19 | 14 11 45 | 4°30'29 | 1♌23 | 25°12 | 16°45 | 23°36 | 8°14 | 29°22 | 28°15 | 24° 1 | 22°19 | 12°R 1 | 13°31 | 21°41 | 18°44 | M19 | |
| T 20 | 14 15 42 | 5°28'25 | 15°34 | 26°30 | 17°58 | 23°51 | 8° 7 | 29°27 | 28°17 | 24° 3 | 22°21 | 12° 1 | 13°28 | 21°48 | 18°46 | T 20 | |
| W21 | 14 19 38 | 6°26'18 | 29°53 | 27°43 | 19°12 | 24° 6 | 7°59 | 29°31 | 28°19 | 24° 4 | 22°22 | 11°59 | 13°24 | 21°55 | 18°47 | W21 | |
| T 22 | 14 23 35 | 7°24'10 | 14♌17 | 28°53 | 20°26 | 24°22 | 7°51 | 29°35 | 28°21 | 24° 6 | 22°23 | 11°56 | 13°21 | 22° 2 | 18°49 | T 22 | |
| F 23 | 14 27 31 | 8°22'00 | 28°42 | 29°58 | 21°39 | 24°39 | 7°44 | 29°39 | 28°22 | 24° 8 | 22°24 | 11°51 | 13°18 | 22° 8 | 18°51 | F 23 | |
| S 24 | 14 31 28 | 9°19'48 | 13♌3 | 0♌59 | 22°53 | 24°56 | 7°36 | 29°43 | 28°24 | 24° 9 | 22°25 | 11°46 | 13°15 | 22°15 | 18°52 | S 24 | |
| S 25 | 14 35 24 | 10°17'35 | 27°14 | 1°56 | 24° 7 | 25°13 | 7°29 | 29°47 | 28°25 | 24°11 | 22°26 | 11°42 | 13°12 | 22°22 | 18°53 | S 25 | |
| M26 | 14 39 21 | 11°15'20 | 11♌11 | 2°48 | 25°20 | 25°31 | 7°21 | 29°51 | 28°27 | 24°13 | 22°27 | 11°38 | 13° 9 | 22°28 | 18°55 | M26 | |
| T 27 | 14 43 18 | 12°13'04 | 24°49 | 3°36 | 26°34 | 25°49 | 7°13 | 29°55 | 28°29 | 24°15 | 22°28 | 11°36 | 13° 5 | 22°35 | 18°56 | T 27 | |
| W28 | 14 47 14 | 13°10'46 | 8♋7 | 4°19 | 27°47 | 26° 8 | 7° 6 | 29°58 | 28°30 | 24°16 | 22°29 | 11°D35 | 13° 2 | 22°42 | 18°57 | W28 | |
| T 29 | 14 51 11 | 14° 8'28 | 21° 4 | 4°57 | 29° 1 | 26°27 | 6°58 | 0♋2 | 28°31 | 24°18 | 22°30 | 11°35 | 12°59 | 22°49 | 18°59 | T 29 | |
| F 30 | 14 55 7 | 15° 6'08 | 3♋42 | 5♌31 | 0♌14 | 26°Ω47 | 6♌51 | 0♋6 | 28°33 | 24°20 | 22°31 | 11°Y36 | 12°Y56 | 22°55 | 19° 0 | F 30 | |

Delta T = 18m45s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1081
geocentric

MAY 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|--------|--------|-------|-------|-------|------|--------|-------|-------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 14 59 4 | 16♁ 3'47 | 16♁ 2 | 6♁ 1 | 1♁ 28 | 27♁ 7 | 6°R43 | 0♁ 9 | 28♁34 | 24♁22 | 22♁32 | 11♁38 | 12♁53 | 23♁ 2 | 19♁ 1 | S 1 | | | | | | | | |
| S 2 | 15 3 0 | 17° 1'24 | 28° 9 | 6°25 | 2°41 | 27°27 | 6♁36 | 0°12 | 28°35 | 24°24 | 22°33 | 11°39 | 12°50 | 23° 9 | 19° 2 | S 2 | | | | | | | | |
| M 3 | 15 6 57 | 17°59'01 | 10♁ 6 | 6°45 | 3°55 | 27°48 | 6°28 | 0°16 | 28°37 | 24°25 | 22°34 | 11°40 | 12°46 | 23°15 | 19° 3 | M 3 | | | | | | | | |
| T 4 | 15 10 54 | 18°56'37 | 21°59 | 7° 0 | 5° 8 | 28° 9 | 6°21 | 0°19 | 28°38 | 24°27 | 22°35 | 11°R41 | 12°43 | 23°22 | 19° 3 | T 4 | | | | | | | | |
| W 5 | 15 14 50 | 19°54'11 | 3♁53 | 7°10 | 6°22 | 28°30 | 6°14 | 0°22 | 28°39 | 24°29 | 22°36 | 11°40 | 12°40 | 23°29 | 19° 4 | W 5 | | | | | | | | |
| T 6 | 15 18 47 | 20°51'45 | 15°51 | 7°15 | 7°35 | 28°52 | 6° 7 | 0°25 | 28°40 | 24°31 | 22°37 | 11°38 | 12°37 | 23°36 | 19° 5 | T 6 | | | | | | | | |
| F 7 | 15 22 43 | 21°49'18 | 27°59 | 7°R16 | 8°48 | 29°14 | 5°59 | 0°28 | 28°41 | 24°33 | 22°38 | 11°36 | 12°34 | 23°42 | 19° 6 | F 7 | | | | | | | | |
| S 8 | 15 26 40 | 22°46'50 | 10°V18 | 7°12 | 10° 2 | 29°36 | 5°52 | 0°31 | 28°42 | 24°35 | 22°39 | 11°33 | 12°30 | 23°49 | 19° 6 | S 8 | | | | | | | | |
| S 9 | 15 30 36 | 23°44'20 | 22°53 | 7° 4 | 11°15 | 29°59 | 5°45 | 0°34 | 28°43 | 24°37 | 22°39 | 11°30 | 12°27 | 23°56 | 19° 7 | S 9 | | | | | | | | |
| M10 | 15 34 33 | 24°41'50 | 5♁45 | 6°51 | 12°28 | 0♁22 | 5°38 | 0°36 | 28°44 | 24°39 | 22°40 | 11°28 | 12°24 | 24° 2 | 19° 7 | M10 | | | | | | | | |
| T 11 | 15 38 29 | 25°39'19 | 18°54 | 6°35 | 13°42 | 0°46 | 5°32 | 0°39 | 28°45 | 24°41 | 22°41 | 11°26 | 12°21 | 24° 9 | 19° 8 | T 11 | | | | | | | | |
| W12 | 15 42 26 | 26°36'47 | 2♁20 | 6°15 | 14°55 | 1° 9 | 5°25 | 0°41 | 28°46 | 24°43 | 22°42 | 11°25 | 12°18 | 24°16 | 19° 8 | W12 | | | | | | | | |
| T 13 | 15 46 22 | 27°34'14 | 16° 1 | 5°51 | 16° 8 | 1°33 | 5°18 | 0°44 | 28°46 | 24°45 | 22°43 | 11°D25 | 12°15 | 24°23 | 19° 9 | T 13 | | | | | | | | |
| F 14 | 15 50 19 | 28°31'40 | 29°55 | 5°25 | 17°22 | 1°58 | 5°12 | 0°46 | 28°47 | 24°47 | 22°43 | 11°26 | 12°11 | 24°29 | 19° 9 | F 14 | | | | | | | | |
| S 15 | 15 54 16 | 29°29'05 | 13°E58 | 4°56 | 18°35 | 2°23 | 5° 5 | 0°48 | 28°48 | 24°49 | 22°44 | 11°27 | 12° 8 | 24°36 | 19° 9 | S 15 | | | | | | | | |
| S 16 | 15 58 12 | 0♁26'29 | 28° 8 | 4°25 | 19°48 | 2°48 | 4°59 | 0°50 | 28°48 | 24°51 | 22°45 | 11°28 | 12° 5 | 24°43 | 19° 9 | S 16 | | | | | | | | |
| M17 | 16 2 9 | 1°23'51 | 12♁23 | 3°53 | 21° 1 | 3°13 | 4°53 | 0°52 | 28°49 | 24°53 | 22°45 | 11°28 | 12° 2 | 24°50 | 19° 9 | M17 | | | | | | | | |
| T 18 | 16 6 5 | 2°21'13 | 26°38 | 3°20 | 22°14 | 3°38 | 4°47 | 0°54 | 28°49 | 24°55 | 22°46 | 11°R29 | 11°59 | 24°56 | 19°R 9 | T 18 | | | | | | | | |
| W19 | 16 10 2 | 3°18'33 | 10♁52 | 2°46 | 23°27 | 4° 4 | 4°41 | 0°56 | 28°50 | 24°57 | 22°47 | 11°29 | 11°55 | 25° 3 | 19° 9 | W19 | | | | | | | | |
| T 20 | 16 13 58 | 4°15'52 | 25° 1 | 2°13 | 24°41 | 4°30 | 4°35 | 0°58 | 28°50 | 24°59 | 22°47 | 11°28 | 11°52 | 25°10 | 19° 9 | T 20 | | | | | | | | |
| F 21 | 16 17 55 | 5°13'10 | 9♁ 4 | 1°40 | 25°54 | 4°57 | 4°29 | 0°59 | 28°51 | 25° 2 | 22°48 | 11°28 | 11°49 | 25°16 | 19° 9 | F 21 | | | | | | | | |
| S 22 | 16 21 52 | 6°10'27 | 22°58 | 1° 9 | 27° 7 | 5°23 | 4°23 | 1° 1 | 28°51 | 25° 4 | 22°49 | 11°27 | 11°46 | 25°23 | 19° 9 | S 22 | | | | | | | | |
| S 23 | 16 25 48 | 7° 7'43 | 6♁42 | 0°40 | 28°20 | 5°50 | 4°18 | 1° 2 | 28°51 | 25° 6 | 22°49 | 11°27 | 11°43 | 25°30 | 19° 8 | S 23 | | | | | | | | |
| M24 | 16 29 45 | 8° 4'58 | 20°12 | 0°13 | 29°33 | 6°17 | 4°13 | 1° 4 | 28°52 | 25° 8 | 22°50 | 11°26 | 11°40 | 25°37 | 19° 8 | M24 | | | | | | | | |
| T 25 | 16 33 41 | 9° 2'12 | 3♁28 | 29♁49 | 0♁46 | 6°45 | 4° 8 | 1° 5 | 28°52 | 25°10 | 22°50 | 11°26 | 11°36 | 25°43 | 19° 8 | T 25 | | | | | | | | |
| W26 | 16 37 38 | 9°59'26 | 16°28 | 29°28 | 1°59 | 7°13 | 4° 3 | 1° 6 | 28°52 | 25°12 | 22°51 | 11°D26 | 11°33 | 25°50 | 19° 7 | W26 | | | | | | | | |
| T 27 | 16 41 34 | 10°56'40 | 29°13 | 29°11 | 3°12 | 7°40 | 3°58 | 1° 7 | 28°52 | 25°14 | 22°51 | 11°26 | 11°30 | 25°57 | 19° 7 | T 27 | | | | | | | | |
| F 28 | 16 45 31 | 11°53'53 | 11♁42 | 28°57 | 4°25 | 8° 8 | 3°53 | 1° 8 | 28°R52 | 25°17 | 22°52 | 11°R26 | 11°27 | 26° 3 | 19° 6 | F 28 | | | | | | | | |
| S 29 | 16 49 27 | 12°51'05 | 23°59 | 28°48 | 5°38 | 8°37 | 3°48 | 1° 9 | 28°52 | 25°19 | 22°52 | 11°26 | 11°24 | 26°10 | 19° 5 | S 29 | | | | | | | | |
| S 30 | 16 53 24 | 13°48'17 | 6♁ 4 | 28°43 | 6°50 | 9° 5 | 3°44 | 1° 9 | 28°52 | 25°21 | 22°52 | 11°26 | 11°21 | 26°17 | 19° 5 | S 30 | | | | | | | | |
| M31 | 16 57 21 | 14♁45'29 | 18♁ 2 | 28°D43 | 8♁ 3 | 9♁34 | 3♁40 | 1♁10 | 28♁52 | 25♁23 | 22♁53 | 11♁25 | 11♁17 | 26♁24 | 19♁ 4 | M31 | | | | | | | | |

Delta T = 18m45s Julian Calendar 1 May 1081 == Greg. Calendar 7 May 1081

JUNE 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 17 1 17 | 15♁42'41 | 29♁56 | 28♁47 | 9♁16 | 10♁ 3 | 3°R35 | 1♁11 | 28°R52 | 25♁25 | 22♁53 | 11°R25 | 11♁14 | 26♁30 | 19°R 3 | T 1 | | | | | | | | |
| W 2 | 17 5 14 | 16°39'52 | 11♁49 | 28°55 | 10°29 | 10°32 | 3♁31 | 1°11 | 28°51 | 25°28 | 22°53 | 11°D25 | 11°11 | 26°37 | 19° 2 | W 2 | | | | | | | | |
| T 3 | 17 9 10 | 17°37'04 | 23°48 | 29° 9 | 11°42 | 11° 2 | 3°28 | 1°11 | 28°51 | 25°30 | 22°54 | 11♁25 | 11° 8 | 26°44 | 19° 1 | T 3 | | | | | | | | |
| F 4 | 17 13 7 | 18°34'15 | 5°V55 | 29°27 | 12°55 | 11°32 | 3°24 | 1°12 | 28°51 | 25°32 | 22°54 | 11°25 | 11° 5 | 26°50 | 19° 0 | F 4 | | | | | | | | |
| S 5 | 17 17 3 | 19°31'26 | 18°16 | 29°50 | 14° 7 | 12° 1 | 3°21 | 1°12 | 28°51 | 25°34 | 22°54 | 11°26 | 11° 1 | 26°57 | 18°59 | S 5 | | | | | | | | |
| S 6 | 17 21 0 | 20°28'38 | 0♁54 | 0♁18 | 15°20 | 12°31 | 3°17 | 1°R12 | 28°50 | 25°36 | 22°55 | 11°27 | 10°58 | 27° 4 | 18°58 | S 6 | | | | | | | | |
| M 7 | 17 24 56 | 21°25'49 | 13°53 | 0°50 | 16°33 | 13° 2 | 3°14 | 1°12 | 28°50 | 25°39 | 22°55 | 11°27 | 10°55 | 27°11 | 18°57 | M 7 | | | | | | | | |
| T 8 | 17 28 53 | 22°23'00 | 27°13 | 1°27 | 17°45 | 13°32 | 3°11 | 1°12 | 28°49 | 25°41 | 22°55 | 11°28 | 10°52 | 27°17 | 18°55 | T 8 | | | | | | | | |
| W 9 | 17 32 50 | 23°20'12 | 10♁56 | 2° 8 | 18°58 | 14° 3 | 3° 8 | 1°11 | 28°49 | 25°43 | 22°55 | 11°R28 | 10°49 | 27°24 | 18°54 | W 9 | | | | | | | | |
| T 10 | 17 36 46 | 24°17'23 | 24°58 | 2°54 | 20°11 | 14°34 | 3° 6 | 1°11 | 28°48 | 25°45 | 22°55 | 11°28 | 10°46 | 27°31 | 18°53 | T 10 | | | | | | | | |
| F 11 | 17 40 43 | 25°14'34 | 9♁18 | 3°44 | 21°23 | 15° 5 | 3° 3 | 1°10 | 28°47 | 25°48 | 22°56 | 11°27 | 10°42 | 27°37 | 18°51 | F 11 | | | | | | | | |
| S 12 | 17 44 39 | 26°11'45 | 23°49 | 4°39 | 22°36 | 15°36 | 3° 1 | 1°10 | 28°47 | 25°50 | 22°56 | 11°26 | 10°39 | 27°44 | 18°50 | S 12 | | | | | | | | |
| S 13 | 17 48 36 | 27° 8'56 | 8♁25 | 5°38 | 23°49 | 16° 7 | 2°59 | 1° 9 | 28°46 | 25°52 | 22°56 | 11°24 | 10°36 | 27°51 | 18°48 | S 13 | | | | | | | | |
| M14 | 17 52 32 | 28° 6'07 | 23° 1 | 6°41 | 25° 1 | 16°39 | 2°57 | 1° 8 | 28°45 | 25°54 | 22°56 | 11°22 | 10°33 | 27°58 | 18°47 | M14 | | | | | | | | |
| T 15 | 17 56 29 | 29° 3'17 | 7♁31 | 7°49 | 26°14 | 17°11 | 2°55 | 1° 8 | 28°44 | 25°57 | 22°56 | 11°20 | 10°30 | 28° 4 | 18°45 | T 15 | | | | | | | | |
| W16 | 18 0 25 | 0♁0'27 | 21°50 | 9° 0 | 27°26 | 17°43 | 2°54 | 1° 7 | 28°44 | 25°59 | 22°56 | 11°19 | 10°27 | 28°11 | 18°43 | W16 | | | | | | | | |
| T 17 | 18 4 22 | 0°57'37 | 5♁55 | 10°16 | 28°38 | 18°15 | 2°52 | 1° 6 | 28°43 | 26° 1 | 22°R56 | 11°D19 | 10°23 | 28°18 | 18°42 | T 17 | | | | | | | | |
| F 18 | 18 8 19 | 1°54'46 | 19°45 | 11°36 | 29°51 | 18°47 | 2°51 | 1° 4 | 28°42 | 26° 3 | 22°56 | 11°20 | 10°20 | 28°25 | 18°40 | F 18 | | | | | | | | |
| S 19 | 18 12 15 | 2°51'56 | 3♁21 | 12°59 | 1♁ 3 | 19°20 | 2°50 | 1° 3 | 28°41 | 26° 6 | 22°56 | 11°21 | 10°17 | 28°31 | 18°38 | S 19 | | | | | | | | |
| S 20 | 18 16 12 | 3°49'05 | 16°41 | 14°27 | 2°16 | 19°52 | 2°49 | 1° 2 | 28°40 | 26° 8 | 22°56 | 11°23 | 10°14 | 28°38 | 18°36 | S 20 | | | | | | | | |
| M21 | 18 20 8 | 4°46'15 | 29°47 | 15°58 | 3°28 | 20°25 | 2°49 | 1° 0 | 28°39 | 26°10 | 22°56 | 11°24 | 10°11 | 28°45 | 18°34 | M21 | | | | | | | | |
| T 22 | 18 24 5 | 5°43'25 | 12♁40 | 17°33 | 4°40 | 20°58 | 2°48 | 0°59 | 28°37 | 26°12 | 22°56 | 11°R24 | 10° 7 | 28°51 | 18°32 | T 22 | | | | | | | | |
| W23 | 18 28 1 | 6°40'35 | 25°20 | 19°12 | 5°52 | 21°31 | 2°48 | 0°57 | 28°36 | 26°14 | 22°56 | 11°24 | 10° 4 | 28°58 | 18°30 | W23 | | | | | | | | |
| T 24 | 18 31 58 | 7°37'45 | 7♁49 | 20°54 | 7° 5 | 22° 5 | 2°D48 | 0°55 | 28°35 | 26°17 | 22°55 | 11°22 | 10° 1 | 29° 5 | 18°28 | T 24 | | | | | | | | |
| F 25 | 18 35 54 | 8°34'56 | 20° 8 | 22°40 | 8°17 | 22°38 | 2°48 | 0°54 | 28°34 | 26°19 | 22°55 | 11°18 | 9°58 | 29°12 | 18°26 | F 25 | | | | | | | | |
| S 26 | 18 39 51 | 9°32'07 | 2♁17 | 24°29 | 9°29 | 23°12 | 2°48 | 0°52 | 28°33 | 26°21 | 22°55 | 11°14 | 9°55 | 29°18 | 18°24 | S 26 | | | | | | | | |
| S 27 | 18 43 48 | 10°29'18 | 14°18 | 26°21 | 10°41 | 23°45 | 2°49 | 0°50 | 28°31 | 26°23 | 22°55 | 11° 9 | 9°52 | 29°25 | 18°22 | S 27 | | | | | | | | |
| M28 | 18 47 44 | 11°26'30 | 26°13 | 28°16 | 11°53 | 24°19 | 2°49 | 0°48 | 28°30 | 26°25 | 22°55 | 11° 4 | 9°48 | 29°32 | 18°19 | M28 | | | | | | | | |
| T 29 | 18 51 41 | 12°23'43 | 8♁ 6 | 0♁13 | 13° 5 | 24°53 | 2°50 | 0°45 | 28°29 | 26°27 | 22°54 | 11° 0 | 9°45 | 29°38 | 18°17 | T 29 | | | | | | | | |
| W30 | 18 55 37 | 13°20'56 | 19♁59 | 2♁12 | 14♁17 | 25♁27 | 2♁51 | 0♁43 | 28°27 | 26♁30 | 22♁54 | 10♁56 | 9♁42 | 29°45 | 18°15 | W30 | | | | | | | | |

Delta T = 18m44s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1081
geocentric

JULY 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|--------|-------|--------|--------|------|-------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 18 59 34 | 14♄18'10 | 1♃56 | 4♁14 | 15♂29 | 26♁2 | 2♃52 | 0°R41 | 28°R26 | 26♂32 | 22°R54 | 10°R54 | 9♁39 | 29♁52 | 18°R12 | T 1 | | | | | | | | |
| F 2 | 19 3 30 | 15°15'25 | 14° 1 | 6°17 | 16°41 | 26°36 | 2°54 | 0♁38 | 28♁24 | 26°34 | 22♁53 | 10°D53 | 9°36 | 29°59 | 18♁10 | F 2 | | | | | | | | |
| S 3 | 19 7 27 | 16°12'41 | 26°20 | 8°22 | 17°53 | 27°11 | 2°55 | 0°36 | 28°23 | 26°36 | 22°53 | 10♁54 | 9°33 | 0♁5 | 18° 8 | S 3 | | | | | | | | |
| S 4 | 19 11 23 | 17° 9'58 | 8♁56 | 10°28 | 19° 5 | 27°46 | 2°57 | 0°33 | 28°21 | 26°38 | 22°53 | 10°55 | 9°29 | 0°12 | 18° 5 | S 4 | | | | | | | | |
| M 5 | 19 15 20 | 18° 7'16 | 21°54 | 12°34 | 20°17 | 28°20 | 2°59 | 0°31 | 28°19 | 26°40 | 22°52 | 10°56 | 9°26 | 0°19 | 18° 2 | M 5 | | | | | | | | |
| T 6 | 19 19 17 | 19° 4'35 | 5♂17 | 14°41 | 21°28 | 28°56 | 3° 1 | 0°28 | 28°18 | 26°42 | 22°52 | 10°R57 | 9°23 | 0°26 | 18° 0 | T 6 | | | | | | | | |
| W 7 | 19 23 13 | 20° 1'55 | 19° 6 | 16°48 | 22°40 | 29°31 | 3° 3 | 0°25 | 28°16 | 26°45 | 22°52 | 10°57 | 9°20 | 0°32 | 17°57 | W 7 | | | | | | | | |
| T 8 | 19 27 10 | 20°59'16 | 3♁22 | 18°54 | 23°52 | 0♁6 | 3° 6 | 0°22 | 28°14 | 26°47 | 22°51 | 10°55 | 9°17 | 0°39 | 17°55 | T 8 | | | | | | | | |
| F 9 | 19 31 6 | 21°56'37 | 17°59 | 21° 1 | 25° 4 | 0°41 | 3° 8 | 0°19 | 28°12 | 26°49 | 22°51 | 10°52 | 9°13 | 0°46 | 17°52 | F 9 | | | | | | | | |
| S 10 | 19 35 3 | 22°54'00 | 2♂53 | 23° 7 | 26°15 | 1°17 | 3°11 | 0°16 | 28°11 | 26°51 | 22°50 | 10°47 | 9°10 | 0°52 | 17°49 | S 10 | | | | | | | | |
| S 11 | 19 38 59 | 23°51'23 | 17°54 | 25°11 | 27°27 | 1°53 | 3°14 | 0°13 | 28° 9 | 26°53 | 22°50 | 10°40 | 9° 7 | 0°59 | 17°47 | S 11 | | | | | | | | |
| M12 | 19 42 56 | 24°48'47 | 2♁54 | 27°15 | 28°38 | 2°29 | 3°17 | 0°10 | 28° 7 | 26°55 | 22°49 | 10°34 | 9° 4 | 1° 6 | 17°44 | M12 | | | | | | | | |
| T 13 | 19 46 53 | 25°46'12 | 17°43 | 29°18 | 29°50 | 3° 5 | 3°20 | 0° 6 | 28° 5 | 26°57 | 22°49 | 10°28 | 9° 1 | 1°13 | 17°41 | T 13 | | | | | | | | |
| W14 | 19 50 49 | 26°43'37 | 2♁15 | 1♂20 | 1♁1 | 3°41 | 3°24 | 0° 3 | 28° 3 | 26°59 | 22°48 | 10°24 | 8°58 | 1°19 | 17°38 | W14 | | | | | | | | |
| T 15 | 19 54 46 | 27°41'03 | 16°26 | 3°20 | 2°13 | 4°17 | 3°27 | 29♁59 | 28° 1 | 27° 1 | 22°47 | 10°22 | 8°54 | 1°26 | 17°35 | T 15 | | | | | | | | |
| F 16 | 19 58 42 | 28°38'30 | 0♂14 | 5°19 | 3°24 | 4°53 | 3°31 | 29°56 | 27°59 | 27° 3 | 22°47 | 10°D21 | 8°51 | 1°33 | 17°33 | F 16 | | | | | | | | |
| S 17 | 20 2 39 | 29°35'58 | 13°41 | 7°17 | 4°35 | 5°30 | 3°35 | 29°52 | 27°57 | 27° 5 | 22°46 | 10°22 | 8°48 | 1°39 | 17°30 | S 17 | | | | | | | | |
| S 18 | 20 6 35 | 0♂33'26 | 26°47 | 9°13 | 5°47 | 6° 6 | 3°39 | 29°49 | 27°55 | 27° 7 | 22°46 | 10°23 | 8°45 | 1°46 | 17°27 | S 18 | | | | | | | | |
| M19 | 20 10 32 | 1°30'56 | 9♁37 | 11° 7 | 6°58 | 6°43 | 3°43 | 29°45 | 27°53 | 27° 9 | 22°45 | 10°R24 | 8°42 | 1°53 | 17°24 | M19 | | | | | | | | |
| T 20 | 20 14 28 | 2°28'26 | 22°12 | 13° 1 | 8° 9 | 7°20 | 3°48 | 29°41 | 27°51 | 27°10 | 22°44 | 10°23 | 8°39 | 2° 0 | 17°21 | T 20 | | | | | | | | |
| W21 | 20 18 25 | 3°25'57 | 4♁36 | 14°52 | 9°20 | 7°57 | 3°52 | 29°37 | 27°49 | 27°12 | 22°44 | 10°20 | 8°35 | 2° 6 | 17°18 | W21 | | | | | | | | |
| T 22 | 20 22 22 | 4°23'29 | 16°50 | 16°42 | 10°31 | 8°34 | 3°57 | 29°34 | 27°47 | 27°14 | 22°43 | 10°15 | 8°32 | 2°13 | 17°15 | T 22 | | | | | | | | |
| F 23 | 20 26 18 | 5°21'03 | 28°57 | 18°31 | 11°42 | 9°11 | 4° 2 | 29°30 | 27°45 | 27°16 | 22°42 | 10° 8 | 8°29 | 2°20 | 17°12 | F 23 | | | | | | | | |
| S 24 | 20 30 15 | 6°18'37 | 10♁58 | 20°18 | 12°53 | 9°48 | 4° 7 | 29°26 | 27°43 | 27°18 | 22°41 | 9°58 | 8°26 | 2°27 | 17° 9 | S 24 | | | | | | | | |
| S 25 | 20 34 11 | 7°16'13 | 22°54 | 22° 3 | 14° 4 | 10°26 | 4°12 | 29°22 | 27°40 | 27°20 | 22°41 | 9°48 | 8°23 | 2°33 | 17° 6 | S 25 | | | | | | | | |
| M26 | 20 38 8 | 8°13'50 | 4♁48 | 23°47 | 15°15 | 11° 3 | 4°18 | 29°17 | 27°38 | 27°22 | 22°40 | 9°37 | 8°19 | 2°40 | 17° 3 | M26 | | | | | | | | |
| T 27 | 20 42 4 | 9°11'29 | 16°39 | 25°30 | 16°26 | 11°41 | 4°23 | 29°13 | 27°36 | 27°23 | 22°39 | 9°27 | 8°16 | 2°47 | 17° 0 | T 27 | | | | | | | | |
| W28 | 20 46 1 | 10° 9'09 | 28°32 | 27°11 | 17°36 | 12°19 | 4°29 | 29° 9 | 27°34 | 27°25 | 22°38 | 9°18 | 8°13 | 2°53 | 16°57 | W28 | | | | | | | | |
| T 29 | 20 49 57 | 11° 6'51 | 10♁29 | 28°50 | 18°47 | 12°57 | 4°35 | 29° 5 | 27°31 | 27°27 | 22°37 | 9°11 | 8°10 | 3° 0 | 16°54 | T 29 | | | | | | | | |
| F 30 | 20 53 54 | 12° 4'34 | 22°33 | 0♁29 | 19°57 | 13°35 | 4°41 | 29° 1 | 27°29 | 27°29 | 22°37 | 9° 7 | 8° 7 | 3° 7 | 16°51 | F 30 | | | | | | | | |
| S 31 | 20 57 50 | 13♂2'19 | 4♁49 | 2♁5 | 21♁8 | 14♁13 | 4♂47 | 28♁56 | 27♁27 | 27♂30 | 22♁36 | 9♁5 | 8♁4 | 3♁14 | 16♁48 | S 31 | | | | | | | | |

Delta T = 18m44s Julian Calendar 1 July 1081 == Greg. Calendar 7 July 1081

AUGUST 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|--------|--------|-------|--------|-------|------|------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 21 1 47 | 14♂0'06 | 17♁21 | 3♁41 | 22♁18 | 14♁51 | 4♂53 | 28°R52 | 27°R25 | 27♂32 | 22°R35 | 9°D 5 | 8♁0 | 3♁20 | 16°R45 | S 1 | | | | | | | | |
| M 2 | 21 5 44 | 14°57'54 | 0♂14 | 5°15 | 23°29 | 15°29 | 5° 0 | 28♁48 | 27♁22 | 27°34 | 22♁34 | 9♁5 | 7°57 | 3°27 | 16♁41 | M 2 | | | | | | | | |
| T 3 | 21 9 40 | 15°55'44 | 13°32 | 6°47 | 24°39 | 16° 8 | 5° 6 | 28°43 | 27°20 | 27°35 | 22°33 | 9°R 6 | 7°54 | 3°34 | 16°38 | T 3 | | | | | | | | |
| W 4 | 21 13 37 | 16°53'37 | 27°19 | 8°18 | 25°49 | 16°46 | 5°13 | 28°39 | 27°18 | 27°37 | 22°32 | 9° 4 | 7°51 | 3°41 | 16°35 | W 4 | | | | | | | | |
| T 5 | 21 17 33 | 17°51'30 | 11♁34 | 9°48 | 27° 0 | 17°25 | 5°20 | 28°34 | 27°15 | 27°38 | 22°31 | 9° 1 | 7°48 | 3°47 | 16°32 | T 5 | | | | | | | | |
| F 6 | 21 21 30 | 18°49'26 | 26°17 | 11°16 | 28°10 | 18° 4 | 5°27 | 28°30 | 27°13 | 27°40 | 22°30 | 8°55 | 7°45 | 3°54 | 16°29 | F 6 | | | | | | | | |
| S 7 | 21 25 26 | 19°47'24 | 11♂20 | 12°43 | 29°20 | 18°42 | 5°34 | 28°25 | 27°11 | 27°41 | 22°29 | 8°46 | 7°41 | 4° 1 | 16°26 | S 7 | | | | | | | | |
| S 8 | 21 29 23 | 20°45'22 | 26°36 | 14° 9 | 0♁30 | 19°21 | 5°41 | 28°21 | 27° 8 | 27°43 | 22°28 | 8°36 | 7°38 | 4° 7 | 16°23 | S 8 | | | | | | | | |
| M 9 | 21 33 20 | 21°43'23 | 11♁53 | 15°33 | 1°40 | 20° 1 | 5°48 | 28°16 | 27° 6 | 27°44 | 22°27 | 8°26 | 7°35 | 4°14 | 16°20 | M 9 | | | | | | | | |
| T 10 | 21 37 16 | 22°41'25 | 27° 0 | 16°55 | 2°50 | 20°40 | 5°56 | 28°12 | 27° 3 | 27°46 | 22°26 | 8°17 | 7°32 | 4°21 | 16°17 | T 10 | | | | | | | | |
| W11 | 21 41 13 | 23°39'28 | 11♁47 | 18°16 | 3°59 | 21°19 | 6° 4 | 28° 7 | 27° 1 | 27°47 | 22°25 | 8° 9 | 7°29 | 4°28 | 16°14 | W11 | | | | | | | | |
| T 12 | 21 45 9 | 24°37'33 | 26° 9 | 19°35 | 5° 9 | 21°58 | 6°11 | 28° 3 | 26°59 | 27°49 | 22°24 | 8° 4 | 7°25 | 4°34 | 16°11 | T 12 | | | | | | | | |
| F 13 | 21 49 6 | 25°35'40 | 10♂4 | 20°53 | 6°19 | 22°38 | 6°19 | 27°58 | 26°56 | 27°50 | 22°23 | 8° 2 | 7°22 | 4°41 | 16° 8 | F 13 | | | | | | | | |
| S 14 | 21 53 2 | 26°33'48 | 23°31 | 22° 9 | 7°28 | 23°17 | 6°27 | 27°53 | 26°54 | 27°51 | 22°22 | 8°D 1 | 7°19 | 4°48 | 16° 5 | S 14 | | | | | | | | |
| S 15 | 21 56 59 | 27°31'57 | 6♁34 | 23°23 | 8°38 | 23°57 | 6°35 | 27°49 | 26°51 | 27°53 | 22°21 | 8°R 1 | 7°16 | 4°54 | 16° 2 | S 15 | | | | | | | | |
| M16 | 22 0 55 | 28°30'08 | 19°16 | 24°35 | 9°47 | 24°37 | 6°44 | 27°44 | 26°49 | 27°54 | 22°20 | 8° 1 | 7°13 | 5° 1 | 15°59 | M16 | | | | | | | | |
| T 17 | 22 4 52 | 29°28'21 | 1♁42 | 25°46 | 10°56 | 25°17 | 6°52 | 27°40 | 26°47 | 27°55 | 22°19 | 7°59 | 7°10 | 5° 8 | 15°56 | T 17 | | | | | | | | |
| W18 | 22 8 48 | 0♁26'35 | 13°55 | 26°54 | 12° 6 | 25°57 | 7° 1 | 27°35 | 26°44 | 27°57 | 22°18 | 7°55 | 7° 6 | 5°15 | 15°53 | W18 | | | | | | | | |
| T 19 | 22 12 45 | 1°24'50 | 26° 0 | 28° 1 | 13°15 | 26°37 | 7° 9 | 27°31 | 26°42 | 27°58 | 22°17 | 7°47 | 7° 3 | 5°21 | 15°50 | T 19 | | | | | | | | |
| F 20 | 22 16 42 | 2°23'08 | 7♁58 | 29° 5 | 14°24 | 27°17 | 7°18 | 27°26 | 26°39 | 27°59 | 22°16 | 7°38 | 7° 0 | 5°28 | 15°47 | F 20 | | | | | | | | |
| S 21 | 22 20 38 | 3°21'27 | 19°53 | 0♁7 | 15°33 | 27°57 | 7°27 | 27°21 | 26°37 | 28° 0 | 22°15 | 7°25 | 6°57 | 5°35 | 15°44 | S 21 | | | | | | | | |
| S 22 | 22 24 35 | 4°19'47 | 1♁46 | 1° 6 | 16°41 | 28°38 | 7°36 | 27°17 | 26°35 | 28° 1 | 22°14 | 7°11 | 6°54 | 5°42 | 15°41 | S 22 | | | | | | | | |
| M23 | 22 28 31 | 5°18'10 | 13°39 | 2° 3 | 17°50 | 29°18 | 7°45 | 27°12 | 26°32 | 28° 2 | 22°12 | 6°57 | 6°50 | 5°48 | 15°38 | M23 | | | | | | | | |
| T 24 | 22 32 28 | 6°16'35 | 25°33 | 2°57 | 18°59 | 29°59 | 7°54 | 27° 8 | 26°30 | 28° 3 | 22°11 | 6°44 | 6°47 | 5°55 | 15°35 | T 24 | | | | | | | | |
| W25 | 22 36 24 | 7°15'01 | 7♁29 | 3°48 | 20° 7 | 0♂39 | 8° 3 | 27° 3 | 26°28 | 28° 4 | 22°10 | 6°32 | 6°44 | 6° 2 | 15°33 | W25 | | | | | | | | |
| T 26 | 22 40 21 | 8°13'30 | 19°29 | 4°35 | 21°15 | 1°20 | 8°13 | 26°59 | 26°25 | 28° 5 | 22° 9 | 6°22 | 6°41 | 6° 8 | 15°30 | T 26 | | | | | | | | |
| F 27 | 22 44 17 | 9°12'00 | 1♁36 | 5°20 | 22°24 | 2° 1 | 8°22 | 26°54 | 26°23 | 28° 6 | 22° 8 | 6°16 | 6°38 | 6°15 | 15°27 | F 27 | | | | | | | | |
| S 28 | 22 48 14 | 10°10'33 | 13°54 | 6° 0 | 23°32 | 2°42 | 8°32 | 26°50 | 26°21 | 28° 7 | 22° 7 | 6°13 | 6°35 | 6°22 | 15°24 | S 28 | | | | | | | | |
| S 29 | 22 52 11 | 11° 9'09 | 26°25 | 6°37 | 24°40 | 3°23 | 8°42 | 26°46 | 26°18 | 28° 8 | 22° 6 | 6°11 | 6°31 | 6°29 | 15°22 | S 29 | | | | | | | | |
| M30 | 22 56 7 | 12° 7'46 | 9♂15 | 7° 9 | 25°48 | 4° 4 | 8°51 | 26°41 | 26°16 | 28° 9 | 22° 4 | 6°11 | 6°28 | 6°35 | 15°19 | M30 | | | | | | | | |
| T 31 | 23 0 4 | 13♁6'26 | 22♂27 | 7♁36 | 26♁56 | 4♂45 | 9♂1 | 26♁37 | 26♁14 | 28♂10 | 22♁3 | 6♁11 | 6♁25 | 6♁42 | 15♁17 | T 31 | | | | | | | | |

Delta T = 18m44s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1081
geocentric

SEPTEMBER 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|---------------------|----------------------|---------------------|--------------------|-------------------|-------------------|---------------------|------|---|-----|
| W 1 | 23 4 0 | 14 ^h 5'08 | 6 ^h 5 | 7 ^h 58 | 28 ^h 3 | 5 ^h 26 | 9 ^h 11 | 26 ^h R33 | 26 ^h R11 | 28 ^h II11 | 22 ^h R 2 | 6 ^h R10 | 6 ^h 22 | 6 ^h 49 | 15 ^h R14 | W 1 | | |
| T 2 | 23 7 57 | 15 ^h 3'53 | 20 ^h 11 | 8 ^h 16 | 29 ^h 11 | 6 ^h 7 | 9 ^h 22 | 26 ^h 28 | 26 ^h 9 | 28 ^h 12 | 22 ^h 1 | 6 ^h 6 | 6 ^h 19 | 6 ^h 56 | 15 ^h 11 | T 2 | | |
| F 3 | 23 11 53 | 16 ^h 2'39 | 4 ^h 45 | 8 ^h 27 | 0 ^h 18 | 6 ^h 49 | 9 ^h 32 | 26 ^h 24 | 26 ^h 7 | 28 ^h 12 | 22 ^h 0 | 6 ^h 0 | 6 ^h 16 | 7 ^h 2 | 15 ^h 9 | F 3 | | |
| S 4 | 23 15 50 | 17 ^h 1'28 | 19 ^h 42 | 8 ^h R32 | 1 ^h 26 | 7 ^h 30 | 9 ^h 42 | 26 ^h 20 | 26 ^h 5 | 28 ^h 13 | 21 ^h 58 | 5 ^h 51 | 6 ^h 12 | 7 ^h 9 | 15 ^h 6 | S 4 | | |
| S 5 | 23 19 46 | 18 ^h 0'19 | 4 ^h 55 | 8 ^h 30 | 2 ^h 33 | 8 ^h 12 | 9 ^h 53 | 26 ^h 16 | 26 ^h 3 | 28 ^h 14 | 21 ^h 57 | 5 ^h 41 | 6 ^h 9 | 7 ^h 16 | 15 ^h 4 | S 5 | | |
| M 6 | 23 23 43 | 18 ^h 59'12 | 20 ^h 14 | 8 ^h 22 | 3 ^h 40 | 8 ^h 54 | 10 ^h 3 | 26 ^h 12 | 26 ^h 0 | 28 ^h 15 | 21 ^h 56 | 5 ^h 30 | 6 ^h 6 | 7 ^h 22 | 15 ^h 2 | M 6 | | |
| T 7 | 23 27 40 | 19 ^h 58'08 | 5 ^h 27 | 8 ^h 7 | 4 ^h 47 | 9 ^h 36 | 10 ^h 14 | 26 ^h 8 | 25 ^h 58 | 28 ^h 15 | 21 ^h 55 | 5 ^h 20 | 6 ^h 3 | 7 ^h 29 | 14 ^h 59 | T 7 | | |
| W 8 | 23 31 36 | 20 ^h 57'05 | 20 ^h 24 | 7 ^h 44 | 5 ^h 53 | 10 ^h 18 | 10 ^h 24 | 26 ^h 4 | 25 ^h 56 | 28 ^h 16 | 21 ^h 54 | 5 ^h 12 | 6 ^h 0 | 7 ^h 36 | 14 ^h 57 | W 8 | | |
| T 9 | 23 35 33 | 21 ^h 56'04 | 4 ^h 56 | 7 ^h 13 | 7 ^h 0 | 11 ^h 0 | 10 ^h 35 | 26 ^h 0 | 25 ^h 54 | 28 ^h 16 | 21 ^h 53 | 5 ^h 6 | 5 ^h 56 | 7 ^h 43 | 14 ^h 55 | T 9 | | |
| F 10 | 23 39 29 | 22 ^h 55'05 | 18 ^h 59 | 6 ^h 35 | 8 ^h 7 | 11 ^h 42 | 10 ^h 46 | 25 ^h 56 | 25 ^h 52 | 28 ^h 17 | 21 ^h 51 | 5 ^h 3 | 5 ^h 53 | 7 ^h 49 | 14 ^h 52 | F 10 | | |
| S 11 | 23 43 26 | 23 ^h 54'08 | 2 ^h 33 | 5 ^h 50 | 9 ^h 13 | 12 ^h 24 | 10 ^h 57 | 25 ^h 52 | 25 ^h 50 | 28 ^h 17 | 21 ^h 50 | 5 ^h D 2 | 5 ^h 50 | 7 ^h 56 | 14 ^h 50 | S 11 | | |
| S 12 | 23 47 22 | 24 ^h 53'12 | 15 ^h 40 | 4 ^h 58 | 10 ^h 19 | 13 ^h 6 | 11 ^h 8 | 25 ^h 49 | 25 ^h 48 | 28 ^h 18 | 21 ^h 49 | 5 ^h 2 | 5 ^h 47 | 8 ^h 3 | 14 ^h 48 | S 12 | | |
| M13 | 23 51 19 | 25 ^h 52'19 | 28 ^h 23 | 3 ^h 59 | 11 ^h 25 | 13 ^h 48 | 11 ^h 19 | 25 ^h 45 | 25 ^h 46 | 28 ^h 18 | 21 ^h 48 | 5 ^h R 2 | 5 ^h 44 | 8 ^h 9 | 14 ^h 46 | M13 | | |
| T 14 | 23 55 15 | 26 ^h 51'27 | 10 ^h 38 | 2 ^h 56 | 12 ^h 31 | 14 ^h 31 | 11 ^h 30 | 25 ^h 41 | 25 ^h 44 | 28 ^h 19 | 21 ^h 47 | 5 ^h 1 | 5 ^h 41 | 8 ^h 16 | 14 ^h 44 | T 14 | | |
| W15 | 23 59 12 | 27 ^h 50'37 | 22 ^h 57 | 1 ^h 49 | 13 ^h 36 | 15 ^h 13 | 11 ^h 41 | 25 ^h 38 | 25 ^h 42 | 28 ^h 19 | 21 ^h 45 | 4 ^h 58 | 5 ^h 37 | 8 ^h 23 | 14 ^h 42 | W15 | | |
| T 16 | 0 3 9 | 28 ^h 49'49 | 4 ^h 58 | 0 ^h 39 | 14 ^h 42 | 15 ^h 56 | 11 ^h 53 | 25 ^h 34 | 25 ^h 40 | 28 ^h 19 | 21 ^h 44 | 4 ^h 53 | 5 ^h 34 | 8 ^h 30 | 14 ^h 40 | T 16 | | |
| F 17 | 0 7 5 | 29 ^h 49'03 | 16 ^h 52 | 29 ^h 29 | 15 ^h 47 | 16 ^h 38 | 12 ^h 4 | 25 ^h 31 | 25 ^h 38 | 28 ^h 20 | 21 ^h 43 | 4 ^h 45 | 5 ^h 31 | 8 ^h 36 | 14 ^h 38 | F 17 | | |
| S 18 | 0 11 2 | 0 ^h 48'18 | 28 ^h 44 | 28 ^h 20 | 16 ^h 52 | 17 ^h 21 | 12 ^h 16 | 25 ^h 28 | 25 ^h 37 | 28 ^h 20 | 21 ^h 42 | 4 ^h 35 | 5 ^h 28 | 8 ^h 43 | 14 ^h 36 | S 18 | | |
| S 19 | 0 14 58 | 1 ^h 47'36 | 10 ^h 37 | 27 ^h 14 | 17 ^h 57 | 18 ^h 4 | 12 ^h 27 | 25 ^h 24 | 25 ^h 35 | 28 ^h 20 | 21 ^h 41 | 4 ^h 23 | 5 ^h 25 | 8 ^h 50 | 14 ^h 35 | S 19 | | |
| M20 | 0 18 55 | 2 ^h 46'55 | 22 ^h 32 | 26 ^h 13 | 19 ^h 1 | 18 ^h 47 | 12 ^h 39 | 25 ^h 21 | 25 ^h 33 | 28 ^h 20 | 21 ^h 40 | 4 ^h 11 | 5 ^h 22 | 8 ^h 57 | 14 ^h 33 | M20 | | |
| T 21 | 0 22 51 | 3 ^h 46'17 | 4 ^h 30 | 25 ^h 20 | 20 ^h 5 | 19 ^h 30 | 12 ^h 51 | 25 ^h 18 | 25 ^h 31 | 28 ^h 21 | 21 ^h 38 | 3 ^h 59 | 5 ^h 18 | 9 ^h 3 | 14 ^h 31 | T 21 | | |
| W22 | 0 26 48 | 4 ^h 45'41 | 16 ^h 33 | 24 ^h 34 | 21 ^h 10 | 20 ^h 13 | 13 ^h 2 | 25 ^h 15 | 25 ^h 30 | 28 ^h 21 | 21 ^h 37 | 3 ^h 49 | 5 ^h 15 | 9 ^h 10 | 14 ^h 30 | W22 | | |
| T 23 | 0 30 44 | 5 ^h 45'06 | 28 ^h 43 | 23 ^h 59 | 22 ^h 13 | 20 ^h 56 | 13 ^h 14 | 25 ^h 12 | 25 ^h 28 | 28 ^h 21 | 21 ^h 36 | 3 ^h 41 | 5 ^h 12 | 9 ^h 17 | 14 ^h 28 | T 23 | | |
| F 24 | 0 34 41 | 6 ^h 44'34 | 11 ^h 3 | 23 ^h 33 | 23 ^h 17 | 21 ^h 39 | 13 ^h 26 | 25 ^h 9 | 25 ^h 26 | 28 ^h 21 | 21 ^h 35 | 3 ^h 36 | 5 ^h 9 | 9 ^h 23 | 14 ^h 27 | F 24 | | |
| S 25 | 0 38 37 | 7 ^h 44'05 | 23 ^h 27 | 23 ^h 19 | 24 ^h 20 | 22 ^h 22 | 13 ^h 38 | 25 ^h 7 | 25 ^h 25 | 28 ^h R21 | 21 ^h 34 | 3 ^h 34 | 5 ^h 6 | 9 ^h 30 | 14 ^h 25 | S 25 | | |
| S 26 | 0 42 34 | 8 ^h 43'37 | 6 ^h II 6 | 23 ^h D15 | 25 ^h 24 | 23 ^h 6 | 13 ^h 50 | 25 ^h 4 | 25 ^h 23 | 28 ^h 21 | 21 ^h 33 | 3 ^h D33 | 5 ^h 2 | 9 ^h 37 | 14 ^h 24 | S 26 | | |
| M27 | 0 46 31 | 9 ^h 43'12 | 18 ^h 59 | 23 ^h 23 | 26 ^h 26 | 23 ^h 49 | 14 ^h 2 | 25 ^h 1 | 25 ^h 22 | 28 ^h 21 | 21 ^h 32 | 3 ^h 34 | 4 ^h 59 | 9 ^h 44 | 14 ^h 22 | M27 | | |
| T 28 | 0 50 27 | 10 ^h 42'50 | 2 ^h 11 | 23 ^h 41 | 27 ^h 29 | 24 ^h 33 | 14 ^h 14 | 24 ^h 59 | 25 ^h 20 | 28 ^h 21 | 21 ^h 30 | 3 ^h 35 | 4 ^h 56 | 9 ^h 50 | 14 ^h 21 | T 28 | | |
| W29 | 0 54 24 | 11 ^h 42'29 | 15 ^h 44 | 24 ^h 9 | 28 ^h 31 | 25 ^h 16 | 14 ^h 27 | 24 ^h 56 | 25 ^h 19 | 28 ^h 21 | 21 ^h 29 | 3 ^h R35 | 4 ^h 53 | 9 ^h 57 | 14 ^h 20 | W29 | | |
| T 30 | 0 58 20 | 12 ^h 42'11 | 29 ^h 39 | 24 ^h 47 | 29 ^h 33 | 26 ^h 0 | 14 ^h 39 | 24 ^h 54 | 25 ^h 17 | 28 ^h II21 | 21 ^h 28 | 3 ^h 34 | 4 ^h 50 | 10 ^h 4 | 14 ^h 19 | T 30 | | |

Delta T = 18m44s

Julian Calendar 1 Sept. 1081 == Greg. Calendar 7 Sept. 1081

OCTOBER 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|----------------------|---------------------|--------------------|-------------------|--------------------|---------------------|------|---|-----|
| F 1 | 1 2 17 | 13 ^h 41'56 | 13 ^h 58 | 25 ^h 33 | 0 ^h 35 | 26 ^h 44 | 14 ^h 51 | 24 ^h R52 | 25 ^h R16 | 28 ^h R20 | 21 ^h R27 | 3 ^h R31 | 4 ^h 47 | 10 ^h 10 | 14 ^h R18 | F 1 | | |
| S 2 | 1 6 13 | 14 ^h 41'42 | 28 ^h 37 | 26 ^h 27 | 1 ^h 36 | 27 ^h 27 | 15 ^h 3 | 24 ^h 50 | 25 ^h 15 | 28 ^h II20 | 21 ^h 26 | 3 ^h 25 | 4 ^h 43 | 10 ^h 17 | 14 ^h 16 | S 2 | | |
| S 3 | 1 10 10 | 15 ^h 41'31 | 13 ^h 32 | 27 ^h 28 | 2 ^h 38 | 28 ^h 11 | 15 ^h 16 | 24 ^h 48 | 25 ^h 13 | 28 ^h 20 | 21 ^h 25 | 3 ^h 18 | 4 ^h 40 | 10 ^h 24 | 14 ^h 15 | S 3 | | |
| M 4 | 1 14 6 | 16 ^h 41'22 | 28 ^h 36 | 28 ^h 36 | 3 ^h 38 | 28 ^h 55 | 15 ^h 28 | 24 ^h 46 | 25 ^h 12 | 28 ^h 20 | 21 ^h 24 | 3 ^h 11 | 4 ^h 37 | 10 ^h 31 | 14 ^h 15 | M 4 | | |
| T 5 | 1 18 3 | 17 ^h 41'15 | 13 ^h 37 | 29 ^h 48 | 4 ^h 39 | 29 ^h 39 | 15 ^h 41 | 24 ^h 44 | 25 ^h 11 | 28 ^h 19 | 21 ^h 23 | 3 ^h 4 | 4 ^h 34 | 10 ^h 37 | 14 ^h 14 | T 5 | | |
| W 6 | 1 22 0 | 18 ^h 41'10 | 28 ^h 28 | 1 ^h 5 | 5 ^h 39 | 0 ^h 23 | 15 ^h 54 | 24 ^h 42 | 25 ^h 10 | 28 ^h 19 | 21 ^h 22 | 2 ^h 58 | 4 ^h 31 | 10 ^h 44 | 14 ^h 13 | W 6 | | |
| T 7 | 1 25 56 | 19 ^h 41'07 | 13 ^h 0 | 2 ^h 27 | 6 ^h 38 | 1 ^h 8 | 16 ^h 6 | 24 ^h 40 | 25 ^h 9 | 28 ^h 19 | 21 ^h 21 | 2 ^h 54 | 4 ^h 27 | 10 ^h 51 | 14 ^h 12 | T 7 | | |
| F 8 | 1 29 53 | 20 ^h 41'06 | 27 ^h 7 | 3 ^h 51 | 7 ^h 38 | 1 ^h 52 | 16 ^h 19 | 24 ^h 39 | 25 ^h 8 | 28 ^h 18 | 21 ^h 20 | 2 ^h D53 | 4 ^h 24 | 10 ^h 58 | 14 ^h 11 | F 8 | | |
| S 9 | 1 33 49 | 21 ^h 41'07 | 10 ^h 47 | 5 ^h 19 | 8 ^h 37 | 2 ^h 36 | 16 ^h 32 | 24 ^h 37 | 25 ^h 7 | 28 ^h 18 | 21 ^h 19 | 2 ^h 53 | 4 ^h 21 | 11 ^h 4 | 14 ^h 11 | S 9 | | |
| S 10 | 1 37 46 | 22 ^h 41'09 | 24 ^h 0 | 6 ^h 49 | 9 ^h 35 | 3 ^h 20 | 16 ^h 44 | 24 ^h 36 | 25 ^h 6 | 28 ^h 17 | 21 ^h 18 | 2 ^h 54 | 4 ^h 18 | 11 ^h 11 | 14 ^h 10 | S 10 | | |
| M11 | 1 41 42 | 23 ^h 41'13 | 6 ^h 38 | 8 ^h 20 | 10 ^h 33 | 4 ^h 5 | 16 ^h 57 | 24 ^h 35 | 25 ^h 5 | 28 ^h 17 | 21 ^h 17 | 2 ^h 56 | 4 ^h 15 | 11 ^h 18 | 14 ^h 10 | M11 | | |
| T 12 | 1 45 39 | 24 ^h 41'19 | 19 ^h 16 | 9 ^h 54 | 11 ^h 31 | 4 ^h 49 | 17 ^h 10 | 24 ^h 33 | 25 ^h 4 | 28 ^h 16 | 21 ^h 16 | 2 ^h R57 | 4 ^h 12 | 11 ^h 24 | 14 ^h 9 | T 12 | | |
| W13 | 1 49 35 | 25 ^h 41'27 | 1 ^h 28 | 11 ^h 28 | 12 ^h 28 | 5 ^h 34 | 17 ^h 23 | 24 ^h 32 | 25 ^h 3 | 28 ^h 16 | 21 ^h 15 | 2 ^h 57 | 4 ^h 8 | 11 ^h 31 | 14 ^h 9 | W13 | | |
| T 14 | 1 53 32 | 26 ^h 41'36 | 13 ^h 29 | 13 ^h 4 | 13 ^h 24 | 6 ^h 19 | 17 ^h 36 | 24 ^h 31 | 25 ^h 2 | 28 ^h | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1081
geocentric

NOVEMBER 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|---------|--------|-------|------|-------|-------|------|
| M 1 | 3 4 30 | 14♐49'09 | 7♊39 | 12♐ 7 | 28♌32 | 19♌52 | 21♐34 | 24♌32 | 24♌57 | 27°R59 | 21°R 0 | 2°R18 | 3♌ 8 | 13♐39 | 14♌14 | M 1 |
| T 2 | 3 8 26 | 15°49'51 | 22°14 | 13°42 | 29°15 | 20°38 | 21°47 | 24°33 | 24°57 | 27°II58 | 20°H59 | 2♌15 | 3° 5 | 13°46 | 14°15 | T 2 |
| W 3 | 3 12 23 | 16°50'35 | 6♐43 | 15°17 | 29°56 | 21°24 | 22° 0 | 24°34 | 24°57 | 27°57 | 20°59 | 2°14 | 3° 2 | 13°52 | 14°16 | W 3 |
| T 4 | 3 16 20 | 17°51'20 | 20°59 | 16°52 | 0♌36 | 22°10 | 22°14 | 24°35 | 24°58 | 27°56 | 20°58 | 2°13 | 2°58 | 13°59 | 14°17 | T 4 |
| F 5 | 3 20 16 | 18°52'07 | 4♌57 | 18°27 | 1°15 | 22°56 | 22°27 | 24°37 | 24°58 | 27°54 | 20°57 | 2°D12 | 2°55 | 14° 6 | 14°18 | F 5 |
| S 6 | 3 24 13 | 19°52'55 | 18°34 | 20° 2 | 1°53 | 23°42 | 22°41 | 24°38 | 24°58 | 27°53 | 20°57 | 2°13 | 2°52 | 14°12 | 14°19 | S 6 |
| S 7 | 3 28 9 | 20°53'44 | 1♌48 | 21°36 | 2°30 | 24°28 | 22°54 | 24°40 | 24°59 | 27°52 | 20°56 | 2°14 | 2°49 | 14°19 | 14°20 | S 7 |
| M 8 | 3 32 6 | 21°54'34 | 14°40 | 23°11 | 3° 5 | 25°14 | 23° 8 | 24°41 | 24°59 | 27°51 | 20°56 | 2°15 | 2°46 | 14°26 | 14°22 | M 8 |
| T 9 | 3 36 2 | 22°55'26 | 27°12 | 24°45 | 3°39 | 26° 0 | 23°21 | 24°43 | 25° 0 | 27°49 | 20°55 | 2°16 | 2°43 | 14°33 | 14°23 | T 9 |
| W10 | 3 39 59 | 23°56'18 | 9♌27 | 26°19 | 4°11 | 26°46 | 23°35 | 24°45 | 25° 0 | 27°48 | 20°55 | 2°16 | 2°39 | 14°39 | 14°25 | W10 |
| T 11 | 3 43 56 | 24°57'11 | 21°30 | 27°53 | 4°42 | 27°32 | 23°48 | 24°47 | 25° 1 | 27°47 | 20°55 | 2°R17 | 2°36 | 14°46 | 14°26 | T 11 |
| F 12 | 3 47 52 | 25°58'05 | 3♌26 | 29°27 | 5°11 | 28°18 | 24° 1 | 24°49 | 25° 2 | 27°45 | 20°54 | 2°17 | 2°33 | 14°53 | 14°28 | F 12 |
| S 13 | 3 51 49 | 26°59'00 | 15°18 | 1♌ 1 | 5°39 | 29° 5 | 24°15 | 24°51 | 25° 2 | 27°44 | 20°54 | 2°16 | 2°30 | 15° 0 | 14°29 | S 13 |
| S 14 | 3 55 45 | 27°59'55 | 27°12 | 2°35 | 6° 5 | 29°51 | 24°28 | 24°54 | 25° 3 | 27°42 | 20°53 | 2°16 | 2°27 | 15° 6 | 14°31 | S 14 |
| M15 | 3 59 42 | 29° 0'52 | 9°V11 | 4° 9 | 6°29 | 0♌37 | 24°42 | 24°56 | 25° 4 | 27°41 | 20°53 | 2°15 | 2°24 | 15°13 | 14°32 | M15 |
| T 16 | 4 3 38 | 0♌ 1'49 | 21°20 | 5°43 | 6°51 | 1°24 | 24°55 | 24°58 | 25° 5 | 27°40 | 20°53 | 2°15 | 2°20 | 15°20 | 14°34 | T 16 |
| W17 | 4 7 35 | 1° 2'47 | 3♌41 | 7°17 | 7°11 | 2°10 | 25° 9 | 25° 1 | 25° 6 | 27°38 | 20°52 | 2°15 | 2°17 | 15°26 | 14°36 | W17 |
| T 18 | 4 11 31 | 2° 3'46 | 16°17 | 8°51 | 7°30 | 2°57 | 25°22 | 25° 4 | 25° 7 | 27°37 | 20°52 | 2°D15 | 2°14 | 15°33 | 14°38 | T 18 |
| F 19 | 4 15 28 | 3° 4'46 | 29° 8 | 10°25 | 7°46 | 3°43 | 25°36 | 25° 6 | 25° 8 | 27°35 | 20°52 | 2°R15 | 2°11 | 15°40 | 14°40 | F 19 |
| S 20 | 4 19 24 | 4° 5'47 | 12♐15 | 11°59 | 8° 1 | 4°30 | 25°49 | 25° 9 | 25° 9 | 27°34 | 20°52 | 2°15 | 2° 8 | 15°47 | 14°42 | S 20 |
| S 21 | 4 23 21 | 5° 6'48 | 25°37 | 13°33 | 8°13 | 5°16 | 26° 2 | 25°12 | 25°10 | 27°32 | 20°51 | 2°15 | 2° 4 | 15°53 | 14°44 | S 21 |
| M22 | 4 27 18 | 6° 7'51 | 9♌13 | 15° 7 | 8°23 | 6° 3 | 26°16 | 25°15 | 25°11 | 27°30 | 20°51 | 2°14 | 2° 1 | 16° 0 | 14°46 | M22 |
| T 23 | 4 31 14 | 7° 8'54 | 22°59 | 16°41 | 8°30 | 6°50 | 26°29 | 25°19 | 25°13 | 27°29 | 20°51 | 2°14 | 1°58 | 16° 7 | 14°48 | T 23 |
| W24 | 4 35 11 | 8° 9'59 | 6♐56 | 18°15 | 8°36 | 7°36 | 26°43 | 25°22 | 25°14 | 27°27 | 20°51 | 2°13 | 1°55 | 16°13 | 14°50 | W24 |
| T 25 | 4 39 7 | 9°11'04 | 20°59 | 19°49 | 8°39 | 8°23 | 26°56 | 25°25 | 25°15 | 27°26 | 20°51 | 2°12 | 1°52 | 16°20 | 14°53 | T 25 |
| F 26 | 4 43 4 | 10°12'11 | 5♐ 8 | 21°23 | 8°R39 | 9°10 | 27° 9 | 25°29 | 25°17 | 27°24 | 20°51 | 2°D12 | 1°49 | 16°27 | 14°55 | F 26 |
| S 27 | 4 47 0 | 11°13'18 | 19°19 | 22°57 | 8°37 | 9°57 | 27°23 | 25°32 | 25°18 | 27°22 | 20°51 | 2°12 | 1°45 | 16°34 | 14°57 | S 27 |
| S 28 | 4 50 57 | 12°14'26 | 3♌31 | 24°30 | 8°33 | 10°44 | 27°36 | 25°36 | 25°19 | 27°21 | 20°51 | 2°13 | 1°42 | 16°40 | 15° 0 | S 28 |
| M29 | 4 54 54 | 13°15'35 | 17°41 | 26° 4 | 8°26 | 11°30 | 27°49 | 25°39 | 25°21 | 27°19 | 20°D51 | 2°13 | 1°39 | 16°47 | 15° 2 | M29 |
| T 30 | 4 58 50 | 14°16'45 | 1♐47 | 27°38 | 8♌17 | 12♌17 | 28♐ 2 | 25°43 | 25°23 | 27°18 | 20°H51 | 2♌15 | 1♌36 | 16°54 | 15° 5 | T 30 |

Delta T = 18m43s Julian Calendar 1 Nov. 1081 == Greg. Calendar 7 Nov. 1081

DECEMBER 1081 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|---------|--------|-------|-------|--------|-------|------|
| W 1 | 5 2 47 | 15♌17'55 | 15♐46 | 29♌11 | 8°R 5 | 13♌ 4 | 28♐15 | 25°47 | 25°24 | 27°R16 | 20°H51 | 2♌15 | 1♌33 | 17°H 0 | 15° 7 | W 1 |
| T 2 | 5 6 43 | 16°19'07 | 29°35 | 0♌44 | 7♌51 | 13°51 | 28°29 | 25°51 | 25°26 | 27°II14 | 20°51 | 2°R16 | 1°30 | 17° 7 | 15°10 | T 2 |
| F 3 | 5 10 40 | 17°20'19 | 13♌12 | 2°16 | 7°34 | 14°38 | 28°42 | 25°55 | 25°28 | 27°13 | 20°51 | 2°16 | 1°26 | 17°14 | 15°13 | F 3 |
| S 4 | 5 14 36 | 18°21'31 | 26°33 | 3°48 | 7°15 | 15°25 | 28°55 | 25°59 | 25°29 | 27°11 | 20°51 | 2°15 | 1°23 | 17°21 | 15°16 | S 4 |
| S 5 | 5 18 33 | 19°22'43 | 9♌38 | 5°19 | 6°54 | 16°12 | 29° 8 | 26° 4 | 25°31 | 27° 9 | 20°51 | 2°13 | 1°20 | 17°27 | 15°18 | S 5 |
| M 6 | 5 22 29 | 20°23'56 | 22°25 | 6°49 | 6°30 | 16°59 | 29°21 | 26° 8 | 25°33 | 27° 8 | 20°51 | 2°10 | 1°17 | 17°34 | 15°21 | M 6 |
| T 7 | 5 26 26 | 21°25'09 | 4♌57 | 8°18 | 6° 4 | 17°47 | 29°34 | 26°12 | 25°35 | 27° 6 | 20°52 | 2° 7 | 1°14 | 17°41 | 15°24 | T 7 |
| W 8 | 5 30 23 | 22°26'21 | 17°13 | 9°46 | 5°37 | 18°34 | 29°47 | 26°17 | 25°37 | 27° 4 | 20°52 | 2° 4 | 1°10 | 17°48 | 15°27 | W 8 |
| T 9 | 5 34 19 | 23°27'34 | 29°17 | 11°12 | 5° 7 | 19°21 | 0♌ 0 | 26°21 | 25°39 | 27° 2 | 20°52 | 2° 1 | 1° 7 | 17°54 | 15°30 | T 9 |
| F 10 | 5 38 16 | 24°28'46 | 11♌13 | 12°36 | 4°36 | 20° 8 | 0°13 | 26°26 | 25°41 | 27° 1 | 20°52 | 1°59 | 1° 4 | 18° 1 | 15°33 | F 10 |
| S 11 | 5 42 12 | 25°29'59 | 23° 5 | 13°58 | 4° 3 | 20°55 | 0°26 | 26°31 | 25°43 | 26°59 | 20°52 | 1°D58 | 1° 1 | 18° 8 | 15°36 | S 11 |
| S 12 | 5 46 9 | 26°31'11 | 4°V58 | 15°17 | 3°29 | 21°42 | 0°39 | 26°36 | 25°45 | 26°57 | 20°53 | 1°59 | 0°58 | 18°14 | 15°39 | S 12 |
| M13 | 5 50 5 | 27°32'23 | 16°56 | 16°33 | 2°54 | 22°30 | 0°51 | 26°40 | 25°47 | 26°56 | 20°53 | 2° 0 | 0°55 | 18°21 | 15°42 | M13 |
| T 14 | 5 54 2 | 28°33'34 | 29° 5 | 17°45 | 2°18 | 23°17 | 1° 4 | 26°45 | 25°49 | 26°54 | 20°53 | 2° 2 | 0°51 | 18°28 | 15°45 | T 14 |
| W15 | 5 57 58 | 29°34'46 | 11♌29 | 18°52 | 1°42 | 24° 4 | 1°17 | 26°50 | 25°52 | 26°52 | 20°54 | 2° 3 | 0°48 | 18°35 | 15°49 | W15 |
| T 16 | 6 1 55 | 0♌35'57 | 24°12 | 19°54 | 1° 5 | 24°51 | 1°30 | 26°56 | 25°54 | 26°51 | 20°54 | 2° 5 | 0°45 | 18°41 | 15°52 | T 16 |
| F 17 | 6 5 52 | 1°37'08 | 7♐15 | 20°51 | 0°28 | 25°39 | 1°42 | 27° 1 | 25°56 | 26°49 | 20°55 | 2°R 5 | 0°42 | 18°48 | 15°55 | F 17 |
| S 18 | 6 9 48 | 2°38'18 | 20°40 | 21°40 | 29♌52 | 26°26 | 1°55 | 27° 6 | 25°58 | 26°47 | 20°55 | 2° 3 | 0°39 | 18°55 | 15°59 | S 18 |
| S 19 | 6 13 45 | 3°39'28 | 4♌26 | 22°22 | 29°16 | 27°13 | 2° 7 | 27°11 | 26° 1 | 26°45 | 20°55 | 2° 0 | 0°36 | 19° 1 | 16° 2 | S 19 |
| M20 | 6 17 41 | 4°40'38 | 18°31 | 22°55 | 28°40 | 28° 0 | 2°20 | 27°17 | 26° 3 | 26°44 | 20°56 | 1°56 | 0°32 | 19° 8 | 16° 5 | M20 |
| T 21 | 6 21 38 | 5°41'48 | 2♐48 | 23°19 | 28° 6 | 28°48 | 2°32 | 27°22 | 26° 6 | 26°42 | 20°56 | 1°51 | 0°29 | 19°15 | 16° 9 | T 21 |
| W22 | 6 25 34 | 6°42'58 | 17°13 | 23°32 | 27°32 | 29°35 | 2°44 | 27°28 | 26° 8 | 26°40 | 20°57 | 1°45 | 0°26 | 19°22 | 16°12 | W22 |
| T 23 | 6 29 31 | 7°44'07 | 1♐41 | 23°R35 | 27° 1 | 0♌22 | 2°57 | 27°33 | 26°11 | 26°39 | 20°58 | 1°40 | 0°23 | 19°28 | 16°16 | T 23 |
| F 24 | 6 33 27 | 8°45'16 | 16° 5 | 23°25 | 26°30 | 1°10 | 3° 9 | 27°39 | 26°13 | 26°37 | 20°58 | 1°37 | 0°20 | 19°35 | 16°19 | F 24 |
| S 25 | 6 37 24 | 9°46'25 | 0♌22 | 23° 4 | 26° 2 | 1°57 | 3°21 | 27°45 | 26°16 | 26°35 | 20°59 | 1°35 | 0°16 | 19°42 | 16°23 | S 25 |
| S 26 | 6 41 21 | 10°47'34 | 14°28 | 22°32 | 25°35 | 2°45 | 3°33 | 27°50 | 26°19 | 26°34 | 20°59 | 1°D34 | 0°13 | 19°48 | 16°27 | S 26 |
| M27 | 6 45 17 | 11°48'43 | 28°24 | 21°48 | 25°11 | 3°32 | 3°45 | 27°56 | 26°21 | 26°32 | 21° 0 | 1°35 | 0°10 | 19°55 | 16°30 | M27 |
| T 28 | 6 49 14 | 12°49'51 | 12♐ 8 | 20°54 | 24°49 | 4°19 | 3°57 | 28° 2 | 26°24 | 26°31 | 21° 1 | 1°37 | 0° 7 | 20° 2 | 16°34 | T 28 |
| W29 | 6 53 10 | 13°50'59 | 25°41 | 19°51 | 24°29 | 5° 7 | 4° 9 | 28° 8 | 26°27 | 26°29 | 21° 1 | 1°R38 | 0° 4 | 20° 9 | 16°38 | W29 |
| T 30 | 6 57 7 | 14°52'07 | 9♌ 3 | 18°41 | 24°11 | 5°54 | 4°21 | 28°14 | 26°29 | 26°27 | 21° 2 | 1°38 | 0° 1 | 20°15 | 16°42 | T 30 |
| F 31 | 7 1 3 | 15°53'15 | 22♌14 | 17♌27 | 23♌56 | 6°42 | 4°32 | 28°20 | 26°32 | 26°II26 | 21°H 3 | 1♌36 | 29♐57 | 20°H22 | 16°45 | F 31 |

Delta T = 18m43s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1082
geocentric

JANUARY 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|--------|-------|------|-------|-------|--------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 5 0 | 16♁54'21 | 5♁13 | 16°R 9 | 23°R44 | 7♁29 | 4♁44 | 28♁26 | 26♁35 | 26°R24 | 21♁ 3 | 1°R31 | 29♁54 | 20♁29 | 16♁49 | S 1 | | | | | | | | |
| S 2 | 7 8 57 | 17°55'27 | 18° 0 | 14♁52 | 23♁34 | 8°16 | 4°56 | 28°33 | 26°38 | 26♁23 | 21° 4 | 1♁25 | 29°51 | 20°35 | 16°53 | S 2 | | | | | | | | |
| M 3 | 7 12 53 | 18°56'33 | 0♁36 | 13°37 | 23°26 | 9° 4 | 5° 7 | 28°39 | 26°41 | 26°21 | 21° 5 | 1°16 | 29°48 | 20°42 | 16°57 | M 3 | | | | | | | | |
| T 4 | 7 16 50 | 19°57'37 | 12°59 | 12°26 | 23°21 | 9°51 | 5°19 | 28°45 | 26°44 | 26°19 | 21° 6 | 1° 7 | 29°45 | 20°49 | 17° 1 | T 4 | | | | | | | | |
| W 5 | 7 20 46 | 20°58'40 | 25°11 | 11°21 | 23°18 | 10°39 | 5°30 | 28°51 | 26°47 | 26°18 | 21° 7 | 0°57 | 29°42 | 20°56 | 17° 5 | W 5 | | | | | | | | |
| T 6 | 7 24 43 | 21°59'43 | 7♁13 | 10°23 | 23°D18 | 11°26 | 5°41 | 28°58 | 26°50 | 26°16 | 21° 8 | 0°48 | 29°38 | 21° 2 | 17° 9 | T 6 | | | | | | | | |
| F 7 | 7 28 39 | 23° 0'44 | 19° 8 | 9°34 | 23°20 | 12°13 | 5°53 | 29° 4 | 26°53 | 26°15 | 21° 8 | 0°40 | 29°35 | 21° 9 | 17°13 | F 7 | | | | | | | | |
| S 8 | 7 32 36 | 24° 1'44 | 0°V58 | 8°53 | 23°24 | 13° 1 | 6° 4 | 29°11 | 26°56 | 26°13 | 21° 9 | 0°35 | 29°32 | 21°16 | 17°17 | S 8 | | | | | | | | |
| S 9 | 7 36 32 | 25° 2'42 | 12°49 | 8°21 | 23°31 | 13°48 | 6°15 | 29°17 | 26°59 | 26°12 | 21°10 | 0°32 | 29°29 | 21°22 | 17°21 | S 9 | | | | | | | | |
| M10 | 7 40 29 | 26° 3'40 | 24°45 | 7°57 | 23°40 | 14°35 | 6°26 | 29°24 | 27° 2 | 26°11 | 21°11 | 0°D31 | 29°26 | 21°29 | 17°25 | M10 | | | | | | | | |
| T 11 | 7 44 25 | 27° 4'36 | 6♁50 | 7°43 | 23°51 | 15°23 | 6°37 | 29°30 | 27° 5 | 26° 9 | 21°12 | 0°31 | 29°22 | 21°36 | 17°29 | T 11 | | | | | | | | |
| W12 | 7 48 22 | 28° 5'31 | 19°11 | 7°D36 | 24° 5 | 16°10 | 6°47 | 29°37 | 27° 8 | 26° 8 | 21°13 | 0°32 | 29°19 | 21°43 | 17°33 | W12 | | | | | | | | |
| T 13 | 7 52 19 | 29° 6'24 | 1♁53 | 7°37 | 24°20 | 16°58 | 6°58 | 29°44 | 27°11 | 26° 6 | 21°14 | 0°R33 | 29°16 | 21°49 | 17°37 | T 13 | | | | | | | | |
| F 14 | 7 56 15 | 0♁ 7'17 | 14°58 | 7°46 | 24°38 | 17°45 | 7° 9 | 29°51 | 27°14 | 26° 5 | 21°15 | 0°32 | 29°13 | 21°56 | 17°41 | F 14 | | | | | | | | |
| S 15 | 8 0 12 | 1° 8'07 | 28°31 | 8° 2 | 24°58 | 18°32 | 7°19 | 29°57 | 27°17 | 26° 4 | 21°16 | 0°28 | 29°10 | 22° 3 | 17°45 | S 15 | | | | | | | | |
| S 16 | 8 4 8 | 2° 8'57 | 12♁31 | 8°23 | 25°19 | 19°20 | 7°30 | 0♁ 4 | 27°20 | 26° 2 | 21°17 | 0°23 | 29° 7 | 22° 9 | 17°49 | S 16 | | | | | | | | |
| M17 | 8 8 5 | 3° 9'45 | 26°55 | 8°51 | 25°42 | 20° 7 | 7°40 | 0°11 | 27°24 | 26° 1 | 21°18 | 0°14 | 29° 3 | 22°16 | 17°53 | M17 | | | | | | | | |
| T 18 | 8 12 1 | 4°10'31 | 11♁38 | 9°24 | 26° 7 | 20°54 | 7°50 | 0°18 | 27°27 | 26° 0 | 21°19 | 0° 4 | 29° 0 | 22°23 | 17°57 | T 18 | | | | | | | | |
| W19 | 8 15 58 | 5°11'17 | 26°32 | 10° 2 | 26°34 | 21°41 | 8° 0 | 0°25 | 27°30 | 25°59 | 21°20 | 29♁54 | 28°57 | 22°30 | 18° 1 | W19 | | | | | | | | |
| T 20 | 8 19 55 | 6°12'01 | 11♁28 | 10°44 | 27° 3 | 22°29 | 8°10 | 0°32 | 27°33 | 25°57 | 21°21 | 29°44 | 28°54 | 22°36 | 18° 6 | T 20 | | | | | | | | |
| F 21 | 8 23 51 | 7°12'43 | 26°16 | 11°30 | 27°33 | 23°16 | 8°20 | 0°39 | 27°37 | 25°56 | 21°22 | 29°36 | 28°51 | 22°43 | 18°10 | F 21 | | | | | | | | |
| S 22 | 8 27 48 | 8°13'25 | 10♁51 | 12°20 | 28° 4 | 24° 3 | 8°30 | 0°46 | 27°40 | 25°55 | 21°24 | 29°31 | 28°48 | 22°50 | 18°14 | S 22 | | | | | | | | |
| S 23 | 8 31 44 | 9°14'06 | 25° 7 | 13°13 | 28°37 | 24°50 | 8°39 | 0°53 | 27°43 | 25°54 | 21°25 | 29°28 | 28°44 | 22°56 | 18°18 | S 23 | | | | | | | | |
| M24 | 8 35 41 | 10°14'45 | 9♁ 4 | 14°10 | 29°12 | 25°38 | 8°49 | 1° 0 | 27°47 | 25°53 | 21°26 | 29°D27 | 28°41 | 23° 3 | 18°22 | M24 | | | | | | | | |
| T 25 | 8 39 37 | 11°15'24 | 22°41 | 15° 9 | 29°48 | 26°25 | 8°59 | 1° 7 | 27°50 | 25°52 | 21°27 | 29°R28 | 28°38 | 23°10 | 18°27 | T 25 | | | | | | | | |
| W26 | 8 43 34 | 12°16'01 | 6♁ 1 | 16°11 | 0♁25 | 27°12 | 9° 8 | 1°14 | 27°53 | 25°51 | 21°28 | 29°28 | 28°35 | 23°17 | 18°31 | W26 | | | | | | | | |
| T 27 | 8 47 30 | 13°16'37 | 19° 3 | 17°16 | 1° 4 | 27°59 | 9°17 | 1°21 | 27°57 | 25°49 | 21°29 | 29°26 | 28°32 | 23°23 | 18°35 | T 27 | | | | | | | | |
| F 28 | 8 51 27 | 14°17'11 | 1♁53 | 18°23 | 1°43 | 28°46 | 9°26 | 1°29 | 28° 0 | 25°48 | 21°31 | 29°22 | 28°28 | 23°30 | 18°39 | F 28 | | | | | | | | |
| S 29 | 8 55 24 | 15°17'45 | 14°32 | 19°31 | 2°24 | 29°33 | 9°35 | 1°36 | 28° 3 | 25°47 | 21°32 | 29°15 | 28°25 | 23°37 | 18°43 | S 29 | | | | | | | | |
| S 30 | 8 59 20 | 16°18'16 | 27° 1 | 20°42 | 3° 6 | 0♁20 | 9°44 | 1°43 | 28° 7 | 25°46 | 21°33 | 29° 5 | 28°22 | 23°43 | 18°48 | S 30 | | | | | | | | |
| M31 | 9 3 17 | 17°18'46 | 9♁21 | 21♁55 | 3♁49 | 1♁ 7 | 9♁53 | 1♁50 | 28♁10 | 25♁46 | 21♁34 | 28♁52 | 28♁19 | 23♁50 | 18♁52 | M31 | | | | | | | | |

Delta T = 18m42s Julian Calendar 1 Jan. 1082 == Greg. Calendar 7 Jan. 1082

FEBRUARY 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|--------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 9 7 13 | 18♁19'15 | 21♁33 | 23♁10 | 4♁33 | 1♁54 | 10♁ 1 | 1♁58 | 28♁14 | 25°R45 | 21♁36 | 28°R38 | 28♁16 | 23♁57 | 18♁56 | T 1 | | | | | | | | |
| W 2 | 9 11 10 | 19°19'42 | 3♁37 | 24°26 | 5°18 | 2°41 | 10°10 | 2° 5 | 28°17 | 25♁44 | 21°37 | 28♁24 | 28°13 | 24° 4 | 19° 0 | W 2 | | | | | | | | |
| T 3 | 9 15 6 | 20°20'07 | 15°34 | 25°43 | 6° 4 | 3°28 | 10°18 | 2°12 | 28°20 | 25°43 | 21°38 | 28°10 | 28° 9 | 24°10 | 19° 5 | T 3 | | | | | | | | |
| F 4 | 9 19 3 | 21°20'30 | 27°27 | 27° 3 | 6°51 | 4°15 | 10°27 | 2°19 | 28°24 | 25°42 | 21°40 | 27°58 | 28° 6 | 24°17 | 19° 9 | F 4 | | | | | | | | |
| S 5 | 9 22 59 | 22°20'51 | 9°V16 | 28°23 | 7°38 | 5° 2 | 10°35 | 2°27 | 28°27 | 25°41 | 21°41 | 27°49 | 28° 3 | 24°24 | 19°13 | S 5 | | | | | | | | |
| S 6 | 9 26 56 | 23°21'10 | 21° 6 | 29°45 | 8°27 | 5°49 | 10°43 | 2°34 | 28°31 | 25°41 | 21°42 | 27°42 | 28° 0 | 24°30 | 19°17 | S 6 | | | | | | | | |
| M 7 | 9 30 52 | 24°21'28 | 2♁59 | 1♁ 8 | 9°16 | 6°36 | 10°51 | 2°41 | 28°34 | 25°40 | 21°44 | 27°39 | 27°57 | 24°37 | 19°22 | M 7 | | | | | | | | |
| T 8 | 9 34 49 | 25°21'43 | 15° 2 | 2°33 | 10° 6 | 7°23 | 10°58 | 2°49 | 28°38 | 25°39 | 21°45 | 27°38 | 27°54 | 24°44 | 19°26 | T 8 | | | | | | | | |
| W 9 | 9 38 46 | 26°21'56 | 27°19 | 3°59 | 10°57 | 8°10 | 11° 6 | 2°56 | 28°41 | 25°38 | 21°46 | 27°37 | 27°50 | 24°50 | 19°30 | W 9 | | | | | | | | |
| T 10 | 9 42 42 | 27°22'07 | 9♁55 | 5°26 | 11°48 | 8°57 | 11°13 | 3° 4 | 28°44 | 25°38 | 21°48 | 27°37 | 27°47 | 24°57 | 19°34 | T 10 | | | | | | | | |
| F 11 | 9 46 39 | 28°22'16 | 22°56 | 6°54 | 12°40 | 9°43 | 11°21 | 3°11 | 28°48 | 25°37 | 21°49 | 27°36 | 27°44 | 25° 4 | 19°38 | F 11 | | | | | | | | |
| S 12 | 9 50 35 | 29°22'23 | 6♁25 | 8°24 | 13°33 | 10°30 | 11°28 | 3°18 | 28°51 | 25°37 | 21°50 | 27°32 | 27°41 | 25°11 | 19°43 | S 12 | | | | | | | | |
| S 13 | 9 54 32 | 0♁22'28 | 20°24 | 9°54 | 14°26 | 11°17 | 11°35 | 3°26 | 28°55 | 25°36 | 21°52 | 27°26 | 27°38 | 25°17 | 19°47 | S 13 | | | | | | | | |
| M14 | 9 58 28 | 1°22'30 | 4♁53 | 11°26 | 15°20 | 12° 3 | 11°42 | 3°33 | 28°58 | 25°36 | 21°53 | 27°17 | 27°34 | 25°24 | 19°51 | M14 | | | | | | | | |
| T 15 | 10 2 25 | 2°22'31 | 19°46 | 12°59 | 16°15 | 12°50 | 11°48 | 3°41 | 29° 2 | 25°35 | 21°55 | 27° 6 | 27°31 | 25°31 | 19°55 | T 15 | | | | | | | | |
| W16 | 10 6 21 | 3°22'29 | 4♁55 | 14°33 | 17°10 | 13°37 | 11°55 | 3°48 | 29° 5 | 25°35 | 21°56 | 26°55 | 27°28 | 25°37 | 19°59 | W16 | | | | | | | | |
| T 17 | 10 10 18 | 4°22'26 | 20°11 | 16° 8 | 18° 6 | 14°23 | 12° 1 | 3°55 | 29° 9 | 25°34 | 21°57 | 26°44 | 27°25 | 25°44 | 20° 3 | T 17 | | | | | | | | |
| F 18 | 10 14 15 | 5°22'20 | 5♁22 | 17°44 | 19° 2 | 15°10 | 12° 8 | 4° 3 | 29°12 | 25°34 | 21°59 | 26°35 | 27°22 | 25°51 | 20° 7 | F 18 | | | | | | | | |
| S 19 | 10 18 11 | 6°22'13 | 20°17 | 19°22 | 19°59 | 15°56 | 12°14 | 4°10 | 29°15 | 25°33 | 22° 0 | 26°28 | 27°19 | 25°58 | 20°12 | S 19 | | | | | | | | |
| S 20 | 10 22 8 | 7°22'04 | 4♁51 | 21° 0 | 20°56 | 16°43 | 12°20 | 4°18 | 29°19 | 25°33 | 22° 2 | 26°24 | 27°15 | 26° 4 | 20°16 | S 20 | | | | | | | | |
| M21 | 10 26 4 | 8°21'53 | 18°59 | 22°40 | 21°54 | 17°29 | 12°26 | 4°25 | 29°22 | 25°33 | 22° 3 | 26°23 | 27°12 | 26°11 | 20°20 | M21 | | | | | | | | |
| T 22 | 10 30 1 | 9°21'41 | 2♁42 | 24°21 | 22°52 | 18°16 | 12°31 | 4°33 | 29°26 | 25°33 | 22° 5 | 26°23 | 27° 9 | 26°18 | 20°24 | T 22 | | | | | | | | |
| W23 | 10 33 57 | 10°21'27 | 16° 1 | 26° 3 | 23°51 | 19° 2 | 12°37 | 4°40 | 29°29 | 25°32 | 22° 6 | 26°23 | 27° 6 | 26°24 | 20°28 | W23 | | | | | | | | |
| T 24 | 10 37 54 | 11°21'11 | 28°59 | 27°47 | 24°50 | 19°48 | 12°42 | 4°47 | 29°33 | 25°32 | 22° 8 | 26°22 | 27° 3 | 26°31 | 20°32 | T 24 | | | | | | | | |
| F 25 | 10 41 50 | 12°20'54 | 11♁39 | 29°31 | 25°49 | 20°35 | 12°47 | 4°55 | 29°36 | 25°32 | 22° 9 | 26°18 | 26°59 | 26°38 | 20°36 | F 25 | | | | | | | | |
| S 26 | 10 45 47 | 13°20'35 | 24° 6 | 1♁17 | 26°49 | 21°21 | 12°52 | 5° 2 | 29°39 | 25°32 | 22°11 | 26°12 | 26°56 | 26°44 | 20°40 | S 26 | | | | | | | | |
| S 27 | 10 49 44 | 14°20'13 | 6♁22 | 3° 4 | 27°49 | 22° 7 | 12°57 | 5° 9 | 29°43 | 25°32 | 22°12 | 26° 3 | 26°53 | 26°51 | 20°44 | S 27 | | | | | | | | |
| M28 | 10 53 40 | 15♁19'50 | 18♁29 | 4♁52 | 28♁49 | 22♁53 | 13♁ 2 | 5♁17 | 29♁46 | 25♁32 | 22♁13 | 25♁52 | 26♁50 | 26♁58 | 20♁48 | M28 | | | | | | | | |

Delta T = 18m42s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1082
geocentric

MARCH 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|-------|---------|-------|--------|--------|-------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 10 57 37 | 16♋19'25 | 0♋30 | 6♋42 | 29♌50 | 23♋39 | 13♌6 | 5♋24 | 29♌49 | 25°D32 | 22♋15 | 25°R39 | 26♌47 | 27♋5 | 20♌52 | T 1 | | | | | | | | |
| W 2 | 11 1 33 | 17°18'58 | 12°27 | 8°32 | 0♌52 | 24°25 | 13°11 | 5°31 | 29°53 | 25°II32 | 22°16 | 25°M26 | 26°44 | 27°11 | 20°56 | W 2 | | | | | | | | |
| T 3 | 11 5 30 | 18°18'29 | 24°19 | 10°25 | 1°53 | 25°11 | 13°15 | 5°39 | 29°56 | 25°32 | 22°18 | 25°13 | 26°40 | 27°18 | 20°59 | T 3 | | | | | | | | |
| F 4 | 11 9 26 | 19°17'58 | 6♌10 | 12°18 | 2°55 | 25°57 | 13°19 | 5°46 | 29°59 | 25°32 | 22°19 | 25° 2 | 26°37 | 27°25 | 21° 3 | F 4 | | | | | | | | |
| S 5 | 11 13 23 | 20°17'24 | 17°59 | 14°12 | 3°57 | 26°43 | 13°23 | 5°53 | 0♌ 3 | 25°32 | 22°21 | 24°53 | 26°34 | 27°31 | 21° 7 | S 5 | | | | | | | | |
| S 6 | 11 17 19 | 21°16'48 | 29°51 | 16° 8 | 4°59 | 27°29 | 13°26 | 6° 1 | 0° 6 | 25°32 | 22°22 | 24°48 | 26°31 | 27°38 | 21°11 | S 6 | | | | | | | | |
| M 7 | 11 21 16 | 22°16'11 | 11♌47 | 18° 5 | 6° 2 | 28°15 | 13°30 | 6° 8 | 0° 9 | 25°33 | 22°24 | 24°45 | 26°28 | 27°45 | 21°15 | M 7 | | | | | | | | |
| T 8 | 11 25 13 | 23°15'31 | 23°51 | 20° 3 | 7° 5 | 29° 1 | 13°33 | 6°15 | 0°12 | 25°33 | 22°25 | 24°D44 | 26°25 | 27°52 | 21°18 | T 8 | | | | | | | | |
| W 9 | 11 29 9 | 24°14'48 | 6♌ 8 | 22° 3 | 8° 8 | 29°47 | 13°36 | 6°22 | 0°16 | 25°33 | 22°27 | 24°44 | 26°21 | 27°58 | 21°22 | W 9 | | | | | | | | |
| T 10 | 11 33 6 | 25°14'03 | 18°42 | 24° 3 | 9°12 | 0♌33 | 13°39 | 6°29 | 0°19 | 25°33 | 22°28 | 24°45 | 26°18 | 28° 5 | 21°26 | T 10 | | | | | | | | |
| F 11 | 11 37 2 | 26°13'16 | 1♌38 | 26° 4 | 10°15 | 1°18 | 13°42 | 6°37 | 0°22 | 25°34 | 22°30 | 24°R45 | 26°15 | 28°12 | 21°29 | F 11 | | | | | | | | |
| S 12 | 11 40 59 | 27°12'27 | 15° 0 | 28° 7 | 11°19 | 2° 4 | 13°44 | 6°44 | 0°25 | 25°34 | 22°31 | 24°43 | 26°12 | 28°18 | 21°33 | S 12 | | | | | | | | |
| S 13 | 11 44 55 | 28°11'35 | 28°51 | 0♌10 | 12°23 | 2°50 | 13°47 | 6°51 | 0°28 | 25°34 | 22°33 | 24°40 | 26° 9 | 28°25 | 21°37 | S 13 | | | | | | | | |
| M14 | 11 48 52 | 29°10'41 | 13♌10 | 2°13 | 13°28 | 3°35 | 13°49 | 6°58 | 0°32 | 25°35 | 22°34 | 24°34 | 26° 5 | 28°32 | 21°40 | M14 | | | | | | | | |
| T 15 | 11 52 48 | 0♌ 9'44 | 27°57 | 4°17 | 14°32 | 4°21 | 13°51 | 7° 5 | 0°35 | 25°35 | 22°36 | 24°27 | 26° 2 | 28°38 | 21°44 | T 15 | | | | | | | | |
| W16 | 11 56 45 | 1° 8'45 | 13♌ 4 | 6°22 | 15°37 | 5° 6 | 13°53 | 7°12 | 0°38 | 25°36 | 22°37 | 24°18 | 25°59 | 28°45 | 21°47 | W16 | | | | | | | | |
| T 17 | 12 0 41 | 2° 7'44 | 28°21 | 8°26 | 16°42 | 5°51 | 13°54 | 7°19 | 0°41 | 25°36 | 22°39 | 24°10 | 25°56 | 28°52 | 21°51 | T 17 | | | | | | | | |
| F 18 | 12 4 38 | 3° 6'41 | 13♌39 | 10°30 | 17°47 | 6°37 | 13°56 | 7°26 | 0°44 | 25°37 | 22°40 | 24° 4 | 25°53 | 28°59 | 21°54 | F 18 | | | | | | | | |
| S 19 | 12 8 35 | 4° 5'36 | 28°46 | 12°33 | 18°53 | 7°22 | 13°57 | 7°33 | 0°47 | 25°37 | 22°42 | 23°59 | 25°50 | 29° 5 | 21°57 | S 19 | | | | | | | | |
| S 20 | 12 12 31 | 5° 4'29 | 13♌34 | 14°36 | 19°58 | 8° 7 | 13°58 | 7°40 | 0°50 | 25°38 | 22°43 | 23°57 | 25°46 | 29°12 | 22° 1 | S 20 | | | | | | | | |
| M21 | 12 16 28 | 6° 3'20 | 27°56 | 16°37 | 21° 4 | 8°53 | 13°59 | 7°46 | 0°53 | 25°39 | 22°45 | 23°D57 | 25°43 | 29°19 | 22° 4 | M21 | | | | | | | | |
| T 22 | 12 20 24 | 7° 2'09 | 11♌50 | 18°37 | 22°10 | 9°38 | 14° 0 | 7°53 | 0°56 | 25°39 | 22°46 | 23°58 | 25°40 | 29°25 | 22° 7 | T 22 | | | | | | | | |
| W23 | 12 24 21 | 8° 0'57 | 25°17 | 20°34 | 23°16 | 10°23 | 14° 1 | 8° 0 | 0°59 | 25°40 | 22°47 | 23°59 | 25°37 | 29°32 | 22°11 | W23 | | | | | | | | |
| T 24 | 12 28 17 | 8°59'43 | 8♌19 | 22°30 | 24°22 | 11° 8 | 14° 1 | 8° 7 | 1° 2 | 25°41 | 22°49 | 23°R59 | 25°34 | 29°39 | 22°14 | T 24 | | | | | | | | |
| F 25 | 12 32 14 | 9°58'27 | 21° 0 | 24°23 | 25°29 | 11°53 | 14°R 1 | 8°14 | 1° 4 | 25°42 | 22°50 | 23°59 | 25°31 | 29°45 | 22°17 | F 25 | | | | | | | | |
| S 26 | 12 36 10 | 10°57'09 | 3♌23 | 26°13 | 26°35 | 12°38 | 14° 1 | 8°20 | 1° 7 | 25°43 | 22°52 | 23°56 | 25°27 | 29°52 | 22°20 | S 26 | | | | | | | | |
| S 27 | 12 40 7 | 11°55'50 | 15°34 | 27°59 | 27°42 | 13°23 | 14° 1 | 8°27 | 1°10 | 25°43 | 22°53 | 23°52 | 25°24 | 29°59 | 22°23 | S 27 | | | | | | | | |
| M28 | 12 44 4 | 12°54'29 | 27°35 | 29°42 | 28°49 | 14° 8 | 14° 0 | 8°33 | 1°13 | 25°44 | 22°55 | 23°46 | 25°21 | 0♌ 6 | 22°26 | M28 | | | | | | | | |
| T 29 | 12 48 0 | 13°53'06 | 9♌30 | 1♌22 | 29°56 | 14°53 | 14° 0 | 8°40 | 1°16 | 25°45 | 22°56 | 23°39 | 25°18 | 0°12 | 22°29 | T 29 | | | | | | | | |
| W30 | 12 51 57 | 14°51'41 | 21°21 | 2°57 | 1♌ 3 | 15°38 | 13°59 | 8°46 | 1°18 | 25°46 | 22°57 | 23°31 | 25°15 | 0°19 | 22°32 | W30 | | | | | | | | |
| T 31 | 12 55 53 | 15°50'14 | 3♌11 | 4♌28 | 2♌10 | 16°22 | 13°58 | 8°53 | 1♌21 | 25°47 | 22°59 | 23°M24 | 25°M11 | 0♌26 | 22°35 | T 31 | | | | | | | | |

Delta T = 18m42s Julian Calendar 1 March 1082 == Greg. Calendar 7 March 1082

APRIL 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|------|---------|-------|--------|--------|------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 12 59 50 | 16♌48'46 | 15♌ 2 | 5♌54 | 3♌18 | 17♌ 7 | 13°R57 | 8♌59 | 1♌24 | 25°II48 | 23♌ 0 | 23°R18 | 25°M 8 | 0♌32 | 22°38 | F 1 | | | | | | | | |
| S 2 | 13 3 46 | 17°47'15 | 26°55 | 7°16 | 4°25 | 17°52 | 13°57 | 9° 6 | 1°26 | 25°49 | 23° 2 | 23°M14 | 25° 5 | 0°39 | 22°41 | S 2 | | | | | | | | |
| S 3 | 13 7 43 | 18°45'43 | 8♌53 | 8°33 | 5°33 | 18°36 | 13°54 | 9°12 | 1°29 | 25°50 | 23° 3 | 23°11 | 25° 2 | 0°46 | 22°43 | S 3 | | | | | | | | |
| M 4 | 13 11 39 | 19°44'08 | 20°57 | 9°46 | 6°41 | 19°21 | 13°52 | 9°18 | 1°32 | 25°51 | 23° 4 | 23°D10 | 24°59 | 0°52 | 22°46 | M 4 | | | | | | | | |
| T 5 | 13 15 36 | 20°42'32 | 3♌10 | 10°53 | 7°48 | 20° 5 | 13°50 | 9°24 | 1°34 | 25°52 | 23° 6 | 23°10 | 24°56 | 0°59 | 22°49 | T 5 | | | | | | | | |
| W 6 | 13 19 33 | 21°40'53 | 15°34 | 11°55 | 8°56 | 20°50 | 13°48 | 9°31 | 1°37 | 25°54 | 23° 7 | 23°12 | 24°52 | 1° 6 | 22°52 | W 6 | | | | | | | | |
| T 7 | 13 23 29 | 22°39'13 | 28°14 | 12°53 | 10° 5 | 21°34 | 13°46 | 9°37 | 1°39 | 25°55 | 23° 8 | 23°13 | 24°49 | 1°12 | 22°54 | T 7 | | | | | | | | |
| F 8 | 13 27 26 | 23°37'30 | 11♌52 | 13°45 | 11°13 | 22°19 | 13°44 | 9°43 | 1°42 | 25°56 | 23°10 | 23°15 | 24°46 | 1°19 | 22°57 | F 8 | | | | | | | | |
| S 9 | 13 31 22 | 24°35'46 | 24°31 | 14°31 | 12°21 | 23° 3 | 13°41 | 9°49 | 1°44 | 25°57 | 23°11 | 23°R15 | 24°43 | 1°26 | 22°59 | S 9 | | | | | | | | |
| S 10 | 13 35 19 | 25°33'59 | 8♌14 | 15°13 | 13°29 | 23°47 | 13°38 | 9°55 | 1°46 | 25°59 | 23°12 | 23°15 | 24°40 | 1°33 | 23° 2 | S 10 | | | | | | | | |
| M11 | 13 39 15 | 26°32'10 | 22°22 | 15°49 | 14°38 | 24°31 | 13°35 | 10° 1 | 1°49 | 26° 0 | 23°14 | 23°13 | 24°36 | 1°39 | 23° 4 | M11 | | | | | | | | |
| T 12 | 13 43 12 | 27°30'19 | 6♌52 | 16°19 | 15°46 | 25°16 | 13°32 | 10° 6 | 1°51 | 26° 1 | 23°15 | 23°10 | 24°33 | 1°46 | 23° 6 | T 12 | | | | | | | | |
| W13 | 13 47 8 | 28°28'26 | 21°43 | 16°44 | 16°55 | 26° 0 | 13°29 | 10°12 | 1°53 | 26° 3 | 23°16 | 23° 7 | 24°30 | 1°53 | 23° 9 | W13 | | | | | | | | |
| T 14 | 13 51 5 | 29°26'31 | 6♌46 | 17° 4 | 18° 4 | 26°44 | 13°25 | 10°18 | 1°55 | 26° 4 | 23°17 | 23° 4 | 24°27 | 1°59 | 23°11 | T 14 | | | | | | | | |
| F 15 | 13 55 1 | 0♌24'34 | 21°53 | 17°18 | 19°12 | 27°28 | 13°22 | 10°24 | 1°58 | 26° 5 | 23°19 | 23° 1 | 24°24 | 2° 6 | 23°13 | F 15 | | | | | | | | |
| S 16 | 13 58 58 | 1°22'35 | 6♌54 | 17°27 | 20°21 | 28°12 | 13°18 | 10°29 | 2° 0 | 26° 7 | 23°20 | 22°59 | 24°21 | 2°13 | 23°15 | S 16 | | | | | | | | |
| S 17 | 14 2 55 | 2°20'35 | 21°42 | 17°R31 | 21°30 | 28°55 | 13°14 | 10°35 | 2° 2 | 26° 8 | 23°21 | 22°D59 | 24°17 | 2°19 | 23°17 | S 17 | | | | | | | | |
| M18 | 14 6 51 | 3°18'34 | 6♌ 9 | 17°29 | 22°39 | 29°39 | 13°10 | 10°40 | 2° 4 | 26°10 | 23°22 | 22°59 | 24°14 | 2°26 | 23°19 | M18 | | | | | | | | |
| T 19 | 14 10 48 | 4°16'30 | 20°11 | 17°23 | 23°49 | 0♌23 | 13° 5 | 10°46 | 2° 6 | 26°11 | 23°23 | 23° 0 | 24°11 | 2°33 | 23°21 | T 19 | | | | | | | | |
| W20 | 14 14 44 | 5°14'26 | 3♌46 | 17°12 | 24°58 | 1° 7 | 13° 1 | 10°51 | 2° 8 | 26°13 | 23°25 | 23° 1 | 24° 8 | 2°40 | 23°23 | W20 | | | | | | | | |
| T 21 | 14 18 41 | 6°12'20 | 16°55 | 16°56 | 26° 7 | 1°50 | 12°56 | 10°56 | 2°10 | 26°14 | 23°26 | 23° 3 | 24° 5 | 2°46 | 23°25 | T 21 | | | | | | | | |
| F 22 | 14 22 37 | 7°10'13 | 29°41 | 16°36 | 27°17 | 2°34 | 12°52 | 11° 1 | 2°12 | 26°16 | 23°27 | 23° 3 | 24° 2 | 2°53 | 23°27 | F 22 | | | | | | | | |
| S 23 | 14 26 34 | 8° 8'05 | 12♌ 8 | 16°13 | 28°26 | 3°18 | 12°47 | 11° 7 | 2°14 | 26°17 | 23°28 | 23°R 3 | 23°58 | 3° 0 | 23°29 | S 23 | | | | | | | | |
| S 24 | 14 30 30 | 9° 5'55 | 24°19 | 15°46 | 29°36 | 4° 1 | 12°41 | 11°12 | 2°15 | 26°19 | 23°29 | 23° 3 | 23°55 | 3° 6 | 23°30 | S 24 | | | | | | | | |
| M25 | 14 34 27 | 10° 3'44 | 6♌19 | 15°17 | 0♌45 | 4°44 | 12°36 | 11°17 | 2°17 | 26°21 | 23°30 | 23° 2 | 23°52 | 3°13 | 23°32 | M25 | | | | | | | | |
| T 26 | 14 38 24 | 11° 1'31 | 18°12 | 14°45 | 1°55 | 5°28 | 12°31 | 11°22 | 2°19 | 26°22 | 23°31 | 23° 0 | 23°49 | 3°20 | 23°34 | T 26 | | | | | | | | |
| W27 | 14 42 20 | 11°59'18 | 0♌ 1 | 14°12 | 3° 5 | 6°11 | 12°25 | 11°27 | 2°21 | 26°24 | 23°32 | 22°59 | 23°46 | 3°26 | 23°35 | W27 | | | | | | | | |
| T 28 | 14 46 17 | 12°57'03 | 11°52 | 13°37 | 4°14 | 6°55 | 12°20 | 11°31 | 2°22 | 26°26 | 23°33 | 22°57 | 23°42 | 3°33 | 23°37 | T 28 | | | | | | | | |
| F 29 | 14 50 13 | 13°54'47 | 23°45 | 13° 2 | 5°24 | 7°38 | 12°14 | 11°36 | 2°24 | 26°27 | 23°34 | 22°56 | 23°39 | 3°40 | 23°38 | F 29 | | | | | | | | |
| S 30 | 14 54 10 | 14♌52'30 | 5♌45 | 12♌27 | 6♌34 | 8♌21 | 12♌ 8 | 11♌41 | 2♌25 | 26°II29 | 23♌35 | 22°M55 | 23°M36 | 3♌46 | 23°39 | S 30 | | | | | | | | |

Delta T = 18m42s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1082
geocentric

MAY 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------|---------|--------|-------|--------|--------|--------|-------|---------|--------|--------|--------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 14 58 6 | 15°50'11 | 17°52 | 11°R53 | 7°V44 | 9° 4 | 12°R 2 | 11°K45 | 2°K27 | 26°II31 | 23°K36 | 22°D55 | 23°M33 | 3°V53 | 23°≈41 | S 1 | | | | | | | | |
| M 2 | 15 2 3 | 16°47'51 | 0°II 9 | 11°B21 | 8°54 | 9°47 | 11°≈56 | 11°50 | 2°28 | 26°33 | 23°37 | 22°M55 | 23°30 | 4° 0 | 23°42 | M 2 | | | | | | | | |
| T 3 | 15 5 59 | 17°45'30 | 12°37 | 10°50 | 10° 4 | 10°30 | 11°49 | 11°54 | 2°30 | 26°35 | 23°38 | 22°55 | 23°27 | 4° 7 | 23°43 | T 3 | | | | | | | | |
| W 4 | 15 9 56 | 18°43'08 | 25°18 | 10°21 | 11°15 | 11°13 | 11°43 | 11°59 | 2°31 | 26°36 | 23°39 | 22°55 | 23°23 | 4°13 | 23°44 | W 4 | | | | | | | | |
| T 5 | 15 13 53 | 19°40'44 | 8°E12 | 9°55 | 12°25 | 11°56 | 11°37 | 12° 3 | 2°33 | 26°38 | 23°40 | 22°56 | 23°20 | 4°20 | 23°45 | T 5 | | | | | | | | |
| F 6 | 15 17 49 | 20°38'18 | 21°22 | 9°33 | 13°35 | 12°39 | 11°30 | 12° 7 | 2°34 | 26°40 | 23°41 | 22°56 | 23°17 | 4°27 | 23°46 | F 6 | | | | | | | | |
| S 7 | 15 21 46 | 21°35'51 | 4°Q48 | 9°14 | 14°45 | 13°22 | 11°23 | 12°11 | 2°35 | 26°42 | 23°42 | 22°56 | 23°14 | 4°33 | 23°47 | S 7 | | | | | | | | |
| S 8 | 15 25 42 | 22°33'23 | 18°31 | 8°58 | 15°56 | 14° 5 | 11°17 | 12°15 | 2°36 | 26°44 | 23°43 | 22°56 | 23°11 | 4°40 | 23°48 | S 8 | | | | | | | | |
| M 9 | 15 29 39 | 23°30'53 | 2°M31 | 8°47 | 17° 6 | 14°47 | 11°10 | 12°19 | 2°37 | 26°46 | 23°44 | 22°56 | 23° 8 | 4°47 | 23°49 | M 9 | | | | | | | | |
| T 10 | 15 33 35 | 24°28'22 | 16°48 | 8°40 | 18°16 | 15°30 | 11° 3 | 12°23 | 2°39 | 26°48 | 23°45 | 22°56 | 23° 4 | 4°53 | 23°50 | T 10 | | | | | | | | |
| W11 | 15 37 32 | 25°25'49 | 1°E18 | 8°D38 | 19°27 | 16°13 | 10°56 | 12°27 | 2°40 | 26°50 | 23°46 | 22°57 | 23° 1 | 5° 0 | 23°51 | W11 | | | | | | | | |
| T 12 | 15 41 28 | 26°23'15 | 15°58 | 8°40 | 20°37 | 16°55 | 10°48 | 12°30 | 2°41 | 26°52 | 23°46 | 22°57 | 22°58 | 5° 7 | 23°51 | T 12 | | | | | | | | |
| F 13 | 15 45 25 | 27°20'40 | 0°M42 | 8°46 | 21°48 | 17°38 | 10°41 | 12°34 | 2°42 | 26°54 | 23°47 | 22°57 | 22°55 | 5°13 | 23°52 | F 13 | | | | | | | | |
| S 14 | 15 49 22 | 28°18'04 | 15°23 | 8°57 | 22°59 | 18°20 | 10°34 | 12°38 | 2°43 | 26°56 | 23°48 | 22°57 | 22°52 | 5°20 | 23°52 | S 14 | | | | | | | | |
| S 15 | 15 53 18 | 29°15'26 | 29°57 | 9°12 | 24° 9 | 19° 3 | 10°27 | 12°41 | 2°43 | 26°58 | 23°49 | 22°R57 | 22°48 | 5°27 | 23°53 | S 15 | | | | | | | | |
| M16 | 15 57 15 | 0°II12'48 | 14°≈15 | 9°32 | 25°20 | 19°45 | 10°19 | 12°44 | 2°44 | 27° 0 | 23°49 | 22°57 | 22°45 | 5°33 | 23°53 | M16 | | | | | | | | |
| T 17 | 16 1 11 | 1°10'09 | 28°13 | 9°56 | 26°31 | 20°27 | 10°12 | 12°48 | 2°45 | 27° 2 | 23°50 | 22°56 | 22°42 | 5°40 | 23°54 | T 17 | | | | | | | | |
| W18 | 16 5 8 | 2° 7'29 | 11°B49 | 10°25 | 27°42 | 21° 9 | 10° 4 | 12°51 | 2°46 | 27° 4 | 23°51 | 22°55 | 22°39 | 5°47 | 23°54 | W18 | | | | | | | | |
| T 19 | 16 9 4 | 3° 4'49 | 25° 2 | 10°57 | 28°53 | 21°52 | 9°57 | 12°54 | 2°46 | 27° 6 | 23°51 | 22°54 | 22°36 | 5°54 | 23°54 | T 19 | | | | | | | | |
| F 20 | 16 13 1 | 4° 2'08 | 7°≈52 | 11°34 | 0° 4 | 22°34 | 9°49 | 12°57 | 2°47 | 27° 8 | 23°52 | 22°53 | 22°33 | 6° 0 | 23°54 | F 20 | | | | | | | | |
| S 21 | 16 16 57 | 4°59'26 | 20°21 | 12°15 | 1°14 | 23°16 | 9°42 | 13° 0 | 2°48 | 27°10 | 23°53 | 22°52 | 22°29 | 6° 7 | 23°55 | S 21 | | | | | | | | |
| S 22 | 16 20 54 | 5°56'44 | 2°K35 | 13° 0 | 2°26 | 23°58 | 9°34 | 13° 3 | 2°48 | 27°12 | 23°53 | 22°D52 | 22°26 | 6°14 | 23°R55 | S 22 | | | | | | | | |
| M23 | 16 24 51 | 6°54'02 | 14°36 | 13°49 | 3°37 | 24°40 | 9°27 | 13° 5 | 2°49 | 27°14 | 23°54 | 22°52 | 22°23 | 6°20 | 23°55 | M23 | | | | | | | | |
| T 24 | 16 28 47 | 7°51'18 | 26°29 | 14°42 | 4°48 | 25°22 | 9°19 | 13° 8 | 2°49 | 27°16 | 23°54 | 22°52 | 22°20 | 6°27 | 23°55 | T 24 | | | | | | | | |
| W25 | 16 32 44 | 8°48'35 | 8°V19 | 15°38 | 5°59 | 26° 4 | 9°11 | 13°10 | 2°50 | 27°19 | 23°55 | 22°54 | 22°17 | 6°34 | 23°54 | W25 | | | | | | | | |
| T 26 | 16 36 40 | 9°45'51 | 20°11 | 16°38 | 7°10 | 26°46 | 9° 4 | 13°13 | 2°50 | 27°21 | 23°55 | 22°55 | 22°13 | 6°40 | 23°54 | T 26 | | | | | | | | |
| F 27 | 16 40 37 | 10°43'07 | 2° 8 | 17°42 | 8°21 | 27°27 | 8°56 | 13°15 | 2°50 | 27°23 | 23°56 | 22°56 | 22°10 | 6°47 | 23°54 | F 27 | | | | | | | | |
| S 28 | 16 44 33 | 11°40'22 | 14°15 | 18°49 | 9°33 | 28° 9 | 8°48 | 13°17 | 2°50 | 27°25 | 23°56 | 22°57 | 22° 7 | 6°54 | 23°54 | S 28 | | | | | | | | |
| S 29 | 16 48 30 | 12°37'37 | 26°33 | 20° 0 | 10°44 | 28°51 | 8°41 | 13°20 | 2°51 | 27°27 | 23°57 | 22°R57 | 22° 4 | 7° 0 | 23°53 | S 29 | | | | | | | | |
| M30 | 16 52 26 | 13°34'52 | 9°II 5 | 21°14 | 11°55 | 29°32 | 8°33 | 13°22 | 2°51 | 27°29 | 23°57 | 22°57 | 22° 1 | 7° 7 | 23°53 | M30 | | | | | | | | |
| T 31 | 16 56 23 | 14°II32'06 | 21°II52 | 22°B32 | 13° 7 | 0°II14 | 8°≈25 | 13°K24 | 2°K51 | 27°II31 | 23°K58 | 22°M55 | 21°M58 | 7°V14 | 23°≈52 | T 31 | | | | | | | | |

Delta T = 18m41s Julian Calendar 1 May 1082 = Greg. Calendar 7 May 1082

JUNE 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------|--------|--------|---------|---------|-------|--------|-------|---------|--------|--------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| W 1 | 17 0 20 | 15°II29'20 | 4°E54 | 23°B52 | 14°B18 | 0°II56 | 8°R18 | 13°K26 | 2°K51 | 27°II34 | 23°K58 | 22°R52 | 21°M54 | 7°V20 | 23°R52 | W 1 | | | | | | | | |
| T 2 | 17 4 16 | 16°26'33 | 18°11 | 25°17 | 15°29 | 1°37 | 8°≈10 | 13°27 | 2°R51 | 27°36 | 23°59 | 22°M49 | 21°51 | 7°27 | 23°≈51 | T 2 | | | | | | | | |
| F 3 | 17 8 13 | 17°23'46 | 1°Q42 | 26°44 | 16°41 | 2°19 | 8° 3 | 13°29 | 2°51 | 27°38 | 23°59 | 22°45 | 21°48 | 7°34 | 23°51 | F 3 | | | | | | | | |
| S 4 | 17 12 9 | 18°20'58 | 15°24 | 28°15 | 17°53 | 3° 0 | 7°55 | 13°31 | 2°51 | 27°40 | 23°59 | 22°42 | 21°45 | 7°40 | 23°50 | S 4 | | | | | | | | |
| S 5 | 17 16 6 | 19°18'09 | 29°18 | 29°49 | 19° 4 | 3°41 | 7°48 | 13°32 | 2°51 | 27°42 | 24° 0 | 22°40 | 21°42 | 7°47 | 23°49 | S 5 | | | | | | | | |
| M 6 | 17 20 2 | 20°15'20 | 13°M21 | 1°II26 | 20°16 | 4°23 | 7°41 | 13°33 | 2°50 | 27°45 | 24° 0 | 22°39 | 21°39 | 7°54 | 23°48 | M 6 | | | | | | | | |
| T 7 | 17 23 59 | 21°12'31 | 27°30 | 3° 6 | 21°27 | 5° 4 | 7°33 | 13°35 | 2°50 | 27°47 | 24° 0 | 22°D39 | 21°35 | 8° 1 | 23°47 | T 7 | | | | | | | | |
| W 8 | 17 27 56 | 22° 9'41 | 11°E46 | 4°49 | 22°39 | 5°45 | 7°26 | 13°36 | 2°50 | 27°49 | 24° 0 | 22°39 | 21°32 | 8° 7 | 23°46 | W 8 | | | | | | | | |
| T 9 | 17 31 52 | 23° 6'50 | 26° 4 | 6°35 | 23°51 | 6°26 | 7°19 | 13°37 | 2°50 | 27°51 | 24° 1 | 22°41 | 21°29 | 8°14 | 23°45 | T 9 | | | | | | | | |
| F 10 | 17 35 49 | 24° 3'59 | 10°M22 | 8°25 | 25° 2 | 7° 7 | 7°12 | 13°38 | 2°49 | 27°54 | 24° 1 | 22°42 | 21°26 | 8°21 | 23°44 | F 10 | | | | | | | | |
| S 11 | 17 39 45 | 25° 1'08 | 24°38 | 10°17 | 26°14 | 7°48 | 7° 5 | 13°39 | 2°49 | 27°56 | 24° 1 | 22°R43 | 21°23 | 8°27 | 23°43 | S 11 | | | | | | | | |
| S 12 | 17 43 42 | 25°58'16 | 8°≈47 | 12°11 | 27°26 | 8°29 | 6°58 | 13°40 | 2°48 | 27°58 | 24° 1 | 22°42 | 21°19 | 8°34 | 23°42 | S 12 | | | | | | | | |
| M13 | 17 47 38 | 26°55'25 | 22°45 | 14° 8 | 28°38 | 9°10 | 6°51 | 13°40 | 2°48 | 28° 0 | 24° 1 | 22°39 | 21°16 | 8°41 | 23°41 | M13 | | | | | | | | |
| T 14 | 17 51 35 | 27°52'33 | 6°B29 | 16° 8 | 29°50 | 9°51 | 6°45 | 13°41 | 2°47 | 28° 3 | 24° 1 | 22°35 | 21°13 | 8°47 | 23°40 | T 14 | | | | | | | | |
| W15 | 17 55 31 | 28°49'41 | 19°55 | 18°10 | 1°II 2 | 10°32 | 6°38 | 13°41 | 2°47 | 28° 5 | 24° 1 | 22°30 | 21°10 | 8°54 | 23°38 | W15 | | | | | | | | |
| T 16 | 17 59 28 | 29°46'50 | 3°≈ 2 | 20°13 | 2°14 | 11°13 | 6°31 | 13°42 | 2°46 | 28° 7 | 24° 1 | 22°24 | 21° 7 | 9° 1 | 23°37 | T 16 | | | | | | | | |
| F 17 | 18 3 25 | 0°E43'59 | 15°50 | 22°19 | 3°26 | 11°53 | 6°25 | 13°42 | 2°45 | 28° 9 | 24° 1 | 22°18 | 21° 4 | 9° 7 | 23°35 | F 17 | | | | | | | | |
| S 18 | 18 7 21 | 1°41'08 | 28°20 | 24°25 | 4°38 | 12°34 | 6°19 | 13°42 | 2°44 | 28°11 | 24°R 2 | 22°12 | 21° 0 | 9°14 | 23°34 | S 18 | | | | | | | | |
| S 19 | 18 11 18 | 2°38'17 | 10°K33 | 26°33 | 5°50 | 13°15 | 6°12 | 13°R42 | 2°44 | 28°14 | 24° 2 | 22° 8 | 20°57 | 9°21 | 23°32 | S 19 | | | | | | | | |
| M20 | 18 15 14 | 3°35'27 | 22°34 | 28°42 | 7° 2 | 13°55 | 6° 6 | 13°42 | 2°43 | 28°16 | 24° 1 | 22° 6 | 20°54 | 9°27 | 23°31 | M20 | | | | | | | | |
| T 21 | 18 19 11 | 4°32'37 | 4°V28 | 0°E51 | 8°14 | 14°36 | 6° 0 | 13°42 | 2°42 | 28°18 | 24° 1 | 22°D 5 | 20°51 | 9°34 | 23°29 | T 21 | | | | | | | | |
| W22 | 18 23 7 | 5°29'48 | 16°19 | 3° 1 | 9°27 | 15°16 | 5°55 | 13°42 | 2°41 | 28°20 | 24° 1 | 22° 6 | 20°48 | 9°41 | 23°27 | W22 | | | | | | | | |
| T 23 | 18 27 4 | 6°26'59 | 28°11 | 5°10 | 10°39 | 15°57 | 5°49 | 13°42 | 2°40 | 28°23 | 24° 1 | 22° 7 | 20°45 | 9°47 | 23°26 | T 23 | | | | | | | | |
| F 24 | 18 31 0 | 7°24'11 | 10°B11 | 7°19 | 11°51 | 16°37 | 5°43 | 13°41 | 2°39 | 28°25 | 24° 1 | 22° 9 | 20°41 | 9°54 | 23°24 | F 24 | | | | | | | | |
| S 25 | 18 34 57 | 8°21'24 | 22°22 | 9°27 | 13° 3 | 17°17 | 5°38 | 13°41 | 2°38 | 28°27 | 24° 1 | 22°R 9 | 20°38 | 10° 1 | 23°22 | S 25 | | | | | | | | |
| S 26 | 18 38 54 | 9°18'37 | 4°II49 | 11°35 | 14°16 | 17°58 | 5°33 | 13°40 | 2°37 | 28°29 | 24° 1 | 22° 8 | 20°35 | 10° 7 | 23°20 | S 26 | | | | | | | | |
| M27 | 18 42 50 | 10°15'51 | 17°34 | 13°42 | 15°28 | 18°38 | 5°27 | 13°39 | 2°36 | 28°31 | 24° 1 | 22° 6 | 20°32 | 10°14 | 23°18 | M27 | | | | | | | | |
| T 28 | 18 46 47 | 11°13'05 | 0°E39 | 15°48 | 16°41 | 19°18 | 5°22 | 13°38 | 2°35 | 28°34 | 24° 0 | 22° 1 | 20°29 | 10°21 | 23°16 | T 28 | | | | | | | | |
| W29 | 18 50 43 | 12°10'20 | 14° 4 | 17°52 | 17°53 | 19°58 | 5°18 | 13°37 | 2°33 | 28°36 | 24° 0 | 21°54 | 20°25 | 10°28 | 23°14 | W29 | | | | | | | | |
| T 30 | 18 54 40 | 13°E 7'35 | 27°E46 | 19°E55 | 19°II 6 | 20°II38 | 5°≈13 | 13°K36 | 2°K32 | 28°II38 | 24°K 0 | 21°M46 | 20°M22 | 10°V34 | 23°≈12 | T 30 | | | | | | | | |

Delta T = 18m41s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1082
geocentric

JULY 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 18 58 36 | 14☾ 4'51 | 11♊43 | 21☾56 | 20♁18 | 21♁19 | 5°R 8 | 13°R35 | 2°R31 | 28♁40 | 24°R 0 | 21°R38 | 20♁19 | 10♀41 | 23°R10 | F 1 | | | | | | | | |
| S 2 | 19 2 33 | 15° 2'07 | 25°51 | 23°56 | 21°31 | 21°59 | 5♂ 4 | 13♁34 | 2♁29 | 28°42 | 23♁59 | 21♁30 | 20°16 | 10°48 | 23≈8 | S 2 | | | | | | | | |
| S 3 | 19 6 29 | 15°59'23 | 10♁ 4 | 25°55 | 22°44 | 22°39 | 5° 0 | 13°33 | 2°28 | 28°44 | 23°59 | 21°24 | 20°13 | 10°54 | 23° 6 | S 3 | | | | | | | | |
| M 4 | 19 10 26 | 16°56'40 | 24°19 | 27°51 | 23°56 | 23°18 | 4°56 | 13°31 | 2°27 | 28°47 | 23°59 | 21°19 | 20°10 | 11° 1 | 23° 3 | M 4 | | | | | | | | |
| T 5 | 19 14 23 | 17°53'58 | 8♁33 | 29°46 | 25° 9 | 23°58 | 4°52 | 13°30 | 2°25 | 28°49 | 23°58 | 21°17 | 20° 6 | 11° 8 | 23° 1 | T 5 | | | | | | | | |
| W 6 | 19 18 19 | 18°51'15 | 22°43 | 1♊40 | 26°22 | 24°38 | 4°48 | 13°28 | 2°24 | 28°51 | 23°58 | 21°D17 | 20° 3 | 11°14 | 22°59 | W 6 | | | | | | | | |
| T 7 | 19 22 16 | 19°48'33 | 6♁48 | 3°31 | 27°35 | 25°18 | 4°44 | 13°26 | 2°22 | 28°53 | 23°58 | 21°18 | 20° 0 | 11°21 | 22°56 | T 7 | | | | | | | | |
| F 8 | 19 26 12 | 20°45'52 | 20°46 | 5°21 | 28°47 | 25°58 | 4°41 | 13°25 | 2°20 | 28°55 | 23°57 | 21°R18 | 19°57 | 11°28 | 22°54 | F 8 | | | | | | | | |
| S 9 | 19 30 9 | 21°43'11 | 4♁38 | 7° 9 | 0☾ 0 | 26°37 | 4°38 | 13°23 | 2°19 | 28°57 | 23°57 | 21°17 | 19°54 | 11°34 | 22°52 | S 9 | | | | | | | | |
| S 10 | 19 34 5 | 22°40'31 | 18°21 | 8°56 | 1°13 | 27°17 | 4°35 | 13°21 | 2°17 | 28°59 | 23°56 | 21°15 | 19°51 | 11°41 | 22°49 | S 10 | | | | | | | | |
| M 11 | 19 38 2 | 23°37'51 | 1☾55 | 10°41 | 2°26 | 27°57 | 4°32 | 13°19 | 2°15 | 29° 1 | 23°56 | 21° 9 | 19°47 | 11°48 | 22°47 | M 11 | | | | | | | | |
| T 12 | 19 41 58 | 24°35'13 | 15°17 | 12°24 | 3°39 | 28°36 | 4°29 | 13°16 | 2°14 | 29° 3 | 23°55 | 21° 1 | 19°44 | 11°54 | 22°44 | T 12 | | | | | | | | |
| W 13 | 19 45 55 | 25°32'35 | 28°26 | 14° 5 | 4°52 | 29°16 | 4°27 | 13°14 | 2°12 | 29° 5 | 23°55 | 20°52 | 19°41 | 12° 1 | 22°42 | W 13 | | | | | | | | |
| T 14 | 19 49 52 | 26°29'58 | 11≈20 | 15°45 | 6° 5 | 29°55 | 4°24 | 13°12 | 2°10 | 29° 8 | 23°54 | 20°40 | 19°38 | 12° 8 | 22°39 | T 14 | | | | | | | | |
| F 15 | 19 53 48 | 27°27'22 | 23°59 | 17°23 | 7°18 | 0☾35 | 4°22 | 13° 9 | 2° 8 | 29°10 | 23°54 | 20°29 | 19°35 | 12°14 | 22°36 | F 15 | | | | | | | | |
| S 16 | 19 57 45 | 28°24'47 | 6♁23 | 19° 0 | 8°31 | 1°14 | 4°20 | 13° 7 | 2° 7 | 29°12 | 23°53 | 20°19 | 19°31 | 12°21 | 22°34 | S 16 | | | | | | | | |
| S 17 | 20 1 41 | 29°22'13 | 18°33 | 20°35 | 9°45 | 1°53 | 4°19 | 13° 4 | 2° 5 | 29°14 | 23°53 | 20°10 | 19°28 | 12°28 | 22°31 | S 17 | | | | | | | | |
| M 18 | 20 5 38 | 0♁19'41 | 0♀32 | 22° 8 | 10°58 | 2°32 | 4°17 | 13° 2 | 2° 3 | 29°16 | 23°52 | 20° 4 | 19°25 | 12°34 | 22°28 | M 18 | | | | | | | | |
| T 19 | 20 9 34 | 1°17'09 | 12°24 | 23°40 | 12°11 | 3°12 | 4°15 | 12°59 | 2° 1 | 29°17 | 23°51 | 20° 0 | 19°22 | 12°41 | 22°25 | T 19 | | | | | | | | |
| W 20 | 20 13 31 | 2°14'40 | 24°13 | 25°10 | 13°24 | 3°51 | 4°14 | 12°56 | 1°59 | 29°19 | 23°51 | 19°59 | 19°19 | 12°48 | 22°23 | W 20 | | | | | | | | |
| T 21 | 20 17 27 | 3°12'11 | 6♁ 5 | 26°38 | 14°38 | 4°30 | 4°13 | 12°53 | 1°57 | 29°21 | 23°50 | 19°D58 | 19°16 | 12°54 | 22°20 | T 21 | | | | | | | | |
| F 22 | 20 21 24 | 4° 9'44 | 18° 4 | 28° 4 | 15°51 | 5° 9 | 4°12 | 12°50 | 1°55 | 29°23 | 23°49 | 19°R59 | 19°12 | 13° 1 | 22°17 | F 22 | | | | | | | | |
| S 23 | 20 25 21 | 5° 7'19 | 0♁17 | 29°29 | 17° 4 | 5°48 | 4°12 | 12°47 | 1°53 | 29°25 | 23°49 | 19°58 | 19° 9 | 13° 8 | 22°14 | S 23 | | | | | | | | |
| S 24 | 20 29 17 | 6° 4'55 | 12°48 | 0♁52 | 18°18 | 6°27 | 4°11 | 12°44 | 1°51 | 29°27 | 23°48 | 19°56 | 19° 6 | 13°14 | 22°11 | S 24 | | | | | | | | |
| M 25 | 20 33 14 | 7° 2'33 | 25°40 | 2°14 | 19°31 | 7° 6 | 4°11 | 12°40 | 1°49 | 29°29 | 23°47 | 19°52 | 19° 3 | 13°21 | 22° 8 | M 25 | | | | | | | | |
| T 26 | 20 37 10 | 8° 0'12 | 8☾57 | 3°33 | 20°45 | 7°45 | 4°D11 | 12°37 | 1°47 | 29°31 | 23°47 | 19°45 | 19° 0 | 13°28 | 22° 6 | T 26 | | | | | | | | |
| W 27 | 20 41 7 | 8°57'52 | 22°39 | 4°51 | 21°59 | 8°24 | 4°11 | 12°34 | 1°44 | 29°33 | 23°46 | 19°36 | 18°57 | 13°34 | 22° 3 | W 27 | | | | | | | | |
| T 28 | 20 45 3 | 9°55'34 | 6♁43 | 6° 7 | 23°12 | 9° 3 | 4°11 | 12°30 | 1°42 | 29°34 | 23°45 | 19°25 | 18°53 | 13°41 | 22° 0 | T 28 | | | | | | | | |
| F 29 | 20 49 0 | 10°53'18 | 21° 5 | 7°21 | 24°26 | 9°42 | 4°11 | 12°27 | 1°40 | 29°36 | 23°44 | 19°14 | 18°50 | 13°48 | 21°57 | F 29 | | | | | | | | |
| S 30 | 20 52 56 | 11°51'02 | 5♁39 | 8°32 | 25°39 | 10°20 | 4°12 | 12°23 | 1°38 | 29°38 | 23°43 | 19° 3 | 18°47 | 13°54 | 21°54 | S 30 | | | | | | | | |
| S 31 | 20 56 53 | 12♁48'48 | 20♁17 | 9♁42 | 26☾53 | 10☾59 | 4♁13 | 12♁19 | 1♁36 | 29♁40 | 23♁42 | 18♁54 | 18♁44 | 14♀1 | 21≈51 | S 31 | | | | | | | | |

Delta T = 18m41s Julian Calendar 1 July 1082 == Greg. Calendar 7 July 1082

AUGUST 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|------|--------|-------|-------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 21 0 50 | 13♁46'35 | 4♁53 | 10♁49 | 28☾ 7 | 11☾38 | 4♁14 | 12°R16 | 1°R33 | 29♁41 | 23°R42 | 18°R47 | 18♁41 | 14♀ 8 | 21°R48 | M 1 | | | | | | | | |
| T 2 | 21 4 46 | 14°44'23 | 19°21 | 11°55 | 29°21 | 12°16 | 4°15 | 12♁12 | 1♁31 | 29°43 | 23♁41 | 18♁44 | 18°37 | 14°14 | 21≈45 | T 2 | | | | | | | | |
| W 3 | 21 8 43 | 15°42'13 | 3♁37 | 12°57 | 0♁35 | 12°55 | 4°16 | 12° 8 | 1°29 | 29°45 | 23°40 | 18°42 | 18°34 | 14°21 | 21°42 | W 3 | | | | | | | | |
| T 4 | 21 12 39 | 16°40'04 | 17°39 | 13°58 | 1°48 | 13°33 | 4°18 | 12° 4 | 1°27 | 29°46 | 23°39 | 18°42 | 18°31 | 14°28 | 21°39 | T 4 | | | | | | | | |
| F 5 | 21 16 36 | 17°37'56 | 1♁28 | 14°55 | 3° 2 | 14°12 | 4°20 | 12° 0 | 1°24 | 29°48 | 23°38 | 18°42 | 18°28 | 14°34 | 21°36 | F 5 | | | | | | | | |
| S 6 | 21 20 32 | 18°35'49 | 15° 4 | 15°50 | 4°16 | 14°50 | 4°22 | 11°56 | 1°22 | 29°50 | 23°37 | 18°40 | 18°25 | 14°41 | 21°33 | S 6 | | | | | | | | |
| S 7 | 21 24 29 | 19°33'43 | 28°27 | 16°42 | 5°30 | 15°29 | 4°24 | 11°52 | 1°20 | 29°51 | 23°36 | 18°36 | 18°22 | 14°48 | 21°30 | S 7 | | | | | | | | |
| M 8 | 21 28 25 | 20°31'39 | 11☾39 | 17°31 | 6°44 | 16° 7 | 4°26 | 11°48 | 1°17 | 29°53 | 23°35 | 18°30 | 18°18 | 14°54 | 21°27 | M 8 | | | | | | | | |
| T 9 | 21 32 22 | 21°29'37 | 24°39 | 18°16 | 7°58 | 16°45 | 4°28 | 11°44 | 1°15 | 29°54 | 23°34 | 18°21 | 18°15 | 15° 1 | 21°24 | T 9 | | | | | | | | |
| W 10 | 21 36 19 | 22°27'36 | 7≈28 | 18°58 | 9°12 | 17°23 | 4°31 | 11°40 | 1°13 | 29°56 | 23°33 | 18° 9 | 18°12 | 15° 8 | 21°21 | W 10 | | | | | | | | |
| T 11 | 21 40 15 | 23°25'36 | 20° 5 | 19°36 | 10°26 | 18° 2 | 4°34 | 11°35 | 1°10 | 29°57 | 23°32 | 17°56 | 18° 9 | 15°14 | 21°18 | T 11 | | | | | | | | |
| F 12 | 21 44 12 | 24°23'38 | 2♁31 | 20°10 | 11°40 | 18°40 | 4°37 | 11°31 | 1° 8 | 29°59 | 23°31 | 17°42 | 18° 6 | 15°21 | 21°15 | F 12 | | | | | | | | |
| S 13 | 21 48 8 | 25°21'42 | 14°44 | 20°40 | 12°54 | 19°18 | 4°40 | 11°27 | 1° 5 | 0☾ 0 | 23°30 | 17°30 | 18° 3 | 15°28 | 21°12 | S 13 | | | | | | | | |
| S 14 | 21 52 5 | 26°19'47 | 26°48 | 21° 5 | 14° 9 | 19°56 | 4°43 | 11°22 | 1° 3 | 0° 2 | 23°29 | 17°19 | 17°59 | 15°34 | 21° 9 | S 14 | | | | | | | | |
| M 15 | 21 56 1 | 27°17'55 | 8♀43 | 21°25 | 15°23 | 20°34 | 4°47 | 11°18 | 1° 1 | 0° 3 | 23°28 | 17°11 | 17°56 | 15°41 | 21° 6 | M 15 | | | | | | | | |
| T 16 | 21 59 58 | 28°16'04 | 20°32 | 21°40 | 16°37 | 21°12 | 4°51 | 11°13 | 0°58 | 0° 5 | 23°27 | 17° 6 | 17°53 | 15°48 | 21° 3 | T 16 | | | | | | | | |
| W 17 | 22 3 54 | 29°14'16 | 2♁20 | 21°50 | 17°51 | 21°50 | 4°55 | 11° 9 | 0°56 | 0° 6 | 23°26 | 17° 4 | 17°50 | 15°54 | 21° 0 | W 17 | | | | | | | | |
| T 18 | 22 7 51 | 0♁12'29 | 14°10 | 21°R54 | 19° 6 | 22°28 | 4°59 | 11° 4 | 0°54 | 0° 7 | 23°25 | 17°D 3 | 17°47 | 16° 1 | 20°57 | T 18 | | | | | | | | |
| F 19 | 22 11 48 | 1°10'45 | 26° 8 | 21°52 | 20°20 | 23° 5 | 5° 3 | 11° 0 | 0°51 | 0° 8 | 23°24 | 17°R 3 | 17°43 | 16° 8 | 20°54 | F 19 | | | | | | | | |
| S 20 | 22 15 44 | 2° 9'02 | 8♁18 | 21°44 | 21°34 | 23°43 | 5° 7 | 10°55 | 0°49 | 0°10 | 23°23 | 17° 3 | 17°40 | 16°14 | 20°51 | S 20 | | | | | | | | |
| S 21 | 22 19 41 | 3° 7'22 | 20°48 | 21°29 | 22°49 | 24°21 | 5°12 | 10°51 | 0°46 | 0°11 | 23°22 | 17° 1 | 17°37 | 16°21 | 20°48 | S 21 | | | | | | | | |
| M 22 | 22 23 37 | 4° 5'44 | 3☾40 | 21° 8 | 24° 3 | 24°59 | 5°16 | 10°46 | 0°44 | 0°12 | 23°21 | 16°58 | 17°34 | 16°28 | 20°45 | M 22 | | | | | | | | |
| T 23 | 22 27 34 | 5° 4'08 | 17° 0 | 20°40 | 25°18 | 25°36 | 5°21 | 10°42 | 0°42 | 0°13 | 23°20 | 16°52 | 17°31 | 16°34 | 20°42 | T 23 | | | | | | | | |
| W 24 | 22 31 30 | 6° 2'34 | 0♁47 | 20° 6 | 26°32 | 26°14 | 5°26 | 10°37 | 0°39 | 0°14 | 23°18 | 16°44 | 17°28 | 16°41 | 20°39 | W 24 | | | | | | | | |
| T 25 | 22 35 27 | 7° 1'03 | 15° 2 | 19°25 | 27°47 | 26°51 | 5°32 | 10°32 | 0°37 | 0°16 | 23°17 | 16°35 | 17°24 | 16°48 | 20°36 | T 25 | | | | | | | | |
| F 26 | 22 39 23 | 7°59'33 | 29°41 | 18°38 | 29° 1 | 27°29 | 5°37 | 10°28 | 0°34 | 0°17 | 23°16 | 16°24 | 17°21 | 16°54 | 20°33 | F 26 | | | | | | | | |
| S 27 | 22 43 20 | 8°58'05 | 14♁35 | 17°46 | 0♁16 | 28° 6 | 5°42 | 10°23 | 0°32 | 0°18 | 23°15 | 16°14 | 17°18 | 17° 1 | 20°31 | S 27 | | | | | | | | |
| S 28 | 22 47 17 | 9°56'39 | 29°36 | 16°49 | 1°31 | 28°44 | 5°48 | 10°18 | 0°30 | 0°19 | 23°14 | 16° 6 | 17°15 | 17° 8 | 20°28 | S 28 | | | | | | | | |
| M 29 | 22 51 13 | 10°55'15 | 14☾34 | 15°48 | 2°45 | 29°21 | 5°54 | 10°14 | 0°27 | 0°20 | 23°13 | 16° 0 | 17°12 | 17°14 | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1082
geocentric

SEPTEMBER 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|-------|-------|--------|--------|-------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 23 3 3 | 13♄51'14 | 28♌ 4 | 12°R37 | 6♄29 | 1♉13 | 6♁12 | 10°R 0 | 0°R20 | 0♄23 | 23°R 9 | 15♌56 | 17♌ 2 | 17°V34 | 20°R17 | T 1 | | | | | | | | |
| F 2 | 23 6 59 | 14°49'57 | 11♁55 | 11♄36 | 7°44 | 1°50 | 6°19 | 9°55 | 0°18 | 0°23 | 23°R 8 | 15°R56 | 16°59 | 17°41 | 20°14 | F 2 | | | | | | | | |
| S 3 | 23 10 56 | 15°48'42 | 25°26 | 10°37 | 8°59 | 2°27 | 6°26 | 9°51 | 0°16 | 0°24 | 23° 7 | 15°56 | 16°56 | 17°48 | 20°12 | S 3 | | | | | | | | |
| S 4 | 23 14 52 | 16°47'28 | 8♄39 | 9°44 | 10°13 | 3° 4 | 6°32 | 9°46 | 0°13 | 0°25 | 23° 6 | 15°54 | 16°53 | 17°54 | 20° 9 | S 4 | | | | | | | | |
| M 5 | 23 18 49 | 17°46'16 | 21°37 | 8°58 | 11°28 | 3°41 | 6°39 | 9°41 | 0°11 | 0°26 | 23° 5 | 15°49 | 16°49 | 18° 1 | 20° 6 | M 5 | | | | | | | | |
| T 6 | 23 22 45 | 18°45'06 | 4♁20 | 8°19 | 12°43 | 4°18 | 6°46 | 9°37 | 0° 9 | 0°27 | 23° 3 | 15°42 | 16°46 | 18° 8 | 20° 4 | T 6 | | | | | | | | |
| W 7 | 23 26 42 | 19°43'58 | 16°52 | 7°49 | 13°58 | 4°55 | 6°53 | 9°32 | 0° 7 | 0°27 | 23° 2 | 15°33 | 16°43 | 18°14 | 20° 1 | W 7 | | | | | | | | |
| T 8 | 23 30 39 | 20°42'52 | 29°13 | 7°28 | 15°13 | 5°32 | 7° 1 | 9°28 | 0° 4 | 0°28 | 23° 1 | 15°23 | 16°40 | 18°21 | 19°59 | T 8 | | | | | | | | |
| F 9 | 23 34 35 | 21°41'48 | 11♁24 | 7°18 | 16°28 | 6° 9 | 7° 8 | 9°23 | 0° 2 | 0°29 | 23° 0 | 15°13 | 16°37 | 18°28 | 19°57 | F 9 | | | | | | | | |
| S 10 | 23 38 32 | 22°40'45 | 23°27 | 7°D18 | 17°42 | 6°45 | 7°16 | 9°19 | 0° 0 | 0°29 | 22°59 | 15° 3 | 16°34 | 18°34 | 19°54 | S 10 | | | | | | | | |
| S 11 | 23 42 28 | 23°39'45 | 5°V24 | 7°28 | 18°57 | 7°22 | 7°24 | 9°14 | 29°58 | 0°30 | 22°57 | 14°55 | 16°30 | 18°41 | 19°52 | S 11 | | | | | | | | |
| M12 | 23 46 25 | 24°38'47 | 17°14 | 7°48 | 20°12 | 7°59 | 7°32 | 9°10 | 29°56 | 0°30 | 22°56 | 14°49 | 16°27 | 18°48 | 19°49 | M12 | | | | | | | | |
| T 13 | 23 50 21 | 25°37'51 | 29° 2 | 8°18 | 21°27 | 8°35 | 7°40 | 9° 5 | 29°54 | 0°31 | 22°55 | 14°45 | 16°24 | 18°54 | 19°47 | T 13 | | | | | | | | |
| W14 | 23 54 18 | 26°36'57 | 10♁49 | 8°57 | 22°42 | 9°12 | 7°48 | 9° 1 | 29°52 | 0°31 | 22°54 | 14°D44 | 16°21 | 19° 1 | 19°45 | W14 | | | | | | | | |
| T 15 | 23 58 14 | 27°36'06 | 22°39 | 9°45 | 23°57 | 9°48 | 7°56 | 8°57 | 29°50 | 0°32 | 22°53 | 14°44 | 16°18 | 19° 8 | 19°43 | T 15 | | | | | | | | |
| F 16 | 0 2 11 | 28°35'17 | 4♁37 | 10°40 | 25°12 | 10°25 | 8° 4 | 8°53 | 29°48 | 0°32 | 22°52 | 14°45 | 16°14 | 19°14 | 19°41 | F 16 | | | | | | | | |
| S 17 | 0 6 8 | 29°34'30 | 16°47 | 11°44 | 26°27 | 11° 1 | 8°13 | 8°48 | 29°46 | 0°33 | 22°50 | 14°47 | 16°11 | 19°21 | 19°39 | S 17 | | | | | | | | |
| S 18 | 0 10 4 | 0♁33'46 | 29°13 | 12°53 | 27°42 | 11°37 | 8°22 | 8°44 | 29°44 | 0°33 | 22°49 | 14°R47 | 16° 8 | 19°28 | 19°36 | S 18 | | | | | | | | |
| M19 | 0 14 1 | 1°33'04 | 12♁ 2 | 14° 9 | 28°57 | 12°14 | 8°30 | 8°40 | 29°42 | 0°33 | 22°48 | 14°47 | 16° 5 | 19°34 | 19°34 | M19 | | | | | | | | |
| T 20 | 0 17 57 | 2°32'25 | 25°16 | 15°29 | 0♁12 | 12°50 | 8°39 | 8°36 | 29°40 | 0°34 | 22°47 | 14°45 | 16° 2 | 19°41 | 19°33 | T 20 | | | | | | | | |
| W21 | 0 21 54 | 3°31'47 | 8♁59 | 16°54 | 1°27 | 13°26 | 8°48 | 8°32 | 29°38 | 0°34 | 22°46 | 14°41 | 15°59 | 19°48 | 19°31 | W21 | | | | | | | | |
| T 22 | 0 25 50 | 4°31'12 | 23°11 | 18°23 | 2°42 | 14° 2 | 8°58 | 8°28 | 29°36 | 0°34 | 22°45 | 14°35 | 15°55 | 19°54 | 19°29 | T 22 | | | | | | | | |
| F 23 | 0 29 47 | 5°30'40 | 7♄49 | 19°54 | 3°58 | 14°38 | 9° 7 | 8°24 | 29°34 | 0°34 | 22°43 | 14°29 | 15°52 | 20° 1 | 19°27 | F 23 | | | | | | | | |
| S 24 | 0 33 43 | 6°30'09 | 22°48 | 21°29 | 5°13 | 15°14 | 9°16 | 8°20 | 29°33 | 0°34 | 22°42 | 14°23 | 15°49 | 20° 8 | 19°25 | S 24 | | | | | | | | |
| S 25 | 0 37 40 | 7°29'41 | 8♁ 0 | 23° 5 | 6°28 | 15°50 | 9°26 | 8°17 | 29°31 | 0°35 | 22°41 | 14°18 | 15°46 | 20°14 | 19°23 | S 25 | | | | | | | | |
| M26 | 0 41 36 | 8°29'15 | 23°13 | 24°43 | 7°43 | 16°26 | 9°35 | 8°13 | 29°29 | 0°35 | 22°40 | 14°15 | 15°43 | 20°21 | 19°22 | M26 | | | | | | | | |
| T 27 | 0 45 33 | 9°28'51 | 8♌18 | 26°23 | 8°58 | 17° 2 | 9°45 | 8° 9 | 29°27 | 0°35 | 22°39 | 14°D14 | 15°39 | 20°28 | 19°20 | T 27 | | | | | | | | |
| W28 | 0 49 30 | 10°28'29 | 23° 7 | 28° 3 | 10°13 | 17°38 | 9°55 | 8° 6 | 29°26 | 0°R35 | 22°38 | 14°14 | 15°36 | 20°34 | 19°19 | W28 | | | | | | | | |
| T 29 | 0 53 26 | 11°28'08 | 7♁35 | 29°45 | 11°29 | 18°13 | 10° 5 | 8° 2 | 29°24 | 0°35 | 22°37 | 14°15 | 15°33 | 20°41 | 19°17 | T 29 | | | | | | | | |
| F 30 | 0 57 23 | 12°27'50 | 21♁37 | 1♁26 | 12♁44 | 18♁49 | 10♁15 | 7♁59 | 29°23 | 0♄35 | 22°35 | 14♌17 | 15♌30 | 20°V48 | 19°16 | F 30 | | | | | | | | |

Delta T = 18m40s Julian Calendar 1 Sept. 1082 == Greg. Calendar 7 Sept. 1082

OCTOBER 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|--------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 1 1 19 | 13♄27'33 | 5♄14 | 3♁ 9 | 13♁59 | 19♉24 | 10♁25 | 7°R56 | 29°R21 | 0°R35 | 22°R34 | 14♌18 | 15♌27 | 20°V54 | 19°R14 | S 1 | | | | | | | | |
| S 2 | 1 5 16 | 14°27'18 | 18°27 | 4°51 | 15°14 | 20° 0 | 10°35 | 7°52 | 29°20 | 0♄34 | 22°R33 | 14°R18 | 15°24 | 21° 1 | 19°13 | S 2 | | | | | | | | |
| M 3 | 1 9 12 | 15°27'05 | 1♁20 | 6°33 | 16°29 | 20°35 | 10°46 | 7°49 | 29°18 | 0°34 | 22°32 | 14°17 | 15°20 | 21° 8 | 19°12 | M 3 | | | | | | | | |
| T 4 | 1 13 9 | 16°26'53 | 13°55 | 8°15 | 17°45 | 21°11 | 10°56 | 7°46 | 29°17 | 0°34 | 22°31 | 14°14 | 15°17 | 21°14 | 19°10 | T 4 | | | | | | | | |
| W 5 | 1 17 5 | 17°26'43 | 26°16 | 9°57 | 19° 0 | 21°46 | 11° 7 | 7°43 | 29°15 | 0°34 | 22°30 | 14°11 | 15°14 | 21°21 | 19° 9 | W 5 | | | | | | | | |
| T 6 | 1 21 2 | 18°26'35 | 8♁25 | 11°39 | 20°15 | 22°21 | 11°17 | 7°40 | 29°14 | 0°34 | 22°29 | 14° 6 | 15°11 | 21°28 | 19° 8 | T 6 | | | | | | | | |
| F 7 | 1 24 59 | 19°26'29 | 20°26 | 13°20 | 21°30 | 22°56 | 11°28 | 7°37 | 29°13 | 0°33 | 22°28 | 14° 2 | 15° 8 | 21°34 | 19° 7 | F 7 | | | | | | | | |
| S 8 | 1 28 55 | 20°26'24 | 2°V21 | 15° 1 | 22°45 | 23°31 | 11°39 | 7°34 | 29°12 | 0°33 | 22°27 | 13°58 | 15° 5 | 21°41 | 19° 6 | S 8 | | | | | | | | |
| S 9 | 1 32 52 | 21°26'21 | 14°11 | 16°42 | 24° 1 | 24° 6 | 11°50 | 7°32 | 29°10 | 0°33 | 22°26 | 13°55 | 15° 1 | 21°47 | 19° 5 | S 9 | | | | | | | | |
| M10 | 1 36 48 | 22°26'21 | 26° 0 | 18°22 | 25°16 | 24°41 | 12° 1 | 7°29 | 29° 9 | 0°32 | 22°25 | 13°52 | 14°58 | 21°54 | 19° 4 | M10 | | | | | | | | |
| T 11 | 1 40 45 | 23°26'22 | 7♁48 | 20° 2 | 26°31 | 25°16 | 12°12 | 7°27 | 29° 8 | 0°32 | 22°24 | 13°51 | 14°55 | 22° 1 | 19° 3 | T 11 | | | | | | | | |
| W12 | 1 44 41 | 24°26'25 | 19°39 | 21°41 | 27°46 | 25°51 | 12°23 | 7°24 | 29° 7 | 0°31 | 22°23 | 13°D51 | 14°52 | 22° 7 | 19° 3 | W12 | | | | | | | | |
| T 13 | 1 48 38 | 25°26'31 | 1♁34 | 23°20 | 29° 2 | 26°26 | 12°35 | 7°22 | 29° 6 | 0°31 | 22°22 | 13°52 | 14°49 | 22°14 | 19° 2 | T 13 | | | | | | | | |
| F 14 | 1 52 34 | 26°26'38 | 13°37 | 24°59 | 0♌17 | 27° 0 | 12°46 | 7°20 | 29° 5 | 0°30 | 22°21 | 13°53 | 14°45 | 22°21 | 19° 1 | F 14 | | | | | | | | |
| S 15 | 1 56 31 | 27°26'48 | 25°51 | 26°37 | 1°32 | 27°35 | 12°58 | 7°17 | 29° 4 | 0°30 | 22°20 | 13°55 | 14°42 | 22°27 | 19° 1 | S 15 | | | | | | | | |
| S 16 | 2 0 28 | 28°26'59 | 8♁19 | 28°14 | 2°48 | 28° 9 | 13° 9 | 7°15 | 29° 3 | 0°29 | 22°19 | 13°56 | 14°39 | 22°34 | 19° 0 | S 16 | | | | | | | | |
| M17 | 2 4 24 | 29°27'13 | 21° 6 | 29°51 | 4° 3 | 28°44 | 13°21 | 7°13 | 29° 2 | 0°29 | 22°18 | 13°57 | 14°36 | 22°41 | 19° 0 | M17 | | | | | | | | |
| T 18 | 2 8 21 | 0♌27'29 | 4♁15 | 1♌28 | 5°18 | 29°18 | 13°33 | 7°12 | 29° 2 | 0°28 | 22°17 | 13°R57 | 14°33 | 22°47 | 18°59 | T 18 | | | | | | | | |
| W19 | 2 12 17 | 1°27'47 | 17°48 | 3° 5 | 6°33 | 29°53 | 13°44 | 7°10 | 29° 1 | 0°27 | 22°16 | 13°57 | 14°30 | 22°54 | 18°59 | W19 | | | | | | | | |
| T 20 | 2 16 14 | 2°28'07 | 1♄47 | 4°41 | 7°49 | 0♄27 | 13°56 | 7° 8 | 29° 0 | 0°26 | 22°16 | 13°56 | 14°26 | 23° 1 | 18°59 | T 20 | | | | | | | | |
| F 21 | 2 20 10 | 3°28'28 | 16°12 | 6°16 | 9° 4 | 1° 1 | 14° 8 | 7° 7 | 28°59 | 0°26 | 22°15 | 13°54 | 14°23 | 23° 7 | 18°59 | F 21 | | | | | | | | |
| S 22 | 2 24 7 | 4°28'52 | 0♁59 | 7°51 | 10°19 | 1°35 | 14°20 | 7° 5 | 28°59 | 0°25 | 22°14 | 13°53 | 14°20 | 23°14 | 18°58 | S 22 | | | | | | | | |
| S 23 | 2 28 3 | 5°29'18 | 16° 2 | 9°26 | 11°35 | 2° 9 | 14°32 | 7° 4 | 28°58 | 0°24 | 22°13 | 13°52 | 14°17 | 23°21 | 18°58 | S 23 | | | | | | | | |
| M24 | 2 32 0 | 6°29'46 | 1♌14 | 11° 1 | 12°50 | 2°43 | 14°44 | 7° 3 | 28°58 | 0°23 | 22°12 | 13°52 | 14°14 | 23°27 | 18°D58 | M24 | | | | | | | | |
| T 25 | 2 35 57 | 7°30'15 | 16°24 | 12°35 | 14° 5 | 3°16 | 14°57 | 7° 1 | 28°57 | 0°22 | 22°11 | 13°D52 | 14°11 | 23°34 | 18°58 | T 25 | | | | | | | | |
| W26 | 2 39 53 | 8°30'46 | 1♁23 | 14° 9 | 15°21 | 3°50 | 15° 9 | 7° 0 | 28°57 | 0°22 | 22°11 | 13°52 | 14° 7 | 23°41 | 18°58 | W26 | | | | | | | | |
| T 27 | 2 43 50 | 9°31'19 | 16° 2 | 15°43 | 16°36 | 4°24 | 15°21 | 6°59 | 28°57 | 0°21 | 22°10 | 13°52 | 14° 4 | 23°47 | 18°59 | T 27 | | | | | | | | |
| F 28 | 2 47 46 | 10°31'53 | 0♄18 | 17°17 | 17°51 | 4°57 | 15°34 | 6°59 | 28°56 | 0°20 | 22° 9 | 13°53 | 14° 1 | 23°54 | 18°59 | F 28 | | | | | | | | |
| S 29 | 2 51 43 | 11°32'28 | 14° 7 | 18°50 | 19° 7 | 5°31 | 15°46 | 6°58 | 28°56 | 0°19 | 22° 8 | 13°53 | 13°58 | 24° 1 | 18°59 | S 29 | | | | | | | | |
| S 30 | 2 55 39 | 12°33'05 | 27°28 | 20°23 | 20°22 | 6° 4 | 15°59 | 6°57 | 28°56 | 0°18 | 22° 8 | 13°53 | 13°55 | 24° 7 | 19° 0 | S 30 | | | | | | | | |
| M31 | 2 59 36 | 13♌33'42 | 10♁25 | 21♌56 | 21♌37 | 6♄37 | 16♁11 | 6♁57 | 28°56 | 0♄17 | 22°R 7 | 13♌53 | 13♌51 | 24°V14 | 19°00 | M31 | | | | | | | | |

Delta T = 18m40s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1082
geocentric

NOVEMBER 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|--------|-------|------|-----|
| T 1 | 3 3 32 | 14♐34'21 | 23♋0 | 23♐29 | 22♐53 | 7♎10 | 16♊24 | 6°R56 | 28°R56 | 0°R16 | 22°R 6 | 13♐53 | 13♐48 | 24°V21 | 19♋0 | T 1 | |
| W 2 | 3 7 29 | 15°35'01 | 5♌18 | 25° 1 | 24° 8 | 7°43 | 16°37 | 6♌56 | 28°D56 | 0°E15 | 22♌6 | 13°53 | 13°45 | 24°27 | 19° 1 | W 2 | |
| T 3 | 3 11 26 | 16°35'43 | 17°22 | 26°33 | 25°23 | 8°16 | 16°50 | 6°56 | 28°56 | 0°13 | 22° 5 | 13°53 | 13°42 | 24°34 | 19° 2 | T 3 | |
| F 4 | 3 15 22 | 17°36'25 | 29°16 | 28° 5 | 26°39 | 8°49 | 17° 3 | 6°D56 | 28°56 | 0°12 | 22° 5 | 13°54 | 13°39 | 24°41 | 19° 2 | F 4 | |
| S 5 | 3 19 19 | 18°37'09 | 11♍6 | 29°37 | 27°54 | 9°22 | 17°15 | 6°56 | 28°56 | 0°11 | 22° 4 | 13°54 | 13°36 | 24°47 | 19° 3 | S 5 | |
| S 6 | 3 23 15 | 19°37'54 | 22°54 | 1♌9 | 29° 9 | 9°54 | 17°28 | 6°56 | 28°56 | 0°10 | 22° 3 | 13°55 | 13°32 | 24°54 | 19° 4 | S 6 | |
| M 7 | 3 27 12 | 20°38'40 | 4♌43 | 2°40 | 0♌25 | 10°27 | 17°41 | 6°56 | 28°56 | 0° 9 | 22° 3 | 13°55 | 13°29 | 25° 0 | 19° 5 | M 7 | |
| T 8 | 3 31 8 | 21°39'27 | 16°36 | 4°11 | 1°40 | 10°59 | 17°54 | 6°57 | 28°56 | 0° 7 | 22° 2 | 13°R55 | 13°26 | 25° 7 | 19° 6 | T 8 | |
| W 9 | 3 35 5 | 22°40'16 | 28°34 | 5°42 | 2°55 | 11°32 | 18° 7 | 6°57 | 28°57 | 0° 6 | 22° 2 | 13°55 | 13°23 | 25°14 | 19° 7 | W 9 | |
| T 10 | 3 39 1 | 23°41'06 | 10♈40 | 7°13 | 4°10 | 12° 4 | 18°21 | 6°58 | 28°57 | 0° 5 | 22° 1 | 13°54 | 13°20 | 25°20 | 19° 8 | T 10 | |
| F 11 | 3 42 58 | 24°41'57 | 22°56 | 8°44 | 5°26 | 12°36 | 18°34 | 6°58 | 28°58 | 0° 4 | 22° 1 | 13°53 | 13°16 | 25°27 | 19° 9 | F 11 | |
| S 12 | 3 46 55 | 25°42'49 | 5♉22 | 10°14 | 6°41 | 13° 8 | 18°47 | 6°59 | 28°58 | 0° 2 | 22° 1 | 13°51 | 13°13 | 25°34 | 19°10 | S 12 | |
| S 13 | 3 50 51 | 26°43'43 | 18° 1 | 11°44 | 7°56 | 13°40 | 19° 0 | 7° 0 | 28°59 | 0° 1 | 22° 0 | 13°49 | 13°10 | 25°40 | 19°11 | S 13 | |
| M14 | 3 54 48 | 27°44'38 | 0♈55 | 13°13 | 9°12 | 14°11 | 19°14 | 7° 1 | 28°59 | 29♈59 | 22° 0 | 13°48 | 13° 7 | 25°47 | 19°12 | M14 | |
| T 15 | 3 58 44 | 28°45'35 | 14° 5 | 14°42 | 10°27 | 14°43 | 19°27 | 7° 2 | 29° 0 | 29°58 | 21°59 | 13°46 | 13° 4 | 25°54 | 19°14 | T 15 | |
| W16 | 4 2 41 | 29°46'33 | 27°33 | 16°11 | 11°42 | 15°14 | 19°40 | 7° 3 | 29° 0 | 29°57 | 21°59 | 13°D46 | 13° 1 | 26° 0 | 19°15 | W16 | |
| T 17 | 4 6 37 | 0♌47'32 | 11♎21 | 17°38 | 12°57 | 15°46 | 19°54 | 7° 4 | 29° 1 | 29°55 | 21°59 | 13°46 | 12°57 | 26° 7 | 19°17 | T 17 | |
| F 18 | 4 10 34 | 1°48'32 | 25°28 | 19° 5 | 14°13 | 16°17 | 20° 7 | 7° 6 | 29° 2 | 29°54 | 21°58 | 13°47 | 12°54 | 26°14 | 19°18 | F 18 | |
| S 19 | 4 14 30 | 2°49'34 | 9♌54 | 20°31 | 15°28 | 16°48 | 20°21 | 7° 7 | 29° 3 | 29°52 | 21°58 | 13°48 | 12°51 | 26°20 | 19°20 | S 19 | |
| S 20 | 4 18 27 | 3°50'36 | 24°36 | 21°57 | 16°43 | 17°19 | 20°34 | 7° 9 | 29° 4 | 29°51 | 21°58 | 13°50 | 12°48 | 26°27 | 19°21 | S 20 | |
| M21 | 4 22 24 | 4°51'40 | 9♐28 | 23°20 | 17°59 | 17°50 | 20°48 | 7°11 | 29° 5 | 29°49 | 21°58 | 13°R50 | 12°45 | 26°34 | 19°23 | M21 | |
| T 22 | 4 26 20 | 5°52'45 | 24°23 | 24°43 | 19°14 | 18°20 | 21° 1 | 7°13 | 29° 6 | 29°48 | 21°57 | 13°50 | 12°42 | 26°40 | 19°25 | T 22 | |
| W23 | 4 30 17 | 6°53'51 | 9♌15 | 26° 4 | 20°29 | 18°51 | 21°15 | 7°15 | 29° 7 | 29°46 | 21°57 | 13°49 | 12°38 | 26°47 | 19°27 | W23 | |
| T 24 | 4 34 13 | 7°54'58 | 23°54 | 27°23 | 21°44 | 19°21 | 21°29 | 7°17 | 29° 8 | 29°45 | 21°57 | 13°46 | 12°35 | 26°54 | 19°29 | T 24 | |
| F 25 | 4 38 10 | 8°56'05 | 8♌14 | 28°39 | 23° 0 | 19°51 | 21°42 | 7°19 | 29° 9 | 29°43 | 21°57 | 13°42 | 12°32 | 27° 0 | 19°30 | F 25 | |
| S 26 | 4 42 6 | 9°57'13 | 22°10 | 29°53 | 24°15 | 20°22 | 21°56 | 7°21 | 29°10 | 29°42 | 21°57 | 13°38 | 12°29 | 27° 7 | 19°32 | S 26 | |
| S 27 | 4 46 3 | 10°58'21 | 5♋40 | 1♌4 | 25°30 | 20°51 | 22°10 | 7°23 | 29°11 | 29°40 | 21°57 | 13°34 | 12°26 | 27°14 | 19°35 | S 27 | |
| M28 | 4 49 59 | 11°59'29 | 18°44 | 2°11 | 26°45 | 21°21 | 22°23 | 7°26 | 29°13 | 29°39 | 21°57 | 13°31 | 12°22 | 27°20 | 19°37 | M28 | |
| T 29 | 4 53 56 | 13° 0'38 | 1♌23 | 3°14 | 28° 1 | 21°51 | 22°37 | 7°28 | 29°14 | 29°37 | 21°57 | 13°29 | 12°19 | 27°27 | 19°39 | T 29 | |
| W30 | 4 57 53 | 14♌1'47 | 13♌43 | 4♌12 | 29♌16 | 22♎20 | 22♌51 | 7♌31 | 29♌15 | 29♌35 | 21°D57 | 13°D28 | 12♐16 | 27°V33 | 19♋41 | W30 | |

Delta T = 18m40s Julian Calendar 1 Nov. 1082 == Greg. Calendar 7 Nov. 1082

DECEMBER 1082 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|-------|------|-------|--------|-------|--------|-------|--------|-------|------|-----|
| T 1 | 5 1 49 | 15♌2'56 | 25♌47 | 5♌4 | 0♌31 | 22♎49 | 23♌5 | 7♌34 | 29♌17 | 29°R34 | 21♌57 | 13♐29 | 12♐13 | 27°V40 | 19♋43 | T 1 | |
| F 2 | 5 5 46 | 16° 4'06 | 7°V40 | 5°50 | 1°46 | 23°18 | 23°18 | 7°37 | 29°18 | 29°R32 | 21°57 | 13°31 | 12°10 | 27°47 | 19°45 | F 2 | |
| S 3 | 5 9 42 | 17° 5'15 | 19°29 | 6°29 | 3° 1 | 23°47 | 23°32 | 7°40 | 29°20 | 29°R30 | 21°57 | 13°32 | 12° 7 | 27°53 | 19°48 | S 3 | |
| S 4 | 5 13 39 | 18° 6'25 | 1♌16 | 7° 0 | 4°17 | 24°16 | 23°46 | 7°43 | 29°21 | 29°29 | 21°57 | 13°34 | 12° 3 | 28° 0 | 19°50 | S 4 | |
| M 5 | 5 17 35 | 19° 7'35 | 13° 7 | 7°22 | 5°32 | 24°45 | 24° 0 | 7°46 | 29°23 | 29°27 | 21°57 | 13°R35 | 12° 0 | 28° 7 | 19°53 | M 5 | |
| T 6 | 5 21 32 | 20° 8'45 | 25° 5 | 7°34 | 6°47 | 25°13 | 24°14 | 7°49 | 29°25 | 29°25 | 21°57 | 13°34 | 11°57 | 28°13 | 19°55 | T 6 | |
| W 7 | 5 25 28 | 21° 9'56 | 7♈13 | 7°R35 | 8° 2 | 25°41 | 24°28 | 7°53 | 29°26 | 29°24 | 21°57 | 13°31 | 11°54 | 28°20 | 19°58 | W 7 | |
| T 8 | 5 29 25 | 22°11'06 | 19°33 | 7°25 | 9°17 | 26° 9 | 24°42 | 7°56 | 29°28 | 29°22 | 21°57 | 13°27 | 11°51 | 28°27 | 20° 0 | T 8 | |
| F 9 | 5 33 22 | 23°12'17 | 2♉6 | 7° 3 | 10°32 | 26°37 | 24°55 | 8° 0 | 29°30 | 29°20 | 21°57 | 13°21 | 11°48 | 28°33 | 20° 3 | F 9 | |
| S 10 | 5 37 18 | 24°13'28 | 14°53 | 6°30 | 11°47 | 27° 5 | 25° 9 | 8° 3 | 29°32 | 29°19 | 21°58 | 13°13 | 11°44 | 28°40 | 20° 6 | S 10 | |
| S 11 | 5 41 15 | 25°14'39 | 27°52 | 5°44 | 13° 3 | 27°32 | 25°23 | 8° 7 | 29°33 | 29°17 | 21°58 | 13° 6 | 11°41 | 28°47 | 20° 8 | S 11 | |
| M12 | 5 45 11 | 26°15'50 | 11♈4 | 4°48 | 14°18 | 27°59 | 25°37 | 8°11 | 29°35 | 29°15 | 21°58 | 12°58 | 11°38 | 28°53 | 20°11 | M12 | |
| T 13 | 5 49 8 | 27°17'02 | 24°28 | 3°43 | 15°33 | 28°26 | 25°51 | 8°15 | 29°37 | 29°14 | 21°58 | 12°52 | 11°35 | 29° 0 | 20°14 | T 13 | |
| W14 | 5 53 4 | 28°18'14 | 8♎4 | 2°30 | 16°48 | 28°53 | 26° 5 | 8°19 | 29°39 | 29°12 | 21°59 | 12°48 | 11°32 | 29° 7 | 20°17 | W14 | |
| T 15 | 5 57 1 | 29°19'26 | 21°51 | 1°12 | 18° 3 | 29°19 | 26°19 | 8°23 | 29°41 | 29°10 | 21°59 | 12°46 | 11°28 | 29°13 | 20°20 | T 15 | |
| F 16 | 6 0 57 | 0♌20'38 | 5♌49 | 29♌52 | 19°18 | 29°46 | 26°32 | 8°27 | 29°44 | 29° 9 | 21°59 | 12°D46 | 11°25 | 29°20 | 20°23 | F 16 | |
| S 17 | 6 4 54 | 1°21'50 | 19°57 | 28°31 | 20°33 | 0♌12 | 26°46 | 8°31 | 29°46 | 29° 7 | 22° 0 | 12°47 | 11°22 | 29°27 | 20°26 | S 17 | |
| S 18 | 6 8 51 | 2°23'03 | 4♐15 | 27°13 | 21°48 | 0°38 | 27° 0 | 8°35 | 29°48 | 29° 5 | 22° 0 | 12°48 | 11°19 | 29°33 | 20°29 | S 18 | |
| M19 | 6 12 47 | 3°24'16 | 18°41 | 26° 0 | 23° 3 | 1° 3 | 27°14 | 8°40 | 29°50 | 29° 3 | 22° 1 | 12°R48 | 11°16 | 29°40 | 20°32 | M19 | |
| T 20 | 6 16 44 | 4°25'29 | 3♌10 | 24°53 | 24°18 | 1°29 | 27°28 | 8°44 | 29°52 | 29° 2 | 22° 1 | 12°47 | 11°13 | 29°46 | 20°35 | T 20 | |
| W21 | 6 20 40 | 5°26'41 | 17°38 | 23°54 | 25°33 | 1°54 | 27°42 | 8°49 | 29°55 | 29° 0 | 22° 2 | 12°42 | 11° 9 | 29°53 | 20°38 | W21 | |
| T 22 | 6 24 37 | 6°27'54 | 2♌0 | 23° 5 | 26°48 | 2°19 | 27°56 | 8°54 | 29°57 | 28°58 | 22° 2 | 12°36 | 11° 6 | 29°59 | 20°41 | T 22 | |
| F 23 | 6 28 33 | 7°29'06 | 16° 8 | 22°26 | 28° 3 | 2°43 | 28° 9 | 8°58 | 29°59 | 28°57 | 22° 3 | 12°27 | 11° 3 | 0♌6 | 20°45 | F 23 | |
| S 24 | 6 32 30 | 8°30'18 | 29°58 | 21°56 | 29°18 | 3° 7 | 28°23 | 9° 3 | 0♌2 | 28°55 | 22° 3 | 12°17 | 11° 0 | 0°13 | 20°48 | S 24 | |
| S 25 | 6 36 27 | 9°31'29 | 13♋27 | 21°36 | 0♋33 | 3°31 | 28°37 | 9° 8 | 0° 4 | 28°53 | 22° 4 | 12° 7 | 10°57 | 0°20 | 20°51 | S 25 | |
| M26 | 6 40 23 | 10°32'39 | 26°32 | 21°25 | 1°48 | 3°55 | 28°51 | 9°13 | 0° 7 | 28°52 | 22° 4 | 11°58 | 10°54 | 0°26 | 20°55 | M26 | |
| T 27 | 6 44 20 | 11°33'49 | 9♌15 | 21°D23 | 3° 3 | 4°19 | 29° 5 | 9°18 | 0° 9 | 28°50 | 22° 5 | 11°51 | 10°50 | 0°33 | 20°58 | T 27 | |
| W28 | 6 48 16 | 12°34'58 | 21°37 | 21°30 | 4°18 | 4°42 | 29°18 | 9°23 | 0°12 | 28°48 | 22° 6 | 11°46 | 10°47 | 0°40 | 21° 2 | W28 | |
| T 29 | 6 52 13 | 13°36'06 | 3°V43 | 21°44 | 5°32 | 5° 5 | 29°32 | 9°28 | 0°14 | 28°47 | 22° 6 | 11°43 | 10°44 | 0°46 | 21° 5 | T 29 | |
| F 30 | 6 56 9 | 14°37'13 | 15°37 | 22° 5 | 6°47 | 5°27 | 29°46 | 9°34 | 0°17 | 28°45 | 22° 7 | 11°D43 | 10°41 | 0°53 | 21° 8 | F 30 | |
| S 31 | 7 0 6 | 15♌38'19 | 27°V26 | 22♌33 | 8♋2 | 5♌49 | 29♌59 | 9♌39 | 0♌20 | 28°R43 | 22♌8 | 11♐43 | 10♐38 | 1♌0 | 21♋12 | S 31 | |

Delta T = 18m39s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1083
geocentric

JANUARY 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|---------|--------|--------|-------|-------|--------|-------|---------|--------|--------|--------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 4 2 | 16♁39'25 | 9♁14 | 23♁7 6 | 9♁17 | 6♁11 | 0♁13 | 9♁44 | 0♁22 | 28♁R42 | 22♁8 | 11♁R44 | 10♁M34 | 1♁8 6 | 21♁16 | S 1 | | | | | | | | |
| M 2 | 7 7 59 | 17°40'29 | 21° 6 | 23°45 | 10°32 | 6°33 | 0°27 | 9°50 | 0°25 | 28♁II40 | 22° 9 | 11♁M43 | 10°31 | 1°13 | 21°19 | M 2 | | | | | | | | |
| T 3 | 7 11 56 | 18°41'33 | 3♁II 8 | 24°28 | 11°46 | 6°54 | 0°40 | 9°56 | 0°28 | 28°39 | 22°10 | 11°41 | 10°28 | 1°20 | 21°23 | T 3 | | | | | | | | |
| W 4 | 7 15 52 | 19°42'35 | 15°24 | 25°16 | 13° 1 | 7°15 | 0°54 | 10° 1 | 0°31 | 28°37 | 22°11 | 11°36 | 10°25 | 1°26 | 21°26 | W 4 | | | | | | | | |
| T 5 | 7 19 49 | 20°43'37 | 27°56 | 26° 8 | 14°16 | 7°35 | 1° 7 | 10° 7 | 0°33 | 28°36 | 22°11 | 11°28 | 10°22 | 1°33 | 21°30 | T 5 | | | | | | | | |
| F 6 | 7 23 45 | 21°44'37 | 10♁346 | 27° 3 | 15°30 | 7°56 | 1°21 | 10°13 | 0°36 | 28°34 | 22°12 | 11°18 | 10°19 | 1°39 | 21°34 | F 6 | | | | | | | | |
| S 7 | 7 27 42 | 22°45'37 | 23°54 | 28° 1 | 16°45 | 8°16 | 1°34 | 10°18 | 0°39 | 28°32 | 22°13 | 11° 6 | 10°15 | 1°46 | 21°37 | S 7 | | | | | | | | |
| S 8 | 7 31 38 | 23°46'35 | 7♁II18 | 29° 2 | 17°59 | 8°35 | 1°47 | 10°24 | 0°42 | 28°31 | 22°14 | 10°54 | 10°12 | 1°53 | 21°41 | S 8 | | | | | | | | |
| M 9 | 7 35 35 | 24°47'33 | 20°56 | 0♁3 6 | 19°14 | 8°54 | 2° 1 | 10°30 | 0°45 | 28°29 | 22°15 | 10°42 | 10° 9 | 1°59 | 21°45 | M 9 | | | | | | | | |
| T 10 | 7 39 31 | 25°48'30 | 4♁III45 | 1°12 | 20°28 | 9°13 | 2°14 | 10°36 | 0°48 | 28°28 | 22°16 | 10°32 | 10° 6 | 2° 6 | 21°49 | T 10 | | | | | | | | |
| W11 | 7 43 28 | 26°49'25 | 18°41 | 2°21 | 21°43 | 9°31 | 2°27 | 10°42 | 0°51 | 28°26 | 22°17 | 10°24 | 10° 3 | 2°13 | 21°53 | W11 | | | | | | | | |
| T 12 | 7 47 25 | 27°50'20 | 2♁41 | 3°31 | 22°57 | 9°49 | 2°41 | 10°48 | 0°54 | 28°25 | 22°17 | 10°19 | 10° 0 | 2°19 | 21°56 | T 12 | | | | | | | | |
| F 13 | 7 51 21 | 28°51'14 | 16°44 | 4°44 | 24°12 | 10° 6 | 2°54 | 10°55 | 0°57 | 28°24 | 22°18 | 10°17 | 9°56 | 2°26 | 22° 0 | F 13 | | | | | | | | |
| S 14 | 7 55 18 | 29°52'08 | 0♁M49 | 5°58 | 25°26 | 10°24 | 3° 7 | 11° 1 | 1° 0 | 28°22 | 22°19 | 10°D17 | 9°53 | 2°33 | 22° 4 | S 14 | | | | | | | | |
| S 15 | 7 59 14 | 0♁53'00 | 14°54 | 7°14 | 26°41 | 10°40 | 3°20 | 11° 7 | 1° 3 | 28°21 | 22°20 | 10°R17 | 9°50 | 2°39 | 22° 8 | S 15 | | | | | | | | |
| M16 | 8 3 11 | 1°53'52 | 28°59 | 8°31 | 27°55 | 10°56 | 3°33 | 11°13 | 1° 6 | 28°19 | 22°21 | 10°16 | 9°47 | 2°46 | 22°12 | M16 | | | | | | | | |
| T 17 | 8 7 7 | 2°54'43 | 13♁7 3 | 9°49 | 29° 9 | 11°12 | 3°46 | 11°20 | 1° 9 | 28°18 | 22°22 | 10°13 | 9°44 | 2°53 | 22°16 | T 17 | | | | | | | | |
| W18 | 8 11 4 | 3°55'32 | 27° 3 | 11° 9 | 0♁X24 | 11°27 | 3°59 | 11°26 | 1°12 | 28°17 | 22°23 | 10° 7 | 9°40 | 2°59 | 22°20 | W18 | | | | | | | | |
| T 19 | 8 15 0 | 4°56'21 | 10♁57 | 12°30 | 1°38 | 11°42 | 4°12 | 11°33 | 1°15 | 28°15 | 22°25 | 9°58 | 9°37 | 3° 6 | 22°24 | T 19 | | | | | | | | |
| F 20 | 8 18 57 | 5°57'08 | 24°42 | 13°53 | 2°52 | 11°56 | 4°25 | 11°39 | 1°19 | 28°14 | 22°26 | 9°46 | 9°34 | 3°13 | 22°28 | F 20 | | | | | | | | |
| S 21 | 8 22 54 | 6°57'55 | 8♁13 | 15°16 | 4° 6 | 12°10 | 4°38 | 11°46 | 1°22 | 28°13 | 22°27 | 9°33 | 9°31 | 3°19 | 22°32 | S 21 | | | | | | | | |
| S 22 | 8 26 50 | 7°58'39 | 21°28 | 16°41 | 5°20 | 12°23 | 4°51 | 11°52 | 1°25 | 28°12 | 22°28 | 9°19 | 9°28 | 3°26 | 22°36 | S 22 | | | | | | | | |
| M23 | 8 30 47 | 8°59'22 | 4♁X25 | 18° 6 | 6°34 | 12°36 | 5° 4 | 11°59 | 1°28 | 28°10 | 22°29 | 9° 6 | 9°25 | 3°32 | 22°40 | M23 | | | | | | | | |
| T 24 | 8 34 43 | 10° 0'04 | 17° 3 | 19°33 | 7°48 | 12°48 | 5°16 | 12° 6 | 1°32 | 28° 9 | 22°30 | 8°56 | 9°21 | 3°39 | 22°44 | T 24 | | | | | | | | |
| W25 | 8 38 40 | 11° 0'44 | 29°23 | 21° 1 | 9° 2 | 13° 0 | 5°29 | 12°13 | 1°35 | 28° 8 | 22°31 | 8°48 | 9°18 | 3°46 | 22°48 | W25 | | | | | | | | |
| T 26 | 8 42 36 | 12° 1'22 | 11♁Y29 | 22°29 | 10°16 | 13°11 | 5°41 | 12°19 | 1°38 | 28° 7 | 22°32 | 8°43 | 9°15 | 3°52 | 22°52 | T 26 | | | | | | | | |
| F 27 | 8 46 33 | 13° 1'58 | 23°23 | 23°59 | 11°30 | 13°22 | 5°54 | 12°26 | 1°41 | 28° 6 | 22°34 | 8°41 | 9°12 | 3°59 | 22°56 | F 27 | | | | | | | | |
| S 28 | 8 50 29 | 14° 2'33 | 5♁12 | 25°30 | 12°44 | 13°32 | 6° 6 | 12°33 | 1°45 | 28° 5 | 22°35 | 8°40 | 9° 9 | 4° 6 | 23° 0 | S 28 | | | | | | | | |
| S 29 | 8 54 26 | 15° 3'05 | 16°59 | 27° 1 | 13°58 | 13°41 | 6°19 | 12°40 | 1°48 | 28° 4 | 22°36 | 8°40 | 9° 6 | 4°12 | 23° 4 | S 29 | | | | | | | | |
| M30 | 8 58 23 | 16° 3'36 | 28°52 | 28°33 | 15°12 | 13°50 | 6°31 | 12°47 | 1°51 | 28° 3 | 22°37 | 8°40 | 9° 2 | 4°19 | 23° 8 | M30 | | | | | | | | |
| T 31 | 9 2 19 | 17° 4'05 | 10♁II55 | 0♁7 7 | 16♁X26 | 13♁58 | 6♁343 | 12♁X54 | 1♁X55 | 28♁II 2 | 22♁X38 | 8♁M38 | 8♁M59 | 4♁B26 | 23°12 | T 31 | | | | | | | | |

Delta T = 18m39s Julian Calendar 1 Jan. 1083 == Greg. Calendar 7 Jan. 1083

FEBRUARY 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|---------|--------|--------|--------|-------|--------|-------|---------|--------|-------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 9 6 16 | 18°45'33 | 23♁II14 | 1♁11 | 17♁X39 | 14♁6 6 | 6♁55 | 13♁X 1 | 1♁X58 | 28°R 1 | 22♁X40 | 8°R33 | 8♁M56 | 4♁B32 | 23°17 | W 1 | | | | | | | | |
| T 2 | 9 10 12 | 19° 4'58 | 5♁52 | 3°16 | 18°53 | 14°13 | 7° 7 | 13° 8 | 2° 2 | 28♁II 0 | 22°41 | 8♁M26 | 8°53 | 4°39 | 23°21 | T 2 | | | | | | | | |
| F 3 | 9 14 9 | 20° 5'21 | 18°52 | 4°53 | 20° 6 | 14°19 | 7°19 | 13°15 | 2° 5 | 27°59 | 22°42 | 8°17 | 8°50 | 4°46 | 23°25 | F 3 | | | | | | | | |
| S 4 | 9 18 5 | 21° 5'43 | 2♁II15 | 6°30 | 21°20 | 14°25 | 7°31 | 13°22 | 2° 8 | 27°58 | 22°44 | 8° 5 | 8°46 | 4°52 | 23°29 | S 4 | | | | | | | | |
| S 5 | 9 22 2 | 22° 6'02 | 15°59 | 8° 8 | 22°33 | 14°30 | 7°43 | 13°29 | 2°12 | 27°57 | 22°45 | 7°53 | 8°43 | 4°59 | 23°33 | S 5 | | | | | | | | |
| M 6 | 9 25 58 | 23° 6'20 | 0♁II 2 | 9°47 | 23°47 | 14°34 | 7°55 | 13°37 | 2°15 | 27°56 | 22°46 | 7°41 | 8°40 | 5° 5 | 23°37 | M 6 | | | | | | | | |
| T 7 | 9 29 55 | 24° 6'36 | 14°18 | 11°27 | 25° 0 | 14°38 | 8° 7 | 13°44 | 2°19 | 27°55 | 22°47 | 7°31 | 8°37 | 5°12 | 23°41 | T 7 | | | | | | | | |
| W 8 | 9 33 52 | 25° 6'50 | 28°42 | 13° 8 | 26°13 | 14°41 | 8°18 | 13°51 | 2°22 | 27°55 | 22°49 | 7°23 | 8°34 | 5°19 | 23°45 | W 8 | | | | | | | | |
| T 9 | 9 37 48 | 26° 7'03 | 13♁5 7 | 14°50 | 27°26 | 14°43 | 8°30 | 13°58 | 2°25 | 27°54 | 22°50 | 7°18 | 8°31 | 5°25 | 23°49 | T 9 | | | | | | | | |
| F 10 | 9 41 45 | 27° 7'14 | 27°28 | 16°33 | 28°40 | 14°45 | 8°41 | 14° 6 | 2°29 | 27°53 | 22°51 | 7°16 | 8°27 | 5°32 | 23°54 | F 10 | | | | | | | | |
| S 11 | 9 45 41 | 28° 7'24 | 11♁M44 | 18°18 | 29°53 | 14°46 | 8°52 | 14°13 | 2°32 | 27°52 | 22°53 | 7°D16 | 8°24 | 5°39 | 23°58 | S 11 | | | | | | | | |
| S 12 | 9 49 38 | 29° 7'32 | 25°51 | 20° 3 | 1♁Y 6 | 14°R46 | 9° 4 | 14°20 | 2°36 | 27°52 | 22°54 | 7°R16 | 8°21 | 5°45 | 24° 2 | S 12 | | | | | | | | |
| M13 | 9 53 34 | 0♁X 7 | 9♁X59 | 21°49 | 2°19 | 14°45 | 9°15 | 14°27 | 2°39 | 27°51 | 22°56 | 7°16 | 8°18 | 5°52 | 24° 6 | M13 | | | | | | | | |
| T 14 | 9 57 31 | 1° 7'43 | 23°39 | 23°37 | 3°32 | 14°44 | 9°26 | 14°35 | 2°43 | 27°51 | 22°57 | 7°14 | 8°15 | 5°59 | 24°10 | T 14 | | | | | | | | |
| W15 | 10 1 27 | 2° 7'46 | 7♁318 | 25°25 | 4°45 | 14°42 | 9°37 | 14°42 | 2°46 | 27°50 | 22°58 | 7° 9 | 8°12 | 6° 5 | 24°14 | W15 | | | | | | | | |
| T 16 | 10 5 24 | 3° 7'48 | 20°48 | 27°15 | 5°57 | 14°39 | 9°48 | 14°50 | 2°49 | 27°50 | 23° 0 | 7° 2 | 8° 8 | 6°12 | 24°18 | T 16 | | | | | | | | |
| F 17 | 10 9 20 | 4° 7'48 | 4♁7 | 29° 5 | 7°10 | 14°35 | 9°59 | 14°57 | 2°53 | 27°49 | 23° 1 | 6°52 | 8° 5 | 6°19 | 24°22 | F 17 | | | | | | | | |
| S 18 | 10 13 17 | 5° 7'46 | 17°14 | 0♁X57 | 8°23 | 14°31 | 10° 9 | 15° 4 | 2°56 | 27°49 | 23° 3 | 6°41 | 8° 2 | 6°25 | 24°26 | S 18 | | | | | | | | |
| S 19 | 10 17 14 | 6° 7'42 | 0♁X 8 | 2°50 | 9°35 | 14°26 | 10°20 | 15°12 | 3° 0 | 27°48 | 23° 4 | 6°30 | 7°59 | 6°32 | 24°30 | S 19 | | | | | | | | |
| M20 | 10 21 10 | 7° 7'36 | 12°47 | 4°44 | 10°48 | 14°20 | 10°31 | 15°19 | 3° 3 | 27°48 | 23° 5 | 6°20 | 7°56 | 6°39 | 24°34 | M20 | | | | | | | | |
| T 21 | 10 25 7 | 8° 7'28 | 25°13 | 6°39 | 12° 0 | 14°13 | 10°41 | 15°27 | 3° 7 | 27°47 | 23° 7 | 6°11 | 7°52 | 6°45 | 24°38 | T 21 | | | | | | | | |
| W22 | 10 29 3 | 9° 7'18 | 7♁Y26 | 8°35 | 13°13 | 14° 5 | 10°51 | 15°34 | 3°10 | 27°47 | 23° 8 | 6° 4 | 7°49 | 6°52 | 24°42 | W22 | | | | | | | | |
| T 23 | 10 33 0 | 10° 7'05 | 19°27 | 10°32 | 14°25 | 13°57 | 11° 2 | 15°42 | 3°14 | 27°47 | 23°10 | 6° 0 | 7°46 | 6°58 | 24°46 | T 23 | | | | | | | | |
| F 24 | 10 36 56 | 11° 6'51 | 1♁B19 | 12°30 | 15°37 | 13°48 | 11°12 | 15°49 | 3°17 | 27°47 | 23°11 | 5°D59 | 7°43 | 7° 5 | 24°50 | F 24 | | | | | | | | |
| S 25 | 10 40 53 | 12° 6'34 | 13° 7 | 14°28 | 16°49 | 13°38 | 11°22 | 15°57 | 3°20 | 27°46 | 23°13 | 5°59 | 7°40 | 7°12 | 24°54 | S 25 | | | | | | | | |
| S 26 | 10 44 49 | 13° 6'15 | 24°54 | 16°28 | 18° 1 | 13°27 | 11°32 | 16° 4 | 3°24 | 27°46 | 23°14 | 6° 0 | 7°37 | 7°18 | 24°58 | S 26 | | | | | | | | |
| M27 | 10 48 46 | 14° 5'54 | 6♁II46 | 18°28 | 19°13 | 13°16 | 11°41 | 16°12 | 3°27 | 27°46 | 23°16 | 6° 1 | 7°33 | 7°25 | 25° 2 | M27 | | | | | | | | |
| T 28 | 10 52 43 | 15♁X 5'31 | 18♁II48 | 20♁X28 | 20♁Y25 | 13♁5 4 | 11♁51 | 16♁X19 | 3♁X31 | 27♁II46 | 23♁X17 | 6°R 1 | 7♁M30 | 7♁B32 | 25°12 | T 28 | | | | | | | | |

Delta T = 18m39s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1083
geocentric

MARCH 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|--------|--------|--------|--------|--------|-------|---------|--------|-------|-------|--------|--------|------|
| W 1 | 10 56 39 | 16♌5'05 | 1♉5 | 22♌28 | 21♌37 | 12♌R51 | 12♌1 | 16♌27 | 3♌34 | 27♌R46 | 23♌19 | 6♌R 0 | 7♌M27 | 7♌B38 | 25♌≈10 | W 1 |
| T 2 | 11 0 36 | 17° 4'37 | 13°43 | 24°28 | 22°49 | 12♌B38 | 12°10 | 16°34 | 3°37 | 27♌II46 | 23°20 | 5♌M56 | 7°24 | 7°45 | 25°14 | T 2 |
| F 3 | 11 4 32 | 18° 4'06 | 26°44 | 26°29 | 24° 0 | 12°23 | 12°19 | 16°42 | 3°41 | 27°D46 | 23°21 | 5°51 | 7°21 | 7°52 | 25°18 | F 3 |
| S 4 | 11 8 29 | 19° 3'33 | 10♌Ω12 | 28°28 | 25°12 | 12° 8 | 12°29 | 16°49 | 3°44 | 27°46 | 23°23 | 5°45 | 7°17 | 7°58 | 25°22 | S 4 |
| S 5 | 11 12 25 | 20° 2'58 | 24° 5 | 0♌Υ27 | 26°23 | 11°53 | 12°38 | 16°57 | 3°47 | 27°46 | 23°24 | 5°37 | 7°14 | 8° 5 | 25°25 | S 5 |
| M 6 | 11 16 22 | 21° 2'21 | 8♌η22 | 2°24 | 27°35 | 11°36 | 12°47 | 17° 4 | 3°51 | 27°46 | 23°26 | 5°30 | 7°11 | 8°12 | 25°29 | M 6 |
| T 7 | 11 20 18 | 22° 1'41 | 22°58 | 4°20 | 28°46 | 11°19 | 12°55 | 17°12 | 3°54 | 27°46 | 23°27 | 5°23 | 7° 8 | 8°18 | 25°33 | T 7 |
| W 8 | 11 24 15 | 23° 0'59 | 7♌Δ45 | 6°13 | 29°57 | 11° 2 | 13° 4 | 17°19 | 3°57 | 27°46 | 23°29 | 5°19 | 7° 5 | 8°25 | 25°37 | W 8 |
| T 9 | 11 28 12 | 24° 0'16 | 22°36 | 8° 5 | 1♌B 8 | 10°44 | 13°13 | 17°27 | 4° 1 | 27°46 | 23°30 | 5°16 | 7° 2 | 8°31 | 25°40 | T 9 |
| F 10 | 11 32 8 | 24°59'30 | 7♌M22 | 9°53 | 2°19 | 10°25 | 13°21 | 17°34 | 4° 4 | 27°46 | 23°32 | 5°D16 | 6°58 | 8°38 | 25°44 | F 10 |
| S 11 | 11 36 5 | 25°58'43 | 21°59 | 11°38 | 3°30 | 10° 6 | 13°30 | 17°42 | 4° 7 | 27°47 | 23°33 | 5°17 | 6°55 | 8°45 | 25°48 | S 11 |
| S 12 | 11 40 1 | 26°57'54 | 6♌♂22 | 13°20 | 4°41 | 9°46 | 13°38 | 17°49 | 4°10 | 27°47 | 23°35 | 5°18 | 6°52 | 8°51 | 25°52 | S 12 |
| M13 | 11 43 58 | 27°57'03 | 20°27 | 14°57 | 5°51 | 9°26 | 13°46 | 17°56 | 4°14 | 27°47 | 23°36 | 5°19 | 6°49 | 8°58 | 25°55 | M13 |
| T 14 | 11 47 54 | 28°56'10 | 4♌B16 | 16°30 | 7° 2 | 9° 5 | 13°54 | 18° 4 | 4°17 | 27°48 | 23°38 | 5°R19 | 6°46 | 9° 5 | 25°59 | T 14 |
| W15 | 11 51 51 | 29°55'15 | 17°47 | 17°59 | 8°12 | 8°44 | 14° 2 | 18°11 | 4°20 | 27°48 | 23°39 | 5°18 | 6°43 | 9°11 | 26° 2 | W15 |
| T 16 | 11 55 47 | 0♌Υ54'19 | 1♌≈ 2 | 19°22 | 9°23 | 8°22 | 14° 9 | 18°19 | 4°23 | 27°48 | 23°41 | 5°15 | 6°39 | 9°18 | 26° 6 | T 16 |
| F 17 | 11 59 44 | 1°53'21 | 14° 1 | 20°40 | 10°33 | 8° 0 | 14°17 | 18°26 | 4°26 | 27°49 | 23°42 | 5°10 | 6°36 | 9°25 | 26° 9 | F 17 |
| S 18 | 12 3 40 | 2°52'21 | 26°47 | 21°53 | 11°43 | 7°38 | 14°24 | 18°33 | 4°30 | 27°49 | 23°44 | 5° 5 | 6°33 | 9°31 | 26°13 | S 18 |
| S 19 | 12 7 37 | 3°51'19 | 9♌K21 | 23° 0 | 12°53 | 7°16 | 14°31 | 18°41 | 4°33 | 27°50 | 23°45 | 5° 0 | 6°30 | 9°38 | 26°16 | S 19 |
| M20 | 12 11 34 | 4°50'15 | 21°42 | 24° 1 | 14° 3 | 6°53 | 14°38 | 18°48 | 4°36 | 27°50 | 23°47 | 4°54 | 6°27 | 9°45 | 26°20 | M20 |
| T 21 | 12 15 30 | 5°49'09 | 3♌Υ54 | 24°56 | 15°13 | 6°31 | 14°45 | 18°55 | 4°39 | 27°51 | 23°48 | 4°50 | 6°23 | 9°51 | 26°23 | T 21 |
| W22 | 12 19 27 | 6°48'01 | 15°55 | 25°44 | 16°23 | 6° 8 | 14°52 | 19° 3 | 4°42 | 27°52 | 23°50 | 4°47 | 6°20 | 9°58 | 26°26 | W22 |
| T 23 | 12 23 23 | 7°46'50 | 27°50 | 26°27 | 17°32 | 5°45 | 14°59 | 19°10 | 4°45 | 27°52 | 23°51 | 4°46 | 6°17 | 10° 4 | 26°30 | T 23 |
| F 24 | 12 27 20 | 8°45'38 | 9♌B39 | 27° 3 | 18°42 | 5°22 | 15° 5 | 19°17 | 4°48 | 27°53 | 23°52 | 4°D46 | 6°14 | 10°11 | 26°33 | F 24 |
| S 25 | 12 31 16 | 9°44'24 | 21°26 | 27°32 | 19°51 | 4°59 | 15°12 | 19°24 | 4°51 | 27°54 | 23°54 | 4°47 | 6°11 | 10°18 | 26°36 | S 25 |
| S 26 | 12 35 13 | 10°43'07 | 3♌II13 | 27°55 | 21° 0 | 4°36 | 15°18 | 19°32 | 4°54 | 27°54 | 23°55 | 4°48 | 6° 8 | 10°24 | 26°40 | S 26 |
| M27 | 12 39 9 | 11°41'49 | 15° 6 | 28°12 | 22° 9 | 4°13 | 15°24 | 19°39 | 4°57 | 27°55 | 23°57 | 4°50 | 6° 4 | 10°31 | 26°43 | M27 |
| T 28 | 12 43 6 | 12°40'28 | 27° 8 | 28°22 | 23°18 | 3°51 | 15°30 | 19°46 | 5° 0 | 27°56 | 23°58 | 4°51 | 6° 1 | 10°38 | 26°46 | T 28 |
| W29 | 12 47 3 | 13°39'04 | 9♌B24 | 28°R26 | 24°27 | 3°28 | 15°35 | 19°53 | 5° 3 | 27°57 | 24° 0 | 4°R52 | 5°58 | 10°44 | 26°49 | W29 |
| T 30 | 12 50 59 | 14°37'39 | 21°58 | 28°24 | 25°35 | 3° 6 | 15°41 | 20° 0 | 5° 5 | 27°58 | 24° 1 | 4°52 | 5°55 | 10°51 | 26°52 | T 30 |
| F 31 | 12 54 56 | 15°36'11 | 4♌Ω55 | 28°Υ17 | 26♌B44 | 2♌Δ44 | 15°B46 | 20♌K 7 | 5♌K 8 | 27♌II59 | 24♌K 2 | 4♌M51 | 5♌M52 | 10♌B58 | 26♌≈55 | F 31 |

Delta T = 18m38s Julian Calendar 1 March 1083 == Greg. Calendar 7 March 1083

APRIL 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|--------|--------|---------|--------|--------|--------|-------|---------|--------|-------|-------|--------|--------|------|
| S 1 | 12 58 52 | 16♌Υ34'41 | 18♌Ω18 | 28°R 3 | 27♌B52 | 2°R23 | 15°B51 | 20♌K14 | 5♌K11 | 27♌II59 | 24♌K 4 | 4°R49 | 5♌M48 | 11♌B 4 | 26♌≈58 | S 1 |
| S 2 | 13 2 49 | 17°33'09 | 2♌η 9 | 27°Υ45 | 29° 0 | 2♌Δ 2 | 15°57 | 20°21 | 5°14 | 28° 0 | 24° 5 | 4♌M47 | 5°45 | 11°11 | 27° 1 | S 2 |
| M 3 | 13 6 45 | 18°31'35 | 16°26 | 27°22 | 0♌II 8 | 1°41 | 16° 1 | 20°28 | 5°17 | 28° 1 | 24° 7 | 4°45 | 5°42 | 11°18 | 27° 4 | M 3 |
| T 4 | 13 10 42 | 19°29'58 | 1♌Δ 7 | 26°54 | 1°16 | 1°21 | 16° 6 | 20°35 | 5°19 | 28° 2 | 24° 8 | 4°43 | 5°39 | 11°24 | 27° 7 | T 4 |
| W 5 | 13 14 38 | 20°28'20 | 16° 5 | 26°23 | 2°24 | 1° 1 | 16°11 | 20°42 | 5°22 | 28° 3 | 24° 9 | 4°42 | 5°36 | 11°31 | 27° 9 | W 5 |
| T 6 | 13 18 35 | 21°26'39 | 1♌M11 | 25°49 | 3°31 | 0°42 | 16°15 | 20°49 | 5°25 | 28° 5 | 24°11 | 4°D41 | 5°33 | 11°37 | 27°12 | T 6 |
| F 7 | 13 22 32 | 22°24'57 | 16°18 | 25°12 | 4°38 | 0°23 | 16°19 | 20°55 | 5°27 | 28° 6 | 24°12 | 4°41 | 5°29 | 11°44 | 27°15 | F 7 |
| S 8 | 13 26 28 | 23°23'14 | 1♌K16 | 24°34 | 5°45 | 0° 5 | 16°23 | 21° 2 | 5°30 | 28° 7 | 24°13 | 4°42 | 5°26 | 11°51 | 27°18 | S 8 |
| S 9 | 13 30 25 | 24°21'28 | 15°58 | 23°54 | 6°52 | 29♌η47 | 16°27 | 21° 9 | 5°32 | 28° 8 | 24°15 | 4°43 | 5°23 | 11°57 | 27°20 | S 9 |
| M10 | 13 34 21 | 25°19'41 | 0♌B19 | 23°15 | 7°59 | 29°30 | 16°31 | 21°15 | 5°35 | 28° 9 | 24°16 | 4°44 | 5°20 | 12° 4 | 27°23 | M10 |
| T 11 | 13 38 18 | 26°17'53 | 14°17 | 22°35 | 9° 6 | 29°14 | 16°34 | 21°22 | 5°37 | 28°10 | 24°17 | 4°44 | 5°17 | 12°11 | 27°25 | T 11 |
| W12 | 13 42 14 | 27°16'03 | 27°50 | 21°57 | 10°12 | 28°59 | 16°38 | 21°29 | 5°40 | 28°12 | 24°18 | 4°R44 | 5°14 | 12°17 | 27°28 | W12 |
| T 13 | 13 46 11 | 28°14'12 | 11♌≈ 1 | 21°21 | 11°18 | 28°44 | 16°41 | 21°35 | 5°42 | 28°13 | 24°20 | 4°44 | 5°10 | 12°24 | 27°30 | T 13 |
| F 14 | 13 50 7 | 29°12'19 | 23°52 | 20°47 | 12°24 | 28°29 | 16°44 | 21°42 | 5°44 | 28°14 | 24°21 | 4°44 | 5° 7 | 12°31 | 27°33 | F 14 |
| S 15 | 13 54 4 | 0♌B10'24 | 6♌K26 | 20°16 | 13°30 | 28°16 | 16°47 | 21°48 | 5°47 | 28°16 | 24°22 | 4°43 | 5° 4 | 12°37 | 27°35 | S 15 |
| S 16 | 13 58 0 | 1° 8'28 | 18°45 | 19°48 | 14°36 | 28° 3 | 16°49 | 21°55 | 5°49 | 28°17 | 24°24 | 4°43 | 5° 1 | 12°44 | 27°38 | S 16 |
| M17 | 14 1 57 | 2° 6'31 | 0♌Υ53 | 19°24 | 15°41 | 27°51 | 16°52 | 22° 1 | 5°51 | 28°18 | 24°25 | 4°42 | 4°58 | 12°51 | 27°40 | M17 |
| T 18 | 14 5 54 | 3° 4'32 | 12°52 | 19° 4 | 16°46 | 27°40 | 16°54 | 22° 7 | 5°54 | 28°20 | 24°26 | 4°42 | 4°54 | 12°57 | 27°42 | T 18 |
| W19 | 14 9 50 | 4° 2'31 | 24°45 | 18°48 | 17°51 | 27°30 | 16°56 | 22°14 | 5°56 | 28°21 | 24°27 | 4°42 | 4°51 | 13° 4 | 27°44 | W19 |
| T 20 | 14 13 47 | 5° 0'29 | 6♌B34 | 18°36 | 18°56 | 27°20 | 16°58 | 22°20 | 5°58 | 28°23 | 24°28 | 4°42 | 4°48 | 13°11 | 27°46 | T 20 |
| F 21 | 14 17 43 | 5°58'26 | 18°21 | 18°30 | 20° 0 | 27°11 | 17° 0 | 22°26 | 6° 0 | 28°24 | 24°29 | 4°42 | 4°45 | 13°17 | 27°48 | F 21 |
| S 22 | 14 21 40 | 6°56'20 | 0♌II 8 | 18°D27 | 21° 5 | 27° 3 | 17° 1 | 22°32 | 6° 2 | 28°26 | 24°31 | 4°42 | 4°42 | 13°24 | 27°50 | S 22 |
| S 23 | 14 25 36 | 7°54'13 | 11°59 | 18°30 | 22° 9 | 26°56 | 17° 2 | 22°38 | 6° 4 | 28°27 | 24°32 | 4°42 | 4°39 | 13°30 | 27°52 | S 23 |
| M24 | 14 29 33 | 8°52'05 | 23°56 | 18°37 | 23°12 | 26°50 | 17° 4 | 22°44 | 6° 6 | 28°29 | 24°33 | 4°41 | 4°35 | 13°37 | 27°54 | M24 |
| T 25 | 14 33 29 | 9°49'55 | 6♌B 2 | 18°49 | 24°16 | 26°44 | 17° 4 | 22°50 | 6° 8 | 28°30 | 24°34 | 4°41 | 4°32 | 13°44 | 27°56 | T 25 |
| W26 | 14 37 26 | 10°47'43 | 18°20 | 19° 5 | 25°19 | 26°39 | 17° 5 | 22°56 | 6°10 | 28°32 | 24°35 | 4°40 | 4°29 | 13°50 | 27°58 | W26 |
| T 27 | 14 41 23 | 11°45'29 | 0♌Δ54 | 19°25 | 26°22 | 26°35 | 17° 6 | 23° 2 | 6°12 | 28°34 | 24°36 | 4°40 | 4°26 | 13°57 | 28° 0 | T 27 |
| F 28 | 14 45 19 | 12°43'14 | 13°47 | 19°50 | 27°25 | 26°32 | 17° 6 | 23° 7 | 6°14 | 28°35 | 24°37 | 4°D39 | 4°23 | 14° 4 | 28° 1 | F 28 |
| S 29 | 14 49 16 | 13°40'56 | 27° 4 | 20°20 | 28°27 | 26°30 | 17°R 6 | 23°13 | 6°16 | 28°37 | 24°38 | 4°40 | 4°20 | 14°10 | 28° 3 | S 29 |
| S 30 | 14 53 12 | 14♌B38'38 | 10♌η45 | 20°Υ53 | 29♌II29 | 26♌η28 | 17°B 6 | 23♌K19 | 6♌K17 | 28♌II39 | 24♌K39 | 4♌M40 | 4♌M16 | 14♌B17 | 28♌≈ 5 | S 30 |

Delta T = 18m38s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1083
geocentric

MAY 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|--------|--------|-------|------|-------|-------|-------|------|-------|--------|------|
| M 1 | 14 57 9 | 15♌36°17 | 24♍53 | 21♋30 | 0♉31 | 26°D28 | 17°R 6 | 23♋24 | 6♋19 | 28♌40 | 24♋40 | 4♌41 | 4♌13 | 14♌24 | 28♌6 | M 1 |
| T 2 | 15 1 5 | 16°33'55 | 9♌25 | 22°11 | 1°32 | 26♍28 | 17♌6 | 23°30 | 6°21 | 28°42 | 24°41 | 4°42 | 4°10 | 14°30 | 28°8 | T 2 |
| W 3 | 15 5 2 | 17°31'31 | 24°18 | 22°56 | 2°33 | 26°28 | 17°5 | 23°35 | 6°22 | 28°44 | 24°42 | 4°43 | 4°7 | 14°37 | 28°9 | W 3 |
| T 4 | 15 8 58 | 18°29'06 | 9♌25 | 23°44 | 3°34 | 26°30 | 17°4 | 23°41 | 6°24 | 28°46 | 24°43 | 4°R43 | 4°4 | 14°44 | 28°10 | T 4 |
| F 5 | 15 12 55 | 19°26'40 | 24°38 | 24°36 | 4°34 | 26°32 | 17°3 | 23°46 | 6°25 | 28°47 | 24°44 | 4°42 | 4°0 | 14°50 | 28°12 | F 5 |
| S 6 | 15 16 52 | 20°24'13 | 9♌47 | 25°32 | 5°34 | 26°35 | 17°2 | 23°51 | 6°27 | 28°49 | 24°45 | 4°41 | 3°57 | 14°57 | 28°13 | S 6 |
| S 7 | 15 20 48 | 21°21'44 | 24°43 | 26°30 | 6°34 | 26°39 | 17°1 | 23°56 | 6°28 | 28°51 | 24°46 | 4°39 | 3°54 | 15°4 | 28°14 | S 7 |
| M 8 | 15 24 45 | 22°19'15 | 9♌18 | 27°32 | 7°33 | 26°44 | 16°59 | 24°1 | 6°30 | 28°53 | 24°47 | 4°37 | 3°51 | 15°10 | 28°15 | M 8 |
| T 9 | 15 28 41 | 23°16'45 | 23°27 | 28°37 | 8°32 | 26°49 | 16°58 | 24°7 | 6°31 | 28°55 | 24°48 | 4°35 | 3°48 | 15°17 | 28°16 | T 9 |
| W10 | 15 32 38 | 24°14'13 | 7♌9 | 29°45 | 9°30 | 26°55 | 16°56 | 24°11 | 6°32 | 28°57 | 24°49 | 4°33 | 3°45 | 15°23 | 28°17 | W10 |
| T 11 | 15 36 34 | 25°11'41 | 20°24 | 0♉56 | 10°28 | 27°2 | 16°54 | 24°16 | 6°34 | 28°59 | 24°50 | 4°D32 | 3°41 | 15°30 | 28°18 | T 11 |
| F 12 | 15 40 31 | 26°9'09 | 3♋15 | 2°10 | 11°26 | 27°9 | 16°52 | 24°21 | 6°35 | 29°0 | 24°50 | 4°32 | 3°38 | 15°37 | 28°19 | F 12 |
| S 13 | 15 44 27 | 27°6'35 | 15°44 | 3°27 | 12°23 | 27°17 | 16°49 | 24°26 | 6°36 | 29°2 | 24°51 | 4°33 | 3°35 | 15°43 | 28°20 | S 13 |
| S 14 | 15 48 24 | 28°4'00 | 27°57 | 4°47 | 13°20 | 27°26 | 16°46 | 24°31 | 6°37 | 29°4 | 24°52 | 4°35 | 3°32 | 15°50 | 28°21 | S 14 |
| M15 | 15 52 21 | 29°1'25 | 9♋57 | 6°9 | 14°16 | 27°35 | 16°44 | 24°35 | 6°38 | 29°6 | 24°53 | 4°36 | 3°29 | 15°57 | 28°22 | M15 |
| T 16 | 15 56 17 | 29°58'49 | 21°49 | 7°35 | 15°12 | 27°45 | 16°41 | 24°40 | 6°39 | 29°8 | 24°54 | 4°38 | 3°25 | 16°3 | 28°22 | T 16 |
| W17 | 16 0 14 | 0♌56'13 | 3♋37 | 9°3 | 16°7 | 27°55 | 16°38 | 24°44 | 6°40 | 29°10 | 24°54 | 4°R38 | 3°22 | 16°10 | 28°23 | W17 |
| T 18 | 16 4 10 | 1°53'35 | 15°23 | 10°33 | 17°2 | 28°7 | 16°34 | 24°49 | 6°41 | 29°12 | 24°55 | 4°38 | 3°19 | 16°17 | 28°24 | T 18 |
| F 19 | 16 8 7 | 2°50'57 | 27°11 | 12°7 | 17°56 | 28°19 | 16°31 | 24°53 | 6°42 | 29°14 | 24°56 | 4°36 | 3°16 | 16°23 | 28°24 | F 19 |
| S 20 | 16 12 3 | 3°48'18 | 9♌3 | 13°43 | 18°49 | 28°31 | 16°27 | 24°57 | 6°43 | 29°16 | 24°56 | 4°33 | 3°13 | 16°30 | 28°25 | S 20 |
| S 21 | 16 16 0 | 4°45'39 | 21°1 | 15°22 | 19°42 | 28°44 | 16°23 | 25°1 | 6°44 | 29°18 | 24°57 | 4°28 | 3°10 | 16°37 | 28°25 | S 21 |
| M22 | 16 19 56 | 5°42'58 | 3♌7 | 17°3 | 20°35 | 28°58 | 16°19 | 25°5 | 6°44 | 29°21 | 24°58 | 4°23 | 3°6 | 16°43 | 28°25 | M22 |
| T 23 | 16 23 53 | 6°40'17 | 15°22 | 18°47 | 21°26 | 29°12 | 16°15 | 25°9 | 6°45 | 29°23 | 24°58 | 4°18 | 3°3 | 16°50 | 28°26 | T 23 |
| W24 | 16 27 50 | 7°37'35 | 27°48 | 20°34 | 22°18 | 29°27 | 16°11 | 25°13 | 6°46 | 29°25 | 24°59 | 4°13 | 3°0 | 16°57 | 28°26 | W24 |
| T 25 | 16 31 46 | 8°34'51 | 10♌29 | 22°23 | 23°8 | 29°42 | 16°6 | 25°17 | 6°46 | 29°27 | 24°59 | 4°9 | 2°57 | 17°3 | 28°26 | T 25 |
| F 26 | 16 35 43 | 9°32'07 | 23°24 | 24°15 | 23°58 | 29°58 | 16°1 | 25°21 | 6°47 | 29°29 | 25°0 | 4°6 | 2°54 | 17°10 | 28°26 | F 26 |
| S 27 | 16 39 39 | 10°29'22 | 6♍38 | 26°9 | 24°47 | 0♌15 | 15°56 | 25°24 | 6°47 | 29°31 | 25°1 | 4°D5 | 2°51 | 17°16 | 28°R26 | S 27 |
| S 28 | 16 43 36 | 11°26'37 | 20°13 | 28°6 | 25°35 | 0°32 | 15°51 | 25°28 | 6°48 | 29°33 | 25°1 | 4°5 | 2°47 | 17°23 | 28°26 | S 28 |
| M29 | 16 47 32 | 12°23'50 | 4♌8 | 0♌5 | 26°22 | 0°49 | 15°46 | 25°31 | 6°48 | 29°35 | 25°2 | 4°6 | 2°44 | 17°30 | 28°26 | M29 |
| T 30 | 16 51 29 | 13°21'02 | 18°26 | 2°6 | 27°9 | 1°7 | 15°41 | 25°35 | 6°49 | 29°38 | 25°2 | 4°7 | 2°41 | 17°36 | 28°26 | T 30 |
| W31 | 16 55 25 | 14°18'14 | 3♌4 | 4♌9 | 27°55 | 1°26 | 15°36 | 25°38 | 6°49 | 29°40 | 25°2 | 4°R8 | 2°38 | 17°43 | 28°26 | W31 |

Delta T = 18m38s Julian Calendar 1 May 1083 == Greg. Calendar 7 May 1083

JUNE 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|------|-------|--------|------|
| T 1 | 16 59 22 | 15♌15'25 | 17♌58 | 6♌13 | 28♉40 | 1♌45 | 15°R30 | 25♋41 | 6♋49 | 29♌42 | 25♋3 | 4°R7 | 2♌35 | 17♌50 | 28°R25 | T 1 |
| F 2 | 17 3 19 | 16°12'36 | 3♌7 | 8°20 | 29°24 | 2°4 | 15♌24 | 25°44 | 6°49 | 29°44 | 25°3 | 4♌5 | 2°31 | 17°56 | 28°R25 | F 2 |
| S 3 | 17 7 15 | 17°9'46 | 18°6 | 10°28 | 0♌7 | 2°24 | 15°18 | 25°47 | 6°50 | 29°46 | 25°4 | 4°1 | 2°28 | 18°3 | 28°25 | S 3 |
| S 4 | 17 11 12 | 18°6'56 | 3♌2 | 12°37 | 0°49 | 2°44 | 15°13 | 25°50 | 6°50 | 29°48 | 25°4 | 3°55 | 2°25 | 18°10 | 28°24 | S 4 |
| M 5 | 17 15 8 | 19°4'06 | 17°41 | 14°47 | 1°30 | 3°5 | 15°6 | 25°53 | 6°50 | 29°51 | 25°4 | 3°48 | 2°22 | 18°16 | 28°24 | M 5 |
| T 6 | 17 19 5 | 20°1'15 | 1♌56 | 16°58 | 2°9 | 3°26 | 15°0 | 25°56 | 6°R50 | 29°53 | 25°5 | 3°41 | 2°19 | 18°23 | 28°23 | T 6 |
| W 7 | 17 23 1 | 20°58'25 | 15°45 | 19°9 | 2°48 | 3°48 | 14°54 | 25°58 | 6°50 | 29°55 | 25°5 | 3°35 | 2°16 | 18°30 | 28°23 | W 7 |
| T 8 | 17 26 58 | 21°55'34 | 29°5 | 21°20 | 3°26 | 4°10 | 14°47 | 26°1 | 6°50 | 29°57 | 25°5 | 3°31 | 2°12 | 18°36 | 28°22 | T 8 |
| F 9 | 17 30 55 | 22°52'44 | 11♋58 | 23°31 | 4°3 | 4°32 | 14°41 | 26°3 | 6°50 | 29°59 | 25°5 | 3°29 | 2°9 | 18°43 | 28°21 | F 9 |
| S 10 | 17 34 51 | 23°49'53 | 24°28 | 25°41 | 4°38 | 4°55 | 14°34 | 26°6 | 6°49 | 0♉2 | 25°6 | 3°D28 | 2°6 | 18°50 | 28°20 | S 10 |
| S 11 | 17 38 48 | 24°47'03 | 6♋40 | 27°51 | 5°12 | 5°18 | 14°27 | 26°8 | 6°49 | 0°4 | 25°6 | 3°29 | 2°3 | 18°56 | 28°20 | S 11 |
| M12 | 17 42 44 | 25°44'13 | 18°39 | 29°59 | 5°45 | 5°42 | 14°21 | 26°10 | 6°49 | 0°6 | 25°6 | 3°30 | 2°0 | 19°3 | 28°19 | M12 |
| T 13 | 17 46 41 | 26°41'23 | 0♉29 | 29°7 | 6°16 | 6°6 | 14°14 | 26°12 | 6°49 | 0°8 | 25°6 | 3°R31 | 1°57 | 19°10 | 28°18 | T 13 |
| W14 | 17 50 37 | 27°38'33 | 12°15 | 4°14 | 6°46 | 6°30 | 14°7 | 26°14 | 6°48 | 0°11 | 25°6 | 3°30 | 1°53 | 19°16 | 28°17 | W14 |
| T 15 | 17 54 34 | 28°35'44 | 24°3 | 6°19 | 7°14 | 6°55 | 13°59 | 26°16 | 6°48 | 0°13 | 25°6 | 3°28 | 1°50 | 19°23 | 28°16 | T 15 |
| F 16 | 17 58 30 | 29°32'55 | 5♌55 | 8°22 | 7°41 | 7°20 | 13°52 | 26°18 | 6°47 | 0°15 | 25°7 | 3°24 | 1°47 | 19°30 | 28°15 | F 16 |
| S 17 | 18 2 27 | 0♉30'06 | 17°54 | 10°24 | 8°6 | 7°46 | 13°45 | 26°19 | 6°47 | 0°17 | 25°7 | 3°17 | 1°44 | 19°36 | 28°13 | S 17 |
| S 18 | 18 6 24 | 1°27'17 | 0♉2 | 12°24 | 8°30 | 8°12 | 13°38 | 26°21 | 6°46 | 0°19 | 25°7 | 3°8 | 1°41 | 19°43 | 28°12 | S 18 |
| M19 | 18 10 20 | 2°24'28 | 12°21 | 14°22 | 8°52 | 8°38 | 13°30 | 26°22 | 6°46 | 0°22 | 25°7 | 2°57 | 1°37 | 19°49 | 28°11 | M19 |
| T 20 | 18 14 17 | 3°21'39 | 24°51 | 16°19 | 9°12 | 9°4 | 13°23 | 26°24 | 6°45 | 0°24 | 25°R7 | 2°47 | 1°34 | 19°56 | 28°10 | T 20 |
| W21 | 18 18 13 | 4°18'51 | 7♌33 | 18°13 | 9°31 | 9°31 | 13°15 | 26°25 | 6°44 | 0°26 | 25°7 | 2°37 | 1°31 | 20°3 | 28°8 | W21 |
| T 22 | 18 22 10 | 5°16'03 | 20°27 | 20°6 | 9°47 | 9°58 | 13°8 | 26°26 | 6°44 | 0°28 | 25°7 | 2°28 | 1°28 | 20°9 | 28°7 | T 22 |
| F 23 | 18 26 6 | 6°13'14 | 3♍33 | 21°57 | 10°2 | 10°26 | 13°0 | 26°27 | 6°43 | 0°31 | 25°7 | 2°21 | 1°25 | 20°16 | 28°5 | F 23 |
| S 24 | 18 30 3 | 7°10'26 | 16°53 | 23°46 | 10°14 | 10°54 | 12°52 | 26°28 | 6°42 | 0°33 | 25°7 | 2°17 | 1°22 | 20°23 | 28°4 | S 24 |
| S 25 | 18 33 59 | 8°7'38 | 0♌27 | 25°32 | 10°25 | 11°22 | 12°45 | 26°29 | 6°41 | 0°35 | 25°6 | 2°16 | 1°18 | 20°29 | 28°2 | S 25 |
| M26 | 18 37 56 | 9°4'49 | 14°17 | 27°18 | 10°33 | 11°50 | 12°37 | 26°30 | 6°40 | 0°37 | 25°6 | 2°D16 | 1°15 | 20°36 | 28°1 | M26 |
| T 27 | 18 41 53 | 10°2'01 | 28°23 | 29°1 | 10°39 | 12°19 | 12°29 | 26°31 | 6°39 | 0°39 | 25°6 | 2°R16 | 1°12 | 20°43 | 27°59 | T 27 |
| W28 | 18 45 49 | 10°59'13 | 12♌43 | 0♌42 | 10°43 | 12°48 | 12°21 | 26°31 | 6°38 | 0°42 | 25°6 | 2°16 | 1°9 | 20°49 | 27°57 | W28 |
| T 29 | 18 49 46 | 11°56'26 | 27°18 | 2°21 | 10°R45 | 13°17 | 12°14 | 26°32 | 6°37 | 0°44 | 25°6 | 2°14 | 1°6 | 20°56 | 27°55 | T 29 |
| F 30 | 18 53 42 | 12°53'38 | 12♌1 | 3♌59 | 10♌44 | 13°47 | 12°36 | 26°32 | 6°36 | 0°46 | 25°6 | 2♌9 | 1♌3 | 21°3 | 27°54 | F 30 |

Delta T = 18m38s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1083
geocentric

JULY 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|---|-----|
| S 1 | 18 57 39 | 13 ⁵⁰ 51 | 26 ⁴⁷ 47 | 5 ³⁴ 34 | 10 ^R 41 | 14 ¹⁷ 17 | 11 ^R 58 | 26 ³² 32 | 6 ^R 35 | 0 ⁵⁸ 48 | 25 ^R 5 | 2 ^R 2 | 0 ^M 59 | 21 ⁸ 9 | 27 ^R 52 | S 1 | | |
| S 2 | 19 1 35 | 14 ⁴⁸ 05 | 11 ²⁹ 29 | 7° 8 | 10 ^L 36 | 14 ⁴⁷ 47 | 11 ⁵¹ 51 | 26°32 | 6 ³⁴ 34 | 0°50 | 25 ^H 5 | 1 ^M 53 | 0°56 | 21°16 | 27 ⁵⁰ 50 | S 2 | | |
| M 3 | 19 5 32 | 15 ⁴⁵ 19 | 25°58 | 8°40 | 10°28 | 15°17 | 11°43 | 26 ^R 32 | 6°33 | 0°53 | 25° 5 | 1°42 | 0°53 | 21°23 | 27°48 | M 3 | | |
| T 4 | 19 9 28 | 16 ⁴² 34 | 10 ⁸ 8 | 10° 9 | 10°18 | 15°48 | 11°35 | 26°32 | 6°31 | 0°55 | 25° 4 | 1°31 | 0°50 | 21°29 | 27°46 | T 4 | | |
| W 5 | 19 13 25 | 17 ³⁹ 49 | 23°55 | 11°37 | 10° 5 | 16°19 | 11°28 | 26°32 | 6°30 | 0°57 | 25° 4 | 1°22 | 0°47 | 21°36 | 27°44 | W 5 | | |
| T 6 | 19 17 22 | 18°37'05 | 7 ^H 15 | 13° 3 | 9°51 | 16°50 | 11°20 | 26°32 | 6°29 | 0°59 | 25° 4 | 1°14 | 0°43 | 21°43 | 27°42 | T 6 | | |
| F 7 | 19 21 18 | 19°34'22 | 20°10 | 14°27 | 9°33 | 17°21 | 11°12 | 26°32 | 6°27 | 1° 1 | 25° 3 | 1° 8 | 0°40 | 21°49 | 27°40 | F 7 | | |
| S 8 | 19 25 15 | 20°31'41 | 2 ^N 42 | 15°49 | 9°14 | 17°53 | 11° 5 | 26°31 | 6°26 | 1° 3 | 25° 3 | 1° 5 | 0°37 | 21°56 | 27°37 | S 8 | | |
| S 9 | 19 29 11 | 21°29'00 | 14°55 | 17° 9 | 8°52 | 18°25 | 10°57 | 26°30 | 6°25 | 1° 6 | 25° 3 | 1° 4 | 0°34 | 22° 3 | 27°35 | S 9 | | |
| M10 | 19 33 8 | 22°26'20 | 26°54 | 18°27 | 8°28 | 18°57 | 10°50 | 26°30 | 6°23 | 1° 8 | 25° 2 | 1° 4 | 0°31 | 22° 9 | 27°33 | M10 | | |
| T 11 | 19 37 4 | 23°23'42 | 8 ^B 45 | 19°42 | 8° 2 | 19°29 | 10°42 | 26°29 | 6°21 | 1°10 | 25° 2 | 1° 4 | 0°28 | 22°16 | 27°31 | T 11 | | |
| W12 | 19 41 1 | 24°21'04 | 20°32 | 20°56 | 7°34 | 20° 2 | 10°35 | 26°28 | 6°20 | 1°12 | 25° 1 | 1° 3 | 0°24 | 22°23 | 27°28 | W12 | | |
| T 13 | 19 44 57 | 25°18'28 | 2 ^{II} 22 | 22° 7 | 7° 5 | 20°35 | 10°28 | 26°27 | 6°18 | 1°14 | 25° 1 | 1° 0 | 0°21 | 22°29 | 27°26 | T 13 | | |
| F 14 | 19 48 54 | 26°15'53 | 14°19 | 23°16 | 6°34 | 21° 8 | 10°20 | 26°26 | 6°17 | 1°16 | 25° 0 | 0°54 | 0°18 | 22°36 | 27°24 | F 14 | | |
| S 15 | 19 52 51 | 27°13'19 | 26°25 | 24°22 | 6° 1 | 21°41 | 10°13 | 26°25 | 6°15 | 1°18 | 25° 0 | 0°46 | 0°15 | 22°43 | 27°21 | S 15 | | |
| S 16 | 19 56 47 | 28°10'46 | 8 ⁵ 45 | 25°26 | 5°27 | 22°15 | 10° 6 | 26°24 | 6°13 | 1°20 | 24°59 | 0°35 | 0°12 | 22°49 | 27°19 | S 16 | | |
| M17 | 20 0 44 | 29° 8'15 | 21°18 | 26°27 | 4°52 | 22°48 | 9°59 | 26°22 | 6°12 | 1°22 | 24°59 | 0°22 | 0° 9 | 22°56 | 27°16 | M17 | | |
| T 18 | 20 4 40 | 0 ^Ω 5'44 | 4 ^Ω 6 | 27°25 | 4°16 | 23°22 | 9°52 | 26°21 | 6°10 | 1°24 | 24°58 | 0° 9 | 0° 5 | 23° 2 | 27°14 | T 18 | | |
| W19 | 20 8 37 | 1° 3'15 | 17° 8 | 28°21 | 3°40 | 23°56 | 9°46 | 26°19 | 6° 8 | 1°26 | 24°57 | 29 ^Ω 57 | 0° 2 | 23° 9 | 27°11 | W19 | | |
| T 20 | 20 12 33 | 2° 0'46 | 0 ^η 23 | 29°14 | 3° 3 | 24°31 | 9°39 | 26°18 | 6° 6 | 1°28 | 24°57 | 29°46 | 29 ^Ω 59 | 23°16 | 27° 9 | T 20 | | |
| F 21 | 20 16 30 | 2° 58'18 | 13°48 | 0 ^η 3 | 2°25 | 25° 5 | 9°33 | 26°16 | 6° 4 | 1°30 | 24°56 | 29°38 | 29°56 | 23°22 | 27° 6 | F 21 | | |
| S 22 | 20 20 26 | 3°55'52 | 27°24 | 0°49 | 1°48 | 25°40 | 9°26 | 26°14 | 6° 2 | 1°32 | 24°56 | 29°33 | 29°53 | 23°29 | 27° 3 | S 22 | | |
| S 23 | 20 24 23 | 4°53'26 | 11 ^Ω 9 | 1°32 | 1°11 | 26°15 | 9°20 | 26°12 | 6° 0 | 1°34 | 24°55 | 29°30 | 29°49 | 23°36 | 27° 1 | S 23 | | |
| M24 | 20 28 20 | 5°51'01 | 25° 2 | 2°11 | 0°35 | 26°50 | 9°14 | 26°10 | 5°58 | 1°36 | 24°54 | 29°29 | 29°46 | 23°42 | 26°58 | M24 | | |
| T 25 | 20 32 16 | 6°48'38 | 9 ^M 4 | 2°46 | 29 ^Ω 59 | 27°25 | 9° 7 | 26° 8 | 5°57 | 1°38 | 24°53 | 29°29 | 29°43 | 23°49 | 26°55 | T 25 | | |
| W26 | 20 36 13 | 7°46'15 | 23°14 | 3°17 | 29°25 | 28° 1 | 9° 2 | 26° 6 | 5°55 | 1°40 | 24°53 | 29°29 | 29°40 | 23°56 | 26°52 | W26 | | |
| T 27 | 20 40 9 | 8°43'53 | 7 [♂] 30 | 3°43 | 28°51 | 28°36 | 8°56 | 26° 3 | 5°52 | 1°42 | 24°52 | 29°26 | 29°37 | 24° 2 | 26°50 | T 27 | | |
| F 28 | 20 44 6 | 9°41'33 | 21°51 | 4° 5 | 28°19 | 29°12 | 8°50 | 26° 1 | 5°50 | 1°43 | 24°51 | 29°21 | 29°34 | 24° 9 | 26°47 | F 28 | | |
| S 29 | 20 48 2 | 10°39'13 | 6 [♂] 13 | 4°23 | 27°48 | 29°48 | 8°45 | 25°58 | 5°48 | 1°45 | 24°50 | 29°14 | 29°30 | 24°16 | 26°44 | S 29 | | |
| S 30 | 20 51 59 | 11°36'55 | 20°30 | 4°35 | 27°19 | 0 ^M 25 | 8°39 | 25°56 | 5°46 | 1°47 | 24°50 | 29° 4 | 29°27 | 24°22 | 26°41 | S 30 | | |
| M31 | 20 55 55 | 12 ^Ω 34'38 | 4 [♂] 38 | 4 ^η 42 | 26 ⁵² 52 | 1 ^M 1 | 8 [♂] 34 | 25 ^H 53 | 5 ^H 44 | 1 ⁵⁸ 49 | 24 ^H 49 | 28 ^Ω 53 | 29 ^Ω 24 | 24 ^Ω 29 | 26 [♂] 38 | M31 | | |

Delta T = 18m37s Julian Calendar 1 July 1083 == Greg. Calendar 7 July 1083

AUGUST 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|---------------------|--------------------|--------------------|-------------------|-------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|---|-----|
| T 1 | 20 59 52 | 13 ^Ω 32'22 | 18 [♂] 31 | 4 ^R 44 | 26 ^R 27 | 1 ^M 38 | 8 ^R 29 | 25 ^R 50 | 5 ^R 42 | 1 ⁵⁸ 51 | 24 ^R 48 | 28 ^R 42 | 29 ^Ω 21 | 24 [♂] 36 | 26 ^R 36 | T 1 | | |
| W 2 | 21 3 49 | 14°30'08 | 2 ^H 5 | 4 ^η 40 | 26 ⁵ 4 | 2°14 | 8 [♂] 24 | 25 ^H 47 | 5 ^H 40 | 1°52 | 24 ^H 47 | 28 ^Ω 31 | 29°18 | 24°42 | 26 [♂] 33 | W 2 | | |
| T 3 | 21 7 45 | 15°27'55 | 15°17 | 4°30 | 25°44 | 2°51 | 8°19 | 25°45 | 5°38 | 1°54 | 24°46 | 28°23 | 29°15 | 24°49 | 26°30 | T 3 | | |
| F 4 | 21 11 42 | 16°25'44 | 28° 7 | 4°15 | 25°25 | 3°28 | 8°14 | 25°42 | 5°35 | 1°56 | 24°45 | 28°17 | 29°11 | 24°56 | 26°27 | F 4 | | |
| S 5 | 21 15 38 | 17°23'35 | 10 ^N 37 | 3°54 | 25° 9 | 4° 5 | 8°10 | 25°38 | 5°33 | 1°58 | 24°45 | 28°13 | 29° 8 | 25° 2 | 26°24 | S 5 | | |
| S 6 | 21 19 35 | 18°21'27 | 22°50 | 3°26 | 24°55 | 4°43 | 8° 6 | 25°35 | 5°31 | 1°59 | 24°44 | 28°D12 | 29° 5 | 25° 9 | 26°21 | S 6 | | |
| M 7 | 21 23 31 | 19°19'22 | 4 [♂] 50 | 2°53 | 24°44 | 5°20 | 8° 1 | 25°32 | 5°29 | 2° 1 | 24°43 | 28°12 | 29° 2 | 25°16 | 26°18 | M 7 | | |
| T 8 | 21 27 28 | 20°17'18 | 16°41 | 2°15 | 24°35 | 5°58 | 7°58 | 25°29 | 5°26 | 2° 3 | 24°42 | 28°R12 | 28°59 | 25°22 | 26°15 | T 8 | | |
| W 9 | 21 31 24 | 21°15'16 | 28°30 | 1°32 | 24°29 | 6°36 | 7°54 | 25°25 | 5°24 | 2° 4 | 24°41 | 28°12 | 28°55 | 25°29 | 26°12 | W 9 | | |
| T 10 | 21 35 21 | 22°13'16 | 10 ^{II} 22 | 0°44 | 24°24 | 7°14 | 7°50 | 25°22 | 5°22 | 2° 6 | 24°40 | 28°10 | 28°52 | 25°36 | 26° 9 | T 10 | | |
| F 11 | 21 39 18 | 23°11'18 | 22°22 | 29 ^Ω 52 | 24°D23 | 7°52 | 7°47 | 25°18 | 5°19 | 2° 7 | 24°39 | 28° 7 | 28°49 | 25°42 | 26° 6 | F 11 | | |
| S 12 | 21 43 14 | 24° 9'21 | 4 [♂] 33 | 28°58 | 24°23 | 8°30 | 7°43 | 25°15 | 5°17 | 2° 9 | 24°38 | 28° 0 | 28°46 | 25°49 | 26° 3 | S 12 | | |
| S 13 | 21 47 11 | 25° 7'27 | 17° 1 | 28° 1 | 24°26 | 9° 9 | 7°40 | 25°11 | 5°15 | 2°10 | 24°37 | 27°52 | 28°43 | 25°56 | 26° 0 | S 13 | | |
| M14 | 21 51 7 | 26° 5'35 | 29°46 | 27° 4 | 24°32 | 9°48 | 7°37 | 25° 7 | 5°12 | 2°12 | 24°36 | 27°42 | 28°40 | 26° 2 | 25°57 | M14 | | |
| T 15 | 21 55 4 | 27° 3'44 | 12 ^Ω 50 | 26° 7 | 24°39 | 10°26 | 7°35 | 25° 3 | 5°10 | 2°13 | 24°35 | 27°31 | 28°36 | 26° 9 | 25°54 | T 15 | | |
| W16 | 21 59 0 | 28° 1'55 | 26°12 | 25°11 | 24°49 | 11° 5 | 7°32 | 25° 0 | 5° 8 | 2°15 | 24°34 | 27°21 | 28°33 | 26°16 | 25°51 | W16 | | |
| T 17 | 22 2 57 | 29° 0'08 | 9 ^η 49 | 24°19 | 25° 0 | 11°44 | 7°30 | 24°56 | 5° 5 | 2°16 | 24°33 | 27°13 | 28°30 | 26°22 | 25°48 | T 17 | | |
| F 18 | 22 6 53 | 29°58'23 | 23°40 | 23°30 | 25°14 | 12°24 | 7°28 | 24°52 | 5° 3 | 2°17 | 24°32 | 27° 6 | 28°27 | 26°29 | 25°45 | F 18 | | |
| S 19 | 22 10 50 | 0 ^η 56'39 | 7 [♂] 39 | 22°47 | 25°30 | 13° 3 | 7°26 | 24°48 | 5° 0 | 2°19 | 24°31 | 27° 2 | 28°24 | 26°36 | 25°42 | S 19 | | |
| S 20 | 22 14 46 | 1°54'57 | 21°45 | 22°10 | 25°48 | 13°42 | 7°24 | 24°43 | 4°58 | 2°20 | 24°30 | 27°D 1 | 28°20 | 26°42 | 25°40 | S 20 | | |
| M21 | 22 18 43 | 2°53'17 | 5 ^M 54 | 21°40 | 26° 7 | 14°22 | 7°22 | 24°39 | 4°56 | 2°21 | 24°29 | 27° 1 | 28°17 | 26°49 | 25°37 | M21 | | |
| T 22 | 22 22 40 | 3°51'38 | 20° 4 | 21°19 | 26°29 | 15° 2 | 7°21 | 24°35 | 4°53 | 2°23 | 24°27 | 27° 2 | 28°14 | 26°56 | 25°34 | T 22 | | |
| W23 | 22 26 36 | 4°50'01 | 4 [♂] 13 | 21° 6 | 26°52 | 15°42 | 7°20 | 24°31 | 4°51 | 2°24 | 24°26 | 27°R 2 | 28°11 | 27° 2 | 25°31 | W23 | | |
| T 24 | 22 30 33 | 5°48'26 | 18°21 | 21°D 2 | 27°17 | 16°22 | 7°19 | 24°27 | 4°48 | 2°25 | 24°25 | 27° 1 | 28° 8 | 27° 9 | 25°28 | T 24 | | |
| F 25 | 22 34 29 | 6°46'52 | 2 [♂] 25 | 21° 7 | 27°43 | 17° 2 | 7°18 | 24°22 | 4°46 | 2°26 | 24°24 | 26°59 | 28° 5 | 27°16 | 25°25 | F 25 | | |
| S 26 | 22 38 26 | 7°45'20 | 16°24 | 21°21 | 28°11 | 17°42 | 7°17 | 24°18 | 4°44 | 2°28 | 24°23 | 26°54 | 28° 1 | 27°22 | 25°22 | S 26 | | |
| S 27 | 22 42 22 | 8°43'49 | 0 [♂] 15 | 21°45 | 28°41 | 18°22 | 7°17 | 24°13 | 4°41 | 2°29 | 24°22 | 26°48 | 27°58 | 27°29 | 25°19 | S 27 | | |
| M28 | 22 46 19 | 9°42'20 | 13°56 | 22°18 | 29°12 | 19° 3 | 7°16 | 24° 9 | 4°39 | 2°30 | 24°21 | 26°40 | 27°55 | 27°36 | 25°16 | M28 | | |
| T 29 | 22 50 15 | 10°40'53 | 27°24 | 22°59 | 29°45 | 19°44 | 7°D16 | 24° 4 | 4°36 | 2°31 | 24°20 | 26°32 | 27°52 | 27°42 | 25°14 | T 29 | | |
| W30 | 22 54 12 | 11°39'28 | 10 ^H 37 | 23°49 | 0 ^Ω 19 | 20°24 | 7°16 | 24° 0 | 4°34 | 2°32 | 24°19 | 26°25 | 27°49 | 27°49 | 25°11 | W30 | | |
| T 31 | 22 58 9 | 12 ^η 38'05 | 23 ^H 33 | 24 ^Ω 46 | 0 ^Ω 54 | 21 ^M 5 | 7 [♂] 17 | 23 ^H 55 | 4 ^H 32 | 2 ⁵⁸ 33 | 24 ^H 17 | 26 ^Ω 19 | 27 ^Ω 46 | 27 [♂] 56 | 25 [♂] 8 | T 31 | | |

Delta T = 18m37s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1083
geocentric

NOVEMBER 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|-------|--------|--------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 3 2 35 | 14♐19'21 | 22♐58 | 3♏11 | 0♏29 | 6♏22 | 13♏19 | 19°R58 | 2°R55 | 2°R32 | 23°R13 | 25°R35 | 24♏28 | 4♐49 | 23≈34 | W 1 | | | | | | | | |
| T 2 | 3 6 31 | 15°20'01 | 4♏50 | 4°33 | 1°38 | 7° 8 | 13°30 | 19°56 | 2°55 | 2°31 | 23°12 | 25♏32 | 24°25 | 4°56 | 23°35 | T 2 | | | | | | | | |
| F 3 | 3 10 28 | 16°20'41 | 16°49 | 5°55 | 2°47 | 7°54 | 13°40 | 19°54 | 2°55 | 2°30 | 23°12 | 25°29 | 24°22 | 5° 2 | 23°35 | F 3 | | | | | | | | |
| S 4 | 3 14 24 | 17°21'24 | 28°58 | 7°15 | 3°56 | 8°40 | 13°51 | 19°53 | 2°55 | 2°29 | 23°11 | 25°27 | 24°19 | 5° 9 | 23°35 | S 4 | | | | | | | | |
| S 5 | 3 18 21 | 18°22'08 | 11♏21 | 8°34 | 5° 6 | 9°26 | 14° 1 | 19°52 | 2°55 | 2°28 | 23°10 | 25°25 | 24°16 | 5°16 | 23°36 | S 5 | | | | | | | | |
| M 6 | 3 22 18 | 19°22'54 | 24° 1 | 9°51 | 6°16 | 10°12 | 14°12 | 19°50 | 2°55 | 2°26 | 23°10 | 25°D25 | 24°13 | 5°23 | 23°36 | M 6 | | | | | | | | |
| T 7 | 3 26 14 | 20°23'41 | 7♐ 3 | 11° 7 | 7°26 | 10°58 | 14°23 | 19°49 | 2°D55 | 2°25 | 23° 9 | 25°26 | 24° 9 | 5°29 | 23°37 | T 7 | | | | | | | | |
| W 8 | 3 30 11 | 21°24'30 | 20°30 | 12°21 | 8°36 | 11°44 | 14°34 | 19°48 | 2°55 | 2°24 | 23° 9 | 25°28 | 24° 6 | 5°36 | 23°37 | W 8 | | | | | | | | |
| T 9 | 3 34 7 | 22°25'21 | 4♏25 | 13°32 | 9°46 | 12°31 | 14°45 | 19°47 | 2°55 | 2°23 | 23° 8 | 25°29 | 24° 3 | 5°43 | 23°38 | T 9 | | | | | | | | |
| F 10 | 3 38 4 | 23°26'13 | 18°47 | 14°40 | 10°56 | 13°17 | 14°56 | 19°46 | 2°55 | 2°22 | 23° 8 | 25°R30 | 24° 0 | 5°49 | 23°39 | F 10 | | | | | | | | |
| S 11 | 3 42 0 | 24°27'06 | 3♐33 | 15°46 | 12° 7 | 14° 3 | 15° 8 | 19°46 | 2°55 | 2°20 | 23° 7 | 25°30 | 23°57 | 5°56 | 23°39 | S 11 | | | | | | | | |
| S 12 | 3 45 57 | 25°28'01 | 18°38 | 16°48 | 13°17 | 14°50 | 15°19 | 19°45 | 2°55 | 2°19 | 23° 7 | 25°29 | 23°54 | 6° 3 | 23°40 | S 12 | | | | | | | | |
| M13 | 3 49 53 | 26°28'57 | 3♏53 | 17°46 | 14°28 | 15°36 | 15°31 | 19°45 | 2°56 | 2°18 | 23° 6 | 25°26 | 23°50 | 6° 9 | 23°41 | M13 | | | | | | | | |
| T 14 | 3 53 50 | 27°29'54 | 19° 8 | 18°39 | 15°39 | 16°22 | 15°42 | 19°44 | 2°56 | 2°17 | 23° 6 | 25°21 | 23°47 | 6°16 | 23°42 | T 14 | | | | | | | | |
| W15 | 3 57 47 | 28°30'52 | 4♏12 | 19°27 | 16°50 | 17° 9 | 15°54 | 19°44 | 2°56 | 2°15 | 23° 5 | 25°16 | 23°44 | 6°23 | 23°43 | W15 | | | | | | | | |
| T 16 | 4 1 43 | 29°31'51 | 18°56 | 20° 9 | 18° 1 | 17°55 | 16° 6 | 19°44 | 2°57 | 2°14 | 23° 5 | 25°11 | 23°41 | 6°29 | 23°44 | T 16 | | | | | | | | |
| F 17 | 4 5 40 | 0♏32'51 | 3♐16 | 20°44 | 19°12 | 18°42 | 16°18 | 19°D44 | 2°57 | 2°12 | 23° 5 | 25° 7 | 23°38 | 6°36 | 23°45 | F 17 | | | | | | | | |
| S 18 | 4 9 36 | 1°33'52 | 17° 7 | 21°12 | 20°24 | 19°28 | 16°30 | 19°44 | 2°58 | 2°11 | 23° 4 | 25° 5 | 23°34 | 6°43 | 23°47 | S 18 | | | | | | | | |
| S 19 | 4 13 33 | 2°34'53 | 0♏31 | 21°32 | 21°35 | 20°15 | 16°42 | 19°44 | 2°59 | 2°10 | 23° 4 | 25°D 4 | 23°31 | 6°49 | 23°48 | S 19 | | | | | | | | |
| M20 | 4 17 29 | 3°35'54 | 13°29 | 21°42 | 22°47 | 21° 2 | 16°54 | 19°44 | 2°59 | 2° 8 | 23° 4 | 25° 4 | 23°28 | 6°56 | 23°49 | M20 | | | | | | | | |
| T 21 | 4 21 26 | 4°36'56 | 26° 6 | 21°R42 | 23°58 | 21°48 | 17° 6 | 19°44 | 3° 0 | 2° 7 | 23° 3 | 25° 5 | 23°25 | 7° 3 | 23°50 | T 21 | | | | | | | | |
| W22 | 4 25 22 | 5°37'59 | 8♐26 | 21°31 | 25°10 | 22°35 | 17°18 | 19°45 | 3° 1 | 2° 5 | 23° 3 | 25° 7 | 23°22 | 7° 9 | 23°52 | W22 | | | | | | | | |
| T 23 | 4 29 19 | 6°39'02 | 20°33 | 21° 9 | 26°22 | 23°21 | 17°31 | 19°46 | 3° 2 | 2° 4 | 23° 3 | 25°R 8 | 23°19 | 7°16 | 23°53 | T 23 | | | | | | | | |
| F 24 | 4 33 16 | 7°40'06 | 2♏31 | 20°35 | 27°34 | 24° 8 | 17°43 | 19°46 | 3° 2 | 2° 2 | 23° 3 | 25° 8 | 23°15 | 7°23 | 23°55 | F 24 | | | | | | | | |
| S 25 | 4 37 12 | 8°41'11 | 14°24 | 19°50 | 28°46 | 24°55 | 17°55 | 19°47 | 3° 3 | 2° 1 | 23° 3 | 25° 6 | 23°12 | 7°29 | 23°56 | S 25 | | | | | | | | |
| S 26 | 4 41 9 | 9°42'16 | 26°14 | 18°54 | 29°58 | 25°41 | 18° 8 | 19°48 | 3° 4 | 1°59 | 23° 3 | 25° 1 | 23° 9 | 7°36 | 23°58 | S 26 | | | | | | | | |
| M27 | 4 45 5 | 10°43'22 | 8♐ 4 | 17°49 | 1♐10 | 26°28 | 18°21 | 19°49 | 3° 5 | 1°58 | 23° 2 | 24°55 | 23° 6 | 7°43 | 24° 0 | M27 | | | | | | | | |
| T 28 | 4 49 2 | 11°44'28 | 19°55 | 16°35 | 2°23 | 27°15 | 18°33 | 19°50 | 3° 6 | 1°56 | 23° 2 | 24°47 | 23° 3 | 7°50 | 24° 2 | T 28 | | | | | | | | |
| W29 | 4 52 58 | 12°45'35 | 1♏49 | 15°16 | 3°35 | 28° 2 | 18°46 | 19°51 | 3° 8 | 1°55 | 23° 2 | 24°37 | 23° 0 | 7°56 | 24° 3 | W29 | | | | | | | | |
| T 30 | 4 56 55 | 13°46'43 | 13♏48 | 13♏54 | 4♐47 | 28♏48 | 18♏59 | 19°53 | 3° 9 | 1°53 | 23° 2 | 24♏27 | 22♏56 | 8♐ 3 | 24≈ 5 | T 30 | | | | | | | | |

Delta T = 18m36s Julian Calendar 1 Nov. 1083 == Greg. Calendar 7 Nov. 1083

DECEMBER 1083 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|------|-------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 5 0 51 | 14♐47'51 | 25♏53 | 12°R31 | 6♐ 0 | 29♏35 | 19♏12 | 19°54 | 3°10 | 1°R51 | 23°R 2 | 24°R18 | 22♏53 | 8♐10 | 24≈ 7 | F 1 | | | | | | | | |
| S 2 | 5 4 48 | 15°49'00 | 8♏ 6 | 11♏11 | 7°13 | 0≈22 | 19°25 | 19°56 | 3°11 | 1°50 | 23°D 2 | 24♏10 | 22°50 | 8°16 | 24° 9 | S 2 | | | | | | | | |
| S 3 | 5 8 45 | 16°50'10 | 20°30 | 9°56 | 8°25 | 1° 9 | 19°38 | 19°57 | 3°13 | 1°48 | 23° 2 | 24° 4 | 22°47 | 8°23 | 24°11 | S 3 | | | | | | | | |
| M 4 | 5 12 41 | 17°51'20 | 3♐ 9 | 8°48 | 9°38 | 1°56 | 19°51 | 19°59 | 3°14 | 1°46 | 23° 2 | 24° 0 | 22°44 | 8°30 | 24°13 | M 4 | | | | | | | | |
| T 5 | 5 16 38 | 18°52'31 | 16° 5 | 7°48 | 10°51 | 2°42 | 20° 4 | 20° 1 | 3°15 | 1°45 | 23° 2 | 23°D59 | 22°40 | 8°36 | 24°16 | T 5 | | | | | | | | |
| W 6 | 5 20 34 | 19°53'42 | 29°22 | 6°59 | 12° 4 | 3°29 | 20°17 | 20° 3 | 3°17 | 1°43 | 23° 2 | 23°59 | 22°37 | 8°43 | 24°18 | W 6 | | | | | | | | |
| T 7 | 5 24 31 | 20°54'54 | 13♏ 3 | 6°20 | 13°17 | 4°16 | 20°30 | 20° 5 | 3°18 | 1°42 | 23° 2 | 24° 0 | 22°34 | 8°50 | 24°20 | T 7 | | | | | | | | |
| F 8 | 5 28 27 | 21°56'07 | 27°10 | 5°51 | 14°30 | 5° 3 | 20°44 | 20° 7 | 3°20 | 1°40 | 23° 3 | 24°R 1 | 22°31 | 8°56 | 24°22 | F 8 | | | | | | | | |
| S 9 | 5 32 24 | 22°57'20 | 11♐43 | 5°34 | 15°43 | 5°50 | 20°57 | 20°10 | 3°21 | 1°38 | 23° 3 | 23°59 | 22°28 | 9° 3 | 24°25 | S 9 | | | | | | | | |
| S 10 | 5 36 20 | 23°58'33 | 26°38 | 5°D26 | 16°56 | 6°36 | 21°10 | 20°12 | 3°23 | 1°37 | 23° 3 | 23°56 | 22°25 | 9°10 | 24°27 | S 10 | | | | | | | | |
| M11 | 5 40 17 | 24°59'47 | 11♏48 | 5°28 | 18° 9 | 7°23 | 21°24 | 20°15 | 3°25 | 1°35 | 23° 3 | 23°49 | 22°21 | 9°16 | 24°29 | M11 | | | | | | | | |
| T 12 | 5 44 14 | 26° 1'01 | 27° 5 | 5°38 | 19°22 | 8°10 | 21°37 | 20°17 | 3°27 | 1°33 | 23° 3 | 23°40 | 22°18 | 9°23 | 24°32 | T 12 | | | | | | | | |
| W13 | 5 48 10 | 27° 2'16 | 12♏17 | 5°57 | 20°36 | 8°57 | 21°51 | 20°20 | 3°28 | 1°31 | 23° 4 | 23°30 | 22°15 | 9°30 | 24°34 | W13 | | | | | | | | |
| T 14 | 5 52 7 | 28° 3'30 | 27°13 | 6°23 | 21°49 | 9°44 | 22° 5 | 20°23 | 3°30 | 1°30 | 23° 4 | 23°20 | 22°12 | 9°36 | 24°37 | T 14 | | | | | | | | |
| F 15 | 5 56 3 | 29° 4'43 | 11♏46 | 6°56 | 23° 2 | 10°31 | 22°18 | 20°26 | 3°32 | 1°28 | 23° 4 | 23°11 | 22° 9 | 9°43 | 24°40 | F 15 | | | | | | | | |
| S 16 | 6 0 0 | 0♏57 | 25°49 | 7°35 | 24°16 | 11°18 | 22°32 | 20°29 | 3°34 | 1°26 | 23° 5 | 23° 4 | 22° 6 | 9°50 | 24°42 | S 16 | | | | | | | | |
| S 17 | 6 3 56 | 1° 7'10 | 9♏21 | 8°19 | 25°29 | 12° 4 | 22°46 | 20°32 | 3°36 | 1°25 | 23° 5 | 22°59 | 22° 2 | 9°57 | 24°45 | S 17 | | | | | | | | |
| M18 | 6 7 53 | 2° 8'22 | 22°25 | 9° 7 | 26°43 | 12°51 | 22°59 | 20°35 | 3°38 | 1°23 | 23° 5 | 22°57 | 21°59 | 10° 3 | 24°48 | M18 | | | | | | | | |
| T 19 | 6 11 50 | 3° 9'34 | 5♐ 4 | 10° 0 | 27°56 | 13°38 | 23°13 | 20°38 | 3°40 | 1°21 | 23° 6 | 22°D57 | 21°56 | 10°10 | 24°51 | T 19 | | | | | | | | |
| W20 | 6 15 46 | 4°10'46 | 17°22 | 10°57 | 29°10 | 14°25 | 23°27 | 20°42 | 3°42 | 1°20 | 23° 6 | 22°R57 | 21°53 | 10°17 | 24°54 | W20 | | | | | | | | |
| T 21 | 6 19 43 | 5°11'57 | 29°26 | 11°57 | 0♏23 | 15°12 | 23°41 | 20°45 | 3°44 | 1°18 | 23° 7 | 22°57 | 21°50 | 10°23 | 24°56 | T 21 | | | | | | | | |
| F 22 | 6 23 39 | 6°13'08 | 11♏20 | 13° 0 | 1°37 | 15°59 | 23°55 | 20°49 | 3°46 | 1°16 | 23° 7 | 22°55 | 21°46 | 10°30 | 24°59 | F 22 | | | | | | | | |
| S 23 | 6 27 36 | 7°14'18 | 23° 9 | 14° 6 | 2°51 | 16°45 | 24° 9 | 20°53 | 3°49 | 1°14 | 23° 7 | 22°51 | 21°43 | 10°37 | 25° 2 | S 23 | | | | | | | | |
| S 24 | 6 31 32 | 8°15'27 | 4♐57 | 15°15 | 4° 4 | 17°32 | 24°23 | 20°56 | 3°51 | 1°13 | 23° 8 | 22°44 | 21°40 | 10°43 | 25° 5 | S 24 | | | | | | | | |
| M25 | 6 35 29 | 9°16'36 | 16°48 | 16°25 | 5°18 | 18°19 | 24°37 | 21° 0 | 3°53 | 1°11 | 23° 9 | 22°35 | 21°37 | 10°50 | 25° 8 | M25 | | | | | | | | |
| T 26 | 6 39 25 | 10°17'44 | 28°43 | 17°38 | 6°32 | 19° 6 | 24°51 | 21° 4 | 3°55 | 1° 9 | 23° 9 | 22°22 | 21°34 | 10°57 | 25°11 | T 26 | | | | | | | | |
| W27 | 6 43 22 | 11°18'52 | 10♏44 | 18°52 | 7°46 | 19°53 | 25° 5 | 21° 8 | 3°58 | 1° 8 | 23°10 | 22° 8 | 21°31 | 11° 3 | 25°15 | W27 | | | | | | | | |
| T 28 | 6 47 19 | 12°19'59 | 22°53 | 20° 8 | 9° 0 | 20°39 | 25°19 | 21°13 | 4° 0 | 1° 6 | 23°10 | 21°53 | 21°27 | 11°10 | 25°18 | T 28 | | | | | | | | |
| F 29 | 6 51 15 | 13°21'06 | 5♏ 9 | 21°25 | 10°13 | 21°26 | 25°33 | 21°17 | 4° 3 | 1° 4 | 23°11 | 21°40 | 21°24 | 11°17 | 25°21 | F 29 | | | | | | | | |
| S 30 | 6 55 12 | 14°22'12 | 17°35 | 22°44 | 11°27 | 22°13 | 25°47 | 21°21 | 4° 5 | 1° 3 | 23°11 | 21°27 | 21°21 | 11°24 | 25°24 | S 30 | | | | | | | | |
| S 31 | 6 59 8 | 15°23'18 | 0♐11 | 24♏ 4 | 12♏41 | 22≈59 | 26♏ 1 | 21°25 | 4° 8 | 1° 1 | 23°12 | 21♏18 | 21♏18 | 11♐30 | 25≈27 | S 31 | | | | | | | | |

Delta T = 18m36s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1084
geocentric

JANUARY 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|------|-------|--------|-------|-------|-------|------|
| M 1 | 7 3 5 | 16☾24'23 | 12♍57 | 25♌25 | 13♌55 | 23♌46 | 26♌15 | 21♌30 | 4♌10 | 0♌59 | 23♌13 | 21♌R12 | 21♌15 | 11♌37 | 25♌31 | M 1 |
| T 2 | 7 7 1 | 17°25'28 | 25°57 | 26°47 | 15° 9 | 24°33 | 26°29 | 21°35 | 4°13 | 0♌58 | 23°14 | 21♌ 8 | 21°12 | 11°44 | 25°34 | T 2 |
| W 3 | 7 10 58 | 18°26'32 | 9♌12 | 28°10 | 16°23 | 25°19 | 26°44 | 21°39 | 4°15 | 0°56 | 23°14 | 21° 7 | 21° 8 | 11°50 | 25°38 | W 3 |
| T 4 | 7 14 54 | 19°27'36 | 22°46 | 29°34 | 17°37 | 26° 6 | 26°58 | 21°44 | 4°18 | 0°55 | 23°15 | 21° 7 | 21° 5 | 11°57 | 25°41 | T 4 |
| F 5 | 7 18 51 | 20°28'39 | 6♌40 | 0♌59 | 18°51 | 26°53 | 27°12 | 21°49 | 4°21 | 0°53 | 23°16 | 21° 6 | 21° 2 | 12° 4 | 25°44 | F 5 |
| S 6 | 7 22 48 | 21°29'42 | 20°54 | 2°25 | 20° 5 | 27°39 | 27°26 | 21°54 | 4°23 | 0°51 | 23°17 | 21° 4 | 20°59 | 12°10 | 25°48 | S 6 |
| S 7 | 7 26 44 | 22°30'44 | 5♌29 | 3°52 | 21°19 | 28°26 | 27°40 | 21°59 | 4°26 | 0°50 | 23°17 | 21° 0 | 20°56 | 12°17 | 25°51 | S 7 |
| M 8 | 7 30 41 | 23°31'45 | 20°19 | 5°20 | 22°33 | 29°12 | 27°55 | 22° 4 | 4°29 | 0°48 | 23°18 | 20°52 | 20°52 | 12°24 | 25°55 | M 8 |
| T 9 | 7 34 37 | 24°32'46 | 5♌19 | 6°48 | 23°48 | 29°59 | 28° 9 | 22° 9 | 4°32 | 0°47 | 23°19 | 20°42 | 20°49 | 12°30 | 25°58 | T 9 |
| W10 | 7 38 34 | 25°33'46 | 20°18 | 8°17 | 25° 2 | 0♌46 | 28°23 | 22°14 | 4°35 | 0°45 | 23°20 | 20°31 | 20°46 | 12°37 | 26° 2 | W10 |
| T 11 | 7 42 30 | 26°34'45 | 5♌ 8 | 9°47 | 26°16 | 1°32 | 28°37 | 22°19 | 4°37 | 0°44 | 23°21 | 20°18 | 20°43 | 12°44 | 26° 6 | T 11 |
| F 12 | 7 46 27 | 27°35'42 | 19°39 | 11°18 | 27°30 | 2°19 | 28°52 | 22°25 | 4°40 | 0°42 | 23°22 | 20° 7 | 20°40 | 12°51 | 26° 9 | F 12 |
| S 13 | 7 50 23 | 28°36'38 | 3♌45 | 12°49 | 28°44 | 3° 5 | 29° 6 | 22°30 | 4°43 | 0°41 | 23°23 | 19°58 | 20°37 | 12°57 | 26°13 | S 13 |
| S 14 | 7 54 20 | 29°37'33 | 17°23 | 14°21 | 29°58 | 3°51 | 29°20 | 22°36 | 4°46 | 0°39 | 23°24 | 19°52 | 20°33 | 13° 4 | 26°17 | S 14 |
| M15 | 7 58 17 | 0♌38'27 | 0♌33 | 15°54 | 1♌12 | 4°38 | 29°35 | 22°41 | 4°49 | 0°38 | 23°25 | 19°48 | 20°30 | 13°11 | 26°20 | M15 |
| T 16 | 8 2 13 | 1°39'19 | 13°18 | 17°28 | 2°27 | 5°24 | 29°49 | 22°47 | 4°52 | 0°37 | 23°26 | 19°47 | 20°27 | 13°17 | 26°24 | T 16 |
| W17 | 8 6 10 | 2°40'10 | 25°40 | 19° 2 | 3°41 | 6°11 | 0♌ 3 | 22°52 | 4°55 | 0°35 | 23°27 | 19°D47 | 20°24 | 13°24 | 26°28 | W17 |
| T 18 | 8 10 6 | 3°40'59 | 7♌46 | 20°37 | 4°55 | 6°57 | 0°17 | 22°58 | 4°58 | 0°34 | 23°28 | 19°R47 | 20°21 | 13°31 | 26°32 | T 18 |
| F 19 | 8 14 3 | 4°41'46 | 19°41 | 22°13 | 6° 9 | 7°43 | 0°32 | 23° 4 | 5° 1 | 0°32 | 23°29 | 19°46 | 20°17 | 13°37 | 26°35 | F 19 |
| S 20 | 8 17 59 | 5°42'32 | 1♌31 | 23°50 | 7°23 | 8°29 | 0°46 | 23°10 | 5° 4 | 0°31 | 23°30 | 19°43 | 20°14 | 13°44 | 26°39 | S 20 |
| S 21 | 8 21 56 | 6°43'17 | 13°20 | 25°27 | 8°38 | 9°16 | 1° 0 | 23°16 | 5° 7 | 0°30 | 23°31 | 19°37 | 20°11 | 13°51 | 26°43 | S 21 |
| M22 | 8 25 52 | 7°44'00 | 25°13 | 27° 5 | 9°52 | 10° 2 | 1°14 | 23°22 | 5°11 | 0°28 | 23°32 | 19°29 | 20° 8 | 13°58 | 26°47 | M22 |
| T 23 | 8 29 49 | 8°44'41 | 7♌13 | 28°44 | 11° 6 | 10°48 | 1°29 | 23°28 | 5°14 | 0°27 | 23°33 | 19°18 | 20° 5 | 14° 4 | 26°51 | T 23 |
| W24 | 8 33 46 | 9°45'20 | 19°22 | 0♌24 | 12°20 | 11°34 | 1°43 | 23°34 | 5°17 | 0°26 | 23°34 | 19° 6 | 20° 2 | 14°11 | 26°55 | W24 |
| T 25 | 8 37 42 | 10°45'59 | 1♌42 | 2° 5 | 13°35 | 12°20 | 1°57 | 23°40 | 5°20 | 0°25 | 23°35 | 18°53 | 19°58 | 14°18 | 26°58 | T 25 |
| F 26 | 8 41 39 | 11°46'35 | 14°13 | 3°46 | 14°49 | 13° 6 | 2°11 | 23°47 | 5°23 | 0°23 | 23°36 | 18°40 | 19°55 | 14°24 | 27° 2 | F 26 |
| S 27 | 8 45 35 | 12°47'10 | 26°56 | 5°29 | 16° 3 | 13°52 | 2°25 | 23°53 | 5°27 | 0°22 | 23°37 | 18°29 | 19°52 | 14°31 | 27° 6 | S 27 |
| S 28 | 8 49 32 | 13°47'43 | 9♌51 | 7°12 | 17°17 | 14°38 | 2°39 | 23°59 | 5°30 | 0°21 | 23°39 | 18°21 | 19°49 | 14°38 | 27°10 | S 28 |
| M29 | 8 53 28 | 14°48'15 | 22°56 | 8°56 | 18°32 | 15°24 | 2°54 | 24° 6 | 5°33 | 0°20 | 23°40 | 18°15 | 19°46 | 14°44 | 27°14 | M29 |
| T 30 | 8 57 25 | 15°48'46 | 6♌12 | 10°41 | 19°46 | 16°10 | 3° 8 | 24°12 | 5°36 | 0°19 | 23°41 | 18°12 | 19°43 | 14°51 | 27°18 | T 30 |
| W31 | 9 1 21 | 16°49'15 | 19♌39 | 12°27 | 21♌ 0 | 16♌56 | 3°22 | 24♌19 | 5°40 | 0♌18 | 23♌42 | 18°D12 | 19♌39 | 14♌58 | 27°22 | W31 |

Delta T = 18m36s Julian Calendar 1 Jan. 1084 == Greg. Calendar 7 Jan. 1084

FEBRUARY 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|------|-------|-------|--------|-------|-------|-------|------|
| T 1 | 9 5 18 | 17°49'43 | 3♌19 | 14°14 | 22♌14 | 17♌42 | 3♌36 | 24♌25 | 5♌43 | 0♌17 | 23♌43 | 18♌12 | 19♌36 | 15♌ 4 | 27°26 | T 1 |
| F 2 | 9 9 15 | 18°50'09 | 17°11 | 16° 2 | 23°29 | 18°27 | 3°50 | 24°32 | 5°46 | 0♌16 | 23°45 | 18°R13 | 19°33 | 15°11 | 27°30 | F 2 |
| S 3 | 9 13 11 | 19°50'35 | 1♌15 | 17°51 | 24°43 | 19°13 | 4° 4 | 24°38 | 5°50 | 0°15 | 23°46 | 18°12 | 19°30 | 15°18 | 27°34 | S 3 |
| S 4 | 9 17 8 | 20°50'58 | 15°32 | 19°41 | 25°57 | 19°59 | 4°18 | 24°45 | 5°53 | 0°14 | 23°47 | 18°10 | 19°27 | 15°25 | 27°38 | S 4 |
| M 5 | 9 21 4 | 21°51'21 | 29°59 | 21°31 | 27°12 | 20°45 | 4°32 | 24°52 | 5°56 | 0°13 | 23°48 | 18° 5 | 19°23 | 15°31 | 27°42 | M 5 |
| T 6 | 9 25 1 | 22°51'42 | 14♌32 | 23°23 | 28°26 | 21°30 | 4°46 | 24°59 | 6° 0 | 0°12 | 23°50 | 17°58 | 19°20 | 15°38 | 27°46 | T 6 |
| W 7 | 9 28 57 | 23°52'01 | 29° 5 | 25°15 | 29°40 | 22°16 | 5° 0 | 25° 6 | 6° 3 | 0°11 | 23°51 | 17°49 | 19°17 | 15°45 | 27°50 | W 7 |
| T 8 | 9 32 54 | 24°52'18 | 13♌31 | 27° 8 | 0♌54 | 23° 2 | 5°14 | 25°12 | 6° 6 | 0°10 | 23°52 | 17°40 | 19°14 | 15°51 | 27°54 | T 8 |
| F 9 | 9 36 50 | 25°52'34 | 27°44 | 29° 2 | 2° 9 | 23°47 | 5°28 | 25°19 | 6°10 | 0° 9 | 23°54 | 17°32 | 19°11 | 15°58 | 27°58 | F 9 |
| S 10 | 9 40 47 | 26°52'48 | 11♌38 | 0♌57 | 3°23 | 24°33 | 5°41 | 25°26 | 6°13 | 0° 9 | 23°55 | 17°25 | 19° 8 | 16° 5 | 28° 2 | S 10 |
| S 11 | 9 44 44 | 27°53'00 | 25°10 | 2°52 | 4°37 | 25°18 | 5°55 | 25°33 | 6°17 | 0° 8 | 23°56 | 17°21 | 19° 4 | 16°11 | 28° 6 | S 11 |
| M12 | 9 48 40 | 28°53'10 | 8♌19 | 4°47 | 5°52 | 26° 3 | 6° 9 | 25°40 | 6°20 | 0° 7 | 23°58 | 17°18 | 19° 1 | 16°18 | 28°10 | M12 |
| T 13 | 9 52 37 | 29°53'18 | 21° 4 | 6°43 | 7° 6 | 26°49 | 6°23 | 25°47 | 6°23 | 0° 6 | 23°59 | 17°D18 | 18°58 | 16°25 | 28°14 | T 13 |
| W14 | 9 56 33 | 0♌53'23 | 3♌30 | 8°39 | 8°20 | 27°34 | 6°36 | 25°55 | 6°27 | 0° 6 | 24° 0 | 17°19 | 18°55 | 16°32 | 28°18 | W14 |
| T 15 | 10 0 30 | 1°53'27 | 15°39 | 10°35 | 9°34 | 28°19 | 6°50 | 26° 2 | 6°30 | 0° 5 | 24° 2 | 17°20 | 18°52 | 16°38 | 28°22 | T 15 |
| F 16 | 10 4 26 | 2°53'28 | 27°37 | 12°30 | 10°49 | 29° 5 | 7° 4 | 26° 9 | 6°34 | 0° 5 | 24° 3 | 17°R21 | 18°49 | 16°45 | 28°26 | F 16 |
| S 17 | 10 8 23 | 3°53'28 | 9♌29 | 14°25 | 12° 3 | 29°50 | 7°17 | 26°16 | 6°37 | 0° 4 | 24° 5 | 17°21 | 18°45 | 16°52 | 28°30 | S 17 |
| S 18 | 10 12 19 | 4°53'25 | 21°20 | 16°19 | 13°17 | 0♌35 | 7°31 | 26°23 | 6°41 | 0° 3 | 24° 6 | 17°20 | 18°42 | 16°58 | 28°34 | S 18 |
| M19 | 10 16 16 | 5°53'19 | 3♌15 | 18°11 | 14°31 | 1°20 | 7°44 | 26°30 | 6°44 | 0° 3 | 24° 7 | 17°16 | 18°39 | 17° 5 | 28°38 | M19 |
| T 20 | 10 20 13 | 6°53'12 | 15°18 | 20° 2 | 15°46 | 2° 5 | 7°57 | 26°38 | 6°48 | 0° 2 | 24° 9 | 17°11 | 18°36 | 17°12 | 28°42 | T 20 |
| W21 | 10 24 9 | 7°53'02 | 27°33 | 21°51 | 17° 0 | 2°50 | 8°11 | 26°45 | 6°51 | 0° 2 | 24°10 | 17° 5 | 18°33 | 17°18 | 28°46 | W21 |
| T 22 | 10 28 6 | 8°52'50 | 10♌ 1 | 23°37 | 18°14 | 3°35 | 8°24 | 26°52 | 6°54 | 0° 2 | 24°12 | 16°58 | 18°29 | 17°25 | 28°50 | T 22 |
| F 23 | 10 32 2 | 9°52'36 | 22°46 | 25°20 | 19°28 | 4°20 | 8°37 | 27° 0 | 6°58 | 0° 1 | 24°13 | 16°51 | 18°26 | 17°32 | 28°54 | F 23 |
| S 24 | 10 35 59 | 10°52'20 | 5♌46 | 27° 0 | 20°43 | 5° 5 | 8°51 | 27° 7 | 7° 1 | 0° 1 | 24°15 | 16°45 | 18°23 | 17°39 | 28°58 | S 24 |
| S 25 | 10 39 55 | 11°52'02 | 19° 1 | 28°35 | 21°57 | 5°50 | 9° 4 | 27°15 | 7° 5 | 0° 1 | 24°16 | 16°41 | 18°20 | 17°45 | 29° 2 | S 25 |
| M26 | 10 43 52 | 12°51'42 | 2♌31 | 0♌ 7 | 23°11 | 6°35 | 9°17 | 27°22 | 7° 8 | 0° 0 | 24°17 | 16°38 | 18°17 | 17°52 | 29° 6 | M26 |
| T 27 | 10 47 48 | 13°51'19 | 16°12 | 1°33 | 24°25 | 7°19 | 9°30 | 27°29 | 7°12 | 0° 0 | 24°19 | 16°D37 | 18°14 | 17°59 | 29° 9 | T 27 |
| W28 | 10 51 45 | 14°50'55 | 0♌ 3 | 2°53 | 25°39 | 8° 4 | 9°43 | 27°37 | 7°15 | 29♌59 | 24°20 | 16°38 | 18°10 | 18° 5 | 29°13 | W28 |
| T 29 | 10 55 41 | 15°50'29 | 14♌ 1 | 4♌ 8 | 26°54 | 8♌49 | 9°56 | 27°44 | 7°18 | 29♌59 | 24°22 | 16°39 | 18° 7 | 18♌12 | 29°17 | T 29 |

Delta T = 18m35s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1084
geocentric

MARCH 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|------|--------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 10 59 38 | 16♂50'01 | 28♎ 6 | 5♃17 | 28♁ 8 | 9♂33 | 10♁ 9 | 27♂52 | 7♂22 | 29°R59 | 24♂23 | 16♂41 | 18♂ 4 | 18♂19 | 29♁21 | F 1 | | | | | | | | |
| S 2 | 11 3 35 | 17°49'32 | 12♂14 | 6°18 | 29°22 | 10°18 | 10°21 | 27°59 | 7°25 | 29♂59 | 24°25 | 16°R42 | 18° 1 | 18°26 | 29°25 | S 2 | | | | | | | | |
| S 3 | 11 7 31 | 18°49'01 | 26°26 | 7°14 | 0♂36 | 11° 2 | 10°34 | 28° 7 | 7°29 | 29°59 | 24°26 | 16°42 | 17°58 | 18°32 | 29°29 | S 3 | | | | | | | | |
| M 4 | 11 11 28 | 19°48'28 | 10♂38 | 8° 1 | 1°50 | 11°47 | 10°47 | 28°14 | 7°32 | 29°59 | 24°28 | 16°40 | 17°54 | 18°39 | 29°33 | M 4 | | | | | | | | |
| T 5 | 11 15 24 | 20°47'53 | 24°48 | 8°42 | 3° 5 | 12°31 | 10°59 | 28°22 | 7°35 | 29°D59 | 24°29 | 16°38 | 17°51 | 18°46 | 29°36 | T 5 | | | | | | | | |
| W 6 | 11 19 21 | 21°47'16 | 8♁53 | 9°15 | 4°19 | 13°16 | 11°12 | 28°29 | 7°39 | 29°59 | 24°31 | 16°35 | 17°48 | 18°52 | 29°40 | W 6 | | | | | | | | |
| T 7 | 11 23 17 | 22°46'38 | 22°49 | 9°40 | 5°33 | 14° 0 | 11°24 | 28°37 | 7°42 | 29°59 | 24°32 | 16°31 | 17°45 | 18°59 | 29°44 | T 7 | | | | | | | | |
| F 8 | 11 27 14 | 23°45'57 | 6♂35 | 9°58 | 6°47 | 14°44 | 11°37 | 28°45 | 7°45 | 29°59 | 24°34 | 16°28 | 17°42 | 19° 6 | 29°48 | F 8 | | | | | | | | |
| S 9 | 11 31 10 | 24°45'15 | 20° 5 | 10° 9 | 8° 1 | 15°29 | 11°49 | 28°52 | 7°49 | 29°59 | 24°35 | 16°25 | 17°39 | 19°12 | 29°51 | S 9 | | | | | | | | |
| S 10 | 11 35 7 | 25°44'30 | 3♂19 | 10°R11 | 9°16 | 16°13 | 12° 1 | 29° 0 | 7°52 | 29°59 | 24°37 | 16°23 | 17°35 | 19°19 | 29°55 | S 10 | | | | | | | | |
| M 11 | 11 39 4 | 26°43'43 | 16°15 | 10° 7 | 10°30 | 16°57 | 12°14 | 29° 7 | 7°55 | 29°59 | 24°38 | 16°D23 | 17°32 | 19°26 | 29°59 | M 11 | | | | | | | | |
| T 12 | 11 43 0 | 27°42'54 | 28°54 | 9°56 | 11°44 | 17°41 | 12°26 | 29°15 | 7°59 | 0♂ 0 | 24°40 | 16°23 | 17°29 | 19°33 | 0♂ 2 | T 12 | | | | | | | | |
| W 13 | 11 46 57 | 28°42'03 | 11♂17 | 9°38 | 12°58 | 18°25 | 12°38 | 29°22 | 8° 2 | 0° 0 | 24°41 | 16°24 | 17°26 | 19°39 | 0° 6 | W 13 | | | | | | | | |
| T 14 | 11 50 53 | 29°41'10 | 23°26 | 9°13 | 14°12 | 19° 9 | 12°50 | 29°30 | 8° 5 | 0° 1 | 24°42 | 16°26 | 17°23 | 19°46 | 0°10 | T 14 | | | | | | | | |
| F 15 | 11 54 50 | 0♂40'14 | 5♂26 | 8°44 | 15°26 | 19°53 | 13° 1 | 29°38 | 8° 8 | 0° 1 | 24°44 | 16°27 | 17°20 | 19°53 | 0°13 | F 15 | | | | | | | | |
| S 16 | 11 58 46 | 1°39'16 | 17°19 | 8° 9 | 16°40 | 20°37 | 13°13 | 29°45 | 8°12 | 0° 1 | 24°45 | 16°28 | 17°16 | 19°59 | 0°17 | S 16 | | | | | | | | |
| S 17 | 12 2 43 | 2°38'15 | 29°11 | 7°31 | 17°54 | 21°21 | 13°25 | 29°53 | 8°15 | 0° 2 | 24°47 | 16°R29 | 17°13 | 20° 6 | 0°20 | S 17 | | | | | | | | |
| M 18 | 12 6 39 | 3°37'13 | 11♂ 7 | 6°49 | 19° 8 | 22° 5 | 13°36 | 0♂ 0 | 8°18 | 0° 2 | 24°48 | 16°29 | 17°10 | 20°13 | 0°24 | M 18 | | | | | | | | |
| T 19 | 12 10 36 | 4°36'08 | 23°10 | 6° 5 | 20°23 | 22°48 | 13°48 | 0° 8 | 8°21 | 0° 3 | 24°50 | 16°28 | 17° 7 | 20°20 | 0°27 | T 19 | | | | | | | | |
| W 20 | 12 14 33 | 5°35'00 | 5♂26 | 5°19 | 21°37 | 23°32 | 13°59 | 0°15 | 8°24 | 0° 3 | 24°51 | 16°27 | 17° 4 | 20°26 | 0°31 | W 20 | | | | | | | | |
| T 21 | 12 18 29 | 6°33'51 | 17°58 | 4°33 | 22°51 | 24°16 | 14°11 | 0°23 | 8°28 | 0° 4 | 24°53 | 16°26 | 17° 0 | 20°33 | 0°34 | T 21 | | | | | | | | |
| F 22 | 12 22 26 | 7°32'39 | 0♂48 | 3°46 | 24° 5 | 24°59 | 14°22 | 0°31 | 8°31 | 0° 4 | 24°54 | 16°24 | 16°57 | 20°40 | 0°38 | F 22 | | | | | | | | |
| S 23 | 12 26 22 | 8°31'24 | 14° 0 | 3° 1 | 25°19 | 25°43 | 14°33 | 0°38 | 8°34 | 0° 5 | 24°56 | 16°23 | 16°54 | 20°46 | 0°41 | S 23 | | | | | | | | |
| S 24 | 12 30 19 | 9°30'08 | 27°32 | 2°18 | 26°33 | 26°26 | 14°44 | 0°46 | 8°37 | 0° 6 | 24°57 | 16°23 | 16°51 | 20°53 | 0°44 | S 24 | | | | | | | | |
| M 25 | 12 34 15 | 10°28'50 | 11♂23 | 1°38 | 27°47 | 27°10 | 14°55 | 0°53 | 8°40 | 0° 6 | 24°59 | 16°D22 | 16°48 | 21° 0 | 0°47 | M 25 | | | | | | | | |
| T 26 | 12 38 12 | 11°27'29 | 25°30 | 1° 0 | 29° 1 | 27°53 | 15° 6 | 1° 1 | 8°43 | 0° 7 | 25° 0 | 16°22 | 16°45 | 21° 6 | 0°51 | T 26 | | | | | | | | |
| W 27 | 12 42 8 | 12°26'07 | 9♎49 | 0°27 | 0♂15 | 28°36 | 15°17 | 1° 8 | 8°46 | 0° 8 | 25° 1 | 16°23 | 16°41 | 21°13 | 0°54 | W 27 | | | | | | | | |
| T 28 | 12 46 5 | 13°24'43 | 24°15 | 29♂58 | 1°29 | 29°20 | 15°27 | 1°16 | 8°49 | 0° 8 | 25° 3 | 16°23 | 16°38 | 21°20 | 0°57 | T 28 | | | | | | | | |
| F 29 | 12 50 1 | 14°23'17 | 8♂43 | 29°33 | 2°43 | 0♂ 3 | 15°38 | 1°23 | 8°52 | 0° 9 | 25° 4 | 16°23 | 16°35 | 21°27 | 1° 0 | F 29 | | | | | | | | |
| S 30 | 12 53 58 | 15°21'49 | 23° 8 | 29°13 | 3°57 | 0°46 | 15°48 | 1°31 | 8°55 | 0°10 | 25° 6 | 16°23 | 16°32 | 21°33 | 1° 3 | S 30 | | | | | | | | |
| S 31 | 12 57 55 | 16♂20'20 | 7♂27 | 28♂58 | 5♂11 | 1♂29 | 15♁59 | 1♂38 | 8♂58 | 0♂11 | 25♂ 7 | 16♂23 | 16♂29 | 21♂40 | 1♂ 7 | S 31 | | | | | | | | |

Delta T = 18m35s Julian Calendar 1 March 1084 == Greg. Calendar 7 March 1084

APRIL 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|-------|------|-------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 13 1 51 | 17♂18'49 | 21♂36 | 28°R48 | 6♂25 | 2♂12 | 16♁ 9 | 1♂45 | 9♂ 1 | 0♂12 | 25♂ 8 | 16♂23 | 16♂26 | 21♂47 | 1♂10 | M 1 | | | | | | | | |
| T 2 | 13 5 48 | 18°17'16 | 5♁34 | 28°D43 | 7°39 | 2°55 | 16°19 | 1°53 | 9° 3 | 0°13 | 25°10 | 16°23 | 16°22 | 21°53 | 1°13 | T 2 | | | | | | | | |
| W 3 | 13 9 44 | 19°15'42 | 19°20 | 28♂43 | 8°53 | 3°38 | 16°29 | 2° 0 | 9° 6 | 0°14 | 25°11 | 16°24 | 16°19 | 22° 0 | 1°16 | W 3 | | | | | | | | |
| T 4 | 13 13 41 | 20°14'06 | 2♂52 | 28°49 | 10° 7 | 4°21 | 16°39 | 2° 8 | 9° 9 | 0°15 | 25°13 | 16°24 | 16°16 | 22° 7 | 1°18 | T 4 | | | | | | | | |
| F 5 | 13 17 37 | 21°12'29 | 16°10 | 28°59 | 11°20 | 5° 4 | 16°49 | 2°15 | 9°12 | 0°16 | 25°14 | 16°24 | 16°13 | 22°14 | 1°21 | F 5 | | | | | | | | |
| S 6 | 13 21 34 | 22°10'50 | 29°15 | 29°14 | 12°34 | 5°47 | 16°59 | 2°22 | 9°15 | 0°17 | 25°15 | 16°25 | 16°10 | 22°20 | 1°24 | S 6 | | | | | | | | |
| S 7 | 13 25 30 | 23° 9'09 | 12♂ 7 | 29°33 | 13°48 | 6°30 | 17° 8 | 2°29 | 9°17 | 0°18 | 25°17 | 16°R25 | 16° 6 | 22°27 | 1°27 | S 7 | | | | | | | | |
| M 8 | 13 29 27 | 24° 7'26 | 24°45 | 29°57 | 15° 2 | 7°13 | 17°18 | 2°37 | 9°20 | 0°19 | 25°18 | 16°25 | 16° 3 | 22°34 | 1°30 | M 8 | | | | | | | | |
| T 9 | 13 33 24 | 25° 5'41 | 7♂11 | 0♂25 | 16°16 | 7°55 | 17°27 | 2°44 | 9°23 | 0°20 | 25°19 | 16°24 | 16° 0 | 22°40 | 1°33 | T 9 | | | | | | | | |
| W 10 | 13 37 20 | 26° 3'55 | 19°25 | 0°58 | 17°30 | 8°38 | 17°36 | 2°51 | 9°25 | 0°21 | 25°21 | 16°24 | 15°57 | 22°47 | 1°35 | W 10 | | | | | | | | |
| T 11 | 13 41 17 | 27° 2'06 | 1♂30 | 1°34 | 18°44 | 9°21 | 17°45 | 2°58 | 9°28 | 0°22 | 25°22 | 16°22 | 15°54 | 22°54 | 1°38 | T 11 | | | | | | | | |
| F 12 | 13 45 13 | 28° 0'16 | 13°28 | 2°15 | 19°58 | 10° 3 | 17°54 | 3° 5 | 9°30 | 0°23 | 25°23 | 16°21 | 15°51 | 23° 1 | 1°40 | F 12 | | | | | | | | |
| S 13 | 13 49 10 | 28°58'24 | 25°21 | 2°59 | 21°12 | 10°46 | 18° 3 | 3°13 | 9°33 | 0°25 | 25°24 | 16°19 | 15°47 | 23° 7 | 1°43 | S 13 | | | | | | | | |
| S 14 | 13 53 6 | 29°56'30 | 7♂12 | 3°46 | 22°26 | 11°28 | 18°12 | 3°20 | 9°35 | 0°26 | 25°26 | 16°17 | 15°44 | 23°14 | 1°46 | S 14 | | | | | | | | |
| M 15 | 13 57 3 | 0♂54'34 | 19° 7 | 4°37 | 23°39 | 12°11 | 18°20 | 3°27 | 9°38 | 0°27 | 25°27 | 16°16 | 15°41 | 23°21 | 1°48 | M 15 | | | | | | | | |
| T 16 | 14 0 59 | 1°52'36 | 1♂ 9 | 5°31 | 24°53 | 12°53 | 18°29 | 3°34 | 9°40 | 0°29 | 25°28 | 16°D16 | 15°38 | 23°27 | 1°50 | T 16 | | | | | | | | |
| W 17 | 14 4 56 | 2°50'36 | 13°23 | 6°29 | 26° 7 | 13°35 | 18°37 | 3°41 | 9°43 | 0°30 | 25°29 | 16°16 | 15°35 | 23°34 | 1°53 | W 17 | | | | | | | | |
| T 18 | 14 8 53 | 3°48'34 | 25°53 | 7°29 | 27°21 | 14°18 | 18°45 | 3°48 | 9°45 | 0°31 | 25°31 | 16°17 | 15°31 | 23°41 | 1°55 | T 18 | | | | | | | | |
| F 19 | 14 12 49 | 4°46'30 | 8♂43 | 8°32 | 28°35 | 15° 0 | 18°53 | 3°55 | 9°47 | 0°33 | 25°32 | 16°18 | 15°28 | 23°48 | 1°57 | F 19 | | | | | | | | |
| S 20 | 14 16 46 | 5°44'24 | 21°57 | 9°38 | 29°49 | 15°42 | 19° 1 | 4° 1 | 9°50 | 0°34 | 25°33 | 16°20 | 15°25 | 23°54 | 2° 0 | S 20 | | | | | | | | |
| S 21 | 14 20 42 | 6°42'17 | 5♂35 | 10°47 | 1♂ 2 | 16°24 | 19° 9 | 4° 8 | 9°52 | 0°35 | 25°34 | 16°21 | 15°22 | 24° 1 | 2° 2 | S 21 | | | | | | | | |
| M 22 | 14 24 39 | 7°40'08 | 19°39 | 11°59 | 2°16 | 17° 6 | 19°17 | 4°15 | 9°54 | 0°37 | 25°35 | 16°R21 | 15°19 | 24° 8 | 2° 4 | M 22 | | | | | | | | |
| T 23 | 14 28 35 | 8°37'57 | 4♎ 4 | 13°13 | 3°30 | 17°48 | 19°24 | 4°22 | 9°56 | 0°38 | 25°36 | 16°20 | 15°16 | 24°14 | 2° 6 | T 23 | | | | | | | | |
| W 24 | 14 32 32 | 9°35'45 | 18°47 | 14°29 | 4°44 | 18°30 | 19°31 | 4°28 | 9°58 | 0°40 | 25°38 | 16°18 | 15°12 | 24°21 | 2° 8 | W 24 | | | | | | | | |
| T 25 | 14 36 28 | 10°33'31 | 3♂40 | 15°48 | 5°58 | 19°12 | 19°39 | 4°35 | 10° 0 | 0°42 | 25°39 | 16°16 | 15° 9 | 24°28 | 2°10 | T 25 | | | | | | | | |
| F 26 | 14 40 25 | 11°31'16 | 18°34 | 17°10 | 7°11 | 19°54 | 19°46 | 4°42 | 10° 2 | 0°43 | 25°40 | 16°12 | 15° 6 | 24°35 | 2°12 | F 26 | | | | | | | | |
| S 27 | 14 44 21 | 12°29'00 | 3♂22 | 18°34 | 8°25 | 20°36 | 19°52 | 4°48 | 10° 4 | 0°45 | 25°41 | 16° 9 | 15° 3 | 24°41 | 2°14 | S 27 | | | | | | | | |
| S 28 | 14 48 18 | 13°26'42 | 17°58 | 20° 0 | 9°39 | 21°18 | 19°59 | 4°55 | 10° 6 | 0°46 | 25°42 | 16° 6 | 15° 0 | 24°48 | 2°16 | S 28 | | | | | | | | |
| M 29 | 14 52 15 | 14°24'24 | 2♁16 | 21°29 | 10°53 | 21°59 | 20° 6 | 5° 1 | 10° 8 | 0°48 | 25°43 | 16° 5 | 14°57 | 24°55 | 2°18 | M 29 | | | | | | | | |
| T 30 | 14 56 11 | 15♂22'04 | 16♁13 | 23♂ 0 | 12♂ 6 | 22♂41 | 20♁12 | 5♂ 8 | 10♂10 | 0♂50 | 25♂44 | 16°D 4 | 14♂53 | 25♂ 1 | 2♂19 | T 30 | | | | | | | | |

Delta T = 18m35s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1084
geocentric

MAY 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|------|-------|--------|-------|-------|-------|------|-----|
| W 1 | 15 0 8 | 16♈19'43 | 29♋50 | 24♌33 | 13♌20 | 23♌23 | 20♋19 | 5♌14 | 10♌12 | 0♌51 | 25♌45 | 16♌5 | 14♌50 | 25♌8 | 2♌21 | W 1 | |
| T 2 | 15 4 4 | 17°17'22 | 13♌8 | 26°8 | 14°34 | 24°4 | 20°25 | 5°20 | 10°14 | 0°53 | 25°46 | 16°6 | 14°47 | 25°15 | 2°23 | T 2 | |
| F 3 | 15 8 1 | 18°14'59 | 26°8 | 27°46 | 15°48 | 24°46 | 20°31 | 5°27 | 10°16 | 0°55 | 25°47 | 16°8 | 14°44 | 25°22 | 2°24 | F 3 | |
| S 4 | 15 11 57 | 19°12'35 | 8♌53 | 29°26 | 17°1 | 25°28 | 20°36 | 5°33 | 10°17 | 0°56 | 25°48 | 16°9 | 14°41 | 25°28 | 2°26 | S 4 | |
| S 5 | 15 15 54 | 20°10'10 | 21°25 | 1♌8 | 18°15 | 26°9 | 20°42 | 5°39 | 10°19 | 0°58 | 25°49 | 16°R 9 | 14°37 | 25°35 | 2°27 | S 5 | |
| M 6 | 15 19 50 | 21°7'44 | 3♌46 | 2°53 | 19°29 | 26°51 | 20°48 | 5°45 | 10°21 | 1°0 | 25°50 | 16°7 | 14°34 | 25°42 | 2°29 | M 6 | |
| T 7 | 15 23 47 | 22°5'17 | 15°58 | 4°39 | 20°43 | 27°32 | 20°53 | 5°51 | 10°22 | 1°2 | 25°51 | 16°4 | 14°31 | 25°48 | 2°30 | T 7 | |
| W 8 | 15 27 44 | 23°2'49 | 28°2 | 6°28 | 21°56 | 28°13 | 20°58 | 5°57 | 10°24 | 1°4 | 25°52 | 15°59 | 14°28 | 25°55 | 2°31 | W 8 | |
| T 9 | 15 31 40 | 24°0'20 | 10♌1 | 8°19 | 23°10 | 28°55 | 21°3 | 6°3 | 10°25 | 1°6 | 25°53 | 15°53 | 14°25 | 26°2 | 2°33 | T 9 | |
| F 10 | 15 35 37 | 24°57'49 | 21°55 | 10°13 | 24°24 | 29°36 | 21°8 | 6°9 | 10°27 | 1°7 | 25°53 | 15°46 | 14°22 | 26°9 | 2°34 | F 10 | |
| S 11 | 15 39 33 | 25°55'18 | 3♌46 | 12°8 | 25°38 | 0♌17 | 21°12 | 6°15 | 10°28 | 1°9 | 25°54 | 15°39 | 14°18 | 26°15 | 2°35 | S 11 | |
| S 12 | 15 43 30 | 26°52'45 | 15°38 | 14°6 | 26°51 | 0°58 | 21°17 | 6°21 | 10°30 | 1°11 | 25°55 | 15°32 | 14°15 | 26°22 | 2°36 | S 12 | |
| M13 | 15 47 26 | 27°50'11 | 27°32 | 16°6 | 28°5 | 1°39 | 21°21 | 6°26 | 10°31 | 1°13 | 25°56 | 15°27 | 14°12 | 26°29 | 2°37 | M13 | |
| T 14 | 15 51 23 | 28°47'35 | 9♌33 | 18°7 | 29°19 | 2°21 | 21°25 | 6°32 | 10°32 | 1°15 | 25°57 | 15°23 | 14°9 | 26°35 | 2°38 | T 14 | |
| W15 | 15 55 19 | 29°44'59 | 21°45 | 20°11 | 0♌32 | 3°2 | 21°29 | 6°37 | 10°33 | 1°17 | 25°58 | 15°21 | 14°6 | 26°42 | 2°39 | W15 | |
| T 16 | 15 59 16 | 0♌42'21 | 4♌11 | 22°16 | 1°46 | 3°43 | 21°33 | 6°43 | 10°35 | 1°19 | 25°58 | 15°D21 | 14°3 | 26°49 | 2°40 | T 16 | |
| F 17 | 16 3 13 | 1°39'42 | 16°57 | 24°23 | 3°0 | 4°24 | 21°37 | 6°48 | 10°36 | 1°21 | 25°59 | 15°21 | 13°59 | 26°56 | 2°41 | F 17 | |
| S 18 | 16 7 9 | 2°37'02 | 0♌7 | 26°31 | 4°14 | 5°4 | 21°40 | 6°54 | 10°37 | 1°23 | 26°0 | 15°23 | 13°56 | 27°2 | 2°41 | S 18 | |
| S 19 | 16 11 6 | 3°34'21 | 13°43 | 28°41 | 5°27 | 5°45 | 21°43 | 6°59 | 10°38 | 1°25 | 26°0 | 15°R23 | 13°53 | 27°9 | 2°42 | S 19 | |
| M20 | 16 15 2 | 4°31'39 | 27°47 | 0♌51 | 6°41 | 6°26 | 21°46 | 7°4 | 10°39 | 1°27 | 26°1 | 15°23 | 13°50 | 27°16 | 2°43 | M20 | |
| T 21 | 16 18 59 | 5°28'56 | 12♌18 | 3°2 | 7°55 | 7°7 | 21°49 | 7°9 | 10°40 | 1°29 | 26°2 | 15°20 | 13°47 | 27°22 | 2°43 | T 21 | |
| W22 | 16 22 55 | 6°26'12 | 27°12 | 5°14 | 9°8 | 7°48 | 21°52 | 7°15 | 10°41 | 1°31 | 26°2 | 15°16 | 13°43 | 27°29 | 2°44 | W22 | |
| T 23 | 16 26 52 | 7°23'28 | 12♌21 | 7°26 | 10°22 | 8°28 | 21°54 | 7°20 | 10°42 | 1°33 | 26°3 | 15°9 | 13°40 | 27°36 | 2°44 | T 23 | |
| F 24 | 16 30 48 | 8°20'43 | 27°35 | 9°38 | 11°36 | 9°9 | 21°57 | 7°25 | 10°42 | 1°35 | 26°4 | 15°1 | 13°37 | 27°43 | 2°45 | F 24 | |
| S 25 | 16 34 45 | 9°17'57 | 12♌44 | 11°49 | 12°49 | 9°50 | 21°59 | 7°29 | 10°43 | 1°37 | 26°4 | 14°54 | 13°34 | 27°49 | 2°45 | S 25 | |
| S 26 | 16 38 42 | 10°15'11 | 27°38 | 14°0 | 14°3 | 10°30 | 22°1 | 7°34 | 10°44 | 1°39 | 26°5 | 14°47 | 13°31 | 27°56 | 2°45 | S 26 | |
| M27 | 16 42 38 | 11°12'24 | 12♌9 | 16°10 | 15°17 | 11°11 | 22°3 | 7°39 | 10°45 | 1°41 | 26°5 | 14°42 | 13°28 | 28°3 | 2°46 | M27 | |
| T 28 | 16 46 35 | 12°9'37 | 26°15 | 18°19 | 16°30 | 11°51 | 22°4 | 7°44 | 10°45 | 1°44 | 26°6 | 14°38 | 13°24 | 28°9 | 2°46 | T 28 | |
| W29 | 16 50 31 | 13°6'50 | 9♌53 | 20°27 | 17°44 | 12°32 | 22°5 | 7°48 | 10°46 | 1°46 | 26°6 | 14°D37 | 13°21 | 28°16 | 2°46 | W29 | |
| T 30 | 16 54 28 | 14°4'03 | 23°7 | 22°33 | 18°58 | 13°12 | 22°7 | 7°53 | 10°46 | 1°48 | 26°7 | 14°38 | 13°18 | 28°23 | 2°46 | T 30 | |
| F 31 | 16 58 24 | 15♌1'15 | 5♌58 | 24♌38 | 20♌11 | 13♌53 | 22♌8 | 7°57 | 10°47 | 1°50 | 26°7 | 14°38 | 13°15 | 28°30 | 2°R46 | F 31 | |

Delta T = 18m34s Julian Calendar 1 May 1084 == Greg. Calendar 7 May 1084

JUNE 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|--------|------|--------|--------|-------|-------|-------|------|-----|
| S 1 | 17 2 21 | 15♌58'28 | 18♌32 | 26♌41 | 21♌25 | 14♌33 | 22♌8 | 8♌1 | 10♌47 | 1♌52 | 26♌8 | 14°R38 | 13♌12 | 28♌36 | 2°R46 | S 1 | |
| S 2 | 17 6 17 | 16°55'40 | 0♌52 | 28°42 | 22°39 | 15°13 | 22°9 | 8°6 | 10°48 | 1°54 | 26°8 | 14♌37 | 13°8 | 28°43 | 2♌46 | S 2 | |
| M 3 | 17 10 14 | 17°52'52 | 13°0 | 0♌41 | 23°52 | 15°53 | 22°9 | 8°10 | 10°48 | 1°56 | 26°8 | 14°34 | 13°5 | 28°50 | 2°46 | M 3 | |
| T 4 | 17 14 11 | 18°50'04 | 25°2 | 2°38 | 25°6 | 16°34 | 22°10 | 8°14 | 10°48 | 1°59 | 26°9 | 14°27 | 13°2 | 28°57 | 2°45 | T 4 | |
| W 5 | 17 18 7 | 19°47'16 | 6♌58 | 4°33 | 26°20 | 17°14 | 22°R10 | 8°18 | 10°48 | 2°1 | 26°9 | 14°19 | 12°59 | 29°3 | 2°45 | W 5 | |
| T 6 | 17 22 4 | 20°44'27 | 18°52 | 6°26 | 27°34 | 17°54 | 22°10 | 8°22 | 10°49 | 2°3 | 26°9 | 14°8 | 12°56 | 29°10 | 2°45 | T 6 | |
| F 7 | 17 26 0 | 21°41'39 | 0♌43 | 8°16 | 28°47 | 18°34 | 22°9 | 8°26 | 10°49 | 2°5 | 26°10 | 13°56 | 12°53 | 29°17 | 2°44 | F 7 | |
| S 8 | 17 29 57 | 22°38'50 | 12°35 | 10°5 | 0♌5 | 19°14 | 22°9 | 8°30 | 10°49 | 2°7 | 26°10 | 13°43 | 12°49 | 29°23 | 2°44 | S 8 | |
| S 9 | 17 33 53 | 23°36'01 | 24°29 | 11°52 | 1°15 | 19°54 | 22°8 | 8°33 | 10°R49 | 2°10 | 26°10 | 13°31 | 12°46 | 29°30 | 2°43 | S 9 | |
| M10 | 17 37 50 | 24°33'11 | 6♌26 | 13°36 | 2°28 | 20°34 | 22°7 | 8°37 | 10°49 | 2°12 | 26°11 | 13°21 | 12°43 | 29°37 | 2°43 | M10 | |
| T 11 | 17 41 47 | 25°30'22 | 18°29 | 15°18 | 3°42 | 21°14 | 22°6 | 8°40 | 10°49 | 2°14 | 26°11 | 13°13 | 12°40 | 29°44 | 2°42 | T 11 | |
| W12 | 17 45 43 | 26°27'32 | 0♌41 | 16°58 | 4°56 | 21°54 | 22°4 | 8°44 | 10°49 | 2°16 | 26°11 | 13°8 | 12°37 | 29°50 | 2°42 | W12 | |
| T 13 | 17 49 40 | 27°24'42 | 13°7 | 18°36 | 6°10 | 22°34 | 22°3 | 8°47 | 10°48 | 2°19 | 26°11 | 13°6 | 12°34 | 29°57 | 2°41 | T 13 | |
| F 14 | 17 53 36 | 28°21'51 | 25°49 | 20°12 | 7°23 | 23°14 | 22°1 | 8°50 | 10°48 | 2°21 | 26°11 | 13°D 5 | 12°30 | 0♌4 | 2°40 | F 14 | |
| S 15 | 17 57 33 | 29°19'00 | 8♌53 | 21°45 | 8°37 | 23°54 | 21°59 | 8°53 | 10°48 | 2°23 | 26°11 | 13°R 5 | 12°27 | 0°10 | 2°39 | S 15 | |
| S 16 | 18 1 29 | 0♌16'09 | 22°23 | 23°16 | 9°51 | 24°34 | 21°57 | 8°56 | 10°48 | 2°25 | 26°11 | 13°5 | 12°24 | 0°17 | 2°38 | S 16 | |
| M17 | 18 5 26 | 1°13'18 | 6♌20 | 24°46 | 11°4 | 25°13 | 21°55 | 8°59 | 10°47 | 2°27 | 26°12 | 13°3 | 12°21 | 0°24 | 2°37 | M17 | |
| T 18 | 18 9 22 | 2°10'27 | 20°45 | 26°12 | 12°18 | 25°53 | 21°52 | 9°2 | 10°47 | 2°30 | 26°12 | 12°59 | 12°18 | 0°31 | 2°36 | T 18 | |
| W19 | 18 13 19 | 3°7'36 | 5♌36 | 27°37 | 13°32 | 26°33 | 21°50 | 9°5 | 10°47 | 2°32 | 26°12 | 12°53 | 12°14 | 0°37 | 2°35 | W19 | |
| T 20 | 18 17 16 | 4°4'45 | 20°46 | 28°59 | 14°45 | 27°12 | 21°47 | 9°8 | 10°46 | 2°34 | 26°R12 | 12°44 | 12°11 | 0°44 | 2°34 | T 20 | |
| F 21 | 18 21 12 | 5°1'54 | 6♌5 | 0♌19 | 15°59 | 27°52 | 21°44 | 9°10 | 10°46 | 2°36 | 26°12 | 12°34 | 12°8 | 0°51 | 2°33 | F 21 | |
| S 22 | 18 25 9 | 5°59'03 | 21°23 | 1°37 | 17°13 | 28°32 | 21°41 | 9°13 | 10°45 | 2°39 | 26°12 | 12°24 | 12°5 | 0°57 | 2°32 | S 22 | |
| S 23 | 18 29 5 | 6°56'13 | 6♌28 | 2°52 | 18°26 | 29°11 | 21°37 | 9°15 | 10°44 | 2°41 | 26°12 | 12°14 | 12°2 | 1°4 | 2°31 | S 23 | |
| M24 | 18 33 2 | 7°53'23 | 21°10 | 4°4 | 19°40 | 29°51 | 21°34 | 9°17 | 10°44 | 2°43 | 26°11 | 12°6 | 11°59 | 1°11 | 2°29 | M24 | |
| T 25 | 18 36 58 | 8°50'34 | 5♌25 | 5°14 | 20°54 | 0♌30 | 21°30 | 9°20 | 10°43 | 2°45 | 26°11 | 12°1 | 11°55 | 1°18 | 2°28 | T 25 | |
| W26 | 18 40 55 | 9°47'45 | 19°10 | 6°22 | 22°7 | 1°10 | 21°26 | 9°22 | 10°42 | 2°48 | 26°11 | 11°58 | 11°52 | 1°24 | 2°26 | W26 | |
| T 27 | 18 44 51 | 10°44'57 | 2♌27 | 7°26 | 23°21 | 1°49 | 21°22 | 9°24 | 10°41 | 2°50 | 26°11 | 11°57 | 11°49 | 1°31 | 2°25 | T 27 | |
| F 28 | 18 48 48 | 11°42'10 | 15°19 | 8°28 | 24°35 | 2°28 | 21°18 | 9°26 | 10°41 | 2°52 | 26°11 | 11°57 | 11°46 | 1°38 | 2°23 | F 28 | |
| S 29 | 18 52 45 | 12°39'24 | 27°50 | 9°27 | 25°49 | 3°8 | 21°13 | 9°27 | 10°40 | 2°54 | 26°11 | 11°57 | 11°43 | 1°45 | 2°22 | S 29 | |
| S 30 | 18 56 41 | 13°36'38 | 10♌5 | 10♌23 | 27°52 | 3♌47 | 21♌9 | 9°29 | 10°39 | 2°56 | 26°11 | 11°55 | 11°40 | 1°51 | 2♌20 | S 30 | |

Delta T = 18m34s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1084
geocentric

JULY 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|--------|------|--------|--------|-------|------|-------|------|-----|
| M 1 | 19 0 38 | 14♄33'53 | 22♄ 8 | 11♂16 | 28♄16 | 4♄26 | 21°R 4 | 9♂31 | 10°R38 | 2♄59 | 26°R10 | 11°R51 | 11♄36 | 1♄58 | 2°R19 | M 1 | |
| T 2 | 19 4 34 | 15°31'09 | 4♄ 4 | 12° 6 | 29°30 | 5° 6 | 20♄59 | 9°32 | 10♄37 | 3° 1 | 26♄10 | 11♄44 | 11°33 | 2° 5 | 2♄17 | T 2 | |
| W 3 | 19 8 31 | 16°28'26 | 15°56 | 12°52 | 0♄43 | 5°45 | 20°54 | 9°34 | 10°36 | 3° 3 | 26°10 | 11°34 | 11°30 | 2°11 | 2°15 | W 3 | |
| T 4 | 19 12 27 | 17°25'44 | 27°47 | 13°35 | 1°57 | 6°24 | 20°49 | 9°35 | 10°34 | 3° 5 | 26° 9 | 11°22 | 11°27 | 2°18 | 2°13 | T 4 | |
| F 5 | 19 16 24 | 18°23'03 | 9♄39 | 14°14 | 3°11 | 7° 3 | 20°43 | 9°36 | 10°33 | 3° 7 | 26° 9 | 11° 9 | 11°24 | 2°25 | 2°11 | F 5 | |
| S 6 | 19 20 20 | 19°20'22 | 21°34 | 14°49 | 4°24 | 7°42 | 20°38 | 9°37 | 10°32 | 3° 9 | 26° 9 | 10°55 | 11°20 | 2°32 | 2°10 | S 6 | |
| S 7 | 19 24 17 | 20°17'42 | 3♄33 | 15°20 | 5°38 | 8°22 | 20°32 | 9°38 | 10°31 | 3°12 | 26° 8 | 10°42 | 11°17 | 2°38 | 2° 8 | S 7 | |
| M 8 | 19 28 14 | 21°15'02 | 15°37 | 15°47 | 6°52 | 9° 1 | 20°26 | 9°39 | 10°30 | 3°14 | 26° 8 | 10°31 | 11°14 | 2°45 | 2° 6 | M 8 | |
| T 9 | 19 32 10 | 22°12'24 | 27°47 | 16°10 | 8° 6 | 9°40 | 20°20 | 9°40 | 10°28 | 3°16 | 26° 8 | 10°22 | 11°11 | 2°52 | 2° 4 | T 9 | |
| W10 | 19 36 7 | 23° 9'46 | 10♄ 7 | 16°28 | 9°19 | 10°19 | 20°14 | 9°41 | 10°27 | 3°18 | 26° 7 | 10°16 | 11° 8 | 2°58 | 2° 1 | W10 | |
| T 11 | 19 40 3 | 24° 7'08 | 22°38 | 16°41 | 10°33 | 10°58 | 20° 8 | 9°41 | 10°25 | 3°20 | 26° 7 | 10°13 | 11° 5 | 3° 5 | 1°59 | T 11 | |
| F 12 | 19 44 0 | 25° 4'32 | 5♄23 | 16°49 | 11°47 | 11°37 | 20° 2 | 9°42 | 10°24 | 3°22 | 26° 6 | 10°D12 | 11° 1 | 3°12 | 1°57 | F 12 | |
| S 13 | 19 47 56 | 26° 1'56 | 18°27 | 16°R52 | 13° 0 | 12°16 | 19°55 | 9°42 | 10°23 | 3°24 | 26° 6 | 10°12 | 10°58 | 3°19 | 1°55 | S 13 | |
| S 14 | 19 51 53 | 26°59'20 | 1♄51 | 16°51 | 14°14 | 12°54 | 19°49 | 9°42 | 10°21 | 3°26 | 26° 5 | 10°R12 | 10°55 | 3°25 | 1°53 | S 14 | |
| M15 | 19 55 49 | 27°56'46 | 15°40 | 16°43 | 15°28 | 13°33 | 19°42 | 9°42 | 10°19 | 3°29 | 26° 5 | 10°11 | 10°52 | 3°32 | 1°51 | M15 | |
| T 16 | 19 59 46 | 28°54'12 | 29°54 | 16°31 | 16°41 | 14°12 | 19°35 | 9°R42 | 10°18 | 3°31 | 26° 4 | 10° 8 | 10°49 | 3°39 | 1°48 | T 16 | |
| W17 | 20 3 43 | 29°51'39 | 14♄31 | 16°13 | 17°55 | 14°51 | 19°28 | 9°42 | 10°16 | 3°33 | 26° 4 | 10° 2 | 10°46 | 3°46 | 1°46 | W17 | |
| T 18 | 20 7 39 | 0♄49'07 | 29°28 | 15°50 | 19° 9 | 15°30 | 19°21 | 9°42 | 10°15 | 3°35 | 26° 3 | 9°54 | 10°42 | 3°52 | 1°44 | T 18 | |
| F 19 | 20 11 36 | 1°46'36 | 14♄37 | 15°23 | 20°22 | 16° 8 | 19°14 | 9°42 | 10°13 | 3°37 | 26° 3 | 9°45 | 10°39 | 3°59 | 1°41 | F 19 | |
| S 20 | 20 15 32 | 2°44'05 | 29°47 | 14°50 | 21°36 | 16°47 | 19° 7 | 9°42 | 10°11 | 3°39 | 26° 2 | 9°35 | 10°36 | 4° 6 | 1°39 | S 20 | |
| S 21 | 20 19 29 | 3°41'36 | 14♄49 | 14°13 | 22°49 | 17°26 | 19° 0 | 9°41 | 10° 9 | 3°41 | 26° 1 | 9°26 | 10°33 | 4°12 | 1°36 | S 21 | |
| M22 | 20 23 25 | 4°39'08 | 29°32 | 13°32 | 24° 3 | 18° 5 | 18°52 | 9°40 | 10° 8 | 3°43 | 26° 1 | 9°19 | 10°30 | 4°19 | 1°34 | M22 | |
| T 23 | 20 27 22 | 5°36'42 | 13♄51 | 12°47 | 25°17 | 18°43 | 18°45 | 9°40 | 10° 6 | 3°45 | 26° 0 | 9°14 | 10°26 | 4°26 | 1°31 | T 23 | |
| W24 | 20 31 18 | 6°34'17 | 27°42 | 12° 0 | 26°30 | 19°22 | 18°37 | 9°39 | 10° 4 | 3°47 | 25°59 | 9°12 | 10°23 | 4°33 | 1°29 | W24 | |
| T 25 | 20 35 15 | 7°31'53 | 11♄ 4 | 11°11 | 27°44 | 20° 0 | 18°30 | 9°38 | 10° 2 | 3°49 | 25°59 | 9°D11 | 10°20 | 4°39 | 1°26 | T 25 | |
| F 26 | 20 39 12 | 8°29'31 | 23°59 | 10°20 | 28°57 | 20°39 | 18°22 | 9°37 | 10° 0 | 3°50 | 25°58 | 9°12 | 10°17 | 4°46 | 1°23 | F 26 | |
| S 27 | 20 43 8 | 9°27'11 | 6♄33 | 9°30 | 0♄11 | 21°17 | 18°15 | 9°36 | 9°58 | 3°52 | 25°57 | 9°R13 | 10°14 | 4°53 | 1°21 | S 27 | |
| S 28 | 20 47 5 | 10°24'52 | 18°49 | 8°40 | 1°25 | 21°56 | 18° 7 | 9°35 | 9°56 | 3°54 | 25°56 | 9°12 | 10°11 | 5° 0 | 1°18 | S 28 | |
| M29 | 20 51 1 | 11°22'35 | 0♄52 | 7°53 | 2°38 | 22°34 | 17°59 | 9°34 | 9°54 | 3°56 | 25°56 | 9°10 | 10° 7 | 5° 6 | 1°15 | M29 | |
| T 30 | 20 54 58 | 12°20'19 | 12°47 | 7° 8 | 3°52 | 23°13 | 17°51 | 9°32 | 9°52 | 3°58 | 25°55 | 9° 6 | 10° 4 | 5°13 | 1°13 | T 30 | |
| W31 | 20 58 54 | 13♄18'06 | 24♄38 | 6♄26 | 5♄ 5 | 23♄51 | 17♄43 | 9♄31 | 9♄50 | 4♄ 0 | 25♄54 | 8♄59 | 10♄ 1 | 5♄20 | 1♄10 | W31 | |

Delta T = 18m34s Julian Calendar 1 July 1084 == Greg. Calendar 7 July 1084

AUGUST 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|------|--------|-------|------|------|-------|------|-----|
| T 1 | 21 2 51 | 14♄15'53 | 6♄30 | 5°R50 | 6♄19 | 24♄30 | 17°R36 | 9°R29 | 9°R48 | 4♄ 2 | 25°R53 | 8°R51 | 9♄58 | 5♄26 | 1°R 7 | T 1 | |
| F 2 | 21 6 47 | 15°13'43 | 18°25 | 5♄19 | 7°32 | 25° 8 | 17♄28 | 9°R27 | 9°R46 | 4° 3 | 25°R52 | 8♄41 | 9°55 | 5°33 | 1°R 4 | F 2 | |
| S 3 | 21 10 44 | 16°11'34 | 0♄24 | 4°54 | 8°46 | 25°47 | 17°20 | 9°26 | 9°44 | 4° 5 | 25°52 | 8°31 | 9°52 | 5°40 | 1° 2 | S 3 | |
| S 4 | 21 14 41 | 17° 9'27 | 12°31 | 4°36 | 10° 0 | 26°25 | 17°12 | 9°24 | 9°42 | 4° 7 | 25°51 | 8°22 | 9°48 | 5°47 | 0°59 | S 4 | |
| M 5 | 21 18 37 | 18° 7'21 | 24°46 | 4°25 | 11°13 | 27° 3 | 17° 4 | 9°22 | 9°39 | 4° 9 | 25°50 | 8°14 | 9°45 | 5°53 | 0°56 | M 5 | |
| T 6 | 21 22 34 | 19° 5'17 | 7♄10 | 4°D22 | 12°27 | 27°41 | 16°56 | 9°20 | 9°37 | 4°10 | 25°49 | 8° 7 | 9°42 | 6° 0 | 0°53 | T 6 | |
| W 7 | 21 26 30 | 20° 3'14 | 19°43 | 4°26 | 13°40 | 28°20 | 16°48 | 9°17 | 9°35 | 4°12 | 25°48 | 8° 4 | 9°39 | 6° 7 | 0°50 | W 7 | |
| T 8 | 21 30 27 | 21° 1'13 | 2♄28 | 4°39 | 14°54 | 28°58 | 16°40 | 9°15 | 9°33 | 4°14 | 25°47 | 8°D 2 | 9°36 | 6°13 | 0°47 | T 8 | |
| F 9 | 21 34 23 | 21°59'13 | 15°26 | 5° 0 | 16° 7 | 29°36 | 16°33 | 9°13 | 9°31 | 4°15 | 25°46 | 8° 2 | 9°32 | 6°20 | 0°45 | F 9 | |
| S 10 | 21 38 20 | 22°57'14 | 28°38 | 5°30 | 17°21 | 0♄14 | 16°25 | 9°10 | 9°28 | 4°17 | 25°45 | 8° 3 | 9°29 | 6°27 | 0°42 | S 10 | |
| S 11 | 21 42 16 | 23°55'17 | 12♄ 6 | 6° 7 | 18°34 | 0°53 | 16°17 | 9° 8 | 9°26 | 4°18 | 25°44 | 8° 4 | 9°26 | 6°34 | 0°39 | S 11 | |
| M12 | 21 46 13 | 24°53'22 | 25°52 | 6°52 | 19°47 | 1°31 | 16° 9 | 9° 5 | 9°24 | 4°20 | 25°43 | 8°R 5 | 9°23 | 6°40 | 0°36 | M12 | |
| T 13 | 21 50 10 | 25°51'28 | 9♄57 | 7°45 | 21° 1 | 2° 9 | 16° 2 | 9° 2 | 9°21 | 4°22 | 25°42 | 8° 4 | 9°20 | 6°47 | 0°33 | T 13 | |
| W14 | 21 54 6 | 26°49'35 | 24°19 | 8°45 | 22°14 | 2°47 | 15°54 | 9° 0 | 9°19 | 4°23 | 25°41 | 8° 1 | 9°17 | 6°54 | 0°30 | W14 | |
| T 15 | 21 58 3 | 27°47'44 | 8♄56 | 9°51 | 23°28 | 3°25 | 15°46 | 8°57 | 9°17 | 4°25 | 25°40 | 7°57 | 9°13 | 7° 1 | 0°27 | T 15 | |
| F 16 | 22 1 59 | 28°45'54 | 23°42 | 11° 5 | 24°41 | 4° 3 | 15°39 | 8°54 | 9°14 | 4°26 | 25°39 | 7°52 | 9°10 | 7° 7 | 0°24 | F 16 | |
| S 17 | 22 5 56 | 29°44'06 | 8♄31 | 12°24 | 25°54 | 4°41 | 15°31 | 8°51 | 9°12 | 4°28 | 25°38 | 7°46 | 9° 7 | 7°14 | 0°21 | S 17 | |
| S 18 | 22 9 52 | 0♄42'20 | 23°14 | 13°49 | 27° 8 | 5°19 | 15°24 | 8°48 | 9°10 | 4°29 | 25°37 | 7°41 | 9° 4 | 7°21 | 0°18 | S 18 | |
| M19 | 22 13 49 | 1°40'35 | 7♄45 | 15°18 | 28°21 | 5°57 | 15°17 | 8°44 | 9° 7 | 4°30 | 25°36 | 7°36 | 9° 1 | 7°27 | 0°15 | M19 | |
| T 20 | 22 17 45 | 2°38'52 | 21°56 | 16°53 | 29°34 | 6°35 | 15°10 | 8°41 | 9° 5 | 4°32 | 25°35 | 7°34 | 8°57 | 7°34 | 0°13 | T 20 | |
| W21 | 22 21 42 | 3°37'11 | 5♄44 | 18°31 | 0♄48 | 7°13 | 15° 2 | 8°38 | 9° 3 | 4°33 | 25°34 | 7°D33 | 8°54 | 7°41 | 0°10 | W21 | |
| T 22 | 22 25 38 | 4°35'32 | 19° 6 | 20°12 | 2° 1 | 7°51 | 14°55 | 8°34 | 9° 0 | 4°34 | 25°33 | 7°33 | 8°51 | 7°48 | 0° 7 | T 22 | |
| F 23 | 22 29 35 | 5°33'56 | 2♄ 5 | 21°56 | 3°14 | 8°28 | 14°49 | 8°31 | 8°58 | 4°36 | 25°32 | 7°35 | 8°48 | 7°54 | 0° 4 | F 23 | |
| S 24 | 22 33 32 | 6°32'21 | 14°42 | 23°43 | 4°27 | 9° 6 | 14°42 | 8°27 | 8°55 | 4°37 | 25°31 | 7°36 | 8°45 | 8° 1 | 0° 1 | S 24 | |
| S 25 | 22 37 28 | 7°30'49 | 27° 1 | 25°31 | 5°41 | 9°44 | 14°35 | 8°23 | 8°53 | 4°38 | 25°30 | 7°38 | 8°42 | 8° 8 | 29♄58 | S 25 | |
| M26 | 22 41 25 | 8°29'19 | 9♄ 6 | 27°21 | 6°54 | 10°22 | 14°28 | 8°20 | 8°51 | 4°39 | 25°28 | 7°R38 | 8°38 | 8°14 | 29°55 | M26 | |
| T 27 | 22 45 21 | 9°27'51 | 21° 3 | 29°12 | 8° 7 | 11° 0 | 14°22 | 8°16 | 8°48 | 4°41 | 25°27 | 7°37 | 8°35 | 8°21 | 29°52 | T 27 | |
| W28 | 22 49 18 | 10°26'25 | 2♄55 | 1♄ 3 | 9°20 | 11°37 | 14°16 | 8°12 | 8°46 | 4°42 | 25°26 | 7°36 | 8°32 | 8°28 | 29°49 | W28 | |
| T 29 | 22 53 14 | 11°25'01 | 14°48 | 2°55 | 10°33 | 12°15 | 14° 9 | 8° 8 | 8°43 | 4°43 | 25°25 | 7°33 | 8°29 | 8°35 | 29°47 | T 29 | |
| F 30 | 22 57 11 | 12°23'40 | 26°46 | 4°48 | 11°46 | 12°53 | 14° 3 | 8° 4 | 8°41 | 4°44 | 25°24 | 7°29 | 8°26 | 8°41 | 29°44 | F 30 | |
| S 31 | 23 1 7 | 13♄22'21 | 8♄51 | 6♄40 | 13♄ 0 | 13♄31 | 13♄57 | 8°R 0 | 8°R39 | 4♄45 | 25°R23 | 7♄25 | 8♄23 | 8♄48 | 29♄41 | S 31 | |

Delta T = 18m34s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1084
geocentric

SEPTEMBER 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|------|--------|-------|------|--------|--------|------|-----|
| S 1 | 23 5 4 | 14♐21'04 | 21♏6 | 8♍32 | 14♌13 | 14♏8 | 13°R52 | 7°R56 | 8°R36 | 4♄46 | 25°R22 | 7°R21 | 8♌19 | 8♌55 | 29°R38 | S 1 | |
| M 2 | 23 9 1 | 15°19'49 | 3♐33 | 10°24 | 15°26 | 14°46 | 13♌46 | 7°Y52 | 8°X34 | 4°47 | 25°X20 | 7♌17 | 8°16 | 9° 2 | 29°X35 | M 2 | |
| T 3 | 23 12 57 | 16°18'36 | 16°12 | 12°15 | 16°39 | 15°23 | 13°40 | 7°47 | 8°31 | 4°48 | 25°19 | 7°15 | 8°13 | 9° 8 | 29°33 | T 3 | |
| W 4 | 23 16 54 | 17°17'25 | 29° 5 | 14° 6 | 17°52 | 16° 1 | 13°35 | 7°43 | 8°29 | 4°49 | 25°18 | 7°14 | 8°10 | 9°15 | 29°30 | W 4 | |
| T 5 | 23 20 50 | 18°16'16 | 12♌12 | 15°55 | 19° 5 | 16°39 | 13°30 | 7°39 | 8°27 | 4°50 | 25°17 | 7°D14 | 8° 7 | 9°22 | 29°27 | T 5 | |
| F 6 | 23 24 47 | 19°15'09 | 25°31 | 17°45 | 20°18 | 17°16 | 13°25 | 7°35 | 8°24 | 4°51 | 25°16 | 7°15 | 8° 3 | 9°28 | 29°24 | F 6 | |
| S 7 | 23 28 43 | 20°14'04 | 9♍ 2 | 19°33 | 21°31 | 17°54 | 13°20 | 7°30 | 8°22 | 4°51 | 25°15 | 7°16 | 8° 0 | 9°35 | 29°22 | S 7 | |
| S 8 | 23 32 40 | 21°13'01 | 22°45 | 21°21 | 22°44 | 18°31 | 13°15 | 7°26 | 8°20 | 4°52 | 25°13 | 7°17 | 7°57 | 9°42 | 29°19 | S 8 | |
| M 9 | 23 36 36 | 22°12'00 | 6♌40 | 23° 8 | 23°57 | 19° 9 | 13°11 | 7°21 | 8°17 | 4°53 | 25°12 | 7°18 | 7°54 | 9°49 | 29°16 | M 9 | |
| T 10 | 23 40 33 | 23°11'00 | 20°44 | 24°54 | 25°10 | 19°46 | 13° 6 | 7°17 | 8°15 | 4°54 | 25°11 | 7°R18 | 7°51 | 9°55 | 29°14 | T 10 | |
| W11 | 23 44 30 | 24°10'03 | 4♄57 | 26°39 | 26°23 | 20°24 | 13° 2 | 7°12 | 8°13 | 4°55 | 25°10 | 7°18 | 7°48 | 10° 2 | 29°11 | W11 | |
| T 12 | 23 48 26 | 25° 9'07 | 19°16 | 28°23 | 27°36 | 21° 1 | 12°58 | 7° 7 | 8°10 | 4°55 | 25° 9 | 7°17 | 7°44 | 10° 9 | 29° 9 | T 12 | |
| F 13 | 23 52 23 | 26° 8'12 | 3♌38 | 0♌ 6 | 28°49 | 21°38 | 12°54 | 7° 3 | 8° 8 | 4°56 | 25° 8 | 7°16 | 7°41 | 10°16 | 29° 6 | F 13 | |
| S 14 | 23 56 19 | 27° 7'20 | 17°59 | 1°49 | 0♍ 1 | 22°16 | 12°51 | 6°58 | 8° 6 | 4°56 | 25° 6 | 7°15 | 7°38 | 10°22 | 29° 4 | S 14 | |
| S 15 | 0 0 16 | 28° 6'29 | 2♌14 | 3°30 | 1°14 | 22°53 | 12°47 | 6°54 | 8° 4 | 4°57 | 25° 5 | 7°14 | 7°35 | 10°29 | 29° 1 | S 15 | |
| M16 | 0 4 12 | 29° 5'41 | 16°20 | 5°11 | 2°27 | 23°30 | 12°44 | 6°49 | 8° 2 | 4°58 | 25° 4 | 7°13 | 7°32 | 10°36 | 28°59 | M16 | |
| T 17 | 0 8 9 | 0♌45 | 0°Y11 | 6°51 | 3°40 | 24° 7 | 12°41 | 6°44 | 7°59 | 4°58 | 25° 3 | 7°13 | 7°29 | 10°42 | 28°56 | T 17 | |
| W18 | 0 12 5 | 1° 4'09 | 13°45 | 8°31 | 4°52 | 24°45 | 12°38 | 6°39 | 7°57 | 4°59 | 25° 2 | 7°D13 | 7°25 | 10°49 | 28°54 | W18 | |
| T 19 | 0 16 2 | 2° 3'27 | 27° 0 | 10° 9 | 6° 5 | 25°22 | 12°35 | 6°35 | 7°55 | 4°59 | 25° 0 | 7°13 | 7°22 | 10°56 | 28°52 | T 19 | |
| F 20 | 0 19 58 | 3° 2'47 | 9♄56 | 11°47 | 7°18 | 25°59 | 12°33 | 6°30 | 7°53 | 5° 0 | 24°59 | 7°13 | 7°19 | 11° 3 | 28°50 | F 20 | |
| S 21 | 0 23 55 | 4° 2'09 | 22°32 | 13°24 | 8°30 | 26°36 | 12°30 | 6°25 | 7°51 | 5° 0 | 24°58 | 7°14 | 7°16 | 11° 9 | 28°47 | S 21 | |
| S 22 | 0 27 52 | 5° 1'33 | 4♍53 | 15° 0 | 9°43 | 27°13 | 12°28 | 6°20 | 7°49 | 5° 0 | 24°57 | 7°14 | 7°13 | 11°16 | 28°45 | S 22 | |
| M23 | 0 31 48 | 6° 1'00 | 17° 0 | 16°36 | 10°56 | 27°51 | 12°26 | 6°16 | 7°47 | 5° 1 | 24°56 | 7°14 | 7° 9 | 11°23 | 28°43 | M23 | |
| T 24 | 0 35 45 | 7° 0'29 | 28°58 | 18°10 | 12° 8 | 28°28 | 12°25 | 6°11 | 7°45 | 5° 1 | 24°55 | 7°14 | 7° 6 | 11°29 | 28°41 | T 24 | |
| W25 | 0 39 41 | 8° 0'01 | 10♄51 | 19°45 | 13°21 | 29° 5 | 12°23 | 6° 6 | 7°43 | 5° 1 | 24°54 | 7°14 | 7° 3 | 11°36 | 28°39 | W25 | |
| T 26 | 0 43 38 | 8°59'34 | 22°44 | 21°18 | 14°33 | 29°42 | 12°22 | 6° 1 | 7°41 | 5° 1 | 24°52 | 7°14 | 7° 0 | 11°43 | 28°37 | T 26 | |
| F 27 | 0 47 34 | 9°59'10 | 4♏42 | 22°51 | 15°46 | 0♐19 | 12°21 | 5°57 | 7°39 | 5° 1 | 24°51 | 7°15 | 6°57 | 11°50 | 28°35 | F 27 | |
| S 28 | 0 51 31 | 10°58'49 | 16°49 | 24°23 | 16°58 | 0°56 | 12°20 | 5°52 | 7°37 | 5° 2 | 24°50 | 7°15 | 6°54 | 11°56 | 28°33 | S 28 | |
| S 29 | 0 55 27 | 11°58'29 | 29° 9 | 25°55 | 18°10 | 1°33 | 12°19 | 5°47 | 7°35 | 5° 2 | 24°49 | 7°15 | 6°50 | 12° 3 | 28°31 | S 29 | |
| M30 | 0 59 24 | 12°58'12 | 11♐45 | 27°26 | 19♍23 | 2♐10 | 12°18 | 5°Y42 | 7°X33 | 5♄ 2 | 24°X48 | 7♌16 | 6♌47 | 12°X10 | 28°X29 | M30 | |

Delta T = 18m33s Julian Calendar 1 Sept. 1084 == Greg. Calendar 7 Sept. 1084

OCTOBER 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|----------|-------|--------|-------|--------|-------|-------|-------|--------|-------|------|--------|--------|------|-----|
| T 1 | 1 3 21 | 13♌57'57 | 24♐38 | 28♌56 | 20♍35 | 2♐47 | 12°R18 | 5°R38 | 7°R31 | 5♄ 2 | 24°R47 | 7♌16 | 6♌44 | 12♄17 | 28°R27 | T 1 | |
| W 2 | 1 7 17 | 14°57'44 | 7♌50 | 0♍26 | 21°47 | 3°24 | 12°D18 | 5°Y33 | 7°X30 | 5°R 2 | 24°X46 | 7°R16 | 6°41 | 12°23 | 28°X25 | W 2 | |
| T 3 | 1 11 14 | 15°57'33 | 21°20 | 1°55 | 23° 0 | 4° 1 | 12°X18 | 5°28 | 7°28 | 5° 2 | 24°45 | 7°16 | 6°38 | 12°30 | 28°24 | T 3 | |
| F 4 | 1 15 10 | 16°57'25 | 5♍ 6 | 3°24 | 24°12 | 4°37 | 12°18 | 5°24 | 7°26 | 5° 2 | 24°43 | 7°16 | 6°34 | 12°37 | 28°22 | F 4 | |
| S 5 | 1 19 7 | 17°57'18 | 19° 5 | 4°52 | 25°24 | 5°14 | 12°19 | 5°19 | 7°25 | 5° 2 | 24°42 | 7°14 | 6°31 | 12°43 | 28°20 | S 5 | |
| S 6 | 1 23 3 | 18°57'13 | 3♌14 | 6°19 | 26°36 | 5°51 | 12°19 | 5°14 | 7°23 | 5° 2 | 24°41 | 7°13 | 6°28 | 12°50 | 28°19 | S 6 | |
| M 7 | 1 27 0 | 19°57'09 | 17°29 | 7°45 | 27°48 | 6°28 | 12°20 | 5°10 | 7°21 | 5° 1 | 24°40 | 7°11 | 6°25 | 12°57 | 28°17 | M 7 | |
| T 8 | 1 30 56 | 20°57'08 | 1♄46 | 9°11 | 29° 1 | 7° 5 | 12°21 | 5° 5 | 7°20 | 5° 1 | 24°39 | 7°10 | 6°22 | 13° 4 | 28°16 | T 8 | |
| W 9 | 1 34 53 | 21°57'08 | 16° 1 | 10°36 | 0♌13 | 7°41 | 12°23 | 5° 1 | 7°18 | 5° 1 | 24°38 | 7°D10 | 6°19 | 13°10 | 28°15 | W 9 | |
| T 10 | 1 38 50 | 22°57'10 | 0♌11 | 12° 1 | 1°25 | 8°18 | 12°24 | 4°56 | 7°17 | 5° 1 | 24°37 | 7°10 | 6°15 | 13°17 | 28°13 | T 10 | |
| F 11 | 1 42 46 | 23°57'13 | 14°16 | 13°24 | 2°37 | 8°55 | 12°26 | 4°52 | 7°15 | 5° 0 | 24°36 | 7°10 | 6°12 | 13°24 | 28°12 | F 11 | |
| S 12 | 1 46 43 | 24°57'18 | 28°13 | 14°47 | 3°48 | 9°31 | 12°28 | 4°48 | 7°14 | 5° 0 | 24°35 | 7°12 | 6° 9 | 13°30 | 28°11 | S 12 | |
| S 13 | 1 50 39 | 25°57'24 | 2♌ 0 | 16° 9 | 5° 0 | 10° 8 | 12°30 | 4°43 | 7°13 | 5° 0 | 24°34 | 7°13 | 6° 6 | 13°37 | 28°10 | S 13 | |
| M14 | 1 54 36 | 26°57'33 | 25°37 | 17°30 | 6°12 | 10°44 | 12°32 | 4°39 | 7°11 | 4°59 | 24°33 | 7°14 | 6° 3 | 13°44 | 28° 8 | M14 | |
| T 15 | 1 58 32 | 27°57'42 | 9°Y 3 | 18°49 | 7°24 | 11°21 | 12°35 | 4°35 | 7°10 | 4°59 | 24°32 | 7°R14 | 6° 0 | 13°51 | 28° 7 | T 15 | |
| W16 | 2 2 29 | 28°57'54 | 22°15 | 20° 8 | 8°36 | 11°57 | 12°37 | 4°31 | 7° 9 | 4°58 | 24°31 | 7°14 | 5°56 | 13°57 | 28° 6 | W16 | |
| T 17 | 2 6 25 | 29°58'07 | 5♄14 | 21°25 | 9°47 | 12°34 | 12°40 | 4°27 | 7° 8 | 4°58 | 24°30 | 7°12 | 5°53 | 14° 4 | 28° 5 | T 17 | |
| F 18 | 2 10 22 | 0♍58'23 | 17°58 | 22°41 | 10°59 | 13°10 | 12°43 | 4°23 | 7° 7 | 4°57 | 24°29 | 7° 9 | 5°50 | 14°11 | 28° 4 | F 18 | |
| S 19 | 2 14 18 | 1°58'40 | 0♍28 | 23°55 | 12°10 | 13°47 | 12°47 | 4°19 | 7° 5 | 4°57 | 24°29 | 7° 5 | 5°47 | 14°18 | 28° 4 | S 19 | |
| S 20 | 2 18 15 | 2°58'59 | 12°46 | 25° 8 | 13°22 | 14°23 | 12°50 | 4°15 | 7° 4 | 4°56 | 24°28 | 7° 0 | 5°44 | 14°24 | 28° 3 | S 20 | |
| M21 | 2 22 12 | 3°59'20 | 24°52 | 26°18 | 14°33 | 14°59 | 12°54 | 4°11 | 7° 3 | 4°56 | 24°27 | 6°56 | 5°40 | 14°31 | 28° 2 | M21 | |
| T 22 | 2 26 8 | 4°59'43 | 6♄49 | 27°27 | 15°45 | 15°36 | 12°58 | 4° 7 | 7° 2 | 4°55 | 24°26 | 6°52 | 5°37 | 14°38 | 28° 1 | T 22 | |
| W23 | 2 30 5 | 6° 0'08 | 18°42 | 28°33 | 16°56 | 16°12 | 13° 2 | 4° 4 | 7° 2 | 4°54 | 24°25 | 6°49 | 5°34 | 14°44 | 28° 1 | W23 | |
| T 24 | 2 34 1 | 7° 0'34 | 0♏34 | 29°36 | 18° 7 | 16°48 | 13° 6 | 4° 0 | 7° 1 | 4°54 | 24°24 | 6°48 | 5°31 | 14°51 | 28° 0 | T 24 | |
| F 25 | 2 37 58 | 8° 1'03 | 12°30 | 0♌36 | 19°18 | 17°24 | 13°10 | 3°57 | 7° 0 | 4°53 | 24°23 | 6°D48 | 5°28 | 14°58 | 28° 0 | F 25 | |
| S 26 | 2 41 54 | 9° 1'34 | 24°35 | 1°33 | 20°29 | 18° 1 | 13°15 | 3°53 | 6°59 | 4°52 | 24°23 | 6°49 | 5°25 | 15° 5 | 27°59 | S 26 | |
| S 27 | 2 45 51 | 10° 2'06 | 6♐54 | 2°25 | 21°40 | 18°37 | 13°20 | 3°50 | 6°58 | 4°51 | 24°22 | 6°50 | 5°21 | 15°11 | 27°59 | S 27 | |
| M28 | 2 49 47 | 11° 2'40 | 11° 2'40 | 3°13 | 22°51 | 19°13 | 13°24 | 3°47 | 6°58 | 4°51 | 24°21 | 6°52 | 5°18 | 15°18 | 27°59 | M28 | |
| T 29 | 2 53 44 | 12° 3'16 | 2♌30 | 3°56 | 24° 2 | 19°49 | 13°30 | 3°43 | 6°57 | 4°50 | 24°20 | 6°R53 | 5°15 | 15°25 | 27°58 | T 29 | |
| W30 | 2 57 41 | 13° 3'54 | 15°52 | 4°34 | 25°13 | 20°25 | 13°35 | 3°40 | 6°57 | 4°49 | 24°20 | 6°53 | 5°12 | 15°31 | 27°58 | W30 | |
| T 31 | 3 1 37 | 14° 4'33 | 29♌40 | 5♌ 5 | 26°X24 | 21♐ 1 | 13°X40 | 3°Y37 | 6°X56 | 4♄48 | 24°X19 | 6♌51 | 5♌ 9 | 15°X38 | 27°X58 | T 31 | |

Delta T = 18m33s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1084
geocentric

NOVEMBER 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|--------|-------|------|--------|--------|------|
| F 1 | 3 5 34 | 15♈ 5'14 | 13♈49 | 5♁29 | 27♁35 | 21♈37 | 13♁46 | 3°R34 | 6°R56 | 4°R47 | 24°R18 | 6°R47 | 5♁ 5 | 15♁45 | 27°R58 | F 1 |
| S 2 | 3 9 30 | 16° 5'57 | 28°17 | 5°45 | 28°45 | 22°13 | 13°52 | 3°V31 | 6°X55 | 4°S46 | 24°X18 | 6♁41 | 5° 2 | 15°52 | 27°D58 | S 2 |
| S 3 | 3 13 27 | 17° 6'41 | 12♁56 | 5°R52 | 29°56 | 22°49 | 13°58 | 3°28 | 6°55 | 4°45 | 24°17 | 6°35 | 4°59 | 15°58 | 27♁58 | S 3 |
| M 4 | 3 17 23 | 18° 7'26 | 27°39 | 5°50 | 1♁ 6 | 23°24 | 14° 4 | 3°26 | 6°54 | 4°44 | 24°16 | 6°28 | 4°56 | 16° 5 | 27°58 | M 4 |
| T 5 | 3 21 20 | 19° 8'12 | 12♁19 | 5°38 | 2°16 | 24° 0 | 14°10 | 3°23 | 6°54 | 4°43 | 24°16 | 6°23 | 4°53 | 16°12 | 27°58 | T 5 |
| W 6 | 3 25 16 | 20° 9'00 | 26°49 | 5°15 | 3°27 | 24°36 | 14°17 | 3°21 | 6°54 | 4°42 | 24°15 | 6°18 | 4°50 | 16°19 | 27°58 | W 6 |
| T 7 | 3 29 13 | 21° 9'48 | 11♁ 6 | 4°42 | 4°37 | 25°12 | 14°24 | 3°18 | 6°54 | 4°41 | 24°15 | 6°16 | 4°46 | 16°25 | 27°59 | T 7 |
| F 8 | 3 33 10 | 22°10'38 | 25° 6 | 3°58 | 5°47 | 25°47 | 14°31 | 3°16 | 6°54 | 4°39 | 24°14 | 6°D16 | 4°43 | 16°32 | 27°59 | F 8 |
| S 9 | 3 37 6 | 23°11'28 | 8♁50 | 3° 3 | 6°57 | 26°23 | 14°38 | 3°14 | 6°54 | 4°38 | 24°13 | 6°17 | 4°40 | 16°39 | 27°59 | S 9 |
| S 10 | 3 41 3 | 24°12'19 | 22°18 | 1°59 | 8° 7 | 26°59 | 14°45 | 3°12 | 6°D54 | 4°37 | 24°13 | 6°18 | 4°37 | 16°45 | 28° 0 | S 10 |
| M11 | 3 44 59 | 25°13'11 | 5°V32 | 0°46 | 9°16 | 27°34 | 14°52 | 3°10 | 6°54 | 4°36 | 24°12 | 6°R19 | 4°34 | 16°52 | 28° 0 | M11 |
| T 12 | 3 48 56 | 26°14'04 | 18°34 | 29♈28 | 10°26 | 28°10 | 15° 0 | 3° 8 | 6°54 | 4°35 | 24°12 | 6°18 | 4°31 | 16°59 | 28° 1 | T 12 |
| W13 | 3 52 52 | 27°14'58 | 1♁23 | 28° 6 | 11°35 | 28°45 | 15° 7 | 3° 6 | 6°54 | 4°33 | 24°12 | 6°15 | 4°27 | 17° 6 | 28° 2 | W13 |
| T 14 | 3 56 49 | 28°15'53 | 14° 2 | 26°43 | 12°45 | 29°20 | 15°15 | 3° 4 | 6°54 | 4°32 | 24°11 | 6° 9 | 4°24 | 17°12 | 28° 2 | T 14 |
| F 15 | 4 0 45 | 29°16'49 | 26°31 | 25°22 | 13°54 | 29°56 | 15°23 | 3° 3 | 6°54 | 4°31 | 24°11 | 6° 1 | 4°21 | 17°19 | 28° 3 | F 15 |
| S 16 | 4 4 42 | 0♁17'46 | 8♈50 | 24° 6 | 15° 3 | 0♁31 | 15°31 | 3° 1 | 6°55 | 4°29 | 24°10 | 5°51 | 4°18 | 17°26 | 28° 4 | S 16 |
| S 17 | 4 8 39 | 1°18'44 | 21° 0 | 22°57 | 16°12 | 1° 6 | 15°39 | 3° 0 | 6°55 | 4°28 | 24°10 | 5°40 | 4°15 | 17°32 | 28° 5 | S 17 |
| M18 | 4 12 35 | 2°19'43 | 3♁ 2 | 21°57 | 17°21 | 1°41 | 15°48 | 2°58 | 6°55 | 4°27 | 24°10 | 5°29 | 4°11 | 17°39 | 28° 6 | M18 |
| T 19 | 4 16 32 | 3°20'43 | 14°57 | 21° 6 | 18°29 | 2°17 | 15°56 | 2°57 | 6°56 | 4°25 | 24° 9 | 5°19 | 4° 8 | 17°46 | 28° 7 | T 19 |
| W20 | 4 20 28 | 4°21'45 | 26°49 | 20°27 | 19°38 | 2°52 | 16° 5 | 2°56 | 6°56 | 4°24 | 24° 9 | 5°10 | 4° 5 | 17°53 | 28° 8 | W20 |
| T 21 | 4 24 25 | 5°22'47 | 8♁29 | 20° 0 | 20°46 | 3°27 | 16°14 | 2°55 | 6°57 | 4°23 | 24° 9 | 5° 4 | 4° 2 | 17°59 | 28° 9 | T 21 |
| F 22 | 4 28 21 | 6°23'50 | 20°33 | 19°43 | 21°54 | 4° 2 | 16°23 | 2°54 | 6°57 | 4°21 | 24° 9 | 5° 0 | 3°59 | 18° 6 | 28°10 | F 22 |
| S 23 | 4 32 18 | 7°24'55 | 2♈34 | 19°D37 | 23° 2 | 4°37 | 16°32 | 2°54 | 6°58 | 4°20 | 24° 8 | 4°D58 | 3°56 | 18°13 | 28°11 | S 23 |
| S 24 | 4 36 14 | 8°26'00 | 14°48 | 19°42 | 24°10 | 5°12 | 16°41 | 2°53 | 6°59 | 4°18 | 24° 8 | 4°58 | 3°52 | 18°19 | 28°13 | S 24 |
| M25 | 4 40 11 | 9°27'06 | 27°20 | 19°55 | 25°18 | 5°46 | 16°50 | 2°52 | 7° 0 | 4°17 | 24° 8 | 4°59 | 3°49 | 18°26 | 28°14 | M25 |
| T 26 | 4 44 8 | 10°28'13 | 10♁15 | 20°18 | 26°25 | 6°21 | 17° 0 | 2°52 | 7° 0 | 4°15 | 24° 8 | 4°R59 | 3°46 | 18°33 | 28°15 | T 26 |
| W27 | 4 48 4 | 11°29'22 | 23°37 | 20°48 | 27°32 | 6°56 | 17° 9 | 2°52 | 7° 1 | 4°14 | 24° 8 | 4°57 | 3°43 | 18°40 | 28°17 | W27 |
| T 28 | 4 52 1 | 12°30'31 | 7♈29 | 21°25 | 28°39 | 7°31 | 17°19 | 2°52 | 7° 2 | 4°12 | 24° 8 | 4°54 | 3°40 | 18°46 | 28°18 | T 28 |
| F 29 | 4 55 57 | 13°31'40 | 21°48 | 22° 9 | 29°46 | 8° 5 | 17°29 | 2°D51 | 7° 3 | 4°10 | 24° 7 | 4°47 | 3°37 | 18°53 | 28°20 | F 29 |
| S 30 | 4 59 54 | 14°32'51 | 6♁32 | 22♈58 | 0♁53 | 8♁40 | 17°39 | 2°V51 | 7°X 4 | 4°S 9 | 24°X 7 | 4♁38 | 3♁33 | 19°S 0 | 28°22 | S 30 |

Delta T = 18m33s Julian Calendar 1 Nov. 1084 == Greg. Calendar 7 Nov. 1084

DECEMBER 1084 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|--------|-------|------|
| S 1 | 5 3 50 | 15♁34'02 | 21♁34 | 23♈51 | 1♁59 | 9♁14 | 17♁49 | 2°V52 | 7°X 5 | 4°R 7 | 24°R 7 | 4°R27 | 3♁30 | 19°S 7 | 28°23 | S 1 |
| M 2 | 5 7 47 | 16°35'13 | 6♁34 | 24°49 | 3° 6 | 9°49 | 17°59 | 2°52 | 7° 6 | 4°S 6 | 24°D 7 | 4♁16 | 3°27 | 19°13 | 28°25 | M 2 |
| T 3 | 5 11 44 | 17°36'25 | 21°49 | 25°51 | 4°12 | 10°23 | 18° 9 | 2°52 | 7° 7 | 4° 4 | 24°X 7 | 4° 6 | 3°24 | 19°20 | 28°27 | T 3 |
| W 4 | 5 15 40 | 18°37'37 | 6♁42 | 26°56 | 5°17 | 10°57 | 18°20 | 2°53 | 7° 9 | 4° 2 | 24° 7 | 3°57 | 3°21 | 19°27 | 28°29 | W 4 |
| T 5 | 5 19 37 | 19°38'49 | 21°15 | 28° 4 | 6°23 | 11°31 | 18°30 | 2°53 | 7°10 | 4° 1 | 24° 7 | 3°52 | 3°17 | 19°33 | 28°31 | T 5 |
| F 6 | 5 23 33 | 20°40'01 | 5♁15 | 29°15 | 7°28 | 12° 6 | 18°41 | 2°54 | 7°11 | 3°59 | 24° 8 | 3°49 | 3°14 | 19°40 | 28°32 | F 6 |
| S 7 | 5 27 30 | 21°41'13 | 19°10 | 0♁28 | 8°33 | 12°40 | 18°52 | 2°55 | 7°13 | 3°58 | 24° 8 | 3°D49 | 3°11 | 19°47 | 28°34 | S 7 |
| S 8 | 5 31 26 | 22°42'25 | 2°V33 | 1°43 | 9°38 | 13°14 | 19° 3 | 2°56 | 7°14 | 3°56 | 24° 8 | 3°R49 | 3° 8 | 19°54 | 28°37 | S 8 |
| M 9 | 5 35 23 | 23°43'36 | 15°36 | 2°59 | 10°42 | 13°48 | 19°14 | 2°57 | 7°15 | 3°54 | 24° 8 | 3°48 | 3° 5 | 20° 0 | 28°39 | M 9 |
| T 10 | 5 39 19 | 24°44'48 | 28°23 | 4°17 | 11°46 | 14°21 | 19°25 | 2°58 | 7°17 | 3°53 | 24° 8 | 3°46 | 3° 2 | 20° 7 | 28°41 | T 10 |
| W11 | 5 43 16 | 25°45'59 | 10♁56 | 5°37 | 12°50 | 14°55 | 19°36 | 2°59 | 7°19 | 3°51 | 24° 8 | 3°41 | 2°58 | 20°14 | 28°43 | W11 |
| T 12 | 5 47 13 | 26°47'10 | 23°18 | 6°58 | 13°53 | 15°29 | 19°48 | 3° 1 | 7°20 | 3°49 | 24° 9 | 3°33 | 2°55 | 20°20 | 28°45 | T 12 |
| F 13 | 5 51 9 | 27°48'21 | 5♈32 | 8°20 | 14°57 | 16° 2 | 19°59 | 3° 2 | 7°22 | 3°48 | 24° 9 | 3°23 | 2°52 | 20°27 | 28°48 | F 13 |
| S 14 | 5 55 6 | 28°49'32 | 17°40 | 9°43 | 15°59 | 16°36 | 20°10 | 3° 4 | 7°23 | 3°46 | 24° 9 | 3° 9 | 2°49 | 20°34 | 28°50 | S 14 |
| S 15 | 5 59 2 | 29°50'43 | 29°41 | 11° 7 | 17° 2 | 17° 9 | 20°22 | 3° 5 | 7°25 | 3°44 | 24° 9 | 2°54 | 2°46 | 20°41 | 28°52 | S 15 |
| M16 | 6 2 59 | 0♁51'54 | 11♁38 | 12°31 | 18° 4 | 17°43 | 20°34 | 3° 7 | 7°27 | 3°42 | 24°10 | 2°39 | 2°43 | 20°47 | 28°55 | M16 |
| T 17 | 6 6 55 | 1°53'05 | 23°30 | 13°57 | 19° 5 | 18°16 | 20°46 | 3° 9 | 7°29 | 3°41 | 24°10 | 2°25 | 2°39 | 20°54 | 28°57 | T 17 |
| W18 | 6 10 52 | 2°54'16 | 5♁21 | 15°23 | 20° 7 | 18°49 | 20°57 | 3°11 | 7°31 | 3°39 | 24°10 | 2°13 | 2°36 | 21° 1 | 29° 0 | W18 |
| T 19 | 6 14 48 | 3°55'26 | 17°12 | 16°50 | 21° 7 | 19°22 | 21° 9 | 3°13 | 7°33 | 3°37 | 24°11 | 2° 3 | 2°33 | 21° 7 | 29° 2 | T 19 |
| F 20 | 6 18 45 | 4°56'37 | 29° 6 | 18°18 | 22° 8 | 19°56 | 21°21 | 3°15 | 7°34 | 3°36 | 24°11 | 1°57 | 2°30 | 21°14 | 29° 5 | F 20 |
| S 21 | 6 22 42 | 5°57'47 | 11♈ 6 | 19°46 | 23° 8 | 20°28 | 21°34 | 3°18 | 7°36 | 3°34 | 24°12 | 1°53 | 2°27 | 21°21 | 29° 8 | S 21 |
| S 22 | 6 26 38 | 6°58'57 | 23°18 | 21°15 | 24° 7 | 21° 1 | 21°46 | 3°20 | 7°38 | 3°32 | 24°12 | 1°52 | 2°23 | 21°28 | 29°10 | S 22 |
| M23 | 6 30 35 | 8° 0'08 | 5♁45 | 22°44 | 25° 6 | 21°34 | 21°58 | 3°23 | 7°41 | 3°31 | 24°12 | 1°52 | 2°20 | 21°34 | 29°13 | M23 |
| T 24 | 6 34 31 | 9° 1'18 | 18°33 | 24°14 | 26° 5 | 22° 7 | 22°11 | 3°25 | 7°43 | 3°29 | 24°13 | 1°52 | 2°17 | 21°41 | 29°16 | T 24 |
| W25 | 6 38 28 | 10° 2'27 | 1♈48 | 25°45 | 27° 3 | 22°39 | 22°23 | 3°28 | 7°45 | 3°27 | 24°14 | 1°50 | 2°14 | 21°48 | 29°19 | W25 |
| T 26 | 6 42 24 | 11° 3'37 | 15°31 | 27°16 | 28° 0 | 23°12 | 22°36 | 3°31 | 7°47 | 3°25 | 24°14 | 1°46 | 2°11 | 21°54 | 29°22 | T 26 |
| F 27 | 6 46 21 | 12° 4'47 | 29°45 | 28°47 | 28°57 | 23°44 | 22°48 | 3°34 | 7°49 | 3°24 | 24°15 | 1°40 | 2° 8 | 22° 1 | 29°25 | F 27 |
| S 28 | 6 50 17 | 13° 5'56 | 14♁27 | 0♁19 | 29°54 | 24°17 | 23° 1 | 3°37 | 7°52 | 3°22 | 24°15 | 1°31 | 2° 4 | 22° 8 | 29°28 | S 28 |
| S 29 | 6 54 14 | 14° 7'05 | 29°33 | 1°52 | 0♁49 | 24°49 | 23°14 | 3°40 | 7°54 | 3°20 | 24°16 | 1°20 | 2° 1 | 22°15 | 29°31 | S 29 |
| M30 | 6 58 11 | 15° 8'13 | 14♁52 | 3°25 | 1°45 | 25°21 | 23°27 | 3°43 | 7°56 | 3°19 | 24°16 | 1° 9 | 1°58 | 22°21 | 29°34 | M30 |
| T 31 | 7 2 7 | 16♁ 9'21 | 0♁12 | 4♁59 | 2♁39 | 25♁53 | 23♁39 | 3°V47 | 7°X59 | 3°S17 | 24°X17 | 0♁58 | 1♁55 | 22°S28 | 29°37 | T 31 |

Delta T = 18m32s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1085
geocentric

JANUARY 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|-------|-------|--------|------|-------|-------|------|
| W 1 | 7 6 4 | 17♌10'27 | 15♋23 | 6♋33 | 3♋33 | 26♌25 | 23♋52 | 3♃50 | 8♋1 | 3♂R15 | 24♋18 | 0♂R49 | 1♌52 | 22♌35 | 29♋40 | W 1 |
| T 2 | 7 10 0 | 18♌11'33 | 0♋15 | 8° 8 | 4°26 | 26°56 | 24° 5 | 3°54 | 8° 4 | 3♌14 | 24°18 | 0♌43 | 1°49 | 22°41 | 29°43 | T 2 |
| F 3 | 7 13 57 | 19♌12'38 | 14°40 | 9°43 | 5°19 | 27°28 | 24°19 | 3°57 | 8° 6 | 3°12 | 24°19 | 0°40 | 1°45 | 22°48 | 29°46 | F 3 |
| S 4 | 7 17 53 | 20♌13'42 | 28°38 | 11°19 | 6°10 | 27°59 | 24°32 | 4° 1 | 8° 9 | 3°11 | 24°20 | 0°D39 | 1°42 | 22°55 | 29°49 | S 4 |
| S 5 | 7 21 50 | 21°14'44 | 12♃8 | 12°56 | 7° 1 | 28°31 | 24°45 | 4° 5 | 8°11 | 3° 9 | 24°21 | 0°39 | 1°39 | 23° 2 | 29°53 | S 5 |
| M 6 | 7 25 46 | 22°15'45 | 25°13 | 14°33 | 7°52 | 29° 2 | 24°58 | 4° 9 | 8°14 | 3° 7 | 24°21 | 0°R39 | 1°36 | 23° 8 | 29°56 | M 6 |
| T 7 | 7 29 43 | 23°16'46 | 7♌56 | 16°11 | 8°41 | 29°33 | 25°12 | 4°13 | 8°16 | 3° 6 | 24°22 | 0°38 | 1°33 | 23°15 | 29°59 | T 7 |
| W 8 | 7 33 40 | 24°17'45 | 20°23 | 17°50 | 9°29 | 0♌4 | 25°25 | 4°17 | 8°19 | 3° 4 | 24°23 | 0°35 | 1°29 | 23°22 | 0♋3 | W 8 |
| T 9 | 7 37 36 | 25°18'42 | 2♌37 | 19°29 | 10°17 | 0°35 | 25°39 | 4°21 | 8°22 | 3° 3 | 24°24 | 0°29 | 1°26 | 23°28 | 0° 6 | T 9 |
| F 10 | 7 41 33 | 26°19'39 | 14°42 | 21° 8 | 11° 3 | 1° 5 | 25°52 | 4°25 | 8°24 | 3° 1 | 24°25 | 0°21 | 1°23 | 23°35 | 0° 9 | F 10 |
| S 11 | 7 45 29 | 27°20'34 | 26°40 | 22°49 | 11°49 | 1°36 | 26° 6 | 4°30 | 8°27 | 3° 0 | 24°26 | 0°10 | 1°20 | 23°42 | 0°13 | S 11 |
| S 12 | 7 49 26 | 28°21'28 | 8♌35 | 24°30 | 12°34 | 2° 6 | 26°19 | 4°34 | 8°30 | 2°58 | 24°27 | 29♎58 | 1°17 | 23°49 | 0°16 | S 12 |
| M13 | 7 53 22 | 29°22'21 | 20°27 | 26°12 | 13°17 | 2°37 | 26°33 | 4°39 | 8°33 | 2°57 | 24°27 | 29°45 | 1°14 | 23°55 | 0°20 | M13 |
| T 14 | 7 57 19 | 0♌23'12 | 2♌19 | 27°55 | 14° 0 | 3° 7 | 26°47 | 4°43 | 8°36 | 2°55 | 24°28 | 29°33 | 1°10 | 24° 2 | 0°23 | T 14 |
| W15 | 8 1 15 | 1°24'03 | 14°12 | 29°38 | 14°41 | 3°37 | 27° 0 | 4°48 | 8°39 | 2°54 | 24°29 | 29°23 | 1° 7 | 24° 9 | 0°27 | W15 |
| T 16 | 8 5 12 | 2°24'52 | 26° 7 | 1♌22 | 15°21 | 4° 7 | 27°14 | 4°53 | 8°42 | 2°52 | 24°30 | 29°16 | 1° 4 | 24°15 | 0°30 | T 16 |
| F 17 | 8 9 9 | 3°25'40 | 8♎6 | 3° 7 | 16° 0 | 4°36 | 27°28 | 4°57 | 8°44 | 2°51 | 24°31 | 29°11 | 1° 1 | 24°22 | 0°34 | F 17 |
| S 18 | 8 13 5 | 4°26'27 | 20°12 | 4°53 | 16°37 | 5° 6 | 27°42 | 5° 2 | 8°47 | 2°49 | 24°32 | 29° 8 | 0°58 | 24°29 | 0°37 | S 18 |
| S 19 | 8 17 2 | 5°27'13 | 2♌28 | 6°39 | 17°13 | 5°35 | 27°56 | 5° 7 | 8°50 | 2°48 | 24°33 | 29°D 8 | 0°55 | 24°36 | 0°41 | S 19 |
| M20 | 8 20 58 | 6°27'57 | 14°57 | 8°26 | 17°48 | 6° 5 | 28°10 | 5°12 | 8°53 | 2°47 | 24°34 | 29° 9 | 0°51 | 24°42 | 0°45 | M20 |
| T 21 | 8 24 55 | 7°28'41 | 27°44 | 10°14 | 18°21 | 6°34 | 28°24 | 5°18 | 8°56 | 2°45 | 24°35 | 29°10 | 0°48 | 24°49 | 0°48 | T 21 |
| W22 | 8 28 51 | 8°29'23 | 10♌53 | 12° 2 | 18°53 | 7° 2 | 28°38 | 5°23 | 8°59 | 2°44 | 24°37 | 29°R10 | 0°45 | 24°56 | 0°52 | W22 |
| T 23 | 8 32 48 | 9°30'05 | 24°27 | 13°51 | 19°24 | 7°31 | 28°52 | 5°28 | 9° 3 | 2°43 | 24°38 | 29° 9 | 0°42 | 25° 2 | 0°56 | T 23 |
| F 24 | 8 36 44 | 10°30'45 | 8♌28 | 15°41 | 19°52 | 8° 0 | 29° 6 | 5°34 | 9° 6 | 2°41 | 24°39 | 29° 6 | 0°39 | 25° 9 | 1° 0 | F 24 |
| S 25 | 8 40 41 | 11°31'24 | 22°56 | 17°31 | 20°19 | 8°28 | 29°20 | 5°39 | 9° 9 | 2°40 | 24°40 | 29° 1 | 0°35 | 25°16 | 1° 3 | S 25 |
| S 26 | 8 44 38 | 12°32'02 | 7♌47 | 19°22 | 20°45 | 8°56 | 29°34 | 5°45 | 9°12 | 2°39 | 24°41 | 28°54 | 0°32 | 25°23 | 1° 7 | S 26 |
| M27 | 8 48 34 | 13°32'38 | 22°55 | 21°12 | 21° 8 | 9°24 | 29°49 | 5°50 | 9°15 | 2°38 | 24°42 | 28°47 | 0°29 | 25°29 | 1°11 | M27 |
| T 28 | 8 52 31 | 14°33'13 | 8♌10 | 23° 3 | 21°30 | 9°52 | 0♋3 | 5°56 | 9°18 | 2°37 | 24°43 | 28°40 | 0°26 | 25°36 | 1°15 | T 28 |
| W29 | 8 56 27 | 15°33'47 | 23°22 | 24°54 | 21°49 | 10°19 | 0°17 | 6° 2 | 9°22 | 2°35 | 24°44 | 28°34 | 0°23 | 25°43 | 1°18 | W29 |
| T 30 | 9 0 24 | 16°34'18 | 8♋20 | 26°45 | 22° 7 | 10°47 | 0°31 | 6° 7 | 9°25 | 2°34 | 24°46 | 28°31 | 0°20 | 25°49 | 1°22 | T 30 |
| F 31 | 9 4 20 | 17°34'48 | 22♋55 | 28°35 | 22♋23 | 11♌14 | 0♋46 | 6°V13 | 9♋28 | 2♌33 | 24♋47 | 28°D29 | 0♌16 | 25♌56 | 1♋26 | F 31 |

Delta T = 18m32s Julian Calendar 1 Jan. 1085 == Greg. Calendar 7 Jan. 1085

FEBRUARY 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|--------|-------|------|-------|-------|-------|-------|--------|-------|-------|------|------|
| S 1 | 9 8 17 | 18♌35'16 | 7♃5 | 0♋25 | 22♋36 | 11♌41 | 1♋0 | 6°V19 | 9♋31 | 2°R32 | 24♋48 | 28♎29 | 0♌13 | 26♌3 | 1♋30 | S 1 |
| S 2 | 9 12 13 | 19°35'42 | 20°45 | 2°13 | 22°48 | 12° 7 | 1°14 | 6°25 | 9°35 | 2♌31 | 24°49 | 28°30 | 0°10 | 26°10 | 1°34 | S 2 |
| M 3 | 9 16 10 | 20°36'07 | 3♌59 | 4° 0 | 22°57 | 12°34 | 1°29 | 6°31 | 9°38 | 2°30 | 24°51 | 28°32 | 0° 7 | 26°16 | 1°38 | M 3 |
| T 4 | 9 20 7 | 21°36'29 | 16°49 | 5°45 | 23° 4 | 13° 0 | 1°43 | 6°37 | 9°41 | 2°29 | 24°52 | 28°R33 | 0° 4 | 26°23 | 1°42 | T 4 |
| W 5 | 9 24 3 | 22°36'49 | 29°18 | 7°28 | 23° 8 | 13°26 | 1°57 | 6°44 | 9°44 | 2°28 | 24°53 | 28°33 | 0° 0 | 26°30 | 1°45 | W 5 |
| T 6 | 9 28 0 | 23°37'07 | 11♌32 | 9° 8 | 23°R10 | 13°52 | 2°12 | 6°50 | 9°48 | 2°27 | 24°54 | 28°31 | 29♎57 | 26°36 | 1°49 | T 6 |
| F 7 | 9 31 56 | 24°37'23 | 23°34 | 10°45 | 23°10 | 14°17 | 2°26 | 6°56 | 9°51 | 2°26 | 24°56 | 28°28 | 29°54 | 26°43 | 1°53 | F 7 |
| S 8 | 9 35 53 | 25°37'37 | 5♌29 | 12°19 | 23° 7 | 14°42 | 2°41 | 7° 3 | 9°54 | 2°25 | 24°57 | 28°23 | 29°51 | 26°50 | 1°57 | S 8 |
| S 9 | 9 39 49 | 26°37'49 | 17°20 | 13°47 | 23° 1 | 15° 7 | 2°55 | 7° 9 | 9°58 | 2°24 | 24°58 | 28°18 | 29°48 | 26°56 | 2° 1 | S 9 |
| M10 | 9 43 46 | 27°37'59 | 29°11 | 15°11 | 22°53 | 15°32 | 3°10 | 7°15 | 10° 1 | 2°24 | 25° 0 | 28°12 | 29°45 | 27° 3 | 2° 5 | M10 |
| T 11 | 9 47 42 | 28°38'08 | 11♌4 | 16°29 | 22°43 | 15°56 | 3°24 | 7°22 | 10° 5 | 2°23 | 25° 1 | 28° 6 | 29°41 | 27°10 | 2° 9 | T 11 |
| W12 | 9 51 39 | 29°38'14 | 23° 1 | 17°41 | 22°30 | 16°21 | 3°39 | 7°29 | 10° 8 | 2°22 | 25° 2 | 28° 2 | 29°38 | 27°17 | 2°13 | W12 |
| T 13 | 9 55 36 | 0♋38'18 | 5♎3 | 18°47 | 22°14 | 16°45 | 3°53 | 7°35 | 10°11 | 2°21 | 25° 4 | 27°58 | 29°35 | 27°23 | 2°17 | T 13 |
| F 14 | 9 59 32 | 1°38'20 | 17°13 | 19°45 | 21°56 | 17° 8 | 4° 8 | 7°42 | 10°15 | 2°21 | 25° 5 | 27°56 | 29°32 | 27°30 | 2°21 | F 14 |
| S 15 | 10 3 29 | 2°38'20 | 29°32 | 20°35 | 21°36 | 17°32 | 4°22 | 7°49 | 10°18 | 2°20 | 25° 6 | 27°D56 | 29°29 | 27°37 | 2°24 | S 15 |
| S 16 | 10 7 25 | 3°38'19 | 12♌1 | 21°17 | 21°13 | 17°55 | 4°37 | 7°55 | 10°22 | 2°19 | 25° 8 | 27°57 | 29°26 | 27°43 | 2°28 | S 16 |
| M17 | 10 11 22 | 4°38'15 | 24°43 | 21°51 | 20°48 | 18°17 | 4°51 | 8° 2 | 10°25 | 2°19 | 25° 9 | 27°58 | 29°22 | 27°50 | 2°32 | M17 |
| T 18 | 10 15 18 | 5°38'10 | 7♌40 | 22°16 | 20°21 | 18°40 | 5° 6 | 8° 9 | 10°28 | 2°18 | 25°11 | 28° 0 | 29°19 | 27°57 | 2°36 | T 18 |
| W19 | 10 19 15 | 6°38'04 | 20°53 | 22°32 | 19°52 | 19° 2 | 5°20 | 8°16 | 10°32 | 2°17 | 25°12 | 28° 1 | 29°16 | 28° 4 | 2°40 | W19 |
| T 20 | 10 23 11 | 7°37'55 | 4♌25 | 22°R39 | 19°21 | 19°24 | 5°35 | 8°23 | 10°35 | 2°17 | 25°13 | 28°R 2 | 29°13 | 28°10 | 2°44 | T 20 |
| F 21 | 10 27 8 | 8°37'45 | 18°18 | 22°38 | 18°49 | 19°45 | 5°49 | 8°30 | 10°39 | 2°16 | 25°15 | 28° 1 | 29°10 | 28°17 | 2°48 | F 21 |
| S 22 | 10 31 5 | 9°37'34 | 2♌31 | 22°28 | 18°15 | 20° 6 | 6° 4 | 8°37 | 10°42 | 2°16 | 25°16 | 28° 0 | 29° 6 | 28°24 | 2°52 | S 22 |
| S 23 | 10 35 1 | 10°37'20 | 17° 2 | 22°10 | 17°40 | 20°27 | 6°18 | 8°44 | 10°46 | 2°16 | 25°18 | 27°59 | 29° 3 | 28°30 | 2°56 | S 23 |
| M24 | 10 38 58 | 11°37'05 | 1♌46 | 21°45 | 17° 4 | 20°47 | 6°32 | 8°51 | 10°49 | 2°15 | 25°19 | 27°56 | 29° 0 | 28°37 | 3° 0 | M24 |
| T 25 | 10 42 54 | 12°36'48 | 16°39 | 21°12 | 16°27 | 21° 7 | 6°47 | 8°58 | 10°52 | 2°15 | 25°20 | 27°54 | 28°57 | 28°44 | 3° 4 | T 25 |
| W26 | 10 46 51 | 13°36'29 | 1♋32 | 20°33 | 15°49 | 21°27 | 7° 1 | 9° 5 | 10°56 | 2°14 | 25°22 | 27°53 | 28°54 | 28°50 | 3° 7 | W26 |
| T 27 | 10 50 47 | 14°36'08 | 16°18 | 19°49 | 15°11 | 21°46 | 7°16 | 9°12 | 10°59 | 2°14 | 25°23 | 27°52 | 28°51 | 28°57 | 3°11 | T 27 |
| F 28 | 10 54 44 | 15°35'45 | 0♃48 | 19♋1 | 14♋34 | 22♌5 | 7♋30 | 9°V20 | 11♋3 | 2♌14 | 25♋25 | 27°D52 | 28♎47 | 29♌4 | 3♋15 | F 28 |

Delta T = 18m32s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1085
geocentric

MARCH 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | Day |
|------|----------|----------|-------|--------|--------|-------|-------|--------|-------|-------|-------|--------|-------|-------|------|------|---|---|---|-----|
| S 1 | 10 58 40 | 16°35'19 | 14°58 | 18°R10 | 13°R56 | 22♈23 | 7♄45 | 9♃27 | 11♃6 | 2°R14 | 25♃26 | 27♈52 | 28♈44 | 29♃11 | 3♃19 | S 1 | | | | |
| S 2 | 11 2 37 | 17°34'52 | 28°43 | 17♃16 | 13♃19 | 22°41 | 7°59 | 9°34 | 11°10 | 2♃13 | 25°28 | 27°53 | 28°41 | 29°17 | 3°23 | S 2 | | | | |
| M 3 | 11 6 33 | 18°34'22 | 12♃3 | 16°22 | 12°43 | 22°58 | 8°13 | 9°41 | 11°13 | 2°13 | 25°29 | 27°54 | 28°38 | 29°24 | 3°27 | M 3 | | | | |
| T 4 | 11 10 30 | 19°33'50 | 25°0 | 15°29 | 12°7 | 23°16 | 8°28 | 9°49 | 11°16 | 2°13 | 25°31 | 27°55 | 28°35 | 29°31 | 3°30 | T 4 | | | | |
| W 5 | 11 14 27 | 20°33'16 | 7♁34 | 14°36 | 11°33 | 23°32 | 8°42 | 9°56 | 11°20 | 2°13 | 25°32 | 27°55 | 28°32 | 29°37 | 3°34 | W 5 | | | | |
| T 6 | 11 18 23 | 21°32'39 | 19°52 | 13°46 | 11°0 | 23°48 | 8°57 | 10°3 | 11°23 | 2°13 | 25°34 | 27°R55 | 28°28 | 29°44 | 3°38 | T 6 | | | | |
| F 7 | 11 22 20 | 22°32'00 | 1♃56 | 13°0 | 10°28 | 24°4 | 9°11 | 10°11 | 11°27 | 2°D13 | 25°35 | 27°55 | 28°25 | 29°51 | 3°42 | F 7 | | | | |
| S 8 | 11 26 16 | 23°31'19 | 13°51 | 12°17 | 9°59 | 24°19 | 9°25 | 10°18 | 11°30 | 2°13 | 25°37 | 27°55 | 28°22 | 29°58 | 3°45 | S 8 | | | | |
| S 9 | 11 30 13 | 24°30'35 | 25°43 | 11°39 | 9°31 | 24°34 | 9°39 | 10°26 | 11°33 | 2°13 | 25°38 | 27°55 | 28°19 | 0♈4 | 3°49 | S 9 | | | | |
| M10 | 11 34 9 | 25°29'49 | 7♁34 | 11°5 | 9°5 | 24°48 | 9°54 | 10°33 | 11°37 | 2°13 | 25°40 | 27°54 | 28°16 | 0°11 | 3°53 | M10 | | | | |
| T 11 | 11 38 6 | 26°29'00 | 19°29 | 10°37 | 8°41 | 25°2 | 10°8 | 10°41 | 11°40 | 2°13 | 25°41 | 27°54 | 28°12 | 0°18 | 3°57 | T 11 | | | | |
| W12 | 11 42 2 | 27°28'10 | 1♈31 | 10°15 | 8°20 | 25°16 | 10°22 | 10°48 | 11°44 | 2°13 | 25°42 | 27°D54 | 28°9 | 0°24 | 4°0 | W12 | | | | |
| T 13 | 11 45 59 | 28°27'17 | 13°43 | 9°58 | 8°1 | 25°28 | 10°36 | 10°56 | 11°47 | 2°14 | 25°44 | 27°54 | 28°6 | 0°31 | 4°4 | T 13 | | | | |
| F 14 | 11 49 56 | 29°26'22 | 26°5 | 9°47 | 7°44 | 25°40 | 10°50 | 11°3 | 11°50 | 2°14 | 25°45 | 27°R54 | 28°3 | 0°38 | 4°8 | F 14 | | | | |
| S 15 | 11 53 52 | 0°Y25'25 | 8♁41 | 9°D42 | 7°30 | 25°52 | 11°4 | 11°11 | 11°53 | 2°14 | 25°47 | 27°54 | 28°0 | 0°44 | 4°11 | S 15 | | | | |
| S 16 | 11 57 49 | 1°24'25 | 21°30 | 9°42 | 7°18 | 26°3 | 11°18 | 11°19 | 11°57 | 2°14 | 25°48 | 27°54 | 27°57 | 0°51 | 4°15 | S 16 | | | | |
| M17 | 12 1 45 | 2°23'24 | 4♈33 | 9°48 | 7°9 | 26°14 | 11°32 | 11°26 | 12°0 | 2°15 | 25°50 | 27°53 | 27°53 | 0°58 | 4°18 | M17 | | | | |
| T 18 | 12 5 42 | 3°22'21 | 17°50 | 9°59 | 7°2 | 26°24 | 11°46 | 11°34 | 12°3 | 2°15 | 25°51 | 27°53 | 27°50 | 1°5 | 4°22 | T 18 | | | | |
| W19 | 12 9 38 | 4°21'16 | 1♃20 | 10°14 | 6°57 | 26°33 | 12°0 | 11°41 | 12°7 | 2°15 | 25°53 | 27°52 | 27°47 | 1°11 | 4°25 | W19 | | | | |
| T 20 | 12 13 35 | 5°20'10 | 15°3 | 10°35 | 6°D55 | 26°42 | 12°14 | 11°49 | 12°10 | 2°16 | 25°54 | 27°51 | 27°44 | 1°18 | 4°29 | T 20 | | | | |
| F 21 | 12 17 31 | 6°19'01 | 28°58 | 11°1 | 6°56 | 26°50 | 12°28 | 11°57 | 12°13 | 2°16 | 25°56 | 27°51 | 27°41 | 1°25 | 4°32 | F 21 | | | | |
| S 22 | 12 21 28 | 7°17'51 | 13♃5 | 11°31 | 6°59 | 26°58 | 12°42 | 12°4 | 12°16 | 2°17 | 25°57 | 27°D51 | 27°37 | 1°31 | 4°36 | S 22 | | | | |
| S 23 | 12 25 24 | 8°16'39 | 27°21 | 12°5 | 7°4 | 27°5 | 12°56 | 12°12 | 12°19 | 2°17 | 25°59 | 27°51 | 27°34 | 1°38 | 4°39 | S 23 | | | | |
| M24 | 12 29 21 | 9°15'26 | 11♃43 | 12°43 | 7°11 | 27°11 | 13°9 | 12°20 | 12°23 | 2°18 | 26°0 | 27°52 | 27°31 | 1°45 | 4°43 | M24 | | | | |
| T 25 | 12 33 18 | 10°14'10 | 26°9 | 13°24 | 7°21 | 27°16 | 13°23 | 12°27 | 12°26 | 2°18 | 26°1 | 27°53 | 27°28 | 1°51 | 4°46 | T 25 | | | | |
| W26 | 12 37 14 | 11°12'53 | 10♃35 | 14°10 | 7°33 | 27°21 | 13°37 | 12°35 | 12°29 | 2°19 | 26°3 | 27°54 | 27°25 | 1°58 | 4°49 | W26 | | | | |
| T 27 | 12 41 11 | 12°11'34 | 24°55 | 14°59 | 7°47 | 27°25 | 13°50 | 12°43 | 12°32 | 2°20 | 26°4 | 27°R54 | 27°22 | 2°5 | 4°53 | T 27 | | | | |
| F 28 | 12 45 7 | 13°10'13 | 9♃5 | 15°51 | 8°2 | 27°29 | 14°4 | 12°50 | 12°35 | 2°20 | 26°6 | 27°54 | 27°18 | 2°12 | 4°56 | F 28 | | | | |
| S 29 | 12 49 4 | 14°8'50 | 23°1 | 16°46 | 8°20 | 27°32 | 14°18 | 12°58 | 12°38 | 2°21 | 26°7 | 27°53 | 27°15 | 2°18 | 4°59 | S 29 | | | | |
| S 30 | 12 53 0 | 15°7'25 | 6♃38 | 17°45 | 8°40 | 27°34 | 14°31 | 13°6 | 12°41 | 2°22 | 26°9 | 27°51 | 27°12 | 2°25 | 5°2 | S 30 | | | | |
| M31 | 12 56 57 | 16°Y5'58 | 19♃55 | 18♃46 | 9♃1 | 27♈35 | 14♃44 | 13°Y13 | 12♃44 | 2°22 | 26°10 | 27♈49 | 27♈9 | 2♈32 | 5♃5 | M31 | | | | |

Delta T = 18m32s Julian Calendar 1 March 1085 == Greg. Calendar 7 March 1085

APRIL 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|-------|-------|-------|--------|-------|------|------|------|---|---|---|-----|
| T 1 | 13 0 53 | 17°Y4'29 | 2♈52 | 19♃50 | 9♃25 | 27°R36 | 14♃58 | 13°Y21 | 12♃47 | 2°223 | 26♃11 | 27°R46 | 27♈6 | 2♈38 | 5♃9 | T 1 | | | | |
| W 2 | 13 4 50 | 18°2'58 | 15°29 | 20°56 | 9°50 | 27♈35 | 15°11 | 13°28 | 12°50 | 2°24 | 26°13 | 27♈43 | 27°3 | 2°45 | 5°12 | W 2 | | | | |
| T 3 | 13 8 47 | 19°1'25 | 27°49 | 22°5 | 10°16 | 27°35 | 15°24 | 13°36 | 12°53 | 2°25 | 26°14 | 27°41 | 26°59 | 2°52 | 5°15 | T 3 | | | | |
| F 4 | 13 12 43 | 19°59'50 | 9♃55 | 23°17 | 10°44 | 27°33 | 15°38 | 13°44 | 12°56 | 2°26 | 26°15 | 27°40 | 26°56 | 2°58 | 5°18 | F 4 | | | | |
| S 5 | 13 16 40 | 20°58'12 | 21°51 | 24°31 | 11°14 | 27°31 | 15°51 | 13°51 | 12°59 | 2°27 | 26°17 | 27°D39 | 26°53 | 3°5 | 5°21 | S 5 | | | | |
| S 6 | 13 20 36 | 21°56'32 | 3♈43 | 25°47 | 11°45 | 27°28 | 16°4 | 13°59 | 13°2 | 2°28 | 26°18 | 27°40 | 26°50 | 3°12 | 5°24 | S 6 | | | | |
| M 7 | 13 24 33 | 22°54'50 | 15°35 | 27°5 | 12°17 | 27°24 | 16°17 | 14°7 | 13°4 | 2°29 | 26°20 | 27°41 | 26°47 | 3°18 | 5°27 | M 7 | | | | |
| T 8 | 13 28 29 | 23°53'06 | 27°32 | 28°25 | 12°51 | 27°19 | 16°30 | 14°14 | 13°7 | 2°30 | 26°21 | 27°43 | 26°43 | 3°25 | 5°29 | T 8 | | | | |
| W 9 | 13 32 26 | 24°51'20 | 9♈38 | 29°48 | 13°26 | 27°14 | 16°43 | 14°22 | 13°10 | 2°31 | 26°22 | 27°44 | 26°40 | 3°32 | 5°32 | W 9 | | | | |
| T 10 | 13 36 22 | 25°49'32 | 21°56 | 1°Y13 | 14°3 | 27°8 | 16°56 | 14°29 | 13°13 | 2°32 | 26°24 | 27°R45 | 26°37 | 3°39 | 5°35 | T 10 | | | | |
| F 11 | 13 40 19 | 26°47'42 | 4♁31 | 2°39 | 14°40 | 27°1 | 17°8 | 14°37 | 13°16 | 2°33 | 26°25 | 27°45 | 26°34 | 3°45 | 5°38 | F 11 | | | | |
| S 12 | 13 44 16 | 27°45'50 | 17°23 | 4°8 | 15°19 | 26°53 | 17°21 | 14°44 | 13°18 | 2°34 | 26°26 | 27°44 | 26°31 | 3°52 | 5°41 | S 12 | | | | |
| S 13 | 13 48 12 | 28°43'57 | 0♈33 | 5°39 | 15°59 | 26°45 | 17°34 | 14°52 | 13°21 | 2°35 | 26°27 | 27°41 | 26°28 | 3°59 | 5°43 | S 13 | | | | |
| M14 | 13 52 9 | 29°42'01 | 14°1 | 7°11 | 16°40 | 26°36 | 17°46 | 15°0 | 13°23 | 2°36 | 26°29 | 27°37 | 26°24 | 4°5 | 5°46 | M14 | | | | |
| T 15 | 13 56 5 | 0♃40'04 | 27°44 | 8°46 | 17°22 | 26°26 | 17°59 | 15°7 | 13°26 | 2°38 | 26°30 | 27°32 | 26°21 | 4°12 | 5°49 | T 15 | | | | |
| W16 | 14 0 2 | 1°38'06 | 11♃40 | 10°23 | 18°5 | 26°15 | 18°11 | 15°14 | 13°29 | 2°39 | 26°31 | 27°27 | 26°18 | 4°19 | 5°51 | W16 | | | | |
| T 17 | 14 3 58 | 2°36'06 | 25°44 | 12°1 | 18°49 | 26°4 | 18°23 | 15°22 | 13°31 | 2°40 | 26°32 | 27°22 | 26°15 | 4°25 | 5°54 | T 17 | | | | |
| F 18 | 14 7 55 | 3°34'05 | 9♃54 | 13°42 | 19°34 | 25°52 | 18°36 | 15°29 | 13°34 | 2°41 | 26°34 | 27°19 | 26°12 | 4°32 | 5°56 | F 18 | | | | |
| S 19 | 14 11 51 | 4°32'02 | 24°6 | 15°24 | 20°20 | 25°39 | 18°48 | 15°37 | 13°36 | 2°43 | 26°35 | 27°17 | 26°8 | 4°39 | 5°59 | S 19 | | | | |
| S 20 | 14 15 48 | 5°29'58 | 8♃18 | 17°8 | 21°6 | 25°26 | 19°0 | 15°44 | 13°39 | 2°44 | 26°36 | 27°D16 | 26°5 | 4°45 | 6°1 | S 20 | | | | |
| M21 | 14 19 45 | 6°27'53 | 22°27 | 18°55 | 21°53 | 25°11 | 19°12 | 15°51 | 13°41 | 2°46 | 26°37 | 27°17 | 26°2 | 4°52 | 6°3 | M21 | | | | |
| T 22 | 14 23 41 | 7°25'46 | 6♃33 | 20°43 | 22°42 | 24°57 | 19°24 | 15°59 | 13°43 | 2°47 | 26°38 | 27°18 | 25°59 | 4°59 | 6°6 | T 22 | | | | |
| W23 | 14 27 38 | 8°23'38 | 20°33 | 22°33 | 23°31 | 24°41 | 19°36 | 16°6 | 13°46 | 2°48 | 26°40 | 27°R19 | 25°56 | 5°6 | 6°8 | W23 | | | | |
| T 24 | 14 31 34 | 9°21'29 | 4°Y26 | 24°25 | 24°20 | 24°25 | 19°48 | 16°13 | 13°48 | 2°50 | 26°41 | 27°19 | 25°53 | 5°12 | 6°10 | T 24 | | | | |
| F 25 | 14 35 31 | 10°19'18 | 18°10 | 26°19 | 25°11 | 24°9 | 19°59 | 16°21 | 13°50 | 2°51 | 26°42 | 27°18 | 25°49 | 5°19 | 6°12 | F 25 | | | | |
| S 26 | 14 39 27 | 11°17'06 | 1♃43 | 28°15 | 26°1 | 23°52 | 20°11 | 16°28 | 13°52 | 2°53 | 26°43 | 27°14 | 25°46 | 5°26 | 6°14 | S 26 | | | | |
| S 27 | 14 43 24 | 12°14'53 | 15°2 | 0♃13 | 26°53 | 23°34 | 20°23 | 16°35 | 13°55 | 2°54 | 26°44 | 27°8 | 25°43 | 5°32 | 6°16 | S 27 | | | | |
| M28 | 14 47 20 | 13°12'38 | 28°6 | 2°13 | 27°45 | 23°16 | 20°34 | 16°42 | 13°57 | 2°56 | 26°45 | 27°0 | 25°40 | 5°39 | 6°18 | M28 | | | | |
| T 29 | 14 51 17 | 14°10'22 | 10♈54 | 4°14 | 28°38 | 22°57 | 20°45 | 16°49 | 13°59 | 2°58 | 26°46 | 26°52 | 25°37 | 5°46 | 6°20 | T 29 | | | | |
| W30 | 14 55 13 | 15°8'05 | 23♈27 | 6♃18 | 29♃31 | 22♈38 | 20♃57 | 16°Y56 | 14♃1 | 2°59 | 26°47 | 26♈44 | 25♈34 | 5♈52 | 6♃22 | W30 | | | | |

Delta T = 18m31s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1085
geocentric

MAY 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|-------|------|-------|--------|-------|------|------|------|---|---|---|---|---|---|---|-----|
| T 1 | 14 59 10 | 16♈ 5'46 | 5♄44 | 8♃23 | 0♃25 | 22°R19 | 21♁ 8 | 17♃ 4 | 14♃ 3 | 3♄ 1 | 26♁48 | 26°R36 | 25♁30 | 5♄59 | 6♁24 | T 1 | | | | | | | | |
| F 2 | 15 3 7 | 17° 3'25 | 17°49 | 10°29 | 1°20 | 22♁ 0 | 21°19 | 17°11 | 14° 5 | 3° 2 | 26°49 | 26°R31 | 25°27 | 6° 6 | 6°26 | F 2 | | | | | | | | |
| S 3 | 15 7 3 | 18° 1'03 | 29°45 | 12°37 | 2°15 | 21°40 | 21°30 | 17°18 | 14° 7 | 3° 4 | 26°50 | 26°27 | 25°24 | 6°12 | 6°28 | S 3 | | | | | | | | |
| S 4 | 15 11 0 | 18°58'39 | 11♄36 | 14°46 | 3°10 | 21°20 | 21°41 | 17°24 | 14° 9 | 3° 6 | 26°51 | 26°25 | 25°21 | 6°19 | 6°30 | S 4 | | | | | | | | |
| M 5 | 15 14 56 | 19°56'14 | 23°28 | 16°56 | 4° 6 | 20°59 | 21°51 | 17°31 | 14°11 | 3° 8 | 26°52 | 26°D25 | 25°18 | 6°26 | 6°31 | M 5 | | | | | | | | |
| T 6 | 15 18 53 | 20°53'47 | 5♁24 | 19° 7 | 5° 2 | 20°39 | 22° 2 | 17°38 | 14°12 | 3° 9 | 26°53 | 26°25 | 25°14 | 6°33 | 6°33 | T 6 | | | | | | | | |
| W 7 | 15 22 49 | 21°51'19 | 17°31 | 21°18 | 5°59 | 20°18 | 22°13 | 17°45 | 14°14 | 3°11 | 26°54 | 26°26 | 25°11 | 6°39 | 6°34 | W 7 | | | | | | | | |
| T 8 | 15 26 46 | 22°48'49 | 29°53 | 23°30 | 6°56 | 19°57 | 22°23 | 17°52 | 14°16 | 3°13 | 26°55 | 26°R27 | 25° 8 | 6°46 | 6°36 | T 8 | | | | | | | | |
| F 9 | 15 30 42 | 23°46'18 | 12♁34 | 25°42 | 7°54 | 19°37 | 22°33 | 17°59 | 14°18 | 3°15 | 26°56 | 26°25 | 25° 5 | 6°53 | 6°37 | F 9 | | | | | | | | |
| S 10 | 15 34 39 | 24°43'46 | 25°38 | 27°53 | 8°52 | 19°16 | 22°44 | 18° 5 | 14°19 | 3°16 | 26°57 | 26°22 | 25° 2 | 6°59 | 6°39 | S 10 | | | | | | | | |
| S 11 | 15 38 36 | 25°41'12 | 9♁ 5 | 0♁ 4 | 9°51 | 18°56 | 22°54 | 18°12 | 14°21 | 3°18 | 26°58 | 26°16 | 24°59 | 7° 6 | 6°40 | S 11 | | | | | | | | |
| M12 | 15 42 32 | 26°38'38 | 22°54 | 2°15 | 10°49 | 18°35 | 23° 4 | 18°18 | 14°22 | 3°20 | 26°59 | 26° 8 | 24°55 | 7°13 | 6°41 | M12 | | | | | | | | |
| T 13 | 15 46 29 | 27°36'02 | 7♁ 3 | 4°24 | 11°49 | 18°15 | 23°14 | 18°25 | 14°24 | 3°22 | 27° 0 | 25°59 | 24°52 | 7°19 | 6°43 | T 13 | | | | | | | | |
| W14 | 15 50 25 | 28°33'26 | 21°26 | 6°32 | 12°48 | 17°55 | 23°23 | 18°31 | 14°25 | 3°24 | 27° 0 | 25°50 | 24°49 | 7°26 | 6°44 | W14 | | | | | | | | |
| T 15 | 15 54 22 | 29°30'49 | 5♃57 | 8°39 | 13°48 | 17°35 | 23°33 | 18°38 | 14°27 | 3°26 | 27° 1 | 25°41 | 24°46 | 7°33 | 6°45 | T 15 | | | | | | | | |
| F 16 | 15 58 18 | 0♁28'11 | 20°29 | 10°44 | 14°48 | 17°16 | 23°43 | 18°44 | 14°28 | 3°28 | 27° 2 | 25°34 | 24°43 | 7°39 | 6°46 | F 16 | | | | | | | | |
| S 17 | 16 2 15 | 1°25'32 | 4♁57 | 12°47 | 15°49 | 16°56 | 23°52 | 18°51 | 14°30 | 3°30 | 27° 3 | 25°29 | 24°40 | 7°46 | 6°47 | S 17 | | | | | | | | |
| S 18 | 16 6 11 | 2°22'53 | 19°16 | 14°48 | 16°49 | 16°38 | 24° 1 | 18°57 | 14°31 | 3°32 | 27° 3 | 25°26 | 24°36 | 7°53 | 6°48 | S 18 | | | | | | | | |
| M19 | 16 10 8 | 3°20'13 | 3♁25 | 16°47 | 17°51 | 16°19 | 24°11 | 19° 3 | 14°32 | 3°34 | 27° 4 | 25°D26 | 24°33 | 8° 0 | 6°49 | M19 | | | | | | | | |
| T 20 | 16 14 5 | 4°17'32 | 17°20 | 18°44 | 18°52 | 16° 1 | 24°20 | 19° 9 | 14°33 | 3°36 | 27° 5 | 25°26 | 24°30 | 8° 6 | 6°50 | T 20 | | | | | | | | |
| W21 | 16 18 1 | 5°14'51 | 1♃ 4 | 20°38 | 19°54 | 15°44 | 24°29 | 19°16 | 14°34 | 3°38 | 27° 6 | 25°R26 | 24°27 | 8°13 | 6°51 | W21 | | | | | | | | |
| T 22 | 16 21 58 | 6°12'10 | 14°36 | 22°31 | 20°56 | 15°27 | 24°37 | 19°22 | 14°36 | 3°40 | 27° 6 | 25°24 | 24°24 | 8°20 | 6°52 | T 22 | | | | | | | | |
| F 23 | 16 25 54 | 7° 9'28 | 27°57 | 24°20 | 21°58 | 15°10 | 24°46 | 19°28 | 14°37 | 3°42 | 27° 7 | 25°21 | 24°20 | 8°26 | 6°52 | F 23 | | | | | | | | |
| S 24 | 16 29 51 | 8° 6'46 | 11♃ 6 | 26° 8 | 23° 0 | 14°54 | 24°55 | 19°34 | 14°38 | 3°44 | 27° 7 | 25°14 | 24°17 | 8°33 | 6°53 | S 24 | | | | | | | | |
| S 25 | 16 33 47 | 9° 4'03 | 24° 4 | 27°53 | 24° 3 | 14°39 | 25° 3 | 19°40 | 14°39 | 3°46 | 27° 8 | 25° 5 | 24°14 | 8°40 | 6°54 | S 25 | | | | | | | | |
| M26 | 16 37 44 | 10° 1'20 | 6♁51 | 29°35 | 25° 6 | 14°25 | 25°11 | 19°45 | 14°40 | 3°48 | 27° 9 | 24°54 | 24°11 | 8°46 | 6°54 | M26 | | | | | | | | |
| T 27 | 16 41 40 | 10°58'36 | 19°25 | 19°15 | 26° 9 | 14°11 | 25°20 | 19°51 | 14°40 | 3°50 | 27° 9 | 24°41 | 24° 8 | 8°53 | 6°55 | T 27 | | | | | | | | |
| W28 | 16 45 37 | 11°55'51 | 1♄47 | 2°53 | 27°13 | 13°58 | 25°28 | 19°57 | 14°41 | 3°52 | 27°10 | 24°29 | 24° 5 | 9° 0 | 6°55 | W28 | | | | | | | | |
| T 29 | 16 49 34 | 12°53'06 | 13°57 | 4°28 | 28°17 | 13°45 | 25°35 | 20° 3 | 14°42 | 3°54 | 27°10 | 24°17 | 24° 1 | 9° 6 | 6°55 | T 29 | | | | | | | | |
| F 30 | 16 53 30 | 13°50'20 | 25°58 | 6° 0 | 29°20 | 13°34 | 25°43 | 20° 8 | 14°43 | 3°56 | 27°11 | 24° 7 | 23°58 | 9°13 | 6°56 | F 30 | | | | | | | | |
| S 31 | 16 57 27 | 14°47'34 | 7♄51 | 7♄30 | 0♃24 | 13♁23 | 25♁51 | 20°V14 | 14°43 | 3°58 | 27°11 | 24° 0 | 23°55 | 9°20 | 6°56 | S 31 | | | | | | | | |

Delta T = 18m31s Julian Calendar 1 May 1085 = Greg. Calendar 7 May 1085

JUNE 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|--------|--------|-------|--------|-------|--------|--------|------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 17 1 23 | 15♁44'47 | 19♄40 | 8♄58 | 1♃29 | 13°R13 | 25♁58 | 20°V19 | 14♁44 | 4♄ 0 | 27♁12 | 23°R55 | 23♁52 | 9♄26 | 6♁56 | S 1 | | | | | | | | |
| M 2 | 17 5 20 | 16°41'59 | 1♁30 | 10°22 | 2°33 | 13♁ 3 | 26° 6 | 20°24 | 14°45 | 4° 3 | 27°12 | 23°R53 | 23°49 | 9°33 | 6°56 | M 2 | | | | | | | | |
| T 3 | 17 9 16 | 17°39'11 | 13°24 | 11°44 | 3°38 | 12°55 | 26°13 | 20°30 | 14°45 | 4° 5 | 27°13 | 23°52 | 23°46 | 9°40 | 6°56 | T 3 | | | | | | | | |
| W 4 | 17 13 13 | 18°36'22 | 25°30 | 13° 4 | 4°43 | 12°47 | 26°20 | 20°35 | 14°46 | 4° 7 | 27°13 | 23°52 | 23°42 | 9°46 | 6°R56 | W 4 | | | | | | | | |
| T 5 | 17 17 9 | 19°33'32 | 7♁51 | 14°21 | 5°48 | 12°41 | 26°27 | 20°40 | 14°46 | 4° 9 | 27°13 | 23°51 | 23°39 | 9°53 | 6°56 | T 5 | | | | | | | | |
| F 6 | 17 21 6 | 20°30'42 | 20°33 | 15°34 | 6°53 | 12°35 | 26°33 | 20°45 | 14°47 | 4°11 | 27°14 | 23°50 | 23°36 | 10° 0 | 6°56 | F 6 | | | | | | | | |
| S 7 | 17 25 3 | 21°27'52 | 3♁41 | 16°46 | 7°58 | 12°29 | 26°40 | 20°50 | 14°47 | 4°13 | 27°14 | 23°46 | 23°33 | 10° 7 | 6°56 | S 7 | | | | | | | | |
| S 8 | 17 28 59 | 22°25'01 | 17°15 | 17°54 | 9° 4 | 12°25 | 26°46 | 20°55 | 14°47 | 4°16 | 27°14 | 23°39 | 23°30 | 10°13 | 6°56 | S 8 | | | | | | | | |
| M 9 | 17 32 56 | 23°22'10 | 1♁17 | 18°59 | 10° 9 | 12°22 | 26°52 | 21° 0 | 14°47 | 4°18 | 27°15 | 23°30 | 23°26 | 10°20 | 6°56 | M 9 | | | | | | | | |
| T 10 | 17 36 52 | 24°19'18 | 15°43 | 20° 1 | 11°15 | 12°19 | 26°58 | 21° 5 | 14°48 | 4°20 | 27°15 | 23°19 | 23°23 | 10°27 | 6°55 | T 10 | | | | | | | | |
| W11 | 17 40 49 | 25°16'27 | 0♃28 | 21° 0 | 12°21 | 12°17 | 27° 4 | 21°10 | 14°48 | 4°22 | 27°15 | 23° 8 | 23°20 | 10°33 | 6°55 | W11 | | | | | | | | |
| T 12 | 17 44 45 | 26°13'35 | 15°23 | 21°56 | 13°27 | 12°16 | 27°10 | 21°14 | 14°48 | 4°24 | 27°15 | 22°58 | 23°17 | 10°40 | 6°54 | T 12 | | | | | | | | |
| F 13 | 17 48 42 | 27°10'44 | 0♁19 | 22°49 | 14°34 | 12°D16 | 27°16 | 21°19 | 14°48 | 4°27 | 27°15 | 22°49 | 23°14 | 10°47 | 6°54 | F 13 | | | | | | | | |
| S 14 | 17 52 39 | 28° 7'52 | 15° 7 | 23°38 | 15°40 | 12°17 | 27°21 | 21°23 | 14°R48 | 4°29 | 27°16 | 22°43 | 23°11 | 10°53 | 6°53 | S 14 | | | | | | | | |
| S 15 | 17 56 35 | 29° 5'01 | 29°42 | 24°23 | 16°47 | 12°18 | 27°26 | 21°28 | 14°48 | 4°31 | 27°16 | 22°40 | 23° 7 | 11° 0 | 6°53 | S 15 | | | | | | | | |
| M16 | 18 0 32 | 0♄ 2'10 | 13♁59 | 25° 5 | 17°54 | 12°21 | 27°31 | 21°32 | 14°48 | 4°33 | 27°16 | 22°38 | 23° 4 | 11° 7 | 6°52 | M16 | | | | | | | | |
| T 17 | 18 4 28 | 0°59'20 | 27°57 | 25°43 | 19° 1 | 12°24 | 27°36 | 21°36 | 14°48 | 4°35 | 27°16 | 22°38 | 23° 1 | 11°13 | 6°52 | T 17 | | | | | | | | |
| W18 | 18 8 25 | 1°56'30 | 11°V35 | 26°17 | 20° 8 | 12°28 | 27°41 | 21°41 | 14°47 | 4°38 | 27°16 | 22°38 | 22°58 | 11°20 | 6°51 | W18 | | | | | | | | |
| T 19 | 18 12 21 | 2°53'40 | 24°56 | 26°47 | 21°15 | 12°32 | 27°46 | 21°45 | 14°47 | 4°40 | 27°16 | 22°37 | 22°55 | 11°27 | 6°50 | T 19 | | | | | | | | |
| F 20 | 18 16 18 | 3°50'51 | 8♃ 2 | 27°13 | 22°22 | 12°38 | 27°50 | 21°49 | 14°47 | 4°42 | 27°16 | 22°33 | 22°52 | 11°33 | 6°49 | F 20 | | | | | | | | |
| S 21 | 18 20 14 | 4°48'02 | 20°54 | 27°34 | 23°30 | 12°44 | 27°54 | 21°53 | 14°47 | 4°44 | 27°R16 | 22°27 | 22°48 | 11°40 | 6°48 | S 21 | | | | | | | | |
| S 22 | 18 24 11 | 5°45'14 | 3♁34 | 27°51 | 24°37 | 12°51 | 27°58 | 21°57 | 14°46 | 4°47 | 27°16 | 22°17 | 22°45 | 11°47 | 6°47 | S 22 | | | | | | | | |
| M23 | 18 28 8 | 6°42'27 | 16° 3 | 28° 3 | 25°45 | 12°59 | 28° 2 | 22° 0 | 14°46 | 4°49 | 27°16 | 22° 6 | 22°42 | 11°53 | 6°46 | M23 | | | | | | | | |
| T 24 | 18 32 4 | 7°39'39 | 28°22 | 28°11 | 26°53 | 13° 8 | 28° 6 | 22° 4 | 14°45 | 4°51 | 27°16 | 21°54 | 22°39 | 12° 0 | 6°45 | T 24 | | | | | | | | |
| W25 | 18 36 1 | 8°36'53 | 10♄32 | 28°R14 | 28° 1 | 13°17 | 28° 9 | 22° 8 | 14°45 | 4°53 | 27°16 | 21°41 | 22°36 | 12° 7 | 6°44 | W25 | | | | | | | | |
| T 26 | 18 39 57 | 9°34'06 | 22°33 | 28°12 | 29° 9 | 13°27 | 28°13 | 22°11 | 14°44 | 4°56 | 27°16 | 21°29 | 22°32 | 12°13 | 6°43 | T 26 | | | | | | | | |
| F 27 | 18 43 54 | 10°31'20 | 4♁28 | 28° 5 | 0♁17 | 13°38 | 28°16 | 22°14 | 14°44 | 4°58 | 27°16 | 21°19 | 22°29 | 12°20 | 6°42 | F 27 | | | | | | | | |
| S 28 | 18 47 50 | 11°28'34 | 16°18 | 27°53 | 1°25 | 13°49 | 28°19 | 22°18 | 14°43 | 5° 0 | 27°16 | 21°11 | 22°26 | 12°27 | 6°40 | S 28 | | | | | | | | |
| S 29 | 18 51 47 | 12°25'49 | 28° 5 | 27°37 | 2°34 | 14° 1 | 28°22 | 22°21 | 14°42 | 5° 2 | 27°16 | 21° 6 | 22°23 | 12°33 | 6°39 | S 29 | | | | | | | | |
| M30 | 18 55 43 | 13°23'04 | 9♁54 | 27♄16 | 3♁42 | 14♁14 | 28♁24 | 22°V24 | 14°42 | 5° 4 | 27°15 | 21° 0 | 22°20 | 12°40 | 6°38 | M30 | | | | | | | | |

Delta T = 18m31s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1085
geocentric

JULY 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|--------|--------|------|--------|--------|-------|-------|-------|------|-----|
| T 1 | 18 59 40 | 14☉20'19 | 21♐48 | 26°R50 | 4♈51 | 14♌28 | 28♋27 | 22♍27 | 14°R41 | 5♄7 | 27°R15 | 21°D 3 | 22♐17 | 12♌47 | 6°R36 | T 1 | |
| W 2 | 19 3 37 | 15°17'34 | 3♌52 | 26☉21 | 6° 0 | 14°42 | 28°29 | 22°30 | 14♋40 | 5° 9 | 27♋15 | 21♐ 4 | 22°13 | 12°54 | 6♋35 | W 2 | |
| T 3 | 19 7 33 | 16°14'50 | 16°11 | 25°48 | 7° 9 | 14°57 | 28°31 | 22°33 | 14°39 | 5°11 | 27°15 | 21°R 4 | 22°10 | 13° 0 | 6°33 | T 3 | |
| F 4 | 19 11 30 | 17°12'06 | 28°51 | 25°11 | 8°17 | 15°13 | 28°32 | 22°36 | 14°38 | 5°13 | 27°14 | 21° 3 | 22° 7 | 13° 7 | 6°32 | F 4 | |
| S 5 | 19 15 26 | 18° 9'23 | 11♌56 | 24°32 | 9°26 | 15°29 | 28°34 | 22°38 | 14°37 | 5°15 | 27°14 | 21° 1 | 22° 4 | 13°14 | 6°30 | S 5 | |
| S 6 | 19 19 23 | 19° 6'40 | 25°29 | 23°51 | 10°36 | 15°46 | 28°36 | 22°41 | 14°36 | 5°18 | 27°14 | 20°56 | 22° 1 | 13°20 | 6°28 | S 6 | |
| M 7 | 19 23 19 | 20° 3'58 | 9♌32 | 23° 8 | 11°45 | 16° 3 | 28°37 | 22°43 | 14°35 | 5°20 | 27°14 | 20°50 | 21°57 | 13°27 | 6°27 | M 7 | |
| T 8 | 19 27 16 | 21° 1'16 | 24° 2 | 22°24 | 12°54 | 16°21 | 28°38 | 22°46 | 14°34 | 5°22 | 27°13 | 20°42 | 21°54 | 13°34 | 6°25 | T 8 | |
| W 9 | 19 31 12 | 21°58'35 | 8♌56 | 21°40 | 14° 4 | 16°40 | 28°39 | 22°48 | 14°33 | 5°24 | 27°13 | 20°33 | 21°51 | 13°40 | 6°23 | W 9 | |
| T 10 | 19 35 9 | 22°55'55 | 24° 4 | 20°57 | 15°13 | 16°59 | 28°39 | 22°50 | 14°32 | 5°26 | 27°12 | 20°24 | 21°48 | 13°47 | 6°21 | T 10 | |
| F 11 | 19 39 6 | 23°53'15 | 9♌16 | 20°16 | 16°23 | 17°19 | 28°40 | 22°52 | 14°30 | 5°28 | 27°12 | 20°18 | 21°45 | 13°54 | 6°19 | F 11 | |
| S 12 | 19 43 2 | 24°50'37 | 24°23 | 19°37 | 17°32 | 17°39 | 28°40 | 22°54 | 14°29 | 5°31 | 27°12 | 20°13 | 21°42 | 14° 0 | 6°17 | S 12 | |
| S 13 | 19 46 59 | 25°47'59 | 9♋15 | 19° 1 | 18°42 | 18° 0 | 28°R40 | 22°56 | 14°28 | 5°33 | 27°11 | 20°11 | 21°38 | 14° 7 | 6°15 | S 13 | |
| M14 | 19 50 55 | 26°45'23 | 23°46 | 18°29 | 19°52 | 18°21 | 28°40 | 22°58 | 14°26 | 5°35 | 27°11 | 20°D10 | 21°35 | 14°14 | 6°13 | M14 | |
| T 15 | 19 54 52 | 27°42'48 | 7♎54 | 18° 2 | 21° 2 | 18°43 | 28°40 | 22°59 | 14°25 | 5°37 | 27°10 | 20°11 | 21°32 | 14°20 | 6°11 | T 15 | |
| W16 | 19 58 48 | 28°40'14 | 21°37 | 17°39 | 22°12 | 19° 5 | 28°39 | 23° 1 | 14°24 | 5°39 | 27°10 | 20°12 | 21°29 | 14°27 | 6° 9 | W16 | |
| T 17 | 20 2 45 | 29°37'41 | 4♌57 | 17°22 | 23°22 | 19°28 | 28°38 | 23° 2 | 14°22 | 5°41 | 27° 9 | 20°R12 | 21°26 | 14°34 | 6° 7 | T 17 | |
| F 18 | 20 6 41 | 0♌35'10 | 17°57 | 17°11 | 24°33 | 19°51 | 28°37 | 23° 4 | 14°21 | 5°43 | 27° 9 | 20°10 | 21°23 | 14°40 | 6° 5 | F 18 | |
| S 19 | 20 10 38 | 1°32'41 | 0♈40 | 17°D 6 | 25°43 | 20°15 | 28°36 | 23° 5 | 14°19 | 5°45 | 27° 8 | 20° 7 | 21°19 | 14°47 | 6° 3 | S 19 | |
| S 20 | 20 14 35 | 2°30'12 | 13° 8 | 17° 8 | 26°53 | 20°39 | 28°35 | 23° 6 | 14°18 | 5°47 | 27° 7 | 20° 1 | 21°16 | 14°54 | 6° 0 | S 20 | |
| M21 | 20 18 31 | 3°27'45 | 25°25 | 17°17 | 28° 4 | 21° 4 | 28°33 | 23° 7 | 14°16 | 5°49 | 27° 7 | 19°54 | 21°13 | 15° 0 | 5°58 | M21 | |
| T 22 | 20 22 28 | 4°25'20 | 7♄32 | 17°33 | 29°15 | 21°29 | 28°32 | 23° 8 | 14°14 | 5°51 | 27° 6 | 19°46 | 21°10 | 15° 7 | 5°56 | T 22 | |
| W23 | 20 26 24 | 5°22'56 | 19°31 | 17°55 | 0♄25 | 21°55 | 28°30 | 23° 9 | 14°13 | 5°53 | 27° 6 | 19°38 | 21° 7 | 15°14 | 5°53 | W23 | |
| T 24 | 20 30 21 | 6°20'33 | 1♌25 | 18°25 | 1°36 | 22°21 | 28°28 | 23° 9 | 14°11 | 5°55 | 27° 5 | 19°30 | 21° 3 | 15°20 | 5°51 | T 24 | |
| F 25 | 20 34 17 | 7°18'11 | 13°16 | 19° 1 | 2°47 | 22°47 | 28°25 | 23°10 | 14° 9 | 5°57 | 27° 4 | 19°23 | 21° 0 | 15°27 | 5°49 | F 25 | |
| S 26 | 20 38 14 | 8°15'51 | 25° 4 | 19°45 | 3°58 | 23°14 | 28°23 | 23°11 | 14° 7 | 5°59 | 27° 4 | 19°19 | 20°57 | 15°34 | 5°46 | S 26 | |
| S 27 | 20 42 10 | 9°13'31 | 6♐52 | 20°35 | 5° 9 | 23°42 | 28°20 | 23°11 | 14° 6 | 6° 1 | 27° 3 | 19°16 | 20°54 | 15°40 | 5°44 | S 27 | |
| M28 | 20 46 7 | 10°11'13 | 18°43 | 21°32 | 6°20 | 24° 9 | 28°17 | 23°11 | 14° 4 | 6° 3 | 27° 2 | 19°D15 | 20°51 | 15°47 | 5°41 | M28 | |
| T 29 | 20 50 4 | 11° 8'57 | 0♌40 | 22°35 | 7°31 | 24°37 | 28°14 | 23°11 | 14° 2 | 6° 5 | 27° 1 | 19°16 | 20°48 | 15°54 | 5°39 | T 29 | |
| W30 | 20 54 0 | 12° 6'41 | 12°46 | 23°45 | 8°42 | 25° 6 | 28°11 | 23°R11 | 14° 0 | 6° 7 | 27° 1 | 19°17 | 20°44 | 16° 0 | 5°36 | W30 | |
| T 31 | 20 57 57 | 13♌42'6 | 25♌ 7 | 25☉ 0 | 9☉54 | 25♌35 | 28♋ 7 | 23♍11 | 13♋58 | 6♄ 9 | 27♋ 0 | 19♐19 | 20♐41 | 16♌ 7 | 5♋33 | T 31 | |

Delta T = 18m30s Julian Calendar 1 July 1085 == Greg. Calendar 7 July 1085

AUGUST 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|------|--------|--------|-------|-------|-------|------|-----|
| F 1 | 21 1 53 | 14♌2'13 | 7♌45 | 26☉22 | 11☉ 5 | 26♌ 4 | 28°R 4 | 23°R11 | 13°R56 | 6♄11 | 26°R59 | 19♐20 | 20♐38 | 16♌14 | 5°R31 | F 1 | |
| S 2 | 21 5 50 | 15° 0'01 | 20°46 | 27°48 | 12°17 | 26°34 | 28♋ 0 | 23♍11 | 13♋54 | 6°12 | 26♋58 | 19°R20 | 20°35 | 16°20 | 5♋28 | S 2 | |
| S 3 | 21 9 46 | 15°57'50 | 4♌13 | 29°19 | 13°28 | 27° 4 | 27°56 | 23°11 | 13°52 | 6°14 | 26°57 | 19°18 | 20°32 | 16°27 | 5°26 | S 3 | |
| M 4 | 21 13 43 | 16°55'41 | 18° 8 | 0♌55 | 14°40 | 27°34 | 27°52 | 23°10 | 13°50 | 6°16 | 26°57 | 19°16 | 20°29 | 16°34 | 5°23 | M 4 | |
| T 5 | 21 17 39 | 17°53'33 | 2♌31 | 2°35 | 15°52 | 28° 5 | 27°47 | 23°10 | 13°48 | 6°18 | 26°56 | 19°12 | 20°25 | 16°40 | 5°20 | T 5 | |
| W 6 | 21 21 36 | 18°51'26 | 17°18 | 4°18 | 17° 3 | 28°36 | 27°43 | 23° 9 | 13°46 | 6°20 | 26°55 | 19° 8 | 20°22 | 16°47 | 5°17 | W 6 | |
| T 7 | 21 25 33 | 19°49'20 | 2♌23 | 6° 5 | 18°15 | 29° 7 | 27°38 | 23° 8 | 13°44 | 6°21 | 26°54 | 19° 4 | 20°19 | 16°54 | 5°15 | T 7 | |
| F 8 | 21 29 29 | 20°47'16 | 17°37 | 7°54 | 19°27 | 29°39 | 27°33 | 23° 7 | 13°41 | 6°23 | 26°53 | 19° 0 | 20°16 | 17° 0 | 5°12 | F 8 | |
| S 9 | 21 33 26 | 21°45'14 | 2♋50 | 9°46 | 20°39 | 0♌11 | 27°28 | 23° 6 | 13°39 | 6°25 | 26°52 | 18°58 | 20°13 | 17° 7 | 5° 9 | S 9 | |
| S 10 | 21 37 22 | 22°43'13 | 17°53 | 11°39 | 21°51 | 0°43 | 27°23 | 23° 5 | 13°37 | 6°26 | 26°51 | 18°D58 | 20° 9 | 17°14 | 5° 6 | S 10 | |
| M11 | 21 41 19 | 23°41'14 | 2♎37 | 13°34 | 23° 3 | 1°15 | 27°18 | 23° 4 | 13°35 | 6°28 | 26°50 | 18°58 | 20° 6 | 17°20 | 5° 4 | M11 | |
| T 12 | 21 45 15 | 24°39'17 | 16°57 | 15°30 | 24°16 | 1°48 | 27°12 | 23° 3 | 13°33 | 6°30 | 26°49 | 18°59 | 20° 3 | 17°27 | 5° 1 | T 12 | |
| W13 | 21 49 12 | 25°37'22 | 0♌50 | 17°26 | 25°28 | 2°21 | 27° 7 | 23° 1 | 13°30 | 6°31 | 26°48 | 19° 1 | 20° 0 | 17°34 | 4°58 | W13 | |
| T 14 | 21 53 8 | 26°35'29 | 14°17 | 19°23 | 26°40 | 2°55 | 27° 1 | 23° 0 | 13°28 | 6°33 | 26°47 | 19° 2 | 19°57 | 17°40 | 4°55 | T 14 | |
| F 15 | 21 57 5 | 27°33'38 | 27°20 | 21°20 | 27°53 | 3°28 | 26°55 | 22°58 | 13°26 | 6°34 | 26°46 | 19°R 2 | 19°54 | 17°47 | 4°52 | F 15 | |
| S 16 | 22 1 2 | 28°31'49 | 10♈ 1 | 23°17 | 29° 5 | 4° 2 | 26°49 | 22°57 | 13°24 | 6°36 | 26°45 | 19° 2 | 19°50 | 17°54 | 4°49 | S 16 | |
| S 17 | 22 4 58 | 29°30'02 | 22°25 | 25°14 | 0♌18 | 4°37 | 26°42 | 22°55 | 13°21 | 6°37 | 26°44 | 19° 0 | 19°47 | 18° 0 | 4°46 | S 17 | |
| M18 | 22 8 55 | 0♐28'17 | 4♄35 | 27°10 | 1°30 | 5°11 | 26°36 | 22°53 | 13°19 | 6°39 | 26°43 | 18°58 | 19°44 | 18° 7 | 4°44 | M18 | |
| T 19 | 22 12 51 | 1°26'34 | 16°35 | 29° 6 | 2°43 | 5°46 | 26°30 | 22°51 | 13°17 | 6°40 | 26°42 | 18°56 | 19°41 | 18°14 | 4°41 | T 19 | |
| W20 | 22 16 48 | 2°24'54 | 28°28 | 1♐ 1 | 3°56 | 6°21 | 26°23 | 22°49 | 13°14 | 6°42 | 26°41 | 18°53 | 19°38 | 18°20 | 4°38 | W20 | |
| T 21 | 22 20 44 | 3°23'15 | 10♌18 | 2°55 | 5° 9 | 6°56 | 26°16 | 22°47 | 13°12 | 6°43 | 26°40 | 18°51 | 19°35 | 18°27 | 4°35 | T 21 | |
| F 22 | 22 24 41 | 4°21'38 | 22° 6 | 4°48 | 6°22 | 7°31 | 26° 9 | 22°44 | 13°10 | 6°45 | 26°39 | 18°49 | 19°31 | 18°34 | 4°32 | F 22 | |
| S 23 | 22 28 37 | 5°20'03 | 3♐56 | 6°40 | 7°35 | 8° 7 | 26° 2 | 22°42 | 13° 7 | 6°46 | 26°38 | 18°47 | 19°28 | 18°40 | 4°29 | S 23 | |
| S 24 | 22 32 34 | 6°18'30 | 15°48 | 8°31 | 8°48 | 8°43 | 25°55 | 22°40 | 13° 5 | 6°47 | 26°37 | 18°D47 | 19°25 | 18°47 | 4°26 | S 24 | |
| M25 | 22 36 30 | 7°16'59 | 27°47 | 10°21 | 10° 1 | 9°19 | 25°48 | 22°37 | 13° 2 | 6°49 | 26°36 | 18°47 | 19°22 | 18°54 | 4°23 | M25 | |
| T 26 | 22 40 27 | 8°15'29 | 9♌52 | 12°10 | 11°14 | 9°56 | 25°41 | 22°34 | 13° 0 | 6°50 | 26°35 | 18°48 | 19°19 | 19° 0 | 4°20 | T 26 | |
| W27 | 22 44 24 | 9°14'02 | 22° 8 | 13°58 | 12°27 | 10°32 | 25°33 | 22°32 | 12°58 | 6°51 | 26°34 | 18°49 | 19°15 | 19° 7 | 4°18 | W27 | |
| T 28 | 22 48 20 | 10°12'36 | 4♌36 | 15°45 | 13°40 | 11° 9 | 25°26 | 22°29 | 12°55 | 6°52 | 26°32 | 18°49 | 19°12 | 19°14 | 4°15 | T 28 | |
| F 29 | 22 52 17 | 11°11'12 | 17°30 | 17°31 | 14°54 | 11°46 | 25°18 | 22°26 | 12°53 | 6°54 | 26°31 | 18°50 | 19° 9 | 19°20 | 4°12 | F 29 | |
| S 30 | 22 56 13 | 12° 9'50 | 0♌22 | 19°16 | 16° 7 | 12°24 | 25°11 | 22°23 | 12°50 | 6°55 | 26°30 | 18°51 | 19° 6 | 19°27 | 4° 9 | S 30 | |
| S 31 | 23 0 10 | 13♐ 8'29 | 13♌45 | 21♐ 0 | 17♌20 | 13♌ 1 | 25♋ 3 | 22♍20 | 12♋48 | 6♄56 | 26♋29 | 18°R51 | 19♐ 3 | 19♌34 | 4♋ 6 | S 31 | |

Delta T = 18m30s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1085
geocentric

SEPTEMBER 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|------|--------|--------|-------|--------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 23 4 6 | 14♍7'10 | 27♌31 | 22♍43 | 18♌34 | 13♌39 | 24°R55 | 22°R17 | 12°R46 | 6♄57 | 26°R28 | 18°R51 | 19♍0 | 19♌40 | 4°R 3 | M 1 | | | | | | | | |
| T 2 | 23 8 3 | 15°5'53 | 11♌40 | 24°25 | 19°47 | 14°17 | 24♌47 | 22°Y13 | 12♌43 | 6°58 | 26♌27 | 18♍50 | 18°56 | 19°47 | 4♌1 | T 2 | | | | | | | | |
| W 3 | 23 11 59 | 16°4'38 | 26°10 | 26°5 | 21°1 | 14°55 | 24°40 | 22°10 | 12°41 | 6°59 | 26°26 | 18°50 | 18°53 | 19°54 | 3°58 | W 3 | | | | | | | | |
| T 4 | 23 15 56 | 17°3'24 | 10♌58 | 27°45 | 22°15 | 15°33 | 24°32 | 22°7 | 12°38 | 7°0 | 26°24 | 18°50 | 18°50 | 20°0 | 3°55 | T 4 | | | | | | | | |
| F 5 | 23 19 53 | 18°2'12 | 25°58 | 29°24 | 23°28 | 16°11 | 24°24 | 22°3 | 12°36 | 7°1 | 26°23 | 18°50 | 18°47 | 20°7 | 3°52 | F 5 | | | | | | | | |
| S 6 | 23 23 49 | 19°1'02 | 11♌2 | 1♌2 | 24°42 | 16°50 | 24°16 | 21°59 | 12°34 | 7°2 | 26°22 | 18°50 | 18°44 | 20°14 | 3°49 | S 6 | | | | | | | | |
| S 7 | 23 27 46 | 19°59'54 | 26°1 | 2°39 | 25°56 | 17°29 | 24°8 | 21°56 | 12°31 | 7°3 | 26°21 | 18°50 | 18°40 | 20°20 | 3°47 | S 7 | | | | | | | | |
| M 8 | 23 31 42 | 20°58'48 | 10♍46 | 4°15 | 27°10 | 18°8 | 24°0 | 21°52 | 12°29 | 7°4 | 26°20 | 18°50 | 18°37 | 20°27 | 3°44 | M 8 | | | | | | | | |
| T 9 | 23 35 39 | 21°57'45 | 25°12 | 5°51 | 28°24 | 18°47 | 23°52 | 21°48 | 12°26 | 7°5 | 26°19 | 18°49 | 18°34 | 20°34 | 3°41 | T 9 | | | | | | | | |
| W10 | 23 39 35 | 22°56'43 | 9♌14 | 7°25 | 29°38 | 19°26 | 23°44 | 21°44 | 12°24 | 7°6 | 26°17 | 18°49 | 18°31 | 20°40 | 3°39 | W10 | | | | | | | | |
| T 11 | 23 43 32 | 23°55'44 | 22°49 | 8°58 | 0♍52 | 20°5 | 23°36 | 21°41 | 12°22 | 7°6 | 26°16 | 18°48 | 18°28 | 20°47 | 3°36 | T 11 | | | | | | | | |
| F 12 | 23 47 28 | 24°54'47 | 5♌58 | 10°31 | 2°6 | 20°45 | 23°28 | 21°37 | 12°19 | 7°7 | 26°15 | 18°48 | 18°25 | 20°54 | 3°33 | F 12 | | | | | | | | |
| S 13 | 23 51 25 | 25°53'53 | 18°43 | 12°3 | 3°20 | 21°25 | 23°19 | 21°33 | 12°17 | 7°8 | 26°14 | 18°48 | 18°21 | 21°0 | 3°31 | S 13 | | | | | | | | |
| S 14 | 23 55 22 | 26°53'01 | 1♌8 | 13°34 | 4°34 | 22°5 | 23°11 | 21°28 | 12°15 | 7°9 | 26°13 | 18°D48 | 18°18 | 21°7 | 3°28 | S 14 | | | | | | | | |
| M15 | 23 59 18 | 27°52'11 | 13°17 | 15°4 | 5°48 | 22°45 | 23°3 | 21°24 | 12°12 | 7°9 | 26°12 | 18°48 | 18°15 | 21°14 | 3°26 | M15 | | | | | | | | |
| T 16 | 0 3 15 | 28°51'24 | 25°15 | 16°33 | 7°2 | 23°25 | 22°55 | 21°20 | 12°10 | 7°10 | 26°10 | 18°49 | 18°12 | 21°20 | 3°23 | T 16 | | | | | | | | |
| W17 | 0 7 11 | 29°50'39 | 7♌5 | 18°2 | 8°17 | 24°5 | 22°48 | 21°16 | 12°8 | 7°10 | 26°9 | 18°50 | 18°9 | 21°27 | 3°20 | W17 | | | | | | | | |
| T 18 | 0 11 8 | 0♌49'56 | 18°53 | 19°29 | 9°31 | 24°46 | 22°40 | 21°11 | 12°6 | 7°11 | 26°8 | 18°51 | 18°6 | 21°34 | 3°18 | T 18 | | | | | | | | |
| F 19 | 0 15 4 | 1°49'15 | 0♍42 | 20°56 | 10°45 | 25°26 | 22°32 | 21°7 | 12°3 | 7°12 | 26°7 | 18°52 | 18°2 | 21°40 | 3°16 | F 19 | | | | | | | | |
| S 20 | 0 19 1 | 2°48'37 | 12°36 | 22°22 | 12°0 | 26°7 | 22°24 | 21°3 | 12°1 | 7°12 | 26°6 | 18°53 | 17°59 | 21°47 | 3°13 | S 20 | | | | | | | | |
| S 21 | 0 22 57 | 3°48'01 | 24°37 | 23°47 | 13°14 | 26°48 | 22°16 | 20°58 | 11°59 | 7°12 | 26°4 | 18°R53 | 17°56 | 21°54 | 3°11 | S 21 | | | | | | | | |
| M22 | 0 26 54 | 4°47'27 | 6♌46 | 25°11 | 14°29 | 27°29 | 22°8 | 20°54 | 11°57 | 7°13 | 26°3 | 18°52 | 17°53 | 22°0 | 3°8 | M22 | | | | | | | | |
| T 23 | 0 30 50 | 5°46'55 | 19°6 | 26°34 | 15°43 | 28°10 | 22°1 | 20°49 | 11°55 | 7°13 | 26°2 | 18°50 | 17°50 | 22°7 | 3°6 | T 23 | | | | | | | | |
| W24 | 0 34 47 | 6°46'25 | 1♌39 | 27°56 | 16°58 | 28°51 | 21°53 | 20°44 | 11°53 | 7°14 | 26°1 | 18°48 | 17°46 | 22°14 | 3°4 | W24 | | | | | | | | |
| T 25 | 0 38 44 | 7°45'57 | 14°24 | 29°17 | 18°13 | 29°33 | 21°46 | 20°40 | 11°50 | 7°14 | 26°0 | 18°45 | 17°43 | 22°20 | 3°2 | T 25 | | | | | | | | |
| F 26 | 0 42 40 | 8°45'31 | 27°22 | 0♍37 | 19°27 | 0♌14 | 21°38 | 20°35 | 11°48 | 7°14 | 25°59 | 18°42 | 17°40 | 22°27 | 2°59 | F 26 | | | | | | | | |
| S 27 | 0 46 37 | 9°45'07 | 10♌35 | 1°56 | 20°42 | 0°56 | 21°31 | 20°31 | 11°46 | 7°15 | 25°58 | 18°39 | 17°37 | 22°34 | 2°57 | S 27 | | | | | | | | |
| S 28 | 0 50 33 | 10°44'44 | 24°3 | 3°14 | 21°57 | 1°38 | 21°24 | 20°26 | 11°44 | 7°15 | 25°56 | 18°37 | 17°34 | 22°40 | 2°55 | S 28 | | | | | | | | |
| M29 | 0 54 30 | 11°44'24 | 7♌46 | 4°30 | 23°11 | 2°20 | 21°17 | 20°21 | 11°42 | 7°15 | 25°55 | 18°D37 | 17°31 | 22°47 | 2°53 | M29 | | | | | | | | |
| T 30 | 0 58 26 | 12°44'05 | 21♌44 | 5♌45 | 24♍26 | 3♌2 | 21♌10 | 20°Y16 | 11♌40 | 7♄15 | 25°54 | 18♍37 | 17♍27 | 22°L54 | 2♌51 | T 30 | | | | | | | | |

Delta T = 18m30s Julian Calendar 1 Sept. 1085 == Greg. Calendar 7 Sept. 1085

OCTOBER 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|--------|--------|-------|--------|--------|-------|--------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 1 2 23 | 13♌43'48 | 5♌57 | 6♌58 | 25♍41 | 3♌44 | 21°R 3 | 20°R12 | 11°R38 | 7♄15 | 25°R53 | 18♍38 | 17♍24 | 23♌0 | 2°R49 | W 1 | | | | | | | | |
| T 2 | 1 6 19 | 14°43'32 | 20°22 | 8°10 | 26°56 | 4°26 | 20♌56 | 20°Y 7 | 11♌37 | 7°15 | 25°52 | 18°39 | 17°21 | 23°7 | 2♌47 | T 2 | | | | | | | | |
| F 3 | 1 10 16 | 15°43'19 | 4♌58 | 9°20 | 28°11 | 5°8 | 20°50 | 20°2 | 11°35 | 7°15 | 25°51 | 18°41 | 17°18 | 23°13 | 2°45 | F 3 | | | | | | | | |
| S 4 | 1 14 13 | 16°43'07 | 19°38 | 10°28 | 29°26 | 5°51 | 20°43 | 19°57 | 11°33 | 7°R16 | 25°50 | 18°R41 | 17°15 | 23°20 | 2°43 | S 4 | | | | | | | | |
| S 5 | 1 18 9 | 17°42'56 | 4♍18 | 11°34 | 0♌41 | 6°33 | 20°37 | 19°52 | 11°31 | 7°15 | 25°49 | 18°40 | 17°11 | 23°27 | 2°42 | S 5 | | | | | | | | |
| M 6 | 1 22 6 | 18°42'48 | 18°51 | 12°37 | 1°55 | 7°16 | 20°31 | 19°48 | 11°29 | 7°15 | 25°48 | 18°38 | 17°8 | 23°33 | 2°40 | M 6 | | | | | | | | |
| T 7 | 1 26 2 | 19°42'42 | 3♌10 | 13°38 | 3°10 | 7°58 | 20°25 | 19°43 | 11°27 | 7°15 | 25°46 | 18°34 | 17°5 | 23°40 | 2°38 | T 7 | | | | | | | | |
| W 8 | 1 29 59 | 20°42'38 | 17°9 | 14°36 | 4°25 | 8°41 | 20°19 | 19°38 | 11°26 | 7°15 | 25°45 | 18°29 | 17°2 | 23°47 | 2°36 | W 8 | | | | | | | | |
| T 9 | 1 33 55 | 21°42'36 | 0♍46 | 15°30 | 5°41 | 9°24 | 20°13 | 19°33 | 11°24 | 7°15 | 25°44 | 18°24 | 16°59 | 23°53 | 2°35 | T 9 | | | | | | | | |
| F 10 | 1 37 52 | 22°42'36 | 13°59 | 16°21 | 6°56 | 10°7 | 20°7 | 19°28 | 11°22 | 7°15 | 25°43 | 18°19 | 16°56 | 24°0 | 2°33 | F 10 | | | | | | | | |
| S 11 | 1 41 48 | 23°42'38 | 26°48 | 17°9 | 8°11 | 10°50 | 20°2 | 19°23 | 11°21 | 7°15 | 25°42 | 18°14 | 16°52 | 24°7 | 2°32 | S 11 | | | | | | | | |
| S 12 | 1 45 45 | 24°42'43 | 9♄16 | 17°51 | 9°26 | 11°33 | 19°57 | 19°19 | 11°19 | 7°15 | 25°41 | 18°12 | 16°49 | 24°13 | 2°30 | S 12 | | | | | | | | |
| M13 | 1 49 42 | 25°42'49 | 21°27 | 18°29 | 10°41 | 12°16 | 19°51 | 19°14 | 11°18 | 7°14 | 25°40 | 18°D10 | 16°46 | 24°20 | 2°29 | M13 | | | | | | | | |
| T 14 | 1 53 38 | 26°42'58 | 3♌25 | 19°1 | 11°56 | 12°59 | 19°46 | 19°9 | 11°16 | 7°14 | 25°39 | 18°10 | 16°43 | 24°27 | 2°27 | T 14 | | | | | | | | |
| W15 | 1 57 35 | 27°43'09 | 15°15 | 19°27 | 13°11 | 13°42 | 19°42 | 19°4 | 11°15 | 7°14 | 25°38 | 18°12 | 16°40 | 24°33 | 2°26 | W15 | | | | | | | | |
| T 16 | 2 1 31 | 28°43'22 | 27°3 | 19°46 | 14°27 | 14°26 | 19°37 | 19°0 | 11°13 | 7°13 | 25°37 | 18°13 | 16°37 | 24°40 | 2°25 | T 16 | | | | | | | | |
| F 17 | 2 5 28 | 29°43'36 | 8♍54 | 19°58 | 15°42 | 15°9 | 19°33 | 18°55 | 11°12 | 7°13 | 25°36 | 18°15 | 16°33 | 24°47 | 2°24 | F 17 | | | | | | | | |
| S 18 | 2 9 24 | 0♍43'53 | 20°51 | 20°R 2 | 16°57 | 15°53 | 19°28 | 18°50 | 11°11 | 7°12 | 25°36 | 18°R15 | 16°30 | 24°53 | 2°23 | S 18 | | | | | | | | |
| S 19 | 2 13 21 | 1°44'12 | 3♌0 | 19°57 | 18°12 | 16°36 | 19°24 | 18°45 | 11°9 | 7°12 | 25°35 | 18°14 | 16°27 | 25°0 | 2°21 | S 19 | | | | | | | | |
| M20 | 2 17 17 | 2°44'33 | 15°21 | 19°43 | 19°28 | 17°20 | 19°20 | 18°41 | 11°8 | 7°11 | 25°34 | 18°10 | 16°24 | 25°7 | 2°20 | M20 | | | | | | | | |
| T 21 | 2 21 14 | 3°44'55 | 27°59 | 19°19 | 20°43 | 18°4 | 19°17 | 18°36 | 11°7 | 7°11 | 25°33 | 18°5 | 16°21 | 25°13 | 2°19 | T 21 | | | | | | | | |
| W22 | 2 25 10 | 4°45'20 | 10♌52 | 18°45 | 21°58 | 18°47 | 19°13 | 18°32 | 11°6 | 7°10 | 25°32 | 17°58 | 16°17 | 25°20 | 2°18 | W22 | | | | | | | | |
| T 23 | 2 29 7 | 5°45'46 | 24°0 | 18°1 | 23°14 | 19°31 | 19°10 | 18°27 | 11°5 | 7°10 | 25°31 | 17°49 | 16°14 | 25°27 | 2°18 | T 23 | | | | | | | | |
| F 24 | 2 33 4 | 6°46'14 | 7♌22 | 17°7 | 24°29 | 20°15 | 19°7 | 18°23 | 11°4 | 7°9 | 25°30 | 17°40 | 16°11 | 25°33 | 2°17 | F 24 | | | | | | | | |
| S 25 | 2 37 0 | 7°46'43 | 20°56 | 16°5 | 25°44 | 20°59 | 19°4 | 18°18 | 11°3 | 7°8 | 25°29 | 17°32 | 16°8 | 25°40 | 2°16 | S 25 | | | | | | | | |
| S 26 | 2 40 57 | 8°47'14 | 4♌41 | 14°55 | 27°0 | 21°43 | 19°1 | 18°14 | 11°2 | 7°8 | 25°29 | 17°26 | 16°5 | 25°47 | 2°15 | S 26 | | | | | | | | |
| M27 | 2 44 53 | 9°47'46 | 18°33 | 13°38 | 28°15 | 22°27 | 18°58 | 18°10 | 11°1 | 7°7 | 25°28 | 17°21 | 16°2 | 25°53 | 2°15 | M27 | | | | | | | | |
| T 28 | 2 48 50 | 10°48'19 | 2♌32 | 12°18 | 29°30 | 23°11 | 18°56 | 18°5 | 11°0 | 7°6 | 25°27 | 17°19 | 15°58 | 26°0 | 2°14 | T 28 | | | | | | | | |
| W29 | 2 52 46 | 11°48'54 | 16°36 | 10°57 | 0♍46 | 23°56 | 18°54 | 18°1 | 10°59 | 7°5 | 25°26 | 17°D19 | 15°55 | 26°7 | 2°13 | W29 | | | | | | | | |
| T 30 | 2 56 43 | 12°49'29 | 0♌45 | 9°38 | 2°1 | 24°40 | 18°52 | 17°57 | 10°58 | 7°5 | 25°25 | 17°20 | 15°52 | 26°13 | 2°13 | T 30 | | | | | | | | |
| F 31 | 3 0 39 | 13♌50'06 | 14♌57 | 8♌22 | 3♌17 | 25♌24 | 18♌50 | 17°Y53 | 10♌58 | 7♄4 | 25°25 | 17°R21 | 15♍49 | 26°L20 | 2♌13 | F 31 | | | | | | | | |

Delta T = 18m30s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1085
geocentric

NOVEMBER 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|--------|-------|--------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 3 4 36 | 14♌50'44 | 29♋11 | 7°R13 | 4♌32 | 26♁8 | 18°R49 | 17°R49 | 10°R57 | 7°R 3 | 25°R24 | 17°R20 | 15♎46 | 26♏26 | 2°R12 | S 1 | | | | | | | | |
| S 2 | 3 8 33 | 15°51'24 | 13♍23 | 6♌13 | 5°48 | 26°53 | 18♋48 | 17♍45 | 10♋56 | 7♁2 | 25♋23 | 17♎17 | 15°43 | 26°33 | 2♋12 | S 2 | | | | | | | | |
| M 3 | 3 12 29 | 16°52'04 | 27°31 | 5°22 | 7° 3 | 27°37 | 18°46 | 17°41 | 10°56 | 7° 1 | 25°23 | 17°12 | 15°39 | 26°40 | 2°12 | M 3 | | | | | | | | |
| T 4 | 3 16 26 | 17°52'46 | 11♁29 | 4°43 | 8°18 | 28°22 | 18°46 | 17°37 | 10°55 | 7° 0 | 25°22 | 17° 4 | 15°36 | 26°46 | 2°12 | T 4 | | | | | | | | |
| W 5 | 3 20 22 | 18°53'29 | 25°14 | 4°15 | 9°34 | 29° 6 | 18°45 | 17°33 | 10°55 | 6°59 | 25°21 | 16°54 | 15°33 | 26°53 | 2°11 | W 5 | | | | | | | | |
| T 6 | 3 24 19 | 19°54'14 | 8♌41 | 3°59 | 10°49 | 29°50 | 18°44 | 17°30 | 10°54 | 6°58 | 25°21 | 16°42 | 15°30 | 27° 0 | 2°11 | T 6 | | | | | | | | |
| F 7 | 3 28 15 | 20°55'00 | 21°49 | 3°D54 | 12° 5 | 0♁35 | 18°44 | 17°26 | 10°54 | 6°57 | 25°20 | 16°31 | 15°27 | 27° 6 | 2°D11 | F 7 | | | | | | | | |
| S 8 | 3 32 12 | 21°55'48 | 4♁37 | 4° 0 | 13°20 | 1°20 | 18°D44 | 17°23 | 10°54 | 6°56 | 25°20 | 16°21 | 15°23 | 27°13 | 2°11 | S 8 | | | | | | | | |
| S 9 | 3 36 8 | 22°56'37 | 17° 5 | 4°16 | 14°36 | 2° 4 | 18°44 | 17°19 | 10°53 | 6°55 | 25°19 | 16°13 | 15°20 | 27°20 | 2°12 | S 9 | | | | | | | | |
| M10 | 3 40 5 | 23°57'27 | 29°16 | 4°42 | 15°51 | 2°49 | 18°45 | 17°16 | 10°53 | 6°54 | 25°18 | 16° 8 | 15°17 | 27°26 | 2°12 | M10 | | | | | | | | |
| T 11 | 3 44 2 | 24°58'19 | 11♏14 | 5°15 | 17° 7 | 3°33 | 18°45 | 17°12 | 10°53 | 6°52 | 25°18 | 16° 5 | 15°14 | 27°33 | 2°12 | T 11 | | | | | | | | |
| W12 | 3 47 58 | 25°59'12 | 23° 5 | 5°56 | 18°22 | 4°18 | 18°46 | 17° 9 | 10°53 | 6°51 | 25°17 | 16°D 3 | 15°11 | 27°40 | 2°12 | W12 | | | | | | | | |
| T 13 | 3 51 55 | 27° 0'07 | 4♎53 | 6°44 | 19°38 | 5° 3 | 18°47 | 17° 6 | 10°53 | 6°50 | 25°17 | 16° 4 | 15° 8 | 27°46 | 2°13 | T 13 | | | | | | | | |
| F 14 | 3 55 51 | 28° 1'03 | 16°43 | 7°37 | 20°53 | 5°47 | 18°48 | 17° 3 | 10°D53 | 6°49 | 25°17 | 16°R 4 | 15° 4 | 27°53 | 2°13 | F 14 | | | | | | | | |
| S 15 | 3 59 48 | 29° 2'00 | 28°42 | 8°35 | 22° 9 | 6°32 | 18°50 | 17° 0 | 10°53 | 6°48 | 25°16 | 16° 3 | 15° 1 | 28° 0 | 2°13 | S 15 | | | | | | | | |
| S 16 | 4 3 44 | 0♁2'59 | 10♁55 | 9°38 | 23°25 | 7°17 | 18°51 | 16°57 | 10°53 | 6°46 | 25°16 | 16° 0 | 14°58 | 28° 6 | 2°14 | S 16 | | | | | | | | |
| M17 | 4 7 41 | 1° 3'59 | 23°24 | 10°45 | 24°40 | 8° 2 | 18°53 | 16°54 | 10°53 | 6°45 | 25°15 | 15°55 | 14°55 | 28°13 | 2°15 | M17 | | | | | | | | |
| T 18 | 4 11 37 | 2° 5'00 | 6♌14 | 11°55 | 25°56 | 8°47 | 18°55 | 16°52 | 10°53 | 6°44 | 25°15 | 15°47 | 14°52 | 28°20 | 2°15 | T 18 | | | | | | | | |
| W19 | 4 15 34 | 3° 6'02 | 19°25 | 13° 8 | 27°11 | 9°31 | 18°57 | 16°49 | 10°53 | 6°42 | 25°15 | 15°36 | 14°48 | 28°26 | 2°16 | W19 | | | | | | | | |
| T 20 | 4 19 31 | 4° 7'05 | 2♁56 | 14°23 | 28°27 | 10°16 | 19° 0 | 16°47 | 10°54 | 6°41 | 25°14 | 15°24 | 14°45 | 28°33 | 2°17 | T 20 | | | | | | | | |
| F 21 | 4 23 27 | 5° 8'08 | 16°45 | 15°41 | 29°42 | 11° 1 | 19° 2 | 16°44 | 10°54 | 6°40 | 25°14 | 15°11 | 14°42 | 28°40 | 2°18 | F 21 | | | | | | | | |
| S 22 | 4 27 24 | 6° 9'13 | 0♁47 | 17° 0 | 0♁58 | 11°46 | 19° 5 | 16°42 | 10°54 | 6°38 | 25°14 | 14°59 | 14°39 | 28°46 | 2°18 | S 22 | | | | | | | | |
| S 23 | 4 31 20 | 7°10'19 | 14°58 | 18°21 | 2°13 | 12°31 | 19° 8 | 16°40 | 10°55 | 6°37 | 25°13 | 14°49 | 14°36 | 28°53 | 2°19 | S 23 | | | | | | | | |
| M24 | 4 35 17 | 8°11'24 | 29°12 | 19°43 | 3°29 | 13°16 | 19°11 | 16°38 | 10°55 | 6°35 | 25°13 | 14°41 | 14°33 | 28°59 | 2°20 | M24 | | | | | | | | |
| T 25 | 4 39 13 | 9°12'31 | 13♁26 | 21° 7 | 4°45 | 14° 1 | 19°15 | 16°36 | 10°56 | 6°34 | 25°13 | 14°37 | 14°29 | 29° 6 | 2°21 | T 25 | | | | | | | | |
| W26 | 4 43 10 | 10°13'38 | 27°36 | 22°32 | 6° 0 | 14°46 | 19°18 | 16°34 | 10°56 | 6°32 | 25°13 | 14°35 | 14°26 | 29°13 | 2°23 | W26 | | | | | | | | |
| T 27 | 4 47 6 | 11°14'44 | 11♋42 | 23°57 | 7°16 | 15°31 | 19°22 | 16°32 | 10°57 | 6°31 | 25°13 | 14°35 | 14°23 | 29°19 | 2°24 | T 27 | | | | | | | | |
| F 28 | 4 51 3 | 12°15'52 | 25°42 | 25°24 | 8°31 | 16°16 | 19°26 | 16°30 | 10°58 | 6°29 | 25°13 | 14°35 | 14°20 | 29°26 | 2°25 | F 28 | | | | | | | | |
| S 29 | 4 55 0 | 13°16'59 | 9♍36 | 26°51 | 9°47 | 17° 0 | 19°30 | 16°29 | 10°58 | 6°28 | 25°12 | 14°33 | 14°17 | 29°33 | 2°26 | S 29 | | | | | | | | |
| S 30 | 4 58 56 | 14♁18'07 | 23♍24 | 28♌19 | 11♁2 | 17♁45 | 19♋35 | 16♍27 | 10♋59 | 6♁26 | 25♋12 | 14♎30 | 14♎14 | 29♏39 | 2♋28 | S 30 | | | | | | | | |

Delta T = 18m29s Julian Calendar 1 Nov. 1085 = Greg. Calendar 7 Nov. 1085

DECEMBER 1085 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|-------|--------|--------|-------|-------|------|------|---|---|---|---|---|---|---|-----|
| M 1 | 5 2 53 | 15♁19'15 | 7♁4 | 29♌47 | 12♁18 | 18♁30 | 19♋39 | 16°R26 | 11♋0 | 6°R25 | 25°R12 | 14°R23 | 14♎10 | 29♏46 | 2♋29 | M 1 | | | | | | | | |
| T 2 | 5 6 49 | 16°20'23 | 20°36 | 1♁16 | 13°33 | 19°15 | 19°44 | 16°V25 | 11° 1 | 6♁23 | 25♋12 | 14♎13 | 14° 7 | 29°53 | 2°30 | T 2 | | | | | | | | |
| W 3 | 5 10 46 | 17°21'32 | 3♌57 | 2°45 | 14°49 | 20° 0 | 19°49 | 16°24 | 11° 2 | 6°22 | 25°D12 | 14° 1 | 14° 4 | 29°59 | 2°32 | W 3 | | | | | | | | |
| T 4 | 5 14 42 | 18°22'41 | 17° 5 | 4°15 | 16° 4 | 20°45 | 19°54 | 16°23 | 11° 3 | 6°20 | 25°12 | 13°47 | 14° 1 | 0♎6 | 2°34 | T 4 | | | | | | | | |
| F 5 | 5 18 39 | 19°23'50 | 29°58 | 5°45 | 17°20 | 21°30 | 19°59 | 16°22 | 11° 4 | 6°19 | 25°12 | 13°33 | 13°58 | 0°13 | 2°35 | F 5 | | | | | | | | |
| S 6 | 5 22 36 | 20°25'00 | 12♁36 | 7°15 | 18°35 | 22°15 | 20° 5 | 16°21 | 11° 5 | 6°17 | 25°12 | 13°20 | 13°54 | 0°19 | 2°37 | S 6 | | | | | | | | |
| S 7 | 5 26 32 | 21°26'10 | 24°58 | 8°46 | 19°51 | 23° 0 | 20°11 | 16°20 | 11° 6 | 6°15 | 25°12 | 13°10 | 13°51 | 0°26 | 2°39 | S 7 | | | | | | | | |
| M 8 | 5 30 29 | 22°27'20 | 7♁6 | 10°17 | 21° 6 | 23°45 | 20°16 | 16°20 | 11° 7 | 6°14 | 25°12 | 13° 2 | 13°48 | 0°33 | 2°40 | M 8 | | | | | | | | |
| T 9 | 5 34 25 | 23°28'31 | 19° 3 | 11°48 | 22°22 | 24°30 | 20°22 | 16°19 | 11° 9 | 6°12 | 25°13 | 12°57 | 13°45 | 0°39 | 2°42 | T 9 | | | | | | | | |
| W10 | 5 38 22 | 24°29'42 | 0♎53 | 13°20 | 23°37 | 25°15 | 20°29 | 16°19 | 11°10 | 6°10 | 25°13 | 12°55 | 13°42 | 0°46 | 2°44 | W10 | | | | | | | | |
| T 11 | 5 42 18 | 25°30'53 | 12°40 | 14°52 | 24°53 | 26° 0 | 20°35 | 16°19 | 11°11 | 6° 9 | 25°13 | 12°D54 | 13°39 | 0°53 | 2°46 | T 11 | | | | | | | | |
| F 12 | 5 46 15 | 26°32'05 | 24°29 | 16°25 | 26° 8 | 26°45 | 20°41 | 16°18 | 11°13 | 6° 7 | 25°13 | 12°R55 | 13°35 | 0°59 | 2°48 | F 12 | | | | | | | | |
| S 13 | 5 50 11 | 27°33'17 | 6♁27 | 17°58 | 27°24 | 27°30 | 20°48 | 16°D18 | 11°14 | 6° 5 | 25°13 | 12°54 | 13°32 | 1° 6 | 2°50 | S 13 | | | | | | | | |
| S 14 | 5 54 8 | 28°34'29 | 18°39 | 19°31 | 28°39 | 28°14 | 20°55 | 16°19 | 11°16 | 6° 4 | 25°14 | 12°52 | 13°29 | 1°12 | 2°52 | S 14 | | | | | | | | |
| M15 | 5 58 5 | 29°35'42 | 1♌9 | 21° 4 | 29°55 | 28°59 | 21° 2 | 16°19 | 11°17 | 6° 2 | 25°14 | 12°48 | 13°26 | 1°19 | 2°54 | M15 | | | | | | | | |
| T 16 | 6 2 1 | 0♁36'55 | 14° 3 | 22°38 | 1♁10 | 29°44 | 21° 9 | 16°19 | 11°19 | 6° 0 | 25°14 | 12°41 | 13°23 | 1°26 | 2°56 | T 16 | | | | | | | | |
| W17 | 6 5 58 | 1°38'07 | 27°22 | 24°12 | 2°26 | 0♋29 | 21°17 | 16°19 | 11°20 | 5°59 | 25°14 | 12°32 | 13°20 | 1°32 | 2°59 | W17 | | | | | | | | |
| T 18 | 6 9 54 | 2°39'20 | 11♁6 | 25°47 | 3°41 | 1°14 | 21°24 | 16°20 | 11°22 | 5°57 | 25°15 | 12°21 | 13°16 | 1°39 | 3° 1 | T 18 | | | | | | | | |
| F 19 | 6 13 51 | 3°40'33 | 25°14 | 27°22 | 4°57 | 1°59 | 21°32 | 16°21 | 11°24 | 5°55 | 25°15 | 12°10 | 13°13 | 1°46 | 3° 3 | F 19 | | | | | | | | |
| S 20 | 6 17 47 | 4°41'46 | 9♁41 | 28°57 | 6°12 | 2°44 | 21°40 | 16°21 | 11°26 | 5°54 | 25°15 | 11°58 | 13°10 | 1°52 | 3° 6 | S 20 | | | | | | | | |
| S 21 | 6 21 44 | 5°42'58 | 24°18 | 0♁33 | 7°28 | 3°28 | 21°47 | 16°22 | 11°27 | 5°52 | 25°16 | 11°49 | 13° 7 | 1°59 | 3° 8 | S 21 | | | | | | | | |
| M22 | 6 25 40 | 6°44'10 | 9♁0 | 2° 9 | 8°43 | 4°13 | 21°56 | 16°23 | 11°29 | 5°50 | 25°16 | 11°43 | 13° 4 | 2° 6 | 3°11 | M22 | | | | | | | | |
| T 23 | 6 29 37 | 7°45'21 | 23°39 | 3°46 | 9°59 | 4°58 | 22° 4 | 16°24 | 11°31 | 5°48 | 25°17 | 11°39 | 13° 0 | 2°12 | 3°13 | T 23 | | | | | | | | |
| W24 | 6 33 34 | 8°46'32 | 8♋9 | 5°23 | 11°14 | 5°43 | 22°12 | 16°26 | 11°33 | 5°47 | 25°17 | 11°D38 | 12°57 | 2°19 | 3°16 | W24 | | | | | | | | |
| T 25 | 6 37 30 | 9°47'41 | 22°26 | 7° 0 | 12°30 | 6°27 | 22°21 | 16°27 | 11°35 | 5°45 | 25°18 | 11°38 | 12°54 | 2°26 | 3°18 | T 25 | | | | | | | | |
| F 26 | 6 41 27 | 10°48'50 | 6♍30 | 8°39 | 13°45 | 7°12 | 22°30 | 16°28 | 11°37 | 5°43 | 25°18 | 11°R38 | 12°51 | 2°32 | 3°21 | F 26 | | | | | | | | |
| S 27 | 6 45 23 | 11°49'59 | 20°19 | 10°17 | 15° 0 | 7°57 | 22°38 | 16°30 | 11°39 | 5°42 | 25°19 | 11°38 | 12°48 | 2°39 | 3°24 | S 27 | | | | | | | | |
| S 28 | 6 49 20 | 12°51'06 | 3♁54 | 11°56 | 16°16 | 8°42 | 22°47 | 16°32 | 11°41 | 5°40 | 25°19 | 11°36 | 12°45 | 2°46 | 3°26 | S 28 | | | | | | | | |
| M29 | 6 53 16 | 13°52'13 | 17°16 | 13°36 | 17°31 | 9°26 | 22°56 | 16°33 | 11°43 | 5°38 | 25°20 | 11°31 | 12°41 | 2°52 | 3°29 | M29 | | | | | | | | |
| T 30 | 6 57 13 | 14°53'18 | 0♌25 | 15°16 | 18°47 | 10°11 | 23° 6 | 16°35 | 11°46 | 5°37 | 25°20 | 11°24 | 12°38 | 2°59 | 3°32 | T 30 | | | | | | | | |
| W31 | 7 1 9 | 15♁54'23 | 13♌23 | 16♁57 | 20♁2 | 10♋55 | 23♋15 | 16♍37 | 11♋48 | 5♁35 | 25♋21 | 11♎15 | 12♎35 | 3♎6 | 3♋35 | W31 | | | | | | | | |

Delta T = 18m29s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1086
geocentric

JANUARY 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|---------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|------|------|-----|
| T 1 | 7 5 6 | 16♄55'27 | 26♂II 9 | 18♄38 | 21♄17 | 11♂40 | 23♂25 | 16♂39 | 11♂50 | 5°R33 | 25♂22 | 11°R 5 | 12♂32 | 3♂12 | 3♂38 | T 1 | |
| F 2 | 7 9 3 | 17°56'30 | 8♄42 | 20°20 | 22°33 | 12°25 | 23°34 | 16°42 | 11°52 | 5♄32 | 25°22 | 10♂54 | 12°29 | 3°19 | 3°41 | F 2 | |
| S 3 | 7 12 59 | 18°57'33 | 21° 5 | 22° 2 | 23°48 | 13° 9 | 23°44 | 16°44 | 11°55 | 5°30 | 25°23 | 10°45 | 12°26 | 3°25 | 3°44 | S 3 | |
| S 4 | 7 16 56 | 19°58'34 | 3♂16 | 23°45 | 25° 3 | 13°54 | 23°54 | 16°46 | 11°57 | 5°28 | 25°24 | 10°37 | 12°22 | 3°32 | 3°46 | S 4 | |
| M 5 | 7 20 52 | 20°59'35 | 15°17 | 25°28 | 26°19 | 14°38 | 24° 4 | 16°49 | 12° 0 | 5°27 | 25°25 | 10°31 | 12°19 | 3°39 | 3°50 | M 5 | |
| T 6 | 7 24 49 | 22° 0'35 | 27°10 | 27°12 | 27°34 | 15°23 | 24°14 | 16°51 | 12° 2 | 5°25 | 25°25 | 10°28 | 12°16 | 3°45 | 3°53 | T 6 | |
| W 7 | 7 28 45 | 23° 1'34 | 8♂58 | 28°57 | 28°49 | 16° 7 | 24°24 | 16°54 | 12° 5 | 5°23 | 25°26 | 10°D27 | 12°13 | 3°52 | 3°56 | W 7 | |
| T 8 | 7 32 42 | 24° 2'33 | 20°45 | 0♄41 | 0♄5 | 16°51 | 24°35 | 16°57 | 12° 7 | 5°22 | 25°27 | 10°27 | 12°10 | 3°59 | 3°59 | T 8 | |
| F 9 | 7 36 38 | 25° 3'30 | 2♄34 | 2°27 | 1°20 | 17°36 | 24°45 | 17° 0 | 12°10 | 5°20 | 25°28 | 10°29 | 12° 6 | 4° 5 | 4° 2 | F 9 | |
| S 10 | 7 40 35 | 26° 4'27 | 14°30 | 4°12 | 2°35 | 18°20 | 24°56 | 17° 3 | 12°12 | 5°19 | 25°28 | 10°30 | 12° 3 | 4°12 | 4° 5 | S 10 | |
| S 11 | 7 44 32 | 27° 5'23 | 26°40 | 5°58 | 3°50 | 19° 4 | 25° 6 | 17° 6 | 12°15 | 5°17 | 25°29 | 10°R31 | 12° 0 | 4°19 | 4° 8 | S 11 | |
| M12 | 7 48 28 | 28° 6'19 | 9♂17 | 7°43 | 5° 6 | 19°49 | 25°17 | 17° 9 | 12°17 | 5°16 | 25°30 | 10°30 | 11°57 | 4°25 | 4°12 | M12 | |
| T 13 | 7 52 25 | 29° 7'13 | 21°57 | 9°29 | 6°21 | 20°33 | 25°28 | 17°13 | 12°20 | 5°14 | 25°31 | 10°28 | 11°54 | 4°32 | 4°15 | T 13 | |
| W14 | 7 56 21 | 0♄8'07 | 5♂13 | 11°15 | 7°36 | 21°17 | 25°39 | 17°16 | 12°23 | 5°13 | 25°32 | 10°23 | 11°51 | 4°39 | 4°18 | W14 | |
| T 15 | 8 0 18 | 1° 9'00 | 18°57 | 13° 0 | 8°51 | 22° 1 | 25°50 | 17°20 | 12°26 | 5°11 | 25°33 | 10°18 | 11°47 | 4°45 | 4°22 | T 15 | |
| F 16 | 8 4 14 | 2° 9'52 | 3♄9 | 14°44 | 10° 7 | 22°46 | 26° 1 | 17°23 | 12°28 | 5°10 | 25°34 | 10°12 | 11°44 | 4°52 | 4°25 | F 16 | |
| S 17 | 8 8 11 | 3°10'42 | 17°45 | 16°28 | 11°22 | 23°30 | 26°13 | 17°27 | 12°31 | 5° 8 | 25°35 | 10° 5 | 11°41 | 4°58 | 4°28 | S 17 | |
| S 18 | 8 12 7 | 4°11'32 | 2♄38 | 18°10 | 12°37 | 24°14 | 26°24 | 17°31 | 12°34 | 5° 7 | 25°36 | 10° 0 | 11°38 | 5° 5 | 4°32 | S 18 | |
| M19 | 8 16 4 | 5°12'20 | 17°41 | 19°51 | 13°52 | 24°58 | 26°36 | 17°35 | 12°37 | 5° 5 | 25°37 | 9°57 | 11°35 | 5°12 | 4°35 | M19 | |
| T 20 | 8 20 1 | 6°13'07 | 2♂44 | 21°30 | 15° 7 | 25°42 | 26°47 | 17°39 | 12°40 | 5° 4 | 25°38 | 9°D55 | 11°32 | 5°18 | 4°39 | T 20 | |
| W21 | 8 23 57 | 7°13'52 | 17°38 | 23° 6 | 16°22 | 26°26 | 26°59 | 17°43 | 12°43 | 5° 2 | 25°39 | 9°55 | 11°28 | 5°25 | 4°42 | W21 | |
| T 22 | 8 27 54 | 8°14'36 | 2♂17 | 24°40 | 17°37 | 27°10 | 27°11 | 17°47 | 12°46 | 5° 1 | 25°40 | 9°56 | 11°25 | 5°32 | 4°46 | T 22 | |
| F 23 | 8 31 50 | 9°15'18 | 16°36 | 26°10 | 18°53 | 27°54 | 27°23 | 17°51 | 12°49 | 5° 0 | 25°41 | 9°58 | 11°22 | 5°38 | 4°49 | F 23 | |
| S 24 | 8 35 47 | 10°15'58 | 0♄34 | 27°36 | 20° 8 | 28°38 | 27°35 | 17°55 | 12°52 | 4°58 | 25°42 | 9°59 | 11°19 | 5°45 | 4°53 | S 24 | |
| S 25 | 8 39 43 | 11°16'36 | 14°10 | 28°57 | 21°23 | 29°22 | 27°47 | 18° 0 | 12°55 | 4°57 | 25°43 | 10°R 0 | 11°16 | 5°52 | 4°57 | S 25 | |
| M26 | 8 43 40 | 12°17'13 | 27°27 | 0♂13 | 22°38 | 0♂6 | 27°59 | 18° 4 | 12°58 | 4°56 | 25°44 | 9°59 | 11°12 | 5°58 | 5° 0 | M26 | |
| T 27 | 8 47 36 | 13°17'48 | 10♂25 | 1°22 | 23°53 | 0°49 | 28°11 | 18° 9 | 13° 1 | 4°54 | 25°45 | 9°56 | 11° 9 | 6° 5 | 5° 4 | T 27 | |
| W28 | 8 51 33 | 14°18'21 | 23° 7 | 2°25 | 25° 8 | 1°33 | 28°23 | 18°14 | 13° 4 | 4°53 | 25°46 | 9°53 | 11° 6 | 6°12 | 5° 7 | W28 | |
| T 29 | 8 55 30 | 15°18'52 | 5♄35 | 3°20 | 26°23 | 2°17 | 28°36 | 18°19 | 13° 7 | 4°52 | 25°48 | 9°49 | 11° 3 | 6°18 | 5°11 | T 29 | |
| F 30 | 8 59 26 | 16°19'22 | 17°52 | 4° 7 | 27°38 | 3° 1 | 28°48 | 18°23 | 13°10 | 4°51 | 25°49 | 9°45 | 11° 0 | 6°25 | 5°15 | F 30 | |
| S 31 | 9 3 23 | 17°19'49 | 29♄59 | 4♂45 | 28°53 | 3♂44 | 29♂1 | 18°28 | 13°13 | 4♄50 | 25♂50 | 9♂41 | 10♂57 | 6♂32 | 5♂19 | S 31 | |

Delta T = 18m29s Julian Calendar 1 Jan. 1086 == Greg. Calendar 7 Jan. 1086

FEBRUARY 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|-----|
| S 1 | 9 7 19 | 18°20'15 | 11♂59 | 5♂14 | 0♂7 | 4♂28 | 29♂13 | 18°33 | 13°17 | 4°R49 | 25♂51 | 9°R38 | 10♂53 | 6♂38 | 5♂22 | S 1 | |
| M 2 | 9 11 16 | 19°20'40 | 23°52 | 5°33 | 1°22 | 5°11 | 29°26 | 18°38 | 13°20 | 4♄47 | 25°52 | 9♂36 | 10°50 | 6°45 | 5°26 | M 2 | |
| T 3 | 9 15 12 | 20°21'02 | 5♂42 | 5°R42 | 2°37 | 5°55 | 29°39 | 18°44 | 13°23 | 4°46 | 25°54 | 9°D35 | 10°47 | 6°51 | 5°30 | T 3 | |
| W 4 | 9 19 9 | 21°21'23 | 17°29 | 5°41 | 3°52 | 6°38 | 29°52 | 18°49 | 13°26 | 4°45 | 25°55 | 9°35 | 10°44 | 6°58 | 5°33 | W 4 | |
| T 5 | 9 23 5 | 22°21'42 | 29°17 | 5°30 | 5° 7 | 7°22 | 0♂5 | 18°54 | 13°30 | 4°44 | 25°56 | 9°36 | 10°41 | 7° 5 | 5°37 | T 5 | |
| F 6 | 9 27 2 | 23°22'00 | 11♄9 | 5°10 | 6°22 | 8° 5 | 0°18 | 19° 0 | 13°33 | 4°43 | 25°57 | 9°38 | 10°38 | 7°11 | 5°41 | F 6 | |
| S 7 | 9 30 59 | 24°22'16 | 23° 8 | 4°41 | 7°36 | 8°49 | 0°31 | 19° 5 | 13°36 | 4°42 | 25°59 | 9°39 | 10°34 | 7°18 | 5°45 | S 7 | |
| S 8 | 9 34 55 | 25°22'31 | 5♂18 | 4° 3 | 8°51 | 9°32 | 0°44 | 19°11 | 13°39 | 4°41 | 26° 0 | 9°40 | 10°31 | 7°25 | 5°49 | S 8 | |
| M 9 | 9 38 52 | 26°22'44 | 17°43 | 3°18 | 10° 6 | 10°15 | 0°57 | 19°16 | 13°43 | 4°40 | 26° 1 | 9°41 | 10°28 | 7°31 | 5°52 | M 9 | |
| T 10 | 9 42 48 | 27°22'55 | 0♂29 | 2°27 | 11°21 | 10°59 | 1°10 | 19°22 | 13°46 | 4°39 | 26° 3 | 9°R41 | 10°25 | 7°38 | 5°56 | T 10 | |
| W11 | 9 46 45 | 28°23'05 | 13°37 | 1°31 | 12°35 | 11°42 | 1°23 | 19°28 | 13°49 | 4°39 | 26° 4 | 9°41 | 10°22 | 7°45 | 6° 0 | W11 | |
| T 12 | 9 50 41 | 29°23'13 | 27°13 | 0°32 | 13°50 | 12°25 | 1°37 | 19°34 | 13°53 | 4°38 | 26° 5 | 9°40 | 10°18 | 7°51 | 6° 4 | T 12 | |
| F 13 | 9 54 38 | 0♂23'20 | 11♄15 | 29°30 | 15° 5 | 13° 8 | 1°50 | 19°39 | 13°56 | 4°37 | 26° 7 | 9°39 | 10°15 | 7°58 | 6° 8 | F 13 | |
| S 14 | 9 58 34 | 1°23'26 | 25°44 | 28°29 | 16°19 | 13°51 | 2° 3 | 19°45 | 13°59 | 4°36 | 26° 8 | 9°38 | 10°12 | 8° 5 | 6°12 | S 14 | |
| S 15 | 10 2 31 | 2°23'29 | 10♄35 | 27°28 | 17°34 | 14°34 | 2°17 | 19°51 | 14° 3 | 4°35 | 26° 9 | 9°37 | 10° 9 | 8°11 | 6°15 | S 15 | |
| M16 | 10 6 28 | 3°23'30 | 25°42 | 26°29 | 18°48 | 15°17 | 2°30 | 19°57 | 14° 6 | 4°35 | 26°11 | 9°36 | 10° 6 | 8°18 | 6°19 | M16 | |
| T 17 | 10 10 24 | 4°23'30 | 10♂55 | 25°34 | 20° 3 | 16° 0 | 2°44 | 20° 4 | 14°10 | 4°34 | 26°12 | 9°D36 | 10° 3 | 8°24 | 6°23 | T 17 | |
| W18 | 10 14 21 | 5°23'28 | 26° 5 | 24°43 | 21°17 | 16°43 | 2°58 | 20°10 | 14°13 | 4°33 | 26°13 | 9°36 | 9°59 | 8°31 | 6°27 | W18 | |
| T 19 | 10 18 17 | 6°23'23 | 11♂2 | 23°57 | 22°32 | 17°26 | 3°11 | 20°16 | 14°16 | 4°33 | 26°15 | 9°37 | 9°56 | 8°38 | 6°31 | T 19 | |
| F 20 | 10 22 14 | 7°23'16 | 25°40 | 23°17 | 23°46 | 18° 9 | 3°25 | 20°22 | 14°20 | 4°32 | 26°16 | 9°37 | 9°53 | 8°44 | 6°35 | F 20 | |
| S 21 | 10 26 10 | 8°23'08 | 9♄53 | 22°43 | 25° 1 | 18°52 | 3°39 | 20°29 | 14°23 | 4°31 | 26°18 | 9°37 | 9°50 | 8°51 | 6°38 | S 21 | |
| S 22 | 10 30 7 | 9°22'57 | 23°40 | 22°16 | 26°15 | 19°35 | 3°53 | 20°35 | 14°27 | 4°31 | 26°19 | 9°R37 | 9°47 | 8°58 | 6°42 | S 22 | |
| M23 | 10 34 3 | 10°22'43 | 7♂12 | 21°54 | 27°30 | 20°17 | 4° 6 | 20°42 | 14°30 | 4°30 | 26°20 | 9°D37 | 9°43 | 9° 4 | 6°46 | M23 | |
| T 24 | 10 38 0 | 11°22'27 | 19°59 | 21°40 | 28°44 | 21° 0 | 4°20 | 20°48 | 14°33 | 4°30 | 26°22 | 9°37 | 9°40 | 9°11 | 6°50 | T 24 | |
| W25 | 10 41 56 | 12°22'09 | 2♄36 | 21°31 | 29°58 | 21°43 | 4°34 | 20°55 | 14°37 | 4°29 | 26°23 | 9°37 | 9°37 | 9°18 | 6°54 | W25 | |
| T 26 | 10 45 53 | 13°21'49 | 14°56 | 21°D29 | 1°12 | 22°25 | 4°48 | 21° 1 | 14°40 | 4°29 | 26°25 | 9°38 | 9°34 | 9°24 | 6°58 | T 26 | |
| F 27 | 10 49 50 | 14°21'27 | 27° 3 | 21°33 | 2°27 | 23° 8 | 5° 2 | 21° 8 | 14°44 | 4°29 | 26°26 | 9°38 | 9°31 | 9°31 | 7° 1 | F 27 | |
| S 28 | 10 53 46 | 15°21'02 | 9♂0 | 21°42 | 3♂41 | 23°51 | 5♂16 | 21°15 | 14°47 | 4♄28 | 26♂28 | 9♂39 | 9♂28 | 9♂38 | 7♂5 | S 28 | |

Delta T = 18m28s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1086
geocentric

MARCH 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|------|---|-----|
| S 1 | 10 57 43 | 16♂20'35 | 20♏51 | 21♏57 | 4♃55 | 24♃33 | 5♃30 | 21♃22 | 14♂51 | 4♃28 | 26♂29 | 9♏39 | 9♏24 | 9♏44 | 7♂9 | S 1 | | |
| M 2 | 11 1 39 | 17°20'05 | 2♏40 | 22°17 | 6° 9 | 25°15 | 5°44 | 21°28 | 14°54 | 4♃28 | 26°30 | 9°40 | 9°21 | 9°51 | 7°13 | M 2 | | |
| T 3 | 11 5 36 | 18°19'34 | 14°27 | 22°42 | 7°23 | 25°58 | 5°58 | 21°35 | 14°58 | 4°28 | 26°32 | 9°40 | 9°18 | 9°58 | 7°17 | T 3 | | |
| W 4 | 11 9 32 | 19°19'00 | 26°16 | 23°12 | 8°37 | 26°40 | 6°13 | 21°42 | 15° 1 | 4°27 | 26°33 | 9°39 | 9°15 | 10° 4 | 7°20 | W 4 | | |
| T 5 | 11 13 29 | 20°18'25 | 8♏9 | 23°46 | 9°51 | 27°23 | 6°27 | 21°49 | 15° 4 | 4°27 | 26°35 | 9°38 | 9°12 | 10°11 | 7°24 | T 5 | | |
| F 6 | 11 17 25 | 21°17'47 | 20° 8 | 24°24 | 11° 5 | 28° 5 | 6°41 | 21°56 | 15° 8 | 4°27 | 26°36 | 9°37 | 9° 9 | 10°17 | 7°28 | F 6 | | |
| S 7 | 11 21 22 | 22°17'07 | 2♏15 | 25° 6 | 12°19 | 28°47 | 6°55 | 22° 3 | 15°11 | 4°27 | 26°38 | 9°35 | 9° 5 | 10°24 | 7°32 | S 7 | | |
| S 8 | 11 25 19 | 23°16'26 | 14°32 | 25°51 | 13°33 | 29°29 | 7° 9 | 22°10 | 15°15 | 4°27 | 26°39 | 9°33 | 9° 2 | 10°31 | 7°35 | S 8 | | |
| M 9 | 11 29 15 | 24°15'43 | 27° 3 | 26°40 | 14°47 | 0♃11 | 7°24 | 22°17 | 15°18 | 4°27 | 26°41 | 9°31 | 8°59 | 10°37 | 7°39 | M 9 | | |
| T 10 | 11 33 12 | 25°14'58 | 9♏49 | 27°33 | 16° 1 | 0°53 | 7°38 | 22°25 | 15°21 | 4°D27 | 26°42 | 9°30 | 8°56 | 10°44 | 7°43 | T 10 | | |
| W 11 | 11 37 8 | 26°14'11 | 22°55 | 28°28 | 17°15 | 1°36 | 7°52 | 22°32 | 15°25 | 4°27 | 26°44 | 9°D29 | 8°53 | 10°51 | 7°47 | W 11 | | |
| T 12 | 11 41 5 | 27°13'22 | 6♃22 | 29°27 | 18°29 | 2°18 | 8° 6 | 22°39 | 15°28 | 4°27 | 26°45 | 9°30 | 8°49 | 10°57 | 7°50 | T 12 | | |
| F 13 | 11 45 1 | 28°12'32 | 20°12 | 0♃28 | 19°42 | 3° 0 | 8°21 | 22°46 | 15°32 | 4°27 | 26°47 | 9°30 | 8°46 | 11° 4 | 7°54 | F 13 | | |
| S 14 | 11 48 58 | 29°11'40 | 4♏26 | 1°32 | 20°56 | 3°42 | 8°35 | 22°54 | 15°35 | 4°27 | 26°48 | 9°32 | 8°43 | 11°11 | 7°58 | S 14 | | |
| S 15 | 11 52 54 | 0♃10'46 | 19° 2 | 2°38 | 22°10 | 4°23 | 8°50 | 23° 1 | 15°38 | 4°27 | 26°49 | 9°33 | 8°40 | 11°17 | 8° 1 | S 15 | | |
| M 16 | 11 56 51 | 1° 9'50 | 3♂55 | 3°46 | 23°23 | 5° 5 | 9° 4 | 23° 8 | 15°42 | 4°27 | 26°51 | 9°R34 | 8°37 | 11°24 | 8° 5 | M 16 | | |
| T 17 | 12 0 48 | 2° 8'52 | 19° 0 | 4°57 | 24°37 | 5°47 | 9°18 | 23°16 | 15°45 | 4°28 | 26°52 | 9°34 | 8°34 | 11°31 | 8° 8 | T 17 | | |
| W 18 | 12 4 44 | 3° 7'52 | 4♃9 | 6°10 | 25°51 | 6°29 | 9°33 | 23°23 | 15°48 | 4°28 | 26°54 | 9°32 | 8°30 | 11°37 | 8°12 | W 18 | | |
| T 19 | 12 8 41 | 4° 6'50 | 19°10 | 7°26 | 27° 4 | 7°11 | 9°47 | 23°30 | 15°52 | 4°28 | 26°55 | 9°30 | 8°27 | 11°44 | 8°16 | T 19 | | |
| F 20 | 12 12 37 | 5° 5'46 | 3♂56 | 8°43 | 28°18 | 7°52 | 10° 1 | 23°38 | 15°55 | 4°28 | 26°57 | 9°26 | 8°24 | 11°50 | 8°19 | F 20 | | |
| S 21 | 12 16 34 | 6° 4'39 | 18°21 | 10° 2 | 29°31 | 8°34 | 10°16 | 23°45 | 15°58 | 4°29 | 26°58 | 9°23 | 8°21 | 11°57 | 8°23 | S 21 | | |
| S 22 | 12 20 30 | 7° 3'31 | 2♏18 | 11°23 | 0♃44 | 9°16 | 10°30 | 23°53 | 16° 1 | 4°29 | 27° 0 | 9°19 | 8°18 | 12° 4 | 8°26 | S 22 | | |
| M 23 | 12 24 27 | 8° 2'20 | 15°48 | 12°46 | 1°58 | 9°57 | 10°45 | 24° 0 | 16° 5 | 4°30 | 27° 1 | 9°16 | 8°14 | 12°10 | 8°30 | M 23 | | |
| T 24 | 12 28 23 | 9° 1'07 | 28°51 | 14°11 | 3°11 | 10°39 | 10°59 | 24° 8 | 16° 8 | 4°30 | 27° 3 | 9°14 | 8°11 | 12°17 | 8°33 | T 24 | | |
| W 25 | 12 32 20 | 9°59'52 | 11♃29 | 15°38 | 4°24 | 11°20 | 11°14 | 24°15 | 16°11 | 4°31 | 27° 4 | 9°D14 | 8° 8 | 12°24 | 8°36 | W 25 | | |
| T 26 | 12 36 16 | 10°58'34 | 23°48 | 17° 6 | 5°38 | 12° 2 | 11°28 | 24°23 | 16°14 | 4°31 | 27° 5 | 9°15 | 8° 5 | 12°30 | 8°40 | T 26 | | |
| F 27 | 12 40 13 | 11°57'14 | 5♏52 | 18°36 | 6°51 | 12°43 | 11°42 | 24°31 | 16°18 | 4°32 | 27° 7 | 9°16 | 8° 2 | 12°37 | 8°43 | F 27 | | |
| S 28 | 12 44 10 | 12°55'52 | 17°46 | 20° 8 | 8° 4 | 13°25 | 11°57 | 24°38 | 16°21 | 4°32 | 27° 8 | 9°18 | 7°59 | 12°44 | 8°46 | S 28 | | |
| S 29 | 12 48 6 | 13°54'27 | 29°34 | 21°41 | 9°17 | 14° 6 | 12°11 | 24°46 | 16°24 | 4°33 | 27°10 | 9°19 | 7°55 | 12°50 | 8°50 | S 29 | | |
| M 30 | 12 52 3 | 14°53'01 | 11♏20 | 23°17 | 10°30 | 14°47 | 12°26 | 24°54 | 16°27 | 4°34 | 27°11 | 9°R20 | 7°52 | 12°57 | 8°53 | M 30 | | |
| T 31 | 12 55 59 | 15°51'32 | 23♏9 | 24♂54 | 11♂43 | 15♂29 | 12°40 | 25°5 | 16°30 | 4♃34 | 27♂13 | 9♏19 | 7♏49 | 13♏4 | 8♂56 | T 31 | | |

Delta T = 18m28s Julian Calendar 1 March 1086 == Greg. Calendar 7 March 1086

APRIL 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|---|-----|
| W 1 | 12 59 56 | 16♃50'01 | 5♏2 | 26♂32 | 12♂56 | 16♂10 | 12♃55 | 25°9 | 16♂33 | 4♃35 | 27♂14 | 9°R16 | 7♏46 | 13♏10 | 8♂59 | W 1 | | |
| T 2 | 13 3 52 | 17°48'29 | 17° 3 | 28°12 | 14° 9 | 16°51 | 13° 9 | 25°17 | 16°36 | 4°36 | 27°15 | 9°11 | 7°43 | 13°17 | 9° 3 | T 2 | | |
| F 3 | 13 7 49 | 18°46'54 | 29°13 | 29°54 | 15°22 | 17°32 | 13°23 | 25°24 | 16°39 | 4°37 | 27°17 | 9° 5 | 7°40 | 13°23 | 9° 6 | F 3 | | |
| S 4 | 13 11 45 | 19°45'17 | 11♏34 | 1♃38 | 16°35 | 18°13 | 13°38 | 25°32 | 16°42 | 4°37 | 27°18 | 8°58 | 7°36 | 13°30 | 9° 9 | S 4 | | |
| S 5 | 13 15 42 | 20°43'39 | 24° 6 | 3°23 | 17°48 | 18°54 | 13°52 | 25°40 | 16°45 | 4°38 | 27°19 | 8°51 | 7°33 | 13°37 | 9°12 | S 5 | | |
| M 6 | 13 19 39 | 21°41'59 | 6♏50 | 5°10 | 19° 0 | 19°35 | 14° 6 | 25°47 | 16°48 | 4°39 | 27°21 | 8°44 | 7°30 | 13°43 | 9°15 | M 6 | | |
| T 7 | 13 23 35 | 22°40'18 | 19°47 | 6°59 | 20°13 | 20°16 | 14°21 | 25°55 | 16°51 | 4°40 | 27°22 | 8°38 | 7°27 | 13°50 | 9°18 | T 7 | | |
| W 8 | 13 27 32 | 23°38'35 | 2♃59 | 8°49 | 21°26 | 20°57 | 14°35 | 26° 3 | 16°54 | 4°41 | 27°24 | 8°34 | 7°24 | 13°57 | 9°21 | W 8 | | |
| T 9 | 13 31 28 | 24°36'50 | 16°26 | 10°42 | 22°38 | 21°38 | 14°49 | 26°11 | 16°57 | 4°42 | 27°25 | 8°32 | 7°20 | 14° 3 | 9°24 | T 9 | | |
| F 10 | 13 35 25 | 25°35'04 | 0♏9 | 12°36 | 23°51 | 22°19 | 15° 4 | 26°18 | 17° 0 | 4°43 | 27°26 | 8°D32 | 7°17 | 14°10 | 9°27 | F 10 | | |
| S 11 | 13 39 21 | 26°33'16 | 14°11 | 14°31 | 25° 3 | 23° 0 | 15°18 | 26°26 | 17° 3 | 4°44 | 27°28 | 8°33 | 7°14 | 14°17 | 9°30 | S 11 | | |
| S 12 | 13 43 18 | 27°31'27 | 28°29 | 16°28 | 26°16 | 23°41 | 15°32 | 26°34 | 17° 6 | 4°45 | 27°29 | 8°34 | 7°11 | 14°23 | 9°33 | S 12 | | |
| M 13 | 13 47 14 | 28°29'36 | 13♂2 | 18°27 | 27°28 | 24°22 | 15°47 | 26°41 | 17° 8 | 4°46 | 27°30 | 8°R34 | 7° 8 | 14°30 | 9°35 | M 13 | | |
| T 14 | 13 51 11 | 29°27'44 | 27°47 | 20°28 | 28°40 | 25° 2 | 16° 1 | 26°49 | 17°11 | 4°47 | 27°31 | 8°33 | 7° 5 | 14°37 | 9°38 | T 14 | | |
| W 15 | 13 55 8 | 0♃25'50 | 12♃38 | 22°30 | 29°53 | 25°43 | 16°15 | 26°57 | 17°14 | 4°48 | 27°33 | 8°29 | 7° 1 | 14°43 | 9°41 | W 15 | | |
| T 16 | 13 59 4 | 1°23'54 | 27°26 | 24°34 | 1♏5 | 26°24 | 16°29 | 27° 5 | 17°17 | 4°50 | 27°34 | 8°23 | 6°58 | 14°50 | 9°44 | T 16 | | |
| F 17 | 14 3 1 | 2°21'57 | 12♂5 | 26°39 | 2°17 | 27° 4 | 16°43 | 27°12 | 17°19 | 4°51 | 27°35 | 8°15 | 6°55 | 14°57 | 9°46 | F 17 | | |
| S 18 | 14 6 57 | 3°19'59 | 26°27 | 28°46 | 3°29 | 27°45 | 16°57 | 27°20 | 17°22 | 4°52 | 27°36 | 8° 7 | 6°52 | 15° 3 | 9°49 | S 18 | | |
| S 19 | 14 10 54 | 4°17'58 | 10♏26 | 0♃53 | 4°41 | 28°25 | 17°11 | 27°28 | 17°24 | 4°53 | 27°38 | 7°58 | 6°49 | 15°10 | 9°52 | S 19 | | |
| M 20 | 14 14 50 | 5°15'56 | 23°59 | 3° 2 | 5°53 | 29° 6 | 17°26 | 27°35 | 17°27 | 4°55 | 27°39 | 7°50 | 6°46 | 15°16 | 9°54 | M 20 | | |
| T 21 | 14 18 47 | 6°13'52 | 7♃6 | 5°12 | 7° 5 | 29°46 | 17°40 | 27°43 | 17°30 | 4°56 | 27°40 | 7°44 | 6°42 | 15°23 | 9°57 | T 21 | | |
| W 22 | 14 22 43 | 7°11'46 | 19°47 | 7°22 | 8°17 | 0♏27 | 17°54 | 27°51 | 17°32 | 4°57 | 27°41 | 7°41 | 6°39 | 15°30 | 9°59 | W 22 | | |
| T 23 | 14 26 40 | 8° 9'38 | 2♏8 | 9°33 | 9°29 | 1° 7 | 18° 7 | 27°58 | 17°35 | 4°59 | 27°42 | 7°39 | 6°36 | 15°36 | 10° 1 | T 23 | | |
| F 24 | 14 30 37 | 9° 7'29 | 14°13 | 11°43 | 10°41 | 1°48 | 18°21 | 28° 6 | 17°37 | 5° 0 | 27°44 | 7°D39 | 6°33 | 15°43 | 10° 4 | F 24 | | |
| S 25 | 14 34 33 | 10° 5'18 | 26° 7 | 13°54 | 11°53 | 2°28 | 18°35 | 28°14 | 17°39 | 5° 1 | 27°45 | 7°40 | 6°30 | 15°50 | 10° 6 | S 25 | | |
| S 26 | 14 38 30 | 11° 3'05 | 7♏55 | 16° 5 | 13° 4 | 3° 8 | 18°49 | 28°21 | 17°42 | 5° 3 | 27°46 | 7°R40 | 6°26 | 15°56 | 10° 8 | S 26 | | |
| M 27 | 14 42 26 | 12° 0'50 | 19°42 | 18°14 | 14°16 | 3°49 | 19° 3 | 28°29 | 17°44 | 5° 4 | 27°47 | 7°39 | 6°23 | 16° 3 | 10°11 | M 27 | | |
| T 28 | 14 46 23 | 12°58'33 | 1♏34 | 20°23 | 15°28 | 4°29 | 19°17 | 28°37 | 17°46 | 5° 6 | 27°48 | 7°37 | 6°20 | 16°10 | 10°13 | T 28 | | |
| W 29 | 14 50 19 | 13°56'15 | 13°33 | 22°31 | 16°39 | 5° 9 | 19°31 | 28°44 | 17°49 | 5° 7 | 27°49 | 7°32 | 6°17 | 16°16 | 10°15 | W 29 | | |
| T 30 | 14 54 16 | 14°53'56 | 25♏44 | 24♂37 | 17♏50 | 5♏49 | 19°44 | 28°52 | 17°51 | 5♃9 | 27♂50 | 7♏24 | 6♏14 | 16♏23 | 10♂17 | T 30 | | |

Delta T = 18m28s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1086
geocentric

MAY 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|-------|------|---|---|-----|
| F 1 | 14 58 12 | 15♁51'35 | 8♎ 7 | 26♁41 | 19♂ 2 | 6♂29 | 19♂58 | 28♂59 | 17♁53 | 5♁10 | 27♁51 | 7°R14 | 6♎11 | 16♎30 | 10♁19 | F 1 | | | |
| S 2 | 15 2 9 | 16°49'13 | 20°44 | 28°44 | 20°13 | 7° 9 | 20°11 | 29° 7 | 17°55 | 5°12 | 27°52 | 7♎ 3 | 6° 7 | 16°36 | 10°21 | S 2 | | | |
| S 3 | 15 6 5 | 17°46'49 | 3♁35 | 0♂44 | 21°24 | 7°49 | 20°25 | 29°14 | 17°57 | 5°14 | 27°53 | 6°51 | 6° 4 | 16°43 | 10°23 | S 3 | | | |
| M 4 | 15 10 2 | 18°44'25 | 16°39 | 2°42 | 22°35 | 8°29 | 20°39 | 29°22 | 17°59 | 5°15 | 27°54 | 6°39 | 6° 1 | 16°49 | 10°25 | M 4 | | | |
| T 5 | 15 13 59 | 19°41'59 | 29°55 | 4°38 | 23°47 | 9° 9 | 20°52 | 29°29 | 18° 1 | 5°17 | 27°55 | 6°30 | 5°58 | 16°56 | 10°27 | T 5 | | | |
| W 6 | 15 17 55 | 20°39'32 | 13♁23 | 6°31 | 24°58 | 9°49 | 21° 5 | 29°36 | 18° 3 | 5°19 | 27°56 | 6°23 | 5°55 | 17° 3 | 10°29 | W 6 | | | |
| T 7 | 15 21 52 | 21°37'04 | 27° 0 | 8°21 | 26° 9 | 10°29 | 21°19 | 29°44 | 18° 5 | 5°20 | 27°57 | 6°18 | 5°51 | 17° 9 | 10°30 | T 7 | | | |
| F 8 | 15 25 48 | 22°34'36 | 10♁48 | 10° 9 | 27°19 | 11° 9 | 21°32 | 29°51 | 18° 7 | 5°22 | 27°58 | 6°16 | 5°48 | 17°16 | 10°32 | F 8 | | | |
| S 9 | 15 29 45 | 23°32'06 | 24°46 | 11°54 | 28°30 | 11°49 | 21°45 | 29°59 | 18° 9 | 5°24 | 27°59 | 6°D16 | 5°45 | 17°23 | 10°34 | S 9 | | | |
| S 10 | 15 33 41 | 24°29'36 | 8♁53 | 13°36 | 29°41 | 12°29 | 21°59 | 0♁ 6 | 18°11 | 5°26 | 28° 0 | 6°R16 | 5°42 | 17°29 | 10°35 | S 10 | | | |
| M 11 | 15 37 38 | 25°27'04 | 23°10 | 15°15 | 0♁52 | 13° 9 | 22°12 | 0°13 | 18°13 | 5°27 | 28° 1 | 6°15 | 5°39 | 17°36 | 10°37 | M 11 | | | |
| T 12 | 15 41 34 | 26°24'32 | 7♂33 | 16°51 | 2° 2 | 13°49 | 22°25 | 0°20 | 18°15 | 5°29 | 28° 2 | 6°13 | 5°36 | 17°43 | 10°38 | T 12 | | | |
| W 13 | 15 45 31 | 27°22'00 | 22° 0 | 18°25 | 3°13 | 14°28 | 22°38 | 0°28 | 18°16 | 5°31 | 28° 3 | 6° 7 | 5°32 | 17°49 | 10°40 | W 13 | | | |
| T 14 | 15 49 28 | 28°19'26 | 6♁25 | 19°55 | 4°23 | 15° 8 | 22°51 | 0°35 | 18°18 | 5°33 | 28° 4 | 5°59 | 5°29 | 17°56 | 10°41 | T 14 | | | |
| F 15 | 15 53 24 | 29°16'52 | 20°44 | 21°23 | 5°34 | 15°48 | 23° 4 | 0°42 | 18°20 | 5°35 | 28° 4 | 5°49 | 5°26 | 18° 3 | 10°43 | F 15 | | | |
| S 16 | 15 57 21 | 0♂14'17 | 4♂49 | 22°47 | 6°44 | 16°27 | 23°17 | 0°49 | 18°21 | 5°37 | 28° 5 | 5°37 | 5°23 | 18° 9 | 10°44 | S 16 | | | |
| S 17 | 16 1 17 | 1°11'40 | 18°37 | 24° 8 | 7°54 | 17° 7 | 23°30 | 0°56 | 18°23 | 5°38 | 28° 6 | 5°25 | 5°20 | 18°16 | 10°45 | S 17 | | | |
| M 18 | 16 5 14 | 2° 9'03 | 2♁ 3 | 25°27 | 9° 4 | 17°47 | 23°43 | 1° 3 | 18°24 | 5°40 | 28° 7 | 5°15 | 5°17 | 18°23 | 10°46 | M 18 | | | |
| T 19 | 16 9 10 | 3° 6'25 | 15° 6 | 26°42 | 10°15 | 18°26 | 23°55 | 1°10 | 18°26 | 5°42 | 28° 7 | 5° 6 | 5°13 | 18°29 | 10°47 | T 19 | | | |
| W 20 | 16 13 7 | 4° 3'46 | 27°53 | 11°24 | 19° 6 | 24° 8 | 24° 8 | 1°17 | 18°27 | 5°44 | 28° 8 | 5° 0 | 5°10 | 18°36 | 10°49 | W 20 | | | |
| T 21 | 16 17 4 | 5° 1'06 | 10♁ 7 | 29° 2 | 12°34 | 19°45 | 24°20 | 1°24 | 18°28 | 5°46 | 28° 9 | 4°57 | 5° 7 | 18°43 | 10°50 | T 21 | | | |
| F 22 | 16 21 0 | 5°58'25 | 22°12 | 0♁ 7 | 13°44 | 20°25 | 24°33 | 1°31 | 18°30 | 5°48 | 28°10 | 4°55 | 5° 4 | 18°49 | 10°51 | F 22 | | | |
| S 23 | 16 24 57 | 6°55'43 | 4♎ 7 | 1° 9 | 14°54 | 21° 4 | 24°45 | 1°38 | 18°31 | 5°50 | 28°10 | 4°55 | 5° 1 | 18°56 | 10°51 | S 23 | | | |
| S 24 | 16 28 53 | 7°53'00 | 15°56 | 2° 8 | 16° 4 | 21°44 | 24°58 | 1°44 | 18°32 | 5°52 | 28°11 | 4°55 | 4°57 | 19° 2 | 10°52 | S 24 | | | |
| M 25 | 16 32 50 | 8°50'16 | 27°45 | 3° 2 | 17°13 | 22°23 | 25°10 | 1°51 | 18°33 | 5°54 | 28°12 | 4°54 | 4°54 | 19° 9 | 10°53 | M 25 | | | |
| T 26 | 16 36 46 | 9°47'31 | 9♁40 | 3°54 | 18°22 | 23° 3 | 25°22 | 1°58 | 18°34 | 5°56 | 28°12 | 4°51 | 4°51 | 19°16 | 10°54 | T 26 | | | |
| W 27 | 16 40 43 | 10°44'45 | 21°44 | 4°41 | 19°32 | 23°42 | 25°34 | 2° 4 | 18°35 | 5°58 | 28°13 | 4°46 | 4°48 | 19°22 | 10°55 | W 27 | | | |
| T 28 | 16 44 39 | 11°41'58 | 4♎ 2 | 5°25 | 20°41 | 24°21 | 25°46 | 2°11 | 18°37 | 6° 0 | 28°13 | 4°38 | 4°45 | 19°29 | 10°55 | T 28 | | | |
| F 29 | 16 48 36 | 12°39'11 | 16°37 | 6° 4 | 21°50 | 25° 1 | 25°58 | 2°18 | 18°38 | 6° 2 | 28°14 | 4°28 | 4°42 | 19°36 | 10°56 | F 29 | | | |
| S 30 | 16 52 32 | 13°36'23 | 29°29 | 6°40 | 22°59 | 25°40 | 26°10 | 2°24 | 18°38 | 6° 5 | 28°14 | 4°16 | 4°38 | 19°42 | 10°56 | S 30 | | | |
| S 31 | 16 56 29 | 14♂33'35 | 12♁40 | 7♁11 | 24♁ 8 | 26♂19 | 26♂22 | 2♁30 | 18♁39 | 6♁ 7 | 28♁15 | 4♎ 4 | 4♎35 | 19♎49 | 10♁57 | S 31 | | | |

Delta T = 18m28s Julian Calendar 1 May 1086 == Greg. Calendar 7 May 1086

JUNE 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|--------|------|--------|-------|------|-------|--------|------|---|---|-----|
| M 1 | 17 0 26 | 15♂30'46 | 26♁ 6 | 7♁39 | 25♁17 | 26♂58 | 26♂34 | 2♁37 | 18♁40 | 6♁ 9 | 28♁15 | 3°R52 | 4♎32 | 19♎56 | 10♁57 | M 1 | | | |
| T 2 | 17 4 22 | 16°27'57 | 9♁36 | 8° 2 | 26°26 | 27°37 | 26°45 | 2°43 | 18°41 | 6°11 | 28°16 | 3♎42 | 4°29 | 20° 2 | 10°58 | T 2 | | | |
| W 3 | 17 8 19 | 17°25'08 | 23°46 | 8°20 | 27°34 | 28°17 | 26°57 | 2°49 | 18°42 | 6°13 | 28°16 | 3°35 | 4°26 | 20° 9 | 10°58 | W 3 | | | |
| T 4 | 17 12 15 | 18°22'18 | 7♁34 | 8°34 | 28°43 | 28°56 | 27° 8 | 2°56 | 18°42 | 6°15 | 28°17 | 3°30 | 4°23 | 20°16 | 10°58 | T 4 | | | |
| F 5 | 17 16 12 | 19°19'28 | 21°37 | 8°43 | 29°51 | 29°35 | 27°20 | 3° 2 | 18°43 | 6°17 | 28°17 | 3°28 | 4°19 | 20°22 | 10°59 | F 5 | | | |
| S 6 | 17 20 8 | 20°16'39 | 5♁43 | 8°48 | 0♁59 | 0♁14 | 27°31 | 3° 8 | 18°44 | 6°19 | 28°17 | 3°D28 | 4°16 | 20°29 | 10°59 | S 6 | | | |
| S 7 | 17 24 5 | 21°13'49 | 19°51 | 8°R48 | 2° 7 | 0°53 | 27°42 | 3°14 | 18°44 | 6°22 | 28°18 | 3°R28 | 4°13 | 20°36 | 10°59 | S 7 | | | |
| M 8 | 17 28 2 | 22°10'59 | 3♂59 | 8°44 | 3°15 | 1°32 | 27°53 | 3°20 | 18°45 | 6°24 | 28°18 | 3°28 | 4°10 | 20°42 | 10°R59 | M 8 | | | |
| T 9 | 17 31 58 | 23° 8'10 | 18° 7 | 8°35 | 4°23 | 2°11 | 28° 4 | 3°26 | 18°45 | 6°26 | 28°18 | 3°26 | 4° 7 | 20°49 | 10°59 | T 9 | | | |
| W 10 | 17 35 55 | 24° 5'21 | 2♁12 | 8°22 | 5°31 | 2°50 | 28°15 | 3°32 | 18°46 | 6°28 | 28°19 | 3°21 | 4° 3 | 20°56 | 10°59 | W 10 | | | |
| T 11 | 17 39 51 | 25° 2'32 | 16°13 | 8° 5 | 6°38 | 3°29 | 28°26 | 3°38 | 18°46 | 6°30 | 28°19 | 3°14 | 4° 0 | 21° 2 | 10°59 | T 11 | | | |
| F 12 | 17 43 48 | 25°59'43 | 0♂ 6 | 7°43 | 7°46 | 4° 8 | 28°37 | 3°43 | 18°46 | 6°32 | 28°19 | 3° 5 | 3°57 | 21° 9 | 10°58 | F 12 | | | |
| S 13 | 17 47 44 | 26°56'54 | 13°47 | 7°18 | 8°53 | 4°47 | 28°47 | 3°49 | 18°47 | 6°35 | 28°19 | 2°54 | 3°54 | 21°15 | 10°58 | S 13 | | | |
| S 14 | 17 51 41 | 27°54'05 | 27°14 | 6°50 | 10° 0 | 5°26 | 28°58 | 3°55 | 18°47 | 6°37 | 28°20 | 2°44 | 3°51 | 21°22 | 10°58 | S 14 | | | |
| M 15 | 17 55 37 | 28°51'16 | 10♁23 | 6°18 | 11° 8 | 6° 5 | 29° 8 | 4° 0 | 18°47 | 6°39 | 28°20 | 2°34 | 3°48 | 21°29 | 10°58 | M 15 | | | |
| T 16 | 17 59 34 | 29°48'27 | 23°14 | 5°45 | 12°14 | 6°44 | 29°19 | 4° 6 | 18°47 | 6°41 | 28°20 | 2°26 | 3°44 | 21°35 | 10°57 | T 16 | | | |
| W 17 | 18 3 31 | 0♁45'39 | 5♁47 | 5° 9 | 13°21 | 7°23 | 29°29 | 4°11 | 18°47 | 6°44 | 28°20 | 2°21 | 3°41 | 21°42 | 10°57 | W 17 | | | |
| T 18 | 18 7 27 | 1°42'50 | 18° 4 | 4°32 | 14°28 | 8° 2 | 29°39 | 4°16 | 18°R47 | 6°46 | 28°20 | 2°17 | 3°38 | 21°49 | 10°56 | T 18 | | | |
| F 19 | 18 11 24 | 2°40'01 | 0♎ 7 | 3°54 | 15°34 | 8°41 | 29°49 | 4°22 | 18°47 | 6°48 | 28°20 | 2°D16 | 3°35 | 21°55 | 10°56 | F 19 | | | |
| S 20 | 18 15 20 | 3°37'12 | 12° 1 | 3°16 | 16°41 | 9°19 | 29°59 | 4°27 | 18°47 | 6°50 | 28°20 | 2°17 | 3°32 | 22° 2 | 10°55 | S 20 | | | |
| S 21 | 18 19 17 | 4°34'22 | 23°50 | 2°38 | 17°47 | 9°58 | 0♁ 9 | 4°32 | 18°47 | 6°52 | 28°20 | 2°17 | 3°29 | 22° 9 | 10°54 | S 21 | | | |
| M 22 | 18 23 13 | 5°31'33 | 5♁40 | 2° 2 | 18°53 | 10°37 | 0°18 | 4°37 | 18°47 | 6°55 | 28°20 | 2°R18 | 3°25 | 22°15 | 10°54 | M 22 | | | |
| T 23 | 18 27 10 | 6°28'44 | 17°35 | 1°28 | 19°58 | 11°16 | 0°28 | 4°42 | 18°47 | 6°57 | 28°R20 | 2°17 | 3°22 | 22°22 | 10°53 | T 23 | | | |
| W 24 | 18 31 6 | 7°25'55 | 29°42 | 0°56 | 21° 4 | 11°54 | 0°37 | 4°47 | 18°46 | 6°59 | 28°20 | 2°15 | 3°19 | 22°29 | 10°52 | W 24 | | | |
| T 25 | 18 35 3 | 8°23'06 | 12♎ 4 | 0°27 | 22° 9 | 12°33 | 0°46 | 4°52 | 18°46 | 7° 1 | 28°20 | 2°10 | 3°16 | 22°35 | 10°51 | T 25 | | | |
| F 26 | 18 39 0 | 9°20'18 | 24°45 | 0° 2 | 23°15 | 13°12 | 0°56 | 4°57 | 18°46 | 7° 4 | 28°20 | 2° 4 | 3°13 | 22°42 | 10°50 | F 26 | | | |
| S 27 | 18 42 56 | 10°17'29 | 7♁47 | 29♂40 | 24°20 | 13°51 | 1° 5 | 5° 1 | 18°45 | 7° 6 | 28°20 | 1°56 | 3° 9 | 22°49 | 10°49 | S 27 | | | |
| S 28 | 18 46 53 | 11°14'41 | 21°11 | 29°24 | 25°24 | 14°29 | 1°13 | 5° 6 | 18°45 | 7° 8 | 28°20 | 1°47 | 3° 6 | 22°55 | 10°48 | S 28 | | | |
| M 29 | 18 50 49 | 12°11'53 | 4♁56 | 29°12 | 26°29 | 15° 8 | 1°22 | 5°10 | 18°44 | 7°10 | 28°20 | 1°39 | 3° 3 | 23° 2 | 10°47 | M 29 | | | |
| T 30 | 18 54 46 | 13♁ 9'06 | 18♁58 | 29♂ 5 | 27♁33 | 15♁46 | 1♁31 | 5♁15 | 18♁44 | 7♁13 | 28♁20 | 1♎33 | 3♎ 0 | 23♎ 9 | 10♁46 | T 30 | | | |

Delta T = 18m27s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1086
geocentric

JULY 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | Day |
|------|----------|----------|-------|--------|-------|-------|------|------|--------|------|--------|-------|------|-------|--------|------|
| W 1 | 18 58 42 | 14☾ 6'19 | 3♋13 | 29°D 4 | 28♌38 | 16☾25 | 1♃39 | 5♄19 | 18°R43 | 7♅15 | 28°R20 | 1°R28 | 2♁57 | 23♁15 | 10°R45 | W 1 |
| T 2 | 19 2 39 | 15° 3'33 | 17°37 | 29♌ 8 | 29°41 | 17° 4 | 1°48 | 5°23 | 18♋43 | 7°17 | 28♋20 | 1♁25 | 2°54 | 23°22 | 10♋43 | T 2 |
| F 3 | 19 6 35 | 16° 0'48 | 2♋ 2 | 29°18 | 0♁45 | 17°42 | 1°56 | 5°28 | 18°42 | 7°19 | 28°19 | 1°D24 | 2°50 | 23°29 | 10°42 | F 3 |
| S 4 | 19 10 32 | 16°58'03 | 16°27 | 29°33 | 1°49 | 18°21 | 2° 4 | 5°32 | 18°41 | 7°21 | 28°19 | 1°25 | 2°47 | 23°35 | 10°41 | S 4 |
| S 5 | 19 14 29 | 17°55'19 | 0♁46 | 29°55 | 2°52 | 18°59 | 2°12 | 5°36 | 18°40 | 7°24 | 28°19 | 1°26 | 2°44 | 23°42 | 10°39 | S 5 |
| M 6 | 19 18 25 | 18°52'37 | 14°58 | 0☾23 | 3°55 | 19°38 | 2°20 | 5°40 | 18°39 | 7°26 | 28°19 | 1°R27 | 2°41 | 23°49 | 10°38 | M 6 |
| T 7 | 19 22 22 | 19°49'55 | 29° 0 | 0°56 | 4°58 | 20°16 | 2°28 | 5°43 | 18°39 | 7°28 | 28°18 | 1°27 | 2°38 | 23°55 | 10°36 | T 7 |
| W 8 | 19 26 18 | 20°47'14 | 12♄53 | 1°35 | 6° 0 | 20°55 | 2°35 | 5°47 | 18°38 | 7°30 | 28°18 | 1°25 | 2°35 | 24° 2 | 10°35 | W 8 |
| T 9 | 19 30 15 | 21°44'35 | 26°34 | 2°21 | 7° 2 | 21°33 | 2°43 | 5°51 | 18°37 | 7°32 | 28°18 | 1°21 | 2°31 | 24° 8 | 10°33 | T 9 |
| F 10 | 19 34 11 | 22°41'57 | 10♌ 3 | 3°12 | 8° 4 | 22°12 | 2°50 | 5°54 | 18°36 | 7°35 | 28°17 | 1°16 | 2°28 | 24°15 | 10°32 | F 10 |
| S 11 | 19 38 8 | 23°39'20 | 23°20 | 4° 8 | 9° 6 | 22°50 | 2°57 | 5°58 | 18°35 | 7°37 | 28°17 | 1°10 | 2°25 | 24°22 | 10°30 | S 11 |
| S 12 | 19 42 4 | 24°36'43 | 6☾23 | 5°11 | 10° 7 | 23°29 | 3° 4 | 6° 1 | 18°34 | 7°39 | 28°16 | 1° 4 | 2°22 | 24°28 | 10°28 | S 12 |
| M13 | 19 46 1 | 25°34'08 | 19°12 | 6°18 | 11° 8 | 24° 7 | 3°11 | 6° 5 | 18°32 | 7°41 | 28°16 | 0°58 | 2°19 | 24°35 | 10°26 | M13 |
| T 14 | 19 49 58 | 26°31'34 | 1♌46 | 7°32 | 12° 9 | 24°46 | 3°18 | 6° 8 | 18°31 | 7°43 | 28°16 | 0°54 | 2°15 | 24°42 | 10°25 | T 14 |
| W15 | 19 53 54 | 27°29'01 | 14° 7 | 8°50 | 13° 9 | 25°24 | 3°24 | 6°11 | 18°30 | 7°45 | 28°15 | 0°51 | 2°12 | 24°48 | 10°23 | W15 |
| T 16 | 19 57 51 | 28°26'28 | 26°15 | 10°14 | 14°10 | 26° 3 | 3°30 | 6°14 | 18°29 | 7°47 | 28°15 | 0°D50 | 2° 9 | 24°55 | 10°21 | T 16 |
| F 17 | 20 1 47 | 29°23'57 | 8♁14 | 11°42 | 15° 9 | 26°41 | 3°37 | 6°17 | 18°28 | 7°49 | 28°14 | 0°50 | 2° 6 | 25° 2 | 10°19 | F 17 |
| S 18 | 20 5 44 | 0♌21'26 | 20° 5 | 13°15 | 16° 9 | 27°19 | 3°43 | 6°20 | 18°26 | 7°52 | 28°14 | 0°51 | 2° 3 | 25° 8 | 10°17 | S 18 |
| S 19 | 20 9 40 | 1°18'56 | 1♄53 | 14°52 | 17° 8 | 27°58 | 3°49 | 6°22 | 18°25 | 7°54 | 28°13 | 0°53 | 2° 0 | 25°15 | 10°15 | S 19 |
| M20 | 20 13 37 | 2°16'27 | 13°42 | 16°33 | 18° 6 | 28°36 | 3°54 | 6°25 | 18°23 | 7°56 | 28°13 | 0°54 | 1°56 | 25°22 | 10°13 | M20 |
| T 21 | 20 17 33 | 3°13'59 | 25°37 | 18°18 | 19° 5 | 29°15 | 4° 0 | 6°28 | 18°22 | 7°58 | 28°12 | 0°56 | 1°53 | 25°28 | 10°11 | T 21 |
| W22 | 20 21 30 | 4°11'32 | 7♌43 | 20° 6 | 20° 3 | 29°53 | 4° 5 | 6°30 | 18°20 | 8° 0 | 28°11 | 0°R56 | 1°50 | 25°35 | 10° 9 | W22 |
| T 23 | 20 25 27 | 5° 9'06 | 20° 4 | 21°57 | 21° 0 | 0♌31 | 4°10 | 6°32 | 18°19 | 8° 2 | 28°11 | 0°55 | 1°47 | 25°42 | 10° 6 | T 23 |
| F 24 | 20 29 23 | 6° 6'41 | 2♄45 | 23°51 | 21°57 | 1° 9 | 4°15 | 6°35 | 18°17 | 8° 4 | 28°10 | 0°53 | 1°44 | 25°48 | 10° 4 | F 24 |
| S 25 | 20 33 20 | 7° 4'17 | 15°49 | 25°46 | 22°54 | 1°48 | 4°20 | 6°37 | 18°16 | 8° 6 | 28° 9 | 0°50 | 1°41 | 25°55 | 10° 2 | S 25 |
| S 26 | 20 37 16 | 8° 1'54 | 29°18 | 27°44 | 23°50 | 2°26 | 4°25 | 6°39 | 18°14 | 8° 8 | 28° 9 | 0°47 | 1°37 | 26° 2 | 10° 0 | S 26 |
| M27 | 20 41 13 | 8°59'32 | 13♄12 | 29°43 | 24°45 | 3° 4 | 4°29 | 6°41 | 18°12 | 8°10 | 28° 8 | 0°44 | 1°34 | 26° 8 | 9°57 | M27 |
| T 28 | 20 45 9 | 9°57'11 | 27°28 | 1♌43 | 25°41 | 3°43 | 4°34 | 6°43 | 18°11 | 8°12 | 28° 7 | 0°41 | 1°31 | 26°15 | 9°55 | T 28 |
| W29 | 20 49 6 | 10°54'52 | 12♄ 3 | 3°44 | 26°35 | 4°21 | 4°38 | 6°44 | 18° 9 | 8°14 | 28° 7 | 0°39 | 1°28 | 26°22 | 9°53 | W29 |
| T 30 | 20 53 2 | 11°52'33 | 26°49 | 5°46 | 27°29 | 4°59 | 4°42 | 6°46 | 18° 7 | 8°16 | 28° 6 | 0°D39 | 1°25 | 26°28 | 9°50 | T 30 |
| F 31 | 20 56 59 | 12♌50'17 | 11♋40 | 7♌47 | 28♁23 | 5♌37 | 4♄46 | 6♄47 | 18♋ 5 | 8♅18 | 28♋ 5 | 0♁39 | 1♁21 | 26♁35 | 9♋48 | F 31 |

Delta T = 18m27s Julian Calendar 1 July 1086 == Greg. Calendar 7 July 1086

AUGUST 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|------|--------|-------|-------|-------|-------|------|
| S 1 | 21 0 56 | 13♌48'02 | 26♋28 | 9♌48 | 29♁16 | 6♌16 | 4♄49 | 6♄49 | 18°R 4 | 8♅20 | 28°R 4 | 0♁40 | 1♁18 | 26♁42 | 9°R45 | S 1 |
| S 2 | 21 4 52 | 14°45'48 | 11♁ 6 | 11°49 | 0♁ 8 | 6°54 | 4°53 | 6°50 | 18♋ 2 | 8°21 | 28♋ 4 | 0°41 | 1°15 | 26°48 | 9♋43 | S 2 |
| M 3 | 21 8 49 | 15°43'37 | 25°32 | 13°49 | 1° 0 | 7°32 | 4°56 | 6°51 | 18° 0 | 8°23 | 28° 3 | 0°42 | 1°12 | 26°55 | 9°40 | M 3 |
| T 4 | 21 12 45 | 16°41'27 | 9♄40 | 15°49 | 1°51 | 8°10 | 4°59 | 6°52 | 17°58 | 8°25 | 28° 2 | 0°43 | 1° 9 | 27° 2 | 9°38 | T 4 |
| W 5 | 21 16 42 | 17°39'19 | 23°29 | 17°48 | 2°41 | 8°48 | 5° 2 | 6°53 | 17°56 | 8°27 | 28° 1 | 0°R43 | 1° 6 | 27° 8 | 9°35 | W 5 |
| T 6 | 21 20 38 | 18°37'13 | 7♌ 1 | 19°46 | 3°31 | 9°27 | 5° 5 | 6°54 | 17°54 | 8°29 | 28° 0 | 0°42 | 1° 2 | 27°15 | 9°33 | T 6 |
| F 7 | 21 24 35 | 19°35'08 | 20°15 | 21°42 | 4°20 | 10° 5 | 5° 7 | 6°55 | 17°52 | 8°31 | 27°59 | 0°41 | 0°59 | 27°22 | 9°30 | F 7 |
| S 8 | 21 28 31 | 20°33'06 | 3☾12 | 23°38 | 5° 9 | 10°43 | 5°10 | 6°56 | 17°50 | 8°32 | 27°59 | 0°40 | 0°56 | 27°28 | 9°27 | S 8 |
| S 9 | 21 32 28 | 21°31'06 | 15°54 | 25°33 | 5°56 | 11°21 | 5°12 | 6°56 | 17°48 | 8°34 | 27°58 | 0°38 | 0°53 | 27°35 | 9°25 | S 9 |
| M10 | 21 36 25 | 22°29'07 | 28°24 | 27°26 | 6°43 | 11°59 | 5°14 | 6°57 | 17°46 | 8°36 | 27°57 | 0°37 | 0°50 | 27°42 | 9°22 | M10 |
| T 11 | 21 40 21 | 23°27'10 | 10♌41 | 29°18 | 7°29 | 12°38 | 5°15 | 6°57 | 17°44 | 8°38 | 27°56 | 0°37 | 0°46 | 27°48 | 9°19 | T 11 |
| W12 | 21 44 18 | 24°25'15 | 22°48 | 1♁ 9 | 8°14 | 13°16 | 5°17 | 6°57 | 17°41 | 8°39 | 27°55 | 0°36 | 0°43 | 27°55 | 9°16 | W12 |
| T 13 | 21 48 14 | 25°23'21 | 4♁48 | 2°59 | 8°59 | 13°54 | 5°18 | 6°57 | 17°39 | 8°41 | 27°54 | 0°D36 | 0°40 | 28° 2 | 9°14 | T 13 |
| F 14 | 21 52 11 | 26°21'29 | 16°40 | 4°47 | 9°42 | 14°32 | 5°19 | 6°R58 | 17°37 | 8°43 | 27°53 | 0°36 | 0°37 | 28° 8 | 9°11 | F 14 |
| S 15 | 21 56 7 | 27°19'39 | 28°29 | 6°34 | 10°25 | 15°10 | 5°20 | 6°57 | 17°35 | 8°44 | 27°52 | 0°37 | 0°34 | 28°15 | 9° 8 | S 15 |
| S 16 | 22 0 4 | 28°17'50 | 10♄17 | 8°20 | 11° 6 | 15°48 | 5°21 | 6°57 | 17°33 | 8°46 | 27°51 | 0°37 | 0°31 | 28°22 | 9° 5 | S 16 |
| M17 | 22 4 0 | 29°16'03 | 22° 6 | 10° 5 | 11°46 | 16°27 | 5°21 | 6°57 | 17°30 | 8°47 | 27°50 | 0°37 | 0°27 | 28°28 | 9° 3 | M17 |
| T 18 | 22 7 57 | 0♁14'17 | 4♌ 2 | 11°49 | 12°26 | 17° 5 | 5°22 | 6°57 | 17°28 | 8°49 | 27°49 | 0°R37 | 0°24 | 28°35 | 9° 0 | T 18 |
| W19 | 22 11 54 | 1°12'34 | 16° 6 | 13°31 | 13° 4 | 17°43 | 5°R22 | 6°56 | 17°26 | 8°50 | 27°48 | 0°37 | 0°21 | 28°41 | 8°57 | W19 |
| T 20 | 22 15 50 | 2°10'51 | 28°25 | 15°12 | 13°41 | 18°21 | 5°22 | 6°55 | 17°24 | 8°52 | 27°47 | 0°D37 | 0°18 | 28°48 | 8°54 | T 20 |
| F 21 | 22 19 47 | 3° 9'11 | 11♄ 2 | 16°53 | 14°17 | 18°59 | 5°22 | 6°55 | 17°21 | 8°53 | 27°46 | 0°37 | 0°15 | 28°55 | 8°51 | F 21 |
| S 22 | 22 23 43 | 4° 7'32 | 24° 1 | 18°31 | 14°52 | 19°37 | 5°21 | 6°54 | 17°19 | 8°55 | 27°45 | 0°37 | 0°12 | 29° 1 | 8°48 | S 22 |
| S 23 | 22 27 40 | 5° 5'54 | 7♄25 | 20° 9 | 15°25 | 20°15 | 5°20 | 6°53 | 17°17 | 8°56 | 27°44 | 0°38 | 0° 8 | 29° 8 | 8°46 | S 23 |
| M24 | 22 31 36 | 6° 4'18 | 21°16 | 21°46 | 15°57 | 20°53 | 5°20 | 6°52 | 17°14 | 8°58 | 27°43 | 0°38 | 0° 5 | 29°15 | 8°43 | M24 |
| T 25 | 22 35 33 | 7° 2'44 | 5♄34 | 23°22 | 16°27 | 21°32 | 5°19 | 6°51 | 17°12 | 8°59 | 27°42 | 0°39 | 0° 2 | 29°21 | 8°40 | T 25 |
| W26 | 22 39 29 | 8° 1'12 | 20°15 | 24°56 | 16°56 | 22°10 | 5°17 | 6°49 | 17°10 | 9° 0 | 27°40 | 0°39 | 29♌59 | 29°28 | 8°37 | W26 |
| T 27 | 22 43 26 | 8°59'41 | 5♋13 | 26°30 | 17°24 | 22°48 | 5°16 | 6°48 | 17° 7 | 9° 2 | 27°39 | 0°R39 | 29°56 | 29°35 | 8°34 | T 27 |
| F 28 | 22 47 22 | 9°58'13 | 20°21 | 28° 2 | 17°49 | 23°26 | 5°14 | 6°47 | 17° 5 | 9° 3 | 27°38 | 0°39 | 29°52 | 29°41 | 8°31 | F 28 |
| S 29 | 22 51 19 | 10°56'46 | 5♁30 | 29°33 | 18°14 | 24° 4 | 5°12 | 6°45 | 17° 2 | 9° 4 | 27°37 | 0°38 | 29°49 | 29°48 | 8°28 | S 29 |
| S 30 | 22 55 16 | 11°55'21 | 20°30 | 1♄ 3 | 18°36 | 24°42 | 5°10 | 6°43 | 17° 0 | 9° 5 | 27°36 | 0°37 | 29°46 | 29°55 | 8°26 | S 30 |
| M31 | 22 59 12 | 12♁53'59 | 5♄14 | 2♄33 | 18♄57 | 25♌20 | 5♄ 8 | 6♄42 | 16♋58 | 9♅ 7 | 27♋35 | 0♁35 | 29♌43 | 0♄ 1 | 8♋23 | M31 |

Delta T = 18m27s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1086
geocentric

SEPTEMBER 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-------------------------|----------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|------|---|-----|
| T 1 | 23 3 9 | 13 ^h 52'39" | 19 ^h 36' | 4 ^h 1 | 19 ^h 16' | 25 ^h 58' | 5 ^h R 5 | 6 ^h R40 | 16 ^h R55 | 9 ^h 8 8 | 27 ^h R34 | 0 ^h R34 | 29 ^h Ω40 | 0 ^h Ω 8 | 8 ^h R20 | T 1 | | |
| W 2 | 23 7 5 | 14 ^h 51'21" | 3 ^h II32 | 5 ^h 28 | 19 ^h 33 | 26 ^h 36 | 5 ^h 3 3 | 6 ^h 38 | 16 ^h 53 | 9 ^h 9 | 27 ^h 33 | 0 ^h 33 | 29 ^h 37 | 0 ^h 15 | 8 ^h 17 | W 2 | | |
| T 3 | 23 11 2 | 15 ^h 50'05" | 17 ^h 4 | 6 ^h 54 | 19 ^h 48 | 27 ^h 14 | 5 ^h 0 | 6 ^h 36 | 16 ^h 50 | 9 ^h 10 | 27 ^h 31 | 0 ^h D33 | 29 ^h 33 | 0 ^h 21 | 8 ^h 14 | T 3 | | |
| F 4 | 23 14 58 | 16 ^h 48'52" | 0 ^h Ω12 | 8 ^h 19 | 20 ^h 1 | 27 ^h 52 | 4 ^h 57 | 6 ^h 33 | 16 ^h 48 | 9 ^h 11 | 27 ^h 30 | 0 ^h 33 | 29 ^h 30 | 0 ^h 28 | 8 ^h 11 | F 4 | | |
| S 5 | 23 18 55 | 17 ^h 47'42" | 12 ^h 59 | 9 ^h 42 | 20 ^h 12 | 28 ^h 30 | 4 ^h 54 | 6 ^h 31 | 16 ^h 45 | 9 ^h 12 | 27 ^h 29 | 0 ^h 34 | 29 ^h 27 | 0 ^h 35 | 8 ^h 9 | S 5 | | |
| S 6 | 23 22 51 | 18 ^h 46'33" | 25 ^h 28 | 11 ^h 5 | 20 ^h 21 | 29 ^h 8 | 4 ^h 50 | 6 ^h 29 | 16 ^h 43 | 9 ^h 13 | 27 ^h 28 | 0 ^h 36 | 29 ^h 24 | 0 ^h 41 | 8 ^h 6 | S 6 | | |
| M 7 | 23 26 48 | 19 ^h 45'27" | 7 ^h Ω43 | 12 ^h 26 | 20 ^h 28 | 29 ^h 47 | 4 ^h 47 | 6 ^h 26 | 16 ^h 41 | 9 ^h 14 | 27 ^h 27 | 0 ^h 37 | 29 ^h 21 | 0 ^h 48 | 8 ^h 3 | M 7 | | |
| T 8 | 23 30 45 | 20 ^h 44'23" | 19 ^h 48 | 13 ^h 47 | 20 ^h 33 | 0 ^h 35 | 4 ^h 43 | 6 ^h 24 | 16 ^h 38 | 9 ^h 15 | 27 ^h 26 | 0 ^h 38 | 29 ^h 18 | 0 ^h 55 | 8 ^h 0 | T 8 | | |
| W 9 | 23 34 41 | 21 ^h 43'21" | 1 ^h 35 | 15 ^h 5 | 20 ^h 35 | 1 ^h 3 | 4 ^h 39 | 6 ^h 21 | 16 ^h 36 | 9 ^h 16 | 27 ^h 25 | 0 ^h R39 | 29 ^h 14 | 1 ^h 1 | 7 ^h 58 | W 9 | | |
| T 10 | 23 38 38 | 22 ^h 42'21" | 13 ^h 36 | 16 ^h 23 | 20 ^h R35 | 1 ^h 41 | 4 ^h 35 | 6 ^h 18 | 16 ^h 33 | 9 ^h 17 | 27 ^h 23 | 0 ^h 38 | 29 ^h 11 | 1 ^h 8 | 7 ^h 55 | T 10 | | |
| F 11 | 23 42 34 | 23 ^h 41'23" | 25 ^h 25 | 17 ^h 39 | 20 ^h 33 | 2 ^h 19 | 4 ^h 30 | 6 ^h 15 | 16 ^h 31 | 9 ^h 18 | 27 ^h 22 | 0 ^h 36 | 29 ^h 8 | 1 ^h 15 | 7 ^h 52 | F 11 | | |
| S 12 | 23 46 31 | 24 ^h 40'28" | 7 ^h Ω13 | 18 ^h 54 | 20 ^h 28 | 2 ^h 57 | 4 ^h 26 | 6 ^h 13 | 16 ^h 29 | 9 ^h 19 | 27 ^h 21 | 0 ^h 33 | 29 ^h 5 | 1 ^h 21 | 7 ^h 49 | S 12 | | |
| S 13 | 23 50 27 | 25 ^h 39'34" | 19 ^h 3 | 20 ^h 7 | 20 ^h 21 | 3 ^h 35 | 4 ^h 21 | 6 ^h 10 | 16 ^h 26 | 9 ^h 20 | 27 ^h 20 | 0 ^h 29 | 29 ^h 2 | 1 ^h 28 | 7 ^h 47 | S 13 | | |
| M14 | 23 54 24 | 26 ^h 38'43" | 0 ^h 35 | 21 ^h 18 | 20 ^h 11 | 4 ^h 13 | 4 ^h 16 | 6 ^h 6 | 16 ^h 24 | 9 ^h 20 | 27 ^h 19 | 0 ^h 25 | 28 ^h 58 | 1 ^h 35 | 7 ^h 44 | M14 | | |
| T 15 | 23 58 20 | 27 ^h 37'53" | 12 ^h 55 | 22 ^h 28 | 19 ^h 59 | 4 ^h 51 | 4 ^h 11 | 6 ^h 3 | 16 ^h 22 | 9 ^h 21 | 27 ^h 17 | 0 ^h 20 | 28 ^h 55 | 1 ^h 41 | 7 ^h 41 | T 15 | | |
| W16 | 0 2 17 | 28 ^h 37'05" | 25 ^h 2 | 23 ^h 36 | 19 ^h 45 | 5 ^h 29 | 4 ^h 6 | 6 ^h 0 | 16 ^h 19 | 9 ^h 22 | 27 ^h 16 | 0 ^h 16 | 28 ^h 52 | 1 ^h 48 | 7 ^h 39 | W16 | | |
| T 17 | 0 6 14 | 29 ^h 36'19" | 7 ^h Ω22 | 24 ^h 42 | 19 ^h 29 | 6 ^h 7 | 4 ^h 0 | 5 ^h 57 | 16 ^h 17 | 9 ^h 23 | 27 ^h 15 | 0 ^h 13 | 28 ^h 49 | 1 ^h 55 | 7 ^h 36 | T 17 | | |
| F 18 | 0 10 10 | 0 ^h Ω35'36" | 19 ^h 56 | 25 ^h 45 | 19 ^h 10 | 6 ^h 45 | 3 ^h 55 | 5 ^h 53 | 16 ^h 15 | 9 ^h 23 | 27 ^h 14 | 0 ^h 11 | 28 ^h 46 | 2 ^h 1 | 7 ^h 34 | F 18 | | |
| S 19 | 0 14 7 | 1 ^h 34'53" | 2 ^h Ω49 | 26 ^h 46 | 18 ^h 48 | 7 ^h 23 | 3 ^h 49 | 5 ^h 50 | 16 ^h 12 | 9 ^h 24 | 27 ^h 13 | 0 ^h D10 | 28 ^h 43 | 2 ^h 8 | 7 ^h 31 | S 19 | | |
| S 20 | 0 18 3 | 2 ^h 34'13" | 16 ^h 5 | 27 ^h 45 | 18 ^h 25 | 8 ^h 1 | 3 ^h 43 | 5 ^h 46 | 16 ^h 10 | 9 ^h 24 | 27 ^h 12 | 0 ^h 11 | 28 ^h 39 | 2 ^h 15 | 7 ^h 29 | S 20 | | |
| M21 | 0 22 0 | 3 ^h 33'35" | 29 ^h 45 | 28 ^h 41 | 18 ^h 0 | 8 ^h 39 | 3 ^h 37 | 5 ^h 42 | 16 ^h 8 | 9 ^h 25 | 27 ^h 10 | 0 ^h 12 | 28 ^h 36 | 2 ^h 21 | 7 ^h 26 | M21 | | |
| T 22 | 0 25 56 | 4 ^h 32'58" | 13 ^h Ω51 | 29 ^h 33 | 17 ^h 32 | 9 ^h 17 | 3 ^h 31 | 5 ^h 39 | 16 ^h 5 | 9 ^h 25 | 27 ^h 9 | 0 ^h 14 | 28 ^h 33 | 2 ^h 28 | 7 ^h 24 | T 22 | | |
| W23 | 0 29 53 | 5 ^h 32'23" | 28 ^h 24 | 0 ^h 35 | 17 ^h 3 | 9 ^h 56 | 3 ^h 25 | 5 ^h 35 | 16 ^h 3 | 9 ^h 26 | 27 ^h 8 | 0 ^h R15 | 28 ^h 30 | 2 ^h 35 | 7 ^h 21 | W23 | | |
| T 24 | 0 33 49 | 6 ^h 31'50" | 13 ^h 18 | 1 ^h 8 | 16 ^h 32 | 10 ^h 34 | 3 ^h 18 | 5 ^h 31 | 16 ^h 1 | 9 ^h 26 | 27 ^h 7 | 0 ^h 14 | 28 ^h 27 | 2 ^h 41 | 7 ^h 19 | T 24 | | |
| F 25 | 0 37 46 | 7 ^h 31'19" | 28 ^h 28 | 1 ^h 49 | 16 ^h 0 | 11 ^h 12 | 3 ^h 12 | 5 ^h 27 | 15 ^h 59 | 9 ^h 27 | 27 ^h 6 | 0 ^h 12 | 28 ^h 23 | 2 ^h 48 | 7 ^h 16 | F 25 | | |
| S 26 | 0 41 42 | 8 ^h 30'49" | 13 ^h 14 | 2 ^h 26 | 15 ^h 26 | 11 ^h 50 | 3 ^h 5 | 5 ^h 23 | 15 ^h 57 | 9 ^h 27 | 27 ^h 5 | 0 ^h 8 | 28 ^h 20 | 2 ^h 55 | 7 ^h 14 | S 26 | | |
| S 27 | 0 45 39 | 9 ^h 30'22" | 28 ^h 58 | 2 ^h 58 | 14 ^h 51 | 12 ^h 28 | 2 ^h 58 | 5 ^h 19 | 15 ^h 54 | 9 ^h 28 | 27 ^h 3 | 0 ^h 2 | 28 ^h 17 | 3 ^h 1 | 7 ^h 12 | S 27 | | |
| M28 | 0 49 36 | 10 ^h 29'58" | 13 ^h Ω56 | 3 ^h 24 | 14 ^h 16 | 13 ^h 6 | 2 ^h 51 | 5 ^h 15 | 15 ^h 52 | 9 ^h 28 | 27 ^h 2 | 29 ^h Ω56 | 28 ^h 14 | 3 ^h 8 | 7 ^h 10 | M28 | | |
| T 29 | 0 53 32 | 11 ^h 29'35" | 28 ^h 33 | 3 ^h 45 | 13 ^h 39 | 13 ^h 44 | 2 ^h 44 | 5 ^h 11 | 15 ^h 50 | 9 ^h 28 | 27 ^h 1 | 29 ^h 50 | 28 ^h 11 | 3 ^h 15 | 7 ^h 7 | T 29 | | |
| W30 | 0 57 29 | 12 ^h Ω29'15" | 12 ^h II41 | 3 ^h 59 | 13 ^h Ω 3 | 14 ^h 32 | 2 ^h 37 | 5 ^h Ω 6 | 15 ^h 48 | 9 ^h Ω28 | 27 ^h Ω 0 | 29 ^h Ω45 | 28 ^h Ω 8 | 3 ^h Ω21 | 7 ^h Ω 5 | W30 | | |

Delta T = 18m26s

Julian Calendar 1 Sept. 1086 == Greg. Calendar 7 Sept. 1086

OCTOBER 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|-------------------------|----------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|------|---|-----|
| T 1 | 1 1 25 | 13 ^h Ω28'57" | 26 ^h II20 | 4 ^h R 6 | 12 ^h R26 | 15 ^h 38 | 2 ^h R30 | 5 ^h R 2 | 15 ^h R46 | 9 ^h Ω29 | 26 ^h R59 | 29 ^h R42 | 28 ^h Ω 4 | 3 ^h Ω28 | 7 ^h R 3 | T 1 | | |
| F 2 | 1 5 22 | 14 ^h 28'41" | 9 ^h Ω31 | 4 ^h 5 | 11 ^h Ω50 | 15 ^h 38 | 2 ^h 23 | 4 ^h Ω 8 | 15 ^h 44 | 9 ^h 29 | 26 ^h 58 | 29 ^h D40 | 28 ^h 1 | 3 ^h 35 | 7 ^h 1 | F 2 | | |
| S 3 | 1 9 18 | 15 ^h 28'28" | 22 ^h 16 | 3 ^h 56 | 11 ^h 13 | 16 ^h 16 | 2 ^h 15 | 4 ^h 53 | 15 ^h 42 | 9 ^h 29 | 26 ^h 57 | 29 ^h Ω40 | 27 ^h 58 | 3 ^h 41 | 6 ^h 59 | S 3 | | |
| S 4 | 1 13 15 | 16 ^h 28'17" | 4 ^h Ω41 | 3 ^h 39 | 10 ^h 38 | 16 ^h 54 | 2 ^h 7 | 4 ^h 49 | 15 ^h 40 | 9 ^h 29 | 26 ^h 56 | 29 ^h 41 | 27 ^h 55 | 3 ^h 48 | 6 ^h 57 | S 4 | | |
| M 5 | 1 17 11 | 17 ^h 28'08" | 16 ^h 50 | 3 ^h 13 | 10 ^h 3 | 17 ^h 32 | 2 ^h 0 | 4 ^h 44 | 15 ^h 38 | 9 ^h 29 | 26 ^h 55 | 29 ^h 43 | 27 ^h 52 | 3 ^h 55 | 6 ^h 55 | M 5 | | |
| T 6 | 1 21 8 | 18 ^h 28'02" | 28 ^h 47 | 2 ^h 38 | 9 ^h 30 | 18 ^h 10 | 1 ^h 52 | 4 ^h 40 | 15 ^h 36 | 9 ^h 29 | 26 ^h 53 | 29 ^h R43 | 27 ^h 49 | 4 ^h 2 | 6 ^h 53 | T 6 | | |
| W 7 | 1 25 5 | 19 ^h 27'57" | 10 ^h 38 | 1 ^h 53 | 8 ^h 57 | 18 ^h 48 | 1 ^h 44 | 4 ^h 35 | 15 ^h 34 | 9 ^h R29 | 26 ^h 52 | 29 ^h 43 | 27 ^h 45 | 4 ^h 8 | 6 ^h 51 | W 7 | | |
| T 8 | 1 29 1 | 20 ^h 27'55" | 22 ^h 25 | 1 ^h 0 | 8 ^h 27 | 19 ^h 26 | 1 ^h 36 | 4 ^h 30 | 15 ^h 32 | 9 ^h 29 | 26 ^h 51 | 29 ^h 40 | 27 ^h 42 | 4 ^h 15 | 6 ^h 49 | T 8 | | |
| F 9 | 1 32 58 | 21 ^h 27'55" | 4 ^h Ω13 | 29 ^h Ω59 | 7 ^h 57 | 20 ^h 4 | 1 ^h 29 | 4 ^h 26 | 15 ^h 31 | 9 ^h 29 | 26 ^h 50 | 29 ^h 35 | 27 ^h 39 | 4 ^h 22 | 6 ^h 47 | F 9 | | |
| S 10 | 1 36 54 | 22 ^h 27'56" | 16 ^h 4 | 28 ^h 51 | 7 ^h 30 | 20 ^h 42 | 1 ^h 21 | 4 ^h 21 | 15 ^h 29 | 9 ^h 29 | 26 ^h 49 | 29 ^h 27 | 27 ^h 36 | 4 ^h 28 | 6 ^h 45 | S 10 | | |
| S 11 | 1 40 51 | 23 ^h 28'00" | 27 ^h 59 | 27 ^h 38 | 7 ^h 5 | 21 ^h 20 | 1 ^h 13 | 4 ^h 16 | 15 ^h 27 | 9 ^h 29 | 26 ^h 48 | 29 ^h 17 | 27 ^h 33 | 4 ^h 35 | 6 ^h 44 | S 11 | | |
| M12 | 1 44 47 | 24 ^h 28'06" | 10 ^h Ω 0 | 26 ^h 22 | 6 ^h 41 | 21 ^h 59 | 1 ^h 5 | 4 ^h 12 | 15 ^h 25 | 9 ^h 29 | 26 ^h 47 | 29 ^h 6 | 27 ^h 29 | 4 ^h 42 | 6 ^h 42 | M12 | | |
| T 13 | 1 48 44 | 25 ^h 28'13" | 22 ^h 8 | 25 ^h 4 | 6 ^h 20 | 22 ^h 37 | 0 ^h 56 | 4 ^h 7 | 15 ^h 24 | 9 ^h 29 | 26 ^h 46 | 28 ^h 55 | 27 ^h 26 | 4 ^h 48 | 6 ^h 40 | T 13 | | |
| W14 | 1 52 40 | 26 ^h 28'23" | 4 ^h Ω25 | 23 ^h 47 | 6 ^h 1 | 23 ^h 15 | 0 ^h 48 | 4 ^h 2 | 15 ^h 22 | 9 ^h 28 | 26 ^h 45 | 28 ^h 45 | 27 ^h 23 | 4 ^h 55 | 6 ^h 39 | W14 | | |
| T 15 | 1 56 37 | 27 ^h 28'34" | 16 ^h 52 | 22 ^h 34 | 5 ^h 45 | 23 ^h 53 | 0 ^h 40 | 3 ^h 57 | 15 ^h 20 | 9 ^h 28 | 26 ^h 44 | 28 ^h 36 | 27 ^h 20 | 5 ^h 2 | 6 ^h 37 | T 15 | | |
| F 16 | 2 0 34 | 28 ^h 28'47" | 29 ^h 31 | 21 ^h 27 | 5 ^h 31 | 24 ^h 31 | 0 ^h 32 | 3 ^h 52 | 15 ^h 19 | 9 ^h 28 | 26 ^h 43 | 28 ^h 30 | 27 ^h 17 | 5 ^h 8 | 6 ^h 36 | F 16 | | |

ASTRODIENST EPHEMERIS for the year 1086
geocentric

NOVEMBER 1086 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|--------|-------|--------|--------|-------|-------|-------|------|-----|
| S 1 | 3 3 38 | 14♐35'42 | 13♏17 | 25♌33 | 7♋ 7 | 4♌39 | 28°R24 | 2°R35 | 14°R59 | 9°R19 | 26°R29 | 27°D15 | 26♌26 | 6♌55 | 6°R19 | S 1 | |
| M 2 | 3 7 35 | 15°36'22 | 25°26 | 26°48 | 7°31 | 5°17 | 28°Y17 | 2♃30 | 14°X58 | 9♄18 | 26°K29 | 27°R15 | 26°23 | 7° 2 | 6°K19 | M 2 | |
| T 3 | 3 11 32 | 16°37'04 | 7♎22 | 28° 5 | 7°57 | 5°55 | 28°10 | 2°25 | 14°58 | 9°17 | 26°28 | 27♏15 | 26°20 | 7° 8 | 6°18 | T 3 | |
| W 4 | 3 15 28 | 17°37'48 | 19°11 | 29°26 | 8°25 | 6°33 | 28° 2 | 2°21 | 14°57 | 9°16 | 26°27 | 27°13 | 26°16 | 7°15 | 6°18 | W 4 | |
| T 5 | 3 19 25 | 18°38'33 | 0♌59 | 0♐48 | 8°54 | 7°12 | 27°55 | 2°16 | 14°56 | 9°15 | 26°27 | 27° 9 | 26°13 | 7°22 | 6°17 | T 5 | |
| F 6 | 3 23 21 | 19°39'20 | 12°48 | 2°12 | 9°25 | 7°50 | 27°48 | 2°12 | 14°56 | 9°14 | 26°26 | 27° 1 | 26°10 | 7°28 | 6°17 | F 6 | |
| S 7 | 3 27 18 | 20°40'08 | 24°43 | 3°38 | 9°58 | 8°28 | 27°41 | 2° 7 | 14°55 | 9°13 | 26°25 | 26°51 | 26° 7 | 7°35 | 6°17 | S 7 | |
| S 8 | 3 31 14 | 21°40'58 | 6♐45 | 5° 5 | 10°32 | 9° 6 | 27°34 | 2° 3 | 14°54 | 9°12 | 26°25 | 26°38 | 26° 4 | 7°42 | 6°17 | S 8 | |
| M 9 | 3 35 11 | 22°41'49 | 18°57 | 6°33 | 11° 7 | 9°44 | 27°28 | 1°58 | 14°54 | 9°11 | 26°24 | 26°24 | 26° 0 | 7°48 | 6°17 | M 9 | |
| T 10 | 3 39 7 | 23°42'41 | 1♌19 | 8° 2 | 11°44 | 10°22 | 27°21 | 1°54 | 14°53 | 9°10 | 26°24 | 26° 9 | 25°57 | 7°55 | 6°16 | T 10 | |
| W11 | 3 43 4 | 24°43'35 | 13°52 | 9°31 | 12°22 | 11° 0 | 27°15 | 1°50 | 14°53 | 9° 9 | 26°23 | 25°55 | 25°54 | 8° 2 | 6°D16 | W11 | |
| T 12 | 3 47 0 | 25°44'30 | 26°35 | 11° 2 | 13° 1 | 11°38 | 27° 8 | 1°45 | 14°53 | 9° 8 | 26°23 | 25°44 | 25°51 | 8° 9 | 6°16 | T 12 | |
| F 13 | 3 50 57 | 26°45'25 | 9♄29 | 12°33 | 13°42 | 12°16 | 27° 2 | 1°41 | 14°52 | 9° 7 | 26°22 | 25°35 | 25°48 | 8°15 | 6°17 | F 13 | |
| S 14 | 3 54 54 | 27°46'22 | 22°33 | 14° 4 | 14°24 | 12°54 | 26°56 | 1°37 | 14°52 | 9° 6 | 26°22 | 25°29 | 25°45 | 8°22 | 6°17 | S 14 | |
| S 15 | 3 58 50 | 28°47'19 | 5♌50 | 15°35 | 15° 7 | 13°32 | 26°50 | 1°33 | 14°52 | 9° 4 | 26°21 | 25°26 | 25°41 | 8°29 | 6°17 | S 15 | |
| M16 | 4 2 47 | 29°48'18 | 19°21 | 17° 7 | 15°51 | 14°10 | 26°45 | 1°29 | 14°52 | 9° 3 | 26°21 | 25°25 | 25°38 | 8°35 | 6°17 | M16 | |
| T 17 | 4 6 43 | 0♌49'16 | 3♌ 7 | 18°39 | 16°35 | 14°48 | 26°39 | 1°25 | 14°52 | 9° 2 | 26°20 | 25°25 | 25°35 | 8°42 | 6°17 | T 17 | |
| W18 | 4 10 40 | 1°50'16 | 17° 8 | 20°11 | 17°21 | 15°26 | 26°34 | 1°21 | 14°D52 | 9° 1 | 26°20 | 25°24 | 25°32 | 8°49 | 6°18 | W18 | |
| T 19 | 4 14 36 | 2°51'16 | 1°Y26 | 21°44 | 18° 8 | 16° 4 | 26°29 | 1°17 | 14°52 | 8°59 | 26°20 | 25°22 | 25°29 | 8°55 | 6°18 | T 19 | |
| F 20 | 4 18 33 | 3°52'17 | 15°58 | 23°16 | 18°56 | 16°42 | 26°24 | 1°14 | 14°52 | 8°58 | 26°19 | 25°17 | 25°26 | 9° 2 | 6°19 | F 20 | |
| S 21 | 4 22 29 | 4°53'18 | 0♃40 | 24°49 | 19°45 | 17°20 | 26°19 | 1°10 | 14°52 | 8°57 | 26°19 | 25° 9 | 25°22 | 9° 9 | 6°19 | S 21 | |
| S 22 | 4 26 26 | 5°54'20 | 15°26 | 26°22 | 20°35 | 17°58 | 26°14 | 1° 6 | 14°52 | 8°55 | 26°19 | 24°59 | 25°19 | 9°15 | 6°20 | S 22 | |
| M23 | 4 30 23 | 6°55'22 | 0♐ 8 | 27°55 | 21°25 | 18°36 | 26°10 | 1° 3 | 14°52 | 8°54 | 26°18 | 24°47 | 25°16 | 9°22 | 6°21 | M23 | |
| T 24 | 4 34 19 | 7°56'26 | 14°37 | 29°28 | 22°16 | 19°14 | 26° 5 | 1° 0 | 14°53 | 8°53 | 26°18 | 24°35 | 25°13 | 9°29 | 6°21 | T 24 | |
| W25 | 4 38 16 | 8°57'30 | 28°47 | 1♌ 1 | 23° 8 | 19°52 | 26° 1 | 0°56 | 14°53 | 8°51 | 26°18 | 24°24 | 25°10 | 9°35 | 6°22 | W25 | |
| T 26 | 4 42 12 | 9°58'35 | 12♄32 | 2°35 | 24° 1 | 20°30 | 25°57 | 0°53 | 14°53 | 8°50 | 26°18 | 24°16 | 25° 6 | 9°42 | 6°23 | T 26 | |
| F 27 | 4 46 9 | 10°59'41 | 25°51 | 4° 8 | 24°54 | 21° 7 | 25°54 | 0°50 | 14°54 | 8°48 | 26°17 | 24°10 | 25° 3 | 9°49 | 6°24 | F 27 | |
| S 28 | 4 50 5 | 12° 0'48 | 8♌45 | 5°41 | 25°49 | 21°45 | 25°50 | 0°47 | 14°54 | 8°47 | 26°17 | 24° 7 | 25° 0 | 9°55 | 6°25 | S 28 | |
| S 29 | 4 54 2 | 13° 1'55 | 21°16 | 7°15 | 26°43 | 22°23 | 25°47 | 0°44 | 14°55 | 8°45 | 26°17 | 24°D 5 | 24°57 | 10° 2 | 6°26 | S 29 | |
| M30 | 4 57 59 | 14♌ 3'04 | 3♎28 | 8♌49 | 27♌39 | 23♌ 1 | 25°Y44 | 0♃41 | 14°X55 | 8♄44 | 26°K17 | 24♌ 6 | 24♌54 | 10♌ 9 | 6°K27 | M30 | |

Delta T = 18m26s Julian Calendar 1 Nov. 1086 == Greg. Calendar 7 Nov. 1086

DECEMBER 1086 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|-------|-------|-------|--------|-------|--------|-------|--------|--------|-------|-------|-------|------|-----|
| T 1 | 5 1 55 | 15♌4'12 | 15♎27 | 10♌23 | 28♌35 | 23♌39 | 25°R41 | 0°R38 | 14°X56 | 8°R42 | 26°R17 | 24°R 6 | 24♌51 | 10♌16 | 6°K28 | T 1 | |
| W 2 | 5 5 52 | 16° 5'22 | 27°18 | 11°57 | 29°32 | 24°17 | 25°Y38 | 0♃36 | 14°57 | 8♄41 | 26°K17 | 24♌ 5 | 24°47 | 10°22 | 6°29 | W 2 | |
| T 3 | 5 9 48 | 17° 6'32 | 9♌ 6 | 13°32 | 0♐49 | 24°55 | 25°36 | 0°33 | 14°57 | 8°39 | 26°17 | 24° 3 | 24°44 | 10°29 | 6°30 | T 3 | |
| F 4 | 5 13 45 | 18° 7'43 | 20°58 | 15° 6 | 1°27 | 25°33 | 25°33 | 0°31 | 14°58 | 8°38 | 26°17 | 23°58 | 24°41 | 10°36 | 6°32 | F 4 | |
| S 5 | 5 17 41 | 19° 8'55 | 2♐56 | 16°41 | 2°25 | 26°11 | 25°31 | 0°28 | 14°59 | 8°36 | 26°D17 | 23°50 | 24°38 | 10°42 | 6°33 | S 5 | |
| S 6 | 5 21 38 | 20°10'07 | 15° 5 | 18°16 | 3°24 | 26°49 | 25°29 | 0°26 | 15° 0 | 8°35 | 26°17 | 23°40 | 24°35 | 10°49 | 6°35 | S 6 | |
| M 7 | 5 25 34 | 21°11'20 | 27°27 | 19°51 | 4°23 | 27°27 | 25°27 | 0°24 | 15° 1 | 8°33 | 26°17 | 23°28 | 24°32 | 10°56 | 6°36 | M 7 | |
| T 8 | 5 29 31 | 22°12'33 | 10♌ 3 | 21°27 | 5°23 | 28° 5 | 25°26 | 0°22 | 15° 2 | 8°31 | 26°17 | 23°16 | 24°28 | 11° 2 | 6°38 | T 8 | |
| W 9 | 5 33 28 | 23°13'46 | 22°53 | 23° 2 | 6°23 | 28°42 | 25°25 | 0°20 | 15° 3 | 8°30 | 26°17 | 23° 5 | 24°25 | 11° 9 | 6°39 | W 9 | |
| T 10 | 5 37 24 | 24°14'59 | 5♄57 | 24°39 | 7°24 | 29°20 | 25°23 | 0°18 | 15° 4 | 8°28 | 26°17 | 22°55 | 24°22 | 11°16 | 6°41 | T 10 | |
| F 11 | 5 41 21 | 25°16'13 | 19°13 | 26°15 | 8°25 | 29°58 | 25°23 | 0°16 | 15° 5 | 8°27 | 26°17 | 22°48 | 24°19 | 11°22 | 6°42 | F 11 | |
| S 12 | 5 45 17 | 26°17'26 | 2♌40 | 27°52 | 9°26 | 0♐36 | 25°22 | 0°14 | 15° 6 | 8°25 | 26°17 | 22°43 | 24°16 | 11°29 | 6°44 | S 12 | |
| S 13 | 5 49 14 | 27°18'39 | 16°17 | 29°29 | 10°28 | 1°14 | 25°21 | 0°13 | 15° 8 | 8°23 | 26°18 | 22°D41 | 24°12 | 11°36 | 6°46 | S 13 | |
| M14 | 5 53 10 | 28°19'52 | 0♌ 2 | 1♄ 6 | 11°30 | 1°52 | 25°21 | 0°11 | 15° 9 | 8°22 | 26°18 | 22°42 | 24° 9 | 11°42 | 6°48 | M14 | |
| T 15 | 5 57 7 | 29°21'05 | 13°55 | 2°44 | 12°33 | 2°29 | 25°D21 | 0°10 | 15°10 | 8°20 | 26°18 | 22°42 | 24° 6 | 11°49 | 6°50 | T 15 | |
| W16 | 6 1 3 | 0♄22'17 | 27°56 | 4°22 | 13°36 | 3° 7 | 25°21 | 0° 9 | 15°12 | 8°18 | 26°18 | 22°R43 | 24° 3 | 11°56 | 6°52 | W16 | |
| T 17 | 6 5 0 | 1°23'29 | 12°Y 3 | 6° 0 | 14°39 | 3°45 | 25°22 | 0° 8 | 15°13 | 8°17 | 26°19 | 22°43 | 24° 0 | 12° 3 | 6°54 | T 17 | |
| F 18 | 6 8 57 | 2°24'40 | 26°17 | 7°39 | 15°42 | 4°23 | 25°22 | 0° 7 | 15°14 | 8°15 | 26°19 | 22°40 | 23°57 | 12° 9 | 6°56 | F 18 | |
| S 19 | 6 12 53 | 3°25'51 | 10♃34 | 9°18 | 16°46 | 5° 0 | 25°23 | 0° 6 | 15°16 | 8°13 | 26°19 | 22°35 | 23°53 | 12°16 | 6°58 | S 19 | |
| S 20 | 6 16 50 | 4°27'01 | 24°51 | 10°58 | 17°50 | 5°38 | 25°24 | 0° 5 | 15°18 | 8°11 | 26°19 | 22°29 | 23°50 | 12°23 | 7° 0 | S 20 | |
| M21 | 6 20 46 | 5°28'11 | 9♐ 4 | 12°37 | 18°55 | 6°16 | 25°25 | 0° 4 | 15°19 | 8°10 | 26°20 | 22°21 | 23°47 | 12°29 | 7° 2 | M21 | |
| T 22 | 6 24 43 | 6°29'21 | 23° 7 | 14°17 | 20° 0 | 6°54 | 25°27 | 0° 4 | 15°21 | 8° 8 | 26°20 | 22°13 | 23°44 | 12°36 | 7° 4 | T 22 | |
| W23 | 6 28 39 | 7°30'30 | 6♄56 | 15°58 | 21° 5 | 7°31 | 25°28 | 0° 3 | 15°23 | 8° 6 | 26°21 | 22° 6 | 23°41 | 12°43 | 7° 7 | W23 | |
| T 24 | 6 32 36 | 8°31'39 | 20°26 | 17°38 | 22°10 | 8° 9 | 25°30 | 0° 3 | 15°24 | 8° 5 | 26°21 | 22° 0 | 23°38 | 12°49 | 7° 9 | T 24 | |
| F 25 | 6 36 32 | 9°32'47 | 3♌36 | 19°19 | 23°15 | 8°47 | 25°32 | 0° 3 | 15°26 | 8° 3 | 26°22 | 21°56 | 23°34 | 12°56 | 7°11 | F 25 | |
| S 26 | 6 40 29 | 10°33'55 | 16°26 | 20°59 | 24°21 | 9°24 | 25°34 | 0°D 3 | 15°28 | 8° 1 | 26°22 | 21°D54 | 23°31 | 13° 3 | 7°14 | S 26 | |
| S 27 | 6 44 26 | 11°35'03 | 28°57 | 22°40 | 25°27 | 10° 2 | 25°37 | 0° 3 | 15°30 | 8° 0 | 26°23 | 21°54 | 23°28 | 13° 9 | 7°16 | S 27 | |
| M28 | 6 48 22 | 12°36'10 | 11♎10 | 24°20 | 26°34 | 10°40 | 25°39 | 0° 3 | 15°32 | 7°58 | 26°23 | 21°56 | 23°25 | 13°16 | 7°19 | M28 | |
| T 29 | 6 52 19 | 13°37'17 | 23°12 | 26° 1 | 27°40 | 11°17 | 25°42 | 0° 3 | 15°34 | 7°56 | 26°24 | 21°58 | 23°22 | 13°23 | 7°21 | T 29 | |
| W30 | 6 56 15 | 14°38'23 | 5♌ 5 | 27°40 | 28°47 | 11°55 | 25°45 | 0° 3 | 15°36 | 7°55 | 26°24 | 21°59 | 23°18 | 13°29 | 7°24 | W30 | |
| T 31 | 7 0 12 | 15♄39'29 | 16♌55 | 29♄20 | 29♐54 | 12♐32 | 25°Y48 | 0♃ 4 | 15°X38 | 7♄53 | 26°K25 | 21°R59 | 23♌15 | 13♌36 | 7°K26 | T 31 | |

Delta T = 18m26s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1087
geocentric

JANUARY 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|------|-------|------|-------|--------|-------|-------|------|------|-----|
| F 1 | 7 4 8 | 16♌40'35 | 28♋48 | 0♏58 | 1♌1 | 13♍10 | 25♍52 | 0♌4 | 15♋40 | 7♏51 | 26♋25 | 21♏59 | 23♎12 | 13♏43 | 7♋29 | F 1 | |
| S 2 | 7 8 5 | 17°41'40 | 10♍47 | 2°35 | 2° 8 | 13°48 | 25°55 | 0° 5 | 15°42 | 7♏49 | 26°26 | 21♎56 | 23° 9 | 13°50 | 7°32 | S 2 | |
| S 3 | 7 12 1 | 18°42'45 | 22°59 | 4°11 | 3°16 | 14°25 | 25°59 | 0° 6 | 15°44 | 7°48 | 26°27 | 21°52 | 23° 6 | 13°56 | 7°34 | S 3 | |
| M 4 | 7 15 58 | 19°43'49 | 5♌25 | 5°45 | 4°24 | 15° 3 | 26° 3 | 0° 7 | 15°46 | 7°46 | 26°27 | 21°47 | 23° 3 | 14° 3 | 7°37 | M 4 | |
| T 5 | 7 19 55 | 20°44'53 | 18° 9 | 7°17 | 5°31 | 15°40 | 26° 7 | 0° 8 | 15°49 | 7°44 | 26°28 | 21°42 | 22°59 | 14°10 | 7°40 | T 5 | |
| W 6 | 7 23 51 | 21°45'55 | 1♌12 | 8°47 | 6°40 | 16°18 | 26°12 | 0° 9 | 15°51 | 7°43 | 26°29 | 21°36 | 22°56 | 14°16 | 7°43 | W 6 | |
| T 7 | 7 27 48 | 22°46'58 | 14°34 | 10°13 | 7°48 | 16°55 | 26°16 | 0°10 | 15°53 | 7°41 | 26°29 | 21°32 | 22°53 | 14°23 | 7°46 | T 7 | |
| F 8 | 7 31 44 | 23°47'59 | 28°14 | 11°35 | 8°56 | 17°32 | 26°21 | 0°12 | 15°56 | 7°40 | 26°30 | 21°29 | 22°50 | 14°30 | 7°49 | F 8 | |
| S 9 | 7 35 41 | 24°48'59 | 12♌7 | 12°53 | 10° 5 | 18°10 | 26°26 | 0°13 | 15°58 | 7°38 | 26°31 | 21°27 | 22°47 | 14°36 | 7°52 | S 9 | |
| S 10 | 7 39 37 | 25°49'58 | 26°12 | 14° 6 | 11°13 | 18°47 | 26°31 | 0°15 | 16° 1 | 7°36 | 26°32 | 21°D27 | 22°44 | 14°43 | 7°55 | S 10 | |
| M11 | 7 43 34 | 26°50'56 | 10♋23 | 15°13 | 12°22 | 19°25 | 26°36 | 0°16 | 16° 3 | 7°35 | 26°33 | 21°28 | 22°40 | 14°50 | 7°58 | M11 | |
| T 12 | 7 47 31 | 27°51'52 | 24°38 | 16°13 | 13°31 | 20° 2 | 26°42 | 0°18 | 16° 6 | 7°33 | 26°34 | 21°29 | 22°37 | 14°57 | 8° 1 | T 12 | |
| W13 | 7 51 27 | 28°52'47 | 8♏53 | 17° 6 | 14°40 | 20°39 | 26°47 | 0°20 | 16° 8 | 7°32 | 26°34 | 21°30 | 22°34 | 15° 3 | 8° 4 | W13 | |
| T 14 | 7 55 24 | 29°53'41 | 23° 6 | 17°50 | 15°49 | 21°16 | 26°53 | 0°22 | 16°11 | 7°30 | 26°35 | 21°31 | 22°31 | 15°10 | 8° 7 | T 14 | |
| F 15 | 7 59 20 | 0♏54'33 | 7♌14 | 18°25 | 16°59 | 21°54 | 26°59 | 0°24 | 16°13 | 7°29 | 26°36 | 21°R31 | 22°28 | 15°17 | 8°10 | F 15 | |
| S 16 | 8 3 17 | 1°55'24 | 21°17 | 18°51 | 18° 8 | 22°31 | 27° 5 | 0°27 | 16°16 | 7°27 | 26°37 | 21°30 | 22°24 | 15°23 | 8°13 | S 16 | |
| S 17 | 8 7 13 | 2°56'13 | 5♎11 | 19° 6 | 19°18 | 23° 8 | 27°12 | 0°29 | 16°19 | 7°26 | 26°38 | 21°29 | 22°21 | 15°30 | 8°17 | S 17 | |
| M18 | 8 11 10 | 3°57'01 | 18°56 | 19°R11 | 20°27 | 23°45 | 27°18 | 0°31 | 16°21 | 7°24 | 26°39 | 21°26 | 22°18 | 15°37 | 8°20 | M18 | |
| T 19 | 8 15 6 | 4°57'47 | 2♌30 | 19° 4 | 21°37 | 24°22 | 27°25 | 0°34 | 16°24 | 7°23 | 26°40 | 21°24 | 22°15 | 15°43 | 8°23 | T 19 | |
| W20 | 8 19 3 | 5°58'31 | 15°50 | 18°47 | 22°47 | 24°59 | 27°31 | 0°37 | 16°27 | 7°21 | 26°41 | 21°21 | 22°12 | 15°50 | 8°27 | W20 | |
| T 21 | 8 23 0 | 6°59'15 | 28°57 | 18°19 | 23°57 | 25°37 | 27°38 | 0°39 | 16°30 | 7°20 | 26°42 | 21°20 | 22° 9 | 15°57 | 8°30 | T 21 | |
| F 22 | 8 26 56 | 7°59'56 | 11♎49 | 17°41 | 25° 7 | 26°14 | 27°46 | 0°42 | 16°33 | 7°18 | 26°43 | 21°19 | 22° 5 | 16° 3 | 8°33 | F 22 | |
| S 23 | 8 30 53 | 9° 0'37 | 24°26 | 16°55 | 26°17 | 26°51 | 27°53 | 0°45 | 16°35 | 7°17 | 26°44 | 21°D19 | 22° 2 | 16°10 | 8°37 | S 23 | |
| S 24 | 8 34 49 | 10° 1'16 | 6♎49 | 16° 0 | 27°27 | 27°28 | 28° 0 | 0°48 | 16°38 | 7°15 | 26°45 | 21°19 | 21°59 | 16°17 | 8°40 | S 24 | |
| M25 | 8 38 46 | 11° 1'53 | 19° 0 | 14°59 | 28°38 | 28° 5 | 28° 8 | 0°51 | 16°41 | 7°14 | 26°46 | 21°20 | 21°56 | 16°24 | 8°44 | M25 | |
| T 26 | 8 42 42 | 12° 2'30 | 1♌ 0 | 13°54 | 29°48 | 28°42 | 28°16 | 0°55 | 16°44 | 7°13 | 26°47 | 21°21 | 21°53 | 16°30 | 8°47 | T 26 | |
| W27 | 8 46 39 | 13° 3'04 | 12°54 | 12°46 | 0♌59 | 29°18 | 28°23 | 0°58 | 16°47 | 7°11 | 26°48 | 21°22 | 21°49 | 16°37 | 8°50 | W27 | |
| T 28 | 8 50 35 | 14° 3'38 | 24°45 | 11°37 | 2° 9 | 29°55 | 28°31 | 1° 2 | 16°50 | 7°10 | 26°49 | 21°23 | 21°46 | 16°44 | 8°54 | T 28 | |
| F 29 | 8 54 32 | 15° 4'10 | 6♍38 | 10°29 | 3°20 | 0♌32 | 28°40 | 1° 5 | 16°53 | 7° 9 | 26°51 | 21°23 | 21°43 | 16°50 | 8°58 | F 29 | |
| S 30 | 8 58 28 | 16° 4'41 | 18°37 | 9°24 | 4°31 | 1° 9 | 28°48 | 1° 9 | 16°56 | 7° 8 | 26°52 | 21°R23 | 21°40 | 16°57 | 9° 1 | S 30 | |
| S 31 | 9 2 25 | 17°5'11 | 0♌47 | 8°22 | 5♌42 | 1♌46 | 28°56 | 1♌12 | 16°59 | 7♏6 | 26°53 | 21♎23 | 21♎37 | 17° 4 | 9°5 | S 31 | |

Delta T = 18m25s Julian Calendar 1 Jan. 1087 == Greg. Calendar 7 Jan. 1087

FEBRUARY 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|---------|------|-------|-------|-------|--------|-------|-------|-------|------|-----|
| M 1 | 9 6 22 | 18°5'39 | 13♌12 | 7°R26 | 6♌52 | 2♌22 | 29°5' 5 | 1♌16 | 17♋2 | 7°R 5 | 26♋54 | 21°R23 | 21♎34 | 17♏10 | 9♋8 | M 1 | |
| T 2 | 9 10 18 | 19° 6'06 | 25°56 | 6♏36 | 8° 3 | 2°59 | 29°14 | 1°20 | 17° 6 | 7♏4 | 26°55 | 21♎22 | 21°30 | 17°17 | 9°12 | T 2 | |
| W 3 | 9 14 15 | 20° 6'32 | 9♌3 | 5°52 | 9°15 | 3°36 | 29°22 | 1°24 | 17° 9 | 7° 3 | 26°56 | 21°22 | 21°27 | 17°24 | 9°15 | W 3 | |
| T 4 | 9 18 11 | 21° 6'56 | 22°33 | 5°15 | 10°26 | 4°12 | 29°31 | 1°28 | 17°12 | 7° 2 | 26°58 | 21°D22 | 21°24 | 17°31 | 9°19 | T 4 | |
| F 5 | 9 22 8 | 22° 7'18 | 6♏26 | 4°46 | 11°37 | 4°49 | 29°40 | 1°33 | 17°15 | 7° 1 | 26°59 | 21°22 | 21°21 | 17°37 | 9°23 | F 5 | |
| S 6 | 9 26 4 | 23° 7'39 | 20°40 | 4°24 | 12°48 | 5°26 | 29°50 | 1°37 | 17°18 | 7° 0 | 27° 0 | 21°R22 | 21°18 | 17°44 | 9°26 | S 6 | |
| S 7 | 9 30 1 | 24° 7'57 | 5♋10 | 4°10 | 13°59 | 6° 2 | 29°59 | 1°41 | 17°21 | 6°58 | 27° 1 | 21°22 | 21°15 | 17°51 | 9°30 | S 7 | |
| M 8 | 9 33 57 | 25° 8'14 | 19°50 | 4° 2 | 15°11 | 6°38 | 0♌9 | 1°46 | 17°25 | 6°57 | 27° 3 | 21°22 | 21°11 | 17°57 | 9°34 | M 8 | |
| T 9 | 9 37 54 | 26° 8'29 | 4♏34 | 4°D 2 | 16°22 | 7°15 | 0°18 | 1°50 | 17°28 | 6°56 | 27° 4 | 21°21 | 21° 8 | 18° 4 | 9°37 | T 9 | |
| W10 | 9 41 51 | 27° 8'42 | 19°14 | 4° 7 | 17°34 | 7°51 | 0°28 | 1°55 | 17°31 | 6°55 | 27° 5 | 21°21 | 21° 5 | 18°11 | 9°41 | W10 | |
| T 11 | 9 45 47 | 28° 8'53 | 3♌45 | 4°19 | 18°45 | 8°27 | 0°38 | 2° 0 | 17°34 | 6°55 | 27° 6 | 21°20 | 21° 2 | 18°17 | 9°45 | T 11 | |
| F 12 | 9 49 44 | 29° 9'02 | 18° 3 | 4°37 | 19°57 | 9° 4 | 0°48 | 2° 5 | 17°38 | 6°54 | 27° 8 | 21°20 | 20°59 | 18°24 | 9°49 | F 12 | |
| S 13 | 9 53 40 | 0♋9'08 | 2♎5 | 4°59 | 21° 8 | 9°40 | 0°58 | 2°10 | 17°41 | 6°53 | 27° 9 | 21°D20 | 20°55 | 18°31 | 9°52 | S 13 | |
| S 14 | 9 57 37 | 1° 9'13 | 15°49 | 5°27 | 22°20 | 10°16 | 1° 8 | 2°15 | 17°44 | 6°52 | 27°10 | 21°20 | 20°52 | 18°38 | 9°56 | S 14 | |
| M15 | 10 1 33 | 2° 9'15 | 29°17 | 6° 0 | 23°32 | 10°52 | 1°18 | 2°20 | 17°48 | 6°51 | 27°12 | 21°21 | 20°49 | 18°44 | 10° 0 | M15 | |
| T 16 | 10 5 30 | 3° 9'15 | 12♌28 | 6°37 | 24°43 | 11°28 | 1°29 | 2°25 | 17°51 | 6°50 | 27°13 | 21°22 | 20°46 | 18°51 | 10° 4 | T 16 | |
| W17 | 10 9 26 | 4° 9'13 | 25°25 | 7°18 | 25°55 | 12° 4 | 1°39 | 2°30 | 17°54 | 6°49 | 27°14 | 21°23 | 20°43 | 18°58 | 10° 7 | W17 | |
| T 18 | 10 13 23 | 5° 9'08 | 8♎9 | 8° 3 | 27° 7 | 12°40 | 1°50 | 2°35 | 17°58 | 6°49 | 27°16 | 21°24 | 20°40 | 19° 4 | 10°11 | T 18 | |
| F 19 | 10 17 20 | 6° 9'02 | 20°40 | 8°52 | 28°19 | 13°16 | 2° 1 | 2°41 | 18° 1 | 6°48 | 27°17 | 21°R24 | 20°36 | 19°11 | 10°15 | F 19 | |
| S 20 | 10 21 16 | 7° 8'53 | 3♎1 | 9°43 | 29°31 | 13°51 | 2°11 | 2°46 | 18° 4 | 6°47 | 27°19 | 21°24 | 20°33 | 19°18 | 10°19 | S 20 | |
| S 21 | 10 25 13 | 8° 8'43 | 15°12 | 10°38 | 0♏43 | 14°27 | 2°22 | 2°52 | 18° 8 | 6°47 | 27°20 | 21°22 | 20°30 | 19°24 | 10°23 | S 21 | |
| M22 | 10 29 9 | 9° 8'30 | 27°16 | 11°36 | 1°55 | 15° 3 | 2°33 | 2°57 | 18°11 | 6°46 | 27°21 | 21°20 | 20°27 | 19°31 | 10°26 | M22 | |
| T 23 | 10 33 6 | 10° 8'16 | 9♌13 | 12°37 | 3° 7 | 15°39 | 2°44 | 3° 3 | 18°15 | 6°46 | 27°23 | 21°17 | 20°24 | 19°38 | 10°30 | T 23 | |
| W24 | 10 37 2 | 11° 7'59 | 21° 5 | 13°40 | 4°19 | 16°14 | 2°56 | 3° 9 | 18°18 | 6°45 | 27°24 | 21°14 | 20°21 | 19°45 | 10°34 | W24 | |
| T 25 | 10 40 59 | 12° 7'41 | 2♎57 | 14°45 | 5°31 | 16°50 | 3° 7 | 3°14 | 18°22 | 6°44 | 27°26 | 21°11 | 20°17 | 19°51 | 10°38 | T 25 | |
| F 26 | 10 44 55 | 13° 7'21 | 14°49 | 15°53 | 6°43 | 17°25 | 3°18 | 3°20 | 18°25 | 6°44 | 27°27 | 21° 8 | 20°14 | 19°58 | 10°41 | F 26 | |
| S 27 | 10 48 52 | 14° 6'59 | 26°47 | 17° 3 | 7°55 | 18° 0 | 3°30 | 3°26 | 18°28 | 6°43 | 27°28 | 21° 6 | 20°11 | 20° 5 | 10°45 | S 27 | |
| S 28 | 10 52 49 | 15°6'35 | 8♌55 | 18°15 | 9° 7 | 18°36 | 3♌41 | 3♌32 | 18°32 | 6♏43 | 27°30 | 21♎5 | 20♎8 | 20°11 | 10°49 | S 28 | |

Delta T = 18m25s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1087
geocentric

MARCH 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|-------|-------|--------|-------|-------|-------|------|-----|
| M 1 | 10 56 45 | 16♉6'10 | 21♊16 | 19♌29 | 10♍19 | 19♎11 | 3♏53 | 3♐38 | 18♑35 | 6♒43 | 27♓31 | 21°D 5 | 20♈5 | 20♉18 | 10♊53 | M 1 | |
| T 2 | 11 0 42 | 17° 5'43 | 3♋56 | 20°45 | 11°32 | 19°46 | 4° 5 | 3°44 | 18°39 | 6♌42 | 27°33 | 21♈5 | 20° 1 | 20°25 | 10°57 | T 2 | |
| W 3 | 11 4 38 | 18° 5'14 | 16°58 | 22° 3 | 12°44 | 20°21 | 4°17 | 3°51 | 18°42 | 6°42 | 27°34 | 21° 7 | 19°58 | 20°31 | 11° 0 | W 3 | |
| T 4 | 11 8 35 | 19° 4'43 | 0♌25 | 23°23 | 13°56 | 20°56 | 4°28 | 3°57 | 18°46 | 6°42 | 27°36 | 21° 9 | 19°55 | 20°38 | 11° 4 | T 4 | |
| F 5 | 11 12 31 | 20° 4'10 | 14°20 | 24°44 | 15° 9 | 21°31 | 4°40 | 4° 3 | 18°49 | 6°41 | 27°37 | 21°R10 | 19°52 | 20°45 | 11° 8 | F 5 | |
| S 6 | 11 16 28 | 21° 3'36 | 28°41 | 26° 7 | 16°21 | 22° 6 | 4°52 | 4° 9 | 18°52 | 6°41 | 27°39 | 21°10 | 19°49 | 20°52 | 11°12 | S 6 | |
| S 7 | 11 20 24 | 22° 2'59 | 13♉24 | 27°32 | 17°33 | 22°41 | 5° 5 | 4°16 | 18°56 | 6°41 | 27°40 | 21° 8 | 19°46 | 20°58 | 11°15 | S 7 | |
| M 8 | 11 24 21 | 23° 2'21 | 28°24 | 28°58 | 18°46 | 23°15 | 5°17 | 4°22 | 18°59 | 6°41 | 27°41 | 21° 5 | 19°42 | 21° 5 | 11°19 | M 8 | |
| T 9 | 11 28 17 | 24° 1'40 | 13♊31 | 0♋25 | 19°58 | 23°50 | 5°29 | 4°29 | 19° 3 | 6°41 | 27°43 | 21° 1 | 19°39 | 21°12 | 11°23 | T 9 | |
| W10 | 11 32 14 | 25° 0'57 | 28°36 | 1°55 | 21°10 | 24°24 | 5°41 | 4°35 | 19° 6 | 6°41 | 27°44 | 20°56 | 19°36 | 21°18 | 11°26 | W10 | |
| T 11 | 11 36 11 | 26° 0'12 | 13♋30 | 3°25 | 22°23 | 24°59 | 5°54 | 4°42 | 19°10 | 6°41 | 27°46 | 20°51 | 19°33 | 21°25 | 11°30 | T 11 | |
| F 12 | 11 40 7 | 26°59'24 | 28° 5 | 4°57 | 23°35 | 25°33 | 6° 6 | 4°49 | 19°13 | 6°D41 | 27°47 | 20°47 | 19°30 | 21°32 | 11°34 | F 12 | |
| S 13 | 11 44 4 | 27°58'34 | 12♌17 | 6°31 | 24°48 | 26° 7 | 6°19 | 4°55 | 19°16 | 6°41 | 27°49 | 20°44 | 19°26 | 21°39 | 11°38 | S 13 | |
| S 14 | 11 48 0 | 28°57'42 | 26° 4 | 8° 6 | 26° 0 | 26°41 | 6°32 | 5° 2 | 19°20 | 6°41 | 27°50 | 20°D43 | 19°23 | 21°45 | 11°41 | S 14 | |
| M15 | 11 51 57 | 29°56'48 | 9♌27 | 9°43 | 27°13 | 27°15 | 6°44 | 5° 9 | 19°23 | 6°41 | 27°52 | 20°43 | 19°20 | 21°52 | 11°45 | M15 | |
| T 16 | 11 55 53 | 0♍55'51 | 22°29 | 11°21 | 28°25 | 27°49 | 6°57 | 5°16 | 19°27 | 6°41 | 27°53 | 20°45 | 19°17 | 21°59 | 11°48 | T 16 | |
| W17 | 11 59 50 | 1°54'51 | 5♌11 | 13° 0 | 29°38 | 28°23 | 7°10 | 5°23 | 19°30 | 6°41 | 27°55 | 20°46 | 19°14 | 22° 5 | 11°52 | W17 | |
| T 18 | 12 3 46 | 2°53'50 | 17°39 | 14°41 | 0♎51 | 28°56 | 7°23 | 5°30 | 19°33 | 6°41 | 27°56 | 20°R47 | 19°11 | 22°12 | 11°56 | T 18 | |
| F 19 | 12 7 43 | 3°52'46 | 29°55 | 16°24 | 2° 3 | 29°30 | 7°36 | 5°37 | 19°37 | 6°41 | 27°58 | 20°47 | 19° 7 | 22°19 | 11°59 | F 19 | |
| S 20 | 12 11 40 | 4°51'40 | 12♎2 | 18° 7 | 3°16 | 0♏3 | 7°48 | 5°44 | 19°40 | 6°42 | 27°59 | 20°44 | 19° 4 | 22°25 | 12° 3 | S 20 | |
| S 21 | 12 15 36 | 5°50'31 | 24° 2 | 19°53 | 4°28 | 0°36 | 8° 2 | 5°51 | 19°43 | 6°42 | 28° 0 | 20°40 | 19° 1 | 22°32 | 12° 6 | S 21 | |
| M22 | 12 19 33 | 6°49'21 | 5♎58 | 21°40 | 5°41 | 1°10 | 8°15 | 5°58 | 19°47 | 6°42 | 28° 2 | 20°33 | 18°58 | 22°39 | 12°10 | M22 | |
| T 23 | 12 23 29 | 7°48'08 | 17°51 | 23°28 | 6°54 | 1°43 | 8°28 | 6° 5 | 19°50 | 6°43 | 28° 3 | 20°25 | 18°55 | 22°46 | 12°13 | T 23 | |
| W24 | 12 27 26 | 8°46'54 | 29°43 | 25°18 | 8° 6 | 2°16 | 8°41 | 6°12 | 19°53 | 6°43 | 28° 5 | 20°16 | 18°52 | 22°52 | 12°17 | W24 | |
| T 25 | 12 31 22 | 9°45'37 | 11♌36 | 27° 9 | 9°19 | 2°48 | 8°54 | 6°20 | 19°57 | 6°43 | 28° 6 | 20° 6 | 18°48 | 22°59 | 12°20 | T 25 | |
| F 26 | 12 35 19 | 10°44'19 | 23°30 | 29° 2 | 10°31 | 3°21 | 9° 7 | 6°27 | 20° 0 | 6°44 | 28° 8 | 19°58 | 18°45 | 23° 6 | 12°24 | F 26 | |
| S 27 | 12 39 15 | 11°42'59 | 5♊30 | 0♍57 | 11°44 | 3°54 | 9°21 | 6°34 | 20° 3 | 6°44 | 28° 9 | 19°50 | 18°42 | 23°12 | 12°27 | S 27 | |
| S 28 | 12 43 12 | 12°41'37 | 17°39 | 2°53 | 12°57 | 4°26 | 9°34 | 6°41 | 20° 6 | 6°45 | 28°11 | 19°45 | 18°39 | 23°19 | 12°30 | S 28 | |
| M29 | 12 47 9 | 13°40'14 | 29°58 | 4°50 | 14°10 | 4°58 | 9°47 | 6°49 | 20°10 | 6°45 | 28°12 | 19°42 | 18°36 | 23°26 | 12°34 | M29 | |
| T 30 | 12 51 5 | 14°38'49 | 12♋34 | 6°49 | 15°22 | 5°31 | 10° 1 | 6°56 | 20°13 | 6°46 | 28°13 | 19°D41 | 18°32 | 23°33 | 12°37 | T 30 | |
| W31 | 12 55 2 | 15°37'22 | 25♋30 | 8°50 | 16°35 | 6°3 | 10♌14 | 7♍4 | 20♎16 | 6♏46 | 28♉15 | 19♊41 | 18♈29 | 23♉39 | 12♊41 | W31 | |

Delta T = 18m25s Julian Calendar 1 March 1087 == Greg. Calendar 7 March 1087

APRIL 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 12 58 58 | 16♍35'53 | 8♌50 | 10♎52 | 17♏48 | 6♐34 | 10♑28 | 7♒11 | 20♓19 | 6♌47 | 28♉16 | 19♊42 | 18♈26 | 23♉46 | 12♊44 | T 1 | |
| F 2 | 13 2 55 | 17°34'23 | 22°37 | 12°55 | 19° 1 | 7° 6 | 10°41 | 7°19 | 20°22 | 6°48 | 28°18 | 19°R42 | 18°23 | 23°53 | 12°47 | F 2 | |
| S 3 | 13 6 51 | 18°32'51 | 6♉52 | 14°59 | 20°13 | 7°38 | 10°55 | 7°26 | 20°25 | 6°49 | 28°19 | 19°41 | 18°20 | 23°59 | 12°50 | S 3 | |
| S 4 | 13 10 48 | 19°31'18 | 21°33 | 17° 5 | 21°26 | 8° 9 | 11° 9 | 7°34 | 20°28 | 6°49 | 28°20 | 19°38 | 18°17 | 24° 6 | 12°53 | S 4 | |
| M 5 | 13 14 44 | 20°29'42 | 6♊36 | 19°12 | 22°39 | 8°40 | 11°22 | 7°41 | 20°32 | 6°50 | 28°22 | 19°32 | 18°13 | 24°13 | 12°57 | M 5 | |
| T 6 | 13 18 41 | 21°28'05 | 21°52 | 21°19 | 23°52 | 9°11 | 11°36 | 7°49 | 20°35 | 6°51 | 28°23 | 19°24 | 18°10 | 24°20 | 13° 0 | T 6 | |
| W 7 | 13 22 37 | 22°26'26 | 7♌10 | 23°27 | 25° 5 | 9°42 | 11°50 | 7°56 | 20°38 | 6°52 | 28°24 | 19°14 | 18° 7 | 24°26 | 13° 3 | W 7 | |
| T 8 | 13 26 34 | 23°24'45 | 22°20 | 25°36 | 26°18 | 10°12 | 12° 3 | 8° 4 | 20°41 | 6°53 | 28°26 | 19° 5 | 18° 4 | 24°33 | 13° 6 | T 8 | |
| F 9 | 13 30 31 | 24°23'02 | 7♎10 | 27°45 | 27°30 | 10°43 | 12°17 | 8°12 | 20°44 | 6°53 | 28°27 | 18°57 | 18° 1 | 24°40 | 13° 9 | F 9 | |
| S 10 | 13 34 27 | 25°21'17 | 21°35 | 29°54 | 28°43 | 11°13 | 12°31 | 8°19 | 20°47 | 6°54 | 28°29 | 18°50 | 17°58 | 24°46 | 13°12 | S 10 | |
| S 11 | 13 38 24 | 26°19'30 | 5♌32 | 2♋3 | 29°56 | 11°43 | 12°45 | 8°27 | 20°50 | 6°55 | 28°30 | 18°47 | 17°54 | 24°53 | 13°15 | S 11 | |
| M12 | 13 42 20 | 27°17'41 | 18°59 | 4°11 | 1°9 | 12°13 | 12°59 | 8°35 | 20°53 | 6°56 | 28°31 | 18°45 | 17°51 | 25° 0 | 13°18 | M12 | |
| T 13 | 13 46 17 | 28°15'50 | 2♎0 | 6°18 | 2°22 | 12°42 | 13°13 | 8°42 | 20°55 | 6°57 | 28°32 | 18°D45 | 17°48 | 25° 7 | 13°21 | T 13 | |
| W14 | 13 50 13 | 29°13'57 | 14°39 | 8°24 | 3°35 | 13°12 | 13°27 | 8°50 | 20°58 | 6°58 | 28°34 | 18°R45 | 17°45 | 25°13 | 13°24 | W14 | |
| T 15 | 13 54 10 | 0♏12'02 | 27° 0 | 10°29 | 4°47 | 13°41 | 13°40 | 8°58 | 21° 1 | 6°59 | 28°35 | 18°45 | 17°42 | 25°20 | 13°27 | T 15 | |
| F 16 | 13 58 6 | 1°10'05 | 9♎8 | 12°32 | 6° 0 | 14°10 | 13°54 | 9° 5 | 21° 4 | 7° 1 | 28°36 | 18°43 | 17°38 | 25°27 | 13°29 | F 16 | |
| S 17 | 14 2 3 | 2° 8'06 | 21° 7 | 14°32 | 7°13 | 14°39 | 14° 8 | 9°13 | 21° 7 | 7° 2 | 28°38 | 18°39 | 17°35 | 25°33 | 13°32 | S 17 | |
| S 18 | 14 6 0 | 3° 6'05 | 3♎1 | 16°31 | 8°26 | 15° 7 | 14°22 | 9°21 | 21°10 | 7° 3 | 28°39 | 18°32 | 17°32 | 25°40 | 13°35 | S 18 | |
| M19 | 14 9 56 | 4° 4'02 | 14°52 | 18°27 | 9°39 | 15°35 | 14°36 | 9°29 | 21°12 | 7° 4 | 28°40 | 18°22 | 17°29 | 25°47 | 13°38 | M19 | |
| T 20 | 14 13 53 | 5° 1'58 | 26°44 | 20°20 | 10°52 | 16° 3 | 14°50 | 9°36 | 21°15 | 7° 5 | 28°41 | 18°10 | 17°26 | 25°54 | 13°40 | T 20 | |
| W21 | 14 17 49 | 5°59'52 | 8♌37 | 22°11 | 12° 5 | 16°31 | 15° 4 | 9°44 | 21°18 | 7° 6 | 28°42 | 17°57 | 17°23 | 26° 0 | 13°43 | W21 | |
| T 22 | 14 21 46 | 6°57'44 | 20°33 | 23°58 | 13°18 | 16°59 | 15°18 | 9°52 | 21°20 | 7° 8 | 28°44 | 17°43 | 17°19 | 26° 7 | 13°46 | T 22 | |
| F 23 | 14 25 42 | 7°55'35 | 2♊33 | 25°43 | 14°31 | 17°26 | 15°32 | 10° 0 | 21°23 | 7° 9 | 28°45 | 17°30 | 17°16 | 26°14 | 13°48 | F 23 | |
| S 24 | 14 29 39 | 8°53'25 | 14°40 | 27°24 | 15°44 | 17°53 | 15°47 | 10° 7 | 21°26 | 7°10 | 28°46 | 17°19 | 17°13 | 26°20 | 13°51 | S 24 | |
| S 25 | 14 33 35 | 9°51'13 | 26°54 | 29° 2 | 16°57 | 18°19 | 16° 1 | 10°15 | 21°28 | 7°12 | 28°47 | 17°11 | 17°10 | 26°27 | 13°53 | S 25 | |
| M26 | 14 37 32 | 10°49'00 | 9♋19 | 0♎36 | 18° 9 | 18°46 | 16°15 | 10°23 | 21°31 | 7°13 | 28°48 | 17° 5 | 17° 7 | 26°34 | 13°55 | M26 | |
| T 27 | 14 41 29 | 11°46'46 | 21°56 | 2° 7 | 19°22 | 19°12 | 16°29 | 10°31 | 21°33 | 7°15 | 28°50 | 17° 2 | 17° 3 | 26°41 | 13°58 | T 27 | |
| W28 | 14 45 25 | 12°44'30 | 4♌51 | 3°34 | 20°35 | 19°38 | 16°43 | 10°39 | 21°36 | 7°16 | 28°51 | 17° 1 | 17° 0 | 26°47 | 14° 0 | W28 | |
| T 29 | 14 49 22 | 13°42'14 | 18° 6 | 4°58 | 21°48 | 20° 3 | 16°57 | 10°46 | 21°38 | 7°17 | 28°52 | 17° 1 | 16°57 | 26°54 | 14° 3 | T 29 | |
| F 30 | 14 53 18 | 14°39'56 | 1♉45 | 6♎18 | 23°9 | 20♏28 | 17♏11 | 10♑54 | 21♒40 | 7♓19 | 28♉53 | 17♊1 | 16♈54 | 27♉1 | 14♊5 | F 30 | |

Delta T = 18m24s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1087
geocentric

MAY 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|-------|-------|------|-----|
| S 1 | 14 57 15 | 15♁37'37 | 15♁49 | 7♂35 | 24♀14 | 20♁53 | 17♁25 | 11♁ 2 | 21♁43 | 7♁20 | 28♁54 | 16♁R59 | 16♁51 | 27♁ 7 | 14♁ 7 | 14♁ 7 | S 1 | |
| S 2 | 15 1 11 | 16°35'17 | 0♀18 | 8°47 | 25°27 | 21°17 | 17°39 | 11°10 | 21°45 | 7°22 | 28°55 | 16♁55 | 16°48 | 27°14 | 14° 9 | 14° 9 | S 2 | |
| M 3 | 15 5 8 | 17°32'57 | 15°10 | 9°56 | 26°40 | 21°42 | 17°53 | 11°17 | 21°47 | 7°23 | 28°56 | 16°48 | 16°44 | 27°21 | 14°11 | 14°11 | M 3 | |
| T 4 | 15 9 4 | 18°30'34 | 0♁18 | 11° 2 | 27°53 | 22° 5 | 18° 7 | 11°25 | 21°50 | 7°25 | 28°57 | 16°39 | 16°41 | 27°28 | 14°13 | 14°13 | T 4 | |
| W 5 | 15 13 1 | 19°28'11 | 15°32 | 12° 3 | 29° 7 | 22°29 | 18°21 | 11°33 | 21°52 | 7°27 | 28°58 | 16°28 | 16°38 | 27°34 | 14°15 | 14°15 | W 5 | |
| T 6 | 15 16 58 | 20°25'47 | 0♁42 | 13° 0 | 0♁20 | 22°52 | 18°36 | 11°41 | 21°54 | 7°28 | 28°59 | 16°17 | 16°35 | 27°41 | 14°17 | 14°17 | T 6 | |
| F 7 | 15 20 54 | 21°23'22 | 15°36 | 13°53 | 1°33 | 23°14 | 18°50 | 11°48 | 21°56 | 7°30 | 29° 0 | 16° 7 | 16°32 | 27°48 | 14°19 | 14°19 | F 7 | |
| S 8 | 15 24 51 | 22°20'55 | 0♁ 7 | 14°43 | 2°46 | 23°36 | 19° 4 | 11°56 | 21°58 | 7°32 | 29° 1 | 15°59 | 16°29 | 27°54 | 14°21 | 14°21 | S 8 | |
| S 9 | 15 28 47 | 23°18'27 | 14°10 | 15°27 | 3°59 | 23°58 | 19°18 | 12° 4 | 22° 0 | 7°33 | 29° 2 | 15°54 | 16°25 | 28° 1 | 14°23 | 14°23 | S 9 | |
| M10 | 15 32 44 | 24°15'57 | 27°44 | 16° 8 | 5°12 | 24°20 | 19°32 | 12°11 | 22° 2 | 7°35 | 29° 3 | 15°51 | 16°22 | 28° 8 | 14°25 | 14°25 | M10 | |
| T 11 | 15 36 40 | 25°13'26 | 10♁50 | 16°45 | 6°25 | 24°41 | 19°46 | 12°19 | 22° 4 | 7°37 | 29° 4 | 15°50 | 16°19 | 28°15 | 14°27 | 14°27 | T 11 | |
| W12 | 15 40 37 | 26°10'54 | 23°31 | 17°16 | 7°38 | 25° 1 | 20° 0 | 12°27 | 22° 6 | 7°38 | 29° 5 | 15°50 | 16°16 | 28°21 | 14°28 | 14°28 | W12 | |
| T 13 | 15 44 33 | 27° 8'20 | 5♁52 | 17°44 | 8°51 | 25°21 | 20°14 | 12°34 | 22° 8 | 7°40 | 29° 6 | 15°50 | 16°13 | 28°28 | 14°30 | 14°30 | T 13 | |
| F 14 | 15 48 30 | 28° 5'45 | 17°59 | 18° 7 | 10° 4 | 25°41 | 20°28 | 12°42 | 22°10 | 7°42 | 29° 6 | 15°49 | 16° 9 | 28°35 | 14°31 | 14°31 | F 14 | |
| S 15 | 15 52 27 | 29° 3'09 | 29°56 | 18°25 | 11°17 | 26° 0 | 20°42 | 12°50 | 22°12 | 7°44 | 29° 7 | 15°45 | 16° 6 | 28°41 | 14°33 | 14°33 | S 15 | |
| S 16 | 15 56 23 | 0♁ 0'32 | 11♁48 | 18°39 | 12°30 | 26°19 | 20°56 | 12°57 | 22°13 | 7°46 | 29° 8 | 15°39 | 16° 3 | 28°48 | 14°34 | 14°34 | S 16 | |
| M17 | 16 0 20 | 0°57'53 | 23°39 | 18°48 | 13°43 | 26°37 | 21°10 | 13° 5 | 22°15 | 7°48 | 29° 9 | 15°30 | 16° 0 | 28°55 | 14°36 | 14°36 | M17 | |
| T 18 | 16 4 16 | 1°55'14 | 5♁31 | 18°R53 | 14°57 | 26°54 | 21°24 | 13°12 | 22°17 | 7°49 | 29°10 | 15°19 | 15°57 | 29° 2 | 14°37 | 14°37 | T 18 | |
| W19 | 16 8 13 | 2°52'33 | 17°28 | 18°53 | 16°10 | 27°12 | 21°38 | 13°20 | 22°18 | 7°51 | 29°10 | 15° 7 | 15°54 | 29° 8 | 14°39 | 14°39 | W19 | |
| T 20 | 16 12 9 | 3°49'52 | 29°31 | 18°48 | 17°23 | 27°28 | 21°52 | 13°27 | 22°20 | 7°53 | 29°11 | 14°54 | 15°50 | 29°15 | 14°40 | 14°40 | T 20 | |
| F 21 | 16 16 6 | 4°47'10 | 11♁40 | 18°39 | 18°36 | 27°45 | 22° 6 | 13°35 | 22°22 | 7°55 | 29°12 | 14°42 | 15°47 | 29°22 | 14°41 | 14°41 | F 21 | |
| S 22 | 16 20 2 | 5°44'27 | 23°57 | 18°26 | 19°49 | 28° 0 | 22°20 | 13°42 | 22°23 | 7°57 | 29°13 | 14°32 | 15°44 | 29°28 | 14°42 | 14°42 | S 22 | |
| S 23 | 16 23 59 | 6°41'44 | 6♁24 | 18° 9 | 21° 2 | 28°15 | 22°33 | 13°50 | 22°24 | 7°59 | 29°13 | 14°24 | 15°41 | 29°35 | 14°44 | 14°44 | S 23 | |
| M24 | 16 27 56 | 7°39'00 | 19° 1 | 17°49 | 22°16 | 28°30 | 22°47 | 13°57 | 22°26 | 8° 1 | 29°14 | 14°19 | 15°38 | 29°42 | 14°45 | 14°45 | M24 | |
| T 25 | 16 31 52 | 8°36'15 | 1♁49 | 17°25 | 23°29 | 28°44 | 23° 1 | 14° 4 | 22°27 | 8° 3 | 29°15 | 14°16 | 15°35 | 29°49 | 14°46 | 14°46 | T 25 | |
| W26 | 16 35 49 | 9°33'31 | 14°51 | 16°58 | 24°42 | 28°57 | 23°15 | 14°12 | 22°29 | 8° 5 | 29°15 | 14°D15 | 15°31 | 29°55 | 14°47 | 14°47 | W26 | |
| T 27 | 16 39 45 | 10°30'45 | 28°10 | 16°28 | 25°55 | 29°10 | 23°29 | 14°19 | 22°30 | 8° 7 | 29°16 | 14°16 | 15°28 | 0♁ 2 | 14°48 | 14°48 | T 27 | |
| F 28 | 16 43 42 | 11°28'00 | 11♁47 | 15°57 | 27° 8 | 29°22 | 23°42 | 14°26 | 22°31 | 8° 9 | 29°16 | 14°R16 | 15°25 | 0° 9 | 14°48 | 14°48 | F 28 | |
| S 29 | 16 47 38 | 12°25'14 | 25°43 | 15°24 | 28°22 | 29°33 | 23°56 | 14°33 | 22°32 | 8°11 | 29°17 | 14°15 | 15°22 | 0°15 | 14°49 | 14°49 | S 29 | |
| S 30 | 16 51 35 | 13°22'28 | 10♀ 0 | 14°50 | 29°35 | 29°44 | 24°10 | 14°41 | 22°33 | 8°13 | 29°18 | 14°13 | 15°19 | 0°22 | 14°50 | 14°50 | S 30 | |
| M31 | 16 55 31 | 14♁19'41 | 24♀35 | 14♁15 | 0♁48 | 29♁54 | 24♁23 | 14♁48 | 22♁35 | 8♁15 | 29♁18 | 14♁ 8 | 15♁15 | 0♁29 | 14♁51 | 14♁51 | M31 | |

Delta T = 18m24s Julian Calendar 1 May 1087 == Greg. Calendar 7 May 1087

JUNE 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|------|--------|--------|-------|------|--------|-------|------|-----|
| T 1 | 16 59 28 | 15♁16'55 | 9♁24 | 13°R41 | 2♁ 2 | 0♁ 4 | 24♁37 | 14♁55 | 22♁36 | 8♁17 | 29♁19 | 14°R 1 | 15♁12 | 0♁36 | 14♁51 | 14♁51 | T 1 | |
| W 2 | 17 3 25 | 16°14'08 | 24°19 | 13♁ 8 | 3°15 | 0°13 | 24°50 | 15° 2 | 22°37 | 8°19 | 29°19 | 13♁53 | 15° 9 | 0°42 | 14°52 | 14°52 | W 2 | |
| T 3 | 17 7 21 | 17°11'21 | 9♁13 | 12°36 | 4°28 | 0°21 | 25° 4 | 15° 9 | 22°38 | 8°21 | 29°20 | 13°44 | 15° 6 | 0°49 | 14°52 | 14°52 | T 3 | |
| F 4 | 17 11 18 | 18° 8'34 | 23°56 | 12° 6 | 5°42 | 0°28 | 25°17 | 15°16 | 22°38 | 8°24 | 29°20 | 13°36 | 15° 3 | 0°56 | 14°53 | 14°53 | F 4 | |
| S 5 | 17 15 14 | 19° 5'47 | 8♁20 | 11°38 | 6°55 | 0°35 | 25°31 | 15°23 | 22°39 | 8°26 | 29°20 | 13°30 | 15° 0 | 1° 2 | 14°53 | 14°53 | S 5 | |
| S 6 | 17 19 11 | 20° 2'59 | 22°21 | 11°14 | 8° 8 | 0°41 | 25°44 | 15°30 | 22°40 | 8°28 | 29°21 | 13°26 | 14°56 | 1° 9 | 14°54 | 14°54 | S 6 | |
| M 7 | 17 23 7 | 21° 0'11 | 5♁55 | 10°52 | 9°22 | 0°46 | 25°58 | 15°37 | 22°41 | 8°30 | 29°21 | 13°24 | 14°53 | 1°16 | 14°54 | 14°54 | M 7 | |
| T 8 | 17 27 4 | 21°57'22 | 19° 4 | 10°34 | 10°35 | 0°51 | 26°11 | 15°43 | 22°42 | 8°32 | 29°22 | 13°D24 | 14°50 | 1°23 | 14°54 | 14°54 | T 8 | |
| W 9 | 17 31 0 | 22°54'33 | 1♁48 | 10°21 | 11°49 | 0°54 | 26°24 | 15°50 | 22°42 | 8°34 | 29°22 | 13°25 | 14°47 | 1°29 | 14°55 | 14°55 | W 9 | |
| T 10 | 17 34 57 | 23°51'43 | 14°12 | 10°11 | 13° 2 | 0°57 | 26°37 | 15°57 | 22°43 | 8°36 | 29°22 | 13°26 | 14°44 | 1°36 | 14°55 | 14°55 | T 10 | |
| F 11 | 17 38 54 | 24°48'53 | 26°21 | 10° 6 | 14°15 | 1° 0 | 26°51 | 16° 4 | 22°44 | 8°39 | 29°23 | 13°R26 | 14°41 | 1°43 | 14°55 | 14°55 | F 11 | |
| S 12 | 17 42 50 | 25°46'02 | 8♁20 | 10°D 6 | 15°29 | 1° 1 | 27° 4 | 16°10 | 22°44 | 8°41 | 29°23 | 13°25 | 14°37 | 1°50 | 14°R55 | 14°55 | S 12 | |
| S 13 | 17 46 47 | 26°43'12 | 20°13 | 10°11 | 16°42 | 1° 2 | 27°17 | 16°17 | 22°45 | 8°43 | 29°23 | 13°23 | 14°34 | 1°56 | 14°55 | 14°55 | S 13 | |
| M14 | 17 50 43 | 27°40'21 | 2♁ 5 | 10°20 | 17°56 | 1°R 2 | 27°30 | 16°23 | 22°45 | 8°45 | 29°23 | 13°18 | 14°31 | 2° 3 | 14°55 | 14°55 | M14 | |
| T 15 | 17 54 40 | 28°37'29 | 14° 0 | 10°35 | 19° 9 | 1° 1 | 27°43 | 16°30 | 22°45 | 8°47 | 29°23 | 13°12 | 14°28 | 2°10 | 14°55 | 14°55 | T 15 | |
| W16 | 17 58 36 | 29°34'38 | 26° 2 | 10°55 | 20°23 | 1° 0 | 27°56 | 16°36 | 22°46 | 8°50 | 29°24 | 13° 4 | 14°25 | 2°16 | 14°55 | 14°55 | W16 | |
| T 17 | 18 2 33 | 0♁31'47 | 8♁11 | 11°19 | 21°36 | 0°58 | 28° 9 | 16°43 | 22°46 | 8°52 | 29°24 | 12°57 | 14°21 | 2°23 | 14°54 | 14°54 | T 17 | |
| F 18 | 18 6 29 | 1°28'55 | 20°31 | 11°49 | 22°50 | 0°55 | 28°22 | 16°49 | 22°46 | 8°54 | 29°24 | 12°49 | 14°18 | 2°30 | 14°54 | 14°54 | F 18 | |
| S 19 | 18 10 26 | 2°26'04 | 3♁ 3 | 12°24 | 24° 3 | 0°51 | 28°34 | 16°55 | 22°46 | 8°56 | 29°24 | 12°43 | 14°15 | 2°37 | 14°54 | 14°54 | S 19 | |
| S 20 | 18 14 23 | 3°23'13 | 15°46 | 13° 3 | 25°17 | 0°47 | 28°47 | 17° 1 | 22°47 | 8°58 | 29°24 | 12°39 | 14°12 | 2°43 | 14°53 | 14°53 | S 20 | |
| M21 | 18 18 19 | 4°20'22 | 28°41 | 13°48 | 26°31 | 0°41 | 29° 0 | 17° 8 | 22°47 | 9° 1 | 29°24 | 12°36 | 14° 9 | 2°50 | 14°53 | 14°53 | M21 | |
| T 22 | 18 22 16 | 5°17'32 | 11♁48 | 14°37 | 27°44 | 0°35 | 29°12 | 17°14 | 22°R47 | 9° 3 | 29°24 | 12°D35 | 14° 6 | 2°57 | 14°52 | 14°52 | T 22 | |
| W23 | 18 26 12 | 6°14'42 | 25° 8 | 15°32 | 28°58 | 0°29 | 29°25 | 17°20 | 22°47 | 9° 5 | 29°24 | 12°36 | 14° 2 | 3° 3 | 14°52 | 14°52 | W23 | |
| T 24 | 18 30 9 | 7°11'52 | 8♁40 | 16°31 | 0♁12 | 0°21 | 29°37 | 17°26 | 22°47 | 9° 7 | 29°R24 | 12°37 | 13°59 | 3°10 | 14°51 | 14°51 | T 24 | |
| F 25 | 18 34 5 | 8° 9'03 | 22°25 | 17°35 | 1°25 | 0°13 | 29°50 | 17°32 | 22°46 | 9°10 | 29°24 | 12°38 | 13°56 | 3°17 | 14°51 | 14°51 | F 25 | |
| S 26 | 18 38 2 | 9° 6'15 | 6♀23 | 18°43 | 2°39 | 0° 5 | 0♁ 2 | 17°37 | 22°46 | 9°12 | 29°24 | 12°R39 | 13°53 | 3°24 | 14°50 | 14°50 | S 26 | |
| S 27 | 18 41 59 | 10° 3'27 | 20°33 | 19°56 | 3°53 | 29♁55 | 0°15 | 17°43 | 22°46 | 9°14 | 29°24 | 12°39 | 13°50 | 3°30 | 14°49 | 14°49 | S 27 | |
| M28 | 18 45 55 | 11° 0'40 | 4♁54 | 21°14 | 5° 6 | 29°45 | 0°27 | 17°49 | 22°46 | 9°16 | 29°24 | 12°37 | 13°46 | 3°37 | 14°48 | 14°48 | M28 | |
| T 29 | 18 49 52 | 11°57'54 | 19°22 | 22°35 | 6°20 | 29°34 | 0°39 | 17°55 | 22°46 | 9°18 | 29°24 | 12°34 | 13°43 | 3°44 | 14°47 | 14°47 | T 29 | |
| W30 | 18 53 48 | 12°55'09 | 3♁53 | 24♁ 2 | 7♁34 | 29♁23 | 0♁51 | 18♁ 0 | 22♁45 | 9♁21 | 29♁24 | 12♁30 | 13♁40 | 3♁51 | 14♁46 | 14♁46 | W30 | |

Delta T = 18m24s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1087
geocentric

JULY 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|-----------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|------|
| T 1 | 18 57 45 | 13 ⁵² 25 | 18 ^{II} 20 | 25 ^{II} 32 | 8 ⁵ 48 | 29°R11 | 1 ^{II} 3 | 18 ^B 6 | 22°R45 | 9 ⁵ 23 | 29°R24 | 12°R26 | 13 ^Ω 37 | 3 [♁] 57 | 14°R46 | T 1 |
| F 2 | 19 1 41 | 14°49'41 | 2 ⁵ 40 | 27° 7 | 10° 1 | 28 ⁵ 58 | 1°15 | 18°11 | 22 [♁] 44 | 9°25 | 29 [♁] 24 | 12 ^Ω 22 | 13°34 | 4° 4 | 14 [♁] 44 | F 2 |
| S 3 | 19 5 38 | 15°46'58 | 16°45 | 28°45 | 11°15 | 28°45 | 1°27 | 18°16 | 22°44 | 9°27 | 29°23 | 12°19 | 13°31 | 4°11 | 14°43 | S 3 |
| S 4 | 19 9 34 | 16°44'15 | 0 ^Ω 32 | 0 ⁵ 27 | 12°29 | 28°32 | 1°39 | 18°22 | 22°43 | 9°30 | 29°23 | 12°18 | 13°27 | 4°17 | 14°42 | S 4 |
| M 5 | 19 13 31 | 17°41'33 | 13°58 | 2°13 | 13°43 | 28°18 | 1°50 | 18°27 | 22°43 | 9°32 | 29°23 | 12°D17 | 13°24 | 4°24 | 14°41 | M 5 |
| T 6 | 19 17 28 | 18°38'52 | 27° 2 | 4° 2 | 14°57 | 28° 4 | 2° 2 | 18°32 | 22°42 | 9°34 | 29°23 | 12°18 | 13°21 | 4°31 | 14°40 | T 6 |
| W 7 | 19 21 24 | 19°36'11 | 9 [♁] 46 | 5°54 | 16°11 | 27°49 | 2°14 | 18°37 | 22°42 | 9°36 | 29°23 | 12°19 | 13°18 | 4°38 | 14°39 | W 7 |
| T 8 | 19 25 21 | 20°33'30 | 22°11 | 7°49 | 17°25 | 27°34 | 2°25 | 18°42 | 22°41 | 9°38 | 29°22 | 12°21 | 13°15 | 4°44 | 14°37 | T 8 |
| F 9 | 19 29 17 | 21°30'51 | 4 [♁] 22 | 9°46 | 18°39 | 27°19 | 2°36 | 18°47 | 22°40 | 9°41 | 29°22 | 12°22 | 13°12 | 4°51 | 14°36 | F 9 |
| S 10 | 19 33 14 | 22°28'11 | 16°22 | 11°45 | 19°52 | 27° 3 | 2°48 | 18°52 | 22°39 | 9°43 | 29°22 | 12°23 | 13° 8 | 4°58 | 14°34 | S 10 |
| S 11 | 19 37 10 | 23°25'32 | 28°17 | 13°47 | 21° 6 | 26°47 | 2°59 | 18°57 | 22°38 | 9°45 | 29°21 | 12°R23 | 13° 5 | 5° 4 | 14°33 | S 11 |
| M12 | 19 41 7 | 24°22'54 | 10 [♁] 10 | 15°49 | 22°20 | 26°31 | 3°10 | 19° 1 | 22°37 | 9°47 | 29°21 | 12°22 | 13° 2 | 5°11 | 14°31 | M12 |
| T 13 | 19 45 3 | 25°20'17 | 22° 7 | 17°53 | 23°34 | 26°15 | 3°21 | 19° 6 | 22°37 | 9°49 | 29°20 | 12°21 | 12°59 | 5°18 | 14°30 | T 13 |
| W14 | 19 49 0 | 26°17'40 | 4 [♁] 11 | 19°57 | 24°48 | 25°59 | 3°32 | 19°11 | 22°36 | 9°51 | 29°20 | 12°19 | 12°56 | 5°25 | 14°28 | W14 |
| T 15 | 19 52 57 | 27°15'04 | 16°26 | 22° 2 | 26° 2 | 25°43 | 3°43 | 19°15 | 22°35 | 9°54 | 29°20 | 12°16 | 12°52 | 5°31 | 14°27 | T 15 |
| F 16 | 19 56 53 | 28°12'29 | 28°55 | 24° 7 | 27°16 | 25°27 | 3°54 | 19°19 | 22°33 | 9°56 | 29°19 | 12°14 | 12°49 | 5°38 | 14°25 | F 16 |
| S 17 | 20 0 50 | 29° 9'55 | 11 [♁] 39 | 26°12 | 28°30 | 25°11 | 4° 4 | 19°24 | 22°32 | 9°58 | 29°19 | 12°13 | 12°46 | 5°45 | 14°23 | S 17 |
| S 18 | 20 4 46 | 0 ^Ω 7'22 | 24°40 | 28°17 | 29°44 | 24°56 | 4°15 | 19°28 | 22°31 | 10° 0 | 29°18 | 12°12 | 12°43 | 5°52 | 14°21 | S 18 |
| M19 | 20 8 43 | 1° 4'50 | 7 [♁] 56 | 0 ^Ω 21 | 0 ^Ω 59 | 24°40 | 4°25 | 19°32 | 22°30 | 10° 2 | 29°18 | 12°D11 | 12°40 | 5°58 | 14°20 | M19 |
| T 20 | 20 12 39 | 2° 2'18 | 21°27 | 2°24 | 2°13 | 24°25 | 4°36 | 19°36 | 22°29 | 10° 4 | 29°17 | 12°11 | 12°37 | 6° 5 | 14°18 | T 20 |
| W21 | 20 16 36 | 2°59'49 | 5 [♁] 12 | 4°27 | 3°27 | 24° 9 | 4°46 | 19°40 | 22°27 | 10° 6 | 29°17 | 12°12 | 12°33 | 6°12 | 14°16 | W21 |
| T 22 | 20 20 32 | 3°57'20 | 19° 8 | 6°28 | 4°41 | 23°55 | 4°56 | 19°44 | 22°26 | 10° 8 | 29°16 | 12°12 | 12°30 | 6°18 | 14°14 | T 22 |
| F 23 | 20 24 29 | 4°54'53 | 3 [♁] 12 | 8°28 | 5°55 | 23°40 | 5° 6 | 19°48 | 22°25 | 10°11 | 29°15 | 12°13 | 12°27 | 6°25 | 14°12 | F 23 |
| S 24 | 20 28 26 | 5°52'27 | 17°22 | 10°27 | 7° 9 | 23°26 | 5°16 | 19°51 | 22°23 | 10°13 | 29°15 | 12°14 | 12°24 | 6°32 | 14°10 | S 24 |
| S 25 | 20 32 22 | 6°50'03 | 1 [♁] 35 | 12°25 | 8°23 | 23°12 | 5°26 | 19°55 | 22°22 | 10°15 | 29°14 | 12°R14 | 12°21 | 6°39 | 14° 8 | S 25 |
| M26 | 20 36 19 | 7°47'40 | 15°50 | 14°21 | 9°38 | 22°59 | 5°36 | 19°58 | 22°20 | 10°17 | 29°14 | 12°14 | 12°18 | 6°45 | 14° 6 | M26 |
| T 27 | 20 40 15 | 8°45'19 | 0 ^{II} 2 | 16°16 | 10°52 | 22°46 | 5°46 | 20° 2 | 22°19 | 10°19 | 29°13 | 12°14 | 12°14 | 6°52 | 14° 3 | T 27 |
| W28 | 20 44 12 | 9°43'00 | 14°10 | 18°10 | 12° 6 | 22°33 | 5°55 | 20° 5 | 22°17 | 10°21 | 29°12 | 12°13 | 12°11 | 6°59 | 14° 1 | W28 |
| T 29 | 20 48 8 | 10°40'42 | 28°12 | 20° 2 | 13°20 | 22°22 | 6° 4 | 20° 8 | 22°16 | 10°23 | 29°12 | 12°13 | 12° 8 | 7° 6 | 13°59 | T 29 |
| F 30 | 20 52 5 | 11°38'26 | 12 ⁵ 3 | 21°53 | 14°35 | 22°10 | 6°14 | 20°12 | 22°14 | 10°25 | 29°11 | 12°13 | 12° 5 | 7°12 | 13°57 | F 30 |
| S 31 | 20 56 1 | 12 ^Ω 36'12 | 25 ⁵ 42 | 23 ^Ω 42 | 15 ^Ω 49 | 22 ⁵ 0 | 6 ^{II} 23 | 20 ^B 15 | 22 [♁] 12 | 10 ⁵ 27 | 29 [♁] 10 | 12°D13 | 12 ^Ω 2 | 7 [♁] 19 | 13 [♁] 55 | S 31 |

Delta T = 18m24s Julian Calendar 1 July 1087 == Greg. Calendar 7 July 1087

AUGUST 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|-----------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------|
| S 1 | 20 59 58 | 13 ^Ω 33'59 | 9 ^Ω 7 | 25 ^Ω 30 | 17 ^Ω 3 | 21°R50 | 6 ^{II} 32 | 20 ^B 17 | 22°R11 | 10 ⁵ 29 | 29°R 9 | 12°R13 | 11 ^Ω 58 | 7 [♁] 26 | 13°R52 | S 1 |
| M 2 | 21 3 55 | 14°31'47 | 22°16 | 27°17 | 18°17 | 21 [♁] 41 | 6°41 | 20°20 | 22 [♁] 9 | 10°30 | 29 [♁] 9 | 12 ^Ω 13 | 11°55 | 7°32 | 13 [♁] 50 | M 2 |
| T 3 | 21 7 51 | 15°29'37 | 5 [♁] 9 | 29° 2 | 19°32 | 21°32 | 6°50 | 20°23 | 22° 7 | 10°32 | 29° 8 | 12°13 | 11°52 | 7°39 | 13°47 | T 3 |
| W 4 | 21 11 48 | 16°27'28 | 17°46 | 0 [♁] 46 | 20°46 | 21°24 | 6°58 | 20°26 | 22° 5 | 10°34 | 29° 7 | 12°13 | 11°49 | 7°46 | 13°45 | W 4 |
| T 5 | 21 15 44 | 17°25'21 | 0 [♁] 8 | 2°28 | 22° 0 | 21°17 | 7° 7 | 20°28 | 22° 4 | 10°36 | 29° 6 | 12°12 | 11°46 | 7°53 | 13°43 | T 5 |
| F 6 | 21 19 41 | 18°23'15 | 12°17 | 4°10 | 23°15 | 21°11 | 7°15 | 20°31 | 22° 2 | 10°38 | 29° 5 | 12°11 | 11°43 | 7°59 | 13°40 | F 6 |
| S 7 | 21 23 37 | 19°21'10 | 24°18 | 5°49 | 24°29 | 21° 5 | 7°24 | 20°33 | 22° 0 | 10°40 | 29° 4 | 12°10 | 11°39 | 8° 6 | 13°38 | S 7 |
| S 8 | 21 27 34 | 20°19'07 | 6 [♁] 12 | 7°28 | 25°44 | 21° 1 | 7°32 | 20°35 | 21°58 | 10°42 | 29° 4 | 12°10 | 11°36 | 8°13 | 13°35 | S 8 |
| M 9 | 21 31 30 | 21°17'05 | 18° 5 | 9° 5 | 26°58 | 20°57 | 7°40 | 20°37 | 21°56 | 10°43 | 29° 3 | 12°D 9 | 11°33 | 8°19 | 13°33 | M 9 |
| T 10 | 21 35 27 | 22°15'04 | 0 [♁] 1 | 10°41 | 28°12 | 20°53 | 7°48 | 20°39 | 21°54 | 10°45 | 29° 2 | 12°10 | 11°30 | 8°26 | 13°30 | T 10 |
| W11 | 21 39 23 | 23°13'05 | 12° 5 | 12°15 | 29°27 | 20°51 | 7°55 | 20°41 | 21°52 | 10°47 | 29° 1 | 12°10 | 11°27 | 8°33 | 13°27 | W11 |
| T 12 | 21 43 20 | 24°11'08 | 24°21 | 13°49 | 0 [♁] 41 | 20°50 | 8° 3 | 20°43 | 21°50 | 10°49 | 29° 0 | 12°11 | 11°24 | 8°40 | 13°25 | T 12 |
| F 13 | 21 47 17 | 25° 9'11 | 6 [♁] 54 | 15°20 | 1°56 | 20°D49 | 8°10 | 20°45 | 21°48 | 10°50 | 28°59 | 12°12 | 11°20 | 8°46 | 13°22 | F 13 |
| S 14 | 21 51 13 | 26° 7'17 | 19°45 | 16°51 | 3°10 | 20°49 | 8°18 | 20°46 | 21°46 | 10°52 | 28°58 | 12°13 | 11°17 | 8°53 | 13°19 | S 14 |
| S 15 | 21 55 10 | 27° 5'24 | 2 [♁] 58 | 18°21 | 4°24 | 20°50 | 8°25 | 20°48 | 21°44 | 10°54 | 28°57 | 12°14 | 11°14 | 9° 0 | 13°17 | S 15 |
| M16 | 21 59 6 | 28° 3'32 | 16°32 | 19°49 | 5°39 | 20°52 | 8°32 | 20°49 | 21°41 | 10°55 | 28°56 | 12°R14 | 11°11 | 9° 7 | 13°14 | M16 |
| T 17 | 22 3 3 | 29° 1'42 | 0 [♁] 26 | 21°15 | 6°53 | 20°54 | 8°39 | 20°50 | 21°39 | 10°57 | 28°55 | 12°13 | 11° 8 | 9°13 | 13°11 | T 17 |
| W18 | 22 6 59 | 29°59'54 | 14°38 | 22°41 | 8° 8 | 20°58 | 8°46 | 20°52 | 21°37 | 10°59 | 28°54 | 12°12 | 11° 4 | 9°20 | 13° 9 | W18 |
| T 19 | 22 10 56 | 0 [♁] 58'08 | 29° 2 | 24° 5 | 9°22 | 21° 2 | 8°52 | 20°53 | 21°35 | 11° 0 | 28°53 | 12°10 | 11° 1 | 9°27 | 13° 6 | T 19 |
| F 20 | 22 14 52 | 1°56'23 | 13 [♁] 33 | 25°28 | 10°37 | 21° 7 | 8°59 | 20°54 | 21°33 | 11° 2 | 28°52 | 12° 7 | 10°58 | 9°33 | 13° 3 | F 20 |
| S 21 | 22 18 49 | 2°54'41 | 28° 5 | 26°49 | 11°51 | 21°12 | 9° 5 | 20°55 | 21°30 | 11° 3 | 28°51 | 12° 5 | 10°55 | 9°40 | 13° 0 | S 21 |
| S 22 | 22 22 46 | 3°53'01 | 12 [♁] 33 | 28° 9 | 13° 6 | 21°19 | 9°11 | 20°55 | 21°28 | 11° 5 | 28°50 | 12° 3 | 10°52 | 9°47 | 12°58 | S 22 |
| M23 | 22 26 42 | 4°51'23 | 26°51 | 29°27 | 14°20 | 21°26 | 9°17 | 20°56 | 21°26 | 11° 6 | 28°49 | 12° 2 | 10°49 | 9°54 | 12°55 | M23 |
| T 24 | 22 30 39 | 5°49'48 | 10 ^{II} 59 | 0 [♁] 44 | 15°35 | 21°34 | 9°23 | 20°56 | 21°24 | 11° 8 | 28°48 | 12°D 1 | 10°45 | 10° 0 | 12°52 | T 24 |
| W25 | 22 34 35 | 6°48'14 | 24°53 | 1°59 | 16°49 | 21°43 | 9°28 | 20°57 | 21°21 | 11° 9 | 28°47 | 12° 2 | 10°42 | 10° 7 | 12°49 | W25 |
| T 26 | 22 38 32 | 7°46'43 | 8 ⁵ 34 | 3°13 | 18° 4 | 21°52 | 9°34 | 20°57 | 21°19 | 11°11 | 28°46 | 12° 4 | 10°39 | 10°14 | 12°46 | T 26 |
| F 27 | 22 42 28 | 8°45'14 | 22° 1 | 4°25 | 19°18 | 22° 3 | 9°39 | 20°57 | 21°17 | 11°12 | 28°45 | 12° 5 | 10°36 | 10°20 | 12°44 | F 27 |
| S 28 | 22 46 25 | 9°43'48 | 5 ^Ω 15 | 5°35 | 20°33 | 22°14 | 9°44 | 20°R57 | 21°14 | 11°13 | 28°44 | 12° 6 | 10°33 | 10°27 | 12°41 | S 28 |
| S 29 | 22 50 21 | 10°42'23 | 18°16 | 6°43 | 21°47 | 22°25 | 9°49 | 20°57 | 21°12 | 11°15 | 28°43 | 12°R 6 | 10°30 | 10°34 | 12°38 | S 29 |
| M30 | 22 54 18 | 11°41'00 | 1 [♁] 4 | 7°49 | 23° 2 | 22°38 | 9°54 | 20°57 | 21°10 | 11°16 | 28°41 | 12° 5 | 10°26 | 10°41 | 12°35 | M30 |
| T 31 | 22 58 15 | 12 [♁] 39'39 | 13 [♁] 41 | 8 ⁵ 33 | 24 [♁] 17 | 22 ⁵ 51 | 9 ^{II} 58 | 20 ^B 57 | 21 [♁] 7 | 11 ⁵ 17 | 28 [♁] 40 | 12 ^Ω 2 | 10 ^Ω 23 | 10 [♁] 47 | 12 [♁] 32 | T 31 |

Delta T = 18m23s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1087
geocentric

SEPTEMBER 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|--------|--------|-------|--------|--------|-------|-------|--------|------|---|-----|
| W 1 | 23 2 11 | 13♐38'21 | 26♐ 6 | 9♂55 | 25♐31 | 23♃ 5 | 10♁ 3 | 20°R57 | 21°R 5 | 11♁19 | 28°R39 | 11°R58 | 10♁20 | 10♁54 | 12°R29 | W 1 | | |
| T 2 | 23 6 8 | 14°37'04 | 8♂21 | 10°54 | 26°46 | 23°19 | 10° 7 | 20♁56 | 21°R 2 | 11°20 | 28°R38 | 11°R52 | 10°17 | 11° 1 | 12°R27 | T 2 | | |
| F 3 | 23 10 4 | 15°35'49 | 20°26 | 11°50 | 28° 0 | 23°34 | 10°11 | 20°56 | 21° 0 | 11°21 | 28°37 | 11°46 | 10°14 | 11° 8 | 12°24 | F 3 | | |
| S 4 | 23 14 1 | 16°34'36 | 2♁23 | 12°44 | 29°15 | 23°50 | 10°15 | 20°55 | 20°58 | 11°22 | 28°36 | 11°40 | 10°10 | 11°14 | 12°21 | S 4 | | |
| S 5 | 23 17 57 | 17°33'25 | 14°16 | 13°34 | 0♁29 | 24° 6 | 10°19 | 20°54 | 20°55 | 11°23 | 28°35 | 11°35 | 10° 7 | 11°21 | 12°18 | S 5 | | |
| M 6 | 23 21 54 | 18°32'16 | 26° 8 | 14°21 | 1°44 | 24°23 | 10°22 | 20°53 | 20°53 | 11°24 | 28°34 | 11°31 | 10° 4 | 11°28 | 12°15 | M 6 | | |
| T 7 | 23 25 50 | 19°31'08 | 8♁ 2 | 15° 5 | 2°59 | 24°41 | 10°26 | 20°52 | 20°50 | 11°26 | 28°32 | 11°28 | 10° 1 | 11°34 | 12°12 | T 7 | | |
| W 8 | 23 29 47 | 20°30'03 | 20° 3 | 15°45 | 4°13 | 24°59 | 10°29 | 20°51 | 20°48 | 11°27 | 28°31 | 11°D27 | 9°58 | 11°41 | 12°10 | W 8 | | |
| T 9 | 23 33 44 | 21°28'59 | 2♁15 | 16°20 | 5°28 | 25°18 | 10°32 | 20°50 | 20°46 | 11°28 | 28°30 | 11°28 | 9°55 | 11°48 | 12° 7 | T 9 | | |
| F 10 | 23 37 40 | 22°27'57 | 14°45 | 16°50 | 6°42 | 25°38 | 10°34 | 20°49 | 20°43 | 11°29 | 28°29 | 11°29 | 9°51 | 11°55 | 12° 4 | F 10 | | |
| S 11 | 23 41 37 | 23°26'57 | 27°36 | 17°16 | 7°57 | 25°58 | 10°37 | 20°47 | 20°41 | 11°30 | 28°28 | 11°31 | 9°48 | 12° 1 | 12° 1 | S 11 | | |
| S 12 | 23 45 33 | 24°25'58 | 10♁51 | 17°36 | 9°11 | 26°18 | 10°39 | 20°46 | 20°38 | 11°30 | 28°27 | 11°R32 | 9°45 | 12° 8 | 11°59 | S 12 | | |
| M13 | 23 49 30 | 25°25'02 | 24°34 | 17°51 | 10°26 | 26°39 | 10°42 | 20°44 | 20°36 | 11°31 | 28°25 | 11°31 | 9°42 | 12°15 | 11°56 | M13 | | |
| T 14 | 23 53 26 | 26°24'07 | 8♁42 | 17°59 | 11°41 | 27° 1 | 10°44 | 20°42 | 20°33 | 11°32 | 28°24 | 11°28 | 9°39 | 12°22 | 11°53 | T 14 | | |
| W15 | 23 57 23 | 27°23'15 | 23°14 | 18°R 0 | 12°55 | 27°23 | 10°45 | 20°40 | 20°31 | 11°33 | 28°23 | 11°23 | 9°35 | 12°28 | 11°50 | W15 | | |
| T 16 | 0 1 19 | 28°22'24 | 8♁ 3 | 17°54 | 14°10 | 27°46 | 10°47 | 20°39 | 20°29 | 11°34 | 28°22 | 11°17 | 9°32 | 12°35 | 11°48 | T 16 | | |
| F 17 | 0 5 16 | 29°21'35 | 23° 1 | 17°41 | 15°24 | 28° 9 | 10°48 | 20°36 | 20°26 | 11°35 | 28°21 | 11°10 | 9°29 | 12°42 | 11°45 | F 17 | | |
| S 18 | 0 9 12 | 0♁20'49 | 8♁ 0 | 17°19 | 16°39 | 28°32 | 10°50 | 20°34 | 20°24 | 11°35 | 28°20 | 11° 2 | 9°26 | 12°48 | 11°42 | S 18 | | |
| S 19 | 0 13 9 | 1°20'05 | 22°49 | 16°50 | 17°53 | 28°56 | 10°51 | 20°32 | 20°22 | 11°36 | 28°18 | 10°56 | 9°23 | 12°55 | 11°40 | S 19 | | |
| M20 | 0 17 6 | 2°19'24 | 7♁23 | 16°13 | 19° 8 | 29°21 | 10°52 | 20°30 | 20°19 | 11°37 | 28°17 | 10°51 | 9°20 | 13° 2 | 11°37 | M20 | | |
| T 21 | 0 21 2 | 3°18'45 | 21°36 | 15°27 | 20°23 | 29°46 | 10°52 | 20°27 | 20°17 | 11°37 | 28°16 | 10°49 | 9°16 | 13° 9 | 11°35 | T 21 | | |
| W22 | 0 24 59 | 4°18'08 | 5♁29 | 14°35 | 21°37 | 0♁11 | 10°53 | 20°25 | 20°15 | 11°38 | 28°15 | 10°D48 | 9°13 | 13°15 | 11°32 | W22 | | |
| T 23 | 0 28 55 | 5°17'34 | 19° 0 | 13°35 | 22°52 | 0°37 | 10°53 | 20°22 | 20°12 | 11°38 | 28°14 | 10°49 | 9°10 | 13°22 | 11°30 | T 23 | | |
| F 24 | 0 32 52 | 6°17'02 | 2♁12 | 12°29 | 24° 6 | 1° 3 | 10°R53 | 20°19 | 20°10 | 11°39 | 28°13 | 10°49 | 9° 7 | 13°29 | 11°27 | F 24 | | |
| S 25 | 0 36 48 | 7°16'32 | 15° 8 | 11°20 | 25°21 | 1°29 | 10°53 | 20°17 | 20° 8 | 11°40 | 28°11 | 10°R50 | 9° 4 | 13°35 | 11°25 | S 25 | | |
| S 26 | 0 40 45 | 8°16'05 | 27°49 | 10° 7 | 26°35 | 1°56 | 10°52 | 20°14 | 20° 5 | 11°40 | 28°10 | 10°48 | 9° 1 | 13°42 | 11°22 | S 26 | | |
| M27 | 0 44 41 | 9°15'40 | 10♐20 | 8°54 | 27°50 | 2°23 | 10°52 | 20°11 | 20° 3 | 11°40 | 28° 9 | 10°44 | 8°57 | 13°49 | 11°20 | M27 | | |
| T 28 | 0 48 38 | 10°15'17 | 22°40 | 7°42 | 29° 5 | 2°51 | 10°51 | 20° 8 | 20° 1 | 11°41 | 28° 8 | 10°38 | 8°54 | 13°56 | 11°17 | T 28 | | |
| W29 | 0 52 35 | 11°14'56 | 4♁52 | 6°33 | 0♁19 | 3°19 | 10°50 | 20° 4 | 19°59 | 11°41 | 28° 7 | 10°28 | 8°51 | 14° 2 | 11°15 | W29 | | |
| T 30 | 0 56 31 | 12°14'37 | 16♁58 | 5♁30 | 1♁34 | 3°48 | 10♁49 | 20♁ 1 | 19°56 | 11♁42 | 28°R 6 | 10♁17 | 8♁48 | 14♁ 9 | 11°R13 | T 30 | | |

Delta T = 18m23s Julian Calendar 1 Sept. 1087 == Greg. Calendar 7 Sept. 1087

OCTOBER 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|------|-------|--------|------|---|-----|
| F 1 | 1 0 28 | 13♁14'21 | 28♁57 | 4°R34 | 2♁48 | 4♁16 | 10°R47 | 19°R58 | 19°R54 | 11♁42 | 28°R 4 | 10°R 5 | 8♁45 | 14♁16 | 11°R10 | F 1 | | |
| S 2 | 1 4 24 | 14°14'06 | 10♁51 | 3♁47 | 4° 3 | 4°46 | 10♁46 | 19♁54 | 19°R52 | 11°42 | 28°R 3 | 9♁52 | 8°41 | 14°23 | 11°R 8 | S 2 | | |
| S 3 | 1 8 21 | 15°13'53 | 22°43 | 3°11 | 5°17 | 5°15 | 10°44 | 19°51 | 19°50 | 11°42 | 28° 2 | 9°41 | 8°38 | 14°29 | 11° 6 | S 3 | | |
| M 4 | 1 12 17 | 16°13'42 | 4♁33 | 2°45 | 6°32 | 5°45 | 10°42 | 19°47 | 19°48 | 11°43 | 28° 1 | 9°31 | 8°35 | 14°36 | 11° 4 | M 4 | | |
| T 5 | 1 16 14 | 17°13'33 | 16°25 | 2°30 | 7°46 | 6°15 | 10°40 | 19°43 | 19°46 | 11°43 | 28° 0 | 9°24 | 8°32 | 14°43 | 11° 1 | T 5 | | |
| W 6 | 1 20 10 | 18°13'26 | 28°24 | 2°D27 | 9° 1 | 6°45 | 10°37 | 19°40 | 19°44 | 11°43 | 27°59 | 9°20 | 8°29 | 14°49 | 10°59 | W 6 | | |
| T 7 | 1 24 7 | 19°13'20 | 10♁33 | 2°35 | 10°15 | 7°16 | 10°35 | 19°36 | 19°42 | 11°43 | 27°58 | 9°18 | 8°26 | 14°56 | 10°57 | T 7 | | |
| F 8 | 1 28 4 | 20°13'17 | 22°57 | 2°53 | 11°30 | 7°47 | 10°32 | 19°32 | 19°40 | 11°43 | 27°57 | 9°D18 | 8°22 | 15° 3 | 10°55 | F 8 | | |
| S 9 | 1 32 0 | 21°13'15 | 5♁42 | 3°22 | 12°45 | 8°18 | 10°29 | 19°28 | 19°38 | 11°R43 | 27°56 | 9°R18 | 8°19 | 15°10 | 10°53 | S 9 | | |
| S 10 | 1 35 57 | 22°13'14 | 18°52 | 4° 0 | 13°59 | 8°50 | 10°26 | 19°24 | 19°36 | 11°43 | 27°55 | 9°18 | 8°16 | 15°16 | 10°51 | S 10 | | |
| M11 | 1 39 53 | 23°13'15 | 2♁30 | 4°46 | 15°14 | 9°22 | 10°22 | 19°20 | 19°34 | 11°43 | 27°54 | 9°16 | 8°13 | 15°23 | 10°49 | M11 | | |
| T 12 | 1 43 50 | 24°13'18 | 16°39 | 5°40 | 16°28 | 9°54 | 10°19 | 19°16 | 19°32 | 11°43 | 27°53 | 9°11 | 8°10 | 15°30 | 10°48 | T 12 | | |
| W13 | 1 47 46 | 25°13'23 | 1°V16 | 6°40 | 17°42 | 10°26 | 10°15 | 19°11 | 19°30 | 11°43 | 27°52 | 9° 4 | 8° 6 | 15°36 | 10°46 | W13 | | |
| T 14 | 1 51 43 | 26°13'29 | 16°16 | 7°46 | 18°57 | 10°58 | 10°11 | 19° 7 | 19°28 | 11°43 | 27°51 | 8°55 | 8° 3 | 15°43 | 10°44 | T 14 | | |
| F 15 | 1 55 39 | 27°13'37 | 1♁31 | 8°57 | 20°11 | 11°31 | 10° 7 | 19° 3 | 19°27 | 11°42 | 27°49 | 8°44 | 8° 0 | 15°50 | 10°42 | F 15 | | |
| S 16 | 1 59 36 | 28°13'47 | 16°50 | 10°13 | 21°26 | 12° 4 | 10° 3 | 18°58 | 19°25 | 11°42 | 27°49 | 8°33 | 7°57 | 15°57 | 10°41 | S 16 | | |
| S 17 | 2 3 32 | 29°13'59 | 2♁ 0 | 11°32 | 22°40 | 12°37 | 9°58 | 18°54 | 19°23 | 11°42 | 27°48 | 8°23 | 7°54 | 16° 3 | 10°39 | S 17 | | |
| M18 | 2 7 29 | 0♁14'13 | 16°53 | 12°54 | 23°55 | 13°11 | 9°54 | 18°49 | 19°22 | 11°42 | 27°47 | 8°15 | 7°51 | 16°10 | 10°37 | M18 | | |
| T 19 | 2 11 26 | 1°14'29 | 1♁22 | 14°20 | 25° 9 | 13°45 | 9°49 | 18°45 | 19°20 | 11°41 | 27°46 | 8°10 | 7°47 | 16°17 | 10°36 | T 19 | | |
| W20 | 2 15 22 | 2°14'47 | 15°23 | 15°47 | 26°24 | 14°18 | 9°44 | 18°40 | 19°18 | 11°41 | 27°45 | 8° 7 | 7°44 | 16°24 | 10°34 | W20 | | |
| T 21 | 2 19 19 | 3°15'08 | 28°57 | 17°16 | 27°38 | 14°52 | 9°39 | 18°36 | 19°17 | 11°41 | 27°44 | 8° 6 | 7°41 | 16°30 | 10°33 | T 21 | | |
| F 22 | 2 23 15 | 4°15'30 | 12♁ 6 | 18°46 | 28°52 | 15°27 | 9°33 | 18°31 | 19°15 | 11°40 | 27°43 | 8° 6 | 7°38 | 16°37 | 10°32 | F 22 | | |
| S 23 | 2 27 12 | 5°15'54 | 24°55 | 20°18 | 0♁ 7 | 16° 1 | 9°28 | 18°26 | 19°14 | 11°40 | 27°42 | 8° 6 | 7°35 | 16°44 | 10°30 | S 23 | | |
| S 24 | 2 31 8 | 6°16'20 | 7♁26 | 21°51 | 1°21 | 16°36 | 9°22 | 18°22 | 19°12 | 11°39 | 27°41 | 8° 3 | 7°32 | 16°50 | 10°29 | S 24 | | |
| M25 | 2 35 5 | 7°16'48 | 19°44 | 23°25 | 2°36 | 17°11 | 9°16 | 18°17 | 19°11 | 11°39 | 27°40 | 7°58 | 7°28 | 16°57 | 10°28 | M25 | | |
| T 26 | 2 39 1 | 8°17'18 | 1♁53 | 24°59 | 3°50 | 17°46 | 9°10 | 18°12 | 19°10 | 11°38 | 27°39 | 7°50 | 7°25 | 17° 4 | 10°27 | T 26 | | |
| W27 | 2 42 58 | 9°17'50 | 13°55 | 26°33 | 5° 4 | 18°21 | 9° 4 | 18° 7 | 19° 8 | 11°38 | 27°38 | 7°39 | 7°22 | 17°11 | 10°25 | W27 | | |
| T 28 | 2 46 55 | 10°18'23 | 25°52 | 28° 8 | 6°19 | 18°56 | 8°58 | 18° 2 | 19° 7 | 11°37 | 27°38 | 7°25 | 7°19 | 17°17 | 10°24 | T 28 | | |
| F 29 | 2 50 51 | 11°18'59 | 7♁46 | 29°43 | 7°33 | 19°32 | 8°52 | 17°58 | 19° 6 | 11°36 | 27°37 | 7°10 | 7°16 | 17°24 | 10°23 | F 29 | | |
| S 30 | 2 54 48 | 12°19'35 | 19°38 | 1♁19 | 8°48 | 20° 7 | 8°45 | 17°53 | 19° 5 | 11°36 | 27°36 | 6°55 | 7°12 | 17°31 | 10°22 | S 30 | | |
| S 31 | 2 58 44 | 13♁20'14 | 1♁30 | 2♁54 | 10♁ 2 | 20♁43 | 8♁38 | 17♁48 | 19♁ 4 | 11♁35 | 27♁35 | 6♁41 | 7♁ 9 | 17♁37 | 10♁R21 | S 31 | | |

Delta T = 18m23s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1087
geocentric

NOVEMBER 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♁ | ♂ | ♄ | ♃ | ♅ | ♆ | ♁ | ♂ | ♄ | ♃ | ♅ | ♆ | ♁ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|--------|--------|--------|-------|------|-------|--------|------|---|-----|
| M 1 | 3 2 41 | 14♈20'53 | 13♌22 | 4♉29 | 11♌16 | 21♈19 | 8°R32 | 17°R43 | 19°R 3 | 11°R34 | 27°R35 | 6°R29 | 7♌ 6 | 17♈44 | 10°R21 | M 1 | | |
| T 2 | 3 6 37 | 15°21'34 | 25°18 | 6° 5 | 12°31 | 21°55 | 8♈25 | 17♌38 | 19♈ 1 | 11♌34 | 27♈34 | 6♌20 | 7° 3 | 17°51 | 10♈20 | T 2 | | |
| W 3 | 3 10 34 | 16°22'17 | 7♌18 | 7°40 | 13°45 | 22°31 | 8°18 | 17°33 | 19° 0 | 11°33 | 27°33 | 6°14 | 7° 0 | 17°58 | 10°19 | W 3 | | |
| T 4 | 3 14 30 | 17°23'00 | 19°28 | 9°15 | 14°59 | 23° 8 | 8°11 | 17°28 | 19° 0 | 11°32 | 27°32 | 6°11 | 6°57 | 18° 4 | 10°18 | T 4 | | |
| F 5 | 3 18 27 | 18°23'45 | 1♈51 | 10°51 | 16°13 | 23°44 | 8° 3 | 17°23 | 18°59 | 11°31 | 27°32 | 6°D10 | 6°53 | 18°11 | 10°18 | F 5 | | |
| S 6 | 3 22 24 | 19°24'31 | 14°31 | 12°26 | 17°28 | 24°21 | 7°56 | 17°18 | 18°58 | 11°30 | 27°31 | 6°R10 | 6°50 | 18°18 | 10°17 | S 6 | | |
| S 7 | 3 26 20 | 20°25'18 | 27°33 | 14° 1 | 18°42 | 24°58 | 7°49 | 17°13 | 18°57 | 11°29 | 27°30 | 6° 9 | 6°47 | 18°25 | 10°17 | S 7 | | |
| M 8 | 3 30 17 | 21°26'05 | 11♈ 2 | 15°36 | 19°56 | 25°35 | 7°41 | 17° 8 | 18°56 | 11°28 | 27°30 | 6° 8 | 6°44 | 18°31 | 10°16 | M 8 | | |
| T 9 | 3 34 13 | 22°26'54 | 24°59 | 17°10 | 21°10 | 26°12 | 7°33 | 17° 4 | 18°56 | 11°27 | 27°29 | 6° 4 | 6°41 | 18°38 | 10°16 | T 9 | | |
| W10 | 3 38 10 | 23°27'44 | 9♈26 | 18°45 | 22°25 | 26°49 | 7°26 | 16°59 | 18°55 | 11°26 | 27°29 | 5°58 | 6°38 | 18°45 | 10°15 | W10 | | |
| T 11 | 3 42 6 | 24°28'35 | 24°19 | 20°20 | 23°39 | 27°26 | 7°18 | 16°54 | 18°54 | 11°25 | 27°28 | 5°49 | 6°34 | 18°51 | 10°15 | T 11 | | |
| F 12 | 3 46 3 | 25°29'26 | 9♌31 | 21°54 | 24°53 | 28° 4 | 7°10 | 16°49 | 18°54 | 11°24 | 27°27 | 5°39 | 6°31 | 18°58 | 10°15 | F 12 | | |
| S 13 | 3 49 59 | 26°30'19 | 24°53 | 23°28 | 26° 7 | 28°41 | 7° 2 | 16°44 | 18°53 | 11°23 | 27°27 | 5°28 | 6°28 | 19° 5 | 10°15 | S 13 | | |
| S 14 | 3 53 56 | 27°31'13 | 10♈12 | 25° 3 | 27°21 | 29°19 | 6°54 | 16°39 | 18°53 | 11°22 | 27°26 | 5°19 | 6°25 | 19°12 | 10°15 | S 14 | | |
| M15 | 3 57 53 | 28°32'09 | 25°17 | 26°37 | 28°35 | 29°56 | 6°46 | 16°35 | 18°52 | 11°21 | 27°26 | 5°11 | 6°22 | 19°18 | 10°D15 | M15 | | |
| T 16 | 4 1 49 | 29°33'05 | 9♌59 | 28°11 | 29°49 | 0♈34 | 6°38 | 16°30 | 18°52 | 11°20 | 27°25 | 5° 6 | 6°18 | 19°25 | 10°15 | T 16 | | |
| W17 | 4 5 46 | 0♌34'03 | 24°14 | 29°46 | 1♌ 4 | 1°12 | 6°30 | 16°25 | 18°52 | 11°19 | 27°25 | 5° 3 | 6°15 | 19°32 | 10°15 | W17 | | |
| T 18 | 4 9 42 | 1°35'02 | 7♌58 | 1♌20 | 2°18 | 1°50 | 6°22 | 16°20 | 18°51 | 11°18 | 27°25 | 5°D 3 | 6°12 | 19°38 | 10°15 | T 18 | | |
| F 19 | 4 13 39 | 2°36'02 | 21°15 | 2°54 | 3°32 | 2°28 | 6°14 | 16°16 | 18°51 | 11°16 | 27°24 | 5° 4 | 6° 9 | 19°45 | 10°15 | F 19 | | |
| S 20 | 4 17 35 | 3°37'03 | 4♈ 6 | 4°29 | 4°46 | 3° 6 | 6° 6 | 16°11 | 18°51 | 11°15 | 27°24 | 5°R 4 | 6° 6 | 19°52 | 10°15 | S 20 | | |
| S 21 | 4 21 32 | 4°38'05 | 16°37 | 6° 3 | 6° 0 | 3°44 | 5°58 | 16° 7 | 18°51 | 11°14 | 27°23 | 5° 3 | 6° 3 | 19°59 | 10°15 | S 21 | | |
| M22 | 4 25 29 | 5°39'09 | 28°53 | 7°37 | 7°14 | 4°22 | 5°49 | 16° 2 | 18°51 | 11°13 | 27°23 | 5° 0 | 5°59 | 20° 5 | 10°16 | M22 | | |
| T 23 | 4 29 25 | 6°40'13 | 10♌56 | 9°12 | 8°27 | 5° 1 | 5°41 | 15°58 | 18°D51 | 11°11 | 27°23 | 4°55 | 5°56 | 20°12 | 10°16 | T 23 | | |
| W24 | 4 33 22 | 7°41'19 | 22°53 | 10°46 | 9°41 | 5°39 | 5°33 | 15°53 | 18°51 | 11°10 | 27°23 | 4°47 | 5°53 | 20°19 | 10°17 | W24 | | |
| T 25 | 4 37 18 | 8°42'25 | 4♈46 | 12°21 | 10°55 | 6°18 | 5°25 | 15°49 | 18°51 | 11° 9 | 27°22 | 4°37 | 5°50 | 20°25 | 10°17 | T 25 | | |
| F 26 | 4 41 15 | 9°43'33 | 16°37 | 13°56 | 12° 9 | 6°56 | 5°17 | 15°45 | 18°51 | 11° 7 | 27°22 | 4°26 | 5°47 | 20°32 | 10°18 | F 26 | | |
| S 27 | 4 45 11 | 10°44'41 | 28°29 | 15°31 | 13°23 | 7°35 | 5° 9 | 15°40 | 18°51 | 11° 6 | 27°22 | 4°14 | 5°44 | 20°39 | 10°18 | S 27 | | |
| S 28 | 4 49 8 | 11°45'50 | 10♌23 | 17° 6 | 14°37 | 8°14 | 5° 0 | 15°36 | 18°52 | 11° 4 | 27°22 | 4° 4 | 5°40 | 20°46 | 10°19 | S 28 | | |
| M29 | 4 53 4 | 12°46'59 | 22°21 | 18°41 | 15°51 | 8°52 | 4°52 | 15°32 | 18°52 | 11° 3 | 27°21 | 3°55 | 5°37 | 20°52 | 10°20 | M29 | | |
| T 30 | 4 57 1 | 13°48'09 | 4♌25 | 20♌16 | 17♌ 4 | 9♈31 | 4♈44 | 15♌28 | 18♈52 | 11♌ 1 | 27♈21 | 3♌48 | 5♌34 | 20♈59 | 10♈21 | T 30 | | |

Delta T = 18m22s Julian Calendar 1 Nov. 1087 == Greg. Calendar 7 Nov. 1087

DECEMBER 1087 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♁ | ♂ | ♄ | ♃ | ♅ | ♆ | ♁ | ♂ | ♄ | ♃ | ♅ | ♆ | ♁ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|--------|--------|-------|------|-------|-------|------|---|-----|
| W 1 | 5 0 58 | 14♌49'19 | 16♌35 | 21♌52 | 18♌18 | 10♈10 | 4°R36 | 15°R24 | 18♈53 | 11°R 0 | 27°R21 | 3°R44 | 5♌31 | 21♈ 6 | 10♈22 | W 1 | | |
| T 2 | 5 4 54 | 15°50'30 | 28°53 | 23°27 | 19°32 | 10°49 | 4♈29 | 15♌20 | 18°53 | 10♌58 | 27♈21 | 3°D43 | 5°28 | 21°13 | 10°23 | T 2 | | |
| F 3 | 5 8 51 | 16°51'41 | 11♌23 | 25° 3 | 20°45 | 11°28 | 4°21 | 15°16 | 18°54 | 10°57 | 27°21 | 3♌43 | 5°24 | 21°19 | 10°24 | F 3 | | |
| S 4 | 5 12 47 | 17°52'52 | 24° 8 | 26°39 | 21°59 | 12° 7 | 4°13 | 15°13 | 18°54 | 10°55 | 27°21 | 3°44 | 5°21 | 21°26 | 10°25 | S 4 | | |
| S 5 | 5 16 44 | 18°54'03 | 7♈10 | 28°15 | 23°13 | 12°46 | 4° 5 | 15° 9 | 18°55 | 10°54 | 27°21 | 3°45 | 5°18 | 21°33 | 10°26 | S 5 | | |
| M 6 | 5 20 40 | 19°55'15 | 20°33 | 29°51 | 24°26 | 13°25 | 3°58 | 15° 5 | 18°56 | 10°52 | 27°D21 | 3°R46 | 5°15 | 21°39 | 10°27 | M 6 | | |
| T 7 | 5 24 37 | 20°56'26 | 4♈20 | 1♌27 | 25°40 | 14° 5 | 3°50 | 15° 2 | 18°56 | 10°51 | 27°21 | 3°45 | 5°12 | 21°46 | 10°28 | T 7 | | |
| W 8 | 5 28 33 | 21°57'37 | 18°30 | 3° 3 | 26°53 | 14°44 | 3°43 | 14°59 | 18°57 | 10°49 | 27°21 | 3°42 | 5° 9 | 21°53 | 10°29 | W 8 | | |
| T 9 | 5 32 30 | 22°58'48 | 3♌ 4 | 4°39 | 28° 6 | 15°23 | 3°35 | 14°55 | 18°58 | 10°48 | 27°21 | 3°38 | 5° 5 | 22° 0 | 10°31 | T 9 | | |
| F 10 | 5 36 27 | 23°59'59 | 17°57 | 6°15 | 29°20 | 16° 2 | 3°28 | 14°52 | 18°59 | 10°46 | 27°21 | 3°32 | 5° 2 | 22° 6 | 10°32 | F 10 | | |
| S 11 | 5 40 23 | 25° 1'09 | 3♈ 1 | 7°51 | 0♈33 | 16°42 | 3°21 | 14°49 | 19° 0 | 10°44 | 27°21 | 3°26 | 4°59 | 22°13 | 10°33 | S 11 | | |
| S 12 | 5 44 20 | 26° 2'20 | 18° 8 | 9°27 | 1°46 | 17°21 | 3°14 | 14°46 | 19° 1 | 10°43 | 27°21 | 3°20 | 4°56 | 22°20 | 10°35 | S 12 | | |
| M13 | 5 48 16 | 27° 3'31 | 3♌ 7 | 11° 2 | 3° 0 | 18° 1 | 3° 7 | 14°43 | 19° 2 | 10°41 | 27°21 | 3°16 | 4°53 | 22°26 | 10°36 | M13 | | |
| T 14 | 5 52 13 | 28° 4'42 | 17°50 | 12°36 | 4°13 | 18°40 | 3° 0 | 14°40 | 19° 3 | 10°39 | 27°22 | 3°13 | 4°50 | 22°33 | 10°38 | T 14 | | |
| W15 | 5 56 9 | 29° 5'53 | 2♌10 | 14°10 | 5°26 | 19°20 | 2°54 | 14°37 | 19° 4 | 10°38 | 27°22 | 3°D12 | 4°46 | 22°40 | 10°40 | W15 | | |
| T 16 | 6 0 6 | 0♌ 7'05 | 16° 4 | 15°43 | 6°39 | 19°59 | 2°47 | 14°34 | 19° 5 | 10°36 | 27°22 | 3°13 | 4°43 | 22°47 | 10°41 | T 16 | | |
| F 17 | 6 4 2 | 1° 8'16 | 29°30 | 17°15 | 7°52 | 20°39 | 2°41 | 14°32 | 19° 6 | 10°35 | 27°22 | 3°14 | 4°40 | 22°53 | 10°43 | F 17 | | |
| S 18 | 6 7 59 | 2° 9'27 | 12♈29 | 18°46 | 9° 5 | 21°18 | 2°35 | 14°29 | 19° 8 | 10°33 | 27°23 | 3°16 | 4°37 | 23° 0 | 10°45 | S 18 | | |
| S 19 | 6 11 56 | 3°10'38 | 25° 7 | 20°15 | 10°18 | 21°58 | 2°29 | 14°27 | 19° 9 | 10°31 | 27°23 | 3°17 | 4°34 | 23° 7 | 10°47 | S 19 | | |
| M20 | 6 15 52 | 4°11'50 | 7♌26 | 21°42 | 11°30 | 22°38 | 2°23 | 14°25 | 19°10 | 10°29 | 27°23 | 3°R17 | 4°30 | 23°13 | 10°49 | M20 | | |
| T 21 | 6 19 49 | 5°13'01 | 19°31 | 23° 6 | 12°43 | 23°17 | 2°17 | 14°22 | 19°12 | 10°28 | 27°23 | 3°16 | 4°27 | 23°20 | 10°51 | T 21 | | |
| W22 | 6 23 45 | 6°14'12 | 1♈27 | 24°28 | 13°56 | 23°57 | 2°11 | 14°20 | 19°13 | 10°26 | 27°24 | 3°14 | 4°24 | 23°27 | 10°53 | W22 | | |
| T 23 | 6 27 42 | 7°15'24 | 13°18 | 25°46 | 15° 9 | 24°37 | 2° 6 | 14°18 | 19°15 | 10°24 | 27°24 | 3°10 | 4°21 | 23°34 | 10°55 | T 23 | | |
| F 24 | 6 31 38 | 8°16'35 | 25° 9 | 27° 0 | 16°21 | 25°16 | 2° 1 | 14°16 | 19°16 | 10°23 | 27°25 | 3° 6 | 4°18 | 23°40 | 10°57 | F 24 | | |
| S 25 | 6 35 35 | 9°17'46 | 7♌ 3 | 28° 9 | 17°34 | 25°56 | 1°56 | 14°15 | 19°18 | 10°21 | 27°25 | 3° 2 | 4°15 | 23°47 | 10°59 | S 25 | | |
| S 26 | 6 39 31 | 10°18'56 | 19° 1 | 29°13 | 18°46 | 26°36 | 1°51 | 14°13 | 19°20 | 10°19 | 27°25 | 2°58 | 4°11 | 23°54 | 11° 1 | S 26 | | |
| M27 | 6 43 28 | 11°20'06 | 1♌ 7 | 0♈10 | 19°58 | 27°16 | 1°46 | 14°11 | 19°21 | 10°18 | 27°26 | 2°54 | 4° 8 | 24° 0 | 11° 3 | M27 | | |
| T 28 | 6 47 25 | 12°21'16 | 13°22 | 1° 0 | 21°11 | 27°56 | 1°41 | 14°10 | 19°23 | 10°16 | 27°26 | 2°52 | 4° 5 | 24° 7 | 11° 6 | T 28 | | |
| W29 | 6 51 21 | 13°22'25 | 25°47 | 1°43 | 22°23 | 28°35 | 1°37 | 14° 9 | 19°25 | 10°14 | 27°27 | 2°51 | 4° 2 | 24°14 | 11° 8 | W29 | | |
| T 30 | 6 55 18 | 14°23'34 | 8♈23 | 2°16 | 23°35 | 29°15 | 1°33 | 14° 7 | 19°27 | 10°13 | 27°28 | 2°D51 | 3°59 | 24°21 | 11°10 | T 30 | | |
| F 31 | 6 59 14 | 15°24'42 | 21♈11 | 2♈40 | 24♈47 | 29♈55 | 1♈29 | 14♌ 6 | 19♈29 | 10♌11 | 27♈28 | 2♌51 | 3♌56 | 24♈27 | 11♈13 | F 31 | | |

Delta T = 18m22s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1088
geocentric

JANUARY 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|---------|--------|-------|--------|--------|--------|--------|--------|-------|-------|------|--------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 7 3 11 | 16°25'48 | 4°11 | 2°53 | 25°59 | 0°35 | 1°R25 | 14°R 5 | 19°31 | 10°R 9 | 27°29 | 2°53 | 3°52 | 24°34 | 11°15 | S 1 | | | | | | | | |
| S 2 | 7 7 7 | 17°26'54 | 17°26 | 2°R55 | 27°11 | 1°15 | 1°II21 | 14°R 4 | 19°32 | 10°R 7 | 27°29 | 2°54 | 3°49 | 24°41 | 11°18 | S 2 | | | | | | | | |
| M 3 | 7 11 4 | 18°27'59 | 0°V56 | 2°45 | 28°23 | 1°55 | 1°18 | 14° 3 | 19°34 | 10° 6 | 27°30 | 2°55 | 3°46 | 24°47 | 11°20 | M 3 | | | | | | | | |
| T 4 | 7 15 0 | 19°29'03 | 14°41 | 2°24 | 29°34 | 2°35 | 1°14 | 14° 3 | 19°37 | 10° 4 | 27°31 | 2°R56 | 3°43 | 24°54 | 11°23 | T 4 | | | | | | | | |
| W 5 | 7 18 57 | 20°30'05 | 28°43 | 1°52 | 0°K46 | 3°15 | 1°11 | 14° 2 | 19°39 | 10° 2 | 27°31 | 2°56 | 3°40 | 25° 1 | 11°25 | W 5 | | | | | | | | |
| T 6 | 7 22 54 | 21°31'07 | 12°59 | 1° 8 | 1°57 | 3°55 | 1° 8 | 14° 2 | 19°41 | 10° 1 | 27°32 | 2°55 | 3°36 | 25° 8 | 11°28 | T 6 | | | | | | | | |
| F 7 | 7 26 50 | 22°32'07 | 27°27 | 0°15 | 3° 9 | 4°35 | 1° 6 | 14° 1 | 19°43 | 9°59 | 27°33 | 2°54 | 3°33 | 25°14 | 11°31 | F 7 | | | | | | | | |
| S 8 | 7 30 47 | 23°33'06 | 12°II 4 | 29°314 | 4°20 | 5°15 | 1° 3 | 14° 1 | 19°45 | 9°57 | 27°33 | 2°53 | 3°30 | 25°21 | 11°33 | S 8 | | | | | | | | |
| S 9 | 7 34 43 | 24°34'04 | 26°43 | 28° 6 | 5°31 | 5°55 | 1° 1 | 14°D 1 | 19°47 | 9°56 | 27°34 | 2°52 | 3°27 | 25°28 | 11°36 | S 9 | | | | | | | | |
| M10 | 7 38 40 | 25°35'01 | 11°519 | 26°54 | 6°42 | 6°35 | 0°59 | 14° 1 | 19°50 | 9°54 | 27°35 | 2°51 | 3°24 | 25°34 | 11°39 | M10 | | | | | | | | |
| T 11 | 7 42 36 | 26°35'57 | 25°45 | 25°40 | 7°53 | 7°15 | 0°57 | 14° 1 | 19°52 | 9°53 | 27°36 | 2°51 | 3°21 | 25°41 | 11°42 | T 11 | | | | | | | | |
| W12 | 7 46 33 | 27°36'51 | 9°525 | 24°25 | 9° 4 | 7°55 | 0°55 | 14° 2 | 19°54 | 9°51 | 27°36 | 2°D51 | 3°17 | 25°48 | 11°45 | W12 | | | | | | | | |
| T 13 | 7 50 30 | 28°37'45 | 23°45 | 23°13 | 10°14 | 8°34 | 0°54 | 14° 2 | 19°57 | 9°49 | 27°37 | 2°51 | 3°14 | 25°55 | 11°48 | T 13 | | | | | | | | |
| F 14 | 7 54 26 | 29°38'37 | 7°113 | 22° 4 | 11°25 | 9°14 | 0°52 | 14° 2 | 19°59 | 9°48 | 27°38 | 2°51 | 3°11 | 26° 1 | 11°51 | F 14 | | | | | | | | |
| S 15 | 7 58 23 | 0°39'28 | 20°17 | 21° 0 | 12°35 | 9°54 | 0°51 | 14° 3 | 20° 2 | 9°46 | 27°39 | 2°51 | 3° 8 | 26° 8 | 11°54 | S 15 | | | | | | | | |
| S 16 | 8 2 19 | 1°40'19 | 3°5 0 | 20° 4 | 13°46 | 10°34 | 0°50 | 14° 4 | 20° 4 | 9°45 | 27°40 | 2°52 | 3° 5 | 26°15 | 11°57 | S 16 | | | | | | | | |
| M17 | 8 6 16 | 2°41'08 | 15°24 | 19°14 | 14°56 | 11°14 | 0°50 | 14° 4 | 20° 7 | 9°43 | 27°41 | 2°R52 | 3° 1 | 26°21 | 12° 0 | M17 | | | | | | | | |
| T 18 | 8 10 12 | 3°41'57 | 27°33 | 18°33 | 16° 6 | 11°54 | 0°49 | 14° 5 | 20° 9 | 9°42 | 27°42 | 2°D52 | 2°58 | 26°28 | 12° 3 | T 18 | | | | | | | | |
| W19 | 8 14 9 | 4°42'44 | 9°113 | 18° 0 | 17°16 | 12°34 | 0°49 | 14° 6 | 20°12 | 9°40 | 27°43 | 2°52 | 2°55 | 26°35 | 12° 6 | W19 | | | | | | | | |
| T 20 | 8 18 5 | 5°43'31 | 21°24 | 17°36 | 18°25 | 13°14 | 0°D49 | 14° 8 | 20°15 | 9°39 | 27°44 | 2°52 | 2°52 | 26°42 | 12° 9 | T 20 | | | | | | | | |
| F 21 | 8 22 2 | 6°44'16 | 3°115 | 17°19 | 19°35 | 13°54 | 0°49 | 14° 9 | 20°17 | 9°37 | 27°45 | 2°52 | 2°49 | 26°48 | 12°12 | F 21 | | | | | | | | |
| S 22 | 8 25 59 | 7°45'00 | 15°10 | 17°11 | 20°44 | 14°34 | 0°49 | 14°10 | 20°20 | 9°36 | 27°46 | 2°53 | 2°46 | 26°55 | 12°16 | S 22 | | | | | | | | |
| S 23 | 8 29 55 | 8°45'43 | 27°12 | 17°D10 | 21°54 | 15°14 | 0°50 | 14°12 | 20°23 | 9°34 | 27°47 | 2°53 | 2°42 | 27° 2 | 12°19 | S 23 | | | | | | | | |
| M24 | 8 33 52 | 9°46'25 | 9°324 | 17°16 | 23° 3 | 15°54 | 0°51 | 14°13 | 20°26 | 9°33 | 27°48 | 2°54 | 2°39 | 27° 8 | 12°22 | M24 | | | | | | | | |
| T 25 | 8 37 48 | 10°47'06 | 21°50 | 17°28 | 24°12 | 16°34 | 0°52 | 14°15 | 20°28 | 9°31 | 27°49 | 2°54 | 2°36 | 27°15 | 12°25 | T 25 | | | | | | | | |
| W26 | 8 41 45 | 11°47'45 | 4°431 | 17°47 | 25°20 | 17°14 | 0°53 | 14°17 | 20°31 | 9°30 | 27°50 | 2°R55 | 2°33 | 27°22 | 12°29 | W26 | | | | | | | | |
| T 27 | 8 45 41 | 12°48'22 | 17°27 | 18°12 | 26°29 | 17°54 | 0°54 | 14°19 | 20°34 | 9°29 | 27°51 | 2°54 | 2°30 | 27°29 | 12°32 | T 27 | | | | | | | | |
| F 28 | 8 49 38 | 13°48'58 | 0°K39 | 18°42 | 27°37 | 18°34 | 0°56 | 14°21 | 20°37 | 9°27 | 27°52 | 2°53 | 2°27 | 27°35 | 12°35 | F 28 | | | | | | | | |
| S 29 | 8 53 34 | 14°49'32 | 14° 5 | 19°16 | 28°46 | 19°14 | 0°57 | 14°23 | 20°40 | 9°26 | 27°53 | 2°52 | 2°23 | 27°42 | 12°39 | S 29 | | | | | | | | |
| S 30 | 8 57 31 | 15°50'05 | 27°44 | 19°56 | 29°54 | 19°54 | 0°59 | 14°25 | 20°43 | 9°25 | 27°54 | 2°50 | 2°20 | 27°49 | 12°42 | S 30 | | | | | | | | |
| M31 | 9 1 27 | 16°50'35 | 11°V34 | 20°339 | 1°V 2 | 20°V33 | 1°II 2 | 14°R27 | 20°K46 | 9°23 | 27°55 | 2°50 | 2°17 | 27°M55 | 12°K46 | M31 | | | | | | | | |

Delta T = 18m22s Julian Calendar 1 Jan. 1088 == Greg. Calendar 7 Jan. 1088

FEBRUARY 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|--------|-------|--------|--------|--------|--------|-------|--------|-------|-------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 9 5 24 | 17°51'04 | 25°V33 | 21°326 | 2°V 9 | 21°V13 | 1°II 4 | 14°R30 | 20°K49 | 9°R22 | 27°K56 | 2°R47 | 2°514 | 28°M 2 | 12°K49 | T 1 | | | | | | | | |
| W 2 | 9 9 21 | 18°51'31 | 9°B38 | 22°17 | 3°17 | 21°53 | 1° 6 | 14°32 | 20°52 | 9°221 | 27°58 | 2°514 | 2°11 | 28° 9 | 12°53 | W 2 | | | | | | | | |
| T 3 | 9 13 17 | 19°51'56 | 23°48 | 23°11 | 4°24 | 22°33 | 1° 9 | 14°35 | 20°55 | 9°20 | 27°59 | 2°D46 | 2° 7 | 28°16 | 12°56 | T 3 | | | | | | | | |
| F 4 | 9 17 14 | 20°52'19 | 8°II 0 | 24° 8 | 5°31 | 23°13 | 1°12 | 14°38 | 20°58 | 9°18 | 28° 0 | 2°47 | 2° 4 | 28°22 | 13° 0 | F 4 | | | | | | | | |
| S 5 | 9 21 10 | 21°52'40 | 22°13 | 25° 8 | 6°38 | 23°53 | 1°15 | 14°41 | 21° 1 | 9°17 | 28° 1 | 2°48 | 2° 1 | 28°29 | 13° 3 | S 5 | | | | | | | | |
| S 6 | 9 25 7 | 22°52'58 | 6°24 | 26°10 | 7°44 | 24°33 | 1°18 | 14°44 | 21° 4 | 9°16 | 28° 2 | 2°49 | 1°58 | 28°36 | 13° 7 | S 6 | | | | | | | | |
| M 7 | 9 29 3 | 23°53'15 | 20°30 | 27°15 | 8°51 | 25°13 | 1°22 | 14°47 | 21° 7 | 9°15 | 28° 4 | 2°50 | 1°55 | 28°42 | 13°10 | M 7 | | | | | | | | |
| T 8 | 9 33 0 | 24°53'30 | 4°28 | 28°22 | 9°57 | 25°52 | 1°26 | 14°50 | 21°10 | 9°14 | 28° 5 | 2°R51 | 1°52 | 28°49 | 13°14 | T 8 | | | | | | | | |
| W 9 | 9 36 57 | 25°53'43 | 18°15 | 29°31 | 11° 3 | 26°32 | 1°29 | 14°53 | 21°14 | 9°13 | 28° 6 | 2°50 | 1°48 | 28°56 | 13°17 | W 9 | | | | | | | | |
| T 10 | 9 40 53 | 26°53'54 | 1°1148 | 0°K42 | 12° 8 | 27°12 | 1°33 | 14°57 | 21°17 | 9°12 | 28° 7 | 2°48 | 1°45 | 29° 3 | 13°21 | T 10 | | | | | | | | |
| F 11 | 9 44 50 | 27°54'03 | 15° 4 | 1°55 | 13°14 | 27°52 | 1°38 | 15° 0 | 21°20 | 9°11 | 28° 9 | 2°45 | 1°42 | 29° 9 | 13°25 | F 11 | | | | | | | | |
| S 12 | 9 48 46 | 28°54'10 | 28° 3 | 3°10 | 14°19 | 28°31 | 1°42 | 15° 4 | 21°23 | 9°10 | 28°10 | 2°41 | 1°39 | 29°16 | 13°28 | S 12 | | | | | | | | |
| S 13 | 9 52 43 | 29°54'16 | 10°545 | 4°27 | 15°23 | 29°11 | 1°47 | 15° 7 | 21°26 | 9° 9 | 28°11 | 2°36 | 1°36 | 29°23 | 13°32 | S 13 | | | | | | | | |
| M14 | 9 56 39 | 0°K54'20 | 23° 9 | 5°45 | 16°28 | 29°51 | 1°51 | 15°11 | 21°30 | 9° 8 | 28°13 | 2°32 | 1°33 | 29°29 | 13°36 | M14 | | | | | | | | |
| T 15 | 10 0 36 | 1°54'22 | 5°M20 | 7° 5 | 17°32 | 0°B31 | 1°56 | 15°15 | 21°33 | 9° 7 | 28°14 | 2°28 | 1°29 | 29°36 | 13°39 | T 15 | | | | | | | | |
| W16 | 10 4 32 | 2°54'23 | 17°20 | 8°26 | 18°36 | 1°10 | 2° 1 | 15°19 | 21°36 | 9° 6 | 28°15 | 2°25 | 1°26 | 29°43 | 13°43 | W16 | | | | | | | | |
| T 17 | 10 8 29 | 3°54'21 | 29°13 | 9°49 | 19°40 | 1°50 | 2° 7 | 15°23 | 21°39 | 9° 5 | 28°17 | 2°D24 | 1°23 | 29°49 | 13°47 | T 17 | | | | | | | | |
| F 18 | 10 12 25 | 4°54'19 | 11°15 | 11°13 | 20°43 | 2°30 | 2°12 | 15°27 | 21°43 | 9° 5 | 28°18 | 2°24 | 1°20 | 29°56 | 13°50 | F 18 | | | | | | | | |
| S 19 | 10 16 22 | 5°54'14 | 23° 0 | 12°38 | 21°46 | 3° 9 | 2°18 | 15°31 | 21°46 | 9° 4 | 28°19 | 2°25 | 1°17 | 0°17 3 | 13°54 | S 19 | | | | | | | | |
| S 20 | 10 20 19 | 6°54'08 | 5°3 2 | 14° 5 | 22°48 | 3°49 | 2°23 | 15°36 | 21°49 | 9° 3 | 28°21 | 2°27 | 1°13 | 0°10 | 13°58 | S 20 | | | | | | | | |
| M21 | 10 24 15 | 7°54'00 | 17°17 | 15°33 | 23°51 | 4°29 | 2°29 | 15°40 | 21°53 | 9° 2 | 28°22 | 2°29 | 1°10 | 0°16 | 14° 1 | M21 | | | | | | | | |
| T 22 | 10 28 12 | 8°53'50 | 29°49 | 17° 3 | 24°52 | 5° 8 | 2°35 | 15°45 | 21°56 | 9° 2 | 28°23 | 2°R29 | 1° 7 | 0°23 | 14° 5 | T 22 | | | | | | | | |
| W23 | 10 32 8 | 9°53'39 | 12°K41 | 18°34 | 25°54 | 5°48 | 2°42 | 15°49 | 22° 0 | 9° 1 | 28°25 | 2°29 | 1° 4 | 0°30 | 14° 9 | W23 | | | | | | | | |
| T 24 | 10 36 5 | 10°53'25 | 25°54 | 20° 6 | 26°55 | 6°27 | 2°48 | 15°54 | 22° 3 | 9° 0 | 28°26 | 2°27 | 1° 1 | 0°36 | 14°13 | T 24 | | | | | | | | |
| F 25 | 10 40 1 | 11°53'09 | 9°K28 | 21°39 | 27°56 | 7° 7 | 2°54 | 15°59 | 22° 6 | 9° 0 | 28°28 | 2°23 | 0°58 | 0°43 | 14°16 | F 25 | | | | | | | | |
| S 26 | 10 43 58 | 12°52'52 | 23°21 | 23°14 | 28°56 | 7°47 | 3° 1 | 16° 3 | 22°10 | 8°59 | 28°29 | 2°17 | 0°54 | 0°50 | 14°20 | S 26 | | | | | | | | |
| S 27 | 10 47 54 | 13°52'32 | 7°V29 | 24°50 | 29°56 | 8°26 | 3° 8 | 16° 8 | 22°13 | 8°59 | 28°30 | 2°10 | 0°51 | 0°56 | 14°24 | S 27 | | | | | | | | |
| M28 | 10 51 51 | 14°52'10 | 21°47 | 26°27 | 0°B56 | 9° 6 | 3°15 | 16°13 | 22°17 | 8°58 | 28°32 | 2° 3 | 0°48 | 1° 3 | 14°28 | M28 | | | | | | | | |
| T 29 | 10 55 48 | 15°K51'46 | 6°B10 | 28°5 5 | 1°B55 | 9°B45 | 3°II22 | 16°B18 | 22°K20 | 8°58 | 28°33 | 1°57 | 0°45 | 1°10 | 14°K31 | T 29 | | | | | | | | |

Delta T = 18m22s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1088
geocentric

MARCH 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|---------|-------|-------|-------|------|-------|-------|------|-------|-------|-------|------|-------|------|---|---|---|---|---|---|---|-----|
| W 1 | 10 59 44 | 16°51'20 | 20°33'2 | 29°45 | 2°53 | 10°25 | 3°11 | 16°23 | 22°23 | 8°57 | 28°35 | 1°53 | 0°42 | 1°17 | 14°35 | W 1 | | | | | | | | |
| T 2 | 11 3 41 | 17°50'51 | 4°11'50 | 1°26 | 3°51 | 11° 4 | 3°37 | 16°29 | 22°27 | 8°57 | 28°36 | 1°50 | 0°38 | 1°23 | 14°39 | T 2 | | | | | | | | |
| F 3 | 11 7 37 | 18°50'20 | 19° 0 | 3° 8 | 4°49 | 11°44 | 3°45 | 16°34 | 22°30 | 8°56 | 28°38 | 1°50 | 0°35 | 1°30 | 14°43 | F 3 | | | | | | | | |
| S 4 | 11 11 34 | 19°49'47 | 3°2 2 | 4°51 | 5°46 | 12°23 | 3°52 | 16°39 | 22°34 | 8°56 | 28°39 | 1°50 | 0°32 | 1°37 | 14°46 | S 4 | | | | | | | | |
| S 5 | 11 15 30 | 20°49'11 | 16°53 | 6°36 | 6°43 | 13° 2 | 4° 0 | 16°45 | 22°37 | 8°56 | 28°40 | 1°51 | 0°29 | 1°43 | 14°50 | S 5 | | | | | | | | |
| M 6 | 11 19 27 | 21°48'33 | 0°42'34 | 8°22 | 7°39 | 13°42 | 4° 8 | 16°50 | 22°41 | 8°55 | 28°42 | 1°52 | 0°26 | 1°50 | 14°54 | M 6 | | | | | | | | |
| T 7 | 11 23 23 | 22°47'52 | 14° 6 | 10° 9 | 8°34 | 14°21 | 4°16 | 16°56 | 22°44 | 8°55 | 28°43 | 1°51 | 0°23 | 1°57 | 14°57 | T 7 | | | | | | | | |
| W 8 | 11 27 20 | 23°47'09 | 27°26 | 11°58 | 9°29 | 15° 1 | 4°25 | 17° 2 | 22°47 | 8°55 | 28°45 | 1°48 | 0°19 | 2° 4 | 15° 1 | W 8 | | | | | | | | |
| T 9 | 11 31 17 | 24°46'24 | 10°36 | 13°48 | 10°23 | 15°40 | 4°33 | 17° 7 | 22°51 | 8°55 | 28°46 | 1°43 | 0°16 | 2°10 | 15° 5 | T 9 | | | | | | | | |
| F 10 | 11 35 13 | 25°45'37 | 23°34 | 15°40 | 11°17 | 16°19 | 4°41 | 17°13 | 22°54 | 8°55 | 28°48 | 1°35 | 0°13 | 2°17 | 15° 9 | F 10 | | | | | | | | |
| S 11 | 11 39 10 | 26°44'47 | 6°19 | 17°32 | 12°10 | 16°59 | 4°50 | 17°19 | 22°58 | 8°55 | 28°49 | 1°26 | 0°10 | 2°24 | 15°12 | S 11 | | | | | | | | |
| S 12 | 11 43 6 | 27°43'56 | 18°50 | 19°27 | 13° 2 | 17°38 | 4°59 | 17°25 | 23° 1 | 8°55 | 28°51 | 1°15 | 0° 7 | 2°30 | 15°16 | S 12 | | | | | | | | |
| M13 | 11 47 3 | 28°43'02 | 1°11'10 | 21°22 | 13°54 | 18°17 | 5° 8 | 17°31 | 23° 5 | 8°54 | 28°52 | 1° 5 | 0° 4 | 2°37 | 15°20 | M13 | | | | | | | | |
| T 14 | 11 50 59 | 29°42'07 | 13°17 | 23°19 | 14°45 | 18°56 | 5°17 | 17°37 | 23° 8 | 8°54 | 28°54 | 0°55 | 0° 0 | 2°44 | 15°23 | T 14 | | | | | | | | |
| W15 | 11 54 56 | 0°41'10 | 25°16 | 25°17 | 15°35 | 19°36 | 5°26 | 17°43 | 23°11 | 8°55 | 28°55 | 0°48 | 29°57 | 2°50 | 15°27 | W15 | | | | | | | | |
| T 16 | 11 58 52 | 1°40'11 | 7°8 | 27°16 | 16°24 | 20°15 | 5°35 | 17°49 | 23°15 | 8°55 | 28°56 | 0°42 | 29°54 | 2°57 | 15°30 | T 16 | | | | | | | | |
| F 17 | 12 2 49 | 2°39'10 | 18°59 | 29°17 | 17°13 | 20°54 | 5°45 | 17°56 | 23°18 | 8°55 | 28°58 | 0°39 | 29°51 | 3° 4 | 15°34 | F 17 | | | | | | | | |
| S 18 | 12 6 45 | 3°38'07 | 0°52 | 1°19 | 18° 0 | 21°33 | 5°54 | 18° 2 | 23°22 | 8°55 | 28°59 | 0°38 | 29°48 | 3°11 | 15°38 | S 18 | | | | | | | | |
| S 19 | 12 10 42 | 4°37'03 | 12°53 | 3°22 | 18°47 | 22°12 | 6° 4 | 18° 8 | 23°25 | 8°55 | 29° 1 | 0°38 | 29°44 | 3°17 | 15°41 | S 19 | | | | | | | | |
| M20 | 12 14 39 | 5°35'57 | 25° 7 | 5°26 | 19°33 | 22°51 | 6°13 | 18°15 | 23°28 | 8°55 | 29° 2 | 0°39 | 29°41 | 3°24 | 15°45 | M20 | | | | | | | | |
| T 21 | 12 18 35 | 6°34'48 | 7°40 | 7°30 | 20°18 | 23°31 | 6°23 | 18°21 | 23°32 | 8°55 | 29° 4 | 0°39 | 29°38 | 3°31 | 15°48 | T 21 | | | | | | | | |
| W22 | 12 22 32 | 7°33'39 | 20°35 | 9°36 | 21° 2 | 24°10 | 6°33 | 18°28 | 23°35 | 8°56 | 29° 5 | 0°37 | 29°35 | 3°37 | 15°52 | W22 | | | | | | | | |
| T 23 | 12 26 28 | 8°32'27 | 3°55 | 11°42 | 21°45 | 24°49 | 6°43 | 18°34 | 23°38 | 8°56 | 29° 7 | 0°33 | 29°32 | 3°44 | 15°55 | T 23 | | | | | | | | |
| F 24 | 12 30 25 | 9°31'13 | 17°42 | 13°48 | 22°27 | 25°28 | 6°53 | 18°41 | 23°42 | 8°56 | 29° 8 | 0°26 | 29°29 | 3°51 | 15°59 | F 24 | | | | | | | | |
| S 25 | 12 34 21 | 10°29'58 | 1°54 | 15°54 | 23° 8 | 26° 7 | 7° 3 | 18°47 | 23°45 | 8°57 | 29°10 | 0°17 | 29°25 | 3°57 | 16° 2 | S 25 | | | | | | | | |
| S 26 | 12 38 18 | 11°28'40 | 16°26 | 18° 0 | 23°48 | 26°46 | 7°14 | 18°54 | 23°48 | 8°57 | 29°11 | 0° 7 | 29°22 | 4° 4 | 16° 6 | S 26 | | | | | | | | |
| M27 | 12 42 14 | 12°27'21 | 1°11 | 20° 6 | 24°27 | 27°25 | 7°24 | 19° 1 | 23°52 | 8°57 | 29°12 | 29°56 | 29°19 | 4°11 | 16° 9 | M27 | | | | | | | | |
| T 28 | 12 46 11 | 13°25'59 | 16° 1 | 22°10 | 25° 4 | 28° 4 | 7°35 | 19° 8 | 23°55 | 8°58 | 29°14 | 29°46 | 29°16 | 4°18 | 16°13 | T 28 | | | | | | | | |
| W29 | 12 50 8 | 14°24'35 | 0°11 | 24°14 | 25°40 | 28°43 | 7°45 | 19°15 | 23°58 | 8°58 | 29°15 | 29°38 | 29°13 | 4°24 | 16°16 | W29 | | | | | | | | |
| T 30 | 12 54 4 | 15°23'10 | 15°23 | 26°16 | 26°15 | 29°22 | 7°56 | 19°22 | 24° 2 | 8°59 | 29°17 | 29°33 | 29°10 | 4°31 | 16°19 | T 30 | | | | | | | | |
| F 31 | 12 58 1 | 16°21'42 | 29°11 | 28°16 | 26°49 | 0°11 | 8°11 | 19°29 | 24° 5 | 8°59 | 29°18 | 29°30 | 29° 6 | 4°38 | 16°23 | F 31 | | | | | | | | |

Delta T = 18m21s Julian Calendar 1 March 1088 == Greg. Calendar 7 March 1088

APRIL 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 13 1 57 | 17°20'11 | 13°46 | 0°15 | 27°21 | 0°11 | 8°11 | 19°36 | 24° 8 | 9°5 0 | 29°19 | 29°D29 | 29°5 3 | 4°44 | 16°26 | S 1 | | | | | | | | |
| S 2 | 13 5 54 | 18°18'39 | 27°31 | 2°10 | 27°52 | 1°19 | 8°29 | 19°43 | 24°11 | 9° 1 | 29°21 | 29°R29 | 29° 0 | 4°51 | 16°29 | S 2 | | | | | | | | |
| M 3 | 13 9 50 | 19°17'04 | 11°10 | 4° 3 | 28°21 | 1°58 | 8°40 | 19°50 | 24°14 | 9° 1 | 29°22 | 29°529 | 28°57 | 4°58 | 16°33 | M 3 | | | | | | | | |
| T 4 | 13 13 47 | 20°15'27 | 24°14 | 5°53 | 28°48 | 2°37 | 8°51 | 19°57 | 24°18 | 9° 2 | 29°24 | 29°27 | 28°54 | 5° 4 | 16°36 | T 4 | | | | | | | | |
| W 5 | 13 17 43 | 21°13'48 | 7°14 | 7°40 | 29°14 | 3°15 | 9° 2 | 20° 4 | 24°21 | 9° 3 | 29°25 | 29°22 | 28°50 | 5°11 | 16°39 | W 5 | | | | | | | | |
| T 6 | 13 21 40 | 22°12'07 | 20° 3 | 9°24 | 29°38 | 3°54 | 9°13 | 20°11 | 24°24 | 9° 4 | 29°26 | 29°15 | 28°47 | 5°18 | 16°42 | T 6 | | | | | | | | |
| F 7 | 13 25 37 | 23°10'24 | 2°42 | 11° 3 | 0°11 | 4°33 | 9°25 | 20°19 | 24°27 | 9° 4 | 29°28 | 29° 5 | 28°44 | 5°24 | 16°46 | F 7 | | | | | | | | |
| S 8 | 13 29 33 | 24° 8'38 | 15°10 | 12°39 | 0°21 | 5°12 | 9°36 | 20°26 | 24°30 | 9° 5 | 29°29 | 28°53 | 28°41 | 5°31 | 16°49 | S 8 | | | | | | | | |
| S 9 | 13 33 30 | 25° 6'51 | 27°28 | 14°11 | 0°40 | 5°51 | 9°48 | 20°33 | 24°33 | 9° 6 | 29°30 | 28°39 | 28°38 | 5°38 | 16°52 | S 9 | | | | | | | | |
| M10 | 13 37 26 | 26° 5'03 | 9°11 | 15°39 | 0°57 | 6°29 | 9°59 | 20°40 | 24°36 | 9° 7 | 29°32 | 28°25 | 28°35 | 5°45 | 16°55 | M10 | | | | | | | | |
| T 11 | 13 41 23 | 27° 3'12 | 21°39 | 17° 2 | 1°12 | 7° 8 | 10°11 | 20°48 | 24°39 | 9° 8 | 29°33 | 28°13 | 28°31 | 5°51 | 16°58 | T 11 | | | | | | | | |
| W12 | 13 45 19 | 28° 1'20 | 3°14 | 18°22 | 1°24 | 7°47 | 10°23 | 20°55 | 24°42 | 9° 9 | 29°34 | 28° 2 | 28°28 | 5°58 | 17° 1 | W12 | | | | | | | | |
| T 13 | 13 49 16 | 28°59'26 | 15°24 | 19°37 | 1°35 | 8°26 | 10°35 | 21° 3 | 24°45 | 9°10 | 29°36 | 27°54 | 28°25 | 6° 5 | 17° 4 | T 13 | | | | | | | | |
| F 14 | 13 53 12 | 29°57'31 | 27°14 | 20°47 | 1°43 | 9° 4 | 10°47 | 21°10 | 24°48 | 9°11 | 29°37 | 27°49 | 28°22 | 6°11 | 17° 7 | F 14 | | | | | | | | |
| S 15 | 13 57 9 | 0°55'35 | 9° 6 | 21°53 | 1°49 | 9°43 | 10°59 | 21°18 | 24°51 | 9°12 | 29°38 | 27°46 | 28°19 | 6°18 | 17°10 | S 15 | | | | | | | | |
| S 16 | 14 1 5 | 1°53'36 | 21° 5 | 22°55 | 1°53 | 10°22 | 11°11 | 21°25 | 24°54 | 9°13 | 29°40 | 27°45 | 28°15 | 6°25 | 17°13 | S 16 | | | | | | | | |
| M17 | 14 5 2 | 2°51'37 | 3°17 | 23°51 | 1°55 | 11° 0 | 11°23 | 21°33 | 24°57 | 9°14 | 29°41 | 27°45 | 28°12 | 6°31 | 17°16 | M17 | | | | | | | | |
| T 18 | 14 8 59 | 3°49'36 | 15°47 | 24°43 | 1°54 | 11°39 | 11°35 | 21°40 | 25° 0 | 9°15 | 29°42 | 27°45 | 28° 9 | 6°38 | 17°18 | T 18 | | | | | | | | |
| W19 | 14 12 55 | 4°47'34 | 28°41 | 25°31 | 1°51 | 12°18 | 11°47 | 21°48 | 25° 3 | 9°16 | 29°43 | 27°43 | 28° 6 | 6°45 | 17°21 | W19 | | | | | | | | |
| T 20 | 14 16 52 | 5°45'30 | 12° 1 | 26°13 | 1°45 | 12°56 | 11°59 | 21°55 | 25° 5 | 9°17 | 29°45 | 27°39 | 28° 3 | 6°51 | 17°24 | T 20 | | | | | | | | |
| F 21 | 14 20 48 | 6°43'25 | 25°50 | 26°50 | 1°38 | 13°35 | 12°12 | 22° 3 | 25° 8 | 9°18 | 29°46 | 27°33 | 28° 0 | 6°58 | 17°27 | F 21 | | | | | | | | |
| S 22 | 14 24 45 | 7°41'19 | 10° 8 | 27°23 | 1°27 | 14°13 | 12°24 | 22°11 | 25°11 | 9°20 | 29°47 | 27°24 | 27°56 | 7° 5 | 17°29 | S 22 | | | | | | | | |
| S 23 | 14 28 41 | 8°39'11 | 24°50 | 27°51 | 1°14 | 14°52 | 12°37 | 22°18 | 25°14 | 9°21 | 29°48 | 27°13 | 27°53 | 7°12 | 17°32 | S 23 | | | | | | | | |
| M24 | 14 32 38 | 9°37'02 | 9°51 | 28°13 | 0°59 | 15°30 | 12°49 | 22°26 | 25°16 | 9°22 | 29°49 | 27° 2 | 27°50 | 7°18 | 17°34 | M24 | | | | | | | | |
| T 25 | 14 36 34 | 10°34'51 | 25° 0 | 28°31 | 0°42 | 16° 9 | 13° 2 | 22°34 | 25°19 | 9°24 | 29°50 | 26°52 | 27°47 | 7°25 | 17°37 | T 25 | | | | | | | | |
| W26 | 14 40 31 | 11°32'39 | 10° 7 | 28°43 | 0°22 | 16°48 | 13°14 | 22°41 | 25°22 | 9°25 | 29°52 | 26°44 | 27°44 | 7°32 | 17°40 | W26 | | | | | | | | |
| T 27 | 14 44 28 | 12°30'25 | 25° 2 | 28°51 | 29°59 | 17°26 | 13°27 | 22°49 | 25°24 | 9°26 | 29°53 | 26°39 | 27°41 | 7°38 | 17°42 | T 27 | | | | | | | | |
| F 28 | 14 48 24 | 13°28'10 | 9°38 | 28°54 | 29°35 | 18° 5 | 13°40 | 22°57 | 25°27 | 9°28 | 29°54 | 26°36 | 27°37 | 7°45 | 17°45 | F 28 | | | | | | | | |
| S 29 | 14 52 21 | 14°25'53 | 23°52 | 28°52 | 29° 9 | 18°43 | 13°52 | 23° 5 | 25°29 | 9°29 | 29°55 | 26°35 | 27°34 | 7°52 | 17°47 | S 29 | | | | | | | | |
| S 30 | 14 56 17 | 15°23'34 | 7°42 | 28°45 | 28°41 | 19°11 | 14° 5 | 23°12 | 25°32 | 9°31 | 29°56 | 26°35 | 27°31 | 7°58 | 17°49 | S 30 | | | | | | | | |

Delta T = 18m21s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1088
geocentric

MAY 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|------------|-------|--------|--------|-------|----------|-------|-------|-------|-------|--------|-------|-------|-------|------|---|-----|
| M 1 | 15 0 14 | 16♌21'14 | 21♋10 | 28°R34 | 28°R10 | 20♏0 | 14♏18 | 23♌20 | 25♋34 | 9♉32 | 29♋57 | 26°R35 | 27♉28 | 8♌5 | 17♋52 | M 1 | | |
| T 2 | 15 4 10 | 17°18'52 | 4♏18 | 28♌19 | 27♌38 | 20♏38 | 14°31 | 23°28 | 25°37 | 9°33 | 29°58 | 26♉34 | 27°25 | 8°12 | 17°54 | T 2 | | |
| W 3 | 15 8 7 | 18°16'28 | 17° 8 | 28° 0 | 27° 5 | 21°17 | 14°44 | 23°36 | 25°39 | 9°35 | 29°59 | 26°30 | 27°21 | 8°18 | 17°56 | W 3 | | |
| T 4 | 15 12 3 | 19°14'03 | 29°44 | 27°37 | 26°30 | 21°55 | 14°57 | 23°44 | 25°41 | 9°37 | 0♏0 | 26°24 | 27°18 | 8°25 | 17°58 | T 4 | | |
| F 5 | 15 16 0 | 20°11'37 | 12♌8 | 27°11 | 25°55 | 22°34 | 15°10 | 23°51 | 25°44 | 9°38 | 0° 1 | 26°16 | 27°15 | 8°32 | 18° 0 | F 5 | | |
| S 6 | 15 19 57 | 21° 9'09 | 24°22 | 26°43 | 25°18 | 23°12 | 15°23 | 23°59 | 25°46 | 9°40 | 0° 2 | 26° 6 | 27°12 | 8°39 | 18° 3 | S 6 | | |
| S 7 | 15 23 53 | 22° 6'40 | 6♏29 | 26°12 | 24°41 | 23°50 | 15°36 | 24° 7 | 25°48 | 9°41 | 0° 3 | 25°54 | 27° 9 | 8°45 | 18° 5 | S 7 | | |
| M 8 | 15 27 50 | 23° 4'09 | 18°29 | 25°40 | 24° 3 | 24°29 | 15°49 | 24°15 | 25°51 | 9°43 | 0° 4 | 25°43 | 27° 6 | 8°52 | 18° 7 | M 8 | | |
| T 9 | 15 31 46 | 24° 1'38 | 0♌24 | 25° 7 | 23°25 | 25° 7 | 16° 2 | 24°23 | 25°53 | 9°45 | 0° 5 | 25°32 | 27° 2 | 8°59 | 18° 9 | T 9 | | |
| W10 | 15 35 43 | 24°59'05 | 12°15 | 24°33 | 22°47 | 25°45 | 16°15 | 24°31 | 25°55 | 9°46 | 0° 6 | 25°23 | 26°59 | 9° 5 | 18°10 | W10 | | |
| T 11 | 15 39 39 | 25°56'32 | 24° 4 | 23°59 | 22°10 | 26°24 | 16°29 | 24°38 | 25°57 | 9°48 | 0° 7 | 25°16 | 26°56 | 9°12 | 18°12 | T 11 | | |
| F 12 | 15 43 36 | 26°53'57 | 5♌54 | 23°26 | 21°33 | 27° 2 | 16°42 | 24°46 | 25°59 | 9°50 | 0° 8 | 25°12 | 26°53 | 9°19 | 18°14 | F 12 | | |
| S 13 | 15 47 32 | 27°51'22 | 17°48 | 22°54 | 20°57 | 27°40 | 16°55 | 24°54 | 26° 1 | 9°51 | 0° 9 | 25°10 | 26°50 | 9°25 | 18°16 | S 13 | | |
| S 14 | 15 51 29 | 28°48'46 | 29°49 | 22°24 | 20°22 | 28°18 | 17° 9 | 25° 2 | 26° 3 | 9°53 | 0°10 | 25°D 9 | 26°47 | 9°32 | 18°18 | S 14 | | |
| M15 | 15 55 26 | 29°46'09 | 12♌2 | 21°57 | 19°49 | 28°57 | 17°22 | 25°10 | 26° 5 | 9°55 | 0°11 | 25°10 | 26°43 | 9°39 | 18°19 | M15 | | |
| T 16 | 15 59 22 | 0♏43'32 | 24°31 | 21°32 | 19°16 | 29°35 | 17°35 | 25°17 | 26° 7 | 9°57 | 0°11 | 25°11 | 26°40 | 9°45 | 18°21 | T 16 | | |
| W17 | 16 3 19 | 1°40'54 | 7♌22 | 21°10 | 18°46 | 0♌13 | 17°49 | 25°25 | 26° 9 | 9°59 | 0°12 | 25°R11 | 26°37 | 9°52 | 18°23 | W17 | | |
| T 18 | 16 7 15 | 2°38'15 | 20°37 | 20°52 | 18°17 | 0°51 | 18° 2 | 25°33 | 26°11 | 10° 0 | 0°13 | 25°10 | 26°34 | 9°59 | 18°24 | T 18 | | |
| F 19 | 16 11 12 | 3°35'36 | 4♏21 | 20°37 | 17°50 | 1°30 | 18°16 | 25°41 | 26°12 | 10° 2 | 0°14 | 25° 6 | 26°31 | 10° 5 | 18°26 | F 19 | | |
| S 20 | 16 15 8 | 4°32'56 | 18°34 | 20°26 | 17°25 | 2° 8 | 18°29 | 25°49 | 26°14 | 10° 4 | 0°14 | 25° 1 | 26°27 | 10°12 | 18°27 | S 20 | | |
| S 21 | 16 19 5 | 5°30'16 | 3♌14 | 20°20 | 17° 3 | 2°46 | 18°42 | 25°56 | 26°16 | 10° 6 | 0°15 | 24°54 | 26°24 | 10°19 | 18°28 | S 21 | | |
| M22 | 16 23 1 | 6°27'35 | 18°14 | 20°D18 | 16°42 | 3°24 | 18°56 | 26° 4 | 26°17 | 10° 8 | 0°16 | 24°47 | 26°21 | 10°26 | 18°30 | M22 | | |
| T 23 | 16 26 58 | 7°24'54 | 3♏27 | 20°21 | 16°24 | 4° 3 | 19° 9 | 26°12 | 26°19 | 10°10 | 0°17 | 24°40 | 26°18 | 10°32 | 18°31 | T 23 | | |
| W24 | 16 30 55 | 8°22'12 | 18°43 | 20°28 | 16° 8 | 4°41 | 19°23 | 26°19 | 26°21 | 10°12 | 0°17 | 24°34 | 26°15 | 10°39 | 18°32 | W24 | | |
| T 25 | 16 34 51 | 9°19'29 | 3♌49 | 20°39 | 15°55 | 5°19 | 19°37 | 26°27 | 26°22 | 10°14 | 0°18 | 24°31 | 26°12 | 10°46 | 18°33 | T 25 | | |
| F 26 | 16 38 48 | 10°16'46 | 18°39 | 20°55 | 15°44 | 5°57 | 19°50 | 26°35 | 26°24 | 10°16 | 0°19 | 24°D29 | 26° 8 | 10°52 | 18°35 | F 26 | | |
| S 27 | 16 42 44 | 11°14'02 | 3♏6 | 21°16 | 15°35 | 6°35 | 20° 4 | 26°43 | 26°25 | 10°18 | 0°19 | 24°29 | 26° 5 | 10°59 | 18°36 | S 27 | | |
| S 28 | 16 46 41 | 12°11'17 | 17° 6 | 21°41 | 15°29 | 7°13 | 20°17 | 26°50 | 26°26 | 10°20 | 0°20 | 24°31 | 26° 2 | 11° 6 | 18°37 | S 28 | | |
| M29 | 16 50 37 | 13° 8'31 | 0♏14 | 22°11 | 15°25 | 7°52 | 20°31 | 26°58 | 26°28 | 10°22 | 0°20 | 24°32 | 25°59 | 11°12 | 18°38 | M29 | | |
| T 30 | 16 54 34 | 14° 5'44 | 13°51 | 22°45 | 15°D23 | 8°30 | 20°45 | 27° 5 | 26°29 | 10°24 | 0°21 | 24°R32 | 25°56 | 11°19 | 18°39 | T 30 | | |
| W31 | 16 58 31 | 15°II'25'6 | 26♏39 | 23♌23 | 15♌24 | 9♉8 | 20°II'58 | 27♌13 | 26♋30 | 10♉26 | 0♏21 | 24♉32 | 25♉53 | 11♌26 | 18♋39 | W31 | | |

Delta T = 18m21s Julian Calendar 1 May 1088 = Greg. Calendar 7 May 1088

JUNE 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|----------|-------|-------|-------|-------|----------|-------|--------|-------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 17 2 27 | 16♏0'08 | 9♌10 | 24♌6 | 15♌27 | 9♉46 | 21♏12 | 27♌21 | 26♋32 | 10♉28 | 0♏22 | 24°R29 | 25♉49 | 11♌32 | 18♋40 | T 1 | |
| F 2 | 17 6 24 | 16°57'20 | 21°27 | 24°53 | 15°32 | 10°24 | 21°25 | 27°28 | 26°33 | 10°30 | 0°22 | 24°25 | 25°46 | 11°39 | 18°41 | F 2 | |
| S 3 | 17 10 20 | 17°54'30 | 3♏34 | 25°44 | 15°39 | 11° 2 | 21°39 | 27°36 | 26°34 | 10°32 | 0°23 | 24°20 | 25°43 | 11°46 | 18°42 | S 3 | |
| S 4 | 17 14 17 | 18°51'40 | 15°32 | 26°39 | 15°49 | 11°40 | 21°53 | 27°43 | 26°35 | 10°34 | 0°23 | 24°14 | 25°40 | 11°52 | 18°42 | S 4 | |
| M 5 | 17 18 13 | 19°48'50 | 27°26 | 27°38 | 16° 1 | 12°18 | 22° 6 | 27°51 | 26°36 | 10°36 | 0°24 | 24° 8 | 25°37 | 11°59 | 18°43 | M 5 | |
| T 6 | 17 22 10 | 20°46'00 | 9♌17 | 28°41 | 16°14 | 12°56 | 22°20 | 27°58 | 26°37 | 10°38 | 0°24 | 24° 2 | 25°33 | 12° 6 | 18°43 | T 6 | |
| W 7 | 17 26 6 | 21°43'09 | 21° 7 | 29°48 | 16°30 | 13°34 | 22°34 | 28° 5 | 26°38 | 10°41 | 0°25 | 23°57 | 25°30 | 12°13 | 18°44 | W 7 | |
| T 8 | 17 30 3 | 22°40'18 | 2♌58 | 0♏58 | 16°47 | 14°13 | 22°47 | 28°13 | 26°39 | 10°43 | 0°25 | 23°54 | 25°27 | 12°19 | 18°44 | T 8 | |
| F 9 | 17 34 0 | 23°37'27 | 14°53 | 2°13 | 17° 7 | 14°51 | 23° 1 | 28°20 | 26°40 | 10°45 | 0°25 | 23°52 | 25°24 | 12°26 | 18°45 | F 9 | |
| S 10 | 17 37 56 | 24°34'36 | 26°53 | 3°31 | 17°28 | 15°29 | 23°15 | 28°27 | 26°40 | 10°47 | 0°26 | 23°D52 | 25°21 | 12°33 | 18°45 | S 10 | |
| S 11 | 17 41 53 | 25°31'45 | 9♌1 | 4°53 | 17°51 | 16° 7 | 23°28 | 28°35 | 26°41 | 10°49 | 0°26 | 23°53 | 25°18 | 12°39 | 18°45 | S 11 | |
| M12 | 17 45 49 | 26°28'54 | 21°20 | 6°19 | 18°16 | 16°45 | 23°42 | 28°42 | 26°42 | 10°51 | 0°26 | 23°54 | 25°14 | 12°46 | 18°46 | M12 | |
| T 13 | 17 49 46 | 27°26'03 | 3♌54 | 7°48 | 18°42 | 17°23 | 23°55 | 28°49 | 26°42 | 10°53 | 0°26 | 23°56 | 25°11 | 12°53 | 18°46 | T 13 | |
| W14 | 17 53 42 | 28°23'12 | 16°47 | 9°21 | 19°10 | 18° 1 | 24° 9 | 28°56 | 26°43 | 10°56 | 0°27 | 23°57 | 25° 8 | 12°59 | 18°46 | W14 | |
| T 15 | 17 57 39 | 29°20'22 | 0♏1 | 10°58 | 19°39 | 18°39 | 24°23 | 29° 4 | 26°44 | 10°58 | 0°27 | 23°R58 | 25° 5 | 13° 6 | 18°46 | T 15 | |
| F 16 | 18 1 35 | 0♌17'32 | 13°38 | 12°37 | 20°10 | 19°17 | 24°36 | 29°11 | 26°44 | 11° 0 | 0°27 | 23°57 | 25° 2 | 13°13 | 18°R46 | F 16 | |
| S 17 | 18 5 32 | 1°14'43 | 27°41 | 14°21 | 20°42 | 19°55 | 24°50 | 29°18 | 26°44 | 11° 2 | 0°27 | 23°55 | 24°59 | 13°19 | 18°46 | S 17 | |
| S 18 | 18 9 29 | 2°11'53 | 12♌8 | 16° 7 | 21°16 | 20°33 | 25° 3 | 29°25 | 26°45 | 11° 4 | 0°27 | 23°53 | 24°55 | 13°26 | 18°46 | S 18 | |
| M19 | 18 13 25 | 3° 9'05 | 26°56 | 17°56 | 21°51 | 21°11 | 25°17 | 29°32 | 26°45 | 11° 7 | 0°28 | 23°51 | 24°52 | 13°33 | 18°46 | M19 | |
| T 20 | 18 17 22 | 4° 6'17 | 11♏58 | 19°49 | 22°27 | 21°49 | 25°31 | 29°39 | 26°46 | 11° 9 | 0°28 | 23°48 | 24°49 | 13°39 | 18°45 | T 20 | |
| W21 | 18 21 18 | 5° 3'29 | 27° 6 | 21°44 | 23° 4 | 22°27 | 25°44 | 29°46 | 26°46 | 11°11 | 0°28 | 23°46 | 24°46 | 13°46 | 18°45 | W21 | |
| T 22 | 18 25 15 | 6° 0'42 | 12♌10 | 23°41 | 23°42 | 23° 5 | 25°58 | 29°52 | 26°46 | 11°13 | 0°28 | 23°45 | 24°43 | 13°53 | 18°45 | T 22 | |
| F 23 | 18 29 11 | 6°57'55 | 27° 2 | 25°41 | 24°22 | 23°43 | 26°11 | 29°59 | 26°46 | 11°16 | 0°28 | 23°D45 | 24°39 | 13°59 | 18°44 | F 23 | |
| S 24 | 18 33 8 | 7°55'08 | 11♏35 | 27°43 | 25° 2 | 24°21 | 26°25 | 0♏6 | 26°46 | 11°18 | 0°R28 | 23°45 | 24°36 | 14° 6 | 18°44 | S 24 | |
| S 25 | 18 37 4 | 8°52'21 | 25°43 | 29°47 | 25°44 | 24°59 | 26°38 | 0°13 | 26°46 | 11°20 | 0°28 | 23°46 | 24°33 | 14°13 | 18°44 | S 25 | |
| M26 | 18 41 1 | 9°49'34 | 9♏25 | 1♌52 | 26°26 | 25°37 | 26°52 | 0°19 | 26°R46 | 11°22 | 0°28 | 23°47 | 24°30 | 14°19 | 18°43 | M26 | |
| T 27 | 18 44 58 | 10°46'47 | 22°42 | 3°59 | 27°10 | 26°15 | 27° 5 | 0°26 | 26°46 | 11°24 | 0°28 | 23°48 | 24°27 | 14°26 | 18°42 | T 27 | |
| W28 | 18 48 54 | 11°44'01 | 5♌34 | 6° 6 | 27°54 | 26°53 | 27°18 | 0°33 | 26°46 | 11°27 | 0°28 | 23°49 | 24°24 | 14°33 | 18°42 | W28 | |
| T 29 | 18 52 51 | 12°41'15 | 18° 6 | 8°14 | 28°39 | 27°31 | 27°32 | 0°39 | 26°46 | 11°29 | 0°28 | 23°R49 | 24°20 | 14°39 | 18°41 | T 29 | |
| F 30 | 18 56 47 | 13°38'29 | 0♏22 | 10♌22 | 29♌25 | 28♉9 | 27°II'45 | 0♏46 | 26♋46 | 11♉31 | 0♏27 | 23♉48 | 24♉17 | 14♌46 | 18♋40 | F 30 | |

Delta T = 18m20s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1088
geocentric

JULY 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|--------|-------|-------|-------|-------|------|--------|-------|-------|--------|-------|-------|--------|------|---|-----|
| S 1 | 19 0 44 | 14☾35'43 | 12♋25 | 12☾30 | 0♈12 | 28☾47 | 27♈58 | 0♈52 | 26°R46 | 11☾33 | 0°R27 | 23°R47 | 24☾14 | 14♌53 | 18°R39 | S 1 | | |
| S 2 | 19 4 40 | 15°32'58 | 24°20 | 14°38 | 1° 0 | 29°25 | 28°12 | 0°58 | 26♋45 | 11°36 | 0°V27 | 23☾46 | 24°11 | 15° 0 | 18♋39 | S 2 | | |
| M 3 | 19 8 37 | 16°30'13 | 6♌11 | 16°45 | 1°48 | 0♉ 3 | 28°25 | 1° 5 | 26°45 | 11°38 | 0°27 | 23°45 | 24° 8 | 15° 6 | 18°38 | M 3 | | |
| T 4 | 19 12 33 | 17°27'29 | 18° 1 | 18°51 | 2°37 | 0°41 | 28°38 | 1°11 | 26°45 | 11°40 | 0°27 | 23°44 | 24° 5 | 15°13 | 18°37 | T 4 | | |
| W 5 | 19 16 30 | 18°24'46 | 29°53 | 20°57 | 3°27 | 1°19 | 28°51 | 1°17 | 26°44 | 11°42 | 0°27 | 23°44 | 24° 1 | 15°20 | 18°36 | W 5 | | |
| T 6 | 19 20 27 | 19°22'03 | 11☾49 | 23° 1 | 4°18 | 1°57 | 29° 5 | 1°23 | 26°44 | 11°44 | 0°26 | 23°44 | 23°58 | 15°26 | 18°35 | T 6 | | |
| F 7 | 19 24 23 | 20°19'20 | 23°52 | 25° 5 | 5° 9 | 2°35 | 29°18 | 1°29 | 26°43 | 11°47 | 0°26 | 23°D43 | 23°55 | 15°33 | 18°34 | F 7 | | |
| S 8 | 19 28 20 | 21°16'39 | 6♌ 3 | 27° 6 | 6° 1 | 3°13 | 29°31 | 1°35 | 26°43 | 11°49 | 0°26 | 23°43 | 23°52 | 15°40 | 18°32 | S 8 | | |
| S 9 | 19 32 16 | 22°13'58 | 18°25 | 29° 7 | 6°53 | 3°52 | 29°44 | 1°41 | 26°42 | 11°51 | 0°26 | 23°44 | 23°49 | 15°46 | 18°31 | S 9 | | |
| M10 | 19 36 13 | 23°11'18 | 0♋58 | 1♉ 6 | 7°46 | 4°30 | 29°57 | 1°47 | 26°41 | 11°53 | 0°25 | 23°44 | 23°45 | 15°53 | 18°30 | M10 | | |
| T 11 | 19 40 9 | 24° 8'40 | 13°46 | 3° 4 | 8°40 | 5° 8 | 0☾10 | 1°53 | 26°41 | 11°55 | 0°25 | 23°R44 | 23°42 | 16° 0 | 18°29 | T 11 | | |
| W12 | 19 44 6 | 25° 6'02 | 26°48 | 5° 0 | 9°34 | 5°46 | 0°23 | 1°59 | 26°40 | 11°58 | 0°24 | 23°44 | 23°39 | 16° 6 | 18°27 | W12 | | |
| T 13 | 19 48 2 | 26° 3'25 | 10°V 7 | 6°54 | 10°28 | 6°24 | 0°36 | 2° 4 | 26°39 | 12° 0 | 0°24 | 23°43 | 23°36 | 16°13 | 18°26 | T 13 | | |
| F 14 | 19 51 59 | 27° 0'50 | 23°44 | 8°47 | 11°24 | 7° 2 | 0°49 | 2°10 | 26°38 | 12° 2 | 0°24 | 23°D43 | 23°33 | 16°20 | 18°24 | F 14 | | |
| S 15 | 19 55 56 | 27°58'16 | 7♌40 | 10°38 | 12°19 | 7°40 | 1° 2 | 2°15 | 26°37 | 12° 4 | 0°23 | 23°43 | 23°30 | 16°26 | 18°23 | S 15 | | |
| S 16 | 19 59 52 | 28°55'44 | 21°53 | 12°28 | 13°16 | 8°18 | 1°14 | 2°21 | 26°37 | 12° 6 | 0°23 | 23°44 | 23°26 | 16°33 | 18°21 | S 16 | | |
| M17 | 20 3 49 | 29°53'12 | 6♈22 | 14°16 | 14°12 | 8°56 | 1°27 | 2°26 | 26°36 | 12° 9 | 0°22 | 23°44 | 23°23 | 16°40 | 18°20 | M17 | | |
| T 18 | 20 7 45 | 0♉50'43 | 21° 4 | 16° 3 | 15°10 | 9°34 | 1°40 | 2°32 | 26°35 | 12°11 | 0°22 | 23°45 | 23°20 | 16°46 | 18°18 | T 18 | | |
| W19 | 20 11 42 | 1°48'14 | 5☾51 | 17°48 | 16° 7 | 10°12 | 1°52 | 2°37 | 26°33 | 12°13 | 0°21 | 23°45 | 23°17 | 16°53 | 18°16 | W19 | | |
| T 20 | 20 15 38 | 2°45'47 | 20°39 | 19°31 | 17° 5 | 10°50 | 2° 5 | 2°42 | 26°32 | 12°15 | 0°21 | 23°R46 | 23°14 | 17° 0 | 18°15 | T 20 | | |
| F 21 | 20 19 35 | 3°43'21 | 5♉19 | 21°13 | 18° 4 | 11°28 | 2°18 | 2°47 | 26°31 | 12°17 | 0°20 | 23°45 | 23°10 | 17° 6 | 18°13 | F 21 | | |
| S 22 | 20 23 31 | 4°40'56 | 19°46 | 22°53 | 19° 2 | 12° 6 | 2°30 | 2°52 | 26°30 | 12°19 | 0°20 | 23°45 | 23° 7 | 17°13 | 18°11 | S 22 | | |
| S 23 | 20 27 28 | 5°38'32 | 3♈53 | 24°32 | 20° 2 | 12°44 | 2°43 | 2°57 | 26°29 | 12°21 | 0°19 | 23°44 | 23° 4 | 17°20 | 18° 9 | S 23 | | |
| M24 | 20 31 25 | 6°36'10 | 17°37 | 26° 9 | 21° 1 | 13°23 | 2°55 | 3° 2 | 26°28 | 12°23 | 0°19 | 23°42 | 23° 1 | 17°26 | 18° 7 | M24 | | |
| T 25 | 20 35 21 | 7°33'48 | 0♌57 | 27°45 | 22° 1 | 14° 1 | 3° 7 | 3° 7 | 26°26 | 12°25 | 0°18 | 23°40 | 22°58 | 17°33 | 18° 5 | T 25 | | |
| W26 | 20 39 18 | 8°31'27 | 13°54 | 29°19 | 23° 1 | 14°39 | 3°20 | 3°12 | 26°25 | 12°27 | 0°17 | 23°39 | 22°55 | 17°40 | 18° 3 | W26 | | |
| T 27 | 20 43 14 | 9°29'08 | 26°28 | 0♈52 | 24° 2 | 15°17 | 3°32 | 3°16 | 26°23 | 12°29 | 0°17 | 23°38 | 22°51 | 17°46 | 18° 1 | T 27 | | |
| F 28 | 20 47 11 | 10°26'49 | 8♋45 | 2°23 | 25° 3 | 15°55 | 3°44 | 3°21 | 26°22 | 12°31 | 0°16 | 23°D37 | 22°48 | 17°53 | 17°59 | F 28 | | |
| S 29 | 20 51 7 | 11°24'32 | 20°49 | 3°53 | 26° 4 | 16°33 | 3°56 | 3°25 | 26°21 | 12°33 | 0°15 | 23°37 | 22°45 | 18° 0 | 17°57 | S 29 | | |
| S 30 | 20 55 4 | 12°22'16 | 2♌43 | 5°21 | 27° 6 | 17°11 | 4° 8 | 3°30 | 26°19 | 12°35 | 0°15 | 23°38 | 22°42 | 18° 6 | 17°55 | S 30 | | |
| M31 | 20 59 0 | 13♉20'01 | 14♌33 | 6♈47 | 28♈ 8 | 17♉50 | 4☾20 | 3♈34 | 26♋17 | 12☾37 | 0°V14 | 23☾40 | 22☾39 | 18♌13 | 17♋53 | M31 | | |

Delta T = 18m20s Julian Calendar 1 July 1088 == Greg. Calendar 7 July 1088

AUGUST 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|------|------|--------|-------|-------|--------|-------|-------|--------|------|---|-----|
| T 1 | 21 2 57 | 14♉17'47 | 26♌24 | 8♈12 | 29♈10 | 18♉28 | 4☾32 | 3♈38 | 26°R16 | 12☾39 | 0°R13 | 23☾41 | 22☾36 | 18♌20 | 17°R51 | T 1 | | |
| W 2 | 21 6 54 | 15°15'35 | 8♌19 | 9°36 | 0☾12 | 19° 6 | 4°44 | 3°42 | 26♋14 | 12°41 | 0°V12 | 23°43 | 22°32 | 18°26 | 17♋49 | W 2 | | |
| T 3 | 21 10 50 | 16°13'24 | 20°21 | 10°57 | 1°15 | 19°44 | 4°55 | 3°46 | 26°13 | 12°43 | 0°12 | 23°R43 | 22°29 | 18°33 | 17°46 | T 3 | | |
| F 4 | 21 14 47 | 17°11'14 | 2♌34 | 12°18 | 2°18 | 20°22 | 5° 7 | 3°50 | 26°11 | 12°45 | 0°11 | 23°43 | 22°26 | 18°40 | 17°44 | F 4 | | |
| S 5 | 21 18 43 | 18° 9'06 | 15° 0 | 13°36 | 3°22 | 21° 1 | 5°19 | 3°54 | 26° 9 | 12°47 | 0°10 | 23°42 | 22°23 | 18°46 | 17°42 | S 5 | | |
| S 6 | 21 22 40 | 19° 6'59 | 27°40 | 14°53 | 4°25 | 21°39 | 5°30 | 3°58 | 26° 7 | 12°49 | 0° 9 | 23°39 | 22°20 | 18°53 | 17°39 | S 6 | | |
| M 7 | 21 26 36 | 20° 4'54 | 10♋34 | 16° 7 | 5°29 | 22°17 | 5°42 | 4° 2 | 26° 6 | 12°51 | 0° 8 | 23°36 | 22°16 | 19° 0 | 17°37 | M 7 | | |
| T 8 | 21 30 33 | 21° 2'51 | 23°42 | 17°20 | 6°33 | 22°55 | 5°53 | 4° 5 | 26° 4 | 12°53 | 0° 7 | 23°31 | 22°13 | 19° 6 | 17°35 | T 8 | | |
| W 9 | 21 34 29 | 22° 0'49 | 7°V 4 | 18°31 | 7°38 | 23°33 | 6° 4 | 4° 9 | 26° 2 | 12°55 | 0° 7 | 23°27 | 22°10 | 19°13 | 17°32 | W 9 | | |
| T 10 | 21 38 26 | 22°58'49 | 20°38 | 19°40 | 8°42 | 24°12 | 6°16 | 4°12 | 26° 0 | 12°56 | 0° 6 | 23°23 | 22° 7 | 19°20 | 17°30 | T 10 | | |
| F 11 | 21 42 23 | 23°56'51 | 4♌24 | 20°47 | 9°47 | 24°50 | 6°27 | 4°16 | 25°58 | 12°58 | 0° 5 | 23°21 | 22° 4 | 19°26 | 17°27 | F 11 | | |
| S 12 | 21 46 19 | 24°54'55 | 18°21 | 21°52 | 10°52 | 25°28 | 6°38 | 4°19 | 25°56 | 13° 0 | 0° 4 | 23°19 | 22° 1 | 19°33 | 17°25 | S 12 | | |
| S 13 | 21 50 16 | 25°53'02 | 2♈27 | 22°54 | 11°58 | 26° 6 | 6°49 | 4°22 | 25°54 | 13° 2 | 0° 3 | 23°D19 | 21°57 | 19°40 | 17°22 | S 13 | | |
| M14 | 21 54 12 | 26°51'10 | 16°40 | 23°54 | 13° 3 | 26°45 | 7° 0 | 4°25 | 25°52 | 13° 3 | 0° 2 | 23°20 | 21°54 | 19°46 | 17°19 | M14 | | |
| T 15 | 21 58 9 | 27°49'20 | 1☾ 0 | 24°51 | 14° 9 | 27°23 | 7°11 | 4°28 | 25°50 | 13° 5 | 0° 1 | 23°22 | 21°51 | 19°53 | 17°17 | T 15 | | |
| W16 | 22 2 5 | 28°47'33 | 15°23 | 25°46 | 15°15 | 28° 1 | 7°21 | 4°31 | 25°48 | 13° 7 | 0° 0 | 23°23 | 21°48 | 20° 0 | 17°14 | W16 | | |
| T 17 | 22 6 2 | 29°45'47 | 29°45 | 26°37 | 16°21 | 28°40 | 7°32 | 4°33 | 25°46 | 13° 8 | 29♋59 | 23°R23 | 21°45 | 20° 6 | 17°12 | T 17 | | |
| F 18 | 22 9 58 | 0♈44'04 | 14♉ 3 | 27°26 | 17°28 | 29°18 | 7°43 | 4°36 | 25°44 | 13°10 | 29°58 | 23°21 | 21°42 | 20°13 | 17° 9 | F 18 | | |
| S 19 | 22 13 55 | 1°42'22 | 28°11 | 28°10 | 18°34 | 29°57 | 7°53 | 4°39 | 25°42 | 13°12 | 29°57 | 23°18 | 21°38 | 20°20 | 17° 6 | S 19 | | |
| S 20 | 22 17 52 | 2°40'42 | 12♈ 5 | 28°52 | 19°41 | 0♈35 | 8° 3 | 4°41 | 25°40 | 13°13 | 29°56 | 23°13 | 21°35 | 20°26 | 17° 4 | S 20 | | |
| M21 | 22 21 48 | 3°39'04 | 25°42 | 29°29 | 20°48 | 1°13 | 8°14 | 4°43 | 25°37 | 13°15 | 29°55 | 23° 6 | 21°32 | 20°33 | 17° 1 | M21 | | |
| T 22 | 22 25 45 | 4°37'27 | 8♌58 | 0♌ 2 | 21°55 | 1°52 | 8°24 | 4°45 | 25°35 | 13°16 | 29°54 | 22°59 | 21°29 | 20°40 | 16°58 | T 22 | | |
| W23 | 22 29 41 | 5°35'52 | 21°53 | 0°31 | 23° 3 | 2°30 | 8°34 | 4°48 | 25°33 | 13°18 | 29°53 | 22°53 | 21°26 | 20°46 | 16°55 | W23 | | |
| T 24 | 22 33 38 | 6°34'19 | 4♋28 | 0°55 | 24°10 | 3° 9 | 8°44 | 4°50 | 25°31 | 13°19 | 29°52 | 22°47 | 21°22 | 20°53 | 16°53 | T 24 | | |
| F 25 | 22 37 34 | 7°32'48 | 16°46 | 1°14 | 25°18 | 3°47 | 8°54 | 4°52 | 25°28 | 13°21 | 29°51 | 22°43 | 21°19 | 21° 0 | 16°50 | F 25 | | |
| S 26 | 22 41 31 | 8°31'18 | 28°49 | 1°28 | 26°26 | 4°26 | 9° 3 | 4°53 | 25°26 | 13°22 | 29°50 | 22°41 | 21°16 | 21° 6 | 16°47 | S 26 | | |
| S 27 | 22 45 27 | 9°29'50 | 10♌43 | 1°35 | 27°34 | 5° 4 | 9°13 | 4°55 | 25°24 | 13°24 | 29°49 | 22°D40 | 21°13 | 21°13 | 16°44 | S 27 | | |
| M28 | 22 49 24 | 10°28'24 | 22°33 | 1°R37 | 28°42 | 5°42 | 9°23 | 4°57 | 25°22 | 13°25 | 29°48 | 22°41 | 21°10 | 21°20 | 16°41 | M28 | | |
| T 29 | 22 53 21 | 11°27'00 | 4☾24 | 1°32 | 29°51 | 6°21 | 9°32 | 4°58 | 25°19 | 13°27 | 29°46 | 22°42 | 21° 7 | 21°26 | 16°39 | T 29 | | |
| W30 | 22 57 17 | 12°25'37 | 16°20 | 1°20 | 0♉59 | 7° 0 | 9°41 | 4°59 | 25°17 | 13°28 | 29°45 | 22°43 | 21° 3 | 21°33 | 16°36 | W30 | | |
| T 31 | 23 1 14 | 13♈24'16 | 28☾28 | 1♌ 1 | 2♉ 8 | 7♈38 | 9☾50 | 5♈ 1 | 25♋15 | 13☾29 | 29♋44 | 22°R43 | 21☾ 0 | 21♌40 | 16♋33 | T 31 | | |

Delta T = 18m20s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1088
geocentric

SEPTEMBER 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|-------|--------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| F 1 | 23 5 10 | 14♐22'57 | 10♌49 | 0°R35 | 3♊17 | 8♐17 | 9♄59 | 5♂2 | 25°R12 | 13♄31 | 29°R43 | 22°R41 | 20♄57 | 21♌46 | 16°R30 | F 1 | | | | | | | | |
| S 2 | 23 9 7 | 15°21'39 | 23°28 | 0♌2 | 4°26 | 8°55 | 10°8 | 5°3 | 25♌10 | 13°32 | 29♌42 | 22♄37 | 20°54 | 21°53 | 16♌27 | S 2 | | | | | | | | |
| S 3 | 23 13 3 | 16°20'24 | 6♌26 | 29♐22 | 5°35 | 9°34 | 10°17 | 5°4 | 25°7 | 13°33 | 29°41 | 22°31 | 20°51 | 22°0 | 16°25 | S 3 | | | | | | | | |
| M 4 | 23 17 0 | 17°19'10 | 19°42 | 28°36 | 6°44 | 10°12 | 10°26 | 5°5 | 25°5 | 13°34 | 29°40 | 22°23 | 20°48 | 22°6 | 16°22 | M 4 | | | | | | | | |
| T 5 | 23 20 56 | 18°17'59 | 3♍16 | 27°43 | 7°54 | 10°51 | 10°35 | 5°5 | 25°3 | 13°35 | 29°39 | 22°14 | 20°44 | 22°13 | 16°19 | T 5 | | | | | | | | |
| W 6 | 23 24 53 | 19°16'49 | 17°4 | 26°44 | 9°3 | 11°30 | 10°43 | 5°6 | 25°0 | 13°37 | 29°37 | 22°4 | 20°41 | 22°20 | 16°16 | W 6 | | | | | | | | |
| T 7 | 23 28 49 | 20°15'42 | 1♌3 | 25°41 | 10°13 | 12°8 | 10°51 | 5°6 | 24°58 | 13°38 | 29°36 | 21°56 | 20°38 | 22°26 | 16°13 | T 7 | | | | | | | | |
| F 8 | 23 32 46 | 21°14'37 | 15°8 | 24°35 | 11°23 | 12°47 | 11°0 | 5°7 | 24°55 | 13°39 | 29°35 | 21°49 | 20°35 | 22°33 | 16°11 | F 8 | | | | | | | | |
| S 9 | 23 36 43 | 22°13'35 | 29°17 | 23°28 | 12°33 | 13°26 | 11°8 | 5°7 | 24°53 | 13°40 | 29°34 | 21°44 | 20°32 | 22°40 | 16°8 | S 9 | | | | | | | | |
| S 10 | 23 40 39 | 23°12'34 | 13♂26 | 22°20 | 13°43 | 14°4 | 11°16 | 5°7 | 24°51 | 13°41 | 29°33 | 21°42 | 20°28 | 22°46 | 16°5 | S 10 | | | | | | | | |
| M11 | 23 44 36 | 24°11'37 | 27°34 | 21°15 | 14°54 | 14°43 | 11°23 | 5°R 7 | 24°48 | 13°42 | 29°32 | 21°D42 | 20°25 | 22°53 | 16°2 | M11 | | | | | | | | |
| T 12 | 23 48 32 | 25°10'41 | 11♄40 | 20°12 | 16°4 | 15°22 | 11°31 | 5°7 | 24°46 | 13°43 | 29°31 | 21°42 | 20°22 | 23°0 | 15°59 | T 12 | | | | | | | | |
| W13 | 23 52 29 | 26°9'48 | 25°42 | 19°15 | 17°15 | 16°0 | 11°39 | 5°7 | 24°43 | 13°44 | 29°29 | 21°R42 | 20°19 | 23°6 | 15°57 | W13 | | | | | | | | |
| T 14 | 23 56 25 | 27°8'58 | 9♊39 | 18°25 | 18°25 | 16°39 | 11°46 | 5°7 | 24°41 | 13°45 | 29°28 | 21°41 | 20°16 | 23°13 | 15°54 | T 14 | | | | | | | | |
| F 15 | 0 0 22 | 28°8'09 | 23°30 | 17°43 | 19°36 | 17°18 | 11°53 | 5°6 | 24°38 | 13°46 | 29°27 | 21°37 | 20°13 | 23°20 | 15°51 | F 15 | | | | | | | | |
| S 16 | 0 4 18 | 29°7'23 | 7♐14 | 17°11 | 20°47 | 17°57 | 12°0 | 5°6 | 24°36 | 13°46 | 29°26 | 21°31 | 20°9 | 23°26 | 15°48 | S 16 | | | | | | | | |
| S 17 | 0 8 15 | 0♌6'39 | 20°46 | 16°48 | 21°58 | 18°36 | 12°7 | 5°5 | 24°34 | 13°47 | 29°25 | 21°22 | 20°6 | 23°33 | 15°46 | S 17 | | | | | | | | |
| M18 | 0 12 12 | 1°5'57 | 4♌5 | 16°37 | 23°9 | 19°14 | 12°14 | 5°5 | 24°31 | 13°48 | 29°23 | 21°10 | 20°3 | 23°40 | 15°43 | M18 | | | | | | | | |
| T 19 | 0 16 8 | 2°5'18 | 17°9 | 16°D35 | 24°21 | 19°53 | 12°21 | 5°4 | 24°29 | 13°49 | 29°22 | 20°58 | 20°0 | 23°46 | 15°40 | T 19 | | | | | | | | |
| W20 | 0 20 5 | 3°4'40 | 29°56 | 16°45 | 25°32 | 20°32 | 12°27 | 5°3 | 24°26 | 13°49 | 29°21 | 20°46 | 19°57 | 23°53 | 15°38 | W20 | | | | | | | | |
| T 21 | 0 24 1 | 4°4'04 | 12♌26 | 17°5 | 26°43 | 21°11 | 12°34 | 5°2 | 24°24 | 13°50 | 29°20 | 20°35 | 19°53 | 24°0 | 15°35 | T 21 | | | | | | | | |
| F 22 | 0 27 58 | 5°3'30 | 24°40 | 17°35 | 27°55 | 21°50 | 12°40 | 5°1 | 24°22 | 13°51 | 29°19 | 20°26 | 19°50 | 24°6 | 15°32 | F 22 | | | | | | | | |
| S 23 | 0 31 54 | 6°2'58 | 6♌42 | 18°14 | 29°7 | 22°29 | 12°46 | 4°59 | 24°19 | 13°51 | 29°18 | 20°20 | 19°47 | 24°13 | 15°30 | S 23 | | | | | | | | |
| S 24 | 0 35 51 | 7°2'28 | 18°35 | 19°2 | 0♐18 | 23°8 | 12°52 | 4°58 | 24°17 | 13°52 | 29°16 | 20°16 | 19°44 | 24°20 | 15°27 | S 24 | | | | | | | | |
| M25 | 0 39 47 | 8°2'00 | 0♌33 | 19°58 | 1°30 | 23°47 | 12°58 | 4°56 | 24°15 | 13°53 | 29°15 | 20°15 | 19°41 | 24°26 | 15°25 | M25 | | | | | | | | |
| T 26 | 0 43 44 | 9°1'34 | 12°12 | 21°1 | 2°42 | 24°26 | 13°3 | 4°55 | 24°12 | 13°53 | 29°14 | 20°D15 | 19°38 | 24°33 | 15°22 | T 26 | | | | | | | | |
| W27 | 0 47 41 | 10°1'09 | 24°8 | 22°10 | 3°54 | 25°5 | 13°9 | 4°53 | 24°10 | 13°54 | 29°13 | 20°R15 | 19°34 | 24°40 | 15°20 | W27 | | | | | | | | |
| T 28 | 0 51 37 | 11°0'46 | 6♌16 | 23°24 | 5°7 | 25°44 | 13°14 | 4°51 | 24°8 | 13°54 | 29°12 | 20°14 | 19°31 | 24°46 | 15°17 | T 28 | | | | | | | | |
| F 29 | 0 55 34 | 12°0'25 | 18°41 | 24°43 | 6°19 | 26°23 | 13°19 | 4°49 | 24°5 | 13°54 | 29°11 | 20°11 | 19°28 | 24°53 | 15°15 | F 29 | | | | | | | | |
| S 30 | 0 59 30 | 13♌0'06 | 1♌27 | 26♐7 | 7♐31 | 27♐2 | 13♄24 | 4♂47 | 24♌3 | 13♄55 | 29♌10 | 20♄6 | 19♄25 | 25♌0 | 15♌12 | S 30 | | | | | | | | |

Delta T = 18m20s Julian Calendar 1 Sept. 1088 == Greg. Calendar 7 Sept. 1088

OCTOBER 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|-------|-------|--------|-------|--------|-------|--------|---------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 1 3 27 | 13♌59'48 | 14♌36 | 27♐33 | 8♐44 | 27♐41 | 13♄29 | 4°R45 | 24°R 1 | 13♄55 | 29°R 8 | 19°R58 | 19♄22 | 25♌6 | 15°R10 | S 1 | | | | | | | | |
| M 2 | 1 7 23 | 14°59'33 | 28°10 | 29°3 | 9°56 | 28°20 | 13°33 | 4♂43 | 23♌59 | 13°56 | 29♌7 | 19♄47 | 19°19 | 25°13 | 15♌8 | M 2 | | | | | | | | |
| T 3 | 1 11 20 | 15°59'19 | 12♍5 | 0♌35 | 11°9 | 28°59 | 13°38 | 4°41 | 23°56 | 13°56 | 29°6 | 19°35 | 19°15 | 25°19 | 15°5 | T 3 | | | | | | | | |
| W 4 | 1 15 16 | 16°59'07 | 26°20 | 2°9 | 12°21 | 29°39 | 13°42 | 4°38 | 23°54 | 13°56 | 29°5 | 19°23 | 19°12 | 25°26 | 15°3 | W 4 | | | | | | | | |
| T 5 | 1 19 13 | 17°58'58 | 10♌46 | 3°44 | 13°34 | 0♌18 | 13°46 | 4°36 | 23°52 | 13°56 | 29°4 | 19°12 | 19°9 | 25°33 | 15°1 | T 5 | | | | | | | | |
| F 6 | 1 23 9 | 18°58'50 | 25°18 | 5°21 | 14°47 | 0°57 | 13°50 | 4°33 | 23°50 | 13°56 | 29°3 | 19°2 | 19°6 | 25°39 | 14°59 | F 6 | | | | | | | | |
| S 7 | 1 27 6 | 19°58'45 | 9♂49 | 6°59 | 16°0 | 1°36 | 13°53 | 4°31 | 23°48 | 13°57 | 29°2 | 18°56 | 19°3 | 25°46 | 14°56 | S 7 | | | | | | | | |
| S 8 | 1 31 3 | 20°58'42 | 24°14 | 8°37 | 17°13 | 2°15 | 13°57 | 4°28 | 23°46 | 13°57 | 29°1 | 18°52 | 18°59 | 25°53 | 14°54 | S 8 | | | | | | | | |
| M 9 | 1 34 59 | 21°58'41 | 8♄30 | 10°16 | 18°26 | 2°55 | 14°0 | 4°25 | 23°44 | 13°57 | 29°0 | 18°51 | 18°56 | 25°59 | 14°52 | M 9 | | | | | | | | |
| T 10 | 1 38 56 | 22°58'43 | 22°34 | 11°55 | 19°39 | 3°34 | 14°3 | 4°22 | 23°42 | 13°57 | 28°59 | 18°51 | 18°53 | 26°6 | 14°50 | T 10 | | | | | | | | |
| W11 | 1 42 52 | 23°58'46 | 6♊27 | 13°35 | 20°53 | 4°13 | 14°6 | 4°19 | 23°40 | 13°57 | 28°58 | 18°50 | 18°50 | 26°13 | 14°48 | W11 | | | | | | | | |
| T 12 | 1 46 49 | 24°58'52 | 20°8 | 15°14 | 22°6 | 4°53 | 14°9 | 4°16 | 23°38 | 13°57 | 28°57 | 18°49 | 18°47 | 26°19 | 14°46 | T 12 | | | | | | | | |
| F 13 | 1 50 45 | 25°59'00 | 3♐38 | 16°54 | 23°19 | 5°32 | 14°12 | 4°12 | 23°36 | 13°57 | 28°55 | 18°44 | 18°44 | 26°26 | 14°44 | F 13 | | | | | | | | |
| S 14 | 1 54 42 | 26°59'10 | 16°57 | 18°33 | 24°33 | 6°11 | 14°14 | 4°9 | 23°34 | 13°57 | 28°54 | 18°37 | 18°40 | 26°33 | 14°42 | S 14 | | | | | | | | |
| S 15 | 1 58 38 | 27°59'22 | 0♌6 | 20°13 | 25°47 | 6°51 | 14°16 | 4°6 | 23°32 | 13°57 | 28°53 | 18°27 | 18°37 | 26°39 | 14°40 | S 15 | | | | | | | | |
| M16 | 2 2 35 | 28°59'36 | 13°3 | 21°52 | 27°0 | 7°30 | 14°18 | 4°2 | 23°30 | 13°56 | 28°52 | 18°15 | 18°34 | 26°46 | 14°39 | M16 | | | | | | | | |
| T 17 | 2 6 32 | 29°59'52 | 25°48 | 23°30 | 28°14 | 8°10 | 14°20 | 3°58 | 23°28 | 13°56 | 28°51 | 18°1 | 18°31 | 26°53 | 14°37 | T 17 | | | | | | | | |
| W18 | 2 10 28 | 1♌0'10 | 8♌21 | 25°9 | 29°28 | 8°49 | 14°22 | 3°55 | 23°27 | 13°56 | 28°51 | 17°47 | 18°28 | 26°59 | 14°35 | W18 | | | | | | | | |
| T 19 | 2 14 25 | 2°0'30 | 20°40 | 26°47 | 0♌41 | 9°29 | 14°23 | 3°51 | 23°25 | 13°56 | 28°50 | 17°35 | 18°24 | 27°6 | 14°33 | T 19 | | | | | | | | |
| F 20 | 2 18 21 | 3°0'51 | 2♌48 | 28°25 | 1°55 | 10°8 | 14°24 | 3°47 | 23°23 | 13°55 | 28°49 | 17°25 | 18°21 | 27°13 | 14°32 | F 20 | | | | | | | | |
| S 21 | 2 22 18 | 4°1'14 | 14°45 | 0♌3 | 3°9 | 10°48 | 14°25 | 3°43 | 23°21 | 13°55 | 28°48 | 17°17 | 18°18 | 27°19 | 14°30 | S 21 | | | | | | | | |
| S 22 | 2 26 14 | 5°1'39 | 26°35 | 1°40 | 4°23 | 11°27 | 14°26 | 3°39 | 23°20 | 13°55 | 28°47 | 17°13 | 18°15 | 27°26 | 14°29 | S 22 | | | | | | | | |
| M23 | 2 30 11 | 6°2'05 | 8♌22 | 3°17 | 5°37 | 12°7 | 14°27 | 3°35 | 23°18 | 13°54 | 28°46 | 17°11 | 18°12 | 27°33 | 14°27 | M23 | | | | | | | | |
| T 24 | 2 34 7 | 7°2'32 | 20°9 | 4°53 | 6°51 | 12°46 | 14°27 | 3°31 | 23°17 | 13°54 | 28°45 | 17°D11 | 18°9 | 27°39 | 14°26 | T 24 | | | | | | | | |
| W25 | 2 38 4 | 8°3'01 | 2♌3 | 6°30 | 8°5 | 13°26 | 14°28 | 3°27 | 23°15 | 13°53 | 28°44 | 17°R11 | 18°5 | 27°46 | 14°24 | W25 | | | | | | | | |
| T 26 | 2 42 1 | 9°3'31 | 14°8 | 8°6 | 9°19 | 14°6 | 14°R28 | 3°23 | 23°14 | 13°53 | 28°43 | 17°11 | 18°2 | 27°53 | 14°23 | T 26 | | | | | | | | |
| F 27 | 2 45 57 | 10°4'03 | 26°31 | 9°42 | 10°34 | 14°45 | 14°27 | 3°19 | 23°12 | 13°52 | 28°42 | 17°10 | 17°59 | 27°59 | 14°22 | F 27 | | | | | | | | |
| S 28 | 2 49 54 | 11°4'36 | 9♌15 | 11°17 | 11°48 | 15°25 | 14°27 | 3°14 | 23°11 | 13°52 | 28°42 | 17°6 | 17°56 | 28°6 | 14°21 | S 28 | | | | | | | | |
| S 29 | 2 53 50 | 12°5'10 | 22°26 | 12°52 | 13°2 | 16°5 | 14°27 | 3°10 | 23°9 | 13°51 | 28°41 | 17°0 | 17°53 | 28°13 | 14°19 | S 29 | | | | | | | | |
| M30 | 2 57 47 | 13°5'45 | 6♍4 | 14°27 | 14°16 | 16°44 | 14°26 | 3°5 | 23°8 | 13°51 | 28°40 | 16°52 | 17°50 | 28°19 | 14°18 | M30 | | | | | | | | |
| T 31 | 3 1 43 | 14♌6'22 | 20°V10 | 16♌2 | 15♌31 | 17♌24 | 14♄25 | 3♂1 | 23♌7 | 13♄50 | 28♌39 | 16♄42</ | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1088
geocentric

NOVEMBER 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|--------|--------|--------|--------|-------|-------|--------|------|-----|
| W 1 | 3 5 40 | 15♁ 7'00 | 4♃40 | 17♁36 | 16♁45 | 18♁ 4 | 14°R24 | 2°R56 | 23°R 6 | 13°R49 | 28°R38 | 16°R32 | 17♁43 | 28♁32 | 14°R16 | W 1 | |
| T 2 | 3 9 36 | 16° 7'39 | 19°28 | 19°11 | 18° 0 | 18°44 | 14♁22 | 2♁52 | 23♁ 4 | 13♁49 | 28♁38 | 16♁22 | 17°40 | 28°39 | 14°R15 | T 2 | |
| F 3 | 3 13 33 | 17° 8'21 | 4♁25 | 20°45 | 19°14 | 19°23 | 14°21 | 2°47 | 23° 3 | 13°48 | 28°37 | 16°14 | 17°37 | 28°46 | 14°14 | F 3 | |
| S 4 | 3 17 30 | 18° 9'03 | 19°22 | 22°19 | 20°29 | 20° 3 | 14°19 | 2°42 | 23° 2 | 13°47 | 28°36 | 16° 9 | 17°34 | 28°52 | 14°13 | S 4 | |
| S 5 | 3 21 26 | 19° 9'47 | 4♁11 | 23°53 | 21°43 | 20°43 | 14°17 | 2°38 | 23° 1 | 13°46 | 28°36 | 16° 6 | 17°30 | 28°59 | 14°13 | S 5 | |
| M 6 | 3 25 23 | 20°10'33 | 18°45 | 25°26 | 22°58 | 21°23 | 14°15 | 2°33 | 23° 0 | 13°45 | 28°35 | 16°D 6 | 17°27 | 29° 6 | 14°12 | M 6 | |
| T 7 | 3 29 19 | 21°11'20 | 3♁ 2 | 27° 0 | 24°13 | 22° 3 | 14°13 | 2°28 | 22°59 | 13°45 | 28°34 | 16° 7 | 17°24 | 29°12 | 14°11 | T 7 | |
| W 8 | 3 33 16 | 22°12'09 | 16°59 | 28°33 | 25°27 | 22°43 | 14°10 | 2°23 | 22°58 | 13°44 | 28°34 | 16°R 7 | 17°21 | 29°19 | 14°10 | W 8 | |
| T 9 | 3 37 12 | 23°13'00 | 0♁37 | 0♁ 7 | 26°42 | 23°23 | 14° 7 | 2°18 | 22°57 | 13°43 | 28°33 | 16° 7 | 17°18 | 29°26 | 14°10 | T 9 | |
| F 10 | 3 41 9 | 24°13'51 | 13°57 | 1°40 | 27°57 | 24° 3 | 14° 4 | 2°14 | 22°57 | 13°42 | 28°32 | 16° 5 | 17°15 | 29°32 | 14° 9 | F 10 | |
| S 11 | 3 45 5 | 25°14'45 | 27° 2 | 3°13 | 29°11 | 24°43 | 14° 1 | 2° 9 | 22°56 | 13°41 | 28°32 | 16° 1 | 17°11 | 29°39 | 14° 9 | S 11 | |
| S 12 | 3 49 2 | 26°15'39 | 9♁52 | 4°46 | 0♁26 | 25°23 | 13°58 | 2° 4 | 22°55 | 13°40 | 28°31 | 15°54 | 17° 8 | 29°46 | 14° 8 | S 12 | |
| M13 | 3 52 59 | 27°16'35 | 22°30 | 6°19 | 1°41 | 26° 3 | 13°54 | 1°59 | 22°54 | 13°39 | 28°31 | 15°46 | 17° 5 | 29°52 | 14° 8 | M13 | |
| T 14 | 3 56 55 | 28°17'33 | 4♁56 | 7°52 | 2°56 | 26°43 | 13°51 | 1°54 | 22°54 | 13°38 | 28°30 | 15°37 | 17° 2 | 29°59 | 14° 8 | T 14 | |
| W15 | 4 0 52 | 29°18'31 | 17°12 | 9°25 | 4°11 | 27°23 | 13°47 | 1°49 | 22°53 | 13°37 | 28°30 | 15°27 | 16°59 | 0♁ 6 | 14° 8 | W15 | |
| T 16 | 4 4 48 | 0♁19'31 | 29°19 | 10°58 | 5°26 | 28° 3 | 13°43 | 1°44 | 22°53 | 13°35 | 28°29 | 15°19 | 16°56 | 0°12 | 14° 7 | T 16 | |
| F 17 | 4 8 45 | 1°20'31 | 11♁18 | 12°31 | 6°41 | 28°43 | 13°39 | 1°39 | 22°52 | 13°34 | 28°29 | 15°12 | 16°52 | 0°19 | 14° 7 | F 17 | |
| S 18 | 4 12 41 | 2°21'33 | 23°11 | 14° 4 | 7°56 | 29°24 | 13°34 | 1°34 | 22°52 | 13°33 | 28°28 | 15° 7 | 16°49 | 0°26 | 14° 7 | S 18 | |
| S 19 | 4 16 38 | 3°22'35 | 4♁58 | 15°36 | 9°11 | 0♁ 4 | 13°30 | 1°29 | 22°51 | 13°32 | 28°28 | 15° 5 | 16°46 | 0°32 | 14°D 7 | S 19 | |
| M20 | 4 20 34 | 4°23'38 | 16°44 | 17° 9 | 10°26 | 0°44 | 13°25 | 1°24 | 22°51 | 13°31 | 28°28 | 15°D 4 | 16°43 | 0°39 | 14° 7 | M20 | |
| T 21 | 4 24 31 | 5°24'42 | 28°31 | 18°41 | 11°41 | 1°24 | 13°20 | 1°19 | 22°51 | 13°30 | 28°27 | 15° 5 | 16°40 | 0°46 | 14° 7 | T 21 | |
| W22 | 4 28 28 | 6°25'47 | 10♁25 | 20°13 | 12°56 | 2° 5 | 13°15 | 1°14 | 22°51 | 13°28 | 28°27 | 15° 7 | 16°36 | 0°52 | 14° 7 | W22 | |
| T 23 | 4 32 24 | 7°26'51 | 22°28 | 21°45 | 14°11 | 2°45 | 13° 9 | 1° 9 | 22°50 | 13°27 | 28°27 | 15° 8 | 16°33 | 0°59 | 14° 8 | T 23 | |
| F 24 | 4 36 21 | 8°27'57 | 4♁47 | 23°16 | 15°26 | 3°25 | 13° 4 | 1° 4 | 22°50 | 13°26 | 28°26 | 15°R 9 | 16°30 | 1° 5 | 14° 8 | F 24 | |
| S 25 | 4 40 17 | 9°29'03 | 17°26 | 24°47 | 16°41 | 4° 6 | 12°58 | 1° 0 | 22°50 | 13°24 | 28°26 | 15° 9 | 16°27 | 1°12 | 14° 8 | S 25 | |
| S 26 | 4 44 14 | 10°30'09 | 0♁30 | 26°17 | 17°56 | 4°46 | 12°53 | 0°55 | 22°D50 | 13°23 | 28°26 | 15° 7 | 16°24 | 1°19 | 14° 9 | S 26 | |
| M27 | 4 48 10 | 11°31'15 | 14° 2 | 27°47 | 19°11 | 5°26 | 12°47 | 0°50 | 22°50 | 13°22 | 28°26 | 15° 4 | 16°21 | 1°25 | 14° 9 | M27 | |
| T 28 | 4 52 7 | 12°32'22 | 28° 3 | 29°15 | 20°26 | 6° 7 | 12°41 | 0°45 | 22°50 | 13°20 | 28°25 | 14°59 | 16°17 | 1°32 | 14°10 | T 28 | |
| W29 | 4 56 3 | 13°33'29 | 12♁32 | 0♁43 | 21°41 | 6°47 | 12°35 | 0°40 | 22°51 | 13°19 | 28°25 | 14°55 | 16°14 | 1°39 | 14°10 | W29 | |
| T 30 | 5 0 0 | 14°34'37 | 27♁24 | 2♁10 | 22♁57 | 7♁28 | 12♁28 | 0♁36 | 22♁51 | 13♁17 | 28♁25 | 14♁50 | 16♁11 | 1♁45 | 14♁11 | T 30 | |

Delta T = 18m19s Julian Calendar 1 Nov. 1088 == Greg. Calendar 7 Nov. 1088

DECEMBER 1088 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|-------|-------|--------|--------|--------|-------|------|--------|------|-----|
| F 1 | 5 3 57 | 15♁35'45 | 12♁32 | 3♁35 | 24♁12 | 8♁ 8 | 12°R22 | 0°R31 | 22♁51 | 13°R16 | 28°R25 | 14°R46 | 16♁ 8 | 1♁52 | 14°R12 | F 1 | |
| S 2 | 5 7 53 | 16°36'53 | 27°45 | 4°59 | 25°27 | 8°48 | 12♁15 | 0♁26 | 22°51 | 13♁14 | 28♁25 | 14♁44 | 16° 5 | 1°59 | 14°12 | S 2 | |
| S 3 | 5 11 50 | 17°38'02 | 12♁54 | 6°21 | 26°42 | 9°29 | 12° 9 | 0°22 | 22°52 | 13°13 | 28°25 | 14°D43 | 16° 2 | 2° 5 | 14°13 | S 3 | |
| M 4 | 5 15 46 | 18°39'12 | 27°51 | 7°40 | 27°57 | 10°10 | 12° 2 | 0°17 | 22°52 | 13°12 | 28°25 | 14°43 | 15°58 | 2°12 | 14°14 | M 4 | |
| T 5 | 5 19 43 | 19°40'22 | 12♁27 | 8°56 | 29°12 | 10°50 | 11°55 | 0°13 | 22°52 | 13°10 | 28°25 | 14°45 | 15°55 | 2°19 | 14°15 | T 5 | |
| W 6 | 5 23 39 | 20°41'32 | 26°40 | 10°10 | 0♁28 | 11°31 | 11°48 | 0° 8 | 22°53 | 13° 8 | 28°D25 | 14°46 | 15°52 | 2°25 | 14°16 | W 6 | |
| T 7 | 5 27 36 | 21°42'43 | 10♁27 | 11°19 | 1°43 | 12°11 | 11°41 | 0° 4 | 22°54 | 13° 7 | 28°25 | 14°47 | 15°49 | 2°32 | 14°17 | T 7 | |
| F 8 | 5 31 33 | 22°43'54 | 23°51 | 12°24 | 2°58 | 12°52 | 11°34 | 29♁59 | 22°54 | 13° 5 | 28°25 | 14°R48 | 15°46 | 2°39 | 14°18 | F 8 | |
| S 9 | 5 35 29 | 23°45'06 | 6♁52 | 13°24 | 4°13 | 13°33 | 11°26 | 29°55 | 22°55 | 13° 4 | 28°25 | 14°47 | 15°42 | 2°45 | 14°19 | S 9 | |
| S 10 | 5 39 26 | 24°46'19 | 19°34 | 14°18 | 5°29 | 14°13 | 11°19 | 29°51 | 22°56 | 13° 2 | 28°25 | 14°46 | 15°39 | 2°52 | 14°20 | S 10 | |
| M11 | 5 43 22 | 25°47'31 | 2♁ 0 | 15° 5 | 6°44 | 14°54 | 11°11 | 29°46 | 22°56 | 13° 1 | 28°25 | 14°43 | 15°36 | 2°59 | 14°21 | M11 | |
| T 12 | 5 47 19 | 26°48'44 | 14°14 | 15°45 | 7°59 | 15°35 | 11° 4 | 29°42 | 22°57 | 12°59 | 28°25 | 14°40 | 15°33 | 3° 5 | 14°23 | T 12 | |
| W13 | 5 51 15 | 27°49'57 | 26°17 | 16°16 | 9°14 | 16°16 | 10°56 | 29°38 | 22°58 | 12°57 | 28°25 | 14°37 | 15°30 | 3°12 | 14°24 | W13 | |
| T 14 | 5 55 12 | 28°51'11 | 8♁14 | 16°38 | 10°30 | 16°56 | 10°48 | 29°34 | 22°59 | 12°56 | 28°25 | 14°35 | 15°27 | 3°18 | 14°26 | T 14 | |
| F 15 | 5 59 8 | 29°52'24 | 20° 5 | 16°50 | 11°45 | 17°37 | 10°40 | 29°30 | 23° 0 | 12°54 | 28°25 | 14°33 | 15°23 | 3°25 | 14°27 | F 15 | |
| S 16 | 6 3 5 | 0♁53'38 | 1♁53 | 16°R50 | 13° 0 | 18°18 | 10°33 | 29°26 | 23° 1 | 12°52 | 28°26 | 14°31 | 15°20 | 3°32 | 14°28 | S 16 | |
| S 17 | 6 7 2 | 1°54'51 | 13°40 | 16°40 | 14°15 | 18°59 | 10°25 | 29°23 | 23° 2 | 12°51 | 28°26 | 14°D31 | 15°17 | 3°38 | 14°30 | S 17 | |
| M18 | 6 10 58 | 2°56'04 | 25°29 | 16°17 | 15°31 | 19°40 | 10°17 | 29°19 | 23° 3 | 12°49 | 28°26 | 14°31 | 15°14 | 3°45 | 14°32 | M18 | |
| T 19 | 6 14 55 | 3°57'17 | 7♁20 | 15°42 | 16°46 | 20°21 | 10° 9 | 29°15 | 23° 4 | 12°47 | 28°26 | 14°32 | 15°11 | 3°52 | 14°33 | T 19 | |
| W20 | 6 18 51 | 4°58'29 | 19°19 | 14°56 | 18° 1 | 21° 2 | 10° 1 | 29°12 | 23° 6 | 12°46 | 28°27 | 14°33 | 15° 8 | 3°58 | 14°35 | W20 | |
| T 21 | 6 22 48 | 5°59'41 | 1♁26 | 14° 0 | 19°17 | 21°43 | 9°53 | 29° 8 | 23° 7 | 12°44 | 28°27 | 14°34 | 15° 4 | 4° 5 | 14°37 | T 21 | |
| F 22 | 6 26 44 | 7° 0'52 | 13°47 | 12°55 | 20°32 | 22°24 | 9°45 | 29° 5 | 23° 8 | 12°42 | 28°27 | 14°35 | 15° 1 | 4°12 | 14°39 | F 22 | |
| S 23 | 6 30 41 | 8° 2'02 | 26°25 | 11°43 | 21°47 | 23° 5 | 9°36 | 29° 2 | 23° 9 | 12°41 | 28°28 | 14°35 | 14°58 | 4°18 | 14°41 | S 23 | |
| S 24 | 6 34 37 | 9° 3'12 | 9♁23 | 10°26 | 23° 2 | 23°46 | 9°28 | 28°59 | 23°11 | 12°39 | 28°28 | 14°R35 | 14°55 | 4°25 | 14°42 | S 24 | |
| M25 | 6 38 34 | 10° 4'21 | 22°45 | 9° 7 | 24°18 | 24°27 | 9°20 | 28°55 | 23°12 | 12°37 | 28°29 | 14°35 | 14°52 | 4°32 | 14°44 | M25 | |
| T 26 | 6 42 31 | 11° 5'29 | 6♁32 | 7°48 | 25°33 | 25° 8 | 9°12 | 28°52 | 23°14 | 12°36 | 28°29 | 14°35 | 14°48 | 4°38 | 14°46 | T 26 | |
| W27 | 6 46 27 | 12° 6'37 | 20°47 | 6°32 | 26°48 | 25°49 | 9° 4 | 28°49 | 23°15 | 12°34 | 28°29 | 14°35 | 14°45 | 4°45 | 14°48 | W27 | |
| T 28 | 6 50 24 | 13° 7'43 | 5♁25 | 5°21 | 28° 3 | 26°30 | 8°56 | 28°47 | 23°17 | 12°32 | 28°30 | 14°35 | 14°42 | 4°52 | 14°51 | T 28 | |
| F 29 | 6 54 20 | 14° 8'49 | 20°24 | 4°16 | 29°19 | 27°11 | 8°48 | 28°44 | 23°19 | 12°31 | 28°30 | 14°D34 | 14°39 | 4°58 | 14°53 | F 29 | |
| S 30 | 6 58 17 | 15° 9'55 | 5♁34 | 3°19 | 0♁34 | 27°52 | 8°40 | 28°41 | 23°20 | 12°29 | 28°31 | 14°34 | 14°36 | 5° 5 | 14°55 | S 30 | |
| S 31 | 7 2 13 | 16♁10'59 | 20♁48 | 2♁30 | 1♁49 | 28♁33 | 8♁32 | 28♁39 | 23♁22 | 12♁27 | 28♁32 | 14°R34 | 14♁33 | 5♁12 | 14♁57 | S 31 | |

Delta T = 18m19s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1089
geocentric

JANUARY 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|------|-------|------|
| M 1 | 7 6 10 | 17♌12'03 | 5♋55 | 1°R51 | 3♃4 | 29♍15 | 8°R24 | 28°R36 | 23♋24 | 12°R26 | 28♋32 | 14°R34 | 14♌29 | 5♃18 | 14♋59 | M 1 |
| T 2 | 7 10 7 | 18°13'06 | 20°46 | 1♌21 | 4°20 | 29°56 | 8♌16 | 28♌34 | 23°26 | 12♌24 | 28°33 | 14♌34 | 14°26 | 5°25 | 15° 2 | T 2 |
| W 3 | 7 14 3 | 19°14'09 | 5♎15 | 1° 0 | 5°35 | 0♌37 | 8° 8 | 28°32 | 23°28 | 12°22 | 28°33 | 14°34 | 14°23 | 5°31 | 15° 4 | W 3 |
| T 4 | 7 18 0 | 20°15'10 | 19°17 | 0°48 | 6°50 | 1°18 | 8° 1 | 28°30 | 23°29 | 12°20 | 28°34 | 14°33 | 14°20 | 5°38 | 15° 7 | T 4 |
| F 5 | 7 21 56 | 21°16'12 | 2♌52 | 0°D45 | 8° 5 | 2° 0 | 7°53 | 28°28 | 23°31 | 12°19 | 28°35 | 14°32 | 14°17 | 5°45 | 15° 9 | F 5 |
| S 6 | 7 25 53 | 22°17'12 | 16° 0 | 0°49 | 9°20 | 2°41 | 7°45 | 28°26 | 23°33 | 12°17 | 28°35 | 14°32 | 14°14 | 5°51 | 15°12 | S 6 |
| S 7 | 7 29 49 | 23°18'12 | 28°43 | 1° 1 | 10°36 | 3°22 | 7°38 | 28°24 | 23°35 | 12°15 | 28°36 | 14°D32 | 14°10 | 5°58 | 15°14 | S 7 |
| M 8 | 7 33 46 | 24°19'11 | 11♍7 | 1°20 | 11°51 | 4° 4 | 7°30 | 28°22 | 23°38 | 12°14 | 28°37 | 14°32 | 14° 7 | 6° 5 | 15°17 | M 8 |
| T 9 | 7 37 42 | 25°20'10 | 23°16 | 1°45 | 13° 6 | 4°45 | 7°23 | 28°21 | 23°40 | 12°12 | 28°37 | 14°33 | 14° 4 | 6°11 | 15°19 | T 9 |
| W10 | 7 41 39 | 26°21'08 | 5♌13 | 2°16 | 14°21 | 5°26 | 7°16 | 28°19 | 23°42 | 12°11 | 28°38 | 14°35 | 14° 1 | 6°18 | 15°22 | W10 |
| T 11 | 7 45 35 | 27°22'05 | 17° 3 | 2°52 | 15°37 | 6° 8 | 7° 8 | 28°18 | 23°44 | 12° 9 | 28°39 | 14°36 | 13°58 | 6°25 | 15°25 | T 11 |
| F 12 | 7 49 32 | 28°23'01 | 28°50 | 3°33 | 16°52 | 6°49 | 7° 1 | 28°17 | 23°46 | 12° 7 | 28°40 | 14°37 | 13°54 | 6°31 | 15°27 | F 12 |
| S 13 | 7 53 29 | 29°23'56 | 10♌37 | 4°18 | 18° 7 | 7°31 | 6°54 | 28°15 | 23°49 | 12° 6 | 28°41 | 14°R37 | 13°51 | 6°38 | 15°30 | S 13 |
| S 14 | 7 57 25 | 0♌24'50 | 22°26 | 5° 7 | 19°22 | 8°12 | 6°47 | 28°14 | 23°51 | 12° 4 | 28°41 | 14°37 | 13°48 | 6°45 | 15°33 | S 14 |
| M15 | 8 1 22 | 1°25'43 | 4♌20 | 5°59 | 20°37 | 8°54 | 6°41 | 28°13 | 23°53 | 12° 2 | 28°42 | 14°36 | 13°45 | 6°51 | 15°36 | M15 |
| T 16 | 8 5 18 | 2°26'35 | 16°21 | 6°55 | 21°53 | 9°35 | 6°34 | 28°13 | 23°56 | 12° 1 | 28°43 | 14°34 | 13°42 | 6°58 | 15°39 | T 16 |
| W17 | 8 9 15 | 3°27'25 | 28°31 | 7°54 | 23° 8 | 10°17 | 6°28 | 28°12 | 23°58 | 11°59 | 28°44 | 14°32 | 13°39 | 7° 5 | 15°42 | W17 |
| T 18 | 8 13 11 | 4°28'14 | 10♋51 | 8°56 | 24°23 | 10°58 | 6°21 | 28°11 | 24° 1 | 11°58 | 28°45 | 14°28 | 13°35 | 7°11 | 15°45 | T 18 |
| F 19 | 8 17 8 | 5°29'01 | 23°22 | 10° 0 | 25°38 | 11°40 | 6°15 | 28°11 | 24° 3 | 11°56 | 28°46 | 14°25 | 13°32 | 7°18 | 15°48 | F 19 |
| S 20 | 8 21 5 | 6°29'47 | 6♎7 | 11° 7 | 26°53 | 12°21 | 6° 9 | 28°10 | 24° 6 | 11°55 | 28°47 | 14°22 | 13°29 | 7°24 | 15°51 | S 20 |
| S 21 | 8 25 1 | 7°30'31 | 19° 8 | 12°15 | 28° 8 | 13° 3 | 6° 3 | 28°10 | 24° 8 | 11°53 | 28°48 | 14°20 | 13°26 | 7°31 | 15°54 | S 21 |
| M22 | 8 28 58 | 8°31'13 | 2♌27 | 13°26 | 29°23 | 13°45 | 5°57 | 28°10 | 24°11 | 11°52 | 28°49 | 14°D19 | 13°23 | 7°38 | 15°57 | M22 |
| T 23 | 8 32 54 | 9°31'54 | 16° 5 | 14°38 | 0♌39 | 14°26 | 5°51 | 28°D10 | 24°13 | 11°50 | 28°50 | 14°19 | 13°20 | 7°44 | 16° 0 | T 23 |
| W24 | 8 36 51 | 10°32'33 | 0♌4 | 15°52 | 1°54 | 15° 8 | 5°46 | 28°10 | 24°16 | 11°49 | 28°51 | 14°20 | 13°16 | 7°51 | 16° 3 | W24 |
| T 25 | 8 40 47 | 11°33'10 | 14°22 | 17° 8 | 3° 9 | 15°50 | 5°41 | 28°10 | 24°19 | 11°47 | 28°52 | 14°21 | 13°13 | 7°58 | 16° 6 | T 25 |
| F 26 | 8 44 44 | 12°33'46 | 28°59 | 18°25 | 4°24 | 16°31 | 5°35 | 28°11 | 24°22 | 11°46 | 28°53 | 14°23 | 13°10 | 8° 4 | 16° 9 | F 26 |
| S 27 | 8 48 40 | 13°34'20 | 13♌50 | 19°44 | 5°39 | 17°13 | 5°30 | 28°11 | 24°24 | 11°45 | 28°54 | 14°R23 | 13° 7 | 8°11 | 16°13 | S 27 |
| S 28 | 8 52 37 | 14°34'52 | 28°48 | 21° 4 | 6°54 | 17°55 | 5°26 | 28°12 | 24°27 | 11°43 | 28°55 | 14°23 | 13° 4 | 8°18 | 16°16 | S 28 |
| M29 | 8 56 34 | 15°35'22 | 13♌47 | 22°26 | 8° 9 | 18°37 | 5°21 | 28°12 | 24°30 | 11°42 | 28°56 | 14°20 | 13° 0 | 8°24 | 16°19 | M29 |
| T 30 | 9 0 30 | 16°35'51 | 28°36 | 23°48 | 9°24 | 19°18 | 5°16 | 28°13 | 24°33 | 11°41 | 28°57 | 14°16 | 12°57 | 8°31 | 16°23 | T 30 |
| W31 | 9 4 27 | 17°36'18 | 13♎9 | 25♌12 | 10♌39 | 20♌0 | 5♌12 | 28♌14 | 24♋36 | 11♌39 | 28♋58 | 14♌11 | 12♌54 | 8♌38 | 16♋26 | W31 |

Delta T = 18m18s Julian Calendar 1 Jan. 1089 == Greg. Calendar 7 Jan. 1089

FEBRUARY 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|------|
| T 1 | 9 8 23 | 18°36'43 | 27♎19 | 26♌38 | 11♌54 | 20♌42 | 5°R 8 | 28♌15 | 24♋39 | 11°R38 | 29♋0 | 14°R 6 | 12♌51 | 8♌44 | 16♋29 | T 1 |
| F 2 | 9 12 20 | 19°37'07 | 11♌2 | 28° 4 | 13° 9 | 21°24 | 5♌4 | 28°16 | 24°42 | 11♌37 | 29° 1 | 14♌1 | 12°48 | 8°51 | 16°33 | F 2 |
| S 3 | 9 16 16 | 20°37'29 | 24°18 | 29°31 | 14°24 | 22° 6 | 5° 0 | 28°17 | 24°44 | 11°35 | 29° 2 | 13°57 | 12°45 | 8°57 | 16°36 | S 3 |
| S 4 | 9 20 13 | 21°37'50 | 7♍8 | 1♌0 | 15°39 | 22°48 | 4°56 | 28°19 | 24°47 | 11°34 | 29° 3 | 13°54 | 12°41 | 9° 4 | 16°39 | S 4 |
| M 5 | 9 24 9 | 22°38'10 | 19°36 | 2°29 | 16°54 | 23°30 | 4°53 | 28°20 | 24°50 | 11°33 | 29° 4 | 13°D52 | 12°38 | 9°11 | 16°43 | M 5 |
| T 6 | 9 28 6 | 23°38'28 | 1♌45 | 4° 0 | 18° 9 | 24°12 | 4°50 | 28°22 | 24°54 | 11°32 | 29° 6 | 13°53 | 12°35 | 9°17 | 16°46 | T 6 |
| W 7 | 9 32 2 | 24°38'45 | 13°42 | 5°32 | 19°24 | 24°54 | 4°47 | 28°23 | 24°57 | 11°31 | 29° 7 | 13°54 | 12°32 | 9°24 | 16°50 | W 7 |
| T 8 | 9 35 59 | 25°39'00 | 25°31 | 7° 5 | 20°39 | 25°35 | 4°44 | 28°25 | 25° 0 | 11°29 | 29° 8 | 13°56 | 12°29 | 9°31 | 16°53 | T 8 |
| F 9 | 9 39 56 | 26°39'13 | 7♌17 | 8°39 | 21°54 | 26°17 | 4°41 | 28°27 | 25° 3 | 11°28 | 29° 9 | 13°57 | 12°25 | 9°37 | 16°57 | F 9 |
| S 10 | 9 43 52 | 27°39'25 | 19° 5 | 10°14 | 23° 9 | 26°59 | 4°39 | 28°29 | 25° 6 | 11°27 | 29°11 | 13°R57 | 12°22 | 9°44 | 17° 0 | S 10 |
| S 11 | 9 47 49 | 28°39'35 | 0♌58 | 11°50 | 24°24 | 27°41 | 4°36 | 28°31 | 25° 9 | 11°26 | 29°12 | 13°55 | 12°19 | 9°51 | 17° 4 | S 11 |
| M12 | 9 51 45 | 29°39'44 | 13° 0 | 13°27 | 25°39 | 28°24 | 4°34 | 28°33 | 25°12 | 11°25 | 29°13 | 13°52 | 12°16 | 9°57 | 17° 7 | M12 |
| T 13 | 9 55 42 | 0♌39'50 | 25°13 | 15° 5 | 26°54 | 29° 6 | 4°32 | 28°36 | 25°15 | 11°24 | 29°14 | 13°46 | 12°13 | 10° 4 | 17°11 | T 13 |
| W14 | 9 59 38 | 1°39'55 | 7♋38 | 16°44 | 28° 8 | 29°48 | 4°30 | 28°38 | 25°19 | 11°23 | 29°16 | 13°38 | 12°10 | 10°11 | 17°15 | W14 |
| T 15 | 10 3 35 | 2°39'57 | 20°15 | 18°24 | 29°23 | 0♌30 | 4°29 | 28°41 | 25°22 | 11°22 | 29°17 | 13°29 | 12° 6 | 10°17 | 17°18 | T 15 |
| F 16 | 10 7 31 | 3°39'58 | 3♎6 | 20° 6 | 0♋38 | 1°12 | 4°28 | 28°43 | 25°25 | 11°21 | 29°18 | 13°19 | 12° 3 | 10°24 | 17°22 | F 16 |
| S 17 | 10 11 28 | 4°39'56 | 16° 9 | 21°48 | 1°53 | 1°54 | 4°26 | 28°46 | 25°28 | 11°21 | 29°20 | 13°11 | 12° 0 | 10°30 | 17°25 | S 17 |
| S 18 | 10 15 25 | 5°39'53 | 29°25 | 23°32 | 3° 8 | 2°36 | 4°26 | 28°49 | 25°32 | 11°20 | 29°21 | 13° 4 | 11°57 | 10°37 | 17°29 | S 18 |
| M19 | 10 19 21 | 6°39'47 | 12♌52 | 25°17 | 4°23 | 3°18 | 4°25 | 28°52 | 25°35 | 11°19 | 29°22 | 12°59 | 11°54 | 10°44 | 17°33 | M19 |
| T 20 | 10 23 18 | 7°39'39 | 26°32 | 27° 3 | 5°37 | 4° 0 | 4°24 | 28°55 | 25°38 | 11°18 | 29°24 | 12°56 | 11°51 | 10°50 | 17°36 | T 20 |
| W21 | 10 27 14 | 8°39'29 | 10♌24 | 28°50 | 6°52 | 4°42 | 4°24 | 28°58 | 25°41 | 11°17 | 29°25 | 12°D56 | 11°47 | 10°57 | 17°40 | W21 |
| T 22 | 10 31 11 | 9°39'16 | 24°29 | 0♋38 | 8° 7 | 5°24 | 4°D24 | 29° 1 | 25°45 | 11°17 | 29°26 | 12°56 | 11°44 | 11° 4 | 17°44 | T 22 |
| F 23 | 10 35 7 | 10°39'01 | 8♌45 | 2°27 | 9°22 | 6° 7 | 4°24 | 29° 5 | 25°48 | 11°16 | 29°28 | 12°R57 | 11°41 | 11°10 | 17°47 | F 23 |
| S 24 | 10 39 4 | 11°38'44 | 23°12 | 4°18 | 10°36 | 6°49 | 4°24 | 29° 8 | 25°51 | 11°15 | 29°29 | 12°57 | 11°38 | 11°17 | 17°51 | S 24 |
| S 25 | 10 43 0 | 12°38'24 | 7♌45 | 6°10 | 11°51 | 7°31 | 4°24 | 29°12 | 25°55 | 11°15 | 29°31 | 12°54 | 11°35 | 11°24 | 17°55 | S 25 |
| M26 | 10 46 57 | 13°38'02 | 22°20 | 8° 3 | 13° 6 | 8°13 | 4°25 | 29°15 | 25°58 | 11°14 | 29°32 | 12°49 | 11°31 | 11°30 | 17°58 | M26 |
| T 27 | 10 50 54 | 14°37'38 | 6♎51 | 9°57 | 14°20 | 8°55 | 4°26 | 29°19 | 26° 2 | 11°13 | 29°33 | 12°42 | 11°28 | 11°37 | 18° 2 | T 27 |
| W28 | 10 54 50 | 15°37'12 | 21♎11 | 11♋52 | 15♋35 | 9♌37 | 4♌27 | 29♌23 | 26♋5 | 11♌13 | 29♋35 | 12♌32 | 11♌25 | 11♌44 | 18♋6 | W28 |

Delta T = 18m18s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1089
geocentric

MARCH 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|-------------------------|-----------------------|---------------------|---------------------|---------------------|--------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|----------------------|------|-----|
| T 1 | 10 58 47 | 16 ^h 36'44" | 5 ^h 13' | 13 ^h 49' | 16 ^h 50' | 10 ^h 20' | 4 ^h 28' | 29 ^h 27' | 26 ^h 8' | 11 ^h R12 | 29 ^h 36' | 12 ^h R22 | 11 ^h 22' | 11 ^h 50' | 18 ^h 10' | T 1 | |
| F 2 | 11 2 43 | 17 ^h 36'13" | 18 ^h 54' | 15 ^h 46' | 18 ^h 4' | 11 ^h 2' | 4 ^h 29' | 29 ^h 31' | 26 ^h 12' | 11 ^h 21' | 29 ^h 38' | 12 ^h 21' | 11 ^h 19' | 11 ^h 57' | 18 ^h 13' | F 2 | |
| S 3 | 11 6 40 | 18 ^h 35'41" | 2 ^h 11' | 17 ^h 45' | 19 ^h 19' | 11 ^h 44' | 4 ^h 31' | 29 ^h 35' | 26 ^h 15' | 11 ^h 11' | 29 ^h 39' | 12 ^h 2' | 11 ^h 16' | 12 ^h 4' | 18 ^h 17' | S 3 | |
| S 4 | 11 10 36 | 19 ^h 35'07" | 15 ^h 3' | 19 ^h 45' | 20 ^h 33' | 12 ^h 26' | 4 ^h 33' | 29 ^h 39' | 26 ^h 19' | 11 ^h 11' | 29 ^h 41' | 11 ^h 55' | 11 ^h 12' | 12 ^h 10' | 18 ^h 21' | S 4 | |
| M 5 | 11 14 33 | 20 ^h 34'31" | 27 ^h 34' | 21 ^h 45' | 21 ^h 48' | 13 ^h 9' | 4 ^h 35' | 29 ^h 43' | 26 ^h 22' | 11 ^h 11' | 29 ^h 42' | 11 ^h 50' | 11 ^h 9' | 12 ^h 17' | 18 ^h 24' | M 5 | |
| T 6 | 11 18 29 | 21 ^h 33'54" | 9 ^h 46' | 23 ^h 46' | 23 ^h 3' | 13 ^h 51' | 4 ^h 37' | 29 ^h 48' | 26 ^h 25' | 11 ^h 10' | 29 ^h 43' | 11 ^h 47' | 11 ^h 6' | 12 ^h 23' | 18 ^h 28' | T 6 | |
| W 7 | 11 22 26 | 22 ^h 33'14" | 21 ^h 44' | 25 ^h 48' | 24 ^h 17' | 14 ^h 33' | 4 ^h 39' | 29 ^h 52' | 26 ^h 29' | 11 ^h 10' | 29 ^h 45' | 11 ^h D46 | 11 ^h 3' | 12 ^h 30' | 18 ^h 32' | W 7 | |
| T 8 | 11 26 23 | 23 ^h 32'33" | 3 ^h 34' | 27 ^h 51' | 25 ^h 32' | 15 ^h 16' | 4 ^h 42' | 29 ^h 57' | 26 ^h 32' | 11 ^h 10' | 29 ^h 46' | 11 ^h 47' | 11 ^h 0' | 12 ^h 37' | 18 ^h 35' | T 8 | |
| F 9 | 11 30 19 | 24 ^h 31'50" | 15 ^h 21' | 29 ^h 53' | 26 ^h 46' | 15 ^h 58' | 4 ^h 44' | 0 ^h II 1 | 26 ^h 36' | 11 ^h 9' | 29 ^h 48' | 11 ^h R47 | 10 ^h 57' | 12 ^h 43' | 18 ^h 39' | F 9 | |
| S 10 | 11 34 16 | 25 ^h 31'05" | 27 ^h 11' | 1 ^h Y56 | 28 ^h 1' | 16 ^h 40' | 4 ^h 47' | 0 ^h 6 | 26 ^h 39' | 11 ^h 9' | 29 ^h 49' | 11 ^h 46' | 10 ^h 53' | 12 ^h 50' | 18 ^h 43' | S 10 | |
| S 11 | 11 38 12 | 26 ^h 30'18" | 9 ^h 8' | 3 ^h 59' | 29 ^h 15' | 17 ^h 22' | 4 ^h 50' | 0 ^h 11 | 26 ^h 43' | 11 ^h 9' | 29 ^h 51' | 11 ^h 43' | 10 ^h 50' | 12 ^h 57' | 18 ^h 46' | S 11 | |
| M12 | 11 42 9 | 27 ^h 29'30" | 21 ^h 17' | 6 ^h 1' | 0 ^h Y30 | 18 ^h 5' | 4 ^h 54' | 0 ^h 16 | 26 ^h 46' | 11 ^h 9' | 29 ^h 52' | 11 ^h 37' | 10 ^h 47' | 13 ^h 3' | 18 ^h 50' | M12 | |
| T 13 | 11 46 5 | 28 ^h 28'39" | 3 ^h 41' | 8 ^h 2' | 1 ^h 44' | 18 ^h 47' | 4 ^h 57' | 0 ^h 21 | 26 ^h 49' | 11 ^h 9' | 29 ^h 54' | 11 ^h 28' | 10 ^h 44' | 13 ^h 10' | 18 ^h 54' | T 13 | |
| W14 | 11 50 2 | 29 ^h 27'46" | 16 ^h 21' | 10 ^h 2' | 2 ^h 58' | 19 ^h 29' | 5 ^h 1' | 0 ^h 26 | 26 ^h 53' | 11 ^h 8' | 29 ^h 55' | 11 ^h 17' | 10 ^h 41' | 13 ^h 17' | 18 ^h 57' | W14 | |
| T 15 | 11 53 58 | 0 ^h Y26'52" | 29 ^h 17' | 12 ^h 1' | 4 ^h 13' | 20 ^h 12' | 5 ^h 4' | 0 ^h 31 | 26 ^h 56' | 11 ^h 8' | 29 ^h 56' | 11 ^h 5' | 10 ^h 37' | 13 ^h 23' | 19 ^h 1' | T 15 | |
| F 16 | 11 57 55 | 1 ^h 25'55" | 12 ^h Y30 | 13 ^h 58' | 5 ^h 27' | 20 ^h 54' | 5 ^h 8' | 0 ^h 36 | 27 ^h 0' | 11 ^h D 8 | 29 ^h 58' | 10 ^h 52' | 10 ^h 34' | 13 ^h 30' | 19 ^h 5' | F 16 | |
| S 17 | 12 1 51 | 2 ^h 24'56" | 25 ^h 57' | 15 ^h 52' | 6 ^h 42' | 21 ^h 36' | 5 ^h 12' | 0 ^h 41 | 27 ^h 3' | 11 ^h 8' | 29 ^h 59' | 10 ^h 40' | 10 ^h 31' | 13 ^h 37' | 19 ^h 8' | S 17 | |
| S 18 | 12 5 48 | 3 ^h 23'55" | 9 ^h 36' | 17 ^h 44' | 7 ^h 56' | 22 ^h 19' | 5 ^h 17' | 0 ^h 47 | 27 ^h 7' | 11 ^h 8' | 0 ^h Y 1 | 10 ^h 30' | 10 ^h 28' | 13 ^h 43' | 19 ^h 12' | S 18 | |
| M19 | 12 9 45 | 4 ^h 22'52" | 23 ^h 23' | 19 ^h 33' | 9 ^h 10' | 23 ^h 1' | 5 ^h 21' | 0 ^h 52 | 27 ^h 10' | 11 ^h 9' | 0 ^h 2 | 10 ^h 22' | 10 ^h 25' | 13 ^h 50' | 19 ^h 16' | M19 | |
| T 20 | 12 13 41 | 5 ^h 21'46" | 7 ^h II 18 | 21 ^h 19' | 10 ^h 25' | 23 ^h 43' | 5 ^h 26' | 0 ^h 57 | 27 ^h 13' | 11 ^h 9' | 0 ^h 4 | 10 ^h 18' | 10 ^h 22' | 13 ^h 56' | 19 ^h 19' | T 20 | |
| W21 | 12 17 38 | 6 ^h 20'38" | 21 ^h 17' | 23 ^h 1' | 11 ^h 39' | 24 ^h 26' | 5 ^h 31' | 1 ^h 3 | 27 ^h 17' | 11 ^h 9' | 0 ^h 5 | 10 ^h 16' | 10 ^h 18' | 14 ^h 3' | 19 ^h 23' | W21 | |
| T 22 | 12 21 34 | 7 ^h 19'28" | 5 ^h 20' | 24 ^h 39' | 12 ^h 53' | 25 ^h 8' | 5 ^h 36' | 1 ^h 9 | 27 ^h 20' | 11 ^h 9' | 0 ^h 7 | 10 ^h 15' | 10 ^h 15' | 14 ^h 10' | 19 ^h 26' | T 22 | |
| F 23 | 12 25 31 | 8 ^h 18'16" | 19 ^h 27' | 26 ^h 13' | 14 ^h 7' | 25 ^h 50' | 5 ^h 41' | 1 ^h 14 | 27 ^h 24' | 11 ^h 9' | 0 ^h 8 | 10 ^h 15' | 10 ^h 12' | 14 ^h 16' | 19 ^h 30' | F 23 | |
| S 24 | 12 29 27 | 9 ^h 17'01" | 3 ^h 26' | 27 ^h 42' | 15 ^h 22' | 26 ^h 32' | 5 ^h 46' | 1 ^h 20 | 27 ^h 27' | 11 ^h 9' | 0 ^h 10 | 10 ^h 14' | 10 ^h 9' | 14 ^h 23' | 19 ^h 33' | S 24 | |
| S 25 | 12 33 24 | 10 ^h 15'44" | 17 ^h 47' | 29 ^h 7' | 16 ^h 36' | 27 ^h 15' | 5 ^h 51' | 1 ^h 26 | 27 ^h 30' | 11 ^h 10' | 0 ^h 11 | 10 ^h 11' | 10 ^h 6' | 14 ^h 30' | 19 ^h 37' | S 25 | |
| M26 | 12 37 20 | 11 ^h 14'24" | 1 ^h 56' | 0 ^h 26' | 17 ^h 50' | 27 ^h 57' | 5 ^h 57' | 1 ^h 32 | 27 ^h 34' | 11 ^h 10' | 0 ^h 12 | 10 ^h 5' | 10 ^h 2' | 14 ^h 36' | 19 ^h 40' | M26 | |
| T 27 | 12 41 17 | 12 ^h 13'03" | 16 ^h 0' | 1 ^h 41' | 19 ^h 4' | 28 ^h 39' | 6 ^h 3' | 1 ^h 38 | 27 ^h 37' | 11 ^h 10' | 0 ^h 14 | 9 ^h 56' | 9 ^h 59' | 14 ^h 43' | 19 ^h 44' | T 27 | |
| W28 | 12 45 14 | 13 ^h 11'39" | 29 ^h 55' | 2 ^h 50' | 20 ^h 18' | 29 ^h 21' | 6 ^h 9' | 1 ^h 44 | 27 ^h 40' | 11 ^h 11' | 0 ^h 15 | 9 ^h 45' | 9 ^h 56' | 14 ^h 50' | 19 ^h 47' | W28 | |
| T 29 | 12 49 10 | 14 ^h 10'13" | 13 ^h 23' | 3 ^h 54' | 21 ^h 32' | 0 ^h 4' | 6 ^h 15' | 1 ^h 50 | 27 ^h 44' | 11 ^h 11' | 0 ^h 17 | 9 ^h 33' | 9 ^h 53' | 14 ^h 56' | 19 ^h 51' | T 29 | |
| F 30 | 12 53 7 | 15 ^h 8'45" | 27 ^h 3' | 4 ^h 53' | 22 ^h 46' | 0 ^h 46' | 6 ^h 21' | 1 ^h 56 | 27 ^h 47' | 11 ^h 12' | 0 ^h 18 | 9 ^h 20' | 9 ^h 50' | 15 ^h 3' | 19 ^h 54' | F 30 | |
| S 31 | 12 57 3 | 16 ^h Y 7'15" | 10 ^h II 10 | 5 ^h 46' | 24 ^h Y 0 | 1 ^h 28' | 6 ^h 27' | 2 ^h II 2 | 27 ^h Y 50 | 11 ^h 21' | 0 ^h Y 20 | 9 ^h 29' | 9 ^h 47' | 15 ^h 21' | 19 ^h Y 58 | S 31 | |

Delta T = 18m18s Julian Calendar 1 March 1089 == Greg. Calendar 7 March 1089

APRIL 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|-------------------------|-----------------------|--------------------|----------------------|---------------------|--------------------|---------------------|----------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|------|-----|
| S 1 | 13 1 0 | 17 ^h Y 5'44" | 22 ^h II 56 | 6 ^h 33' | 25 ^h Y 14 | 2 ^h 10' | 6 ^h 23' | 2 ^h II 9 | 27 ^h Y 54 | 11 ^h 21' | 0 ^h Y 21 | 9 ^h R 0 | 9 ^h 24' | 15 ^h 21' | 20 ^h Y 1 | S 1 | |
| M 2 | 13 4 56 | 18 ^h 4'11" | 5 ^h Y 24 | 7 ^h 14' | 26 ^h 29' | 2 ^h 53' | 6 ^h 40' | 2 ^h 15 | 27 ^h 57' | 11 ^h 13' | 0 ^h 22 | 8 ^h 54' | 9 ^h 40' | 15 ^h 23' | 20 ^h 4' | M 2 | |
| T 3 | 13 8 53 | 19 ^h 2'36" | 17 ^h 35' | 7 ^h 50' | 27 ^h 43' | 3 ^h 35' | 6 ^h 47' | 2 ^h 21 | 28 ^h 0' | 11 ^h 14' | 0 ^h 24 | 8 ^h 50' | 9 ^h 37' | 15 ^h 29' | 20 ^h 8' | T 3 | |
| W 4 | 13 12 49 | 20 ^h 0'59" | 29 ^h 34' | 8 ^h 20' | 28 ^h 57' | 4 ^h 17' | 6 ^h 54' | 2 ^h 28 | 28 ^h 3' | 11 ^h 14' | 0 ^h 25 | 8 ^h 48' | 9 ^h 34' | 15 ^h 36' | 20 ^h 11' | W 4 | |
| T 5 | 13 16 46 | 20 ^h 59'21" | 11 ^h 25' | 8 ^h 44' | 0 ^h 11' | 4 ^h 59' | 7 ^h 1' | 2 ^h 34 | 28 ^h 7' | 11 ^h 15' | 0 ^h 26 | 8 ^h D48 | 9 ^h 31' | 15 ^h 43' | 20 ^h 14' | T 5 | |
| F 6 | 13 20 43 | 21 ^h 57'41" | 23 ^h 13' | 9 ^h 2' | 1 ^h 24' | 5 ^h 41' | 7 ^h 8' | 2 ^h 41 | 28 ^h 10' | 11 ^h 16' | 0 ^h 28 | 8 ^h R48 | 9 ^h 28' | 15 ^h 49' | 20 ^h 18' | F 6 | |
| S 7 | 13 24 39 | 22 ^h 56'00" | 5 ^h 4' | 9 ^h 14' | 2 ^h 38' | 6 ^h 23' | 7 ^h 16' | 2 ^h 47 | 28 ^h 13' | 11 ^h 16' | 0 ^h 29 | 8 ^h 47' | 9 ^h 24' | 15 ^h 56' | 20 ^h 21' | S 7 | |
| S 8 | 13 28 36 | 23 ^h 54'17" | 17 ^h 4' | 9 ^h 21' | 3 ^h 52' | 7 ^h 6' | 7 ^h 23' | 2 ^h 54 | 28 ^h 16' | 11 ^h 17' | 0 ^h 31 | 8 ^h 45' | 9 ^h 21' | 16 ^h 3' | 20 ^h 24' | S 8 | |
| M 9 | 13 32 32 | 24 ^h 52'32" | 29 ^h 17' | 9 ^h R22 | 5 ^h 6' | 7 ^h 48' | 7 ^h 31' | 3 ^h 1 | 28 ^h 19' | 11 ^h 18' | 0 ^h 32 | 8 ^h 41' | 9 ^h 18' | 16 ^h 9' | 20 ^h 27' | M 9 | |
| T 10 | 13 36 29 | 25 ^h 50'46" | 11 ^h 46' | 9 ^h 18' | 6 ^h 20' | 8 ^h 30' | 7 ^h 38' | 3 ^h 8 | 28 ^h 23' | 11 ^h 19' | 0 ^h 33 | 8 ^h 33' | 9 ^h 15' | 16 ^h 16' | 20 ^h 30' | T 10 | |
| W11 | 13 40 25 | 26 ^h 48'58" | 24 ^h 36' | 9 ^h 9' | 7 ^h 34' | 9 ^h 12' | 7 ^h 46' | 3 ^h 14 | 28 ^h 26' | 11 ^h 19' | 0 ^h 35 | 8 ^h 24' | 9 ^h 12' | 16 ^h 23' | 20 ^h 34' | W11 | |
| T 12 | 13 44 22 | 27 ^h 47'08" | 7 ^h Y 48 | 8 ^h 55' | 8 ^h 48' | 9 ^h 54' | 7 ^h 54' | 3 ^h 21 | 28 ^h 29' | 11 ^h 20' | 0 ^h 36 | 8 ^h 13' | 9 ^h 8' | 16 ^h 29' | 20 ^h 37' | T 12 | |
| F 13 | 13 48 18 | 28 ^h 45'17" | 21 ^h 19' | 8 ^h 36' | 10 ^h 2' | 10 ^h 36' | 8 ^h 2' | 3 ^h 28 | 28 ^h 32' | 11 ^h 21' | 0 ^h 37 | 8 ^h 2' | 9 ^h 5' | 16 ^h 36' | 20 ^h 40' | F 13 | |
| S 14 | 13 52 15 | 29 ^h 43'24" | 5 ^h 9' | 8 ^h 14' | 11 ^h 16' | 11 ^h 18' | 8 ^h 11' | 3 ^h 35 | 28 ^h 35' | 11 ^h 22' | 0 ^h 39 | 7 ^h 51' | 9 ^h 2' | 16 ^h 43' | 20 ^h 43' | S 14 | |
| S 15 | 13 56 12 | 0 ^h 41'30" | 19 ^h 13' | 7 ^h 47' | 12 ^h 29' | 12 ^h 0' | 8 ^h 19' | 3 ^h 42 | 28 ^h 38' | 11 ^h 23' | 0< | | | | | | |

ASTRODIENST EPHEMERIS for the year 1089
geocentric

MAY 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|------|-------|-------|------|
| T 1 | 14 59 16 | 16♁ 6'56 | 25♁35 | 0°R12 | 2♁ 7 | 23♁ 6 | 10♁48 | 5♁39 | 29♁23 | 11♁42 | 0♁59 | 6°R28 | 8♁ 8 | 18♁36 | 21♁30 | T 1 |
| W 2 | 15 3 13 | 17° 4'34 | 7♁32 | 0♁ 7 | 3°21 | 23°47 | 10°58 | 5°46 | 29°26 | 11°44 | 1° 0 | 6°D27 | 8° 5 | 18°42 | 21°32 | W 2 |
| T 3 | 15 7 10 | 18° 2'10 | 19°22 | 0°D 7 | 4°34 | 24°28 | 11° 8 | 5°54 | 29°28 | 11°45 | 1° 1 | 6°E28 | 8° 2 | 18°49 | 21°34 | T 3 |
| F 4 | 15 11 6 | 18°59'46 | 1♁10 | 0°11 | 5°47 | 25° 9 | 11°19 | 6° 2 | 29°31 | 11°47 | 1° 2 | 6°29 | 7°59 | 18°56 | 21°37 | F 4 |
| S 5 | 15 15 3 | 19°57'20 | 13° 1 | 0°19 | 7° 1 | 25°51 | 11°29 | 6° 9 | 29°33 | 11°48 | 1° 3 | 6°30 | 7°55 | 19° 2 | 21°39 | S 5 |
| S 6 | 15 18 59 | 20°54'54 | 25° 1 | 0°33 | 8°14 | 26°32 | 11°40 | 6°17 | 29°36 | 11°50 | 1° 4 | 6°R31 | 7°52 | 19° 9 | 21°41 | S 6 |
| M 7 | 15 22 56 | 21°52'26 | 7♁14 | 0°50 | 9°27 | 27°13 | 11°50 | 6°24 | 29°38 | 11°51 | 1° 5 | 6°29 | 7°49 | 19°15 | 21°44 | M 7 |
| T 8 | 15 26 52 | 22°49'58 | 19°46 | 1°12 | 10°41 | 27°53 | 12° 1 | 6°32 | 29°40 | 11°53 | 1° 6 | 6°26 | 7°46 | 19°22 | 21°46 | T 8 |
| W 9 | 15 30 49 | 23°47'29 | 2♁39 | 1°39 | 11°54 | 28°34 | 12°12 | 6°40 | 29°43 | 11°54 | 1° 7 | 6°21 | 7°43 | 19°29 | 21°48 | W 9 |
| T 10 | 15 34 45 | 24°44'59 | 15°56 | 2° 9 | 13° 7 | 29°15 | 12°23 | 6°48 | 29°45 | 11°56 | 1° 8 | 6°15 | 7°39 | 19°35 | 21°50 | T 10 |
| F 11 | 15 38 42 | 25°42'28 | 29°38 | 2°44 | 14°21 | 29°56 | 12°33 | 6°55 | 29°47 | 11°58 | 1° 9 | 6° 9 | 7°36 | 19°42 | 21°52 | F 11 |
| S 12 | 15 42 38 | 26°39'56 | 13♁43 | 3°23 | 15°34 | 0♁36 | 12°44 | 7° 3 | 29°50 | 11°59 | 1°10 | 6° 3 | 7°33 | 19°49 | 21°54 | S 12 |
| S 13 | 15 46 35 | 27°37'23 | 28° 6 | 4° 6 | 16°47 | 1°17 | 12°56 | 7°11 | 29°52 | 12° 1 | 1°11 | 5°58 | 7°30 | 19°55 | 21°56 | S 13 |
| M14 | 15 50 32 | 28°34'49 | 12♁42 | 4°52 | 18° 0 | 1°57 | 13° 7 | 7°19 | 29°54 | 12° 3 | 1°12 | 5°54 | 7°27 | 20° 2 | 21°58 | M14 |
| T 15 | 15 54 28 | 29°32'15 | 27°24 | 5°42 | 19°14 | 2°38 | 13°18 | 7°26 | 29°56 | 12° 4 | 1°13 | 5°52 | 7°24 | 20° 9 | 22° 0 | T 15 |
| W16 | 15 58 25 | 0♁29'39 | 12♁ 6 | 6°36 | 20°27 | 3°18 | 13°29 | 7°34 | 29°58 | 12° 6 | 1°13 | 5°D52 | 7°20 | 20°15 | 22° 2 | W16 |
| T 17 | 16 2 21 | 1°27'02 | 26°41 | 7°33 | 21°40 | 3°58 | 13°41 | 7°42 | 0♁ 0 | 12° 8 | 1°14 | 5°53 | 7°17 | 20°22 | 22° 3 | T 17 |
| F 18 | 16 6 18 | 2°24'24 | 11♁ 6 | 8°34 | 22°53 | 4°38 | 13°52 | 7°50 | 0° 2 | 12°10 | 1°15 | 5°55 | 7°14 | 20°29 | 22° 5 | F 18 |
| S 19 | 16 10 14 | 3°21'45 | 25°16 | 9°38 | 24° 6 | 5°18 | 14° 4 | 7°58 | 0° 4 | 12°12 | 1°16 | 5°56 | 7°11 | 20°35 | 22° 7 | S 19 |
| S 20 | 16 14 11 | 4°19'05 | 9♁12 | 10°45 | 25°19 | 5°58 | 14°15 | 8° 5 | 0° 6 | 12°13 | 1°17 | 5°R56 | 7° 8 | 20°42 | 22° 8 | S 20 |
| M21 | 16 18 8 | 5°16'23 | 22°52 | 11°56 | 26°32 | 6°38 | 14°27 | 8°13 | 0° 8 | 12°15 | 1°17 | 5°55 | 7° 5 | 20°49 | 22°10 | M21 |
| T 22 | 16 22 4 | 6°13'41 | 6♁17 | 13°10 | 27°45 | 7°17 | 14°38 | 8°21 | 0°10 | 12°17 | 1°18 | 5°52 | 7° 1 | 20°55 | 22°11 | T 22 |
| W23 | 16 26 1 | 7°10'57 | 19°27 | 14°27 | 28°58 | 7°57 | 14°50 | 8°29 | 0°12 | 12°19 | 1°19 | 5°49 | 6°58 | 21° 2 | 22°13 | W23 |
| T 24 | 16 29 57 | 8° 8'13 | 2♁22 | 15°47 | 0♁11 | 8°36 | 15° 2 | 8°37 | 0°13 | 12°21 | 1°19 | 5°44 | 6°55 | 21° 9 | 22°14 | T 24 |
| F 25 | 16 33 54 | 9° 5'28 | 15° 5 | 17°10 | 1°24 | 9°15 | 15°14 | 8°45 | 0°15 | 12°23 | 1°20 | 5°40 | 6°52 | 21°15 | 22°16 | F 25 |
| S 26 | 16 37 50 | 10° 2'42 | 27°34 | 18°36 | 2°37 | 9°55 | 15°26 | 8°52 | 0°17 | 12°25 | 1°21 | 5°36 | 6°49 | 21°22 | 22°17 | S 26 |
| S 27 | 16 41 47 | 10°59'56 | 9♁52 | 20° 5 | 3°50 | 10°34 | 15°38 | 9° 0 | 0°18 | 12°27 | 1°21 | 5°33 | 6°45 | 21°28 | 22°18 | S 27 |
| M28 | 16 45 43 | 11°57'09 | 21°59 | 21°38 | 5° 3 | 11°13 | 15°50 | 9° 8 | 0°20 | 12°29 | 1°22 | 5°31 | 6°42 | 21°35 | 22°20 | M28 |
| T 29 | 16 49 40 | 12°54'21 | 3♁57 | 23°13 | 6°16 | 11°52 | 16° 2 | 9°16 | 0°21 | 12°31 | 1°23 | 5°D31 | 6°39 | 21°42 | 22°21 | T 29 |
| W30 | 16 53 37 | 13°51'34 | 15°50 | 24°51 | 7°29 | 12°30 | 16°14 | 9°24 | 0°23 | 12°33 | 1°23 | 5°31 | 6°36 | 21°48 | 22°22 | W30 |
| T 31 | 16 57 33 | 14♁48'45 | 27♁38 | 26♁32 | 8♁41 | 13♁ 9 | 16♁26 | 9♁32 | 0♁24 | 12♁35 | 1°24 | 5♁32 | 6♁33 | 21♁55 | 22♁23 | T 31 |

Delta T = 18m17s Julian Calendar 1 May 1089 == Greg. Calendar 7 May 1089

JUNE 1089 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|
| F 1 | 17 1 30 | 15♁45'57 | 9♁26 | 28♁16 | 9♁54 | 13♁48 | 16♁39 | 9♁39 | 0♁26 | 12♁37 | 1°24 | 5°E34 | 6°E30 | 22♁ 2 | 22♁24 | F 1 |
| S 2 | 17 5 26 | 16°43'08 | 21°18 | 0♁ 3 | 11° 7 | 14°26 | 16°51 | 9°47 | 0°27 | 12°39 | 1°25 | 5°35 | 6°26 | 22° 8 | 22°25 | S 2 |
| S 3 | 17 9 23 | 17°40'20 | 3♁18 | 1°52 | 12°20 | 15° 4 | 17° 3 | 9°55 | 0°29 | 12°41 | 1°25 | 5°36 | 6°23 | 22°15 | 22°26 | S 3 |
| M 4 | 17 13 19 | 18°37'31 | 15°31 | 3°45 | 13°32 | 15°42 | 17°16 | 10° 3 | 0°30 | 12°43 | 1°26 | 5°R37 | 6°20 | 22°22 | 22°27 | M 4 |
| T 5 | 17 17 16 | 19°34'42 | 28° 0 | 5°39 | 14°45 | 16°20 | 17°28 | 10°10 | 0°31 | 12°45 | 1°26 | 5°37 | 6°17 | 22°28 | 22°27 | T 5 |
| W 6 | 17 21 12 | 20°31'53 | 10♁51 | 7°37 | 15°58 | 16°58 | 17°41 | 10°18 | 0°32 | 12°47 | 1°27 | 5°36 | 6°14 | 22°35 | 22°28 | W 6 |
| T 7 | 17 25 9 | 21°29'04 | 24° 7 | 9°36 | 17°10 | 17°35 | 17°53 | 10°26 | 0°33 | 12°49 | 1°27 | 5°35 | 6°11 | 22°42 | 22°29 | T 7 |
| F 8 | 17 29 6 | 22°26'15 | 7♁49 | 11°38 | 18°23 | 18°13 | 18° 6 | 10°34 | 0°34 | 12°51 | 1°28 | 5°33 | 6° 7 | 22°48 | 22°30 | F 8 |
| S 9 | 17 33 2 | 23°23'27 | 21°56 | 13°42 | 19°36 | 18°50 | 18°18 | 10°41 | 0°35 | 12°53 | 1°28 | 5°31 | 6° 4 | 22°55 | 22°30 | S 9 |
| S 10 | 17 36 59 | 24°20'38 | 6♁27 | 15°47 | 20°48 | 19°27 | 18°31 | 10°49 | 0°36 | 12°55 | 1°28 | 5°30 | 6° 1 | 23° 2 | 22°31 | S 10 |
| M11 | 17 40 55 | 25°17'50 | 21°17 | 17°54 | 22° 1 | 20° 4 | 18°44 | 10°57 | 0°37 | 12°58 | 1°29 | 5°29 | 5°58 | 23° 8 | 22°31 | M11 |
| T 12 | 17 44 52 | 26°15'01 | 6♁17 | 20° 3 | 23°13 | 20°41 | 18°56 | 11° 5 | 0°38 | 13° 0 | 1°29 | 5°D29 | 5°55 | 23°15 | 22°32 | T 12 |
| W13 | 17 48 48 | 27°12'12 | 21°19 | 22°12 | 24°26 | 21°17 | 19° 9 | 11°12 | 0°39 | 13° 2 | 1°29 | 5°29 | 5°51 | 23°22 | 22°32 | W13 |
| T 14 | 17 52 45 | 28° 9'24 | 6♁15 | 24°22 | 25°38 | 21°54 | 19°22 | 11°20 | 0°40 | 13° 4 | 1°29 | 5°30 | 5°48 | 23°28 | 22°32 | T 14 |
| F 15 | 17 56 41 | 29° 6'35 | 20°59 | 26°32 | 26°51 | 22°30 | 19°35 | 11°27 | 0°41 | 13° 6 | 1°30 | 5°31 | 5°45 | 23°35 | 22°33 | F 15 |
| S 16 | 18 0 38 | 0♁ 3'45 | 5♁23 | 28°42 | 28° 3 | 23° 6 | 19°48 | 11°35 | 0°41 | 13° 8 | 1°30 | 5°31 | 5°42 | 23°41 | 22°33 | S 16 |
| S 17 | 18 4 35 | 1° 0'56 | 19°27 | 0♁52 | 29°15 | 23°41 | 20° 1 | 11°43 | 0°42 | 13°11 | 1°30 | 5°31 | 5°39 | 23°48 | 22°33 | S 17 |
| M18 | 18 8 31 | 1°58'06 | 3♁ 7 | 3° 2 | 0♁28 | 24°17 | 20°13 | 11°50 | 0°43 | 13°13 | 1°30 | 5°R31 | 5°36 | 23°55 | 22°33 | M18 |
| T 19 | 18 12 28 | 2°55'16 | 16°26 | 5°11 | 1°40 | 24°52 | 20°26 | 11°58 | 0°43 | 13°15 | 1°30 | 5°31 | 5°32 | 24° 1 | 22°33 | T 19 |
| W20 | 18 16 24 | 3°52'26 | 29°25 | 7°19 | 2°52 | 25°27 | 20°39 | 12° 5 | 0°44 | 13°17 | 1°31 | 5°31 | 5°29 | 24° 8 | 22°R33 | W20 |
| T 21 | 18 20 21 | 4°49'36 | 12♁ 6 | 9°26 | 4° 5 | 26° 2 | 20°52 | 12°13 | 0°44 | 13°19 | 1°31 | 5°31 | 5°26 | 24°15 | 22°33 | T 21 |
| F 22 | 18 24 17 | 5°46'47 | 24°33 | 11°31 | 5°17 | 26°37 | 21° 5 | 12°20 | 0°45 | 13°22 | 1°31 | 5°D31 | 5°23 | 24°21 | 22°33 | F 22 |
| S 23 | 18 28 14 | 6°43'57 | 6♁47 | 13°36 | 6°29 | 27°11 | 21°18 | 12°27 | 0°45 | 13°24 | 1°31 | 5°31 | 5°20 | 24°28 | 22°33 | S 23 |
| S 24 | 18 32 10 | 7°41'08 | 18°51 | 15°39 | 7°41 | 27°45 | 21°31 | 12°35 | 0°45 | 13°26 | 1°31 | 5°31 | 5°17 | 24°35 | 22°33 | S 24 |
| M25 | 18 36 7 | 8°38'18 | 0♁48 | 17°40 | 8°53 | 28°19 | 21°45 | 12°42 | 0°46 | 13°28 | 1°31 | 5°R31 | 5°13 | 24°41 | 22°32 | M25 |
| T 26 | 18 40 4 | 9°35'30 | 12°40 | 19°39 | 10° 5 | 28°53 | 21°58 | 12°49 | 0°46 | 13°30 | 1°R31 | 5°31 | 5°10 | 24°48 | 22°32 | T 26 |
| W27 | 18 44 0 | 10°32'41 | 24°29 | 21°37 | 11°17 | 29°26 | 22°11 | 12°57 | 0°46 | 13°33 | 1°31 | 5°31 | 5° 7 | 24°55 | 22°32 | W27 |
| T 28 | 18 47 57 | 11°29'53 | 6♁17 | 23°34 | 12°29 | 29°59 | 22°24 | 13° 4 | 0°46 | 13°35 | 1°31 | 5°31 | 5° 4 | 25° 1 | 22°31 | T 28 |
| F 29 | 18 51 53 | 12°27'06 | 18° 7 | 25°28 | 13°41 | 0♁32 | 22°37 | 13°11 | 0°46 | 13°37 | 1°31 | 5°30 | 5° 1 | 25° 8 | 22°31 | F 29 |
| S 30 | 18 55 50 | 13♁24'19 | 0♁ 2 | 27♁21 | 14♁53 | 1°24 | 22♁50 | 13♁18 | 0°R46 | 13♁39 | 1°31 | 5♁29 | 4♁57 | 25♁15 | 22♁30 | S 30 |

Delta T = 18m17s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1089
geocentric

JULY 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|-------|-------|--------|-------|-------|-------|-------|-------|-------|------|-------|--------|------|
| S 1 | 18 59 46 | 14☾21'34 | 12♋ 4 | 29☾12 | 16♁ 5 | 1♃37 | 23☾ 3 | 13♁25 | 0°R46 | 13☾42 | 1°R31 | 5°R28 | 4☾54 | 25☾21 | 22°R30 | S 1 |
| M 2 | 19 3 43 | 15°18'48 | 24°18 | 1♁ 1 | 17°17 | 2° 9 | 23°17 | 13°32 | 0°Y46 | 13°44 | 1°Y30 | 5☾27 | 4°51 | 25°28 | 22°K29 | M 2 |
| T 3 | 19 7 40 | 16°16'04 | 6°Y47 | 2°48 | 18°28 | 2°40 | 23°30 | 13°40 | 0°46 | 13°46 | 1°30 | 5°26 | 4°48 | 25°35 | 22°28 | T 3 |
| W 4 | 19 11 36 | 17°13'21 | 19°35 | 4°34 | 19°40 | 3°12 | 23°43 | 13°47 | 0°46 | 13°48 | 1°30 | 5°D26 | 4°45 | 25°41 | 22°28 | W 4 |
| T 5 | 19 15 33 | 18°10'38 | 2♃45 | 6°18 | 20°52 | 3°43 | 23°56 | 13°53 | 0°46 | 13°50 | 1°30 | 5°26 | 4°42 | 25°48 | 22°27 | T 5 |
| F 6 | 19 19 29 | 19° 7'57 | 16°20 | 8° 0 | 22° 4 | 4°13 | 24° 9 | 14° 0 | 0°45 | 13°53 | 1°30 | 5°27 | 4°38 | 25°55 | 22°26 | F 6 |
| S 7 | 19 23 26 | 20° 5'17 | 0♁20 | 9°40 | 23°15 | 4°44 | 24°23 | 14° 7 | 0°45 | 13°55 | 1°30 | 5°28 | 4°35 | 26° 1 | 22°25 | S 7 |
| S 8 | 19 27 22 | 21° 2'37 | 14°46 | 11°18 | 24°27 | 5°14 | 24°36 | 14°14 | 0°45 | 13°57 | 1°29 | 5°29 | 4°32 | 26° 8 | 22°24 | S 8 |
| M 9 | 19 31 19 | 21°59'59 | 29°35 | 12°55 | 25°38 | 5°43 | 24°49 | 14°21 | 0°44 | 13°59 | 1°29 | 5°R30 | 4°29 | 26°15 | 22°23 | M 9 |
| T 10 | 19 35 15 | 22°57'22 | 14☾39 | 14°30 | 26°50 | 6°12 | 25° 2 | 14°28 | 0°44 | 14° 2 | 1°29 | 5°30 | 4°26 | 26°21 | 22°22 | T 10 |
| W11 | 19 39 12 | 23°54'46 | 29°51 | 16° 4 | 28° 1 | 6°41 | 25°16 | 14°34 | 0°43 | 14° 4 | 1°28 | 5°29 | 4°23 | 26°28 | 22°21 | W11 |
| T 12 | 19 43 9 | 24°52'10 | 15♁ 1 | 17°35 | 29°13 | 7°10 | 25°29 | 14°41 | 0°43 | 14° 6 | 1°28 | 5°27 | 4°19 | 26°35 | 22°20 | T 12 |
| F 13 | 19 47 5 | 25°49'35 | 29°59 | 19° 5 | 0♁24 | 7°38 | 25°42 | 14°48 | 0°42 | 14° 8 | 1°28 | 5°24 | 4°16 | 26°41 | 22°19 | F 13 |
| S 14 | 19 51 2 | 26°47'01 | 14♁39 | 20°33 | 1°35 | 8° 5 | 25°55 | 14°54 | 0°42 | 14°10 | 1°27 | 5°22 | 4°13 | 26°48 | 22°17 | S 14 |
| S 15 | 19 54 58 | 27°44'28 | 28°53 | 21°59 | 2°47 | 8°33 | 26° 9 | 15° 1 | 0°41 | 14°13 | 1°27 | 5°19 | 4°10 | 26°54 | 22°16 | S 15 |
| M16 | 19 58 55 | 28°41'55 | 12♁41 | 23°23 | 3°58 | 9° 0 | 26°22 | 15° 7 | 0°40 | 14°15 | 1°26 | 5°18 | 4° 7 | 27° 1 | 22°15 | M16 |
| T 17 | 20 2 51 | 29°39'23 | 26° 2 | 24°46 | 5° 9 | 9°26 | 26°35 | 15°13 | 0°39 | 14°17 | 1°26 | 5°D17 | 4° 3 | 27° 8 | 22°13 | T 17 |
| W18 | 20 6 48 | 0♁36'52 | 8♁58 | 26° 7 | 6°20 | 9°52 | 26°49 | 15°20 | 0°39 | 14°19 | 1°26 | 5°17 | 4° 0 | 27°14 | 22°12 | W18 |
| T 19 | 20 10 44 | 1°34'22 | 21°33 | 27°25 | 7°31 | 10°17 | 27° 2 | 15°26 | 0°38 | 14°21 | 1°25 | 5°18 | 3°57 | 27°21 | 22°10 | T 19 |
| F 20 | 20 14 41 | 2°31'53 | 3♁51 | 28°42 | 8°42 | 10°42 | 27°15 | 15°32 | 0°37 | 14°23 | 1°25 | 5°20 | 3°54 | 27°28 | 22° 9 | F 20 |
| S 21 | 20 18 38 | 3°29'24 | 15°55 | 29°56 | 9°53 | 11° 7 | 27°28 | 15°38 | 0°36 | 14°26 | 1°24 | 5°21 | 3°51 | 27°34 | 22° 7 | S 21 |
| S 22 | 20 22 34 | 4°26'57 | 27°51 | 1♁ 9 | 11° 4 | 11°31 | 27°41 | 15°44 | 0°35 | 14°28 | 1°24 | 5°22 | 3°48 | 27°41 | 22° 6 | S 22 |
| M23 | 20 26 31 | 5°24'31 | 9☾42 | 2°19 | 12°15 | 11°55 | 27°55 | 15°50 | 0°34 | 14°30 | 1°23 | 5°R23 | 3°44 | 27°48 | 22° 4 | M23 |
| T 24 | 20 30 27 | 6°22'06 | 21°30 | 3°27 | 13°26 | 12°18 | 28° 8 | 15°56 | 0°33 | 14°32 | 1°22 | 5°21 | 3°41 | 27°54 | 22° 2 | T 24 |
| W25 | 20 34 24 | 7°19'42 | 3♁18 | 4°33 | 14°36 | 12°40 | 28°21 | 16° 2 | 0°32 | 14°34 | 1°22 | 5°19 | 3°38 | 28° 1 | 22° 1 | W25 |
| T 26 | 20 38 20 | 8°17'19 | 15°10 | 5°36 | 15°47 | 13° 2 | 28°34 | 16° 8 | 0°30 | 14°36 | 1°21 | 5°14 | 3°35 | 28° 8 | 21°59 | T 26 |
| F 27 | 20 42 17 | 9°14'58 | 27° 5 | 6°37 | 16°58 | 13°24 | 28°47 | 16°14 | 0°29 | 14°38 | 1°21 | 5° 9 | 3°32 | 28°14 | 21°57 | F 27 |
| S 28 | 20 46 13 | 10°12'38 | 9♁ 7 | 7°35 | 18° 8 | 13°45 | 29° 0 | 16°20 | 0°28 | 14°40 | 1°20 | 5° 3 | 3°29 | 28°21 | 21°55 | S 28 |
| S 29 | 20 50 10 | 11°10'19 | 21°18 | 8°30 | 19°19 | 14° 5 | 29°13 | 16°25 | 0°27 | 14°42 | 1°19 | 4°57 | 3°25 | 28°28 | 21°53 | S 29 |
| M30 | 20 54 7 | 12° 8'02 | 3°Y38 | 9°23 | 20°29 | 14°25 | 29°27 | 16°31 | 0°25 | 14°44 | 1°19 | 4°51 | 3°22 | 28°34 | 21°51 | M30 |
| T 31 | 20 58 3 | 13♁ 5'46 | 16°Y11 | 10♁12 | 21♁39 | 14°Y44 | 29☾40 | 16♁36 | 0°Y24 | 14☾46 | 1°Y18 | 4☾47 | 3☾19 | 28☾41 | 21°K49 | T 31 |

Delta T = 18m17s Julian Calendar 1 July 1089 == Greg. Calendar 7 July 1089

AUGUST 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|--------|-------|--------|-------|-------|--------|-------|-------|-------|------|-------|--------|------|
| W 1 | 21 2 0 | 14♁ 3'33 | 29°Y 0 | 10♁58 | 22♁50 | 15°Y 3 | 29☾53 | 16♁42 | 0°R22 | 14☾48 | 1°R17 | 4°R44 | 3☾16 | 28☾48 | 21°R47 | W 1 |
| T 2 | 21 5 56 | 15° 1'21 | 12♃ 6 | 11°40 | 24° 0 | 15°21 | 0♁ 6 | 16°47 | 0°Y21 | 14°50 | 1°Y16 | 4°D43 | 3°13 | 28°54 | 21°K45 | T 2 |
| F 3 | 21 9 53 | 15°59'11 | 25°33 | 12°19 | 25°10 | 15°38 | 0°19 | 16°52 | 0°19 | 14°52 | 1°16 | 4☾43 | 3° 9 | 29° 1 | 21°43 | F 3 |
| S 4 | 21 13 49 | 16°57'02 | 9♁23 | 12°53 | 26°20 | 15°55 | 0°32 | 16°57 | 0°18 | 14°54 | 1°15 | 4°44 | 3° 6 | 29° 8 | 21°41 | S 4 |
| S 5 | 21 17 46 | 17°54'56 | 23°36 | 13°24 | 27°30 | 16°11 | 0°45 | 17° 3 | 0°16 | 14°56 | 1°14 | 4°45 | 3° 3 | 29°14 | 21°39 | S 5 |
| M 6 | 21 21 42 | 18°52'52 | 8☾12 | 13°50 | 28°40 | 16°26 | 0°58 | 17° 8 | 0°15 | 14°58 | 1°13 | 4°R46 | 3° 0 | 29°21 | 21°36 | M 6 |
| T 7 | 21 25 39 | 19°50'49 | 23° 6 | 14°12 | 29°50 | 16°41 | 1°10 | 17°13 | 0°13 | 15° 0 | 1°12 | 4°44 | 2°57 | 29°28 | 21°34 | T 7 |
| W 8 | 21 29 36 | 20°48'48 | 8♁11 | 14°28 | 0♁59 | 16°55 | 1°23 | 17°18 | 0°11 | 15° 2 | 1°12 | 4°41 | 2°54 | 29°34 | 21°32 | W 8 |
| T 9 | 21 33 32 | 21°46'48 | 23°20 | 14°39 | 2° 9 | 17° 8 | 1°36 | 17°22 | 0°10 | 15° 4 | 1°11 | 4°36 | 2°50 | 29°41 | 21°30 | T 9 |
| F 10 | 21 37 29 | 22°44'51 | 8♁23 | 14°45 | 3°19 | 17°21 | 1°49 | 17°27 | 0° 8 | 15° 6 | 1°10 | 4°29 | 2°47 | 29°48 | 21°27 | F 10 |
| S 11 | 21 41 25 | 23°42'54 | 23° 9 | 14°R46 | 4°28 | 17°33 | 2° 2 | 17°32 | 0° 6 | 15° 7 | 1° 9 | 4°21 | 2°44 | 29°54 | 21°25 | S 11 |
| S 12 | 21 45 22 | 24°41'00 | 7♁32 | 14°40 | 5°38 | 17°44 | 2°14 | 17°36 | 0° 4 | 15° 9 | 1° 8 | 4°14 | 2°41 | 0♁ 1 | 21°22 | S 12 |
| M13 | 21 49 18 | 25°39'06 | 21°27 | 14°28 | 6°47 | 17°54 | 2°27 | 17°41 | 0° 2 | 15°11 | 1° 7 | 4° 8 | 2°38 | 0° 8 | 21°20 | M13 |
| T 14 | 21 53 15 | 26°37'15 | 4♁53 | 14°10 | 7°56 | 18° 3 | 2°40 | 17°45 | 0° 1 | 15°13 | 1° 6 | 4° 4 | 2°35 | 0°14 | 21°17 | T 14 |
| W15 | 21 57 11 | 27°35'24 | 17°52 | 13°45 | 9° 6 | 18°12 | 2°52 | 17°49 | 29°K59 | 15°15 | 1° 5 | 4° 1 | 2°31 | 0°21 | 21°15 | W15 |
| T 16 | 22 1 8 | 28°33'36 | 0♁27 | 13°14 | 10°15 | 18°20 | 3° 5 | 17°54 | 29°57 | 15°16 | 1° 4 | 4°D 1 | 2°28 | 0°28 | 21°12 | T 16 |
| F 17 | 22 5 5 | 29°31'48 | 12°42 | 12°38 | 11°24 | 18°27 | 3°17 | 17°58 | 29°55 | 15°18 | 1° 3 | 4° 2 | 2°25 | 0°34 | 21°10 | F 17 |
| S 18 | 22 9 1 | 0♁30'03 | 24°44 | 11°55 | 12°33 | 18°33 | 3°30 | 18° 2 | 29°53 | 15°20 | 1° 2 | 4° 2 | 2°22 | 0°41 | 21° 7 | S 18 |
| S 19 | 22 12 58 | 1°28'19 | 6☾36 | 11° 7 | 13°41 | 18°38 | 3°42 | 18° 6 | 29°51 | 15°21 | 1° 1 | 4°R 3 | 2°19 | 0°48 | 21° 5 | S 19 |
| M20 | 22 16 54 | 2°26'36 | 18°24 | 10°14 | 14°50 | 18°43 | 3°55 | 18°10 | 29°49 | 15°23 | 1° 0 | 4° 2 | 2°15 | 0°54 | 21° 2 | M20 |
| T 21 | 22 20 51 | 3°24'56 | 0♁12 | 9°18 | 15°59 | 18°47 | 4° 7 | 18°13 | 29°47 | 15°25 | 0°59 | 3°58 | 2°12 | 1° 1 | 21° 0 | T 21 |
| W22 | 22 24 47 | 4°23'16 | 12° 3 | 8°18 | 17° 7 | 18°50 | 4°19 | 18°17 | 29°44 | 15°26 | 0°58 | 3°52 | 2° 9 | 1° 8 | 20°57 | W22 |
| T 23 | 22 28 44 | 5°21'39 | 24° 0 | 7°17 | 18°16 | 18°52 | 4°32 | 18°21 | 29°42 | 15°28 | 0°57 | 3°44 | 2° 6 | 1°14 | 20°54 | T 23 |
| F 24 | 22 32 40 | 6°20'04 | 6♁ 5 | 6°16 | 19°24 | 18°53 | 4°44 | 18°24 | 29°40 | 15°30 | 0°56 | 3°34 | 2° 3 | 1°21 | 20°52 | F 24 |
| S 25 | 22 36 37 | 7°18'30 | 18°18 | 5°16 | 20°32 | 18°R53 | 4°56 | 18°28 | 29°38 | 15°31 | 0°55 | 3°22 | 2° 0 | 1°28 | 20°49 | S 25 |
| S 26 | 22 40 33 | 8°16'58 | 0°Y42 | 4°18 | 21°40 | 18°52 | 5° 8 | 18°31 | 29°36 | 15°33 | 0°54 | 3°10 | 1°56 | 1°34 | 20°46 | S 26 |
| M27 | 22 44 30 | 9°15'28 | 13°16 | 3°24 | 22°48 | 18°51 | 5°20 | 18°34 | 29°34 | 15°34 | 0°53 | 2°59 | 1°53 | 1°41 | 20°43 | M27 |
| T 28 | 22 48 27 | 10°14'01 | 26° 1 | 2°36 | 23°56 | 18°49 | 5°32 | 18°37 | 29°31 | 15°35 | 0°52 | 2°50 | 1°50 | 1°48 | 20°41 | T 28 |
| W29 | 22 52 23 | 11°12'35 | 8☾59 | 1°54 | 25° 4 | 18°45 | 5°44 | 18°40 | 29°29 | 15°37 | 0°51 | 2°44 | 1°47 | 1°54 | 20°38 | W29 |
| T 30 | 22 56 20 | 12°11'12 | 22°10 | 1°19 | 26°11 | 18°41 | 5°56 | 18°43 | 29°27 | 15°38 | 0°50 | 2°40 | 1°44 | 2° 1 | 20°35 | T 30 |
| F 31 | 23 0 16 | 13♁ 9'52 | 5♁36 | 0♁54 | 27♁19 | 18°Y36 | 6♁ 8 | 18♁46 | 29°K24 | 15☾40 | 0°Y49 | 2☾38 | 1☾40 | 2♁ 8 | 20°K32 | F 31 |

Delta T = 18m17s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1089
geocentric

SEPTEMBER 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|--------|--------|-------|-------|--------|------|------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 23 4 13 | 14♐ 8'33 | 19♐18 | 0°R37 | 28♌26 | 18°R30 | 6♌19 | 18♐49 | 29°R22 | 15♌41 | 0°R48 | 2°D38 | 1♌37 | 2♌14 | 20°R30 | S 1 | | | | | | | | |
| S 2 | 23 8 9 | 15° 7'17 | 3♌19 | 0°D30 | 29°33 | 18°V24 | 6°31 | 18°51 | 29°R20 | 15°42 | 0°V47 | 2°R38 | 1°34 | 2°21 | 20°R27 | S 2 | | | | | | | | |
| M 3 | 23 12 6 | 16° 6'03 | 17°37 | 0♐33 | 0♐40 | 18°16 | 6°43 | 18°54 | 29°18 | 15°44 | 0°46 | 2♌38 | 1°31 | 2°28 | 20°24 | M 3 | | | | | | | | |
| T 4 | 23 16 2 | 17° 4'52 | 2♌12 | 0°46 | 1°47 | 18° 7 | 6°54 | 18°56 | 29°15 | 15°45 | 0°44 | 2°35 | 1°28 | 2°34 | 20°21 | T 4 | | | | | | | | |
| W 5 | 23 19 59 | 18° 3'42 | 16°59 | 1° 8 | 2°54 | 17°58 | 7° 6 | 18°59 | 29°13 | 15°46 | 0°43 | 2°29 | 1°25 | 2°41 | 20°18 | W 5 | | | | | | | | |
| T 6 | 23 23 56 | 19° 2'35 | 1♐52 | 1°40 | 4° 0 | 17°48 | 7°17 | 19° 1 | 29°10 | 15°47 | 0°42 | 2°21 | 1°21 | 2°48 | 20°16 | T 6 | | | | | | | | |
| F 7 | 23 27 52 | 20° 1'30 | 16°42 | 2°21 | 5° 7 | 17°37 | 7°28 | 19° 3 | 29° 8 | 15°49 | 0°41 | 2°11 | 1°18 | 2°54 | 20°13 | F 7 | | | | | | | | |
| S 8 | 23 31 49 | 21° 0'27 | 1♌21 | 3°11 | 6°13 | 17°25 | 7°40 | 19° 5 | 29° 6 | 15°50 | 0°40 | 1°59 | 1°15 | 3° 1 | 20°10 | S 8 | | | | | | | | |
| S 9 | 23 35 45 | 21°59'26 | 15°41 | 4° 8 | 7°19 | 17°12 | 7°51 | 19° 7 | 29° 3 | 15°51 | 0°39 | 1°48 | 1°12 | 3° 8 | 20° 7 | S 9 | | | | | | | | |
| M10 | 23 39 42 | 22°58'27 | 29°36 | 5°13 | 8°25 | 16°59 | 8° 2 | 19° 9 | 29° 1 | 15°52 | 0°38 | 1°38 | 1° 9 | 3°14 | 20° 4 | M10 | | | | | | | | |
| T 11 | 23 43 38 | 23°57'30 | 13♐ 5 | 6°24 | 9°31 | 16°45 | 8°13 | 19°10 | 28°58 | 15°53 | 0°36 | 1°30 | 1° 6 | 3°21 | 20° 2 | T 11 | | | | | | | | |
| W12 | 23 47 35 | 24°56'34 | 26° 6 | 7°41 | 10°37 | 16°31 | 8°24 | 19°12 | 28°56 | 15°54 | 0°35 | 1°25 | 1° 2 | 3°28 | 19°59 | W12 | | | | | | | | |
| T 13 | 23 51 31 | 25°55'41 | 8♌43 | 9° 3 | 11°42 | 16°15 | 8°35 | 19°13 | 28°54 | 15°55 | 0°34 | 1°23 | 0°59 | 3°34 | 19°56 | T 13 | | | | | | | | |
| F 14 | 23 55 28 | 26°54'50 | 21° 0 | 10°30 | 12°47 | 15°59 | 8°45 | 19°15 | 28°51 | 15°56 | 0°33 | 1°22 | 0°56 | 3°41 | 19°53 | F 14 | | | | | | | | |
| S 15 | 23 59 25 | 27°54'00 | 3♌ 2 | 12° 0 | 13°52 | 15°43 | 8°56 | 19°16 | 28°49 | 15°57 | 0°32 | 1°22 | 0°53 | 3°48 | 19°50 | S 15 | | | | | | | | |
| S 16 | 0 3 21 | 28°53'12 | 14°55 | 13°34 | 14°57 | 15°26 | 9° 7 | 19°17 | 28°46 | 15°58 | 0°31 | 1°21 | 0°50 | 3°54 | 19°48 | S 16 | | | | | | | | |
| M17 | 0 7 18 | 29°52'26 | 26°43 | 15°10 | 16° 2 | 15° 8 | 9°17 | 19°18 | 28°44 | 15°59 | 0°29 | 1°20 | 0°46 | 4° 1 | 19°45 | M17 | | | | | | | | |
| T 18 | 0 11 14 | 0♌51'41 | 8♌33 | 16°49 | 17° 6 | 14°50 | 9°28 | 19°19 | 28°41 | 16° 0 | 0°28 | 1°15 | 0°43 | 4° 8 | 19°42 | T 18 | | | | | | | | |
| W19 | 0 15 11 | 1°50'59 | 20°27 | 18°29 | 18°10 | 14°32 | 9°38 | 19°20 | 28°39 | 16° 1 | 0°27 | 1° 9 | 0°40 | 4°14 | 19°39 | W19 | | | | | | | | |
| T 20 | 0 19 7 | 2°50'18 | 2♐31 | 20°11 | 19°14 | 14°13 | 9°48 | 19°20 | 28°37 | 16° 1 | 0°26 | 0°59 | 0°37 | 4°21 | 19°37 | T 20 | | | | | | | | |
| F 21 | 0 23 4 | 3°49'40 | 1♐45 | 21°54 | 20°18 | 13°54 | 9°58 | 19°21 | 28°34 | 16° 2 | 0°25 | 0°47 | 0°34 | 4°28 | 19°34 | F 21 | | | | | | | | |
| S 22 | 0 27 0 | 4°49'03 | 27°13 | 23°37 | 21°21 | 13°35 | 10° 8 | 19°21 | 28°32 | 16° 3 | 0°24 | 0°33 | 0°31 | 4°34 | 19°31 | S 22 | | | | | | | | |
| S 23 | 0 30 57 | 5°48'28 | 9♐53 | 25°21 | 22°24 | 13°16 | 10°18 | 19°22 | 28°29 | 16° 4 | 0°22 | 0°20 | 0°27 | 4°41 | 19°29 | S 23 | | | | | | | | |
| M24 | 0 34 53 | 6°47'56 | 22°46 | 27° 5 | 23°27 | 12°56 | 10°28 | 19°22 | 28°27 | 16° 4 | 0°21 | 0° 7 | 0°24 | 4°48 | 19°26 | M24 | | | | | | | | |
| T 25 | 0 38 50 | 7°47'25 | 5♌52 | 28°50 | 24°30 | 12°36 | 10°38 | 19°22 | 28°24 | 16° 5 | 0°20 | 29♐56 | 0°21 | 4°54 | 19°23 | T 25 | | | | | | | | |
| W26 | 0 42 47 | 8°46'57 | 19° 8 | 0♌34 | 25°32 | 12°17 | 10°48 | 19°R22 | 28°22 | 16° 6 | 0°19 | 29°48 | 0°18 | 5° 1 | 19°21 | W26 | | | | | | | | |
| T 27 | 0 46 43 | 9°46'31 | 2♐34 | 2°18 | 26°34 | 11°57 | 10°57 | 19°22 | 28°20 | 16° 6 | 0°18 | 29°43 | 0°15 | 5° 8 | 19°18 | T 27 | | | | | | | | |
| F 28 | 0 50 40 | 10°46'08 | 16°10 | 4° 2 | 27°36 | 11°37 | 11° 7 | 19°22 | 28°17 | 16° 7 | 0°17 | 29°41 | 0°11 | 5°14 | 19°16 | F 28 | | | | | | | | |
| S 29 | 0 54 36 | 11°45'47 | 29°56 | 5°45 | 28°38 | 11°17 | 11°16 | 19°21 | 28°15 | 16° 7 | 0°15 | 29°D40 | 0° 8 | 5°21 | 19°13 | S 29 | | | | | | | | |
| S 30 | 0 58 33 | 12♌45'28 | 13♌53 | 7♌29 | 29♐39 | 10°V58 | 11♌25 | 19♐21 | 28°R13 | 16♌ 8 | 0°V14 | 29°R41 | 0♌ 5 | 5♌28 | 19°R11 | S 30 | | | | | | | | |

Delta T = 18m16s Julian Calendar 1 Sept. 1089 == Greg. Calendar 7 Sept. 1089

OCTOBER 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|--------|--------|--------|--------|--------|--------|-------|--------|------|---|---|---|---|---|---|---|-----|
| M 1 | 1 2 29 | 13♌45'11 | 27♌59 | 9♌11 | 0♌40 | 10°R38 | 11♌34 | 19°R20 | 28°R10 | 16♌ 8 | 0°R13 | 29°R40 | 0♌ 2 | 5♌34 | 19°R 8 | M 1 | | | | | | | | |
| T 2 | 1 6 26 | 14°44'57 | 12♌16 | 10°54 | 1°40 | 10°V19 | 11°43 | 19°R20 | 28°R 8 | 16° 8 | 0°V12 | 29°R37 | 29°R59 | 5°41 | 19°R 6 | T 2 | | | | | | | | |
| W 3 | 1 10 22 | 15°44'45 | 12°35 | 2°40 | 10° 0 | 11°52 | 19°19 | 28° 6 | 16° 9 | 0°11 | 29°32 | 29°56 | 5°48 | 19° 3 | W 3 | | | | | | | | | |
| T 4 | 1 14 19 | 16°44'36 | 11♐ 7 | 14°17 | 3°40 | 9°41 | 12° 1 | 19°18 | 28° 3 | 16° 9 | 0°10 | 29°24 | 29°52 | 5°54 | 19° 1 | T 4 | | | | | | | | |
| F 5 | 1 18 16 | 17°44'28 | 25°32 | 15°57 | 4°39 | 9°23 | 12°10 | 19°17 | 28° 1 | 16°10 | 0° 9 | 29°14 | 29°49 | 6° 1 | 18°58 | F 5 | | | | | | | | |
| S 6 | 1 22 12 | 18°44'23 | 9♌50 | 17°38 | 5°38 | 9° 5 | 12°18 | 19°16 | 27°59 | 16°10 | 0° 8 | 29° 3 | 29°46 | 6° 8 | 18°56 | S 6 | | | | | | | | |
| S 7 | 1 26 9 | 19°44'19 | 23°53 | 19°17 | 6°37 | 8°48 | 12°27 | 19°15 | 27°57 | 16°10 | 0° 6 | 28°52 | 29°43 | 6°14 | 18°54 | S 7 | | | | | | | | |
| M 8 | 1 30 5 | 20°44'18 | 7♐37 | 20°56 | 7°35 | 8°31 | 12°35 | 19°13 | 27°55 | 16°10 | 0° 5 | 28°42 | 29°40 | 6°21 | 18°52 | M 8 | | | | | | | | |
| T 9 | 1 34 2 | 21°44'18 | 20°59 | 22°35 | 8°33 | 8°15 | 12°43 | 19°12 | 27°52 | 16°10 | 0° 4 | 28°34 | 29°37 | 6°28 | 18°49 | T 9 | | | | | | | | |
| W10 | 1 37 58 | 22°44'21 | 3♌58 | 24°13 | 9°30 | 7°59 | 12°51 | 19°10 | 27°50 | 16°10 | 0° 3 | 28°28 | 29°33 | 6°34 | 18°47 | W10 | | | | | | | | |
| T 11 | 1 41 55 | 23°44'25 | 16°35 | 25°51 | 10°27 | 7°44 | 12°59 | 19° 9 | 27°48 | 16°11 | 0° 2 | 28°26 | 29°30 | 6°41 | 18°45 | T 11 | | | | | | | | |
| F 12 | 1 45 51 | 24°44'30 | 28°53 | 27°28 | 11°23 | 7°29 | 13° 7 | 19° 7 | 27°46 | 16°11 | 0° 1 | 28°D25 | 29°27 | 6°48 | 18°43 | F 12 | | | | | | | | |
| S 13 | 1 49 48 | 25°44'38 | 10♌56 | 29° 5 | 12°19 | 7°15 | 13°14 | 19° 5 | 27°44 | 16°R11 | 0° 0 | 28°25 | 29°24 | 6°54 | 18°41 | S 13 | | | | | | | | |
| S 14 | 1 53 45 | 26°44'47 | 22°50 | 0♐41 | 13°14 | 7° 2 | 13°22 | 19° 3 | 27°42 | 16°11 | 29°R59 | 28°R26 | 29°21 | 7° 1 | 18°39 | S 14 | | | | | | | | |
| M15 | 1 57 41 | 27°44'57 | 4♌40 | 2°16 | 14° 9 | 6°50 | 13°29 | 19° 1 | 27°40 | 16°11 | 29°58 | 28°26 | 29°17 | 7° 8 | 18°37 | M15 | | | | | | | | |
| T 16 | 2 1 38 | 28°45'09 | 16°30 | 3°52 | 15° 3 | 6°38 | 13°36 | 18°59 | 27°38 | 16°11 | 29°57 | 28°24 | 29°14 | 7°14 | 18°35 | T 16 | | | | | | | | |
| W17 | 2 5 34 | 29°45'23 | 28°27 | 5°27 | 15°56 | 6°27 | 13°43 | 18°57 | 27°36 | 16°10 | 29°56 | 28°20 | 29°11 | 7°21 | 18°33 | W17 | | | | | | | | |
| T 18 | 2 9 31 | 0♐45'38 | 10♐34 | 7° 1 | 16°49 | 6°17 | 13°50 | 18°54 | 27°34 | 16°10 | 29°55 | 28°13 | 29° 8 | 7°28 | 18°31 | T 18 | | | | | | | | |
| F 19 | 2 13 27 | 1°45'55 | 22°56 | 8°35 | 17°41 | 6° 8 | 13°57 | 18°52 | 27°32 | 16°10 | 29°54 | 28° 5 | 29° 5 | 7°34 | 18°29 | F 19 | | | | | | | | |
| S 20 | 2 17 24 | 2°46'13 | 5°V34 | 10° 9 | 18°33 | 5°59 | 14° 4 | 18°49 | 27°30 | 16°10 | 29°53 | 27°55 | 29° 2 | 7°41 | 18°27 | S 20 | | | | | | | | |
| S 21 | 2 21 20 | 3°46'33 | 18°29 | 11°43 | 19°24 | 5°51 | 14°10 | 18°46 | 27°28 | 16°10 | 29°52 | 27°45 | 28°58 | 7°48 | 18°25 | S 21 | | | | | | | | |
| M22 | 2 25 17 | 4°46'55 | 1♌42 | 13°16 | 20°14 | 5°44 | 14°16 | 18°44 | 27°27 | 16° 9 | 29°51 | 27°35 | 28°55 | 7°54 | 18°24 | M22 | | | | | | | | |
| T 23 | 2 29 14 | 5°47'18 | 15°10 | 14°48 | 21° 3 | 5°38 | 14°23 | 18°41 | 27°25 | 16° 9 | 29°50 | 27°27 | 28°52 | 8° 1 | 18°22 | T 23 | | | | | | | | |
| W24 | 2 33 10 | 6°47'43 | 28°51 | 16°21 | 21°51 | 5°33 | 14°29 | 18°38 | 27°23 | 16° 9 | 29°49 | 27°22 | 28°49 | 8° 8 | 18°20 | W24 | | | | | | | | |
| T 25 | 2 37 7 | 7°48'10 | 12♐42 | 17°53 | 22°39 | 5°28 | 14°34 | 18°35 | 27°22 | 16° 8 | 29°48 | 27°18 | 28°46 | 8°14 | 18°19 | T 25 | | | | | | | | |
| F 26 | 2 41 3 | 8°48'39 | 26°40 | 19°25 | 23°26 | 5°24 | 14°40 | 18°32 | 27°20 | 16° 8 | 29°48 | 27°D17 | 28°43 | 8°21 | 18°17 | F 26 | | | | | | | | |
| S 27 | 2 45 0 | 9°49'10 | 10♌44 | 20°57 | 24°12 | 5°21 | 14°46 | 18°28 | 27°18 | 16° 7 | 29°47 | 27°18 | 28°39 | 8°28 | 18°16 | S 27 | | | | | | | | |
| S 28 | 2 48 56 | 10°49'42 | 24°50 | 22°28 | 24°56 | 5°19 | 14°51 | 18°25 | 27°17 | 16° 7 | 29°46 | 27°19 | 28°36 | 8°34 | 18°14 | S 28 | | | | | | | | |
| M29 | 2 52 53 | 11°50'17 | 8♌57 | 23°59 | 25°40 | 5°18 | 14°56 | 18°22 | 27°15 | 16° 6 | 29°45 | 27°R20 | 28°33 | 8°41 | 18°13 | M29 | | | | | | | | |
| T 30 | 2 56 49 | 12°50'53 | 23° 5 | 25°30 | 26°23 | 5°D17 | 15° 1 | 18°18 | 27°14 | 16° 6 | 29°44 | 27°20 | 28°30 | 8°48 | 18°12 | T 30 | | | | | | | | |
| W31 | 3 0 46 | 13♐51'31 | 7♐12 | 27♐ 0 | 27♐ 5 | 5°V17 | 15♌ 6 | 18♐15 | 27°R12 | 16♌ 5 | 29°R43 | 27♐17 | 28♐27 | 8♌54 | 18°R10 | W31 | | | | | | | | |

Delta T = 18m16s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1089
geocentric

NOVEMBER 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|-------|-------|--------|--------|---------|--------|--------|--------|---------|---------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 3 4 43 | 14♌52'10 | 21♍16 | 28♎30 | 27♏46 | 5♐18 | 15♑11 | 18°R11 | 27°R11 | 16°R 5 | 29°R43 | 27°R13 | 28♒23 | 9♓ 1 | 18°R 9 | T 1 | | | | | | | | |
| F 2 | 3 8 39 | 15°52'52 | 5♋13 | 0♏ 0 | 28°25 | 5°20 | 15°16 | 18♒ 7 | 27♋ 9 | 16♌ 4 | 29♍42 | 27♎ 7 | 28°20 | 9° 8 | 18♋ 8 | F 2 | | | | | | | | |
| S 3 | 3 12 36 | 16°53'35 | 19° 2 | 1°30 | 29° 4 | 5°23 | 15°20 | 18° 3 | 27° 8 | 16° 3 | 29°41 | 27° 0 | 28°17 | 9°15 | 18° 7 | S 3 | | | | | | | | |
| S 4 | 3 16 32 | 17°54'19 | 2♌39 | 2°59 | 29°41 | 5°26 | 15°24 | 18° 0 | 27° 7 | 16° 3 | 29°40 | 26°53 | 28°14 | 9°21 | 18° 6 | S 4 | | | | | | | | |
| M 5 | 3 20 29 | 18°55'05 | 16° 1 | 4°28 | 0♎17 | 5°30 | 15°28 | 17°56 | 27° 6 | 16° 2 | 29°40 | 26°47 | 28°11 | 9°28 | 18° 5 | M 5 | | | | | | | | |
| T 6 | 3 24 25 | 19°55'53 | 29° 7 | 5°56 | 0°51 | 5°35 | 15°32 | 17°52 | 27° 4 | 16° 1 | 29°39 | 26°43 | 28° 8 | 9°35 | 18° 4 | T 6 | | | | | | | | |
| W 7 | 3 28 22 | 20°56'42 | 11♏55 | 7°24 | 1°24 | 5°41 | 15°36 | 17°48 | 27° 3 | 16° 0 | 29°38 | 26°40 | 28° 4 | 9°41 | 18° 3 | W 7 | | | | | | | | |
| T 8 | 3 32 18 | 21°57'32 | 24°25 | 8°51 | 1°56 | 5°47 | 15°39 | 17°43 | 27° 2 | 16° 0 | 29°38 | 26°39 | 28° 1 | 9°48 | 18° 2 | T 8 | | | | | | | | |
| F 9 | 3 36 15 | 22°58'23 | 6♎40 | 10°18 | 2°26 | 5°54 | 15°43 | 17°39 | 27° 1 | 15°59 | 29°37 | 26°39 | 27°58 | 9°55 | 18° 1 | F 9 | | | | | | | | |
| S 10 | 3 40 12 | 23°59'15 | 18°43 | 11°44 | 2°54 | 6° 2 | 15°46 | 17°35 | 27° 0 | 15°58 | 29°36 | 26°40 | 27°55 | 10° 1 | 18° 0 | S 10 | | | | | | | | |
| S 11 | 3 44 8 | 25° 0'08 | 0♏37 | 13° 9 | 3°21 | 6°10 | 15°49 | 17°31 | 26°59 | 15°57 | 29°36 | 26°42 | 27°52 | 10° 8 | 18° 0 | S 11 | | | | | | | | |
| M12 | 3 48 5 | 26° 1'02 | 12°27 | 14°33 | 3°46 | 6°19 | 15°51 | 17°26 | 26°58 | 15°56 | 29°35 | 26°44 | 27°49 | 10°15 | 17°59 | M12 | | | | | | | | |
| T 13 | 3 52 1 | 27° 1'57 | 24°17 | 15°56 | 4° 9 | 6°29 | 15°54 | 17°22 | 26°57 | 15°55 | 29°35 | 26°R45 | 27°45 | 10°21 | 17°58 | T 13 | | | | | | | | |
| W14 | 3 55 58 | 28° 2'52 | 6♋14 | 17°17 | 4°31 | 6°40 | 15°56 | 17°17 | 26°56 | 15°54 | 29°34 | 26°44 | 27°42 | 10°28 | 17°58 | W14 | | | | | | | | |
| T 15 | 3 59 54 | 29° 3'49 | 18°21 | 18°37 | 4°50 | 6°51 | 15°59 | 17°13 | 26°56 | 15°53 | 29°34 | 26°43 | 27°39 | 10°35 | 17°57 | T 15 | | | | | | | | |
| F 16 | 4 3 51 | 0♏ 4'46 | 0♐43 | 19°56 | 5° 8 | 7° 3 | 16° 1 | 17° 8 | 26°55 | 15°52 | 29°33 | 26°40 | 27°36 | 10°41 | 17°57 | F 16 | | | | | | | | |
| S 17 | 4 7 47 | 1° 5'44 | 13°24 | 21°12 | 5°23 | 7°15 | 16° 2 | 17° 3 | 26°54 | 15°51 | 29°33 | 26°36 | 27°33 | 10°48 | 17°57 | S 17 | | | | | | | | |
| S 18 | 4 11 44 | 2° 6'42 | 26°26 | 22°26 | 5°36 | 7°28 | 16° 4 | 16°59 | 26°54 | 15°50 | 29°32 | 26°32 | 27°29 | 10°55 | 17°56 | S 18 | | | | | | | | |
| M19 | 4 15 41 | 3° 7'42 | 9♎51 | 23°37 | 5°47 | 7°42 | 16° 6 | 16°54 | 26°53 | 15°49 | 29°32 | 26°29 | 27°26 | 11° 1 | 17°56 | M19 | | | | | | | | |
| T 20 | 4 19 37 | 4° 8'42 | 23°36 | 24°45 | 5°56 | 7°56 | 16° 7 | 16°49 | 26°52 | 15°48 | 29°31 | 26°25 | 27°23 | 11° 8 | 17°56 | T 20 | | | | | | | | |
| W21 | 4 23 34 | 5° 9'43 | 7♒41 | 25°50 | 6° 3 | 8°11 | 16° 8 | 16°44 | 26°52 | 15°46 | 29°31 | 26°23 | 27°20 | 11°15 | 17°56 | W21 | | | | | | | | |
| T 22 | 4 27 30 | 6°10'45 | 21°59 | 26°50 | 6° 7 | 8°26 | 16° 9 | 16°40 | 26°52 | 15°45 | 29°31 | 26°D22 | 27°17 | 11°21 | 17°56 | T 22 | | | | | | | | |
| F 23 | 4 31 27 | 7°11'48 | 6♎26 | 27°45 | 6°R 9 | 8°42 | 16° 9 | 16°35 | 26°51 | 15°44 | 29°30 | 26°23 | 27°14 | 11°28 | 17°56 | F 23 | | | | | | | | |
| S 24 | 4 35 23 | 8°12'52 | 20°57 | 28°35 | 6° 8 | 8°58 | 16°10 | 16°30 | 26°51 | 15°43 | 29°30 | 26°24 | 27°10 | 11°35 | 17°56 | S 24 | | | | | | | | |
| S 25 | 4 39 20 | 9°13'57 | 5♏26 | 29°19 | 6° 5 | 9°15 | 16°10 | 16°25 | 26°51 | 15°41 | 29°30 | 26°25 | 27° 7 | 11°42 | 17°56 | S 25 | | | | | | | | |
| M26 | 4 43 16 | 10°15'02 | 19°49 | 29°56 | 5°59 | 9°32 | 16°R10 | 16°20 | 26°50 | 15°40 | 29°29 | 26°26 | 27° 4 | 11°48 | 17°56 | M26 | | | | | | | | |
| T 27 | 4 47 13 | 11°16'09 | 4♍ 3 | 0♎24 | 5°51 | 9°50 | 16°10 | 16°15 | 26°50 | 15°39 | 29°29 | 26°27 | 27° 1 | 11°55 | 17°56 | T 27 | | | | | | | | |
| W28 | 4 51 10 | 12°17'16 | 18° 6 | 0°44 | 5°41 | 10° 8 | 16°10 | 16°10 | 26°50 | 15°37 | 29°29 | 26°R27 | 26°58 | 12° 2 | 17°56 | W28 | | | | | | | | |
| T 29 | 4 55 6 | 13°18'24 | 1♎56 | 0°R54 | 5°28 | 10°27 | 16° 9 | 16° 5 | 26°50 | 15°36 | 29°29 | 26°26 | 26°55 | 12° 8 | 17°57 | T 29 | | | | | | | | |
| F 30 | 4 59 3 | 14°19'33 | 15♎33 | 0♎54 | 5♎12 | 10°Y46 | 16°R 9 | 16°II 0 | 26°D50 | 15°35 | 29°Y29 | 26°II25 | 26°II51 | 12°≈15 | 17°≈57 | F 30 | | | | | | | | |

Delta T = 18m16s Julian Calendar 1 Nov. 1089 == Greg. Calendar 7 Nov. 1089

DECEMBER 1089 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|-------|--------|--------|--------|--------|---------|--------|--------|--------|---------|---------|--------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 5 2 59 | 15♏20'43 | 28♐57 | 0°R42 | 4°R54 | 11°Y 6 | 16°R 8 | 15°R55 | 26°Y50 | 15°R33 | 29°R28 | 26°R23 | 26♒48 | 12°≈22 | 17°≈57 | S 1 | | | | | | | | |
| S 2 | 5 6 56 | 16°21'54 | 12♌ 7 | 0♎19 | 4♎34 | 11°26 | 16°R 7 | 15°II50 | 26°50 | 15°32 | 29°Y28 | 26°II22 | 26°45 | 12°28 | 17°58 | S 2 | | | | | | | | |
| M 3 | 5 10 52 | 17°23'05 | 25° 4 | 29°Y44 | 4°12 | 11°46 | 16° 5 | 15°45 | 26°50 | 15°30 | 29°28 | 26°21 | 26°42 | 12°35 | 17°59 | M 3 | | | | | | | | |
| T 4 | 5 14 49 | 18°24'17 | 7♏48 | 28°57 | 3°47 | 12° 7 | 16° 4 | 15°40 | 26°50 | 15°29 | 29°28 | 26°20 | 26°39 | 12°42 | 17°59 | T 4 | | | | | | | | |
| W 5 | 5 18 45 | 19°25'29 | 20°18 | 28° 0 | 3°20 | 12°28 | 16° 2 | 15°35 | 26°51 | 15°28 | 29°28 | 26°D19 | 26°35 | 12°48 | 18° 0 | W 5 | | | | | | | | |
| T 6 | 5 22 42 | 20°26'41 | 2♎37 | 26°54 | 2°52 | 12°50 | 16° 0 | 15°30 | 26°51 | 15°26 | 29°28 | 26°19 | 26°32 | 12°55 | 18° 1 | T 6 | | | | | | | | |
| F 7 | 5 26 39 | 21°27'54 | 14°45 | 25°40 | 2°22 | 13°12 | 15°58 | 15°26 | 26°51 | 15°25 | 29°28 | 26°20 | 26°29 | 13° 2 | 18° 1 | F 7 | | | | | | | | |
| S 8 | 5 30 35 | 22°29'07 | 26°44 | 24°21 | 1°50 | 13°35 | 15°56 | 15°21 | 26°52 | 15°23 | 29°D28 | 26°20 | 26°26 | 13° 8 | 18° 2 | S 8 | | | | | | | | |
| S 9 | 5 34 32 | 23°30'19 | 8♏37 | 22°59 | 1°16 | 13°58 | 15°54 | 15°16 | 26°52 | 15°21 | 29°28 | 26°21 | 26°23 | 13°15 | 18° 3 | S 9 | | | | | | | | |
| M10 | 5 38 28 | 24°31'32 | 20°26 | 21°37 | 0°42 | 14°21 | 15°51 | 15°11 | 26°53 | 15°20 | 29°28 | 26°21 | 26°20 | 13°22 | 18° 4 | M10 | | | | | | | | |
| T 11 | 5 42 25 | 25°32'44 | 2♋16 | 20°19 | 0° 7 | 14°44 | 15°48 | 15° 6 | 26°53 | 15°18 | 29°28 | 26°21 | 26°16 | 13°28 | 18° 5 | T 11 | | | | | | | | |
| W12 | 5 46 21 | 26°33'57 | 14°11 | 19° 5 | 29°Y31 | 15° 8 | 15°45 | 15° 1 | 26°54 | 15°17 | 29°28 | 26°R21 | 26°13 | 13°35 | 18° 6 | W12 | | | | | | | | |
| T 13 | 5 50 18 | 27°35'09 | 26°16 | 17°59 | 28°54 | 15°32 | 15°42 | 14°56 | 26°54 | 15°15 | 29°28 | 26°D21 | 26°10 | 13°42 | 18° 7 | T 13 | | | | | | | | |
| F 14 | 5 54 15 | 28°36'21 | 8°Y34 | 17° 1 | 28°17 | 15°57 | 15°38 | 14°52 | 26°55 | 15°14 | 29°28 | 26°21 | 26° 7 | 13°49 | 18° 8 | F 14 | | | | | | | | |
| S 15 | 5 58 11 | 29°37'32 | 21°11 | 16°13 | 27°41 | 16°22 | 15°35 | 14°47 | 26°56 | 15°12 | 29°28 | 26°21 | 26° 4 | 13°55 | 18°10 | S 15 | | | | | | | | |
| S 16 | 6 2 8 | 0♎38'43 | 4♎10 | 15°34 | 27° 4 | 16°47 | 15°31 | 14°42 | 26°57 | 15°10 | 29°29 | 26°22 | 26° 1 | 14° 2 | 18°11 | S 16 | | | | | | | | |
| M17 | 6 6 4 | 1°39'54 | 17°34 | 15° 6 | 26°29 | 17°13 | 15°27 | 14°38 | 26°57 | 15° 9 | 29°29 | 26°22 | 25°57 | 14° 9 | 18°12 | M17 | | | | | | | | |
| T 18 | 6 10 1 | 2°41'04 | 1♒24 | 14°49 | 25°54 | 17°38 | 15°23 | 14°33 | 26°58 | 15° 7 | 29°29 | 26°23 | 25°54 | 14°15 | 18°14 | T 18 | | | | | | | | |
| W19 | 6 13 57 | 3°42'15 | 15°39 | 14°D40 | 25°20 | 18° 4 | 15°19 | 14°28 | 26°59 | 15° 5 | 29°29 | 26°23 | 25°51 | 14°22 | 18°15 | W19 | | | | | | | | |
| T 20 | 6 17 54 | 4°43'24 | 0♎15 | 14°41 | 24°47 | 18°31 | 15°14 | 14°24 | 27° 0 | 15° 4 | 29°30 | 26°R23 | 25°48 | 14°29 | 18°17 | T 20 | | | | | | | | |
| F 21 | 6 21 50 | 5°44'34 | 15° 6 | 14°50 | 24°16 | 18°57 | 15°10 | 14°19 | 27° 1 | 15° 2 | 29°30 | 26°23 | 25°45 | 14°35 | 18°18 | F 21 | | | | | | | | |
| S 22 | 6 25 47 | 6°45'43 | 0♏ 5 | 15° 7 | 23°47 | 19°24 | 15° 5 | 14°15 | 27° 3 | 15° 0 | 29°30 | 26°22 | 25°41 | 14°42 | 18°20 | S 22 | | | | | | | | |
| S 23 | 6 29 44 | 7°46'52 | 15° 2 | 15°31 | 23°19 | 19°51 | 15° 0 | 14°11 | 27° 4 | 14°59 | 29°31 | 26°21 | 25°38 | 14°49 | 18°21 | S 23 | | | | | | | | |
| M24 | 6 33 40 | 8°48'01 | 29°51 | 16° 2 | 22°54 | 20°18 | 14°55 | 14° 6 | 27° 5 | 14°57 | 29°31 | 26°19 | 25°35 | 14°55 | 18°23 | M24 | | | | | | | | |
| T 25 | 6 37 37 | 9°49'09 | 14♍23 | 16°38 | 22°30 | 20°46 | 14°50 | 14° 2 | 27° 6 | 14°55 | 29°31 | 26°18 | 25°32 | 15° 2 | 18°25 | T 25 | | | | | | | | |
| W26 | 6 41 33 | 10°50'18 | 28°36 | 17°20 | 22° 9 | 21°14 | 14°44 | 13°58 | 27° 7 | 14°54 | 29°32 | 26°17 | 25°29 | 15° 9 | 18°27 | W26 | | | | | | | | |
| T 27 | 6 45 30 | 11°51'26 | 12♎27 | 18° 6 | 21°50 | 21°42 | 14°39 | 13°54 | 27° 9 | 14°52 | 29°32 | 26°D16 | 25°26 | 15°16 | 18°28 | T 27 | | | | | | | | |
| F 28 | 6 49 26 | 12°52'34 | 25°57 | 18°57 | 21°34 | 22°10 | 14°33 | 13°50 | 27°10 | 14°50 | 29°33 | 26°17 | 25°22 | 15°22 | 18°30 | F 28 | | | | | | | | |
| S 29 | 6 53 23 | 13°53'41 | 9♌ 7 | 19°51 | 21°20 | 22°38 | 14°27 | 13°46 | 27°12 | 14°49 | 29°33 | 26°18 | 25°19 | 15°29 | 18°32 | S 29 | | | | | | | | |
| S 30 | 6 57 19 | 14°54'49 | 21°58 | 20°49 | 21° 8 | 23° 7 | 14°21 | 13°42 | 27°13 | 14°47 | 29°34 | 26°19 | 25°16 | 15°36 | 18°34 | S 30 | | | | | | | | |
| M31 | 7 1 16 | 15°55'55 | 4♏35 | 21°Y49 | 21°Y 0 | 23°Y36 | 14°R15 | 13°II38 | 27°Y15 | 14°≈45 | 29°Y34 | 26°II21 | 25°II13 | 15°≈42 | 18°≈36 | M31 | | | | | | | | |

Delta T = 18m15s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1090
geocentric

JANUARY 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|--------|-------|--------|---------|-------|--------|-------|---------|---------|-------|-------|------|
| T 1 | 7 5 13 | 16♁57'02 | 16♁59 | 22♁53 | 20♁R53 | 24♁ 5 | 14♁R 9 | 13♁R35 | 27♁16 | 14♁R44 | 29♁35 | 26♁II22 | 25♁II10 | 15♁49 | 18♁38 | T 1 |
| W 2 | 7 9 9 | 17°58'08 | 29°13 | 23°59 | 20♁49 | 24°34 | 14♁ 2 | 13♁II31 | 27°18 | 14♁42 | 29°35 | 26°R22 | 25° 7 | 15°56 | 18°41 | W 2 |
| T 3 | 7 13 6 | 18°59'13 | 11♁18 | 25° 7 | 20°D48 | 25° 4 | 13°56 | 13°27 | 27°20 | 14°40 | 29°36 | 26°21 | 25° 3 | 16° 2 | 18°43 | T 3 |
| F 4 | 7 17 2 | 20° 0'17 | 23°17 | 26°18 | 20°49 | 25°33 | 13°49 | 13°24 | 27°21 | 14°38 | 29°36 | 26°19 | 25° 0 | 16° 9 | 18°45 | F 4 |
| S 5 | 7 20 59 | 21° 1'21 | 5♁11 | 27°30 | 20°52 | 26° 3 | 13°42 | 13°20 | 27°23 | 14°37 | 29°37 | 26°16 | 24°57 | 16°16 | 18°47 | S 5 |
| S 6 | 7 24 55 | 22° 2'23 | 17° 2 | 28°44 | 20°58 | 26°33 | 13°35 | 13°17 | 27°25 | 14°35 | 29°38 | 26°11 | 24°54 | 16°22 | 18°50 | S 6 |
| M 7 | 7 28 52 | 23° 3'25 | 28°52 | 29°59 | 21° 6 | 27° 3 | 13°28 | 13°14 | 27°27 | 14°33 | 29°38 | 26° 6 | 24°51 | 16°29 | 18°52 | M 7 |
| T 8 | 7 32 49 | 24° 4'25 | 10♁43 | 1♁17 | 21°16 | 27°33 | 13°21 | 13°11 | 27°29 | 14°32 | 29°39 | 26° 1 | 24°47 | 16°36 | 18°54 | T 8 |
| W 9 | 7 36 45 | 25° 5'24 | 22°39 | 2°35 | 21°28 | 28° 4 | 13°14 | 13° 8 | 27°31 | 14°30 | 29°40 | 25°57 | 24°44 | 16°43 | 18°57 | W 9 |
| T 10 | 7 40 42 | 26° 6'22 | 4♁42 | 3°55 | 21°43 | 28°35 | 13° 7 | 13° 5 | 27°33 | 14°28 | 29°40 | 25°54 | 24°41 | 16°49 | 18°59 | T 10 |
| F 11 | 7 44 38 | 27° 7'19 | 16°57 | 5°16 | 22° 0 | 29° 5 | 13° 0 | 13° 2 | 27°35 | 14°27 | 29°41 | 25°52 | 24°38 | 16°56 | 19° 2 | F 11 |
| S 12 | 7 48 35 | 28° 8'14 | 29°28 | 6°38 | 22°18 | 29°36 | 12°52 | 12°59 | 27°37 | 14°25 | 29°42 | 25°D51 | 24°35 | 17° 3 | 19° 4 | S 12 |
| S 13 | 7 52 31 | 29° 9'08 | 12♁19 | 8° 1 | 22°39 | 0♁ 8 | 12°45 | 12°56 | 27°39 | 14°23 | 29°43 | 25°52 | 24°32 | 17° 9 | 19° 7 | S 13 |
| M14 | 7 56 28 | 0♁10'00 | 25°34 | 9°26 | 23° 1 | 0°39 | 12°37 | 12°54 | 27°41 | 14°22 | 29°44 | 25°53 | 24°28 | 17°16 | 19°10 | M14 |
| T 15 | 8 0 24 | 1°10'52 | 9♁16 | 10°51 | 23°25 | 1°10 | 12°29 | 12°51 | 27°43 | 14°20 | 29°44 | 25°55 | 24°25 | 17°23 | 19°12 | T 15 |
| W16 | 8 4 21 | 2°11'41 | 23°26 | 12°17 | 23°51 | 1°42 | 12°22 | 12°49 | 27°45 | 14°19 | 29°45 | 25°R56 | 24°22 | 17°29 | 19°15 | W16 |
| T 17 | 8 8 18 | 3°12'30 | 8♁ 3 | 13°44 | 24°19 | 2°13 | 12°14 | 12°47 | 27°48 | 14°17 | 29°46 | 25°55 | 24°19 | 17°36 | 19°18 | T 17 |
| F 18 | 8 12 14 | 4°13'16 | 23° 2 | 15°12 | 24°48 | 2°45 | 12° 6 | 12°45 | 27°50 | 14°15 | 29°47 | 25°53 | 24°16 | 17°43 | 19°21 | F 18 |
| S 19 | 8 16 11 | 5°14'02 | 8♁15 | 16°41 | 25°19 | 3°17 | 11°58 | 12°43 | 27°52 | 14°14 | 29°48 | 25°49 | 24°13 | 17°50 | 19°23 | S 19 |
| S 20 | 8 20 7 | 6°14'46 | 23°33 | 18°11 | 25°51 | 3°49 | 11°51 | 12°41 | 27°55 | 14°12 | 29°49 | 25°43 | 24° 9 | 17°56 | 19°26 | S 20 |
| M21 | 8 24 4 | 7°15'29 | 8♁43 | 19°41 | 26°25 | 4°21 | 11°43 | 12°39 | 27°57 | 14°11 | 29°50 | 25°36 | 24° 6 | 18° 3 | 19°29 | M21 |
| T 22 | 8 28 0 | 8°16'10 | 23°37 | 21°13 | 27° 0 | 4°54 | 11°35 | 12°37 | 28° 0 | 14° 9 | 29°51 | 25°30 | 24° 3 | 18°10 | 19°32 | T 22 |
| W23 | 8 31 57 | 9°16'51 | 8♁ 8 | 22°45 | 27°37 | 5°26 | 11°27 | 12°35 | 28° 2 | 14° 8 | 29°52 | 25°25 | 24° 0 | 18°16 | 19°35 | W23 |
| T 24 | 8 35 53 | 10°17'30 | 22°11 | 24°18 | 28°15 | 5°58 | 11°19 | 12°34 | 28° 5 | 14° 6 | 29°53 | 25°21 | 23°57 | 18°23 | 19°38 | T 24 |
| F 25 | 8 39 50 | 11°18'08 | 5♁45 | 25°53 | 28°54 | 6°31 | 11°11 | 12°33 | 28° 7 | 14° 5 | 29°54 | 25°D20 | 23°53 | 18°30 | 19°41 | F 25 |
| S 26 | 8 43 47 | 12°18'44 | 18°54 | 27°27 | 29°34 | 7° 4 | 11° 3 | 12°31 | 28°10 | 14° 3 | 29°55 | 25°20 | 23°50 | 18°36 | 19°44 | S 26 |
| S 27 | 8 47 43 | 13°19'20 | 1♁39 | 29° 3 | 0♁15 | 7°36 | 10°55 | 12°30 | 28°13 | 14° 2 | 29°56 | 25°21 | 23°47 | 18°43 | 19°47 | S 27 |
| M28 | 8 51 40 | 14°19'54 | 14° 6 | 0♁40 | 0°58 | 8° 9 | 10°47 | 12°29 | 28°15 | 14° 1 | 29°57 | 25°22 | 23°44 | 18°50 | 19°50 | M28 |
| T 29 | 8 55 36 | 15°20'27 | 26°18 | 2°18 | 1°42 | 8°42 | 10°39 | 12°28 | 28°18 | 13°59 | 29°58 | 25°R23 | 23°41 | 18°56 | 19°53 | T 29 |
| W30 | 8 59 33 | 16°20'59 | 8♁21 | 3°56 | 2°26 | 9°15 | 10°31 | 12°27 | 28°21 | 13°58 | 29°59 | 25°22 | 23°38 | 19° 3 | 19°57 | W30 |
| T 31 | 9 3 29 | 17°21'29 | 20♁16 | 5♁35 | 3♁12 | 9♁49 | 10♁24 | 12♁26 | 28♁23 | 13♁56 | 0♁ 0 | 25♁II18 | 23♁II34 | 19♁10 | 20♁ 0 | T 31 |

Delta T = 18m15s Julian Calendar 1 Jan. 1090 == Greg. Calendar 7 Jan. 1090

FEBRUARY 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|---------|-------|--------|------|---------|---------|-------|-------|------|
| F 1 | 9 7 26 | 18♁21'58 | 2♁ 8 | 7♁16 | 3♁58 | 10♁22 | 10°R16 | 12°R26 | 28♁26 | 13°R55 | 0♁ 1 | 25°R13 | 23♁II31 | 19♁17 | 20♁ 3 | F 1 |
| S 2 | 9 11 22 | 19°22'25 | 13°58 | 8°57 | 4°45 | 10°55 | 10♁ 8 | 12♁II25 | 28°29 | 13♁54 | 0° 2 | 25°II 4 | 23°28 | 19°23 | 20° 6 | S 2 |
| S 3 | 9 15 19 | 20°22'50 | 25°49 | 10°39 | 5°33 | 11°29 | 10° 0 | 12°25 | 28°32 | 13°52 | 0° 4 | 24°54 | 23°25 | 19°30 | 20°10 | S 3 |
| M 4 | 9 19 16 | 21°23'14 | 7♁41 | 12°22 | 6°22 | 12° 2 | 9°53 | 12°25 | 28°35 | 13°51 | 0° 5 | 24°43 | 23°22 | 19°37 | 20°13 | M 4 |
| T 5 | 9 23 12 | 22°23'36 | 19°37 | 14° 6 | 7°12 | 12°36 | 9°45 | 12°24 | 28°38 | 13°50 | 0° 6 | 24°31 | 23°18 | 19°43 | 20°16 | T 5 |
| W 6 | 9 27 9 | 23°23'55 | 1♁37 | 15°52 | 8° 3 | 13°10 | 9°37 | 12°D24 | 28°41 | 13°49 | 0° 7 | 24°20 | 23°15 | 19°50 | 20°20 | W 6 |
| T 7 | 9 31 5 | 24°24'13 | 13°45 | 17°38 | 8°54 | 13°43 | 9°30 | 12°24 | 28°44 | 13°47 | 0° 8 | 24°11 | 23°12 | 19°57 | 20°23 | T 7 |
| F 8 | 9 35 2 | 25°24'29 | 26° 2 | 19°25 | 9°46 | 14°17 | 9°22 | 12°24 | 28°47 | 13°46 | 0°10 | 24° 5 | 23° 9 | 20° 3 | 20°26 | F 8 |
| S 9 | 9 38 58 | 26°24'43 | 8♁32 | 21°13 | 10°38 | 14°51 | 9°15 | 12°25 | 28°50 | 13°45 | 0°11 | 24° 1 | 23° 6 | 20°10 | 20°30 | S 9 |
| S 10 | 9 42 55 | 27°24'55 | 21°18 | 23° 2 | 11°31 | 15°25 | 9° 8 | 12°25 | 28°53 | 13°44 | 0°12 | 23°59 | 23° 3 | 20°17 | 20°33 | S 10 |
| M11 | 9 46 51 | 28°25'04 | 4♁25 | 24°53 | 12°25 | 15°59 | 9° 1 | 12°26 | 28°56 | 13°43 | 0°13 | 23°D59 | 22°59 | 20°24 | 20°37 | M11 |
| T 12 | 9 50 48 | 29°25'12 | 17°56 | 26°44 | 13°19 | 16°33 | 8°54 | 12°26 | 28°59 | 13°42 | 0°15 | 24°R 0 | 22°56 | 20°30 | 20°40 | T 12 |
| W13 | 9 54 44 | 0♁25'17 | 1♁54 | 28°36 | 14°14 | 17° 8 | 8°47 | 12°27 | 29° 2 | 13°41 | 0°16 | 23°59 | 22°53 | 20°37 | 20°44 | W13 |
| T 14 | 9 58 41 | 1°25'20 | 16°18 | 0♁29 | 15°10 | 17°42 | 8°40 | 12°28 | 29° 5 | 13°40 | 0°17 | 23°58 | 22°50 | 20°44 | 20°47 | T 14 |
| F 15 | 10 2 38 | 2°25'21 | 1♁ 7 | 2°23 | 16° 6 | 18°16 | 8°33 | 12°29 | 29° 8 | 13°39 | 0°18 | 23°53 | 22°47 | 20°50 | 20°51 | F 15 |
| S 16 | 10 6 34 | 3°25'20 | 16°15 | 4°18 | 17° 2 | 18°51 | 8°26 | 12°30 | 29°11 | 13°38 | 0°20 | 23°46 | 22°44 | 20°57 | 20°54 | S 16 |
| S 17 | 10 10 31 | 4°25'17 | 1♁34 | 6°14 | 17°59 | 19°25 | 8°20 | 12°31 | 29°14 | 13°37 | 0°21 | 23°37 | 22°40 | 21° 4 | 20°58 | S 17 |
| M18 | 10 14 27 | 5°25'12 | 16°51 | 8°11 | 18°57 | 20° 0 | 8°14 | 12°32 | 29°18 | 13°36 | 0°22 | 23°26 | 22°37 | 21°10 | 21° 1 | M18 |
| T 19 | 10 18 24 | 6°25'05 | 1♁56 | 10° 8 | 19°55 | 20°34 | 8° 7 | 12°34 | 29°21 | 13°35 | 0°24 | 23°16 | 22°34 | 21°17 | 21° 5 | T 19 |
| W20 | 10 22 20 | 7°24'56 | 16°39 | 12° 6 | 20°53 | 21° 9 | 8° 1 | 12°35 | 29°24 | 13°34 | 0°25 | 23° 6 | 22°31 | 21°24 | 21° 8 | W20 |
| T 21 | 10 26 17 | 8°24'45 | 0♁54 | 14° 4 | 21°52 | 21°43 | 7°55 | 12°37 | 29°27 | 13°33 | 0°26 | 22°59 | 22°28 | 21°31 | 21°12 | T 21 |
| F 22 | 10 30 13 | 9°24'32 | 14°39 | 16° 3 | 22°51 | 22°18 | 7°49 | 12°39 | 29°31 | 13°32 | 0°28 | 22°55 | 22°24 | 21°37 | 21°16 | F 22 |
| S 23 | 10 34 10 | 10°24'18 | 27°54 | 18° 1 | 23°51 | 22°53 | 7°44 | 12°40 | 29°34 | 13°32 | 0°29 | 22°52 | 22°21 | 21°44 | 21°19 | S 23 |
| S 24 | 10 38 7 | 11°24'02 | 10♁42 | 20° 0 | 24°51 | 23°28 | 7°38 | 12°42 | 29°37 | 13°31 | 0°30 | 22°D52 | 22°18 | 21°51 | 21°23 | S 24 |
| M25 | 10 42 3 | 12°23'44 | 23° 9 | 21°58 | 25°51 | 24° 2 | 7°32 | 12°44 | 29°40 | 13°30 | 0°32 | 22°R52 | 22°15 | 21°57 | 21°26 | M25 |
| T 26 | 10 46 0 | 13°23'25 | 5♁19 | 23°55 | 26°52 | 24°37 | 7°27 | 12°47 | 29°44 | 13°29 | 0°33 | 22°51 | 22°12 | 22° 4 | 21°30 | T 26 |
| W27 | 10 49 56 | 14°23'04 | 17°17 | 25°50 | 27°53 | 25°12 | 7°22 | 12°49 | 29°47 | 13°29 | 0°35 | 22°49 | 22° 9 | 22°11 | 21°34 | W27 |
| T 28 | 10 53 53 | 15♁22'41 | 29♁ 9 | 27♁45 | 28♁55 | 25♁47 | 7♁17 | 12♁51 | 29♁50 | 13♁28 | 0♁36 | 22♁II45 | 22♁II 5 | 22♁18 | 21♁37 | T 28 |

Delta T = 18m15s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1090
geocentric

MARCH 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|--------|-------|--------|-------|--------|-------|--------|------|--------|--------|-------|-------|------|
| F 1 | 10 57 49 | 16♂22'16 | 10♁57 | 29♂37 | 29♁57 | 26♂22 | 7°R12 | 12II54 | 29♂54 | 13°R27 | 0♀37 | 22°R37 | 22II 2 | 22♁24 | 21♂41 | F 1 |
| S 2 | 11 1 46 | 17°21'49 | 22°47 | 1♀27 | 0♁59 | 26°57 | 7♁ 8 | 12°56 | 29°57 | 13♁27 | 0°39 | 22II26 | 21°59 | 22°31 | 21°45 | S 2 |
| S 3 | 11 5 42 | 18°21'20 | 4♂39 | 3°14 | 2° 1 | 27°33 | 7° 3 | 12°59 | 0♀ 1 | 13°26 | 0°40 | 22°14 | 21°56 | 22°38 | 21°48 | S 3 |
| M 4 | 11 9 39 | 19°20'49 | 16°36 | 4°58 | 3° 4 | 28° 8 | 6°59 | 13° 2 | 0° 4 | 13°26 | 0°42 | 21°59 | 21°53 | 22°44 | 21°52 | M 4 |
| T 5 | 11 13 36 | 20°20'16 | 28°40 | 6°39 | 4° 6 | 28°43 | 6°55 | 13° 5 | 0° 7 | 13°25 | 0°43 | 21°45 | 21°50 | 22°51 | 21°56 | T 5 |
| W 6 | 11 17 32 | 21°19'41 | 10♀50 | 8°15 | 5°10 | 29°18 | 6°51 | 13° 8 | 0°11 | 13°25 | 0°45 | 21°31 | 21°46 | 22°58 | 21°59 | W 6 |
| T 7 | 11 21 29 | 22°19'03 | 23° 8 | 9°47 | 6°13 | 29°54 | 6°47 | 13°11 | 0°14 | 13°25 | 0°46 | 21°19 | 21°43 | 23° 4 | 22° 3 | T 7 |
| F 8 | 11 25 25 | 23°18'24 | 5♂35 | 11°14 | 7°17 | 0II29 | 6°43 | 13°14 | 0°18 | 13°24 | 0°47 | 21°10 | 21°40 | 23°11 | 22° 7 | F 8 |
| S 9 | 11 29 22 | 24°17'42 | 18°14 | 12°35 | 8°20 | 1° 4 | 6°40 | 13°17 | 0°21 | 13°24 | 0°49 | 21° 4 | 21°37 | 23°18 | 22°10 | S 9 |
| S 10 | 11 33 18 | 25°16'58 | 1II 5 | 13°51 | 9°25 | 1°40 | 6°36 | 13°20 | 0°24 | 13°24 | 0°50 | 21° 1 | 21°34 | 23°25 | 22°14 | S 10 |
| M11 | 11 37 15 | 26°16'12 | 14°13 | 15° 1 | 10°29 | 2°15 | 6°33 | 13°24 | 0°28 | 13°23 | 0°52 | 21° 0 | 21°30 | 23°31 | 22°18 | M11 |
| T 12 | 11 41 11 | 27°15'23 | 27°39 | 16° 5 | 11°33 | 2°51 | 6°30 | 13°28 | 0°31 | 13°23 | 0°53 | 21° 0 | 21°27 | 23°38 | 22°21 | T 12 |
| W13 | 11 45 8 | 28°14'32 | 11♁26 | 17° 3 | 12°38 | 3°26 | 6°28 | 13°31 | 0°35 | 13°23 | 0°55 | 21° 0 | 21°24 | 23°45 | 22°25 | W13 |
| T 14 | 11 49 5 | 29°13'38 | 25°36 | 17°54 | 13°43 | 4° 2 | 6°25 | 13°35 | 0°38 | 13°23 | 0°56 | 20°58 | 21°21 | 23°51 | 22°29 | T 14 |
| F 15 | 11 53 1 | 0♀12'42 | 10♁ 8 | 18°38 | 14°48 | 4°37 | 6°23 | 13°39 | 0°42 | 13°23 | 0°58 | 20°54 | 21°18 | 23°58 | 22°32 | F 15 |
| S 16 | 11 56 58 | 1°11'44 | 24°58 | 19°16 | 15°54 | 5°13 | 6°21 | 13°43 | 0°45 | 13°22 | 0°59 | 20°47 | 21°15 | 24° 5 | 22°36 | S 16 |
| S 17 | 12 0 54 | 2°10'44 | 9♁59 | 19°46 | 16°59 | 5°49 | 6°19 | 13°47 | 0°48 | 13°22 | 1° 0 | 20°37 | 21°11 | 24°12 | 22°40 | S 17 |
| M18 | 12 4 51 | 3° 9'41 | 25° 4 | 20°10 | 18° 5 | 6°24 | 6°17 | 13°51 | 0°52 | 13°22 | 1° 2 | 20°27 | 21° 8 | 24°18 | 22°43 | M18 |
| T 19 | 12 8 47 | 4° 8'36 | 10♁ 1 | 20°27 | 19°11 | 7° 0 | 6°15 | 13°55 | 0°55 | 13°D22 | 1° 3 | 20°16 | 21° 5 | 24°25 | 22°47 | T 19 |
| W20 | 12 12 44 | 5° 7'29 | 24°42 | 20°36 | 20°17 | 7°36 | 6°14 | 13°59 | 0°59 | 13°22 | 1° 5 | 20° 6 | 21° 2 | 24°32 | 22°51 | W20 |
| T 21 | 12 16 40 | 6° 6'20 | 8III59 | 20°R40 | 21°23 | 8°11 | 6°12 | 14° 4 | 1° 2 | 13°22 | 1° 6 | 19°58 | 20°59 | 24°38 | 22°54 | T 21 |
| F 22 | 12 20 37 | 7° 5'09 | 22°48 | 20°36 | 22°29 | 8°47 | 6°11 | 14° 8 | 1° 6 | 13°22 | 1° 8 | 19°53 | 20°55 | 24°45 | 22°58 | F 22 |
| S 23 | 12 24 33 | 8° 3'57 | 6♂ 9 | 20°27 | 23°36 | 9°23 | 6°10 | 14°13 | 1° 9 | 13°23 | 1° 9 | 19°50 | 20°52 | 24°52 | 23° 1 | S 23 |
| S 24 | 12 28 30 | 9° 2'42 | 19° 2 | 20°11 | 24°43 | 9°59 | 6°10 | 14°18 | 1°12 | 13°23 | 1°11 | 19°D49 | 20°49 | 24°58 | 23° 5 | S 24 |
| M25 | 12 32 27 | 10° 1'26 | 1♁33 | 19°50 | 25°50 | 10°34 | 6° 9 | 14°22 | 1°16 | 13°23 | 1°12 | 19°50 | 20°46 | 25° 5 | 23° 8 | M25 |
| T 26 | 12 36 23 | 11° 0'09 | 13°46 | 19°24 | 26°57 | 11°10 | 6° 9 | 14°27 | 1°19 | 13°23 | 1°13 | 19°R50 | 20°43 | 25°12 | 23°12 | T 26 |
| W27 | 12 40 20 | 11°58'49 | 25°46 | 18°54 | 28° 4 | 11°46 | 6°D 9 | 14°32 | 1°23 | 13°23 | 1°15 | 19°49 | 20°40 | 25°19 | 23°15 | W27 |
| T 28 | 12 44 16 | 12°57'28 | 7♁39 | 18°19 | 29°11 | 12°22 | 6° 9 | 14°37 | 1°26 | 13°24 | 1°16 | 19°46 | 20°36 | 25°25 | 23°19 | T 28 |
| F 29 | 12 48 13 | 13°56'05 | 19°29 | 17°42 | 0♂18 | 12°58 | 6° 9 | 14°42 | 1°29 | 13°24 | 1°18 | 19°40 | 20°33 | 25°32 | 23°22 | F 29 |
| S 30 | 12 52 9 | 14°54'40 | 1♂20 | 17° 2 | 1°26 | 13°34 | 6°10 | 14°47 | 1°33 | 13°24 | 1°19 | 19°32 | 20°30 | 25°39 | 23°26 | S 30 |
| S 31 | 12 56 6 | 15♀53'14 | 13♂16 | 16♀21 | 2♂34 | 14II10 | 6♁10 | 14II52 | 1♀36 | 13♁25 | 1♀21 | 19II23 | 20II27 | 25♁45 | 23♂29 | S 31 |

Delta T = 18m15s Julian Calendar 1 March 1090 == Greg. Calendar 7 March 1090

APRIL 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|--------|-------|--------|------|--------|------|-------|------|--------|--------|-------|-------|------|
| M 1 | 13 0 2 | 16♀51'45 | 25♂19 | 15°R38 | 3♂41 | 14II46 | 6♁12 | 14II58 | 1♀39 | 13♁25 | 1♀22 | 19°R11 | 20II24 | 25♁52 | 23♂33 | M 1 |
| T 2 | 13 3 59 | 17°50'15 | 7♀31 | 14♀56 | 4°49 | 15°22 | 6°12 | 15° 3 | 1°43 | 13°26 | 1°23 | 19II 0 | 20°21 | 25°59 | 23°36 | T 2 |
| W 3 | 13 7 56 | 18°48'43 | 19°54 | 14°15 | 5°57 | 15°58 | 6°13 | 15° 8 | 1°46 | 13°26 | 1°25 | 18°49 | 20°17 | 26° 6 | 23°40 | W 3 |
| T 4 | 13 11 52 | 19°47'09 | 2♂27 | 13°35 | 7° 5 | 16°34 | 6°15 | 15°14 | 1°49 | 13°27 | 1°26 | 18°39 | 20°14 | 26°12 | 23°43 | T 4 |
| F 5 | 13 15 49 | 20°45'33 | 15°11 | 12°57 | 8°13 | 17°10 | 6°16 | 15°19 | 1°53 | 13°27 | 1°28 | 18°32 | 20°11 | 26°19 | 23°46 | F 5 |
| S 6 | 13 19 45 | 21°43'55 | 28° 7 | 12°22 | 9°22 | 17°46 | 6°18 | 15°25 | 1°56 | 13°28 | 1°29 | 18°28 | 20° 8 | 26°26 | 23°50 | S 6 |
| S 7 | 13 23 42 | 22°42'15 | 11II14 | 11°50 | 10°30 | 18°23 | 6°20 | 15°31 | 1°59 | 13°28 | 1°30 | 18°26 | 20° 5 | 26°32 | 23°53 | S 7 |
| M 8 | 13 27 38 | 23°40'33 | 24°33 | 11°21 | 11°39 | 18°59 | 6°22 | 15°37 | 2° 3 | 13°29 | 1°32 | 18°D26 | 20° 1 | 26°39 | 23°56 | M 8 |
| T 9 | 13 31 35 | 24°38'49 | 8♁ 7 | 10°57 | 12°47 | 19°35 | 6°24 | 15°42 | 2° 6 | 13°30 | 1°33 | 18°27 | 19°58 | 26°46 | 24° 0 | T 9 |
| W10 | 13 35 31 | 25°37'03 | 21°54 | 10°37 | 13°56 | 20°11 | 6°27 | 15°48 | 2° 9 | 13°31 | 1°34 | 18°R27 | 19°55 | 26°53 | 24° 3 | W10 |
| T 11 | 13 39 28 | 26°35'15 | 5♁25 | 10°22 | 15° 5 | 20°47 | 6°29 | 15°54 | 2°12 | 13°31 | 1°36 | 18°27 | 19°52 | 26°59 | 24° 6 | T 11 |
| F 12 | 13 43 25 | 27°33'24 | 20°15 | 10°11 | 16°13 | 21°24 | 6°32 | 16° 0 | 2°15 | 13°32 | 1°37 | 18°25 | 19°49 | 27° 6 | 24° 9 | F 12 |
| S 13 | 13 47 21 | 28°31'32 | 4♁45 | 10° 5 | 17°22 | 22° 0 | 6°35 | 16° 6 | 2°19 | 13°33 | 1°38 | 18°21 | 19°46 | 27°13 | 24°13 | S 13 |
| S 14 | 13 51 18 | 29°29'37 | 19°22 | 10°D 4 | 18°31 | 22°36 | 6°38 | 16°13 | 2°22 | 13°34 | 1°40 | 18°15 | 19°42 | 27°19 | 24°16 | S 14 |
| M15 | 13 55 14 | 0♂27'41 | 4♁ 2 | 10° 8 | 19°40 | 23°12 | 6°41 | 16°19 | 2°25 | 13°35 | 1°41 | 18° 8 | 19°39 | 27°26 | 24°19 | M15 |
| T 16 | 13 59 11 | 1°25'43 | 18°36 | 10°16 | 20°50 | 23°49 | 6°45 | 16°25 | 2°28 | 13°36 | 1°42 | 18° 0 | 19°36 | 27°33 | 24°22 | T 16 |
| W17 | 14 3 7 | 2°23'43 | 2III58 | 10°29 | 21°59 | 24°25 | 6°49 | 16°31 | 2°31 | 13°36 | 1°44 | 17°54 | 19°33 | 27°40 | 24°25 | W17 |
| T 18 | 14 7 4 | 3°21'41 | 17° 3 | 10°47 | 23° 8 | 25° 1 | 6°52 | 16°38 | 2°34 | 13°37 | 1°45 | 17°49 | 19°30 | 27°46 | 24°28 | T 18 |
| F 19 | 14 11 0 | 4°19'38 | 0♂45 | 11° 9 | 24°17 | 25°38 | 6°56 | 16°44 | 2°37 | 13°38 | 1°46 | 17°45 | 19°27 | 27°53 | 24°31 | F 19 |
| S 20 | 14 14 57 | 5°17'33 | 14° 3 | 11°36 | 25°27 | 26°14 | 7° 0 | 16°51 | 2°40 | 13°39 | 1°47 | 17°D44 | 19°23 | 28° 0 | 24°34 | S 20 |
| S 21 | 14 18 54 | 6°15'27 | 26°57 | 12° 6 | 26°36 | 26°50 | 7° 5 | 16°57 | 2°43 | 13°40 | 1°49 | 17°44 | 19°20 | 28° 6 | 24°37 | S 21 |
| M22 | 14 22 50 | 7°13'20 | 9♁31 | 12°41 | 27°46 | 27°27 | 7° 9 | 17° 4 | 2°46 | 13°42 | 1°50 | 17°46 | 19°17 | 28°13 | 24°40 | M22 |
| T 23 | 14 26 47 | 8°11'11 | 21°47 | 13°20 | 28°56 | 28° 3 | 7°14 | 17°10 | 2°49 | 13°43 | 1°51 | 17°47 | 19°14 | 28°20 | 24°43 | T 23 |
| W24 | 14 30 43 | 9° 9'02 | 3♁50 | 14° 2 | 0♀ 6 | 28°40 | 7°19 | 17°17 | 2°52 | 13°44 | 1°52 | 17°R48 | 19°11 | 28°27 | 24°46 | W24 |
| T 25 | 14 34 40 | 10° 6'50 | 15°45 | 14°48 | 1°15 | 29°16 | 7°24 | 17°24 | 2°55 | 13°45 | 1°53 | 17°48 | 19° 7 | 28°33 | 24°48 | T 25 |
| F 26 | 14 38 36 | 11° 4'38 | 27°37 | 15°38 | 2°25 | 29°52 | 7°29 | 17°31 | 2°58 | 13°46 | 1°55 | 17°47 | 19° 4 | 28°40 | 24°51 | F 26 |
| S 27 | 14 42 33 | 12° 2'24 | 9♂31 | 16°31 | 3°35 | 0♁29 | 7°34 | 17°38 | 3° 1 | 13°47 | 1°56 | 17°44 | 19° 1 | 28°47 | 24°54 | S 27 |
| S 28 | 14 46 29 | 13° 0'09 | 21°30 | 17°27 | 4°45 | 1° 5 | 7°39 | 17°44 | 3° 4 | 13°49 | 1°57 | 17°39 | 18°58 | 28°53 | 24°57 | S 28 |
| M29 | 14 50 26 | 13°57'53 | 3♀39 | 18°26 | 5°55 | 1°42 | 7°45 | 17°51 | 3° 6 | 13°50 | 1°58 | 17°34 | 18°55 | 29° 0 | 24°59 | M29 |
| T 30 | 14 54 23 | 14♂55'36 | 15♀59 | 19♀29 | 7♀ 5 | 2♁18 | 7♁51 | 17II58 | 3♀ 9 | 13♁51 | 1♀59 | 17II28 | 18II52 | 29♁ 7 | 25♂ 2 | T 30 |

ASTRODIENST EPHEMERIS for the year 1090
geocentric

MAY 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|------|-------|------|--------|-------|-------|-------|------|-----|
| W 1 | 14 58 19 | 15♁53'17 | 28♁33 | 20♁34 | 8♁15 | 2♁55 | 7♁56 | 18♁ 5 | 3♁12 | 13♁53 | 2♁ 0 | 17°R23 | 18♁48 | 29♁14 | 25♁ 5 | W 1 | |
| T 2 | 15 2 16 | 16°50'58 | 11♁22 | 21°43 | 9°26 | 3°31 | 8° 2 | 18°12 | 3°15 | 13°54 | 2° 1 | 17♁19 | 18°45 | 29°20 | 25° 7 | T 2 | |
| F 3 | 15 6 12 | 17°48'37 | 24°26 | 22°54 | 10°36 | 4° 8 | 8° 9 | 18°20 | 3°17 | 13°55 | 2° 2 | 17°15 | 18°42 | 29°27 | 25°10 | F 3 | |
| S 4 | 15 10 9 | 18°46'14 | 7♁43 | 24° 8 | 11°46 | 4°45 | 8°15 | 18°27 | 3°20 | 13°57 | 2° 3 | 17°14 | 18°39 | 29°34 | 25°12 | S 4 | |
| S 5 | 15 14 5 | 19°43'51 | 21°13 | 25°25 | 12°57 | 5°21 | 8°21 | 18°34 | 3°22 | 13°58 | 2° 5 | 17°D13 | 18°36 | 29°40 | 25°15 | S 5 | |
| M 6 | 15 18 2 | 20°41'26 | 4♁55 | 26°44 | 14° 7 | 5°58 | 8°28 | 18°41 | 3°25 | 14° 0 | 2° 6 | 17°14 | 18°32 | 29°47 | 25°17 | M 6 | |
| T 7 | 15 21 58 | 21°39'00 | 18°47 | 28° 6 | 15°18 | 6°34 | 8°35 | 18°48 | 3°28 | 14° 1 | 2° 7 | 17°16 | 18°29 | 29°54 | 25°19 | T 7 | |
| W 8 | 15 25 55 | 22°36'32 | 2♁47 | 29°30 | 16°28 | 7°11 | 8°41 | 18°56 | 3°30 | 14° 3 | 2° 8 | 17°17 | 18°26 | 0♁ 1 | 25°22 | W 8 | |
| T 9 | 15 29 52 | 23°34'03 | 16°55 | 0♁58 | 17°39 | 7°48 | 8°48 | 19° 3 | 3°33 | 14° 4 | 2° 9 | 17°R18 | 18°23 | 0° 7 | 25°24 | T 9 | |
| F 10 | 15 33 48 | 24°31'32 | 1♁ 7 | 2°27 | 18°49 | 8°24 | 8°55 | 19°10 | 3°35 | 14° 6 | 2°10 | 17°18 | 18°20 | 0°14 | 25°26 | F 10 | |
| S 11 | 15 37 45 | 25°29'00 | 15°24 | 3°59 | 20° 0 | 9° 1 | 9° 3 | 19°18 | 3°38 | 14° 7 | 2°11 | 17°17 | 18°17 | 0°21 | 25°28 | S 11 | |
| S 12 | 15 41 41 | 26°26'27 | 29°40 | 5°34 | 21°11 | 9°38 | 9°10 | 19°25 | 3°40 | 14° 9 | 2°11 | 17°15 | 18°13 | 0°27 | 25°31 | S 12 | |
| M13 | 15 45 38 | 27°23'52 | 13♁53 | 7°11 | 22°21 | 10°14 | 9°18 | 19°32 | 3°42 | 14°11 | 2°12 | 17°13 | 18°10 | 0°34 | 25°33 | M13 | |
| T 14 | 15 49 34 | 28°21'16 | 27°59 | 8°51 | 23°32 | 10°51 | 9°25 | 19°40 | 3°45 | 14°12 | 2°13 | 17°10 | 18° 7 | 0°41 | 25°35 | T 14 | |
| W15 | 15 53 31 | 29°18'39 | 11♁55 | 10°33 | 24°43 | 11°28 | 9°33 | 19°47 | 3°47 | 14°14 | 2°14 | 17° 8 | 18° 4 | 0°48 | 25°37 | W15 | |
| T 16 | 15 57 27 | 0♁16'01 | 25°36 | 12°17 | 25°54 | 12° 5 | 9°41 | 19°55 | 3°49 | 14°16 | 2°15 | 17° 6 | 18° 1 | 0°54 | 25°39 | T 16 | |
| F 17 | 16 1 24 | 1°13'22 | 9♁ 0 | 14° 4 | 27° 5 | 12°41 | 9°49 | 20° 2 | 3°51 | 14°17 | 2°16 | 17° 5 | 17°58 | 1° 1 | 25°41 | F 17 | |
| S 18 | 16 5 21 | 2°10'42 | 22° 6 | 15°54 | 28°16 | 13°18 | 9°57 | 20°10 | 3°53 | 14°19 | 2°17 | 17°D 5 | 17°54 | 1° 8 | 25°43 | S 18 | |
| S 19 | 16 9 17 | 3° 8'02 | 4♁53 | 17°46 | 29°27 | 13°55 | 10° 5 | 20°18 | 3°56 | 14°21 | 2°18 | 17° 6 | 17°51 | 1°14 | 25°44 | S 19 | |
| M20 | 16 13 14 | 4° 5'21 | 17°24 | 19°40 | 0♁38 | 14°32 | 10°13 | 20°25 | 3°58 | 14°23 | 2°18 | 17° 7 | 17°48 | 1°21 | 25°46 | M20 | |
| T 21 | 16 17 10 | 5° 2'39 | 29°40 | 21°36 | 1°49 | 15° 9 | 10°22 | 20°33 | 4° 0 | 14°24 | 2°19 | 17° 8 | 17°45 | 1°28 | 25°48 | T 21 | |
| W22 | 16 21 7 | 5°59'57 | 11♁44 | 23°35 | 3° 0 | 15°45 | 10°30 | 20°41 | 4° 2 | 14°26 | 2°20 | 17° 9 | 17°42 | 1°35 | 25°50 | W22 | |
| T 23 | 16 25 3 | 6°57'14 | 23°40 | 25°36 | 4°11 | 16°22 | 10°39 | 20°48 | 4° 4 | 14°28 | 2°21 | 17°10 | 17°38 | 1°41 | 25°51 | T 23 | |
| F 24 | 16 29 0 | 7°54'30 | 5♁34 | 27°38 | 5°22 | 16°59 | 10°48 | 20°56 | 4° 6 | 14°30 | 2°21 | 17°R10 | 17°35 | 1°48 | 25°53 | F 24 | |
| S 25 | 16 32 56 | 8°51'47 | 17°28 | 29°43 | 6°34 | 17°36 | 10°57 | 21° 4 | 4° 8 | 14°32 | 2°22 | 17°10 | 17°32 | 1°55 | 25°55 | S 25 | |
| S 26 | 16 36 53 | 9°49'03 | 29°29 | 1♁49 | 7°45 | 18°13 | 11° 6 | 21°11 | 4° 9 | 14°34 | 2°23 | 17° 9 | 17°29 | 2° 1 | 25°56 | S 26 | |
| M27 | 16 40 50 | 10°46'18 | 11♁40 | 3°57 | 8°56 | 18°50 | 11°15 | 21°19 | 4°11 | 14°36 | 2°23 | 17° 9 | 17°26 | 2° 8 | 25°58 | M27 | |
| T 28 | 16 44 46 | 11°43'33 | 24° 4 | 6° 6 | 10° 8 | 19°27 | 11°24 | 21°27 | 4°13 | 14°38 | 2°24 | 17° 8 | 17°23 | 2°15 | 25°59 | T 28 | |
| W29 | 16 48 43 | 12°40'48 | 6♁46 | 8°16 | 11°19 | 20° 4 | 11°33 | 21°35 | 4°15 | 14°39 | 2°25 | 17° 7 | 17°19 | 2°22 | 26° 0 | W29 | |
| T 30 | 16 52 39 | 13°38'03 | 19°47 | 10°27 | 12°30 | 20°40 | 11°43 | 21°42 | 4°16 | 14°41 | 2°25 | 17° 7 | 17°16 | 2°28 | 26° 2 | T 30 | |
| F 31 | 16 56 36 | 14♁35'17 | 3♁ 7 | 12♁39 | 13♁42 | 21♁17 | 11♁52 | 21♁50 | 4♁18 | 14♁43 | 2♁26 | 17♁ 7 | 17♁13 | 2♁35 | 26♁ 3 | F 31 | |

Delta T = 18m14s Julian Calendar 1 May 1090 == Greg. Calendar 7 May 1090

JUNE 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|------|-------|-------|--------|-------|------|--------|------|-----|
| S 1 | 17 0 32 | 15♁32'31 | 16♁45 | 14♁50 | 14♁54 | 21♁54 | 12♁ 2 | 21♁58 | 4♁20 | 14♁45 | 2♁26 | 17°D 7 | 17♁10 | 2♁42 | 26♁ 4 | S 1 | |
| S 2 | 17 4 29 | 16°29'45 | 0♁41 | 17° 2 | 16° 5 | 22°31 | 12°12 | 22° 6 | 4°21 | 14°47 | 2°27 | 17♁ 7 | 17° 7 | 2°49 | 26° 5 | S 2 | |
| M 3 | 17 8 25 | 17°26'58 | 14°49 | 19°13 | 17°17 | 23° 8 | 12°21 | 22°14 | 4°23 | 14°49 | 2°27 | 17°R 7 | 17° 4 | 2°55 | 26° 7 | M 3 | |
| T 4 | 17 12 22 | 18°24'11 | 29° 7 | 21°23 | 18°28 | 23°46 | 12°31 | 22°21 | 4°24 | 14°51 | 2°28 | 17° 7 | 17° 0 | 3° 2 | 26° 8 | T 4 | |
| W 5 | 17 16 19 | 19°21'23 | 13♁29 | 23°33 | 19°40 | 24°23 | 12°41 | 22°29 | 4°26 | 14°53 | 2°28 | 17° 6 | 16°57 | 3° 9 | 26° 9 | W 5 | |
| T 6 | 17 20 15 | 20°18'34 | 27°52 | 25°42 | 20°52 | 25° 0 | 12°51 | 22°37 | 4°27 | 14°56 | 2°29 | 17° 6 | 16°54 | 3°15 | 26°10 | T 6 | |
| F 7 | 17 24 12 | 21°15'45 | 12♁12 | 27°49 | 22° 3 | 25°37 | 13° 1 | 22°45 | 4°28 | 14°58 | 2°29 | 17° 6 | 16°51 | 3°22 | 26°11 | F 7 | |
| S 8 | 17 28 8 | 22°12'56 | 26°24 | 29°55 | 23°15 | 26°14 | 13°12 | 22°53 | 4°30 | 15° 0 | 2°30 | 17°D 6 | 16°48 | 3°29 | 26°11 | S 8 | |
| S 9 | 17 32 5 | 23°10'06 | 10♁28 | 2♁ 0 | 24°27 | 26°51 | 13°22 | 23° 0 | 4°31 | 15° 2 | 2°30 | 17° 6 | 16°44 | 3°36 | 26°12 | S 9 | |
| M10 | 17 36 1 | 24° 7'15 | 24°21 | 4° 3 | 25°39 | 27°28 | 13°32 | 23° 8 | 4°32 | 15° 4 | 2°31 | 17° 7 | 16°41 | 3°42 | 26°13 | M10 | |
| T 11 | 17 39 58 | 25° 4'24 | 8♁ 3 | 6° 4 | 26°51 | 28° 5 | 13°43 | 23°16 | 4°33 | 15° 6 | 2°31 | 17° 7 | 16°38 | 3°49 | 26°14 | T 11 | |
| W12 | 17 43 54 | 26° 1'33 | 21°31 | 8° 3 | 28° 3 | 28°42 | 13°53 | 23°24 | 4°34 | 15° 8 | 2°31 | 17° 8 | 16°35 | 3°56 | 26°14 | W12 | |
| T 13 | 17 47 51 | 26°58'42 | 4♁47 | 10° 0 | 29°15 | 29°19 | 14° 4 | 23°32 | 4°35 | 15°10 | 2°32 | 17° 9 | 16°32 | 4° 2 | 26°15 | T 13 | |
| F 14 | 17 51 48 | 27°55'50 | 17°48 | 11°56 | 0♁27 | 29°57 | 14°15 | 23°40 | 4°36 | 15°12 | 2°32 | 17°R 9 | 16°29 | 4° 9 | 26°15 | F 14 | |
| S 15 | 17 55 44 | 28°52'59 | 0♁36 | 13°49 | 1°39 | 0♁34 | 14°26 | 23°47 | 4°37 | 15°15 | 2°32 | 17° 8 | 16°25 | 4°16 | 26°16 | S 15 | |
| S 16 | 17 59 41 | 29°50'08 | 13°11 | 15°41 | 2°51 | 1°11 | 14°37 | 23°55 | 4°38 | 15°17 | 2°32 | 17° 8 | 16°22 | 4°23 | 26°16 | S 16 | |
| M17 | 18 3 37 | 0♁47'16 | 25°33 | 17°30 | 4° 3 | 1°48 | 14°47 | 24° 3 | 4°39 | 15°19 | 2°33 | 17° 6 | 16°19 | 4°29 | 26°17 | M17 | |
| T 18 | 18 7 34 | 1°44'25 | 7♁44 | 19°18 | 5°15 | 2°26 | 14°58 | 24°11 | 4°40 | 15°21 | 2°33 | 17° 4 | 16°16 | 4°36 | 26°17 | T 18 | |
| W19 | 18 11 30 | 2°41'35 | 19°46 | 21° 3 | 6°27 | 3° 3 | 15°10 | 24°19 | 4°41 | 15°23 | 2°33 | 17° 2 | 16°13 | 4°43 | 26°17 | W19 | |
| T 20 | 18 15 27 | 3°38'44 | 1♁41 | 22°47 | 7°39 | 3°40 | 15°21 | 24°26 | 4°42 | 15°25 | 2°33 | 17° 0 | 16°10 | 4°50 | 26°18 | T 20 | |
| F 21 | 18 19 24 | 4°35'54 | 13°34 | 24°28 | 8°52 | 4°17 | 15°32 | 24°34 | 4°42 | 15°28 | 2°33 | 16°58 | 16° 6 | 4°56 | 26°18 | F 21 | |
| S 22 | 18 23 20 | 5°33'05 | 25°28 | 26° 8 | 10° 4 | 4°55 | 15°43 | 24°42 | 4°43 | 15°30 | 2°33 | 16°57 | 16° 3 | 5° 3 | 26°18 | S 22 | |
| S 23 | 18 27 17 | 6°30'16 | 7♁28 | 27°45 | 11°16 | 5°32 | 15°55 | 24°50 | 4°43 | 15°32 | 2°33 | 16°D56 | 16° 0 | 5°10 | 26°18 | S 23 | |
| M24 | 18 31 13 | 7°27'27 | 19°27 | 29°21 | 12°29 | 6° 9 | 16° 6 | 24°57 | 4°44 | 15°34 | 2°34 | 16°57 | 15°57 | 5°16 | 26°R18 | M24 | |
| T 25 | 18 35 10 | 8°24'40 | 2♁ 2 | 0♁54 | 13°41 | 6°47 | 16°17 | 25° 5 | 4°44 | 15°36 | 2°34 | 16°58 | 15°54 | 5°23 | 26°18 | T 25 | |
| W26 | 18 39 6 | 9°21'53 | 14°45 | 2°26 | 14°54 | 7°24 | 16°29 | 25°13 | 4°45 | 15°39 | 2°34 | 16°59 | 15°50 | 5°30 | 26°18 | W26 | |
| T 27 | 18 43 3 | 10°19'06 | 27°50 | 3°55 | 16° 6 | 8° 2 | 16°41 | 25°20 | 4°45 | 15°41 | 2°R34 | 17° 1 | 15°47 | 5°37 | 26°18 | T 27 | |
| F 28 | 18 46 59 | 11°16'20 | 11♁19 | 5°22 | 17°19 | 8°39 | 16°52 | 25°28 | 4°46 | 15°43 | 2°34 | 17°R 2 | 15°44 | 5°43 | 26°17 | F 28 | |
| S 29 | 18 50 56 | 12°13'35 | 25°12 | 6°48 | 18°31 | 9°16 | 17° 4 | 25°36 | 4°46 | 15°45 | 2°34 | 17° 2 | 15°41 | 5°50 | 26°17 | S 29 | |
| S 30 | 18 54 53 | 13♁10'51 | 9♁27 | 8♁11 | 19♁44 | 9♁54 | 17♁16 | 25♁43 | 4♁46 | 15♁48 | 2♁34 | 17♁ 0 | 15♁38 | 5♁57 | 26♁17 | S 30 | |

Delta T = 18m14s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1090
geocentric

JULY 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|--------|------|
| M 1 | 18 58 49 | 14☾ 8'07 | 24☾ 0 | 9♁32 | 20♁56 | 10♁31 | 17♁28 | 25♁51 | 4♁46 | 15☾50 | 2°R33 | 16°R58 | 15♁35 | 6♁ 3 | 26°R17 | M 1 |
| T 2 | 19 2 46 | 15° 5'24 | 8♁45 | 10°50 | 22° 9 | 11° 9 | 17°40 | 25°58 | 4°47 | 15°52 | 2♁33 | 16♁54 | 15°31 | 6°10 | 26♁16 | T 2 |
| W 3 | 19 6 42 | 16° 2'41 | 23°34 | 12° 7 | 23°22 | 11°47 | 17°51 | 26° 6 | 4°47 | 15°54 | 2°33 | 16°50 | 15°28 | 6°17 | 26°16 | W 3 |
| T 4 | 19 10 39 | 16°59'58 | 8♁19 | 13°21 | 24°35 | 12°24 | 18° 3 | 26°13 | 4°R47 | 15°56 | 2°33 | 16°46 | 15°25 | 6°24 | 26°15 | T 4 |
| F 5 | 19 14 35 | 17°57'16 | 22°53 | 14°33 | 25°47 | 13° 2 | 18°16 | 26°21 | 4°47 | 15°59 | 2°33 | 16°43 | 15°22 | 6°30 | 26°15 | F 5 |
| S 6 | 19 18 32 | 18°54'34 | 7♁13 | 15°43 | 27° 0 | 13°39 | 18°28 | 26°28 | 4°47 | 16° 1 | 2°33 | 16°41 | 15°19 | 6°37 | 26°14 | S 6 |
| S 7 | 19 22 28 | 19°51'53 | 21°14 | 16°50 | 28°13 | 14°17 | 18°40 | 26°36 | 4°47 | 16° 3 | 2°33 | 16°D41 | 15°16 | 6°44 | 26°13 | S 7 |
| M 8 | 19 26 25 | 20°49'12 | 4♁58 | 17°54 | 29°26 | 14°55 | 18°52 | 26°43 | 4°46 | 16° 5 | 2°32 | 16°42 | 15°12 | 6°51 | 26°12 | M 8 |
| T 9 | 19 30 22 | 21°46'32 | 18°23 | 18°56 | 0☾39 | 15°32 | 19° 4 | 26°51 | 4°46 | 16° 8 | 2°32 | 16°43 | 15° 9 | 6°57 | 26°12 | T 9 |
| W10 | 19 34 18 | 22°43'52 | 1♁31 | 19°54 | 1°52 | 16°10 | 19°16 | 26°58 | 4°46 | 16°10 | 2°32 | 16°44 | 15° 6 | 7° 4 | 26°11 | W10 |
| T 11 | 19 38 15 | 23°41'13 | 14°25 | 20°50 | 3° 5 | 16°48 | 19°29 | 27° 5 | 4°46 | 16°12 | 2°31 | 16°R45 | 15° 3 | 7°11 | 26°10 | T 11 |
| F 12 | 19 42 11 | 24°38'35 | 27° 6 | 21°43 | 4°18 | 17°25 | 19°41 | 27°12 | 4°45 | 16°14 | 2°31 | 16°45 | 15° 0 | 7°17 | 26° 9 | F 12 |
| S 13 | 19 46 8 | 25°35'57 | 9♁36 | 22°33 | 5°31 | 18° 3 | 19°53 | 27°20 | 4°45 | 16°16 | 2°31 | 16°43 | 14°56 | 7°24 | 26° 8 | S 13 |
| S 14 | 19 50 4 | 26°33'20 | 21°56 | 23°19 | 6°44 | 18°41 | 20° 6 | 27°27 | 4°44 | 16°19 | 2°30 | 16°38 | 14°53 | 7°31 | 26° 7 | S 14 |
| M15 | 19 54 1 | 27°30'45 | 4♁ 7 | 24° 2 | 7°57 | 19°19 | 20°18 | 27°34 | 4°44 | 16°21 | 2°30 | 16°33 | 14°50 | 7°38 | 26° 6 | M15 |
| T 16 | 19 57 57 | 28°28'10 | 16°11 | 24°41 | 9°10 | 19°56 | 20°31 | 27°41 | 4°43 | 16°23 | 2°30 | 16°25 | 14°47 | 7°44 | 26° 5 | T 16 |
| W17 | 20 1 54 | 29°25'36 | 28° 8 | 25°17 | 10°24 | 20°34 | 20°43 | 27°48 | 4°43 | 16°25 | 2°29 | 16°18 | 14°44 | 7°51 | 26° 4 | W17 |
| T 18 | 20 5 51 | 0♁23'04 | 10♁ 2 | 25°48 | 11°37 | 21°12 | 20°56 | 27°55 | 4°42 | 16°27 | 2°29 | 16°10 | 14°41 | 7°58 | 26° 2 | T 18 |
| F 19 | 20 9 47 | 1°20'32 | 21°54 | 26°15 | 12°50 | 21°50 | 21° 9 | 28° 2 | 4°42 | 16°30 | 2°28 | 16° 3 | 14°37 | 8° 4 | 26° 1 | F 19 |
| S 20 | 20 13 44 | 2°18'02 | 3♁47 | 26°38 | 14° 3 | 22°28 | 21°21 | 28° 9 | 4°41 | 16°32 | 2°28 | 15°57 | 14°34 | 8°11 | 26° 0 | S 20 |
| S 21 | 20 17 40 | 3°15'33 | 15°45 | 26°55 | 15°17 | 23° 6 | 21°34 | 28°16 | 4°40 | 16°34 | 2°27 | 15°54 | 14°31 | 8°18 | 25°58 | S 21 |
| M22 | 20 21 37 | 4°13'06 | 27°52 | 27° 9 | 16°30 | 23°44 | 21°47 | 28°23 | 4°39 | 16°36 | 2°27 | 15°52 | 14°28 | 8°25 | 25°57 | M22 |
| T 23 | 20 25 33 | 5°10'41 | 10♁13 | 27°17 | 17°44 | 24°22 | 21°59 | 28°30 | 4°38 | 16°38 | 2°26 | 15°D52 | 14°25 | 8°31 | 25°55 | T 23 |
| W24 | 20 29 30 | 6° 8'16 | 22°53 | 27°R19 | 18°57 | 25° 0 | 22°12 | 28°37 | 4°38 | 16°40 | 2°26 | 15°53 | 14°22 | 8°38 | 25°54 | W24 |
| T 25 | 20 33 26 | 7° 5'54 | 5♁55 | 27°17 | 20°11 | 25°38 | 22°25 | 28°43 | 4°37 | 16°42 | 2°25 | 15°54 | 14°18 | 8°45 | 25°52 | T 25 |
| F 26 | 20 37 23 | 8° 3'33 | 19°24 | 27° 9 | 21°24 | 26°16 | 22°38 | 28°50 | 4°36 | 16°45 | 2°25 | 15°R54 | 14°15 | 8°52 | 25°51 | F 26 |
| S 27 | 20 41 20 | 9° 1'13 | 3☾20 | 26°55 | 22°38 | 26°54 | 22°50 | 28°57 | 4°35 | 16°47 | 2°24 | 15°53 | 14°12 | 8°58 | 25°49 | S 27 |
| S 28 | 20 45 16 | 9°58'55 | 17°44 | 26°36 | 23°52 | 27°32 | 23° 3 | 29° 3 | 4°33 | 16°49 | 2°23 | 15°49 | 14° 9 | 9° 5 | 25°47 | S 28 |
| M29 | 20 49 13 | 10°56'39 | 2♁32 | 26°11 | 25° 5 | 28°10 | 23°16 | 29°10 | 4°32 | 16°51 | 2°23 | 15°43 | 14° 6 | 9°12 | 25°46 | M29 |
| T 30 | 20 53 9 | 11°54'24 | 17°36 | 25°41 | 26°19 | 28°48 | 23°29 | 29°16 | 4°31 | 16°53 | 2°22 | 15°36 | 14° 2 | 9°18 | 25°44 | T 30 |
| W31 | 20 57 6 | 12♁52'10 | 2♁46 | 25♁ 6 | 27☾33 | 29♁26 | 23♁42 | 29♁23 | 4♁30 | 16☾55 | 2♁21 | 15♁27 | 13♁59 | 9♁25 | 25♁42 | W31 |

Delta T = 18m13s Julian Calendar 1 July 1090 == Greg. Calendar 7 July 1090

AUGUST 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|------|
| T 1 | 21 1 2 | 13♁49'58 | 17♁53 | 24°R26 | 28☾47 | 0♁ 5 | 23♁55 | 29♁29 | 4°R29 | 16☾57 | 2°R21 | 15°R19 | 13♁56 | 9♁32 | 25°R40 | T 1 |
| F 2 | 21 4 59 | 14°47'46 | 2♁46 | 23♁41 | 0♁ 0 | 0°43 | 24° 8 | 29°35 | 4♁27 | 16°59 | 2♁20 | 15♁12 | 13°53 | 9°39 | 25°R38 | F 2 |
| S 3 | 21 8 55 | 15°45'36 | 17°19 | 22°53 | 1°14 | 1°21 | 24°21 | 29°42 | 4°26 | 17° 1 | 2°19 | 15° 7 | 13°50 | 9°45 | 25°36 | S 3 |
| S 4 | 21 12 52 | 16°43'27 | 1♁28 | 22° 2 | 2°28 | 1°59 | 24°34 | 29°48 | 4°25 | 17° 3 | 2°19 | 15° 4 | 13°47 | 9°52 | 25°34 | S 4 |
| M 5 | 21 16 49 | 17°41'20 | 15°11 | 21° 8 | 3°42 | 2°38 | 24°47 | 29°54 | 4°23 | 17° 5 | 2°18 | 15°D 3 | 13°43 | 9°59 | 25°32 | M 5 |
| T 6 | 21 20 45 | 18°39'14 | 28°31 | 20°14 | 4°56 | 3°16 | 25° 0 | 0☾ 0 | 4°22 | 17° 7 | 2°17 | 15° 3 | 13°40 | 10° 5 | 25°30 | T 6 |
| W 7 | 21 24 42 | 19°37'09 | 11♁29 | 19°20 | 6°10 | 3°54 | 25°13 | 0° 6 | 4°20 | 17° 9 | 2°16 | 15°R 3 | 13°37 | 10°12 | 25°28 | W 7 |
| T 8 | 21 28 38 | 20°35'05 | 24°10 | 18°26 | 7°24 | 4°33 | 25°26 | 0°12 | 4°19 | 17°11 | 2°15 | 15° 3 | 13°34 | 10°19 | 25°26 | T 8 |
| F 9 | 21 32 35 | 21°33'03 | 6♁36 | 17°35 | 8°38 | 5°11 | 25°39 | 0°18 | 4°17 | 17°13 | 2°15 | 15° 1 | 13°31 | 10°26 | 25°24 | F 9 |
| S 10 | 21 36 31 | 22°31'03 | 18°52 | 16°48 | 9°52 | 5°49 | 25°52 | 0°24 | 4°16 | 17°15 | 2°14 | 14°56 | 13°28 | 10°32 | 25°21 | S 10 |
| S 11 | 21 40 28 | 23°29'03 | 1♁ 0 | 16° 4 | 11° 6 | 6°28 | 26° 5 | 0°29 | 4°14 | 17°17 | 2°13 | 14°49 | 13°24 | 10°39 | 25°19 | S 11 |
| M12 | 21 44 24 | 24°27'06 | 13° 1 | 15°27 | 12°20 | 7° 6 | 26°18 | 0°35 | 4°12 | 17°18 | 2°12 | 14°39 | 13°21 | 10°46 | 25°17 | M12 |
| T 13 | 21 48 21 | 25°25'10 | 24°58 | 14°55 | 13°35 | 7°45 | 26°31 | 0°41 | 4°11 | 17°20 | 2°11 | 14°27 | 13°18 | 10°53 | 25°15 | T 13 |
| W14 | 21 52 18 | 26°23'15 | 6♁53 | 14°31 | 14°49 | 8°23 | 26°44 | 0°46 | 4° 9 | 17°22 | 2°10 | 14°14 | 13°15 | 10°59 | 25°12 | W14 |
| T 15 | 21 56 14 | 27°21'23 | 18°45 | 14°15 | 16° 3 | 9° 2 | 26°57 | 0°52 | 4° 7 | 17°24 | 2° 9 | 14° 1 | 13°12 | 11° 6 | 25°10 | T 15 |
| F 16 | 22 0 11 | 28°19'32 | 0♁37 | 14°D 6 | 17°17 | 9°41 | 27°10 | 0°57 | 4° 5 | 17°26 | 2° 8 | 13°49 | 13° 8 | 11°13 | 25° 7 | F 16 |
| S 17 | 22 4 7 | 29°17'43 | 12°32 | 14° 7 | 18°32 | 10°19 | 27°23 | 1° 3 | 4° 3 | 17°27 | 2° 7 | 13°39 | 13° 5 | 11°19 | 25° 5 | S 17 |
| S 18 | 22 8 4 | 0♁15'56 | 24°30 | 14°16 | 19°46 | 10°58 | 27°36 | 1° 8 | 4° 2 | 17°29 | 2° 6 | 13°31 | 13° 2 | 11°26 | 25° 3 | S 18 |
| M19 | 22 12 0 | 1°14'11 | 6♁37 | 14°34 | 21° 0 | 11°37 | 27°49 | 1°13 | 4° 0 | 17°31 | 2° 6 | 13°27 | 12°59 | 11°33 | 25° 0 | M19 |
| T 20 | 22 15 57 | 2°12'28 | 18°57 | 15° 1 | 22°15 | 12°15 | 28° 2 | 1°18 | 3°58 | 17°33 | 2° 5 | 13°24 | 12°56 | 11°40 | 24°58 | T 20 |
| W21 | 22 19 53 | 3°10'48 | 1♁32 | 15°36 | 23°29 | 12°54 | 28°15 | 1°23 | 3°56 | 17°34 | 2° 4 | 13°D24 | 12°53 | 11°46 | 24°55 | W21 |
| T 22 | 22 23 50 | 4° 9'10 | 14°29 | 16°20 | 24°44 | 13°33 | 28°28 | 1°28 | 3°54 | 17°36 | 2° 3 | 13°R24 | 12°49 | 11°53 | 24°53 | T 22 |
| F 23 | 22 27 47 | 5° 7'33 | 27°51 | 17°12 | 25°58 | 14°12 | 28°41 | 1°33 | 3°52 | 17°38 | 2° 2 | 13°23 | 12°46 | 12° 0 | 24°50 | F 23 |
| S 24 | 22 31 43 | 6° 5'59 | 11☾42 | 18°11 | 27°13 | 14°51 | 28°54 | 1°38 | 3°50 | 17°39 | 2° 0 | 13°21 | 12°43 | 12° 7 | 24°47 | S 24 |
| S 25 | 22 35 40 | 7° 4'28 | 26° 2 | 19°17 | 28°27 | 15°29 | 29° 7 | 1°43 | 3°48 | 17°41 | 1°59 | 13°16 | 12°40 | 12°13 | 24°45 | S 25 |
| M26 | 22 39 36 | 8° 2'58 | 10♁48 | 20°30 | 29°42 | 16° 8 | 29°20 | 1°47 | 3°45 | 17°42 | 1°58 | 13° 9 | 12°37 | 12°20 | 24°42 | M26 |
| T 27 | 22 43 33 | 9° 1'30 | 25°56 | 21°49 | 0♁56 | 16°47 | 29°33 | 1°52 | 3°43 | 17°44 | 1°57 | 12°59 | 12°34 | 12°27 | 24°39 | T 27 |
| W28 | 22 47 29 | 10° 0'04 | 11♁15 | 23°14 | 2°11 | 17°26 | 29°46 | 1°56 | 3°41 | 17°46 | 1°56 | 12°48 | 12°30 | 12°33 | 24°37 | W28 |
| T 29 | 22 51 26 | 10°58'41 | 26°34 | 24°43 | 3°26 | 18° 5 | 29°59 | 2° 1 | 3°39 | 17°47 | 1°55 | 12°37 | 12°27 | 12°40 | 24°34 | T 29 |
| F 30 | 22 55 22 | 11°57'19 | 11♁41 | 26°16 | 4°40 | 18°44 | 0♁12 | 2° 5 | 3°37 | 17°49 | 1°54 | 12°28 | 12°24 | 12°47 | 24°31 | F 30 |
| S 31 | 22 59 19 | 12♁55'58 | 26♁28 | 27♁53 | 5♁55 | 19♁23 | 0♁25 | 2☾ 9 | 3♁35 | 17☾50 | 1♁53 | 12♁20 | 12♁21 | 12♁54 | 24♁29 | S 31 |

Delta T = 18m13s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1090
geocentric

SEPTEMBER 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|------|------|-------|-------|-------|--------|-------|-------|--------|------|-----|
| S 1 | 23 3 16 | 13♎54'40 | 10♍48 | 29♊33 | 7♎10 | 20♎3 | 0♎37 | 2♎13 | 3°R32 | 17♎51 | 1°R52 | 12°R15 | 12♎18 | 13♎0 | 24°R26 | S 1 | |
| M 2 | 23 7 12 | 14°53'24 | 24°39 | 1♎16 | 8°24 | 20°42 | 0°50 | 2°17 | 3°Y30 | 17°53 | 1°Y51 | 12♎13 | 12°14 | 13° 7 | 24♎23 | M 2 | |
| T 3 | 23 11 9 | 15°52'09 | 8♎7 | 3° 0 | 9°39 | 21°21 | 1° 3 | 2°21 | 3°28 | 17°54 | 1°50 | 12°12 | 12°11 | 13°14 | 24°20 | T 3 | |
| W 4 | 23 15 5 | 16°50'56 | 20°59 | 4°47 | 10°54 | 22° 0 | 1°16 | 2°25 | 3°25 | 17°56 | 1°49 | 12°12 | 12° 8 | 13°20 | 24°18 | W 4 | |
| T 5 | 23 19 2 | 17°49'44 | 3♎36 | 6°34 | 12° 9 | 22°39 | 1°29 | 2°29 | 3°23 | 17°57 | 1°48 | 12°12 | 12° 5 | 13°27 | 24°15 | T 5 | |
| F 6 | 23 22 58 | 18°48'35 | 15°56 | 8°22 | 13°24 | 23°19 | 1°41 | 2°32 | 3°21 | 17°58 | 1°46 | 12° 9 | 12° 2 | 13°34 | 24°12 | F 6 | |
| S 7 | 23 26 55 | 19°47'27 | 28° 5 | 10°11 | 14°38 | 23°58 | 1°54 | 2°36 | 3°19 | 17°59 | 1°45 | 12° 4 | 11°59 | 13°41 | 24° 9 | S 7 | |
| S 8 | 23 30 51 | 20°46'21 | 10♎5 | 12° 1 | 15°53 | 24°37 | 2° 7 | 2°39 | 3°16 | 18° 1 | 1°44 | 11°56 | 11°55 | 13°47 | 24° 7 | S 8 | |
| M 9 | 23 34 48 | 21°45'17 | 22° 0 | 13°50 | 17° 8 | 25°17 | 2°19 | 2°43 | 3°14 | 18° 2 | 1°43 | 11°46 | 11°52 | 13°54 | 24° 4 | M 9 | |
| T 10 | 23 38 45 | 22°44'15 | 3♎53 | 15°39 | 18°23 | 25°56 | 2°32 | 2°46 | 3°11 | 18° 3 | 1°42 | 11°33 | 11°49 | 14° 1 | 24° 1 | T 10 | |
| W11 | 23 42 41 | 23°43'15 | 15°46 | 17°29 | 19°38 | 26°35 | 2°45 | 2°49 | 3° 9 | 18° 4 | 1°41 | 11°19 | 11°46 | 14° 8 | 23°58 | W11 | |
| T 12 | 23 46 38 | 24°42'17 | 27°40 | 19°17 | 20°53 | 27°15 | 2°57 | 2°52 | 3° 7 | 18° 5 | 1°39 | 11° 5 | 11°43 | 14°14 | 23°55 | T 12 | |
| F 13 | 23 50 34 | 25°41'21 | 9♎36 | 21° 6 | 22° 8 | 27°54 | 3°10 | 2°55 | 3° 4 | 18° 6 | 1°38 | 10°53 | 11°39 | 14°21 | 23°53 | F 13 | |
| S 14 | 23 54 31 | 26°40'27 | 21°35 | 22°53 | 23°23 | 28°34 | 3°22 | 2°58 | 3° 2 | 18° 7 | 1°37 | 10°42 | 11°36 | 14°28 | 23°50 | S 14 | |
| S 15 | 23 58 27 | 27°39'35 | 3♎40 | 24°41 | 24°38 | 29°13 | 3°35 | 3° 1 | 2°59 | 18° 8 | 1°36 | 10°34 | 11°33 | 14°34 | 23°47 | S 15 | |
| M16 | 0 2 24 | 28°38'45 | 15°53 | 26°27 | 25°53 | 29°53 | 3°47 | 3° 4 | 2°57 | 18° 9 | 1°35 | 10°28 | 11°30 | 14°41 | 23°44 | M16 | |
| T 17 | 0 6 20 | 29°37'58 | 28°16 | 28°13 | 27° 8 | 0♎33 | 3°59 | 3° 6 | 2°55 | 18°10 | 1°34 | 10°26 | 11°27 | 14°48 | 23°41 | T 17 | |
| W18 | 0 10 17 | 0♎37'13 | 10♎54 | 29°58 | 28°23 | 1°12 | 4°12 | 3° 9 | 2°52 | 18°11 | 1°33 | 10°D25 | 11°24 | 14°55 | 23°39 | W18 | |
| T 19 | 0 14 13 | 1°36'31 | 23°49 | 1♎42 | 29°38 | 1°52 | 4°24 | 3°11 | 2°50 | 18°12 | 1°31 | 10°26 | 11°20 | 15° 1 | 23°36 | T 19 | |
| F 20 | 0 18 10 | 2°35'51 | 7♎5 | 3°26 | 0♎53 | 2°32 | 4°36 | 3°13 | 2°47 | 18°13 | 1°30 | 10°R26 | 11°17 | 15° 8 | 23°33 | F 20 | |
| S 21 | 0 22 7 | 3°35'13 | 20°47 | 5° 9 | 2° 8 | 3°11 | 4°49 | 3°15 | 2°45 | 18°14 | 1°29 | 10°24 | 11°14 | 15°15 | 23°30 | S 21 | |
| S 22 | 0 26 3 | 4°34'38 | 4♎55 | 6°51 | 3°23 | 3°51 | 5° 1 | 3°18 | 2°42 | 18°15 | 1°28 | 10°21 | 11°11 | 15°22 | 23°28 | S 22 | |
| M23 | 0 30 0 | 5°34'05 | 19°28 | 8°33 | 4°38 | 4°31 | 5°13 | 3°19 | 2°40 | 18°16 | 1°27 | 10°15 | 11° 8 | 15°28 | 23°25 | M23 | |
| T 24 | 0 33 56 | 6°33'34 | 4♎23 | 10°13 | 5°53 | 5°11 | 5°25 | 3°21 | 2°37 | 18°16 | 1°26 | 10° 7 | 11° 5 | 15°35 | 23°22 | T 24 | |
| W25 | 0 37 53 | 7°33'06 | 19°33 | 11°53 | 7° 9 | 5°51 | 5°37 | 3°23 | 2°35 | 18°17 | 1°24 | 9°58 | 11° 1 | 15°42 | 23°19 | W25 | |
| T 26 | 0 41 49 | 8°32'40 | 4♎47 | 13°33 | 8°24 | 6°31 | 5°49 | 3°25 | 2°33 | 18°18 | 1°23 | 9°48 | 10°58 | 15°48 | 23°17 | T 26 | |
| F 27 | 0 45 46 | 9°32'15 | 19°55 | 15°11 | 9°39 | 7°11 | 6° 1 | 3°26 | 2°30 | 18°18 | 1°22 | 9°40 | 10°55 | 15°55 | 23°14 | F 27 | |
| S 28 | 0 49 42 | 10°31'53 | 4♎46 | 16°49 | 10°54 | 7°51 | 6°13 | 3°28 | 2°28 | 18°19 | 1°21 | 9°33 | 10°52 | 16° 2 | 23°11 | S 28 | |
| S 29 | 0 53 39 | 11°31'33 | 19°13 | 18°26 | 12° 9 | 8°31 | 6°24 | 3°29 | 2°25 | 18°20 | 1°20 | 9°29 | 10°49 | 16° 9 | 23° 9 | S 29 | |
| M30 | 0 57 36 | 12°31'15 | 3♎12 | 20♎3 | 13♎24 | 9♎11 | 6♎36 | 3♎30 | 2°Y23 | 18♎20 | 1°Y19 | 9°D27 | 10♎45 | 16♎15 | 23♎6 | M30 | |

Delta T = 18m13s Julian Calendar 1 Sept. 1090 == Greg. Calendar 7 Sept. 1090

OCTOBER 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|------|-----|
| T 1 | 1 1 32 | 13♏30'58 | 16♎42 | 21♏39 | 14♏40 | 9♏51 | 6♎48 | 3♎31 | 2°R21 | 18♏21 | 1°R17 | 9♎27 | 10♎42 | 16♎22 | 23°R 4 | T 1 | |
| W 2 | 1 5 29 | 14°30'43 | 29°45 | 23°15 | 15°55 | 10°31 | 6°59 | 3°32 | 2°Y18 | 18°21 | 1°Y16 | 9°28 | 10°39 | 16°29 | 23♎1 | W 2 | |
| T 3 | 1 9 25 | 15°30'30 | 12♎25 | 24°49 | 17°10 | 11°12 | 7°11 | 3°33 | 2°16 | 18°22 | 1°15 | 9°R29 | 10°36 | 16°35 | 22°59 | T 3 | |
| F 4 | 1 13 22 | 16°30'19 | 24°46 | 26°24 | 18°25 | 11°52 | 7°22 | 3°34 | 2°14 | 18°22 | 1°14 | 9°28 | 10°33 | 16°42 | 22°56 | F 4 | |
| S 5 | 1 17 18 | 17°30'09 | 6♎53 | 27°57 | 19°40 | 12°32 | 7°34 | 3°34 | 2°11 | 18°22 | 1°13 | 9°26 | 10°30 | 16°49 | 22°54 | S 5 | |
| S 6 | 1 21 15 | 18°30'02 | 18°51 | 29°31 | 20°56 | 13°13 | 7°45 | 3°35 | 2° 9 | 18°23 | 1°12 | 9°22 | 10°26 | 16°56 | 22°51 | S 6 | |
| M 7 | 1 25 11 | 19°29'55 | 0♎45 | 1♎3 | 22°11 | 13°53 | 7°56 | 3°35 | 2° 7 | 18°23 | 1°11 | 9°15 | 10°23 | 17° 2 | 22°49 | M 7 | |
| T 8 | 1 29 8 | 20°29'51 | 12°36 | 2°35 | 23°26 | 14°33 | 8° 7 | 3°35 | 2° 4 | 18°23 | 1°10 | 9° 7 | 10°20 | 17° 9 | 22°46 | T 8 | |
| W 9 | 1 33 5 | 21°29'48 | 24°30 | 4° 7 | 24°41 | 15°14 | 8°18 | 3°36 | 2° 2 | 18°24 | 1° 9 | 8°58 | 10°17 | 17°16 | 22°44 | W 9 | |
| T 10 | 1 37 1 | 22°29'47 | 6♎27 | 5°38 | 25°57 | 15°54 | 8°29 | 3°R36 | 2° 0 | 18°24 | 1° 7 | 8°49 | 10°14 | 17°23 | 22°42 | T 10 | |
| F 11 | 1 40 58 | 23°29'48 | 18°29 | 7° 9 | 27°12 | 16°35 | 8°40 | 3°36 | 1°58 | 18°24 | 1° 6 | 8°40 | 10°10 | 17°29 | 22°39 | F 11 | |
| S 12 | 1 44 54 | 24°29'51 | 0♎38 | 8°39 | 28°27 | 17°15 | 8°51 | 3°35 | 1°55 | 18°24 | 1° 5 | 8°33 | 10° 7 | 17°36 | 22°37 | S 12 | |
| S 13 | 1 48 51 | 25°29'56 | 12°56 | 10° 8 | 29°42 | 17°56 | 9° 2 | 3°35 | 1°53 | 18°24 | 1° 4 | 8°28 | 10° 4 | 17°43 | 22°35 | S 13 | |
| M14 | 1 52 47 | 26°30'03 | 25°22 | 11°38 | 0♎58 | 18°36 | 9°13 | 3°35 | 1°51 | 18°24 | 1° 3 | 8°25 | 10° 1 | 17°49 | 22°33 | M14 | |
| T 15 | 1 56 44 | 27°30'12 | 7♎58 | 13° 6 | 2°13 | 19°17 | 9°23 | 3°34 | 1°49 | 18°24 | 1° 2 | 8°D24 | 9°58 | 17°56 | 22°30 | T 15 | |
| W16 | 2 0 40 | 28°30'23 | 20°47 | 14°34 | 3°28 | 19°58 | 9°34 | 3°34 | 1°47 | 18°R24 | 1° 1 | 8°24 | 9°55 | 18° 3 | 22°28 | W16 | |
| T 17 | 2 4 37 | 29°30'36 | 3♎50 | 16° 2 | 4°43 | 20°39 | 9°44 | 3°33 | 1°45 | 18°24 | 1° 0 | 8°26 | 9°51 | 18°10 | 22°26 | T 17 | |
| F 18 | 2 8 34 | 0♎30'51 | 17°10 | 17°29 | 5°59 | 21°19 | 9°55 | 3°32 | 1°43 | 18°24 | 0°59 | 8°27 | 9°48 | 18°16 | 22°24 | F 18 | |
| S 19 | 2 12 30 | 1°31'08 | 0♎48 | 18°55 | 7°14 | 22° 0 | 10° 5 | 3°31 | 1°41 | 18°24 | 0°58 | 8°R28 | 9°45 | 18°23 | 22°22 | S 19 | |
| S 20 | 2 16 27 | 2°31'28 | 14°46 | 20°21 | 8°29 | 22°41 | 10°15 | 3°30 | 1°39 | 18°24 | 0°57 | 8°27 | 9°42 | 18°30 | 22°20 | S 20 | |
| M21 | 2 20 23 | 3°31'49 | 29° 3 | 21°46 | 9°44 | 23°22 | 10°25 | 3°29 | 1°37 | 18°24 | 0°56 | 8°25 | 9°39 | 18°36 | 22°18 | M21 | |
| T 22 | 2 24 20 | 4°32'12 | 13♎37 | 23°10 | 11° 0 | 24° 3 | 10°35 | 3°28 | 1°35 | 18°24 | 0°55 | 8°21 | 9°36 | 18°43 | 22°16 | T 22 | |
| W23 | 2 28 16 | 5°32'37 | 28°24 | 24°34 | 12°15 | 24°44 | 10°45 | 3°26 | 1°33 | 18°24 | 0°54 | 8°17 | 9°32 | 18°50 | 22°14 | W23 | |
| T 24 | 2 32 13 | 6°33'05 | 13♎16 | 25°57 | 13°30 | 25°25 | 10°55 | 3°25 | 1°31 | 18°23 | 0°53 | 8°12 | 9°29 | 18°57 | 22°13 | T 24 | |
| F 25 | 2 36 9 | 7°33'33 | 28° 6 | 27°19 | 14°46 | 26° 6 | 11° 5 | 3°23 | 1°29 | 18°23 | 0°53 | 8° 7 | 9°26 | 19° 3 | 22°11 | F 25 | |
| S 26 | 2 40 6 | 8°34'04 | 12♎45 | 28°39 | 16° 1 | 26°47 | 11°14 | 3°21 | 1°27 | 18°23 | 0°52 | 8° 4 | 9°23 | 19°10 | 22° 9 | S 26 | |
| S 27 | 2 44 3 | 9°34'36 | 27° 7 | 29°59 | 17°16 | 27°28 | 11°24 | 3°20 | 1°25 | 18°22 | 0°51 | 8° 2 | 9°20 | 19°17 | 22° 7 | S 27 | |
| M28 | 2 47 59 | 10°35'10 | 11♎5 | 1♎17 | 18°32 | 28°10 | 11°33 | 3°18 | 1°24 | 18°22 | 0°50 | 8°D 2 | 9°16 | 19°24 | 22° 6 | M28 | |
| T 29 | 2 51 56 | 11°35'46 | 24°39 | 2°34 | 19°47 | 28°51 | 11°43 | 3°16 | 1°22 | 18°21 | 0°49 | 8° 3 | 9°13 | 19°30 | 22° 4 | T 29 | |
| W30 | 2 55 52 | 12°36'22 | 7♎48 | 3°49 | 21° 2 | 29°32 | 11°52 | 3°13 | 1°20 | 18°21 | 0°48 | 8° 4 | 9°10 | 19°37 | 22° 3 | W30 | |
| T 31 | 2 59 49 | 13♎37'00 | 20♎33 | 5♎2 | 22♎18 | 0♎13 | 12♎1 | 3♎11 | 1°Y19 | 18♎20 | 0°Y47 | 8♎6 | 9♎7 | 19♎44 | 22♎1 | T 31 | |

Delta T = 18m13s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1090
geocentric

NOVEMBER 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|------------|----------|----------|----------|----------|----------|-------|-------|--------|-------|---------|---------|---------|----------|------|
| F 1 | 3 3 45 | 14♌37'39 | 2♋59 | 6♌14 | 23♌33 | 0♌55 | 12♌10 | 3°R 9 | 1°R17 | 18°R20 | 0°R47 | 8♌II 7 | 9♌II 4 | 19♌50 | 22°R 0 | F 1 |
| S 2 | 3 7 42 | 15°38'20 | 15° 9 | 7°22 | 24°48 | 1°36 | 12°19 | 3♌6 | 1°Y16 | 18♌19 | 0°Y46 | 8°R 8 | 9° 1 | 19°57 | 21♌58 | S 2 |
| S 3 | 3 11 38 | 16°39'01 | 27° 8 | 8°28 | 26° 3 | 2°17 | 12°27 | 3° 4 | 1°14 | 18°19 | 0°45 | 8° 7 | 8°57 | 20° 4 | 21°57 | S 3 |
| M 4 | 3 15 35 | 17°39'43 | 9♌II 2 | 9°31 | 27°19 | 2°59 | 12°36 | 3° 1 | 1°13 | 18°18 | 0°44 | 8° 6 | 8°54 | 20°11 | 21°56 | M 4 |
| T 5 | 3 19 32 | 18°40'27 | 20°54 | 10°30 | 28°34 | 3°40 | 12°44 | 2°58 | 1°11 | 18°18 | 0°44 | 8° 3 | 8°51 | 20°17 | 21°54 | T 5 |
| W 6 | 3 23 28 | 19°41'12 | 2°Y48 | 11°25 | 29°49 | 4°22 | 12°53 | 2°56 | 1°10 | 18°17 | 0°43 | 8° 1 | 8°48 | 20°24 | 21°53 | W 6 |
| T 7 | 3 27 25 | 20°41'58 | 14°49 | 12°16 | 1♌5 | 5° 4 | 13° 1 | 2°53 | 1° 8 | 18°16 | 0°42 | 7°58 | 8°45 | 20°31 | 21°52 | T 7 |
| F 8 | 3 31 21 | 21°42'45 | 26°58 | 13° 1 | 2°20 | 5°45 | 13° 9 | 2°50 | 1° 7 | 18°15 | 0°41 | 7°55 | 8°42 | 20°37 | 21°51 | F 8 |
| S 9 | 3 35 18 | 22°43'33 | 9♌II 18 | 13°41 | 3°35 | 6°27 | 13°17 | 2°47 | 1° 6 | 18°15 | 0°41 | 7°53 | 8°38 | 20°44 | 21°50 | S 9 |
| S 10 | 3 39 14 | 23°44'22 | 21°50 | 14°13 | 4°50 | 7° 8 | 13°25 | 2°43 | 1° 5 | 18°14 | 0°40 | 7°51 | 8°35 | 20°51 | 21°49 | S 10 |
| M11 | 3 43 11 | 24°45'13 | 4♌II 35 | 14°39 | 6° 6 | 7°50 | 13°32 | 2°40 | 1° 4 | 18°13 | 0°40 | 7°D51 | 8°32 | 20°58 | 21°48 | M11 |
| T 12 | 3 47 7 | 25°46'05 | 17°33 | 14°56 | 7°21 | 8°32 | 13°40 | 2°37 | 1° 2 | 18°12 | 0°39 | 7°51 | 8°29 | 21° 4 | 21°47 | T 12 |
| W13 | 3 51 4 | 26°46'58 | 0♌II 44 | 15°R 4 | 8°36 | 9°14 | 13°48 | 2°33 | 1° 1 | 18°11 | 0°38 | 7°52 | 8°26 | 21°11 | 21°46 | W13 |
| T 14 | 3 55 1 | 27°47'53 | 14° 7 | 15° 2 | 9°51 | 9°56 | 13°55 | 2°30 | 1° 0 | 18°10 | 0°38 | 7°53 | 8°22 | 21°18 | 21°46 | T 14 |
| F 15 | 3 58 57 | 28°48'49 | 27°43 | 14°49 | 11° 7 | 10°38 | 14° 2 | 2°26 | 0°59 | 18° 9 | 0°37 | 7°53 | 8°19 | 21°25 | 21°45 | F 15 |
| S 16 | 4 2 54 | 29°49'46 | 11♌II 30 | 14°26 | 12°22 | 11°19 | 14° 9 | 2°22 | 0°58 | 18° 8 | 0°37 | 7°54 | 8°16 | 21°31 | 21°44 | S 16 |
| S 17 | 4 6 50 | 0♌II 50'44 | 25°28 | 13°51 | 13°37 | 12° 1 | 14°16 | 2°19 | 0°57 | 18° 7 | 0°36 | 7°R54 | 8°13 | 21°38 | 21°44 | S 17 |
| M18 | 4 10 47 | 1°51'43 | 9♌II 37 | 13° 5 | 14°53 | 12°43 | 14°23 | 2°15 | 0°57 | 18° 6 | 0°36 | 7°54 | 8°10 | 21°45 | 21°43 | M18 |
| T 19 | 4 14 43 | 2°52'44 | 23°53 | 12° 8 | 16° 8 | 13°26 | 14°29 | 2°11 | 0°56 | 18° 5 | 0°35 | 7°54 | 8° 7 | 21°51 | 21°43 | T 19 |
| W20 | 4 18 40 | 3°53'46 | 8♌II 15 | 11° 2 | 17°23 | 14° 8 | 14°36 | 2° 7 | 0°55 | 18° 4 | 0°35 | 7°54 | 8° 3 | 21°58 | 21°42 | W20 |
| T 21 | 4 22 36 | 4°54'49 | 22°38 | 9°48 | 18°38 | 14°50 | 14°42 | 2° 3 | 0°54 | 18° 3 | 0°34 | 7°53 | 8° 0 | 22° 5 | 21°42 | T 21 |
| F 22 | 4 26 33 | 5°55'53 | 6♌II 59 | 8°29 | 19°54 | 15°32 | 14°48 | 1°59 | 0°54 | 18° 2 | 0°34 | 7°53 | 7°57 | 22°12 | 21°42 | F 22 |
| S 23 | 4 30 30 | 6°56'59 | 21°12 | 7° 6 | 21° 9 | 16°14 | 14°54 | 1°54 | 0°53 | 18° 1 | 0°34 | 7°53 | 7°54 | 22°18 | 21°41 | S 23 |
| S 24 | 4 34 26 | 7°58'05 | 5♌II 13 | 5°44 | 22°24 | 16°57 | 15° 0 | 1°50 | 0°53 | 17°59 | 0°33 | 7°53 | 7°51 | 22°25 | 21°41 | S 24 |
| M25 | 4 38 23 | 8°59'12 | 18°58 | 4°23 | 23°39 | 17°39 | 15° 6 | 1°46 | 0°52 | 17°58 | 0°33 | 7°53 | 7°48 | 22°32 | 21°41 | M25 |
| T 26 | 4 42 19 | 10° 0'19 | 2♌II 25 | 3° 8 | 24°54 | 18°21 | 15°11 | 1°41 | 0°52 | 17°57 | 0°33 | 7°53 | 7°44 | 22°38 | 21°41 | T 26 |
| W27 | 4 46 16 | 11° 1'27 | 15°31 | 2° 1 | 26°10 | 19° 4 | 15°17 | 1°37 | 0°51 | 17°56 | 0°32 | 7°53 | 7°41 | 22°45 | 21°D41 | W27 |
| T 28 | 4 50 12 | 12° 2'36 | 28°18 | 1° 2 | 27°25 | 19°46 | 15°22 | 1°32 | 0°51 | 17°54 | 0°32 | 7°52 | 7°38 | 22°52 | 21°41 | T 28 |
| F 29 | 4 54 9 | 13° 3'45 | 10♌II 46 | 0°13 | 28°40 | 20°28 | 15°27 | 1°28 | 0°51 | 17°53 | 0°32 | 7°51 | 7°35 | 22°59 | 21°41 | F 29 |
| S 30 | 4 58 5 | 14♌II 4'54 | 22♌II 59 | 29♌II 36 | 29♌II 55 | 21♌II 11 | 15♌II 32 | 1°23 | 0°Y50 | 17°52 | 0°Y32 | 7♌II 51 | 7♌II 32 | 23♌II 5 | 21♌II 41 | S 30 |

Delta T = 18m12s Julian Calendar 1 Nov. 1090 == Greg. Calendar 7 Nov. 1090

DECEMBER 1090 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|------------|----------|----------|---------|----------|----------|----------|-------|--------|-------|---------|---------|----------|----------|------|
| S 1 | 5 2 2 | 15♌II 6'03 | 5♌II 1 | 29°R 9 | 1♌II 11 | 21♌II 54 | 15♌II 36 | 1°R19 | 0°R50 | 17°R50 | 0°R31 | 7°R50 | 7♌II 28 | 23♌II 12 | 21♌II 41 | S 1 |
| M 2 | 5 5 59 | 16° 7'13 | 16°55 | 28♌II 53 | 2°26 | 22°36 | 15°41 | 1°D14 | 0°Y50 | 17°D49 | 0°Y31 | 7°D50 | 7°25 | 23°19 | 21°42 | M 2 |
| T 3 | 5 9 55 | 17° 8'22 | 28°47 | 28°D47 | 3°41 | 23°19 | 15°45 | 1° 9 | 0°50 | 17°48 | 0°31 | 7♌II 50 | 7°22 | 23°25 | 21°42 | T 3 |
| W 4 | 5 13 52 | 18° 9'32 | 10°Y42 | 28°51 | 4°56 | 24° 1 | 15°50 | 1° 4 | 0°D50 | 17°46 | 0°31 | 7°51 | 7°19 | 23°32 | 21°42 | W 4 |
| T 5 | 5 17 48 | 19°10'42 | 22°43 | 29° 4 | 6°11 | 24°44 | 15°54 | 1° 0 | 0°50 | 17°45 | 0°31 | 7°52 | 7°16 | 23°39 | 21°43 | T 5 |
| F 6 | 5 21 45 | 20°11'52 | 4♌II 56 | 29°25 | 7°26 | 25°27 | 15°57 | 0°55 | 0°50 | 17°43 | 0°31 | 7°53 | 7°13 | 23°46 | 21°43 | F 6 |
| S 7 | 5 25 41 | 21°13'02 | 17°23 | 29°54 | 8°41 | 26°10 | 16° 1 | 0°50 | 0°50 | 17°42 | 0°31 | 7°54 | 7° 9 | 23°52 | 21°44 | S 7 |
| S 8 | 5 29 38 | 22°14'12 | 0♌II 7 | 0♌II 30 | 9°57 | 26°52 | 16° 5 | 0°45 | 0°50 | 17°40 | 0°31 | 7°55 | 7° 6 | 23°59 | 21°45 | S 8 |
| M 9 | 5 33 34 | 23°15'23 | 13° 9 | 1°11 | 11°12 | 27°35 | 16° 8 | 0°40 | 0°51 | 17°39 | 0°D31 | 7°R55 | 7° 3 | 24° 6 | 21°45 | M 9 |
| T 10 | 5 37 31 | 24°16'33 | 26°30 | 1°58 | 12°27 | 28°18 | 16°11 | 0°35 | 0°51 | 17°37 | 0°31 | 7°55 | 7° 0 | 24°13 | 21°46 | T 10 |
| W11 | 5 41 28 | 25°17'44 | 10♌II 7 | 2°49 | 13°42 | 29° 1 | 16°14 | 0°30 | 0°51 | 17°36 | 0°31 | 7°53 | 6°57 | 24°19 | 21°47 | W11 |
| T 12 | 5 45 24 | 26°18'55 | 23°59 | 3°45 | 14°57 | 29°44 | 16°17 | 0°26 | 0°52 | 17°34 | 0°31 | 7°51 | 6°54 | 24°26 | 21°48 | T 12 |
| F 13 | 5 49 21 | 27°20'06 | 8♌II 2 | 4°44 | 16°12 | 0♌II 27 | 16°19 | 0°21 | 0°52 | 17°33 | 0°31 | 7°48 | 6°50 | 24°33 | 21°48 | F 13 |
| S 14 | 5 53 17 | 28°21'17 | 22°13 | 5°46 | 17°27 | 1°10 | 16°22 | 0°16 | 0°52 | 17°31 | 0°31 | 7°45 | 6°47 | 24°39 | 21°49 | S 14 |
| S 15 | 5 57 14 | 29°22'28 | 6♌II 26 | 6°52 | 18°42 | 1°53 | 16°24 | 0°11 | 0°53 | 17°30 | 0°31 | 7°43 | 6°44 | 24°46 | 21°50 | S 15 |
| M16 | 6 1 10 | 0♌II 23'39 | 20°40 | 8° 0 | 19°57 | 2°36 | 16°26 | 0° 6 | 0°54 | 17°28 | 0°31 | 7°41 | 6°41 | 24°53 | 21°51 | M16 |
| T 17 | 6 5 7 | 1°24'51 | 4♌II 51 | 9°11 | 21°12 | 3°20 | 16°28 | 0° 1 | 0°54 | 17°26 | 0°31 | 7°D41 | 6°38 | 25° 0 | 21°53 | T 17 |
| W18 | 6 9 4 | 2°26'03 | 18°57 | 10°23 | 22°27 | 4° 3 | 16°30 | 29♌II 56 | 0°55 | 17°25 | 0°32 | 7°42 | 6°34 | 25° 6 | 21°54 | W18 |
| T 19 | 6 13 0 | 3°27'15 | 2♌II 57 | 11°38 | 23°42 | 4°46 | 16°31 | 29°51 | 0°56 | 17°23 | 0°32 | 7°43 | 6°31 | 25°13 | 21°55 | T 19 |
| F 20 | 6 16 57 | 4°28'27 | 16°49 | 12°54 | 24°57 | 5°29 | 16°32 | 29°46 | 0°56 | 17°22 | 0°32 | 7°45 | 6°28 | 25°20 | 21°56 | F 20 |
| S 21 | 6 20 53 | 5°29'39 | 0♌II 33 | 14°11 | 26°12 | 6°13 | 16°34 | 29°41 | 0°57 | 17°20 | 0°32 | 7°46 | 6°25 | 25°26 | 21°57 | S 21 |
| S 22 | 6 24 50 | 6°30'51 | 14° 6 | 15°30 | 27°27 | 6°56 | 16°34 | 29°36 | 0°58 | 17°18 | 0°33 | 7°R46 | 6°22 | 25°33 | 21°59 | S 22 |
| M23 | 6 28 46 | 7°32'03 | 27°28 | 16°51 | 28°42 | 7°39 | 16°35 | 29°31 | 0°59 | 17°17 | 0°33 | 7°44 | 6°19 | 25°40 | 22° 0 | M23 |
| T 24 | 6 32 43 | 8°33'14 | 10♌II 37 | 18°12 | 29°57 | 8°23 | 16°36 | 29°26 | 1° 0 | 17°15 | 0°33 | 7°41 | 6°15 | 25°47 | 22° 2 | T 24 |
| W25 | 6 36 39 | 9°34'25 | 23°31 | 19°34 | 1♌II 12 | 9° 6 | 16°36 | 29°21 | 1° 1 | 17°13 | 0°34 | 7°37 | 6°12 | 25°53 | 22° 3 | W25 |
| T 26 | 6 40 36 | 10°35'35 | 6♌II 10 | 20°58 | 2°26 | 9°50 | 16°R36 | 29°17 | 1° 2 | 17°12 | 0°34 | 7°31 | 6° 9 | 26° 0 | 22° 5 | T 26 |
| F 27 | 6 44 33 | 11°36'45 | 18°35 | 22°22 | 3°41 | 10°33 | 16°36 | 29°12 | 1° 3 | 17°10 | 0°34 | 7°25 | 6° 6 | 26° 7 | 22° 7 | F 27 |
| S 28 | 6 48 29 | 12°37'54 | 0♌II 47 | 23°47 | 4°56 | 11°17 | 16°36 | 29° 7 | 1° 5 | 17° 8 | 0°35 | 7°18 | 6° 3 | 26°13 | 22° 8 | S 28 |
| S 29 | 6 52 26 | 13°39'02 | 12°49 | 25°13 | 6°11 | 12° 1 | 16°35 | 29° 2 | 1° 6 | 17° 7 | 0°35 | 7°13 | 6° 0 | 26°20 | 22°10 | S 29 |
| M30 | 6 56 22 | 14°40'10 | 24°43 | 26°40 | 7°26 | 12°44 | 16°35 | 28°58 | 1° 7 | 17° 5 | 0°36 | 7° 9 | 5°56 | 26°27 | 22°12 | M30 |
| T 31 | 7 0 19 | 15°41'16 | 6°Y34 | 28♌II 7 | 8♌II 40 | 13♌II 28 | 16♌II 34 | 28♌II 53 | 1°Y 9 | 17°5 3 | 0°Y36 | 7♌II 7 | 5♌II 53 | 26♌II 34 | 22♌II 14 | T 31 |

Delta T = 18m12s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1091
geocentric

JANUARY 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|------|--------|------|-------|------|-------|-------|------|
| W 1 | 7 4 15 | 16♌42'22 | 18♍27 | 29♎35 | 9♏55 | 14♐12 | 16♑R33 | 28♒R48 | 1♓10 | 17♔R 1 | 0♕37 | 7°D 6 | 5♖50 | 26♗40 | 22♘16 | W 1 |
| T 2 | 7 8 12 | 17°43'26 | 0♉26 | 1♊ 4 | 11°10 | 14°56 | 16♌32 | 28♍44 | 1°11 | 17♎ 0 | 0°37 | 7♏ 7 | 5°47 | 26°47 | 22°17 | T 2 |
| F 3 | 7 12 8 | 18°44'30 | 12°37 | 2°34 | 12°25 | 15°39 | 16°30 | 28°39 | 1°13 | 16°58 | 0°38 | 7° 9 | 5°44 | 26°54 | 22°19 | F 3 |
| S 4 | 7 16 5 | 19°45'32 | 25° 4 | 4° 4 | 13°39 | 16°23 | 16°29 | 28°35 | 1°14 | 16°56 | 0°38 | 7°10 | 5°40 | 27° 0 | 22°21 | S 4 |
| S 5 | 7 20 2 | 20°46'34 | 7♒53 | 5°35 | 14°54 | 17° 7 | 16°27 | 28°30 | 1°16 | 16°55 | 0°39 | 7°R11 | 5°37 | 27° 7 | 22°24 | S 5 |
| M 6 | 7 23 58 | 21°47'34 | 21° 4 | 7° 6 | 16° 8 | 17°51 | 16°25 | 28°26 | 1°18 | 16°53 | 0°40 | 7°10 | 5°34 | 27°14 | 22°26 | M 6 |
| T 7 | 7 27 55 | 22°48'34 | 4♌40 | 8°38 | 17°23 | 18°35 | 16°23 | 28°22 | 1°19 | 16°51 | 0°40 | 7° 7 | 5°31 | 27°21 | 22°28 | T 7 |
| W 8 | 7 31 51 | 23°49'32 | 18°40 | 10°11 | 18°38 | 19°19 | 16°20 | 28°17 | 1°21 | 16°50 | 0°41 | 7° 2 | 5°28 | 27°27 | 22°30 | W 8 |
| T 9 | 7 35 48 | 24°50'29 | 2♌59 | 11°44 | 19°52 | 20° 3 | 16°18 | 28°13 | 1°23 | 16°48 | 0°42 | 6°55 | 5°25 | 27°34 | 22°32 | T 9 |
| F 10 | 7 39 44 | 25°51'26 | 17°33 | 13°18 | 21° 7 | 20°47 | 16°15 | 28° 9 | 1°25 | 16°46 | 0°42 | 6°47 | 5°21 | 27°41 | 22°35 | F 10 |
| S 11 | 7 43 41 | 26°52'21 | 2♍13 | 14°53 | 22°21 | 21°31 | 16°12 | 28° 5 | 1°27 | 16°45 | 0°43 | 6°39 | 5°18 | 27°47 | 22°37 | S 11 |
| S 12 | 7 47 38 | 27°53'16 | 16°52 | 16°29 | 23°35 | 22°15 | 16° 9 | 28° 1 | 1°28 | 16°43 | 0°44 | 6°31 | 5°15 | 27°54 | 22°39 | S 12 |
| M13 | 7 51 34 | 28°54'09 | 1♌25 | 18° 5 | 24°50 | 22°59 | 16° 6 | 27°57 | 1°30 | 16°41 | 0°45 | 6°26 | 5°12 | 28° 1 | 22°42 | M13 |
| T 14 | 7 55 31 | 29°55'02 | 15°45 | 19°41 | 26° 4 | 23°44 | 16° 2 | 27°53 | 1°32 | 16°40 | 0°45 | 6°23 | 5° 9 | 28° 8 | 22°44 | T 14 |
| W15 | 7 59 27 | 0♏55'54 | 29°51 | 21°19 | 27°18 | 24°28 | 15°59 | 27°50 | 1°34 | 16°38 | 0°46 | 6°D22 | 5° 6 | 28°14 | 22°47 | W15 |
| T 16 | 8 3 24 | 1°56'45 | 13♍41 | 22°57 | 28°33 | 25°12 | 15°55 | 27°46 | 1°36 | 16°36 | 0°47 | 6°23 | 5° 2 | 28°21 | 22°49 | T 16 |
| F 17 | 8 7 20 | 2°57'35 | 27°16 | 24°36 | 29°47 | 25°56 | 15°51 | 27°42 | 1°39 | 16°35 | 0°48 | 6°23 | 4°59 | 28°28 | 22°52 | F 17 |
| S 18 | 8 11 17 | 3°58'24 | 10♎38 | 26°16 | 1♋ 1 | 26°41 | 15°47 | 27°39 | 1°41 | 16°33 | 0°49 | 6°R24 | 4°56 | 28°34 | 22°55 | S 18 |
| S 19 | 8 15 13 | 4°59'12 | 23°47 | 27°57 | 2°15 | 27°25 | 15°43 | 27°36 | 1°43 | 16°32 | 0°50 | 6°22 | 4°53 | 28°41 | 22°57 | S 19 |
| M20 | 8 19 10 | 6° 0'00 | 6♌45 | 29°38 | 3°29 | 28° 9 | 15°38 | 27°32 | 1°45 | 16°30 | 0°51 | 6°18 | 4°50 | 28°48 | 23° 0 | M20 |
| T 21 | 8 23 7 | 7° 0'45 | 19°32 | 1♌20 | 4°44 | 28°54 | 15°34 | 27°29 | 1°47 | 16°28 | 0°51 | 6°11 | 4°46 | 28°55 | 23° 3 | T 21 |
| W22 | 8 27 3 | 8° 1'30 | 2♌ 8 | 3° 3 | 5°58 | 29°38 | 15°29 | 27°26 | 1°50 | 16°27 | 0°52 | 6° 2 | 4°43 | 29° 1 | 23° 5 | W22 |
| T 23 | 8 31 0 | 9° 2'13 | 14°34 | 4°47 | 7°12 | 0♉23 | 15°24 | 27°23 | 1°52 | 16°25 | 0°53 | 5°50 | 4°40 | 29° 8 | 23° 8 | T 23 |
| F 24 | 8 34 56 | 10° 2'55 | 26°50 | 6°32 | 8°26 | 1° 7 | 15°19 | 27°20 | 1°54 | 16°24 | 0°54 | 5°38 | 4°37 | 29°15 | 23°11 | F 24 |
| S 25 | 8 38 53 | 11° 3'55 | 8♋57 | 8°17 | 9°40 | 1°52 | 15°13 | 27°17 | 1°57 | 16°22 | 0°55 | 5°25 | 4°34 | 29°21 | 23°14 | S 25 |
| S 26 | 8 42 49 | 12° 4'13 | 20°55 | 10° 4 | 10°54 | 2°37 | 15° 8 | 27°14 | 1°59 | 16°21 | 0°56 | 5°14 | 4°31 | 29°28 | 23°17 | S 26 |
| M27 | 8 46 46 | 13° 4'50 | 2♍47 | 11°51 | 12° 7 | 3°21 | 15° 2 | 27°11 | 2° 2 | 16°19 | 0°57 | 5° 4 | 4°27 | 29°35 | 23°20 | M27 |
| T 28 | 8 50 42 | 14° 5'25 | 14°37 | 13°39 | 13°21 | 4° 6 | 14°57 | 27° 9 | 2° 4 | 16°18 | 0°58 | 4°57 | 4°24 | 29°42 | 23°23 | T 28 |
| W29 | 8 54 39 | 15° 5'58 | 26°27 | 15°28 | 14°35 | 4°50 | 14°51 | 27° 6 | 2° 7 | 16°16 | 0°59 | 4°53 | 4°21 | 29°48 | 23°26 | W29 |
| T 30 | 8 58 36 | 16° 6'29 | 8♉24 | 17°18 | 15°49 | 5°35 | 14°45 | 27° 4 | 2° 9 | 16°15 | 1° 0 | 4°52 | 4°18 | 29°55 | 23°29 | T 30 |
| F 31 | 9 2 32 | 17° 6'59 | 20♌31 | 19° 8 | 17♋ 2 | 6♉20 | 14♌39 | 27♒ 2 | 2♑12 | 16♑14 | 1♑ 2 | 4°D51 | 4♒15 | 0♑ 2 | 23♋32 | F 31 |

Delta T = 18m12s Julian Calendar 1 Jan. 1091 == Greg. Calendar 7 Jan. 1091

FEBRUARY 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|------|--------|------|-------|------|------|-------|------|
| S 1 | 9 6 29 | 18° 7'26 | 2♒54 | 20♑59 | 18♒16 | 7♉ 5 | 14°R33 | 26°R59 | 2♑15 | 16°R12 | 1♑ 3 | 4°R52 | 4♒12 | 0♑ 8 | 23♋35 | S 1 |
| S 2 | 9 10 25 | 19° 7'52 | 15°39 | 22°51 | 19°29 | 7°49 | 14♌26 | 26♒57 | 2°17 | 16♑11 | 1° 4 | 4♒51 | 4° 8 | 0°15 | 23°38 | S 2 |
| M 3 | 9 14 22 | 20° 8'16 | 28°50 | 24°43 | 20°43 | 8°34 | 14°20 | 26°55 | 2°20 | 16° 9 | 1° 5 | 4°49 | 4° 5 | 0°22 | 23°41 | M 3 |
| T 4 | 9 18 18 | 21° 8'37 | 12♌29 | 26°36 | 21°56 | 9°19 | 14°13 | 26°53 | 2°23 | 16° 8 | 1° 6 | 4°44 | 4° 2 | 0°28 | 23°45 | T 4 |
| W 5 | 9 22 15 | 22° 8'57 | 26°38 | 28°30 | 23°10 | 10° 4 | 14° 6 | 26°52 | 2°26 | 16° 7 | 1° 7 | 4°37 | 3°59 | 0°35 | 23°48 | W 5 |
| T 6 | 9 26 11 | 23° 9'15 | 11♌12 | 0♋24 | 24°23 | 10°49 | 14° 0 | 26°50 | 2°29 | 16° 5 | 1° 8 | 4°27 | 3°56 | 0°42 | 23°51 | T 6 |
| F 7 | 9 30 8 | 24° 9'31 | 26° 6 | 2°17 | 25°36 | 11°34 | 13°53 | 26°48 | 2°31 | 16° 4 | 1°10 | 4°16 | 3°52 | 0°49 | 23°54 | F 7 |
| S 8 | 9 34 5 | 25° 9'46 | 11♍11 | 4°11 | 26°49 | 12°19 | 13°46 | 26°47 | 2°34 | 16° 3 | 1°11 | 4° 4 | 3°49 | 0°55 | 23°58 | S 8 |
| S 9 | 9 38 1 | 26° 9'58 | 26°16 | 6° 4 | 28° 2 | 13° 4 | 13°39 | 26°46 | 2°37 | 16° 2 | 1°12 | 3°54 | 3°46 | 1° 2 | 24° 1 | S 9 |
| M10 | 9 41 58 | 27°10'09 | 11♌13 | 7°57 | 29°16 | 13°49 | 13°32 | 26°44 | 2°40 | 16° 1 | 1°13 | 3°46 | 3°43 | 1° 9 | 24° 4 | M10 |
| T 11 | 9 45 54 | 28°10'18 | 25°52 | 9°49 | 0♑29 | 14°34 | 13°24 | 26°43 | 2°43 | 15°59 | 1°14 | 3°40 | 3°40 | 1°15 | 24° 8 | T 11 |
| W12 | 9 49 51 | 29°10'26 | 10♌10 | 11°40 | 1°41 | 15°19 | 13°17 | 26°42 | 2°46 | 15°58 | 1°16 | 3°38 | 3°37 | 1°22 | 24°11 | W12 |
| T 13 | 9 53 47 | 0♋10'32 | 24° 5 | 13°29 | 2°54 | 16° 4 | 13°10 | 26°41 | 2°49 | 15°57 | 1°17 | 3°37 | 3°33 | 1°29 | 24°14 | T 13 |
| F 14 | 9 57 44 | 1°10'36 | 7♎38 | 15°16 | 4° 7 | 16°49 | 13° 2 | 26°40 | 2°52 | 15°56 | 1°18 | 3°37 | 3°30 | 1°36 | 24°18 | F 14 |
| S 15 | 10 1 40 | 2°10'39 | 20°51 | 17° 1 | 5°20 | 17°34 | 12°55 | 26°40 | 2°55 | 15°55 | 1°19 | 3°36 | 3°27 | 1°42 | 24°21 | S 15 |
| S 16 | 10 5 37 | 3°10'41 | 3♌46 | 18°42 | 6°33 | 18°19 | 12°47 | 26°39 | 2°58 | 15°54 | 1°21 | 3°34 | 3°24 | 1°49 | 24°25 | S 16 |
| M17 | 10 9 34 | 4°10'40 | 16°28 | 20°21 | 7°45 | 19° 4 | 12°39 | 26°39 | 3° 1 | 15°53 | 1°22 | 3°29 | 3°21 | 1°56 | 24°28 | M17 |
| T 18 | 10 13 30 | 5°10'38 | 28°58 | 21°55 | 8°58 | 19°49 | 12°32 | 26°38 | 3° 4 | 15°52 | 1°23 | 3°21 | 3°18 | 2° 2 | 24°32 | T 18 |
| W19 | 10 17 27 | 6°10'34 | 11♌18 | 23°24 | 10°10 | 20°35 | 12°24 | 26°38 | 3° 7 | 15°51 | 1°25 | 3°10 | 3°14 | 2° 9 | 24°35 | W19 |
| T 20 | 10 21 23 | 7°10'28 | 23°30 | 24°49 | 11°23 | 21°20 | 12°16 | 26°38 | 3°11 | 15°50 | 1°26 | 2°56 | 3°11 | 2°16 | 24°39 | T 20 |
| F 21 | 10 25 20 | 8°10'21 | 5♋35 | 26° 8 | 12°35 | 22° 5 | 12° 9 | 26°D38 | 3°14 | 15°49 | 1°27 | 2°42 | 3° 8 | 2°23 | 24°42 | F 21 |
| S 22 | 10 29 16 | 9°10'11 | 17°34 | 27°21 | 13°47 | 22°50 | 12° 1 | 26°38 | 3°17 | 15°48 | 1°29 | 2°27 | 3° 5 | 2°29 | 24°46 | S 22 |
| S 23 | 10 33 13 | 10° 9'59 | 29°27 | 28°27 | 14°59 | 23°36 | 11°53 | 26°38 | 3°20 | 15°47 | 1°30 | 2°14 | 3° 2 | 2°36 | 24°49 | S 23 |
| M24 | 10 37 9 | 11° 9'45 | 11♑18 | 29°26 | 16°11 | 24°21 | 11°45 | 26°39 | 3°23 | 15°46 | 1°31 | 2° 3 | 2°58 | 2°43 | 24°53 | M24 |
| T 25 | 10 41 6 | 12° 9'28 | 23° 7 | 0♑18 | 17°23 | 25° 6 | 11°37 | 26°39 | 3°27 | 15°46 | 1°33 | 1°54 | 2°55 | 2°49 | 24°56 | T 25 |
| W26 | 10 45 2 | 13° 9'10 | 4♌58 | 1° 3 | 18°35 | 25°52 | 11°30 | 26°40 | 3°30 | 15°45 | 1°34 | 1°49 | 2°52 | 2°56 | 25° 0 | W26 |
| T 27 | 10 48 59 | 14° 8'49 | 16°54 | 1°39 | 19°47 | 26°37 | 11°22 | 26°40 | 3°33 | 15°44 | 1°36 | 1°46 | 2°49 | 3° 3 | 25° 4 | T 27 |
| F 28 | 10 52 56 | 15° 8'27 | 28♌59 | 2♑ 8 | 20♑59 | 27♉22 | 11♌14 | 26♒41 | 3♑37 | 15♑43 | 1♑37 | 1°D45 | 2♒46 | 3♑ 9 | 25♋ 7 | F 28 |

Delta T = 18m12s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1091
geocentric

MARCH 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|------|--------|------|--------|------|------|-------|------|---|-----|
| S 1 | 10 56 52 | 16♌ 8'01 | 11♋20 | 2♃28 | 22♂11 | 28♁ 8 | 11°R 6 | 26♋42 | 3♂40 | 15°R43 | 1♂38 | 1°R45 | 2♋43 | 3♂16 | 25♌11 | S 1 | | |
| S 2 | 11 0 49 | 17° 7'34 | 24° 0 | 2°41 | 23°22 | 28°53 | 10♎59 | 26°43 | 3°43 | 15♌42 | 1°40 | 1♋45 | 2°39 | 3°23 | 25°14 | S 2 | | |
| M 3 | 11 4 45 | 18° 7'04 | 7♌ 5 | 2°R45 | 24°34 | 29°39 | 10°51 | 26°44 | 3°47 | 15°42 | 1°41 | 1°43 | 2°36 | 3°30 | 25°18 | M 3 | | |
| T 4 | 11 8 42 | 19° 6'32 | 20°38 | 2°41 | 25°45 | 0♌24 | 10°43 | 26°45 | 3°50 | 15°41 | 1°43 | 1°40 | 2°33 | 3°36 | 25°22 | T 4 | | |
| W 5 | 11 12 38 | 20° 5'57 | 4♌42 | 2°30 | 26°56 | 1° 9 | 10°36 | 26°47 | 3°53 | 15°40 | 1°44 | 1°34 | 2°30 | 3°43 | 25°25 | W 5 | | |
| T 6 | 11 16 35 | 21° 5'21 | 19°15 | 2°11 | 28° 8 | 1°55 | 10°28 | 26°48 | 3°57 | 15°40 | 1°45 | 1°25 | 2°27 | 3°50 | 25°29 | T 6 | | |
| F 7 | 11 20 31 | 22° 4'41 | 4♎12 | 1°46 | 29°19 | 2°40 | 10°21 | 26°50 | 4° 0 | 15°39 | 1°47 | 1°16 | 2°23 | 3°56 | 25°33 | F 7 | | |
| S 8 | 11 24 28 | 23° 4'00 | 19°26 | 1°15 | 0♁30 | 3°26 | 10°13 | 26°51 | 4° 3 | 15°39 | 1°48 | 1° 5 | 2°20 | 4° 3 | 25°36 | S 8 | | |
| S 9 | 11 28 25 | 24° 3'16 | 4♌45 | 0°38 | 1°40 | 4°11 | 10° 6 | 26°53 | 4° 7 | 15°39 | 1°50 | 0°56 | 2°17 | 4°10 | 25°40 | S 9 | | |
| M10 | 11 32 21 | 25° 2'31 | 19°58 | 29♌57 | 2°51 | 4°57 | 9°58 | 26°55 | 4°10 | 15°38 | 1°51 | 0°48 | 2°14 | 4°16 | 25°44 | M10 | | |
| T 11 | 11 36 18 | 26° 1'43 | 4♎55 | 29°12 | 4° 2 | 5°42 | 9°51 | 26°57 | 4°14 | 15°38 | 1°53 | 0°44 | 2°11 | 4°23 | 25°47 | T 11 | | |
| W12 | 11 40 14 | 27° 0'54 | 19°30 | 28°25 | 5°12 | 6°28 | 9°44 | 26°59 | 4°17 | 15°37 | 1°54 | 0°41 | 2° 8 | 4°30 | 25°51 | W12 | | |
| T 13 | 11 44 11 | 28° 0'03 | 3♌37 | 27°36 | 6°23 | 7°13 | 9°37 | 27° 1 | 4°20 | 15°37 | 1°55 | 0°D41 | 2° 4 | 4°37 | 25°55 | T 13 | | |
| F 14 | 11 48 7 | 28°59'10 | 17°18 | 26°46 | 7°33 | 7°59 | 9°30 | 27° 3 | 4°24 | 15°37 | 1°57 | 0°41 | 2° 1 | 4°43 | 25°58 | F 14 | | |
| S 15 | 11 52 4 | 29°58'15 | 0♁34 | 25°57 | 8°44 | 8°44 | 9°23 | 27° 6 | 4°27 | 15°37 | 1°58 | 0°R42 | 1°58 | 4°50 | 26° 2 | S 15 | | |
| S 16 | 11 56 0 | 0♂57'19 | 13°28 | 25° 9 | 9°54 | 9°30 | 9°16 | 27° 8 | 4°31 | 15°36 | 2° 0 | 0°41 | 1°55 | 4°57 | 26° 5 | S 16 | | |
| M17 | 11 59 57 | 1°56'20 | 26° 4 | 24°23 | 11° 4 | 10°15 | 9° 9 | 27°11 | 4°34 | 15°36 | 2° 1 | 0°38 | 1°52 | 5° 3 | 26° 9 | M17 | | |
| T 18 | 12 3 54 | 2°55'20 | 8♌25 | 23°40 | 12°14 | 11° 1 | 9° 3 | 27°14 | 4°38 | 15°36 | 2° 3 | 0°33 | 1°49 | 5°10 | 26°13 | T 18 | | |
| W19 | 12 7 50 | 3°54'18 | 20°35 | 23° 0 | 13°23 | 11°47 | 8°56 | 27°16 | 4°41 | 15°36 | 2° 4 | 0°25 | 1°45 | 5°17 | 26°16 | W19 | | |
| T 20 | 12 11 47 | 4°53'14 | 2♌38 | 22°25 | 14°33 | 12°32 | 8°50 | 27°19 | 4°44 | 15°36 | 2° 6 | 0°16 | 1°42 | 5°23 | 26°20 | T 20 | | |
| F 21 | 12 15 43 | 5°52'09 | 14°34 | 21°54 | 15°43 | 13°18 | 8°43 | 27°22 | 4°48 | 15°D36 | 2° 7 | 0° 5 | 1°39 | 5°30 | 26°24 | F 21 | | |
| S 22 | 12 19 40 | 6°51'01 | 26°27 | 21°29 | 16°52 | 14° 3 | 8°37 | 27°25 | 4°51 | 15°36 | 2° 8 | 29♁55 | 1°36 | 5°37 | 26°27 | S 22 | | |
| S 23 | 12 23 36 | 7°49'51 | 8♂17 | 21° 8 | 18° 1 | 14°49 | 8°31 | 27°29 | 4°55 | 15°36 | 2°10 | 29°45 | 1°33 | 5°44 | 26°31 | S 23 | | |
| M24 | 12 27 33 | 8°48'39 | 20° 8 | 20°52 | 19°10 | 15°34 | 8°25 | 27°32 | 4°58 | 15°36 | 2°11 | 29°37 | 1°29 | 5°50 | 26°34 | M24 | | |
| T 25 | 12 31 29 | 9°47'25 | 1♁59 | 20°42 | 20°19 | 16°20 | 8°19 | 27°35 | 5° 2 | 15°36 | 2°13 | 29°31 | 1°26 | 5°57 | 26°38 | T 25 | | |
| W26 | 12 35 26 | 10°46'09 | 13°54 | 20°D37 | 21°28 | 17° 6 | 8°14 | 27°39 | 5° 5 | 15°36 | 2°14 | 29°27 | 1°23 | 6° 4 | 26°42 | W26 | | |
| T 27 | 12 39 22 | 11°44'51 | 25°54 | 20°38 | 22°37 | 17°51 | 8° 8 | 27°42 | 5° 8 | 15°37 | 2°16 | 29°D26 | 1°20 | 6°10 | 26°45 | T 27 | | |
| F 28 | 12 43 19 | 12°43'31 | 8♋ 5 | 20°43 | 23°46 | 18°37 | 8° 3 | 27°46 | 5°12 | 15°37 | 2°17 | 29°26 | 1°17 | 6°17 | 26°49 | F 28 | | |
| S 29 | 12 47 16 | 13°42'08 | 20°28 | 20°54 | 24°54 | 19°22 | 7°58 | 27°50 | 5°15 | 15°37 | 2°18 | 29°27 | 1°14 | 6°24 | 26°52 | S 29 | | |
| S 30 | 12 51 12 | 14°40'43 | 3♌ 8 | 21° 9 | 26° 2 | 20° 8 | 7°52 | 27°54 | 5°19 | 15°37 | 2°20 | 29°28 | 1°10 | 6°30 | 26°56 | S 30 | | |
| M31 | 12 55 9 | 15°39'17 | 16♌10 | 21♌29 | 27♁11 | 20♌53 | 7♎48 | 27♋58 | 5♂22 | 15♌38 | 2♂21 | 29°R29 | 1♋ 7 | 6♂37 | 26♌59 | M31 | | |

Delta T = 18m11s Julian Calendar 1 March 1091 == Greg. Calendar 7 March 1091

APRIL 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|------|-------|------|--------|-------|------|-------|------|---|-----|
| T 1 | 12 59 5 | 16♂37'47 | 29♌37 | 21♌54 | 28♁19 | 21♌39 | 7°R43 | 28♋ 2 | 5♂25 | 15♌38 | 2♂23 | 29°R28 | 1♋ 4 | 6♂44 | 27♌ 3 | T 1 | | |
| W 2 | 13 3 2 | 17°36'16 | 13♌31 | 22°23 | 29°26 | 22°24 | 7♎38 | 28° 6 | 5°29 | 15°38 | 2°24 | 29♁26 | 1° 1 | 6°51 | 27° 6 | W 2 | | |
| T 3 | 13 6 58 | 18°34'42 | 27°52 | 22°56 | 0♋34 | 23°10 | 7°34 | 28°10 | 5°32 | 15°39 | 2°26 | 29°21 | 0°58 | 6°57 | 27°10 | T 3 | | |
| F 4 | 13 10 55 | 19°33'06 | 12♎38 | 23°33 | 1°42 | 23°55 | 7°29 | 28°14 | 5°36 | 15°39 | 2°27 | 29°16 | 0°55 | 7° 4 | 27°13 | F 4 | | |
| S 5 | 13 14 51 | 20°31'28 | 27°42 | 24°14 | 2°49 | 24°41 | 7°25 | 28°19 | 5°39 | 15°40 | 2°28 | 29°10 | 0°51 | 7°11 | 27°17 | S 5 | | |
| S 6 | 13 18 48 | 21°29'48 | 12♌56 | 24°59 | 3°56 | 25°26 | 7°21 | 28°23 | 5°42 | 15°40 | 2°30 | 29° 5 | 0°48 | 7°17 | 27°20 | S 6 | | |
| M 7 | 13 22 45 | 22°28'06 | 28°10 | 25°47 | 5° 3 | 26°12 | 7°17 | 28°28 | 5°46 | 15°41 | 2°31 | 29° 1 | 0°45 | 7°24 | 27°23 | M 7 | | |
| T 8 | 13 26 41 | 23°26'23 | 13♎13 | 26°38 | 6°10 | 26°57 | 7°14 | 28°32 | 5°49 | 15°41 | 2°32 | 28°58 | 0°42 | 7°31 | 27°27 | T 8 | | |
| W 9 | 13 30 38 | 24°24'37 | 27°56 | 27°33 | 7°16 | 27°43 | 7°10 | 28°37 | 5°52 | 15°42 | 2°34 | 28°D57 | 0°39 | 7°37 | 27°30 | W 9 | | |
| T 10 | 13 34 34 | 25°22'50 | 12♌15 | 28°31 | 8°23 | 28°28 | 7° 7 | 28°42 | 5°55 | 15°43 | 2°35 | 28°58 | 0°35 | 7°44 | 27°33 | T 10 | | |
| F 11 | 13 38 31 | 26°21'02 | 26° 7 | 29°32 | 9°29 | 29°14 | 7° 4 | 28°47 | 5°59 | 15°43 | 2°36 | 28°59 | 0°32 | 7°51 | 27°37 | F 11 | | |
| S 12 | 13 42 27 | 27°19'12 | 9♁31 | 0♂35 | 10°35 | 29°59 | 7° 1 | 28°52 | 6° 2 | 15°44 | 2°38 | 29° 1 | 0°29 | 7°57 | 27°40 | S 12 | | |
| S 13 | 13 46 24 | 28°17'20 | 22°30 | 1°41 | 11°41 | 0♌44 | 6°58 | 28°57 | 6° 5 | 15°45 | 2°39 | 29°R 2 | 0°26 | 8° 4 | 27°43 | S 13 | | |
| M14 | 13 50 20 | 29°15'27 | 5♌ 8 | 2°50 | 12°46 | 1°30 | 6°56 | 29° 2 | 6° 9 | 15°45 | 2°40 | 29° 2 | 0°23 | 8°11 | 27°47 | M14 | | |
| T 15 | 13 54 17 | 0♁13'33 | 17°29 | 4° 2 | 13°51 | 2°15 | 6°53 | 29° 7 | 6°12 | 15°46 | 2°42 | 29° 0 | 0°20 | 8°18 | 27°50 | T 15 | | |
| W16 | 13 58 14 | 1°11'37 | 29°36 | 5°16 | 14°57 | 3° 1 | 6°51 | 29°12 | 6°15 | 15°47 | 2°43 | 28°58 | 0°16 | 8°24 | 27°53 | W16 | | |
| T 17 | 14 2 10 | 2° 9'39 | 11♌34 | 6°32 | 16° 1 | 3°46 | 6°49 | 29°18 | 6°18 | 15°48 | 2°44 | 28°54 | 0°13 | 8°31 | 27°56 | T 17 | | |
| F 18 | 14 6 7 | 3° 7'40 | 23°27 | 7°51 | 17° 6 | 4°31 | 6°47 | 29°23 | 6°21 | 15°49 | 2°46 | 28°50 | 0°10 | 8°38 | 27°59 | F 18 | | |
| S 19 | 14 10 3 | 4° 5'40 | 5♂17 | 9°12 | 18°11 | 5°17 | 6°45 | 29°29 | 6°24 | 15°50 | 2°47 | 28°46 | 0° 7 | 8°44 | 28° 2 | S 19 | | |
| S 20 | 14 14 0 | 5° 3'38 | 17° 7 | 10°35 | 19°15 | 6° 2 | 6°44 | 29°34 | 6°28 | 15°51 | 2°48 | 28°42 | 0° 4 | 8°51 | 28° 5 | S 20 | | |
| M21 | 14 17 56 | 6° 1'34 | 28°59 | 12° 1 | 20°19 | 6°47 | 6°42 | 29°40 | 6°31 | 15°52 | 2°49 | 28°39 | 0° 0 | 8°58 | 28° 9 | M21 | | |
| T 22 | 14 21 53 | 6°59'29 | 10♁56 | 13°29 | 21°22 | 7°32 | 6°41 | 29°45 | 6°34 | 15°53 | 2°51 | 28°36 | 29♁57 | 9° 4 | 28°12 | T 22 | | |
| W23 | 14 25 49 | 7°57'23 | 14°58 | 22°59 | 22°26 | 8°17 | 6°40 | 29°51 | 6°37 | 15°54 | 2°52 | 28°D35 | 29°54 | 9°11 | 28°15 | W23 | | |
| T 24 | 14 29 46 | 8°55'15 | 5♋11 | 16°30 | 23°29 | 9° 3 | 6°40 | 29°57 | 6°40 | 15°55 | 2°53 | 28°35 | 29°51 | 9°18 | 28°18 | T 24 | | |
| F 25 | 14 33 43 | 9°53'05 | 17°33 | 18° 5 | 24°32 | 9°48 | 6°39 | 0♁ 3 | 6°43 | 15°56 | 2°54 | 28°36 | 29°48 | 9°25 | 28°20 | F 25 | | |
| S 26 | 14 37 39 | 10°50'54 | 0♁ 7 | 19°41 | 25°34 | 10°33 | 6°38 | 0° 9 | 6°46 | 15°57 | 2°56 | 28°38 | 29°45 | 9°31 | 28°23 | S 26 | | |
| S 27 | 14 41 36 | 11°48'41 | 12°57 | 21°19 | 26°37 | 11°18 | 6°38 | 0°15 | 6°49 | 15°58 | 2°57 | 28°39 | 29°41 | 9°38 | 28°26 | S 27 | | |
| M28 | 14 45 32 | 12°46'26 | 26° 3 | 23° 0 | 27°39 | 12° 3 | 6°D38 | 0°21 | 6°52 | 15°59 | 2°58 | 28°40 | 29°38 | 9°45 | 28°29 | M28 | | |
| T 29 | 14 49 29 | 13°44'10 | 9♌30 | 24°42 | 28°40 | 12°48 | 6°38 | 0°27 | 6°55 | 16° 1 | 2°59 | 28°R41 | 29°35 | 9°51 | 28°32 | T 29 | | |
| W30 | 14 53 25 | 14♁41'52 | 23♌18 | 26♂27 | 29♋42 | 13♌33 | 6♎39 | 0♁33 | 6♂58 | 16♁ 2 | 3♂ 0 | 28♁40 | 29♁32 | 9♂58 | 28♌35 | W30 | | |

Delta T = 18m11s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1091
geocentric

MAY 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|------|------|------|-------|------|--------|-------|-------|-------|------|
| T 1 | 14 57 22 | 15♁39'32 | 7♎27 | 28♃14 | 0♁43 | 14♁18 | 6♎39 | 0♁39 | 7♃0 | 16♁3 | 3♃1 | 28♃R40 | 29♁29 | 10♃5 | 28♁37 | T 1 |
| F 2 | 15 1 18 | 16°37'10 | 21°55 | 0♁3 | 1°43 | 15°3 | 6°40 | 0°46 | 7°3 | 16°4 | 3°2 | 28♁39 | 29°26 | 10°11 | 28°40 | F 2 |
| S 3 | 15 5 15 | 17°34'47 | 6♁40 | 1°54 | 2°44 | 15°47 | 6°41 | 0°52 | 7°6 | 16°6 | 3°3 | 28°37 | 29°22 | 10°18 | 28°43 | S 3 |
| S 4 | 15 9 12 | 18°32'22 | 21°35 | 3°47 | 3°44 | 16°32 | 6°42 | 0°58 | 7°9 | 16°7 | 3°5 | 28°36 | 29°19 | 10°25 | 28°45 | S 4 |
| M 5 | 15 13 8 | 19°29'56 | 6♎32 | 5°42 | 4°43 | 17°17 | 6°43 | 1°5 | 7°12 | 16°8 | 3°6 | 28°35 | 29°16 | 10°31 | 28°48 | M 5 |
| T 6 | 15 17 5 | 20°27'29 | 21°24 | 7°39 | 5°42 | 18°2 | 6°44 | 1°11 | 7°14 | 16°10 | 3°7 | 28°D35 | 29°13 | 10°38 | 28°51 | T 6 |
| W 7 | 15 21 1 | 21°25'01 | 6♁3 | 9°39 | 6°41 | 18°46 | 6°46 | 1°18 | 7°17 | 16°11 | 3°8 | 28°35 | 29°10 | 10°45 | 28°53 | W 7 |
| T 8 | 15 24 58 | 22°22'31 | 20°22 | 11°40 | 7°39 | 19°31 | 6°48 | 1°25 | 7°20 | 16°13 | 3°9 | 28°35 | 29°6 | 10°51 | 28°56 | T 8 |
| F 9 | 15 28 54 | 23°20'01 | 4♁18 | 13°43 | 8°37 | 20°16 | 6°50 | 1°31 | 7°22 | 16°14 | 3°10 | 28°36 | 29°3 | 10°58 | 28°58 | F 9 |
| S 10 | 15 32 51 | 24°17'30 | 17°48 | 15°47 | 9°35 | 21°0 | 6°52 | 1°38 | 7°25 | 16°16 | 3°11 | 28°36 | 29°0 | 11°5 | 29°0 | S 10 |
| S 11 | 15 36 47 | 25°14'58 | 0♁53 | 17°54 | 10°32 | 21°45 | 6°54 | 1°45 | 7°28 | 16°17 | 3°12 | 28°36 | 28°57 | 11°12 | 29°3 | S 11 |
| M12 | 15 40 44 | 26°12'25 | 13°36 | 20°1 | 11°28 | 22°29 | 6°56 | 1°52 | 7°30 | 16°19 | 3°13 | 28°37 | 28°54 | 11°18 | 29°5 | M12 |
| T 13 | 15 44 41 | 27°9'51 | 26°0 | 22°10 | 12°24 | 23°14 | 6°59 | 1°58 | 7°33 | 16°20 | 3°14 | 28°R37 | 28°51 | 11°25 | 29°7 | T 13 |
| W14 | 15 48 37 | 28°7'16 | 8♁8 | 24°21 | 13°20 | 23°58 | 7°2 | 2°5 | 7°35 | 16°22 | 3°15 | 28°D37 | 28°47 | 11°32 | 29°10 | W14 |
| T 15 | 15 52 34 | 29°4'41 | 20°6 | 26°31 | 14°15 | 24°42 | 7°5 | 2°12 | 7°37 | 16°23 | 3°15 | 28°37 | 28°44 | 11°38 | 29°12 | T 15 |
| F 16 | 15 56 30 | 0♁2'05 | 1♃58 | 28°43 | 15°9 | 25°27 | 7°8 | 2°19 | 7°40 | 16°25 | 3°16 | 28°37 | 28°41 | 11°45 | 29°14 | F 16 |
| S 17 | 16 0 27 | 0°59'28 | 13°48 | 0♁55 | 16°3 | 26°11 | 7°11 | 2°26 | 7°42 | 16°27 | 3°17 | 28°37 | 28°38 | 11°52 | 29°16 | S 17 |
| S 18 | 16 4 23 | 1°56'50 | 25°39 | 3°7 | 16°57 | 26°55 | 7°14 | 2°33 | 7°45 | 16°28 | 3°18 | 28°37 | 28°35 | 11°58 | 29°18 | S 18 |
| M19 | 16 8 20 | 2°54'12 | 7♁36 | 5°19 | 17°49 | 27°39 | 7°18 | 2°41 | 7°47 | 16°30 | 3°19 | 28°38 | 28°32 | 12°5 | 29°20 | M19 |
| T 20 | 16 12 16 | 3°51'33 | 19°41 | 7°30 | 18°41 | 28°23 | 7°22 | 2°48 | 7°49 | 16°32 | 3°20 | 28°38 | 28°28 | 12°12 | 29°22 | T 20 |
| W21 | 16 16 13 | 4°48'54 | 1♁56 | 9°41 | 19°33 | 29°7 | 7°26 | 2°55 | 7°51 | 16°34 | 3°20 | 28°R38 | 28°25 | 12°18 | 29°24 | W21 |
| T 22 | 16 20 10 | 5°46'13 | 14°23 | 11°50 | 20°24 | 29°51 | 7°30 | 3°2 | 7°54 | 16°35 | 3°21 | 28°38 | 28°22 | 12°25 | 29°26 | T 22 |
| F 23 | 16 24 6 | 6°43'33 | 27°2 | 13°59 | 21°14 | 0♃35 | 7°34 | 3°9 | 7°56 | 16°37 | 3°22 | 28°37 | 28°19 | 12°32 | 29°28 | F 23 |
| S 24 | 16 28 3 | 7°40'51 | 9♁56 | 16°6 | 22°4 | 1°19 | 7°39 | 3°17 | 7°58 | 16°39 | 3°23 | 28°36 | 28°16 | 12°38 | 29°30 | S 24 |
| S 25 | 16 31 59 | 8°38'08 | 23°3 | 18°11 | 22°52 | 2°3 | 7°43 | 3°24 | 8°0 | 16°41 | 3°23 | 28°35 | 28°12 | 12°45 | 29°31 | S 25 |
| M26 | 16 35 56 | 9°35'25 | 6♁25 | 20°15 | 23°40 | 2°46 | 7°48 | 3°31 | 8°2 | 16°43 | 3°24 | 28°34 | 28°9 | 12°52 | 29°33 | M26 |
| T 27 | 16 39 52 | 10°32'40 | 20°1 | 22°17 | 24°28 | 3°30 | 7°53 | 3°39 | 8°4 | 16°45 | 3°25 | 28°33 | 28°6 | 12°59 | 29°35 | T 27 |
| W28 | 16 43 49 | 11°29'55 | 3♎51 | 24°16 | 25°14 | 4°13 | 7°58 | 3°46 | 8°6 | 16°46 | 3°26 | 28°32 | 28°3 | 13°5 | 29°36 | W28 |
| T 29 | 16 47 46 | 12°27'09 | 17°54 | 26°14 | 25°59 | 4°57 | 8°3 | 3°53 | 8°8 | 16°48 | 3°26 | 28°D32 | 28°0 | 13°12 | 29°38 | T 29 |
| F 30 | 16 51 42 | 13°24'22 | 2♁10 | 28°10 | 26°44 | 5°40 | 8°8 | 4°1 | 8°10 | 16°50 | 3°27 | 28°32 | 27°57 | 13°19 | 29°39 | F 30 |
| S 31 | 16 55 39 | 14♁21'34 | 16♁34 | 0♁3 | 27♁28 | 6♃23 | 8♎14 | 4♁8 | 8♃11 | 16♁52 | 3♃27 | 28♁33 | 27♁53 | 13♃25 | 29♁41 | S 31 |

Delta T = 18m11s Julian Calendar 1 May 1091 == Greg. Calendar 7 May 1091

JUNE 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|------|-------|-------|--------|-------|-------|-------|------|
| S 1 | 16 59 35 | 15♁18'46 | 1♎5 | 19♁54 | 28♁10 | 7♃7 | 8♎20 | 4♁16 | 8♃13 | 16♁54 | 3♃28 | 28♁35 | 27♁50 | 13♃32 | 29♁42 | S 1 |
| M 2 | 17 3 32 | 16°15'57 | 15°38 | 3°43 | 28°52 | 7°50 | 8°25 | 4°23 | 8°15 | 16°56 | 3°29 | 28°36 | 27°47 | 13°39 | 29°44 | M 2 |
| T 3 | 17 7 28 | 17°13'07 | 0♁7 | 5°30 | 29°33 | 8°33 | 8°31 | 4°31 | 8°17 | 16°58 | 3°29 | 28°R36 | 27°44 | 13°45 | 29°45 | T 3 |
| W 4 | 17 11 25 | 18°10'17 | 14°27 | 7°14 | 0♁13 | 9°16 | 8°37 | 4°39 | 8°18 | 17°0 | 3°30 | 28°35 | 27°41 | 13°52 | 29°46 | W 4 |
| T 5 | 17 15 21 | 19°7'27 | 28°33 | 8°57 | 0°51 | 9°59 | 8°44 | 4°46 | 8°20 | 17°2 | 3°30 | 28°34 | 27°38 | 13°59 | 29°48 | T 5 |
| F 6 | 17 19 18 | 20°4'37 | 12♁22 | 10°36 | 1°28 | 10°42 | 8°50 | 4°54 | 8°22 | 17°4 | 3°31 | 28°31 | 27°34 | 14°5 | 29°49 | F 6 |
| S 7 | 17 23 15 | 21°1'46 | 25°49 | 12°14 | 2°4 | 11°24 | 8°56 | 5°1 | 8°23 | 17°6 | 3°31 | 28°28 | 27°31 | 14°12 | 29°50 | S 7 |
| S 8 | 17 27 11 | 21°58'55 | 8♁55 | 13°49 | 2°39 | 12°7 | 9°3 | 5°9 | 8°25 | 17°8 | 3°32 | 28°25 | 27°28 | 14°19 | 29°51 | S 8 |
| M 9 | 17 31 8 | 22°56'04 | 21°39 | 15°22 | 3°13 | 12°50 | 9°10 | 5°17 | 8°26 | 17°10 | 3°32 | 28°22 | 27°25 | 14°25 | 29°52 | M 9 |
| T 10 | 17 35 4 | 23°53'14 | 4♁5 | 16°52 | 3°45 | 13°32 | 9°17 | 5°24 | 8°27 | 17°12 | 3°32 | 28°19 | 27°22 | 14°32 | 29°53 | T 10 |
| W11 | 17 39 1 | 24°50'23 | 16°15 | 18°21 | 4°16 | 14°15 | 9°24 | 5°32 | 8°29 | 17°14 | 3°33 | 28°18 | 27°18 | 14°39 | 29°54 | W11 |
| T 12 | 17 42 57 | 25°47'33 | 28°14 | 19°46 | 4°45 | 14°57 | 9°31 | 5°40 | 8°30 | 17°16 | 3°33 | 28°D17 | 27°15 | 14°45 | 29°55 | T 12 |
| F 13 | 17 46 54 | 26°44'42 | 10♃6 | 21°10 | 5°13 | 15°39 | 9°38 | 5°48 | 8°31 | 17°19 | 3°33 | 28°18 | 27°12 | 14°52 | 29°56 | F 13 |
| S 14 | 17 50 50 | 27°41'52 | 21°56 | 22°31 | 5°40 | 16°21 | 9°45 | 5°55 | 8°33 | 17°21 | 3°34 | 28°20 | 27°9 | 14°59 | 29°56 | S 14 |
| S 15 | 17 54 47 | 28°39'03 | 3♁50 | 23°49 | 6°4 | 17°4 | 9°53 | 6°3 | 8°34 | 17°23 | 3°34 | 28°21 | 27°6 | 15°6 | 29°57 | S 15 |
| M16 | 17 58 44 | 29°36'13 | 15°51 | 25°5 | 6°27 | 17°46 | 10°1 | 6°11 | 8°35 | 17°25 | 3°34 | 28°23 | 27°3 | 15°12 | 29°58 | M16 |
| T 17 | 18 2 40 | 0♁33'24 | 28°3 | 26°18 | 6°49 | 18°27 | 10°8 | 6°19 | 8°36 | 17°27 | 3°35 | 28°R23 | 26°59 | 15°19 | 29°58 | T 17 |
| W18 | 18 6 37 | 1°30'35 | 10♁30 | 27°29 | 7°8 | 19°9 | 10°16 | 6°26 | 8°37 | 17°29 | 3°35 | 28°23 | 26°56 | 15°26 | 29°59 | W18 |
| T 19 | 18 10 33 | 2°27'47 | 23°13 | 28°37 | 7°26 | 19°51 | 10°24 | 6°34 | 8°38 | 17°31 | 3°35 | 28°21 | 26°53 | 15°32 | 29°59 | T 19 |
| F 20 | 18 14 30 | 3°24'58 | 6♁12 | 29°42 | 7°42 | 20°32 | 10°32 | 6°42 | 8°39 | 17°34 | 3°35 | 28°17 | 26°50 | 15°39 | 29°59 | F 20 |
| S 21 | 18 18 26 | 4°22'10 | 19°29 | 0♁44 | 7°56 | 21°14 | 10°41 | 6°50 | 8°40 | 17°36 | 3°35 | 28°12 | 26°47 | 15°46 | 0♃0 | S 21 |
| S 22 | 18 22 23 | 5°19'22 | 3♁1 | 1°44 | 8°8 | 21°55 | 10°49 | 6°58 | 8°41 | 17°38 | 3°36 | 28°6 | 26°44 | 15°52 | 0°0 | S 22 |
| M23 | 18 26 19 | 6°16'34 | 16°46 | 2°40 | 8°17 | 22°36 | 10°57 | 7°5 | 8°42 | 17°40 | 3°36 | 28°0 | 26°40 | 15°59 | 0°1 | M23 |
| T 24 | 18 30 16 | 7°13'46 | 0♎42 | 3°33 | 8°25 | 23°18 | 11°6 | 7°13 | 8°42 | 17°42 | 3°36 | 27°55 | 26°37 | 16°6 | 0°1 | T 24 |
| W25 | 18 34 13 | 8°10'59 | 14°45 | 4°23 | 8°30 | 23°59 | 11°15 | 7°21 | 8°43 | 17°44 | 3°36 | 27°51 | 26°34 | 16°12 | 0°1 | W25 |
| T 26 | 18 38 9 | 9°8'11 | 28°52 | 5°9 | 8°34 | 24°39 | 11°24 | 7°29 | 8°44 | 17°47 | 3°36 | 27°49 | 26°31 | 16°19 | 0°1 | T 26 |
| F 27 | 18 42 6 | 10°5'23 | 13♁3 | 5°51 | 8°R35 | 25°20 | 11°32 | 7°37 | 8°44 | 17°49 | 3°36 | 27°D49 | 26°28 | 16°26 | 0°1 | F 27 |
| S 28 | 18 46 2 | 11°2'36 | 27°14 | 6°30 | 8°R33 | 26°1 | 11°41 | 7°44 | 8°45 | 17°51 | 3°R36 | 27°50 | 26°24 | 16°32 | 0°R1 | S 28 |
| S 29 | 18 49 59 | 11°59'48 | 11♎25 | 7°5 | 8°29 | 26°41 | 11°51 | 7°52 | 8°45 | 17°53 | 3°36 | 27°51 | 26°21 | 16°39 | 0°1 | S 29 |
| M30 | 18 53 55 | 12♁57'01 | 25♎32 | 7♁36 | 8♁23 | 27♃22 | 12♎0 | 8♁0 | 8♃16 | 17♁56 | 3♃36 | 27°R52 | 26♁18 | 16♃46 | 0♃1 | M30 |

Delta T = 18m10s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1091
geocentric

JULY 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|---------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|------|
| T 1 | 18 57 52 | 13 ⁵⁴ 15 | 9 ³⁵ | 8 ³ | 8 ^{R15} | 28 ² | 12 ⁹ | 8 ⁸ | 8 ⁴⁶ | 17 ⁵⁸ | 3 ^{R36} | 27 ^{R51} | 26 ¹⁵ | 16 ⁵² | 0 ^{R 1} | T 1 |
| W 2 | 19 1 49 | 14 ⁵¹ 29 | 23 ³⁰ | 8 ²⁵ | 8 ^{L 4} | 28 ⁴² | 12 ¹⁸ | 8 ¹⁵ | 8 ⁴⁶ | 18 ⁰ | 3 ^{Y36} | 27 ^{B49} | 26 ¹² | 16 ⁵⁹ | 0 ^{Y 1} | W 2 |
| T 3 | 19 5 45 | 15 ⁴⁸ 43 | 7 ³⁵ | 8 ⁴³ | 7 ⁵⁰ | 29 ²² | 12 ²⁸ | 8 ²³ | 8 ⁴⁷ | 18 ² | 3 ³⁶ | 27 ⁴⁴ | 26 ⁹ | 17 ⁶ | 0 ¹ | T 3 |
| F 4 | 19 9 42 | 16 ⁴⁵ 58 | 20 ⁴⁶ | 8 ⁵⁶ | 7 ³⁵ | 0 ^{B 2} | 12 ³⁸ | 8 ³¹ | 8 ⁴⁷ | 18 ⁴ | 3 ³⁶ | 27 ³⁷ | 26 ⁵ | 17 ¹² | 0 ⁰ | F 4 |
| S 5 | 19 13 38 | 17 ⁴³ 13 | 4 ³ | 9 ⁵ | 7 ¹⁷ | 0 ⁴² | 12 ⁴⁷ | 8 ³⁹ | 8 ⁴⁷ | 18 ⁷ | 3 ³⁵ | 27 ²⁹ | 26 ² | 17 ¹⁹ | 29 ^{H59} | S 5 |
| S 6 | 19 17 35 | 18 ⁴⁰ 29 | 16 ⁵⁹ | 9 ^{R 8} | 6 ⁵⁶ | 1 ²¹ | 12 ⁵⁷ | 8 ⁴⁶ | 8 ⁴⁷ | 18 ⁹ | 3 ³⁵ | 27 ²⁰ | 25 ⁵⁹ | 17 ²⁶ | 29 ⁵⁹ | S 6 |
| M 7 | 19 21 31 | 19 ³⁷ 46 | 29 ³⁹ | 9 ⁶ | 6 ³⁴ | 2 ¹ | 13 ⁷ | 8 ⁵⁴ | 8 ⁴⁸ | 18 ¹¹ | 3 ³⁵ | 27 ¹² | 25 ⁵⁶ | 17 ³² | 29 ⁵⁹ | M 7 |
| T 8 | 19 25 28 | 20 ³⁵ 04 | 12 ^{H 2} | 9 ⁰ | 6 ⁹ | 2 ⁴⁰ | 13 ¹⁷ | 9 ² | 8 ⁴⁸ | 18 ¹³ | 3 ³⁵ | 27 ⁵ | 25 ⁵³ | 17 ³⁹ | 29 ⁵⁹ | T 8 |
| W 9 | 19 29 24 | 21 ³² 23 | 24 ¹¹ | 8 ⁴⁸ | 5 ⁴² | 3 ¹⁹ | 13 ²⁷ | 9 ⁹ | 8 ^{R48} | 18 ¹⁶ | 3 ³⁵ | 26 ⁵⁹ | 25 ⁵⁰ | 17 ⁴⁶ | 29 ⁵⁸ | W 9 |
| T 10 | 19 33 21 | 22 ²⁹ 43 | 6 ^{Y 9} | 8 ³¹ | 5 ¹⁴ | 3 ⁵⁹ | 13 ³⁷ | 9 ¹⁷ | 8 ⁴⁸ | 18 ¹⁸ | 3 ³⁴ | 26 ⁵⁵ | 25 ⁴⁶ | 17 ⁵² | 29 ⁵⁷ | T 10 |
| F 11 | 19 37 18 | 23 ²⁷ 04 | 18 ¹ | 8 ¹⁰ | 4 ⁴⁴ | 4 ³⁷ | 13 ⁴⁷ | 9 ²⁵ | 8 ⁴⁸ | 18 ²⁰ | 3 ³⁴ | 26 ⁵⁴ | 25 ⁴³ | 17 ⁵⁹ | 29 ⁵⁷ | F 11 |
| S 12 | 19 41 14 | 24 ²⁴ 26 | 29 ⁵¹ | 7 ⁴⁴ | 4 ¹² | 5 ¹⁶ | 13 ⁵⁸ | 9 ³² | 8 ⁴⁷ | 18 ²² | 3 ³⁴ | 26 ^{D54} | 25 ⁴⁰ | 18 ⁶ | 29 ⁵⁶ | S 12 |
| S 13 | 19 45 11 | 25 ²¹ 50 | 11 ^{B45} | 7 ¹³ | 3 ³⁹ | 5 ⁵⁵ | 14 ⁸ | 9 ⁴⁰ | 8 ⁴⁷ | 18 ²⁴ | 3 ³⁴ | 26 ⁵⁵ | 25 ³⁷ | 18 ¹³ | 29 ⁵⁵ | S 13 |
| M14 | 19 49 7 | 26 ¹⁹ 14 | 23 ⁴⁸ | 6 ³⁸ | 3 ⁴ | 6 ³³ | 14 ¹⁹ | 9 ⁴⁸ | 8 ⁴⁷ | 18 ²⁷ | 3 ³³ | 26 ^{R55} | 25 ³⁴ | 18 ¹⁹ | 29 ⁵⁴ | M14 |
| T 15 | 19 53 4 | 27 ¹⁶ 40 | 6 ^{II 4} | 5 ⁵⁹ | 2 ²⁹ | 7 ¹² | 14 ²⁹ | 9 ⁵⁵ | 8 ⁴⁷ | 18 ²⁹ | 3 ³³ | 26 ⁵⁵ | 25 ³⁰ | 18 ²⁶ | 29 ⁵³ | T 15 |
| W16 | 19 57 0 | 28 ¹⁴ 07 | 18 ³⁹ | 5 ¹⁷ | 1 ⁵³ | 7 ⁵⁰ | 14 ⁴⁰ | 10 ³ | 8 ⁴⁶ | 18 ³¹ | 3 ³³ | 26 ⁵³ | 25 ²⁷ | 18 ³³ | 29 ⁵² | W16 |
| T 17 | 20 0 57 | 29 ¹¹ 36 | 1 ³³ | 4 ³³ | 1 ¹⁶ | 8 ²⁸ | 14 ⁵⁰ | 10 ¹⁰ | 8 ⁴⁶ | 18 ³³ | 3 ³² | 26 ⁴⁸ | 25 ²⁴ | 18 ³⁹ | 29 ⁵¹ | T 17 |
| F 18 | 20 4 53 | 0 ⁹ 05 | 14 ⁵¹ | 3 ⁴⁶ | 0 ³⁹ | 9 ⁶ | 15 ¹ | 10 ¹⁸ | 8 ⁴⁶ | 18 ³⁶ | 3 ³² | 26 ⁴¹ | 25 ²¹ | 18 ⁴⁶ | 29 ⁵⁰ | F 18 |
| S 19 | 20 8 50 | 1 ⁶ 36 | 28 ³⁰ | 2 ⁵⁹ | 0 ² | 9 ⁴³ | 15 ¹² | 10 ²⁵ | 8 ⁴⁵ | 18 ³⁸ | 3 ³¹ | 26 ³² | 25 ¹⁸ | 18 ⁵³ | 29 ⁴⁹ | S 19 |
| S 20 | 20 12 47 | 2 ⁴ 08 | 12 ²⁸ | 2 ¹² | 29 ²⁴ | 10 ²¹ | 15 ²³ | 10 ³³ | 8 ⁴⁵ | 18 ⁴⁰ | 3 ³¹ | 26 ²² | 25 ¹⁵ | 18 ⁵⁹ | 29 ⁴⁸ | S 20 |
| M21 | 20 16 43 | 3 ¹ 41 | 26 ⁴⁰ | 1 ²⁵ | 28 ⁴⁸ | 10 ⁵⁸ | 15 ³⁴ | 10 ⁴⁰ | 8 ⁴⁴ | 18 ⁴² | 3 ³⁰ | 26 ¹² | 25 ¹¹ | 19 ⁶ | 29 ⁴⁷ | M21 |
| T 22 | 20 20 40 | 3 ⁵⁹ 14 | 11 ¹¹ | 0 ⁴⁰ | 28 ¹² | 11 ³⁵ | 15 ⁴⁵ | 10 ⁴⁸ | 8 ⁴³ | 18 ⁴⁴ | 3 ³⁰ | 26 ³ | 25 ⁸ | 19 ¹³ | 29 ⁴⁶ | T 22 |
| W23 | 20 24 36 | 4 ⁵⁶ 49 | 25 ²⁵ | 29 ⁵⁷ | 27 ³⁶ | 12 ¹² | 15 ⁵⁶ | 10 ⁵⁵ | 8 ⁴³ | 18 ⁴⁶ | 3 ²⁹ | 25 ⁵⁵ | 25 ⁵ | 19 ¹⁹ | 29 ⁴⁴ | W23 |
| T 24 | 20 28 33 | 5 ⁵⁴ 25 | 9 ⁴⁷ | 29 ¹⁸ | 27 ² | 12 ⁴⁹ | 16 ⁸ | 11 ² | 8 ⁴² | 18 ⁴⁹ | 3 ²⁹ | 25 ⁵¹ | 25 ² | 19 ²⁶ | 29 ⁴³ | T 24 |
| F 25 | 20 32 29 | 6 ⁵² 02 | 24 ⁴ | 28 ⁴² | 26 ²⁹ | 13 ²⁵ | 16 ¹⁹ | 11 ¹⁰ | 8 ⁴¹ | 18 ⁵¹ | 3 ²⁸ | 25 ⁴⁸ | 24 ⁵⁹ | 19 ³³ | 29 ⁴² | F 25 |
| S 26 | 20 36 26 | 7 ⁴⁹ 39 | 8 ¹³ | 28 ¹² | 25 ⁵⁷ | 14 ² | 16 ³⁰ | 11 ¹⁷ | 8 ⁴¹ | 18 ⁵³ | 3 ²⁸ | 25 ^{D48} | 24 ⁵⁶ | 19 ³⁹ | 29 ⁴⁰ | S 26 |
| S 27 | 20 40 22 | 8 ⁴⁷ 18 | 22 ¹² | 27 ⁴⁷ | 25 ²⁷ | 14 ³⁸ | 16 ⁴² | 11 ²⁴ | 8 ⁴⁰ | 18 ⁵⁵ | 3 ²⁷ | 25 ^{R48} | 24 ⁵² | 19 ⁴⁶ | 29 ³⁹ | S 27 |
| M28 | 20 44 19 | 9 ⁴⁴ 58 | 6 ³ | 27 ²⁹ | 24 ⁵⁹ | 15 ¹⁴ | 16 ⁵³ | 11 ³¹ | 8 ³⁹ | 18 ⁵⁷ | 3 ²⁷ | 25 ⁴⁸ | 24 ⁴⁹ | 19 ⁵³ | 29 ³⁷ | M28 |
| T 29 | 20 48 16 | 10 ⁴² 39 | 19 ⁴³ | 27 ¹⁷ | 24 ³³ | 15 ⁴⁹ | 17 ⁵ | 11 ³⁹ | 8 ³⁸ | 18 ⁵⁹ | 3 ²⁶ | 25 ⁴⁶ | 24 ⁴⁶ | 19 ⁵⁹ | 29 ³⁶ | T 29 |
| W30 | 20 52 12 | 11 ⁴⁰ 21 | 3 ¹⁴ | 27 ^{D12} | 24 ⁸ | 16 ²⁵ | 17 ¹⁶ | 11 ⁴⁶ | 8 ³⁷ | 19 ¹ | 3 ²⁵ | 25 ⁴¹ | 24 ⁴³ | 20 ⁶ | 29 ³⁴ | W30 |
| T 31 | 20 56 9 | 12 ³⁸ 04 | 16 ³⁵ | 27 ¹⁵ | 23 ⁴⁶ | 17 ⁸ | 17 ²⁸ | 11 ⁵³ | 8 ^{Y36} | 19 ³ | 3 ^{Y25} | 25 ^{B34} | 24 ^{B40} | 20 ^{Y13} | 29 ^{H33} | T 31 |

Delta T = 18m10s Julian Calendar 1 July 1091 == Greg. Calendar 7 July 1091

AUGUST 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|---------------------|--------------------|------------------|-------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-------------------|-------------------|-------------------|------|
| F 1 | 21 0 5 | 13 ³⁵ 49 | 29 ³⁴ | 27 ²⁵ | 23 ^{R26} | 17 ^{B35} | 17 ⁴⁰ | 12 ⁰ | 8 ^{R35} | 19 ⁵ | 3 ^{R24} | 25 ^{R24} | 24 ^{B36} | 20 ^{Y19} | 29 ^{R31} | F 1 |
| S 2 | 21 4 2 | 14 ³³ 35 | 12 ⁴¹ | 27 ⁴² | 23 ⁵⁸ | 18 ¹⁰ | 17 ⁵¹ | 12 ⁷ | 8 ^{Y34} | 19 ⁸ | 3 ^{Y23} | 25 ^{B12} | 24 ³³ | 20 ²⁶ | 29 ^{H29} | S 2 |
| S 3 | 21 7 58 | 15 ³¹ 22 | 25 ²⁵ | 28 ⁷ | 22 ⁵³ | 18 ⁴⁵ | 18 ³ | 12 ¹⁴ | 8 ³³ | 19 ¹⁰ | 3 ²³ | 25 ⁰ | 24 ³⁰ | 20 ³³ | 29 ²⁷ | S 3 |
| M 4 | 21 11 55 | 16 ²⁹ 11 | 7 ^{H54} | 28 ⁴⁰ | 22 ⁴⁰ | 19 ²⁰ | 18 ¹⁵ | 12 ²¹ | 8 ³¹ | 19 ¹² | 3 ²² | 24 ⁴⁷ | 24 ²⁷ | 20 ³⁹ | 29 ²⁵ | M 4 |
| T 5 | 21 15 51 | 17 ²⁷ 02 | 20 ¹¹ | 29 ²¹ | 22 ²⁹ | 19 ⁵⁴ | 18 ²⁷ | 12 ²⁸ | 8 ³⁰ | 19 ¹⁴ | 3 ²¹ | 24 ³⁵ | 24 ²⁴ | 20 ⁴⁶ | 29 ²⁴ | T 5 |
| W 6 | 21 19 48 | 18 ²⁴ 54 | 2 ^{Y15} | 0 ⁹ | 22 ²¹ | 20 ²⁸ | 18 ³⁹ | 12 ³⁴ | 8 ²⁹ | 19 ¹⁶ | 3 ²⁰ | 24 ²⁶ | 24 ²¹ | 20 ⁵³ | 29 ²² | W 6 |
| T 7 | 21 23 45 | 19 ²² 48 | 14 ¹⁰ | 1 ⁴ | 22 ¹⁶ | 21 ² | 18 ⁵¹ | 12 ⁴¹ | 8 ²⁸ | 19 ¹⁸ | 3 ²⁰ | 24 ²⁰ | 24 ¹⁷ | 20 ⁵⁹ | 29 ²⁰ | T 7 |
| F 8 | 21 27 41 | 20 ²⁰ 44 | 26 ⁰ | 2 ⁶ | 22 ¹² | 21 ³⁵ | 19 ³ | 12 ⁴⁸ | 8 ²⁶ | 19 ²⁰ | 3 ¹⁹ | 24 ¹⁶ | 24 ¹⁴ | 21 ⁶ | 29 ¹⁸ | F 8 |
| S 9 | 21 31 38 | 21 ¹⁸ 41 | 7 ^{B49} | 3 ¹⁵ | 22 ^{D11} | 22 ⁸ | 19 ¹⁵ | 12 ⁵⁵ | 8 ²⁵ | 19 ²² | 3 ¹⁸ | 24 ¹⁴ | 24 ¹¹ | 21 ¹³ | 29 ¹⁶ | S 9 |
| S 10 | 21 35 34 | 22 ¹⁶ 41 | 19 ⁴¹ | 4 ³⁰ | 22 ¹³ | 22 ⁴² | 19 ²⁷ | 13 ¹ | 8 ²³ | 19 ²³ | 3 ¹⁷ | 24 ¹³ | 24 ⁸ | 21 ¹⁹ | 29 ¹⁴ | S 10 |
| M11 | 21 39 31 | 23 ¹⁴ 42 | 1 ^{II42} | 5 ⁵⁰ | 22 ¹⁶ | 23 ¹⁴ | 19 ⁴⁰ | 13 ⁸ | 8 ²² | 19 ²⁵ | 3 ¹⁶ | 24 ¹³ | 24 ⁵ | 21 ²⁶ | 29 ¹² | M11 |
| T 12 | 21 43 27 | 24 ¹² 46 | 13 ⁵⁹ | 7 ¹⁶ | 22 ²² | 23 ⁴⁷ | 19 ⁵² | 13 ¹⁵ | 8 ²⁰ | 19 ²⁷ | 3 ¹⁶ | 24 ¹² | 24 ¹ | 21 ³³ | 29 ⁹ | T 12 |
| W13 | 21 47 24 | 25 ¹⁰ 52 | 26 ³⁵ | 8 ⁴⁷ | 22 ³⁰ | 24 ¹⁹ | 20 ⁴ | 13 ²¹ | 8 ¹⁹ | 19 ²⁹ | 3 ¹⁵ | 24 ¹⁰ | 23 ⁵⁸ | 21 ³⁹ | 29 ⁷ | W13 |
| T 14 | 21 51 20 | 26 ⁸ 59 | 9 ³⁵ | 10 ²³ | 22 ⁴¹ | 24 ⁵¹ | 20 ¹⁷ | 13 ²⁷ | 8 ¹⁷ | 19 ³¹ | 3 ¹⁴ | 24 ⁵ | 23 ⁵⁵ | 21 ⁴⁶ | 29 ⁵ | T 14 |
| F 15 | 21 55 17 | 27 ⁷ 09 | 23 ¹ | 12 ² | 22 ⁵³ | 25 ²³ | 20 ²⁹ | 13 ³⁴ | 8 ¹⁶ | 19 ³³ | 3 ¹³ | 23 ⁵⁷ | 23 ⁵² | 21 ⁵³ | 29 ³ | F 15 |
| S 16 | 21 59 14 | 28 ⁵ 20 | 6 ²⁴ | 13 ⁴⁵ | 23 ⁸ | 25 ⁵⁴ | 20 ⁴¹ | 13 ⁴⁰ | 8 ¹⁴ | 19 ³⁵ | 3 ¹² | 23 ⁴⁷ | 23 ⁴⁹ | 21 ⁵⁹ | 29 ¹ | S 16 |
| S 17 | 22 3 10 | 29 ³ 33 | 21 ¹¹ | 15 ³¹ | 23 ²⁴ | 26 ²⁵ | 20 ⁵⁴ | 13 ⁴⁶ | 8 ¹² | 19 ³⁷ | 3 ¹¹ | 23 ³⁶ | 23 ⁴⁶ | 22 ⁶ | 28 ⁵⁸ | S 17 |
| M18 | 22 7 7 | 0 ¹¹ 48 | 5 ¹¹ 46 | 17 ¹⁹ | 23 ⁴³ | 26 ⁵⁶ | 21 ⁶ | 13 ⁵³ | 8 ¹⁰ | 19 ³⁸ | 3 ¹⁰ | 23 ²⁴ | 23 ⁴² | 22 ¹³ | 28 ⁵⁶ | M18 |
| T 19 | 22 11 3 | 1 ⁰ 05 | 20 ³² | 19 ⁹ | 24 ³ | 27 ²⁷ | 21 ¹⁹ | 13 ⁵⁹ | 8 ⁹ | 19 ⁴⁰ | 3 ⁹ | 23 ¹⁴ | 23 ³⁹ | 22 ¹⁹ | 28 ⁵⁴ | T 19 |
| W20 | 22 15 0 | 1 ⁵⁸ 23 | 5 ²¹ | 21 ⁰ | 24 ²⁵ | 27 ⁵⁷ | 21 ³¹ | 14 ⁵ | 8 ⁷ | 19 ⁴² | 3 ⁸ | 23 ⁵ | 23 ³⁶ | 22 ²⁶ | 28 ⁵¹ | W20 |
| T 21 | 22 18 56 | 2 ⁵⁶ 43 | 20 ⁵ | 22 ⁵³ | 24 ⁴⁸ | 28 ²⁷ | 21 ⁴⁴ | 14 ¹¹ | 8 ⁵ | 19 ⁴⁴ | 3 ⁷ | 23 ⁰ | | | | |

ASTRODIENST EPHEMERIS for the year 1091
geocentric

SEPTEMBER 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|--------|--------|------|-----|
| M 1 | 23 2 18 | 13♎40'15 | 16♋33 | 13♎37 | 0♈49 | 3♊33 | 24♎4 | 15♅13 | 7°R43 | 20♄1 | 2°R56 | 21°R57 | 22♄58 | 23♎46 | 28°R20 | M 1 | |
| T 2 | 23 6 15 | 14°38'56 | 28°40 | 15°26 | 1°29 | 3°59 | 24°17 | 15°18 | 7°Y41 | 20° 3 | 2°Y55 | 21♄46 | 22°55 | 23°53 | 28♋18 | T 2 | |
| W 3 | 23 10 12 | 15°37'39 | 10°Y38 | 17°15 | 2°11 | 4°24 | 24°30 | 15°23 | 7°38 | 20° 4 | 2°54 | 21°37 | 22°52 | 23°59 | 28°15 | W 3 | |
| T 4 | 23 14 8 | 16°36'24 | 22°29 | 19° 2 | 2°54 | 4°49 | 24°43 | 15°28 | 7°36 | 20° 6 | 2°53 | 21°30 | 22°48 | 24° 6 | 28°12 | T 4 | |
| F 5 | 23 18 5 | 17°35'11 | 4♌17 | 20°49 | 3°37 | 5°13 | 24°56 | 15°33 | 7°34 | 20° 7 | 2°51 | 21°26 | 22°45 | 24°13 | 28°10 | F 5 | |
| S 6 | 23 22 1 | 18°34'01 | 16° 4 | 22°34 | 4°22 | 5°37 | 25° 9 | 15°38 | 7°32 | 20° 8 | 2°50 | 21°D25 | 22°42 | 24°19 | 28° 7 | S 6 | |
| S 7 | 23 25 58 | 19°32'53 | 27°55 | 24°19 | 5° 8 | 6° 1 | 25°22 | 15°43 | 7°29 | 20°10 | 2°49 | 21°25 | 22°39 | 24°26 | 28° 4 | S 7 | |
| M 8 | 23 29 54 | 20°31'47 | 9♊55 | 26° 3 | 5°54 | 6°24 | 25°35 | 15°48 | 7°27 | 20°11 | 2°48 | 21°25 | 22°36 | 24°33 | 28° 1 | M 8 | |
| T 9 | 23 33 51 | 21°30'44 | 22° 9 | 27°46 | 6°42 | 6°46 | 25°48 | 15°53 | 7°25 | 20°12 | 2°47 | 21°R26 | 22°33 | 24°39 | 27°59 | T 9 | |
| W10 | 23 37 47 | 22°29'43 | 4♄42 | 29°28 | 7°30 | 7° 8 | 26° 1 | 15°57 | 7°22 | 20°14 | 2°46 | 21°25 | 22°29 | 24°46 | 27°56 | W10 | |
| T 11 | 23 41 44 | 23°28'44 | 17°40 | 1♉ 9 | 8°19 | 7°30 | 26°14 | 16° 2 | 7°20 | 20°15 | 2°45 | 21°22 | 22°26 | 24°53 | 27°53 | T 11 | |
| F 12 | 23 45 40 | 24°27'48 | 1♈ 5 | 2°49 | 9° 9 | 7°51 | 26°27 | 16° 6 | 7°18 | 20°16 | 2°43 | 21°17 | 22°23 | 24°59 | 27°50 | F 12 | |
| S 13 | 23 49 37 | 25°26'54 | 14°59 | 4°29 | 10° 0 | 8°12 | 26°40 | 16°10 | 7°15 | 20°17 | 2°42 | 21°10 | 22°20 | 25° 6 | 27°47 | S 13 | |
| S 14 | 23 53 34 | 26°26'02 | 29°21 | 6° 7 | 10°51 | 8°32 | 26°53 | 16°15 | 7°13 | 20°18 | 2°41 | 21° 2 | 22°17 | 25°13 | 27°45 | S 14 | |
| M15 | 23 57 30 | 27°25'13 | 14♎ 7 | 7°45 | 11°43 | 8°51 | 27° 6 | 16°19 | 7°11 | 20°19 | 2°40 | 20°53 | 22°13 | 25°19 | 27°42 | M15 | |
| T 16 | 0 1 27 | 28°24'25 | 29° 9 | 9°22 | 12°36 | 9°10 | 27°19 | 16°23 | 7° 8 | 20°21 | 2°39 | 20°46 | 22°10 | 25°26 | 27°39 | T 16 | |
| W17 | 0 5 23 | 29°23'40 | 14♌17 | 10°58 | 13°29 | 9°29 | 27°32 | 16°27 | 7° 6 | 20°22 | 2°38 | 20°39 | 22° 7 | 25°33 | 27°36 | W17 | |
| T 18 | 0 9 20 | 0♉22'57 | 29°22 | 12°33 | 14°24 | 9°47 | 27°45 | 16°31 | 7° 3 | 20°23 | 2°36 | 20°35 | 22° 4 | 25°39 | 27°33 | T 18 | |
| F 19 | 0 13 16 | 1°22'15 | 14♎15 | 14° 7 | 15°18 | 10° 4 | 27°58 | 16°35 | 7° 1 | 20°24 | 2°35 | 20°D34 | 22° 1 | 25°46 | 27°31 | F 19 | |
| S 20 | 0 17 13 | 2°21'36 | 28°49 | 15°41 | 16°13 | 10°21 | 28°11 | 16°38 | 6°59 | 20°25 | 2°34 | 20°34 | 21°58 | 25°53 | 27°28 | S 20 | |
| S 21 | 0 21 9 | 3°20'58 | 13♌ 1 | 17°14 | 17° 9 | 10°37 | 28°24 | 16°42 | 6°56 | 20°25 | 2°33 | 20°35 | 21°54 | 25°59 | 27°25 | S 21 | |
| M22 | 0 25 6 | 4°20'22 | 26°51 | 18°47 | 18° 6 | 10°52 | 28°37 | 16°45 | 6°54 | 20°26 | 2°32 | 20°36 | 21°51 | 26° 6 | 27°22 | M22 | |
| T 23 | 0 29 3 | 5°19'48 | 10♄18 | 20°18 | 19° 3 | 11° 7 | 28°50 | 16°49 | 6°51 | 20°27 | 2°31 | 20°R36 | 21°48 | 26°13 | 27°20 | T 23 | |
| W24 | 0 32 59 | 6°19'16 | 23°25 | 21°49 | 20° 0 | 11°21 | 29° 3 | 16°52 | 6°49 | 20°28 | 2°29 | 20°34 | 21°45 | 26°19 | 27°17 | W24 | |
| T 25 | 0 36 56 | 7°18'46 | 6♋15 | 23°19 | 20°58 | 11°35 | 29°16 | 16°55 | 6°46 | 20°29 | 2°28 | 20°31 | 21°42 | 26°26 | 27°14 | T 25 | |
| F 26 | 0 40 52 | 8°18'17 | 18°50 | 24°48 | 21°57 | 11°48 | 29°29 | 16°58 | 6°44 | 20°30 | 2°27 | 20°25 | 21°39 | 26°32 | 27°11 | F 26 | |
| S 27 | 0 44 49 | 9°17'50 | 1♋13 | 26°17 | 22°55 | 12° 0 | 29°42 | 17° 1 | 6°41 | 20°30 | 2°26 | 20°19 | 21°35 | 26°39 | 27° 9 | S 27 | |
| S 28 | 0 48 45 | 10°17'25 | 13°25 | 27°45 | 23°55 | 12°12 | 29°55 | 17° 4 | 6°39 | 20°31 | 2°25 | 20°11 | 21°32 | 26°46 | 27° 6 | S 28 | |
| M29 | 0 52 42 | 11°17'02 | 25°29 | 29°12 | 24°55 | 12°23 | 0♉ 8 | 17° 7 | 6°37 | 20°32 | 2°24 | 20° 4 | 21°29 | 26°52 | 27° 3 | M29 | |
| T 30 | 0 56 38 | 12♌16'41 | 7°Y27 | 0♎39 | 25♈55 | 12♊33 | 0♉21 | 17♅10 | 6°Y34 | 20♄32 | 2°Y23 | 19♄57 | 21♄26 | 26°Y59 | 27♋ 0 | T 30 | |

Delta T = 18m10s Julian Calendar 1 Sept. 1091 == Greg. Calendar 7 Sept. 1091

OCTOBER 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|--------|------|--------|-------|--------|-------|--------|-------|--------|--------|------|
| W 1 | 1 0 35 | 13♌16'22 | 19°Y19 | 2♎ 5 | 26♈56 | 12♊43 | 0♉33 | 17♅12 | 6°R32 | 20♄33 | 2°R21 | 19°R52 | 21♄23 | 27°Y 6 | 26°R58 | W 1 |
| T 2 | 1 4 32 | 14°16'05 | 1♌ 7 | 3°29 | 27°57 | 12°51 | 0°46 | 17°15 | 6°Y29 | 20°33 | 2°Y20 | 19♄48 | 21°19 | 27°12 | 26♋55 | T 2 |
| F 3 | 1 8 28 | 15°15'50 | 12°55 | 4°54 | 28°58 | 12°59 | 0°59 | 17°17 | 6°27 | 20°34 | 2°19 | 19°46 | 21°16 | 27°19 | 26°53 | F 3 |
| S 4 | 1 12 25 | 16°15'38 | 24°44 | 6°17 | 0♎ 0 | 13° 7 | 1°12 | 17°20 | 6°24 | 20°35 | 2°18 | 19°D46 | 21°13 | 27°26 | 26°50 | S 4 |
| S 5 | 1 16 21 | 17°15'27 | 6♊37 | 7°39 | 1° 3 | 13°13 | 1°25 | 17°22 | 6°22 | 20°35 | 2°17 | 19°47 | 21°10 | 27°32 | 26°47 | S 5 |
| M 6 | 1 20 18 | 18°15'19 | 18°39 | 9° 1 | 2° 5 | 13°19 | 1°37 | 17°24 | 6°20 | 20°35 | 2°16 | 19°49 | 21° 7 | 27°39 | 26°45 | M 6 |
| T 7 | 1 24 14 | 19°15'13 | 0♄53 | 10°21 | 3° 8 | 13°24 | 1°50 | 17°26 | 6°17 | 20°36 | 2°15 | 19°51 | 21° 4 | 27°46 | 26°42 | T 7 |
| W 8 | 1 28 11 | 20°15'09 | 13°24 | 11°40 | 4°12 | 13°28 | 2° 3 | 17°28 | 6°15 | 20°36 | 2°14 | 19°52 | 21° 0 | 27°52 | 26°40 | W 8 |
| T 9 | 1 32 7 | 21°15'08 | 26°17 | 12°58 | 5°15 | 13°31 | 2°16 | 17°30 | 6°13 | 20°37 | 2°12 | 19°R52 | 20°57 | 27°59 | 26°37 | T 9 |
| F 10 | 1 36 4 | 22°15'08 | 9♈34 | 14°15 | 6°20 | 13°34 | 2°28 | 17°31 | 6°10 | 20°37 | 2°11 | 19°51 | 20°54 | 28° 6 | 26°35 | F 10 |
| S 11 | 1 40 1 | 23°15'11 | 23°20 | 15°31 | 7°24 | 13°35 | 2°41 | 17°33 | 6° 8 | 20°37 | 2°10 | 19°48 | 20°51 | 28°12 | 26°32 | S 11 |
| S 12 | 1 43 57 | 24°15'16 | 7♎34 | 16°44 | 8°29 | 13°R36 | 2°53 | 17°34 | 6° 6 | 20°37 | 2° 9 | 19°45 | 20°48 | 28°19 | 26°30 | S 12 |
| M13 | 1 47 54 | 25°15'23 | 22°13 | 17°57 | 9°33 | 13°36 | 3° 6 | 17°35 | 6° 3 | 20°38 | 2° 8 | 19°42 | 20°44 | 28°26 | 26°28 | M13 |
| T 14 | 1 51 50 | 26°15'33 | 7♌13 | 19° 7 | 10°39 | 13°35 | 3°19 | 17°37 | 6° 1 | 20°38 | 2° 7 | 19°38 | 20°41 | 28°32 | 26°25 | T 14 |
| W15 | 1 55 47 | 27°15'44 | 22°26 | 20°15 | 11°44 | 13°33 | 3°31 | 17°38 | 5°59 | 20°38 | 2° 6 | 19°36 | 20°38 | 28°39 | 26°23 | W15 |
| T 16 | 1 59 43 | 28°15'57 | 7♎40 | 21°22 | 12°50 | 13°31 | 3°43 | 17°39 | 5°57 | 20°38 | 2° 5 | 19°34 | 20°35 | 28°46 | 26°21 | T 16 |
| F 17 | 2 3 40 | 29°16'12 | 22°47 | 22°25 | 13°56 | 13°27 | 3°56 | 17°40 | 5°54 | 20°38 | 2° 4 | 19°D34 | 20°32 | 28°52 | 26°18 | F 17 |
| S 18 | 2 7 36 | 0♎16'28 | 7♌38 | 23°26 | 15° 2 | 13°23 | 4° 8 | 17°40 | 5°52 | 20°R38 | 2° 3 | 19°35 | 20°29 | 28°59 | 26°16 | S 18 |
| S 19 | 2 11 33 | 1°16'47 | 22° 6 | 24°23 | 16° 9 | 13°17 | 4°20 | 17°41 | 5°50 | 20°38 | 2° 2 | 19°36 | 20°25 | 29° 6 | 26°14 | S 19 |
| M20 | 2 15 30 | 2°17'07 | 6♄ 8 | 25°17 | 17°16 | 13°11 | 4°33 | 17°42 | 5°48 | 20°38 | 2° 1 | 19°37 | 20°22 | 29°12 | 26°12 | M20 |
| T 21 | 2 19 26 | 3°17'28 | 19°43 | 26° 7 | 18°23 | 13° 4 | 4°45 | 17°42 | 5°46 | 20°38 | 2° 0 | 19°38 | 20°19 | 29°19 | 26°10 | T 21 |
| W22 | 2 23 23 | 4°17'51 | 2♋54 | 26°52 | 19°30 | 12°56 | 4°57 | 17°42 | 5°44 | 20°38 | 1°59 | 19°R39 | 20°16 | 29°26 | 26° 8 | W22 |
| T 23 | 2 27 19 | 5°18'15 | 15°42 | 27°32 | 20°38 | 12°47 | 5° 9 | 17°43 | 5°42 | 20°38 | 1°58 | 19°38 | 20°13 | 29°32 | 26° 6 | T 23 |
| F 24 | 2 31 16 | 6°18'40 | 28°12 | 28° 7 | 21°45 | 12°37 | 5°21 | 17°R43 | 5°40 | 20°37 | 1°57 | 19°37 | 20°10 | 29°39 | 26° 4 | F 24 |
| S 25 | 2 35 12 | 7°19'07 | 10♋27 | 28°35 | 22°53 | 12°27 | 5°33 | 17°43 | 5°38 | 20°37 | 1°56 | 19°36 | 20° 6 | 29°46 | 26° 2 | S 25 |
| S 26 | 2 39 9 | 8°19'36 | 22°30 | 28°56 | 24° 1 | 12°15 | 5°45 | 17°42 | 5°36 | 20°37 | 1°55 | 19°34 | 20° 3 | 29°52 | 26° 0 | S 26 |
| M27 | 2 43 5 | 9°20'05 | 4°Y26 | 29°10 | 25° 9 | 12° 3 | 5°57 | 17°42 | 5°34 | 20°37 | 1°54 | 19°33 | 20° 0 | 29°59 | 25°58 | M27 |
| T 28 | 2 47 2 | 10°20'36 | 16°17 | 29°R15 | 26°18 | 11°50 | 6° 9 | 17°42 | 5°32 | 20°36 | 1°54 | 19°31 | 19°57 | 0♉ 5 | 25°56 | T 28 |
| W29 | 2 50 59 | 11°21'09 | 28° 5 | 29°10 | 27°27 | 11°36 | 6°21 | 17°41 | 5°30 | 20°36 | 1°53 | 19°30 | 19°54 | 0°12 | 25°54 | W29 |
| T 30 | 2 54 55 | 12°21'43 | 9♄54 | 28°56 | 28°36 | 11°21 | 6°33 | 17°41 | 5°28 | 20°36 | 1°52 | 19°30 | 19°50 | 0°19 | 25°53 | T 30 |
| F 31 | 2 58 52 | 13♎22'19 | 21♄45 | 28♎32 | 29♎45 | 11♊ 6 | 6♄44 | 17♅40 | 5°Y27 | 20♄35 | 1°Y51 | 19°D30 | 19♄47 | 0♉25 | 25♋51 | F 31 |

Delta T = 18m09s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1091
geocentric

NOVEMBER 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|--------|------|---|-----|
| S 1 | 3 2 48 | 14♌22°56 | 3♐40 | 27°R57 | 0♌54 | 10°R50 | 6♌56 | 17°R39 | 5°R25 | 20°R35 | 1°R50 | 19♌30 | 19♌44 | 0♌32 | 25°R49 | S 1 | | |
| S 2 | 3 6 45 | 15°23'35 | 15°41 | 27♌12 | 2° 3 | 10♐33 | 7° 7 | 17♌38 | 5°Y23 | 20♌34 | 1°Y49 | 19°30 | 19°41 | 0°39 | 25°K48 | S 2 | | |
| M 3 | 3 10 41 | 16°24'16 | 27°51 | 26°16 | 3°13 | 10°15 | 7°19 | 17°37 | 5°21 | 20°34 | 1°49 | 19°31 | 19°38 | 0°45 | 25°46 | M 3 | | |
| T 4 | 3 14 38 | 17°24'58 | 10♌13 | 25°12 | 4°23 | 9°57 | 7°30 | 17°36 | 5°20 | 20°33 | 1°48 | 19°31 | 19°35 | 0°52 | 25°45 | T 4 | | |
| W 5 | 3 18 34 | 18°25'42 | 22°49 | 23°59 | 5°32 | 9°38 | 7°42 | 17°35 | 5°18 | 20°33 | 1°47 | 19°31 | 19°31 | 0°59 | 25°43 | W 5 | | |
| T 6 | 3 22 31 | 19°26'27 | 5♌42 | 22°41 | 6°43 | 9°18 | 7°53 | 17°33 | 5°17 | 20°32 | 1°46 | 19°R31 | 19°28 | 1° 5 | 25°42 | T 6 | | |
| F 7 | 3 26 28 | 20°27'14 | 18°55 | 21°20 | 7°53 | 8°58 | 8° 4 | 17°32 | 5°15 | 20°31 | 1°46 | 19°D31 | 19°25 | 1°12 | 25°41 | F 7 | | |
| S 8 | 3 30 24 | 21°28'02 | 2♐30 | 19°58 | 9° 3 | 8°38 | 8°15 | 17°30 | 5°14 | 20°31 | 1°45 | 19°31 | 19°22 | 1°19 | 25°39 | S 8 | | |
| S 9 | 3 34 21 | 22°28'52 | 16°29 | 18°38 | 10°14 | 8°16 | 8°26 | 17°29 | 5°12 | 20°30 | 1°44 | 19°31 | 19°19 | 1°25 | 25°38 | S 9 | | |
| M10 | 3 38 17 | 23°29'44 | 0♌51 | 17°22 | 11°24 | 7°55 | 8°37 | 17°27 | 5°11 | 20°29 | 1°44 | 19°32 | 19°16 | 1°32 | 25°37 | M10 | | |
| T 11 | 3 42 14 | 24°30'37 | 15°34 | 16°14 | 12°35 | 7°33 | 8°48 | 17°25 | 5° 9 | 20°29 | 1°43 | 19°32 | 19°12 | 1°39 | 25°36 | T 11 | | |
| W12 | 3 46 10 | 25°31'31 | 0♌31 | 15°14 | 13°46 | 7°10 | 8°59 | 17°23 | 5° 8 | 20°28 | 1°42 | 19°32 | 19° 9 | 1°45 | 25°35 | W12 | | |
| T 13 | 3 50 7 | 26°32'27 | 15°37 | 14°25 | 14°57 | 6°48 | 9°10 | 17°21 | 5° 7 | 20°27 | 1°42 | 19°R33 | 19° 6 | 1°52 | 25°34 | T 13 | | |
| F 14 | 3 54 3 | 27°33'24 | 0♌42 | 13°47 | 16° 8 | 6°25 | 9°20 | 17°19 | 5° 6 | 20°26 | 1°41 | 19°33 | 19° 3 | 1°59 | 25°33 | F 14 | | |
| S 15 | 3 58 0 | 28°34'22 | 15°36 | 13°21 | 17°19 | 6° 2 | 9°31 | 17°16 | 5° 4 | 20°25 | 1°41 | 19°32 | 19° 0 | 2° 5 | 25°32 | S 15 | | |
| S 16 | 4 1 57 | 29°35'21 | 0♌13 | 13° 6 | 18°31 | 5°38 | 9°41 | 17°14 | 5° 3 | 20°24 | 1°40 | 19°31 | 18°56 | 2°12 | 25°31 | S 16 | | |
| M17 | 4 5 53 | 0♌36'21 | 14°27 | 13°D 2 | 19°42 | 5°15 | 9°52 | 17°11 | 5° 2 | 20°23 | 1°39 | 19°30 | 18°53 | 2°19 | 25°30 | M17 | | |
| T 18 | 4 9 50 | 1°37'22 | 28°13 | 13° 8 | 20°54 | 4°52 | 10° 2 | 17° 9 | 5° 1 | 20°22 | 1°39 | 19°28 | 18°50 | 2°25 | 25°29 | T 18 | | |
| W19 | 4 13 46 | 2°38'23 | 11♌33 | 13°24 | 22° 5 | 4°28 | 10°12 | 17° 6 | 5° 0 | 20°21 | 1°38 | 19°27 | 18°47 | 2°32 | 25°29 | W19 | | |
| T 20 | 4 17 43 | 3°39'25 | 24°27 | 13°49 | 23°17 | 4° 5 | 10°22 | 17° 3 | 4°59 | 20°20 | 1°38 | 19°26 | 18°44 | 2°38 | 25°28 | T 20 | | |
| F 21 | 4 21 39 | 4°40'27 | 6♌58 | 14°22 | 24°29 | 3°41 | 10°32 | 17° 0 | 4°58 | 20°19 | 1°38 | 19°D26 | 18°41 | 2°45 | 25°27 | F 21 | | |
| S 22 | 4 25 36 | 5°41'30 | 19°12 | 15° 1 | 25°41 | 3°18 | 10°42 | 16°57 | 4°57 | 20°18 | 1°37 | 19°26 | 18°37 | 2°52 | 25°27 | S 22 | | |
| S 23 | 4 29 32 | 6°42'34 | 1°Y13 | 15°47 | 26°53 | 2°55 | 10°52 | 16°54 | 4°57 | 20°17 | 1°37 | 19°27 | 18°34 | 2°58 | 25°26 | S 23 | | |
| M24 | 4 33 29 | 7°43'38 | 13° 5 | 16°38 | 28° 5 | 2°33 | 11° 2 | 16°51 | 4°56 | 20°16 | 1°36 | 19°29 | 18°31 | 3° 5 | 25°26 | M24 | | |
| T 25 | 4 37 26 | 8°44'42 | 24°52 | 17°35 | 29°17 | 2°10 | 11°11 | 16°48 | 4°55 | 20°15 | 1°36 | 19°31 | 18°28 | 3°12 | 25°26 | T 25 | | |
| W26 | 4 41 22 | 9°45'47 | 6♌40 | 18°35 | 0♌30 | 1°48 | 11°21 | 16°44 | 4°55 | 20°14 | 1°36 | 19°32 | 18°25 | 3°18 | 25°25 | W26 | | |
| T 27 | 4 45 19 | 10°46'53 | 18°31 | 19°39 | 1°42 | 1°27 | 11°30 | 16°41 | 4°54 | 20°12 | 1°35 | 19°R32 | 18°22 | 3°25 | 25°25 | T 27 | | |
| F 28 | 4 49 15 | 11°47'59 | 0♐28 | 20°47 | 2°55 | 1° 6 | 11°40 | 16°37 | 4°53 | 20°11 | 1°35 | 19°32 | 18°18 | 3°32 | 25°25 | F 28 | | |
| S 29 | 4 53 12 | 12°49'06 | 12°33 | 21°57 | 4° 7 | 0°45 | 11°49 | 16°34 | 4°53 | 20°10 | 1°35 | 19°30 | 18°15 | 3°38 | 25°25 | S 29 | | |
| S 30 | 4 57 8 | 13°50'13 | 24♐48 | 23♌10 | 5♌20 | 0♐25 | 11♌58 | 16♌30 | 4°Y52 | 20♌9 | 1°Y35 | 19♌27 | 18♌12 | 3♌45 | 25°K25 | S 30 | | |

Delta T = 18m09s Julian Calendar 1 Nov. 1091 == Greg. Calendar 7 Nov. 1091

DECEMBER 1091 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|--------|-------|--------|-------|--------|-------|------|--------|------|---|-----|
| M 1 | 5 1 5 | 14♌51'21 | 7♌14 | 24♌25 | 6♌32 | 0°R 5 | 12♌ 7 | 16°R26 | 4°R52 | 20°R 7 | 1°R34 | 19°R23 | 18♌ 9 | 3♌52 | 25°D25 | M 1 | | |
| T 2 | 5 5 1 | 15°52'30 | 19°52 | 25°42 | 7°45 | 29♌46 | 12°16 | 16♌22 | 4°Y52 | 20♌ 6 | 1°Y34 | 19♌19 | 18° 6 | 3°58 | 25°K25 | T 2 | | |
| W 3 | 5 8 58 | 16°53'39 | 2♌42 | 27° 1 | 8°58 | 29°27 | 12°24 | 16°19 | 4°51 | 20° 5 | 1°34 | 19°14 | 18° 2 | 4° 5 | 25°25 | W 3 | | |
| T 4 | 5 12 55 | 17°54'49 | 15°46 | 28°21 | 10°11 | 29° 9 | 12°33 | 16°15 | 4°51 | 20° 3 | 1°34 | 19°10 | 17°59 | 4°12 | 25°25 | T 4 | | |
| F 5 | 5 16 51 | 18°55'59 | 29° 5 | 29°42 | 11°24 | 28°52 | 12°41 | 16°11 | 4°51 | 20° 2 | 1°34 | 19° 7 | 17°56 | 4°18 | 25°25 | F 5 | | |
| S 6 | 5 20 48 | 19°57'09 | 12♐38 | 1♌ 5 | 12°37 | 28°36 | 12°50 | 16° 6 | 4°51 | 20° 1 | 1°34 | 19° 6 | 17°53 | 4°25 | 25°25 | S 6 | | |
| S 7 | 5 24 44 | 20°58'21 | 26°28 | 2°28 | 13°50 | 28°20 | 12°58 | 16° 2 | 4°51 | 19°59 | 1°33 | 19°D 6 | 17°50 | 4°32 | 25°26 | S 7 | | |
| M 8 | 5 28 41 | 21°59'33 | 10♌33 | 3°53 | 15° 3 | 28° 5 | 13° 6 | 15°58 | 4°D51 | 19°58 | 1°33 | 19° 7 | 17°47 | 4°38 | 25°26 | M 8 | | |
| T 9 | 5 32 37 | 23° 0'45 | 24°53 | 5°18 | 16°17 | 27°50 | 13°14 | 15°54 | 4°51 | 19°56 | 1°33 | 19° 8 | 17°43 | 4°45 | 25°27 | T 9 | | |
| W10 | 5 36 34 | 24° 1'58 | 9♌26 | 6°44 | 17°30 | 27°37 | 13°22 | 15°49 | 4°51 | 19°55 | 1°D33 | 19°10 | 17°40 | 4°52 | 25°27 | W10 | | |
| T 11 | 5 40 30 | 25° 3'11 | 24° 8 | 8°11 | 18°43 | 27°24 | 13°30 | 15°45 | 4°51 | 19°53 | 1°33 | 19°R10 | 17°37 | 4°58 | 25°28 | T 11 | | |
| F 12 | 5 44 27 | 26° 4'25 | 8♌52 | 9°38 | 19°56 | 27°12 | 13°37 | 15°40 | 4°51 | 19°52 | 1°33 | 19° 8 | 17°34 | 5° 5 | 25°28 | F 12 | | |
| S 13 | 5 48 24 | 27° 5'38 | 23°33 | 11° 6 | 21°10 | 27° 0 | 13°45 | 15°36 | 4°51 | 19°50 | 1°33 | 19° 5 | 17°31 | 5°11 | 25°29 | S 13 | | |
| S 14 | 5 52 20 | 28° 6'52 | 8♌ 3 | 12°35 | 22°23 | 26°50 | 13°52 | 15°31 | 4°51 | 19°49 | 1°33 | 19° 0 | 17°28 | 5°18 | 25°30 | S 14 | | |
| M15 | 5 56 17 | 29° 8'06 | 22°16 | 14° 4 | 23°37 | 26°40 | 13°59 | 15°27 | 4°52 | 19°47 | 1°34 | 18°53 | 17°24 | 5°25 | 25°30 | M15 | | |
| T 16 | 6 0 13 | 0♌ 9'19 | 6♌ 5 | 15°34 | 24°50 | 26°32 | 14° 6 | 15°22 | 4°52 | 19°46 | 1°34 | 18°46 | 17°21 | 5°31 | 25°31 | T 16 | | |
| W17 | 6 4 10 | 1°10'33 | 19°30 | 17° 4 | 26° 4 | 26°24 | 14°13 | 15°17 | 4°53 | 19°44 | 1°34 | 18°39 | 17°18 | 5°38 | 25°32 | W17 | | |
| T 18 | 6 8 6 | 2°11'45 | 2♌29 | 18°34 | 27°18 | 26°16 | 14°20 | 15°13 | 4°53 | 19°42 | 1°34 | 18°34 | 17°15 | 5°45 | 25°33 | T 18 | | |
| F 19 | 6 12 3 | 3°12'57 | 15° 5 | 20° 5 | 28°31 | 26°10 | 14°26 | 15° 8 | 4°54 | 19°41 | 1°34 | 18°30 | 17°12 | 5°51 | 25°34 | F 19 | | |
| S 20 | 6 16 0 | 4°14'09 | 27°22 | 21°36 | 29°45 | 26° 5 | 14°33 | 15° 3 | 4°54 | 19°39 | 1°34 | 18°28 | 17° 8 | 5°58 | 25°35 | S 20 | | |
| S 21 | 6 19 56 | 5°15'20 | 9°Y23 | 23° 8 | 0♌59 | 26° 0 | 14°39 | 14°58 | 4°55 | 19°38 | 1°35 | 18°D28 | 17° 5 | 6° 5 | 25°36 | S 21 | | |
| M22 | 6 23 53 | 6°16'31 | 21°15 | 24°40 | 2°12 | 25°56 | 14°45 | 14°53 | 4°55 | 19°36 | 1°35 | 18°29 | 17° 2 | 6°11 | 25°37 | M22 | | |
| T 23 | 6 27 49 | 7°17'41 | 3♌ 3 | 26°13 | 3°26 | 25°53 | 14°51 | 14°49 | 4°56 | 19°34 | 1°35 | 18°30 | 16°59 | 6°18 | 25°39 | T 23 | | |
| W24 | 6 31 46 | 8°18'50 | 14°51 | 27°46 | 4°40 | 25°51 | 14°57 | 14°44 | 4°57 | 19°33 | 1°35 | 18°R31 | 16°56 | 6°25 | 25°40 | W24 | | |
| T 25 | 6 35 42 | 9°19'59 | 26°44 | 29°20 | 5°54 | 25°50 | 15° 3 | 14°39 | 4°58 | 19°31 | 1°36 | 18°31 | 16°53 | 6°31 | 25°41 | T 25 | | |
| F 26 | 6 39 39 | 10°21'07 | 8♐47 | 0♌54 | 7° 8 | 25°D49 | 15° 8 | 14°34 | 4°59 | 19°29 | 1°36 | 18°28 | 16°49 | 6°38 | 25°43 | F 26 | | |
| S 27 | 6 43 35 | 11°22'15 | 21° 3 | 2°28 | 8°22 | 25°49 | 15°14 | 14°29 | 5° 0 | 19°28 | 1°37 | 18°24 | 16°46 | 6°45 | 25°44 | S 27 | | |
| S 28 | 6 47 32 | 12°23'22 | 3♌32 | 4° 3 | 9°35 | 25°50 | 15°19 | 14°24 | 5° 1 | 19°26 | 1°37 | 18°16 | 16°43 | 6°51 | 25°45 | S 28 | | |
| M29 | 6 51 29 | 13°24'28 | 16°18 | 5°39 | 10°49 | 25°52 | 15°24 | 14°19 | 5° 2 | 19°24 | 1°37 | 18° 7 | 16°40 | 6°58 | 25°47 | M29 | | |
| T 30 | 6 55 25 | 14°25'34 | 29°18 | 7°15 | 12° 3 | 25°54 | 15°29 | 14°14 | 5° 3 | 19°23 | 1°38 | 17°57 | 16°37 | 7° 4 | 25°49 | T 30 | | |
| W31 | 6 59 22 | 15°26'39 | 12♌32 | 8♌51 | 13♌17 | 25♌57 | 15♌34 | 14♌ 9 | 5°Y 4 | 19♌21 | 1°Y38 | 17♌46 | 16♌34 | 7♌11 | 25°K50 | W31 | | |

Delta T = 18m09s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1092
geocentric

JANUARY 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|--------|------|--------|------|--------|-------|-------|-------|------|-----|
| T 1 | 7 3 18 | 16☾27'44 | 25♃58 | 10☾29 | 14♃31 | 26♁ 1 | 15♁38 | 14°R 4 | 5♃ 5 | 19°R19 | 1♃39 | 17°R37 | 16♁30 | 7♁18 | 25♃52 | T 1 | |
| F 2 | 7 7 15 | 17°28'48 | 9♃34 | 12° 6 | 15°45 | 26° 6 | 15°42 | 13☾59 | 5° 6 | 19☾18 | 1°39 | 17♁29 | 16°27 | 7°24 | 25°54 | F 2 | |
| S 3 | 7 11 11 | 18°29'51 | 23°20 | 13°45 | 16°59 | 26°11 | 15°47 | 13°54 | 5° 8 | 19°16 | 1°40 | 17°24 | 16°24 | 7°31 | 25°55 | S 3 | |
| S 4 | 7 15 8 | 19°30'54 | 7♁13 | 15°23 | 18°14 | 26°17 | 15°51 | 13°49 | 5° 9 | 19°14 | 1°40 | 17°21 | 16°21 | 7°38 | 25°57 | S 4 | |
| M 5 | 7 19 4 | 20°31'57 | 21°12 | 17° 3 | 19°28 | 26°23 | 15°55 | 13°45 | 5°10 | 19°12 | 1°41 | 17°D20 | 16°18 | 7°44 | 25°59 | M 5 | |
| T 6 | 7 23 1 | 21°32'59 | 5♃19 | 18°43 | 20°42 | 26°31 | 15°58 | 13°40 | 5°12 | 19°11 | 1°41 | 17°21 | 16°14 | 7°51 | 26° 1 | T 6 | |
| W 7 | 7 26 58 | 22°34'00 | 19°30 | 20°24 | 21°56 | 26°39 | 16° 2 | 13°35 | 5°13 | 19° 9 | 1°42 | 17°R21 | 16°11 | 7°58 | 26° 3 | W 7 | |
| T 8 | 7 30 54 | 23°35'01 | 3♃46 | 22° 5 | 23°10 | 26°47 | 16° 5 | 13°30 | 5°15 | 19° 7 | 1°43 | 17°20 | 16° 8 | 8° 4 | 26° 5 | T 8 | |
| F 9 | 7 34 51 | 24°36'01 | 18° 3 | 23°47 | 24°24 | 26°56 | 16° 8 | 13°25 | 5°16 | 19° 6 | 1°43 | 17°16 | 16° 5 | 8°11 | 26° 7 | F 9 | |
| S 10 | 7 38 47 | 25°37'00 | 2♁18 | 25°30 | 25°38 | 27° 6 | 16°11 | 13°20 | 5°18 | 19° 4 | 1°44 | 17°10 | 16° 2 | 8°18 | 26° 9 | S 10 | |
| S 11 | 7 42 44 | 26°37'59 | 16°25 | 27°13 | 26°53 | 27°16 | 16°14 | 13°16 | 5°20 | 19° 2 | 1°45 | 17° 1 | 15°59 | 8°24 | 26°11 | S 11 | |
| M12 | 7 46 40 | 27°38'56 | 0♁21 | 28°57 | 28° 7 | 27°27 | 16°17 | 13°11 | 5°21 | 19° 1 | 1°45 | 16°50 | 15°55 | 8°31 | 26°14 | M12 | |
| T 13 | 7 50 37 | 28°39'52 | 13°59 | 0♁42 | 29°21 | 27°39 | 16°19 | 13° 6 | 5°23 | 18°59 | 1°46 | 16°37 | 15°52 | 8°38 | 26°16 | T 13 | |
| W14 | 7 54 34 | 29°40'47 | 27°18 | 2°28 | 0♁35 | 27°51 | 16°21 | 13° 2 | 5°25 | 18°57 | 1°47 | 16°25 | 15°49 | 8°44 | 26°18 | W14 | |
| T 15 | 7 58 30 | 0♁41'41 | 10♃15 | 4°13 | 1°50 | 28° 4 | 16°24 | 12°57 | 5°27 | 18°56 | 1°48 | 16°14 | 15°46 | 8°51 | 26°21 | T 15 | |
| F 16 | 8 2 27 | 1°42'33 | 22°52 | 6° 0 | 3° 4 | 28°17 | 16°25 | 12°52 | 5°29 | 18°54 | 1°49 | 16° 6 | 15°43 | 8°57 | 26°23 | F 16 | |
| S 17 | 8 6 23 | 2°43'24 | 5♃ 9 | 7°47 | 4°18 | 28°31 | 16°27 | 12°48 | 5°31 | 18°52 | 1°49 | 16° 0 | 15°40 | 9° 4 | 26°25 | S 17 | |
| S 18 | 8 10 20 | 3°44'13 | 17°12 | 9°35 | 5°32 | 28°45 | 16°29 | 12°43 | 5°33 | 18°51 | 1°50 | 15°57 | 15°36 | 9°11 | 26°28 | S 18 | |
| M19 | 8 14 16 | 4°45'01 | 29° 5 | 11°23 | 6°47 | 29° 0 | 16°30 | 12°39 | 5°35 | 18°49 | 1°51 | 15°56 | 15°33 | 9°17 | 26°30 | M19 | |
| T 20 | 8 18 13 | 5°45'47 | 10♁53 | 13°11 | 8° 1 | 29°15 | 16°31 | 12°35 | 5°37 | 18°47 | 1°52 | 15°56 | 15°30 | 9°24 | 26°33 | T 20 | |
| W21 | 8 22 9 | 6°46'31 | 22°41 | 15° 0 | 9°15 | 29°31 | 16°32 | 12°30 | 5°39 | 18°46 | 1°53 | 15°56 | 15°27 | 9°31 | 26°36 | W21 | |
| T 22 | 8 26 6 | 7°47'14 | 4♁36 | 16°48 | 10°29 | 29°47 | 16°33 | 12°26 | 5°41 | 18°44 | 1°54 | 15°54 | 15°24 | 9°37 | 26°38 | T 22 | |
| F 23 | 8 30 3 | 8°47'55 | 16°42 | 18°37 | 11°44 | 0♁ 4 | 16°33 | 12°22 | 5°43 | 18°43 | 1°55 | 15°51 | 15°20 | 9°44 | 26°41 | F 23 | |
| S 24 | 8 33 59 | 9°48'35 | 29° 4 | 20°26 | 12°58 | 0°21 | 16°34 | 12°18 | 5°45 | 18°41 | 1°56 | 15°45 | 15°17 | 9°51 | 26°43 | S 24 | |
| S 25 | 8 37 56 | 10°49'13 | 11☾45 | 22°14 | 14°12 | 0°38 | 16°34 | 12°14 | 5°48 | 18°40 | 1°57 | 15°36 | 15°14 | 9°57 | 26°46 | S 25 | |
| M26 | 8 41 52 | 11°49'50 | 24°46 | 24° 1 | 15°26 | 0°56 | 16°R34 | 12°10 | 5°50 | 18°38 | 1°58 | 15°25 | 15°11 | 10° 4 | 26°49 | M26 | |
| T 27 | 8 45 49 | 12°50'24 | 8♁ 6 | 25°47 | 16°41 | 1°14 | 16°34 | 12° 6 | 5°52 | 18°37 | 1°59 | 15°12 | 15° 8 | 10°11 | 26°52 | T 27 | |
| W28 | 8 49 45 | 13°50'57 | 21°45 | 27°32 | 17°55 | 1°33 | 16°33 | 12° 2 | 5°55 | 18°35 | 2° 0 | 14°59 | 15° 5 | 10°17 | 26°55 | W28 | |
| T 29 | 8 53 42 | 14°51'29 | 5♃38 | 29°15 | 19° 9 | 1°52 | 16°33 | 11°58 | 5°57 | 18°34 | 2° 1 | 14°47 | 15° 1 | 10°24 | 26°58 | T 29 | |
| F 30 | 8 57 38 | 15°51'59 | 19°41 | 0♁56 | 20°24 | 2°12 | 16°32 | 11°55 | 5°59 | 18°32 | 2° 2 | 14°37 | 14°58 | 10°31 | 27° 0 | F 30 | |
| S 31 | 9 1 35 | 16°52'28 | 3♁50 | 2♁35 | 21♁38 | 2♁32 | 16♁31 | 11☾51 | 6♃ 2 | 18☾31 | 2♃ 3 | 14♁29 | 14♁55 | 10♁37 | 27♁ 3 | S 31 | |

Delta T = 18m08s Julian Calendar 1 Jan. 1092 == Greg. Calendar 7 Jan. 1092

FEBRUARY 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ | ♁ | ♂ | ♁ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|--------|------|--------|------|--------|-------|-------|-------|------|-----|
| S 1 | 9 5 32 | 17°52'55 | 18♁ 1 | 4♁10 | 22☾52 | 2♁52 | 16°R30 | 11°R48 | 6♃ 4 | 18°R29 | 2♃ 4 | 14°R25 | 14♁52 | 10♁44 | 27♁ 6 | S 1 | |
| M 2 | 9 9 28 | 18°53'21 | 2♃10 | 5°41 | 24° 7 | 3°13 | 16♁29 | 11☾44 | 6° 7 | 18☾28 | 2° 5 | 14♁23 | 14°49 | 10°50 | 27° 9 | M 2 | |
| T 3 | 9 13 25 | 19°53'45 | 16°17 | 7° 8 | 25°21 | 3°34 | 16°27 | 11°41 | 6°10 | 18°26 | 2° 6 | 14°23 | 14°46 | 10°57 | 27°12 | T 3 | |
| W 4 | 9 17 21 | 20°54'08 | 0♁21 | 8°31 | 26°35 | 3°55 | 16°26 | 11°38 | 6°12 | 18°25 | 2° 7 | 14°23 | 14°42 | 11° 4 | 27°15 | W 4 | |
| T 5 | 9 21 18 | 21°54'30 | 14°20 | 9°47 | 27°50 | 4°17 | 16°24 | 11°34 | 6°15 | 18°24 | 2° 8 | 14°22 | 14°39 | 11°10 | 27°19 | T 5 | |
| F 6 | 9 25 14 | 22°54'50 | 28°14 | 10°57 | 29° 4 | 4°39 | 16°22 | 11°31 | 6°18 | 18°22 | 2° 9 | 14°18 | 14°36 | 11°17 | 27°22 | F 6 | |
| S 7 | 9 29 11 | 23°55'09 | 12♁ 3 | 12° 1 | 0♁18 | 5° 1 | 16°19 | 11°28 | 6°20 | 18°21 | 2°10 | 14°11 | 14°33 | 11°24 | 27°25 | S 7 | |
| S 8 | 9 33 7 | 24°55'26 | 25°43 | 12°56 | 1°33 | 5°23 | 16°17 | 11°25 | 6°23 | 18°20 | 2°12 | 14° 2 | 14°30 | 11°30 | 27°28 | S 8 | |
| M 9 | 9 37 4 | 25°55'42 | 9♁13 | 13°44 | 2°47 | 5°46 | 16°14 | 11°23 | 6°26 | 18°18 | 2°13 | 13°50 | 14°26 | 11°37 | 27°31 | M 9 | |
| T 10 | 9 41 1 | 26°55'56 | 22°30 | 14°23 | 4° 1 | 6° 9 | 16°12 | 11°20 | 6°29 | 18°17 | 2°14 | 13°37 | 14°23 | 11°44 | 27°34 | T 10 | |
| W11 | 9 44 57 | 27°56'08 | 5♁32 | 14°54 | 5°16 | 6°33 | 16° 9 | 11°17 | 6°31 | 18°16 | 2°15 | 13°24 | 14°20 | 11°50 | 27°38 | W11 | |
| T 12 | 9 48 54 | 28°56'17 | 18°17 | 15°15 | 6°30 | 6°57 | 16° 5 | 11°15 | 6°34 | 18°15 | 2°17 | 13°12 | 14°17 | 11°57 | 27°41 | T 12 | |
| F 13 | 9 52 50 | 29°56'25 | 0♁46 | 15°27 | 7°44 | 7°21 | 16° 2 | 11°12 | 6°37 | 18°13 | 2°18 | 13° 3 | 14°14 | 12° 4 | 27°44 | F 13 | |
| S 14 | 9 56 47 | 0♁56'31 | 13° 0 | 15°R30 | 8°59 | 7°45 | 15°59 | 11°10 | 6°40 | 18°12 | 2°19 | 12°56 | 14°11 | 12°10 | 27°48 | S 14 | |
| S 15 | 10 0 43 | 1°56'35 | 25° 1 | 15°23 | 10°13 | 8°10 | 15°55 | 11° 8 | 6°43 | 18°11 | 2°20 | 12°53 | 14° 7 | 12°17 | 27°51 | S 15 | |
| M16 | 10 4 40 | 2°56'37 | 6♁53 | 15° 7 | 11°27 | 8°35 | 15°51 | 11° 6 | 6°46 | 18°10 | 2°22 | 12°51 | 14° 4 | 12°23 | 27°54 | M16 | |
| T 17 | 10 8 36 | 3°56'36 | 18°41 | 14°43 | 12°42 | 9° 0 | 15°47 | 11° 4 | 6°49 | 18° 9 | 2°23 | 12°D51 | 14° 1 | 12°30 | 27°58 | T 17 | |
| W18 | 10 12 33 | 4°56'33 | 0♁29 | 14°12 | 13°56 | 9°25 | 15°43 | 11° 2 | 6°52 | 18° 8 | 2°24 | 12°R51 | 13°58 | 12°37 | 28° 1 | W18 | |
| T 19 | 10 16 29 | 5°56'29 | 12°23 | 13°33 | 15°10 | 9°51 | 15°38 | 11° 0 | 6°55 | 18° 7 | 2°25 | 12°51 | 13°55 | 12°43 | 28° 5 | T 19 | |
| F 20 | 10 20 26 | 6°56'22 | 24°30 | 12°48 | 16°24 | 10°16 | 15°34 | 10°58 | 6°58 | 18° 6 | 2°27 | 12°50 | 13°51 | 12°50 | 28° 8 | F 20 | |
| S 21 | 10 24 23 | 7°56'12 | 6☾53 | 11°58 | 17°39 | 10°42 | 15°29 | 10°57 | 7° 1 | 18° 5 | 2°28 | 12°46 | 13°48 | 12°57 | 28°11 | S 21 | |
| S 22 | 10 28 19 | 8°56'01 | 19°37 | 11° 4 | 18°53 | 11° 9 | 15°24 | 10°55 | 7° 4 | 18° 4 | 2°29 | 12°39 | 13°45 | 13° 3 | 28°15 | S 22 | |
| M23 | 10 32 16 | 9°55'47 | 2♁45 | 10° 8 | 20° 7 | 11°35 | 15°19 | 10°54 | 7° 8 | 18° 3 | 2°31 | 12°31 | 13°42 | 13°10 | 28°18 | M23 | |
| T 24 | 10 36 12 | 10°55'31 | 16°17 | 9°10 | 21°21 | 12° 2 | 15°14 | 10°52 | 7°11 | 18° 2 | 2°32 | 12°21 | 13°39 | 13°17 | 28°22 | T 24 | |
| W25 | 10 40 9 | 11°55'13 | 0♁13 | 8°13 | 22°36 | 12°29 | 15° 9 | 10°51 | 7°14 | 18° 1 | 2°33 | 12°11 | 13°36 | 13°23 | 28°26 | W25 | |
| T 26 | 10 44 5 | 12°54'52 | 14°28 | 7°17 | 23°50 | 12°56 | 15° 4 | 10°50 | 7°17 | 18° 0 | 2°35 | 12° 1 | 13°32 | 13°30 | 28°29 | T 26 | |
| F 27 | 10 48 2 | 13°54'30 | 28°57 | 6°24 | 25° 4 | 13°23 | 14°58 | 10°49 | 7°20 | 18° 0 | 2°36 | 11°54 | 13°29 | 13°37 | 28°33 | F 27 | |
| S 28 | 10 51 58 | 14°54'05 | 13♁33 | 5°33 | 26°18 | 13°50 | 14°52 | 10°48 | 7°23 | 17°59 | 2°38 | 11°48 | 13°26 | 13°43 | 28°36 | S 28 | |
| S 29 | 10 55 55 | 15°53'39 | 28♁ 9 | 4♁47 | 27♁33 | 14♁18 | 14♁47 | 10☾48 | 7♃27 | 17☾58 | 2♃39 | 11♁45 | 13♁23 | 13♁50 | 28♁40 | S 29 | |

Delta T = 18m08s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1092
geocentric

MARCH 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|-------|-------|-------|-------|--------|--------|-------|--------|-------|--------|-------|-------|-------|------|-----|
| M 1 | 10 59 52 | 16°53'11 | 12♈40 | 4°R 6 | 28♌47 | 14♈46 | 14°R41 | 10°R47 | 7°V30 | 17°R57 | 2°V40 | 11°D44 | 13♌20 | 13♌57 | 28♌43 | M 1 | |
| T 2 | 11 3 48 | 17°52'41 | 27° 2 | 3♌30 | 0♌ 1 | 15°14 | 14♌35 | 10♌47 | 7°33 | 17♌57 | 2°42 | 11♌45 | 13°17 | 14° 3 | 28°47 | T 2 | |
| W 3 | 11 7 45 | 18°52'09 | 11♌12 | 3° 0 | 1°15 | 15°42 | 14°28 | 10°46 | 7°37 | 17°56 | 2°43 | 11°46 | 13°13 | 14°10 | 28°50 | W 3 | |
| T 4 | 11 11 41 | 19°51'36 | 25° 9 | 2°35 | 2°30 | 16°10 | 14°22 | 10°46 | 7°40 | 17°55 | 2°45 | 11°R46 | 13°10 | 14°16 | 28°54 | T 4 | |
| F 5 | 11 15 38 | 20°51'01 | 8♌53 | 2°17 | 3°44 | 16°39 | 14°16 | 10°46 | 7°43 | 17°55 | 2°46 | 11°44 | 13° 7 | 14°23 | 28°58 | F 5 | |
| S 6 | 11 19 34 | 21°50'24 | 22°25 | 2° 4 | 4°58 | 17° 7 | 14° 9 | 10°D46 | 7°47 | 17°54 | 2°47 | 11°41 | 13° 4 | 14°30 | 29° 1 | S 6 | |
| S 7 | 11 23 31 | 22°49'45 | 5♌43 | 1°58 | 6°12 | 17°36 | 14° 2 | 10°46 | 7°50 | 17°54 | 2°49 | 11°35 | 13° 1 | 14°36 | 29° 5 | S 7 | |
| M 8 | 11 27 27 | 23°49'04 | 18°50 | 1°D57 | 7°26 | 18° 5 | 13°56 | 10°46 | 7°53 | 17°53 | 2°50 | 11°27 | 12°57 | 14°43 | 29° 9 | M 8 | |
| T 9 | 11 31 24 | 24°48'22 | 1♌43 | 2° 2 | 8°41 | 18°34 | 13°49 | 10°46 | 7°57 | 17°53 | 2°52 | 11°19 | 12°54 | 14°50 | 29°12 | T 9 | |
| W10 | 11 35 21 | 25°47'37 | 14°24 | 2°12 | 9°55 | 19° 4 | 13°42 | 10°46 | 8° 0 | 17°52 | 2°53 | 11°10 | 12°51 | 14°56 | 29°16 | W10 | |
| T 11 | 11 39 17 | 26°46'50 | 26°52 | 2°28 | 11° 9 | 19°33 | 13°35 | 10°47 | 8° 3 | 17°52 | 2°54 | 11° 3 | 12°48 | 15° 3 | 29°20 | T 11 | |
| F 12 | 11 43 14 | 27°46'01 | 9°V 8 | 2°49 | 12°23 | 20° 3 | 13°28 | 10°47 | 8° 7 | 17°52 | 2°56 | 10°57 | 12°45 | 15°10 | 29°23 | F 12 | |
| S 13 | 11 47 10 | 28°45'10 | 21°13 | 3°14 | 13°37 | 20°32 | 13°21 | 10°48 | 8°10 | 17°51 | 2°57 | 10°53 | 12°42 | 15°16 | 29°27 | S 13 | |
| S 14 | 11 51 7 | 29°44'17 | 3♌ 9 | 3°44 | 14°51 | 21° 2 | 13°13 | 10°49 | 8°14 | 17°51 | 2°59 | 10°51 | 12°38 | 15°23 | 29°30 | S 14 | |
| M15 | 11 55 3 | 0°V43'22 | 14°59 | 4°18 | 16° 6 | 21°32 | 13° 6 | 10°50 | 8°17 | 17°51 | 3° 0 | 10°D50 | 12°35 | 15°30 | 29°34 | M15 | |
| T 16 | 11 59 0 | 1°42'24 | 26°46 | 4°56 | 17°20 | 22° 2 | 12°59 | 10°51 | 8°20 | 17°50 | 3° 2 | 10°51 | 12°32 | 15°36 | 29°38 | T 16 | |
| W17 | 12 2 56 | 2°41'24 | 8♈34 | 5°38 | 18°34 | 22°33 | 12°51 | 10°52 | 8°24 | 17°50 | 3° 3 | 10°53 | 12°29 | 15°43 | 29°41 | W17 | |
| T 18 | 12 6 53 | 3°40'22 | 20°28 | 6°23 | 19°48 | 23° 3 | 12°44 | 10°53 | 8°27 | 17°50 | 3° 5 | 10°55 | 12°26 | 15°49 | 29°45 | T 18 | |
| F 19 | 12 10 50 | 4°39'18 | 2♌33 | 7°12 | 21° 2 | 23°34 | 12°36 | 10°55 | 8°31 | 17°50 | 3° 6 | 10°R55 | 12°23 | 15°56 | 29°49 | F 19 | |
| S 20 | 12 14 46 | 5°38'11 | 14°54 | 8° 5 | 22°16 | 24° 4 | 12°29 | 10°56 | 8°34 | 17°50 | 3° 7 | 10°55 | 12°19 | 16° 3 | 29°52 | S 20 | |
| S 21 | 12 18 43 | 6°37'02 | 27°36 | 9° 0 | 23°30 | 24°35 | 12°21 | 10°58 | 8°38 | 17°50 | 3° 9 | 10°53 | 12°16 | 16° 9 | 29°56 | S 21 | |
| M22 | 12 22 39 | 7°35'51 | 10♈43 | 9°58 | 24°44 | 25° 6 | 12°14 | 10°59 | 8°41 | 17°50 | 3°10 | 10°50 | 12°13 | 16°16 | 29°59 | M22 | |
| T 23 | 12 26 36 | 8°34'37 | 24°16 | 10°59 | 25°58 | 25°37 | 12° 6 | 11° 1 | 8°44 | 17°D50 | 3°12 | 10°45 | 12°10 | 16°23 | 0°V 3 | T 23 | |
| W24 | 12 30 32 | 9°33'21 | 8♈16 | 12° 3 | 27°12 | 26° 8 | 11°58 | 11° 3 | 8°48 | 17°50 | 3°13 | 10°41 | 12° 7 | 16°29 | 0° 7 | W24 | |
| T 25 | 12 34 29 | 10°32'03 | 22°40 | 13° 9 | 28°26 | 26°39 | 11°51 | 11° 5 | 8°51 | 17°50 | 3°15 | 10°36 | 12° 3 | 16°36 | 0°10 | T 25 | |
| F 26 | 12 38 25 | 11°30'42 | 7♌24 | 14°18 | 29°40 | 27°10 | 11°43 | 11° 7 | 8°55 | 17°50 | 3°16 | 10°32 | 12° 0 | 16°43 | 0°14 | F 26 | |
| S 27 | 12 42 22 | 12°29'20 | 22°20 | 15°29 | 0°V54 | 27°42 | 11°35 | 11° 9 | 8°58 | 17°50 | 3°17 | 10°30 | 11°57 | 16°49 | 0°18 | S 27 | |
| S 28 | 12 46 19 | 13°27'56 | 7♈19 | 16°43 | 2° 8 | 28°13 | 11°27 | 11°12 | 9° 2 | 17°50 | 3°19 | 10°D29 | 11°54 | 16°56 | 0°21 | S 28 | |
| M29 | 12 50 15 | 14°26'29 | 22°14 | 17°58 | 3°22 | 28°45 | 11°20 | 11°14 | 9° 5 | 17°50 | 3°20 | 10°29 | 11°51 | 17° 3 | 0°25 | M29 | |
| T 30 | 12 54 12 | 15°25'02 | 6♌57 | 19°16 | 4°36 | 29°16 | 11°12 | 11°17 | 9° 8 | 17°50 | 3°22 | 10°31 | 11°48 | 17° 9 | 0°28 | T 30 | |
| W31 | 12 58 8 | 16°V23'32 | 21♌24 | 20♌36 | 5°V50 | 29♈48 | 11♌ 5 | 11♌19 | 9°V12 | 17♌51 | 3°V23 | 10♌32 | 11♌44 | 17♌16 | 0°V32 | W31 | |

Delta T = 18m08s Julian Calendar 1 March 1092 == Greg. Calendar 7 March 1092

APRIL 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|-------|-------|-------|-------|--------|-------|--------|-------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 13 2 5 | 17°V22'01 | 5♌31 | 21♌58 | 7°V 4 | 0♌20 | 10°R57 | 11♌22 | 9°V15 | 17♌51 | 3°V25 | 10♌33 | 11♌41 | 17♌22 | 0°V35 | T 1 | |
| F 2 | 13 6 1 | 18°20'29 | 19°18 | 23°22 | 8°18 | 0°52 | 10♌49 | 11°25 | 9°19 | 17°51 | 3°26 | 10°R34 | 11°38 | 17°29 | 0°39 | F 2 | |
| S 3 | 13 9 58 | 19°18'54 | 2♌44 | 24°48 | 9°32 | 1°24 | 10°42 | 11°28 | 9°22 | 17°52 | 3°27 | 10°R33 | 11°35 | 17°36 | 0°42 | S 3 | |
| S 4 | 13 13 54 | 20°17'18 | 15°52 | 26°16 | 10°46 | 1°56 | 10°34 | 11°31 | 9°26 | 17°52 | 3°29 | 10°31 | 11°32 | 17°42 | 0°46 | S 4 | |
| M 5 | 13 17 51 | 21°15'41 | 28°42 | 27°45 | 12° 0 | 2°29 | 10°27 | 11°34 | 9°29 | 17°53 | 3°30 | 10°29 | 11°29 | 17°49 | 0°49 | M 5 | |
| T 6 | 13 21 48 | 22°14'01 | 11♌18 | 29°17 | 13°14 | 3° 1 | 10°19 | 11°37 | 9°32 | 17°53 | 3°32 | 10°26 | 11°25 | 17°56 | 0°53 | T 6 | |
| W 7 | 13 25 44 | 23°12'20 | 23°41 | 0°V50 | 14°28 | 3°33 | 10°12 | 11°40 | 9°36 | 17°53 | 3°33 | 10°24 | 11°22 | 18° 2 | 0°56 | W 7 | |
| T 8 | 13 29 41 | 24°10'37 | 5°V53 | 2°25 | 15°42 | 4° 6 | 10° 5 | 11°44 | 9°39 | 17°54 | 3°34 | 10°21 | 11°19 | 18° 9 | 1° 0 | T 8 | |
| F 9 | 13 33 37 | 25° 8'53 | 17°56 | 4° 2 | 16°56 | 4°38 | 9°57 | 11°47 | 9°42 | 17°55 | 3°36 | 10°20 | 11°16 | 18°16 | 1° 3 | F 9 | |
| S 10 | 13 37 34 | 26° 7'07 | 29°52 | 5°41 | 18°10 | 5°11 | 9°50 | 11°51 | 9°46 | 17°55 | 3°37 | 10°19 | 11°13 | 18°22 | 1° 7 | S 10 | |
| S 11 | 13 41 30 | 27° 5'19 | 11♌42 | 7°22 | 19°24 | 5°44 | 9°43 | 11°54 | 9°49 | 17°56 | 3°38 | 10°D18 | 11° 9 | 18°29 | 1°10 | S 11 | |
| M12 | 13 45 27 | 28° 3'29 | 23°29 | 9° 4 | 20°38 | 6°17 | 9°36 | 11°58 | 9°52 | 17°56 | 3°40 | 10°19 | 11° 6 | 18°36 | 1°13 | M12 | |
| T 13 | 13 49 23 | 29° 1'37 | 5♈16 | 10°49 | 21°52 | 6°50 | 9°29 | 12° 2 | 9°56 | 17°57 | 3°41 | 10°19 | 11° 3 | 18°42 | 1°17 | T 13 | |
| W14 | 13 53 20 | 29°59'44 | 17° 6 | 12°35 | 23° 6 | 7°23 | 9°22 | 12° 6 | 9°59 | 17°58 | 3°42 | 10°20 | 11° 0 | 18°49 | 1°20 | W14 | |
| T 15 | 13 57 16 | 0♌57'48 | 29° 2 | 14°23 | 24°20 | 7°56 | 9°16 | 12°10 | 10° 2 | 17°59 | 3°44 | 10°21 | 10°57 | 18°56 | 1°23 | T 15 | |
| F 16 | 14 1 13 | 1°55'51 | 11♌ 8 | 16°13 | 25°33 | 8°29 | 9° 9 | 12°14 | 10° 5 | 17°59 | 3°45 | 10°22 | 10°54 | 19° 2 | 1°26 | F 16 | |
| S 17 | 14 5 10 | 2°53'52 | 23°29 | 18° 4 | 26°47 | 9° 2 | 9° 2 | 12°18 | 10° 9 | 18° 0 | 3°46 | 10°23 | 10°50 | 19° 9 | 1°30 | S 17 | |
| S 18 | 14 9 6 | 3°51'51 | 6♌ 8 | 19°58 | 28° 1 | 9°35 | 8°56 | 12°23 | 10°12 | 18° 1 | 3°47 | 10°R23 | 10°47 | 19°15 | 1°33 | S 18 | |
| M19 | 14 13 3 | 4°49'47 | 19° 9 | 21°53 | 29°15 | 10° 9 | 8°50 | 12°27 | 10°15 | 18° 2 | 3°49 | 10°23 | 10°44 | 19°22 | 1°36 | M19 | |
| T 20 | 14 16 59 | 5°47'42 | 2♈36 | 23°50 | 0♌29 | 10°42 | 8°43 | 12°31 | 10°18 | 18° 3 | 3°50 | 10°22 | 10°41 | 19°29 | 1°39 | T 20 | |
| W21 | 14 20 56 | 6°45'35 | 16°30 | 25°49 | 1°43 | 11°16 | 8°37 | 12°36 | 10°22 | 18° 4 | 3°51 | 10°22 | 10°38 | 19°35 | 1°42 | W21 | |
| T 22 | 14 24 52 | 7°43'27 | 0♌50 | 27°50 | 2°56 | 11°49 | 8°31 | 12°41 | 10°25 | 18° 5 | 3°52 | 10°22 | 10°34 | 19°42 | 1°45 | T 22 | |
| F 23 | 14 28 49 | 8°41'16 | 15°34 | 29°52 | 4°10 | 12°23 | 8°26 | 12°45 | 10°28 | 18° 6 | 3°54 | 10°21 | 10°31 | 19°49 | 1°49 | F 23 | |
| S 24 | 14 32 45 | 9°39'04 | 0♈35 | 1♌56 | 5°24 | 12°57 | 8°20 | 12°50 | 10°31 | 18° 7 | 3°55 | 10°21 | 10°28 | 19°55 | 1°52 | S 24 | |
| S 25 | 14 36 42 | 10°36'50 | 15°45 | 4° 2 | 6°38 | 13°30 | 8°14 | 12°55 | 10°34 | 18° 8 | 3°56 | 10°21 | 10°25 | 20° 2 | 1°55 | S 25 | |
| M26 | 14 40 39 | 11°34'35 | 0♌56 | 6° 9 | 7°52 | 14° 4 | 8° 9 | 13° 0 | 10°37 | 18° 9 | 3°57 | 10°21 | 10°22 | 20° 9 | 1°58 | M26 | |
| T 27 | 14 44 35 | 12°32'19 | 15°57 | 8°17 | 9° 5 | 14°38 | 8° 4 | 13° 5 | 10°40 | 18°10 | 3°58 | 10°21 | 10°19 | 20°15 | 2° 1 | T 27 | |
| W28 | 14 48 32 | 13°30'02 | 0♌41 | 10°26 | 10°19 | 15°12 | 7°58 | 13°10 | 10°43 | 18°11 | 4° 0 | 10°21 | 10°15 | 20°22 | 2° 3 | W28 | |
| T 29 | 14 52 28 | 14°27'43 | 15° 3 | 12°36 | 11°33 | 15°46 | 7°53 | 13°15 | 10°46 | 18°12 | 4° 1 | 10°20 | 10°12 | 20°29 | 2° 6 | T 29 | |
| F 30 | 14 56 25 | 15°25'23 | 29♌ 0 | 14♌47 | 12♌47 | 16♌20 | 7♌49 | 13♌20 | 10°V49 | 18♌13 | 4°V 2 | 10♌20 | 10♌ 9 | 20♌35 | 2°V 9 | F 30 | |

Delta T = 18m08s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1092
geocentric

MAY 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|------------|-------|-------|---------|-------|-------|-------|-------|-------|------|--------|-------|-------|------|------|-----|
| S 1 | 15 0 21 | 16♁23'03 | 12♁30 | 16♁58 | 14♁ 0 | 16♁54 | 7°R44 | 13♁26 | 10♁52 | 18♁15 | 4♁ 3 | 10°D20 | 10♁ 6 | 20♁42 | 2♁12 | S 1 | |
| S 2 | 15 4 18 | 17°20'41 | 25°36 | 19°10 | 15°14 | 17°28 | 7♁39 | 13°31 | 10°55 | 18°16 | 4° 4 | 10♁20 | 10° 3 | 20°49 | 2°15 | S 2 | |
| M 3 | 15 8 15 | 18°18'18 | 8♁21 | 21°21 | 16°28 | 18° 2 | 7°35 | 13°36 | 10°58 | 18°17 | 4° 5 | 10°20 | 10° 0 | 20°55 | 2°18 | M 3 | |
| T 4 | 15 12 11 | 19°15'54 | 20°47 | 23°32 | 17°42 | 18°37 | 7°31 | 13°42 | 11° 1 | 18°19 | 4° 6 | 10°21 | 9°56 | 21° 2 | 2°20 | T 4 | |
| W 5 | 15 16 8 | 20°13'29 | 2♁59 | 25°43 | 18°55 | 19°11 | 7°26 | 13°48 | 11° 4 | 18°20 | 4° 7 | 10°22 | 9°53 | 21° 8 | 2°23 | W 5 | |
| T 6 | 15 20 4 | 21°11'03 | 15° 0 | 27°52 | 20° 9 | 19°45 | 7°22 | 13°53 | 11° 6 | 18°21 | 4° 8 | 10°23 | 9°50 | 21°15 | 2°26 | T 6 | |
| F 7 | 15 24 1 | 22° 8'36 | 26°54 | 0♁ 1 | 21°23 | 20°20 | 7°19 | 13°59 | 11° 9 | 18°23 | 4°10 | 10°24 | 9°47 | 21°22 | 2°28 | F 7 | |
| S 8 | 15 27 57 | 23° 6'07 | 8♁43 | 2° 8 | 22°37 | 20°54 | 7°15 | 14° 5 | 11°12 | 18°24 | 4°11 | 10°R24 | 9°44 | 21°28 | 2°31 | S 8 | |
| S 9 | 15 31 54 | 24° 3'38 | 20°30 | 4°13 | 23°50 | 21°29 | 7°12 | 14°11 | 11°15 | 18°25 | 4°12 | 10°24 | 9°40 | 21°35 | 2°34 | S 9 | |
| M10 | 15 35 50 | 25° 1'08 | 2♁18 | 6°17 | 25° 4 | 22° 4 | 7° 8 | 14°16 | 11°18 | 18°27 | 4°13 | 10°23 | 9°37 | 21°42 | 2°36 | M10 | |
| T 11 | 15 39 47 | 25°58'37 | 14° 8 | 8°18 | 26°18 | 22°38 | 7° 5 | 14°22 | 11°20 | 18°28 | 4°14 | 10°21 | 9°34 | 21°48 | 2°39 | T 11 | |
| W12 | 15 43 44 | 26°56'05 | 26° 3 | 10°18 | 27°32 | 23°13 | 7° 2 | 14°28 | 11°23 | 18°30 | 4°14 | 10°19 | 9°31 | 21°55 | 2°41 | W12 | |
| T 13 | 15 47 40 | 27°53'31 | 8♁ 5 | 12°15 | 28°45 | 23°48 | 7° 0 | 14°35 | 11°25 | 18°31 | 4°15 | 10°16 | 9°28 | 22° 2 | 2°43 | T 13 | |
| F 14 | 15 51 37 | 28°50'57 | 20°17 | 14°10 | 29°59 | 24°23 | 6°57 | 14°41 | 11°28 | 18°33 | 4°16 | 10°14 | 9°25 | 22° 8 | 2°46 | F 14 | |
| S 15 | 15 55 33 | 29°48'21 | 2♁42 | 16° 2 | 1♁13 | 24°58 | 6°55 | 14°47 | 11°31 | 18°35 | 4°17 | 10°11 | 9°21 | 22°15 | 2°48 | S 15 | |
| S 16 | 15 59 30 | 0♁45'44 | 15°22 | 17°52 | 2°27 | 25°33 | 6°52 | 14°53 | 11°33 | 18°36 | 4°18 | 10°10 | 9°18 | 22°22 | 2°50 | S 16 | |
| M17 | 16 3 26 | 1°43'06 | 28°21 | 19°39 | 3°40 | 26° 8 | 6°50 | 14°59 | 11°36 | 18°38 | 4°19 | 10°D 9 | 9°15 | 22°28 | 2°53 | M17 | |
| T 18 | 16 7 23 | 2°40'26 | 11♁41 | 21°24 | 4°54 | 26°43 | 6°48 | 15° 6 | 11°38 | 18°39 | 4°20 | 10° 9 | 9°12 | 22°35 | 2°55 | T 18 | |
| W19 | 16 11 19 | 3°37'46 | 25°25 | 23° 6 | 6° 8 | 27°18 | 6°47 | 15°12 | 11°40 | 18°41 | 4°21 | 10°10 | 9° 9 | 22°42 | 2°57 | W19 | |
| T 20 | 16 15 16 | 4°35'04 | 9♁34 | 24°46 | 7°21 | 27°53 | 6°45 | 15°19 | 11°43 | 18°43 | 4°22 | 10°11 | 9° 6 | 22°48 | 2°59 | T 20 | |
| F 21 | 16 19 13 | 5°32'22 | 24° 6 | 26°23 | 8°35 | 28°28 | 6°44 | 15°25 | 11°45 | 18°45 | 4°22 | 10°13 | 9° 2 | 22°55 | 3° 1 | F 21 | |
| S 22 | 16 23 9 | 6°29'38 | 8♁57 | 27°57 | 9°49 | 29° 3 | 6°43 | 15°32 | 11°48 | 18°46 | 4°23 | 10°R13 | 8°59 | 23° 2 | 3° 3 | S 22 | |
| S 23 | 16 27 6 | 7°26'54 | 24° 3 | 29°28 | 11° 2 | 29°38 | 6°42 | 15°38 | 11°50 | 18°48 | 4°24 | 10°13 | 8°56 | 23° 8 | 3° 5 | S 23 | |
| M24 | 16 31 2 | 8°24'09 | 9♁14 | 0♁57 | 12°16 | 0♁14 | 6°41 | 15°45 | 11°52 | 18°50 | 4°25 | 10°11 | 8°53 | 23°15 | 3° 7 | M24 | |
| T 25 | 16 34 59 | 9°21'23 | 24°21 | 2°23 | 13°30 | 0°49 | 6°40 | 15°52 | 11°54 | 18°52 | 4°25 | 10° 8 | 8°50 | 23°21 | 3° 9 | T 25 | |
| W26 | 16 38 55 | 10°18'37 | 9♁14 | 3°46 | 14°43 | 1°25 | 6°40 | 15°59 | 11°56 | 18°53 | 4°26 | 10° 4 | 8°46 | 23°28 | 3°11 | W26 | |
| T 27 | 16 42 52 | 11°15'50 | 23°47 | 5° 6 | 15°57 | 2° 0 | 6°40 | 16° 5 | 11°59 | 18°55 | 4°27 | 10° 0 | 8°43 | 23°35 | 3°13 | T 27 | |
| F 28 | 16 46 48 | 12°13'03 | 7♁53 | 6°23 | 17°11 | 2°35 | 6°D40 | 16°12 | 12° 1 | 18°57 | 4°27 | 9°56 | 8°40 | 23°41 | 3°14 | F 28 | |
| S 29 | 16 50 45 | 13°10'16 | 21°31 | 7°38 | 18°24 | 3°11 | 6°40 | 16°19 | 12° 3 | 18°59 | 4°28 | 9°53 | 8°37 | 23°48 | 3°16 | S 29 | |
| S 30 | 16 54 42 | 14° 7'29 | 4♁41 | 8°49 | 19°38 | 3°47 | 6°40 | 16°26 | 12° 5 | 19° 1 | 4°29 | 9°51 | 8°34 | 23°55 | 3°18 | S 30 | |
| M31 | 16 58 38 | 15°II 4'41 | 17♁26 | 9♁58 | 20°II52 | 4♁22 | 6♁40 | 16♁33 | 12♁ 7 | 19♁ 3 | 4♁29 | 9°D50 | 8♁31 | 24♁ 1 | 3♁19 | M31 | |

Delta T = 18m07s Julian Calendar 1 May 1092 == Greg. Calendar 7 May 1092

JUNE 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|------|-------|-------|-------|-------|-------|------|-------|------|------|-----|
| T 1 | 17 2 35 | 16♁11'53 | 29♁51 | 11♁ 3 | 22♁ 5 | 4♁58 | 6♁41 | 16♁40 | 12♁ 9 | 19♁ 5 | 4♁30 | 9♁51 | 8♁27 | 24♁ 8 | 3♁21 | T 1 | |
| W 2 | 17 6 31 | 16°59'05 | 11♁58 | 12° 5 | 23°19 | 5°34 | 6°42 | 16°47 | 12°11 | 19° 7 | 4°30 | 9°53 | 8°24 | 24°15 | 3°23 | W 2 | |
| T 3 | 17 10 28 | 17°56'17 | 23°55 | 13° 4 | 24°33 | 6° 9 | 6°43 | 16°54 | 12°12 | 19° 9 | 4°31 | 9°54 | 8°21 | 24°21 | 3°24 | T 3 | |
| F 4 | 17 14 24 | 18°53'28 | 5♁44 | 14° 0 | 25°47 | 6°45 | 6°44 | 17° 1 | 12°14 | 19°10 | 4°32 | 9°R55 | 8°18 | 24°28 | 3°25 | F 4 | |
| S 5 | 17 18 21 | 19°50'40 | 17°31 | 14°52 | 27° 0 | 7°21 | 6°45 | 17° 9 | 12°16 | 19°12 | 4°32 | 9°55 | 8°15 | 24°35 | 3°27 | S 5 | |
| S 6 | 17 22 17 | 20°47'52 | 29°18 | 15°41 | 28°14 | 7°57 | 6°47 | 17°16 | 12°18 | 19°14 | 4°33 | 9°53 | 8°12 | 24°41 | 3°28 | S 6 | |
| M 7 | 17 26 14 | 21°45'03 | 11♁ 9 | 16°26 | 29°28 | 8°33 | 6°49 | 17°23 | 12°19 | 19°16 | 4°33 | 9°49 | 8° 8 | 24°48 | 3°29 | M 7 | |
| T 8 | 17 30 11 | 22°42'14 | 23° 5 | 17° 7 | 0♁41 | 9° 9 | 6°50 | 17°30 | 12°21 | 19°19 | 4°33 | 9°43 | 8° 5 | 24°55 | 3°31 | T 8 | |
| W 9 | 17 34 7 | 23°39'26 | 5♁10 | 17°44 | 1°55 | 9°45 | 6°53 | 17°38 | 12°23 | 19°21 | 4°34 | 9°36 | 8° 2 | 25° 1 | 3°32 | W 9 | |
| T 10 | 17 38 4 | 24°36'37 | 17°23 | 18°18 | 3° 9 | 10°21 | 6°55 | 17°45 | 12°24 | 19°23 | 4°34 | 9°28 | 7°59 | 25° 8 | 3°33 | T 10 | |
| F 11 | 17 42 0 | 25°33'48 | 29°47 | 18°47 | 4°22 | 10°57 | 6°57 | 17°52 | 12°26 | 19°25 | 4°35 | 9°20 | 7°56 | 25°15 | 3°34 | F 11 | |
| S 12 | 17 45 57 | 26°30'58 | 12♁23 | 19°12 | 5°36 | 11°33 | 7° 0 | 18° 0 | 12°27 | 19°27 | 4°35 | 9°13 | 7°52 | 25°21 | 3°35 | S 12 | |
| S 13 | 17 49 53 | 27°28'09 | 25°12 | 19°32 | 6°50 | 12°10 | 7° 2 | 18° 7 | 12°29 | 19°29 | 4°35 | 9° 7 | 7°49 | 25°28 | 3°36 | S 13 | |
| M14 | 17 53 50 | 28°25'19 | 8♁15 | 19°48 | 8° 3 | 12°46 | 7° 5 | 18°14 | 12°30 | 19°31 | 4°36 | 9° 3 | 7°46 | 25°34 | 3°37 | M14 | |
| T 15 | 17 57 46 | 29°22'28 | 21°35 | 20° 0 | 9°17 | 13°22 | 7° 8 | 18°22 | 12°31 | 19°33 | 4°36 | 9° 1 | 7°43 | 25°41 | 3°38 | T 15 | |
| W16 | 18 1 43 | 0♁19'38 | 5♁13 | 20° 7 | 10°31 | 13°59 | 7°12 | 18°29 | 12°33 | 19°35 | 4°36 | 9°D 1 | 7°40 | 25°48 | 3°39 | W16 | |
| T 17 | 18 5 40 | 1°16'47 | 19°10 | 20°R 9 | 11°45 | 14°35 | 7°15 | 18°37 | 12°34 | 19°37 | 4°37 | 9° 2 | 7°37 | 25°54 | 3°39 | T 17 | |
| F 18 | 18 9 36 | 2°13'56 | 3♁26 | 20° 6 | 12°58 | 15°11 | 7°19 | 18°44 | 12°35 | 19°39 | 4°37 | 9°R 3 | 7°33 | 26° 1 | 3°40 | F 18 | |
| S 19 | 18 13 33 | 3°11'06 | 18° 1 | 19°59 | 14°12 | 15°48 | 7°22 | 18°52 | 12°36 | 19°42 | 4°37 | 9° 2 | 7°30 | 26° 8 | 3°41 | S 19 | |
| S 20 | 18 17 29 | 4° 8'15 | 2♁50 | 19°47 | 15°26 | 16°24 | 7°26 | 19° 0 | 12°37 | 19°44 | 4°37 | 9° 0 | 7°27 | 26°14 | 3°41 | S 20 | |
| M21 | 18 21 26 | 5° 5'24 | 17°47 | 19°31 | 16°39 | 17° 1 | 7°30 | 19° 7 | 12°38 | 19°46 | 4°37 | 8°56 | 7°24 | 26°21 | 3°42 | M21 | |
| T 22 | 18 25 22 | 6° 2'34 | 2♁44 | 19°10 | 17°53 | 17°38 | 7°35 | 19°15 | 12°39 | 19°48 | 4°38 | 8°49 | 7°21 | 26°28 | 3°42 | T 22 | |
| W23 | 18 29 19 | 6°59'43 | 17°32 | 18°45 | 19° 7 | 18°14 | 7°39 | 19°22 | 12°40 | 19°50 | 4°38 | 8°41 | 7°18 | 26°34 | 3°43 | W23 | |
| T 24 | 18 33 16 | 7°56'54 | 2♁ 4 | 18°16 | 20°20 | 18°51 | 7°44 | 19°30 | 12°41 | 19°52 | 4°38 | 8°32 | 7°14 | 26°41 | 3°43 | T 24 | |
| F 25 | 18 37 12 | 8°54'04 | 16°12 | 17°44 | 21°34 | 19°28 | 7°48 | 19°38 | 12°42 | 19°55 | 4°38 | 8°24 | 7°11 | 26°48 | 3°44 | F 25 | |
| S 26 | 18 41 9 | 9°51'15 | 29°54 | 17° 9 | 22°48 | 20° 4 | 7°53 | 19°45 | 12°43 | 19°57 | 4°38 | 8°16 | 7° 8 | 26°54 | 3°44 | S 26 | |
| S 27 | 18 45 5 | 10°48'27 | 13♁ 7 | 16°31 | 24° 1 | 20°41 | 7°58 | 19°53 | 12°44 | 19°59 | 4°38 | 8°11 | 7° 5 | 27° 1 | 3°44 | S 27 | |
| M28 | 18 49 2 | 11°45'39 | 25°55 | 15°52 | 25°15 | 21°18 | 8° 3 | 20° 1 | 12°44 | 20° 1 | 4°R38 | 8° 8 | 7° 2 | 27° 8 | 3°44 | M28 | |
| T 29 | 18 52 58 | 12°42'53 | 8♁21 | 15°12 | 26°29 | 21°55 | 8° 9 | 20° 8 | 12°45 | 20° 3 | 4°38 | 8°D 6 | 6°58 | 27°14 | 3°44 | T 29 | |
| W30 | 18 56 55 | 13♁40'07 | 20♁29 | 14♁30 | 27♁42 | 22♁32 | 8♁14 | 20♁16 | 12♁46 | 20♁ 6 | 4♁38 | 8♁ 6 | 6♁55 | 27♁21 | 3♁45 | W30 | |

Delta T = 18m07s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1092
geocentric

JULY 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|-----------------------|---------------------|----------------------|----------------------|--------------------|--------------------|---------------------|--------------------|--------------------|--------------------|-------------------|---------------------|--------------------|------|
| T 1 | 19 0 51 | 14 [☾] 37'21 | 2 [♂] 25 | 13 [♂] R49 | 28 [♂] 56 | 23 [♂] Ω 9 | 8 [♂] 20 | 20 [♂] 24 | 12 [♂] Y46 | 20 [♂] 8 | 4 [♂] R38 | 8 [♂] R 7 | 6 [♂] 52 | 27 [♂] 28 | 3 [♂] R45 | T 1 |
| F 2 | 19 4 48 | 15 [♂] 34'37 | 14 [♂] 13 | 13 [♂] 9 | 0 [♂] 10 | 23 [♂] 46 | 8 [♂] 25 | 20 [♂] 32 | 12 [♂] 47 | 20 [♂] 10 | 4 [♂] Y38 | 8 [♂] 7 | 6 [♂] 49 | 27 [♂] 34 | 3 [♂] Y45 | F 2 |
| S 3 | 19 8 45 | 16 [♂] 31'54 | 26 [♂] 0 | 12 [♂] 31 | 1 [♂] 23 | 24 [♂] 23 | 8 [♂] 31 | 20 [♂] 39 | 12 [♂] 47 | 20 [♂] 12 | 4 [♂] 38 | 8 [♂] 5 | 6 [♂] 46 | 27 [♂] 41 | 3 [♂] 44 | S 3 |
| S 4 | 19 12 41 | 17 [♂] 29'11 | 7 [♂] II50 | 11 [♂] 55 | 2 [♂] 37 | 25 [♂] 0 | 8 [♂] 37 | 20 [♂] 47 | 12 [♂] 48 | 20 [♂] 15 | 4 [♂] 38 | 8 [♂] 1 | 6 [♂] 43 | 27 [♂] 48 | 3 [♂] 44 | S 4 |
| M 5 | 19 16 38 | 18 [♂] 26'30 | 19 [♂] 46 | 11 [♂] 22 | 3 [♂] 51 | 25 [♂] 37 | 8 [♂] 44 | 20 [♂] 55 | 12 [♂] 48 | 20 [♂] 17 | 4 [♂] 38 | 7 [♂] 55 | 6 [♂] 39 | 27 [♂] 54 | 3 [♂] 44 | M 5 |
| T 6 | 19 20 34 | 19 [♂] 23'49 | 1 [♂] 51 | 10 [♂] 52 | 5 [♂] 4 | 26 [♂] 14 | 8 [♂] 50 | 21 [♂] 2 | 12 [♂] 48 | 20 [♂] 19 | 4 [♂] 37 | 7 [♂] 46 | 6 [♂] 36 | 28 [♂] 1 | 3 [♂] 44 | T 6 |
| W 7 | 19 24 31 | 20 [♂] 21'09 | 14 [♂] 8 | 10 [♂] 27 | 6 [♂] 18 | 26 [♂] 52 | 8 [♂] 56 | 21 [♂] 10 | 12 [♂] 49 | 20 [♂] 21 | 4 [♂] 37 | 7 [♂] 35 | 6 [♂] 33 | 28 [♂] 8 | 3 [♂] 44 | W 7 |
| T 8 | 19 28 27 | 21 [♂] 18'30 | 26 [♂] 36 | 10 [♂] 7 | 7 [♂] 32 | 27 [♂] 29 | 9 [♂] 3 | 21 [♂] 18 | 12 [♂] 49 | 20 [♂] 23 | 4 [♂] 37 | 7 [♂] 23 | 6 [♂] 30 | 28 [♂] 14 | 3 [♂] 43 | T 8 |
| F 9 | 19 32 24 | 22 [♂] 15'51 | 9 [♂] Ω18 | 9 [♂] 51 | 8 [♂] 45 | 28 [♂] 6 | 9 [♂] 10 | 21 [♂] 26 | 12 [♂] 49 | 20 [♂] 26 | 4 [♂] 37 | 7 [♂] 10 | 6 [♂] 27 | 28 [♂] 21 | 3 [♂] 43 | F 9 |
| S 10 | 19 36 20 | 23 [♂] 13'14 | 22 [♂] 11 | 9 [♂] 42 | 9 [♂] 59 | 28 [♂] 44 | 9 [♂] 17 | 21 [♂] 33 | 12 [♂] 49 | 20 [♂] 28 | 4 [♂] 37 | 6 [♂] 59 | 6 [♂] 24 | 28 [♂] 28 | 3 [♂] 42 | S 10 |
| S 11 | 19 40 17 | 24 [♂] 10'37 | 5 [♂] III16 | 9 [♂] D38 | 11 [♂] 13 | 29 [♂] 21 | 9 [♂] 24 | 21 [♂] 41 | 12 [♂] 49 | 20 [♂] 30 | 4 [♂] 36 | 6 [♂] 50 | 6 [♂] 20 | 28 [♂] 34 | 3 [♂] 42 | S 11 |
| M12 | 19 44 14 | 25 [♂] 8'00 | 18 [♂] 33 | 9 [♂] 40 | 12 [♂] 26 | 29 [♂] 59 | 9 [♂] 31 | 21 [♂] 49 | 12 [♂] R49 | 20 [♂] 32 | 4 [♂] 36 | 6 [♂] 43 | 6 [♂] 17 | 28 [♂] 41 | 3 [♂] 41 | M12 |
| T 13 | 19 48 10 | 26 [♂] 5'25 | 2 [♂] 2 | 9 [♂] 48 | 13 [♂] 40 | 0 [♂] III36 | 9 [♂] 38 | 21 [♂] 57 | 12 [♂] 49 | 20 [♂] 35 | 4 [♂] 36 | 6 [♂] 39 | 6 [♂] 14 | 28 [♂] 47 | 3 [♂] 41 | T 13 |
| W14 | 19 52 7 | 27 [♂] 2'50 | 15 [♂] 42 | 10 [♂] 3 | 14 [♂] 54 | 1 [♂] 14 | 9 [♂] 45 | 22 [♂] 4 | 12 [♂] 49 | 20 [♂] 37 | 4 [♂] 35 | 6 [♂] 37 | 6 [♂] 11 | 28 [♂] 54 | 3 [♂] 40 | W14 |
| T 15 | 19 56 3 | 28 [♂] 0'16 | 29 [♂] 35 | 10 [♂] 24 | 16 [♂] 7 | 1 [♂] 51 | 9 [♂] 53 | 22 [♂] 12 | 12 [♂] 49 | 20 [♂] 39 | 4 [♂] 35 | 6 [♂] 37 | 6 [♂] 8 | 29 [♂] 1 | 3 [♂] 39 | T 15 |
| F 16 | 20 0 0 | 28 [♂] 57'42 | 13 [♂] III41 | 10 [♂] 52 | 17 [♂] 21 | 2 [♂] 29 | 10 [♂] 1 | 22 [♂] 20 | 12 [♂] 49 | 20 [♂] 41 | 4 [♂] 35 | 6 [♂] 37 | 6 [♂] 4 | 29 [♂] 7 | 3 [♂] 38 | F 16 |
| S 17 | 20 3 56 | 29 [♂] 55'09 | 27 [♂] 59 | 11 [♂] 27 | 18 [♂] 34 | 3 [♂] 7 | 10 [♂] 8 | 22 [♂] 28 | 12 [♂] 49 | 20 [♂] 43 | 4 [♂] 34 | 6 [♂] 35 | 6 [♂] 1 | 29 [♂] 14 | 3 [♂] 38 | S 17 |
| S 18 | 20 7 53 | 0 [♂] Ω2'38 | 12 [♂] ♂27 | 12 [♂] 7 | 19 [♂] 48 | 3 [♂] 44 | 10 [♂] 16 | 22 [♂] 35 | 12 [♂] 49 | 20 [♂] 46 | 4 [♂] 34 | 6 [♂] 32 | 5 [♂] 58 | 29 [♂] 21 | 3 [♂] 37 | S 18 |
| M19 | 20 11 49 | 1 [♂] 50'07 | 27 [♂] 2 | 12 [♂] 55 | 21 [♂] 2 | 4 [♂] 22 | 10 [♂] 24 | 22 [♂] 43 | 12 [♂] 48 | 20 [♂] 48 | 4 [♂] 34 | 6 [♂] 26 | 5 [♂] 55 | 29 [♂] 27 | 3 [♂] 36 | M19 |
| T 20 | 20 15 46 | 2 [♂] 47'37 | 11 [♂] ♂38 | 13 [♂] 48 | 22 [♂] 15 | 5 [♂] 0 | 10 [♂] 32 | 22 [♂] 51 | 12 [♂] 48 | 20 [♂] 50 | 4 [♂] 33 | 6 [♂] 18 | 5 [♂] 52 | 29 [♂] 34 | 3 [♂] 35 | T 20 |
| W21 | 20 19 43 | 3 [♂] 45'08 | 26 [♂] 7 | 14 [♂] 48 | 23 [♂] 29 | 5 [♂] 38 | 10 [♂] 41 | 22 [♂] 58 | 12 [♂] 48 | 20 [♂] 52 | 4 [♂] 33 | 6 [♂] 7 | 5 [♂] 49 | 29 [♂] 41 | 3 [♂] 34 | W21 |
| T 22 | 20 23 39 | 4 [♂] 42'40 | 10 [♂] 25 | 15 [♂] 54 | 24 [♂] 42 | 6 [♂] 16 | 10 [♂] 49 | 23 [♂] 6 | 12 [♂] 47 | 20 [♂] 54 | 4 [♂] 32 | 5 [♂] 56 | 5 [♂] 45 | 29 [♂] 47 | 3 [♂] 33 | T 22 |
| F 23 | 20 27 36 | 5 [♂] 40'14 | 24 [♂] 23 | 17 [♂] 5 | 25 [♂] 56 | 6 [♂] 53 | 10 [♂] 58 | 23 [♂] 14 | 12 [♂] 47 | 20 [♂] 57 | 4 [♂] 32 | 5 [♂] 44 | 5 [♂] 42 | 29 [♂] 54 | 3 [♂] 32 | F 23 |
| S 24 | 20 31 32 | 6 [♂] 37'48 | 7 [♂] ♂59 | 18 [♂] 23 | 27 [♂] 9 | 7 [♂] 31 | 11 [♂] 6 | 23 [♂] 21 | 12 [♂] 46 | 20 [♂] 59 | 4 [♂] 31 | 5 [♂] 34 | 5 [♂] 39 | 0 [♂] II 1 | 3 [♂] 30 | S 24 |
| S 25 | 20 35 29 | 7 [♂] 35'24 | 21 [♂] 10 | 19 [♂] 45 | 28 [♂] 23 | 8 [♂] 9 | 11 [♂] 15 | 23 [♂] 29 | 12 [♂] 45 | 21 [♂] 1 | 4 [♂] 31 | 5 [♂] 26 | 5 [♂] 36 | 0 [♂] 7 | 3 [♂] 29 | S 25 |
| M26 | 20 39 25 | 8 [♂] 33'02 | 3 [♂] Y58 | 21 [♂] 13 | 29 [♂] 37 | 8 [♂] 47 | 11 [♂] 24 | 23 [♂] 36 | 12 [♂] 45 | 21 [♂] 3 | 4 [♂] 30 | 5 [♂] 21 | 5 [♂] 33 | 0 [♂] 14 | 3 [♂] 28 | M26 |
| T 27 | 20 43 22 | 9 [♂] 30'41 | 16 [♂] 24 | 22 [♂] 46 | 0 [♂] III50 | 9 [♂] 26 | 11 [♂] 33 | 23 [♂] 44 | 12 [♂] 44 | 21 [♂] 5 | 4 [♂] 29 | 5 [♂] 18 | 5 [♂] 30 | 0 [♂] 21 | 3 [♂] 27 | T 27 |
| W28 | 20 47 18 | 10 [♂] 28'22 | 28 [♂] 33 | 24 [♂] 22 | 2 [♂] 4 | 10 [♂] 4 | 11 [♂] 42 | 23 [♂] 51 | 12 [♂] 43 | 21 [♂] 7 | 4 [♂] 29 | 5 [♂] 17 | 5 [♂] 26 | 0 [♂] 27 | 3 [♂] 25 | W28 |
| T 29 | 20 51 15 | 11 [♂] 26'04 | 10 [♂] ♂30 | 26 [♂] 3 | 3 [♂] 17 | 10 [♂] 42 | 11 [♂] 51 | 23 [♂] 59 | 12 [♂] 43 | 21 [♂] 9 | 4 [♂] 28 | 5 [♂] 17 | 5 [♂] 23 | 0 [♂] 34 | 3 [♂] 24 | T 29 |
| F 30 | 20 55 12 | 12 [♂] 23'48 | 22 [♂] 20 | 27 [♂] 48 | 4 [♂] 31 | 11 [♂] 20 | 12 [♂] 0 | 24 [♂] 6 | 12 [♂] 42 | 21 [♂] 12 | 4 [♂] 28 | 5 [♂] 17 | 5 [♂] 20 | 0 [♂] 41 | 3 [♂] 22 | F 30 |
| S 31 | 20 59 8 | 13 [♂] Ω21'34 | 4 [♂] II 8 | 29 [♂] 36 | 5 [♂] III44 | 11 [♂] 58 | 12 [♂] 9 | 24 [♂] 14 | 12 [♂] Y41 | 21 [♂] 14 | 4 [♂] Y27 | 5 [♂] 16 | 5 [♂] 17 | 0 [♂] II47 | 3 [♂] Y21 | S 31 |

Delta T = 18m07s Julian Calendar 1 July 1092 == Greg. Calendar 7 July 1092

AUGUST 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|-----------------------|--------------------|----------------------|-----------------------|---------------------|--------------------|---------------------|--------------------|--------------------|--------------------|-------------------|---------------------|--------------------|------|
| S 1 | 21 3 5 | 14 [♂] Ω19'21 | 16 [♂] II 1 | 1 [♂] Ω26 | 6 [♂] III58 | 12 [♂] III37 | 12 [♂] Ω19 | 24 [♂] 21 | 12 [♂] R40 | 21 [♂] 16 | 4 [♂] R26 | 5 [♂] R12 | 5 [♂] 14 | 0 [♂] II54 | 3 [♂] R19 | S 1 |
| M 2 | 21 7 1 | 15 [♂] 17'11 | 28 [♂] 2 | 3 [♂] 19 | 8 [♂] 11 | 13 [♂] 15 | 12 [♂] 28 | 24 [♂] 29 | 12 [♂] Y39 | 21 [♂] 18 | 4 [♂] Y26 | 5 [♂] 6 | 5 [♂] 10 | 1 [♂] 1 | 3 [♂] Y18 | M 2 |
| T 3 | 21 10 58 | 16 [♂] 15'02 | 10 [♂] 25 | 5 [♂] 14 | 9 [♂] 25 | 13 [♂] 54 | 12 [♂] 38 | 24 [♂] 36 | 12 [♂] 38 | 21 [♂] 20 | 4 [♂] 25 | 4 [♂] 57 | 5 [♂] 7 | 1 [♂] 7 | 3 [♂] 16 | T 3 |
| W 4 | 21 14 54 | 17 [♂] 12'54 | 22 [♂] 42 | 7 [♂] 10 | 10 [♂] 38 | 14 [♂] 32 | 12 [♂] 48 | 24 [♂] 44 | 12 [♂] 37 | 21 [♂] 22 | 4 [♂] 24 | 4 [♂] 46 | 5 [♂] 4 | 1 [♂] 14 | 3 [♂] 14 | W 4 |
| T 5 | 21 18 51 | 18 [♂] 10'48 | 5 [♂] Ω26 | 9 [♂] 8 | 11 [♂] 52 | 15 [♂] 11 | 12 [♂] 58 | 24 [♂] 51 | 12 [♂] 36 | 21 [♂] 24 | 4 [♂] 23 | 4 [♂] 34 | 5 [♂] 1 | 1 [♂] 21 | 3 [♂] 12 | T 5 |
| F 6 | 21 22 48 | 19 [♂] 8'44 | 18 [♂] 26 | 11 [♂] 6 | 13 [♂] 5 | 15 [♂] 49 | 13 [♂] 8 | 24 [♂] 58 | 12 [♂] 35 | 21 [♂] 26 | 4 [♂] 23 | 4 [♂] 22 | 4 [♂] 58 | 1 [♂] 27 | 3 [♂] 11 | F 6 |
| S 7 | 21 26 44 | 20 [♂] 6'42 | 1 [♂] III40 | 13 [♂] 5 | 14 [♂] 18 | 16 [♂] 28 | 13 [♂] 18 | 25 [♂] 6 | 12 [♂] 34 | 21 [♂] 28 | 4 [♂] 22 | 4 [♂] 10 | 4 [♂] 55 | 1 [♂] 34 | 3 [♂] 9 | S 7 |
| S 8 | 21 30 41 | 21 [♂] 4'41 | 15 [♂] 8 | 15 [♂] 4 | 15 [♂] 32 | 17 [♂] 6 | 13 [♂] 28 | 25 [♂] 13 | 12 [♂] 32 | 21 [♂] 30 | 4 [♂] 21 | 4 [♂] 1 | 4 [♂] 51 | 1 [♂] 41 | 3 [♂] 7 | S 8 |
| M 9 | 21 34 37 | 22 [♂] 2'41 | 28 [♂] 47 | 17 [♂] 3 | 16 [♂] 45 | 17 [♂] 45 | 13 [♂] 38 | 25 [♂] 20 | 12 [♂] 31 | 21 [♂] 32 | 4 [♂] 20 | 3 [♂] 54 | 4 [♂] 48 | 1 [♂] 47 | 3 [♂] 5 | M 9 |
| T 10 | 21 38 34 | 23 [♂] 0'43 | 12 [♂] 23 | 19 [♂] 1 | 17 [♂] 59 | 18 [♂] 24 | 13 [♂] 48 | 25 [♂] 27 | 12 [♂] 30 | 21 [♂] 34 | 4 [♂] 20 | 3 [♂] 50 | 4 [♂] 45 | 1 [♂] 54 | 3 [♂] 3 | T 10 |
| W11 | 21 42 30 | 23 [♂] 58'46 | 26 [♂] 29 | 21 [♂] 0 | 19 [♂] 12 | 19 [♂] 3 | 13 [♂] 59 | 25 [♂] 34 | 12 [♂] 28 | 21 [♂] 36 | 4 [♂] 19 | 3 [♂] 48 | 4 [♂] 42 | 2 [♂] 1 | 3 [♂] 1 | W11 |
| T 12 | 21 46 27 | 24 [♂] 56'51 | 10 [♂] III29 | 22 [♂] 57 | 20 [♂] 26 | 19 [♂] 41 | 14 [♂] 9 | 25 [♂] 42 | 12 [♂] 27 | 21 [♂] 38 | 4 [♂] 18 | 3 [♂] D48 | 4 [♂] 39 | 2 [♂] 7 | 2 [♂] 59 | T 12 |
| F 13 | 21 50 23 | 25 [♂] 54'57 | 24 [♂] 34 | 24 [♂] 54 | 21 [♂] 39 | 20 [♂] 20 | 14 [♂] 20 | 25 [♂] 49 | 1 | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1092
geocentric

SEPTEMBER 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------------------|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|-----|
| W 1 | 23 5 18 | 14 ^h 24'32 | 0 ^h 04'49 | 28 ^h 33 | 14 ^h 49 | 2 ^h 48 | 17 ^h 54 | 27 ^h 54 | 11°R52 | 22 ^h 13 | 3°R58 | 2°R29 | 3 ^h 35 | 4 ^h 21 | 2°R12 | W 1 | |
| T 2 | 23 9 14 | 15°23'17 | 13°42 | 0 ^h 9 | 16° 2 | 3°28 | 18° 6 | 28° 1 | 11°Y49 | 22°14 | 3°Y57 | 2 ^h 21 | 3°32 | 4°27 | 2°Y 9 | T 2 | |
| F 3 | 23 13 11 | 16°22'05 | 26°56 | 1°44 | 17°15 | 4° 8 | 18°18 | 28° 7 | 11°47 | 22°16 | 3°56 | 2°13 | 3°29 | 4°34 | 2° 6 | F 3 | |
| S 4 | 23 17 8 | 17°20'54 | 10 ^h 30 | 3°18 | 18°28 | 4°47 | 18°30 | 28°13 | 11°45 | 22°17 | 3°55 | 2° 5 | 3°26 | 4°41 | 2° 4 | S 4 | |
| S 5 | 23 21 4 | 18°19'45 | 24°21 | 4°51 | 19°41 | 5°27 | 18°43 | 28°18 | 11°43 | 22°18 | 3°54 | 1°59 | 3°22 | 4°47 | 2° 1 | S 5 | |
| M 6 | 23 25 1 | 19°18'38 | 8 ^h 25 | 6°23 | 20°54 | 6° 7 | 18°55 | 28°24 | 11°41 | 22°20 | 3°53 | 1°55 | 3°19 | 4°54 | 1°58 | M 6 | |
| T 7 | 23 28 57 | 20°17'34 | 22°39 | 7°54 | 22° 7 | 6°48 | 19° 7 | 28°30 | 11°39 | 22°21 | 3°52 | 1°53 | 3°16 | 5° 1 | 1°56 | T 7 | |
| W 8 | 23 32 54 | 21°16'31 | 6 ^h 57 | 9°24 | 23°20 | 7°28 | 19°19 | 28°36 | 11°36 | 22°23 | 3°50 | 1°D53 | 3°13 | 5° 7 | 1°53 | W 8 | |
| T 9 | 23 36 50 | 22°15'30 | 2°15 | 10°53 | 24°33 | 8° 8 | 19°32 | 28°41 | 11°34 | 22°24 | 3°49 | 1°54 | 3°10 | 5°14 | 1°50 | T 9 | |
| F 10 | 23 40 47 | 23°14'31 | 5 ^h 32 | 12°21 | 25°46 | 8°48 | 19°44 | 28°47 | 11°32 | 22°25 | 3°48 | 1°55 | 3° 7 | 5°21 | 1°47 | F 10 | |
| S 11 | 23 44 43 | 24°13'34 | 19°44 | 13°48 | 26°59 | 9°28 | 19°56 | 28°53 | 11°29 | 22°26 | 3°47 | 1°R56 | 3° 3 | 5°27 | 1°45 | S 11 | |
| S 12 | 23 48 40 | 25°12'38 | 3 ^h 49 | 15°14 | 28°11 | 10° 9 | 20° 9 | 28°58 | 11°27 | 22°28 | 3°46 | 1°56 | 3° 0 | 5°34 | 1°42 | S 12 | |
| M13 | 23 52 37 | 26°11'45 | 17°47 | 16°40 | 29°24 | 10°49 | 20°21 | 29° 3 | 11°25 | 22°29 | 3°45 | 1°54 | 2°57 | 5°41 | 1°39 | M13 | |
| T 14 | 23 56 33 | 27°10'53 | 1 ^h 36 | 18° 4 | 0 ^h 37 | 11°29 | 20°34 | 29° 9 | 11°23 | 22°30 | 3°44 | 1°50 | 2°54 | 5°47 | 1°36 | T 14 | |
| W15 | 0 0 30 | 28°10'03 | 15°14 | 19°27 | 1°50 | 12°10 | 20°46 | 29°14 | 11°20 | 22°31 | 3°42 | 1°46 | 2°51 | 5°54 | 1°33 | W15 | |
| T 16 | 0 4 26 | 29° 9'14 | 28°40 | 20°49 | 3° 2 | 12°50 | 20°59 | 29°19 | 11°18 | 22°32 | 3°41 | 1°40 | 2°47 | 6° 1 | 1°31 | T 16 | |
| F 17 | 0 8 23 | 0 ^h 8'28 | 11 ^h 53 | 22°11 | 4°15 | 13°31 | 21°12 | 29°24 | 11°15 | 22°33 | 3°40 | 1°35 | 2°44 | 6° 7 | 1°28 | F 17 | |
| S 18 | 0 12 19 | 1° 7'43 | 24°52 | 23°31 | 5°27 | 14°12 | 21°24 | 29°29 | 11°13 | 22°35 | 3°39 | 1°31 | 2°41 | 6°14 | 1°25 | S 18 | |
| S 19 | 0 16 16 | 2° 7'01 | 7 ^h 35 | 24°49 | 6°40 | 14°52 | 21°37 | 29°34 | 11°11 | 22°36 | 3°38 | 1°27 | 2°38 | 6°21 | 1°22 | S 19 | |
| M20 | 0 20 12 | 3° 6'21 | 20° 4 | 26° 7 | 7°53 | 15°33 | 21°50 | 29°39 | 11° 8 | 22°37 | 3°37 | 1°25 | 2°35 | 6°27 | 1°19 | M20 | |
| T 21 | 0 24 9 | 4° 5'43 | 2 ^h 19 | 27°23 | 9° 5 | 16°14 | 22° 3 | 29°43 | 11° 6 | 22°38 | 3°35 | 1°D25 | 2°32 | 6°34 | 1°17 | T 21 | |
| W22 | 0 28 5 | 5° 5'07 | 14°23 | 28°38 | 10°18 | 16°54 | 22°15 | 29°48 | 11° 3 | 22°38 | 3°34 | 1°25 | 2°28 | 6°41 | 1°14 | W22 | |
| T 23 | 0 32 2 | 6° 4'33 | 26°18 | 29°51 | 11°30 | 17°35 | 22°28 | 29°53 | 11° 1 | 22°39 | 3°33 | 1°27 | 2°25 | 6°47 | 1°11 | T 23 | |
| F 24 | 0 35 59 | 7° 4'02 | 8 ^h 11 | 1 ^h 8 | 12°42 | 18°16 | 22°41 | 29°57 | 10°58 | 22°40 | 3°32 | 1°28 | 2°22 | 6°54 | 1° 8 | F 24 | |
| S 25 | 0 39 55 | 8° 3'33 | 19°57 | 2°12 | 13°55 | 18°57 | 22°54 | 0 ^h 2 | 10°56 | 22°41 | 3°31 | 1°30 | 2°19 | 7° 1 | 1° 6 | S 25 | |
| S 26 | 0 43 52 | 9° 3'07 | 1 ^h 50 | 3°20 | 15° 7 | 19°38 | 23° 7 | 0° 6 | 10°54 | 22°42 | 3°30 | 1°31 | 2°16 | 7° 7 | 1° 3 | S 26 | |
| M27 | 0 47 48 | 10° 2'43 | 13°52 | 4°26 | 16°20 | 20°19 | 23°20 | 0°10 | 10°51 | 22°43 | 3°29 | 1°R31 | 2°13 | 7°14 | 1° 0 | M27 | |
| T 28 | 0 51 45 | 11° 2'21 | 26° 7 | 5°30 | 17°32 | 21° 0 | 23°33 | 0°14 | 10°49 | 22°43 | 3°27 | 1°30 | 2° 9 | 7°21 | 0°57 | T 28 | |
| W29 | 0 55 41 | 12° 2'01 | 8 ^h 04 | 6°31 | 18°44 | 21°42 | 23°46 | 0°18 | 10°46 | 22°44 | 3°26 | 1°29 | 2° 6 | 7°27 | 0°55 | W29 | |
| T 30 | 0 59 38 | 13 ^h 1'44 | 21 ^h 36 | 7 ^h 29 | 19 ^h 56 | 22 ^h 23 | 23 ^h 59 | 0 ^h 22 | 10 ^h 44 | 22 ^h 45 | 3 ^h 25 | 1 ^h 26 | 2 ^h 3 | 7 ^h 34 | 0 ^h 52 | T 30 | |

Delta T = 18m06s Julian Calendar 1 Sept. 1092 == Greg. Calendar 7 Sept. 1092

OCTOBER 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|-----------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|-------------------|--------------------|-------------------|-------------------|-------------------|-------------------|--------------------|------|-----|
| F 1 | 1 3 34 | 14 ^h 12'29 | 4 ^h 54 | 8 ^h 24 | 21 ^h 9 | 23 ^h 4 | 24 ^h 12 | 0 ^h 26 | 10°R41 | 22 ^h 45 | 3°R24 | 1°R24 | 2 ^h 0 | 7 ^h 41 | 0°R49 | F 1 | |
| S 2 | 1 7 31 | 15° 1'16 | 18°37 | 9°16 | 22°21 | 23°45 | 24°25 | 0°30 | 10°Y39 | 22°46 | 3°Y23 | 1 ^h 21 | 1°57 | 7°47 | 0°Y46 | S 2 | |
| S 3 | 1 11 28 | 16° 1'05 | 2 ^h 43 | 10° 5 | 23°33 | 24°27 | 24°38 | 0°34 | 10°36 | 22°47 | 3°22 | 1°20 | 1°53 | 7°54 | 0°44 | S 3 | |
| M 4 | 1 15 24 | 17° 0'57 | 17° 8 | 10°49 | 24°45 | 25° 8 | 24°51 | 0°37 | 10°34 | 22°47 | 3°21 | 1°18 | 1°50 | 8° 1 | 0°41 | M 4 | |
| T 5 | 1 19 21 | 18° 0'50 | 1 ^h 47 | 11°28 | 25°57 | 25°50 | 25° 4 | 0°41 | 10°32 | 22°48 | 3°19 | 1°D18 | 1°47 | 8° 7 | 0°38 | T 5 | |
| W 6 | 1 23 17 | 19° 0'45 | 16°32 | 12° 3 | 27° 9 | 26°31 | 25°18 | 0°44 | 10°29 | 22°48 | 3°18 | 1°18 | 1°44 | 8°14 | 0°36 | W 6 | |
| T 7 | 1 27 14 | 20° 0'43 | 1 ^h 17 | 12°32 | 28°21 | 27°13 | 25°31 | 0°47 | 10°27 | 22°49 | 3°17 | 1°19 | 1°41 | 8°21 | 0°33 | T 7 | |
| F 8 | 1 31 10 | 21° 0'42 | 15°56 | 12°55 | 29°33 | 27°55 | 25°44 | 0°51 | 10°24 | 22°49 | 3°16 | 1°20 | 1°38 | 8°27 | 0°31 | F 8 | |
| S 9 | 1 35 7 | 22° 0'42 | 0 ^h 23 | 13°12 | 0 ^h 45 | 28°36 | 25°57 | 0°54 | 10°22 | 22°49 | 3°15 | 1°21 | 1°34 | 8°34 | 0°28 | S 9 | |
| S 10 | 1 39 3 | 23° 0'45 | 14°35 | 13°21 | 1°57 | 29°18 | 26°10 | 0°57 | 10°20 | 22°50 | 3°14 | 1°21 | 1°31 | 8°41 | 0°25 | S 10 | |
| M11 | 1 43 0 | 24° 0'49 | 28°30 | 13°R22 | 3° 9 | 29°59 | 26°23 | 1° 0 | 10°17 | 22°50 | 3°13 | 1°R21 | 1°28 | 8°47 | 0°23 | M11 | |
| T 12 | 1 46 57 | 25° 0'54 | 12 ^h 37 | 13°15 | 4°20 | 0 ^h 42 | 26°37 | 1° 2 | 10°15 | 22°50 | 3°12 | 1°21 | 1°25 | 8°54 | 0°20 | T 12 | |
| W13 | 1 50 53 | 26° 1'01 | 25°28 | 12°58 | 5°32 | 1°23 | 26°50 | 1° 5 | 10°12 | 22°51 | 3°11 | 1°21 | 1°22 | 9° 1 | 0°18 | W13 | |
| T 14 | 1 54 50 | 27° 1'10 | 8 ^h 33 | 12°32 | 6°44 | 2° 5 | 27° 3 | 1° 8 | 10°10 | 22°51 | 3°10 | 1°20 | 1°18 | 9° 7 | 0°16 | T 14 | |
| F 15 | 1 58 46 | 28° 1'20 | 21°23 | 11°57 | 7°55 | 2°47 | 27°16 | 1°10 | 10° 8 | 22°51 | 3° 9 | 1°20 | 1°15 | 9°14 | 0°13 | F 15 | |
| S 16 | 2 2 43 | 29° 1'32 | 4 ^h Y 0 | 11°11 | 9° 7 | 3°29 | 27°29 | 1°13 | 10° 6 | 22°51 | 3° 8 | 1°19 | 1°12 | 9°21 | 0°11 | S 16 | |
| S 17 | 2 6 39 | 0 ^h 1'46 | 16°25 | 10°17 | 10°18 | 4°12 | 27°42 | 1°15 | 10° 3 | 22°51 | 3° 6 | 1°19 | 1° 9 | 9°27 | 0° 8 | S 17 | |
| M18 | 2 10 36 | 1° 2'01 | 28°39 | 9°14 | 11°30 | 4°54 | 27°56 | 1°17 | 10° 1 | 22°51 | 3° 5 | 1°19 | 1° 6 | 9°34 | 0° 6 | M18 | |
| T 19 | 2 14 32 | 2° 2'18 | 10 ^h 44 | 8° 4 | 12°41 | 5°36 | 28° 9 | 1°19 | 9°59 | 22°51 | 3° 4 | 1°19 | 1° 3 | 9°41 | 0° 4 | T 19 | |
| W20 | 2 18 29 | 3° 2'37 | 22°41 | 6°49 | 13°52 | 6°18 | 28°22 | 1°21 | 9°57 | 22°R51 | 3° 3 | 1°19 | 0°59 | 9°47 | 0° 2 | W20 | |
| T 21 | 2 22 26 | 4° 2'58 | 4 ^h 34 | 5°30 | 15° 4 | 7° 0 | 28°35 | 1°23 | 9°54 | 22°51 | 3° 3 | 1°19 | 0°56 | 9°54 | 29 ^h 59 | T 21 | |
| F 22 | 2 26 22 | 5° 3'21 | 16°23 | 4°10 | 16°15 | 7°43 | 28°48 | 1°25 | 9°52 | 22°51 | 3° 2 | 1°18 | 0°53 | 10° 1 | 29°57 | F 22 | |
| S 23 | 2 30 19 | 6° 3'46 | 28°12 | 2°51 | 17°26 | 8°25 | 29° 1 | 1°26 | 9°50 | 22°51 | 3° 1 | 1°18 | 0°50 | 10° 7 | 29°55 | S 23 | |
| S 24 | 2 34 15 | 7° 4'12 | 10 ^h 5 | 1°37 | 18°37 | 9° 8 | 29°15 | 1°28 | 9°48 | 22°51 | 3° 0 | 1°17 | 0°47 | 10°14 | 29°53 | S 24 | |
| M25 | 2 38 12 | 8° 4'41 | 22° 6 | 0°30 | 19°48 | 9°50 | 29°28 | 1°29 | 9°46 | 22°51 | 2°59 | 1°16 | 0°44 | 10°21 | 29°51 | M25 | |
| T 26 | 2 42 8 | 9° 5'11 | 4 ^h 18 | 29 ^h 31 | 20°59 | 10°33 | 29°41 | 1°31 | 9°44 | 22°51 | 2°58 | 1°D16 | 0°40 | 10°27 | 29°49 | T 26 | |
| W27 | 2 46 5 | 10° 5'43 | 16°46 | 28°42 | 22°10 | 11°15 | 29°54 | 1°32 | 9°42 | 22°51 | 2°57 | 1°16 | 0°37 | 10°34 | 29°47 | W27 | |
| T 28 | 2 50 1 | 11° 6'17 | 29°35 | 28° 4 | 23°20 | 11°58 | 0 ^h 7 | 1°33 | 9°40 | 22°50 | 2°56 | 1°17 | 0°34 | 10°41 | 29°45 | T 28 | |
| F 29 | 2 53 58 | 12° 6'53 | 12 ^h 49 | 27°37 | 24°31 | 12°41 | 0°20 | 1°34 | 9°38 | 22°50 | 2°55 | 1°17 | 0°31 | 10°47 | 29°43 | F 29 | |
| S 30 | 2 57 55 | 13° 7'31 | 26°28 | 27°23 | 25°42 | 13°23 | 0°33 | 1°35 | 9°36 | 22°50 | 2°54 | 1°18 | 0°28 | 10°54 | 29°41 | S 30 | |
| S 31 | 3 1 51 | 14 ^h 8'10 | 10 ^h 35 | 27°D20 | 26 ^h 52 | 14 ^h 6 | 0 ^h 46 | 1 ^h 36 | 9 ^h 34 | 22 ^h 49 | 2 ^h 53 | 1 ^h 19 | 0 ^h 24 | 11 ^h 1 | 29 ^h 39 | S 31 | |

Delta T = 18m06s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1092
geocentric

NOVEMBER 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | Day |
|------|---------|----------|--------|--------|-------|--------|-------|-------|-------|--------|-------|-------|--------|----------|--------|------|---|---|---|---|-----|
| M 1 | 3 5 48 | 15♉ 8'51 | 25♊ 6 | 27♋ 27 | 28♌ 2 | 14♍ 49 | 0♎ 59 | 1♏ 36 | 9°R32 | 22°R49 | 2°R53 | 1°R20 | 0♊ 21 | 11♋ 8 | 29°R38 | M 1 | | | | | |
| T 2 | 3 9 44 | 16° 9'34 | 9♉ 58 | 27°45 | 29°13 | 15°32 | 1°12 | 1°37 | 9°Y30 | 22°G48 | 2°Y52 | 1♊ 20 | 0°18 | 11°14 | 29°K36 | T 2 | | | | | |
| W 3 | 3 13 41 | 17°10'18 | 25° 3 | 28°13 | 0♊ 23 | 16°15 | 1°25 | 1°37 | 9°29 | 22°48 | 2°51 | 1°19 | 0°15 | 11°21 | 29°34 | W 3 | | | | | |
| T 4 | 3 17 37 | 18°11'03 | 10♌ 12 | 28°48 | 1°33 | 16°58 | 1°38 | 1°38 | 9°27 | 22°47 | 2°50 | 1°17 | 0°12 | 11°28 | 29°33 | T 4 | | | | | |
| F 5 | 3 21 34 | 19°11'50 | 25°16 | 29°31 | 2°43 | 17°41 | 1°51 | 1°38 | 9°25 | 22°47 | 2°50 | 1°15 | 0° 9 | 11°34 | 29°31 | F 5 | | | | | |
| S 6 | 3 25 30 | 20°12'38 | 10♋ 5 | 0♎ 21 | 3°53 | 18°24 | 2° 4 | 1°R38 | 9°23 | 22°46 | 2°49 | 1°13 | 0° 5 | 11°41 | 29°29 | S 6 | | | | | |
| S 7 | 3 29 27 | 21°13'27 | 24°33 | 1°17 | 5° 3 | 19° 7 | 2°17 | 1°38 | 9°22 | 22°46 | 2°48 | 1°10 | 0° 2 | 11°48 | 29°28 | S 7 | | | | | |
| M 8 | 3 33 24 | 22°14'17 | 8♌ 38 | 2°18 | 6°13 | 19°51 | 2°30 | 1°38 | 9°20 | 22°45 | 2°47 | 1° 9 | 29°Y59 | 11°54 | 29°27 | M 8 | | | | | |
| T 9 | 3 37 20 | 23°15'08 | 22°17 | 3°23 | 7°22 | 20°34 | 2°43 | 1°37 | 9°19 | 22°44 | 2°47 | 1°D 8 | 29°56 | 12° 1 | 29°25 | T 9 | | | | | |
| W10 | 3 41 17 | 24°16'00 | 5♌ 32 | 4°32 | 8°32 | 21°17 | 2°55 | 1°37 | 9°17 | 22°44 | 2°46 | 1° 9 | 29°53 | 12° 8 | 29°24 | W10 | | | | | |
| T 11 | 3 45 13 | 25°16'53 | 18°26 | 5°44 | 9°41 | 22° 1 | 3° 8 | 1°37 | 9°15 | 22°43 | 2°45 | 1°10 | 29°50 | 12°14 | 29°23 | T 11 | | | | | |
| F 12 | 3 49 10 | 26°17'46 | 1°Y 2 | 6°59 | 10°51 | 22°44 | 3°21 | 1°36 | 9°14 | 22°42 | 2°45 | 1°12 | 29°46 | 12°21 | 29°21 | F 12 | | | | | |
| S 13 | 3 53 6 | 27°18'40 | 13°23 | 8°17 | 12° 0 | 23°27 | 3°33 | 1°35 | 9°13 | 22°42 | 2°44 | 1°13 | 29°43 | 12°28 | 29°20 | S 13 | | | | | |
| S 14 | 3 57 3 | 28°19'36 | 25°32 | 9°37 | 13° 9 | 24°11 | 3°46 | 1°34 | 9°11 | 22°41 | 2°44 | 1°R14 | 29°40 | 12°34 | 29°19 | S 14 | | | | | |
| M15 | 4 0 59 | 29°20'32 | 7♋ 34 | 10°58 | 14°18 | 24°54 | 3°59 | 1°33 | 9°10 | 22°40 | 2°43 | 1°14 | 29°37 | 12°41 | 29°18 | M15 | | | | | |
| T 16 | 4 4 56 | 0♌ 21'29 | 19°29 | 12°21 | 15°26 | 25°38 | 4°11 | 1°32 | 9° 9 | 22°39 | 2°42 | 1°13 | 29°34 | 12°48 | 29°17 | T 16 | | | | | |
| W17 | 4 8 53 | 1°22'27 | 1♉ 21 | 13°46 | 16°35 | 26°22 | 4°24 | 1°31 | 9° 7 | 22°38 | 2°42 | 1°10 | 29°30 | 12°54 | 29°16 | W17 | | | | | |
| T 18 | 4 12 49 | 2°23'26 | 13°11 | 15°11 | 17°43 | 27° 5 | 4°36 | 1°30 | 9° 6 | 22°37 | 2°41 | 1° 5 | 29°27 | 13° 1 | 29°15 | T 18 | | | | | |
| F 19 | 4 16 46 | 3°24'27 | 25° 2 | 16°38 | 18°51 | 27°49 | 4°48 | 1°29 | 9° 5 | 22°36 | 2°41 | 0°59 | 29°24 | 13° 8 | 29°14 | F 19 | | | | | |
| S 20 | 4 20 42 | 4°25'28 | 6♋ 54 | 18° 5 | 19°59 | 28°33 | 5° 1 | 1°27 | 9° 4 | 22°35 | 2°40 | 0°53 | 29°21 | 13°14 | 29°13 | S 20 | | | | | |
| S 21 | 4 24 39 | 5°26'30 | 18°50 | 19°33 | 21° 7 | 29°17 | 5°13 | 1°26 | 9° 3 | 22°34 | 2°40 | 0°46 | 29°18 | 13°21 | 29°13 | S 21 | | | | | |
| M22 | 4 28 35 | 6°27'33 | 0♊ 53 | 21° 2 | 22°15 | 0♌ 1 | 5°25 | 1°24 | 9° 2 | 22°33 | 2°40 | 0°41 | 29°15 | 13°28 | 29°12 | M22 | | | | | |
| T 23 | 4 32 32 | 7°28'37 | 13° 5 | 22°31 | 23°23 | 0°45 | 5°38 | 1°22 | 9° 1 | 22°32 | 2°39 | 0°36 | 29°11 | 13°35 | 29°11 | T 23 | | | | | |
| W24 | 4 36 29 | 8°29'42 | 25°31 | 24° 1 | 24°30 | 1°29 | 5°50 | 1°20 | 9° 0 | 22°31 | 2°39 | 0°34 | 29° 8 | 13°41 | 29°11 | W24 | | | | | |
| T 25 | 4 40 25 | 9°30'48 | 8♉ 14 | 25°31 | 25°37 | 2°13 | 6° 2 | 1°18 | 8°59 | 22°30 | 2°38 | 0°D33 | 29° 5 | 13°48 | 29°10 | T 25 | | | | | |
| F 26 | 4 44 22 | 10°31'55 | 21°18 | 27° 2 | 26°44 | 2°57 | 6°14 | 1°16 | 8°58 | 22°29 | 2°38 | 0°33 | 29° 2 | 13°55 | 29°10 | F 26 | | | | | |
| S 27 | 4 48 18 | 11°33'02 | 4♌ 46 | 28°32 | 27°51 | 3°41 | 6°26 | 1°14 | 8°58 | 22°28 | 2°38 | 0°34 | 28°59 | 14° 1 | 29° 9 | S 27 | | | | | |
| S 28 | 4 52 15 | 12°34'11 | 18°41 | 0♌ 3 | 28°57 | 4°25 | 6°38 | 1°11 | 8°57 | 22°26 | 2°37 | 0°36 | 28°56 | 14° 8 | 29° 9 | S 28 | | | | | |
| M29 | 4 56 11 | 13°35'21 | 3♉ 4 | 1°35 | 0♌ 4 | 5° 9 | 6°50 | 1° 9 | 8°56 | 22°25 | 2°37 | 0°R36 | 28°52 | 14°15 | 29° 8 | M29 | | | | | |
| T 30 | 5 0 8 | 14°36'31 | 17♉ 51 | 3♌ 6 | 1♌ 10 | 5♌ 54 | 7♉ 1 | 1° 7 | 8°Y56 | 22°G24 | 2°Y37 | 0♊ 35 | 28°Y49 | 14°II 21 | 29°K 8 | T 30 | | | | | |

Delta T = 18m06s Julian Calendar 1 Nov. 1092 == Greg. Calendar 7 Nov. 1092

DECEMBER 1092 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | Day |
|------|---------|-----------|---------|--------|-------|-------|--------|--------|-------|--------|-------|--------|--------|----------|---------|------|---|---|---|---|-----|
| W 1 | 5 4 4 | 15♌ 37'42 | 2♌ 58 | 4♌ 38 | 2♌ 16 | 6♌ 38 | 7♉ 13 | 1°R 4 | 8°R55 | 22°R23 | 2°R37 | 0°R32 | 28°Y46 | 14°II 28 | 29°R 8 | W 1 | | | | | |
| T 2 | 5 8 1 | 16°38'54 | 18°15 | 6°10 | 3°21 | 7°22 | 7°25 | 1° 1 | 8°Y54 | 22°G21 | 2°Y36 | 0♊ 26 | 28°43 | 14°35 | 29°K 8 | T 2 | | | | | |
| F 3 | 5 11 58 | 17°40'06 | 3♋ 33 | 7°43 | 4°27 | 8° 7 | 7°36 | 0°58 | 8°54 | 22°20 | 2°36 | 0°19 | 28°40 | 14°41 | 29° 8 | F 3 | | | | | |
| S 4 | 5 15 54 | 18°41'18 | 18°39 | 9°15 | 5°32 | 8°51 | 7°48 | 0°56 | 8°54 | 22°19 | 2°36 | 0°11 | 28°36 | 14°48 | 29°D 8 | S 4 | | | | | |
| S 5 | 5 19 51 | 19°42'30 | 3♌ 25 | 10°48 | 6°37 | 9°36 | 7°59 | 0°53 | 8°53 | 22°17 | 2°36 | 0° 4 | 28°33 | 14°55 | 29° 8 | S 5 | | | | | |
| M 6 | 5 23 47 | 20°43'43 | 17°44 | 12°21 | 7°41 | 10°20 | 8°11 | 0°49 | 8°53 | 22°16 | 2°36 | 29°Y57 | 28°30 | 15° 1 | 29° 8 | M 6 | | | | | |
| T 7 | 5 27 44 | 21°44'55 | 1♌ 34 | 13°54 | 8°46 | 11° 5 | 8°22 | 0°46 | 8°53 | 22°15 | 2°36 | 29°53 | 28°27 | 15° 8 | 29° 8 | T 7 | | | | | |
| W 8 | 5 31 40 | 22°46'07 | 14°54 | 15°28 | 9°50 | 11°50 | 8°33 | 0°43 | 8°52 | 22°13 | 2°36 | 29°51 | 28°24 | 15°15 | 29° 8 | W 8 | | | | | |
| T 9 | 5 35 37 | 23°47'19 | 27°48 | 17° 2 | 10°53 | 12°34 | 8°44 | 0°40 | 8°52 | 22°12 | 2°36 | 29°D51 | 28°21 | 15°22 | 29° 9 | T 9 | | | | | |
| F 10 | 5 39 33 | 24°48'31 | 10°Y 20 | 18°36 | 11°57 | 13°19 | 8°55 | 0°36 | 8°52 | 22°10 | 2°36 | 29°52 | 28°17 | 15°28 | 29° 9 | F 10 | | | | | |
| S 11 | 5 43 30 | 25°49'43 | 22°34 | 20°10 | 13° 0 | 14° 4 | 9° 6 | 0°33 | 8°52 | 22° 9 | 2°D36 | 29°53 | 28°14 | 15°35 | 29° 9 | S 11 | | | | | |
| S 12 | 5 47 27 | 26°50'54 | 4♋ 36 | 21°45 | 14° 2 | 14°49 | 9°17 | 0°29 | 8°D52 | 22° 7 | 2°36 | 29°R53 | 28°11 | 15°42 | 29°10 | S 12 | | | | | |
| M13 | 5 51 23 | 27°52'06 | 16°30 | 23°20 | 15° 4 | 15°34 | 9°28 | 0°25 | 8°52 | 22° 6 | 2°36 | 29°51 | 28° 8 | 15°48 | 29°10 | M13 | | | | | |
| T 14 | 5 55 20 | 28°53'17 | 28°20 | 24°55 | 16° 6 | 16°19 | 9°39 | 0°22 | 8°52 | 22° 4 | 2°36 | 29°47 | 28° 5 | 15°55 | 29°11 | T 14 | | | | | |
| W15 | 5 59 16 | 29°54'28 | 10♉ 9 | 26°31 | 17° 8 | 17° 3 | 9°50 | 0°18 | 8°52 | 22° 3 | 2°36 | 29°40 | 28° 2 | 16° 2 | 29°11 | W15 | | | | | |
| T 16 | 6 3 13 | 0♊ 55'39 | 21°59 | 28° 7 | 18° 9 | 17°48 | 10° 0 | 0°14 | 8°53 | 22° 1 | 2°36 | 29°31 | 27°58 | 16° 8 | 29°12 | T 16 | | | | | |
| F 17 | 6 7 9 | 1°56'50 | 3♋ 53 | 29°43 | 19°10 | 18°33 | 10°11 | 0°10 | 8°53 | 22° 0 | 2°36 | 29°19 | 27°55 | 16°15 | 29°13 | F 17 | | | | | |
| S 18 | 6 11 6 | 2°58'00 | 15°51 | 1°Z 20 | 20°10 | 19°19 | 10°21 | 0° 6 | 8°53 | 21°58 | 2°36 | 29° 7 | 27°52 | 16°22 | 29°14 | S 18 | | | | | |
| S 19 | 6 15 3 | 3°59'10 | 27°56 | 2°57 | 21°10 | 20° 4 | 10°31 | 0° 2 | 8°53 | 21°57 | 2°36 | 28°54 | 27°49 | 16°28 | 29°14 | S 19 | | | | | |
| M20 | 6 18 59 | 5° 0'21 | 10♊ 7 | 4°35 | 22° 9 | 20°49 | 10°41 | 29°G58 | 8°54 | 21°55 | 2°37 | 28°42 | 27°46 | 16°35 | 29°15 | M20 | | | | | |
| T 21 | 6 22 56 | 6° 1'31 | 22°27 | 6°13 | 23° 8 | 21°34 | 10°51 | 29°53 | 8°54 | 21°53 | 2°37 | 28°32 | 27°42 | 16°42 | 29°16 | T 21 | | | | | |
| W22 | 6 26 52 | 7° 2'40 | 4♉ 58 | 7°51 | 24° 6 | 22°19 | 11° 1 | 29°49 | 8°55 | 21°52 | 2°37 | 28°25 | 27°39 | 16°48 | 29°17 | W22 | | | | | |
| T 23 | 6 30 49 | 8° 3'50 | 17°43 | 9°30 | 25° 4 | 23° 4 | 11°11 | 29°45 | 8°55 | 21°50 | 2°37 | 28°20 | 27°36 | 16°55 | 29°18 | T 23 | | | | | |
| F 24 | 6 34 45 | 9° 5'00 | 0♌ 43 | 11°10 | 26° 1 | 23°50 | 11°21 | 29°40 | 8°56 | 21°48 | 2°38 | 28°19 | 27°33 | 17° 2 | 29°19 | F 24 | | | | | |
| S 25 | 6 38 42 | 10° 6'09 | 14° 3 | 12°50 | 26°58 | 24°35 | 11°31 | 29°36 | 8°57 | 21°47 | 2°38 | 28°D18 | 27°30 | 17° 9 | 29°21 | S 25 | | | | | |
| S 26 | 6 42 38 | 11° 7'18 | 27°45 | 14°30 | 27°54 | 25°21 | 11°40 | 29°32 | 8°57 | 21°45 | 2°38 | 28°R19 | 27°27 | 17°15 | 29°22 | S 26 | | | | | |
| M27 | 6 46 35 | 12° 8'27 | 11♉ 51 | 16°11 | 28°50 | 26° 6 | 11°50 | 29°27 | 8°58 | 21°43 | 2°39 | 28°18 | 27°23 | 17°22 | 29°23 | M27 | | | | | |
| T 28 | 6 50 32 | 13° 9'36 | 26°21 | 17°52 | 29°45 | 26°51 | 11°59 | 29°22 | 8°59 | 21°42 | 2°39 | 28°15 | 27°20 | 17°29 | 29°24 | T 28 | | | | | |
| W29 | 6 54 28 | 14°10'44 | 11♌ 12 | 19°34 | 0♌ 39 | 27°37 | 12° 8 | 29°18 | 9° 0 | 21°40 | 2°39 | 28°10 | 27°17 | 17°35 | 29°26 | W29 | | | | | |
| T 30 | 6 58 25 | 15°11'52 | 26°18 | 21°16 | 1°33 | 28°23 | 12°18 | 29°13 | 9° 1 | 21°38 | 2°40 | 28° 2 | 27°14 | 17°42 | 29°27 | T 30 | | | | | |
| F 31 | 7 2 21 | 16°13'00 | 11♋ 30 | 22♋ 59 | 2♌ 26 | 29♌ 8 | 12♉ 27 | 29°G 8 | 9°Y 2 | 21°G37 | 2°Y40 | 27°Y51 | 27°Y11 | 17°II 49 | 29°K 29 | F 31 | | | | | |

Delta T = 18m05s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1093
geocentric

JANUARY 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|---------|----------|-------|--------|--------|-------|--------|--------|------|--------|------|--------|--------|--------|-------|------|---|-----|
| S 1 | 7 6 18 | 17♁14'07 | 26♁36 | 24♁41 | 3♁18 | 29♁54 | 12♁35 | 29°R 4 | 9♁ 3 | 21°R35 | 2♁41 | 27°R39 | 27♁ 8 | 17♁55 | 29♁30 | S 1 | | |
| S 2 | 7 10 14 | 18°15'13 | 11♁27 | 26°25 | 4° 9 | 0♁39 | 12°44 | 28♁59 | 9° 4 | 21♁33 | 2°41 | 27♁28 | 27° 4 | 18° 2 | 29°32 | S 2 | | |
| M 3 | 7 14 11 | 19°16'18 | 25°55 | 28° 8 | 5° 0 | 1°25 | 12°53 | 28°54 | 9° 5 | 21°32 | 2°42 | 27°18 | 27° 1 | 18° 9 | 29°33 | M 3 | | |
| T 4 | 7 18 7 | 20°17'22 | 9♁53 | 29°52 | 5°50 | 2°11 | 13° 1 | 28°49 | 9° 6 | 21°30 | 2°42 | 27°10 | 26°58 | 18°15 | 29°35 | T 4 | | |
| W 5 | 7 22 4 | 21°18'24 | 23°22 | 1♁35 | 6°39 | 2°57 | 13°10 | 28°44 | 9° 7 | 21°28 | 2°43 | 27° 5 | 26°55 | 18°22 | 29°37 | W 5 | | |
| T 6 | 7 26 1 | 22°19'26 | 6♁22 | 3°19 | 7°27 | 3°42 | 13°18 | 28°40 | 9° 9 | 21°27 | 2°44 | 27° 3 | 26°52 | 18°29 | 29°39 | T 6 | | |
| F 7 | 7 29 57 | 23°20'26 | 18°58 | 5° 2 | 8°14 | 4°28 | 13°26 | 28°35 | 9°10 | 21°25 | 2°44 | 27° 2 | 26°48 | 18°36 | 29°41 | F 7 | | |
| S 8 | 7 33 54 | 24°21'25 | 1♁13 | 6°45 | 9° 1 | 5°14 | 13°34 | 28°30 | 9°11 | 21°23 | 2°45 | 27° 2 | 26°45 | 18°42 | 29°42 | S 8 | | |
| S 9 | 7 37 50 | 25°22'23 | 13°15 | 8°27 | 9°46 | 6° 0 | 13°42 | 28°25 | 9°13 | 21°22 | 2°45 | 27° 1 | 26°42 | 18°49 | 29°44 | S 9 | | |
| M10 | 7 41 47 | 26°23'20 | 25° 7 | 10° 8 | 10°30 | 6°46 | 13°50 | 28°20 | 9°14 | 21°20 | 2°46 | 26°59 | 26°39 | 18°56 | 29°46 | M10 | | |
| T 11 | 7 45 43 | 27°24'15 | 6♁56 | 11°48 | 11°13 | 7°32 | 13°58 | 28°15 | 9°16 | 21°18 | 2°47 | 26°54 | 26°36 | 19° 2 | 29°48 | T 11 | | |
| W12 | 7 49 40 | 28°25'10 | 18°45 | 13°27 | 11°55 | 8°18 | 14° 5 | 28°10 | 9°17 | 21°16 | 2°47 | 26°46 | 26°33 | 19° 9 | 29°50 | W12 | | |
| T 13 | 7 53 36 | 29°26'02 | 0♁37 | 15° 3 | 12°36 | 9° 4 | 14°12 | 28° 5 | 9°19 | 21°15 | 2°48 | 26°36 | 26°29 | 19°16 | 29°53 | T 13 | | |
| F 14 | 7 57 33 | 0♁26'54 | 12°36 | 16°38 | 13°16 | 9°50 | 14°20 | 28° 0 | 9°21 | 21°13 | 2°49 | 26°22 | 26°26 | 19°22 | 29°55 | F 14 | | |
| S 15 | 8 1 30 | 1°27'44 | 24°43 | 18° 9 | 13°54 | 10°36 | 14°27 | 27°56 | 9°22 | 21°11 | 2°50 | 26° 8 | 26°23 | 19°29 | 29°57 | S 15 | | |
| S 16 | 8 5 26 | 2°28'33 | 6♁59 | 19°37 | 14°31 | 11°22 | 14°34 | 27°51 | 9°24 | 21°10 | 2°51 | 25°53 | 26°20 | 19°36 | 29°59 | S 16 | | |
| M17 | 8 9 23 | 3°29'21 | 19°25 | 21° 1 | 15° 7 | 12° 8 | 14°40 | 27°46 | 9°26 | 21° 8 | 2°51 | 25°40 | 26°17 | 19°43 | 0♁ 2 | M17 | | |
| T 18 | 8 13 19 | 4°30'08 | 2♁ 1 | 22°20 | 15°41 | 12°54 | 14°47 | 27°41 | 9°28 | 21° 7 | 2°52 | 25°28 | 26°14 | 19°49 | 0° 4 | T 18 | | |
| W19 | 8 17 16 | 5°30'53 | 14°46 | 23°34 | 16°14 | 13°40 | 14°53 | 27°36 | 9°30 | 21° 5 | 2°53 | 25°20 | 26°10 | 19°56 | 0° 6 | W19 | | |
| T 20 | 8 21 12 | 6°31'37 | 27°43 | 24°42 | 16°46 | 14°27 | 15° 0 | 27°31 | 9°32 | 21° 3 | 2°54 | 25°14 | 26° 7 | 20° 3 | 0° 9 | T 20 | | |
| F 21 | 8 25 9 | 7°32'20 | 10♁52 | 25°43 | 17°15 | 15°13 | 15° 6 | 27°26 | 9°34 | 21° 2 | 2°55 | 25°12 | 26° 4 | 20° 9 | 0°11 | F 21 | | |
| S 22 | 8 29 5 | 8°33'01 | 24°15 | 26°36 | 17°43 | 15°59 | 15°12 | 27°22 | 9°36 | 21° 0 | 2°56 | 25°D11 | 26° 1 | 20°16 | 0°14 | S 22 | | |
| S 23 | 8 33 2 | 9°33'42 | 7♁53 | 27°21 | 18°10 | 16°45 | 15°18 | 27°17 | 9°38 | 20°58 | 2°57 | 25°R11 | 25°58 | 20°23 | 0°16 | S 23 | | |
| M24 | 8 36 59 | 10°34'22 | 21°49 | 27°56 | 18°34 | 17°32 | 15°24 | 27°12 | 9°40 | 20°57 | 2°57 | 25°11 | 25°54 | 20°29 | 0°19 | M24 | | |
| T 25 | 8 40 55 | 11°35'00 | 6♁ 2 | 28°23 | 18°57 | 18°18 | 15°29 | 27° 7 | 9°42 | 20°55 | 2°58 | 25° 9 | 25°51 | 20°36 | 0°21 | T 25 | | |
| W26 | 8 44 52 | 12°35'38 | 20°32 | 28°39 | 19°18 | 19° 4 | 15°35 | 27° 3 | 9°44 | 20°54 | 2°59 | 25° 4 | 25°48 | 20°43 | 0°24 | W26 | | |
| T 27 | 8 48 48 | 13°36'14 | 5♁14 | 28°R44 | 19°37 | 19°51 | 15°40 | 26°58 | 9°46 | 20°52 | 3° 0 | 24°57 | 25°45 | 20°49 | 0°27 | T 27 | | |
| F 28 | 8 52 45 | 14°36'48 | 20° 3 | 28°40 | 19°54 | 20°37 | 15°45 | 26°54 | 9°49 | 20°51 | 3° 1 | 24°47 | 25°42 | 20°56 | 0°30 | F 28 | | |
| S 29 | 8 56 41 | 15°37'22 | 4♁50 | 28°25 | 20° 9 | 21°24 | 15°50 | 26°49 | 9°51 | 20°49 | 3° 2 | 24°36 | 25°39 | 21° 3 | 0°32 | S 29 | | |
| S 30 | 9 0 38 | 16°37'53 | 19°27 | 28° 0 | 20°22 | 22°10 | 15°55 | 26°45 | 9°53 | 20°48 | 3° 3 | 24°25 | 25°35 | 21°10 | 0°35 | S 30 | | |
| M31 | 9 4 35 | 17°38'23 | 3♁47 | 27°26 | 20°R32 | 22°57 | 15°M59 | 26°40 | 9°56 | 20°46 | 3° 5 | 24°Y16 | 25°Y32 | 21°M16 | 0°Y38 | M31 | | |

Delta T = 18m05s Julian Calendar 1 Jan. 1093 == Greg. Calendar 7 Jan. 1093

FEBRUARY 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|----------|-------|--------|--------|-------|--------|--------|--------|--------|-------|--------|--------|--------|-------|------|---|-----|
| T 1 | 9 8 31 | 18°38'51 | 17♁43 | 26°R43 | 20♁40 | 23♁43 | 16♁ 4 | 26°R36 | 9♁58 | 20°R45 | 3°Y 6 | 24°R 8 | 25°Y29 | 21°M23 | 0°Y41 | T 1 | | |
| W 2 | 9 12 28 | 19°39'17 | 1°Y13 | 25°53 | 20°46 | 24°30 | 16° 8 | 26♁31 | 10° 0 | 20♁43 | 3° 7 | 24°Y 3 | 25°26 | 21°30 | 0°44 | W 2 | | |
| T 3 | 9 16 24 | 20°39'41 | 14°17 | 24°57 | 20°50 | 25°16 | 16°12 | 26°27 | 10° 3 | 20°42 | 3° 8 | 24° 1 | 25°23 | 21°36 | 0°47 | T 3 | | |
| F 4 | 9 20 21 | 21°40'04 | 26°57 | 23°56 | 20°R51 | 26° 3 | 16°16 | 26°23 | 10° 5 | 20°40 | 3° 9 | 24°D 0 | 25°20 | 21°43 | 0°50 | F 4 | | |
| S 5 | 9 24 17 | 22°40'24 | 9♁17 | 22°53 | 20°50 | 26°49 | 16°20 | 26°19 | 10° 8 | 20°39 | 3°10 | 24° 1 | 25°16 | 21°50 | 0°53 | S 5 | | |
| S 6 | 9 28 14 | 23°40'43 | 21°22 | 21°48 | 20°46 | 27°36 | 16°23 | 26°15 | 10°10 | 20°38 | 3°11 | 24°R 2 | 25°13 | 21°56 | 0°56 | S 6 | | |
| M 7 | 9 32 10 | 24°40'59 | 3♁17 | 20°43 | 20°40 | 28°22 | 16°26 | 26°11 | 10°13 | 20°36 | 3°12 | 24° 1 | 25°10 | 22° 3 | 0°59 | M 7 | | |
| T 8 | 9 36 7 | 25°41'13 | 15° 7 | 19°40 | 20°31 | 29° 9 | 16°30 | 26° 7 | 10°16 | 20°35 | 3°14 | 23°59 | 25° 7 | 22°10 | 1° 2 | T 8 | | |
| W 9 | 9 40 3 | 26°41'25 | 26°57 | 18°41 | 20°19 | 29°56 | 16°33 | 26° 3 | 10°18 | 20°34 | 3°15 | 23°54 | 25° 4 | 22°17 | 1° 5 | W 9 | | |
| T 10 | 9 44 0 | 27°41'36 | 8♁53 | 17°45 | 20° 5 | 0♁42 | 16°36 | 25°59 | 10°21 | 20°32 | 3°16 | 23°48 | 25° 0 | 22°23 | 1° 8 | T 10 | | |
| F 11 | 9 47 57 | 28°41'44 | 20°57 | 16°55 | 19°49 | 1°29 | 16°38 | 25°55 | 10°24 | 20°31 | 3°17 | 23°39 | 24°57 | 22°30 | 1°11 | F 11 | | |
| S 12 | 9 51 53 | 29°41'50 | 3♁12 | 16°11 | 19°30 | 2°15 | 16°41 | 25°52 | 10°27 | 20°30 | 3°18 | 23°29 | 24°54 | 22°37 | 1°15 | S 12 | | |
| S 13 | 9 55 50 | 0♁41'54 | 15°39 | 15°33 | 19° 9 | 3° 2 | 16°43 | 25°48 | 10°29 | 20°29 | 3°20 | 23°19 | 24°51 | 22°43 | 1°18 | S 13 | | |
| M14 | 9 59 46 | 1°41'56 | 28°20 | 15° 2 | 18°45 | 3°49 | 16°45 | 25°45 | 10°32 | 20°27 | 3°21 | 23° 9 | 24°48 | 22°50 | 1°21 | M14 | | |
| T 15 | 10 3 43 | 2°41'56 | 11♁15 | 14°37 | 18°20 | 4°35 | 16°47 | 25°41 | 10°35 | 20°26 | 3°22 | 23° 1 | 24°45 | 22°57 | 1°24 | T 15 | | |
| W16 | 10 7 39 | 3°41'54 | 24°21 | 14°20 | 17°52 | 5°22 | 16°49 | 25°38 | 10°38 | 20°25 | 3°23 | 22°55 | 24°41 | 23° 3 | 1°28 | W16 | | |
| T 17 | 10 11 36 | 4°41'50 | 7♁40 | 14° 9 | 17°22 | 6° 9 | 16°50 | 25°35 | 10°41 | 20°24 | 3°25 | 22°52 | 24°38 | 23°10 | 1°31 | T 17 | | |
| F 18 | 10 15 32 | 5°41'44 | 21° 9 | 14°D 4 | 16°51 | 6°56 | 16°52 | 25°31 | 10°44 | 20°23 | 3°26 | 22°D51 | 24°35 | 23°17 | 1°34 | F 18 | | |
| S 19 | 10 19 29 | 6°41'37 | 4♁48 | 14° 6 | 16°18 | 7°42 | 16°53 | 25°28 | 10°47 | 20°22 | 3°27 | 22°51 | 24°32 | 23°24 | 1°38 | S 19 | | |
| S 20 | 10 23 26 | 7°41'28 | 18°38 | 14°14 | 15°43 | 8°29 | 16°54 | 25°25 | 10°50 | 20°21 | 3°28 | 22°53 | 24°29 | 23°30 | 1°41 | S 20 | | |
| M21 | 10 27 22 | 8°41'17 | 2♁36 | 14°28 | 15° 8 | 9°16 | 16°55 | 25°22 | 10°53 | 20°20 | 3°30 | 22°R54 | 24°26 | 23°37 | 1°44 | M21 | | |
| T 22 | 10 31 19 | 9°41'05 | 16°43 | 14°47 | 14°31 | 10° 3 | 16°55 | 25°20 | 10°56 | 20°19 | 3°31 | 22°54 | 24°22 | 23°44 | 1°48 | T 22 | | |
| W23 | 10 35 15 | 10°40'51 | 0♁58 | 15°11 | 13°54 | 10°49 | 16°56 | 25°17 | 10°59 | 20°18 | 3°32 | 22°52 | 24°19 | 23°50 | 1°51 | W23 | | |
| T 24 | 10 39 12 | 11°40'36 | 15°18 | 15°40 | 13°16 | 11°36 | 16°56 | 25°14 | 11° 2 | 20°17 | 3°34 | 22°48 | 24°16 | 23°57 | 1°55 | T 24 | | |
| F 25 | 10 43 8 | 12°40'18 | 29°40 | 16°13 | 12°38 | 12°23 | 16°R56 | 25°12 | 11° 5 | 20°16 | 3°35 | 22°43 | 24°13 | 24° 4 | 1°58 | F 25 | | |
| S 26 | 10 47 5 | 13°39'59 | 13♁58 | 16°51 | 12° 1 | 13°10 | 16°56 | 25° 9 | 11° 8 | 20°15 | 3°37 | 22°37 | 24°10 | 24°11 | 2° 2 | S 26 | | |
| S 27 | 10 51 1 | 14°39'38 | 28° 9 | 17°33 | 11°23 | 13°56 | 16°56 | 25° 7 | 11°11 | 20°14 | 3°38 | 22°31 | 24° 6 | 24°17 | 2° 5 | S 27 | | |
| M28 | 10 54 58 | 15°39'14 | 12♁ 6 | 18°18 | 10°R47 | 14°43 | 16°M55 | 25° 5 | 11°Y15 | 20°13 | 3°Y39 | 22°Y25 | 24°Y 3 | 24°M24 | 2°Y 9 | M28 | | |

Delta T = 18m05s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1093
geocentric

MARCH 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-----------|---------|-------|--------|-------|--------|--------|--------|--------|-------|--------|--------|---------|-------|------|---|-----|
| T 1 | 10 58 55 | 16°38'49 | 25°45 | 19°37 | 10°R10 | 15°30 | 16°R55 | 25°R 3 | 11°V18 | 20°R13 | 3°V41 | 22°R21 | 24°V 0 | 24°II31 | 2°V12 | T 1 | | |
| W 2 | 11 2 51 | 17°38'21 | 9°V 5 | 19°59 | 9°H35 | 16°17 | 16°M54 | 25°E 1 | 11°21 | 20°E12 | 3°42 | 22°V18 | 23°57 | 24°37 | 2°16 | W 2 | | |
| T 3 | 11 6 48 | 18°37'52 | 22° 4 | 20°54 | 9° 2 | 17° 3 | 16°53 | 24°59 | 11°24 | 20°11 | 3°43 | 22°D18 | 23°54 | 24°44 | 2°20 | T 3 | | |
| F 4 | 11 10 44 | 19°37'20 | 4°H42 | 21°52 | 8°29 | 17°50 | 16°51 | 24°57 | 11°28 | 20°10 | 3°45 | 22°18 | 23°51 | 24°51 | 2°23 | F 4 | | |
| S 5 | 11 14 41 | 20°36'45 | 17° 3 | 22°53 | 7°59 | 18°37 | 16°50 | 24°55 | 11°31 | 20°10 | 3°46 | 22°20 | 23°47 | 24°57 | 2°27 | S 5 | | |
| S 6 | 11 18 37 | 21°36'09 | 29°10 | 23°57 | 7°30 | 19°24 | 16°48 | 24°53 | 11°34 | 20° 9 | 3°48 | 22°21 | 23°44 | 25° 4 | 2°30 | S 6 | | |
| M 7 | 11 22 34 | 22°35'30 | 11°II 8 | 25° 2 | 7° 3 | 20°11 | 16°47 | 24°52 | 11°37 | 20° 9 | 3°49 | 22°23 | 23°41 | 25°11 | 2°34 | M 7 | | |
| T 8 | 11 26 30 | 23°34'49 | 23° 0 | 26°11 | 6°38 | 20°57 | 16°45 | 24°51 | 11°41 | 20° 8 | 3°50 | 22°R23 | 23°38 | 25°18 | 2°37 | T 8 | | |
| W 9 | 11 30 27 | 24°34'06 | 4°E52 | 27°21 | 6°15 | 21°44 | 16°42 | 24°49 | 11°44 | 20° 7 | 3°52 | 22°23 | 23°35 | 25°24 | 2°41 | W 9 | | |
| T 10 | 11 34 24 | 25°33'20 | 16°49 | 28°34 | 5°55 | 22°31 | 16°40 | 24°48 | 11°47 | 20° 7 | 3°53 | 22°21 | 23°31 | 25°31 | 2°45 | T 10 | | |
| F 11 | 11 38 20 | 26°32'32 | 28°55 | 29°48 | 5°37 | 23°17 | 16°38 | 24°47 | 11°51 | 20° 6 | 3°55 | 22°18 | 23°28 | 25°38 | 2°48 | F 11 | | |
| S 12 | 11 42 17 | 27°31'42 | 11°Q14 | 1°H 5 | 5°21 | 24° 4 | 16°35 | 24°46 | 11°54 | 20° 6 | 3°56 | 22°15 | 23°25 | 25°44 | 2°52 | S 12 | | |
| S 13 | 11 46 13 | 28°30'49 | 23°49 | 2°23 | 5° 8 | 24°51 | 16°32 | 24°45 | 11°57 | 20° 6 | 3°58 | 22°11 | 23°22 | 25°51 | 2°56 | S 13 | | |
| M14 | 11 50 10 | 29°29'54 | 6°H42 | 3°44 | 4°57 | 25°38 | 16°29 | 24°44 | 12° 1 | 20° 5 | 3°59 | 22° 7 | 23°19 | 25°58 | 2°59 | M14 | | |
| T 15 | 11 54 6 | 0°V28'57 | 19°52 | 5° 6 | 4°48 | 26°24 | 16°26 | 24°44 | 12° 4 | 20° 5 | 4° 0 | 22° 4 | 23°16 | 26° 5 | 3° 3 | T 15 | | |
| W16 | 11 58 3 | 1°27'57 | 3°E20 | 6°30 | 4°42 | 27°11 | 16°22 | 24°43 | 12° 8 | 20° 4 | 4° 2 | 22° 2 | 23°12 | 26°11 | 3° 7 | W16 | | |
| T 17 | 12 1 59 | 2°26'56 | 17° 3 | 7°55 | 4°39 | 27°58 | 16°19 | 24°43 | 12°11 | 20° 4 | 4° 3 | 22°D 1 | 23° 9 | 26°18 | 3°10 | T 17 | | |
| F 18 | 12 5 56 | 3°25'52 | 0°M59 | 9°23 | 4°D38 | 28°44 | 16°15 | 24°42 | 12°14 | 20° 4 | 4° 5 | 22° 1 | 23° 6 | 26°25 | 3°14 | F 18 | | |
| S 19 | 12 9 53 | 4°24'47 | 15° 5 | 10°52 | 4°39 | 29°31 | 16°11 | 24°42 | 12°18 | 20° 4 | 4° 6 | 22° 2 | 23° 3 | 26°31 | 3°18 | S 19 | | |
| S 20 | 12 13 49 | 5°23'40 | 29°17 | 12°22 | 4°43 | 0°H18 | 16° 7 | 24°42 | 12°21 | 20° 3 | 4° 8 | 22° 3 | 23° 0 | 26°38 | 3°21 | S 20 | | |
| M21 | 12 17 46 | 6°22'31 | 13°V31 | 13°55 | 4°49 | 1° 4 | 16° 3 | 24°D42 | 12°25 | 20° 3 | 4° 9 | 22° 5 | 22°57 | 26°45 | 3°25 | M21 | | |
| T 22 | 12 21 42 | 7°21'21 | 27°46 | 15°28 | 4°57 | 1°51 | 15°58 | 24°42 | 12°28 | 20° 3 | 4°10 | 22° 5 | 22°53 | 26°51 | 3°28 | T 22 | | |
| W23 | 12 25 39 | 8°20'09 | 11°E59 | 17° 4 | 5° 8 | 2°37 | 15°54 | 24°42 | 12°31 | 20° 3 | 4°12 | 22°R 6 | 22°50 | 26°58 | 3°32 | W23 | | |
| T 24 | 12 29 35 | 9°18'55 | 26° 7 | 18°41 | 5°20 | 3°24 | 15°49 | 24°43 | 12°35 | 20° 3 | 4°13 | 22° 5 | 22°47 | 27° 5 | 3°36 | T 24 | | |
| F 25 | 12 33 32 | 10°17'39 | 10°M 9 | 20°19 | 5°35 | 4°11 | 15°44 | 24°43 | 12°38 | 20°D 3 | 4°15 | 22° 4 | 22°44 | 27°12 | 3°39 | F 25 | | |
| S 26 | 12 37 28 | 11°16'21 | 24° 1 | 22° 0 | 5°52 | 4°57 | 15°39 | 24°44 | 12°42 | 20° 3 | 4°16 | 22° 3 | 22°41 | 27°18 | 3°43 | S 26 | | |
| S 27 | 12 41 25 | 12°15'02 | 7°H43 | 23°41 | 6°10 | 5°44 | 15°34 | 24°44 | 12°45 | 20° 3 | 4°18 | 22° 1 | 22°37 | 27°25 | 3°47 | S 27 | | |
| M28 | 12 45 22 | 13°13'41 | 21°12 | 25°25 | 6°31 | 6°30 | 15°29 | 24°45 | 12°49 | 20° 3 | 4°19 | 22° 0 | 22°34 | 27°32 | 3°50 | M28 | | |
| T 29 | 12 49 18 | 14°12'18 | 4°V27 | 27°10 | 6°53 | 7°17 | 15°23 | 24°46 | 12°52 | 20° 3 | 4°20 | 22° 0 | 22°31 | 27°38 | 3°54 | T 29 | | |
| W30 | 12 53 15 | 15°10'53 | 17°27 | 28°56 | 7°17 | 8° 3 | 15°18 | 24°47 | 12°56 | 20° 3 | 4°22 | 21°D59 | 22°28 | 27°45 | 3°57 | W30 | | |
| T 31 | 12 57 11 | 16°V 9'26 | 0°E12 | 0°V44 | 7°H43 | 8°H50 | 15°M12 | 24°E48 | 12°V59 | 20°E 4 | 4°V23 | 21°V59 | 22°V25 | 27°II52 | 4°V 1 | T 31 | | |

Delta T = 18m05s Julian Calendar 1 March 1093 == Greg. Calendar 7 March 1093

APRIL 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♅ | ♄ | ♃ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|-------|--------|--------|--------|--------|-------|--------|--------|---------|-------|------|---|-----|
| F 1 | 13 1 8 | 17°V 7'57 | 12°E41 | 2°V34 | 8°H10 | 9°H36 | 15°R 6 | 24°E49 | 13°V 2 | 20°E 4 | 4°V25 | 22°V 0 | 22°V22 | 27°II59 | 4°V 5 | F 1 | | |
| S 2 | 13 5 4 | 18° 6'26 | 24°58 | 4°26 | 8°39 | 10°22 | 15°M 0 | 24°50 | 13° 6 | 20° 4 | 4°26 | 22° 0 | 22°18 | 28° 5 | 4° 8 | S 2 | | |
| S 3 | 13 9 1 | 19° 4'53 | 7°II 3 | 6°19 | 9° 9 | 11° 9 | 14°54 | 24°52 | 13° 9 | 20° 4 | 4°28 | 22° 0 | 22°15 | 28°12 | 4°12 | S 3 | | |
| M 4 | 13 12 57 | 20° 3'18 | 19° 0 | 8°13 | 9°41 | 11°55 | 14°48 | 24°53 | 13°13 | 20° 5 | 4°29 | 22° 1 | 22°12 | 28°19 | 4°15 | M 4 | | |
| T 5 | 13 16 54 | 21° 1'41 | 0°E53 | 10°10 | 10°14 | 12°41 | 14°41 | 24°55 | 13°16 | 20° 5 | 4°30 | 22° 1 | 22° 9 | 28°25 | 4°19 | T 5 | | |
| W 6 | 13 20 50 | 22° 0'02 | 12°46 | 12° 8 | 10°48 | 13°28 | 14°35 | 24°56 | 13°20 | 20° 5 | 4°32 | 22°R 1 | 22° 6 | 28°32 | 4°22 | W 6 | | |
| T 7 | 13 24 47 | 22°58'21 | 24°42 | 14° 7 | 11°24 | 14°14 | 14°28 | 24°58 | 13°23 | 20° 6 | 4°33 | 22°D 1 | 22° 3 | 28°39 | 4°26 | T 7 | | |
| F 8 | 13 28 44 | 23°56'37 | 6°M48 | 16° 8 | 12° 1 | 15° 0 | 14°22 | 25° 0 | 13°26 | 20° 6 | 4°34 | 22° 1 | 21°59 | 28°46 | 4°29 | F 8 | | |
| S 9 | 13 32 40 | 24°54'52 | 19° 7 | 18°11 | 12°39 | 15°46 | 14°15 | 25° 2 | 13°30 | 20° 7 | 4°36 | 22° 1 | 21°56 | 28°52 | 4°33 | S 9 | | |
| S 10 | 13 36 37 | 25°53'04 | 1°H43 | 20°15 | 13°18 | 16°33 | 14° 8 | 25° 4 | 13°33 | 20° 7 | 4°37 | 22° 1 | 21°53 | 28°59 | 4°36 | S 10 | | |
| M11 | 13 40 33 | 26°51'14 | 14°40 | 22°20 | 13°59 | 17°19 | 14° 1 | 25° 7 | 13°37 | 20° 8 | 4°39 | 22° 2 | 21°50 | 29° 6 | 4°40 | M11 | | |
| T 12 | 13 44 30 | 27°49'23 | 27°59 | 24°27 | 14°40 | 18° 5 | 13°54 | 25° 9 | 13°40 | 20° 8 | 4°40 | 22° 2 | 21°47 | 29°12 | 4°43 | T 12 | | |
| W13 | 13 48 26 | 28°47'29 | 11°E41 | 26°34 | 15°23 | 18°51 | 13°47 | 25°11 | 13°43 | 20° 9 | 4°41 | 22° 3 | 21°43 | 29°19 | 4°47 | W13 | | |
| T 14 | 13 52 23 | 29°45'33 | 25°44 | 28°43 | 16° 6 | 19°37 | 13°40 | 25°14 | 13°47 | 20° 9 | 4°42 | 22°R 3 | 21°40 | 29°26 | 4°50 | T 14 | | |
| F 15 | 13 56 19 | 0°E43'36 | 10°M 5 | 0°E52 | 16°50 | 20°23 | 13°33 | 25°16 | 13°50 | 20°10 | 4°44 | 22° 2 | 21°37 | 29°33 | 4°53 | F 15 | | |
| S 16 | 14 0 16 | 1°41'38 | 24°38 | 3° 2 | 17°35 | 21° 9 | 13°25 | 25°19 | 13°53 | 20°11 | 4°45 | 22° 2 | 21°34 | 29°39 | 4°57 | S 16 | | |
| S 17 | 14 4 13 | 2°39'38 | 9°V17 | 5°12 | 18°22 | 21°55 | 13°18 | 25°22 | 13°57 | 20°12 | 4°46 | 22° 1 | 21°31 | 29°46 | 5° 0 | S 17 | | |
| M18 | 14 8 9 | 3°37'36 | 23°57 | 7°22 | 19° 8 | 22°41 | 13°11 | 25°25 | 14° 0 | 20°12 | 4°48 | 21°59 | 21°28 | 29°53 | 5° 3 | M18 | | |
| T 19 | 14 12 6 | 4°35'33 | 8°E30 | 9°32 | 19°56 | 23°27 | 13° 3 | 25°28 | 14° 3 | 20°13 | 4°49 | 21°58 | 21°24 | 29°59 | 5° 7 | T 19 | | |
| W20 | 14 16 2 | 5°33'29 | 22°53 | 11°41 | 20°45 | 24°13 | 12°56 | 25°31 | 14° 6 | 20°14 | 4°50 | 21°57 | 21°21 | 0°E 6 | 5°10 | W20 | | |
| T 21 | 14 19 59 | 6°31'23 | 7°M 1 | 13°50 | 21°34 | 24°58 | 12°48 | 25°34 | 14°10 | 20°15 | 4°52 | 21°D57 | 21°18 | 0°13 | 5°13 | T 21 | | |
| F 22 | 14 23 55 | 7°29'17 | 20°53 | 15°57 | 22°24 | 25°44 | 12°41 | 25°38 | 14°13 | 20°16 | 4°53 | 21°57 | 21°15 | 0°20 | 5°16 | F 22 | | |
| S 23 | 14 27 52 | 8°27'08 | 4°H29 | 18° 3 | 23°14 | 26°30 | 12°33 | 25°41 | 14°16 | 20°17 | 4°54 | 21°58 | 21°12 | 0°26 | 5°20 | S 23 | | |
| S 24 | 14 31 48 | 9°24'59 | 17°50 | 20° 8 | 24° 6 | 27°16 | 12°25 | 25°44 | 14°19 | 20°18 | 4°55 | 21°59 | 21° 8 | 0°33 | 5°23 | S 24 | | |
| M25 | 14 35 45 | 10°22'48 | 0°V55 | 22°10 | 24°58 | 28° 1 | 12°18 | 25°48 | 14°23 | 20°19 | 4°56 | 22° 1 | 21° 5 | 0°40 | 5°26 | M25 | | |
| T 26 | 14 39 42 | 11°20'36 | 13°46 | 24°11 | 25°50 | 28°47 | 12°10 | 25°52 | 14°26 | 20°20 | 4°58 | 22° 2 | 21° 2 | 0°46 | 5°29 | T 26 | | |
| W27 | 14 43 38 | 12°18'23 | 26°25 | 26° 9 | 26°43 | 29°32 | 12° 3 | 25°55 | 14°29 | 20°21 | 4°59 | 22°R 2 | 20°59 | 0°53 | 5°32 | W27 | | |
| T 28 | 14 47 35 | 13°16'08 | 8°E53 | 28° 4 | 27°37 | 0°V18 | 11°55 | 25°59 | 14°32 | 20°22 | 5° 0 | 22° 1 | 20°56 | 1° 0 | 5°35 | T 28 | | |
| F 29 | 14 51 31 | 14°13'52 | 21°10 | 29°57 | 28°31 | 1° 3 | 11°47 | 26° 3 | 14°35 | 20°23 | 5° 1 | 21°59 | 20°53 | 1° 7 | 5°38 | F 29 | | |
| S 30 | 14 55 28 | 15°11'35 | 3°II18 | 1°II48 | 29°H26 | 1°V49 | 11°M40 | 26°E 7 | 14°V38 | 20°E24 | 5°V 2 | 21°V56 | 20°V49 | 1°E13 | 5°V41 | S 30 | | |

Delta T = 18m04s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1093
geocentric

MAY 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|----------|-------|-------|-------|--------|--------|-------|--------|-------|-------|--------|--------|------|-------|------|---|-----|
| S 1 | 14 59 24 | 16♌ 9°16 | 15♌18 | 3♌35 | 0♌21 | 2♌34 | 11°R32 | 26♌11 | 14♌41 | 20♌25 | 5♌ 3 | 21°R52 | 20♌46 | 1♌20 | 5♌44 | S 1 | | |
| M 2 | 15 3 21 | 17° 6'56 | 27°13 | 5°19 | 1°17 | 3°20 | 11♌24 | 26°15 | 14°44 | 20°26 | 5° 5 | 21°R48 | 20°43 | 1°27 | 5°47 | M 2 | | |
| T 3 | 15 7 17 | 18° 4'34 | 9♌ 5 | 7° 1 | 2°13 | 4° 5 | 11°17 | 26°20 | 14°47 | 20°27 | 5° 6 | 21°44 | 20°40 | 1°33 | 5°50 | T 3 | | |
| W 4 | 15 11 14 | 19° 2'11 | 20°57 | 8°39 | 3° 9 | 4°50 | 11° 9 | 26°24 | 14°50 | 20°29 | 5° 7 | 21°40 | 20°37 | 1°40 | 5°53 | W 4 | | |
| T 5 | 15 15 11 | 19°59'46 | 2♌53 | 10°14 | 4° 6 | 5°35 | 11° 2 | 26°29 | 14°53 | 20°30 | 5° 8 | 21°38 | 20°34 | 1°47 | 5°56 | T 5 | | |
| F 6 | 15 19 7 | 20°57'20 | 14°57 | 11°47 | 5° 4 | 6°21 | 10°54 | 26°33 | 14°56 | 20°31 | 5° 9 | 21°36 | 20°30 | 1°54 | 5°59 | F 6 | | |
| S 7 | 15 23 4 | 21°54'53 | 27°13 | 13°15 | 6° 2 | 7° 6 | 10°47 | 26°38 | 14°59 | 20°33 | 5°10 | 21°D36 | 20°27 | 2° 0 | 6° 1 | S 7 | | |
| S 8 | 15 27 0 | 22°52'24 | 9♌46 | 14°41 | 7° 0 | 7°51 | 10°40 | 26°42 | 15° 2 | 20°34 | 5°11 | 21°37 | 20°24 | 2° 7 | 6° 4 | S 8 | | |
| M 9 | 15 30 57 | 23°49'53 | 22°40 | 16° 3 | 7°59 | 8°36 | 10°32 | 26°47 | 15° 5 | 20°35 | 5°12 | 21°39 | 20°21 | 2°14 | 6° 7 | M 9 | | |
| T 10 | 15 34 53 | 24°47'21 | 5♌59 | 17°22 | 8°58 | 9°21 | 10°25 | 26°52 | 15° 8 | 20°37 | 5°13 | 21°40 | 20°18 | 2°20 | 6° 9 | T 10 | | |
| W11 | 15 38 50 | 25°44'48 | 19°45 | 18°38 | 9°57 | 10° 6 | 10°18 | 26°57 | 15°11 | 20°38 | 5°14 | 21°R41 | 20°14 | 2°27 | 6°12 | W11 | | |
| T 12 | 15 42 46 | 26°42'14 | 3♌57 | 19°50 | 10°57 | 10°50 | 10°11 | 27° 2 | 15°13 | 20°40 | 5°15 | 21°40 | 20°11 | 2°34 | 6°15 | T 12 | | |
| F 13 | 15 46 43 | 27°39'38 | 18°32 | 20°59 | 11°57 | 11°35 | 10° 4 | 27° 7 | 15°16 | 20°41 | 5°16 | 21°38 | 20° 8 | 2°41 | 6°17 | F 13 | | |
| S 14 | 15 50 40 | 28°37'02 | 3♌25 | 22° 4 | 12°57 | 12°20 | 9°57 | 27°12 | 15°19 | 20°42 | 5°17 | 21°35 | 20° 5 | 2°47 | 6°20 | S 14 | | |
| S 15 | 15 54 36 | 29°34'25 | 18°29 | 23° 6 | 13°58 | 13° 5 | 9°50 | 27°17 | 15°21 | 20°44 | 5°18 | 21°30 | 20° 2 | 2°54 | 6°22 | S 15 | | |
| M16 | 15 58 33 | 0♌31'47 | 3♌33 | 24° 4 | 14°58 | 13°49 | 9°43 | 27°22 | 15°24 | 20°46 | 5°19 | 21°24 | 19°59 | 3° 1 | 6°25 | M16 | | |
| T 17 | 16 2 29 | 1°29'08 | 18°28 | 24°58 | 16° 0 | 14°34 | 9°37 | 27°28 | 15°27 | 20°47 | 5°20 | 21°19 | 19°55 | 3° 7 | 6°27 | T 17 | | |
| W18 | 16 6 26 | 2°26'29 | 3♌ 7 | 25°49 | 17° 1 | 15°18 | 9°30 | 27°33 | 15°29 | 20°49 | 5°21 | 21°14 | 19°52 | 3°14 | 6°30 | W18 | | |
| T 19 | 16 10 22 | 3°23'49 | 17°24 | 26°35 | 18° 3 | 16° 3 | 9°24 | 27°39 | 15°32 | 20°50 | 5°21 | 21°12 | 19°49 | 3°21 | 6°32 | T 19 | | |
| F 20 | 16 14 19 | 4°21'08 | 1♌18 | 27°18 | 19° 5 | 16°47 | 9°17 | 27°44 | 15°35 | 20°52 | 5°22 | 21°D10 | 19°46 | 3°28 | 6°34 | F 20 | | |
| S 21 | 16 18 16 | 5°18'27 | 14°49 | 27°57 | 20° 8 | 17°32 | 9°11 | 27°50 | 15°37 | 20°54 | 5°23 | 21°11 | 19°43 | 3°34 | 6°36 | S 21 | | |
| S 22 | 16 22 12 | 6°15'45 | 27°58 | 28°31 | 21°10 | 18°16 | 9° 5 | 27°56 | 15°39 | 20°55 | 5°24 | 21°12 | 19°40 | 3°41 | 6°39 | S 22 | | |
| M23 | 16 26 9 | 7°13'03 | 10♌49 | 29° 1 | 22°13 | 19° 0 | 8°59 | 28° 1 | 15°42 | 20°57 | 5°25 | 21°13 | 19°36 | 3°48 | 6°41 | M23 | | |
| T 24 | 16 30 5 | 8°10'20 | 23°24 | 29°27 | 23°16 | 19°44 | 8°53 | 28° 7 | 15°44 | 20°59 | 5°25 | 21°R14 | 19°33 | 3°54 | 6°43 | T 24 | | |
| W25 | 16 34 2 | 9° 7'37 | 5♌46 | 29°48 | 24°20 | 20°28 | 8°47 | 28°13 | 15°47 | 21° 0 | 5°26 | 21°12 | 19°30 | 4° 1 | 6°45 | W25 | | |
| T 26 | 16 37 58 | 10° 4'54 | 17°59 | 0♌ 5 | 25°23 | 21°12 | 8°42 | 28°19 | 15°49 | 21° 2 | 5°27 | 21° 9 | 19°27 | 4° 8 | 6°47 | T 26 | | |
| F 27 | 16 41 55 | 11° 2'10 | 0♌ 4 | 0°17 | 26°27 | 21°56 | 8°36 | 28°25 | 15°51 | 21° 4 | 5°28 | 21° 4 | 19°24 | 4°15 | 6°49 | F 27 | | |
| S 28 | 16 45 51 | 11°59'26 | 12° 3 | 0°25 | 27°31 | 22°40 | 8°31 | 28°31 | 15°54 | 21° 6 | 5°28 | 20°56 | 19°20 | 4°21 | 6°51 | S 28 | | |
| S 29 | 16 49 48 | 12°56'41 | 23°58 | 0°R28 | 28°35 | 23°24 | 8°25 | 28°37 | 15°56 | 21° 8 | 5°29 | 20°47 | 19°17 | 4°28 | 6°53 | S 29 | | |
| M30 | 16 53 45 | 13°53'56 | 5♌51 | 0°27 | 29°39 | 24° 8 | 8°20 | 28°43 | 15°58 | 21° 9 | 5°30 | 20°37 | 19°14 | 4°35 | 6°55 | M30 | | |
| T 31 | 16 57 41 | 14°51'10 | 17♌42 | 0♌21 | 0♌44 | 24°R52 | 8♌15 | 28♌49 | 16°V 0 | 21♌11 | 5°V30 | 20°V27 | 19°V11 | 4♌42 | 6°V57 | T 31 | | |

Delta T = 18m04s Julian Calendar 1 May 1093 == Greg. Calendar 7 May 1093

JUNE 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|-------|--------|-------|-------|--------|--------|------|-------|------|-----|
| W 1 | 17 1 38 | 15♌48'23 | 29♌35 | 0°R11 | 1♌49 | 25°V35 | 8°R11 | 28♌56 | 16°V 2 | 21♌13 | 5°V31 | 20°R18 | 19°V 8 | 4♌48 | 6°V58 | W 1 | |
| T 2 | 17 5 34 | 16°45'36 | 11♌31 | 29♌57 | 2°54 | 26°19 | 8♌ 6 | 29° 2 | 16° 4 | 21°15 | 5°32 | 20°V11 | 19° 5 | 4°55 | 7° 0 | T 2 | |
| F 3 | 17 9 31 | 17°42'48 | 29°34 | 29°38 | 3°59 | 27° 2 | 8° 1 | 29° 8 | 16° 6 | 21°17 | 5°32 | 20° 6 | 19° 1 | 5° 2 | 7° 2 | F 3 | |
| S 4 | 17 13 27 | 18°40'00 | 5♌49 | 29°16 | 5° 4 | 27°46 | 7°57 | 29°15 | 16° 8 | 21°19 | 5°33 | 20° 3 | 18°58 | 5° 8 | 7° 3 | S 4 | |
| S 5 | 17 17 24 | 19°37'11 | 18°19 | 28°51 | 6°10 | 28°29 | 7°53 | 29°21 | 16°10 | 21°21 | 5°33 | 20°D 2 | 18°55 | 5°15 | 7° 5 | S 5 | |
| M 6 | 17 21 20 | 20°34'22 | 1♌ 8 | 28°22 | 7°15 | 29°13 | 7°49 | 29°28 | 16°12 | 21°23 | 5°34 | 20° 2 | 18°52 | 5°22 | 7° 7 | M 6 | |
| T 7 | 17 25 17 | 21°31'32 | 14°22 | 27°51 | 8°21 | 29°56 | 7°45 | 29°34 | 16°14 | 21°25 | 5°34 | 20°R 3 | 18°49 | 5°29 | 7° 8 | T 7 | |
| W 8 | 17 29 14 | 22°28'41 | 28° 2 | 27°18 | 9°27 | 0♌39 | 7°41 | 29°41 | 16°16 | 21°27 | 5°35 | 20° 3 | 18°46 | 5°35 | 7° 9 | W 8 | |
| T 9 | 17 33 10 | 23°25'50 | 12♌12 | 26°43 | 10°33 | 1°22 | 7°38 | 29°48 | 16°18 | 21°29 | 5°35 | 20° 1 | 18°42 | 5°42 | 7°11 | T 9 | |
| F 10 | 17 37 7 | 24°22'59 | 26°49 | 26° 7 | 11°39 | 2° 5 | 7°35 | 29°54 | 16°19 | 21°31 | 5°36 | 19°57 | 18°39 | 5°49 | 7°12 | F 10 | |
| S 11 | 17 41 3 | 25°20'08 | 11♌49 | 25°31 | 12°46 | 2°48 | 7°31 | 0♌ 1 | 16°21 | 21°33 | 5°36 | 19°50 | 18°36 | 5°55 | 7°13 | S 11 | |
| S 12 | 17 45 0 | 26°17'16 | 27° 3 | 24°55 | 13°52 | 3°31 | 7°28 | 0° 8 | 16°23 | 21°35 | 5°36 | 19°42 | 18°33 | 6° 2 | 7°15 | S 12 | |
| M13 | 17 48 56 | 27°14'25 | 12♌22 | 24°20 | 14°59 | 4°14 | 7°26 | 0°15 | 16°24 | 21°37 | 5°37 | 19°32 | 18°30 | 6° 9 | 7°16 | M13 | |
| T 14 | 17 52 53 | 28°11'33 | 27°33 | 23°46 | 16° 6 | 4°56 | 7°23 | 0°22 | 16°26 | 21°39 | 5°37 | 19°23 | 18°26 | 6°16 | 7°17 | T 14 | |
| W15 | 17 56 50 | 29° 8'42 | 12♌28 | 23°15 | 17°13 | 5°39 | 7°20 | 0°29 | 16°28 | 21°41 | 5°37 | 19°15 | 18°23 | 6°22 | 7°18 | W15 | |
| T 16 | 18 0 46 | 0♌ 5'51 | 26°58 | 22°46 | 18°20 | 6°22 | 7°18 | 0°36 | 16°29 | 21°43 | 5°38 | 19° 9 | 18°20 | 6°29 | 7°19 | T 16 | |
| F 17 | 18 4 43 | 1° 3'00 | 11♌ 8 | 22°20 | 19°27 | 7° 4 | 7°16 | 0°43 | 16°31 | 21°45 | 5°38 | 19° 5 | 18°17 | 6°36 | 7°20 | F 17 | |
| S 18 | 18 8 39 | 2° 0'10 | 24°34 | 21°58 | 20°34 | 7°47 | 7°14 | 0°50 | 16°32 | 21°47 | 5°38 | 19° 4 | 18°14 | 6°43 | 7°21 | S 18 | |
| S 19 | 18 12 36 | 2°57'20 | 7°V41 | 21°39 | 21°42 | 8°29 | 7°12 | 0°57 | 16°33 | 21°50 | 5°39 | 19°D 4 | 18°11 | 6°49 | 7°22 | S 19 | |
| M20 | 18 16 32 | 3°54'30 | 20°27 | 21°26 | 22°50 | 9°11 | 7°11 | 1° 4 | 16°35 | 21°52 | 5°39 | 19°R 4 | 18° 7 | 6°56 | 7°23 | M20 | |
| T 21 | 18 20 29 | 4°51'42 | 2♌54 | 21°16 | 23°57 | 9°53 | 7° 9 | 1°11 | 16°36 | 21°54 | 5°39 | 19° 3 | 18° 4 | 7° 3 | 7°24 | T 21 | |
| W22 | 18 24 25 | 5°48'53 | 15° 7 | 21°D12 | 25° 5 | 10°36 | 7° 8 | 1°18 | 16°37 | 21°56 | 5°39 | 19° 1 | 18° 1 | 7° 9 | 7°24 | W22 | |
| T 23 | 18 28 22 | 6°46'05 | 27°11 | 21°13 | 26°13 | 11°18 | 7° 7 | 1°25 | 16°38 | 21°58 | 5°39 | 18°56 | 17°58 | 7°16 | 7°25 | T 23 | |
| F 24 | 18 32 19 | 7°43'18 | 9♌ 8 | 21°19 | 27°21 | 12° 0 | 7° 6 | 1°32 | 16°39 | 22° 0 | 5°39 | 18°48 | 17°55 | 7°23 | 7°26 | F 24 | |
| S 25 | 18 36 15 | 8°40'31 | 21° 1 | 21°31 | 28°30 | 12°41 | 7° 5 | 1°40 | 16°40 | 22° 2 | 5°40 | 18°37 | 17°52 | 7°30 | 7°26 | S 25 | |
| S 26 | 18 40 12 | 9°37'45 | 2♌53 | 21°47 | 29°38 | 13°23 | 7° 5 | 1°47 | 16°41 | 22° 5 | 5°40 | 18°25 | 17°48 | 7°36 | 7°27 | S 26 | |
| M27 | 18 44 8 | 10°34'59 | 14°45 | 22°10 | 0♌46 | 14° 5 | 7° 5 | 1°54 | 16°42 | 22° 7 | 5°40 | 18°11 | 17°45 | 7°43 | 7°27 | M27 | |
| T 28 | 18 48 5 | 11°32'13 | 26°38 | 22°38 | 1°55 | 14°47 | 7°D 4 | 2° 2 | 16°43 | 22° 9 | 5°40 | 17°57 | 17°42 | 7°50 | 7°27 | T 28 | |
| W29 | 18 52 1 | 12°29'28 | 8♌34 | 23°11 | 3° 4 | 15°28 | 7° 4 | 2° 9 | 16°44 | 22°11 | 5°40 | 17°45 | 17°39 | 7°56 | 7°28 | W29 | |
| T 30 | 18 55 58 | 13°26'43 | 20♌35 | 23♌50 | 4♌12 | 16♌ 9 | 7♌ 5 | 2♌17 | 16°V45 | 22♌13 | 5°R40 | 17°V34 | 17°V36 | 8♌ 3 | 7°V28 | T 30 | |

Delta T = 18m04s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1093
geocentric

JULY 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| F 1 | 18 59 54 | 14 ²³ 59 | 2 ¹¹ 43 | 24 ¹¹ 34 | 5 ¹¹ 21 | 16 ⁸ 51 | 7 ¹¹ 5 | 2 ⁸ 24 | 16 ¹⁷ 46 | 22 ²² 16 | 5 ⁰ R40 | 17 ⁰ R26 | 17 ¹⁷ 32 | 8 ²² 10 | 7 ¹⁷ 28 | F 1 | | | | | | | | |
| S 2 | 19 3 51 | 15 ⁰ 21'15 | 15 ⁰ 0 | 25 ⁰ 24 | 6 ⁰ 30 | 17 ⁰ 32 | 7 ⁰ 6 | 2 ⁰ 31 | 16 ⁰ 47 | 22 ⁰ 18 | 5 ⁰ Y40 | 17 ⁰ Y21 | 17 ⁰ 29 | 8 ⁰ 17 | 7 ⁰ 29 | S 2 | | | | | | | | |
| S 3 | 19 7 48 | 16 ⁰ 18'31 | 27 ⁰ 31 | 26 ⁰ 19 | 7 ⁰ 39 | 18 ⁰ 13 | 7 ⁰ 6 | 2 ⁰ 39 | 16 ⁰ 47 | 22 ⁰ 20 | 5 ⁰ 40 | 17 ⁰ 19 | 17 ⁰ 26 | 8 ⁰ 23 | 7 ⁰ 29 | S 3 | | | | | | | | |
| M 4 | 19 11 44 | 17 ⁰ 15'48 | 10 ⁰ 18 | 27 ⁰ 19 | 8 ⁰ 48 | 18 ⁰ 54 | 7 ⁰ 7 | 2 ⁰ 46 | 16 ⁰ 48 | 22 ⁰ 22 | 5 ⁰ 40 | 17 ⁰ 18 | 17 ⁰ 23 | 8 ⁰ 30 | 7 ⁰ 29 | M 4 | | | | | | | | |
| T 5 | 19 15 41 | 18 ⁰ 13'05 | 23 ⁰ 27 | 28 ⁰ 25 | 9 ⁰ 58 | 19 ⁰ 35 | 7 ⁰ 8 | 2 ⁰ 54 | 16 ⁰ 49 | 22 ⁰ 24 | 5 ⁰ 39 | 17 ⁰ 18 | 17 ⁰ 20 | 8 ⁰ 37 | 7 ⁰ R29 | T 5 | | | | | | | | |
| W 6 | 19 19 37 | 19 ⁰ 10'23 | 7 ¹¹ 0 | 29 ⁰ 35 | 11 ⁰ 7 | 20 ⁰ 16 | 7 ⁰ 10 | 3 ⁰ 1 | 16 ⁰ 49 | 22 ⁰ 27 | 5 ⁰ 39 | 17 ⁰ 17 | 17 ⁰ 17 | 8 ⁰ 44 | 7 ⁰ 29 | W 6 | | | | | | | | |
| T 7 | 19 23 34 | 20 ⁰ 7'41 | 21 ⁰ 1 | 0 ⁰ 51 | 12 ⁰ 16 | 20 ⁰ 57 | 7 ⁰ 11 | 3 ⁰ 9 | 16 ⁰ 50 | 22 ⁰ 29 | 5 ⁰ 39 | 17 ⁰ 15 | 17 ⁰ 13 | 8 ⁰ 50 | 7 ⁰ 29 | T 7 | | | | | | | | |
| F 8 | 19 27 30 | 21 ⁰ 4'59 | 5 ⁰ Y29 | 2 ⁰ 11 | 13 ⁰ 26 | 21 ⁰ 38 | 7 ⁰ 13 | 3 ⁰ 16 | 16 ⁰ 50 | 22 ⁰ 31 | 5 ⁰ 39 | 17 ⁰ 11 | 17 ⁰ 10 | 8 ⁰ 57 | 7 ⁰ 29 | F 8 | | | | | | | | |
| S 9 | 19 31 27 | 22 ⁰ 2'18 | 20 ⁰ 20 | 3 ⁰ 36 | 14 ⁰ 35 | 22 ⁰ 18 | 7 ⁰ 15 | 3 ⁰ 24 | 16 ⁰ 51 | 22 ⁰ 33 | 5 ⁰ 39 | 17 ⁰ 3 | 17 ⁰ 7 | 9 ⁰ 4 | 7 ⁰ 28 | S 9 | | | | | | | | |
| S 10 | 19 35 23 | 22 ⁰ 59'38 | 5 ⁰ Z30 | 5 ⁰ 6 | 15 ⁰ 45 | 22 ⁰ 59 | 7 ⁰ 17 | 3 ⁰ 32 | 16 ⁰ 51 | 22 ⁰ 36 | 5 ⁰ 39 | 16 ⁰ 54 | 17 ⁰ 4 | 9 ⁰ 10 | 7 ⁰ 28 | S 10 | | | | | | | | |
| M 11 | 19 39 20 | 23 ⁰ 56'59 | 20 ⁰ 48 | 6 ⁰ 40 | 16 ⁰ 55 | 23 ⁰ 39 | 7 ⁰ 19 | 3 ⁰ 39 | 16 ⁰ 51 | 22 ⁰ 38 | 5 ⁰ 38 | 16 ⁰ 44 | 17 ⁰ 1 | 9 ⁰ 17 | 7 ⁰ 28 | M 11 | | | | | | | | |
| T 12 | 19 43 17 | 24 ⁰ 54'21 | 6 ⁰ 3 | 8 ⁰ 18 | 18 ⁰ 5 | 24 ⁰ 19 | 7 ⁰ 21 | 3 ⁰ 47 | 16 ⁰ 51 | 22 ⁰ 40 | 5 ⁰ 38 | 16 ⁰ 33 | 16 ⁰ 58 | 9 ⁰ 24 | 7 ⁰ 27 | T 12 | | | | | | | | |
| W 13 | 19 47 13 | 25 ⁰ 51'43 | 21 ⁰ 3 | 10 ⁰ 0 | 19 ⁰ 15 | 25 ⁰ 0 | 7 ⁰ 24 | 3 ⁰ 54 | 16 ⁰ 52 | 22 ⁰ 42 | 5 ⁰ 38 | 16 ⁰ 24 | 16 ⁰ 54 | 9 ⁰ 31 | 7 ⁰ 27 | W 13 | | | | | | | | |
| T 14 | 19 51 10 | 26 ⁰ 49'06 | 5 ⁰ Y41 | 11 ⁰ 46 | 20 ⁰ 25 | 25 ⁰ 40 | 7 ⁰ 27 | 4 ⁰ 2 | 16 ⁰ 52 | 22 ⁰ 45 | 5 ⁰ 38 | 16 ⁰ 17 | 16 ⁰ 51 | 9 ⁰ 37 | 7 ⁰ 27 | T 14 | | | | | | | | |
| F 15 | 19 55 6 | 27 ⁰ 46'31 | 19 ⁰ 51 | 13 ⁰ 34 | 21 ⁰ 35 | 26 ⁰ 20 | 7 ⁰ 30 | 4 ⁰ 10 | 16 ⁰ 52 | 22 ⁰ 47 | 5 ⁰ 37 | 16 ⁰ 12 | 16 ⁰ 48 | 9 ⁰ 44 | 7 ⁰ 26 | F 15 | | | | | | | | |
| S 16 | 19 59 3 | 28 ⁰ 43'57 | 3 ⁰ Y31 | 15 ⁰ 26 | 22 ⁰ 45 | 27 ⁰ 0 | 7 ⁰ 33 | 4 ⁰ 17 | 16 ⁰ 52 | 22 ⁰ 49 | 5 ⁰ 37 | 16 ⁰ 10 | 16 ⁰ 45 | 9 ⁰ 51 | 7 ⁰ 26 | S 16 | | | | | | | | |
| S 17 | 20 2 59 | 29 ⁰ 41'24 | 16 ⁰ 43 | 17 ⁰ 21 | 23 ⁰ 56 | 27 ⁰ 40 | 7 ⁰ 36 | 4 ⁰ 25 | 16 ⁰ R52 | 22 ⁰ 51 | 5 ⁰ 37 | 16 ⁰ D10 | 16 ⁰ 42 | 9 ⁰ 57 | 7 ⁰ 25 | S 17 | | | | | | | | |
| M 18 | 20 6 56 | 0 ⁰ Ω38'52 | 29 ⁰ 30 | 19 ⁰ 18 | 25 ⁰ 6 | 28 ⁰ 19 | 7 ⁰ 39 | 4 ⁰ 33 | 16 ⁰ 52 | 22 ⁰ 53 | 5 ⁰ 36 | 16 ⁰ R10 | 16 ⁰ 38 | 10 ⁰ 4 | 7 ⁰ 24 | M 18 | | | | | | | | |
| T 19 | 20 10 52 | 1 ⁰ 36'22 | 11 ⁰ Y57 | 21 ⁰ 17 | 26 ⁰ 17 | 28 ⁰ 59 | 7 ⁰ 43 | 4 ⁰ 40 | 16 ⁰ 52 | 22 ⁰ 56 | 5 ⁰ 36 | 16 ⁰ 10 | 16 ⁰ 35 | 10 ⁰ 11 | 7 ⁰ 24 | T 19 | | | | | | | | |
| W 20 | 20 14 49 | 2 ⁰ 33'53 | 24 ⁰ 8 | 23 ⁰ 17 | 27 ⁰ 27 | 29 ⁰ 38 | 7 ⁰ 47 | 4 ⁰ 48 | 16 ⁰ 52 | 22 ⁰ 58 | 5 ⁰ 35 | 16 ⁰ 8 | 16 ⁰ 32 | 10 ⁰ 18 | 7 ⁰ 23 | W 20 | | | | | | | | |
| T 21 | 20 18 46 | 3 ⁰ 31'26 | 6 ⁰ II 8 | 25 ⁰ 18 | 28 ⁰ 38 | 0 ⁰ II18 | 7 ⁰ 50 | 4 ⁰ 56 | 16 ⁰ 52 | 23 ⁰ 0 | 5 ⁰ 35 | 16 ⁰ 3 | 16 ⁰ 29 | 10 ⁰ 24 | 7 ⁰ 22 | T 21 | | | | | | | | |
| F 22 | 20 22 42 | 4 ⁰ 29'00 | 18 ⁰ 2 | 27 ⁰ 21 | 29 ⁰ 49 | 0 ⁰ 57 | 7 ⁰ 55 | 5 ⁰ 3 | 16 ⁰ 51 | 23 ⁰ 2 | 5 ⁰ 35 | 15 ⁰ 56 | 16 ⁰ 26 | 10 ⁰ 31 | 7 ⁰ 21 | F 22 | | | | | | | | |
| S 23 | 20 26 39 | 5 ⁰ 26'36 | 29 ⁰ 54 | 29 ⁰ 23 | 1 ⁰ 0 | 1 ⁰ 36 | 7 ⁰ 59 | 5 ⁰ 11 | 16 ⁰ 51 | 23 ⁰ 4 | 5 ⁰ 34 | 15 ⁰ 47 | 16 ⁰ 23 | 10 ⁰ 38 | 7 ⁰ 20 | S 23 | | | | | | | | |
| S 24 | 20 30 35 | 6 ⁰ 24'13 | 11 ⁰ Ω45 | 1 ⁰ Ω27 | 2 ⁰ 11 | 2 ⁰ 15 | 8 ⁰ 3 | 5 ⁰ 19 | 16 ⁰ 51 | 23 ⁰ 7 | 5 ⁰ 34 | 15 ⁰ 36 | 16 ⁰ 19 | 10 ⁰ 45 | 7 ⁰ 19 | S 24 | | | | | | | | |
| M 25 | 20 34 32 | 7 ⁰ 21'51 | 23 ⁰ 39 | 3 ⁰ 30 | 3 ⁰ 22 | 2 ⁰ 54 | 8 ⁰ 8 | 5 ⁰ 26 | 16 ⁰ 50 | 23 ⁰ 9 | 5 ⁰ 33 | 15 ⁰ 23 | 16 ⁰ 16 | 10 ⁰ 51 | 7 ⁰ 18 | M 25 | | | | | | | | |
| T 26 | 20 38 28 | 8 ⁰ 19'31 | 5 ⁰ Ω37 | 5 ⁰ 32 | 4 ⁰ 33 | 3 ⁰ 33 | 8 ⁰ 13 | 5 ⁰ 34 | 16 ⁰ 50 | 23 ⁰ 11 | 5 ⁰ 33 | 15 ⁰ 11 | 16 ⁰ 13 | 10 ⁰ 58 | 7 ⁰ 17 | T 26 | | | | | | | | |
| W 27 | 20 42 25 | 9 ⁰ 17'12 | 17 ⁰ 40 | 7 ⁰ 34 | 5 ⁰ 44 | 4 ⁰ 12 | 8 ⁰ 17 | 5 ⁰ 42 | 16 ⁰ 49 | 23 ⁰ 13 | 5 ⁰ 32 | 14 ⁰ 59 | 16 ⁰ 10 | 11 ⁰ 5 | 7 ⁰ 16 | W 27 | | | | | | | | |
| T 28 | 20 46 21 | 10 ⁰ 14'54 | 29 ⁰ 50 | 9 ⁰ 36 | 6 ⁰ 55 | 4 ⁰ 51 | 8 ⁰ 22 | 5 ⁰ 49 | 16 ⁰ 49 | 23 ⁰ 15 | 5 ⁰ 31 | 14 ⁰ 50 | 16 ⁰ 7 | 11 ⁰ 11 | 7 ⁰ 15 | T 28 | | | | | | | | |
| F 29 | 20 50 18 | 11 ⁰ 12'37 | 12 ⁰ II 8 | 11 ⁰ 37 | 8 ⁰ 6 | 5 ⁰ 29 | 8 ⁰ 28 | 5 ⁰ 57 | 16 ⁰ 48 | 23 ⁰ 17 | 5 ⁰ 31 | 14 ⁰ 43 | 16 ⁰ 4 | 11 ⁰ 18 | 7 ⁰ 13 | F 29 | | | | | | | | |
| S 30 | 20 54 15 | 12 ⁰ 10'22 | 24 ⁰ 36 | 13 ⁰ 36 | 9 ⁰ 18 | 6 ⁰ 8 | 8 ⁰ 33 | 6 ⁰ 5 | 16 ⁰ 48 | 23 ⁰ 20 | 5 ⁰ 30 | 14 ⁰ 39 | 16 ⁰ 0 | 11 ⁰ 25 | 7 ⁰ 12 | S 30 | | | | | | | | |
| S 31 | 20 58 11 | 13 ⁰ Ω 8'08 | 7 ⁰ Ω15 | 15 ⁰ Ω35 | 10 ⁰ Ω29 | 6 ⁰ II46 | 8 ⁰ II39 | 6 ⁰ Ω12 | 16 ⁰ Y47 | 23 ⁰ Ω22 | 5 ⁰ Y30 | 14 ⁰ Y37 | 15 ⁰ Y57 | 11 ⁰ Ω32 | 7 ⁰ Y11 | S 31 | | | | | | | | |

Delta T = 18m03s Julian Calendar 1 July 1093 == Greg. Calendar 7 July 1093

AUGUST 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| M 1 | 21 2 8 | 14 ⁰ Ω 5'55 | 20 ⁰ Ω 8 | 17 ⁰ Ω33 | 11 ⁰ Ω41 | 7 ⁰ II24 | 8 ⁰ II44 | 6 ⁰ Ω20 | 16 ⁰ R46 | 23 ⁰ Ω24 | 5 ⁰ R29 | 14 ⁰ D36 | 15 ⁰ Y54 | 11 ⁰ Ω38 | 7 ⁰ R 9 | M 1 | | | | | | | | |
| T 2 | 21 6 4 | 15 ⁰ 3'43 | 3 ⁰ II19 | 19 ⁰ 29 | 12 ⁰ 52 | 8 ⁰ 2 | 8 ⁰ 50 | 6 ⁰ 28 | 16 ⁰ Y46 | 23 ⁰ 26 | 5 ⁰ Y28 | 14 ⁰ Y37 | 15 ⁰ 51 | 11 ⁰ 45 | 7 ⁰ Y 8 | T 2 | | | | | | | | |
| W 3 | 21 10 1 | 16 ⁰ 1'33 | 16 ⁰ 19 | 21 ⁰ 24 | 14 ⁰ 4 | 8 ⁰ 40 | 8 ⁰ 56 | 6 ⁰ 35 | 16 ⁰ 45 | 23 ⁰ 28 | 5 ⁰ 28 | 14 ⁰ R38 | 15 ⁰ 48 | 11 ⁰ 52 | 7 ⁰ 7 | W 3 | | | | | | | | |
| T 4 | 21 13 57 | 16 ⁰ 59'23 | 0 ⁰ Y42 | 23 ⁰ 18 | 15 ⁰ 16 | 9 ⁰ 18 | 9 ⁰ 2 | 6 ⁰ 43 | 16 ⁰ 44 | 23 ⁰ 30 | 5 ⁰ 27 | 14 ⁰ 37 | 15 ⁰ 44 | 11 ⁰ 59 | 7 ⁰ 5 | T 4 | | | | | | | | |
| F 5 | 21 17 54 | 17 ⁰ 57'16 | 14 ⁰ 57 | 25 ⁰ 10 | 16 ⁰ 28 | 9 ⁰ 55 | 9 ⁰ 8 | 6 ⁰ 51 | 16 ⁰ 43 | 23 ⁰ 32 | 5 ⁰ 26 | 14 ⁰ 34 | 15 ⁰ 41 | 12 ⁰ 5 | 7 ⁰ 3 | F 5 | | | | | | | | |
| S 6 | 21 21 50 | 18 ⁰ 55'09 | 29 ⁰ 32 | 27 ⁰ 1 | 17 ⁰ 40 | 10 ⁰ 33 | 9 ⁰ 15 | 6 ⁰ 58 | 16 ⁰ 42 | 23 ⁰ 34 | 5 ⁰ 25 | 14 ⁰ 29 | 15 ⁰ 38 | 12 ⁰ 12 | 7 ⁰ 2 | S 6 | | | | | | | | |
| S 7 | 21 25 47 | 19 ⁰ 53'04 | 14 ⁰ Z34 | 28 ⁰ 51 | 18 ⁰ 52 | 11 ⁰ 10 | 9 ⁰ 21 | 7 ⁰ 6 | 16 ⁰ 41 | 23 ⁰ 36 | 5 ⁰ 25 | 14 ⁰ 22 | 15 ⁰ 35 | 12 ⁰ 19 | 7 ⁰ 0 | S 7 | | | | | | | | |
| M 8 | 21 29 44 | 20 ⁰ 51'00 | 29 ⁰ 26 | 0 ⁰ II40 | 20 ⁰ 4 | 11 ⁰ 47 | 9 ⁰ 28 | 7 ⁰ 13 | 16 ⁰ 40 | 23 ⁰ 38 | 5 ⁰ 24 | 14 ⁰ 14 | 15 ⁰ 32 | 12 ⁰ 25 | 6 ⁰ 59 | M 8 | | | | | | | | |
| T 9 | 21 33 40 | 21 ⁰ 48'58 | 14 ⁰ Ω27 | 2 ⁰ 27 | 21 ⁰ 16 | 12 ⁰ 25 | 9 ⁰ 35 | 7 ⁰ 21 | 16 ⁰ 39 | 23 ⁰ 40 | 5 ⁰ 23 | 14 ⁰ 6 | 15 ⁰ 29 | 12 ⁰ 32 | 6 ⁰ 57 | T 9 | | | | | | | | |
| W 10 | 21 37 37 | 22 ⁰ 46'57 | 29 ⁰ 19 | 4 ⁰ 13 | 22 ⁰ 28 | 13 ⁰ 2 | 9 ⁰ 42 | 7 ⁰ 28 | 16 ⁰ 38 | 23 ⁰ 42 | 5 ⁰ 22 | 13 ⁰ 59 | 15 ⁰ 25 | 12 ⁰ 39 | 6 ⁰ 55 | W 10 | | | | | | | | |
| T 11 | 21 41 33 | 23 ⁰ 44'58 | 13 ⁰ Y53 | 5 ⁰ 58 | 23 ⁰ 40 | 13 ⁰ 38 | 9 ⁰ 49 | 7 ⁰ 36 | 16 ⁰ 37 | 23 ⁰ 44 | 5 ⁰ 22 | 13 ⁰ 54 | 15 ⁰ 22 | 12 ⁰ 46 | 6 ⁰ 53 | T 11 | | | | | | | | |
| F 12 | 21 45 30 | 24 ⁰ 43'00 | 28 ⁰ 3 | 7 ⁰ 41 | 24 ⁰ 52 | 14 ⁰ 15 | 9 ⁰ 56 | 7 ⁰ 43 | 16 ⁰ 35 | 23 ⁰ 46 | 5 ⁰ 21 | 13 ⁰ 51 | 15 ⁰ 19 | 12 ⁰ 52 | 6 ⁰ 51 | F 12 | | | | | | | | |
| S 13 | 21 49 26 | 25 ⁰ 41'05 | 11 ⁰ Y47 | 9 ⁰ 23 | 26 ⁰ 5 | 14 ⁰ 52 | 10 ⁰ 4 | 7 ⁰ 51 | 16 ⁰ 34 | 23 ⁰ 48 | 5 ⁰ 20 | 13 ⁰ D50 | 15 ⁰ 16 | 12 ⁰ 59 | 6 ⁰ 49 | S 13 | | | | | | | | |
| S 14 | 21 53 23 | 26 ⁰ 39'11 | 25 ⁰ 3 | 11 ⁰ 4 | 27 ⁰ 17 | 15 ⁰ 28 | 10 ⁰ 11 | 7 ⁰ 58 | 16 ⁰ 33 | 23 ⁰ 50 | 5 ⁰ 19 | 13 ⁰ 50 | 15 ⁰ 13 | 13 ⁰ 6 | 6 ⁰ 47 | S 14 | | | | | | | | |
| M 15 | 21 57 19 | 27 ⁰ 37'19 | 7 ⁰ | | | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1093
geocentric

SEPTEMBER 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|-------------------|---------------------|------------------|--------------------|---------------------|-------------------|------------------|------|-----|
| T 1 | 23 4 21 | 14 ¹¹ 10'50 | 11 ¹⁷ 12 | 7 ⁵⁸ 58 | 19 ¹² 12 | 25 ⁵⁸ 58 | 12 ⁴⁷ 12 | 10 ¹² 7 | 16 ^R 3 | 24 ²² 22 | 5 ^R 1 | 13 ^R 10 | 14 ¹⁶ 16 | 15 ⁷ 7 | 6 ^R 6 | T 1 | |
| F 2 | 23 8 17 | 15° 9'33 | 25°18 | 9°16 | 20°26 | 26°31 | 12°57 | 10°13 | 16 ^Y 1 | 24°24 | 5 ^Y 0 | 13 ^Y 10 | 14°12 | 15°14 | 6 ^Y 4 | F 2 | |
| S 3 | 23 12 14 | 16° 8'18 | 9 ³⁸ 38 | 10°32 | 21°40 | 27° 4 | 13° 7 | 10°20 | 15°59 | 24°25 | 4°59 | 13° 8 | 14° 9 | 15°20 | 6° 1 | S 3 | |
| S 4 | 23 16 11 | 17° 7'05 | 24° 8 | 11°47 | 22°53 | 27°37 | 13°17 | 10°27 | 15°57 | 24°27 | 4°58 | 13° 6 | 14° 6 | 15°27 | 5°59 | S 4 | |
| M 5 | 23 20 7 | 18° 5'54 | 8 ⁴⁴ 44 | 13° 0 | 24° 7 | 28°10 | 13°27 | 10°33 | 15°55 | 24°28 | 4°57 | 13° 2 | 14° 3 | 15°34 | 5°56 | M 5 | |
| T 6 | 23 24 4 | 19° 4'44 | 23°20 | 14°12 | 25°21 | 28°43 | 13°37 | 10°40 | 15°53 | 24°30 | 4°56 | 12°59 | 14° 0 | 15°40 | 5°53 | T 6 | |
| W 7 | 23 28 0 | 20° 3'36 | 7 ⁵⁰ 50 | 15°22 | 26°35 | 29°15 | 13°47 | 10°47 | 15°51 | 24°31 | 4°55 | 12°56 | 13°56 | 15°47 | 5°51 | W 7 | |
| T 8 | 23 31 57 | 21° 2'30 | 22° 6 | 16°30 | 27°49 | 29°47 | 13°58 | 10°53 | 15°48 | 24°32 | 4°54 | 12°54 | 13°53 | 15°54 | 5°48 | T 8 | |
| F 9 | 23 35 53 | 22° 1'26 | 6 ^Y 5 | 17°35 | 29° 3 | 0 ¹⁹ 19 | 14° 8 | 11° 0 | 15°46 | 24°34 | 4°53 | 12°53 | 13°50 | 16° 1 | 5°45 | F 9 | |
| S 10 | 23 39 50 | 23° 0'24 | 19°42 | 18°39 | 0 ¹⁷ 17 | 0°51 | 14°19 | 11° 6 | 15°44 | 24°35 | 4°52 | 12°D53 | 13°47 | 16° 7 | 5°43 | S 10 | |
| S 11 | 23 43 46 | 23°59'25 | 2 ⁵⁷ 57 | 19°41 | 1°31 | 1°22 | 14°29 | 11°12 | 15°42 | 24°37 | 4°50 | 12°54 | 13°44 | 16°14 | 5°40 | S 11 | |
| M12 | 23 47 43 | 24°58'27 | 15°50 | 20°39 | 2°45 | 1°54 | 14°40 | 11°19 | 15°40 | 24°38 | 4°49 | 12°55 | 13°41 | 16°21 | 5°37 | M12 | |
| T 13 | 23 51 40 | 25°57'32 | 28°23 | 21°35 | 3°59 | 2°25 | 14°51 | 11°25 | 15°37 | 24°39 | 4°48 | 12°56 | 13°37 | 16°27 | 5°34 | T 13 | |
| W14 | 23 55 36 | 26°56'40 | 10 ³⁹ 39 | 22°29 | 5°13 | 2°56 | 15° 2 | 11°31 | 15°35 | 24°40 | 4°47 | 12°58 | 13°34 | 16°34 | 5°32 | W14 | |
| T 15 | 23 59 33 | 27°55'50 | 22°43 | 23°19 | 6°28 | 3°26 | 15°12 | 11°37 | 15°33 | 24°42 | 4°46 | 12°R58 | 13°31 | 16°41 | 5°29 | T 15 | |
| F 16 | 0 3 29 | 28°55'02 | 4 ³⁸ 38 | 24° 5 | 7°42 | 3°57 | 15°24 | 11°43 | 15°30 | 24°43 | 4°45 | 12°58 | 13°28 | 16°48 | 5°26 | F 16 | |
| S 17 | 0 7 26 | 29°54'16 | 16°31 | 24°47 | 8°56 | 4°27 | 15°35 | 11°49 | 15°28 | 24°44 | 4°44 | 12°57 | 13°25 | 16°54 | 5°23 | S 17 | |
| S 18 | 0 11 22 | 0 ³³ 33 | 28°25 | 25°26 | 10°11 | 4°57 | 15°46 | 11°55 | 15°26 | 24°45 | 4°42 | 12°56 | 13°21 | 17° 1 | 5°20 | S 18 | |
| M19 | 0 15 19 | 1°52'52 | 10 ²⁵ 25 | 25°59 | 11°25 | 5°26 | 15°57 | 12° 1 | 15°23 | 24°46 | 4°41 | 12°55 | 13°18 | 17° 8 | 5°18 | M19 | |
| T 20 | 0 19 15 | 2°52'14 | 22°34 | 26°28 | 12°40 | 5°56 | 16° 9 | 12° 7 | 15°21 | 24°47 | 4°40 | 12°53 | 13°15 | 17°15 | 5°15 | T 20 | |
| W21 | 0 23 12 | 3°51'37 | 4 ⁵⁵ 55 | 26°51 | 13°54 | 6°25 | 16°20 | 12°12 | 15°19 | 24°48 | 4°39 | 12°52 | 13°12 | 17°21 | 5°12 | W21 | |
| T 22 | 0 27 9 | 4°51'03 | 17°30 | 27° 9 | 15° 9 | 6°54 | 16°32 | 12°18 | 15°16 | 24°49 | 4°38 | 12°51 | 13° 9 | 17°28 | 5° 9 | T 22 | |
| F 23 | 0 31 5 | 5°50'31 | 0 ²⁰ 20 | 27°20 | 16°23 | 7°22 | 16°43 | 12°24 | 15°14 | 24°50 | 4°37 | 12°50 | 13° 6 | 17°35 | 5° 6 | F 23 | |
| S 24 | 0 35 2 | 6°50'01 | 13°26 | 27°R23 | 17°38 | 7°51 | 16°55 | 12°29 | 15°11 | 24°51 | 4°35 | 12°D50 | 13° 2 | 17°41 | 5° 4 | S 24 | |
| S 25 | 0 38 58 | 7°49'33 | 26°47 | 27°20 | 18°52 | 8°19 | 17° 6 | 12°35 | 15° 9 | 24°52 | 4°34 | 12°50 | 12°59 | 17°48 | 5° 1 | S 25 | |
| M26 | 0 42 55 | 8°49'07 | 10 ²¹ 21 | 27° 8 | 20° 7 | 8°47 | 17°18 | 12°40 | 15° 7 | 24°53 | 4°33 | 12°51 | 12°56 | 17°55 | 4°58 | M26 | |
| T 27 | 0 46 51 | 9°48'44 | 24° 7 | 26°49 | 21°22 | 9°14 | 17°30 | 12°45 | 15° 4 | 24°54 | 4°32 | 12°51 | 12°53 | 18° 2 | 4°55 | T 27 | |
| W28 | 0 50 48 | 10°48'22 | 8 ³ 3 | 26°20 | 22°37 | 9°41 | 17°42 | 12°51 | 15° 2 | 24°55 | 4°31 | 12°51 | 12°50 | 18° 8 | 4°52 | W28 | |
| T 29 | 0 54 44 | 11°48'02 | 22° 7 | 25°43 | 23°51 | 10° 8 | 17°54 | 12°56 | 14°59 | 24°56 | 4°30 | 12°51 | 12°47 | 18°15 | 4°50 | T 29 | |
| F 30 | 0 58 41 | 12°47'43 | 6 ¹⁶ 16 | 24°58 | 25 ⁶ 6 | 10 ³⁵ 35 | 18 ¹⁸ 18 | 13 ¹² 12 | 14°Y57 | 24°56 | 4°Y28 | 12°Y51 | 12°Y43 | 18°22 | 4°Y47 | F 30 | |

Delta T = 18m03s Julian Calendar 1 Sept. 1093 == Greg. Calendar 7 Sept. 1093

OCTOBER 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|---------------------|---------------------|---------------------|---------------------|-------------------|---------------------|---------------------|--------------------|---------------------|-------------------|--------------------|-------------------|---------------------|-------------------|------|-----|
| S 1 | 1 2 38 | 13 ⁴⁷ 27 | 20 ²⁹ 29 | 24°R 4 | 26 ²¹ 21 | 11 ¹ 1 | 18 ¹⁸ 18 | 13 ¹² 12 | 14°R54 | 24 ⁵⁷ 57 | 4°R27 | 12°Y51 | 12°Y40 | 18°28 | 4°R44 | S 1 | |
| S 2 | 1 6 34 | 14°47'12 | 4 ⁴² 42 | 23 ³ 3 | 27°36 | 11°27 | 18°31 | 13°11 | 14 ^Y 52 | 24°58 | 4°Y26 | 12°52 | 12°37 | 18°35 | 4°Y41 | S 2 | |
| M 3 | 1 10 31 | 15°46'58 | 18°54 | 21°55 | 28°51 | 11°52 | 18°43 | 13°16 | 14°49 | 24°58 | 4°25 | 12°52 | 12°34 | 18°42 | 4°38 | M 3 | |
| T 4 | 1 14 27 | 16°46'47 | 3 ² 2 | 20°43 | 0 ⁶ 6 | 12°18 | 18°55 | 13°20 | 14°47 | 24°59 | 4°24 | 12°52 | 12°31 | 18°49 | 4°36 | T 4 | |
| W 5 | 1 18 24 | 17°46'37 | 17° 2 | 19°28 | 1°21 | 12°43 | 19° 7 | 13°25 | 14°44 | 25° 0 | 4°23 | 12°53 | 12°27 | 18°55 | 4°33 | W 5 | |
| T 6 | 1 22 20 | 18°46'29 | 0 ^Y 52 | 18°11 | 2°36 | 13° 7 | 19°20 | 13°30 | 14°42 | 25° 0 | 4°22 | 12°53 | 12°24 | 19° 2 | 4°30 | T 6 | |
| F 7 | 1 26 17 | 19°46'22 | 14°28 | 16°57 | 3°51 | 13°31 | 19°32 | 13°34 | 14°40 | 25° 1 | 4°21 | 12°R53 | 12°21 | 19° 9 | 4°28 | F 7 | |
| S 8 | 1 30 13 | 20°46'18 | 27°49 | 15°46 | 5° 6 | 13°55 | 19°45 | 13°39 | 14°37 | 25° 1 | 4°19 | 12°53 | 12°18 | 19°16 | 4°25 | S 8 | |
| S 9 | 1 34 10 | 21°46'16 | 10 ⁵⁴ 54 | 14°41 | 6°21 | 14°19 | 19°57 | 13°43 | 14°35 | 25° 2 | 4°18 | 12°52 | 12°15 | 19°22 | 4°22 | S 9 | |
| M10 | 1 38 6 | 22°46'16 | 23°41 | 13°44 | 7°36 | 14°42 | 20°10 | 13°47 | 14°32 | 25° 2 | 4°17 | 12°51 | 12°12 | 19°29 | 4°20 | M10 | |
| T 11 | 1 42 3 | 23°46'18 | 6 ¹² 12 | 12°56 | 8°51 | 15° 5 | 20°23 | 13°52 | 14°30 | 25° 3 | 4°16 | 12°49 | 12° 8 | 19°36 | 4°17 | T 11 | |
| W12 | 1 46 0 | 24°46'22 | 18°28 | 12°19 | 10° 6 | 15°27 | 20°35 | 13°56 | 14°27 | 25° 3 | 4°15 | 12°48 | 12° 5 | 19°42 | 4°14 | W12 | |
| T 13 | 1 49 56 | 25°46'28 | 0 ³² 32 | 11°53 | 11°21 | 15°49 | 20°48 | 14° 0 | 14°25 | 25° 3 | 4°14 | 12°46 | 12° 2 | 19°49 | 4°12 | T 13 | |
| F 14 | 1 53 53 | 26°46'37 | 12°29 | 11°39 | 12°37 | 16°10 | 21° 1 | 14° 4 | 14°23 | 25° 4 | 4°13 | 12°45 | 11°59 | 19°56 | 4° 9 | F 14 | |
| S 15 | 1 57 49 | 27°46'47 | 24°22 | 11°D37 | 13°52 | 16°32 | 21°14 | 14° 7 | 14°20 | 25° 4 | 4°12 | 12°D44 | 11°56 | 20° 3 | 4° 7 | S 15 | |
| S 16 | 2 1 46 | 28°47'00 | 6 ¹⁵ 15 | 11°46 | 15° 7 | 16°52 | 21°27 | 14°11 | 14°18 | 25° 4 | 4°11 | 12°45 | 11°53 | 20° 9 | 4° 4 | S 16 | |
| M17 | 2 5 42 | 29°47'14 | 18°14 | 12° 5 | 16°22 | 17°12 | 21°40 | 14°15 | 14°16 | 25° 4 | 4°10 | 12°45 | 11°49 | 20°16 | 4° 2 | M17 | |
| T 18 | 2 9 39 | 0 ⁴⁷ 31 | 0 ¹⁷ 17 | 12°34 | 17°38 | 17°32 | 21°53 | 14°18 | 14°13 | 25° 4 | 4° 9 | 12°47 | 11°46 | 20°23 | 3°59 | T 18 | |
| W19 | 2 13 35 | 1°47'50 | 12°47 | 13°12 | 18°53 | 17°52 | 22° 6 | 14°22 | 14°11 | 25° 4 | 4° 8 | 12°48 | 11°43 | 20°30 | 3°57 | W19 | |
| T 20 | 2 17 32 | 2°48'10 | 25°29 | 13°57 | 20° 8 | 18°10 | 22°19 | 14°25 | 14° 9 | 25° 5 | 4° 7 | 12°50 | 11°40 | 20°36 | 3°55 | T 20 | |
| F 21 | 2 21 29 | 3°48'33 | 8 ³¹ 31 | 14°50 | 21°23 | 18°29 | 22°32 | 14°28 | 14° 6 | 25° 5 | 4° 6 | 12°R50 | 11°37 | 20°43 | 3°52 | F 21 | |
| S 22 | 2 25 25 | 4°48'57 | 21°55 | 15°50 | 22°39 | 18°47 | 22°45 | 14°32 | 14° 4 | 25°R 5 | 4° 5 | 12°50 | 11°33 | 20°50 | 3°50 | S 22 | |
| S 23 | 2 29 22 | 5°49'23 | 5 ³⁹ 39 | 16°54 | 23°54 | 19° 4 | 22°58 | 14°35 | 14° 2 | 25° 5 | 4° 4 | 12°49 | 11°30 | 20°56 | 3°48 | S 23 | |
| M24 | 2 33 18 | 6°49'51 | 19°41 | 18° 4 | 25°10 | 19°21 | 23°11 | 14°38 | 14° 0 | 25° 5 | 4° 3 | 12°46 | 11°27 | 21° 3 | 3°45 | M24 | |
| T 25 | 2 37 15 | 7°50'21 | 3 ⁵⁷ 57 | 19°18 | 26°25 | 19°37 | 23°25 | 14°40 | 13°57 | 25° 5 | 4° 2 | 12°43 | 11°24 | 21°10 | 3°43 | T 25 | |
| W26 | 2 41 11 | 8°50'52 | 18°21 | 20°35 | 27°40 | 19°53 | 23°38 | 14°43 | 13°55 | 25° 4 | 4° 1 | 12°39 | 11°21 | 21°17 | 3°41 | W26 | |
| T 27 | 2 45 8 | 9°51'25 | 2 ³⁹ 39 | 21°55 | 28°56 | 20° 8 | 23°51 | 14°46 | 13°53 | 25° 4 | 4° 0 | 12°35 | 11°18 | 21°23 | 3°39 | T 27 | |
| F 28 | 2 49 4 | 10°51'59 | 17°14 | 23°17 | 0 ¹¹ 11 | 20°23 | 24° 4 | 14°48 | 13°51 | 25° 4 | 3°59 | 12°32 | 11°14 | 21°30 | 3°37 | F 28 | |
| S 29 | 2 53 1 | 11°52'34 | 1 ³² 32 | 24°42 | 1°27 | 20°37 | 24°18 | 14°51 | 13°49 | 25° 4 | 3°58 | 12°31 | 11°11 | 21°37 | 3°35 | S 29 | |
| S 30 | 2 56 58 | 12°53'10 | 15°41 | 26° 8 | 2°42 | 20°51 | 24°31 | 14°53 | 13°47 | 25° 4 | 3°57 | 12°D30 | 11° 8 | 21°43 | 3°33 | S 30 | |
| M31 | 3 0 54 | 13 ⁵³ 48 | 29 ³⁸ 38 | 27 ³⁶ 36 | 3 ⁵⁷ 57 | 21 ⁴ 4 | 24 ⁴⁴ 44 | 14 ⁵⁵ 55 | 13 ^Y 45 | 25 ³ 3 | 3 ^Y 57 | 12 ^Y 31 | 11 ^Y 5 | 21 ⁵⁰ 50 | 3 ^Y 31 | M31 | |

Delta T = 18m03s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1093
geocentric

NOVEMBER 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|-------|-------|--------|-------|--------|--------|--------|-------|--------|--------|-------|-------|------|-----|
| T 1 | 3 4 51 | 14♌54'27 | 13♋24 | 29♎5 | 5♍13 | 21♏16 | 24♌58 | 14♎58 | 13♍R43 | 25♍R 3 | 3♍R56 | 12♍Y33 | 11♍Y 2 | 21♏57 | 3♍R29 | T 1 | |
| W 2 | 3 8 47 | 15°55'06 | 26°59 | 0♍.35 | 6°28 | 21°28 | 25°11 | 15° 0 | 13♍Y41 | 25♏3 | 3♍Y55 | 12°34 | 10°59 | 22° 4 | 3♍Y27 | W 2 | |
| T 3 | 3 12 44 | 16°55'47 | 10♍Y21 | 2° 6 | 7°44 | 21°39 | 25°25 | 15° 1 | 13°39 | 25° 2 | 3°54 | 12°R35 | 10°55 | 22°10 | 3°25 | T 3 | |
| F 4 | 3 16 40 | 17°56'30 | 23°32 | 3°38 | 8°59 | 21°50 | 25°38 | 15° 3 | 13°37 | 25° 2 | 3°53 | 12°34 | 10°52 | 22°17 | 3°23 | F 4 | |
| S 5 | 3 20 37 | 18°57'13 | 6♋31 | 5°10 | 10°15 | 22° 0 | 25°51 | 15° 5 | 13°35 | 25° 1 | 3°52 | 12°32 | 10°49 | 22°24 | 3°21 | S 5 | |
| S 6 | 3 24 33 | 19°57'58 | 19°18 | 6°42 | 11°30 | 22° 9 | 26° 5 | 15° 7 | 13°33 | 25° 1 | 3°52 | 12°28 | 10°46 | 22°30 | 3°20 | S 6 | |
| M 7 | 3 28 30 | 20°58'44 | 1♏II53 | 8°15 | 12°46 | 22°18 | 26°18 | 15° 8 | 13°31 | 25° 0 | 3°51 | 12°22 | 10°43 | 22°37 | 3°18 | M 7 | |
| T 8 | 3 32 27 | 21°59'32 | 14°16 | 9°48 | 14° 1 | 22°25 | 26°32 | 15° 9 | 13°30 | 25° 0 | 3°50 | 12°14 | 10°39 | 22°44 | 3°16 | T 8 | |
| W 9 | 3 36 23 | 23° 0'21 | 26°27 | 11°22 | 15°17 | 22°33 | 26°45 | 15°11 | 13°28 | 24°59 | 3°50 | 12° 7 | 10°36 | 22°51 | 3°15 | W 9 | |
| T 10 | 3 40 20 | 24° 1'11 | 8♏30 | 12°55 | 16°32 | 22°39 | 26°59 | 15°12 | 13°26 | 24°59 | 3°49 | 11°59 | 10°33 | 22°57 | 3°13 | T 10 | |
| F 11 | 3 44 16 | 25° 2'03 | 20°25 | 14°29 | 17°48 | 22°45 | 27°12 | 15°13 | 13°25 | 24°58 | 3°48 | 11°52 | 10°30 | 23° 4 | 3°12 | F 11 | |
| S 12 | 3 48 13 | 26° 2'56 | 2♏Ω17 | 16° 2 | 19° 3 | 22°50 | 27°26 | 15°14 | 13°23 | 24°57 | 3°48 | 11°47 | 10°27 | 23°11 | 3°10 | S 12 | |
| S 13 | 3 52 9 | 27° 3'50 | 14° 8 | 17°36 | 20°19 | 22°55 | 27°39 | 15°15 | 13°21 | 24°57 | 3°47 | 11°44 | 10°24 | 23°18 | 3° 9 | S 13 | |
| M14 | 3 56 6 | 28° 4'46 | 26° 4 | 19°10 | 21°34 | 22°58 | 27°53 | 15°15 | 13°20 | 24°56 | 3°46 | 11°D43 | 10°20 | 23°24 | 3° 8 | M14 | |
| T 15 | 4 0 3 | 29° 5'43 | 8♏10 | 20°43 | 22°50 | 23° 1 | 28° 6 | 15°16 | 13°18 | 24°55 | 3°46 | 11°43 | 10°17 | 23°31 | 3° 6 | T 15 | |
| W16 | 4 3 59 | 0♎♌6'42 | 20°31 | 22°17 | 24° 5 | 23° 3 | 28°20 | 15°17 | 13°17 | 24°54 | 3°45 | 11°45 | 10°14 | 23°38 | 3° 5 | W16 | |
| T 17 | 4 7 56 | 1° 7'41 | 3♏11 | 23°51 | 25°21 | 23° 4 | 28°34 | 15°17 | 13°15 | 24°53 | 3°45 | 11°46 | 10°11 | 23°44 | 3° 4 | T 17 | |
| F 18 | 4 11 52 | 2° 8'42 | 16°16 | 25°25 | 26°36 | 23°R 5 | 28°47 | 15°17 | 13°14 | 24°53 | 3°44 | 11°R46 | 10° 8 | 23°51 | 3° 3 | F 18 | |
| S 19 | 4 15 49 | 3° 9'44 | 29°46 | 26°59 | 27°52 | 23° 4 | 29° 1 | 15°17 | 13°13 | 24°52 | 3°44 | 11°44 | 10° 4 | 23°58 | 3° 2 | S 19 | |
| S 20 | 4 19 45 | 4°10'47 | 13♌44 | 28°32 | 29° 8 | 23° 3 | 29°14 | 15°R17 | 13°11 | 24°51 | 3°43 | 11°41 | 10° 1 | 24° 5 | 3° 1 | S 20 | |
| M21 | 4 23 42 | 5°11'51 | 28° 6 | 0♎♌6 | 0♎♌23 | 23° 1 | 29°28 | 15°17 | 13°10 | 24°50 | 3°43 | 11°34 | 9°58 | 24°11 | 3° 0 | M21 | |
| T 22 | 4 27 38 | 6°12'56 | 12♎♌48 | 1°40 | 1°39 | 22°58 | 29°41 | 15°17 | 13° 9 | 24°49 | 3°42 | 11°26 | 9°55 | 24°18 | 2°59 | T 22 | |
| W23 | 4 31 35 | 7°14'02 | 27°41 | 3°14 | 2°54 | 22°55 | 29°55 | 15°17 | 13° 8 | 24°48 | 3°42 | 11°17 | 9°52 | 24°25 | 2°58 | W23 | |
| T 24 | 4 35 32 | 8°15'09 | 12♏37 | 4°48 | 4°10 | 22°50 | 0♎♌8 | 15°16 | 13° 7 | 24°47 | 3°41 | 11° 8 | 9°49 | 24°31 | 2°57 | T 24 | |
| F 25 | 4 39 28 | 9°16'16 | 27°26 | 6°23 | 5°25 | 22°45 | 0°22 | 15°16 | 13° 5 | 24°46 | 3°41 | 11° 0 | 9°45 | 24°38 | 2°56 | F 25 | |
| S 26 | 4 43 25 | 10°17'23 | 12♏2 | 7°57 | 6°41 | 22°39 | 0°35 | 15°15 | 13° 4 | 24°45 | 3°40 | 10°54 | 9°42 | 24°45 | 2°56 | S 26 | |
| S 27 | 4 47 21 | 11°18'31 | 26°21 | 9°31 | 7°56 | 22°32 | 0°48 | 15°14 | 13° 3 | 24°44 | 3°40 | 10°51 | 9°39 | 24°52 | 2°55 | S 27 | |
| M28 | 4 51 18 | 12°19'39 | 10♋19 | 11° 6 | 9°12 | 22°24 | 1° 2 | 15°14 | 13° 3 | 24°42 | 3°40 | 10°D50 | 9°36 | 24°58 | 2°54 | M28 | |
| T 29 | 4 55 14 | 13°20'47 | 23°57 | 12°40 | 10°28 | 22°16 | 1°15 | 15°13 | 13° 2 | 24°41 | 3°40 | 10°51 | 9°33 | 25° 5 | 2°54 | T 29 | |
| W30 | 4 59 11 | 14♎21'55 | 7♍Y16 | 14♎15 | 11♎43 | 22♏6 | 1♎29 | 15°Ω12 | 13♍Y 1 | 24♏40 | 3♍Y39 | 10°R51 | 9♍Y30 | 25♏12 | 2♍Y53 | W30 | |

Delta T = 18m02s Julian Calendar 1 Nov. 1093 == Greg. Calendar 7 Nov. 1093

DECEMBER 1093 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|---------|-------|-------|--------|------|--------|--------|--------|-------|--------|-------|-------|-------|------|-----|
| T 1 | 5 3 7 | 15♎23'04 | 20♍Y20 | 15♎50 | 12♎59 | 21♍R56 | 1♎42 | 15°R10 | 13°R 0 | 24°R39 | 3°R39 | 10°R51 | 9♍Y26 | 25♏19 | 2°R53 | T 1 | |
| F 2 | 5 7 4 | 16°24'13 | 3♏10 | 17°25 | 14°14 | 21♏45 | 1°55 | 15°Ω 9 | 12♍Y59 | 24♏38 | 3♍Y39 | 10♍Y48 | 9°23 | 25°25 | 2♍Y53 | F 2 | |
| S 3 | 5 11 1 | 17°25'22 | 15°48 | 19° 1 | 15°30 | 21°33 | 2° 9 | 15° 8 | 12°59 | 24°36 | 3°39 | 10°43 | 9°20 | 25°32 | 2°52 | S 3 | |
| S 4 | 5 14 57 | 18°26'31 | 28°17 | 20°36 | 16°45 | 21°20 | 2°22 | 15° 6 | 12°58 | 24°35 | 3°38 | 10°35 | 9°17 | 25°39 | 2°52 | S 4 | |
| M 5 | 5 18 54 | 19°27'41 | 10♏II37 | 22°12 | 18° 1 | 21° 7 | 2°35 | 15° 5 | 12°57 | 24°34 | 3°38 | 10°24 | 9°14 | 25°45 | 2°52 | M 5 | |
| T 6 | 5 22 50 | 20°28'51 | 22°48 | 23°48 | 19°16 | 20°52 | 2°49 | 15° 3 | 12°57 | 24°33 | 3°38 | 10°12 | 9°10 | 25°52 | 2°52 | T 6 | |
| W 7 | 5 26 47 | 21°30'01 | 4♏53 | 25°25 | 20°32 | 20°37 | 3° 2 | 15° 1 | 12°56 | 24°31 | 3°38 | 9°58 | 9° 7 | 25°59 | 2°52 | W 7 | |
| T 8 | 5 30 43 | 22°31'11 | 16°51 | 27° 1 | 21°47 | 20°21 | 3°15 | 14°59 | 12°56 | 24°30 | 3°38 | 9°44 | 9° 4 | 26° 6 | 2°D52 | T 8 | |
| F 9 | 5 34 40 | 23°32'22 | 28°44 | 28°38 | 23° 3 | 20° 5 | 3°28 | 14°57 | 12°56 | 24°28 | 3°38 | 9°32 | 9° 1 | 26°12 | 2°52 | F 9 | |
| S 10 | 5 38 36 | 24°33'33 | 10♎Ω34 | 0♎♌15 | 24°18 | 19°48 | 3°41 | 14°55 | 12°55 | 24°27 | 3°38 | 9°21 | 8°58 | 26°19 | 2°52 | S 10 | |
| S 11 | 5 42 33 | 25°34'44 | 22°25 | 1°53 | 25°34 | 19°30 | 3°54 | 14°53 | 12°55 | 24°26 | 3°38 | 9°14 | 8°55 | 26°26 | 2°52 | S 11 | |
| M12 | 5 46 30 | 26°35'56 | 4♏19 | 3°30 | 26°49 | 19°11 | 4° 7 | 14°50 | 12°55 | 24°24 | 3°D38 | 9° 9 | 8°51 | 26°32 | 2°52 | M12 | |
| T 13 | 5 50 26 | 27°37'08 | 16°22 | 5° 8 | 28° 5 | 18°52 | 4°20 | 14°48 | 12°55 | 24°23 | 3°38 | 9° 7 | 8°48 | 26°39 | 2°52 | T 13 | |
| W14 | 5 54 23 | 28°38'20 | 28°37 | 6°46 | 29°20 | 18°32 | 4°33 | 14°45 | 12°54 | 24°21 | 3°38 | 9°D 7 | 8°45 | 26°46 | 2°53 | W14 | |
| T 15 | 5 58 19 | 29°39'32 | 11♏12 | 8°25 | 0♎♌36 | 18°12 | 4°46 | 14°43 | 12°54 | 24°20 | 3°38 | 9°R 7 | 8°42 | 26°53 | 2°53 | T 15 | |
| F 16 | 6 2 16 | 0♎♌40'44 | 24°10 | 10° 3 | 1°51 | 17°51 | 4°59 | 14°40 | 12°D54 | 24°18 | 3°38 | 9° 6 | 8°39 | 26°59 | 2°53 | F 16 | |
| S 17 | 6 6 12 | 1°41'57 | 7♌37 | 11°42 | 3° 7 | 17°29 | 5°12 | 14°37 | 12°54 | 24°17 | 3°38 | 9° 4 | 8°36 | 27° 6 | 2°54 | S 17 | |
| S 18 | 6 10 9 | 2°43'10 | 21°33 | 13°20 | 4°22 | 17° 7 | 5°25 | 14°34 | 12°54 | 24°15 | 3°38 | 8°58 | 8°32 | 27°13 | 2°55 | S 18 | |
| M19 | 6 14 5 | 3°44'23 | 5♎59 | 14°59 | 5°38 | 16°45 | 5°38 | 14°31 | 12°55 | 24°14 | 3°38 | 8°50 | 8°29 | 27°19 | 2°55 | M19 | |
| T 20 | 6 18 2 | 4°45'36 | 20°50 | 16°37 | 6°53 | 16°22 | 5°50 | 14°28 | 12°55 | 24°12 | 3°38 | 8°40 | 8°26 | 27°26 | 2°56 | T 20 | |
| W21 | 6 21 59 | 5°46'48 | 6♋0 | 18°16 | 8° 9 | 15°59 | 6° 3 | 14°25 | 12°55 | 24°10 | 3°39 | 8°28 | 8°23 | 27°33 | 2°57 | W21 | |
| T 22 | 6 25 55 | 6°48'01 | 21°16 | 19°54 | 9°24 | 15°36 | 6°16 | 14°22 | 12°55 | 24° 9 | 3°39 | 8°16 | 8°20 | 27°40 | 2°57 | T 22 | |
| F 23 | 6 29 52 | 7°49'12 | 6♎29 | 21°31 | 10°44 | 15°12 | 6°28 | 14°18 | 12°56 | 24° 7 | 3°39 | 8° 6 | 8°17 | 27°46 | 2°58 | F 23 | |
| S 24 | 6 33 48 | 8°50'24 | 21°27 | 23° 8 | 11°55 | 14°49 | 6°41 | 14°15 | 12°56 | 24° 6 | 3°39 | 7°58 | 8°13 | 27°53 | 2°59 | S 24 | |
| S 25 | 6 37 45 | 9°51'34 | 6♋3 | 24°44 | 13°11 | 14°25 | 6°53 | 14°11 | 12°57 | 24° 4 | 3°40 | 7°52 | 8°10 | 28° 0 | 3° 0 | S 25 | |
| M26 | 6 41 41 | 10°52'44 | 20°13 | 26°19 | 14°26 | 14° 1 | 7° 6 | 14° 8 | 12°57 | 24° 2 | 3°40 | 7°50 | 8° 7 | 28° 6 | 3° 1 | M26 | |
| T 27 | 6 45 38 | 11°53'52 | 3♍Y57 | 27°53 | 15°41 | 13°37 | 7°18 | 14° 4 | 12°58 | 24° 1 | 3°40 | 7°49 | 8° 4 | 28°13 | 3° 2 | T 27 | |
| W28 | 6 49 35 | 12°55'00 | 17°16 | 29°24 | 16°57 | 13°12 | 7°30 | 14° 0 | 12°58 | 23°59 | 3°41 | 7°49 | 8° 1 | 28°20 | 3° 3 | W28 | |
| T 29 | 6 53 31 | 13°56'07 | 0♎♌14 | 0♎♌54 | 18°12 | 12°48 | 7°42 | 13°57 | 12°59 | 23°57 | 3°41 | 7°49 | 7°57 | 28°27 | 3° 4 | T 29 | |
| F 30 | 6 57 28 | 14°57'14 | 12°54 | 2°21 | 19°28 | 12°24 | 7°55 | 13°53 | 13° 0 | 23°56 | 3°41 | 7°46 | 7°54 | 28°33 | 3° 6 | F 30 | |
| S 31 | 7 1 24 | 15♎58'19 | 25♋Y19 | 3♎45 | 20♋43 | 12♏1 | 8♎7 | 13°Ω49 | 13♍Y 0 | 23♏54 | 3♍Y42 | 7♍Y40 | 7♍Y51 | 28♏40 | 3♍Y 7 | S 31 | |

Delta T = 18m02s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1094
geocentric

JANUARY 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|---------|-----------------------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|--------------------|------|
| S 1 | 7 5 21 | 16 ⁵⁹ 24 | 7 ^{II} 35 | 5 [≈] 5 | 21 [☾] 58 | 11 [°] R37 | 8 [♂] 19 | 13 [°] R45 | 13 [°] Y 1 | 23 [°] R52 | 3 [°] Y42 | 7 [°] R32 | 7 [°] Y48 | 28 [°] ☽47 | 3 [°] Y 8 | S 1 |
| M 2 | 7 9 17 | 18 [°] 0'27 | 19 [°] 42 | 6 [°] 21 | 23 [°] 14 | 11 [°] ☽14 | 8 [°] 31 | 13 [°] ☽41 | 13 [°] 2 | 23 [°] ☽51 | 3 [°] 43 | 7 [°] Y21 | 7 [°] 45 | 28 [°] 53 | 3 [°] 10 | M 2 |
| T 3 | 7 13 14 | 19 [°] 1'30 | 1 [☽] 44 | 7 [°] 31 | 24 [°] 29 | 10 [°] 51 | 8 [°] 43 | 13 [°] 37 | 13 [°] 3 | 23 [°] 49 | 3 [°] 43 | 7 [°] 7 | 7 [°] 42 | 29 [°] 0 | 3 [°] 11 | T 3 |
| W 4 | 7 17 10 | 20 [°] 2'32 | 13 [°] 40 | 8 [°] 36 | 25 [°] 44 | 10 [°] 28 | 8 [°] 54 | 13 [°] 32 | 13 [°] 4 | 23 [°] 47 | 3 [°] 44 | 6 [°] 53 | 7 [°] 38 | 29 [°] 7 | 3 [°] 13 | W 4 |
| T 5 | 7 21 7 | 21 [°] 3'33 | 25 [°] 34 | 9 [°] 35 | 27 [°] 0 | 10 [°] 5 | 9 [°] 6 | 13 [°] 28 | 13 [°] 5 | 23 [°] 46 | 3 [°] 44 | 6 [°] 38 | 7 [°] 35 | 29 [°] 14 | 3 [°] 14 | T 5 |
| F 6 | 7 25 4 | 22 [°] 4'33 | 7 [☽] 26 | 10 [°] 25 | 28 [°] 15 | 9 [°] 43 | 9 [°] 18 | 13 [°] 24 | 13 [°] 6 | 23 [°] 44 | 3 [°] 45 | 6 [°] 25 | 7 [°] 32 | 29 [°] 20 | 3 [°] 16 | F 6 |
| S 7 | 7 29 0 | 23 [°] 5'32 | 19 [°] 17 | 11 [°] 8 | 29 [°] 30 | 9 [°] 22 | 9 [°] 29 | 13 [°] 19 | 13 [°] 7 | 23 [°] 42 | 3 [°] 45 | 6 [°] 14 | 7 [°] 29 | 29 [°] 27 | 3 [°] 17 | S 7 |
| S 8 | 7 32 57 | 24 [°] 6'30 | 1 [☽] 10 | 11 [°] 41 | 0 [≈] 45 | 9 [°] 1 | 9 [°] 41 | 13 [°] 15 | 13 [°] 8 | 23 [°] 41 | 3 [°] 46 | 6 [°] 6 | 7 [°] 26 | 29 [°] 34 | 3 [°] 19 | S 8 |
| M 9 | 7 36 53 | 25 [°] 7'28 | 13 [°] 7 | 12 [°] 5 | 2 [°] 1 | 8 [°] 40 | 9 [°] 52 | 13 [°] 11 | 13 [°] 10 | 23 [°] 39 | 3 [°] 47 | 6 [°] 1 | 7 [°] 23 | 29 [°] 40 | 3 [°] 21 | M 9 |
| T 10 | 7 40 50 | 26 [°] 8'24 | 25 [°] 11 | 12 [°] 18 | 3 [°] 16 | 8 [°] 20 | 10 [°] 4 | 13 [°] 6 | 13 [°] 11 | 23 [°] 37 | 3 [°] 47 | 5 [°] 58 | 7 [°] 19 | 29 [°] 47 | 3 [°] 23 | T 10 |
| W 11 | 7 44 46 | 27 [°] 9'20 | 7 [☽] 26 | 12 [°] R20 | 4 [°] 31 | 8 [°] 1 | 10 [°] 15 | 13 [°] 1 | 13 [°] 12 | 23 [°] 36 | 3 [°] 48 | 5 [°] D58 | 7 [°] 16 | 29 [°] 54 | 3 [°] 24 | W 11 |
| T 12 | 7 48 43 | 28 [°] 10'15 | 19 [°] 58 | 12 [°] 10 | 5 [°] 46 | 7 [°] 42 | 10 [°] 26 | 12 [°] 57 | 13 [°] 13 | 23 [°] 34 | 3 [°] 49 | 5 [°] 58 | 7 [°] 13 | 0 [☽] 1 | 3 [°] 26 | T 12 |
| F 13 | 7 52 39 | 29 [°] 11'09 | 2 [☽] 50 | 11 [°] 50 | 7 [°] 2 | 7 [°] 23 | 10 [°] 37 | 12 [°] 52 | 13 [°] 15 | 23 [°] 32 | 3 [°] 49 | 5 [°] R58 | 7 [°] 10 | 0 [°] 7 | 3 [°] 28 | F 13 |
| S 14 | 7 56 36 | 0 [≈] 12'02 | 16 [°] 8 | 11 [°] 19 | 8 [°] 17 | 7 [°] 6 | 10 [°] 48 | 12 [°] 48 | 13 [°] 16 | 23 [°] 30 | 3 [°] 50 | 5 [°] 57 | 7 [°] 7 | 0 [°] 14 | 3 [°] 30 | S 14 |
| S 15 | 8 0 33 | 1 [°] 12'55 | 29 [°] 54 | 10 [°] 37 | 9 [°] 32 | 6 [°] 49 | 10 [°] 59 | 12 [°] 43 | 13 [°] 18 | 23 [°] 29 | 3 [°] 51 | 5 [°] 54 | 7 [°] 3 | 0 [°] 21 | 3 [°] 32 | S 15 |
| M 16 | 8 4 29 | 2 [°] 13'46 | 14 [♂] 10 | 9 [°] 46 | 10 [°] 47 | 6 [°] 32 | 11 [°] 10 | 12 [°] 38 | 13 [°] 19 | 23 [°] 27 | 3 [°] 51 | 5 [°] 48 | 7 [°] 0 | 0 [°] 27 | 3 [°] 34 | M 16 |
| T 17 | 8 8 26 | 3 [°] 14'37 | 28 [°] 53 | 8 [°] 48 | 12 [°] 2 | 6 [°] 17 | 11 [°] 21 | 12 [°] 33 | 13 [°] 21 | 23 [°] 25 | 3 [°] 52 | 5 [°] 40 | 6 [°] 57 | 0 [°] 34 | 3 [°] 37 | T 17 |
| W 18 | 8 12 22 | 4 [°] 15'27 | 13 [☽] 59 | 7 [°] 43 | 13 [°] 18 | 6 [°] 2 | 11 [°] 32 | 12 [°] 29 | 13 [°] 23 | 23 [°] 24 | 3 [°] 53 | 5 [°] 31 | 6 [°] 54 | 0 [°] 41 | 3 [°] 39 | W 18 |
| T 19 | 8 16 19 | 5 [°] 16'15 | 29 [°] 17 | 6 [°] 34 | 14 [°] 33 | 5 [°] 48 | 11 [°] 42 | 12 [°] 24 | 13 [°] 24 | 23 [°] 22 | 3 [°] 54 | 5 [°] 21 | 6 [°] 51 | 0 [°] 48 | 3 [°] 41 | T 19 |
| F 20 | 8 20 15 | 6 [°] 17'02 | 14 [≈] 37 | 5 [°] 23 | 15 [°] 48 | 5 [°] 35 | 11 [°] 53 | 12 [°] 19 | 13 [°] 26 | 23 [°] 21 | 3 [°] 55 | 5 [°] 12 | 6 [°] 48 | 0 [°] 54 | 3 [°] 43 | F 20 |
| S 21 | 8 24 12 | 7 [°] 17'48 | 29 [°] 47 | 4 [°] 12 | 17 [°] 3 | 5 [°] 22 | 12 [°] 3 | 12 [°] 14 | 13 [°] 28 | 23 [°] 19 | 3 [°] 56 | 5 [°] 5 | 6 [°] 44 | 1 [°] 1 | 3 [°] 46 | S 21 |
| S 22 | 8 28 9 | 8 [°] 18'32 | 14 [♂] 37 | 3 [°] 2 | 18 [°] 18 | 5 [°] 11 | 12 [°] 13 | 12 [°] 9 | 13 [°] 30 | 23 [°] 17 | 3 [°] 56 | 5 [°] 1 | 6 [°] 41 | 1 [°] 8 | 3 [°] 48 | S 22 |
| M 23 | 8 32 5 | 9 [°] 19'14 | 29 [°] 2 | 1 [°] 56 | 19 [°] 33 | 5 [°] 0 | 12 [°] 24 | 12 [°] 4 | 13 [°] 32 | 23 [°] 16 | 3 [°] 57 | 4 [°] D59 | 6 [°] 38 | 1 [°] 14 | 3 [°] 50 | M 23 |
| T 24 | 8 36 2 | 10 [°] 19'55 | 12 [°] Y59 | 0 [°] 54 | 20 [°] 48 | 4 [°] 50 | 12 [°] 34 | 12 [°] 0 | 13 [°] 34 | 23 [°] 14 | 3 [°] 58 | 5 [°] 0 | 6 [°] 35 | 1 [°] 21 | 3 [°] 53 | T 24 |
| W 25 | 8 39 58 | 11 [°] 20'33 | 26 [°] 27 | 29 [°] 58 | 22 [°] 3 | 4 [°] 40 | 12 [°] 44 | 11 [°] 55 | 13 [°] 35 | 23 [°] 12 | 3 [°] 59 | 5 [°] 0 | 6 [°] 32 | 1 [°] 28 | 3 [°] 55 | W 25 |
| T 26 | 8 43 55 | 12 [°] 21'10 | 9 [♂] 29 | 29 [°] 9 | 23 [°] 18 | 4 [°] 32 | 12 [°] 54 | 11 [°] 50 | 13 [°] 37 | 23 [°] 11 | 4 [°] 0 | 5 [°] R 1 | 6 [°] 28 | 1 [°] 35 | 3 [°] 58 | T 26 |
| F 27 | 8 47 51 | 13 [°] 21'46 | 22 [°] 10 | 28 [°] 27 | 24 [°] 33 | 4 [°] 24 | 13 [°] 3 | 11 [°] 45 | 13 [°] 40 | 23 [°] 9 | 4 [°] 1 | 5 [°] 1 | 6 [°] 25 | 1 [°] 41 | 4 [°] 0 | F 27 |
| S 28 | 8 51 48 | 14 [°] 22'19 | 4 [☽] 34 | 27 [°] 53 | 25 [°] 48 | 4 [°] 17 | 13 [°] 13 | 11 [°] 40 | 13 [°] 42 | 23 [°] 8 | 4 [°] 2 | 4 [°] 59 | 6 [°] 22 | 1 [°] 48 | 4 [°] 3 | S 28 |
| S 29 | 8 55 44 | 15 [°] 22'51 | 16 [°] 44 | 27 [°] 27 | 27 [°] 3 | 4 [°] 11 | 13 [°] 23 | 11 [°] 35 | 13 [°] 44 | 23 [°] 6 | 4 [°] 3 | 4 [°] 54 | 6 [°] 19 | 1 [°] 55 | 4 [°] 6 | S 29 |
| M 30 | 8 59 41 | 16 [°] 23'21 | 28 [°] 45 | 27 [°] 8 | 28 [°] 18 | 4 [°] 6 | 13 [°] 32 | 11 [°] 30 | 13 [°] 46 | 23 [°] 5 | 4 [°] 4 | 4 [°] 47 | 6 [°] 16 | 2 [°] 1 | 4 [°] 8 | M 30 |
| T 31 | 9 3 38 | 17 [≈] 23'49 | 10 [☽] 40 | 26 [☽] 57 | 29 [≈] 33 | 4 [☽] 1 | 13 [♂] 41 | 11 [☽] 26 | 13 [°] Y48 | 23 [☽] 3 | 4 [°] Y 5 | 4 [°] Y39 | 6 [°] Y13 | 2 [☽] 8 | 4 [°] Y11 | T 31 |

Delta T = 18m02s Julian Calendar 1 Jan. 1094 == Greg. Calendar 7 Jan. 1094

FEBRUARY 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ | Day |
|------|---------|-----------------------|--------------------|---------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|-------------------|--------------------|------|
| W 1 | 9 7 34 | 18 [≈] 24'15 | 22 [☽] 32 | 26 [°] D53 | 0 [♂] 48 | 3 [°] R58 | 13 [♂] 51 | 11 [°] R21 | 13 [°] Y50 | 23 [°] R 2 | 4 [°] Y 6 | 4 [°] R30 | 6 [°] Y 9 | 2 [☽] 15 | 4 [°] Y14 | W 1 |
| T 2 | 9 11 31 | 19 [°] 24'40 | 4 [☽] 24 | 26 [☽] 56 | 2 [°] 3 | 3 [°] ☽55 | 14 [°] 0 | 11 [°] ☽16 | 13 [°] 53 | 23 [°] 0 | 4 [°] 7 | 4 [°] Y21 | 6 [°] 6 | 2 [°] 22 | 4 [°] 16 | T 2 |
| F 3 | 9 15 27 | 20 [°] 25'02 | 16 [°] 16 | 27 [°] 5 | 3 [°] 18 | 3 [°] 52 | 14 [°] 9 | 11 [°] 11 | 13 [°] 55 | 22 [°] 59 | 4 [°] 8 | 4 [°] 12 | 6 [°] 3 | 2 [°] 28 | 4 [°] 19 | F 3 |
| S 4 | 9 19 24 | 21 [°] 25'23 | 28 [°] 11 | 27 [°] 21 | 4 [°] 33 | 3 [°] 51 | 14 [°] 17 | 11 [°] 6 | 13 [°] 57 | 22 [°] 57 | 4 [°] 9 | 4 [°] 5 | 6 [°] 0 | 2 [°] 35 | 4 [°] 22 | S 4 |
| S 5 | 9 23 20 | 22 [°] 25'42 | 10 [☽] 10 | 27 [°] 42 | 5 [°] 47 | 3 [°] D50 | 14 [°] 26 | 11 [°] 2 | 14 [°] 0 | 22 [°] 56 | 4 [°] 11 | 4 [°] 1 | 5 [°] 57 | 2 [°] 42 | 4 [°] 25 | S 5 |
| M 6 | 9 27 17 | 23 [°] 26'00 | 22 [°] 15 | 28 [°] 9 | 7 [°] 2 | 3 [°] 50 | 14 [°] 35 | 10 [°] 57 | 14 [°] 2 | 22 [°] 54 | 4 [°] 12 | 3 [°] 58 | 5 [°] 54 | 2 [°] 48 | 4 [°] 28 | M 6 |
| T 7 | 9 31 13 | 24 [°] 26'15 | 4 [☽] 28 | 28 [°] 40 | 8 [°] 17 | 3 [°] 51 | 14 [°] 43 | 10 [°] 52 | 14 [°] 5 | 22 [°] 53 | 4 [°] 13 | 3 [°] D57 | 5 [°] 50 | 2 [°] 55 | 4 [°] 31 | T 7 |
| W 8 | 9 35 10 | 25 [°] 26'29 | 16 [°] 52 | 29 [°] 16 | 9 [°] 32 | 3 [°] 53 | 14 [°] 52 | 10 [°] 48 | 14 [°] 7 | 22 [°] 52 | 4 [°] 14 | 3 [°] 58 | 5 [°] 47 | 3 [°] 2 | 4 [°] 34 | W 8 |
| T 9 | 9 39 6 | 26 [°] 26'42 | 29 [°] 30 | 29 [°] 56 | 10 [°] 46 | 3 [°] 55 | 15 [°] 0 | 10 [°] 43 | 14 [°] 10 | 22 [°] 50 | 4 [°] 15 | 3 [°] 59 | 5 [°] 44 | 3 [°] 8 | 4 [°] 37 | T 9 |
| F 10 | 9 43 3 | 27 [°] 26'53 | 12 [☽] 25 | 0 [≈] 41 | 12 [°] 1 | 3 [°] 58 | 15 [°] 8 | 10 [°] 39 | 14 [°] 12 | 22 [°] 49 | 4 [°] 16 | 4 [°] 1 | 5 [°] 41 | 3 [°] 15 | 4 [°] 40 | F 10 |
| S 11 | 9 47 0 | 28 [°] 27'02 | 25 [°] 40 | 1 [°] 29 | 13 [°] 16 | 4 [°] 2 | 15 [°] 16 | 10 [°] 34 | 14 [°] 15 | 22 [°] 48 | 4 [°] 17 | 4 [°] R 2 | 5 [°] 38 | 3 [°] 22 | 4 [°] 43 | S 11 |
| S 12 | 9 50 56 | 29 [°] 27'10 | 9 [♂] 18 | 2 [°] 20 | 14 [°] 30 | 4 [°] 6 | 15 [°] 24 | 10 [°] 30 | 14 [°] 18 | 22 [°] 46 | 4 [°] 19 | 4 [°] 1 | 5 [°] 34 | 3 [°] 29 | 4 [°] 46 | S 12 |
| M 13 | 9 54 53 | 0 [♂] 27'17 | 23 [°] 20 | 3 [°] 14 | 15 [°] 45 | 4 [°] 11 | 15 [°] 31 | 10 [°] 25 | 14 [°] 20 | 22 [°] 45 | 4 [°] 20 | 3 [°] 59 | 5 [°] 31 | 3 [°] 35 | 4 [°] 49 | M 13 |
| T 14 | 9 58 49 | 1 [°] 27'21 | 7 [☽] 47 | 4 [°] 12 | 16 [°] 59 | 4 [°] 17 | 15 [°] 39 | 10 [°] 21 | 14 [°] 23 | 22 [°] 44 | 4 [°] 21 | 3 [°] 56 | 5 [°] 28 | 3 [°] 42 | 4 [°] 52 | T 14 |
| W 15 | 10 2 46 | 2 [°] 27'25 | 22 [°] 33 | 5 [°] 12 | 18 [°] 14 | 4 [°] 23 | 15 [°] 46 | 10 [°] 16 | 14 [°] 26 | 22 [°] 42 | 4 [°] 22 | 3 [°] 52 | 5 [°] 25 | 3 [°] 49 | 4 [°] 56 | W 15 |
| T 16 | 10 6 42 | 3 | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1094
geocentric

MARCH 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|--------|------|-------|------|------|------|------|-----|
| W 1 | 10 57 58 | 16♂24'33 | 1♁ 8 | 22♂52 | 5♃35 | 6♁53 | 17♂14 | 9°R22 | 15♃ 7 | 22°R28 | 4♃41 | 3°R36 | 4♃40 | 5♁23 | 5♃43 | W 1 | |
| T 2 | 11 1 54 | 17°24'04 | 12°59 | 24°20 | 6°49 | 7° 8 | 17°20 | 9♁19 | 15°10 | 22♁27 | 4°42 | 3♃34 | 4°37 | 5°29 | 5°46 | T 2 | |
| F 3 | 11 5 51 | 18°23'32 | 24°54 | 25°49 | 8° 3 | 7°23 | 17°24 | 9°16 | 15°13 | 22°26 | 4°43 | 3°31 | 4°34 | 5°36 | 5°50 | F 3 | |
| S 4 | 11 9 47 | 19°22'58 | 6♃55 | 27°20 | 9°17 | 7°39 | 17°29 | 9°13 | 15°16 | 22°25 | 4°45 | 3°29 | 4°31 | 5°43 | 5°53 | S 4 | |
| S 5 | 11 13 44 | 20°22'23 | 19° 4 | 28°52 | 10°31 | 7°55 | 17°34 | 9°10 | 15°20 | 22°25 | 4°46 | 3°28 | 4°28 | 5°49 | 5°57 | S 5 | |
| M 6 | 11 17 40 | 21°21'45 | 1♁22 | 0♂26 | 11°45 | 8°12 | 17°38 | 9° 7 | 15°23 | 22°24 | 4°48 | 3°D28 | 4°25 | 5°56 | 6° 0 | M 6 | |
| T 7 | 11 21 37 | 22°21'05 | 13°51 | 2° 1 | 12°59 | 8°28 | 17°43 | 9° 4 | 15°26 | 22°23 | 4°49 | 3°28 | 4°21 | 6° 3 | 6° 4 | T 7 | |
| W 8 | 11 25 33 | 23°20'23 | 26°31 | 3°38 | 14°13 | 8°46 | 17°47 | 9° 1 | 15°29 | 22°23 | 4°50 | 3°28 | 4°18 | 6°10 | 6° 8 | W 8 | |
| T 9 | 11 29 30 | 24°19'39 | 9♃25 | 5°15 | 15°27 | 9° 4 | 17°51 | 8°58 | 15°32 | 22°22 | 4°52 | 3°29 | 4°15 | 6°16 | 6°11 | T 9 | |
| F 10 | 11 33 27 | 25°18'53 | 22°34 | 6°55 | 16°40 | 9°22 | 17°54 | 8°56 | 15°36 | 22°21 | 4°53 | 3°30 | 4°12 | 6°23 | 6°15 | F 10 | |
| S 11 | 11 37 23 | 26°18'06 | 5♂58 | 8°35 | 17°54 | 9°40 | 17°58 | 8°53 | 15°39 | 22°21 | 4°55 | 3°31 | 4° 9 | 6°30 | 6°18 | S 11 | |
| S 12 | 11 41 20 | 27°17'17 | 19°38 | 10°17 | 19° 8 | 9°59 | 18° 1 | 8°51 | 15°42 | 22°20 | 4°56 | 3°31 | 4° 6 | 6°36 | 6°22 | S 12 | |
| M13 | 11 45 16 | 28°16'26 | 3♁34 | 12° 0 | 20°22 | 10°18 | 18° 5 | 8°48 | 15°46 | 22°20 | 4°58 | 3°R31 | 4° 2 | 6°43 | 6°26 | M13 | |
| T 14 | 11 49 13 | 29°15'33 | 17°47 | 13°45 | 21°35 | 10°38 | 18° 8 | 8°46 | 15°49 | 22°19 | 4°59 | 3°31 | 3°59 | 6°50 | 6°29 | T 14 | |
| W15 | 11 53 9 | 0♃14'39 | 2♂13 | 15°31 | 22°49 | 10°58 | 18°11 | 8°44 | 15°52 | 22°19 | 5° 0 | 3°31 | 3°56 | 6°56 | 6°33 | W15 | |
| T 16 | 11 57 6 | 1°13'42 | 16°49 | 17°19 | 24° 2 | 11°18 | 18°13 | 8°42 | 15°56 | 22°19 | 5° 2 | 3°30 | 3°53 | 7° 3 | 6°37 | T 16 | |
| F 17 | 12 1 2 | 2°12'44 | 1♂31 | 19° 8 | 25°16 | 11°39 | 18°16 | 8°40 | 15°59 | 22°18 | 5° 3 | 3°30 | 3°50 | 7°10 | 6°40 | F 17 | |
| S 18 | 12 4 59 | 3°11'44 | 16°11 | 20°58 | 26°30 | 12° 0 | 18°18 | 8°38 | 16° 2 | 22°18 | 5° 5 | 3°D30 | 3°46 | 7°17 | 6°44 | S 18 | |
| S 19 | 12 8 56 | 4°10'42 | 0♃43 | 22°50 | 27°43 | 12°21 | 18°20 | 8°36 | 16° 6 | 22°17 | 5° 6 | 3°R30 | 3°43 | 7°23 | 6°48 | S 19 | |
| M20 | 12 12 52 | 5° 9'37 | 15° 2 | 24°44 | 28°56 | 12°43 | 18°22 | 8°35 | 16° 9 | 22°17 | 5° 8 | 3°30 | 3°40 | 7°30 | 6°51 | M20 | |
| T 21 | 12 16 49 | 6° 8'31 | 29° 1 | 26°39 | 0♂10 | 13° 5 | 18°24 | 8°33 | 16°13 | 22°17 | 5° 9 | 3°30 | 3°37 | 7°37 | 6°55 | T 21 | |
| W22 | 12 20 45 | 7° 7'23 | 12♁39 | 28°35 | 1°23 | 13°27 | 18°26 | 8°32 | 16°16 | 22°17 | 5°10 | 3°30 | 3°34 | 7°43 | 6°59 | W22 | |
| T 23 | 12 24 42 | 8° 6'12 | 25°53 | 0♃33 | 2°37 | 13°50 | 18°27 | 8°31 | 16°19 | 22°17 | 5°12 | 3°29 | 3°31 | 7°50 | 7° 2 | T 23 | |
| F 24 | 12 28 38 | 9° 4'59 | 8♂45 | 2°32 | 3°50 | 14°13 | 18°28 | 8°29 | 16°23 | 22°16 | 5°13 | 3°28 | 3°27 | 7°57 | 7° 6 | F 24 | |
| S 25 | 12 32 35 | 10° 3'44 | 21°17 | 4°32 | 5° 3 | 14°36 | 18°29 | 8°28 | 16°26 | 22°16 | 5°15 | 3°28 | 3°24 | 8° 3 | 7°10 | S 25 | |
| S 26 | 12 36 31 | 11° 2'27 | 3♁32 | 6°34 | 6°16 | 15° 0 | 18°30 | 8°27 | 16°30 | 22°16 | 5°16 | 3°28 | 3°21 | 8°10 | 7°13 | S 26 | |
| M27 | 12 40 28 | 12° 1'07 | 15°35 | 8°37 | 7°29 | 15°23 | 18°31 | 8°26 | 16°33 | 22°16 | 5°18 | 3°D27 | 3°18 | 8°17 | 7°17 | M27 | |
| T 28 | 12 44 25 | 12°59'45 | 27°29 | 10°41 | 8°42 | 15°47 | 18°31 | 8°26 | 16°37 | 22°D16 | 5°19 | 3°28 | 3°15 | 8°24 | 7°21 | T 28 | |
| W29 | 12 48 21 | 13°58'21 | 9♁20 | 12°47 | 9°55 | 16°12 | 18°32 | 8°25 | 16°40 | 22°16 | 5°20 | 3°29 | 3°11 | 8°30 | 7°24 | W29 | |
| T 30 | 12 52 18 | 14°56'55 | 21°13 | 14°53 | 11° 8 | 16°36 | 18°R32 | 8°24 | 16°44 | 22°16 | 5°22 | 3°30 | 3° 8 | 8°37 | 7°28 | T 30 | |
| F 31 | 12 56 14 | 15°55'26 | 3♃10 | 17° 0 | 12♁21 | 17° 1 | 18♂32 | 8♁24 | 16°47 | 22♁16 | 5♃23 | 3♃31 | 3♃ 5 | 8♁44 | 7♃31 | F 31 | |

Delta T = 18m01s Julian Calendar 1 March 1094 == Greg. Calendar 7 March 1094

APRIL 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | ♅ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|-------|------|-------|-------|-------|------|------|-----|
| S 1 | 13 0 11 | 16♃53'56 | 15♃17 | 19♃ 7 | 13♁34 | 17♁26 | 18°R31 | 8°R23 | 16♃50 | 22♁17 | 5♃25 | 3°R32 | 3°R 2 | 8♁50 | 7♃35 | S 1 | |
| S 2 | 13 4 7 | 17°52'23 | 27°35 | 21°15 | 14°47 | 17°51 | 18♂31 | 8♁23 | 16°54 | 22°17 | 5°26 | 3°R32 | 2°59 | 8°57 | 7°39 | S 2 | |
| M 3 | 13 8 4 | 18°50'48 | 10♁ 7 | 23°23 | 16° 0 | 18°17 | 18°30 | 8°23 | 16°57 | 22°17 | 5°27 | 3°32 | 2°56 | 9° 4 | 7°42 | M 3 | |
| T 4 | 13 12 0 | 19°49'11 | 22°54 | 25°30 | 17°13 | 18°42 | 18°30 | 8°D23 | 17° 1 | 22°17 | 5°29 | 3°32 | 2°52 | 9°10 | 7°46 | T 4 | |
| W 5 | 13 15 57 | 20°47'33 | 5♃57 | 27°38 | 18°25 | 19° 8 | 18°28 | 8°23 | 17° 4 | 22°17 | 5°30 | 3°30 | 2°49 | 9°17 | 7°50 | W 5 | |
| T 6 | 13 19 53 | 21°45'52 | 19°15 | 29°44 | 19°38 | 19°35 | 18°27 | 8°23 | 17° 8 | 22°18 | 5°32 | 3°28 | 2°46 | 9°24 | 7°53 | T 6 | |
| F 7 | 13 23 50 | 22°44'10 | 2♂46 | 1♁50 | 20°51 | 20° 1 | 18°26 | 8°24 | 17°11 | 22°18 | 5°33 | 3°25 | 2°43 | 9°30 | 7°57 | F 7 | |
| S 8 | 13 27 47 | 23°42'27 | 16°30 | 3°54 | 22° 3 | 20°27 | 18°24 | 8°24 | 17°14 | 22°18 | 5°34 | 3°22 | 2°40 | 9°37 | 8° 0 | S 8 | |
| S 9 | 13 31 43 | 24°40'41 | 0♂24 | 5°56 | 23°16 | 20°54 | 18°23 | 8°24 | 17°18 | 22°19 | 5°36 | 3°20 | 2°37 | 9°44 | 8° 4 | S 9 | |
| M10 | 13 35 40 | 25°38'55 | 14°27 | 7°57 | 24°28 | 21°21 | 18°21 | 8°25 | 17°21 | 22°19 | 5°37 | 3°19 | 2°33 | 9°51 | 8° 7 | M10 | |
| T 11 | 13 39 36 | 26°37'07 | 28°36 | 9°55 | 25°40 | 21°48 | 18°18 | 8°26 | 17°25 | 22°20 | 5°38 | 3°D18 | 2°30 | 9°57 | 8°11 | T 11 | |
| W12 | 13 43 33 | 27°35'17 | 12♁49 | 11°51 | 26°53 | 22°16 | 18°16 | 8°27 | 17°28 | 22°20 | 5°40 | 3°19 | 2°27 | 10° 4 | 8°14 | W12 | |
| T 13 | 13 47 29 | 28°33'26 | 27° 5 | 13°44 | 28° 5 | 22°43 | 18°14 | 8°27 | 17°32 | 22°21 | 5°41 | 3°20 | 2°24 | 10°11 | 8°18 | T 13 | |
| F 14 | 13 51 26 | 29°31'33 | 11♂21 | 15°34 | 29°17 | 23°11 | 18°11 | 8°28 | 17°35 | 22°21 | 5°43 | 3°22 | 2°21 | 10°17 | 8°21 | F 14 | |
| S 15 | 13 55 23 | 0♂29'39 | 25°33 | 17°21 | 0♂30 | 23°39 | 18° 8 | 8°30 | 17°38 | 22°22 | 5°44 | 3°23 | 2°17 | 10°24 | 8°25 | S 15 | |
| S 16 | 13 59 19 | 1°27'43 | 9♃39 | 19° 4 | 1°42 | 24° 7 | 18° 5 | 8°31 | 17°42 | 22°22 | 5°45 | 3°R23 | 2°14 | 10°31 | 8°28 | S 16 | |
| M17 | 14 3 16 | 2°25'46 | 23°35 | 20°44 | 2°54 | 24°35 | 18° 2 | 8°32 | 17°45 | 22°23 | 5°46 | 3°21 | 2°11 | 10°37 | 8°32 | M17 | |
| T 18 | 14 7 12 | 3°23'47 | 7♁17 | 22°21 | 4° 6 | 25° 4 | 17°58 | 8°34 | 17°48 | 22°24 | 5°48 | 3°19 | 2° 8 | 10°44 | 8°35 | T 18 | |
| W19 | 14 11 9 | 4°21'46 | 20°43 | 23°54 | 5°18 | 25°33 | 17°55 | 8°35 | 17°52 | 22°24 | 5°49 | 3°15 | 2° 5 | 10°51 | 8°38 | W19 | |
| T 20 | 14 15 5 | 5°19'44 | 3♂50 | 25°23 | 6°30 | 26° 1 | 17°51 | 8°37 | 17°55 | 22°25 | 5°50 | 3° 9 | 2° 2 | 10°58 | 8°42 | T 20 | |
| F 21 | 14 19 2 | 6°17'40 | 16°40 | 26°49 | 7°42 | 26°30 | 17°47 | 8°39 | 17°58 | 22°26 | 5°52 | 3° 4 | 1°58 | 11° 4 | 8°45 | F 21 | |
| S 22 | 14 22 58 | 7°15'35 | 29°11 | 28°10 | 8°53 | 27° 0 | 17°43 | 8°40 | 18° 2 | 22°27 | 5°53 | 2°59 | 1°55 | 11°11 | 8°49 | S 22 | |
| S 23 | 14 26 55 | 8°13'28 | 11♁27 | 29°28 | 10° 5 | 27°29 | 17°39 | 8°42 | 18° 5 | 22°28 | 5°54 | 2°55 | 1°52 | 11°18 | 8°52 | S 23 | |
| M24 | 14 30 52 | 9°11'19 | 23°30 | 0♂42 | 11°17 | 27°58 | 17°35 | 8°44 | 18° 8 | 22°28 | 5°55 | 2°52 | 1°49 | 11°24 | 8°55 | M24 | |
| T 25 | 14 34 48 | 10° 9'08 | 5♁25 | 1°51 | 12°29 | 28°28 | 17°30 | 8°47 | 18°12 | 22°29 | 5°57 | 2°D51 | 1°46 | 11°31 | 8°58 | T 25 | |
| W26 | 14 38 45 | 11° 6'55 | 17°16 | 2°57 | 13°40 | 28°58 | 17°25 | 8°49 | 18°15 | 22°30 | 5°58 | 2°51 | 1°43 | 11°38 | 9° 2 | W26 | |
| T 27 | 14 42 41 | 12° 4'41 | 29° 8 | 3°58 | 14°52 | 29°28 | 17°21 | 8°51 | 18°18 | 22°31 | 5°59 | 2°52 | 1°39 | 11°44 | 9° 5 | T 27 | |
| F 28 | 14 46 38 | 13° 2'25 | 11♃ 7 | 4°55 | 16° 3 | 29°58 | 17°16 | 8°54 | 18°21 | 22°32 | 6° 0 | 2°53 | 1°36 | 11°51 | 9° 8 | F 28 | |
| S 29 | 14 50 34 | 14° 0'07 | 23°17 | 5°48 | 17°14 | 0♁28 | 17°10 | 8°56 | 18°24 | 22°33 | 6° 1 | 2°55 | 1°33 | 11°58 | 9°11 | S 29 | |
| S 30 | 14 54 31 | 14♁57'47 | 5♁42 | 6♂36 | 18♂26 | 0♁58 | 17♂ 5 | 8♁59 | 18♃28 | 22♁34 | 6♃ 3 | 2°R55 | 1°R30 | 12♁ 4 | 9♃14 | S 30 | |

Delta T = 18m01s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1094
geocentric

MAY 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|-------|-------|------|-------|-------|-------|-------|------|-----|
| M 1 | 14 58 27 | 15♌55'26 | 18♌25 | 7♌20 | 19♌37 | 1♌29 | 17°R 0 | 9♌ 2 | 18♌31 | 22♌35 | 6♌ 4 | 2°R54 | 1♌27 | 12♌11 | 9♌17 | M 1 | |
| T 2 | 15 2 24 | 16°53'04 | 1♌29 | 7°59 | 20°48 | 1°59 | 16♌54 | 9° 4 | 18°34 | 22°36 | 6° 5 | 2♌51 | 1°23 | 12°18 | 9°20 | T 2 | |
| W 3 | 15 6 20 | 17°50'41 | 14°53 | 8°34 | 21°59 | 2°30 | 16°48 | 9° 7 | 18°37 | 22°38 | 6° 6 | 2°46 | 1°20 | 12°24 | 9°24 | W 3 | |
| T 4 | 15 10 17 | 18°48'16 | 28°36 | 9° 4 | 23°10 | 3° 1 | 16°43 | 9°10 | 18°40 | 22°39 | 6° 7 | 2°39 | 1°17 | 12°31 | 9°27 | T 4 | |
| F 5 | 15 14 14 | 19°45'50 | 12♌35 | 9°30 | 24°21 | 3°32 | 16°37 | 9°14 | 18°43 | 22°40 | 6° 8 | 2°32 | 1°14 | 12°38 | 9°30 | F 5 | |
| S 6 | 15 18 10 | 20°43'23 | 26°45 | 9°51 | 25°32 | 4° 3 | 16°31 | 9°17 | 18°46 | 22°41 | 6° 9 | 2°24 | 1°11 | 12°45 | 9°32 | S 6 | |
| S 7 | 15 22 7 | 21°40'55 | 11♌ 2 | 10° 7 | 26°43 | 4°34 | 16°24 | 9°20 | 18°49 | 22°42 | 6°10 | 2°18 | 1° 8 | 12°51 | 9°35 | S 7 | |
| M 8 | 15 26 3 | 22°38'26 | 25°21 | 10°18 | 27°54 | 5° 6 | 16°18 | 9°23 | 18°52 | 22°44 | 6°11 | 2°13 | 1° 4 | 12°58 | 9°38 | M 8 | |
| T 9 | 15 30 0 | 23°35'56 | 9♌38 | 10°25 | 29° 4 | 5°37 | 16°12 | 9°27 | 18°55 | 22°45 | 6°12 | 2°10 | 1° 1 | 13° 5 | 9°41 | T 9 | |
| W10 | 15 33 56 | 24°33'25 | 23°51 | 10°R27 | 0♌15 | 6° 9 | 16° 5 | 9°30 | 18°58 | 22°46 | 6°13 | 2°D 9 | 0°58 | 13°11 | 9°44 | W10 | |
| T 11 | 15 37 53 | 25°30'53 | 7♌56 | 10°25 | 1°25 | 6°41 | 15°58 | 9°34 | 19° 1 | 22°48 | 6°14 | 2°10 | 0°55 | 13°18 | 9°47 | T 11 | |
| F 12 | 15 41 50 | 26°28'21 | 21°54 | 10°18 | 2°36 | 7°12 | 15°52 | 9°38 | 19° 4 | 22°49 | 6°15 | 2°11 | 0°52 | 13°25 | 9°50 | F 12 | |
| S 13 | 15 45 46 | 27°25'48 | 5♌43 | 10° 6 | 3°46 | 7°44 | 15°45 | 9°42 | 19° 7 | 22°50 | 6°16 | 2°R11 | 0°49 | 13°31 | 9°52 | S 13 | |
| S 14 | 15 49 43 | 28°23'14 | 19°24 | 9°51 | 4°56 | 8°16 | 15°38 | 9°46 | 19°10 | 22°52 | 6°17 | 2°10 | 0°45 | 13°38 | 9°55 | S 14 | |
| M15 | 15 53 39 | 29°20'39 | 2♌54 | 9°32 | 6° 7 | 8°49 | 15°31 | 9°50 | 19°13 | 22°53 | 6°18 | 2° 6 | 0°42 | 13°45 | 9°58 | M15 | |
| T 16 | 15 57 36 | 0♌18'04 | 16°13 | 9°10 | 7°17 | 9°21 | 15°24 | 9°54 | 19°16 | 22°55 | 6°19 | 2° 0 | 0°39 | 13°51 | 10° 0 | T 16 | |
| W17 | 16 1 32 | 1°15'28 | 29°20 | 8°44 | 8°27 | 9°53 | 15°17 | 9°58 | 19°18 | 22°56 | 6°20 | 1°52 | 0°36 | 13°58 | 10° 3 | W17 | |
| T 18 | 16 5 29 | 2°12'51 | 12♌13 | 8°16 | 9°37 | 10°26 | 15° 9 | 10° 2 | 19°21 | 22°58 | 6°21 | 1°42 | 0°33 | 14° 5 | 10° 5 | T 18 | |
| F 19 | 16 9 25 | 3°10'13 | 24°52 | 7°46 | 10°47 | 10°59 | 15° 2 | 10° 7 | 19°24 | 22°59 | 6°22 | 1°31 | 0°29 | 14°12 | 10° 8 | F 19 | |
| S 20 | 16 13 22 | 4° 7'34 | 7♌16 | 7°14 | 11°56 | 11°31 | 14°55 | 10°11 | 19°26 | 23° 1 | 6°23 | 1°20 | 0°26 | 14°18 | 10°10 | S 20 | |
| S 21 | 16 17 19 | 5° 4'54 | 19°28 | 6°41 | 13° 6 | 12° 4 | 14°47 | 10°15 | 19°29 | 23° 3 | 6°24 | 1°11 | 0°23 | 14°25 | 10°13 | S 21 | |
| M22 | 16 21 15 | 6° 2'13 | 1♌28 | 6° 7 | 14°16 | 12°37 | 14°40 | 10°20 | 19°32 | 23° 4 | 6°24 | 1° 4 | 0°20 | 14°32 | 10°15 | M22 | |
| T 23 | 16 25 12 | 6°59'32 | 13°22 | 5°34 | 15°25 | 13°10 | 14°32 | 10°25 | 19°34 | 23° 6 | 6°25 | 0°59 | 0°17 | 14°38 | 10°18 | T 23 | |
| W24 | 16 29 8 | 7°56'49 | 25°12 | 5° 1 | 16°35 | 13°43 | 14°25 | 10°29 | 19°37 | 23° 8 | 6°26 | 0°56 | 0°14 | 14°45 | 10°20 | W24 | |
| T 25 | 16 33 5 | 8°54'05 | 7♌ 3 | 4°29 | 17°44 | 14°17 | 14°17 | 10°34 | 19°39 | 23° 9 | 6°27 | 0°D55 | 0°10 | 14°52 | 10°22 | T 25 | |
| F 26 | 16 37 1 | 9°51'21 | 19° 1 | 3°59 | 18°53 | 14°50 | 14°10 | 10°39 | 19°42 | 23°11 | 6°28 | 0°55 | 0° 7 | 14°58 | 10°24 | F 26 | |
| S 27 | 16 40 58 | 10°48'36 | 1♌11 | 3°31 | 20° 2 | 15°23 | 14° 2 | 10°44 | 19°44 | 23°13 | 6°28 | 0°R56 | 0° 4 | 15° 5 | 10°27 | S 27 | |
| S 28 | 16 44 54 | 11°45'49 | 13°38 | 3° 6 | 21°11 | 15°57 | 13°54 | 10°49 | 19°47 | 23°14 | 6°29 | 0°55 | 0° 1 | 15°12 | 10°29 | S 28 | |
| M29 | 16 48 51 | 12°43'02 | 26°26 | 2°44 | 22°20 | 16°30 | 13°47 | 10°54 | 19°49 | 23°16 | 6°30 | 0°52 | 29♌58 | 15°18 | 10°31 | M29 | |
| T 30 | 16 52 48 | 13°40'15 | 9♌39 | 2°25 | 23°29 | 17° 4 | 13°39 | 10°59 | 19°52 | 23°18 | 6°30 | 0°48 | 29°55 | 15°25 | 10°33 | T 30 | |
| W31 | 16 56 44 | 14°37'26 | 23♌18 | 2♌10 | 24♌38 | 17♌38 | 13♌31 | 11♌ 5 | 19♌54 | 23♌20 | 6♌31 | 0♌40 | 29♌51 | 15♌32 | 10♌35 | W31 | |

Delta T = 18m01s Julian Calendar 1 May 1094 == Greg. Calendar 7 May 1094

JUNE 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|-------|------|--------|-------|-------|-------|------|-----|
| T 1 | 17 0 41 | 15♌34'38 | 7♌20 | 2°R 0 | 25♌46 | 18♌12 | 13°R24 | 11♌10 | 19♌56 | 23♌22 | 6♌32 | 0°R31 | 29♌48 | 15♌38 | 10♌37 | T 1 | |
| F 2 | 17 4 37 | 16°31'49 | 21°43 | 1♌53 | 26°55 | 18°46 | 13♌16 | 11°15 | 19°58 | 23°24 | 6°32 | 0°Y20 | 29°45 | 15°45 | 10°39 | F 2 | |
| S 3 | 17 8 34 | 17°28'59 | 6♌20 | 1°D51 | 28° 3 | 19°20 | 13° 8 | 11°21 | 20° 1 | 23°25 | 6°33 | 0° 9 | 29°42 | 15°52 | 10°41 | S 3 | |
| S 4 | 17 12 30 | 18°26'10 | 21° 3 | 1°54 | 29°11 | 19°54 | 13° 1 | 11°26 | 20° 3 | 23°27 | 6°34 | 29♌59 | 29°39 | 15°58 | 10°43 | S 4 | |
| M 5 | 17 16 27 | 19°23'20 | 5♌44 | 2° 2 | 0♌19 | 20°28 | 12°53 | 11°32 | 20° 5 | 23°29 | 6°34 | 29°52 | 29°35 | 16° 5 | 10°44 | M 5 | |
| T 6 | 17 20 23 | 20°20'30 | 20°19 | 2°14 | 1°27 | 21° 3 | 12°46 | 11°38 | 20° 7 | 23°31 | 6°35 | 29°47 | 29°32 | 16°12 | 10°46 | T 6 | |
| W 7 | 17 24 20 | 21°17'40 | 4♌40 | 2°31 | 2°35 | 21°37 | 12°38 | 11°43 | 20° 9 | 23°33 | 6°35 | 29°45 | 29°29 | 16°19 | 10°48 | W 7 | |
| T 8 | 17 28 17 | 22°14'50 | 18°47 | 2°52 | 3°42 | 22°11 | 12°31 | 11°49 | 20°11 | 23°35 | 6°36 | 29°44 | 29°26 | 16°25 | 10°49 | T 8 | |
| F 9 | 17 32 13 | 23°12'00 | 2♌38 | 3°19 | 4°50 | 22°46 | 12°23 | 11°55 | 20°13 | 23°37 | 6°36 | 29°44 | 29°23 | 16°32 | 10°51 | F 9 | |
| S 10 | 17 36 10 | 24° 9'10 | 16°15 | 3°50 | 5°57 | 23°21 | 12°16 | 12° 1 | 20°15 | 23°39 | 6°37 | 29°44 | 29°20 | 16°39 | 10°53 | S 10 | |
| S 11 | 17 40 6 | 25° 6'21 | 29°37 | 4°26 | 7° 5 | 23°55 | 12° 9 | 12° 7 | 20°17 | 23°41 | 6°37 | 29°41 | 29°16 | 16°45 | 10°54 | S 11 | |
| M12 | 17 44 3 | 26° 3'31 | 12♌47 | 5° 7 | 8°12 | 24°30 | 12° 1 | 12°13 | 20°19 | 23°43 | 6°37 | 29°36 | 29°13 | 16°52 | 10°55 | M12 | |
| T 13 | 17 47 59 | 27° 0'42 | 25°45 | 5°52 | 9°19 | 25° 5 | 11°54 | 12°19 | 20°21 | 23°45 | 6°38 | 29°29 | 29°10 | 16°59 | 10°57 | T 13 | |
| W14 | 17 51 56 | 27°57'53 | 8♌32 | 6°42 | 10°26 | 25°40 | 11°47 | 12°25 | 20°22 | 23°47 | 6°38 | 29°18 | 29° 7 | 17° 5 | 10°58 | W14 | |
| T 15 | 17 55 53 | 28°55'05 | 21° 7 | 7°36 | 11°32 | 26°15 | 11°40 | 12°31 | 20°24 | 23°49 | 6°39 | 29° 6 | 29° 4 | 17°12 | 11° 0 | T 15 | |
| F 16 | 17 59 49 | 29°52'16 | 3♌32 | 8°35 | 12°39 | 26°50 | 11°33 | 12°37 | 20°26 | 23°51 | 6°39 | 28°52 | 29° 1 | 17°19 | 11° 1 | F 16 | |
| S 17 | 18 3 46 | 0♌49'27 | 15°45 | 9°38 | 13°45 | 27°26 | 11°26 | 12°44 | 20°27 | 23°53 | 6°39 | 28°39 | 28°57 | 17°25 | 11° 2 | S 17 | |
| S 18 | 18 7 42 | 1°46'39 | 27°49 | 10°45 | 14°51 | 28° 1 | 11°19 | 12°50 | 20°29 | 23°55 | 6°40 | 28°27 | 28°54 | 17°32 | 11° 3 | S 18 | |
| M19 | 18 11 39 | 2°43'50 | 9♌45 | 11°57 | 15°58 | 28°36 | 11°13 | 12°56 | 20°31 | 23°57 | 6°40 | 28°18 | 28°51 | 17°39 | 11° 4 | M19 | |
| T 20 | 18 15 35 | 3°41'02 | 21°36 | 13°12 | 17° 3 | 29°12 | 11° 6 | 13° 3 | 20°32 | 23°59 | 6°40 | 28°11 | 28°48 | 17°45 | 11° 5 | T 20 | |
| W21 | 18 19 32 | 4°38'13 | 3♌23 | 14°32 | 18° 9 | 29°47 | 10°59 | 13° 9 | 20°34 | 24° 2 | 6°40 | 28° 6 | 28°45 | 17°52 | 11° 6 | W21 | |
| T 22 | 18 23 28 | 5°35'24 | 15°13 | 15°56 | 19°15 | 0♌23 | 10°53 | 13°16 | 20°35 | 24° 4 | 6°40 | 28° 4 | 28°41 | 17°59 | 11° 7 | T 22 | |
| F 23 | 18 27 25 | 6°32'36 | 27° 9 | 17°24 | 20°20 | 0°59 | 10°47 | 13°22 | 20°36 | 24° 6 | 6°41 | 28°D 4 | 28°38 | 18° 5 | 11° 8 | F 23 | |
| S 24 | 18 31 22 | 7°29'47 | 9♌18 | 18°56 | 21°25 | 1°35 | 10°41 | 13°29 | 20°38 | 24° 8 | 6°41 | 28°R 4 | 28°35 | 18°12 | 11° 9 | S 24 | |
| S 25 | 18 35 18 | 8°26'59 | 21°43 | 20°32 | 22°30 | 2°10 | 10°35 | 13°36 | 20°39 | 24°10 | 6°41 | 28° 3 | 28°32 | 18°19 | 11°10 | S 25 | |
| M26 | 18 39 15 | 9°24'10 | 4♌31 | 22°11 | 23°35 | 2°46 | 10°29 | 13°42 | 20°40 | 24°12 | 6°41 | 28° 1 | 28°29 | 18°25 | 11°11 | M26 | |
| T 27 | 18 43 11 | 10°21'22 | 17°45 | 23°54 | 24°39 | 3°22 | 10°23 | 13°49 | 20°41 | 24°14 | 6°41 | 27°57 | 28°26 | 18°32 | 11°11 | T 27 | |
| W28 | 18 47 8 | 11°18'34 | 1♌28 | 25°40 | 25°43 | 3°58 | 10°17 | 13°56 | 20°43 | 24°17 | 6°41 | 27°50 | 28°22 | 18°39 | 11°12 | W28 | |
| T 29 | 18 51 4 | 12°15'47 | 15°39 | 27°30 | 26°48 | 4°35 | 10°12 | 14° 3 | 20°44 | 24°19 | 6°41 | 27°41 | 28°19 | 18°46 | 11°12 | T 29 | |
| F 30 | 18 55 1 | 13°12'59 | 0♌15 | 29♌22 | 27♌51 | 5♌11 | 10♌ 6 | 14♌ 9 | 20♌45 | 24♌21 | 6♌41 | 27♌31 | 28♌16 | 18♌52 | 11♌13 | F 30 | |

Delta T = 18m00s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1094
geocentric

JULY 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♄ | ♃ | ♁ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------------------|--------------------|--------------------|---------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|--------------------|------|
| S 1 | 18 58 57 | 14 [☉] 18°13 | 15 [☽] 9 | 19 [♀] 18 | 28 [♂] 155 | 5 [♂] 47 | 10 [♂] R 1 | 14 [♂] 16 | 20 [♂] 46 | 24 [♂] 23 | 6 [♂] R41 | 27 [♂] R20 | 28 [♂] 13 | 18 [♂] 159 | 11 [♂] 13 | S 1 |
| S 2 | 19 2 54 | 15° 7'27 | 0 [☽] 13 | 3°15 | 29°58 | 6°23 | 9 [♂] 56 | 14°23 | 20°47 | 24°25 | 6 [♂] 41 | 27 [♂] 11 | 28°10 | 19° 6 | 11°14 | S 2 |
| M 3 | 19 6 51 | 16° 4'41 | 15°16 | 5°15 | 1 [♂] 1 | 7° 0 | 9°51 | 14°30 | 20°48 | 24°28 | 6°41 | 27° 4 | 28° 7 | 19°12 | 11°14 | M 3 |
| T 4 | 19 10 47 | 17° 1'56 | 0 [☽] 10 | 7°17 | 2° 4 | 7°36 | 9°46 | 14°37 | 20°48 | 24°30 | 6°41 | 26°59 | 28° 3 | 19°19 | 11°15 | T 4 |
| W 5 | 19 14 44 | 17°59'12 | 14°48 | 9°21 | 3° 7 | 8°13 | 9°42 | 14°44 | 20°49 | 24°32 | 6°41 | 26°57 | 28° 0 | 19°26 | 11°15 | W 5 |
| T 6 | 19 18 40 | 18°56'29 | 29° 5 | 11°25 | 4° 9 | 8°50 | 9°37 | 14°51 | 20°50 | 24°34 | 6°41 | 26°D56 | 27°57 | 19°32 | 11°15 | T 6 |
| F 7 | 19 22 37 | 19°53'47 | 13 [♀] 1 | 13°31 | 5°11 | 9°26 | 9°33 | 14°59 | 20°51 | 24°36 | 6°41 | 26°57 | 27°54 | 19°39 | 11°15 | F 7 |
| S 8 | 19 26 33 | 20°51'06 | 26°35 | 15°37 | 6°13 | 10° 3 | 9°29 | 15° 6 | 20°51 | 24°39 | 6°41 | 26°R57 | 27°51 | 19°46 | 11°15 | S 8 |
| S 9 | 19 30 30 | 21°48'26 | 9 [♂] 50 | 17°43 | 7°15 | 10°40 | 9°25 | 15°13 | 20°52 | 24°41 | 6°41 | 26°55 | 27°47 | 19°52 | 11°R15 | S 9 |
| M10 | 19 34 26 | 22°45'48 | 22°48 | 19°50 | 8°16 | 11°17 | 9°21 | 15°20 | 20°53 | 24°43 | 6°40 | 26°52 | 27°44 | 19°59 | 11°15 | M10 |
| T 11 | 19 38 23 | 23°43'10 | 5 [♂] 31 | 21°56 | 9°17 | 11°54 | 9°17 | 15°27 | 20°53 | 24°45 | 6°40 | 26°45 | 27°41 | 20° 6 | 11°15 | T 11 |
| W12 | 19 42 20 | 24°40'34 | 18° 2 | 24° 2 | 10°17 | 12°31 | 9°14 | 15°35 | 20°54 | 24°48 | 6°40 | 26°37 | 27°38 | 20°12 | 11°15 | W12 |
| T 13 | 19 46 16 | 25°37'58 | 0 [☽] 22 | 26° 7 | 11°17 | 13° 8 | 9°10 | 15°42 | 20°54 | 24°50 | 6°40 | 26°27 | 27°35 | 20°19 | 11°15 | T 13 |
| F 14 | 19 50 13 | 26°35'24 | 12°33 | 28°11 | 12°17 | 13°45 | 9° 7 | 15°49 | 20°54 | 24°52 | 6°40 | 26°16 | 27°32 | 20°26 | 11°15 | F 14 |
| S 15 | 19 54 9 | 27°32'51 | 24°36 | 0 [♂] 14 | 13°17 | 14°23 | 9° 4 | 15°57 | 20°55 | 24°54 | 6°39 | 26° 5 | 27°28 | 20°32 | 11°14 | S 15 |
| S 16 | 19 58 6 | 28°30'19 | 6 [♂] 32 | 2°16 | 14°16 | 15° 0 | 9° 2 | 16° 4 | 20°55 | 24°57 | 6°39 | 25°55 | 27°25 | 20°39 | 11°14 | S 16 |
| M17 | 20 2 2 | 29°27'47 | 18°23 | 4°17 | 15°15 | 15°37 | 8°59 | 16°11 | 20°55 | 24°59 | 6°39 | 25°47 | 27°22 | 20°46 | 11°14 | M17 |
| T 18 | 20 5 59 | 0 [♂] 25'17 | 0 [♂] 11 | 6°16 | 16°14 | 16°15 | 8°56 | 16°19 | 20°55 | 25° 1 | 6°38 | 25°42 | 27°19 | 20°52 | 11°13 | T 18 |
| W19 | 20 9 56 | 1°22'47 | 11°59 | 8°14 | 17°12 | 16°52 | 8°54 | 16°26 | 20°56 | 25° 3 | 6°38 | 25°38 | 27°16 | 20°59 | 11°13 | W19 |
| T 20 | 20 13 52 | 2°20'19 | 23°49 | 10°11 | 18° 9 | 17°30 | 8°52 | 16°34 | 20°56 | 25° 5 | 6°38 | 25°D37 | 27°13 | 21° 6 | 11°12 | T 20 |
| F 21 | 20 17 49 | 3°17'51 | 5 [♂] 45 | 12° 6 | 19° 7 | 18° 8 | 8°50 | 16°41 | 20°R56 | 25° 8 | 6°37 | 25°38 | 27° 9 | 21°12 | 11°11 | F 21 |
| S 22 | 20 21 45 | 4°15'24 | 17°53 | 14° 0 | 20° 3 | 18°45 | 8°49 | 16°48 | 20°56 | 25°10 | 6°37 | 25°39 | 27° 6 | 21°19 | 11°11 | S 22 |
| S 23 | 20 25 42 | 5°12'59 | 0 [♂] 17 | 15°52 | 21° 0 | 19°23 | 8°47 | 16°56 | 20°56 | 25°12 | 6°36 | 25°R40 | 27° 3 | 21°26 | 11°10 | S 23 |
| M24 | 20 29 38 | 6°10'34 | 13° 2 | 17°42 | 21°56 | 20° 1 | 8°46 | 17° 3 | 20°55 | 25°14 | 6°36 | 25°39 | 27° 0 | 21°32 | 11° 9 | M24 |
| T 25 | 20 33 35 | 7° 8'10 | 26°12 | 19°32 | 22°51 | 20°39 | 8°45 | 17°11 | 20°55 | 25°16 | 6°35 | 25°38 | 26°57 | 21°39 | 11° 8 | T 25 |
| W26 | 20 37 31 | 8° 5'47 | 9 [♂] 50 | 21°19 | 23°46 | 21°17 | 8°44 | 17°19 | 20°55 | 25°19 | 6°35 | 25°34 | 26°53 | 21°46 | 11° 8 | W26 |
| T 27 | 20 41 28 | 9° 3'26 | 23°58 | 23° 6 | 24°40 | 21°55 | 8°43 | 17°26 | 20°55 | 25°21 | 6°34 | 25°29 | 26°50 | 21°52 | 11° 7 | T 27 |
| F 28 | 20 45 25 | 10° 1'05 | 8 [♂] 33 | 24°50 | 25°34 | 22°33 | 8°42 | 17°34 | 20°55 | 25°23 | 6°34 | 25°22 | 26°47 | 21°59 | 11° 6 | F 28 |
| S 29 | 20 49 21 | 10°58'46 | 23°31 | 26°34 | 26°27 | 23°12 | 8°42 | 17°41 | 20°54 | 25°25 | 6°33 | 25°16 | 26°44 | 22° 6 | 11° 5 | S 29 |
| S 30 | 20 53 18 | 11°56'28 | 8 [♂] 42 | 28°16 | 27°20 | 23°50 | 8°42 | 17°49 | 20°54 | 25°27 | 6°33 | 25°10 | 26°41 | 22°12 | 11° 4 | S 30 |
| M31 | 20 57 14 | 12 [♂] 54'11 | 23 [♂] 57 | 29 [♂] 56 | 28 [♂] 12 | 24 [♂] 28 | 8°D42 | 17 [♂] 56 | 20 [♂] 53 | 25 [♂] 29 | 6 [♂] 32 | 25 [♂] 5 | 26 [♂] 38 | 22 [♂] 19 | 11 [♂] 2 | M31 |

Delta T = 18m00s Julian Calendar 1 July 1094 == Greg. Calendar 7 July 1094

AUGUST 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♄ | ♃ | ♁ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|------------------|--------------------|--------------------|--------------------|-------------------|------|
| T 1 | 21 1 11 | 13 [♂] 51°56 | 9 [♂] 6 | 1 [♂] 35 | 29 [♂] 4 | 25 [♂] 7 | 8 [♂] 42 | 18 [♂] 4 | 20°R53 | 25 [♂] 32 | 6°R31 | 25°R 2 | 26 [♂] 34 | 22 [♂] 26 | 11°R 1 | T 1 |
| W 2 | 21 5 7 | 14°49'42 | 23°59 | 3°13 | 29°54 | 25°45 | 8°42 | 18°12 | 20°Y52 | 25°34 | 6°Y31 | 25°D 1 | 26°31 | 22°32 | 11°Y 0 | W 2 |
| T 3 | 21 9 4 | 15°47'30 | 8 [♂] 31 | 4°49 | 0 [♂] 44 | 26°24 | 8°43 | 18°19 | 20°52 | 25°36 | 6°30 | 25°H 2 | 26°28 | 22°39 | 10°59 | T 3 |
| F 4 | 21 13 0 | 16°45'20 | 22°37 | 6°24 | 1°34 | 27° 2 | 8°43 | 18°27 | 20°51 | 25°38 | 6°29 | 25° 3 | 26°25 | 22°46 | 10°57 | F 4 |
| S 5 | 21 16 57 | 17°43'11 | 6 [♂] 18 | 7°57 | 2°23 | 27°41 | 8°44 | 18°34 | 20°50 | 25°40 | 6°29 | 25° 4 | 26°22 | 22°52 | 10°56 | S 5 |
| S 6 | 21 20 54 | 18°41'05 | 19°35 | 9°30 | 3°11 | 28°20 | 8°45 | 18°42 | 20°50 | 25°42 | 6°28 | 25°R 5 | 26°19 | 22°59 | 10°55 | S 6 |
| M 7 | 21 24 50 | 19°39'00 | 2 [♂] 30 | 11° 0 | 3°58 | 28°59 | 8°47 | 18°49 | 20°49 | 25°44 | 6°27 | 25° 4 | 26°15 | 23° 6 | 10°53 | M 7 |
| T 8 | 21 28 47 | 20°36'57 | 15° 6 | 12°30 | 4°44 | 29°37 | 8°48 | 18°57 | 20°48 | 25°46 | 6°27 | 25° 2 | 26°12 | 23°12 | 10°52 | T 8 |
| W 9 | 21 32 43 | 21°34'56 | 27°28 | 13°58 | 5°30 | 0 [♂] 16 | 8°50 | 19° 5 | 20°47 | 25°48 | 6°26 | 24°58 | 26° 9 | 23°19 | 10°50 | W 9 |
| T 10 | 21 36 40 | 22°32'57 | 9 [♂] 38 | 15°24 | 6°15 | 0°55 | 8°52 | 19°12 | 20°46 | 25°50 | 6°25 | 24°53 | 26° 6 | 23°26 | 10°49 | T 10 |
| F 11 | 21 40 36 | 23°31'00 | 21°39 | 16°49 | 6°58 | 1°34 | 8°54 | 19°20 | 20°45 | 25°52 | 6°24 | 24°47 | 26° 3 | 23°32 | 10°47 | F 11 |
| S 12 | 21 44 33 | 24°29'04 | 3 [♂] 34 | 18°13 | 7°41 | 2°14 | 8°56 | 19°27 | 20°44 | 25°54 | 6°23 | 24°42 | 25°59 | 23°39 | 10°45 | S 12 |
| S 13 | 21 48 29 | 25°27'11 | 15°25 | 19°35 | 8°23 | 2°53 | 8°58 | 19°35 | 20°43 | 25°56 | 6°23 | 24°37 | 25°56 | 23°46 | 10°43 | S 13 |
| M14 | 21 52 26 | 26°25'19 | 27°14 | 20°56 | 9° 4 | 3°32 | 9° 1 | 19°43 | 20°42 | 25°58 | 6°22 | 24°33 | 25°53 | 23°52 | 10°42 | M14 |
| T 15 | 21 56 23 | 27°23'29 | 9 [♂] 2 | 22°15 | 9°44 | 4°11 | 9° 4 | 19°50 | 20°41 | 26° 0 | 6°21 | 24°31 | 25°50 | 23°59 | 10°40 | T 15 |
| W16 | 22 0 19 | 28°21'40 | 20°52 | 23°32 | 10°23 | 4°51 | 9° 7 | 19°58 | 20°40 | 26° 2 | 6°20 | 24°D30 | 25°47 | 24° 6 | 10°38 | W16 |
| T 17 | 22 4 16 | 29°19'53 | 2 [♂] 47 | 24°48 | 11° 1 | 5°30 | 9°10 | 20° 5 | 20°38 | 26° 4 | 6°19 | 24°30 | 25°44 | 24°12 | 10°36 | T 17 |
| F 18 | 22 8 12 | 0 [♂] 18'08 | 14°49 | 26° 2 | 11°37 | 6°10 | 9°13 | 20°13 | 20°37 | 26° 6 | 6°18 | 24°31 | 25°40 | 24°19 | 10°34 | F 18 |
| S 19 | 22 12 9 | 1°16'24 | 27° 2 | 27°15 | 12°12 | 6°50 | 9°16 | 20°20 | 20°36 | 26° 8 | 6°17 | 24°33 | 25°37 | 24°26 | 10°32 | S 19 |
| S 20 | 22 16 5 | 2°14'42 | 9 [♂] 29 | 28°25 | 12°46 | 7°29 | 9°20 | 20°28 | 20°34 | 26°10 | 6°16 | 24°34 | 25°34 | 24°32 | 10°30 | S 20 |
| M21 | 22 20 2 | 3°13'02 | 22°14 | 29°34 | 13°19 | 8° 9 | 9°24 | 20°35 | 20°33 | 26°12 | 6°16 | 24°35 | 25°31 | 24°39 | 10°28 | M21 |
| T 22 | 22 23 58 | 4°11'23 | 5 [♂] 21 | 0 [♂] 40 | 13°50 | 8°49 | 9°28 | 20°43 | 20°31 | 26°14 | 6°15 | 24°R36 | 25°28 | 24°46 | 10°26 | T 22 |
| W23 | 22 27 55 | 5° 9'46 | 18°52 | 1°45 | 14°20 | 9°29 | 9°32 | 20°50 | 20°30 | 26°16 | 6°14 | 24°35 | 25°24 | 24°52 | 10°24 | W23 |
| T 24 | 22 31 51 | 6° 8'11 | 2 [♂] 49 | 2°46 | 14°48 | 10° 9 | 9°36 | 20°58 | 20°28 | 26°17 | 6°13 | 24°34 | 25°21 | 24°59 | 10°21 | T 24 |
| F 25 | 22 35 48 | 7° 6'37 | 17°12 | 3°46 | 15°15 | 10°49 | 9°41 | 21° 5 | 20°27 | 26°19 | 6°12 | 24°32 | 25°18 | 25° 6 | 10°19 | F 25 |
| S 26 | 22 39 45 | 8° 5'05 | 1 [♂] 57 | 4°43 | 15°40 | 11°29 | 9°46 | 21°12 | 20°25 | 26°21 | 6°11 | 24°30 | 25°15 | 25°12 | 10°17 | S 26 |
| S 27 | 22 43 41 | 9° 3'34 | 17° 0 | 5°37 | 16° 4 | 12° 9 | 9°50 | 21°20 | 20°24 | 26°23 | 6°10 | 24°28 | 25°12 | 25°19 | 10°15 | S 27 |
| M28 | 22 47 38 | 10° 2'05 | 2 [♂] 11 | 6°28 | 16°25 | 12°49 | 9°55 | 21°27 | 20°22 | 26°24 | 6° 9 | 24°26 | 25° 9 | 25°26 | 10°12 | M28 |
| T 29 | 22 51 34 | 11° 0'38 | 17°21 | 7°16 | 16°45 | 13°29 | 10° 1 | 21°35 | 20°20 | 26°26 | 6° 8 | 24°D26 | 25° 5 | 25°32 | 10°10 | T 29 |
| W30 | 22 55 31 | 11°59'13 | 2 [♂] 20 | 8° 0 | 17° 3 | 14° 9 | 10° 6 | 21°42 | 20°19 | 26°28 | 6° 7 | 24°26 | 25° 2 | 25°39 | 10° 8 | W30 |
| T 31 | 22 59 27 | 12 [♂] 57'50 | 17 [♂] 2 | 8 [♂] 40 | 17 [♂] 19 | 14 [♂] 50 | 10 [♂] 11 | 21 [♂] 49 | 20 [♂] 17 | 26 [♂] 29 | 6 [♂] 6 | 24 [♂] 26 | 24 [♂] 59 | 25 [♂] 46 | 10 [♂] 5 | T 31 |

Delta T = 18m00s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1094
geocentric

SEPTEMBER 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------------------|------------------------------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|---------------------|------------------------------------|--------------------|------------------------------------|------------------------------------|------------------------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| F 1 | 23 3 24 | 13 ^h 56 ^m 30 | 1 ^h 8 ^m 19 | 9 ^h 17 ^m 17 | 17 ^h 17 ^m 33 | 15 ^h 15 ^m 30 | 10 ^h 17 ^m 17 | 21 ^h 18 ^m 56 | 20 ^h R15 | 26 ^h 26 ^m 31 | 6 ^h R 4 | 24 ^h 27 ^m 27 | 24 ^h 27 ^m 56 | 25 ^h 12 ^m 52 | 10 ^h R 3 | F 1 | | | | | | | | |
| S 2 | 23 7 20 | 14 ^h 55 ^m 11 | 15 ^h 10 | 9 ^h 49 | 17 ^h 46 | 16 ^h 11 | 10 ^h 23 | 22 ^h 4 | 20 ^h Y13 | 26 ^h 33 | 6 ^h Y 3 | 24 ^h 28 | 24 ^h 53 | 25 ^h 59 | 10 ^h Y 0 | S 2 | | | | | | | | |
| S 3 | 23 11 17 | 15 ^h 53 ^m 55 | 28 ^h 34 | 10 ^h 16 | 17 ^h 56 | 16 ^h 51 | 10 ^h 29 | 22 ^h 11 | 20 ^h 11 | 26 ^h 34 | 6 ^h 2 | 24 ^h 29 | 24 ^h 50 | 26 ^h 6 | 9 ^h 58 | S 3 | | | | | | | | |
| M 4 | 23 15 14 | 16 ^h 52 ^m 42 | 11 ^h 11 ^m 33 | 10 ^h 38 | 18 ^h 3 | 17 ^h 32 | 10 ^h 35 | 22 ^h 18 | 20 ^h 9 | 26 ^h 36 | 6 ^h 1 | 24 ^h R29 | 24 ^h 46 | 26 ^h 12 | 9 ^h 55 | M 4 | | | | | | | | |
| T 5 | 23 19 10 | 17 ^h 51 ^m 30 | 24 ^h 11 | 10 ^h 55 | 18 ^h 9 | 18 ^h 13 | 10 ^h 41 | 22 ^h 25 | 20 ^h 7 | 26 ^h 37 | 6 ^h 0 | 24 ^h 29 | 24 ^h 43 | 26 ^h 19 | 9 ^h 53 | T 5 | | | | | | | | |
| W 6 | 23 23 7 | 18 ^h 50 ^m 21 | 6 ^h 23 ^m 30 | 11 ^h 6 | 18 ^h 13 | 18 ^h 54 | 10 ^h 48 | 22 ^h 32 | 20 ^h 5 | 26 ^h 39 | 5 ^h 59 | 24 ^h 29 | 24 ^h 40 | 26 ^h 26 | 9 ^h 50 | W 6 | | | | | | | | |
| T 7 | 23 27 3 | 19 ^h 49 ^m 15 | 18 ^h 36 | 11 ^h R11 | 18 ^h R14 | 19 ^h 34 | 10 ^h 54 | 22 ^h 39 | 20 ^h 3 | 26 ^h 40 | 5 ^h 58 | 24 ^h 28 | 24 ^h 37 | 26 ^h 32 | 9 ^h 48 | T 7 | | | | | | | | |
| F 8 | 23 31 0 | 20 ^h 48 ^m 10 | 0 ^h 12 ^m 32 | 11 ^h 9 | 18 ^h 13 | 20 ^h 15 | 11 ^h 1 | 22 ^h 46 | 20 ^h 1 | 26 ^h 42 | 5 ^h 57 | 24 ^h 28 | 24 ^h 34 | 26 ^h 39 | 9 ^h 45 | F 8 | | | | | | | | |
| S 9 | 23 34 56 | 21 ^h 47 ^m 08 | 12 ^h 23 | 10 ^h 59 | 18 ^h 9 | 20 ^h 56 | 11 ^h 8 | 22 ^h 53 | 19 ^h 59 | 26 ^h 43 | 5 ^h 56 | 24 ^h 27 | 24 ^h 30 | 26 ^h 46 | 9 ^h 42 | S 9 | | | | | | | | |
| S 10 | 23 38 53 | 22 ^h 46 ^m 08 | 24 ^h 11 | 10 ^h 43 | 18 ^h 3 | 21 ^h 37 | 11 ^h 15 | 23 ^h 0 | 19 ^h 57 | 26 ^h 45 | 5 ^h 55 | 24 ^h 27 | 24 ^h 27 | 26 ^h 52 | 9 ^h 40 | S 10 | | | | | | | | |
| M 11 | 23 42 49 | 23 ^h 45 ^m 10 | 6 ^h 17 ^m 0 | 10 ^h 19 | 17 ^h 55 | 22 ^h 18 | 11 ^h 22 | 23 ^h 7 | 19 ^h 55 | 26 ^h 46 | 5 ^h 54 | 24 ^h 27 | 24 ^h 24 | 26 ^h 59 | 9 ^h 37 | M 11 | | | | | | | | |
| T 12 | 23 46 46 | 24 ^h 44 ^m 14 | 17 ^h 52 | 9 ^h 47 | 17 ^h 45 | 23 ^h 0 | 11 ^h 29 | 23 ^h 14 | 19 ^h 53 | 26 ^h 48 | 5 ^h 52 | 24 ^h 27 | 24 ^h 21 | 27 ^h 6 | 9 ^h 34 | T 12 | | | | | | | | |
| W 13 | 23 50 43 | 25 ^h 43 ^m 20 | 29 ^h 49 | 9 ^h 8 | 17 ^h 32 | 23 ^h 41 | 11 ^h 37 | 23 ^h 21 | 19 ^h 51 | 26 ^h 49 | 5 ^h 51 | 24 ^h 27 | 24 ^h 18 | 27 ^h 12 | 9 ^h 32 | W 13 | | | | | | | | |
| T 14 | 23 54 39 | 26 ^h 42 ^m 29 | 11 ^h 12 ^m 54 | 8 ^h 21 | 17 ^h 16 | 24 ^h 22 | 11 ^h 44 | 23 ^h 28 | 19 ^h 49 | 26 ^h 50 | 5 ^h 50 | 24 ^h 27 | 24 ^h 15 | 27 ^h 19 | 9 ^h 29 | T 14 | | | | | | | | |
| F 15 | 23 58 36 | 27 ^h 41 ^m 39 | 24 ^h 9 | 7 ^h 28 | 16 ^h 59 | 25 ^h 3 | 11 ^h 52 | 23 ^h 34 | 19 ^h 46 | 26 ^h 52 | 5 ^h 49 | 24 ^h 27 | 24 ^h 11 | 27 ^h 26 | 9 ^h 26 | F 15 | | | | | | | | |
| S 16 | 0 2 32 | 28 ^h 40 ^m 52 | 6 ^h 11 ^m 34 | 6 ^h 28 | 16 ^h 39 | 25 ^h 45 | 12 ^h 0 | 23 ^h 41 | 19 ^h 44 | 26 ^h 53 | 5 ^h 48 | 24 ^h 26 | 24 ^h 8 | 27 ^h 32 | 9 ^h 23 | S 16 | | | | | | | | |
| S 17 | 0 6 29 | 29 ^h 40 ^m 06 | 19 ^h 12 | 5 ^h 23 | 16 ^h 16 | 26 ^h 26 | 12 ^h 8 | 23 ^h 48 | 19 ^h 42 | 26 ^h 54 | 5 ^h 47 | 24 ^h 26 | 24 ^h 5 | 27 ^h 39 | 9 ^h 21 | S 17 | | | | | | | | |
| M 18 | 0 10 25 | 0 ^h 13 ^m 22 | 2 ^h 17 ^m 5 | 4 ^h 15 | 15 ^h 52 | 27 ^h 8 | 12 ^h 16 | 23 ^h 54 | 19 ^h 40 | 26 ^h 55 | 5 ^h 46 | 24 ^h 25 | 24 ^h 2 | 27 ^h 46 | 9 ^h 18 | M 18 | | | | | | | | |
| T 19 | 0 14 22 | 1 ^h 38 ^m 41 | 15 ^h 15 | 3 ^h 4 | 15 ^h 26 | 27 ^h 49 | 12 ^h 25 | 24 ^h 1 | 19 ^h 37 | 26 ^h 56 | 5 ^h 44 | 24 ^h 24 | 23 ^h 59 | 27 ^h 52 | 9 ^h 15 | T 19 | | | | | | | | |
| W 20 | 0 18 18 | 2 ^h 38 ^m 01 | 28 ^h 44 | 1 ^h 53 | 14 ^h 58 | 28 ^h 31 | 12 ^h 33 | 24 ^h 7 | 19 ^h 35 | 26 ^h 58 | 5 ^h 43 | 24 ^h D24 | 23 ^h 56 | 27 ^h 59 | 9 ^h 12 | W 20 | | | | | | | | |
| T 21 | 0 22 15 | 3 ^h 37 ^m 22 | 12 ^h 37 ^m 32 | 0 ^h 44 | 14 ^h 28 | 29 ^h 13 | 12 ^h 42 | 24 ^h 14 | 19 ^h 33 | 26 ^h 59 | 5 ^h 42 | 24 ^h 24 | 23 ^h 52 | 28 ^h 6 | 9 ^h 9 | T 21 | | | | | | | | |
| F 22 | 0 26 12 | 4 ^h 36 ^m 46 | 26 ^h 39 | 29 ^h 38 | 13 ^h 56 | 29 ^h 55 | 12 ^h 50 | 24 ^h 20 | 19 ^h 30 | 27 ^h 0 | 5 ^h 41 | 24 ^h 25 | 23 ^h 49 | 28 ^h 12 | 9 ^h 7 | F 22 | | | | | | | | |
| S 23 | 0 30 8 | 5 ^h 36 ^m 11 | 11 ^h 11 ^m 5 | 28 ^h 38 | 13 ^h 23 | 0 ^h 13 ^m 37 | 12 ^h 59 | 24 ^h 27 | 19 ^h 28 | 27 ^h 1 | 5 ^h 40 | 24 ^h 25 | 23 ^h 46 | 28 ^h 19 | 9 ^h 4 | S 23 | | | | | | | | |
| S 24 | 0 34 5 | 6 ^h 35 ^m 38 | 25 ^h 47 | 27 ^h 45 | 12 ^h 49 | 1 ^h 18 | 13 ^h 8 | 24 ^h 33 | 19 ^h 25 | 27 ^h 2 | 5 ^h 39 | 24 ^h 26 | 23 ^h 43 | 28 ^h 26 | 9 ^h 1 | S 24 | | | | | | | | |
| M 25 | 0 38 1 | 7 ^h 35 ^m 07 | 10 ^h 18 ^m 38 | 27 ^h 1 | 12 ^h 14 | 2 ^h 0 | 13 ^h 17 | 24 ^h 39 | 19 ^h 23 | 27 ^h 3 | 5 ^h 37 | 24 ^h 27 | 23 ^h 40 | 28 ^h 32 | 8 ^h 58 | M 25 | | | | | | | | |
| T 26 | 0 41 58 | 8 ^h 34 ^m 38 | 25 ^h 33 | 26 ^h 27 | 11 ^h 38 | 2 ^h 42 | 13 ^h 26 | 24 ^h 46 | 19 ^h 21 | 27 ^h 4 | 5 ^h 36 | 24 ^h R27 | 23 ^h 36 | 28 ^h 39 | 8 ^h 55 | T 26 | | | | | | | | |
| W 27 | 0 45 54 | 9 ^h 34 ^m 11 | 10 ^h Y24 | 26 ^h 3 | 11 ^h 1 | 3 ^h 25 | 13 ^h 35 | 24 ^h 52 | 19 ^h 18 | 27 ^h 5 | 5 ^h 35 | 24 ^h 27 | 23 ^h 33 | 28 ^h 46 | 8 ^h 53 | W 27 | | | | | | | | |
| T 28 | 0 49 51 | 10 ^h 33 ^m 46 | 25 ^h 2 | 25 ^h 51 | 10 ^h 25 | 4 ^h 7 | 13 ^h 45 | 24 ^h 58 | 19 ^h 16 | 27 ^h 6 | 5 ^h 34 | 24 ^h 26 | 23 ^h 30 | 28 ^h 52 | 8 ^h 50 | T 28 | | | | | | | | |
| F 29 | 0 53 47 | 11 ^h 33 ^m 23 | 9 ^h 22 | 25 ^h D50 | 9 ^h 48 | 4 ^h 49 | 13 ^h 54 | 25 ^h 4 | 19 ^h 13 | 27 ^h 7 | 5 ^h 33 | 24 ^h 24 | 23 ^h 27 | 28 ^h 59 | 8 ^h 47 | F 29 | | | | | | | | |
| S 30 | 0 57 44 | 12 ^h 33 ^m 02 | 23 ^h 18 | 25 ^h 59 | 9 ^h 12 | 5 ^h 13 ^m 31 | 14 ^h 17 ^m 4 | 25 ^h 10 | 19 ^h Y11 | 27 ^h 8 | 5 ^h Y32 | 24 ^h 21 | 23 ^h 24 | 29 ^h 12 ^m 6 | 8 ^h Y44 | S 30 | | | | | | | | |

Delta T = 18m00s Julian Calendar 1 Sept. 1094 == Greg. Calendar 7 Sept. 1094

OCTOBER 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|------------------------------------|-----------------------------------|------------------------------------|--------------------|-----------------------------------|------------------------------------|--------------------|---------------------|----------------------|--------------------|---------------------|--------------------|----------------------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 1 1 41 | 13 ^h 12 ^m 43 | 6 ^h 11 ^m 49 | 26 ^h 17 ^m 20 | 8 ^h R36 | 6 ^h 11 ^m 14 | 14 ^h 17 ^m 14 | 25 ^h 16 | 19 ^h R 9 | 27 ^h 28 8 | 5 ^h R30 | 24 ^h R19 | 23 ^h 21 | 29 ^h 12 | 8 ^h R41 | S 1 | | | | | | | | |
| M 2 | 1 5 37 | 14 ^h 32 ^m 27 | 19 ^h 54 | 26 ^h 50 | 8 ^h 0 | 6 ^h 56 | 14 ^h 24 | 25 ^h 22 | 19 ^h Y 6 | 27 ^h 9 | 5 ^h Y29 | 24 ^h 16 | 23 ^h 17 | 29 ^h 19 | 8 ^h Y38 | M 2 | | | | | | | | |
| T 3 | 1 9 34 | 15 ^h 32 ^m 13 | 22 ^h 35 | 27 ^h 29 | 7 ^h 26 | 7 ^h 39 | 14 ^h 33 | 25 ^h 27 | 19 ^h 4 | 27 ^h 10 | 5 ^h 28 | 24 ^h 15 | 23 ^h 14 | 29 ^h 26 | 8 ^h 36 | T 3 | | | | | | | | |
| W 4 | 1 13 30 | 16 ^h 32 ^m 02 | 14 ^h 57 | 28 ^h 17 | 6 ^h 53 | 8 ^h 21 | 14 ^h 44 | 25 ^h 33 | 19 ^h 1 | 27 ^h 10 | 5 ^h 27 | 24 ^h D14 | 23 ^h 11 | 29 ^h 32 | 8 ^h 33 | W 4 | | | | | | | | |
| T 5 | 1 17 27 | 17 ^h 31 ^m 53 | 27 ^h 3 | 29 ^h 13 | 6 ^h 21 | 9 ^h 4 | 14 ^h 54 | 25 ^h 39 | 18 ^h 59 | 27 ^h 11 | 5 ^h 26 | 24 ^h 14 | 23 ^h 8 | 29 ^h 39 | 8 ^h 30 | T 5 | | | | | | | | |
| F 6 | 1 21 23 | 18 ^h 31 ^m 46 | 8 ^h 12 ^m 58 | 0 ^h 15 | 5 ^h 51 | 9 ^h 46 | 15 ^h 4 | 25 ^h 44 | 18 ^h 56 | 27 ^h 12 | 5 ^h 25 | 24 ^h 16 | 23 ^h 5 | 29 ^h 46 | 8 ^h 27 | F 6 | | | | | | | | |
| S 7 | 1 25 20 | 19 ^h 31 ^m 41 | 20 ^h 47 | 1 ^h 23 | 5 ^h 22 | 10 ^h 29 | 15 ^h 14 | 25 ^h 50 | 18 ^h 54 | 27 ^h 12 | 5 ^h 24 | 24 ^h 17 | 23 ^h 1 | 29 ^h 52 | 8 ^h 25 | S 7 | | | | | | | | |
| S 8 | 1 29 16 | 20 ^h 31 ^m 38 | 2 ^h 17 ^m 35 | 2 ^h 36 | 4 ^h 56 | 11 ^h 12 | 15 ^h 25 | 25 ^h 55 | 18 ^h 51 | 27 ^h 13 | 5 ^h 23 | 24 ^h 19 | 22 ^h 58 | 29 ^h 59 | 8 ^h 22 | S 8 | | | | | | | | |
| M 9 | 1 33 13 | 21 ^h 31 ^m 37 | 14 ^h 26 | 3 ^h 54 | 4 ^h 31 | 11 ^h 55 | 15 ^h 35 | 26 ^h 1 | 18 ^h 49 | 27 ^h 14 | 5 ^h 21 | 24 ^h 21 | 22 ^h 55 | 0 ^h 17 ^m 5 | 8 ^h 19 | M 9 | | | | | | | | |
| T 10 | 1 37 10 | 22 ^h 31 ^m 39 | 26 ^h 23 | 5 ^h 15 | 4 ^h 9 | 12 ^h 38 | 15 ^h 46 | 26 ^h 6 | 18 ^h 46 | 27 ^h 14 | 5 ^h 20 | 24 ^h R21 | 22 ^h 52 | 0 ^h 12 | 8 ^h 16 | T 10 | | | | | | | | |
| W 11 | 1 41 6 | 23 ^h 31 ^m 42 | 8 ^h 13 ^m 30 | 6 ^h 40 | 3 ^h 49 | 13 ^h 21 | 15 ^h 57 | 26 ^h 11 | 18 ^h 44 | 27 ^h 15 | 5 ^h 19 | 24 ^h 20 | 22 ^h 49 | 0 ^h 19 | 8 ^h 14 | W 11 | | | | | | | | |
| T 12 | 1 45 3 | 24 ^h 31 ^m 48 | 20 ^h 49 | 8 ^h 7 | 3 ^h 31 | 14 ^h 4 | 16 ^h 8 | 26 ^h 16 | 18 ^h 41 | 27 ^h 15 | 5 ^h 18 | 24 ^h 17 | 22 ^h 46 | 0 ^h 25 | 8 ^h 11 | T 12 | | | | | | | | |
| F 13 | 1 48 59 | 25 ^h 31 ^m 56 | 3 ^h 11 ^m 20 | 9 ^h 37 | 3 ^h 15 | 14 ^h 47 | 16 ^h 19 | 26 ^h 21 | 18 ^h 39 | 27 ^h 15 | 5 ^h 17 | 24 | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1094
geocentric

NOVEMBER 1094 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|--------|--------|-------|--------|--------|-------|-------|------|---|-----|
| W 1 | 3 3 54 | 14♌39'26 | 22♌54 | 9♌58 | 5♌45 | 28♌37 | 20♌3 | 27♌42 | 17°R55 | 27°R17 | 4°R59 | 23°R 0 | 21♌42 | 2♌39 | 7°R22 | W 1 | | |
| T 2 | 3 7 50 | 15°40'06 | 5♌ 1 | 11°33 | 6°13 | 29°21 | 20°16 | 27°46 | 17°Y53 | 27°S16 | 4°Y58 | 22°K57 | 21°39 | 2°45 | 7°Y20 | T 2 | | |
| F 3 | 3 11 47 | 16°40'47 | 16°57 | 13° 9 | 6°43 | 0♌ 6 | 20°28 | 27°49 | 17°51 | 27°16 | 4°57 | 22°D56 | 21°36 | 2°52 | 7°18 | F 3 | | |
| S 4 | 3 15 43 | 17°41'30 | 28°46 | 14°44 | 7°15 | 0°50 | 20°41 | 27°52 | 17°49 | 27°16 | 4°56 | 22°57 | 21°33 | 2°59 | 7°16 | S 4 | | |
| S 5 | 3 19 40 | 18°42'15 | 10♌34 | 16°19 | 7°48 | 1°35 | 20°54 | 27°55 | 17°47 | 27°15 | 4°55 | 22°58 | 21°29 | 3° 5 | 7°14 | S 5 | | |
| M 6 | 3 23 37 | 19°43'02 | 22°26 | 17°54 | 8°23 | 2°19 | 21° 7 | 27°58 | 17°45 | 27°15 | 4°54 | 22°R58 | 21°26 | 3°12 | 7°12 | M 6 | | |
| T 7 | 3 27 33 | 20°43'50 | 4♌27 | 19°29 | 8°59 | 3° 4 | 21°19 | 28° 1 | 17°43 | 27°15 | 4°54 | 22°58 | 21°23 | 3°18 | 7°11 | T 7 | | |
| W 8 | 3 31 30 | 21°44'39 | 16°42 | 21° 3 | 9°36 | 3°48 | 21°32 | 28° 4 | 17°41 | 27°14 | 4°53 | 22°55 | 21°20 | 3°25 | 7° 9 | W 8 | | |
| T 9 | 3 35 26 | 22°45'30 | 29°12 | 22°38 | 10°15 | 4°33 | 21°45 | 28° 6 | 17°39 | 27°14 | 4°52 | 22°49 | 21°17 | 3°32 | 7° 7 | T 9 | | |
| F 10 | 3 39 23 | 23°46'22 | 12♌ 1 | 24°12 | 10°54 | 5°18 | 21°58 | 28° 9 | 17°37 | 27°13 | 4°52 | 22°41 | 21°13 | 3°38 | 7° 5 | F 10 | | |
| S 11 | 3 43 19 | 24°47'16 | 25° 7 | 25°46 | 11°35 | 6° 2 | 22°11 | 28°12 | 17°35 | 27°13 | 4°51 | 22°31 | 21°10 | 3°45 | 7° 4 | S 11 | | |
| S 12 | 3 47 16 | 25°48'11 | 8♌31 | 27°21 | 12°18 | 6°47 | 22°24 | 28°14 | 17°34 | 27°12 | 4°50 | 22°20 | 21° 7 | 3°52 | 7° 2 | S 12 | | |
| M13 | 3 51 12 | 26°49'07 | 22° 8 | 28°55 | 13° 1 | 7°32 | 22°38 | 28°16 | 17°32 | 27°11 | 4°50 | 22° 8 | 21° 4 | 3°58 | 7° 0 | M13 | | |
| T 14 | 3 55 9 | 27°50'04 | 5♌57 | 0♌29 | 13°45 | 8°17 | 22°51 | 28°18 | 17°30 | 27°11 | 4°49 | 21°58 | 21° 1 | 4° 5 | 6°59 | T 14 | | |
| W15 | 3 59 6 | 28°51'02 | 19°54 | 2° 3 | 14°31 | 9° 2 | 23° 4 | 28°20 | 17°28 | 27°10 | 4°48 | 21°50 | 20°58 | 4°12 | 6°57 | W15 | | |
| T 16 | 4 3 2 | 29°52'01 | 3♌56 | 3°37 | 15°17 | 9°47 | 23°17 | 28°22 | 17°27 | 27° 9 | 4°48 | 21°45 | 20°54 | 4°18 | 6°56 | T 16 | | |
| F 17 | 4 6 59 | 0♌53'00 | 18° 0 | 5°11 | 16° 4 | 10°32 | 23°31 | 28°24 | 17°25 | 27° 8 | 4°47 | 21°42 | 20°51 | 4°25 | 6°54 | F 17 | | |
| S 18 | 4 10 55 | 1°54'00 | 2♌ 5 | 6°46 | 16°53 | 11°17 | 23°44 | 28°26 | 17°24 | 27° 8 | 4°47 | 21°D42 | 20°48 | 4°32 | 6°53 | S 18 | | |
| S 19 | 4 14 52 | 2°55'01 | 16°10 | 8°20 | 17°42 | 12° 2 | 23°57 | 28°27 | 17°22 | 27° 7 | 4°46 | 21°R42 | 20°45 | 4°38 | 6°52 | S 19 | | |
| M20 | 4 18 48 | 3°56'02 | 0♌14 | 9°54 | 18°32 | 12°48 | 24°11 | 28°29 | 17°21 | 27° 6 | 4°45 | 21°42 | 20°42 | 4°45 | 6°51 | M20 | | |
| T 21 | 4 22 45 | 4°57'04 | 14°17 | 11°28 | 19°22 | 13°33 | 24°24 | 28°30 | 17°19 | 27° 5 | 4°45 | 21°40 | 20°39 | 4°52 | 6°49 | T 21 | | |
| W22 | 4 26 41 | 5°58'06 | 28°17 | 13° 2 | 20°14 | 14°18 | 24°38 | 28°32 | 17°18 | 27° 4 | 4°44 | 21°35 | 20°35 | 4°58 | 6°48 | W22 | | |
| T 23 | 4 30 38 | 6°59'09 | 12♌10 | 14°37 | 21° 6 | 15° 4 | 24°51 | 28°33 | 17°16 | 27° 3 | 4°44 | 21°28 | 20°32 | 5° 5 | 6°47 | T 23 | | |
| F 24 | 4 34 35 | 8° 0'13 | 25°54 | 16°11 | 21°59 | 15°49 | 25° 5 | 28°34 | 17°15 | 27° 2 | 4°44 | 21°18 | 20°29 | 5°12 | 6°46 | F 24 | | |
| S 25 | 4 38 31 | 9° 1'17 | 9♌25 | 17°45 | 22°53 | 16°35 | 25°19 | 28°35 | 17°14 | 27° 1 | 4°43 | 21° 5 | 20°26 | 5°18 | 6°45 | S 25 | | |
| S 26 | 4 42 28 | 10° 2'22 | 22°41 | 19°20 | 23°47 | 17°20 | 25°32 | 28°36 | 17°13 | 27° 0 | 4°43 | 20°52 | 20°23 | 5°25 | 6°44 | S 26 | | |
| M27 | 4 46 24 | 11° 3'28 | 5♌39 | 20°54 | 24°42 | 18° 6 | 25°46 | 28°36 | 17°11 | 26°59 | 4°42 | 20°39 | 20°19 | 5°32 | 6°43 | M27 | | |
| T 28 | 4 50 21 | 12° 4'35 | 18°18 | 22°29 | 25°38 | 18°51 | 26° 0 | 28°37 | 17°10 | 26°58 | 4°42 | 20°28 | 20°16 | 5°38 | 6°42 | T 28 | | |
| W29 | 4 54 17 | 13° 5'42 | 0♌40 | 24° 3 | 26°34 | 19°37 | 26°13 | 28°38 | 17° 9 | 26°57 | 4°42 | 20°19 | 20°13 | 5°45 | 6°42 | W29 | | |
| T 30 | 4 58 14 | 14♌ 6'50 | 12♌47 | 25♌38 | 27♌31 | 20♌23 | 26♌27 | 28♌38 | 17°Y 8 | 26°S56 | 4°Y41 | 20°K12 | 20°K10 | 5°Y51 | 6°Y41 | T 30 | | |

Delta T = 17m59s Julian Calendar 1 Nov. 1094 == Greg. Calendar 7 Nov. 1094

DECEMBER 1094 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|---------|----------|--------|--------|-------|-------|-------|--------|--------|--------|-------|--------|--------|-------|-------|------|-----|
| F 1 | 5 2 10 | 15♌7'59 | 24♌43 | 27♌12 | 28♌29 | 21♌ 8 | 26♌41 | 28♌38 | 17°R 7 | 26°R55 | 4°R41 | 20°R 9 | 20♌ 7 | 5♌58 | 6°R40 | F 1 | |
| S 2 | 5 6 7 | 16° 9'08 | 6♌32 | 28°46 | 29°27 | 21°54 | 26°55 | 28°38 | 17°Y 6 | 26°S54 | 4°Y41 | 20°K 7 | 20° 4 | 6° 5 | 6°Y40 | S 2 | |
| S 3 | 5 10 4 | 17°10'19 | 18°19 | 0♌20 | 0♌25 | 22°40 | 27° 8 | 28°R39 | 17° 5 | 26°52 | 4°41 | 20° 7 | 20° 0 | 6°11 | 6°39 | S 3 | |
| M 4 | 5 14 0 | 18°11'29 | 0♌11 | 1°54 | 1°24 | 23°26 | 27°22 | 28°39 | 17° 4 | 26°51 | 4°40 | 20° 7 | 19°57 | 6°18 | 6°39 | M 4 | |
| T 5 | 5 17 57 | 19°12'41 | 12°13 | 3°27 | 2°24 | 24°12 | 27°36 | 28°38 | 17° 4 | 26°50 | 4°40 | 20° 6 | 19°54 | 6°25 | 6°38 | T 5 | |
| W 6 | 5 21 53 | 20°13'53 | 24°29 | 5° 0 | 3°24 | 24°58 | 27°50 | 28°38 | 17° 3 | 26°49 | 4°40 | 20° 2 | 19°51 | 6°31 | 6°38 | W 6 | |
| T 7 | 5 25 50 | 21°15'05 | 7♌ 6 | 6°33 | 4°24 | 25°44 | 28° 4 | 28°38 | 17° 2 | 26°47 | 4°40 | 19°56 | 19°48 | 6°38 | 6°38 | T 7 | |
| F 8 | 5 29 46 | 22°16'18 | 20° 4 | 8° 5 | 5°25 | 26°30 | 28°18 | 28°37 | 17° 2 | 26°46 | 4°40 | 19°47 | 19°45 | 6°45 | 6°37 | F 8 | |
| S 9 | 5 33 43 | 23°17'31 | 3♌26 | 9°35 | 6°26 | 27°16 | 28°32 | 28°37 | 17° 1 | 26°45 | 4°40 | 19°36 | 19°41 | 6°51 | 6°37 | S 9 | |
| S 10 | 5 37 39 | 24°18'45 | 17°10 | 11° 5 | 7°28 | 28° 2 | 28°46 | 28°36 | 17° 0 | 26°43 | 4°40 | 19°23 | 19°38 | 6°58 | 6°37 | S 10 | |
| M11 | 5 41 36 | 25°19'59 | 1♌13 | 12°33 | 8°30 | 28°48 | 29° 0 | 28°35 | 17° 0 | 26°42 | 4°39 | 19°10 | 19°35 | 7° 5 | 6°37 | M11 | |
| T 12 | 5 45 33 | 26°21'13 | 15°30 | 14° 0 | 9°32 | 29°34 | 29°13 | 28°34 | 16°59 | 26°41 | 4°39 | 18°58 | 19°32 | 7°11 | 6°D37 | T 12 | |
| W13 | 5 49 29 | 27°22'27 | 29°55 | 15°24 | 10°35 | 0♌21 | 29°27 | 28°33 | 16°59 | 26°39 | 4°D39 | 18°49 | 19°29 | 7°18 | 6°37 | W13 | |
| T 14 | 5 53 26 | 28°23'41 | 14♌21 | 16°46 | 11°38 | 1° 7 | 29°41 | 28°32 | 16°59 | 26°38 | 4°39 | 18°42 | 19°25 | 7°25 | 6°37 | T 14 | |
| F 15 | 5 57 22 | 29°24'54 | 28°44 | 18° 5 | 12°41 | 1°53 | 29°55 | 28°31 | 16°58 | 26°36 | 4°39 | 18°39 | 19°22 | 7°31 | 6°37 | F 15 | |
| S 16 | 6 1 19 | 0♌26'07 | 13♌ 0 | 19°21 | 13°45 | 2°40 | 0♌ 9 | 28°29 | 16°58 | 26°35 | 4°40 | 18°D38 | 19°19 | 7°38 | 6°38 | S 16 | |
| S 17 | 6 5 15 | 1°27'19 | 27° 7 | 20°33 | 14°49 | 3°26 | 0°23 | 28°28 | 16°58 | 26°33 | 4°40 | 18°R38 | 19°16 | 7°45 | 6°38 | S 17 | |
| M18 | 6 9 12 | 2°28'31 | 11°Y 4 | 21°39 | 15°53 | 4°12 | 0°37 | 28°26 | 16°58 | 26°32 | 4°40 | 18°37 | 19°13 | 7°51 | 6°38 | M18 | |
| T 19 | 6 13 9 | 3°29'43 | 24°52 | 22°41 | 16°58 | 4°59 | 0°51 | 28°25 | 16°58 | 26°30 | 4°40 | 18°36 | 19°10 | 7°58 | 6°39 | T 19 | |
| W20 | 6 17 5 | 4°30'54 | 8♌30 | 23°36 | 18° 3 | 5°45 | 1° 5 | 28°23 | 16°D58 | 26°29 | 4°40 | 18°31 | 19° 6 | 8° 4 | 6°39 | W20 | |
| T 21 | 6 21 2 | 5°32'04 | 21°58 | 24°25 | 19° 8 | 6°32 | 1°19 | 28°21 | 16°58 | 26°27 | 4°40 | 18°24 | 19° 3 | 8°11 | 6°40 | T 21 | |
| F 22 | 6 24 58 | 6°33'14 | 5♌17 | 25° 5 | 20°13 | 7°18 | 1°33 | 28°19 | 16°58 | 26°26 | 4°40 | 18°15 | 19° 0 | 8°18 | 6°40 | F 22 | |
| S 23 | 6 28 55 | 7°34'24 | 18°24 | 25°36 | 21°19 | 8° 5 | 1°47 | 28°17 | 16°58 | 26°24 | 4°41 | 18° 3 | 18°57 | 8°24 | 6°41 | S 23 | |
| S 24 | 6 32 51 | 8°35'33 | 1♌18 | 25°58 | 22°25 | 8°52 | 2° 1 | 28°15 | 16°58 | 26°23 | 4°41 | 17°50 | 18°54 | 8°31 | 6°41 | S 24 | |
| M25 | 6 36 48 | 9°36'42 | 14° 0 | 26°R 9 | 23°31 | 9°38 | 2°15 | 28°13 | 16°58 | 26°21 | 4°41 | 17°37 | 18°51 | 8°38 | 6°42 | M25 | |
| T 26 | 6 40 44 | 10°37'50 | 26°27 | 26° 9 | 24°38 | 10°25 | 2°29 | 28°10 | 16°59 | 26°19 | 4°41 | 17°26 | 18°47 | 8°44 | 6°43 | T 26 | |
| W27 | 6 44 41 | 11°38'58 | 8♌41 | 25°58 | 25°44 | 11°12 | 2°42 | 28° 8 | 16°59 | 26°18 | 4°42 | 17°17 | 18°44 | 8°51 | 6°44 | W27 | |
| T 28 | 6 48 38 | 12°40'05 | 20°44 | 25°34 | 26°51 | 11°58 | 2°56 | 28° 5 | 16°59 | 26°16 | 4°42 | 17°11 | 18°41 | 8°58 | 6°45 | T 28 | |
| F 29 | 6 52 34 | 13°41'12 | 2♌37 | 24°59 | 27°58 | 12°45 | 3°10 | 28° 2 | 17° 0 | 26°15 | 4°42 | 17° 8 | 18°38 | 9° 4 | 6°46 | F 29 | |
| S 30 | 6 56 31 | 14°42'18 | 14°25 | 24°13 | 29° 5 | 13°32 | 3°24 | 28° 0 | 17° 0 | 26°13 | 4°43 | 17°D 6 | 18°35 | 9°11 | 6°47 | S 30 | |
| S 31 | 7 0 27 | 15♌43'24 | 26♌12 | 23♌18 | 0♌13 | 14♌19 | 3♌38 | 27♌57 | 17°Y 1 | 26°S11 | 4°Y43 | 17°K 7 | 18°K31 | 9°Y18 | 6°Y48 | S 31 | |

Delta T = 17m59s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1095
geocentric

JANUARY 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|--------|------|--------|-------|-------|------|------|
| M 1 | 7 4 24 | 16♌44'30 | 8♋ 3 | 22°R14 | 1♌21 | 15♌ 6 | 3♌52 | 27°R54 | 17♌ 1 | 26°R10 | 4♌43 | 17♌ 7 | 18♌28 | 9♌24 | 6♌49 | M 1 |
| T 2 | 7 8 20 | 17°45'35 | 20° 3 | 21♌ 3 | 2°28 | 15°53 | 4° 5 | 27♌51 | 17° 2 | 26♌ 8 | 4°44 | 17°R 8 | 18°25 | 9°31 | 6°50 | T 2 |
| W 3 | 7 12 17 | 18°46'39 | 2♌18 | 19°48 | 3°36 | 16°39 | 4°19 | 27°48 | 17° 3 | 26° 6 | 4°44 | 17° 7 | 18°22 | 9°38 | 6°51 | W 3 |
| T 4 | 7 16 13 | 19°47'43 | 14°52 | 18°32 | 4°45 | 17°26 | 4°33 | 27°45 | 17° 4 | 26° 5 | 4°45 | 17° 3 | 18°19 | 9°44 | 6°53 | T 4 |
| F 5 | 7 20 10 | 20°48'47 | 27°51 | 17°15 | 5°53 | 18°13 | 4°47 | 27°41 | 17° 4 | 26° 3 | 4°45 | 16°58 | 18°16 | 9°51 | 6°54 | F 5 |
| S 6 | 7 24 7 | 21°49'50 | 11♌17 | 16° 1 | 7° 1 | 19° 0 | 5° 0 | 27°38 | 17° 5 | 26° 1 | 4°46 | 16°50 | 18°12 | 9°57 | 6°55 | S 6 |
| S 7 | 7 28 3 | 22°50'52 | 25° 9 | 14°52 | 8°10 | 19°47 | 5°14 | 27°34 | 17° 6 | 25°59 | 4°46 | 16°42 | 18° 9 | 10° 4 | 6°57 | S 7 |
| M 8 | 7 32 0 | 23°51'54 | 9♌26 | 13°49 | 9°19 | 20°34 | 5°28 | 27°31 | 17° 7 | 25°58 | 4°47 | 16°32 | 18° 6 | 10°11 | 6°58 | M 8 |
| T 9 | 7 35 56 | 24°52'55 | 24° 3 | 12°53 | 10°28 | 21°21 | 5°41 | 27°27 | 17° 8 | 25°56 | 4°48 | 16°24 | 18° 3 | 10°17 | 7° 0 | T 9 |
| W10 | 7 39 53 | 25°53'54 | 8♌52 | 12° 5 | 11°37 | 22° 8 | 5°55 | 27°24 | 17° 9 | 25°54 | 4°48 | 16°17 | 18° 0 | 10°24 | 7° 1 | W10 |
| T 11 | 7 43 49 | 26°54'53 | 23°45 | 11°26 | 12°46 | 22°55 | 6° 8 | 27°20 | 17°10 | 25°53 | 4°49 | 16°13 | 17°57 | 10°31 | 7° 3 | T 11 |
| F 12 | 7 47 46 | 27°55'50 | 8♌33 | 10°55 | 13°55 | 23°43 | 6°22 | 27°16 | 17°11 | 25°51 | 4°50 | 16°11 | 17°53 | 10°37 | 7° 5 | F 12 |
| S 13 | 7 51 43 | 28°56'46 | 23°11 | 10°33 | 15° 5 | 24°30 | 6°35 | 27°12 | 17°13 | 25°49 | 4°50 | 16°D11 | 17°50 | 10°44 | 7° 7 | S 13 |
| S 14 | 7 55 39 | 29°57'40 | 7♌34 | 10°20 | 16°14 | 25°17 | 6°49 | 27° 8 | 17°14 | 25°48 | 4°51 | 16°12 | 17°47 | 10°51 | 7° 8 | S 14 |
| M15 | 7 59 36 | 0♌58'33 | 21°39 | 10°D14 | 17°24 | 26° 4 | 7° 2 | 27° 4 | 17°15 | 25°46 | 4°52 | 16°13 | 17°44 | 10°57 | 7°10 | M15 |
| T 16 | 8 3 32 | 1°59'24 | 5♌27 | 10°17 | 18°34 | 26°51 | 7°16 | 27° 0 | 17°17 | 25°44 | 4°52 | 16°R13 | 17°41 | 11° 4 | 7°12 | T 16 |
| W17 | 8 7 29 | 3° 0'14 | 18°57 | 10°26 | 19°43 | 27°38 | 7°29 | 26°56 | 17°18 | 25°43 | 4°53 | 16°12 | 17°37 | 11°11 | 7°14 | W17 |
| T 18 | 8 11 25 | 4° 1'03 | 2♌11 | 10°42 | 20°53 | 28°25 | 7°42 | 26°52 | 17°19 | 25°41 | 4°54 | 16° 8 | 17°34 | 11°17 | 7°16 | T 18 |
| F 19 | 8 15 22 | 5° 1'49 | 15°10 | 11° 4 | 22° 4 | 29°13 | 7°55 | 26°48 | 17°21 | 25°39 | 4°55 | 16° 3 | 17°31 | 11°24 | 7°18 | F 19 |
| S 20 | 8 19 18 | 6° 2'35 | 27°57 | 11°32 | 23°14 | 29°59 | 8° 9 | 26°43 | 17°22 | 25°38 | 4°55 | 15°57 | 17°28 | 11°31 | 7°20 | S 20 |
| S 21 | 8 23 15 | 7° 3'19 | 10♌31 | 12° 5 | 24°24 | 0♌47 | 8°22 | 26°39 | 17°24 | 25°36 | 4°56 | 15°49 | 17°25 | 11°37 | 7°22 | S 21 |
| M22 | 8 27 12 | 8° 4'01 | 22°53 | 12°43 | 25°34 | 1°34 | 8°35 | 26°35 | 17°26 | 25°34 | 4°57 | 15°42 | 17°22 | 11°44 | 7°25 | M22 |
| T 23 | 8 31 8 | 9° 4'42 | 5♌ 6 | 13°25 | 26°45 | 2°22 | 8°48 | 26°30 | 17°27 | 25°33 | 4°58 | 15°36 | 17°18 | 11°50 | 7°27 | T 23 |
| W24 | 8 35 5 | 10° 5'21 | 17°10 | 14°12 | 27°55 | 3° 9 | 9° 1 | 26°26 | 17°29 | 25°31 | 4°59 | 15°31 | 17°15 | 11°57 | 7°29 | W24 |
| T 25 | 8 39 1 | 11° 5'59 | 29° 5 | 15° 2 | 29° 6 | 3°56 | 9°14 | 26°21 | 17°31 | 25°29 | 5° 0 | 15°28 | 17°12 | 12° 4 | 7°32 | T 25 |
| F 26 | 8 42 58 | 12° 6'35 | 10♌55 | 15°55 | 0♌17 | 4°43 | 9°27 | 26°16 | 17°33 | 25°28 | 5° 1 | 15°D26 | 17° 9 | 12°10 | 7°34 | F 26 |
| S 27 | 8 46 54 | 13° 7'10 | 22°43 | 16°51 | 1°27 | 5°31 | 9°39 | 26°12 | 17°35 | 25°26 | 5° 2 | 15°26 | 17° 6 | 12°17 | 7°36 | S 27 |
| S 28 | 8 50 51 | 14° 7'43 | 4♌30 | 17°51 | 2°38 | 6°18 | 9°52 | 26° 7 | 17°37 | 25°25 | 5° 3 | 15°28 | 17° 3 | 12°24 | 7°39 | S 28 |
| M29 | 8 54 47 | 15° 8'15 | 16°21 | 18°53 | 3°49 | 7° 5 | 10° 5 | 26° 3 | 17°38 | 25°23 | 5° 4 | 15°30 | 16°59 | 12°30 | 7°41 | M29 |
| T 30 | 8 58 44 | 16° 8'46 | 28°21 | 19°57 | 5° 0 | 7°52 | 10°18 | 25°58 | 17°40 | 25°21 | 5° 5 | 15°31 | 16°56 | 12°37 | 7°44 | T 30 |
| W31 | 9 2 41 | 17° 9'16 | 10♌34 | 21♌ 4 | 6♌11 | 8°40 | 10♌30 | 25°53 | 17°42 | 25°20 | 5° 6 | 15♌32 | 16♌53 | 12♌44 | 7°46 | W31 |

Delta T = 17m59s Julian Calendar 1 Jan. 1095 == Greg. Calendar 7 Jan. 1095

FEBRUARY 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|--------|------|--------|-------|-------|------|------|
| T 1 | 9 6 37 | 18° 9'44 | 23♌ 5 | 22♌13 | 7♌22 | 9°27 | 10♌43 | 25°R48 | 17°45 | 25°R18 | 5° 7 | 15°R33 | 16♌50 | 12♌50 | 7°49 | T 1 |
| F 2 | 9 10 34 | 19°10'10 | 5♌58 | 23°23 | 8°34 | 10°14 | 10°55 | 25°Ω44 | 17°47 | 25°Ω17 | 5° 8 | 15♌31 | 16°47 | 12°57 | 7°52 | F 2 |
| S 3 | 9 14 30 | 20°10'36 | 19°18 | 24°36 | 9°45 | 11° 2 | 11° 7 | 25°39 | 17°49 | 25°15 | 5° 9 | 15°29 | 16°43 | 13° 4 | 7°54 | S 3 |
| S 4 | 9 18 27 | 21°11'00 | 3♌ 6 | 25°51 | 10°56 | 11°49 | 11°20 | 25°34 | 17°51 | 25°14 | 5°10 | 15°26 | 16°40 | 13°10 | 7°57 | S 4 |
| M 5 | 9 22 23 | 22°11'22 | 17°21 | 27° 7 | 12° 8 | 12°36 | 11°32 | 25°29 | 17°53 | 25°12 | 5°11 | 15°23 | 16°37 | 13°17 | 8° 0 | M 5 |
| T 6 | 9 26 20 | 23°11'43 | 2♌ 1 | 28°24 | 13°19 | 13°24 | 11°44 | 25°25 | 17°56 | 25°11 | 5°12 | 15°19 | 16°34 | 13°23 | 8° 3 | T 6 |
| W 7 | 9 30 16 | 24°12'02 | 16°59 | 29°44 | 14°31 | 14°11 | 11°56 | 25°20 | 17°58 | 25° 9 | 5°13 | 15°17 | 16°31 | 13°30 | 8° 5 | W 7 |
| T 8 | 9 34 13 | 25°12'20 | 2♌ 7 | 1♌ 4 | 15°42 | 14°58 | 12° 8 | 25°15 | 18° 0 | 25° 8 | 5°14 | 15°15 | 16°28 | 13°37 | 8° 8 | T 8 |
| F 9 | 9 38 10 | 26°12'35 | 17°16 | 2°27 | 16°54 | 15°45 | 12°20 | 25°10 | 18° 3 | 25° 7 | 5°15 | 15°D15 | 16°24 | 13°43 | 8°11 | F 9 |
| S 10 | 9 42 6 | 27°12'48 | 2°46 | 3°50 | 18° 5 | 16°33 | 12°32 | 25° 5 | 18° 5 | 25° 5 | 5°17 | 15°15 | 16°21 | 13°50 | 8°14 | S 10 |
| S 11 | 9 46 3 | 28°13'00 | 16°59 | 5°15 | 19°17 | 17°20 | 12°44 | 25° 0 | 18° 8 | 25° 4 | 5°18 | 15°17 | 16°18 | 13°57 | 8°17 | S 11 |
| M12 | 9 49 59 | 29°13'09 | 1♌22 | 6°41 | 20°29 | 18° 7 | 12°56 | 24°56 | 18°10 | 25° 2 | 5°19 | 15°18 | 16°15 | 14° 3 | 8°20 | M12 |
| T 13 | 9 53 56 | 0♌13'16 | 15°21 | 8° 8 | 21°41 | 18°55 | 13° 7 | 24°51 | 18°13 | 25° 1 | 5°20 | 15°19 | 16°12 | 14°10 | 8°23 | T 13 |
| W14 | 9 57 52 | 1°13'21 | 28°56 | 9°36 | 22°52 | 19°42 | 13°19 | 24°46 | 18°15 | 25° 0 | 5°21 | 15°R19 | 16° 9 | 14°17 | 8°26 | W14 |
| T 15 | 10 1 49 | 2°13'24 | 12♌ 8 | 11° 6 | 24° 4 | 20°29 | 13°31 | 24°41 | 18°18 | 24°59 | 5°22 | 15°19 | 16° 5 | 14°23 | 8°29 | T 15 |
| F 16 | 10 5 45 | 3°13'25 | 25° 0 | 12°37 | 25°16 | 21°16 | 13°42 | 24°37 | 18°20 | 24°57 | 5°24 | 15°18 | 16° 2 | 14°30 | 8°32 | F 16 |
| S 17 | 10 9 42 | 4°13'23 | 7♌34 | 14° 9 | 26°28 | 22° 4 | 13°53 | 24°32 | 18°23 | 24°56 | 5°25 | 15°17 | 15°59 | 14°37 | 8°36 | S 17 |
| S 18 | 10 13 39 | 5°13'19 | 19°55 | 15°42 | 27°40 | 22°51 | 14° 4 | 24°27 | 18°26 | 24°55 | 5°26 | 15°16 | 15°56 | 14°43 | 8°39 | S 18 |
| M19 | 10 17 35 | 6°13'13 | 2♌ 3 | 17°17 | 28°52 | 23°38 | 14°16 | 24°23 | 18°28 | 24°54 | 5°27 | 15°14 | 15°53 | 14°50 | 8°42 | M19 |
| T 20 | 10 21 32 | 7°13'05 | 14° 4 | 18°52 | 0♌ 4 | 24°25 | 14°27 | 24°18 | 18°31 | 24°52 | 5°29 | 15°13 | 15°49 | 14°57 | 8°45 | T 20 |
| W21 | 10 25 28 | 8°12'55 | 25°57 | 20°29 | 1°16 | 25°13 | 14°38 | 24°13 | 18°34 | 24°51 | 5°30 | 15°12 | 15°46 | 15° 3 | 8°49 | W21 |
| T 22 | 10 29 25 | 9°12'43 | 7♌47 | 22° 7 | 2°28 | 26° 0 | 14°48 | 24° 9 | 18°37 | 24°50 | 5°31 | 15°12 | 15°43 | 15°10 | 8°52 | T 22 |
| F 23 | 10 33 21 | 10°12'28 | 19°35 | 23°46 | 3°40 | 26°47 | 14°59 | 24° 4 | 18°40 | 24°49 | 5°33 | 15°D12 | 15°40 | 15°16 | 8°55 | F 23 |
| S 24 | 10 37 18 | 11°12'12 | 1♌23 | 25°26 | 4°53 | 27°34 | 15°10 | 24° 0 | 18°43 | 24°48 | 5°34 | 15°12 | 15°37 | 15°23 | 8°58 | S 24 |
| S 25 | 10 41 14 | 12°11'53 | 13°14 | 27° 8 | 6° 5 | 28°21 | 15°20 | 23°55 | 18°45 | 24°47 | 5°35 | 15°12 | 15°34 | 15°30 | 9° 2 | S 25 |
| M26 | 10 45 11 | 13°11'33 | 25°10 | 28°51 | 7°17 | 29° 8 | 15°31 | 23°51 | 18°48 | 24°46 | 5°37 | 15°13 | 15°30 | 15°36 | 9° 5 | M26 |
| T 27 | 10 49 7 | 14°11'11 | 7♌14 | 0♌34 | 8°29 | 29°55 | 15°41 | 23°46 | 18°51 | 24°45 | 5°38 | 15°13 | 15°27 | 15°43 | 9° 9 | T 27 |
| W28 | 10 53 4 | 15°10'47 | 19♌30 | 2♌20 | 9°42 | 0♌42 | 15°51 | 23°42 | 18°54 | 24°44 | 5°39 | 15°R13 | 15♌24 | 15♌50 | 9°12 | W28 |

Delta T = 17m58s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1095
geocentric

MARCH 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|--------|--------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 10 57 1 | 16♋10'21 | 2♌ 1 | 4♋ 6 | 10♌54 | 1♋30 | 16♌ 2 | 23°R38 | 18♌57 | 24°R43 | 5♌41 | 15°R13 | 15♋21 | 15♌56 | 9♌15 | T 1 | |
| F 2 | 11 0 57 | 17° 9'53 | 14°52 | 5°54 | 12° 6 | 2°17 | 16°12 | 23♌34 | 19° 0 | 24♌42 | 5°42 | 15°D13 | 15°18 | 16° 3 | 9°19 | F 2 | |
| S 3 | 11 4 54 | 18° 9'24 | 28° 4 | 7°43 | 13°19 | 3° 4 | 16°22 | 23°29 | 19° 3 | 24°41 | 5°43 | 15♋13 | 15°14 | 16°10 | 9°22 | S 3 | |
| S 4 | 11 8 50 | 19° 8'53 | 11♌31 | 9°33 | 14°31 | 3°51 | 16°31 | 23°25 | 19° 7 | 24°40 | 5°45 | 15°13 | 15°11 | 16°16 | 9°26 | S 4 | |
| M 5 | 11 12 47 | 20° 8'20 | 25°45 | 11°25 | 15°44 | 4°38 | 16°41 | 23°21 | 19°10 | 24°40 | 5°46 | 15°13 | 15° 8 | 16°23 | 9°29 | M 5 | |
| T 6 | 11 16 43 | 21° 7'46 | 10♌13 | 13°17 | 16°56 | 5°25 | 16°51 | 23°17 | 19°13 | 24°39 | 5°48 | 15°14 | 15° 5 | 16°30 | 9°33 | T 6 | |
| W 7 | 11 20 40 | 22° 7'09 | 25° 3 | 15°12 | 18° 9 | 6°12 | 17° 0 | 23°13 | 19°16 | 24°38 | 5°49 | 15°14 | 15° 2 | 16°36 | 9°36 | W 7 | |
| T 8 | 11 24 36 | 23° 6'30 | 10♋ 8 | 17° 7 | 19°21 | 6°59 | 17° 9 | 23°10 | 19°19 | 24°37 | 5°50 | 15°R15 | 14°59 | 16°43 | 9°40 | T 8 | |
| F 9 | 11 28 33 | 24° 5'50 | 25°21 | 19° 4 | 20°34 | 7°45 | 17°19 | 23° 6 | 19°22 | 24°37 | 5°52 | 15°15 | 14°55 | 16°49 | 9°44 | F 9 | |
| S 10 | 11 32 30 | 25° 5'07 | 10♌30 | 21° 1 | 21°46 | 8°32 | 17°28 | 23° 2 | 19°25 | 24°36 | 5°53 | 15°14 | 14°52 | 16°56 | 9°47 | S 10 | |
| S 11 | 11 36 26 | 26° 4'22 | 25°28 | 23° 1 | 22°59 | 9°19 | 17°37 | 22°58 | 19°29 | 24°35 | 5°54 | 15°13 | 14°49 | 17° 3 | 9°51 | S 11 | |
| M12 | 11 40 23 | 27° 3'35 | 10♌ 6 | 25° 1 | 24°11 | 10° 6 | 17°46 | 22°55 | 19°32 | 24°35 | 5°56 | 15°12 | 14°46 | 17° 9 | 9°54 | M12 | |
| T 13 | 11 44 19 | 28° 2'45 | 24°19 | 27° 2 | 25°24 | 10°53 | 17°54 | 22°51 | 19°35 | 24°34 | 5°57 | 15°10 | 14°43 | 17°16 | 9°58 | T 13 | |
| W14 | 11 48 16 | 29° 1'54 | 8♌ 4 | 29° 4 | 26°36 | 11°40 | 18° 3 | 22°48 | 19°38 | 24°34 | 5°59 | 15° 9 | 14°40 | 17°23 | 10° 2 | W14 | |
| T 15 | 11 52 12 | 0♌ 1'00 | 21°23 | 1°Y 7 | 27°49 | 12°26 | 18°12 | 22°45 | 19°42 | 24°33 | 6° 0 | 15° 8 | 14°36 | 17°29 | 10° 5 | T 15 | |
| F 16 | 11 56 9 | 1° 0'03 | 4♌16 | 3°11 | 29° 2 | 13°13 | 18°20 | 22°41 | 19°45 | 24°33 | 6° 2 | 15°D 8 | 14°33 | 17°36 | 10° 9 | F 16 | |
| S 17 | 12 0 5 | 1°59'04 | 16°48 | 5°15 | 0♋14 | 14° 0 | 18°28 | 22°38 | 19°48 | 24°32 | 6° 3 | 15° 8 | 14°30 | 17°43 | 10°13 | S 17 | |
| S 18 | 12 4 2 | 2°58'03 | 29° 3 | 7°20 | 1°27 | 14°46 | 18°36 | 22°35 | 19°52 | 24°32 | 6° 4 | 15°10 | 14°27 | 17°49 | 10°16 | S 18 | |
| M19 | 12 7 59 | 3°57'00 | 11♌ 5 | 9°25 | 2°40 | 15°33 | 18°44 | 22°32 | 19°55 | 24°31 | 6° 6 | 15°11 | 14°24 | 17°56 | 10°20 | M19 | |
| T 20 | 12 11 55 | 4°55'54 | 22°58 | 11°30 | 3°52 | 16°20 | 18°52 | 22°29 | 19°58 | 24°31 | 6° 7 | 15°13 | 14°20 | 18° 3 | 10°24 | T 20 | |
| W21 | 12 15 52 | 5°54'46 | 4♌46 | 13°34 | 5° 5 | 17° 6 | 19° 0 | 22°26 | 20° 2 | 24°31 | 6° 9 | 15°14 | 14°17 | 18° 9 | 10°27 | W21 | |
| T 22 | 12 19 48 | 6°53'35 | 16°33 | 15°38 | 6°18 | 17°53 | 19° 7 | 22°24 | 20° 5 | 24°30 | 6°10 | 15°R14 | 14°14 | 18°16 | 10°31 | T 22 | |
| F 23 | 12 23 45 | 7°52'23 | 28°22 | 17°40 | 7°30 | 18°39 | 19°15 | 22°21 | 20° 9 | 24°30 | 6°12 | 15°13 | 14°11 | 18°22 | 10°35 | F 23 | |
| S 24 | 12 27 41 | 8°51'08 | 10♌14 | 19°41 | 8°43 | 19°26 | 19°22 | 22°18 | 20°12 | 24°30 | 6°13 | 15°12 | 14° 8 | 18°29 | 10°38 | S 24 | |
| S 25 | 12 31 38 | 9°49'52 | 22°12 | 21°41 | 9°56 | 20°12 | 19°29 | 22°16 | 20°15 | 24°30 | 6°14 | 15° 9 | 14° 5 | 18°36 | 10°42 | S 25 | |
| M26 | 12 35 34 | 10°48'33 | 4♌17 | 23°38 | 11° 9 | 20°59 | 19°36 | 22°13 | 20°19 | 24°30 | 6°16 | 15° 5 | 14° 1 | 18°42 | 10°46 | M26 | |
| T 27 | 12 39 31 | 11°47'13 | 16°32 | 25°34 | 12°21 | 21°45 | 19°43 | 22°11 | 20°22 | 24°29 | 6°17 | 15° 0 | 13°58 | 18°49 | 10°49 | T 27 | |
| W28 | 12 43 28 | 12°45'50 | 28°58 | 27°26 | 13°34 | 22°31 | 19°49 | 22° 9 | 20°26 | 24°29 | 6°19 | 14°56 | 13°55 | 18°56 | 10°53 | W28 | |
| T 29 | 12 47 24 | 13°44'26 | 11♌38 | 29°15 | 14°47 | 23°18 | 19°56 | 22° 7 | 20°29 | 24°29 | 6°20 | 14°52 | 13°52 | 19° 2 | 10°57 | T 29 | |
| F 30 | 12 51 21 | 14°43'01 | 24°32 | 1♌ 1 | 16° 7 | 24° 4 | 20° 2 | 22° 5 | 20°32 | 24°D29 | 6°22 | 14°49 | 13°49 | 19° 9 | 11° 0 | F 30 | |
| S 31 | 12 55 17 | 15°41'34 | 7♌44 | 2♌44 | 17♋13 | 24♋50 | 20♌ 8 | 22°Ω 3 | 20°Y36 | 24♌29 | 6°Y23 | 14♋47 | 13♋46 | 19♌16 | 11°Y 4 | S 31 | |

Delta T = 17m58s Julian Calendar 1 March 1095 == Greg. Calendar 7 March 1095

APRIL 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|-------|-------|--------|-------|-------|--------|------|-----|
| S 1 | 12 59 14 | 16♌40'05 | 21♌35 | 4♌22 | 18♋25 | 25♋36 | 20♌15 | 22°R 1 | 20♌39 | 24♌29 | 6♌24 | 14°D47 | 13♋42 | 19♌22 | 11♌ 8 | S 1 | |
| M 2 | 13 3 10 | 17°38'34 | 5♌ 6 | 5°57 | 19°38 | 26°22 | 20°20 | 21°Ω59 | 20°43 | 24°29 | 6°26 | 14♋48 | 13°39 | 19°29 | 11°11 | M 2 | |
| T 3 | 13 7 7 | 18°37'02 | 19°19 | 7°27 | 20°51 | 27° 8 | 20°26 | 21°58 | 20°46 | 24°29 | 6°27 | 14°50 | 13°36 | 19°36 | 11°15 | T 3 | |
| W 4 | 13 11 3 | 19°35'28 | 3♋51 | 8°53 | 22° 4 | 27°55 | 20°32 | 21°56 | 20°50 | 24°30 | 6°29 | 14°51 | 13°33 | 19°42 | 11°19 | W 4 | |
| T 5 | 13 15 0 | 20°33'52 | 18°40 | 10°14 | 23°17 | 28°41 | 20°37 | 21°55 | 20°53 | 24°30 | 6°30 | 14°R51 | 13°30 | 19°49 | 11°22 | T 5 | |
| F 6 | 13 18 57 | 21°32'14 | 3♌39 | 11°31 | 24°30 | 29°27 | 20°42 | 21°54 | 20°57 | 24°30 | 6°31 | 14°50 | 13°26 | 19°56 | 11°26 | F 6 | |
| S 7 | 13 22 53 | 22°30'35 | 18°40 | 12°43 | 25°43 | 0♌13 | 20°47 | 21°52 | 21° 0 | 24°30 | 6°33 | 14°47 | 13°23 | 20° 2 | 11°30 | S 7 | |
| S 8 | 13 26 50 | 23°28'54 | 3♌36 | 13°51 | 26°56 | 0°58 | 20°52 | 21°51 | 21° 4 | 24°31 | 6°34 | 14°42 | 13°20 | 20° 9 | 11°33 | S 8 | |
| M 9 | 13 30 46 | 24°27'11 | 18°16 | 14°53 | 28° 8 | 1°44 | 20°57 | 21°50 | 21° 7 | 24°31 | 6°36 | 14°36 | 13°17 | 20°15 | 11°37 | M 9 | |
| T 10 | 13 34 43 | 25°25'27 | 2♌35 | 15°50 | 29°21 | 2°30 | 21° 2 | 21°49 | 21°10 | 24°31 | 6°37 | 14°30 | 13°14 | 20°22 | 11°41 | T 10 | |
| W11 | 13 38 39 | 26°23'40 | 16°28 | 16°43 | 0♌34 | 3°16 | 21° 6 | 21°49 | 21°14 | 24°32 | 6°38 | 14°24 | 13°11 | 20°29 | 11°44 | W11 | |
| T 12 | 13 42 36 | 27°21'51 | 29°53 | 17°30 | 1°47 | 4° 2 | 21°10 | 21°48 | 21°17 | 24°32 | 6°40 | 14°19 | 13° 7 | 20°35 | 11°48 | T 12 | |
| F 13 | 13 46 32 | 28°20'00 | 12♌51 | 18°12 | 3° 0 | 4°47 | 21°14 | 21°47 | 21°21 | 24°32 | 6°41 | 14°16 | 13° 4 | 20°42 | 11°51 | F 13 | |
| S 14 | 13 50 29 | 29°18'08 | 25°26 | 18°48 | 4°13 | 5°33 | 21°18 | 21°47 | 21°24 | 24°33 | 6°42 | 14°D15 | 13° 1 | 20°49 | 11°55 | S 14 | |
| S 15 | 13 54 26 | 0♌16'13 | 7♌41 | 19°20 | 5°26 | 6°19 | 21°22 | 21°47 | 21°28 | 24°33 | 6°44 | 14°15 | 12°58 | 20°55 | 11°58 | S 15 | |
| M16 | 13 58 22 | 1°14'16 | 19°42 | 19°46 | 6°39 | 7° 4 | 21°25 | 21°46 | 21°31 | 24°34 | 6°45 | 14°16 | 12°55 | 21° 2 | 12° 2 | M16 | |
| T 17 | 14 2 19 | 2°12'17 | 1♌33 | 20° 6 | 7°52 | 7°50 | 21°29 | 21°46 | 21°34 | 24°34 | 6°46 | 14°18 | 12°52 | 21° 9 | 12° 6 | T 17 | |
| W18 | 14 6 15 | 3°10'17 | 13°20 | 20°22 | 9° 5 | 8°35 | 21°32 | 21°D46 | 21°38 | 24°35 | 6°48 | 14°R18 | 12°48 | 21°15 | 12° 9 | W18 | |
| T 19 | 14 10 12 | 4° 8'14 | 25° 7 | 20°32 | 10°18 | 9°20 | 21°35 | 21°46 | 21°41 | 24°36 | 6°49 | 14°18 | 12°45 | 21°22 | 12°13 | T 19 | |
| F 20 | 14 14 8 | 5° 6'10 | 6♌59 | 20°R37 | 11°31 | 10° 6 | 21°38 | 21°46 | 21°45 | 24°36 | 6°50 | 14°15 | 12°42 | 21°29 | 12°16 | F 20 | |
| S 21 | 14 18 5 | 6° 4'04 | 18°57 | 20°37 | 12°44 | 10°51 | 21°40 | 21°47 | 21°48 | 24°37 | 6°51 | 14°10 | 12°39 | 21°35 | 12°19 | S 21 | |
| S 22 | 14 22 1 | 7° 1'56 | 1♌ 5 | 20°32 | 13°57 | 11°36 | 21°43 | 21°47 | 21°51 | 24°38 | 6°53 | 14° 3 | 12°36 | 21°42 | 12°23 | S 22 | |
| M23 | 14 25 58 | 7°59'47 | 13°24 | 20°22 | 15°10 | 12°21 | 21°45 | 21°47 | 21°55 | 24°39 | 6°54 | 13°54 | 12°32 | 21°49 | 12°26 | M23 | |
| T 24 | 14 29 55 | 8°57'36 | 25°55 | 20° 8 | 16°23 | 13° 7 | 21°47 | 21°48 | 21°58 | 24°39 | 6°55 | 13°45 | 12°29 | 21°55 | 12°30 | T 24 | |
| W25 | 14 33 51 | 9°55'24 | 8♌38 | 19°50 | 17°36 | 13°52 | 21°49 | 21°49 | 22° 1 | 24°40 | 6°56 | 13°35 | 12°26 | 22° 2 | 12°33 | W25 | |
| T 26 | 14 37 48 | 10°53'10 | 21°33 | 19°28 | 18°49 | 14°37 | 21°51 | 21°49 | 22° 5 | 24°41 | 6°58 | 13°26 | 12°23 | 22° 8 | 12°36 | T 26 | |
| F 27 | 14 41 44 | 11°50'56 | 4♌41 | 19° 2 | 20° 2 | 15°22 | 21°52 | 21°50 | 22° 8 | 24°42 | 6°59 | 13°19 | 12°20 | 22°15 | 12°40 | F 27 | |
| S 28 | 14 45 41 | 12°48'40 | 18° 2 | 18°34 | 21°15 | 16° 7 | 21°54 | 21°51 | 22°11 | 24°43 | 7° 0 | 13°14 | 12°17 | 22°22 | 12°43 | S 28 | |
| S 29 | 14 49 37 | 13°46'23 | 1♌36 | 18° 3 | 22°28 | 16°52 | 21°55 | 21°52 | 22°15 | 24°44 | 7° 1 | 13°11 | 12°13 | 22°28 | 12°46 | S 29 | |
| M30 | 14 53 34 | 14♌44'04 | 15♌24 | 17♌31 | 23♌41 | 17♌37 | 21♌56 | 21°Ω54 | 22°Y18 | 24♌45 | 7°Y 2 | 13°D10 | 12♋10 | 22♌35 | 12°Y50 | M30 | |

Delta T = 17m58s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1095
geocentric

MAY 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|--------|-------|-------|-------|------|--------|-------|-------|-------|------|
| T 1 | 14 57 30 | 15♌41'45 | 29♋26 | 16♍R57 | 24♉54 | 18♏21 | 21♋57 | 21♌55 | 22♉21 | 24♎46 | 7♏ 4 | 13♌11 | 12♋ 7 | 22♎42 | 12♏53 | T 1 |
| W 2 | 15 1 27 | 16♌39'25 | 13♌41 | 16♌23 | 26° 7 | 19° 6 | 21°57 | 21°56 | 22°24 | 24°47 | 7° 5 | 13♌R11 | 12° 4 | 22°48 | 12°56 | W 2 |
| T 3 | 15 5 24 | 17♌37'03 | 28° 9 | 15°48 | 27°20 | 19°51 | 21°58 | 21°58 | 22°28 | 24°48 | 7° 6 | 13°10 | 12° 1 | 22°55 | 12°59 | T 3 |
| F 4 | 15 9 20 | 18♌34'41 | 12♏46 | 15°14 | 28°33 | 20°35 | 21°58 | 21°59 | 22°31 | 24°49 | 7° 7 | 13° 8 | 11°57 | 23° 2 | 13° 2 | F 4 |
| S 5 | 15 13 17 | 19♌32'17 | 27°27 | 14°41 | 29°46 | 21°20 | 21°R58 | 22° 1 | 22°34 | 24°50 | 7° 8 | 13° 2 | 11°54 | 23° 8 | 13° 6 | S 5 |
| S 6 | 15 17 13 | 20°29'53 | 12♌ 5 | 14°10 | 0♌59 | 22° 5 | 21°58 | 22° 3 | 22°37 | 24°51 | 7° 9 | 12°54 | 11°51 | 23°15 | 13° 9 | S 6 |
| M 7 | 15 21 10 | 21°27'27 | 26°33 | 13°41 | 2°12 | 22°49 | 21°57 | 22° 5 | 22°40 | 24°52 | 7°10 | 12°44 | 11°48 | 23°22 | 13°12 | M 7 |
| T 8 | 15 25 6 | 22°25'00 | 10♌44 | 13°15 | 3°25 | 23°34 | 21°57 | 22° 7 | 22°43 | 24°54 | 7°11 | 12°33 | 11°45 | 23°28 | 13°15 | T 8 |
| W 9 | 15 29 3 | 23°22'32 | 24°34 | 12°51 | 4°38 | 24°18 | 21°56 | 22° 9 | 22°46 | 24°55 | 7°12 | 12°23 | 11°42 | 23°35 | 13°18 | W 9 |
| T 10 | 15 32 59 | 24°20'03 | 7♌58 | 12°31 | 5°51 | 25° 2 | 21°55 | 22°11 | 22°49 | 24°56 | 7°14 | 12°14 | 11°38 | 23°42 | 13°21 | T 10 |
| F 11 | 15 36 56 | 25°17'32 | 20°58 | 12°15 | 7° 5 | 25°47 | 21°54 | 22°14 | 22°53 | 24°57 | 7°15 | 12° 7 | 11°35 | 23°48 | 13°24 | F 11 |
| S 12 | 15 40 53 | 26°15'00 | 3♌34 | 12° 3 | 8°18 | 26°31 | 21°52 | 22°16 | 22°56 | 24°59 | 7°16 | 12° 3 | 11°32 | 23°55 | 13°27 | S 12 |
| S 13 | 15 44 49 | 27°12'27 | 15°50 | 11°55 | 9°31 | 27°15 | 21°51 | 22°18 | 22°59 | 25° 0 | 7°17 | 12° 1 | 11°29 | 24° 1 | 13°30 | S 13 |
| M14 | 15 48 46 | 28° 9'52 | 27°52 | 11°D51 | 10°44 | 27°59 | 21°49 | 22°21 | 23° 2 | 25° 1 | 7°18 | 12°D 1 | 11°26 | 24° 8 | 13°32 | M14 |
| T 15 | 15 52 42 | 29° 7'17 | 9♌44 | 11°52 | 11°57 | 28°43 | 21°47 | 22°24 | 23° 5 | 25° 3 | 7°19 | 12°R 1 | 11°23 | 24°15 | 13°35 | T 15 |
| W16 | 15 56 39 | 0♌ 4'39 | 21°32 | 11°57 | 13°10 | 29°27 | 21°45 | 22°27 | 23° 7 | 25° 4 | 7°19 | 12° 0 | 11°19 | 24°21 | 13°38 | W16 |
| T 17 | 16 0 35 | 1° 2'01 | 3♌21 | 12° 6 | 14°23 | 0♌11 | 21°43 | 22°29 | 23°10 | 25° 6 | 7°20 | 11°59 | 11°16 | 24°28 | 13°41 | T 17 |
| F 18 | 16 4 32 | 1°59'22 | 15°17 | 12°20 | 15°37 | 0°55 | 21°41 | 22°32 | 23°13 | 25° 7 | 7°21 | 11°55 | 11°13 | 24°35 | 13°43 | F 18 |
| S 19 | 16 8 28 | 2°56'41 | 27°22 | 12°39 | 16°50 | 1°39 | 21°38 | 22°35 | 23°16 | 25° 9 | 7°22 | 11°48 | 11°10 | 24°41 | 13°46 | S 19 |
| S 20 | 16 12 25 | 3°54'00 | 9♌40 | 13° 2 | 18° 3 | 2°22 | 21°35 | 22°39 | 23°19 | 25°10 | 7°23 | 11°39 | 11° 7 | 24°48 | 13°49 | S 20 |
| M21 | 16 16 22 | 4°51'18 | 22°12 | 13°29 | 19°16 | 3° 6 | 21°32 | 22°42 | 23°22 | 25°12 | 7°24 | 11°28 | 11° 3 | 24°55 | 13°51 | M21 |
| T 22 | 16 20 18 | 5°48'35 | 5♌ 1 | 14° 1 | 20°29 | 3°50 | 21°29 | 22°45 | 23°24 | 25°13 | 7°25 | 11°16 | 11° 0 | 25° 1 | 13°54 | T 22 |
| W23 | 16 24 15 | 6°45'51 | 18° 4 | 14°37 | 21°42 | 4°33 | 21°26 | 22°49 | 23°27 | 25°15 | 7°26 | 11° 3 | 10°57 | 25° 8 | 13°57 | W23 |
| T 24 | 16 28 11 | 7°43'07 | 1♌21 | 15°17 | 22°56 | 5°17 | 21°22 | 22°52 | 23°30 | 25°16 | 7°26 | 10°52 | 10°54 | 25°15 | 13°59 | T 24 |
| F 25 | 16 32 8 | 8°40'22 | 14°50 | 16° 1 | 24° 9 | 6° 0 | 21°18 | 22°56 | 23°33 | 25°18 | 7°27 | 10°42 | 10°51 | 25°21 | 14° 2 | F 25 |
| S 26 | 16 36 4 | 9°37'37 | 28°30 | 16°49 | 25°22 | 6°44 | 21°15 | 22°59 | 23°35 | 25°20 | 7°28 | 10°35 | 10°48 | 25°28 | 14° 4 | S 26 |
| S 27 | 16 40 1 | 10°34'51 | 12♌17 | 17°41 | 26°35 | 7°27 | 21°11 | 23° 3 | 23°38 | 25°21 | 7°29 | 10°31 | 10°44 | 25°35 | 14° 6 | S 27 |
| M28 | 16 43 57 | 11°32'05 | 26°12 | 18°37 | 27°49 | 8°10 | 21° 6 | 23° 7 | 23°40 | 25°23 | 7°30 | 10°30 | 10°41 | 25°41 | 14° 9 | M28 |
| T 29 | 16 47 54 | 12°29'18 | 10♌14 | 19°36 | 29° 2 | 8°53 | 21° 2 | 23°11 | 23°43 | 25°25 | 7°30 | 10°29 | 10°38 | 25°48 | 14°11 | T 29 |
| W30 | 16 51 51 | 13°26'32 | 24°21 | 20°40 | 0♌15 | 9°36 | 20°57 | 23°15 | 23°45 | 25°27 | 7°31 | 10°29 | 10°35 | 25°55 | 14°13 | W30 |
| T 31 | 16 55 47 | 14♌23'45 | 8♏34 | 21♌46 | 1♌29 | 10♌20 | 20♌53 | 23♌19 | 23♏48 | 25♌28 | 7♏32 | 10♌28 | 10♌32 | 26♏ 1 | 14♏15 | T 31 |

Delta T = 17m57s Julian Calendar 1 May 1095 = Greg. Calendar 7 May 1095

JUNE 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|-------|-------|-------|------|--------|-------|-------|-------|------|
| F 1 | 16 59 44 | 15♌20'58 | 22♏50 | 22♌57 | 2♌42 | 11♌ 3 | 20°R48 | 23♌23 | 23♏50 | 25♌30 | 7♏32 | 10°R25 | 10♌29 | 26♏ 8 | 14♏18 | F 1 |
| S 2 | 17 3 40 | 16°18'11 | 7♌ 7 | 24°11 | 3°55 | 11°46 | 20♌43 | 23°28 | 23°53 | 25°32 | 7°33 | 10♌18 | 10°25 | 26°14 | 14°20 | S 2 |
| S 3 | 17 7 37 | 17°15'24 | 21°20 | 25°28 | 5° 9 | 12°29 | 20°38 | 23°32 | 23°55 | 25°34 | 7°34 | 10°10 | 10°22 | 26°21 | 14°22 | S 3 |
| M 4 | 17 11 33 | 18°12'36 | 5♌25 | 26°49 | 6°22 | 13°11 | 20°33 | 23°36 | 23°58 | 25°36 | 7°34 | 9°59 | 10°19 | 26°28 | 14°24 | M 4 |
| T 5 | 17 15 30 | 19° 9'49 | 19°17 | 28°14 | 7°35 | 13°54 | 20°27 | 23°41 | 24° 0 | 25°37 | 7°35 | 9°47 | 10°16 | 26°34 | 14°26 | T 5 |
| W 6 | 17 19 27 | 20° 7'01 | 2♌51 | 29°41 | 8°49 | 14°37 | 20°21 | 23°45 | 24° 2 | 25°39 | 7°35 | 9°35 | 10°13 | 26°41 | 14°28 | W 6 |
| T 7 | 17 23 23 | 21° 4'13 | 16° 5 | 1♌12 | 10° 2 | 15°20 | 20°16 | 23°50 | 24° 4 | 25°41 | 7°36 | 9°25 | 10° 9 | 26°48 | 14°30 | T 7 |
| F 8 | 17 27 20 | 22° 1'24 | 28°58 | 2°46 | 11°16 | 16° 2 | 20°10 | 23°55 | 24° 7 | 25°43 | 7°36 | 9°17 | 10° 6 | 26°54 | 14°32 | F 8 |
| S 9 | 17 31 16 | 22°58'35 | 11♌31 | 4°24 | 12°29 | 16°45 | 20° 4 | 24° 0 | 24° 9 | 25°45 | 7°37 | 9°12 | 10° 3 | 27° 1 | 14°33 | S 9 |
| S 10 | 17 35 13 | 23°55'46 | 23°46 | 6° 5 | 13°43 | 17°27 | 19°58 | 24° 4 | 24°11 | 25°47 | 7°37 | 9° 9 | 10° 0 | 27° 8 | 14°35 | S 10 |
| M11 | 17 39 9 | 24°52'56 | 5♌47 | 7°48 | 14°56 | 18°10 | 19°52 | 24° 9 | 24°13 | 25°49 | 7°38 | 9°D 8 | 9°57 | 27°14 | 14°37 | M11 |
| T 12 | 17 43 6 | 25°50'06 | 17°40 | 9°35 | 16°10 | 18°52 | 19°45 | 24°14 | 24°15 | 25°51 | 7°38 | 9° 8 | 9°54 | 27°21 | 14°39 | T 12 |
| W13 | 17 47 2 | 26°47'16 | 29°29 | 11°25 | 17°23 | 19°34 | 19°39 | 24°20 | 24°17 | 25°53 | 7°39 | 9°R 9 | 9°50 | 27°28 | 14°40 | W13 |
| T 14 | 17 50 59 | 27°44'25 | 11♌20 | 13°18 | 18°37 | 20°16 | 19°32 | 24°25 | 24°19 | 25°55 | 7°39 | 9° 8 | 9°47 | 27°34 | 14°42 | T 14 |
| F 15 | 17 54 56 | 28°41'34 | 23°17 | 15°13 | 19°50 | 20°58 | 19°25 | 24°30 | 24°21 | 25°57 | 7°39 | 9° 5 | 9°44 | 27°41 | 14°43 | F 15 |
| S 16 | 17 58 52 | 29°38'43 | 5♌27 | 17°11 | 21° 4 | 21°41 | 19°19 | 24°35 | 24°23 | 25°59 | 7°40 | 9° 0 | 9°41 | 27°48 | 14°45 | S 16 |
| S 17 | 18 2 49 | 0♌35'52 | 17°52 | 19°11 | 22°17 | 22°23 | 19°12 | 24°41 | 24°24 | 26° 1 | 7°40 | 8°53 | 9°38 | 27°54 | 14°46 | S 17 |
| M18 | 18 6 45 | 1°33'00 | 0♌35 | 21°13 | 23°31 | 23° 4 | 19° 5 | 24°46 | 24°26 | 26° 3 | 7°40 | 8°43 | 9°35 | 28° 1 | 14°48 | M18 |
| T 19 | 18 10 42 | 2°30'09 | 13°38 | 23°17 | 24°44 | 23°46 | 18°58 | 24°52 | 24°28 | 26° 5 | 7°41 | 8°33 | 9°31 | 28° 8 | 14°49 | T 19 |
| W20 | 18 14 38 | 3°27'18 | 27° 0 | 25°23 | 25°58 | 24°28 | 18°51 | 24°57 | 24°30 | 26° 7 | 7°41 | 8°22 | 9°28 | 28°14 | 14°50 | W20 |
| T 21 | 18 18 35 | 4°24'27 | 10♌39 | 27°30 | 27°12 | 25°10 | 18°43 | 25° 3 | 24°31 | 26° 9 | 7°41 | 8°12 | 9°25 | 28°21 | 14°51 | T 21 |
| F 22 | 18 22 31 | 5°21'37 | 24°33 | 29°38 | 28°25 | 25°52 | 18°36 | 25° 8 | 24°33 | 26°11 | 7°42 | 8° 4 | 9°22 | 28°28 | 14°53 | F 22 |
| S 23 | 18 26 28 | 6°18'46 | 8♌36 | 1♌46 | 29°39 | 26°33 | 18°29 | 25°14 | 24°35 | 26°13 | 7°42 | 7°59 | 9°19 | 28°34 | 14°54 | S 23 |
| S 24 | 18 30 25 | 7°15'56 | 22°46 | 3°55 | 0♌52 | 27°15 | 18°21 | 25°20 | 24°36 | 26°16 | 7°42 | 7°56 | 9°15 | 28°41 | 14°55 | S 24 |
| M25 | 18 34 21 | 8°13'07 | 6♌59 | 6° 4 | 2° 6 | 27°56 | 18°14 | 25°26 | 24°38 | 26°18 | 7°42 | 7°D55 | 9°12 | 28°48 | 14°56 | M25 |
| T 26 | 18 38 18 | 9°10'18 | 21°11 | 8°13 | 3°20 | 28°38 | 18° 6 | 25°32 | 24°39 | 26°20 | 7°42 | 7°55 | 9° 9 | 28°54 | 14°57 | T 26 |
| W27 | 18 42 14 | 10° 7'30 | 5♏22 | 10°22 | 4°34 | 29°19 | 17°59 | 25°38 | 24°41 | 26°22 | 7°42 | 7°R56 | 9° 6 | 29° 1 | 14°58 | W27 |
| T 28 | 18 46 11 | 11° 4'43 | 19°30 | 12°30 | 5°47 | 0♌ 0 | 17°51 | 25°44 | 24°42 | 26°24 | 7°43 | 7°56 | 9° 3 | 29° 7 | 14°59 | T 28 |
| F 29 | 18 50 7 | 12° 1'56 | 3♌33 | 14°37 | 7° 1 | 0°42 | 17°43 | 25°50 | 24°43 | 26°26 | 7°43 | 7°54 | 9° 0 | 29°14 | 14°59 | F 29 |
| S 30 | 18 54 4 | 12°59'10 | 17♌30 | 16♌43 | 8♌15 | 1♌23 | 17♌36 | 25♌56 | 24♏44 | 26♌28 | 7♏43 | 7♌50 | 8♌56 | 29♏21 | 15♏ 0 | S 30 |

Delta T = 17m57s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1095
geocentric

JULY 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | Day |
|------|----------|-----------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|-------------------|-------------------|-------------------|--------------------|--------------------|------|
| S 1 | 18 58 0 | 13 ⁵⁶ 26 | 1 ^{II} 19 | 18 ⁵⁴ 47 | 9 ⁵² 29 | 2 ^{II} 4 | 17 ^R 28 | 26 ^Ω 2 | 24 ^Υ 46 | 26 ⁵³ 31 | 7 ^Υ 43 | 7 ^R 44 | 8 ^Υ 53 | 29 ^η 27 | 15 ^Υ 1 | S 1 |
| M 2 | 19 1 57 | 14 ⁵³ 42 | 14 ⁵⁸ | 20 ⁵¹ | 10 ⁴² | 2 ⁴⁵ | 17 ³⁰ | 26 [°] 8 | 24 ⁴⁷ | 26 ³³ | 7 ^R 43 | 7 ^Υ 36 | 8 ⁵⁰ | 29 ³⁴ | 15 [°] 1 | M 2 |
| T 3 | 19 5 54 | 15 ⁵⁰ 58 | 28 ²⁴ | 22 ⁵³ | 11 ⁵⁶ | 3 ²⁶ | 17 ¹² | 26 ¹⁵ | 24 ⁴⁸ | 26 ³⁵ | 7 ⁴³ | 7 ²⁷ | 8 ⁴⁷ | 29 ⁴¹ | 15 [°] 2 | T 3 |
| W 4 | 19 9 50 | 16 ⁴⁸ 16 | 11 ⁵³ 7 | 24 ⁵⁴ | 13 ¹⁰ | 4 [°] 7 | 17 [°] 5 | 26 ²¹ | 24 ⁴⁹ | 26 ³⁷ | 7 ⁴³ | 7 ¹⁸ | 8 ⁴⁴ | 29 ⁴⁷ | 15 [°] 3 | W 4 |
| T 5 | 19 13 47 | 17 ⁴⁵ 34 | 24 ³³ | 26 ⁵³ | 14 ²⁴ | 4 ⁴⁷ | 16 ⁵⁷ | 26 ²⁷ | 24 ⁵⁰ | 26 ³⁹ | 7 ⁴³ | 7 ¹¹ | 8 ⁴¹ | 29 ⁵⁴ | 15 [°] 3 | T 5 |
| F 6 | 19 17 43 | 18 ⁴² 52 | 7 ^Ω 13 | 28 ⁵⁰ | 15 ³⁸ | 5 ²⁸ | 16 ⁴⁹ | 26 ³⁴ | 24 ⁵¹ | 26 ⁴² | 7 ⁴³ | 7 [°] 5 | 8 ³⁷ | 0 ^Ω 1 | 15 [°] 4 | F 6 |
| S 7 | 19 21 40 | 19 ⁴⁰ 12 | 19 ³⁶ | 0 ^Ω 46 | 16 ⁵² | 6 [°] 9 | 16 ⁴¹ | 26 ⁴⁰ | 24 ⁵² | 26 ⁴⁴ | 7 ⁴² | 7 [°] 2 | 8 ³⁴ | 0 [°] 7 | 15 [°] 4 | S 7 |
| S 8 | 19 25 36 | 20 ³⁷ 32 | 1 ^η 46 | 2 ⁴⁰ | 18 [°] 6 | 6 ⁴⁹ | 16 ³⁴ | 26 ⁴⁷ | 24 ⁵³ | 26 ⁴⁶ | 7 ⁴² | 7 ^D 0 | 8 ³¹ | 0 ¹⁴ | 15 [°] 4 | S 8 |
| M 9 | 19 29 33 | 21 ³⁴ 52 | 13 ⁴⁵ | 4 ³² | 19 ²⁰ | 7 ³⁰ | 16 ²⁶ | 26 ⁵³ | 24 ⁵⁴ | 26 ⁴⁸ | 7 ⁴² | 7 [°] 0 | 8 ²⁸ | 0 ²¹ | 15 [°] 5 | M 9 |
| T 10 | 19 33 30 | 22 ³² 13 | 25 ³⁶ | 6 ²³ | 20 ³⁴ | 8 ¹⁰ | 16 ¹⁸ | 27 [°] 0 | 24 ⁵⁵ | 26 ⁵⁰ | 7 ⁴² | 7 [°] 1 | 8 ²⁵ | 0 ²⁷ | 15 [°] 5 | T 10 |
| W11 | 19 37 26 | 23 ²⁹ 35 | 7 ^Ω 25 | 8 ¹² | 21 ⁴⁸ | 8 ⁵¹ | 16 ¹¹ | 27 [°] 7 | 24 ⁵⁵ | 26 ⁵³ | 7 ⁴² | 7 [°] 3 | 8 ²¹ | 0 ³⁴ | 15 [°] 5 | W11 |
| T 12 | 19 41 23 | 24 ²⁶ 57 | 19 ¹⁶ | 10 [°] 0 | 23 [°] 2 | 9 ³¹ | 16 [°] 3 | 27 ¹³ | 24 ⁵⁶ | 26 ⁵⁵ | 7 ⁴² | 7 ^R 4 | 8 ¹⁸ | 0 ⁴¹ | 15 [°] 5 | T 12 |
| F 13 | 19 45 19 | 25 ²⁴ 20 | 1 ^η 13 | 11 ⁴⁶ | 24 ¹⁶ | 10 ¹¹ | 15 ⁵⁵ | 27 ²⁰ | 24 ⁵⁷ | 26 ⁵⁷ | 7 ⁴¹ | 7 [°] 4 | 8 ¹⁵ | 0 ⁴⁷ | 15 ^R 5 | F 13 |
| S 14 | 19 49 16 | 26 ²¹ 43 | 13 ²⁴ | 13 ³⁰ | 25 ³⁰ | 10 ⁵¹ | 15 ⁴⁸ | 27 ²⁷ | 24 ⁵⁷ | 26 ⁵⁹ | 7 ⁴¹ | 7 [°] 2 | 8 ¹² | 0 ⁵⁴ | 15 [°] 5 | S 14 |
| S 15 | 19 53 12 | 27 ¹⁹ 08 | 25 ⁵⁰ | 15 ¹² | 26 ⁴⁴ | 11 ³² | 15 ⁴⁰ | 27 ³⁴ | 24 ⁵⁸ | 27 [°] 2 | 7 ⁴¹ | 6 ⁵⁹ | 8 [°] 9 | 1 [°] 1 | 15 [°] 5 | S 15 |
| M16 | 19 57 9 | 28 ¹⁶ 33 | 8 ^Υ 38 | 16 ⁵³ | 27 ⁵⁸ | 12 ¹² | 15 ³³ | 27 ⁴¹ | 24 ⁵⁸ | 27 [°] 4 | 7 ⁴¹ | 6 ⁵⁴ | 8 [°] 6 | 1 [°] 7 | 15 [°] 5 | M16 |
| T 17 | 20 1 5 | 29 ¹³ 59 | 21 ⁴⁸ | 18 ³² | 29 ¹² | 12 ⁵² | 15 ²⁶ | 27 ⁴⁸ | 24 ⁵⁹ | 27 [°] 6 | 7 ⁴⁰ | 6 ⁴⁹ | 8 [°] 2 | 1 ¹⁴ | 15 [°] 5 | T 17 |
| W18 | 20 5 2 | 0 ^Ω 11'26 | 5 ³² 22 | 20 ¹⁰ | 0 ^Ω 26 | 13 ³¹ | 15 ¹⁸ | 27 ⁵⁵ | 24 ⁵⁹ | 27 [°] 8 | 7 ⁴⁰ | 6 ⁴³ | 7 ⁵⁹ | 1 ²¹ | 15 [°] 5 | W18 |
| T 19 | 20 8 59 | 1 [°] 8'54 | 19 ¹⁷ | 21 ⁴⁶ | 1 ⁴⁰ | 14 ¹¹ | 15 ¹¹ | 28 [°] 1 | 24 ⁵⁹ | 27 ¹¹ | 7 ⁴⁰ | 6 ³⁷ | 7 ⁵⁶ | 1 ²⁷ | 15 [°] 4 | T 19 |
| F 20 | 20 12 55 | 2 [°] 6'23 | 3 ³³ 31 | 23 ²⁰ | 2 ⁵⁴ | 14 ⁵¹ | 15 [°] 4 | 28 [°] 8 | 25 [°] 0 | 27 ¹³ | 7 ³⁹ | 6 ³³ | 7 ⁵³ | 1 ³⁴ | 15 [°] 4 | F 20 |
| S 21 | 20 16 52 | 3 [°] 3'53 | 17 ⁵⁹ | 24 ⁵³ | 4 [°] 8 | 15 ³¹ | 14 ⁵⁷ | 28 ¹⁵ | 25 [°] 0 | 27 ¹⁵ | 7 ³⁹ | 6 ³⁰ | 7 ⁵⁰ | 1 ⁴¹ | 15 [°] 4 | S 21 |
| S 22 | 20 20 48 | 4 [°] 1'24 | 2 ^Υ 35 | 26 ²⁴ | 5 ²² | 16 ¹⁰ | 14 ⁵⁰ | 28 ²³ | 25 [°] 0 | 27 ¹⁷ | 7 ³⁹ | 6 ^D 29 | 7 ⁴⁷ | 1 ⁴⁷ | 15 [°] 3 | S 22 |
| M23 | 20 24 45 | 4 ⁵⁸ 56 | 17 ¹¹ | 27 ⁵⁴ | 6 ³⁶ | 16 ⁵⁰ | 14 ⁴³ | 28 ³⁰ | 25 [°] 0 | 27 ¹⁹ | 7 ³⁸ | 6 ²⁹ | 7 ⁴³ | 1 ⁵⁴ | 15 [°] 3 | M23 |
| T 24 | 20 28 41 | 5 ⁵⁶ 30 | 1 ^Υ 44 | 29 ²² | 7 ⁵⁰ | 17 ²⁹ | 14 ³⁶ | 28 ³⁷ | 25 [°] 1 | 27 ²² | 7 ³⁸ | 6 ³¹ | 7 ⁴⁰ | 2 [°] 1 | 15 [°] 2 | T 24 |
| W25 | 20 32 38 | 6 ⁵⁴ 05 | 16 [°] 9 | 0 ^η 48 | 9 [°] 5 | 18 [°] 8 | 14 ³⁰ | 28 ⁴⁴ | 25 [°] 1 | 27 ²⁴ | 7 ³⁷ | 6 ³² | 7 ³⁷ | 2 [°] 7 | 15 [°] 1 | W25 |
| T 26 | 20 36 34 | 7 ⁵¹ 42 | 0 ^Υ 22 | 2 ¹³ | 10 ¹⁹ | 18 ⁴⁸ | 14 ²³ | 28 ⁵¹ | 25 ^R 1 | 27 ²⁶ | 7 ³⁷ | 6 ³³ | 7 ³⁴ | 2 ¹⁴ | 15 [°] 1 | T 26 |
| F 27 | 20 40 31 | 8 ⁴⁹ 21 | 14 ²³ | 3 ³⁵ | 11 ³³ | 19 ²⁷ | 14 ¹⁷ | 28 ⁵⁸ | 25 [°] 1 | 27 ²⁸ | 7 ³⁶ | 6 ^R 33 | 7 ³¹ | 2 ²¹ | 15 [°] 0 | F 27 |
| S 28 | 20 44 28 | 9 ⁴⁷ 01 | 28 [°] 9 | 4 ⁵⁶ | 12 ⁴⁷ | 20 [°] 6 | 14 ¹⁰ | 29 [°] 6 | 25 [°] 0 | 27 ³⁰ | 7 ³⁶ | 6 ³² | 7 ²⁷ | 2 ²⁷ | 14 ⁵⁹ | S 28 |
| S 29 | 20 48 24 | 10 ⁴⁴ 43 | 11 ^{II} 41 | 6 ¹⁶ | 14 [°] 2 | 20 ⁴⁵ | 14 [°] 4 | 29 ¹³ | 25 [°] 0 | 27 ³³ | 7 ³⁵ | 6 ³⁰ | 7 ²⁴ | 2 ³⁴ | 14 ⁵⁹ | S 29 |
| M30 | 20 52 21 | 11 ⁴² 27 | 24 ⁵⁹ | 7 ³³ | 15 ¹⁶ | 21 ²⁴ | 13 ⁵⁸ | 29 ²⁰ | 25 [°] 0 | 27 ³⁵ | 7 ³⁵ | 6 ²⁷ | 7 ²¹ | 2 ⁴⁰ | 14 ⁵⁸ | M30 |
| T 31 | 20 56 17 | 12 ^Ω 40'12 | 8 ⁵² 2 | 8 ^η 49 | 16 ^Ω 30 | 22 ^{II} 3 | 13 ³⁵ 2 | 29 ^Ω 27 | 25 ^Υ 0 | 27 ³⁷ | 7 ^Υ 34 | 6 ^Υ 23 | 7 ^Υ 18 | 2 ^Ω 47 | 14 ^Υ 57 | T 31 |

Delta T = 17m57s Julian Calendar 1 July 1095 == Greg. Calendar 7 July 1095

AUGUST 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | Day |
|------|----------|-----------------------|---------------------|-------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|-------------------|-------------------|--------------------|------|
| W 1 | 21 0 14 | 13 ^Ω 37'59 | 20 ⁵¹ | 10 ^η 3 | 17 ^Ω 44 | 22 ^{II} 42 | 13 ^R 46 | 29 ^Ω 35 | 25 ^R 0 | 27 ⁵³ 9 | 7 ^R 34 | 6 ^R 19 | 7 ^Υ 15 | 2 ^Ω 54 | 14 ^R 56 | W 1 |
| T 2 | 21 4 10 | 14 ³⁵ 47 | 3 ^Ω 27 | 11 ¹⁴ | 18 ⁵⁹ | 23 ²⁰ | 13 ³⁴ | 29 ⁴² | 24 ^Υ 59 | 27 ⁴¹ | 7 ^Υ 33 | 6 ^Υ 16 | 7 ¹² | 3 [°] 0 | 14 ^Υ 55 | T 2 |
| F 3 | 21 8 7 | 15 ³³ 37 | 15 ⁵¹ | 12 ²⁴ | 20 ¹³ | 23 ⁵⁹ | 13 ³⁵ | 29 ⁴⁹ | 24 ⁵⁹ | 27 ⁴³ | 7 ³² | 6 ¹⁴ | 7 [°] 8 | 3 [°] 7 | 14 ⁵⁴ | F 3 |
| S 4 | 21 12 3 | 16 ³¹ 29 | 28 [°] 3 | 13 ³² | 21 ²⁷ | 24 ³⁸ | 13 ³⁰ | 29 ⁵⁷ | 24 ⁵⁸ | 27 ⁴⁶ | 7 ³² | 6 ¹³ | 7 [°] 5 | 3 ¹⁴ | 14 ⁵³ | S 4 |
| S 5 | 21 16 0 | 17 ²⁹ 21 | 10 ^η 5 | 14 ³⁷ | 22 ⁴² | 25 ¹⁶ | 13 ²⁴ | 0 ^η 4 | 24 ⁵⁸ | 27 ⁴⁸ | 7 ³¹ | 6 ^D 13 | 7 [°] 2 | 3 ²⁰ | 14 ⁵¹ | S 5 |
| M 6 | 21 19 57 | 18 ²⁷ 15 | 21 ⁵⁹ | 15 ⁴⁰ | 23 ⁵⁶ | 25 ⁵⁵ | 13 ¹⁹ | 0 ¹² | 24 ⁵⁷ | 27 ⁵⁰ | 7 ³⁰ | 6 ¹³ | 6 ⁵⁹ | 3 ²⁷ | 14 ⁵⁰ | M 6 |
| T 7 | 21 23 53 | 19 ²⁵ 11 | 3 ^Ω 48 | 16 ⁴⁰ | 25 ¹⁰ | 26 ³³ | 13 ¹⁴ | 0 ¹⁹ | 24 ⁵⁷ | 27 ⁵² | 7 ³⁰ | 6 ¹⁵ | 6 ⁵⁶ | 3 ³⁴ | 14 ⁴⁹ | T 7 |
| W 8 | 21 27 50 | 20 ²³ 08 | 15 ³⁶ | 17 ³⁸ | 26 ²⁵ | 27 ¹¹ | 13 ¹⁰ | 0 ²⁶ | 24 ⁵⁶ | 27 ⁵⁴ | 7 ²⁹ | 6 ¹⁶ | 6 ⁵³ | 3 ⁴⁰ | 14 ⁴⁸ | W 8 |
| T 9 | 21 31 46 | 21 ²¹ 06 | 27 ²⁶ | 18 ³² | 27 ³⁹ | 27 ⁴⁹ | 13 [°] 5 | 0 ³⁴ | 24 ⁵⁵ | 27 ⁵⁶ | 7 ²⁸ | 6 ¹⁷ | 6 ⁴⁹ | 3 ⁴⁷ | 14 ⁴⁶ | T 9 |
| F 10 | 21 35 43 | 22 ¹⁹ 06 | 9 ^η 23 | 19 ²⁴ | 28 ⁵⁴ | 28 ²⁷ | 13 [°] 1 | 0 ⁴¹ | 24 ⁵⁵ | 27 ⁵⁸ | 7 ²⁷ | 6 ¹⁸ | 6 ⁴⁶ | 3 ⁵⁴ | 14 ⁴⁵ | F 10 |
| S 11 | 21 39 39 | 23 ¹⁷ 07 | 21 ³² | 20 ¹³ | 0 ^η 8 | 29 [°] 5 | 12 ⁵⁶ | 0 ⁴⁹ | 24 ⁵⁴ | 28 [°] 0 | 7 ²⁷ | 6 ^R 19 | 6 ⁴³ | 4 [°] 0 | 14 ⁴³ | S 11 |
| S 12 | 21 43 36 | 24 ¹⁵ 10 | 3 ^Υ 56 | 20 ⁵⁹ | 1 ²² | 29 ⁴³ | 12 ⁵² | 0 ⁵⁶ | 24 ⁵³ | 28 [°] 2 | 7 ²⁶ | 6 ¹⁹ | 6 ⁴⁰ | 4 [°] 7 | 14 ⁴² | S 12 |
| M13 | 21 47 32 | 25 ¹³ 14 | 16 ⁴¹ | 21 ⁴¹ | 2 ³⁷ | 0 ⁵² 1 | 12 ⁴⁸ | 1 [°] 4 | 24 ⁵² | 28 [°] 4 | 7 ²⁵ | 6 ¹⁸ | 6 ³⁷ | 4 ¹⁴ | 14 ⁴⁰ | M13 |
| T 14 | 21 51 29 | 26 ¹¹ 20 | 29 ⁵⁰ | 22 ¹⁹ | 3 ⁵¹ | 0 ⁵⁹ | 12 ⁴⁴ | 1 ¹¹ | 24 ⁵¹ | 28 [°] 6 | 7 ²⁴ | 6 ¹⁷ | 6 ³³ | 4 ²⁰ | 14 ³⁹ | T 14 |
| W15 | 21 55 26 | 27 [°] 9'27 | 13 ³³ 24 | 22 ⁵³ | 5 [°] 6 | 1 ³⁶ | 12 ⁴¹ | 1 ¹⁹ | 24 ⁵⁰ | 28 [°] 8 | 7 ²³ | 6 ¹⁶ | 6 ³⁰ | 4 ²⁷ | 14 ³⁷ | W15 |
| T 16 | 21 59 22 | 28 [°] 7'36 | 27 ²⁵ | 23 ²³ | 6 ²⁰ | 2 ¹⁴ | 12 ³⁷ | 1 ²⁶ | 24 ⁴⁹ | 28 ¹⁰ | 7 ²³ | 6 ¹⁵ | 6 ²⁷ | 4 ³⁴ | 14 ³⁵ | T 16 |
| F 17 | 22 3 19 | 29 [°] 5'46 | 11 ³⁴ 49 | 23 ⁴⁸ | 7 ³⁴ | 2 ⁵¹ | 12 ³⁴ | 1 ³⁴ | 24 ⁴⁸ | 28 ¹² | 7 ²² | 6 ¹⁴ | 6 ²⁴ | 4 ⁴⁰ | 14 ³⁴ | F 17 |
| S 18 | 22 7 15 | 0 ^η 3'58 | 26 ³³ | 24 [°] 8 | 8 ⁴⁹ | 3 ²⁹ | 12 ³¹ | 1 ⁴¹ | 24 ⁴⁷ | 28 ¹⁴ | 7 ²¹ | 6 ¹³ | 6 ²¹ | 4 ⁴⁷ | 14 ³² | S 18 |
| S 19 | 22 11 12 | 1 [°] 2'11 | 11 ^Υ 29 | 24 ²³ | 10 [°] 3 | 4 [°] 6 | 12 ²⁸ | 1 ⁴⁹ | 24 ⁴⁶ | 28 ¹⁶ | 7 ²⁰ | 6 ^D 13 | 6 ¹⁸ | 4 ⁵⁴ | 14 ³⁰ | S 19 |
| M20 | 22 | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1095
geocentric

SEPTEMBER 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|-------------------|--------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| S 1 | 23 2 27 | 13 ^h 42'19" | 6 ^m 49" | 18°R21 | 26 ^m 12" | 12 ^o 2 | 12°R 8 | 3 ^m 26" | 24°R28 | 28 ^o 40 | 7°R 7 | 6°R16 | 5 ^h 36 | 6 ^h 20 | 14°R 2 | S 1 | | | | | | | | |
| S 2 | 23 6 24 | 14°41'03" | 18°43' | 17 ^m 17" | 27°26' | 12°38' | 12 ^o 8 | 3°34' | 24 ^m 26" | 28°42' | 7°R 6 | 6 ^h 16 | 5°33' | 6°27' | 14°R 0 | S 2 | | | | | | | | |
| M 3 | 23 10 20 | 15°39'48" | 0 ^h 33' | 16°12' | 28°41' | 13°14' | 12°D 8 | 3°41' | 24°24' | 28°43' | 7° 5 | 6°15' | 5°30' | 6°34' | 13°58' | M 3 | | | | | | | | |
| T 4 | 23 14 17 | 16°38'35" | 12°21' | 15° 8' | 29°56' | 13°49' | 12° 8 | 3°48' | 24°22' | 28°45' | 7° 4 | 6°14' | 5°27' | 6°40' | 13°55' | T 4 | | | | | | | | |
| W 5 | 23 18 13 | 17°37'24" | 24°10' | 14° 5' | 1 ^h 10 | 14°25' | 12° 8 | 3°56' | 24°21' | 28°46' | 7° 3 | 6°13' | 5°24' | 6°47' | 13°53' | W 5 | | | | | | | | |
| T 6 | 23 22 10 | 18°36'15" | 6 ^m 2" | 13° 7' | 2°25' | 15° 0' | 12° 9 | 4° 3' | 24°19' | 28°48' | 7° 2 | 6°11' | 5°20' | 6°54' | 13°50' | T 6 | | | | | | | | |
| F 7 | 23 26 6 | 19°35'08" | 18° 0' | 12°14' | 3°39' | 15°36' | 12°10 | 4°11' | 24°17' | 28°50' | 7° 1 | 6° 9' | 5°17' | 7° 0' | 13°48' | F 7 | | | | | | | | |
| S 8 | 23 30 3 | 20°34'02" | 0 ^h 8' | 11°28' | 4°54' | 16°11' | 12°11 | 4°18' | 24°15' | 28°51' | 7° 0 | 6° 8' | 5°14' | 7° 7' | 13°45' | S 8 | | | | | | | | |
| S 9 | 23 33 59 | 21°32'59" | 12°30' | 10°50' | 6° 8' | 16°46' | 12°12 | 4°25' | 24°13' | 28°53' | 6°59' | 6° 7' | 5°11' | 7°14' | 13°43' | S 9 | | | | | | | | |
| M10 | 23 37 56 | 22°31'57" | 25°11' | 10°21' | 7°23' | 17°21' | 12°13 | 4°32' | 24°11' | 28°54' | 6°58' | 6°D 6 | 5° 8' | 7°20' | 13°40' | M10 | | | | | | | | |
| T 11 | 23 41 52 | 23°30'58" | 8 ^h 12' | 10° 2' | 8°37' | 17°56' | 12°15 | 4°40' | 24° 9' | 28°56' | 6°56' | 6° 7' | 5° 4' | 7°27' | 13°37' | T 11 | | | | | | | | |
| W12 | 23 45 49 | 24°30'00" | 21°39' | 9°D53 | 9°52' | 18°31' | 12°16 | 4°47' | 24° 7' | 28°57' | 6°55' | 6° 8' | 5° 1' | 7°34' | 13°35' | W12 | | | | | | | | |
| T 13 | 23 49 46 | 25°29'03" | 5 ^h 33' | 9°54' | 11° 7' | 19° 5' | 12°18 | 4°54' | 24° 5' | 28°58' | 6°54' | 6° 9' | 4°58' | 7°40' | 13°32' | T 13 | | | | | | | | |
| F 14 | 23 53 42 | 26°28'09" | 19°53' | 10° 6' | 12°21' | 19°40' | 12°21 | 5° 1' | 24° 3' | 29° 0' | 6°53' | 6°11' | 4°55' | 7°47' | 13°30' | F 14 | | | | | | | | |
| S 15 | 23 57 39 | 27°27'16" | 4 ^h 37' | 10°28' | 13°36' | 20°14' | 12°23 | 5° 9' | 24° 1' | 29° 1' | 6°52' | 6°R11 | 4°52' | 7°54' | 13°27' | S 15 | | | | | | | | |
| S 16 | 0 1 35 | 28°26'25" | 19°40' | 11° 0' | 14°50' | 20°49' | 12°25 | 5°16' | 23°59' | 29° 3' | 6°51' | 6°11' | 4°49' | 8° 0' | 13°24' | S 16 | | | | | | | | |
| M17 | 0 5 32 | 29°25'37" | 4 ^h 54' | 11°41' | 16° 5' | 21°23' | 12°28 | 5°23' | 23°56' | 29° 4' | 6°50' | 6° 9' | 4°45' | 8° 7' | 13°21' | M17 | | | | | | | | |
| T 18 | 0 9 28 | 0 ^h 24'50" | 20° 8' | 12°30' | 17°19' | 21°57' | 12°31 | 5°30' | 23°54' | 29° 5' | 6°48' | 6° 7' | 4°42' | 8°14' | 13°19' | T 18 | | | | | | | | |
| W19 | 0 13 25 | 1°24'06" | 5 ^h 12' | 13°28' | 18°34' | 22°31' | 12°34 | 5°37' | 23°52' | 29° 6' | 6°47' | 6° 3' | 4°39' | 8°20' | 13°16' | W19 | | | | | | | | |
| T 20 | 0 17 21 | 2°23'24" | 19°59' | 14°32' | 19°48' | 23° 5' | 12°37 | 5°44' | 23°50' | 29° 8' | 6°46' | 6° 0' | 4°36' | 8°27' | 13°13' | T 20 | | | | | | | | |
| F 21 | 0 21 18 | 3°22'44" | 4 ^h 11' | 15°43' | 21° 3' | 23°38' | 12°41 | 5°51' | 23°47' | 29° 9' | 6°45' | 5°56' | 4°33' | 8°34' | 13°10' | F 21 | | | | | | | | |
| S 22 | 0 25 15 | 4°22'07" | 18°15' | 16°59' | 22°17' | 24°12' | 12°44 | 5°58' | 23°45' | 29°10' | 6°44' | 5°54' | 4°30' | 8°40' | 13° 8' | S 22 | | | | | | | | |
| S 23 | 0 29 11 | 5°21'32" | 1 ^h 43' | 18°20' | 23°32' | 24°45' | 12°48 | 6° 5' | 23°43' | 29°11' | 6°43' | 5°D53 | 4°26' | 8°47' | 13° 5' | S 23 | | | | | | | | |
| M24 | 0 33 8 | 6°21'00" | 14°44' | 19°45' | 24°46' | 25°19' | 12°52 | 6°12' | 23°41' | 29°12' | 6°42' | 5°53' | 4°23' | 8°54' | 13° 2' | M24 | | | | | | | | |
| T 25 | 0 37 4 | 7°20'30" | 27°24' | 21°14' | 26° 1' | 25°52' | 12°56 | 6°18' | 23°38' | 29°13' | 6°40' | 5°55' | 4°20' | 9° 0' | 12°59' | T 25 | | | | | | | | |
| W26 | 0 41 1 | 8°20'02" | 9 ^h 46' | 22°46' | 27°15' | 26°25' | 13° 1 | 6°25' | 23°36' | 29°14' | 6°39' | 5°56' | 4°17' | 9° 7' | 12°56' | W26 | | | | | | | | |
| T 27 | 0 44 57 | 9°19'36" | 21°54' | 24°20' | 28°30' | 26°58' | 13° 5 | 6°32' | 23°34' | 29°15' | 6°38' | 5°58' | 4°14' | 9°14' | 12°53' | T 27 | | | | | | | | |
| F 28 | 0 48 54 | 10°19'13" | 3 ^h 52' | 25°56' | 29°44' | 27°30' | 13°10 | 6°39' | 23°31' | 29°16' | 6°37' | 5°R59 | 4°10' | 9°20' | 12°51' | F 28 | | | | | | | | |
| S 29 | 0 52 50 | 11°18'52" | 15°44' | 27°34' | 0 ^h 59' | 28° 3' | 13°15 | 6°45' | 23°29' | 29°17' | 6°36' | 5°58' | 4° 7' | 9°27' | 12°48' | S 29 | | | | | | | | |
| S 30 | 0 56 47 | 12°18'33" | 27 ^m 33" | 29 ^m 13" | 2 ^m 14" | 28 ^o 35' | 13 ^o 20' | 6 ^m 52" | 23 ^m 26" | 29 ^o 18' | 6 ^m 35" | 5 ^h 56' | 4 ^h 4' | 9 ^h 34' | 12 ^m 45" | S 30 | | | | | | | | |

Delta T = 17m56s Julian Calendar 1 Sept. 1095 == Greg. Calendar 7 Sept. 1095

OCTOBER 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|-------------------|--------------------|--------------------|--------------------|---------------------|------|---|---|---|---|---|---|---|-----|
| M 1 | 1 0 44 | 13 ^h 18'16" | 9 ^h 21" | 0 ^h 53' | 3 ^m 28" | 29 ^o 7' | 13 ^o 25' | 6 ^m 58" | 23°R24 | 29 ^o 19' | 6°R33 | 5°R52 | 4 ^h 1 | 9 ^h 40 | 12°R42 | M 1 | | | | | | | | |
| T 2 | 1 4 40 | 14°18'01" | 21°11' | 2°34' | 4°43' | 29°39' | 13°31 | 7° 5' | 23°R21 | 29°20' | 6°R32 | 5 ^h 46 | 3°58' | 9°47' | 12°R39 | T 2 | | | | | | | | |
| W 3 | 1 8 37 | 15°17'48" | 3 ^m 4" | 4°15' | 5°57' | 0 ^h 11' | 13°36 | 7°11' | 23°19' | 29°21' | 6°31' | 5°39' | 3°55' | 9°54' | 12°36' | W 3 | | | | | | | | |
| T 4 | 1 12 33 | 16°17'37" | 15° 1' | 5°56' | 7°12' | 0°43' | 13°42 | 7°18' | 23°17' | 29°22' | 6°30' | 5°31' | 3°51' | 10° 0' | 12°33' | T 4 | | | | | | | | |
| F 5 | 1 16 30 | 17°17'28" | 27° 6' | 7°38' | 8°26' | 1°15' | 13°48 | 7°24' | 23°14' | 29°22' | 6°29' | 5°23' | 3°48' | 10° 7' | 12°31' | F 5 | | | | | | | | |
| S 6 | 1 20 26 | 18°17'21" | 9 ^h 19" | 9°19' | 9°41' | 1°46' | 13°54 | 7°31' | 23°12' | 29°23' | 6°28' | 5°16' | 3°45' | 10°14' | 12°28' | S 6 | | | | | | | | |
| S 7 | 1 24 23 | 19°17'16" | 21°44' | 11° 1' | 10°55' | 2°17' | 14° 0 | 7°37' | 23° 9' | 29°24' | 6°27' | 5°11' | 3°42' | 10°20' | 12°25' | S 7 | | | | | | | | |
| M 8 | 1 28 19 | 20°17'13" | 4 ^h 23' | 12°42' | 12°10' | 2°48' | 14° 7 | 7°43' | 23° 7' | 29°24' | 6°26' | 5° 7' | 3°39' | 10°27' | 12°22' | M 8 | | | | | | | | |
| T 9 | 1 32 16 | 21°17'11" | 17°19' | 14°23' | 13°24' | 3°19' | 14°13 | 7°49' | 23° 4' | 29°25' | 6°24' | 5°D 6 | 3°36' | 10°34' | 12°19' | T 9 | | | | | | | | |
| W10 | 1 36 13 | 22°17'11" | 0 ^h 37' | 16° 4' | 14°38' | 3°50' | 14°20 | 7°55' | 23° 2' | 29°26' | 6°23' | 5° 6' | 3°32' | 10°40' | 12°17' | W10 | | | | | | | | |
| T 11 | 1 40 9 | 23°17'12" | 14°18' | 17°44' | 15°53' | 4°20' | 14°27 | 8° 1' | 22°59' | 29°26' | 6°22' | 5° 7' | 3°29' | 10°47' | 12°14' | T 11 | | | | | | | | |
| F 12 | 1 44 6 | 24°17'15" | 28°24' | 19°24' | 17° 7' | 4°51' | 14°34 | 8° 7' | 22°57' | 29°27' | 6°21' | 5°R 8 | 3°26' | 10°54' | 12°11' | F 12 | | | | | | | | |
| S 13 | 1 48 2 | 25°17'20" | 12 ^h 55' | 21° 4' | 18°22' | 5°21' | 14°41 | 8°13' | 22°54' | 29°27' | 6°20' | 5° 8' | 3°23' | 11° 0' | 12° 8' | S 13 | | | | | | | | |
| S 14 | 1 51 59 | 26°17'26" | 27°48' | 22°43' | 19°36' | 5°51' | 14°48 | 8°19' | 22°52' | 29°28' | 6°19' | 5° 6' | 3°20' | 11° 7' | 12° 6' | S 14 | | | | | | | | |
| M15 | 1 55 55 | 27°17'34" | 12 ^m 57" | 24°21' | 20°51' | 6°20' | 14°56 | 8°25' | 22°49' | 29°28' | 6°18' | 5° 2' | 3°16' | 11°14' | 12° 3' | M15 | | | | | | | | |
| T 16 | 1 59 52 | 28°17'44" | 28°12' | 26° 0' | 22° 5' | 6°50' | 15° 4 | 8°31' | 22°47' | 29°28' | 6°17' | 4°55' | 3°13' | 11°20' | 12° 0' | T 16 | | | | | | | | |
| W17 | 2 3 48 | 29°17'56" | 13 ^h 24' | 27°38' | 23°19' | 7°19' | 15°11 | 8°36' | 22°45' | 29°29' | 6°16' | 4°47' | 3°10' | 11°27' | 11°57' | W17 | | | | | | | | |
| T 18 | 2 7 45 | 0 ^h 18'09" | 28°20' | 29°15' | 24°34' | 7°48' | 15°19 | 8°42' | 22°42' | 29°29' | 6°15' | 4°38' | 3° 7' | 11°34' | 11°55' | T 18 | | | | | | | | |
| F 19 | 2 11 42 | 1°18'25" | 12 ^h 54' | 0 ^h 53' | 25°48' | 8°17' | 15°27 | 8°47' | 22°40' | 29°29' | 6°14' | 4°30' | 3° 4' | 11°41' | 11°52' | F 19 | | | | | | | | |
| S 20 | 2 15 38 | 2°18'43" | 27° 0' | 2°29' | 27° 3' | 8°46' | 15°36 | 8°53' | 22°37' | 29°30' | 6°13' | 4°23' | 3° 1' | 11°47' | 11°49' | S 20 | | | | | | | | |
| S 21 | 2 19 35 | 3°19'02" | 10 ^h 35' | 4° 6' | 28°17' | 9°15' | 15°44 | 8°58' | 22°35' | 29°30' | 6°12' | 4°18' | 2°57' | 11°54' | 11°47' | S 21 | | | | | | | | |
| M22 | 2 23 31 | 4°19'24" | 23°42' | 5°42' | 29°31' | 9°43' | 15°52 | 9° 4' | 22°32' | 29°30' | 6°11' | 4°16' | 2°54' | 12° 1' | 11°44' | M22 | | | | | | | | |
| T 23 | 2 27 28 | 5°19'48" | 6 ^h 23' | 7°17' | 0 ^h 46' | 10°11' | 16° 1 | 9° 9' | 22°30' | 29°30' | 6°10' | 4°D15 | 2°51' | 12° 7' | 11°42' | T 23 | | | | | | | | |
| W24 | 2 31 24 | 6°20'13" | 18°43' | 8°53' | 2° 0' | 10°39' | 16°10 | 9°14' | 22°28' | 29°30' | 6° 9' | 4°16' | 2°48' | 12°14' | 11°39' | W24 | | | | | | | | |
| T 25 | 2 35 21 | 7°20'41" | 0 ^h 47' | 10°28' | 3°14' | 11° 6' | 16°19 | 9°19' | 22°25' | 29°30' | 6° 8' | 4°R16 | 2°45' | 12°21' | 11°37' | T 25 | | | | | | | | |
| F 26 | 2 39 17 | 8°21'10" | 12°41' | 12° 3' | 4°29' | 11°34' | 16°28 | 9°24' | 22°23' | 29°31' | 6° 7' | 4°16' | 2°42' | 12°27' | 11°34' | F 26 | | | | | | | | |
| S 27 | 2 43 14 | 9°21'42" | 24°30' | 13°37' | 5°43' | 12° 1' | 16°37 | 9°29' | 22°21' | 29°R31 | 6° 6' | 4°14' | 2°38' | 12°34' | 11°32' | S 27 | | | | | | | | |
| S 28 | 2 47 11 | 10°22'15" | 6 ^h 17' | 15°11' | 6°57' | 12°28' | 16°46 | 9°34' | 22°18' | 29°31' | 6° 5' | 4° 9' | 2°35' | 12°41' | 11°29' | S 28 | | | | | | | | |
| M29 | 2 51 7 | 11°22'49" | 18° 6' | 16°45' | 8°12' | 12°54' | 16°56 | 9°39' | 22°16' | 29°30' | 6° 4' | 4° 1' | 2°32' | 12°47' | 11°27' | M29 | | | | | | | | |
| T 30 | 2 55 4 | 12°23'26" | 29°59' | 18°19' | 9°26' | 13°20' | 17° 5 | 9°44' | 22°14' | 29°30' | 6° 3' | 3°51' | 2°29' | 12°54' | 11°25' | T 30 | | | | | | | | |
| W31 | 2 59 0 | 13 ^h 24'04" | 12 ^m 0" | 19 ^m 53" | 10 ^h 40" | 13 ^o 24' | 17 ^o 15' | 9 ^m 48" | 22 ^m 11" | 29 ^o 30' | 6 ^m 2" | 3 ^h 39' | 2 ^h 26' | 13 ^h 1' | 11 ^m 22" | W31 | | | | | | | | |

Delta T = 17m56s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1095
geocentric

NOVEMBER 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|--------|------|-----|
| T 1 | 3 2 57 | 14♈24'44 | 24♈ 8 | 21♈26 | 11♈55 | 14♈12 | 17♈25 | 9♈53 | 22°R 9 | 29°R30 | 6°R 1 | 3°R25 | 2♈22 | 13♈ 7 | 11°R20 | T 1 | |
| F 2 | 3 6 53 | 15°25'25 | 6♈24 | 22°59 | 13° 9 | 14°38 | 17°35 | 9°57 | 22°Y 7 | 29°E30 | 6°Y 0 | 3♈11 | 2°19 | 13°14 | 11°Y18 | F 2 | |
| S 3 | 3 10 50 | 16°26'07 | 18°50 | 24°32 | 14°23 | 15° 3 | 17°45 | 10° 2 | 22° 5 | 29°30 | 6° 0 | 2°59 | 2°16 | 13°21 | 11°15 | S 3 | |
| S 4 | 3 14 46 | 17°26'51 | 1♉26 | 26° 5 | 15°37 | 15°28 | 17°55 | 10° 6 | 22° 3 | 29°29 | 5°59 | 2°49 | 2°13 | 13°27 | 11°13 | S 4 | |
| M 5 | 3 18 43 | 18°27'36 | 14°13 | 27°37 | 16°52 | 15°52 | 18° 5 | 10°10 | 22° 0 | 29°29 | 5°58 | 2°42 | 2°10 | 13°34 | 11°11 | M 5 | |
| T 6 | 3 22 40 | 19°28'22 | 27°13 | 29°10 | 18° 6 | 16°17 | 18°15 | 10°14 | 21°58 | 29°29 | 5°57 | 2°37 | 2° 7 | 13°41 | 11° 9 | T 6 | |
| W 7 | 3 26 36 | 20°29'10 | 10♊29 | 0♊42 | 19°20 | 16°41 | 18°26 | 10°19 | 21°56 | 29°29 | 5°56 | 2°36 | 2° 3 | 13°47 | 11° 7 | W 7 | |
| T 8 | 3 30 33 | 21°29'58 | 24° 2 | 2°14 | 20°34 | 17° 4 | 18°37 | 10°23 | 21°54 | 29°28 | 5°56 | 2°D35 | 2° 0 | 13°54 | 11° 5 | T 8 | |
| F 9 | 3 34 29 | 22°30'47 | 7♋55 | 3°46 | 21°48 | 17°28 | 18°47 | 10°26 | 21°52 | 29°28 | 5°55 | 2°R35 | 1°57 | 14° 1 | 11° 3 | F 9 | |
| S 10 | 3 38 26 | 23°31'37 | 22° 8 | 5°18 | 23° 2 | 17°51 | 18°58 | 10°30 | 21°50 | 29°27 | 5°54 | 2°34 | 1°54 | 14° 7 | 11° 1 | S 10 | |
| S 11 | 3 42 22 | 24°32'28 | 6♌41 | 6°49 | 24°17 | 18°13 | 19° 9 | 10°34 | 21°48 | 29°27 | 5°53 | 2°31 | 1°51 | 14°14 | 10°59 | S 11 | |
| M12 | 3 46 19 | 25°33'20 | 21°29 | 8°21 | 25°31 | 18°36 | 19°20 | 10°37 | 21°46 | 29°26 | 5°53 | 2°25 | 1°47 | 14°21 | 10°57 | M12 | |
| T 13 | 3 50 15 | 26°34'13 | 6♌28 | 9°52 | 26°45 | 18°58 | 19°31 | 10°41 | 21°44 | 29°26 | 5°52 | 2°16 | 1°44 | 14°27 | 10°56 | T 13 | |
| W14 | 3 54 12 | 27°35'06 | 21°27 | 11°23 | 27°59 | 19°19 | 19°42 | 10°44 | 21°42 | 29°25 | 5°51 | 2° 5 | 1°41 | 14°34 | 10°54 | W14 | |
| T 15 | 3 58 9 | 28°36'02 | 6♍17 | 12°53 | 29°13 | 19°41 | 19°54 | 10°48 | 21°41 | 29°24 | 5°51 | 1°53 | 1°38 | 14°41 | 10°52 | T 15 | |
| F 16 | 4 2 5 | 29°36'58 | 20°50 | 14°24 | 0♎27 | 20° 1 | 20° 5 | 10°51 | 21°39 | 29°24 | 5°50 | 1°41 | 1°35 | 14°48 | 10°51 | F 16 | |
| S 17 | 4 6 2 | 0♎37'55 | 4♎59 | 15°54 | 1°41 | 20°22 | 20°17 | 10°54 | 21°37 | 29°23 | 5°49 | 1°31 | 1°32 | 14°54 | 10°49 | S 17 | |
| S 18 | 4 9 58 | 1°38'54 | 18°39 | 17°23 | 2°55 | 20°42 | 20°28 | 10°57 | 21°35 | 29°22 | 5°49 | 1°23 | 1°28 | 15° 1 | 10°47 | S 18 | |
| M19 | 4 13 55 | 2°39'53 | 1♏15 | 18°52 | 4° 9 | 21° 2 | 20°40 | 11° 0 | 21°34 | 29°22 | 5°48 | 1°18 | 1°25 | 15° 8 | 10°46 | M19 | |
| T 20 | 4 17 51 | 3°40'54 | 14°37 | 20°20 | 5°23 | 21°21 | 20°52 | 11° 3 | 21°32 | 29°21 | 5°48 | 1°16 | 1°22 | 15°14 | 10°44 | T 20 | |
| W21 | 4 21 48 | 4°41'56 | 27° 1 | 21°48 | 6°37 | 21°40 | 21° 3 | 11° 6 | 21°30 | 29°20 | 5°47 | 1°15 | 1°19 | 15°21 | 10°43 | W21 | |
| T 22 | 4 25 44 | 5°42'59 | 9♐ 7 | 23°14 | 7°50 | 21°59 | 21°15 | 11° 8 | 21°29 | 29°19 | 5°47 | 1°15 | 1°16 | 15°28 | 10°42 | T 22 | |
| F 23 | 4 29 41 | 6°44'03 | 21° 2 | 24°40 | 9° 4 | 22°17 | 21°27 | 11°11 | 21°27 | 29°18 | 5°46 | 1°14 | 1°13 | 15°34 | 10°40 | F 23 | |
| S 24 | 4 33 38 | 7°45'08 | 2♑51 | 26° 4 | 10°18 | 22°34 | 21°40 | 11°13 | 21°26 | 29°18 | 5°46 | 1°12 | 1° 9 | 15°41 | 10°39 | S 24 | |
| S 25 | 4 37 34 | 8°46'14 | 14°39 | 27°27 | 11°32 | 22°51 | 21°52 | 11°16 | 21°24 | 29°17 | 5°45 | 1° 7 | 1° 6 | 15°48 | 10°38 | S 25 | |
| M26 | 4 41 31 | 9°47'21 | 26°31 | 28°48 | 12°46 | 23° 8 | 22° 4 | 11°18 | 21°23 | 29°16 | 5°45 | 1° 0 | 1° 3 | 15°54 | 10°37 | M26 | |
| T 27 | 4 45 27 | 10°48'29 | 8♑29 | 0♑ 7 | 13°59 | 23°24 | 22°16 | 11°20 | 21°21 | 29°15 | 5°44 | 0°49 | 1° 0 | 16° 1 | 10°36 | T 27 | |
| W28 | 4 49 24 | 11°49'38 | 20°38 | 1°24 | 15°13 | 23°40 | 22°29 | 11°22 | 21°20 | 29°14 | 5°44 | 0°36 | 0°57 | 16° 8 | 10°35 | W28 | |
| T 29 | 4 53 20 | 12°50'47 | 2♊58 | 2°38 | 16°27 | 23°55 | 22°41 | 11°24 | 21°19 | 29°13 | 5°44 | 0°22 | 0°53 | 16°14 | 10°34 | T 29 | |
| F 30 | 4 57 17 | 13♊51'57 | 15♊29 | 3♊49 | 17♊41 | 24♊10 | 22♊54 | 11♊26 | 21°Y18 | 29°E12 | 5°Y43 | 0°H 8 | 0°H50 | 16♊21 | 10°Y33 | F 30 | |

Delta T = 17m56s Julian Calendar 1 Nov. 1095 == Greg. Calendar 7 Nov. 1095

DECEMBER 1095 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|--------|--------|-------|--------|--------|--------|-------|--------|--------|-------|--------|------|-----|
| S 1 | 5 1 13 | 14♊53'08 | 28♊13 | 4♋56 | 18♋54 | 24♈24 | 23♋ 7 | 11♋27 | 21°R16 | 29°R10 | 5°R43 | 29°R55 | 0♋47 | 16♋28 | 10°R32 | S 1 | |
| S 2 | 5 5 10 | 15°54'19 | 11♋ 8 | 5°58 | 20° 8 | 24°38 | 23°19 | 11°29 | 21°Y15 | 29°E 9 | 5°Y43 | 29°E45 | 0°44 | 16°34 | 10°Y31 | S 2 | |
| M 3 | 5 9 7 | 16°55'30 | 24°13 | 6°56 | 21°21 | 24°51 | 23°32 | 11°31 | 21°14 | 29° 8 | 5°43 | 29°37 | 0°41 | 16°41 | 10°30 | M 3 | |
| T 4 | 5 13 3 | 17°56'42 | 7♌30 | 7°48 | 22°35 | 25° 4 | 23°45 | 11°32 | 21°13 | 29° 7 | 5°42 | 29°32 | 0°38 | 16°48 | 10°30 | T 4 | |
| W 5 | 5 17 0 | 18°57'54 | 20°56 | 8°33 | 23°48 | 25°16 | 23°58 | 11°33 | 21°12 | 29° 6 | 5°42 | 29°30 | 0°34 | 16°55 | 10°29 | W 5 | |
| T 6 | 5 20 56 | 19°59'05 | 4♌34 | 9°10 | 25° 2 | 25°27 | 24°11 | 11°34 | 21°11 | 29° 5 | 5°42 | 29°D30 | 0°31 | 17° 1 | 10°28 | T 6 | |
| F 7 | 5 24 53 | 21° 0'17 | 18°24 | 9°40 | 26°15 | 25°38 | 24°24 | 11°35 | 21°10 | 29° 3 | 5°42 | 29°R30 | 0°28 | 17° 8 | 10°28 | F 7 | |
| S 8 | 5 28 49 | 22° 1'28 | 2°Y27 | 10° 0 | 27°29 | 25°48 | 24°37 | 11°36 | 21° 9 | 29° 2 | 5°42 | 29°30 | 0°25 | 17°15 | 10°27 | S 8 | |
| S 9 | 5 32 46 | 23° 2'40 | 16°42 | 10°R 9 | 28°42 | 25°58 | 24°50 | 11°37 | 21° 8 | 29° 1 | 5°41 | 29°28 | 0°22 | 17°21 | 10°27 | S 9 | |
| M10 | 5 36 42 | 24° 3'51 | 1♌ 7 | 10° 8 | 29°55 | 26° 7 | 25° 3 | 11°38 | 21° 8 | 29° 0 | 5°41 | 29°23 | 0°19 | 17°28 | 10°26 | M10 | |
| T 11 | 5 40 39 | 25° 5'02 | 15°38 | 9°56 | 1♌ 8 | 26°15 | 25°17 | 11°39 | 21° 7 | 28°58 | 5°41 | 29°15 | 0°15 | 17°35 | 10°26 | T 11 | |
| W12 | 5 44 36 | 26° 6'14 | 0♍11 | 9°31 | 2°21 | 26°23 | 25°30 | 11°39 | 21° 6 | 28°57 | 5°41 | 29° 6 | 0°12 | 17°41 | 10°26 | W12 | |
| T 13 | 5 48 32 | 27° 7'25 | 14°38 | 8°55 | 3°34 | 26°30 | 25°43 | 11°39 | 21° 6 | 28°56 | 5°41 | 28°56 | 0° 9 | 17°48 | 10°26 | T 13 | |
| F 14 | 5 52 29 | 28° 8'36 | 28°53 | 8° 7 | 4°48 | 26°37 | 25°57 | 11°40 | 21° 5 | 28°54 | 5°D41 | 28°45 | 0° 6 | 17°55 | 10°26 | F 14 | |
| S 15 | 5 56 25 | 29° 9'47 | 12♎49 | 7° 9 | 6° 1 | 26°43 | 26°10 | 11°40 | 21° 5 | 28°53 | 5°41 | 28°36 | 0° 3 | 18° 1 | 10°26 | S 15 | |
| S 16 | 6 0 22 | 0♎10'58 | 26°24 | 6° 2 | 7°13 | 26°48 | 26°24 | 11°R40 | 21° 4 | 28°51 | 5°41 | 28°30 | 29°E59 | 18° 8 | 10°D26 | S 16 | |
| M17 | 6 4 18 | 1°12'09 | 9♎35 | 4°49 | 8°26 | 26°52 | 26°37 | 11°40 | 21° 4 | 28°50 | 5°41 | 28°25 | 29°56 | 18°15 | 10°26 | M17 | |
| T 18 | 6 8 15 | 2°13'20 | 22°22 | 3°30 | 9°39 | 26°56 | 26°51 | 11°40 | 21° 3 | 28°48 | 5°41 | 28°23 | 29°53 | 18°22 | 10°26 | T 18 | |
| W19 | 6 12 12 | 3°14'31 | 4♏49 | 2° 9 | 10°52 | 26°59 | 27° 5 | 11°40 | 21° 3 | 28°47 | 5°41 | 28°D23 | 29°50 | 18°28 | 10°26 | W19 | |
| T 20 | 6 16 8 | 4°15'43 | 16°58 | 0°50 | 12° 4 | 27° 1 | 27°18 | 11°39 | 21° 3 | 28°45 | 5°41 | 28°24 | 29°47 | 18°35 | 10°26 | T 20 | |
| F 21 | 6 20 5 | 5°16'54 | 28°56 | 29♊33 | 13°17 | 27° 3 | 27°32 | 11°39 | 21° 3 | 28°44 | 5°42 | 28°26 | 29°44 | 18°42 | 10°26 | F 21 | |
| S 22 | 6 24 1 | 6°18'05 | 10♏47 | 28°21 | 14°30 | 27° 4 | 27°46 | 11°38 | 21° 3 | 28°42 | 5°42 | 28°R26 | 29°40 | 18°48 | 10°27 | S 22 | |
| S 23 | 6 27 58 | 7°19'16 | 22°37 | 27°16 | 15°42 | 27°R 4 | 28° 0 | 11°37 | 21° 2 | 28°41 | 5°42 | 28°24 | 29°37 | 18°55 | 10°27 | S 23 | |
| M24 | 6 31 54 | 8°20'26 | 4♏31 | 26°20 | 16°54 | 27° 3 | 28°14 | 11°37 | 21°D 2 | 28°39 | 5°42 | 28°20 | 29°34 | 19° 2 | 10°28 | M24 | |
| T 25 | 6 35 51 | 9°21'37 | 16°32 | 25°33 | 18° 7 | 27° 2 | 28°27 | 11°36 | 21° 2 | 28°38 | 5°42 | 28°15 | 29°31 | 19° 8 | 10°28 | T 25 | |
| W26 | 6 39 47 | 10°22'48 | 28°46 | 24°55 | 19°19 | 27° 0 | 28°41 | 11°35 | 21° 2 | 28°36 | 5°43 | 28° 7 | 29°28 | 19°15 | 10°29 | W26 | |
| T 27 | 6 43 44 | 11°23'58 | 11♊14 | 24°27 | 20°31 | 26°56 | 28°55 | 11°34 | 21° 3 | 28°35 | 5°43 | 27°58 | 29°25 | 19°22 | 10°29 | T 27 | |
| F 28 | 6 47 41 | 12°25'08 | 23°59 | 24° 9 | 21°43 | 26°53 | 29° 9 | 11°32 | 21° 3 | 28°33 | 5°43 | 27°49 | 29°21 | 19°28 | 10°30 | F 28 | |
| S 29 | 6 51 37 | 13°26'18 | 7♏ 0 | 24° 0 | 22°55 | 26°48 | 29°23 | 11°31 | 21° 3 | 28°31 | 5°43 | 27°41 | 29°18 | 19°35 | 10°31 | S 29 | |
| S 30 | 6 55 34 | 14°27'26 | 20°16 | 23°D59 | 24° 7 | 26°43 | 29°37 | 11°30 | 21° 3 | 28°30 | 5°44 | 27°35 | 29°15 | 19°42 | 10°32 | S 30 | |
| M31 | 6 59 30 | 15♋28'35 | 3♏47 | 24♊ 7 | 25°E19 | 26♈36 | 29♋52 | 11♋28 | 21°Y 4 | 28°E28 | 5°Y44 | 27°E30 | 29°E12 | 19♋49 | 10°Y32 | M31 | |

Delta T = 17m56s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1096
geocentric

JANUARY 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♃ | ♄ | Day |
|------|---------|----------|--------|-------|-------|--------|------|--------|--------|--------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 7 3 27 | 16♁29'42 | 17♁28 | 24♁22 | 26♁31 | 26°R29 | 0♁ 6 | 11°R26 | 21°V 4 | 28°R26 | 5°V45 | 27°R28 | 29♁ 9 | 19♁55 | 10°V33 | T 1 | |
| W 2 | 7 7 23 | 17°30'48 | 1♁19 | 24°44 | 27°43 | 26♁22 | 0°20 | 11♁25 | 21° 4 | 28♁25 | 5°45 | 27°D27 | 29° 6 | 20° 2 | 10°34 | W 2 | |
| T 3 | 7 11 20 | 18°31'54 | 15°16 | 25°12 | 28°54 | 26°13 | 0°34 | 11°23 | 21° 5 | 28°23 | 5°45 | 27♁28 | 29° 2 | 20° 9 | 10°35 | T 3 | |
| F 4 | 7 15 16 | 19°32'58 | 29°19 | 25°46 | 0♁ 6 | 26° 3 | 0°48 | 11°21 | 21° 5 | 28°22 | 5°46 | 27°30 | 28°59 | 20°15 | 10°36 | F 4 | |
| S 5 | 7 19 13 | 20°34'01 | 13°V25 | 26°25 | 1°17 | 25°53 | 1° 2 | 11°19 | 21° 6 | 28°20 | 5°46 | 27°31 | 28°56 | 20°22 | 10°38 | S 5 | |
| S 6 | 7 23 10 | 21°35'04 | 27°34 | 27° 8 | 2°28 | 25°42 | 1°17 | 11°17 | 21° 7 | 28°18 | 5°47 | 27°R31 | 28°53 | 20°29 | 10°39 | S 6 | |
| M 7 | 7 27 6 | 22°36'05 | 11♁44 | 27°56 | 3°39 | 25°30 | 1°31 | 11°14 | 21° 7 | 28°16 | 5°47 | 27°29 | 28°50 | 20°35 | 10°40 | M 7 | |
| T 8 | 7 31 3 | 23°37'04 | 25°52 | 28°48 | 4°50 | 25°18 | 1°45 | 11°12 | 21° 8 | 28°15 | 5°48 | 27°26 | 28°46 | 20°42 | 10°41 | T 8 | |
| W 9 | 7 34 59 | 24°38'03 | 9♁56 | 29°43 | 6° 1 | 25° 4 | 1°59 | 11°10 | 21° 9 | 28°13 | 5°48 | 27°22 | 28°43 | 20°49 | 10°43 | W 9 | |
| T 10 | 7 38 56 | 25°39'00 | 23°54 | 0♁42 | 7°12 | 24°50 | 2°14 | 11° 7 | 21°10 | 28°11 | 5°49 | 27°17 | 28°40 | 20°55 | 10°44 | T 10 | |
| F 11 | 7 42 52 | 26°39'56 | 7♁40 | 1°43 | 8°23 | 24°36 | 2°28 | 11° 4 | 21°11 | 28°10 | 5°50 | 27°12 | 28°37 | 21° 2 | 10°46 | F 11 | |
| S 12 | 7 46 49 | 27°40'52 | 21°12 | 2°46 | 9°33 | 24°20 | 2°42 | 11° 2 | 21°11 | 28° 8 | 5°50 | 27° 7 | 28°34 | 21° 9 | 10°47 | S 12 | |
| S 13 | 7 50 46 | 28°41'45 | 4♁28 | 3°53 | 10°44 | 24° 4 | 2°56 | 10°59 | 21°12 | 28° 6 | 5°51 | 27° 4 | 28°31 | 21°16 | 10°49 | S 13 | |
| M14 | 7 54 42 | 29°42'38 | 17°27 | 5° 1 | 11°54 | 23°47 | 3°11 | 10°56 | 21°14 | 28° 5 | 5°52 | 27° 2 | 28°27 | 21°22 | 10°50 | M14 | |
| T 15 | 7 58 39 | 0♁43'30 | 0♁ 7 | 6°11 | 13° 4 | 23°29 | 3°25 | 10°53 | 21°15 | 28° 3 | 5°52 | 27°D 2 | 28°24 | 21°29 | 10°52 | T 15 | |
| W16 | 8 2 35 | 1°44'20 | 12°31 | 7°24 | 14°14 | 23°11 | 3°39 | 10°50 | 21°16 | 28° 1 | 5°53 | 27° 3 | 28°21 | 21°36 | 10°54 | W16 | |
| T 17 | 8 6 32 | 2°45'09 | 24°41 | 8°38 | 15°24 | 22°52 | 3°54 | 10°47 | 21°17 | 28° 0 | 5°54 | 27° 4 | 28°18 | 21°42 | 10°55 | T 17 | |
| F 18 | 8 10 28 | 3°45'58 | 6♁40 | 9°53 | 16°34 | 22°33 | 4° 8 | 10°43 | 21°18 | 27°58 | 5°54 | 27° 6 | 28°15 | 21°49 | 10°57 | F 18 | |
| S 19 | 8 14 25 | 4°46'45 | 18°33 | 11°10 | 17°43 | 22°13 | 4°22 | 10°40 | 21°20 | 27°56 | 5°55 | 27° 8 | 28°11 | 21°56 | 10°59 | S 19 | |
| S 20 | 8 18 21 | 5°47'31 | 0♁24 | 12°29 | 18°53 | 21°52 | 4°37 | 10°37 | 21°21 | 27°55 | 5°56 | 27° 9 | 28° 8 | 22° 2 | 11° 1 | S 20 | |
| M21 | 8 22 18 | 6°48'17 | 12°18 | 13°49 | 20° 2 | 21°31 | 4°51 | 10°33 | 21°22 | 27°53 | 5°57 | 27°R 9 | 28° 5 | 22° 9 | 11° 3 | M21 | |
| T 22 | 8 26 15 | 7°49'01 | 24°20 | 15°10 | 21°11 | 21°10 | 5° 5 | 10°30 | 21°24 | 27°51 | 5°58 | 27° 8 | 28° 2 | 22°16 | 11° 5 | T 22 | |
| W23 | 8 30 11 | 8°49'44 | 6♁34 | 16°32 | 22°20 | 20°48 | 5°20 | 10°26 | 21°25 | 27°50 | 5°58 | 27° 6 | 27°59 | 22°23 | 11° 7 | W23 | |
| T 24 | 8 34 8 | 9°50'26 | 19° 5 | 17°56 | 23°29 | 20°25 | 5°34 | 10°22 | 21°27 | 27°48 | 5°59 | 27° 3 | 27°56 | 22°29 | 11° 9 | T 24 | |
| F 25 | 8 38 4 | 10°51'06 | 1♁55 | 19°20 | 24°37 | 20° 3 | 5°48 | 10°19 | 21°28 | 27°46 | 6° 0 | 27° 1 | 27°52 | 22°36 | 11°11 | F 25 | |
| S 26 | 8 42 1 | 11°51'46 | 15° 6 | 20°46 | 25°46 | 19°40 | 6° 3 | 10°15 | 21°30 | 27°45 | 6° 1 | 26°59 | 27°49 | 22°43 | 11°14 | S 26 | |
| S 27 | 8 45 57 | 12°52'24 | 28°38 | 22°13 | 26°54 | 19°16 | 6°17 | 10°11 | 21°32 | 27°43 | 6° 2 | 26°57 | 27°46 | 22°49 | 11°16 | S 27 | |
| M28 | 8 49 54 | 13°53'00 | 12♁30 | 23°41 | 28° 2 | 18°53 | 6°31 | 10° 7 | 21°33 | 27°41 | 6° 3 | 26°56 | 27°43 | 22°56 | 11°18 | M28 | |
| T 29 | 8 53 50 | 14°53'35 | 26°37 | 25°10 | 29°10 | 18°29 | 6°46 | 10° 3 | 21°35 | 27°40 | 6° 4 | 26°D55 | 27°40 | 23° 3 | 11°20 | T 29 | |
| W30 | 8 57 47 | 15°54'08 | 10♁56 | 26°39 | 0°V18 | 18° 5 | 7° 0 | 9°59 | 21°37 | 27°38 | 6° 5 | 26°56 | 27°37 | 23° 9 | 11°23 | W30 | |
| T 31 | 9 1 44 | 16°54'39 | 25♁23 | 28♁10 | 1°V25 | 17°Q41 | 7♁14 | 9°V55 | 21°V39 | 27♁37 | 6°V 6 | 26♁56 | 27♁33 | 23♁16 | 11°V25 | T 31 | |

Delta T = 17m55s Julian Calendar 1 Jan. 1096 == Greg. Calendar 7 Jan. 1096

FEBRUARY 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♃ | ♄ | Day |
|------|----------|----------|--------|-------|-------|--------|-------|-------|--------|--------|-------|--------|-------|-------|--------|------|-----|
| F 1 | 9 5 40 | 17♁55'09 | 9°V50 | 29♁42 | 2°V32 | 17°R18 | 7♁28 | 9°R51 | 21°V41 | 27°R35 | 6°V 7 | 26♁57 | 27♁30 | 23♁23 | 11°V28 | F 1 | |
| S 2 | 9 9 37 | 18°55'36 | 24°15 | 1♁15 | 3°39 | 16♁54 | 7°43 | 9°V46 | 21°43 | 27♁33 | 6° 8 | 26°58 | 27°27 | 23°29 | 11°30 | S 2 | |
| S 3 | 9 13 33 | 19°56'02 | 8♁33 | 2°48 | 4°46 | 16°30 | 7°57 | 9°42 | 21°45 | 27°32 | 6° 9 | 26°58 | 27°24 | 23°36 | 11°33 | S 3 | |
| M 4 | 9 17 30 | 20°56'26 | 22°42 | 4°23 | 5°53 | 16° 6 | 8°11 | 9°38 | 21°47 | 27°30 | 6°10 | 26°R58 | 27°21 | 23°43 | 11°35 | M 4 | |
| T 5 | 9 21 26 | 21°56'47 | 6♁39 | 5°59 | 6°59 | 15°42 | 8°25 | 9°33 | 21°49 | 27°29 | 6°11 | 26°58 | 27°17 | 23°50 | 11°38 | T 5 | |
| W 6 | 9 25 23 | 22°57'07 | 20°25 | 7°35 | 8° 5 | 15°19 | 8°39 | 9°29 | 21°51 | 27°27 | 6°12 | 26°58 | 27°14 | 23°56 | 11°41 | W 6 | |
| T 7 | 9 29 19 | 23°57'25 | 3♁57 | 9°13 | 9°11 | 14°56 | 8°53 | 9°24 | 21°53 | 27°26 | 6°13 | 26°58 | 27°11 | 24° 3 | 11°44 | T 7 | |
| F 8 | 9 33 16 | 24°57'40 | 17°16 | 10°51 | 10°17 | 14°33 | 9° 7 | 9°20 | 21°55 | 27°24 | 6°14 | 26°57 | 27° 8 | 24°10 | 11°46 | F 8 | |
| S 9 | 9 37 13 | 25°57'54 | 0♁22 | 12°31 | 11°22 | 14°11 | 9°21 | 9°15 | 21°57 | 27°23 | 6°15 | 26°57 | 27° 5 | 24°16 | 11°49 | S 9 | |
| S 10 | 9 41 9 | 26°58'05 | 13°14 | 14°12 | 12°27 | 13°48 | 9°36 | 9°11 | 22° 0 | 27°22 | 6°17 | 26°D57 | 27° 2 | 24°23 | 11°52 | S 10 | |
| M11 | 9 45 6 | 27°58'15 | 25°53 | 15°53 | 13°32 | 13°27 | 9°50 | 9° 6 | 22° 2 | 27°20 | 6°18 | 26°R57 | 26°58 | 24°30 | 11°55 | M11 | |
| T 12 | 9 49 2 | 28°58'22 | 8♁20 | 17°36 | 14°36 | 13° 5 | 10° 3 | 9° 2 | 22° 4 | 27°19 | 6°19 | 26°57 | 26°55 | 24°37 | 11°58 | T 12 | |
| W13 | 9 52 59 | 29°58'28 | 20°35 | 19°20 | 15°40 | 12°44 | 10°17 | 8°57 | 22° 7 | 27°17 | 6°20 | 26°57 | 26°52 | 24°43 | 12° 1 | W13 | |
| T 14 | 9 56 55 | 0♁58'32 | 2♁41 | 21° 5 | 16°44 | 12°24 | 10°31 | 8°52 | 22° 9 | 27°16 | 6°21 | 26°56 | 26°49 | 24°50 | 12° 4 | T 14 | |
| F 15 | 10 0 52 | 1°58'34 | 14°38 | 22°51 | 17°48 | 12° 4 | 10°45 | 8°47 | 22°12 | 27°15 | 6°22 | 26°56 | 26°46 | 24°57 | 12° 7 | F 15 | |
| S 16 | 10 4 48 | 2°58'35 | 26°31 | 24°38 | 18°51 | 11°45 | 10°59 | 8°43 | 22°14 | 27°13 | 6°24 | 26°55 | 26°43 | 25° 3 | 12°10 | S 16 | |
| S 17 | 10 8 45 | 3°58'34 | 8♁22 | 26°26 | 19°54 | 11°26 | 11°13 | 8°38 | 22°17 | 27°12 | 6°25 | 26°54 | 26°39 | 25°10 | 12°13 | S 17 | |
| M18 | 10 12 42 | 4°58'31 | 20°16 | 28°15 | 20°56 | 11° 8 | 11°27 | 8°33 | 22°19 | 27°11 | 6°26 | 26°54 | 26°36 | 25°17 | 12°16 | M18 | |
| T 19 | 10 16 38 | 5°58'26 | 2♁17 | 0♁ 5 | 21°59 | 10°51 | 11°40 | 8°29 | 22°22 | 27°10 | 6°27 | 26°D53 | 26°33 | 25°23 | 12°19 | T 19 | |
| W20 | 10 20 35 | 6°58'20 | 14°29 | 1°57 | 23° 0 | 10°34 | 11°54 | 8°24 | 22°24 | 27° 8 | 6°29 | 26°53 | 26°30 | 25°30 | 12°22 | W20 | |
| T 21 | 10 24 31 | 7°58'12 | 26°56 | 3°50 | 24° 2 | 10°18 | 12° 8 | 8°19 | 22°27 | 27° 7 | 6°30 | 26°54 | 26°27 | 25°37 | 12°25 | T 21 | |
| F 22 | 10 28 28 | 8°58'02 | 9♁44 | 5°43 | 25° 3 | 10° 2 | 12°21 | 8°14 | 22°30 | 27° 6 | 6°31 | 26°55 | 26°23 | 25°44 | 12°28 | F 22 | |
| S 23 | 10 32 24 | 9°57'51 | 22°55 | 7°38 | 26° 4 | 9°47 | 12°35 | 8°10 | 22°32 | 27° 5 | 6°32 | 26°56 | 26°20 | 25°50 | 12°32 | S 23 | |
| S 24 | 10 36 21 | 10°57'37 | 6♁32 | 9°34 | 27° 4 | 9°34 | 12°48 | 8° 5 | 22°35 | 27° 4 | 6°34 | 26°57 | 26°17 | 25°57 | 12°35 | S 24 | |
| M25 | 10 40 17 | 11°57'22 | 20°33 | 11°31 | 28° 4 | 9°20 | 13° 2 | 8° 0 | 22°38 | 27° 3 | 6°35 | 26°R58 | 26°14 | 26° 4 | 12°38 | M25 | |
| T 26 | 10 44 14 | 12°57'05 | 4♁57 | 13°29 | 29° 3 | 9° 8 | 13°15 | 7°55 | 22°41 | 27° 1 | 6°36 | 26°58 | 26°11 | 26°10 | 12°41 | T 26 | |
| W27 | 10 48 11 | 13°56'46 | 19°39 | 15°27 | 0♁ 2 | 8°56 | 13°29 | 7°51 | 22°44 | 27° 0 | 6°38 | 26°57 | 26° 8 | 26°17 | 12°45 | W27 | |
| T 28 | 10 52 7 | 14°56'24 | 4°V31 | 17°27 | 1° 1 | 8°45 | 13°42 | 7°46 | 22°47 | 26°59 | 6°39 | 26°55 | 26° 4 | 26°24 | 12°48 | T 28 | |
| F 29 | 10 56 4 | 15°56'01 | 19°V27 | 19♁27 | 1♁59 | 8♁35 | 13°55 | 7°V41 | 22°V49 | 26♁58 | 6°V40 | 26♁52 | 26♁ 1 | 26♁30 | 12°V52 | F 29 | |

Delta T = 17m55s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1096
geocentric

MARCH 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|-------|-------|-------|-------|-------|--------|--------|-------|--------|-------|-------|--------|------|---|---|---|---|---|---|---|-----|
| S 1 | 11 0 0 | 16°55'35 | 4♁17 | 21♁28 | 2♁56 | 8°R26 | 14♁ 8 | 7°R37 | 22°V52 | 26°R57 | 6°V42 | 26°R50 | 25♁58 | 26♁37 | 12°V55 | S 1 | | | | | | | | |
| S 2 | 11 3 57 | 17°55'07 | 18°55 | 23°29 | 3°53 | 8♁17 | 14°21 | 7°R32 | 22°55 | 26♁56 | 6°43 | 26♁47 | 25°55 | 26°44 | 12°58 | S 2 | | | | | | | | |
| M 3 | 11 7 53 | 18°54'37 | 3♁15 | 25°30 | 4°50 | 8°10 | 14°35 | 7°27 | 22°58 | 26°56 | 6°44 | 26°46 | 25°52 | 26°51 | 13° 2 | M 3 | | | | | | | | |
| T 4 | 11 11 50 | 19°54'04 | 17°16 | 27°30 | 5°46 | 8° 3 | 14°48 | 7°23 | 23° 1 | 26°55 | 6°46 | 26°D45 | 25°49 | 26°57 | 13° 5 | T 4 | | | | | | | | |
| W 5 | 11 15 46 | 20°53'29 | 0♁55 | 29°31 | 6°41 | 7°56 | 15° 1 | 7°18 | 23° 4 | 26°54 | 6°47 | 26°45 | 25°45 | 27° 4 | 13° 9 | W 5 | | | | | | | | |
| T 6 | 11 19 43 | 21°52'51 | 14°14 | 1°V31 | 7°36 | 7°51 | 15°14 | 7°14 | 23° 7 | 26°53 | 6°49 | 26°47 | 25°42 | 27°11 | 13°12 | T 6 | | | | | | | | |
| F 7 | 11 23 40 | 22°52'12 | 27°15 | 3°30 | 8°30 | 7°47 | 15°26 | 7° 9 | 23°10 | 26°52 | 6°50 | 26°48 | 25°39 | 27°17 | 13°16 | F 7 | | | | | | | | |
| S 8 | 11 27 36 | 23°51'29 | 10♁ 1 | 5°27 | 9°23 | 7°43 | 15°39 | 7° 5 | 23°14 | 26°51 | 6°51 | 26°50 | 25°36 | 27°24 | 13°19 | S 8 | | | | | | | | |
| S 9 | 11 31 33 | 24°50'45 | 22°33 | 7°23 | 10°16 | 7°40 | 15°52 | 7° 0 | 23°17 | 26°51 | 6°53 | 26°R51 | 25°33 | 27°31 | 13°23 | S 9 | | | | | | | | |
| M10 | 11 35 29 | 25°49'58 | 4♁54 | 9°16 | 11° 8 | 7°37 | 16° 5 | 6°56 | 23°20 | 26°50 | 6°54 | 26°50 | 25°29 | 27°38 | 13°27 | M10 | | | | | | | | |
| T 11 | 11 39 26 | 26°49'09 | 17° 6 | 11° 7 | 12° 0 | 7°36 | 16°17 | 6°52 | 23°23 | 26°49 | 6°56 | 26°49 | 25°26 | 27°44 | 13°30 | T 11 | | | | | | | | |
| W12 | 11 43 22 | 27°48'18 | 29°10 | 12°55 | 12°51 | 7°35 | 16°30 | 6°47 | 23°26 | 26°49 | 6°57 | 26°45 | 25°23 | 27°51 | 13°34 | W12 | | | | | | | | |
| T 13 | 11 47 19 | 28°47'24 | 11♁ 9 | 14°40 | 13°40 | 7°D35 | 16°42 | 6°43 | 23°29 | 26°48 | 6°58 | 26°41 | 25°20 | 27°58 | 13°37 | T 13 | | | | | | | | |
| F 14 | 11 51 15 | 29°46'29 | 23° 3 | 16°21 | 14°30 | 7°36 | 16°54 | 6°39 | 23°33 | 26°47 | 7° 0 | 26°35 | 25°17 | 28° 4 | 13°41 | F 14 | | | | | | | | |
| S 15 | 11 55 12 | 0°V45'32 | 4♁55 | 17°58 | 15°18 | 7°37 | 17° 7 | 6°35 | 23°36 | 26°47 | 7° 1 | 26°29 | 25°14 | 28°11 | 13°45 | S 15 | | | | | | | | |
| S 16 | 11 59 8 | 1°44'32 | 16°47 | 19°30 | 16° 5 | 7°39 | 17°19 | 6°31 | 23°39 | 26°46 | 7° 3 | 26°23 | 25°10 | 28°18 | 13°48 | S 16 | | | | | | | | |
| M17 | 12 3 5 | 2°43'31 | 28°41 | 20°58 | 16°52 | 7°42 | 17°31 | 6°27 | 23°42 | 26°46 | 7° 4 | 26°17 | 25° 7 | 28°24 | 13°52 | M17 | | | | | | | | |
| T 18 | 12 7 2 | 3°42'29 | 10♁42 | 22°20 | 17°38 | 7°46 | 17°43 | 6°23 | 23°46 | 26°45 | 7° 5 | 26°13 | 25° 4 | 28°31 | 13°56 | T 18 | | | | | | | | |
| W19 | 12 10 58 | 4°41'24 | 22°52 | 23°38 | 18°23 | 7°50 | 17°55 | 6°19 | 23°49 | 26°45 | 7° 7 | 26°11 | 25° 1 | 28°38 | 13°59 | W19 | | | | | | | | |
| T 20 | 12 14 55 | 5°40'17 | 5♁16 | 24°50 | 19° 6 | 7°55 | 18° 7 | 6°15 | 23°52 | 26°44 | 7° 8 | 26°D10 | 24°58 | 28°45 | 14° 3 | T 20 | | | | | | | | |
| F 21 | 12 18 51 | 6°39'09 | 17°58 | 25°56 | 19°49 | 8° 0 | 18°19 | 6°11 | 23°56 | 26°44 | 7°10 | 26°10 | 24°54 | 28°51 | 14° 7 | F 21 | | | | | | | | |
| S 22 | 12 22 48 | 7°37'59 | 1♁ 3 | 26°57 | 20°31 | 8° 7 | 18°31 | 6° 7 | 23°59 | 26°44 | 7°11 | 26°12 | 24°51 | 28°58 | 14°10 | S 22 | | | | | | | | |
| S 23 | 12 26 44 | 8°36'47 | 14°34 | 27°51 | 21°11 | 8°14 | 18°42 | 6° 4 | 24° 2 | 26°43 | 7°13 | 26°13 | 24°48 | 29° 5 | 14°14 | S 23 | | | | | | | | |
| M24 | 12 30 41 | 9°35'34 | 28°33 | 28°40 | 21°51 | 8°21 | 18°54 | 6° 0 | 24° 6 | 26°43 | 7°14 | 26°R13 | 24°45 | 29°11 | 14°18 | M24 | | | | | | | | |
| T 25 | 12 34 37 | 10°34'18 | 12♁59 | 29°22 | 22°29 | 8°29 | 19° 5 | 5°57 | 24° 9 | 26°43 | 7°15 | 26°12 | 24°42 | 29°18 | 14°21 | T 25 | | | | | | | | |
| W26 | 12 38 34 | 11°33'01 | 27°49 | 29°58 | 23° 6 | 8°38 | 19°17 | 5°53 | 24°12 | 26°43 | 7°17 | 26° 9 | 24°39 | 29°25 | 14°25 | W26 | | | | | | | | |
| T 27 | 12 42 31 | 12°31'41 | 12°V56 | 0♁28 | 23°42 | 8°47 | 19°28 | 5°50 | 24°16 | 26°43 | 7°18 | 26° 4 | 24°35 | 29°32 | 14°29 | T 27 | | | | | | | | |
| F 28 | 12 46 27 | 13°30'20 | 28°10 | 0°52 | 24°17 | 8°57 | 19°39 | 5°47 | 24°19 | 26°42 | 7°20 | 25°57 | 24°32 | 29°38 | 14°33 | F 28 | | | | | | | | |
| S 29 | 12 50 24 | 14°28'57 | 13♁21 | 1° 9 | 24°50 | 9° 7 | 19°50 | 5°43 | 24°23 | 26°42 | 7°21 | 25°50 | 24°29 | 29°45 | 14°36 | S 29 | | | | | | | | |
| S 30 | 12 54 20 | 15°27'31 | 28°19 | 1°20 | 25°22 | 9°19 | 20° 1 | 5°40 | 24°26 | 26°42 | 7°23 | 25°43 | 24°26 | 29°52 | 14°40 | S 30 | | | | | | | | |
| M31 | 12 58 17 | 16°V26'04 | 12♁56 | 1°R25 | 25♁52 | 9♁30 | 20♁12 | 5°R37 | 24°V30 | 26♁42 | 7°V24 | 25♁37 | 24♁23 | 29♁58 | 14°V44 | M31 | | | | | | | | |

Delta T = 17m55s Julian Calendar 1 March 1096 == Greg. Calendar 7 March 1096

APRIL 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|-------|--------|--------|-------|-------|-------|--------|--------|-------|--------|-------|------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 13 2 13 | 17°V24'34 | 27♁ 7 | 1°R25 | 26♁21 | 9♁42 | 20♁23 | 5°R34 | 24°V33 | 26°D42 | 7°V25 | 25°R33 | 24♁20 | 0♁ 5 | 14°V47 | T 1 | | | | | | | | |
| W 2 | 13 6 10 | 18°23'02 | 10♁51 | 1♁18 | 26°48 | 9°55 | 20°34 | 5°R32 | 24°36 | 26♁42 | 7°27 | 25♁31 | 24°16 | 0°12 | 14°51 | W 2 | | | | | | | | |
| T 3 | 13 10 6 | 19°21'28 | 24° 9 | 1° 6 | 27°13 | 10° 8 | 20°45 | 5°29 | 24°40 | 26°42 | 7°28 | 25°D31 | 24°13 | 0°19 | 14°55 | T 3 | | | | | | | | |
| F 4 | 13 14 3 | 20°19'52 | 7♁ 3 | 0°49 | 27°37 | 10°22 | 20°55 | 5°26 | 24°43 | 26°42 | 7°30 | 25°32 | 24°10 | 0°25 | 14°59 | F 4 | | | | | | | | |
| S 5 | 13 18 0 | 21°18'13 | 19°39 | 0°27 | 27°59 | 10°36 | 21° 5 | 5°23 | 24°47 | 26°42 | 7°31 | 25°R33 | 24° 7 | 0°32 | 15° 2 | S 5 | | | | | | | | |
| S 6 | 13 21 56 | 22°16'32 | 1♁59 | 0° 1 | 28°19 | 10°51 | 21°16 | 5°21 | 24°50 | 26°43 | 7°32 | 25°33 | 24° 4 | 0°39 | 15° 6 | S 6 | | | | | | | | |
| M 7 | 13 25 53 | 23°14'49 | 14° 8 | 29°V32 | 28°37 | 11° 6 | 21°26 | 5°19 | 24°54 | 26°43 | 7°34 | 25°31 | 24° 0 | 0°45 | 15°10 | M 7 | | | | | | | | |
| T 8 | 13 29 49 | 24°13'04 | 26° 9 | 28°59 | 28°53 | 11°22 | 21°36 | 5°16 | 24°57 | 26°43 | 7°35 | 25°27 | 23°57 | 0°52 | 15°13 | T 8 | | | | | | | | |
| W 9 | 13 33 46 | 25°11'18 | 8♁ 5 | 28°23 | 29° 7 | 11°38 | 21°46 | 5°14 | 25° 1 | 26°43 | 7°36 | 25°20 | 23°54 | 0°59 | 15°17 | W 9 | | | | | | | | |
| T 10 | 13 37 42 | 26° 9'29 | 19°58 | 27°46 | 29°19 | 11°54 | 21°56 | 5°12 | 25° 4 | 26°44 | 7°38 | 25°11 | 23°51 | 1° 5 | 15°21 | T 10 | | | | | | | | |
| F 11 | 13 41 39 | 27° 7'38 | 1♁50 | 27° 8 | 29°29 | 12°11 | 22° 6 | 5°10 | 25° 8 | 26°44 | 7°39 | 25° 0 | 23°48 | 1°12 | 15°24 | F 11 | | | | | | | | |
| S 12 | 13 45 35 | 28° 5'46 | 13°43 | 26°29 | 29°37 | 12°29 | 22°15 | 5° 8 | 25°11 | 26°44 | 7°41 | 24°48 | 23°45 | 1°19 | 15°28 | S 12 | | | | | | | | |
| S 13 | 13 49 32 | 29° 3'52 | 25°37 | 25°50 | 29°43 | 12°47 | 22°25 | 5° 6 | 25°14 | 26°45 | 7°42 | 24°36 | 23°41 | 1°26 | 15°32 | S 13 | | | | | | | | |
| M14 | 13 53 29 | 0♁ 1'57 | 7♁35 | 25°13 | 29°46 | 13° 5 | 22°34 | 5° 4 | 25°18 | 26°45 | 7°43 | 24°25 | 23°38 | 1°32 | 15°35 | M14 | | | | | | | | |
| T 15 | 13 57 25 | 1° 0'00 | 19°39 | 24°36 | 29°R47 | 13°23 | 22°43 | 5° 3 | 25°21 | 26°46 | 7°45 | 24°16 | 23°35 | 1°39 | 15°39 | T 15 | | | | | | | | |
| W16 | 14 1 22 | 1°58'01 | 1♁51 | 24° 3 | 29°45 | 13°43 | 22°53 | 5° 1 | 25°25 | 26°46 | 7°46 | 24°10 | 23°32 | 1°46 | 15°43 | W16 | | | | | | | | |
| T 17 | 14 5 18 | 2°56'01 | 14°16 | 23°31 | 29°41 | 14° 2 | 23° 2 | 5° 0 | 25°28 | 26°47 | 7°47 | 24° 6 | 23°29 | 1°52 | 15°46 | T 17 | | | | | | | | |
| F 18 | 14 9 15 | 3°54'00 | 26°56 | 23° 3 | 29°35 | 14°22 | 23°11 | 4°58 | 25°32 | 26°47 | 7°49 | 24° 5 | 23°26 | 1°59 | 15°50 | F 18 | | | | | | | | |
| S 19 | 14 13 11 | 4°51'57 | 9♁56 | 22°39 | 29°26 | 14°42 | 23°19 | 4°57 | 25°35 | 26°48 | 7°50 | 24°D 5 | 23°22 | 2° 6 | 15°53 | S 19 | | | | | | | | |
| S 20 | 14 17 8 | 5°49'53 | 23°19 | 22°18 | 29°15 | 15° 2 | 23°28 | 4°56 | 25°39 | 26°48 | 7°51 | 24°R 5 | 23°19 | 2°13 | 15°57 | S 20 | | | | | | | | |
| M21 | 14 21 4 | 6°47'48 | 7♁ 9 | 22° 2 | 29° 1 | 15°23 | 23°36 | 4°55 | 25°42 | 26°49 | 7°52 | 24° 4 | 23°16 | 2°19 | 16° 0 | M21 | | | | | | | | |
| T 22 | 14 25 1 | 7°45'41 | 21°27 | 21°49 | 28°45 | 15°45 | 23°45 | 4°54 | 25°45 | 26°50 | 7°54 | 24° 2 | 23°13 | 2°26 | 16° 4 | T 22 | | | | | | | | |
| W23 | 14 28 58 | 8°43'33 | 6°V10 | 21°42 | 28°27 | 16° 6 | 23°53 | 4°53 | 25°49 | 26°50 | 7°55 | 23°57 | 23°10 | 2°33 | 16° 8 | W23 | | | | | | | | |
| T 24 | 14 32 54 | 9°41'24 | 21°15 | 21°D39 | 28° 6 | 16°28 | 24° 1 | 4°52 | 25°52 | 26°51 | 7°56 | 23°50 | 23° 6 | 2°39 | 16°11 | T 24 | | | | | | | | |
| F 25 | 14 36 51 | 10°39'13 | 6♁31 | 21°40 | 27°44 | 16°50 | 24° 9 | 4°52 | 25°55 | 26°52 | 7°57 | 23°40 | 23° 3 | 2°46 | 16°14 | F 25 | | | | | | | | |
| S 26 | 14 40 47 | 11°37'01 | 21°49 | 21°46 | 27°19 | 17°13 | 24°17 | 4°51 | 25°59 | 26°53 | 7°59 | 23°29 | 23° 0 | 2°53 | 16°18 | S 26 | | | | | | | | |
| S 27 | 14 44 44 | 12°34'47 | 6♁57 | 21°57 | 26°52 | 17°36 | 24°25 | 4°51 | 26° 2 | 26°53 | 8° 0 | 23°19 | 22°57 | 3° 0 | 16°21 | S 27 | | | | | | | | |
| M28 | 14 48 40 | 13°32'32 | 21°45 | 22°12 | 26°23 | 17°59 | 24°32 | 4°50 | 26° 6 | 26°54 | 8° 1 | 23°10 | 22°54 | 3° 6 | 16°25 | M28 | | | | | | | | |
| T 29 | 14 52 37 | 14°30'16 | 6♁ 6 | 22°32 | 25°52 | 18°23 | 24°40 | 4°50 | 26° 9 | 26°55 | 8° 2 | 23° 3 | 22°51 | 3°13 | 16°28 | T 29 | | | | | | | | |
| W30 | 14 56 33 | 15°27'57 | 19♁58 | 22°V56 | 25♁20 | 18♁47 | 24♁47 | 4♁50 | 26°V12 | 26♁56 | 8°V 3 | 22♁59 | 22♁47 | 3♁20 | 16°V32 | W30 | | | | | | | | |

Delta T = 17m54s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1096
geocentric

MAY 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|-------|----------|--------|-------|-------|-------|-------|-------|------|--------|-------|------|-------|------|
| T 1 | 15 0 30 | 16♌25'37 | 3♌21 | 23♌24 | 24♌R46 | 19♌11 | 24♌54 | 4°D50 | 26♌16 | 26♌57 | 8♌5 | 22°R57 | 22♌44 | 3♌26 | 16♌35 | T 1 |
| F 2 | 15 4 27 | 17°23'16 | 16°17 | 23°57 | 24♌11 | 19°35 | 25° 1 | 4♌50 | 26°19 | 26°58 | 8° 6 | 22°57 | 22°41 | 3°33 | 16°38 | F 2 |
| S 3 | 15 8 23 | 18°20'52 | 28°51 | 24°33 | 23°35 | 20° 0 | 25° 8 | 4°50 | 26°22 | 26°59 | 8° 7 | 22°57 | 22°38 | 3°40 | 16°42 | S 3 |
| S 4 | 15 12 20 | 19°18'28 | 11♌8 | 25°13 | 22°58 | 20°25 | 25°15 | 4°50 | 26°25 | 27° 0 | 8° 8 | 22°56 | 22°35 | 3°47 | 16°45 | S 4 |
| M 5 | 15 16 16 | 20°16'01 | 23°12 | 25°57 | 22°21 | 20°50 | 25°21 | 4°51 | 26°29 | 27° 1 | 8° 9 | 22°54 | 22°32 | 3°53 | 16°48 | M 5 |
| T 6 | 15 20 13 | 21°13'34 | 5♌8 | 26°45 | 21°43 | 21°16 | 25°27 | 4°51 | 26°32 | 27° 2 | 8°10 | 22°48 | 22°28 | 4° 0 | 16°51 | T 6 |
| W 7 | 15 24 9 | 22°11'04 | 17° 0 | 27°36 | 21° 5 | 21°41 | 25°34 | 4°52 | 26°35 | 27° 3 | 8°11 | 22°40 | 22°25 | 4° 7 | 16°54 | W 7 |
| T 8 | 15 28 6 | 23° 8'34 | 28°51 | 28°31 | 20°27 | 22° 7 | 25°40 | 4°52 | 26°38 | 27° 5 | 8°12 | 22°30 | 22°22 | 4°14 | 16°58 | T 8 |
| F 9 | 15 32 2 | 24° 6'02 | 10♌43 | 29°29 | 19°50 | 22°34 | 25°46 | 4°53 | 26°41 | 27° 6 | 8°13 | 22°17 | 22°19 | 4°20 | 17° 1 | F 9 |
| S 10 | 15 35 59 | 25° 3'30 | 22°39 | 0♌30 | 19°13 | 23° 0 | 25°51 | 4°54 | 26°45 | 27° 7 | 8°14 | 22° 3 | 22°16 | 4°27 | 17° 4 | S 10 |
| S 11 | 15 39 56 | 26° 0'56 | 4♌39 | 1°35 | 18°38 | 23°27 | 25°57 | 4°55 | 26°48 | 27° 8 | 8°16 | 21°50 | 22°12 | 4°34 | 17° 7 | S 11 |
| M12 | 15 43 52 | 26°58'21 | 16°44 | 2°43 | 18° 3 | 23°54 | 26° 2 | 4°56 | 26°51 | 27°10 | 8°17 | 21°37 | 22° 9 | 4°40 | 17°10 | M12 |
| T 13 | 15 47 49 | 27°55'46 | 28°57 | 3°53 | 17°30 | 24°21 | 26° 7 | 4°57 | 26°54 | 27°11 | 8°18 | 21°27 | 22° 6 | 4°47 | 17°13 | T 13 |
| W14 | 15 51 45 | 28°53'09 | 11♌18 | 5° 7 | 16°58 | 24°49 | 26°12 | 4°59 | 26°57 | 27°12 | 8°19 | 21°19 | 22° 3 | 4°54 | 17°16 | W14 |
| T 15 | 15 55 42 | 29°50'32 | 23°50 | 6°24 | 16°28 | 25°16 | 26°17 | 5° 0 | 27° 0 | 27°14 | 8°19 | 21°14 | 22° 0 | 5° 1 | 17°19 | T 15 |
| F 16 | 15 59 38 | 0♌47'54 | 6♌35 | 7°43 | 16° 0 | 25°44 | 26°22 | 5° 2 | 27° 3 | 27°15 | 8°20 | 21°12 | 21°57 | 5° 7 | 17°22 | F 16 |
| S 17 | 16 3 35 | 1°45'15 | 19°36 | 9° 6 | 15°33 | 26°12 | 26°27 | 5° 3 | 27° 6 | 27°16 | 8°21 | 21°D11 | 21°53 | 5°14 | 17°25 | S 17 |
| S 18 | 16 7 31 | 2°42'36 | 2♌57 | 10°31 | 15° 9 | 26°40 | 26°31 | 5° 5 | 27° 9 | 27°18 | 8°22 | 21°R11 | 21°50 | 5°21 | 17°28 | S 18 |
| M19 | 16 11 28 | 3°39'56 | 16°40 | 11°59 | 14°47 | 27° 9 | 26°35 | 5° 7 | 27°12 | 27°19 | 8°23 | 21°11 | 21°47 | 5°27 | 17°31 | M19 |
| T 20 | 16 15 25 | 4°37'16 | 0♌47 | 13°30 | 14°27 | 27°38 | 26°39 | 5° 9 | 27°15 | 27°21 | 8°24 | 21° 9 | 21°44 | 5°34 | 17°33 | T 20 |
| W21 | 16 19 21 | 5°34'35 | 15°16 | 15° 4 | 14°10 | 28° 7 | 26°43 | 5°11 | 27°18 | 27°22 | 8°25 | 21° 4 | 21°41 | 5°41 | 17°36 | W21 |
| T 22 | 16 23 18 | 6°31'54 | 0♌6 | 16°40 | 13°55 | 28°36 | 26°47 | 5°13 | 27°21 | 27°24 | 8°26 | 20°57 | 21°37 | 5°48 | 17°39 | T 22 |
| F 23 | 16 27 14 | 7°29'12 | 15° 9 | 18°20 | 13°42 | 29° 5 | 26°50 | 5°15 | 27°23 | 27°25 | 8°27 | 20°48 | 21°34 | 5°54 | 17°42 | F 23 |
| S 24 | 16 31 11 | 8°26'30 | 0♌16 | 20° 1 | 13°32 | 29°35 | 26°54 | 5°17 | 27°26 | 27°27 | 8°27 | 20°38 | 21°31 | 6° 1 | 17°44 | S 24 |
| S 25 | 16 35 7 | 9°23'47 | 15°18 | 21°46 | 13°24 | 0♌4 | 26°57 | 5°19 | 27°29 | 27°28 | 8°28 | 20°28 | 21°28 | 6° 8 | 17°47 | S 25 |
| M26 | 16 39 4 | 10°21'04 | 0♌4 | 23°33 | 13°18 | 0°34 | 27° 0 | 5°22 | 27°32 | 27°30 | 8°29 | 20°19 | 21°25 | 6°14 | 17°49 | M26 |
| T 27 | 16 43 0 | 11°18'20 | 14°27 | 25°23 | 13°15 | 1° 4 | 27° 2 | 5°25 | 27°35 | 27°32 | 8°30 | 20°13 | 21°22 | 6°21 | 17°52 | T 27 |
| W28 | 16 46 57 | 12°15'35 | 28°23 | 27°15 | 13°D15 | 1°35 | 27° 5 | 5°27 | 27°37 | 27°33 | 8°31 | 20° 8 | 21°18 | 6°28 | 17°54 | W28 |
| T 29 | 16 50 54 | 13°12'49 | 11♌50 | 29°10 | 13°16 | 2° 5 | 27° 7 | 5°30 | 27°40 | 27°35 | 8°31 | 20° 7 | 21°15 | 6°35 | 17°57 | T 29 |
| F 30 | 16 54 50 | 14°10'03 | 24°51 | 14°10'03 | 13°20 | 2°36 | 27°10 | 5°33 | 27°42 | 27°37 | 8°32 | 20°D 6 | 21°12 | 6°41 | 17°59 | F 30 |
| S 31 | 16 58 47 | 15°II 7'15 | 7♌28 | 3II 7 | 13♌26 | 3♌6 | 27♌12 | 5♌36 | 27♌45 | 27♌39 | 8♌33 | 20♌7 | 21♌9 | 6♌48 | 18♌2 | S 31 |

Delta T = 17m54s Julian Calendar 1 May 1096 == Greg. Calendar 7 May 1096

JUNE 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|-------|-------|-------|--------|------|-------|-------|------|--------|-------|-------|-------|------|
| S 1 | 17 2 43 | 16♌42'7 | 19♌46 | 5II 9 | 13♌34 | 3♌37 | 27♌13 | 5♌39 | 27♌48 | 27♌40 | 8♌33 | 20°R 7 | 21♌6 | 6♌55 | 18♌4 | S 1 |
| M 2 | 17 6 40 | 17° 1'39 | 1♌51 | 7°12 | 13°44 | 4° 8 | 27°15 | 5°42 | 27°50 | 27°42 | 8°34 | 20° 6 | 21° 3 | 7° 1 | 18° 6 | M 2 |
| T 3 | 17 10 36 | 17°58'50 | 13°47 | 9°18 | 13°57 | 4°40 | 27°16 | 5°45 | 27°53 | 27°44 | 8°35 | 20° 3 | 20°59 | 7° 8 | 18° 9 | T 3 |
| W 4 | 17 14 33 | 18°56'00 | 25°39 | 11°25 | 14°11 | 5°11 | 27°18 | 5°48 | 27°55 | 27°46 | 8°35 | 19°57 | 20°56 | 7°15 | 18°11 | W 4 |
| T 5 | 17 18 29 | 19°53'10 | 7♌30 | 13°33 | 14°27 | 5°43 | 27°19 | 5°52 | 27°58 | 27°47 | 8°36 | 19°49 | 20°53 | 7°22 | 18°13 | T 5 |
| F 6 | 17 22 26 | 20°50'19 | 19°25 | 15°42 | 14°45 | 6°15 | 27°20 | 5°55 | 28° 0 | 27°49 | 8°36 | 19°40 | 20°50 | 7°28 | 18°15 | F 6 |
| S 7 | 17 26 23 | 21°47'28 | 1♌25 | 17°53 | 15° 5 | 6°47 | 27°20 | 5°59 | 28° 2 | 27°51 | 8°37 | 19°30 | 20°47 | 7°35 | 18°17 | S 7 |
| S 8 | 17 30 19 | 22°44'37 | 13°33 | 20° 3 | 15°27 | 7°19 | 27°21 | 6° 2 | 28° 5 | 27°53 | 8°37 | 19°19 | 20°43 | 7°42 | 18°19 | S 8 |
| M 9 | 17 34 16 | 23°41'46 | 25°50 | 22°14 | 15°51 | 7°51 | 27°21 | 6° 6 | 28° 7 | 27°55 | 8°38 | 19° 9 | 20°40 | 7°49 | 18°21 | M 9 |
| T 10 | 17 38 12 | 24°38'54 | 8♌15 | 24°25 | 16°16 | 8°23 | 27°R21 | 6°10 | 28° 9 | 27°57 | 8°38 | 19° 2 | 20°37 | 7°55 | 18°23 | T 10 |
| W11 | 17 42 9 | 25°36'03 | 20°51 | 26°36 | 16°42 | 8°56 | 27°21 | 6°14 | 28°11 | 27°59 | 8°39 | 18°56 | 20°34 | 8° 2 | 18°25 | W11 |
| T 12 | 17 46 5 | 26°33'12 | 3♌38 | 28°45 | 17°11 | 9°28 | 27°21 | 6°18 | 28°14 | 28° 1 | 8°39 | 18°53 | 20°31 | 8° 9 | 18°27 | T 12 |
| F 13 | 17 50 2 | 27°30'20 | 16°37 | 0♌55 | 17°41 | 10° 1 | 27°20 | 6°22 | 28°16 | 28° 3 | 8°40 | 18°D52 | 20°28 | 8°15 | 18°29 | F 13 |
| S 14 | 17 53 59 | 28°27'29 | 29°50 | 3° 3 | 18°12 | 10°34 | 27°20 | 6°26 | 28°18 | 28° 5 | 8°40 | 18°52 | 20°24 | 8°22 | 18°30 | S 14 |
| S 15 | 17 57 55 | 29°24'38 | 13♌17 | 5°10 | 18°44 | 11° 7 | 27°19 | 6°30 | 28°20 | 28° 7 | 8°41 | 18°53 | 20°21 | 8°29 | 18°32 | S 15 |
| M16 | 18 1 52 | 0♌21'48 | 27° 1 | 7°15 | 19°18 | 11°40 | 27°18 | 6°35 | 28°22 | 28° 9 | 8°41 | 18°R54 | 20°18 | 8°36 | 18°34 | M16 |
| T 17 | 18 5 48 | 1°18'57 | 11♌19 | 9°19 | 19°53 | 12°14 | 27°16 | 6°39 | 28°24 | 28°11 | 8°41 | 18°53 | 20°15 | 8°42 | 18°35 | T 17 |
| W18 | 18 9 45 | 2°16'08 | 25°19 | 11°22 | 20°30 | 12°47 | 27°15 | 6°43 | 28°26 | 28°13 | 8°42 | 18°51 | 20°12 | 8°49 | 18°37 | W18 |
| T 19 | 18 13 41 | 3°13'19 | 9♌50 | 13°23 | 21° 8 | 13°21 | 27°13 | 6°48 | 28°28 | 28°15 | 8°42 | 18°47 | 20° 9 | 8°56 | 18°38 | T 19 |
| F 20 | 18 17 38 | 4°10'30 | 24°32 | 15°22 | 21°46 | 13°55 | 27°12 | 6°53 | 28°30 | 28°17 | 8°42 | 18°42 | 20° 5 | 9° 2 | 18°40 | F 20 |
| S 21 | 18 21 34 | 5° 7'42 | 9II 17 | 17°19 | 22°26 | 14°29 | 27°10 | 6°57 | 28°32 | 28°19 | 8°42 | 18°36 | 20° 2 | 9° 9 | 18°41 | S 21 |
| S 22 | 18 25 31 | 6° 4'54 | 23°58 | 19°15 | 23° 7 | 15° 3 | 27° 7 | 7° 2 | 28°33 | 28°21 | 8°43 | 18°29 | 19°59 | 9°16 | 18°43 | S 22 |
| M23 | 18 29 28 | 7° 2'07 | 8♌28 | 21° 9 | 23°49 | 15°37 | 27° 5 | 7° 7 | 28°35 | 28°23 | 8°43 | 18°24 | 19°56 | 9°23 | 18°44 | M23 |
| T 24 | 18 33 24 | 7°59'20 | 22°40 | 23° 1 | 24°32 | 16°11 | 27° 2 | 7°12 | 28°37 | 28°25 | 8°43 | 18°19 | 19°53 | 9°29 | 18°45 | T 24 |
| W25 | 18 37 21 | 8°56'33 | 6♌29 | 24°51 | 25°15 | 16°46 | 26°59 | 7°17 | 28°38 | 28°27 | 8°43 | 18°17 | 19°50 | 9°36 | 18°47 | W25 |
| T 26 | 18 41 17 | 9°53'47 | 19°55 | 26°39 | 26° 0 | 17°20 | 26°57 | 7°22 | 28°40 | 28°29 | 8°43 | 18°D17 | 19°46 | 9°43 | 18°48 | T 26 |
| F 27 | 18 45 14 | 10°51'00 | 2♌56 | 28°25 | 26°46 | 17°55 | 26°53 | 7°27 | 28°42 | 28°32 | 8°44 | 18°17 | 19°43 | 9°50 | 18°49 | F 27 |
| S 28 | 18 49 10 | 11°48'14 | 15°35 | 0♌9 | 27°32 | 18°30 | 26°50 | 7°32 | 28°43 | 28°34 | 8°44 | 18°19 | 19°40 | 9°56 | 18°50 | S 28 |
| S 29 | 18 53 7 | 12°45'28 | 27°56 | 1°52 | 28°19 | 19° 4 | 26°46 | 7°37 | 28°45 | 28°36 | 8°44 | 18°20 | 19°37 | 10° 3 | 18°51 | S 29 |
| M30 | 18 57 3 | 13♌42'42 | 10♌3 | 3♌32 | 29♌7 | 19♌40 | 26♌43 | 7♌43 | 28♌46 | 28♌38 | 8♌44 | 18°R21 | 19♌34 | 10♌10 | 18♌52 | M30 |

Delta T = 17m54s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1096
geocentric

JULY 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♁ | ♂ | ♆ | ♁ | ♃ | ♄ | ♅ | ♁ | ♁ | ♃ | ♄ | Day |
|------|----------|------------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|------|-----|
| T 1 | 19 1 0 | 14 ⁵ 39'57 | 22 ² 1 | 5 ⁵ 11 | 29 ⁸ 56 | 20 ⁷ 15 | 26 ⁰ R39 | 7 ⁷ 48 | 28 ⁷ 47 | 28 ² 40 | 8 ⁷ 44 | 18 ⁰ R21 | 19 ² 30 | 10 ⁷ 16 | 18 ⁷ 53 | T 1 | |
| W 2 | 19 4 57 | 15 ⁵ 37'12 | 3 ⁷ 54 | 6 ⁴ 48 | 0 ¹¹ 45 | 20 ⁵ 50 | 26 ² 35 | 7 ⁵ 53 | 28 ⁴ 49 | 28 ⁴ 42 | 8 ⁴ 44 | 18 ² 19 | 19 ² 27 | 10 ² 23 | 18 ⁵ 54 | W 2 | |
| T 3 | 19 8 53 | 16 ⁶ 34'27 | 15 ⁴ 47 | 8 ² 23 | 1 ³ 35 | 21 ² 25 | 26 ³ 1 | 7 ⁵ 59 | 28 ⁵ 50 | 28 ⁴ 45 | 8 ⁰ R44 | 18 ¹ 16 | 19 ² 24 | 10 ³ 30 | 18 ⁵ 54 | T 3 | |
| F 4 | 19 12 50 | 17 ⁷ 31'43 | 27 ⁴ 45 | 9 ⁵ 56 | 2 ² 26 | 22 ¹ 1 | 26 ² 26 | 8 ⁴ 4 | 28 ⁵ 51 | 28 ⁴ 47 | 8 ⁴ 44 | 18 ¹ 12 | 19 ² 21 | 10 ³ 37 | 18 ⁵ 55 | F 4 | |
| S 5 | 19 16 46 | 18 ⁸ 29'00 | 9 ⁷ 50 | 11 ² 28 | 3 ¹ 17 | 22 ² 36 | 26 ² 22 | 8 ¹⁰ 10 | 28 ⁵ 52 | 28 ⁴ 49 | 8 ⁴ 44 | 18 ⁰ 8 | 19 ¹ 18 | 10 ⁴ 43 | 18 ⁵ 56 | S 5 | |
| S 6 | 19 20 43 | 19 ⁹ 26'17 | 22 ³ 5 | 12 ³ 57 | 4 ⁰ 9 | 23 ³ 12 | 26 ¹ 17 | 8 ¹⁶ 16 | 28 ⁵ 54 | 28 ⁵ 51 | 8 ⁴ 44 | 18 ⁰ 3 | 19 ¹ 15 | 10 ⁵ 50 | 18 ⁵ 56 | S 6 | |
| M 7 | 19 24 39 | 20 ¹⁰ 23'34 | 4 ⁸ 33 | 14 ⁴ 25 | 5 ¹ 2 | 23 ⁴ 48 | 26 ¹ 12 | 8 ²¹ 21 | 28 ⁵ 55 | 28 ⁵ 53 | 8 ⁴ 44 | 17 ⁵ 58 | 19 ¹ 11 | 10 ⁵ 57 | 18 ⁵ 57 | M 7 | |
| T 8 | 19 28 36 | 21 ¹¹ 20'53 | 17 ¹ 13 | 15 ⁵ 50 | 5 ⁵ 55 | 24 ⁵ 24 | 26 ⁰ 7 | 8 ²⁷ 27 | 28 ⁵ 56 | 28 ⁵ 56 | 8 ⁴ 44 | 17 ⁵ 55 | 19 ⁰ 8 | 11 ¹ 3 | 18 ⁵ 57 | T 8 | |
| W 9 | 19 32 32 | 22 ¹² 18'12 | 0 ¹⁰ 8 | 17 ¹ 14 | 6 ⁴ 49 | 25 ⁰ 0 | 26 ⁰ 2 | 8 ³³ 33 | 28 ⁵ 57 | 28 ⁵ 58 | 8 ⁴ 43 | 17 ⁵ 52 | 19 ⁰ 5 | 11 ¹ 10 | 18 ⁵ 58 | W 9 | |
| T 10 | 19 36 29 | 23 ¹³ 15'32 | 13 ¹ 16 | 18 ² 36 | 7 ⁴ 43 | 25 ¹ 36 | 25 ¹ 57 | 8 ³⁹ 39 | 28 ⁵ 58 | 29 ⁰ 0 | 8 ⁴ 43 | 17 ⁵ D51 | 19 ⁰ 2 | 11 ¹ 17 | 18 ⁵ 58 | T 10 | |
| F 11 | 19 40 26 | 24 ¹⁴ 12'52 | 26 ² 37 | 19 ³ 55 | 8 ³ 38 | 26 ¹ 12 | 25 ² 51 | 8 ⁴⁵ 45 | 28 ⁵ 59 | 29 ⁰ 2 | 8 ⁴ 43 | 17 ⁵ 52 | 18 ⁵ 59 | 11 ² 4 | 18 ⁵ 59 | F 11 | |
| S 12 | 19 44 22 | 25 ¹⁵ 10'14 | 10 ¹¹ 10 | 21 ⁴ 13 | 9 ³ 33 | 26 ² 49 | 25 ³ 45 | 8 ⁵¹ 51 | 29 ⁰ 0 | 29 ⁰ 4 | 8 ⁴ 43 | 17 ⁵ 53 | 18 ⁵ 56 | 11 ³ 0 | 18 ⁵ 59 | S 12 | |
| S 13 | 19 48 19 | 26 ¹⁶ 7'37 | 23 ¹² 54 | 22 ⁵ 28 | 10 ⁴ 29 | 27 ³ 25 | 25 ⁴ 40 | 8 ⁵⁷ 57 | 29 ⁰ 0 | 29 ⁰ 7 | 8 ⁴ 43 | 17 ⁵ 54 | 18 ⁵ 52 | 11 ³ 7 | 18 ⁵ 59 | S 13 | |
| M14 | 19 52 15 | 27 ¹⁷ 5'01 | 7 ¹³ 49 | 23 ⁶ 42 | 11 ⁵ 25 | 28 ⁴ 2 | 25 ⁵ 34 | 9 ³ 3 | 29 ⁰ 1 | 29 ⁰ 9 | 8 ⁴ 43 | 17 ⁵ 55 | 18 ⁵ 49 | 11 ⁴ 4 | 18 ⁵ 59 | M14 | |
| T 15 | 19 56 12 | 28 ¹⁸ 2'27 | 21 ¹⁵ 54 | 24 ⁷ 53 | 12 ⁶ 22 | 28 ⁵ 39 | 25 ⁶ 28 | 9 ⁹ 9 | 29 ⁰ 2 | 29 ¹ 11 | 8 ⁴ 42 | 17 ⁵ R56 | 18 ⁵ 46 | 11 ⁵ 1 | 19 ⁰ 0 | T 15 | |
| W16 | 20 0 8 | 28 ¹⁹ 59'54 | 6 ¹⁶ 6 | 26 ⁸ 1 | 13 ⁷ 19 | 29 ⁶ 15 | 25 ⁷ 21 | 9 ¹⁶ 16 | 29 ⁰ 3 | 29 ¹ 3 | 8 ⁴ 42 | 17 ⁵ 56 | 18 ⁵ 43 | 11 ⁵ 7 | 19 ⁰ 0 | W16 | |
| T 17 | 20 4 5 | 29 ²⁰ 57'22 | 20 ¹⁷ 24 | 27 ⁹ 8 | 14 ⁸ 17 | 29 ⁷ 52 | 25 ⁸ 15 | 9 ²² 22 | 29 ⁰ 3 | 29 ¹ 16 | 8 ⁴ 42 | 17 ⁵ 55 | 18 ⁵ 40 | 12 ⁶ 4 | 19 ⁰ R 0 | T 17 | |
| F 18 | 20 8 1 | 0 ²¹ 54'52 | 4 ¹⁸ 44 | 28 ¹⁰ 12 | 15 ⁹ 15 | 0 ²² 29 | 25 ⁹ 9 | 9 ²⁸ 28 | 29 ⁰ 4 | 29 ¹ 18 | 8 ⁴ 41 | 17 ⁵ 53 | 18 ⁵ 36 | 12 ⁷ 11 | 19 ⁰ 0 | F 18 | |
| S 19 | 20 11 58 | 1 ²² 52'23 | 19 ¹⁹ 3 | 29 ¹⁰ 13 | 16 ¹⁰ 14 | 1 ⁶ 6 | 25 ¹⁰ 2 | 9 ³⁵ 35 | 29 ⁰ 4 | 29 ² 20 | 8 ⁴ 41 | 17 ⁵ 51 | 18 ⁵ 33 | 12 ⁸ 17 | 18 ⁵ 59 | S 19 | |
| S 20 | 20 15 55 | 2 ²³ 49'55 | 3 ²⁰ 17 | 0 ²¹ 11 | 17 ¹¹ 13 | 1 ¹⁴ 14 | 24 ¹¹ 55 | 9 ⁴¹ 41 | 29 ⁰ 5 | 29 ² 22 | 8 ⁴ 41 | 17 ⁵ 50 | 18 ⁵ 30 | 12 ⁹ 24 | 18 ⁵ 59 | S 20 | |
| M21 | 20 19 51 | 3 ²⁴ 47'29 | 17 ²¹ 1 | 1 ⁷ 7 | 18 ¹² 12 | 2 ²¹ 21 | 24 ¹² 48 | 9 ⁴⁷ 47 | 29 ⁰ 5 | 29 ² 24 | 8 ⁴ 40 | 17 ⁵ 48 | 18 ⁵ 27 | 12 ¹⁰ 31 | 18 ⁵ 59 | M21 | |
| T 22 | 20 23 48 | 4 ²⁵ 45'04 | 1 ²² 11 | 2 ⁰ 0 | 19 ¹³ 12 | 2 ⁵⁸ 58 | 24 ¹³ 42 | 9 ⁵⁴ 54 | 29 ⁰ 6 | 29 ² 27 | 8 ⁴ 40 | 17 ⁵ 47 | 18 ⁵ 24 | 12 ¹¹ 38 | 18 ⁵ 59 | T 22 | |
| W23 | 20 27 44 | 5 ²⁶ 42'40 | 14 ²³ 44 | 2 ⁹ 49 | 20 ¹⁴ 12 | 3 ³⁶ 36 | 24 ¹⁴ 35 | 10 ⁰ 0 | 29 ⁰ 6 | 29 ² 29 | 8 ⁴ 40 | 17 ⁵ D46 | 18 ⁵ 21 | 12 ¹² 44 | 18 ⁵ 59 | W23 | |
| T 24 | 20 31 41 | 6 ²⁷ 40'18 | 27 ²⁴ 59 | 3 ³⁶ 36 | 21 ¹⁵ 12 | 4 ¹³ 13 | 24 ¹⁵ 27 | 10 ⁷ 7 | 29 ⁰ 6 | 29 ³ 1 | 8 ³ 39 | 17 ⁵ 46 | 18 ⁵ 17 | 12 ¹³ 51 | 18 ⁵ 58 | T 24 | |
| F 25 | 20 35 37 | 7 ²⁸ 37'56 | 10 ²⁵ 54 | 4 ¹⁹ 19 | 22 ¹⁶ 13 | 4 ⁵¹ 51 | 24 ¹⁶ 20 | 10 ¹⁴ 14 | 29 ⁰ 6 | 29 ³ 3 | 8 ³ 39 | 17 ⁵ 47 | 18 ⁵ 14 | 12 ¹⁴ 58 | 18 ⁵ 58 | F 25 | |
| S 26 | 20 39 34 | 8 ²⁹ 35'36 | 23 ²⁶ 31 | 4 ⁵⁸ 58 | 23 ¹⁷ 14 | 5 ²⁹ 29 | 24 ¹⁷ 13 | 10 ²⁰ 20 | 29 ⁰ 7 | 29 ³ 6 | 8 ³ 38 | 17 ⁵ 48 | 18 ⁵ 11 | 13 ¹⁵ 5 | 18 ⁵ 57 | S 26 | |
| S 27 | 20 43 31 | 9 ³⁰ 33'16 | 5 ²⁷ 51 | 5 ³³ 33 | 24 ¹⁸ 15 | 6 ⁷ 7 | 24 ¹⁸ 6 | 10 ²⁷ 27 | 29 ⁰ 7 | 29 ³ 8 | 8 ³ 38 | 17 ⁵ 49 | 18 ⁵ 8 | 13 ¹⁶ 11 | 18 ⁵ 57 | S 27 | |
| M28 | 20 47 27 | 10 ³¹ 30'58 | 17 ²⁸ 59 | 6 ⁴ 4 | 25 ¹⁹ 17 | 6 ⁴⁵ 45 | 23 ¹⁹ 58 | 10 ³⁴ 34 | 29 ⁰ 7 | 29 ⁴ 0 | 8 ³ 37 | 17 ⁵ 49 | 18 ⁵ 5 | 13 ¹⁷ 18 | 18 ⁵ 56 | M28 | |
| T 29 | 20 51 24 | 11 ³² 28'41 | 29 ²⁹ 58 | 6 ³¹ 31 | 26 ²⁰ 19 | 7 ²³ 23 | 23 ²⁰ 51 | 10 ⁴¹ 41 | 29 ⁰ 7 | 29 ⁴ 2 | 8 ³ 37 | 17 ⁵ 50 | 18 ⁵ 1 | 13 ¹⁸ 25 | 18 ⁵ 56 | T 29 | |
| W30 | 20 55 20 | 12 ³³ 26'25 | 11 ³¹ 52 | 6 ⁵³ 53 | 27 ²¹ 18 | 8 ¹ 1 | 23 ²¹ 43 | 10 ⁴⁷ 47 | 29 ⁰ 7 | 29 ⁴ 4 | 8 ³ 36 | 17 ⁵ R50 | 17 ⁵ 58 | 13 ¹⁹ 31 | 18 ⁵ 55 | W30 | |
| T 31 | 20 59 17 | 13 ³⁴ 24'11 | 23 ³² 46 | 7 ¹¹ 11 | 28 ²² 14 | 8 ⁴⁰ 40 | 23 ²² 35 | 10 ⁵⁴ 54 | 29 ⁰ 7 | 29 ⁵ 4 | 8 ³ 35 | 17 ⁵ 55 | 17 ⁵ 55 | 13 ²⁰ 38 | 18 ⁵ 54 | T 31 | |

Delta T = 17m54s Julian Calendar 1 July 1096 == Greg. Calendar 7 July 1096

AUGUST 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♁ | ♂ | ♆ | ♁ | ♃ | ♄ | ♅ | ♁ | ♁ | ♃ | ♄ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|----------------------|---------------------|---------------------|--------------------|--------------------|---------------------|--------------------|---------------------|---------------------|------|-----|
| F 1 | 21 3 13 | 14 ³⁵ 21'57 | 5 ²⁷ 44 | 7 ¹² 23 | 29 ¹¹ 26 | 9 ¹⁸ 18 | 23 ²³ R28 | 11 ¹¹ 11 | 29 ⁰ R 7 | 29 ⁵ 49 | 8 ⁰ R35 | 17 ⁵ R50 | 17 ⁵ 52 | 13 ¹⁴ 45 | 18 ⁰ R53 | F 1 | |
| S 2 | 21 7 10 | 15 ³⁶ 19'45 | 17 ⁵¹ 51 | 7 ³⁰ 30 | 0 ²⁹ 29 | 9 ⁵⁷ 57 | 23 ²⁴ 20 | 11 ⁸ 8 | 29 ⁰ Y 6 | 29 ⁵ 51 | 8 ⁰ Y34 | 17 ⁵ 49 | 17 ⁴ 49 | 13 ¹⁵ 52 | 18 ⁰ Y52 | S 2 | |
| S 3 | 21 11 6 | 16 ³⁷ 17'34 | 0 ³⁰ 11 | 7 ³⁹ 32 | 1 ³³ 33 | 10 ³⁵ 35 | 23 ²⁵ 12 | 11 ¹⁵ 15 | 29 ⁰ 6 | 29 ⁵ 53 | 8 ⁰ 34 | 17 ⁴ 49 | 17 ⁴ 46 | 13 ¹⁶ 58 | 18 ⁰ 52 | S 3 | |
| M 4 | 21 15 3 | 17 ³⁸ 15'25 | 12 ⁴⁶ 46 | 7 ⁴⁸ 28 | 2 ³⁷ 37 | 11 ¹⁴ 14 | 23 ²⁶ 4 | 11 ²² 22 | 29 ⁰ 6 | 29 ⁵ 55 | 8 ⁰ 33 | 17 ⁴ 49 | 17 ⁴ 42 | 14 ¹ 5 | 18 ⁰ 51 | M 4 | |
| T 5 | 21 19 0 | 18 ³⁹ 13'17 | 25 ³⁹ 39 | 7 ¹⁸ 18 | 3 ⁴⁰ 40 | 11 ⁵³ 53 | 22 ²⁵ 7 | 11 ²⁹ 29 | 29 ⁰ 6 | 29 ⁵ 57 | 8 ⁰ 32 | 17 ⁴ D49 | 17 ³ 39 | 14 ² 12 | 18 ⁰ 50 | T 5 | |
| W 6 | 21 22 56 | 19 ⁴⁰ 11'10 | 8 ⁴⁸ 50 | 7 ³ 3 | 4 ⁴⁵ 45 | 12 ³¹ 31 | 22 ²⁴ 9 | 11 ³⁶ 36 | 29 ⁰ 5 | 29 ⁵ 59 | 8 ⁰ 32 | 17 ⁴ 49 | 17 ³ 36 | 14 ³ 18 | 18 ⁰ 49 | W 6 | |
| T 7 | 21 26 53 | 20 ⁴¹ 9'05 | 22 ²⁰ 20 | 6 ⁴¹ 41 | 5 ⁴⁹ 49 | 13 ¹⁰ 10 | 22 ²⁴ 1 | 11 ⁴³ 43 | 29 ⁰ 5 | 0 ⁰ 2 | 8 ⁰ 31 | 17 ⁴ R49 | 17 ³ 33 | 14 ⁴ 25 | 18 ⁰ 47 | T 7 | |
| F 8 | 21 30 49 | 21 ⁴² 7'01 | 6 ⁵⁸ 58 | 6 ¹³ 13 | 6 ⁵⁴ 54 | 13 ¹⁹ 19 | 22 ²³ 33 | 11 ⁵⁰ 50 | 29 ⁰ 4 | 0 ⁴ 4 | 8 ⁰ 30 | 17 ⁴ 49 | 17 ³ 30 | 14 ⁵ 32 | 18 ⁰ 46 | F 8 | |
| S 9 | 21 34 46 | 22 ⁴³ 4'59 | 20 ⁷ 7 | 5 ⁴⁰ 40 | 7 ⁵⁹ 59 | 14 ²⁸ 28 | 22 ²² 25 | 11 ⁵⁷ 57 | 29 ⁰ 4 | 0 ⁶ 6 | 8 ⁰ 30 | 17 ⁴ 49 | 17 ² 27 | 14 ⁶ 39 | 18 ⁰ 45 | S 9 | |
| S 10 | 21 38 42 | 23 ⁴⁴ 2'59 | 4 ⁵⁷ 57 | 5 ¹ 1 | 9 ⁴ 4 | 15 ⁸ 8 | 22 ²¹ 17 | 12 ⁵ 5 | 29 ⁰ 3 | 0 ⁸ 8 | 8 ⁰ 29 | 17 ⁴ 48 | 17 ² 23 | 14 ⁷ 45 | 18 ⁰ 44 | S 10 | |
| M11 | 21 42 39 | 24 ⁴⁵ 1'00 | 18 ³⁴ 34 | 4 ¹⁶ 16 | 10 ⁹ 9 | 15 ⁴⁷ 47 | 22 ²⁰ 9 | 12 ¹² 12 | 29 ⁰ 3 | 0 ¹⁰ 10 | 8 ⁰ 28 | 17 ⁴ 48 | 17 ² 20 | 14 ⁸ 52 | 18 ⁰ 42 | M11 | |
| T 12 | 21 46 35 | 24 ⁴⁶ 59'04 | 2 ⁵³ 53 | 3 ²⁸ 28 | 11 ¹⁵ 15 | 16 ²⁶ 26 | 22 ¹ 1 | 12 ¹⁹ 19 | 29 ⁰ 2 | 0 ¹² 12 | 8 ⁰ 27 | 17 ⁴ 47 | 17 ¹ 17 | 14 ⁹ 59 | 18 ⁰ 41 | T 12 | |
| W13 | 21 50 32 | 25 ⁴⁸ 57'10 | 17 ¹¹ 11 | 2 ³⁵ 35 | 12 ²⁰ 20 | 17 ⁶ 6 | 21 ⁵ 53 | 12 ²⁶ 26 | 29 ⁰ 1 | 0 ¹⁴ 14 | 8 ⁰ 26 | 17 ⁴ 47 | 17 ¹ 14 | 15 ⁰ 6 | 18 ⁰ 40 | W13 | |
| T 14 | 21 54 28 | 26 ⁵⁰ 55'17 | 1 ¹¹ 24 | 1 ³⁹ 39 | 13 ²⁶ 26 | 17 ⁴⁵ 45 | 21 ⁴⁶ 46 | 12 ³³ 33 | 29 ⁰ 1 | 0 ¹⁶ 16 | 8 ⁰ 26 | 17 ⁴ D46 | 17 ¹ 11 | 15 ¹ 12 | 18 ⁰ 38 | T 14 | |
| F 15 | 21 58 25 | 27 ⁵² 53'27 | 15< | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1096
geocentric

SEPTEMBER 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|--------|-------|-------|-------|--------|-------|--------|------|-------|--------|-------|-------|--------|------|-----|
| M 1 | 23 5 26 | 14♐27'05 | 20♌38 | 26♊36 | 3♉46 | 29♋53 | 19°R34 | 14♐46 | 28°R39 | 0♈50 | 8°R 9 | 17♋36 | 16♋13 | 17♌13 | 18°R 4 | M 1 | |
| T 2 | 23 9 23 | 15°25'48 | 3♋36 | 27°35 | 4°56 | 0♈34 | 19♋28 | 14°54 | 28°Y38 | 0°52 | 8°Y 8 | 17°38 | 16°10 | 17°20 | 18°Y 2 | T 2 | |
| W 3 | 23 13 20 | 16°24'33 | 16°57 | 28°41 | 6° 5 | 1°15 | 19°22 | 15° 1 | 28°36 | 0°53 | 8° 7 | 17°R39 | 16° 7 | 17°27 | 18° 0 | W 3 | |
| T 4 | 23 17 16 | 17°23'19 | 0♈42 | 29°54 | 7°15 | 1°57 | 19°15 | 15° 8 | 28°34 | 0°55 | 8° 6 | 17°38 | 16° 4 | 17°33 | 17°57 | T 4 | |
| F 5 | 23 21 13 | 18°22'07 | 14°50 | 1♐13 | 8°24 | 2°38 | 19° 9 | 15°16 | 28°33 | 0°57 | 8° 5 | 17°36 | 16° 1 | 17°40 | 17°55 | F 5 | |
| S 6 | 23 25 9 | 19°20'58 | 29°17 | 2°36 | 9°34 | 3°20 | 19° 4 | 15°23 | 28°31 | 0°58 | 8° 4 | 17°32 | 15°58 | 17°47 | 17°52 | S 6 | |
| S 7 | 23 29 6 | 20°19'50 | 13°Y56 | 4° 5 | 10°44 | 4° 1 | 18°58 | 15°31 | 28°29 | 1° 0 | 8° 2 | 17°28 | 15°54 | 17°54 | 17°50 | S 7 | |
| M 8 | 23 33 2 | 21°18'45 | 28°41 | 5°37 | 11°54 | 4°43 | 18°52 | 15°38 | 28°27 | 1° 2 | 8° 1 | 17°23 | 15°51 | 18° 0 | 17°47 | M 8 | |
| T 9 | 23 36 59 | 22°17'42 | 13♌23 | 7°12 | 13° 5 | 5°25 | 18°47 | 15°45 | 28°26 | 1° 3 | 8° 0 | 17°18 | 15°48 | 18° 7 | 17°45 | T 9 | |
| W10 | 23 40 55 | 23°16'41 | 27°57 | 8°51 | 14°15 | 6° 6 | 18°42 | 15°53 | 28°24 | 1° 5 | 7°59 | 17°14 | 15°45 | 18°14 | 17°42 | W10 | |
| T 11 | 23 44 52 | 24°15'43 | 12♈17 | 10°31 | 15°25 | 6°48 | 18°37 | 16° 0 | 28°22 | 1° 6 | 7°58 | 17°12 | 15°42 | 18°21 | 17°40 | T 11 | |
| F 12 | 23 48 49 | 25°14'47 | 26°22 | 12°14 | 16°36 | 7°30 | 18°32 | 16° 8 | 28°20 | 1° 8 | 7°57 | 17°D12 | 15°39 | 18°27 | 17°37 | F 12 | |
| S 13 | 23 52 45 | 26°13'54 | 10♌9 | 13°57 | 17°47 | 8°12 | 18°27 | 16°15 | 28°18 | 1° 9 | 7°56 | 17°12 | 15°35 | 18°34 | 17°35 | S 13 | |
| S 14 | 23 56 42 | 27°13'03 | 23°39 | 15°42 | 18°58 | 8°55 | 18°22 | 16°22 | 28°16 | 1°11 | 7°55 | 17°14 | 15°32 | 18°41 | 17°32 | S 14 | |
| M15 | 0 0 38 | 28°12'14 | 6♈54 | 17°28 | 20° 9 | 9°37 | 18°18 | 16°30 | 28°14 | 1°12 | 7°54 | 17°15 | 15°29 | 18°47 | 17°29 | M15 | |
| T 16 | 0 4 35 | 29°11'27 | 19°55 | 19°14 | 21°20 | 10°19 | 18°14 | 16°37 | 28°12 | 1°13 | 7°52 | 17°R15 | 15°26 | 18°54 | 17°27 | T 16 | |
| W17 | 0 8 31 | 0♉10'43 | 2♐44 | 21° 1 | 22°31 | 11° 1 | 18°10 | 16°44 | 28°10 | 1°15 | 7°51 | 17°14 | 15°23 | 19° 1 | 17°24 | W17 | |
| T 18 | 0 12 28 | 1°10'01 | 15°21 | 22°47 | 23°43 | 11°44 | 18° 6 | 16°52 | 28° 8 | 1°16 | 7°50 | 17°11 | 15°19 | 19° 8 | 17°21 | T 18 | |
| F 19 | 0 16 24 | 2° 9'21 | 27°48 | 24°34 | 24°54 | 12°26 | 18° 2 | 16°59 | 28° 6 | 1°17 | 7°49 | 17° 5 | 15°16 | 19°14 | 17°19 | F 19 | |
| S 20 | 0 20 21 | 3° 8'43 | 10♋5 | 26°20 | 26° 6 | 13° 9 | 17°59 | 17° 6 | 28° 3 | 1°19 | 7°48 | 16°58 | 15°13 | 19°21 | 17°16 | S 20 | |
| S 21 | 0 24 18 | 4° 8'07 | 22°13 | 28° 6 | 27°17 | 13°52 | 17°55 | 17°13 | 28° 1 | 1°20 | 7°47 | 16°49 | 15°10 | 19°28 | 17°13 | S 21 | |
| M22 | 0 28 14 | 5° 7'34 | 4♈14 | 29°51 | 28°29 | 14°35 | 17°52 | 17°21 | 27°59 | 1°21 | 7°45 | 16°40 | 15° 7 | 19°34 | 17°10 | M22 | |
| T 23 | 0 32 11 | 6° 7'02 | 16° 9 | 1♋36 | 29°41 | 15°17 | 17°49 | 17°28 | 27°57 | 1°22 | 7°44 | 16°30 | 15° 4 | 19°41 | 17° 8 | T 23 | |
| W24 | 0 36 7 | 7° 6'32 | 28° 0 | 3°21 | 0♐53 | 16° 0 | 17°47 | 17°35 | 27°54 | 1°23 | 7°43 | 16°22 | 15° 0 | 19°48 | 17° 5 | W24 | |
| T 25 | 0 40 4 | 8° 6'04 | 9♌51 | 5° 5 | 2° 5 | 16°43 | 17°44 | 17°42 | 27°52 | 1°24 | 7°42 | 16°16 | 14°57 | 19°55 | 17° 2 | T 25 | |
| F 26 | 0 44 0 | 9° 5'38 | 21°45 | 6°48 | 3°17 | 17°26 | 17°42 | 17°49 | 27°50 | 1°25 | 7°41 | 16°12 | 14°54 | 20° 1 | 16°59 | F 26 | |
| S 27 | 0 47 57 | 10° 5'14 | 3♌47 | 8°31 | 4°29 | 18° 9 | 17°39 | 17°56 | 27°48 | 1°27 | 7°40 | 16°10 | 14°51 | 20° 8 | 16°56 | S 27 | |
| S 28 | 0 51 53 | 11° 4'51 | 16° 1 | 10°13 | 5°42 | 18°53 | 17°38 | 18° 3 | 27°45 | 1°28 | 7°39 | 16°D10 | 14°48 | 20°15 | 16°53 | S 28 | |
| M29 | 0 55 50 | 12° 4'30 | 28°33 | 11°55 | 6°54 | 19°36 | 17°36 | 18°10 | 27°43 | 1°29 | 7°37 | 16°11 | 14°44 | 20°22 | 16°50 | M29 | |
| T 30 | 0 59 47 | 13♋4'12 | 11♋28 | 13♋36 | 8♐7 | 20♈19 | 17♋34 | 18♐17 | 27°Y41 | 1°30 | 7°Y36 | 16°R12 | 14♋41 | 20♈28 | 16°Y48 | T 30 | |

Delta T = 17m53s Julian Calendar 1 Sept. 1096 == Greg. Calendar 7 Sept. 1096

OCTOBER 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|--------|-------|-------|--------|-------|-------|--------|------|-----|
| W 1 | 1 3 43 | 14♋3'54 | 24♋48 | 15♋16 | 9♐19 | 21♈3 | 17°R33 | 18♐24 | 27°R38 | 1♈30 | 7°R35 | 16°R12 | 14♋38 | 20♈35 | 16°R45 | W 1 | |
| T 2 | 1 7 40 | 15° 3'39 | 8♈37 | 16°55 | 10°32 | 21°46 | 17♋32 | 18°31 | 27°Y36 | 1°31 | 7°Y34 | 16♋10 | 14°35 | 20°42 | 16°Y42 | T 2 | |
| F 3 | 1 11 36 | 16° 3'25 | 22°57 | 18°35 | 11°45 | 22°30 | 17°31 | 18°38 | 27°33 | 1°32 | 7°33 | 16° 5 | 14°32 | 20°48 | 16°39 | F 3 | |
| S 4 | 1 15 33 | 17° 3'13 | 7°Y37 | 20°13 | 12°57 | 23°13 | 17°30 | 18°45 | 27°31 | 1°33 | 7°32 | 15°58 | 14°29 | 20°55 | 16°36 | S 4 | |
| S 5 | 1 19 29 | 18° 3'03 | 22°38 | 21°51 | 14°10 | 23°57 | 17°30 | 18°52 | 27°28 | 1°34 | 7°31 | 15°49 | 14°25 | 21° 2 | 16°33 | S 5 | |
| M 6 | 1 23 26 | 19° 2'55 | 7♌47 | 23°28 | 15°23 | 24°41 | 17°29 | 18°59 | 27°26 | 1°35 | 7°29 | 15°39 | 14°22 | 21° 9 | 16°30 | M 6 | |
| T 7 | 1 27 22 | 20° 2'50 | 22°54 | 25° 5 | 16°36 | 25°25 | 17°D29 | 19° 5 | 27°24 | 1°35 | 7°28 | 15°30 | 14°19 | 21°15 | 16°28 | T 7 | |
| W 8 | 1 31 19 | 21° 2'46 | 7♈50 | 26°41 | 17°50 | 26° 9 | 17°29 | 19°12 | 27°21 | 1°36 | 7°27 | 15°22 | 14°16 | 21°22 | 16°25 | W 8 | |
| T 9 | 1 35 15 | 22° 2'45 | 22°27 | 28°17 | 19° 3 | 26°52 | 17°29 | 19°19 | 27°19 | 1°37 | 7°26 | 15°16 | 14°13 | 21°29 | 16°22 | T 9 | |
| F 10 | 1 39 12 | 23° 2'46 | 6♌41 | 29°52 | 20°16 | 27°36 | 17°30 | 19°25 | 27°16 | 1°37 | 7°25 | 15°13 | 14°10 | 21°36 | 16°19 | F 10 | |
| S 11 | 1 43 9 | 24° 2'49 | 20°29 | 1♈27 | 21°29 | 28°21 | 17°31 | 19°32 | 27°14 | 1°38 | 7°24 | 15°D12 | 14° 6 | 21°42 | 16°16 | S 11 | |
| S 12 | 1 47 5 | 25° 2'55 | 3♈54 | 3° 1 | 22°43 | 29° 5 | 17°31 | 19°38 | 27°11 | 1°39 | 7°23 | 15°12 | 14° 3 | 21°49 | 16°13 | S 12 | |
| M13 | 1 51 2 | 26° 3'02 | 16°59 | 4°35 | 23°56 | 29°49 | 17°32 | 19°45 | 27° 9 | 1°39 | 7°22 | 15°R12 | 14° 0 | 21°56 | 16°10 | M13 | |
| T 14 | 1 54 58 | 27° 3'12 | 29°45 | 6° 9 | 25°10 | 0♌33 | 17°34 | 19°51 | 27° 6 | 1°40 | 7°21 | 15°11 | 13°57 | 22° 2 | 16° 8 | T 14 | |
| W15 | 1 58 55 | 28° 3'23 | 12♐18 | 7°42 | 26°24 | 1°18 | 17°35 | 19°58 | 27° 4 | 1°40 | 7°19 | 15° 8 | 13°54 | 22° 9 | 16° 5 | W15 | |
| T 16 | 2 2 51 | 29° 3'37 | 24°39 | 9°14 | 27°37 | 2° 2 | 17°37 | 20° 4 | 27° 1 | 1°41 | 7°18 | 15° 2 | 13°50 | 22°16 | 16° 2 | T 16 | |
| F 17 | 2 6 48 | 0♈3'52 | 6♋52 | 10°47 | 28°51 | 2°47 | 17°39 | 20°10 | 26°59 | 1°41 | 7°17 | 14°53 | 13°47 | 22°23 | 15°59 | F 17 | |
| S 18 | 2 10 44 | 1° 4'10 | 18°58 | 12°19 | 0♋5 | 3°31 | 17°41 | 20°17 | 26°56 | 1°41 | 7°16 | 14°42 | 13°44 | 22°29 | 15°57 | S 18 | |
| S 19 | 2 14 41 | 2° 4'29 | 0♈58 | 13°50 | 1°19 | 4°16 | 17°43 | 20°23 | 26°54 | 1°42 | 7°15 | 14°28 | 13°41 | 22°36 | 15°54 | S 19 | |
| M20 | 2 18 38 | 3° 4'51 | 12°54 | 15°21 | 2°33 | 5° 0 | 17°46 | 20°29 | 26°51 | 1°42 | 7°14 | 14°13 | 13°38 | 22°43 | 15°51 | M20 | |
| T 21 | 2 22 34 | 4° 5'14 | 24°46 | 16°52 | 3°47 | 5°45 | 17°48 | 20°35 | 26°49 | 1°42 | 7°13 | 13°59 | 13°35 | 22°49 | 15°48 | T 21 | |
| W22 | 2 26 31 | 5° 5'38 | 6♌37 | 18°22 | 5° 1 | 6°30 | 17°51 | 20°41 | 26°47 | 1°43 | 7°12 | 13°46 | 13°31 | 22°56 | 15°46 | W22 | |
| T 23 | 2 30 27 | 6° 6'04 | 18°28 | 19°52 | 6°15 | 7°15 | 17°54 | 20°47 | 26°44 | 1°43 | 7°11 | 13°35 | 13°28 | 23° 3 | 15°43 | T 23 | |
| F 24 | 2 34 24 | 7° 6'32 | 0♌22 | 21°22 | 7°29 | 8° 0 | 17°58 | 20°53 | 26°42 | 1°43 | 7°10 | 13°28 | 13°25 | 23°10 | 15°40 | F 24 | |
| S 25 | 2 38 20 | 8° 7'01 | 12°22 | 22°51 | 8°43 | 8°45 | 18° 1 | 20°59 | 26°39 | 1°43 | 7° 9 | 13°23 | 13°22 | 23°16 | 15°38 | S 25 | |
| S 26 | 2 42 17 | 9° 7'32 | 24°34 | 24°20 | 9°58 | 9°30 | 18° 5 | 21° 5 | 26°37 | 1°43 | 7° 8 | 13°21 | 13°19 | 23°23 | 15°35 | S 26 | |
| M27 | 2 46 13 | 10° 8'04 | 7♋0 | 25°48 | 11°12 | 10°15 | 18° 9 | 21°10 | 26°34 | 1°43 | 7° 7 | 13°20 | 13°16 | 23°30 | 15°33 | M27 | |
| T 28 | 2 50 10 | 11° 8'37 | 19°48 | 27°16 | 12°26 | 11° 0 | 18°13 | 21°16 | 26°32 | 1°R43 | 7° 6 | 13°20 | 13°12 | 23°37 | 15°30 | T 28 | |
| W29 | 2 54 7 | 12° 9'11 | 3♈1 | 28°43 | 13°40 | 11°45 | 18°17 | 21°22 | 26°30 | 1°43 | 7° 6 | 13°19 | 13° 9 | 23°43 | 15°28 | W29 | |
| T 30 | 2 58 3 | 13° 9'47 | 16°42 | 0♌10 | 14°55 | 12°31 | 18°21 | 21°27 | 26°27 | 1°43 | 7° 5 | 13°17 | 13° 6 | 23°50 | 15°25 | T 30 | |
| F 31 | 3 2 0 | 14♈10'24 | 0°Y54 | 1♌36 | 16♋9 | 13♌16 | 18♋26 | 21♐33 | 26°Y25 | 1°R43 | 7°Y 4 | 13♋11 | 13♋3 | 23♈57 | 15°Y23 | F 31 | |

Delta T = 17m53s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1096
geocentric

NOVEMBER 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|------|---|-----|
| S 1 | 3 5 56 | 15♐11'02 | 15♏35 | 3♌ 2 | 17♎24 | 14♌ 1 | 18♈31 | 21♍38 | 26♍23 | 1♑R43 | 7♑R 3 | 13♑R 3 | 13♎ 0 | 24♐ 3 | 15♑R20 | S 1 | | |
| S 2 | 3 9 53 | 16°11'41 | 0♉40 | 4°27 | 18°38 | 14°47 | 18°36 | 21°43 | 26♏20 | 1♒43 | 7♏ 2 | 12♎53 | 12°56 | 24°10 | 15♏18 | S 2 | | |
| M 3 | 3 13 49 | 17°12'22 | 15°59 | 5°51 | 19°53 | 15°32 | 18°41 | 21°49 | 26°18 | 1°43 | 7° 1 | 12°41 | 12°53 | 24°17 | 15°16 | M 3 | | |
| T 4 | 3 17 46 | 18°13'04 | 1♐22 | 7°14 | 21° 7 | 16°18 | 18°46 | 21°54 | 26°16 | 1°43 | 7° 0 | 12°30 | 12°50 | 24°24 | 15°13 | T 4 | | |
| W 5 | 3 21 42 | 19°13'48 | 16°35 | 8°36 | 22°22 | 17° 3 | 18°52 | 21°59 | 26°14 | 1°42 | 6°59 | 12°20 | 12°47 | 24°30 | 15°11 | W 5 | | |
| T 6 | 3 25 39 | 20°14'33 | 1♌29 | 9°56 | 23°37 | 17°49 | 18°57 | 22° 4 | 26°11 | 1°42 | 6°59 | 12°13 | 12°44 | 24°37 | 15° 9 | T 6 | | |
| F 7 | 3 29 36 | 21°15'20 | 15°58 | 11°16 | 24°51 | 18°35 | 19° 3 | 22° 9 | 26° 9 | 1°42 | 6°58 | 12° 8 | 12°41 | 24°44 | 15° 7 | F 7 | | |
| S 8 | 3 33 32 | 22°16'08 | 29°58 | 12°33 | 26° 6 | 19°20 | 19° 9 | 22°14 | 26° 7 | 1°41 | 6°57 | 12° 6 | 12°37 | 24°50 | 15° 4 | S 8 | | |
| S 9 | 3 37 29 | 23°16'58 | 13♏29 | 13°49 | 27°21 | 20° 6 | 19°15 | 22°19 | 26° 5 | 1°41 | 6°56 | 12°D 6 | 12°34 | 24°57 | 15° 2 | S 9 | | |
| M10 | 3 41 25 | 24°17'49 | 26°35 | 15° 3 | 28°36 | 20°52 | 19°22 | 22°23 | 26° 3 | 1°41 | 6°56 | 12°R 6 | 12°31 | 25° 4 | 15° 0 | M10 | | |
| T 11 | 3 45 22 | 25°18'42 | 9♐18 | 16°15 | 29°51 | 21°38 | 19°28 | 22°28 | 26° 1 | 1°40 | 6°55 | 12° 5 | 12°28 | 25°11 | 14°58 | T 11 | | |
| W12 | 3 49 18 | 26°19'36 | 21°45 | 17°23 | 1♐ 5 | 22°24 | 19°35 | 22°33 | 25°59 | 1°40 | 6°54 | 12° 2 | 12°25 | 25°17 | 14°56 | W12 | | |
| T 13 | 3 53 15 | 27°20'31 | 3♌58 | 18°29 | 2°20 | 23°10 | 19°42 | 22°37 | 25°57 | 1°39 | 6°54 | 11°57 | 12°22 | 25°24 | 14°54 | T 13 | | |
| F 14 | 3 57 11 | 28°21'28 | 16° 2 | 19°31 | 3°35 | 23°56 | 19°49 | 22°42 | 25°55 | 1°39 | 6°53 | 11°49 | 12°18 | 25°31 | 14°52 | F 14 | | |
| S 15 | 4 1 8 | 29°22'26 | 27°59 | 20°28 | 4°50 | 24°42 | 19°56 | 22°46 | 25°53 | 1°38 | 6°52 | 11°38 | 12°15 | 25°38 | 14°50 | S 15 | | |
| S 16 | 4 5 5 | 0♑23'25 | 9♐53 | 21°21 | 6° 5 | 25°28 | 20° 3 | 22°50 | 25°51 | 1°38 | 6°52 | 11°25 | 12°12 | 25°44 | 14°49 | S 16 | | |
| M17 | 4 9 1 | 1°24'26 | 21°45 | 22° 8 | 7°20 | 26°14 | 20°11 | 22°54 | 25°49 | 1°37 | 6°51 | 11°11 | 12° 9 | 25°51 | 14°47 | M17 | | |
| T 18 | 4 12 58 | 2°25'27 | 3♌37 | 22°50 | 8°35 | 27° 1 | 20°19 | 22°58 | 25°47 | 1°36 | 6°50 | 10°57 | 12° 6 | 25°58 | 14°45 | T 18 | | |
| W19 | 4 16 54 | 3°26'30 | 15°30 | 23°24 | 9°50 | 27°47 | 20°26 | 23° 2 | 25°45 | 1°36 | 6°50 | 10°44 | 12° 2 | 26° 4 | 14°43 | W19 | | |
| T 20 | 4 20 51 | 4°27'33 | 27°25 | 23°50 | 11° 5 | 28°33 | 20°34 | 23° 6 | 25°43 | 1°35 | 6°49 | 10°34 | 11°59 | 26°11 | 14°42 | T 20 | | |
| F 21 | 4 24 47 | 5°28'37 | 9♏24 | 24° 8 | 12°20 | 29°20 | 20°43 | 23°10 | 25°42 | 1°34 | 6°49 | 10°27 | 11°56 | 26°18 | 14°40 | F 21 | | |
| S 22 | 4 28 44 | 6°29'41 | 21°30 | 24°R16 | 13°35 | 0♉ 6 | 20°51 | 23°14 | 25°40 | 1°33 | 6°48 | 10°22 | 11°53 | 26°25 | 14°39 | S 22 | | |
| S 23 | 4 32 41 | 7°30'46 | 3♎45 | 24°14 | 14°51 | 0°52 | 20°59 | 23°17 | 25°38 | 1°32 | 6°48 | 10°20 | 11°50 | 26°31 | 14°37 | S 23 | | |
| M24 | 4 36 37 | 8°31'52 | 16°13 | 24° 1 | 16° 6 | 1°39 | 21° 8 | 23°21 | 25°37 | 1°32 | 6°47 | 10°D20 | 11°47 | 26°38 | 14°36 | M24 | | |
| T 25 | 4 40 34 | 9°32'58 | 28°59 | 23°36 | 17°21 | 2°25 | 21°17 | 23°24 | 25°35 | 1°31 | 6°47 | 10°21 | 11°43 | 26°45 | 14°34 | T 25 | | |
| W26 | 4 44 30 | 10°34'05 | 12♌ 5 | 23° 0 | 18°36 | 3°12 | 21°25 | 23°28 | 25°34 | 1°30 | 6°46 | 10°R21 | 11°40 | 26°51 | 14°33 | W26 | | |
| T 27 | 4 48 27 | 11°35'11 | 25°37 | 22°12 | 19°51 | 3°59 | 21°34 | 23°31 | 25°32 | 1°29 | 6°46 | 10°20 | 11°37 | 26°58 | 14°32 | T 27 | | |
| F 28 | 4 52 23 | 12°36'18 | 9♏36 | 21°14 | 21° 6 | 4°45 | 21°43 | 23°34 | 25°31 | 1°28 | 6°46 | 10°17 | 11°34 | 27° 5 | 14°31 | F 28 | | |
| S 29 | 4 56 20 | 13°37'26 | 24° 2 | 20° 7 | 22°21 | 5°32 | 21°53 | 23°37 | 25°29 | 1°27 | 6°45 | 10°12 | 11°31 | 27°12 | 14°29 | S 29 | | |
| S 30 | 5 0 16 | 14♌38'33 | 8♉52 | 18♌52 | 23♐36 | 6♉19 | 22♈ 2 | 23♐40 | 25♏28 | 1♒26 | 6♏45 | 10♈ 4 | 11♎27 | 27♐18 | 14♏28 | S 30 | | |

Delta T = 17m53s Julian Calendar 1 Nov. 1096 == Greg. Calendar 7 Nov. 1096

DECEMBER 1096 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|--------|-------|-------|-------|-------|-------|--------|------|-----|
| M 1 | 5 4 13 | 15♑39'41 | 24♌ 1 | 17°R32 | 24♐52 | 7♉ 5 | 22♈12 | 23♐43 | 25°R26 | 1°R25 | 6°R45 | 9°R56 | 11♎24 | 27♐25 | 14°R27 | M 1 | |
| T 2 | 5 8 10 | 16°40'50 | 9♐18 | 16♌ 9 | 26° 7 | 7°52 | 22°21 | 23°46 | 25°V25 | 1♒24 | 6♏44 | 9♎47 | 11°21 | 27°32 | 14°V26 | T 2 | |
| W 3 | 5 12 6 | 17°41'58 | 24°32 | 14°47 | 27°22 | 8°39 | 22°31 | 23°49 | 25°24 | 1°23 | 6°44 | 9°40 | 11°18 | 27°38 | 14°25 | W 3 | |
| T 4 | 5 16 3 | 18°43'08 | 9♌33 | 13°28 | 28°37 | 9°26 | 22°41 | 23°51 | 25°23 | 1°22 | 6°44 | 9°34 | 11°15 | 27°45 | 14°25 | T 4 | |
| F 5 | 5 19 59 | 19°44'17 | 24°11 | 12°14 | 29°52 | 10°13 | 22°51 | 23°54 | 25°21 | 1°20 | 6°44 | 9°31 | 11°12 | 27°52 | 14°24 | F 5 | |
| S 6 | 5 23 56 | 20°45'27 | 8♏23 | 11° 8 | 1♌ 8 | 10°59 | 23° 1 | 23°56 | 25°20 | 1°19 | 6°43 | 9°D30 | 11° 8 | 27°59 | 14°23 | S 6 | |
| S 7 | 5 27 52 | 21°46'38 | 22° 5 | 10°11 | 2°23 | 11°46 | 23°11 | 23°58 | 25°19 | 1°18 | 6°43 | 9°30 | 11° 5 | 28° 5 | 14°22 | S 7 | |
| M 8 | 5 31 49 | 22°47'49 | 5♐20 | 9°24 | 3°38 | 12°33 | 23°22 | 24° 0 | 25°18 | 1°17 | 6°43 | 9°31 | 11° 2 | 28°12 | 14°22 | M 8 | |
| T 9 | 5 35 45 | 23°49'00 | 18° 9 | 8°47 | 4°53 | 13°20 | 23°32 | 24° 3 | 25°17 | 1°16 | 6°43 | 9°R33 | 10°59 | 28°19 | 14°21 | T 9 | |
| W10 | 5 39 42 | 24°50'12 | 0♌38 | 8°21 | 6° 9 | 14° 7 | 23°43 | 24° 5 | 25°16 | 1°14 | 6°43 | 9°33 | 10°56 | 28°25 | 14°20 | W10 | |
| T 11 | 5 43 39 | 25°51'24 | 12°51 | 8° 5 | 7°24 | 14°54 | 23°53 | 24° 6 | 25°15 | 1°13 | 6°43 | 9°31 | 10°53 | 28°32 | 14°20 | T 11 | |
| F 12 | 5 47 35 | 26°52'36 | 24°53 | 7°D59 | 8°39 | 15°41 | 24° 4 | 24° 8 | 25°15 | 1°12 | 6°43 | 9°27 | 10°49 | 28°39 | 14°20 | F 12 | |
| S 13 | 5 51 32 | 27°53'49 | 6♐47 | 8° 3 | 9°55 | 16°28 | 24°15 | 24°10 | 25°14 | 1°10 | 6°42 | 9°21 | 10°46 | 28°46 | 14°19 | S 13 | |
| S 14 | 5 55 28 | 28°55'02 | 18°38 | 8°15 | 11°10 | 17°16 | 24°26 | 24°11 | 25°13 | 1° 9 | 6°42 | 9°14 | 10°43 | 28°52 | 14°19 | S 14 | |
| M15 | 5 59 25 | 29°56'15 | 0♑29 | 8°35 | 12°25 | 18° 3 | 24°37 | 24°13 | 25°12 | 1° 8 | 6°D42 | 9° 6 | 10°40 | 28°59 | 14°19 | M15 | |
| T 16 | 6 3 21 | 0♉57'29 | 12°23 | 9° 2 | 13°40 | 18°50 | 24°49 | 24°14 | 25°12 | 1° 6 | 6°42 | 8°59 | 10°37 | 29° 6 | 14°18 | T 16 | |
| W17 | 6 7 18 | 1°58'42 | 24°20 | 9°35 | 14°56 | 19°37 | 25° 0 | 24°15 | 25°11 | 1° 5 | 6°43 | 8°52 | 10°34 | 29°13 | 14°18 | W17 | |
| T 18 | 6 11 15 | 2°59'55 | 6♉23 | 10°14 | 16°11 | 20°24 | 25°11 | 24°16 | 25°11 | 1° 3 | 6°43 | 8°46 | 10°30 | 29°19 | 14°18 | T 18 | |
| F 19 | 6 15 11 | 4° 1'08 | 18°33 | 10°59 | 17°26 | 21°12 | 25°23 | 24°17 | 25°10 | 1° 2 | 6°43 | 8°42 | 10°27 | 29°26 | 14°D18 | F 19 | |
| S 20 | 6 19 8 | 5° 2'20 | 0♎51 | 11°48 | 18°42 | 21°59 | 25°35 | 24°18 | 25°10 | 1° 0 | 6°43 | 8°40 | 10°24 | 29°33 | 14°18 | S 20 | |
| S 21 | 6 23 4 | 6° 3'32 | 13°19 | 12°41 | 19°57 | 22°46 | 25°46 | 24°19 | 25° 9 | 0°59 | 6°43 | 8°D40 | 10°21 | 29°39 | 14°18 | S 21 | |
| M22 | 6 27 1 | 7° 4'44 | 25°59 | 13°38 | 21°12 | 23°33 | 25°58 | 24°20 | 25° 9 | 0°57 | 6°43 | 8°41 | 10°18 | 29°46 | 14°19 | M22 | |
| T 23 | 6 30 57 | 8° 5'54 | 8♌54 | 14°38 | 22°27 | 24°21 | 26°10 | 24°20 | 25° 9 | 0°56 | 6°43 | 8°43 | 10°14 | 29°53 | 14°19 | T 23 | |
| W24 | 6 34 54 | 9° 7'05 | 22° 4 | 15°41 | 23°43 | 25° 8 | 26°22 | 24°21 | 25° 9 | 0°54 | 6°43 | 8°44 | 10°11 | 29°59 | 14°19 | W24 | |
| T 25 | 6 38 50 | 10° 8'14 | 5♏34 | 16°47 | 24°58 | 25°55 | 26°34 | 24°21 | 25° 8 | 0°53 | 6°44 | 8°R45 | 10° 8 | 0♑ 6 | 14°19 | T 25 | |
| F 26 | 6 42 47 | 11° 9'23 | 19°23 | 17°55 | 26°13 | 26°43 | 26°46 | 24°21 | 25° 8 | 0°51 | 6°44 | 8°45 | 10° 5 | 0°13 | 14°20 | F 26 | |
| S 27 | 6 46 44 | 12°10'31 | 3♉33 | 19° 5 | 27°29 | 27°30 | 26°59 | 24°22 | 25° 8 | 0°50 | 6°44 | 8°44 | 10° 2 | 0°20 | 14°20 | S 27 | |
| S 28 | 6 50 40 | 13°11'38 | 18° 3 | 20°17 | 28°44 | 28°17 | 27°11 | 24°R22 | 25°D 8 | 0°48 | 6°44 | 8°41 | 9°59 | 0°26 | 14°21 | S 28 | |
| M29 | 6 54 37 | 14°12'44 | 2♐47 | 21°32 | 29°59 | 29° 5 | 27°23 | 24°22 | 25° 8 | 0°46 | 6°45 | 8°38 | 9°55 | 0°33 | 14°21 | M29 | |
| T 30 | 6 58 33 | 15°13'50 | 17°41 | 22°47 | 1♉14 | 29°52 | 27°36 | 24°21 | 25° 8 | 0°45 | 6°45 | 8°34 | 9°52 | 0°40 | 14°22 | T 30 | |
| W31 | 7 2 30 | 16♉45'54 | 2♌36 | 24♌ 4 | 2♉30 | 0♎40 | 27♈48 | 24♐21 | 25♏ 9 | 0♒43 | 6♏45 | 8♎31 | 9♎49 | 0♑47 | 14♏23 | W31 | |

Delta T = 17m52s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1097
geocentric

JANUARY 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|--------|-------|-------|------|-------|------|-------|-------|------|-----|
| T 1 | 7 6 26 | 17♁15'58 | 17♁24 | 25♁23 | 3♁45 | 1♁27 | 28♁1 | 24♁R21 | 25♁9 | 0♁R42 | 6♁46 | 8♁R29 | 9♁46 | 0♁753 | 14♁23 | T 1 | |
| F 2 | 7 10 23 | 18°17'01 | 1♁56 | 26°43 | 5° 0 | 2°14 | 28°14 | 24♁20 | 25° 9 | 0♁L40 | 6°46 | 8°D28 | 9°43 | 1° 0 | 14°24 | F 2 | |
| S 3 | 7 14 19 | 19°18'04 | 16° 8 | 28° 4 | 6°15 | 3° 2 | 28°27 | 24°20 | 25° 9 | 0°38 | 6°47 | 8♁28 | 9°40 | 1° 7 | 14°25 | S 3 | |
| S 4 | 7 18 16 | 20°19'05 | 29°56 | 29°26 | 7°31 | 3°49 | 28°39 | 24°19 | 25°10 | 0°37 | 6°47 | 8°29 | 9°36 | 1°13 | 14°26 | S 4 | |
| M 5 | 7 22 13 | 21°20'06 | 13♁18 | 0♁49 | 8°46 | 4°37 | 28°52 | 24°18 | 25°10 | 0°35 | 6°48 | 8°30 | 9°33 | 1°20 | 14°27 | M 5 | |
| T 6 | 7 26 9 | 22°21'06 | 26°15 | 2°13 | 10° 1 | 5°24 | 29° 5 | 24°17 | 25°11 | 0°33 | 6°48 | 8°32 | 9°30 | 1°27 | 14°28 | T 6 | |
| W 7 | 7 30 6 | 23°22'06 | 8♁50 | 3°38 | 11°16 | 6°12 | 29°19 | 24°16 | 25°11 | 0°32 | 6°49 | 8°33 | 9°27 | 1°34 | 14°29 | W 7 | |
| T 8 | 7 34 2 | 24°23'05 | 21° 8 | 5° 4 | 12°32 | 6°59 | 29°32 | 24°15 | 25°12 | 0°30 | 6°49 | 8°R33 | 9°24 | 1°40 | 14°30 | T 8 | |
| F 9 | 7 37 59 | 25°24'03 | 3♁12 | 6°31 | 13°47 | 7°46 | 29°45 | 24°14 | 25°12 | 0°28 | 6°50 | 8°33 | 9°20 | 1°47 | 14°32 | F 9 | |
| S 10 | 7 41 55 | 26°25'01 | 15° 7 | 7°58 | 15° 2 | 8°34 | 29°58 | 24°12 | 25°13 | 0°27 | 6°50 | 8°32 | 9°17 | 1°54 | 14°33 | S 10 | |
| S 11 | 7 45 52 | 27°25'57 | 26°59 | 9°27 | 16°17 | 9°21 | 0♁11 | 24°11 | 25°14 | 0°25 | 6°51 | 8°31 | 9°14 | 2° 0 | 14°34 | S 11 | |
| M12 | 7 49 48 | 28°26'53 | 8♁50 | 10°56 | 17°33 | 10° 9 | 0°25 | 24° 9 | 25°14 | 0°23 | 6°51 | 8°30 | 9°11 | 2° 7 | 14°35 | M12 | |
| T 13 | 7 53 45 | 29°27'48 | 20°45 | 12°26 | 18°48 | 10°56 | 0°38 | 24° 8 | 25°15 | 0°22 | 6°52 | 8°28 | 9° 8 | 2°14 | 14°37 | T 13 | |
| W14 | 7 57 42 | 0♁28'42 | 2♁47 | 13°57 | 20° 3 | 11°44 | 0°52 | 24° 6 | 25°16 | 0°20 | 6°53 | 8°27 | 9° 5 | 2°21 | 14°38 | W14 | |
| T 15 | 8 1 38 | 1°29'35 | 14°59 | 15°28 | 21°18 | 12°31 | 1° 5 | 24° 4 | 25°17 | 0°18 | 6°53 | 8°26 | 9° 1 | 2°27 | 14°40 | T 15 | |
| F 16 | 8 5 35 | 2°30'27 | 27°22 | 17° 1 | 22°33 | 13°19 | 1°19 | 24° 2 | 25°18 | 0°17 | 6°54 | 8°26 | 8°58 | 2°34 | 14°41 | F 16 | |
| S 17 | 8 9 31 | 3°31'18 | 9♁57 | 18°34 | 23°49 | 14° 6 | 1°33 | 24° 0 | 25°19 | 0°15 | 6°55 | 8°D26 | 8°55 | 2°41 | 14°43 | S 17 | |
| S 18 | 8 13 28 | 4°32'07 | 22°46 | 20° 8 | 25° 4 | 14°54 | 1°46 | 23°58 | 25°20 | 0°13 | 6°56 | 8°26 | 8°52 | 2°47 | 14°45 | S 18 | |
| M19 | 8 17 24 | 5°32'55 | 5♁47 | 21°42 | 26°19 | 15°41 | 2° 0 | 23°56 | 25°21 | 0°11 | 6°56 | 8°26 | 8°49 | 2°54 | 14°47 | M19 | |
| T 20 | 8 21 21 | 6°33'41 | 19° 2 | 23°18 | 27°34 | 16°28 | 2°14 | 23°53 | 25°23 | 0°10 | 6°57 | 8°26 | 8°46 | 3° 1 | 14°48 | T 20 | |
| W21 | 8 25 17 | 7°34'26 | 2♁30 | 24°54 | 28°49 | 17°16 | 2°28 | 23°51 | 25°24 | 0° 8 | 6°58 | 8°26 | 8°42 | 3° 8 | 14°50 | W21 | |
| T 22 | 8 29 14 | 8°35'09 | 16°11 | 26°31 | 0♁ 4 | 18° 3 | 2°41 | 23°48 | 25°25 | 0° 6 | 6°59 | 8°R26 | 8°39 | 3°14 | 14°52 | T 22 | |
| F 23 | 8 33 11 | 9°35'50 | 0♁ 4 | 28° 9 | 1°19 | 18°51 | 2°55 | 23°46 | 25°26 | 0° 5 | 7° 0 | 8°26 | 8°36 | 3°21 | 14°54 | F 23 | |
| S 24 | 8 37 7 | 10°36'30 | 14° 8 | 29°47 | 2°35 | 19°38 | 3° 9 | 23°43 | 25°28 | 0° 3 | 7° 0 | 8°D26 | 8°33 | 3°28 | 14°56 | S 24 | |
| S 25 | 8 41 4 | 11°37'07 | 28°22 | 1♁27 | 3°50 | 20°25 | 3°23 | 23°40 | 25°29 | 0° 1 | 7° 1 | 8°26 | 8°30 | 3°34 | 14°58 | S 25 | |
| M26 | 8 45 0 | 12°37'44 | 12♁43 | 3° 7 | 5° 5 | 21°13 | 3°37 | 23°37 | 25°31 | 29°59 | 7° 2 | 8°27 | 8°26 | 3°41 | 15° 0 | M26 | |
| T 27 | 8 48 57 | 13°38'18 | 27° 8 | 4°48 | 6°20 | 22° 0 | 3°51 | 23°34 | 25°32 | 29°58 | 7° 3 | 8°27 | 8°23 | 3°48 | 15° 2 | T 27 | |
| W28 | 8 52 53 | 14°38'51 | 11♁34 | 6°31 | 7°35 | 22°47 | 4° 6 | 23°31 | 25°34 | 29°57 | 7° 4 | 8°28 | 8°20 | 3°54 | 15° 5 | W28 | |
| T 29 | 8 56 50 | 15°39'21 | 25°54 | 8°14 | 8°50 | 23°35 | 4°20 | 23°28 | 25°35 | 29°55 | 7° 5 | 8°28 | 8°17 | 4° 1 | 15° 7 | T 29 | |
| F 30 | 9 0 47 | 16°39'50 | 10♁ 5 | 9°58 | 10° 5 | 24°22 | 4°34 | 23°25 | 25°37 | 29°53 | 7° 6 | 8°R28 | 8°14 | 4° 8 | 15° 9 | F 30 | |
| S 31 | 9 4 43 | 17°40'18 | 24♁ 2 | 11♁42 | 11♁20 | 25° 9 | 4♁48 | 23♁22 | 25°39 | 29°52 | 7° 7 | 8♁28 | 8♁11 | 4♁15 | 15°11 | S 31 | |

Delta T = 17m52s Julian Calendar 1 Jan. 1097 == Greg. Calendar 7 Jan. 1097

FEBRUARY 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|-------|--------|------|-------|------|------|-------|------|-----|
| S 1 | 9 8 40 | 18°40'43 | 7♁41 | 13♁28 | 12♁35 | 25°57 | 5♁ 2 | 23°R18 | 25°41 | 29°R50 | 7° 8 | 8°R27 | 8♁ 7 | 4♁21 | 15°14 | S 1 | |
| M 2 | 9 12 36 | 19°41'07 | 21° 0 | 15°15 | 13°50 | 26°44 | 5°16 | 23♁15 | 25°42 | 29°549 | 7° 9 | 8♁26 | 8° 4 | 4°28 | 15°16 | M 2 | |
| T 3 | 9 16 33 | 20°41'30 | 3♁58 | 17° 3 | 15° 5 | 27°31 | 5°31 | 23°11 | 25°44 | 29°47 | 7°10 | 8°24 | 8° 1 | 4°35 | 15°19 | T 3 | |
| W 4 | 9 20 29 | 21°41'50 | 16°37 | 18°51 | 16°20 | 28°18 | 5°45 | 23° 8 | 25°46 | 29°45 | 7°11 | 8°22 | 7°58 | 4°41 | 15°21 | W 4 | |
| T 5 | 9 24 26 | 22°42'10 | 28°58 | 20°41 | 17°35 | 29° 5 | 5°59 | 23° 4 | 25°48 | 29°44 | 7°12 | 8°21 | 7°55 | 4°48 | 15°24 | T 5 | |
| F 6 | 9 28 22 | 23°42'28 | 11♁ 6 | 22°31 | 18°50 | 29°53 | 6°14 | 23° 0 | 25°50 | 29°42 | 7°13 | 8°20 | 7°51 | 4°55 | 15°26 | F 6 | |
| S 7 | 9 32 19 | 24°42'44 | 23° 3 | 24°23 | 20° 5 | 0♁40 | 6°28 | 22°56 | 25°52 | 29°41 | 7°14 | 8°D19 | 7°48 | 5° 2 | 15°29 | S 7 | |
| S 8 | 9 36 15 | 25°42'59 | 4♁55 | 26°15 | 21°20 | 1°27 | 6°42 | 22°53 | 25°54 | 29°39 | 7°15 | 8°19 | 7°45 | 5° 8 | 15°31 | S 8 | |
| M 9 | 9 40 12 | 26°43'13 | 16°47 | 28° 8 | 22°35 | 2°14 | 6°57 | 22°49 | 25°56 | 29°38 | 7°16 | 8°20 | 7°42 | 5°15 | 15°34 | M 9 | |
| T 10 | 9 44 9 | 27°43'25 | 28°43 | 0♁ 2 | 23°50 | 3° 1 | 7°11 | 22°45 | 25°58 | 29°36 | 7°18 | 8°22 | 7°39 | 5°22 | 15°37 | T 10 | |
| W11 | 9 48 5 | 28°43'35 | 10♁48 | 1°57 | 25° 5 | 3°48 | 7°26 | 22°41 | 26° 0 | 29°35 | 7°19 | 8°23 | 7°36 | 5°28 | 15°40 | W11 | |
| T 12 | 9 52 2 | 29°43'43 | 23° 6 | 3°53 | 26°20 | 4°35 | 7°40 | 22°37 | 26° 3 | 29°34 | 7°20 | 8°25 | 7°32 | 5°35 | 15°43 | T 12 | |
| F 13 | 9 55 58 | 0♁43'50 | 5♁39 | 5°48 | 27°35 | 5°22 | 7°55 | 22°32 | 26° 5 | 29°32 | 7°21 | 8°R26 | 7°29 | 5°42 | 15°45 | F 13 | |
| S 14 | 9 59 55 | 1°43'55 | 18°30 | 7°45 | 28°49 | 6° 9 | 8° 9 | 22°28 | 26° 7 | 29°31 | 7°22 | 8°25 | 7°26 | 5°49 | 15°48 | S 14 | |
| S 15 | 10 3 51 | 2°43'58 | 1♁39 | 9°41 | 0♁ 4 | 6°56 | 8°24 | 22°24 | 26°10 | 29°29 | 7°23 | 8°24 | 7°23 | 5°55 | 15°51 | S 15 | |
| M16 | 10 7 48 | 3°43'59 | 15° 6 | 11°38 | 1°19 | 7°43 | 8°38 | 22°20 | 26°12 | 29°28 | 7°25 | 8°21 | 7°20 | 6° 2 | 15°54 | M16 | |
| T 17 | 10 11 44 | 4°43'58 | 28°48 | 13°34 | 2°34 | 8°30 | 8°53 | 22°15 | 26°14 | 29°27 | 7°26 | 8°17 | 7°17 | 6° 9 | 15°57 | T 17 | |
| W18 | 10 15 41 | 5°43'55 | 12♁43 | 15°30 | 3°49 | 9°17 | 9° 7 | 22°11 | 26°17 | 29°25 | 7°27 | 8°13 | 7°13 | 6°15 | 16° 0 | W18 | |
| T 19 | 10 19 38 | 6°43'50 | 26°47 | 17°25 | 5° 4 | 10° 4 | 9°22 | 22° 7 | 26°19 | 29°24 | 7°28 | 8° 9 | 7°10 | 6°22 | 16° 3 | T 19 | |
| F 20 | 10 23 34 | 7°43'43 | 10♁57 | 19°20 | 6°18 | 10°51 | 9°36 | 22° 2 | 26°22 | 29°23 | 7°30 | 8° 5 | 7° 7 | 6°29 | 16° 6 | F 20 | |
| S 21 | 10 27 31 | 8°43'33 | 25° 9 | 21°12 | 7°33 | 11°38 | 9°51 | 21°58 | 26°24 | 29°22 | 7°31 | 8° 3 | 7° 4 | 6°35 | 16° 9 | S 21 | |
| S 22 | 10 31 27 | 9°43'21 | 9♁21 | 23° 3 | 8°48 | 12°24 | 10° 5 | 21°53 | 26°27 | 29°20 | 7°32 | 8°D 3 | 7° 1 | 6°42 | 16°13 | S 22 | |
| M23 | 10 35 24 | 10°43'07 | 23°30 | 24°52 | 10° 3 | 13°11 | 10°20 | 21°49 | 26°30 | 29°19 | 7°33 | 8° 3 | 6°57 | 6°49 | 16°16 | M23 | |
| T 24 | 10 39 20 | 11°42'51 | 7♁35 | 26°38 | 11°17 | 13°58 | 10°34 | 21°44 | 26°32 | 29°18 | 7°35 | 8° 5 | 6°54 | 6°56 | 16°19 | T 24 | |
| W25 | 10 43 17 | 12°42'32 | 21°34 | 28°21 | 12°32 | 14°44 | 10°49 | 21°39 | 26°35 | 29°17 | 7°36 | 8° 6 | 6°51 | 7° 2 | 16°22 | W25 | |
| T 26 | 10 47 13 | 13°42'11 | 5♁25 | 29°59 | 13°47 | 15°31 | 11° 3 | 21°35 | 26°38 | 29°16 | 7°37 | 8°R 7 | 6°48 | 7° 9 | 16°26 | T 26 | |
| F 27 | 10 51 10 | 14°41'47 | 19° 8 | 1°Y35 | 15° 2 | 16°18 | 11°18 | 21°30 | 26°40 | 29°15 | 7°39 | 8° 6 | 6°45 | 7°16 | 16°29 | F 27 | |
| S 28 | 10 55 7 | 15°41'22 | 2♁40 | 3°Y 5 | 16°16 | 17°16 | 11°32 | 21♁26 | 26°43 | 29°14 | 7°40 | 8♁ 4 | 6♁42 | 7♁22 | 16°32 | S 28 | |

Delta T = 17m52s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1097
geocentric

MARCH 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|------|-------|--------|------|-----|
| S 1 | 10 59 3 | 16♋40'54 | 16♎0 | 4♃30 | 17♋31 | 17♋51 | 11♋47 | 21°R21 | 26♃46 | 29°R13 | 7♃41 | 8°R 0 | 6♁38 | 7♁29 | 16♃36 | S 1 | |
| M 2 | 11 3 0 | 17°40'24 | 29° 5 | 5°50 | 18°45 | 18°37 | 12° 1 | 21♎16 | 26°49 | 29♁12 | 7°43 | 7♁54 | 6°35 | 7°36 | 16°39 | M 2 | |
| T 3 | 11 6 56 | 18°39'52 | 11♌54 | 7° 4 | 20° 0 | 19°24 | 12°16 | 21°12 | 26°52 | 29°11 | 7°44 | 7°47 | 6°32 | 7°43 | 16°42 | T 3 | |
| W 4 | 11 10 53 | 19°39'18 | 24°29 | 8°11 | 21°15 | 20°10 | 12°30 | 21° 7 | 26°55 | 29°10 | 7°45 | 7°39 | 6°29 | 7°49 | 16°46 | W 4 | |
| T 5 | 11 14 49 | 20°38'42 | 6♎48 | 9°12 | 22°29 | 20°57 | 12°45 | 21° 2 | 26°58 | 29° 9 | 7°47 | 7°32 | 6°26 | 7°56 | 16°49 | T 5 | |
| F 6 | 11 18 46 | 21°38'04 | 18°55 | 10° 7 | 23°44 | 21°43 | 12°59 | 20°57 | 27° 0 | 29° 8 | 7°48 | 7°26 | 6°23 | 8° 3 | 16°53 | F 6 | |
| S 7 | 11 22 42 | 22°37'25 | 0♈53 | 10°54 | 24°58 | 22°29 | 13°13 | 20°53 | 27° 3 | 29° 7 | 7°49 | 7°21 | 6°19 | 8° 9 | 16°56 | S 7 | |
| S 8 | 11 26 39 | 23°36'44 | 12°45 | 11°34 | 26°13 | 23°15 | 13°28 | 20°48 | 27° 6 | 29° 6 | 7°51 | 7°19 | 6°16 | 8°16 | 17° 0 | S 8 | |
| M 9 | 11 30 36 | 24°36'01 | 24°36 | 12° 6 | 27°27 | 24° 2 | 13°42 | 20°43 | 27° 9 | 29° 5 | 7°52 | 7°D18 | 6°13 | 8°23 | 17° 3 | M 9 | |
| T 10 | 11 34 32 | 25°35'16 | 6♌32 | 12°32 | 28°42 | 24°48 | 13°57 | 20°39 | 27°13 | 29° 5 | 7°54 | 7°19 | 6°10 | 8°29 | 17° 7 | T 10 | |
| W11 | 11 38 29 | 26°34'29 | 18°37 | 12°49 | 29°56 | 25°34 | 14°11 | 20°34 | 27°16 | 29° 4 | 7°55 | 7°20 | 6° 7 | 8°36 | 17°10 | W11 | |
| T 12 | 11 42 25 | 27°33'40 | 0♁56 | 13° 0 | 1°Y11 | 26°20 | 14°25 | 20°29 | 27°19 | 29° 3 | 7°56 | 7°R21 | 6° 3 | 8°43 | 17°14 | T 12 | |
| F 13 | 11 46 22 | 28°32'50 | 13°34 | 13°R 3 | 2°25 | 27° 6 | 14°40 | 20°25 | 27°22 | 29° 2 | 7°58 | 7°21 | 6° 0 | 8°50 | 17°17 | F 13 | |
| S 14 | 11 50 18 | 29°31'57 | 26°34 | 12°59 | 3°40 | 27°52 | 14°54 | 20°20 | 27°25 | 29° 2 | 7°59 | 7°19 | 5°57 | 8°56 | 17°21 | S 14 | |
| S 15 | 11 54 15 | 0°Y31'03 | 9♋57 | 12°48 | 4°54 | 28°38 | 15° 8 | 20°16 | 27°28 | 29° 1 | 8° 1 | 7°15 | 5°54 | 9° 3 | 17°25 | S 15 | |
| M16 | 11 58 11 | 1°30'07 | 23°44 | 12°31 | 6° 8 | 29°24 | 15°22 | 20°11 | 27°31 | 29° 0 | 8° 2 | 7° 9 | 5°51 | 9°10 | 17°28 | M16 | |
| T 17 | 12 2 8 | 2°29'08 | 7°Y52 | 12° 8 | 7°23 | 0°Y10 | 15°37 | 20° 6 | 27°35 | 29° 0 | 8° 3 | 7° 1 | 5°48 | 9°16 | 17°32 | T 17 | |
| W18 | 12 6 4 | 3°28'08 | 22°15 | 11°40 | 8°37 | 0°56 | 15°51 | 20° 2 | 27°38 | 28°59 | 8° 5 | 6°51 | 5°44 | 9°23 | 17°36 | W18 | |
| T 19 | 12 10 1 | 4°27'05 | 6♌48 | 11° 7 | 9°51 | 1°42 | 16° 5 | 19°57 | 27°41 | 28°59 | 8° 6 | 6°42 | 5°41 | 9°30 | 17°39 | T 19 | |
| F 20 | 12 13 58 | 5°26'00 | 21°23 | 10°29 | 11° 6 | 2°28 | 16°19 | 19°53 | 27°44 | 28°58 | 8° 8 | 6°35 | 5°38 | 9°36 | 17°43 | F 20 | |
| S 21 | 12 17 54 | 6°24'53 | 5♎54 | 9°49 | 12°20 | 3°13 | 16°33 | 19°49 | 27°48 | 28°58 | 8° 9 | 6°29 | 5°35 | 9°43 | 17°47 | S 21 | |
| S 22 | 12 21 51 | 7°23'44 | 20°16 | 9° 6 | 13°34 | 3°59 | 16°47 | 19°44 | 27°51 | 28°57 | 8°11 | 6°25 | 5°32 | 9°50 | 17°50 | S 22 | |
| M23 | 12 25 47 | 8°22'32 | 4♁26 | 8°21 | 14°48 | 4°45 | 17° 1 | 19°40 | 27°54 | 28°57 | 8°12 | 6°D24 | 5°28 | 9°57 | 17°54 | M23 | |
| T 24 | 12 29 44 | 9°21'18 | 18°24 | 7°36 | 16° 3 | 5°30 | 17°15 | 19°36 | 27°57 | 28°57 | 8°13 | 6°24 | 5°25 | 10° 3 | 17°58 | T 24 | |
| W25 | 12 33 40 | 10°20'02 | 2♌7 | 6°51 | 17°17 | 6°16 | 17°29 | 19°31 | 28° 1 | 28°56 | 8°15 | 6°R25 | 5°22 | 10°10 | 18° 2 | W25 | |
| T 26 | 12 37 37 | 11°18'43 | 15°39 | 6° 7 | 18°31 | 7° 1 | 17°43 | 19°27 | 28° 4 | 28°56 | 8°16 | 6°25 | 5°19 | 10°17 | 18° 5 | T 26 | |
| F 27 | 12 41 34 | 12°17'22 | 28°58 | 5°24 | 19°45 | 7°47 | 17°57 | 19°23 | 28° 7 | 28°56 | 8°18 | 6°23 | 5°16 | 10°23 | 18° 9 | F 27 | |
| S 28 | 12 45 30 | 13°15'59 | 12♎6 | 4°44 | 20°59 | 8°32 | 18°11 | 19°19 | 28°11 | 28°56 | 8°19 | 6°18 | 5°13 | 10°30 | 18°13 | S 28 | |
| S 29 | 12 49 27 | 14°14'34 | 25° 3 | 4° 8 | 22°13 | 9°17 | 18°24 | 19°15 | 28°14 | 28°55 | 8°20 | 6°10 | 5° 9 | 10°37 | 18°17 | S 29 | |
| M30 | 12 53 23 | 15°13'06 | 7♌49 | 3°34 | 23°27 | 10° 3 | 18°38 | 19°11 | 28°18 | 28°55 | 8°22 | 6° 0 | 5° 6 | 10°43 | 18°20 | M30 | |
| T 31 | 12 57 20 | 16°Y11'37 | 20♌24 | 3°Y 5 | 24°Y42 | 10°Y48 | 18°Y52 | 19°Y7 | 28°Y21 | 28♁55 | 8°Y23 | 5♁49 | 5♁ 3 | 10♁50 | 18°Y24 | T 31 | |

Delta T = 17m51s Julian Calendar 1 March 1097 == Greg. Calendar 7 March 1097

APRIL 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|-----------|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|------|-------|--------|------|-----|
| W 1 | 13 1 16 | 17°Y10'05 | 2♎47 | 2°R40 | 25°Y56 | 11°Y33 | 19°Y 6 | 19°R 3 | 28°Y24 | 28°R55 | 8°Y25 | 5°R36 | 5♁ 0 | 10♁57 | 18°Y28 | W 1 | |
| T 2 | 13 5 13 | 18° 8'32 | 14°59 | 2°Y20 | 27°10 | 12°18 | 19°19 | 18°Y59 | 28°28 | 28♁55 | 8°26 | 5♁24 | 4°57 | 11° 3 | 18°32 | T 2 | |
| F 3 | 13 9 9 | 19° 6'57 | 27° 2 | 2° 5 | 28°24 | 13° 3 | 19°33 | 18°56 | 28°31 | 28°D55 | 8°28 | 5°12 | 4°54 | 11°10 | 18°35 | F 3 | |
| S 4 | 13 13 6 | 20° 5'21 | 8♈57 | 1°54 | 29°38 | 13°49 | 19°46 | 18°52 | 28°35 | 28°55 | 8°29 | 5° 4 | 4°50 | 11°17 | 18°39 | S 4 | |
| S 5 | 13 17 2 | 21° 3'42 | 20°48 | 1°49 | 0♉52 | 14°34 | 20° 0 | 18°48 | 28°38 | 28°55 | 8°30 | 4°57 | 4°47 | 11°24 | 18°43 | S 5 | |
| M 6 | 13 20 59 | 22° 2'03 | 2♌38 | 1°D49 | 2° 5 | 15°18 | 20°13 | 18°45 | 28°42 | 28°55 | 8°32 | 4°54 | 4°44 | 11°30 | 18°47 | M 6 | |
| T 7 | 13 24 56 | 23° 0'21 | 14°32 | 1°53 | 3°19 | 16° 3 | 20°26 | 18°41 | 28°45 | 28°55 | 8°33 | 4°52 | 4°41 | 11°37 | 18°50 | T 7 | |
| W 8 | 13 28 52 | 23°58'38 | 26°35 | 2° 3 | 4°33 | 16°48 | 20°40 | 18°38 | 28°48 | 28°55 | 8°34 | 4°D52 | 4°38 | 11°44 | 18°54 | W 8 | |
| T 9 | 13 32 49 | 24°56'53 | 8♁52 | 2°17 | 5°47 | 17°33 | 20°53 | 18°35 | 28°52 | 28°56 | 8°36 | 4°R52 | 4°34 | 11°50 | 18°58 | T 9 | |
| F 10 | 13 36 45 | 25°55'07 | 21°30 | 2°36 | 7° 1 | 18°18 | 21° 6 | 18°31 | 28°55 | 28°56 | 8°37 | 4°51 | 4°31 | 11°57 | 19° 2 | F 10 | |
| S 11 | 13 40 42 | 26°53'19 | 4♋31 | 2°59 | 8°15 | 19° 3 | 21°19 | 18°28 | 28°59 | 28°56 | 8°39 | 4°48 | 4°28 | 12° 4 | 19° 5 | S 11 | |
| S 12 | 13 44 38 | 27°51'30 | 18° 0 | 3°27 | 9°29 | 19°47 | 21°32 | 18°25 | 29° 2 | 28°56 | 8°40 | 4°43 | 4°25 | 12°10 | 19° 9 | S 12 | |
| M13 | 13 48 35 | 28°49'38 | 1°Y56 | 3°59 | 10°43 | 20°32 | 21°45 | 18°22 | 29° 6 | 28°57 | 8°41 | 4°35 | 4°22 | 12°17 | 19°13 | M13 | |
| T 14 | 13 52 31 | 29°47'46 | 16°18 | 4°35 | 11°56 | 21°16 | 21°58 | 18°19 | 29° 9 | 28°57 | 8°43 | 4°25 | 4°19 | 12°24 | 19°17 | T 14 | |
| W15 | 13 56 28 | 0♉45'52 | 1♉ 2 | 5°14 | 13°10 | 22° 1 | 22°11 | 18°16 | 29°13 | 28°57 | 8°44 | 4°14 | 4°15 | 12°31 | 19°20 | W15 | |
| T 16 | 14 0 25 | 1°43'56 | 15°58 | 5°58 | 14°24 | 22°45 | 22°24 | 18°13 | 29°16 | 28°58 | 8°45 | 4° 3 | 4°12 | 12°37 | 19°24 | T 16 | |
| F 17 | 14 4 21 | 2°41'58 | 0♎57 | 6°45 | 15°38 | 23°30 | 22°37 | 18°11 | 29°20 | 28°58 | 8°47 | 3°53 | 4° 9 | 12°44 | 19°28 | F 17 | |
| S 18 | 14 8 18 | 3°39'59 | 15°51 | 7°35 | 16°51 | 24°14 | 22°49 | 18° 8 | 29°23 | 28°59 | 8°48 | 3°45 | 4° 6 | 12°51 | 19°31 | S 18 | |
| S 19 | 14 12 14 | 4°37'58 | 0♁31 | 8°29 | 18° 5 | 24°58 | 23° 2 | 18° 6 | 29°27 | 28°59 | 8°49 | 3°40 | 4° 3 | 12°57 | 19°35 | S 19 | |
| M20 | 14 16 11 | 5°35'55 | 14°53 | 9°26 | 19°19 | 25°43 | 23°14 | 18° 3 | 29°30 | 29° 0 | 8°51 | 3°38 | 4° 0 | 13° 4 | 19°39 | M20 | |
| T 21 | 14 20 7 | 6°33'50 | 28°55 | 10°26 | 20°32 | 26°27 | 23°27 | 18° 1 | 29°34 | 29° 0 | 8°52 | 3°37 | 3°56 | 13°11 | 19°42 | T 21 | |
| W22 | 14 24 4 | 7°31'43 | 12♌36 | 11°29 | 21°46 | 27°11 | 23°39 | 17°59 | 29°37 | 29° 1 | 8°53 | 3°37 | 3°53 | 13°17 | 19°46 | W22 | |
| T 23 | 14 28 0 | 8°29'34 | 25°59 | 12°34 | 23° 0 | 27°55 | 23°52 | 17°57 | 29°40 | 29° 1 | 8°54 | 3°37 | 3°50 | 13°24 | 19°50 | T 23 | |
| F 24 | 14 31 57 | 9°27'24 | 9♎5 | 13°43 | 24°13 | 28°39 | 24° 4 | 17°54 | 29°44 | 29° 2 | 8°56 | 3°34 | 3°47 | 13°31 | 19°53 | F 24 | |
| S 25 | 14 35 54 | 10°25'11 | 21°56 | 14°54 | 25°27 | 29°23 | 24°16 | 17°53 | 29°47 | 29° 3 | 8°57 | 3°29 | 3°44 | 13°37 | 19°57 | S 25 | |
| S 26 | 14 39 50 | 11°22'57 | 4♁36 | 16° 8 | 26°40 | 0♉ 7 | 24°28 | 17°51 | 29°51 | 29° 3 | 8°58 | 3°21 | 3°40 | 13°44 | 20° 1 | S 26 | |
| M27 | 14 43 47 | 12°20'42 | 17° 4 | 17°25 | 27°54 | 0°51 | 24°40 | 17°49 | 29°54 | 29° 4 | 8°59 | 3°10 | 3°37 | 13°51 | 20° 4 | M27 | |
| T 28 | 14 47 43 | 13°18'24 | 29°24 | 18°44 | 29° 7 | 1°35 | 24°52 | 17°47 | 29°57 | 29° 5 | 9° 1 | 2°58 | 3°34 | 13°58 | 20° 8 | T 28 | |
| W29 | 14 51 40 | 14°16'06 | 11♎34 | 20° 5 | 0♎21 | 2°18 | 25° 4 | 17°46 | 0♉ 1 | 29° 6 | 9° 2 | 2°45 | 3°31 | 14° 4 | 20°11 | W29 | |
| T 30 | 14 55 36 | 15°Y13'46 | 23♎38 | 21°Y29 | 1♎34 | 3♉ 2 | 25°Y16 | 17°Y44 | 0♉ 4 | 29♁7 | 9°Y 3 | 2♁32 | 3♁28 | 14♁11 | 20°Y15 | T 30 | |

Delta T = 17m51s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1097
geocentric

MAY 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|------|-------|------|-------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| F 1 | 14 59 33 | 16♈11'25 | 5♊34 | 22♋55 | 2♈48 | 3♉46 | 25♊27 | 17°R43 | 0♉8 | 29♉8 | 9♋4 | 2°R20 | 3♋25 | 14♌18 | 20♋18 | F 1 | | | | | | | | |
| S 2 | 15 3 29 | 17° 9'02 | 17°26 | 24°24 | 4° 1 | 4°29 | 25°39 | 17♎41 | 0°11 | 29° 9 | 9° 5 | 2♋10 | 3°21 | 14°24 | 20°22 | S 2 | | | | | | | | |
| S 3 | 15 7 26 | 18° 6'38 | 29°15 | 25°55 | 5°14 | 5°13 | 25°50 | 17°40 | 0°14 | 29° 9 | 9° 6 | 2° 3 | 3°18 | 14°31 | 20°25 | S 3 | | | | | | | | |
| M 4 | 15 11 23 | 19° 4'14 | 11♈5 | 27°28 | 6°28 | 5°56 | 26° 2 | 17°39 | 0°18 | 29°10 | 9° 8 | 1°59 | 3°15 | 14°38 | 20°28 | M 4 | | | | | | | | |
| T 5 | 15 15 19 | 20° 1'48 | 22°58 | 29° 4 | 7°41 | 6°40 | 26°13 | 17°38 | 0°21 | 29°11 | 9° 9 | 1°57 | 3°12 | 14°44 | 20°32 | T 5 | | | | | | | | |
| W 6 | 15 19 16 | 20°59'21 | 5♋1 | 0♉42 | 8°54 | 7°23 | 26°24 | 17°37 | 0°24 | 29°12 | 9°10 | 1°D57 | 3° 9 | 14°51 | 20°35 | W 6 | | | | | | | | |
| T 7 | 15 23 12 | 21°56'53 | 17°17 | 2°22 | 10° 8 | 8° 7 | 26°35 | 17°36 | 0°28 | 29°14 | 9°11 | 1°R57 | 3° 6 | 14°58 | 20°39 | T 7 | | | | | | | | |
| F 8 | 15 27 9 | 22°54'25 | 29°52 | 4° 5 | 11°21 | 8°50 | 26°46 | 17°36 | 0°31 | 29°15 | 9°12 | 1°57 | 3° 2 | 15° 4 | 20°42 | F 8 | | | | | | | | |
| S 9 | 15 31 5 | 23°51'55 | 12♋50 | 5°50 | 12°34 | 9°33 | 26°57 | 17°35 | 0°34 | 29°16 | 9°13 | 1°56 | 2°59 | 15°11 | 20°45 | S 9 | | | | | | | | |
| S 10 | 15 35 2 | 24°49'25 | 26°16 | 7°37 | 13°47 | 10°16 | 27° 8 | 17°35 | 0°37 | 29°17 | 9°14 | 1°52 | 2°56 | 15°18 | 20°48 | S 10 | | | | | | | | |
| M 11 | 15 38 58 | 25°46'53 | 10♋11 | 9°27 | 15° 1 | 10°59 | 27°19 | 17°34 | 0°41 | 29°18 | 9°15 | 1°46 | 2°53 | 15°24 | 20°52 | M 11 | | | | | | | | |
| T 12 | 15 42 55 | 26°44'21 | 24°35 | 11°19 | 16°14 | 11°43 | 27°29 | 17°34 | 0°44 | 29°19 | 9°16 | 1°38 | 2°50 | 15°31 | 20°55 | T 12 | | | | | | | | |
| W 13 | 15 46 52 | 27°41'49 | 9♉24 | 13°13 | 17°27 | 12°26 | 27°40 | 17°34 | 0°47 | 29°20 | 9°17 | 1°29 | 2°46 | 15°38 | 20°58 | W 13 | | | | | | | | |
| T 14 | 15 50 48 | 28°39'15 | 24°30 | 15° 9 | 18°40 | 13° 8 | 27°50 | 17°D34 | 0°50 | 29°22 | 9°18 | 1°20 | 2°43 | 15°45 | 21° 1 | T 14 | | | | | | | | |
| F 15 | 15 54 45 | 29°36'40 | 9♈44 | 17° 7 | 19°53 | 13°51 | 28° 1 | 17°34 | 0°53 | 29°23 | 9°19 | 1°11 | 2°40 | 15°51 | 21° 4 | F 15 | | | | | | | | |
| S 16 | 15 58 41 | 0♈34'05 | 24°54 | 19° 8 | 21° 7 | 14°34 | 28°11 | 17°34 | 0°56 | 29°24 | 9°20 | 1° 5 | 2°37 | 15°58 | 21° 8 | S 16 | | | | | | | | |
| S 17 | 16 2 38 | 1°31'29 | 9♉51 | 21°10 | 22°20 | 15°17 | 28°21 | 17°34 | 0°59 | 29°26 | 9°21 | 1° 1 | 2°34 | 16° 5 | 21°11 | S 17 | | | | | | | | |
| M 18 | 16 6 34 | 2°28'51 | 24°28 | 23°14 | 23°33 | 16° 0 | 28°31 | 17°34 | 1° 3 | 29°27 | 9°22 | 0°D59 | 2°31 | 16°11 | 21°14 | M 18 | | | | | | | | |
| T 19 | 16 10 31 | 3°26'12 | 8♉41 | 25°20 | 24°46 | 16°42 | 28°41 | 17°35 | 1° 6 | 29°28 | 9°23 | 0°59 | 2°27 | 16°18 | 21°17 | T 19 | | | | | | | | |
| W 20 | 16 14 27 | 4°23'32 | 22°30 | 27°28 | 25°59 | 17°25 | 28°50 | 17°35 | 1° 9 | 29°30 | 9°24 | 1° 0 | 2°24 | 16°25 | 21°20 | W 20 | | | | | | | | |
| T 21 | 16 18 24 | 5°20'51 | 5♎54 | 29°37 | 27°12 | 18° 8 | 29° 0 | 17°36 | 1°12 | 29°31 | 9°25 | 1°R 0 | 2°21 | 16°31 | 21°23 | T 21 | | | | | | | | |
| F 22 | 16 22 21 | 6°18'09 | 18°56 | 1♈46 | 28°25 | 18°50 | 29°10 | 17°37 | 1°15 | 29°33 | 9°26 | 1° 0 | 2°18 | 16°38 | 21°26 | F 22 | | | | | | | | |
| S 23 | 16 26 17 | 7°15'26 | 1♉41 | 3°57 | 29°38 | 19°33 | 29°19 | 17°37 | 1°18 | 29°34 | 9°27 | 0°57 | 2°15 | 16°45 | 21°28 | S 23 | | | | | | | | |
| S 24 | 16 30 14 | 8°12'42 | 14°10 | 6° 9 | 0♉51 | 20°15 | 29°28 | 17°38 | 1°21 | 29°36 | 9°27 | 0°52 | 2°12 | 16°51 | 21°31 | S 24 | | | | | | | | |
| M 25 | 16 34 10 | 9° 9'57 | 26°28 | 8°20 | 2° 4 | 20°57 | 29°37 | 17°39 | 1°24 | 29°37 | 9°28 | 0°45 | 2° 8 | 16°58 | 21°34 | M 25 | | | | | | | | |
| T 26 | 16 38 7 | 10° 7'11 | 8♈36 | 10°32 | 3°16 | 21°40 | 29°46 | 17°41 | 1°26 | 29°39 | 9°29 | 0°37 | 2° 5 | 17° 5 | 21°37 | T 26 | | | | | | | | |
| W 27 | 16 42 3 | 11° 4'25 | 20°36 | 12°44 | 4°29 | 22°22 | 29°55 | 17°42 | 1°29 | 29°40 | 9°30 | 0°27 | 2° 2 | 17°11 | 21°40 | W 27 | | | | | | | | |
| T 28 | 16 46 0 | 12° 1'38 | 2♉32 | 14°55 | 5°42 | 23° 4 | 0♋4 | 17°43 | 1°32 | 29°42 | 9°31 | 0°18 | 1°59 | 17°18 | 21°42 | T 28 | | | | | | | | |
| F 29 | 16 49 56 | 12°58'50 | 14°24 | 17° 6 | 6°55 | 23°46 | 0°13 | 17°44 | 1°35 | 29°44 | 9°31 | 0°10 | 1°56 | 17°25 | 21°45 | F 29 | | | | | | | | |
| S 30 | 16 53 53 | 13°56'02 | 26°14 | 19°15 | 8° 8 | 24°28 | 0°21 | 17°46 | 1°38 | 29°45 | 9°32 | 0° 4 | 1°52 | 17°32 | 21°48 | S 30 | | | | | | | | |
| S 31 | 16 57 50 | 14♈53'14 | 8♉3 | 21♈23 | 9♉20 | 25♉10 | 0♋29 | 17♎48 | 1♉40 | 29♉47 | 9♋33 | 29♉59 | 1♋49 | 17♌38 | 21♋50 | S 31 | | | | | | | | |

Delta T = 17m51s Julian Calendar 1 May 1097 == Greg. Calendar 7 May 1097

JUNE 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|------|-------|------|--------|------|-------|-------|------|---|---|---|---|---|---|---|-----|
| M 1 | 17 1 46 | 15♈50'25 | 19♉56 | 23♈30 | 10♉33 | 25♉52 | 0♋38 | 17♎49 | 1♉43 | 29♉49 | 9♋33 | 29°R57 | 1♋46 | 17♌45 | 21♋53 | M 1 | | | | | | | | |
| T 2 | 17 5 43 | 16°47'36 | 1♋53 | 25°36 | 11°46 | 26°34 | 0°46 | 17°51 | 1°46 | 29°50 | 9°34 | 29°D56 | 1°43 | 17°52 | 21°55 | T 2 | | | | | | | | |
| W 3 | 17 9 39 | 17°44'47 | 13°59 | 27°40 | 12°59 | 27°16 | 0°54 | 17°53 | 1°48 | 29°52 | 9°35 | 29°S57 | 1°40 | 17°58 | 21°58 | W 3 | | | | | | | | |
| T 4 | 17 13 36 | 18°41'58 | 26°18 | 29°42 | 14°11 | 27°58 | 1° 1 | 17°55 | 1°51 | 29°54 | 9°35 | 29°59 | 1°37 | 18° 5 | 22° 0 | T 4 | | | | | | | | |
| F 5 | 17 17 32 | 19°39'08 | 8♋53 | 1♉42 | 15°24 | 28°40 | 1° 9 | 17°57 | 1°54 | 29°56 | 9°36 | 29°59 | 1°33 | 18°12 | 22° 3 | F 5 | | | | | | | | |
| S 6 | 17 21 29 | 20°36'19 | 21°50 | 3°40 | 16°36 | 29°21 | 1°17 | 17°59 | 1°56 | 29°57 | 9°37 | 0°R 0 | 1°30 | 18°18 | 22° 5 | S 6 | | | | | | | | |
| S 7 | 17 25 26 | 21°33'29 | 5♋11 | 5°36 | 17°49 | 0♈3 | 1°24 | 18° 2 | 1°59 | 29°59 | 9°37 | 29°59 | 1°27 | 18°25 | 22° 7 | S 7 | | | | | | | | |
| M 8 | 17 29 22 | 22°30'40 | 18°59 | 7°31 | 19° 1 | 0°44 | 1°31 | 18° 4 | 2° 1 | 0♈1 | 9°38 | 29°57 | 1°24 | 18°32 | 22°10 | M 8 | | | | | | | | |
| T 9 | 17 33 19 | 23°27'51 | 3♉15 | 9°23 | 20°14 | 1°26 | 1°38 | 18° 6 | 2° 4 | 0° 3 | 9°38 | 29°53 | 1°21 | 18°38 | 22°12 | T 9 | | | | | | | | |
| W 10 | 17 37 15 | 24°25'02 | 17°56 | 11°13 | 21°26 | 2° 7 | 1°45 | 18° 9 | 2° 6 | 0° 5 | 9°39 | 29°49 | 1°17 | 18°45 | 22°14 | W 10 | | | | | | | | |
| T 11 | 17 41 12 | 25°22'13 | 2♈57 | 13° 1 | 22°39 | 2°49 | 1°52 | 18°12 | 2° 9 | 0° 7 | 9°39 | 29°44 | 1°14 | 18°52 | 22°16 | T 11 | | | | | | | | |
| F 12 | 17 45 8 | 26°19'24 | 18° 8 | 14°47 | 23°51 | 3°30 | 1°59 | 18°14 | 2°11 | 0° 9 | 9°40 | 29°39 | 1°11 | 18°58 | 22°18 | F 12 | | | | | | | | |
| S 13 | 17 49 5 | 27°16'35 | 3♉21 | 16°30 | 25° 4 | 4°12 | 2° 5 | 18°17 | 2°13 | 0°11 | 9°40 | 29°36 | 1° 8 | 19° 5 | 22°20 | S 13 | | | | | | | | |
| S 14 | 17 53 1 | 28°13'47 | 18°26 | 18°12 | 26°16 | 4°53 | 2°12 | 18°20 | 2°16 | 0°12 | 9°41 | 29°34 | 1° 5 | 19°12 | 22°22 | S 14 | | | | | | | | |
| M 15 | 17 56 58 | 29°10'58 | 3♈13 | 19°52 | 27°29 | 5°34 | 2°18 | 18°23 | 2°18 | 0°14 | 9°41 | 29°D34 | 1° 2 | 19°18 | 22°24 | M 15 | | | | | | | | |
| T 16 | 18 0 55 | 0♉8'09 | 17°37 | 21°29 | 28°41 | 6°15 | 2°24 | 18°26 | 2°20 | 0°16 | 9°41 | 29°35 | 0°58 | 19°25 | 22°26 | T 16 | | | | | | | | |
| W 17 | 18 4 51 | 1° 5'19 | 1♎34 | 23° 4 | 29°53 | 6°56 | 2°29 | 18°30 | 2°22 | 0°18 | 9°42 | 29°36 | 0°55 | 19°32 | 22°28 | W 17 | | | | | | | | |
| T 18 | 18 8 48 | 2° 2'30 | 15° 6 | 24°37 | 1♈5 | 7°37 | 2°35 | 18°33 | 2°24 | 0°20 | 9°42 | 29°37 | 0°52 | 19°38 | 22°30 | T 18 | | | | | | | | |
| F 19 | 18 12 44 | 2°59'40 | 28°12 | 26° 8 | 2°18 | 8°18 | 2°41 | 18°36 | 2°26 | 0°22 | 9°42 | 29°R38 | 0°49 | 19°45 | 22°31 | F 19 | | | | | | | | |
| S 20 | 18 16 41 | 3°56'51 | 10♉57 | 27°37 | 3°30 | 8°59 | 2°46 | 18°40 | 2°28 | 0°24 | 9°43 | 29°38 | 0°46 | 19°52 | 22°33 | S 20 | | | | | | | | |
| S 21 | 18 20 37 | 4°54'01 | 23°24 | 29° 3 | 4°42 | 9°40 | 2°51 | 18°43 | 2°30 | 0°26 | 9°43 | 29°37 | 0°43 | 19°59 | 22°35 | S 21 | | | | | | | | |
| M 22 | 18 24 34 | 5°51'11 | 5♈36 | 0♈28 | 5°54 | 10°21 | 2°56 | 18°47 | 2°32 | 0°29 | 9°43 | 29°35 | 0°39 | 20° 5 | 22°36 | M 22 | | | | | | | | |
| T 23 | 18 28 30 | 6°48'22 | 17°38 | 1°50 | 7° 6 | 11° 2 | 3° 1 | 18°51 | 2°34 | 0°31 | 9°44 | 29°32 | 0°36 | 20°12 | 22°38 | T 23 | | | | | | | | |
| W 24 | 18 32 27 | 7°45'32 | 29°33 | 3°10 | 8°18 | 11°43 | 3° 6 | 18°54 | 2°36 | 0°33 | 9°44 | 29°28 | 0°33 | 20°19 | 22°39 | W 24 | | | | | | | | |
| T 25 | 18 36 24 | 8°42'43 | 11♉25 | 4°27 | 9°30 | 12°23 | 3°10 | 18°58 | 2°38 | 0°35 | 9°44 | 29°25 | 0°30 | 20°25 | 22°41 | T 25 | | | | | | | | |
| F 26 | 18 40 20 | 9°39'54 | 23°14 | 5°42 | 10°42 | 13° 4 | 3°14 | 19° 2 | 2°40 | 0°37 | 9°44 | 29°22 | 0°27 | 20°32 | 22°42 | F 26 | | | | | | | | |
| S 27 | 18 44 17 | 10°37'05 | 5♉5 | 6°55 | 11°54 | 13°44 | 3°18 | 19° 6 | 2°42 | 0°39 | 9°44 | 29°20 | 0°24 | 20°39 | 22°44 | S 27 | | | | | | | | |
| S 28 | 18 48 13 | 11°34'17 | 16°59 | 8° 5 | 13° 6 | 14°25 | 3°22 | 19°10 | 2°43 | 0°41 | 9°44 | 29°18 | 0°20 | 20°45 | 22°45 | S 28 | | | | | | | | |
| M 29 | 18 52 10 | 12°31'30 | 28°59 | 9°12 | 14°18 | 15° 5 | 3°26 | 19°15 | 2°45 | 0°43 | 9°45 | 29°D18 | 0°17 | 20°52 | 22°46 | M 29 | | | | | | | | |
| T 30 | 18 56 6 | 13°28'43 | 11♋5 | 10♈17 | 15♈29 | 15♈46 | 3♋30 | 19♎19 | 2♉47 | 0♈45 | 9 | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1097
geocentric

JULY 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|---------------------|---------------------|----------------------|---------------------|---------------------|--------------------|---------------------|-------------------|-------------------|--------------------|----------------------|---------------------|---------------------|----------------------|------|
| W 1 | 19 0 3 | 14 ²⁵ 56 | 23 ²² 21 | 11 ¹⁹ 19 | 16 ¹⁶ 41 | 16 ¹⁶ 26 | 3 ³ 33 | 19 ¹⁹ 23 | 2 ² 48 | 0 ⁰ 48 | 9 ⁹ 45 | 29 ²⁹ 19 | 0 ⁰ 11 | 21 ²¹ 5 | 22 ²² 49 | W 1 |
| T 2 | 19 3 59 | 15 ²³ 10 | 5 ³ 50 | 12 ¹² 18 | 17 ¹⁷ 53 | 17 ¹⁷ 6 | 3 ³ 36 | 19 ¹⁹ 28 | 2 ² 50 | 0 ⁰ 50 | 9 ⁹ 45 | 29 ²⁹ 20 | 0 ⁰ 8 | 21 ²¹ 12 | 22 ²² 50 | T 2 |
| F 3 | 19 7 56 | 16 ²⁰ 25 | 18 ³ 33 | 13 ¹³ 14 | 19 ¹⁹ 5 | 17 ¹⁷ 47 | 3 ³ 39 | 19 ¹⁹ 32 | 2 ² 51 | 0 ⁰ 52 | 9 ⁹ 45 | 29 ²⁹ 21 | 0 ⁰ 4 | 21 ²¹ 19 | 22 ²² 51 | F 3 |
| S 4 | 19 11 53 | 17 ¹⁷ 41 | 1 ¹ 33 | 14 ¹⁴ 7 | 20 ²⁰ 16 | 18 ¹⁸ 27 | 3 ³ 42 | 19 ¹⁹ 37 | 2 ² 53 | 0 ⁰ 54 | 9 ⁹ R45 | 29 ²⁹ 22 | 0 ⁰ 1 | 21 ²¹ 25 | 22 ²² 52 | S 4 |
| S 5 | 19 15 49 | 18 ¹⁴ 58 | 14 ⁵ 4 | 14 ¹⁴ 57 | 21 ²¹ 28 | 19 ¹⁹ 7 | 3 ³ 45 | 19 ¹⁹ 41 | 2 ² 54 | 0 ⁰ 56 | 9 ⁹ 45 | 29 ²⁹ R23 | 29 ²⁹ 58 | 21 ²¹ 32 | 22 ²² 53 | S 5 |
| M 6 | 19 19 46 | 19 ¹² 16 | 28 ³ 36 | 15 ¹⁵ 44 | 22 ²² 39 | 19 ¹⁹ 47 | 3 ³ 47 | 19 ¹⁹ 46 | 2 ² 56 | 0 ⁰ 58 | 9 ⁹ 45 | 29 ²⁹ 22 | 29 ²⁹ 55 | 21 ²¹ 39 | 22 ²² 54 | M 6 |
| T 7 | 19 23 42 | 20 ⁹ 35 | 12 ⁸ 41 | 16 ¹⁶ 27 | 23 ²³ 51 | 20 ²⁰ 27 | 3 ³ 50 | 19 ¹⁹ 51 | 2 ² 57 | 1 ¹ 1 | 9 ⁹ 45 | 29 ²⁹ 22 | 29 ²⁹ 52 | 21 ²¹ 45 | 22 ²² 54 | T 7 |
| W 8 | 19 27 39 | 21 ⁶ 55 | 27 ⁷ 7 | 17 ¹⁷ 6 | 25 ²⁵ 2 | 21 ²¹ 7 | 3 ³ 52 | 19 ¹⁹ 56 | 2 ² 58 | 1 ¹ 3 | 9 ⁹ 45 | 29 ²⁹ 21 | 29 ²⁹ 49 | 21 ²¹ 52 | 22 ²² 55 | W 8 |
| T 9 | 19 31 35 | 22 ⁴ 16 | 11 ¹¹ 51 | 17 ¹⁷ 42 | 26 ²⁶ 14 | 21 ²¹ 47 | 3 ³ 54 | 20 ²⁰ 1 | 2 ² 59 | 1 ¹ 5 | 9 ⁹ 45 | 29 ²⁹ 20 | 29 ²⁹ 45 | 21 ²¹ 59 | 22 ²² 56 | T 9 |
| F 10 | 19 35 32 | 23 ¹ 39 | 26 ²⁶ 46 | 18 ¹⁸ 13 | 27 ²⁷ 25 | 22 ²² 27 | 3 ³ 55 | 20 ²⁰ 6 | 3 ³ 1 | 1 ¹ 7 | 9 ⁹ 44 | 29 ²⁹ 20 | 29 ²⁹ 42 | 22 ²² 5 | 22 ²² 57 | F 10 |
| S 11 | 19 39 29 | 23 ⁵ 02 | 11 ¹¹ 57 | 18 ¹⁸ 40 | 28 ²⁸ 36 | 23 ²³ 7 | 3 ³ 57 | 20 ²⁰ 11 | 3 ³ 2 | 1 ¹ 9 | 9 ⁹ 44 | 29 ²⁹ 19 | 29 ²⁹ 39 | 22 ²² 12 | 22 ²² 57 | S 11 |
| S 12 | 19 43 25 | 24 ⁵ 26 | 26 ²⁶ 44 | 19 ¹⁹ 3 | 29 ²⁹ 48 | 23 ²³ 47 | 3 ³ 58 | 20 ²⁰ 16 | 3 ³ 3 | 1 ¹ 12 | 9 ⁹ 44 | 29 ²⁹ D19 | 29 ²⁹ 36 | 22 ²² 19 | 22 ²² 58 | S 12 |
| M13 | 19 47 22 | 25 ⁵ 52 | 11 ¹¹ 59 | 19 ¹⁹ 21 | 0 ⁰ 59 | 24 ²⁴ 26 | 3 ³ 59 | 20 ²⁰ 21 | 3 ³ 4 | 1 ¹ 14 | 9 ⁹ 44 | 29 ²⁹ 19 | 29 ²⁹ 33 | 22 ²² 25 | 22 ²² 58 | M13 |
| T 14 | 19 51 18 | 26 ⁵ 18 | 25 ²⁵ 55 | 19 ¹⁹ 35 | 2 ² 10 | 25 ²⁵ 6 | 4 ⁴ 0 | 20 ²⁰ 26 | 3 ³ 5 | 1 ¹ 16 | 9 ⁹ 44 | 29 ²⁹ 19 | 29 ²⁹ 30 | 22 ²² 32 | 22 ²² 59 | T 14 |
| W15 | 19 55 15 | 27 ⁴ 48 | 9 ⁹ 58 | 19 ¹⁹ 44 | 3 ³ 21 | 25 ²⁵ 46 | 4 ⁴ 1 | 20 ²⁰ 32 | 3 ³ 6 | 1 ¹ 18 | 9 ⁹ 44 | 29 ²⁹ 19 | 29 ²⁹ 26 | 22 ²² 39 | 22 ²² 59 | W15 |
| T 16 | 19 59 11 | 28 ⁴ 61 | 23 ²³ 35 | 19 ¹⁹ R47 | 4 ⁴ 32 | 26 ²⁶ 25 | 4 ⁴ 1 | 20 ²⁰ 37 | 3 ³ 7 | 1 ¹ 20 | 9 ⁹ 43 | 29 ²⁹ 19 | 29 ²⁹ 23 | 22 ²² 45 | 22 ²² 59 | T 16 |
| F 17 | 20 3 8 | 29 ⁴ 34 | 6 ⁶ 48 | 19 ¹⁹ 46 | 5 ⁵ 43 | 27 ²⁷ 5 | 4 ⁴ 2 | 20 ²⁰ 43 | 3 ³ 8 | 1 ¹ 23 | 9 ⁹ 43 | 29 ²⁹ R19 | 29 ²⁹ 20 | 22 ²² 52 | 23 ²³ 0 | F 17 |
| S 18 | 20 7 4 | 0 ⁰ 41 | 0 ⁰ 9 | 19 ¹⁹ 39 | 6 ⁶ 54 | 27 ²⁷ 44 | 4 ⁴ R 2 | 20 ²⁰ 48 | 3 ³ 8 | 1 ¹ 25 | 9 ⁹ 43 | 29 ²⁹ 19 | 29 ²⁹ 17 | 22 ²² 59 | 23 ²³ 0 | S 18 |
| S 19 | 20 11 1 | 1 ¹ 38 | 2 ² 39 | 19 ¹⁹ 26 | 8 ⁸ 5 | 28 ²⁸ 24 | 4 ⁴ 2 | 20 ²⁰ 54 | 3 ³ 9 | 1 ¹ 27 | 9 ⁹ 42 | 29 ²⁹ D19 | 29 ²⁹ 14 | 23 ²³ 5 | 23 ²³ 0 | S 19 |
| M20 | 20 14 58 | 2 ² 36 | 14 ¹⁴ 17 | 19 ¹⁹ 9 | 9 ⁹ 16 | 29 ²⁹ 3 | 4 ⁴ 2 | 20 ²⁰ 59 | 3 ³ 10 | 1 ¹ 29 | 9 ⁹ 42 | 29 ²⁹ 19 | 29 ²⁹ 10 | 23 ²³ 12 | 23 ²³ 0 | M20 |
| T 21 | 20 18 54 | 3 ³ 33 | 26 ²⁶ 17 | 18 ¹⁸ 46 | 10 ¹⁰ 27 | 29 ²⁹ 42 | 4 ⁴ 1 | 21 ²¹ 5 | 3 ³ 10 | 1 ¹ 32 | 9 ⁹ 42 | 29 ²⁹ 20 | 29 ²⁹ 7 | 23 ²³ 19 | 23 ²³ R 0 | T 21 |
| W22 | 20 22 51 | 4 ⁴ 31 | 8 ⁸ 10 | 18 ¹⁸ 18 | 11 ¹¹ 37 | 0 ⁰ 21 | 4 ⁴ 0 | 21 ²¹ 11 | 3 ³ 11 | 1 ¹ 34 | 9 ⁹ 41 | 29 ²⁹ 20 | 29 ²⁹ 4 | 23 ²³ 25 | 23 ²³ 0 | W22 |
| T 23 | 20 26 47 | 5 ⁵ 28 | 20 ²⁰ 0 | 17 ¹⁷ 45 | 12 ¹² 48 | 1 ¹ 1 | 4 ⁴ 0 | 21 ²¹ 17 | 3 ³ 12 | 1 ¹ 36 | 9 ⁹ 41 | 29 ²⁹ 21 | 29 ²⁹ 1 | 23 ²³ 32 | 23 ²³ 0 | T 23 |
| F 24 | 20 30 44 | 6 ⁶ 26 | 23 ²³ 0 | 17 ¹⁷ 7 | 13 ¹³ 59 | 1 ¹ 40 | 3 ³ 59 | 21 ²¹ 23 | 3 ³ 12 | 1 ¹ 38 | 9 ⁹ 41 | 29 ²⁹ 21 | 28 ²⁸ 58 | 23 ²³ 39 | 23 ²³ 0 | F 24 |
| S 25 | 20 34 40 | 7 ⁷ 23 | 13 ¹³ 45 | 16 ¹⁶ 25 | 15 ¹⁵ 9 | 2 ² 19 | 3 ³ 57 | 21 ²¹ 28 | 3 ³ 13 | 1 ¹ 41 | 9 ⁹ 40 | 29 ²⁹ 22 | 28 ²⁸ 55 | 23 ²³ 46 | 23 ²³ 0 | S 25 |
| S 26 | 20 38 37 | 8 ⁸ 21 | 25 ²⁵ 46 | 15 ¹⁵ 40 | 16 ¹⁶ 20 | 2 ² 58 | 3 ³ 56 | 21 ²¹ 34 | 3 ³ 13 | 1 ¹ 43 | 9 ⁹ 40 | 29 ²⁹ R22 | 28 ²⁸ 51 | 23 ²³ 52 | 23 ²³ 0 | S 26 |
| M27 | 20 42 33 | 9 ⁹ 19 | 7 ⁷ 55 | 14 ¹⁴ 52 | 17 ¹⁷ 30 | 3 ³ 37 | 3 ³ 54 | 21 ²¹ 40 | 3 ³ 13 | 1 ¹ 45 | 9 ⁹ 39 | 29 ²⁹ 22 | 28 ²⁸ 48 | 23 ²³ 59 | 22 ²² 59 | M27 |
| T 28 | 20 46 30 | 10 ¹⁰ 16 | 20 ²⁰ 16 | 14 ¹⁴ 2 | 18 ¹⁸ 40 | 4 ⁴ 16 | 3 ³ 52 | 21 ²¹ 47 | 3 ³ 14 | 1 ¹ 47 | 9 ⁹ 39 | 29 ²⁹ 22 | 28 ²⁸ 45 | 24 ²⁴ 6 | 22 ²² 59 | T 28 |
| W29 | 20 50 27 | 11 ¹¹ 14 | 2 ² 49 | 13 ¹³ 11 | 19 ¹⁹ 51 | 4 ⁴ 55 | 3 ³ 50 | 21 ²¹ 53 | 3 ³ 14 | 1 ¹ 49 | 9 ⁹ 38 | 29 ²⁹ 21 | 28 ²⁸ 42 | 24 ²⁴ 12 | 22 ²² 59 | W29 |
| T 30 | 20 54 23 | 12 ¹² 17 | 15 ¹⁵ 34 | 12 ¹² 19 | 21 ²¹ 1 | 5 ⁵ 33 | 3 ³ 48 | 21 ²¹ 59 | 3 ³ 14 | 1 ¹ 52 | 9 ⁹ 38 | 29 ²⁹ 19 | 28 ²⁸ 39 | 24 ²⁴ 19 | 22 ²² 58 | T 30 |
| F 31 | 20 58 20 | 13 ¹³ 10 | 28 ²⁸ 33 | 11 ¹¹ 28 | 22 ²² 11 | 6 ⁶ 52 | 3 ³ 46 | 22 ²² 5 | 3 ³ 14 | 1 ¹ 54 | 9 ⁹ 37 | 29 ²⁹ 17 | 28 ²⁸ 35 | 24 ²⁴ 26 | 22 ²² 58 | F 31 |

Delta T = 17m50s Julian Calendar 1 July 1097 == Greg. Calendar 7 July 1097

AUGUST 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day | |
|------|----------|---------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|---------------------|-------------------|-------------------|----------------------|----------------------|---------------------|---------------------|----------------------|------|
| S 1 | 21 2 16 | 14 ¹⁴ 10 | 7 ⁷ 47 | 11 ¹¹ 47 | 10 ¹⁰ R40 | 23 ²³ 11 | 6 ⁶ 51 | 3 ³ R43 | 22 ²² 11 | 3 ³ 14 | 1 ¹ 56 | 9 ⁹ R37 | 29 ²⁹ R15 | 28 ²⁸ 32 | 24 ²⁴ 32 | 22 ²² R57 | S 1 |
| S 2 | 21 6 13 | 15 ¹⁵ 53 | 25 ²⁵ 16 | 9 ⁹ 53 | 24 ²⁴ 31 | 7 ⁷ 30 | 3 ³ 40 | 22 ²² 18 | 3 ³ 14 | 1 ¹ 58 | 9 ⁹ 36 | 29 ²⁹ 14 | 28 ²⁸ 29 | 24 ²⁴ 39 | 22 ²² 56 | S 2 | |
| M 3 | 21 10 9 | 16 ¹⁶ 32 | 8 ⁸ 59 | 9 ⁹ 11 | 25 ²⁵ 41 | 8 ⁸ 8 | 3 ³ 37 | 22 ²² 24 | 3 ³ R14 | 2 ² 0 | 9 ⁹ 35 | 29 ²⁹ 13 | 28 ²⁸ 26 | 24 ²⁴ 46 | 22 ²² 56 | M 3 | |
| T 4 | 21 14 6 | 17 ¹⁷ 11 | 1 ¹ 14 | 22 ²² 57 | 8 ⁸ 34 | 26 ²⁶ 51 | 8 ⁸ 47 | 3 ³ 34 | 22 ²² 30 | 3 ³ 14 | 2 ² 2 | 9 ⁹ 35 | 29 ²⁹ D13 | 28 ²⁸ 23 | 24 ²⁴ 52 | 22 ²² 55 | T 4 |
| W 5 | 21 18 2 | 17 ¹⁷ 59 | 0 ⁰ 7 | 7 ⁷ 10 | 8 ⁸ 2 | 28 ²⁸ 1 | 9 ⁹ 25 | 3 ³ 31 | 22 ²² 37 | 3 ³ 14 | 2 ² 5 | 9 ⁹ 34 | 29 ²⁹ 14 | 28 ²⁸ 20 | 24 ²⁴ 59 | 22 ²² 54 | W 5 |
| T 6 | 21 21 59 | 18 ¹⁸ 57 | 0 ⁰ 2 | 21 ²¹ 34 | 7 ⁷ 37 | 29 ²⁹ 10 | 10 ¹⁰ 4 | 3 ³ 27 | 22 ²² 43 | 3 ³ 14 | 2 ² 7 | 9 ⁹ 34 | 29 ²⁹ 15 | 28 ²⁸ 16 | 25 ²⁵ 6 | 22 ²² 53 | T 6 |
| F 7 | 21 25 56 | 19 ¹⁹ 54 | 6 ⁶ 5 | 7 ⁷ 19 | 0 ⁰ 20 | 10 ¹⁰ 42 | 3 ³ 23 | 22 ²² 50 | 3 ³ 14 | 2 ² 9 | 9 ⁹ 33 | 29 ²⁹ 16 | 28 ²⁸ 13 | 25 ²⁵ 12 | 22 ²² 53 | F 7 | |
| S 8 | 21 29 52 | 20 ²⁰ 52 | 20 ²⁰ 44 | 7 ⁷ 8 | 1 ¹ 29 | 11 ¹¹ 21 | 3 ³ 19 | 22 ²² 57 | 3 ³ 14 | 2 ² 11 | 9 ⁹ 32 | 29 ²⁹ 17 | 28 ²⁸ 10 | 25 ²⁵ 19 | 22 ²² 52 | S 8 | |
| S 9 | 21 33 49 | 21 ²¹ 50 | 5 ⁵ 20 | 7 ⁷ D 5 | 2 ² 39 | 11 ¹¹ 59 | 3 ³ 15 | 23 ²³ 3 | 3 ³ 13 | 2 ² 13 | 9 ⁹ 32 | 29 ²⁹ R17 | 28 ²⁸ 7 | 25 ²⁵ 26 | 22 ²² 51 | S 9 | |
| M10 | 21 37 45 | 22 ²² 49 | 0 ⁰ 0 | 19 ¹⁹ 49 | 7 ⁷ 10 | 3 ³ 48 | 12 ¹² 37 | 3 ³ 11 | 23 ²³ 10 | 3 ³ 13 | 2 ² 15 | 9 ⁹ 31 | 29 ²⁹ 16 | 28 ²⁸ 4 | 25 ²⁵ 32 | 22 ²² 50 | M10 |
| T 11 | 21 41 42 | 23 ²³ 47 | 0 ⁰ 4 | 4 ⁴ 11 | 7 ⁷ 24 | 4 ⁴ 57 | 13 ¹³ 15 | 3 ³ 6 | 23 ²³ 17 | 3 ³ 13 | 2 ² 17 | 9 ⁹ 30 | 29 ²⁹ 14 | 28 ²⁸ 1 | 25 ²⁵ 39 | 22 ²² 48 | T 11 |
| W12 | 21 45 38 | 24 ²⁴ 45 | 0 ⁰ 9 | 18 ¹⁸ 3 | 7 ⁷ 45 | 6 ⁶ 7 | 13 ¹³ 53 | 3 ³ 2 | 23 ²³ 23 | 3 ³ 12 | 2 ² 20 | 9 ⁹ 29 | 29 ²⁹ 11 | 27 ²⁷ 57 | 25 ²⁵ 46 | 22 ²² 47 | W12 |
| T 13 | 21 49 35 | 25 ²⁵ 43 | 1 ¹ 40 | 8 ⁸ 16 | 7 ⁷ 16 | 14 ¹⁴ 31 | 2 ² 57 | 23 ²³ 30 | 3 ³ 12 | 2 ² 22 | 9 ⁹ 29 | 29 ²⁹ 7 | 27 ²⁷ 54 | 25 ²⁵ 52 | 22 ²² 46 | T 13 | |
| F 14 | 21 53 31 | 26 ²⁶ 41 | 2 ² 14 | 14 ¹⁴ 54 | 8 ⁸ 54 | 8 ⁸ 25 | 15 ¹⁵ 9 | 2 ² 52 | 23 ²³ 37 | 3 ³ 11 | 2 ² 24 | 9 ⁹ 28 | 29 ²⁹ 3 | 27 ²⁷ 51 | 25 ²⁵ 59 | 22 ²² 45 | F 14 |

ASTRODIENST EPHEMERIS for the year 1097
geocentric

SEPTEMBER 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|------------------------|----------------------|---------------------|----------------------|--------------------|--------------------|----------------------|-------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|------|---|-----|
| T 1 | 23 4 29 | 14 ¹¹ 12'40 | 3 ^{II} 49 | 5 ^{III} 50 | 28 [♁] 48 | 26 [♂] 24 | 0°R58 | 25 [♃] 44 | 2°R53 | 2 [♅] 58 | 9°R11 | 28°R18 | 26 [♈] 54 | 27 [♉] 59 | 22°R14 | T 1 | | |
| W 2 | 23 8 26 | 15°11'24 | 17°56 | 7°42 | 29°55 | 27° 0 | 0 [♃] 50 | 25°51 | 2 [♅] 52 | 3° 0 | 9 [♃] 10 | 28°D18 | 26°51 | 28° 6 | 22 [♃] 12 | W 2 | | |
| T 3 | 23 12 22 | 16°10'09 | 2 [♁] 6 | 9°33 | 1 [♁] 2 | 27°37 | 0°43 | 25°59 | 2°51 | 3° 2 | 9° 9 | 28 [♈] 18 | 26°47 | 28°12 | 22°10 | T 3 | | |
| F 4 | 23 16 19 | 17° 8'57 | 16°18 | 11°24 | 2° 8 | 28°14 | 0°35 | 26° 6 | 2°49 | 3° 4 | 9° 8 | 28°20 | 26°44 | 28°19 | 22° 7 | F 4 | | |
| S 5 | 23 20 16 | 18° 7'47 | 0 [♁] 30 | 13°15 | 3°14 | 28°51 | 0°27 | 26°13 | 2°48 | 3° 5 | 9° 7 | 28°R20 | 26°41 | 28°26 | 22° 5 | S 5 | | |
| S 6 | 23 24 12 | 19° 6'40 | 14°40 | 15° 6 | 4°20 | 29°27 | 0°20 | 26°20 | 2°46 | 3° 7 | 9° 6 | 28°19 | 26°38 | 28°32 | 22° 3 | S 6 | | |
| M 7 | 23 28 9 | 20° 5'35 | 28°44 | 16°55 | 5°26 | 0 [♁] 4 | 0°12 | 26°28 | 2°44 | 3° 9 | 9° 5 | 28°15 | 26°35 | 28°39 | 22° 1 | M 7 | | |
| T 8 | 23 32 5 | 21° 4'31 | 12 ^{III} 39 | 18°45 | 6°32 | 0°41 | 0° 4 | 26°35 | 2°43 | 3°10 | 9° 4 | 28°10 | 26°32 | 28°45 | 21°58 | T 8 | | |
| W 9 | 23 36 2 | 22° 3'30 | 26°21 | 20°33 | 7°38 | 1°17 | 29 [♃] 56 | 26°42 | 2°41 | 3°12 | 9° 3 | 28° 2 | 26°28 | 28°52 | 21°56 | W 9 | | |
| T 10 | 23 39 58 | 23° 2'31 | 9 [♁] 47 | 22°21 | 8°43 | 1°53 | 29°48 | 26°50 | 2°39 | 3°14 | 9° 2 | 27°52 | 26°25 | 28°59 | 21°53 | T 10 | | |
| F 11 | 23 43 55 | 24° 1'34 | 22°54 | 24° 7 | 9°49 | 2°30 | 29°40 | 26°57 | 2°38 | 3°15 | 9° 0 | 27°42 | 26°22 | 29° 5 | 21°51 | F 11 | | |
| S 12 | 23 47 51 | 25° 0'39 | 5 ^{III} 41 | 25°53 | 10°54 | 3° 6 | 29°32 | 27° 4 | 2°36 | 3°17 | 8°59 | 27°33 | 26°19 | 29°12 | 21°48 | S 12 | | |
| S 13 | 23 51 48 | 25°59'46 | 18°10 | 27°39 | 11°59 | 3°42 | 29°24 | 27°12 | 2°34 | 3°18 | 8°58 | 27°25 | 26°16 | 29°19 | 21°46 | S 13 | | |
| M14 | 23 55 45 | 26°58'54 | 0 [♁] 23 | 29°23 | 13° 3 | 4°18 | 29°16 | 27°19 | 2°32 | 3°20 | 8°57 | 27°19 | 26°12 | 29°25 | 21°43 | M14 | | |
| T 15 | 23 59 41 | 27°58'05 | 12°23 | 1 [♁] 6 | 14° 8 | 4°54 | 29° 8 | 27°27 | 2°30 | 3°21 | 8°56 | 27°16 | 26° 9 | 29°32 | 21°41 | T 15 | | |
| W16 | 0 3 38 | 28°57'17 | 24°15 | 2°49 | 15°12 | 5°30 | 29° 0 | 27°34 | 2°28 | 3°23 | 8°55 | 27°D14 | 26° 6 | 29°39 | 21°38 | W16 | | |
| T 17 | 0 7 34 | 29°56'31 | 6 [♁] 4 | 4°31 | 16°16 | 6° 6 | 28°52 | 27°41 | 2°26 | 3°24 | 8°54 | 27°14 | 26° 3 | 29°45 | 21°35 | T 17 | | |
| F 18 | 0 11 31 | 0 [♁] 55'48 | 17°55 | 6°12 | 17°20 | 6°42 | 28°43 | 27°49 | 2°24 | 3°25 | 8°53 | 27°15 | 26° 0 | 29°52 | 21°33 | F 18 | | |
| S 19 | 0 15 27 | 1°55'05 | 29°54 | 7°52 | 18°23 | 7°18 | 28°35 | 27°56 | 2°22 | 3°27 | 8°51 | 27°R15 | 25°57 | 29°59 | 21°30 | S 19 | | |
| S 20 | 0 19 24 | 2°54'25 | 12 [♁] 6 | 9°32 | 19°26 | 7°53 | 28°27 | 28° 3 | 2°20 | 3°28 | 8°50 | 27°14 | 25°53 | 0 [♁] 5 | 21°27 | S 20 | | |
| M21 | 0 23 20 | 3°53'47 | 24°34 | 11°11 | 20°29 | 8°29 | 28°19 | 28°11 | 2°18 | 3°29 | 8°49 | 27°11 | 25°50 | 0°12 | 21°25 | M21 | | |
| T 22 | 0 27 17 | 4°53'10 | 7 [♃] 23 | 12°49 | 21°32 | 9° 5 | 28°11 | 28°18 | 2°16 | 3°31 | 8°48 | 27° 5 | 25°47 | 0°19 | 21°22 | T 22 | | |
| W23 | 0 31 14 | 5°52'35 | 20°32 | 14°26 | 22°35 | 9°40 | 28° 3 | 28°25 | 2°14 | 3°32 | 8°47 | 26°56 | 25°44 | 0°25 | 21°19 | W23 | | |
| T 24 | 0 35 10 | 6°52'02 | 4 [♃] 3 | 16° 2 | 23°37 | 10°15 | 27°56 | 28°32 | 2°12 | 3°33 | 8°46 | 26°46 | 25°41 | 0°32 | 21°16 | T 24 | | |
| F 25 | 0 39 7 | 7°51'32 | 17°52 | 17°38 | 24°39 | 10°51 | 27°48 | 28°40 | 2°10 | 3°34 | 8°45 | 26°35 | 25°38 | 0°39 | 21°14 | F 25 | | |
| S 26 | 0 43 3 | 8°51'03 | 1 [♁] 55 | 19°14 | 25°40 | 11°26 | 27°40 | 28°47 | 2° 7 | 3°35 | 8°43 | 26°23 | 25°34 | 0°45 | 21°11 | S 26 | | |
| S 27 | 0 47 0 | 9°50'37 | 16° 8 | 20°48 | 26°41 | 12° 1 | 27°32 | 28°54 | 2° 5 | 3°37 | 8°42 | 26°13 | 25°31 | 0°52 | 21° 8 | S 27 | | |
| M28 | 0 50 56 | 10°50'13 | 0 ^{II} 26 | 22°22 | 27°42 | 12°36 | 27°25 | 29° 2 | 2° 3 | 3°38 | 8°41 | 26° 5 | 25°28 | 0°59 | 21° 5 | M28 | | |
| T 29 | 0 54 53 | 11°49'51 | 14°43 | 23°55 | 28°43 | 13°11 | 27°17 | 29° 9 | 2° 1 | 3°39 | 8°40 | 26° 0 | 25°25 | 1° 5 | 21° 2 | T 29 | | |
| W30 | 0 58 49 | 12 [♁] 49'32 | 28 ^{II} 56 | 25 [♁] 28 | 29 ^{III} 43 | 13 [♁] 46 | 27 [♃] 9 | 29 ^{III} 16 | 1 [♁] 58 | 3 [♁] 40 | 8 [♃] 39 | 25 [♁] 58 | 25 [♁] 22 | 1 [♁] 12 | 20 [♃] 59 | W30 | | |

Delta T = 17m50s Julian Calendar 1 Sept. 1097 == Greg. Calendar 7 Sept. 1097

OCTOBER 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|-------------------------|---------------------|--------------------|--------------------|---------------------|--------------------|----------------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|--------------------|------|---|-----|
| T 1 | 1 2 46 | 13 [♁] 49'15 | 13 [♁] 4 | 27 [♁] 0 | 0 [♁] 43 | 14 [♁] 21 | 27°R 2 | 29 ^{III} 23 | 1°R56 | 3 [♁] 41 | 8°R38 | 25°D57 | 25 [♈] 18 | 1 [♁] 19 | 20°R57 | T 1 | | |
| F 2 | 1 6 43 | 14°49'01 | 27° 5 | 28°32 | 1°42 | 14°56 | 26 [♃] 55 | 29°30 | 1 [♁] 54 | 3°42 | 8 [♃] 37 | 25°R58 | 25°15 | 1°25 | 20 [♃] 54 | F 2 | | |
| S 3 | 1 10 39 | 15°48'48 | 10 [♁] 59 | 0 ^{III} 2 | 2°41 | 15°30 | 26°47 | 29°38 | 1°51 | 3°43 | 8°35 | 25°S57 | 25°12 | 1°32 | 20°51 | S 3 | | |
| S 4 | 1 14 36 | 16°48'38 | 24°46 | 1°33 | 3°40 | 16° 5 | 26°40 | 29°45 | 1°49 | 3°44 | 8°34 | 25°54 | 25° 9 | 1°39 | 20°48 | S 4 | | |
| M 5 | 1 18 32 | 17°48'30 | 8 ^{III} 25 | 3° 2 | 4°38 | 16°40 | 26°33 | 29°52 | 1°47 | 3°45 | 8°33 | 25°49 | 25° 6 | 1°45 | 20°45 | M 5 | | |
| T 6 | 1 22 29 | 18°48'24 | 21°54 | 4°32 | 5°36 | 17°14 | 26°26 | 29°59 | 1°44 | 3°45 | 8°32 | 25°41 | 25° 3 | 1°52 | 20°42 | T 6 | | |
| W 7 | 1 26 25 | 19°48'21 | 5 [♁] 13 | 6° 0 | 6°34 | 17°48 | 26°20 | 0 [♁] 6 | 1°42 | 3°46 | 8°31 | 25°30 | 24°59 | 1°59 | 20°39 | W 7 | | |
| T 8 | 1 30 22 | 20°48'19 | 18°20 | 7°28 | 7°31 | 18°23 | 26°13 | 0°13 | 1°39 | 3°47 | 8°30 | 25°17 | 24°56 | 2° 5 | 20°36 | T 8 | | |
| F 9 | 1 34 18 | 21°48'20 | 1 ^{III} 12 | 8°55 | 8°27 | 18°57 | 26° 6 | 0°20 | 1°37 | 3°48 | 8°29 | 25° 3 | 24°53 | 2°12 | 20°33 | F 9 | | |
| S 10 | 1 38 15 | 22°48'22 | 13°49 | 10°22 | 9°23 | 19°31 | 26° 0 | 0°27 | 1°34 | 3°49 | 8°27 | 24°49 | 24°50 | 2°19 | 20°30 | S 10 | | |
| S 11 | 1 42 11 | 23°48'26 | 26°11 | 11°48 | 10°18 | 20° 5 | 25°54 | 0°34 | 1°32 | 3°49 | 8°26 | 24°38 | 24°47 | 2°25 | 20°28 | S 11 | | |
| M12 | 1 46 8 | 24°48'32 | 8 [♁] 20 | 13°13 | 11°13 | 20°39 | 25°48 | 0°41 | 1°30 | 3°50 | 8°25 | 24°29 | 24°44 | 2°32 | 20°25 | M12 | | |
| T 13 | 1 50 5 | 25°48'40 | 20°17 | 14°38 | 12° 8 | 21°12 | 25°42 | 0°48 | 1°27 | 3°51 | 8°24 | 24°22 | 24°40 | 2°39 | 20°22 | T 13 | | |
| W14 | 1 54 1 | 26°48'49 | 2 [♁] 7 | 16° 2 | 13° 1 | 21°46 | 25°36 | 0°55 | 1°25 | 3°51 | 8°23 | 24°19 | 24°37 | 2°45 | 20°19 | W14 | | |
| T 15 | 1 57 58 | 27°49'00 | 13°54 | 17°25 | 13°55 | 22°19 | 25°30 | 1° 2 | 1°22 | 3°52 | 8°22 | 24°17 | 24°34 | 2°52 | 20°16 | T 15 | | |
| F 16 | 2 1 54 | 28°49'13 | 25°44 | 18°47 | 14°47 | 22°53 | 25°25 | 1° 9 | 1°20 | 3°52 | 8°21 | 24°17 | 24°31 | 2°58 | 20°13 | F 16 | | |
| S 17 | 2 5 51 | 29°49'27 | 7 [♁] 41 | 20° 8 | 15°39 | 23°26 | 25°19 | 1°15 | 1°17 | 3°53 | 8°20 | 24°17 | 24°28 | 3° 5 | 20°10 | S 17 | | |
| S 18 | 2 9 47 | 0 ^{III} 49'42 | 19°52 | 21°28 | 16°30 | 24° 0 | 25°14 | 1°22 | 1°15 | 3°53 | 8°19 | 24°16 | 24°24 | 3°12 | 20° 7 | S 18 | | |
| M19 | 2 13 44 | 1°49'59 | 2 [♃] 21 | 22°47 | 17°20 | 24°33 | 25° 9 | 1°29 | 1°12 | 3°54 | 8°18 | 24°12 | 24°21 | 3°18 | 20° 5 | M19 | | |
| T 20 | 2 17 40 | 2°50'18 | 15°13 | 24° 4 | 18°10 | 25° 6 | 25° 4 | 1°35 | 1°10 | 3°54 | 8°17 | 24° 7 | 24°18 | 3°25 | 20° 2 | T 20 | | |
| W21 | 2 21 37 | 3°50'38 | 28°31 | 25°21 | 18°59 | 25°39 | 24°59 | 1°42 | 1° 7 | 3°54 | 8°16 | 23°58 | 24°15 | 3°32 | 19°59 | W21 | | |
| T 22 | 2 25 34 | 4°50'59 | 12 [♃] 15 | 26°35 | 19°47 | 26°11 | 24°55 | 1°49 | 1° 5 | 3°55 | 8°15 | 23°48 | 24°12 | 3°38 | 19°56 | T 22 | | |
| F 23 | 2 29 30 | 5°51'23 | 26°24 | 27°48 | 20°34 | 26°44 | 24°51 | 1°55 | 1° 2 | 3°55 | 8°14 | 23°36 | 24° 9 | 3°45 | 19°53 | F 23 | | |
| S 24 | 2 33 27 | 6°51'47 | 10 [♁] 51 | 28°59 | 21°20 | 27°17 | 24°47 | 2° 2 | 1° 0 | 3°55 | 8°13 | 23°24 | 24° 5 | 3°52 | 19°51 | S 24 | | |
| S 25 | 2 37 23 | 7°52'14 | 25°31 | 0 [♁] 8 | 22° 5 | 27°49 | 24°43 | 2° 8 | 0°57 | 3°55 | 8°12 | 23°13 | 24° 2 | 3°58 | 19°48 | S 25 | | |
| M26 | 2 41 20 | 8°52'43 | 10 ^{II} 15 | 1°14 | 22°50 | 28°22 | 24°39 | 2°14 | 0°55 | 3°56 | 8°11 | 23° 5 | 23°59 | 4° 5 | 19°45 | M26 | | |
| T 27 | 2 45 16 | 9°53'13 | 24°57 | 2°17 | 23°33 | 28°54 | 24°35 | 2°21 | 0°52 | 3°56 | 8°10 | 23° 0 | 23°56 | 4°12 | 19°42 | T 27 | | |
| W28 | 2 49 13 | 10°53'45 | 9 [♁] 29 | 3°17 | 24°15 | 29°26 | 24°32 | 2°27 | 0°50 | 3°56 | 8° 9 | 22°57 | 23°53 | 4°18 | 19°40 | W28 | | |
| T 29 | 2 53 9 | 11°54'19 | 23°49 | 4°13 | 24°56 | 29°58 | 24°29 | 2°33 | 0°48 | 3°56 | 8° 8 | 22°D56 | 23°50 | 4°25 | 19°37 | T 29 | | |
| F 30 | 2 57 6 | 12°54'54 | 7 [♁] 53 | 5° 6 | 25°37 | 0 ^{III} 30 | 24°26 | 2°40 | 0°45 | 3°56 | 8° 7 | 22°R57 | 23°46 | 4°32 | 19°35 | F 30 | | |
| S 31 | 3 1 3 | 13 ^{III} 55'32 | 21 [♁] 42 | 5 [♁] 54 | 26 [♁] 15 | 1 ^{III} 2 | 24 [♃] 23 | 2 [♁] 46 | 0 [♁] 43 | 3°R56 | 8 [♃] 6 | 22 [♁] 57 | 23 [♁] 43 | 4 [♁] 38 | 19 [♃] 32 | S 31 | | |

Delta T = 17m50s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1097
geocentric

NOVEMBER 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|--------|-------|-------|--------|------|--------|-------|-------|--------|-------|------|--------|------|-----|
| S 1 | 3 4 59 | 14♌56'11 | 5♍16 | 6♂36 | 26♂53 | 1♍33 | 24°R20 | 2♂52 | 0°R40 | 3°R56 | 8°R 5 | 22°R55 | 23♌40 | 4♌45 | 19°R29 | S 1 | |
| M 2 | 3 8 56 | 15°56'52 | 18°37 | 7°13 | 27°29 | 2° 5 | 24♌18 | 2°58 | 0♂38 | 3♌56 | 8°Y 4 | 22♌51 | 23°37 | 4°52 | 19°Y27 | M 2 | |
| T 3 | 3 12 52 | 16°57'35 | 1♂45 | 7°43 | 28° 5 | 2°36 | 24°16 | 3° 4 | 0°36 | 3°56 | 8° 3 | 22°44 | 23°34 | 4°58 | 19°24 | T 3 | |
| W 4 | 3 16 49 | 17°58'19 | 14°42 | 8° 6 | 28°38 | 3° 7 | 24°14 | 3°10 | 0°33 | 3°56 | 8° 3 | 22°34 | 23°30 | 5° 5 | 19°22 | W 4 | |
| T 5 | 3 20 45 | 18°59'05 | 27°27 | 8°21 | 29°10 | 3°38 | 24°12 | 3°16 | 0°31 | 3°56 | 8° 2 | 22°23 | 23°27 | 5°12 | 19°19 | T 5 | |
| F 6 | 3 24 42 | 19°59'52 | 10♌ 0 | 8°R26 | 29°41 | 4° 9 | 24°10 | 3°21 | 0°29 | 3°55 | 8° 1 | 22°10 | 23°24 | 5°18 | 19°17 | F 6 | |
| S 7 | 3 28 38 | 21° 0'40 | 22°23 | 8°22 | 0♌10 | 4°40 | 24° 9 | 3°27 | 0°26 | 3°55 | 8° 0 | 21°59 | 23°21 | 5°25 | 19°15 | S 7 | |
| S 8 | 3 32 35 | 22° 1'30 | 4♂34 | 8° 8 | 0°38 | 5°11 | 24° 8 | 3°33 | 0°24 | 3°55 | 7°59 | 21°48 | 23°18 | 5°32 | 19°12 | S 8 | |
| M 9 | 3 36 32 | 23° 2'22 | 16°35 | 7°43 | 1° 4 | 5°41 | 24° 7 | 3°39 | 0°22 | 3°55 | 7°58 | 21°40 | 23°15 | 5°38 | 19°10 | M 9 | |
| T 10 | 3 40 28 | 24° 3'14 | 28°28 | 7° 7 | 1°28 | 6°11 | 24° 6 | 3°44 | 0°20 | 3°54 | 7°58 | 21°34 | 23°11 | 5°45 | 19° 8 | T 10 | |
| W11 | 3 44 25 | 25° 4'07 | 10♌16 | 6°20 | 1°51 | 6°41 | 24° 6 | 3°50 | 0°17 | 3°54 | 7°57 | 21°31 | 23° 8 | 5°51 | 19° 5 | W11 | |
| T 12 | 3 48 21 | 26° 5'01 | 22° 2 | 5°23 | 2°11 | 7°11 | 24° 5 | 3°55 | 0°15 | 3°54 | 7°56 | 21°D31 | 23° 5 | 5°58 | 19° 3 | T 12 | |
| F 13 | 3 52 18 | 27° 5'57 | 3♌50 | 4°17 | 2°30 | 7°41 | 24°D 5 | 4° 0 | 0°13 | 3°53 | 7°56 | 21°31 | 23° 2 | 6° 5 | 19° 1 | F 13 | |
| S 14 | 3 56 14 | 28° 6'53 | 15°45 | 3° 3 | 2°46 | 8°11 | 24° 5 | 4° 6 | 0°11 | 3°53 | 7°55 | 21°32 | 22°59 | 6°11 | 18°59 | S 14 | |
| S 15 | 4 0 11 | 29° 7'49 | 27°53 | 1°43 | 3° 0 | 8°40 | 24° 6 | 4°11 | 0° 9 | 3°52 | 7°54 | 21°R33 | 22°55 | 6°18 | 18°57 | S 15 | |
| M16 | 4 4 7 | 0♂8 8'47 | 10♌18 | 0°21 | 3°13 | 9°10 | 24° 6 | 4°16 | 0° 7 | 3°52 | 7°54 | 21°33 | 22°52 | 6°25 | 18°55 | M16 | |
| T 17 | 4 8 4 | 1° 9'45 | 23° 7 | 28♌58 | 3°23 | 9°39 | 24° 7 | 4°21 | 0° 5 | 3°51 | 7°53 | 21°30 | 22°49 | 6°31 | 18°53 | T 17 | |
| W18 | 4 12 1 | 2°10'44 | 6°Y22 | 27°38 | 3°31 | 10° 8 | 24° 8 | 4°26 | 0° 3 | 3°50 | 7°52 | 21°25 | 22°46 | 6°38 | 18°51 | W18 | |
| T 19 | 4 15 57 | 3°11'44 | 20° 6 | 26°23 | 3°36 | 10°37 | 24° 9 | 4°31 | 0° 1 | 3°50 | 7°52 | 21°19 | 22°43 | 6°45 | 18°49 | T 19 | |
| F 20 | 4 19 54 | 4°12'44 | 4♌18 | 25°16 | 3°39 | 11° 5 | 24°10 | 4°36 | 29°Y59 | 3°49 | 7°51 | 21°11 | 22°40 | 6°51 | 18°47 | F 20 | |
| S 21 | 4 23 50 | 5°13'45 | 18°55 | 24°18 | 3°R40 | 11°34 | 24°12 | 4°41 | 29°57 | 3°49 | 7°51 | 21° 4 | 22°36 | 6°58 | 18°45 | S 21 | |
| S 22 | 4 27 47 | 6°14'47 | 3♌51 | 23°30 | 3°38 | 12° 2 | 24°14 | 4°46 | 29°55 | 3°48 | 7°50 | 20°57 | 22°33 | 7° 5 | 18°44 | S 22 | |
| M23 | 4 31 43 | 7°15'49 | 18°56 | 22°54 | 3°34 | 12°30 | 24°16 | 4°50 | 29°53 | 3°47 | 7°50 | 20°51 | 22°30 | 7°11 | 18°42 | M23 | |
| T 24 | 4 35 40 | 8°16'53 | 4♌ 2 | 22°28 | 3°27 | 12°58 | 24°18 | 4°55 | 29°51 | 3°46 | 7°49 | 20°48 | 22°27 | 7°18 | 18°40 | T 24 | |
| W25 | 4 39 37 | 9°17'57 | 18°58 | 22°14 | 3°17 | 13°25 | 24°20 | 4°59 | 29°50 | 3°46 | 7°49 | 20°D47 | 22°24 | 7°25 | 18°39 | W25 | |
| T 26 | 4 43 33 | 10°19'02 | 3♌38 | 22°D11 | 3° 6 | 13°53 | 24°23 | 5° 4 | 29°48 | 3°45 | 7°48 | 20°48 | 22°21 | 7°31 | 18°37 | T 26 | |
| F 27 | 4 47 30 | 11°20'08 | 17°58 | 22°17 | 2°51 | 14°20 | 24°26 | 5° 8 | 29°46 | 3°44 | 7°48 | 20°49 | 22°17 | 7°38 | 18°36 | F 27 | |
| S 28 | 4 51 26 | 12°21'15 | 1♍56 | 22°32 | 2°35 | 14°47 | 24°29 | 5°12 | 29°45 | 3°43 | 7°47 | 20°50 | 22°14 | 7°45 | 18°34 | S 28 | |
| S 29 | 4 55 23 | 13°22'23 | 15°32 | 22°56 | 2°16 | 15°13 | 24°32 | 5°16 | 29°43 | 3°42 | 7°47 | 20°R51 | 22°11 | 7°51 | 18°33 | S 29 | |
| M30 | 4 59 19 | 14♂23'32 | 28♌48 | 23♌27 | 1♌54 | 15♌40 | 24♌35 | 5♌20 | 29°Y41 | 3♌41 | 7°Y47 | 20♌50 | 22♌ 8 | 7♌58 | 18°Y32 | M30 | |

Delta T = 17m49s Julian Calendar 1 Nov. 1097 == Greg. Calendar 7 Nov. 1097

DECEMBER 1097 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|--------|-------|-------|--------|-------|-------|--------|------|-----|
| T 1 | 5 3 16 | 15♌24'41 | 11♌45 | 24♌ 5 | 1°R31 | 16♍ 6 | 24♌39 | 5♌24 | 29°R40 | 3°R49 | 7°R46 | 20°R47 | 22♌ 5 | 8♌ 5 | 18°R30 | T 1 | |
| W 2 | 5 7 12 | 16°25'51 | 24°26 | 24°49 | 1♌ 5 | 16°32 | 24°42 | 5°28 | 29°Y38 | 3♌39 | 7°Y46 | 20♌43 | 22° 1 | 8°11 | 18°Y29 | W 2 | |
| T 3 | 5 11 9 | 17°27'02 | 6♌55 | 25°39 | 0°37 | 16°58 | 24°46 | 5°32 | 29°37 | 3°38 | 7°46 | 20°37 | 21°58 | 8°18 | 18°28 | T 3 | |
| F 4 | 5 15 6 | 18°28'13 | 19°12 | 26°33 | 0° 8 | 17°24 | 24°51 | 5°36 | 29°35 | 3°37 | 7°45 | 20°31 | 21°55 | 8°24 | 18°27 | F 4 | |
| S 5 | 5 19 2 | 19°29'25 | 1♂19 | 27°31 | 29♂37 | 17°49 | 24°55 | 5°39 | 29°34 | 3°36 | 7°45 | 20°25 | 21°52 | 8°31 | 18°26 | S 5 | |
| S 6 | 5 22 59 | 20°30'37 | 13°19 | 28°33 | 29° 4 | 18°14 | 24°59 | 5°43 | 29°33 | 3°35 | 7°45 | 20°20 | 21°49 | 8°38 | 18°25 | S 6 | |
| M 7 | 5 26 55 | 21°31'50 | 25°13 | 29°38 | 28°31 | 18°39 | 25° 4 | 5°46 | 29°32 | 3°34 | 7°45 | 20°16 | 21°46 | 8°44 | 18°24 | M 7 | |
| T 8 | 5 30 52 | 22°33'02 | 7♌ 2 | 0♂46 | 27°56 | 19° 3 | 25° 9 | 5°50 | 29°30 | 3°32 | 7°44 | 20°13 | 21°42 | 8°51 | 18°23 | T 8 | |
| W 9 | 5 34 48 | 23°34'15 | 18°49 | 1°56 | 27°20 | 19°27 | 25°14 | 5°53 | 29°29 | 3°31 | 7°44 | 20°D13 | 21°39 | 8°58 | 18°22 | W 9 | |
| T 10 | 5 38 45 | 24°35'28 | 0♌35 | 3° 9 | 26°44 | 19°51 | 25°19 | 5°56 | 29°28 | 3°30 | 7°44 | 20°13 | 21°36 | 9° 4 | 18°21 | T 10 | |
| F 11 | 5 42 41 | 25°36'41 | 12°25 | 4°23 | 26° 7 | 20°15 | 25°25 | 5°59 | 29°27 | 3°29 | 7°44 | 20°14 | 21°33 | 9°11 | 18°20 | F 11 | |
| S 12 | 5 46 38 | 26°37'54 | 24°22 | 5°40 | 25°31 | 20°38 | 25°30 | 6° 2 | 29°26 | 3°28 | 7°44 | 20°16 | 21°30 | 9°18 | 18°20 | S 12 | |
| S 13 | 5 50 35 | 27°39'06 | 6♌30 | 6°58 | 24°54 | 21° 1 | 25°36 | 6° 5 | 29°25 | 3°26 | 7°44 | 20°18 | 21°27 | 9°24 | 18°19 | S 13 | |
| M14 | 5 54 31 | 28°40'18 | 18°53 | 8°17 | 24°18 | 21°24 | 25°42 | 6° 8 | 29°24 | 3°25 | 7°44 | 20°19 | 21°23 | 9°31 | 18°19 | M14 | |
| T 15 | 5 58 28 | 29°41'30 | 1°Y36 | 9°38 | 23°43 | 21°46 | 25°48 | 6°11 | 29°23 | 3°24 | 7°44 | 20°R19 | 21°20 | 9°38 | 18°18 | T 15 | |
| W16 | 6 2 24 | 0♌42'41 | 14°43 | 10°59 | 23° 9 | 22° 9 | 25°55 | 6°13 | 29°22 | 3°22 | 7°D44 | 20°19 | 21°17 | 9°44 | 18°18 | W16 | |
| T 17 | 6 6 21 | 1°43'52 | 28°17 | 12°22 | 22°35 | 22°30 | 26° 1 | 6°16 | 29°21 | 3°21 | 7°44 | 20°17 | 21°14 | 9°51 | 18°17 | T 17 | |
| F 18 | 6 10 17 | 2°45'03 | 12♌19 | 13°46 | 22° 4 | 22°52 | 26° 8 | 6°18 | 29°21 | 3°20 | 7°44 | 20°15 | 21°11 | 9°58 | 18°17 | F 18 | |
| S 19 | 6 14 14 | 3°46'13 | 26°49 | 15°10 | 21°33 | 23°13 | 26°15 | 6°20 | 29°20 | 3°18 | 7°44 | 20°13 | 21° 7 | 10° 4 | 18°17 | S 19 | |
| S 20 | 6 18 10 | 4°47'23 | 11♌41 | 16°36 | 21° 5 | 23°33 | 26°22 | 6°23 | 29°19 | 3°17 | 7°44 | 20°11 | 21° 4 | 10°11 | 18°17 | S 20 | |
| M21 | 6 22 7 | 5°48'33 | 26°50 | 18° 2 | 20°38 | 23°54 | 26°29 | 6°25 | 29°19 | 3°15 | 7°44 | 20° 9 | 21° 1 | 10°18 | 18°16 | M21 | |
| T 22 | 6 26 4 | 6°49'42 | 12♌ 5 | 19°29 | 20°14 | 24°14 | 26°36 | 6°27 | 29°18 | 3°14 | 7°44 | 20° 8 | 20°58 | 10°24 | 18°16 | T 22 | |
| W23 | 6 30 0 | 7°50'51 | 27°17 | 20°56 | 19°51 | 24°34 | 26°44 | 6°28 | 29°18 | 3°12 | 7°44 | 20°D 8 | 20°55 | 10°31 | 18°D16 | W23 | |
| T 24 | 6 33 57 | 8°51'59 | 12♌17 | 22°24 | 19°31 | 24°53 | 26°51 | 6°30 | 29°17 | 3°11 | 7°44 | 20° 9 | 20°52 | 10°37 | 18°16 | T 24 | |
| F 25 | 6 37 53 | 9°53'07 | 26°56 | 23°53 | 19°14 | 25°12 | 26°59 | 6°32 | 29°17 | 3° 9 | 7°45 | 20°10 | 20°48 | 10°44 | 18°17 | F 25 | |
| S 26 | 6 41 50 | 10°54'15 | 11♍11 | 25°22 | 18°58 | 25°30 | 27° 7 | 6°33 | 29°16 | 3° 8 | 7°45 | 20°11 | 20°45 | 10°51 | 18°17 | S 26 | |
| S 27 | 6 45 46 | 11°55'23 | 24°58 | 26°52 | 18°46 | 25°48 | 27°15 | 6°35 | 29°16 | 3° 6 | 7°45 | 20°11 | 20°42 | 10°57 | 18°17 | S 27 | |
| M28 | 6 49 43 | 12°56'30 | 8♌20 | 28°23 | 18°35 | 26° 6 | 27°23 | 6°36 | 29°16 | 3° 5 | 7°45 | 20°R12 | 20°39 | 11° 4 | 18°17 | M28 | |
| T 29 | 6 53 40 | 13°57'37 | 21°18 | 29°54 | 18°28 | 26°23 | 27°32 | 6°38 | 29°16 | 3° 3 | 7°46 | 20°12 | 20°36 | 11°11 | 18°18 | T 29 | |
| W30 | 6 57 36 | 14°58'44 | 3♌55 | 1♌25 | 18°22 | 26°40 | 27°40 | 6°39 | 29°16 | 3° 2 | 7°46 | 20°11 | 20°33 | 11°17 | 18°18 | W30 | |
| T 31 | 7 1 33 | 15♌59'50 | 16♌16 | 2♌57 | 18♌20 | 26♌56 | 27♌49 | 6♌40 | 29°Y16 | 3♌ 0 | 7°Y46 | 20♌11 | 20♌29 | 11♌24 | 18°Y18 | T 31 | |

Delta T = 17m49s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1098
geocentric

JANUARY 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | Day |
|------|---------|----------|-------|-------|--------|-------|-------|-------|--------|-------|------|--------|-------|-------|-------|------|
| F 1 | 7 5 29 | 17♌05'56 | 28♍23 | 4♋30 | 18°D19 | 27♎12 | 27♏57 | 6♁41 | 29°D16 | 2°R58 | 7♃47 | 20°R10 | 20♌26 | 11♋31 | 18♏19 | F 1 |
| S 2 | 7 9 26 | 18° 2'02 | 10♌21 | 6° 4 | 18♌22 | 27°28 | 28° 6 | 6°41 | 29°16 | 2♁57 | 7°47 | 20♌10 | 20°23 | 11°37 | 18°19 | S 2 |
| S 3 | 7 13 22 | 19° 3'07 | 22°12 | 7°37 | 18°26 | 27°43 | 28°16 | 6°42 | 29°16 | 2°55 | 7°47 | 20°10 | 20°20 | 11°44 | 18°20 | S 3 |
| M 4 | 7 17 19 | 20° 4'11 | 4♋0 | 9°12 | 18°33 | 27°57 | 28°25 | 6°43 | 29°16 | 2°53 | 7°48 | 20°D10 | 20°17 | 11°51 | 18°21 | M 4 |
| T 5 | 7 21 15 | 21° 5'15 | 15°47 | 10°47 | 18°42 | 28°11 | 28°34 | 6°43 | 29°16 | 2°52 | 7°48 | 20°R10 | 20°13 | 11°57 | 18°22 | T 5 |
| W 6 | 7 25 12 | 22° 6'17 | 27°35 | 12°23 | 18°53 | 28°24 | 28°44 | 6°44 | 29°16 | 2°50 | 7°49 | 20°10 | 20°10 | 12° 4 | 18°22 | W 6 |
| T 7 | 7 29 9 | 23° 7'19 | 9♌27 | 13°59 | 19° 7 | 28°37 | 28°53 | 6°44 | 29°17 | 2°49 | 7°49 | 20°10 | 20° 7 | 12°11 | 18°23 | T 7 |
| F 8 | 7 33 5 | 24° 8'19 | 21°24 | 15°36 | 19°23 | 28°50 | 29° 3 | 6°44 | 29°17 | 2°47 | 7°50 | 20° 9 | 20° 4 | 12°17 | 18°24 | F 8 |
| S 9 | 7 37 2 | 25° 9'19 | 3♌29 | 17°14 | 19°40 | 29° 1 | 29°13 | 6°R44 | 29°17 | 2°45 | 7°50 | 20° 9 | 20° 1 | 12°24 | 18°25 | S 9 |
| S 10 | 7 40 58 | 26°10'17 | 15°44 | 18°52 | 20° 0 | 29°13 | 29°23 | 6°44 | 29°18 | 2°44 | 7°51 | 20° 8 | 19°58 | 12°30 | 18°26 | S 10 |
| M11 | 7 44 55 | 27°11'14 | 28°12 | 20°31 | 20°21 | 29°23 | 29°33 | 6°44 | 29°18 | 2°42 | 7°51 | 20° 7 | 19°54 | 12°37 | 18°27 | M11 |
| T 12 | 7 48 51 | 28°12'10 | 10♌56 | 22°11 | 20°45 | 29°34 | 29°43 | 6°44 | 29°19 | 2°40 | 7°52 | 20° 6 | 19°51 | 12°44 | 18°29 | T 12 |
| W13 | 7 52 48 | 29°13'04 | 23°59 | 23°51 | 21°10 | 29°43 | 29°53 | 6°43 | 29°19 | 2°38 | 7°52 | 20°D 6 | 19°48 | 12°50 | 18°30 | W13 |
| T 14 | 7 56 44 | 0♌33'57 | 7♌24 | 25°32 | 21°37 | 29°52 | 0♃4 | 6°43 | 29°20 | 2°37 | 7°53 | 20° 6 | 19°45 | 12°57 | 18°31 | T 14 |
| F 15 | 8 0 41 | 1°14'49 | 21°12 | 27°14 | 22° 5 | 0♁1 | 0°14 | 6°42 | 29°21 | 2°35 | 7°54 | 20° 7 | 19°42 | 13° 4 | 18°32 | F 15 |
| S 16 | 8 4 38 | 2°15'39 | 5♌24 | 28°56 | 22°35 | 0° 8 | 0°25 | 6°42 | 29°22 | 2°33 | 7°54 | 20° 7 | 19°39 | 13°10 | 18°34 | S 16 |
| S 17 | 8 8 34 | 3°16'27 | 19°59 | 0♌40 | 23° 7 | 0°15 | 0°36 | 6°41 | 29°22 | 2°32 | 7°55 | 20° 8 | 19°35 | 13°17 | 18°35 | S 17 |
| M18 | 8 12 31 | 4°17'14 | 4♌52 | 2°24 | 23°40 | 0°22 | 0°47 | 6°40 | 29°23 | 2°30 | 7°56 | 20° 9 | 19°32 | 13°24 | 18°37 | M18 |
| T 19 | 8 16 27 | 5°18'00 | 19°58 | 4° 9 | 24°14 | 0°28 | 0°58 | 6°39 | 29°24 | 2°28 | 7°57 | 20°R10 | 19°29 | 13°30 | 18°38 | T 19 |
| W20 | 8 20 24 | 6°18'44 | 5♌9 | 5°54 | 24°50 | 0°33 | 1° 9 | 6°38 | 29°25 | 2°27 | 7°57 | 20° 9 | 19°26 | 13°37 | 18°40 | W20 |
| T 21 | 8 24 20 | 7°19'27 | 20°10 | 7°40 | 25°28 | 0°38 | 1°20 | 6°37 | 29°26 | 2°25 | 7°58 | 20° 8 | 19°23 | 13°44 | 18°41 | T 21 |
| F 22 | 8 28 17 | 8°20'08 | 4♌59 | 9°28 | 26° 6 | 0°42 | 1°31 | 6°36 | 29°27 | 2°23 | 7°59 | 20° 6 | 19°19 | 13°50 | 18°43 | F 22 |
| S 23 | 8 32 13 | 9°20'48 | 19°26 | 11°15 | 26°46 | 0°45 | 1°43 | 6°34 | 29°28 | 2°22 | 8° 0 | 20° 3 | 19°16 | 13°57 | 18°45 | S 23 |
| S 24 | 8 36 10 | 10°21'27 | 3♌26 | 13° 4 | 27°26 | 0°47 | 1°54 | 6°33 | 29°29 | 2°20 | 8° 1 | 20° 1 | 19°13 | 14° 3 | 18°47 | S 24 |
| M25 | 8 40 7 | 11°22'05 | 16°59 | 14°53 | 28° 8 | 0°49 | 2° 6 | 6°31 | 29°31 | 2°18 | 8° 1 | 19°58 | 19°10 | 14°10 | 18°49 | M25 |
| T 26 | 8 44 3 | 12°22'41 | 0♌4 | 16°43 | 28°51 | 0°50 | 2°17 | 6°29 | 29°32 | 2°17 | 8° 2 | 19°57 | 19° 7 | 14°17 | 18°51 | T 26 |
| W27 | 8 48 0 | 13°23'16 | 12°45 | 18°34 | 29°36 | 0°R50 | 2°29 | 6°28 | 29°33 | 2°15 | 8° 3 | 19°D56 | 19° 4 | 14°23 | 18°53 | W27 |
| T 28 | 8 51 56 | 14°23'50 | 25° 6 | 20°25 | 0♁21 | 0°50 | 2°41 | 6°26 | 29°35 | 2°13 | 8° 4 | 19°56 | 19° 0 | 14°30 | 18°55 | T 28 |
| F 29 | 8 55 53 | 15°24'23 | 7♌10 | 22°16 | 1° 7 | 0°49 | 2°53 | 6°24 | 29°36 | 2°12 | 8° 5 | 19°58 | 18°57 | 14°37 | 18°57 | F 29 |
| S 30 | 8 59 49 | 16°24'55 | 19° 5 | 24° 7 | 1°53 | 0°47 | 3° 5 | 6°22 | 29°38 | 2°10 | 8° 6 | 19°59 | 18°54 | 14°43 | 18°59 | S 30 |
| S 31 | 9 3 46 | 17°25'25 | 0♁52 | 25°59 | 2♁41 | 0♁44 | 3°17 | 6♁19 | 29°39 | 2♁8 | 8°7 | 20♌1 | 18♌51 | 14♋50 | 19°1 | S 31 |

Delta T = 17m49s Julian Calendar 1 Jan. 1098 == Greg. Calendar 7 Jan. 1098

FEBRUARY 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ | Day |
|------|----------|----------|-------|--------|-------|-------|------|-------|-------|-------|------|--------|-------|-------|-------|------|
| M 1 | 9 7 42 | 18°25'53 | 12♌38 | 27°51 | 3♋30 | 0°R41 | 3°17 | 6°R17 | 29°41 | 2°R 7 | 8°7 | 20♌2 | 18♌48 | 14♋57 | 19°19 | M 1 |
| T 2 | 9 11 39 | 19°26'20 | 24°26 | 29°42 | 4°19 | 0♁36 | 3°41 | 6♁15 | 29°42 | 2♁5 | 8° 9 | 20°R 3 | 18°45 | 15° 3 | 19° 5 | T 2 |
| W 3 | 9 15 36 | 20°26'45 | 6♌18 | 1♌33 | 5° 9 | 0°31 | 3°54 | 6°12 | 29°44 | 2° 4 | 8°10 | 20° 1 | 18°41 | 15°10 | 19° 8 | W 3 |
| T 4 | 9 19 32 | 21°27'09 | 18°18 | 3°23 | 6° 0 | 0°26 | 4° 6 | 6°10 | 29°46 | 2° 2 | 8°11 | 19°58 | 18°38 | 15°17 | 19°10 | T 4 |
| F 5 | 9 23 29 | 22°27'31 | 0♌27 | 5°12 | 6°52 | 0°19 | 4°19 | 6° 7 | 29°47 | 2° 0 | 8°12 | 19°54 | 18°35 | 15°23 | 19°12 | F 5 |
| S 6 | 9 27 25 | 23°27'51 | 12°46 | 6°59 | 7°44 | 0°12 | 4°31 | 6° 5 | 29°49 | 1°59 | 8°13 | 19°48 | 18°32 | 15°30 | 19°15 | S 6 |
| S 7 | 9 31 22 | 24°28'10 | 25°16 | 8°44 | 8°37 | 0° 3 | 4°44 | 6° 2 | 29°51 | 1°57 | 8°14 | 19°42 | 18°29 | 15°37 | 19°17 | S 7 |
| M 8 | 9 35 18 | 25°28'26 | 7°59 | 10°27 | 9°31 | 29°54 | 4°57 | 5°59 | 29°53 | 1°56 | 8°15 | 19°36 | 18°25 | 15°43 | 19°20 | M 8 |
| T 9 | 9 39 15 | 26°28'40 | 20°54 | 12° 7 | 10°25 | 29°45 | 5° 9 | 5°56 | 29°55 | 1°54 | 8°16 | 19°30 | 18°22 | 15°50 | 19°22 | T 9 |
| W10 | 9 43 11 | 27°28'53 | 4♌4 | 13°44 | 11°20 | 29°34 | 5°22 | 5°53 | 29°57 | 1°53 | 8°17 | 19°26 | 18°19 | 15°56 | 19°25 | W10 |
| T 11 | 9 47 8 | 28°29'03 | 17°29 | 15°16 | 12°15 | 29°23 | 5°35 | 5°50 | 29°59 | 1°51 | 8°18 | 19°24 | 18°16 | 16° 3 | 19°28 | T 11 |
| F 12 | 9 51 5 | 29°29'11 | 1♌11 | 16°44 | 13°11 | 29°11 | 5°48 | 5°46 | 0♁1 | 1°50 | 8°20 | 19°D23 | 18°13 | 16°10 | 19°30 | F 12 |
| S 13 | 9 55 1 | 0♌29'17 | 15° 9 | 18° 7 | 14° 7 | 28°58 | 6° 1 | 5°43 | 0° 3 | 1°48 | 8°21 | 19°24 | 18°10 | 16°16 | 19°33 | S 13 |
| S 14 | 9 58 58 | 1°29'21 | 29°24 | 19°25 | 15° 4 | 28°45 | 6°14 | 5°40 | 0° 5 | 1°47 | 8°22 | 19°26 | 18° 6 | 16°23 | 19°36 | S 14 |
| M15 | 10 2 54 | 2°29'22 | 13♌54 | 20°35 | 16° 1 | 28°31 | 6°28 | 5°36 | 0° 7 | 1°46 | 8°23 | 19°R27 | 18° 3 | 16°30 | 19°39 | M15 |
| T 16 | 10 6 51 | 3°29'22 | 28°36 | 21°40 | 16°59 | 28°16 | 6°41 | 5°33 | 0° 9 | 1°44 | 8°24 | 19°26 | 18° 0 | 16°36 | 19°42 | T 16 |
| W17 | 10 10 47 | 4°29'19 | 13♌25 | 22°36 | 17°57 | 28° 0 | 6°54 | 5°29 | 0°12 | 1°43 | 8°25 | 19°24 | 17°57 | 16°43 | 19°44 | W17 |
| T 18 | 10 14 44 | 5°29'14 | 28°14 | 23°25 | 18°56 | 27°44 | 7° 7 | 5°26 | 0°14 | 1°42 | 8°27 | 19°20 | 17°54 | 16°50 | 19°47 | T 18 |
| F 19 | 10 18 40 | 6°29'07 | 12♌54 | 24° 7 | 19°55 | 27°27 | 7°21 | 5°22 | 0°16 | 1°40 | 8°28 | 19°14 | 17°51 | 16°56 | 19°50 | F 19 |
| S 20 | 10 22 37 | 7°28'58 | 27°18 | 24°39 | 20°54 | 27° 9 | 7°34 | 5°18 | 0°19 | 1°39 | 8°29 | 19° 6 | 17°47 | 17° 3 | 19°53 | S 20 |
| S 21 | 10 26 34 | 8°28'47 | 11♌21 | 25° 3 | 21°54 | 26°51 | 7°48 | 5°14 | 0°21 | 1°38 | 8°30 | 18°58 | 17°44 | 17°10 | 19°56 | S 21 |
| M22 | 10 30 30 | 9°28'35 | 24°58 | 25°19 | 22°55 | 26°32 | 8° 1 | 5°10 | 0°23 | 1°36 | 8°32 | 18°50 | 17°41 | 17°16 | 19°59 | M22 |
| T 23 | 10 34 27 | 10°28'20 | 8♌9 | 25°R26 | 23°55 | 26°13 | 8°15 | 5° 6 | 0°26 | 1°35 | 8°33 | 18°44 | 17°38 | 17°23 | 20° 3 | T 23 |
| W24 | 10 38 23 | 11°28'04 | 20°55 | 25°24 | 24°56 | 25°53 | 8°28 | 5° 2 | 0°28 | 1°34 | 8°34 | 18°39 | 17°35 | 17°29 | 20° 6 | W24 |
| T 25 | 10 42 20 | 12°27'46 | 3♌19 | 25°14 | 25°58 | 25°33 | 8°42 | 4°58 | 0°31 | 1°33 | 8°35 | 18°37 | 17°31 | 17°36 | 20° 9 | T 25 |
| F 26 | 10 46 16 | 13°27'27 | 15°26 | 24°56 | 26°59 | 25°12 | 8°56 | 4°54 | 0°34 | 1°31 | 8°37 | 18°D36 | 17°28 | 17°43 | 20°12 | F 26 |
| S 27 | 10 50 13 | 14°27'05 | 27°21 | 24°31 | 28° 1 | 24°51 | 9°10 | 4°50 | 0°36 | 1°30 | 8°38 | 18°37 | 17°25 | 17°49 | 20°15 | S 27 |
| S 28 | 10 54 9 | 15°26'42 | 9♌9 | 23°59 | 29♌3 | 24♌29 | 9°23 | 4♁46 | 0♁39 | 1♁29 | 8°39 | 18♌38 | 17♌22 | 17♌56 | 20°19 | S 28 |

Delta T = 17m48s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1098
geocentric

MARCH 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|--------|-------|-------|------|-------|------|--------|-------|-------|-------|------|
| M 1 | 10 58 6 | 16♋26'17 | 20♌55 | 23°R21 | 0♋ 6 | 24°R 7 | 9♍37 | 4°R42 | 0♋41 | 1°R28 | 8♍41 | 18°R38 | 17♌19 | 18♌ 3 | 20♍22 | M 1 |
| T 2 | 11 2 3 | 17°25'50 | 2♋45 | 22♋38 | 1° 9 | 23♍45 | 9°51 | 4♌37 | 0°44 | 1♌27 | 8°42 | 18♌37 | 17°16 | 18° 9 | 20°25 | T 2 |
| W 3 | 11 5 59 | 18°25'21 | 14°43 | 21°50 | 2°12 | 23°22 | 10° 5 | 4°33 | 0°47 | 1°26 | 8°43 | 18°34 | 17°12 | 18°16 | 20°28 | W 3 |
| T 4 | 11 9 56 | 19°24'51 | 26°51 | 21° 0 | 3°15 | 22°59 | 10°19 | 4°29 | 0°50 | 1°25 | 8°45 | 18°28 | 17° 9 | 18°23 | 20°32 | T 4 |
| F 5 | 11 13 52 | 20°24'18 | 9♋13 | 20° 8 | 4°19 | 22°36 | 10°33 | 4°24 | 0°53 | 1°24 | 8°46 | 18°19 | 17° 6 | 18°29 | 20°35 | F 5 |
| S 6 | 11 17 49 | 21°23'43 | 21°48 | 19°15 | 5°23 | 22°13 | 10°47 | 4°20 | 0°55 | 1°23 | 8°47 | 18° 9 | 17° 3 | 18°36 | 20°39 | S 6 |
| S 7 | 11 21 45 | 22°23'06 | 4♍39 | 18°23 | 6°27 | 21°50 | 11° 1 | 4°15 | 0°58 | 1°22 | 8°49 | 17°57 | 17° 0 | 18°43 | 20°42 | S 7 |
| M 8 | 11 25 42 | 23°22'27 | 17°42 | 17°31 | 7°31 | 21°26 | 11°15 | 4°11 | 1° 1 | 1°21 | 8°50 | 17°46 | 16°56 | 18°49 | 20°46 | M 8 |
| T 9 | 11 29 38 | 24°21'46 | 0♌59 | 16°42 | 8°36 | 21° 3 | 11°29 | 4° 6 | 1° 4 | 1°20 | 8°51 | 17°36 | 16°53 | 18°56 | 20°49 | T 9 |
| W10 | 11 33 35 | 25°21'03 | 14°26 | 15°57 | 9°40 | 20°40 | 11°43 | 4° 2 | 1° 7 | 1°19 | 8°53 | 17°27 | 16°50 | 19° 3 | 20°53 | W10 |
| T 11 | 11 37 31 | 26°20'17 | 28° 4 | 15°14 | 10°45 | 20°16 | 11°58 | 3°57 | 1°10 | 1°19 | 8°54 | 17°22 | 16°47 | 19° 9 | 20°56 | T 11 |
| F 12 | 11 41 28 | 27°19'29 | 11♌51 | 14°37 | 11°50 | 19°53 | 12°12 | 3°53 | 1°13 | 1°18 | 8°56 | 17°19 | 16°44 | 19°16 | 21° 0 | F 12 |
| S 13 | 11 45 25 | 28°18'39 | 25°47 | 14° 4 | 12°56 | 19°30 | 12°26 | 3°48 | 1°16 | 1°17 | 8°57 | 17°D18 | 16°41 | 19°22 | 21° 3 | S 13 |
| S 14 | 11 49 21 | 29°17'46 | 9♌52 | 13°36 | 14° 1 | 19° 8 | 12°40 | 3°43 | 1°19 | 1°16 | 8°58 | 17°R18 | 16°37 | 19°29 | 21° 7 | S 14 |
| M15 | 11 53 18 | 0♍16'51 | 24° 5 | 13°14 | 15° 7 | 18°45 | 12°54 | 3°39 | 1°22 | 1°15 | 9° 0 | 17°18 | 16°34 | 19°36 | 21°10 | M15 |
| T 16 | 11 57 14 | 1°15'53 | 8♌24 | 12°58 | 16°13 | 18°23 | 13° 9 | 3°34 | 1°25 | 1°15 | 9° 1 | 17°16 | 16°31 | 19°42 | 21°14 | T 16 |
| W17 | 12 1 11 | 2°14'53 | 22°47 | 12°46 | 17°19 | 18° 1 | 13°23 | 3°30 | 1°28 | 1°14 | 9° 3 | 17°13 | 16°28 | 19°49 | 21°18 | W17 |
| T 18 | 12 5 7 | 3°13'51 | 7♍10 | 12°41 | 18°25 | 17°40 | 13°37 | 3°25 | 1°31 | 1°14 | 9° 4 | 17° 6 | 16°25 | 19°56 | 21°21 | T 18 |
| F 19 | 12 9 4 | 4°12'47 | 21°27 | 12°D41 | 19°31 | 17°19 | 13°52 | 3°20 | 1°35 | 1°13 | 9° 5 | 16°57 | 16°22 | 20° 2 | 21°25 | F 19 |
| S 20 | 12 13 0 | 5°11'40 | 5♌34 | 12°46 | 20°38 | 16°59 | 14° 6 | 3°16 | 1°38 | 1°12 | 9° 7 | 16°45 | 16°18 | 20° 9 | 21°29 | S 20 |
| S 21 | 12 16 57 | 6°10'31 | 19°24 | 12°57 | 21°44 | 16°39 | 14°20 | 3°11 | 1°41 | 1°12 | 9° 8 | 16°33 | 16°15 | 20°16 | 21°32 | S 21 |
| M22 | 12 20 54 | 7° 9'21 | 2♍54 | 13°12 | 22°51 | 16°19 | 14°35 | 3° 6 | 1°44 | 1°11 | 9°10 | 16°22 | 16°12 | 20°22 | 21°36 | M22 |
| T 23 | 12 24 50 | 8° 8'08 | 16° 1 | 13°33 | 23°58 | 16° 0 | 14°49 | 3° 2 | 1°47 | 1°11 | 9°11 | 16°11 | 16° 9 | 20°29 | 21°40 | T 23 |
| W24 | 12 28 47 | 9° 6'54 | 28°46 | 13°58 | 25° 5 | 15°42 | 15° 3 | 2°57 | 1°51 | 1°10 | 9°13 | 16° 4 | 16° 6 | 20°36 | 21°44 | W24 |
| T 25 | 12 32 43 | 10° 5'38 | 11♌11 | 14°27 | 26°13 | 15°24 | 15°18 | 2°53 | 1°54 | 1°10 | 9°14 | 15°58 | 16° 2 | 20°42 | 21°47 | T 25 |
| F 26 | 12 36 40 | 11° 4'20 | 23°20 | 15° 1 | 27°20 | 15° 7 | 15°32 | 2°48 | 1°57 | 1°10 | 9°15 | 15°56 | 15°59 | 20°49 | 21°51 | F 26 |
| S 27 | 12 40 36 | 12° 3'01 | 5♌16 | 15°38 | 28°28 | 14°50 | 15°46 | 2°44 | 2° 1 | 1° 9 | 9°17 | 15°55 | 15°56 | 20°55 | 21°55 | S 27 |
| S 28 | 12 44 33 | 13° 1'39 | 17° 5 | 16°20 | 29°35 | 14°35 | 16° 1 | 2°39 | 2° 4 | 1° 9 | 9°18 | 15°55 | 15°53 | 21° 2 | 21°59 | S 28 |
| M29 | 12 48 29 | 14° 0'16 | 28°53 | 17° 5 | 0♋43 | 14°20 | 16°15 | 2°35 | 2° 7 | 1° 9 | 9°20 | 15°54 | 15°50 | 21° 9 | 22° 2 | M29 |
| T 30 | 12 52 26 | 14°58'52 | 10♌46 | 17°53 | 1°51 | 14° 5 | 16°30 | 2°30 | 2°11 | 1° 9 | 9°21 | 15°53 | 15°47 | 21°15 | 22° 6 | T 30 |
| W31 | 12 56 23 | 15°57'25 | 22♌47 | 18♋45 | 2♋59 | 13♍51 | 16°44 | 2°26 | 2♋14 | 1♌ 8 | 9°22 | 15♌49 | 15♌43 | 21♌22 | 22°10 | W31 |

Delta T = 17m48s Julian Calendar 1 March 1098 == Greg. Calendar 7 March 1098

APRIL 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|-------|------|-------|-------|--------|-------|-------|-------|------|
| T 1 | 13 0 19 | 16♍55'57 | 5♋ 2 | 19♋40 | 4♋ 7 | 13°R38 | 16°45 | 2°R21 | 2♋17 | 1°R 8 | 9♍24 | 15°R42 | 15♌40 | 21♌29 | 22♍14 | T 1 |
| F 2 | 13 4 16 | 17°54'27 | 17°33 | 20°38 | 5°15 | 13♍26 | 17°13 | 2♌17 | 2°21 | 1♌ 8 | 9°25 | 15♌33 | 15°37 | 21°35 | 22°18 | F 2 |
| S 3 | 13 8 12 | 18°52'55 | 0♍23 | 21°39 | 6°23 | 13°15 | 17°27 | 2°12 | 2°24 | 1° 8 | 9°27 | 15°22 | 15°34 | 21°42 | 22°21 | S 3 |
| S 4 | 13 12 9 | 19°51'21 | 13°32 | 22°43 | 7°32 | 13° 4 | 17°42 | 2° 8 | 2°27 | 1° 8 | 9°28 | 15° 9 | 15°31 | 21°49 | 22°25 | S 4 |
| M 5 | 13 16 5 | 20°49'46 | 26°58 | 23°49 | 8°40 | 12°54 | 17°56 | 2° 4 | 2°31 | 1° 8 | 9°29 | 14°57 | 15°28 | 21°55 | 22°29 | M 5 |
| T 6 | 13 20 2 | 21°48'08 | 10♌39 | 24°58 | 9°49 | 12°45 | 18°10 | 2° 0 | 2°34 | 1°D 8 | 9°31 | 14°45 | 15°24 | 22° 2 | 22°33 | T 6 |
| W 7 | 13 23 58 | 22°46'29 | 24°32 | 26°10 | 10°58 | 12°37 | 18°25 | 1°55 | 2°38 | 1° 8 | 9°32 | 14°36 | 15°21 | 22° 9 | 22°37 | W 7 |
| T 8 | 13 27 55 | 23°44'48 | 8♌32 | 27°23 | 12° 6 | 12°30 | 18°39 | 1°51 | 2°41 | 1° 8 | 9°34 | 14°29 | 15°18 | 22°15 | 22°41 | T 8 |
| F 9 | 13 31 52 | 24°43'05 | 22°36 | 28°39 | 13°15 | 12°23 | 18°53 | 1°47 | 2°45 | 1° 8 | 9°35 | 14°26 | 15°15 | 22°22 | 22°44 | F 9 |
| S 10 | 13 35 48 | 25°41'19 | 6♌43 | 29°58 | 14°24 | 12°17 | 19° 8 | 1°43 | 2°48 | 1° 8 | 9°36 | 14°24 | 15°12 | 22°28 | 22°48 | S 10 |
| S 11 | 13 39 45 | 26°39'32 | 20°51 | 1♍18 | 15°33 | 12°12 | 19°22 | 1°39 | 2°52 | 1° 8 | 9°38 | 14°24 | 15° 8 | 22°35 | 22°52 | S 11 |
| M12 | 13 43 41 | 27°37'42 | 4♌57 | 2°41 | 16°42 | 12° 8 | 19°36 | 1°35 | 2°55 | 1° 8 | 9°39 | 14°24 | 15° 5 | 22°42 | 22°56 | M12 |
| T 13 | 13 47 38 | 28°35'51 | 19° 3 | 4° 6 | 17°51 | 12° 5 | 19°51 | 1°31 | 2°58 | 1° 9 | 9°40 | 14°23 | 15° 2 | 22°48 | 23° 0 | T 13 |
| W14 | 13 51 34 | 29°33'57 | 3♍ 5 | 5°33 | 19° 1 | 12° 2 | 20° 5 | 1°28 | 3° 2 | 1° 9 | 9°42 | 14°19 | 14°59 | 22°55 | 23° 4 | W14 |
| T 15 | 13 55 31 | 0♋32'01 | 17° 3 | 7° 1 | 20°10 | 12° 0 | 20°19 | 1°24 | 3° 5 | 1° 9 | 9°43 | 14°13 | 14°56 | 23° 2 | 23° 7 | T 15 |
| F 16 | 13 59 27 | 1°30'03 | 0♌54 | 8°32 | 21°19 | 11°59 | 20°34 | 1°20 | 3° 9 | 1°10 | 9°44 | 14° 4 | 14°53 | 23° 8 | 23°11 | F 16 |
| S 17 | 14 3 24 | 2°28'04 | 14°35 | 10° 5 | 22°29 | 11°D59 | 20°48 | 1°16 | 3°12 | 1°10 | 9°46 | 13°54 | 14°49 | 23°15 | 23°15 | S 17 |
| S 18 | 14 7 20 | 3°26'03 | 28° 3 | 11°40 | 23°38 | 11°59 | 21° 2 | 1°13 | 3°16 | 1°10 | 9°47 | 13°42 | 14°46 | 23°22 | 23°19 | S 18 |
| M19 | 14 11 17 | 4°24'00 | 11♌15 | 13°17 | 24°48 | 12° 0 | 21°16 | 1° 9 | 3°19 | 1°11 | 9°48 | 13°31 | 14°43 | 23°28 | 23°22 | M19 |
| T 20 | 14 15 14 | 5°21'55 | 24° 9 | 14°56 | 25°58 | 12° 2 | 21°30 | 1° 6 | 3°23 | 1°11 | 9°50 | 13°21 | 14°40 | 23°35 | 23°26 | T 20 |
| W21 | 14 19 10 | 6°19'49 | 6♋46 | 16°37 | 27° 7 | 12° 5 | 21°44 | 1° 3 | 3°26 | 1°12 | 9°51 | 13°14 | 14°37 | 23°42 | 23°30 | W21 |
| T 22 | 14 23 7 | 7°17'42 | 19° 6 | 18°20 | 28°17 | 12° 8 | 21°59 | 0°59 | 3°30 | 1°12 | 9°52 | 13° 9 | 14°33 | 23°48 | 23°34 | T 22 |
| F 23 | 14 27 3 | 8°15'34 | 1♌12 | 20° 5 | 29°27 | 12°13 | 22°13 | 0°56 | 3°33 | 1°13 | 9°54 | 13° 6 | 14°30 | 23°55 | 23°37 | F 23 |
| S 24 | 14 31 0 | 9°13'24 | 13° 7 | 21°51 | 0♍37 | 12°17 | 22°27 | 0°53 | 3°37 | 1°13 | 9°55 | 13°D 5 | 14°27 | 24° 2 | 23°41 | S 24 |
| S 25 | 14 34 56 | 10°11'12 | 24°57 | 23°40 | 1°47 | 12°23 | 22°41 | 0°50 | 3°40 | 1°14 | 9°56 | 13° 6 | 14°24 | 24° 8 | 23°45 | S 25 |
| M26 | 14 38 53 | 11° 9'00 | 6♌46 | 25°31 | 2°57 | 12°29 | 22°55 | 0°47 | 3°44 | 1°15 | 9°57 | 13°R 6 | 14°21 | 24°15 | 23°49 | M26 |
| T 27 | 14 42 50 | 12° 6'46 | 18°39 | 27°24 | 4° 7 | 12°36 | 23° 9 | 0°44 | 3°47 | 1°15 | 9°59 | 13° 6 | 14°18 | 24°21 | 23°52 | T 27 |
| W28 | 14 46 46 | 13° 4'31 | 0♋42 | 29°19 | 5°17 | 12°43 | 23°23 | 0°41 | 3°50 | 1°16 | 10° 0 | 13° 4 | 14°14 | 24°28 | 23°56 | W28 |
| T 29 | 14 50 43 | 14° 2'15 | 13° 0 | 1♌15 | 6°28 | 12°52 | 23°37 | 0°38 | 3°54 | 1°17 | 10° 1 | 13° 1 | 14°11 | 24°35 | 24° 0 | T 29 |
| F 30 | 14 54 39 | 14°59'58 | 25♋36 | 3♌14 | 7♍38 | 13♍ 0 | 23°51 | 0♌36 | 3♌57 | 1♌17 | 10° 2 | 12♌55 | 14♌ 8 | 24♌41 | 24° 3 | F 30 |

Delta T = 17m48s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1098
geocentric

MAY 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|------|------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| S 1 | 14 58 36 | 15♁57'39 | 8♁34 | 5♁14 | 8♁48 | 13♁10 | 24♁4 | 0°R33 | 4♁1 | 1♁18 | 10♁3 | 12°R47 | 14♁5 | 24♁48 | 24♁7 | S 1 | | | | | | | | |
| S 2 | 15 2 32 | 16°55'19 | 21°55 | 7°17 | 9°59 | 13°20 | 24°18 | 0♁31 | 4° 4 | 1°19 | 10° 5 | 12♁38 | 14° 2 | 24°55 | 24°11 | S 2 | | | | | | | | |
| M 3 | 15 6 29 | 17°52'59 | 5♁38 | 9°21 | 11° 9 | 13°30 | 24°32 | 0°28 | 4° 8 | 1°20 | 10° 6 | 12°29 | 13°59 | 25° 1 | 24°14 | M 3 | | | | | | | | |
| T 4 | 15 10 25 | 18°50'37 | 19°40 | 11°26 | 12°20 | 13°42 | 24°46 | 0°26 | 4°11 | 1°21 | 10° 7 | 12°20 | 13°55 | 25° 8 | 24°18 | T 4 | | | | | | | | |
| W 5 | 15 14 22 | 19°48'14 | 3♁56 | 13°33 | 13°30 | 13°54 | 24°59 | 0°24 | 4°14 | 1°22 | 10° 8 | 12°14 | 13°52 | 25°15 | 24°21 | W 5 | | | | | | | | |
| T 6 | 15 18 18 | 20°45'49 | 18°22 | 15°42 | 14°41 | 14° 6 | 25°13 | 0°22 | 4°18 | 1°23 | 10° 9 | 12° 9 | 13°49 | 25°21 | 24°25 | T 6 | | | | | | | | |
| F 7 | 15 22 15 | 21°43'24 | 2♁51 | 17°51 | 15°51 | 14°19 | 25°27 | 0°20 | 4°21 | 1°24 | 10°10 | 12° 7 | 13°46 | 25°28 | 24°28 | F 7 | | | | | | | | |
| S 8 | 15 26 12 | 22°40'57 | 17°18 | 20° 2 | 17° 2 | 14°33 | 25°40 | 0°18 | 4°24 | 1°25 | 10°11 | 12°D 7 | 13°43 | 25°35 | 24°32 | S 8 | | | | | | | | |
| S 9 | 15 30 8 | 23°38'28 | 1♁40 | 22°13 | 18°13 | 14°47 | 25°54 | 0°16 | 4°28 | 1°26 | 10°13 | 12° 8 | 13°39 | 25°41 | 24°35 | S 9 | | | | | | | | |
| M10 | 15 34 5 | 24°35'58 | 15°53 | 24°25 | 19°24 | 15° 2 | 26° 7 | 0°14 | 4°31 | 1°27 | 10°14 | 12° 9 | 13°36 | 25°48 | 24°39 | M10 | | | | | | | | |
| T 11 | 15 38 1 | 25°33'27 | 29°56 | 26°37 | 20°34 | 15°17 | 26°21 | 0°12 | 4°34 | 1°28 | 10°15 | 12°R 9 | 13°33 | 25°55 | 24°42 | T 11 | | | | | | | | |
| W12 | 15 41 58 | 26°30'54 | 13♁49 | 28°48 | 21°45 | 15°33 | 26°34 | 0°11 | 4°38 | 1°29 | 10°16 | 12° 8 | 13°30 | 26° 1 | 24°45 | W12 | | | | | | | | |
| T 13 | 15 45 54 | 27°28'20 | 27°30 | 1♁0 | 22°56 | 15°49 | 26°47 | 0° 9 | 4°41 | 1°30 | 10°17 | 12° 4 | 13°27 | 26° 8 | 24°49 | T 13 | | | | | | | | |
| F 14 | 15 49 51 | 28°25'44 | 10♁59 | 3°11 | 24° 7 | 16° 6 | 27° 1 | 0° 8 | 4°44 | 1°31 | 10°18 | 11°59 | 13°24 | 26°15 | 24°52 | F 14 | | | | | | | | |
| S 15 | 15 53 48 | 29°23'07 | 24°16 | 5°21 | 25°18 | 16°23 | 27°14 | 0° 7 | 4°47 | 1°33 | 10°19 | 11°53 | 13°20 | 26°21 | 24°55 | S 15 | | | | | | | | |
| S 16 | 15 57 44 | 0♁20'30 | 7♁20 | 7°30 | 26°29 | 16°40 | 27°27 | 0° 5 | 4°51 | 1°34 | 10°20 | 11°46 | 13°17 | 26°28 | 24°59 | S 16 | | | | | | | | |
| M17 | 16 1 41 | 1°17'51 | 20°10 | 9°37 | 27°40 | 16°59 | 27°40 | 0° 4 | 4°54 | 1°35 | 10°21 | 11°39 | 13°14 | 26°34 | 25° 2 | M17 | | | | | | | | |
| T 18 | 16 5 37 | 2°15'12 | 2♁46 | 11°43 | 28°51 | 17°17 | 27°53 | 0° 3 | 4°57 | 1°36 | 10°22 | 11°33 | 13°11 | 26°41 | 25° 5 | T 18 | | | | | | | | |
| W19 | 16 9 34 | 3°12'31 | 15° 9 | 13°48 | 0♁2 | 17°36 | 28° 6 | 0° 2 | 5° 0 | 1°38 | 10°23 | 11°29 | 13° 8 | 26°48 | 25° 8 | W19 | | | | | | | | |
| T 20 | 16 13 30 | 4° 9'50 | 27°20 | 15°50 | 1°13 | 17°56 | 28°19 | 0° 2 | 5° 3 | 1°39 | 10°24 | 11°26 | 13° 5 | 26°54 | 25°12 | T 20 | | | | | | | | |
| F 21 | 16 17 27 | 5° 7'08 | 9♁20 | 17°50 | 2°25 | 18°16 | 28°32 | 0° 1 | 5° 6 | 1°41 | 10°24 | 11°D25 | 13° 1 | 27° 1 | 25°15 | F 21 | | | | | | | | |
| S 22 | 16 21 23 | 6° 4'26 | 21°13 | 19°49 | 3°36 | 18°36 | 28°45 | 0° 0 | 5°10 | 1°42 | 10°25 | 11°25 | 12°58 | 27° 8 | 25°18 | S 22 | | | | | | | | |
| S 23 | 16 25 20 | 7° 1'43 | 3♁1 | 21°45 | 4°47 | 18°57 | 28°57 | 29♁59 | 5°13 | 1°43 | 10°26 | 11°27 | 12°55 | 27°14 | 25°21 | S 23 | | | | | | | | |
| M24 | 16 29 17 | 7°58'59 | 14°50 | 23°39 | 5°58 | 19°18 | 29°10 | 29°59 | 5°16 | 1°45 | 10°27 | 11°28 | 12°52 | 27°21 | 25°24 | M24 | | | | | | | | |
| T 25 | 16 33 13 | 8°56'15 | 26°43 | 25°30 | 7°10 | 19°39 | 29°23 | 29°59 | 5°19 | 1°46 | 10°28 | 11°30 | 12°49 | 27°28 | 25°27 | T 25 | | | | | | | | |
| W26 | 16 37 10 | 9°53'31 | 8♁46 | 27°19 | 8°21 | 20° 1 | 29°35 | 29°59 | 5°22 | 1°48 | 10°29 | 11°R31 | 12°45 | 27°34 | 25°30 | W26 | | | | | | | | |
| T 27 | 16 41 6 | 10°50'46 | 21° 4 | 29° 6 | 9°33 | 20°24 | 29°48 | 29°59 | 5°25 | 1°49 | 10°30 | 11°30 | 12°42 | 27°41 | 25°33 | T 27 | | | | | | | | |
| F 28 | 16 45 3 | 11°48'01 | 3♁40 | 0♁50 | 10°44 | 20°46 | 0♁0 | 29°D59 | 5°28 | 1°51 | 10°30 | 11°28 | 12°39 | 27°48 | 25°36 | F 28 | | | | | | | | |
| S 29 | 16 48 59 | 12°45'15 | 16°39 | 2°32 | 11°56 | 21° 9 | 0°13 | 29°59 | 5°31 | 1°52 | 10°31 | 11°25 | 12°36 | 27°54 | 25°39 | S 29 | | | | | | | | |
| S 30 | 16 52 56 | 13°42'30 | 0♁3 | 4°12 | 13° 7 | 21°33 | 0°25 | 29°59 | 5°34 | 1°54 | 10°32 | 11°22 | 12°33 | 28° 1 | 25°42 | S 30 | | | | | | | | |
| M31 | 16 56 52 | 14♁39'44 | 13♁52 | 5♁49 | 14♁19 | 21♁57 | 0♁37 | 29♁59 | 5♁36 | 1♁56 | 10♁33 | 11♁18 | 12♁30 | 28♁8 | 25♁44 | M31 | | | | | | | | |

Delta T = 17m48s Julian Calendar 1 May 1098 == Greg. Calendar 7 May 1098

JUNE 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|----------|-------|-------|-------|-------|------|-------|------|------|-------|--------|-------|-------|-------|------|---|---|---|---|---|---|---|-----|
| T 1 | 17 0 49 | 15♁36'58 | 28♁5 | 7♁23 | 15♁30 | 22♁21 | 0♁49 | 29♁59 | 5♁39 | 1♁57 | 10♁33 | 11°R14 | 12♁26 | 28♁14 | 25♁47 | T 1 | | | | | | | | |
| W 2 | 17 4 46 | 16°34'12 | 12♁38 | 8°56 | 16°42 | 22°45 | 1° 1 | 0♁0 | 5°42 | 1°59 | 10°34 | 11♁11 | 12°23 | 28°21 | 25°50 | W 2 | | | | | | | | |
| T 3 | 17 8 42 | 17°31'25 | 27°34 | 10°25 | 17°54 | 23°10 | 1°13 | 0° 1 | 5°45 | 2° 1 | 10°35 | 11°10 | 12°20 | 28°28 | 25°53 | T 3 | | | | | | | | |
| F 4 | 17 12 39 | 18°28'38 | 12♁16 | 11°52 | 19° 6 | 23°35 | 1°25 | 0° 1 | 5°48 | 2° 2 | 10°35 | 11°D 9 | 12°17 | 28°34 | 25°55 | F 4 | | | | | | | | |
| S 5 | 17 16 35 | 19°25'50 | 27° 7 | 13°17 | 20°17 | 24° 1 | 1°37 | 0° 2 | 5°50 | 2° 4 | 10°36 | 11°10 | 12°14 | 28°41 | 25°58 | S 5 | | | | | | | | |
| S 6 | 17 20 32 | 20°23'02 | 11♁49 | 14°39 | 21°29 | 24°27 | 1°49 | 0° 3 | 5°53 | 2° 6 | 10°37 | 11°11 | 12°11 | 28°47 | 26° 1 | S 6 | | | | | | | | |
| M 7 | 17 24 28 | 21°20'14 | 26°18 | 15°58 | 22°41 | 24°53 | 2° 0 | 0° 4 | 5°56 | 2° 8 | 10°37 | 11°12 | 12° 7 | 28°54 | 26° 3 | M 7 | | | | | | | | |
| T 8 | 17 28 25 | 22°17'25 | 10♁30 | 17°15 | 23°53 | 25°19 | 2°12 | 0° 5 | 5°58 | 2° 9 | 10°38 | 11°13 | 12° 4 | 29° 1 | 26° 6 | T 8 | | | | | | | | |
| W 9 | 17 32 21 | 23°14'35 | 24°23 | 18°29 | 25° 5 | 25°46 | 2°23 | 0° 6 | 6° 1 | 2°11 | 10°38 | 11°R14 | 12° 1 | 29° 7 | 26° 8 | W 9 | | | | | | | | |
| T 10 | 17 36 18 | 24°11'45 | 7♁58 | 19°40 | 26°17 | 26°13 | 2°35 | 0° 8 | 6° 4 | 2°13 | 10°39 | 11°13 | 11°58 | 29°14 | 26°10 | T 10 | | | | | | | | |
| F 11 | 17 40 15 | 25° 8'54 | 21°14 | 20°48 | 27°29 | 26°40 | 2°46 | 0° 9 | 6° 6 | 2°15 | 10°39 | 11°12 | 11°55 | 29°21 | 26°13 | F 11 | | | | | | | | |
| S 12 | 17 44 11 | 26° 6'03 | 4♁14 | 21°54 | 28°41 | 27° 8 | 2°57 | 0°10 | 6° 9 | 2°17 | 10°40 | 11°10 | 11°51 | 29°27 | 26°15 | S 12 | | | | | | | | |
| S 13 | 17 48 8 | 27° 3'12 | 16°58 | 22°56 | 29°53 | 27°36 | 3° 8 | 0°12 | 6°11 | 2°19 | 10°40 | 11° 8 | 11°48 | 29°34 | 26°17 | S 13 | | | | | | | | |
| M14 | 17 52 4 | 28° 0'21 | 29°29 | 23°56 | 1♁5 | 28° 4 | 3°19 | 0°14 | 6°14 | 2°20 | 10°41 | 11° 6 | 11°45 | 29°41 | 26°20 | M14 | | | | | | | | |
| T 15 | 17 56 1 | 28°57'30 | 11♁48 | 24°52 | 2°17 | 28°32 | 3°30 | 0°15 | 6°16 | 2°22 | 10°41 | 11° 5 | 11°42 | 29°47 | 26°22 | T 15 | | | | | | | | |
| W16 | 17 59 57 | 29°54'38 | 23°57 | 25°45 | 3°29 | 29° 1 | 3°41 | 0°17 | 6°18 | 2°24 | 10°42 | 11° 4 | 11°39 | 29°54 | 26°24 | W16 | | | | | | | | |
| T 17 | 18 3 54 | 0♁51'47 | 5♁57 | 26°34 | 4°41 | 29°30 | 3°52 | 0°19 | 6°21 | 2°26 | 10°42 | 11°D 3 | 11°36 | 0♁1 | 26°26 | T 17 | | | | | | | | |
| F 18 | 18 7 50 | 1°48'56 | 17°51 | 27°20 | 5°53 | 29°59 | 4° 2 | 0°21 | 6°23 | 2°28 | 10°42 | 11° 3 | 11°32 | 0° 7 | 26°28 | F 18 | | | | | | | | |
| S 19 | 18 11 47 | 2°46'05 | 29°40 | 28° 2 | 7° 6 | 0♁29 | 4°13 | 0°23 | 6°25 | 2°30 | 10°43 | 11° 4 | 11°29 | 0°14 | 26°30 | S 19 | | | | | | | | |
| S 20 | 18 15 44 | 3°43'14 | 11♁28 | 28°41 | 8°18 | 0°58 | 4°23 | 0°26 | 6°28 | 2°32 | 10°43 | 11° 4 | 11°26 | 0°21 | 26°32 | S 20 | | | | | | | | |
| M21 | 18 19 40 | 4°40'24 | 23°18 | 29°15 | 9°30 | 1°28 | 4°34 | 0°28 | 6°30 | 2°34 | 10°43 | 11° 5 | 11°23 | 0°27 | 26°34 | M21 | | | | | | | | |
| T 22 | 18 23 37 | 5°37'34 | 5♁12 | 29°46 | 10°43 | 1°59 | 4°44 | 0°30 | 6°32 | 2°36 | 10°44 | 11° 6 | 11°20 | 0°34 | 26°36 | T 22 | | | | | | | | |
| W23 | 18 27 33 | 6°34'44 | 17°16 | 0♁12 | 11°55 | 2°29 | 4°54 | 0°33 | 6°34 | 2°38 | 10°44 | 11° 6 | 11°17 | 0°41 | 26°38 | W23 | | | | | | | | |
| T 24 | 18 31 30 | 7°31'55 | 29°32 | 0°34 | 13° 7 | 3° 0 | 5° 4 | 0°36 | 6°36 | 2°40 | 10°44 | 11° 6 | 11°13 | 0°47 | 26°39 | T 24 | | | | | | | | |
| F 25 | 18 35 26 | 8°29'07 | 12♁6 | 0°51 | 14°20 | 3°30 | 5°14 | 0°38 | 6°38 | 2°42 | 10°44 | 11°R 6 | 11°10 | 0°54 | 26°41 | F 25 | | | | | | | | |
| S 26 | 18 39 23 | 9°26'19 | 25° 2 | 1° 4 | 15°32 | 4° 2 | 5°24 | 0°41 | 6°40 | 2°44 | 10°45 | 11° 6 | 11° 7 | 1° 1 | 26°43 | S 26 | | | | | | | | |
| S 27 | 18 43 19 | 10°23'32 | 8♁21 | 1°12 | 16°45 | 4°33 | 5°33 | 0°44 | 6°42 | 2°46 | 10°45 | 11° 6 | 11° 4 | 1° 7 | 26°44 | S 27 | | | | | | | | |
| M28 | 18 47 16 | 11°20'46 | 22° 7 | 1°R16 | 17°58 | 5° 4 | 5°43 | 0°47 | 6°44 | 2°49 | 10°45 | 11°D 6 | 11° 1 | 1°14 | 26°46 | M28 | | | | | | | | |
| T 29 | 18 51 13 | 12°18'00 | 6♁19 | 1°14 | 19°10 | 5°36 | 5°52 | 0°50 | 6°46 | 2°51 | 10°45 | 11° 6 | 10°57 | 1°20 | 26°48 | T 29 | | | | | | | | |
| W30 | 18 55 9 | 13♁15'16 | 20♁56 | 1♁8 | 20♁23 | 6♁8 | 6♁2 | 0♁53 | 6♁48 | 2♁53 | 10♁45 | 11♁3 | 10♁54 | 1♁27 | 26♁49 | W30 | | | | | | | | |

Delta T = 17m47s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1098
geocentric

JULY 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|--------------------|---------------------|---------------------|--------------------|-------------------|-------------------|-------------------|-------------------|---------------------|---------------------|--------------------|-------------------|---------------------|------|---|-----|
| T 1 | 18 59 6 | 14 ⁵ 12'32 | 5 ⁵ 50 | 0 ⁰ R57 | 21 ^{II} 36 | 6 [♁] 40 | 6 [♁] 11 | 0 [♁] 56 | 6 [♁] 50 | 2 [♁] 55 | 10 [♁] 45 | 11 [♁] R 6 | 10 [♁] 51 | 1 [♁] 34 | 26 [♁] 50 | T 1 | | |
| F 2 | 19 3 2 | 15 [°] 9'48 | 20 [°] 56 | 0 [♁] 41 | 22 [°] 48 | 7 [°] 13 | 6 [°] 20 | 1 [°] 0 | 6 [°] 51 | 2 [°] 57 | 10 [°] 46 | 11 [°] 6 | 10 [°] 48 | 1 [°] 40 | 26 [°] 52 | F 2 | | |
| S 3 | 19 6 59 | 16 [°] 7'05 | 6 [♁] 4 | 0 [°] 20 | 24 [°] 1 | 7 [°] 45 | 6 [°] 29 | 1 [°] 3 | 6 [°] 53 | 2 [°] 59 | 10 [°] 46 | 11 [°] 6 | 10 [°] 45 | 1 [°] 47 | 26 [°] 53 | S 3 | | |
| S 4 | 19 10 55 | 17 [°] 4'23 | 21 [°] 6 | 29 [♁] 55 | 25 [°] 14 | 8 [°] 18 | 6 [°] 38 | 1 [°] 6 | 6 [°] 55 | 3 [°] 1 | 10 [°] 46 | 11 [°] 6 | 10 [°] 42 | 1 [°] 54 | 26 [°] 54 | S 4 | | |
| M 5 | 19 14 52 | 18 [°] 1'41 | 5 [♁] 52 | 29 [°] 25 | 26 [°] 27 | 8 [°] 51 | 6 [°] 46 | 1 [°] 10 | 6 [°] 56 | 3 [°] 3 | 10 [°] R46 | 11 [°] 5 | 10 [°] 38 | 2 [°] 0 | 26 [°] 56 | M 5 | | |
| T 6 | 19 18 49 | 18 [°] 58'59 | 20 [°] 18 | 28 [°] 52 | 27 [°] 40 | 9 [°] 24 | 6 [°] 55 | 1 [°] 14 | 6 [°] 58 | 3 [°] 6 | 10 [°] 46 | 11 [°] 4 | 10 [°] 35 | 2 [°] 7 | 26 [°] 57 | T 6 | | |
| W 7 | 19 22 45 | 19 [°] 56'18 | 4 [♁] 20 | 28 [°] 15 | 28 [°] 53 | 9 [°] 58 | 7 [°] 3 | 1 [°] 17 | 7 [°] 0 | 3 [°] 8 | 10 [°] 46 | 11 [°] 4 | 10 [°] 32 | 2 [°] 14 | 26 [°] 58 | W 7 | | |
| T 8 | 19 26 42 | 20 [°] 53'37 | 17 [°] 57 | 27 [°] 35 | 0 [♁] 6 | 10 [°] 31 | 7 [°] 11 | 1 [°] 21 | 7 [°] 1 | 3 [°] 10 | 10 [°] 46 | 11 [°] D 3 | 10 [°] 29 | 2 [°] 20 | 26 [°] 59 | T 8 | | |
| F 9 | 19 30 38 | 21 [°] 50'57 | 1 [♁] 9 | 26 [°] 53 | 1 [°] 19 | 11 [°] 5 | 7 [°] 20 | 1 [°] 25 | 7 [°] 2 | 3 [°] 12 | 10 [°] 45 | 11 [°] 3 | 10 [°] 26 | 2 [°] 27 | 27 [°] 0 | F 9 | | |
| S 10 | 19 34 35 | 22 [°] 48'18 | 14 [°] 1 | 26 [°] 10 | 2 [°] 32 | 11 [°] 39 | 7 [°] 28 | 1 [°] 29 | 7 [°] 4 | 3 [°] 14 | 10 [°] 45 | 11 [°] 4 | 10 [°] 23 | 2 [°] 34 | 27 [°] 1 | S 10 | | |
| S 11 | 19 38 31 | 23 [°] 45'39 | 26 [°] 34 | 25 [°] 25 | 3 [°] 45 | 12 [°] 13 | 7 [°] 35 | 1 [°] 33 | 7 [°] 5 | 3 [°] 17 | 10 [°] 45 | 11 [°] 5 | 10 [°] 19 | 2 [°] 40 | 27 [°] 2 | S 11 | | |
| M12 | 19 42 28 | 24 [°] 43'00 | 8 [♁] 51 | 24 [°] 40 | 4 [°] 58 | 12 [°] 48 | 7 [°] 43 | 1 [°] 37 | 7 [°] 6 | 3 [°] 19 | 10 [°] 45 | 11 [°] 6 | 10 [°] 16 | 2 [°] 47 | 27 [°] 3 | M12 | | |
| T 13 | 19 46 24 | 25 [°] 40'23 | 20 [°] 58 | 23 [°] 56 | 6 [°] 11 | 13 [°] 22 | 7 [°] 51 | 1 [°] 42 | 7 [°] 8 | 3 [°] 21 | 10 [°] 45 | 11 [°] 7 | 10 [°] 13 | 2 [°] 54 | 27 [°] 3 | T 13 | | |
| W14 | 19 50 21 | 26 [°] 37'46 | 2 [♁] 56 | 23 [°] 14 | 7 [°] 24 | 13 [°] 57 | 7 [°] 58 | 1 [°] 46 | 7 [°] 9 | 3 [°] 23 | 10 [°] 45 | 11 [°] 8 | 10 [°] 10 | 3 [°] 0 | 27 [°] 4 | W14 | | |
| T 15 | 19 54 18 | 27 [°] 35'10 | 14 [°] 48 | 22 [°] 34 | 8 [°] 37 | 14 [°] 32 | 8 [°] 6 | 1 [°] 50 | 7 [°] 10 | 3 [°] 25 | 10 [°] 45 | 11 [°] R 8 | 10 [°] 7 | 3 [°] 7 | 27 [°] 5 | T 15 | | |
| F 16 | 19 58 14 | 28 [°] 32'35 | 26 [°] 37 | 21 [°] 57 | 9 [°] 50 | 15 [°] 7 | 8 [°] 13 | 1 [°] 55 | 7 [°] 11 | 3 [°] 28 | 10 [°] 44 | 11 [°] 8 | 10 [°] 3 | 3 [°] 14 | 27 [°] 5 | F 16 | | |
| S 17 | 20 2 11 | 29 [°] 30'01 | 8 [♁] 26 | 21 [°] 23 | 11 [°] 4 | 15 [°] 42 | 8 [°] 20 | 1 [°] 59 | 7 [°] 12 | 3 [°] 30 | 10 [°] 44 | 11 [°] 6 | 10 [°] 0 | 3 [°] 20 | 27 [°] 6 | S 17 | | |
| S 18 | 20 6 7 | 0 [♁] 27'28 | 20 [°] 15 | 20 [°] 55 | 12 [°] 17 | 16 [°] 17 | 8 [°] 27 | 2 [°] 4 | 7 [°] 13 | 3 [°] 32 | 10 [°] 44 | 11 [°] 4 | 9 [°] 57 | 3 [°] 27 | 27 [°] 6 | S 18 | | |
| M19 | 20 10 4 | 1 [°] 24'56 | 2 [♁] 8 | 20 [°] 31 | 13 [°] 30 | 16 [°] 53 | 8 [°] 33 | 2 [°] 8 | 7 [°] 14 | 3 [°] 34 | 10 [°] 44 | 11 [°] 1 | 9 [°] 54 | 3 [°] 34 | 27 [°] 7 | M19 | | |
| T 20 | 20 14 0 | 2 [°] 22'25 | 14 [°] 8 | 20 [°] 13 | 14 [°] 44 | 17 [°] 28 | 8 [°] 40 | 2 [°] 13 | 7 [°] 15 | 3 [°] 37 | 10 [°] 43 | 10 [°] 57 | 9 [°] 51 | 3 [°] 40 | 27 [°] 7 | T 20 | | |
| W21 | 20 17 57 | 3 [°] 19'56 | 26 [°] 16 | 20 [°] 1 | 15 [°] 57 | 18 [°] 4 | 8 [°] 46 | 2 [°] 18 | 7 [°] 16 | 3 [°] 39 | 10 [°] 43 | 10 [°] 54 | 9 [°] 48 | 3 [°] 47 | 27 [°] 7 | W21 | | |
| T 22 | 20 21 53 | 4 [°] 17'28 | 8 [♁] 35 | 19 [°] D56 | 17 [°] 11 | 18 [°] 40 | 8 [°] 52 | 2 [°] 23 | 7 [°] 17 | 3 [°] 41 | 10 [°] 43 | 10 [°] 51 | 9 [°] 44 | 3 [°] 54 | 27 [°] 8 | T 22 | | |
| F 23 | 20 25 50 | 5 [°] 15'02 | 21 [°] 9 | 19 [°] 57 | 18 [°] 24 | 19 [°] 16 | 8 [°] 58 | 2 [°] 28 | 7 [°] 18 | 3 [°] 43 | 10 [°] 42 | 10 [°] 49 | 9 [°] 41 | 4 [°] 0 | 27 [°] 8 | F 23 | | |
| S 24 | 20 29 47 | 6 [°] 12'37 | 4 [♁] 1 | 20 [°] 6 | 19 [°] 38 | 19 [°] 53 | 9 [°] 4 | 2 [°] 33 | 7 [°] 18 | 3 [°] 45 | 10 [°] 42 | 10 [°] D49 | 9 [°] 38 | 4 [°] 7 | 27 [°] 8 | S 24 | | |
| S 25 | 20 33 43 | 7 [°] 10'13 | 17 [°] 15 | 20 [°] 21 | 20 [°] 51 | 20 [°] 29 | 9 [°] 10 | 2 [°] 38 | 7 [°] 19 | 3 [°] 48 | 10 [°] 41 | 10 [°] 49 | 9 [°] 35 | 4 [°] 14 | 27 [°] 8 | S 25 | | |
| M26 | 20 37 40 | 8 [°] 7'51 | 0 [♁] 52 | 20 [°] 44 | 22 [°] 5 | 21 [°] 6 | 9 [°] 16 | 2 [°] 43 | 7 [°] 20 | 3 [°] 50 | 10 [°] 41 | 10 [°] 50 | 9 [°] 32 | 4 [°] 20 | 27 [°] R 8 | M26 | | |
| T 27 | 20 41 36 | 9 [°] 5'31 | 14 [°] 54 | 21 [°] 14 | 23 [°] 19 | 21 [°] 42 | 9 [°] 21 | 2 [°] 48 | 7 [°] 20 | 3 [°] 52 | 10 [°] 41 | 10 [°] 51 | 9 [°] 29 | 4 [°] 27 | 27 [°] 8 | T 27 | | |
| W28 | 20 45 33 | 10 [°] 3'13 | 29 [°] 21 | 21 [°] 51 | 24 [°] 32 | 22 [°] 19 | 9 [°] 26 | 2 [°] 53 | 7 [°] 21 | 3 [°] 54 | 10 [°] 40 | 10 [°] 53 | 9 [°] 25 | 4 [°] 34 | 27 [°] 8 | W28 | | |
| T 29 | 20 49 29 | 11 [°] 0'56 | 14 [♁] 10 | 22 [°] 35 | 25 [°] 46 | 22 [°] 56 | 9 [°] 31 | 2 [°] 59 | 7 [°] 21 | 3 [°] 57 | 10 [°] 40 | 10 [°] R53 | 9 [°] 22 | 4 [°] 40 | 27 [°] 8 | T 29 | | |
| F 30 | 20 53 26 | 11 [°] 58'40 | 29 [°] 15 | 23 [°] 26 | 27 [°] 0 | 23 [°] 34 | 9 [°] 36 | 3 [°] 4 | 7 [°] 22 | 3 [°] 59 | 10 [°] 39 | 10 [°] 52 | 9 [°] 19 | 4 [°] 47 | 27 [°] 8 | F 30 | | |
| S 31 | 20 57 22 | 12 [°] 56'26 | 14 [♁] 28 | 24 [♁] 24 | 28 [♁] 14 | 24 [♁] 11 | 9 [♁] 41 | 3 [♁] 10 | 7 [♁] 22 | 4 [♁] 1 | 10 [♁] 39 | 10 [♁] 39 | 9 [♁] 16 | 4 [♁] 54 | 27 [♁] 7 | S 31 | | |

Delta T = 17m47s

Julian Calendar 1 July 1098 == Greg. Calendar 7 July 1098

AUGUST 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|---------------------|---------------------|-------------------|-------------------|---------------------|------|---|-----|
| S 1 | 21 1 19 | 13 [♁] 54'14 | 29 [♁] 38 | 25 [♁] 28 | 29 [♁] 27 | 24 [♁] 48 | 9 [♁] 46 | 3 [♁] 15 | 7 [♁] 23 | 4 [♁] 3 | 10 [♁] R38 | 10 [♁] R46 | 9 [♁] 13 | 5 [♁] 0 | 27 [♁] R 7 | S 1 | | |
| M 2 | 21 5 16 | 14 [°] 52'02 | 14 [♁] 36 | 26 [°] 38 | 0 [♁] 41 | 25 [°] 26 | 9 [°] 50 | 3 [°] 21 | 7 [°] 23 | 4 [°] 5 | 10 [°] R38 | 10 [°] 341 | 9 [°] 9 | 5 [°] 7 | 27 [°] 7 | M 2 | | |
| T 3 | 21 9 12 | 15 [°] 49'52 | 29 [°] 14 | 27 [°] 55 | 1 [°] 55 | 26 [°] 4 | 9 [°] 54 | 3 [°] 26 | 7 [°] 23 | 4 [°] 8 | 10 [°] 37 | 10 [°] 36 | 9 [°] 6 | 5 [°] 14 | 27 [°] 6 | T 3 | | |
| W 4 | 21 13 9 | 16 [°] 47'44 | 13 [♁] 27 | 29 [°] 17 | 3 [°] 9 | 26 [°] 42 | 9 [°] 58 | 3 [°] 32 | 7 [°] 23 | 4 [°] 10 | 10 [°] 36 | 10 [°] 31 | 9 [°] 3 | 5 [°] 20 | 27 [°] 6 | W 4 | | |
| T 5 | 21 17 5 | 17 [°] 45'36 | 27 [°] 10 | 0 [♁] 44 | 4 [°] 23 | 27 [°] 20 | 10 [°] 2 | 3 [°] 38 | 7 [°] 23 | 4 [°] 12 | 10 [°] 36 | 10 [°] 28 | 9 [°] 0 | 5 [°] 27 | 27 [°] 5 | T 5 | | |
| F 6 | 21 21 2 | 18 [°] 43'30 | 10 [♁] 26 | 2 [°] 16 | 5 [°] 37 | 27 [°] 58 | 10 [°] 6 | 3 [°] 43 | 7 [°] 23 | 4 [°] 14 | 10 [°] 35 | 10 [°] 26 | 8 [°] 57 | 5 [°] 33 | 27 [°] 5 | F 6 | | |
| S 7 | 21 24 58 | 19 [°] 41'25 | 23 [°] 17 | 3 [°] 53 | 6 [°] 51 | 28 [°] 36 | 10 [°] 9 | 3 [°] 49 | 7 [°] R23 | 4 [°] 16 | 10 [°] 34 | 10 [°] D26 | 8 [°] 54 | 5 [°] 40 | 27 [°] 4 | S 7 | | |
| S 8 | 21 28 55 | 20 [°] 39'22 | 5 [♁] 46 | 5 [°] 33 | 8 [°] 5 | 29 [°] 15 | 10 [°] 12 | 3 [°] 55 | 7 [°] 23 | 4 [°] 18 | 10 [°] 34 | 10 [°] 27 | 8 [°] 50 | 5 [°] 47 | 27 [°] 3 | S 8 | | |
| M 9 | 21 32 51 | 21 [°] 37'19 | 17 [°] 58 | 7 [°] 17 | 9 [°] 19 | 29 [°] 53 | 10 [°] 16 | 4 [°] 1 | 7 [°] 23 | 4 [°] 21 | 10 [°] 33 | 10 [°] 28 | 8 [°] 47 | 5 [°] 53 | 27 [°] 3 | M 9 | | |
| T 10 | 21 36 48 | 22 [°] 35'19 | 29 [°] 57 | 9 [°] 4 | 10 [°] 33 | 0 [♁] 32 | 10 [°] 18 | 4 [°] 7 | 7 [°] 23 | 4 [°] 23 | 10 [°] 32 | 10 [°] 30 | 8 [°] 44 | 6 [°] 0 | 27 [°] 2 | T 10 | | |
| W11 | 21 40 45 | 23 [°] 33'20 | 11 [♁] 30 | 10 [°] 54 | 11 [°] 47 | 1 [°] 11 | 10 [°] 21 | 4 [°] 13 | 7 [°] 23 | 4 [°] 25 | 10 [°] 32 | 10 [°] R30 | 8 [°] 41 | 6 [°] 7 | 27 [°] 1 | W11 | | |
| T 12 | 21 44 41 | 24 [°] 31'22 | 23 [°] 38 | 12 [°] 45 | 13 [°] 2 | 1 [°] 50 | 10 [°] 24 | 4 [°] 19 | 7 [°] 23 | 4 [°] 27 | 10 [°] 31 | 10 [°] 29 | 8 [°] 38 | 6 [°] 13 | 27 [°] 0 | T 12 | | |
| F 13 | 21 48 38 | 25 [°] 29'25 | 5 [♁] 26 | 14 [°] 39 | 14 [°] 16 | 2 [°] 29 | 10 [°] 26 | 4 [°] 26 | 7 [°] 23 | 4 [°] 29 | 10 [°] 30 | 10 [°] 26 | 8 [°] 35 | 6 [°] 20 | 26 [°] 59 | F 13 | | |
| S 14 | 21 52 34 | 26 [°] 27'31 | 17 [°] 16 | 16 [°] 33 | 15 [°] 30 | 3 [°] 8 | 10 [°] 28 | 4 [°] 32 | 7 [°] 22 | 4 [°] 31 | 10 [°] 29 | 10 [°] 21 | 8 [°] 31 | 6 [°] 27 | 26 [°] 58 | S 14 | | |
| S 15 | 21 56 31 | 27 [°] 25'38 | 29 [°] 11 | 18 [°] 29 | 16 [°] 44 | 3 [°] 48 | 10 [°] 30 | 4 [°] 38 | 7 [°] 22 | 4 [°] 33 | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1098
geocentric

SEPTEMBER 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|-------|------|--------|-------|------|-------|--------|------|-----|
| W 1 | 23 3 32 | 13♎58'46 | 21♏49 | 20♎16 | 7♎51 | 15♎14 | 10°R33 | 6♏30 | 7°R 8 | 5♏ 7 | 10°R13 | 8°R43 | 7♏34 | 8♏27 | 26°R31 | W 1 | |
| T 2 | 23 7 29 | 14°57'29 | 5♎38 | 22° 0 | 9° 6 | 15°55 | 10♏31 | 6°37 | 7♏ 7 | 5° 9 | 10°Y12 | 8♏36 | 7°31 | 8°33 | 26°Y29 | T 2 | |
| F 3 | 23 11 25 | 15°56'15 | 18°59 | 23°43 | 10°21 | 16°37 | 10°29 | 6°44 | 7° 6 | 5°10 | 10°11 | 8°30 | 7°28 | 8°40 | 26°27 | F 3 | |
| S 4 | 23 15 22 | 16°55'02 | 1♏52 | 25°25 | 11°35 | 17°18 | 10°27 | 6°51 | 7° 4 | 5°12 | 10°10 | 8°27 | 7°25 | 8°47 | 26°25 | S 4 | |
| S 5 | 23 19 18 | 17°53'51 | 14°22 | 27° 7 | 12°50 | 18° 0 | 10°25 | 6°58 | 7° 3 | 5°14 | 10° 9 | 8°D26 | 7°21 | 8°53 | 26°23 | S 5 | |
| M 6 | 23 23 15 | 18°52'41 | 26°34 | 28°47 | 14° 5 | 18°42 | 10°23 | 7° 5 | 7° 2 | 5°16 | 10° 8 | 8°26 | 7°18 | 9° 0 | 26°20 | M 6 | |
| T 7 | 23 27 11 | 19°51'34 | 8♏32 | 0♏26 | 15°20 | 19°24 | 10°20 | 7°12 | 7° 0 | 5°17 | 10° 7 | 8°R27 | 7°15 | 9° 7 | 26°18 | T 7 | |
| W 8 | 23 31 8 | 20°50'28 | 20°23 | 2° 5 | 16°35 | 20° 6 | 10°17 | 7°19 | 6°59 | 5°19 | 10° 6 | 8°26 | 7°12 | 9°13 | 26°16 | W 8 | |
| T 9 | 23 35 5 | 21°49'24 | 2♏11 | 3°42 | 17°50 | 20°48 | 10°14 | 7°27 | 6°57 | 5°21 | 10° 5 | 8°23 | 7° 9 | 9°20 | 26°14 | T 9 | |
| F 10 | 23 39 1 | 22°48'22 | 14° 0 | 5°19 | 19° 5 | 21°30 | 10°11 | 7°34 | 6°56 | 5°22 | 10° 4 | 8°18 | 7° 6 | 9°27 | 26°11 | F 10 | |
| S 11 | 23 42 58 | 23°47'21 | 25°54 | 6°54 | 20°19 | 22°12 | 10° 8 | 7°41 | 6°54 | 5°24 | 10° 3 | 8°11 | 7° 2 | 9°33 | 26° 9 | S 11 | |
| S 12 | 23 46 54 | 24°46'23 | 7♏56 | 8°29 | 21°34 | 22°55 | 10° 4 | 7°48 | 6°53 | 5°26 | 10° 2 | 8° 0 | 6°59 | 9°40 | 26° 7 | S 12 | |
| M13 | 23 50 51 | 25°45'27 | 20° 8 | 10° 3 | 22°49 | 23°37 | 10° 0 | 7°55 | 6°51 | 5°27 | 10° 0 | 7°48 | 6°56 | 9°47 | 26° 4 | M13 | |
| T 14 | 23 54 47 | 26°44'32 | 2°Y31 | 11°36 | 24° 4 | 24°20 | 9°56 | 8° 2 | 6°49 | 5°29 | 9°59 | 7°34 | 6°53 | 9°53 | 26° 2 | T 14 | |
| W15 | 23 58 44 | 27°43'40 | 15° 5 | 13° 9 | 25°19 | 25° 2 | 9°52 | 8° 9 | 6°47 | 5°30 | 9°58 | 7°21 | 6°50 | 10° 0 | 25°59 | W15 | |
| T 16 | 0 2 40 | 28°42'50 | 27°50 | 14°40 | 26°34 | 25°45 | 9°48 | 8°17 | 6°46 | 5°32 | 9°57 | 7° 9 | 6°46 | 10° 7 | 25°57 | T 16 | |
| F 17 | 0 6 37 | 29°42'02 | 10♏46 | 16°11 | 27°49 | 26°28 | 9°43 | 8°24 | 6°44 | 5°33 | 9°56 | 6°59 | 6°43 | 10°13 | 25°54 | F 17 | |
| S 18 | 0 10 34 | 0♏41'17 | 23°53 | 17°41 | 29° 4 | 27°11 | 9°39 | 8°31 | 6°42 | 5°35 | 9°55 | 6°52 | 6°40 | 10°20 | 25°52 | S 18 | |
| S 19 | 0 14 30 | 1°40'34 | 7♎12 | 19°10 | 0♏19 | 27°54 | 9°34 | 8°38 | 6°40 | 5°36 | 9°54 | 6°48 | 6°37 | 10°27 | 25°49 | S 19 | |
| M20 | 0 18 27 | 2°39'53 | 20°44 | 20°38 | 1°34 | 28°37 | 9°29 | 8°46 | 6°38 | 5°37 | 9°53 | 6°47 | 6°34 | 10°33 | 25°47 | M20 | |
| T 21 | 0 22 23 | 3°39'15 | 4♏30 | 22° 6 | 2°49 | 29°20 | 9°24 | 8°53 | 6°36 | 5°39 | 9°51 | 6°47 | 6°31 | 10°40 | 25°44 | T 21 | |
| W22 | 0 26 20 | 4°38'39 | 18°31 | 23°33 | 4° 5 | 0♏3 3 | 9°18 | 9° 0 | 6°34 | 5°40 | 9°50 | 6°46 | 6°27 | 10°47 | 25°41 | W22 | |
| T 23 | 0 30 16 | 5°38'05 | 2♏47 | 24°58 | 5°20 | 0°46 | 9°13 | 9° 7 | 6°32 | 5°41 | 9°49 | 6°45 | 6°24 | 10°53 | 25°39 | T 23 | |
| F 24 | 0 34 13 | 6°37'34 | 17°16 | 26°23 | 6°35 | 1°30 | 9° 7 | 9°15 | 6°30 | 5°43 | 9°48 | 6°41 | 6°21 | 11° 0 | 25°36 | F 24 | |
| S 25 | 0 38 9 | 7°37'05 | 1♎55 | 27°48 | 7°50 | 2°13 | 9° 1 | 9°22 | 6°28 | 5°44 | 9°47 | 6°35 | 6°18 | 11° 7 | 25°33 | S 25 | |
| S 26 | 0 42 6 | 8°36'38 | 16°37 | 29°11 | 9° 5 | 2°57 | 8°55 | 9°29 | 6°26 | 5°45 | 9°46 | 6°25 | 6°15 | 11°13 | 25°30 | S 26 | |
| M27 | 0 46 3 | 9°36'14 | 1♏16 | 0♎33 | 10°20 | 3°41 | 8°49 | 9°36 | 6°24 | 5°46 | 9°45 | 6°14 | 6°12 | 11°20 | 25°27 | M27 | |
| T 28 | 0 49 59 | 10°35'51 | 15°43 | 1°54 | 11°35 | 4°24 | 8°43 | 9°44 | 6°22 | 5°48 | 9°43 | 6° 2 | 6° 8 | 11°27 | 25°25 | T 28 | |
| W29 | 0 53 56 | 11°35'31 | 29°52 | 3°14 | 12°51 | 5° 8 | 8°36 | 9°51 | 6°20 | 5°49 | 9°42 | 5°50 | 6° 5 | 11°33 | 25°22 | W29 | |
| T 30 | 0 57 52 | 12°35'13 | 13♎38 | 4♎33 | 14♏ 6 | 5♏52 | 8♏30 | 9♏58 | 6♏17 | 5♏50 | 9°Y41 | 5♏40 | 6♏ 2 | 11°40 | 25°Y19 | T 30 | |

Delta T = 17m47s Julian Calendar 1 Sept. 1098 == Greg. Calendar 7 Sept. 1098

OCTOBER 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|--------|------|-----|
| F 1 | 1 1 49 | 13♏34'56 | 26♎58 | 5♎51 | 15♏21 | 6♏36 | 8°R23 | 10♏ 5 | 6°R15 | 5♏51 | 9°R40 | 5°R33 | 5♏59 | 11♏47 | 25°R16 | F 1 | |
| S 2 | 1 5 45 | 14°34'42 | 9♏53 | 7° 8 | 16°36 | 7°20 | 8♏16 | 10°13 | 6♏13 | 5°52 | 9°Y39 | 5♏28 | 5°56 | 11°53 | 25°Y10 | S 2 | |
| S 3 | 1 9 42 | 15°34'29 | 22°25 | 8°23 | 17°51 | 8° 4 | 8° 9 | 10°20 | 6°11 | 5°53 | 9°38 | 5°26 | 5°52 | 12° 0 | 25°10 | S 3 | |
| M 4 | 1 13 38 | 16°34'18 | 4♏39 | 9°36 | 19° 7 | 8°49 | 8° 2 | 10°27 | 6° 8 | 5°54 | 9°36 | 5°D25 | 5°49 | 12° 7 | 25° 7 | M 4 | |
| T 5 | 1 17 35 | 17°34'09 | 16°38 | 10°48 | 20°22 | 9°33 | 7°55 | 10°35 | 6° 6 | 5°55 | 9°35 | 5°R25 | 5°46 | 12°13 | 25° 5 | T 5 | |
| W 6 | 1 21 32 | 18°34'01 | 28°30 | 11°58 | 21°37 | 10°17 | 7°48 | 10°42 | 6° 4 | 5°56 | 9°34 | 5°25 | 5°43 | 12°20 | 25° 2 | W 6 | |
| T 7 | 1 25 28 | 19°33'55 | 10♏19 | 13° 7 | 22°52 | 11° 2 | 7°40 | 10°49 | 6° 1 | 5°57 | 9°33 | 5°23 | 5°40 | 12°27 | 24°59 | T 7 | |
| F 8 | 1 29 25 | 20°33'51 | 22°10 | 14°13 | 24° 7 | 11°46 | 7°33 | 10°56 | 5°59 | 5°58 | 9°32 | 5°19 | 5°37 | 12°33 | 24°56 | F 8 | |
| S 9 | 1 33 21 | 21°33'49 | 4♏ 8 | 15°16 | 25°23 | 12°31 | 7°25 | 11° 3 | 5°56 | 5°59 | 9°31 | 5°12 | 5°33 | 12°40 | 24°53 | S 9 | |
| S 10 | 1 37 18 | 22°33'48 | 16°17 | 16°17 | 26°38 | 13°15 | 7°18 | 11°11 | 5°54 | 5°59 | 9°30 | 5° 2 | 5°30 | 12°47 | 24°50 | S 10 | |
| M11 | 1 41 14 | 23°33'49 | 28°38 | 17°15 | 27°53 | 14° 0 | 7°10 | 11°18 | 5°52 | 6° 0 | 9°29 | 4°51 | 5°27 | 12°53 | 24°47 | M11 | |
| T 12 | 1 45 11 | 24°33'52 | 11°Y15 | 18°10 | 29° 8 | 14°45 | 7° 2 | 11°25 | 5°49 | 6° 1 | 9°27 | 4°38 | 5°24 | 13° 0 | 24°44 | T 12 | |
| W13 | 1 49 7 | 25°33'56 | 24° 7 | 19° 1 | 0♎24 | 15°30 | 6°54 | 11°32 | 5°47 | 6° 2 | 9°26 | 4°26 | 5°21 | 13° 7 | 24°41 | W13 | |
| T 14 | 1 53 4 | 26°34'03 | 7♏12 | 19°48 | 1°39 | 16°15 | 6°46 | 11°39 | 5°44 | 6° 2 | 9°25 | 4°15 | 5°17 | 13°14 | 24°38 | T 14 | |
| F 15 | 1 57 0 | 27°34'12 | 20°31 | 20°30 | 2°54 | 17° 0 | 6°38 | 11°46 | 5°42 | 6° 3 | 9°24 | 4° 5 | 5°14 | 13°20 | 24°35 | F 15 | |
| S 16 | 2 0 57 | 28°34'22 | 4♎ 0 | 21° 7 | 4° 9 | 17°45 | 6°30 | 11°53 | 5°39 | 6° 4 | 9°23 | 3°59 | 5°11 | 13°27 | 24°32 | S 16 | |
| S 17 | 2 4 54 | 29°34'35 | 17°38 | 21°39 | 5°25 | 18°30 | 6°22 | 12° 0 | 5°37 | 6° 4 | 9°22 | 3°56 | 5° 8 | 13°34 | 24°29 | S 17 | |
| M18 | 2 8 50 | 0♎34'49 | 1♏25 | 22° 4 | 6°40 | 19°15 | 6°14 | 12° 7 | 5°35 | 6° 5 | 9°21 | 3°D54 | 5° 5 | 13°40 | 24°26 | M18 | |
| T 19 | 2 12 47 | 1°35'06 | 15°19 | 22°23 | 7°55 | 20° 0 | 6° 6 | 12°14 | 5°32 | 6° 5 | 9°20 | 3°55 | 5° 2 | 13°47 | 24°23 | T 19 | |
| W20 | 2 16 43 | 2°35'25 | 29°19 | 22°33 | 9°10 | 20°45 | 5°58 | 12°21 | 5°30 | 6° 6 | 9°19 | 3°R55 | 4°58 | 13°54 | 24°20 | W20 | |
| T 21 | 2 20 40 | 3°35'46 | 13♏26 | 22°R36 | 10°26 | 21°31 | 5°50 | 12°28 | 5°27 | 6° 6 | 9°18 | 3°55 | 4°55 | 14° 0 | 24°18 | T 21 | |
| F 22 | 2 24 36 | 4°36'09 | 27°38 | 22°29 | 11°41 | 22°16 | 5°42 | 12°35 | 5°25 | 6° 7 | 9°17 | 3°53 | 4°52 | 14° 7 | 24°15 | F 22 | |
| S 23 | 2 28 33 | 5°36'33 | 11♎54 | 22°13 | 12°56 | 23° 2 | 5°34 | 12°42 | 5°22 | 6° 7 | 9°16 | 3°48 | 4°49 | 14°14 | 24°12 | S 23 | |
| S 24 | 2 32 29 | 6°37'00 | 26° 9 | 21°47 | 14°11 | 23°47 | 5°25 | 12°49 | 5°20 | 6° 7 | 9°15 | 3°41 | 4°46 | 14°20 | 24° 9 | S 24 | |
| M25 | 2 36 26 | 7°37'29 | 10♏21 | 21°11 | 15°27 | 24°33 | 5°17 | 12°56 | 5°17 | 6° 8 | 9°14 | 3°32 | 4°43 | 14°27 | 24° 6 | M25 | |
| T 26 | 2 40 23 | 8°37'59 | 24°23 | 20°25 | 16°42 | 25°18 | 5° 9 | 13° 3 | 5°15 | 6° 8 | 9°13 | 3°23 | 4°39 | 14°34 | 24° 3 | T 26 | |
| W27 | 2 44 19 | 9°38'31 | 8♎11 | 19°29 | 17°57 | 26° 4 | 5° 1 | 13°10 | 5°12 | 6° 8 | 9°12 | 3°13 | 4°36 | 14°40 | 24° 0 | W27 | |
| T 28 | 2 48 16 | 10°39'05 | 21°42 | 18°24 | 19°13 | 26°50 | 4°53 | 13°16 | 5°10 | 6° 8 | 9°11 | 3° 5 | 4°33 | 14°47 | 23°58 | T 28 | |
| F 29 | 2 52 12 | 11°39'41 | 4♏52 | 17°12 | 20°28 | 27°36 | 4°45 | 13°23 | 5° 7 | 6° 8 | 9°10 | 2°59 | 4°30 | 14°54 | 23°55 | F 29 | |
| S 30 | 2 56 9 | 12°40'17 | 17°42 | 15°55 | 21°43 | 28°22 | 4°37 | 13°30 | 5° 5 | 6° 9 | 9° 9 | 2°56 | 4°27 | 15° 0 | 23°52 | S 30 | |
| S 31 | 3 0 5 | 13♎40'56 | 0♏12 | 14♎34 | 22♎59 | 29♏ 8 | 4♏29 | 13♏36 | 5♏ 2 | 6♏ 9 | 9°Y 8 | 2°D55 | 4♏23 | 15♏ 7 | 23°Y49 | S 31 | |

Delta T = 17m46s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1098
geocentric

NOVEMBER 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|--------|------|---|-----|
| M 1 | 3 4 2 | 14♌41'35 | 12♋26 | 13°R12 | 24♌14 | 29♌53 | 4°R21 | 13♌43 | 5°R 0 | 6♌ 9 | 9°R 7 | 2♋55 | 4♋20 | 15♌14 | 23°R47 | M 1 | | |
| T 2 | 3 7 58 | 15°42'16 | 24°26 | 11♌53 | 25°29 | 0♋39 | 4♋13 | 13°50 | 4♋57 | 6°R 9 | 9°R 6 | 2°56 | 4°17 | 15°20 | 23°Y44 | T 2 | | |
| W 3 | 3 11 55 | 16°42'58 | 6♌19 | 10°39 | 26°44 | 1°26 | 4° 5 | 13°56 | 4°55 | 6° 9 | 9° 5 | 2°58 | 4°14 | 15°27 | 23°41 | W 3 | | |
| T 4 | 3 15 52 | 17°43'41 | 18° 8 | 9°31 | 28° 0 | 2°12 | 3°57 | 14° 3 | 4°52 | 6° 9 | 9° 4 | 2°R58 | 4°11 | 15°34 | 23°39 | T 4 | | |
| F 5 | 3 19 48 | 18°44'25 | 0♋ 0 | 8°33 | 29°15 | 2°58 | 3°50 | 14° 9 | 4°50 | 6° 9 | 9° 4 | 2°57 | 4° 8 | 15°40 | 23°36 | F 5 | | |
| S 6 | 3 23 45 | 19°45'10 | 11°59 | 7°45 | 0♌30 | 3°44 | 3°42 | 14°15 | 4°48 | 6° 9 | 9° 3 | 2°55 | 4° 4 | 15°47 | 23°33 | S 6 | | |
| S 7 | 3 27 41 | 20°45'56 | 24°10 | 7° 8 | 1°46 | 4°30 | 3°35 | 14°22 | 4°45 | 6° 8 | 9° 2 | 2°50 | 4° 1 | 15°54 | 23°31 | S 7 | | |
| M 8 | 3 31 38 | 21°46'43 | 6°Y37 | 6°43 | 3° 1 | 5°16 | 3°27 | 14°28 | 4°43 | 6° 8 | 9° 1 | 2°44 | 3°58 | 16° 0 | 23°28 | M 8 | | |
| T 9 | 3 35 34 | 22°47'32 | 19°22 | 6°30 | 4°16 | 6° 3 | 3°20 | 14°34 | 4°41 | 6° 8 | 9° 0 | 2°37 | 3°55 | 16° 7 | 23°26 | T 9 | | |
| W10 | 3 39 31 | 23°48'21 | 2♋27 | 6°D27 | 5°31 | 6°49 | 3°13 | 14°40 | 4°38 | 6° 8 | 9° 0 | 2°30 | 3°52 | 16°14 | 23°23 | W10 | | |
| T 11 | 3 43 27 | 24°49'12 | 15°51 | 6°36 | 6°47 | 7°35 | 3° 6 | 14°47 | 4°36 | 6° 7 | 8°59 | 2°23 | 3°49 | 16°20 | 23°21 | T 11 | | |
| F 12 | 3 47 24 | 25°50'04 | 29°32 | 6°54 | 8° 2 | 8°22 | 2°59 | 14°53 | 4°34 | 6° 7 | 8°58 | 2°18 | 3°45 | 16°27 | 23°19 | F 12 | | |
| S 13 | 3 51 21 | 26°50'57 | 13♌27 | 7°20 | 9°17 | 9° 8 | 2°52 | 14°59 | 4°31 | 6° 7 | 8°57 | 2°15 | 3°42 | 16°34 | 23°16 | S 13 | | |
| S 14 | 3 55 17 | 27°51'51 | 27°33 | 7°55 | 10°32 | 9°55 | 2°45 | 15° 5 | 4°29 | 6° 6 | 8°57 | 2°D14 | 3°39 | 16°41 | 23°14 | S 14 | | |
| M15 | 3 59 14 | 28°52'46 | 11♋45 | 8°37 | 11°48 | 10°41 | 2°39 | 15°11 | 4°27 | 6° 6 | 8°56 | 2°14 | 3°36 | 16°47 | 23°12 | M15 | | |
| T 16 | 4 3 10 | 29°53'43 | 26° 1 | 9°25 | 13° 3 | 11°28 | 2°32 | 15°17 | 4°25 | 6° 6 | 8°55 | 2°15 | 3°33 | 16°54 | 23° 9 | T 16 | | |
| W17 | 4 7 7 | 0♌54'41 | 10♌16 | 10°19 | 14°18 | 12°15 | 2°26 | 15°22 | 4°23 | 6° 5 | 8°55 | 2°17 | 3°29 | 17° 1 | 23° 7 | W17 | | |
| T 18 | 4 11 3 | 1°55'40 | 24°28 | 11°18 | 15°33 | 13° 1 | 2°20 | 15°28 | 4°20 | 6° 5 | 8°54 | 2°18 | 3°26 | 17° 7 | 23° 5 | T 18 | | |
| F 19 | 4 15 0 | 2°56'41 | 8♌35 | 12°21 | 16°48 | 13°48 | 2°14 | 15°34 | 4°18 | 6° 4 | 8°53 | 2°R18 | 3°23 | 17°14 | 23° 3 | F 19 | | |
| S 20 | 4 18 56 | 3°57'42 | 22°37 | 13°28 | 18° 4 | 14°34 | 2° 8 | 15°40 | 4°16 | 6° 3 | 8°53 | 2°17 | 3°20 | 17°21 | 23° 1 | S 20 | | |
| S 21 | 4 22 53 | 4°58'45 | 6♌31 | 14°38 | 19°19 | 15°21 | 2° 2 | 15°45 | 4°14 | 6° 3 | 8°52 | 2°14 | 3°17 | 17°27 | 22°59 | S 21 | | |
| M22 | 4 26 50 | 5°59'49 | 20°15 | 15°50 | 20°34 | 16° 8 | 1°56 | 15°51 | 4°12 | 6° 2 | 8°52 | 2°10 | 3°14 | 17°34 | 22°57 | M22 | | |
| T 23 | 4 30 46 | 7° 0'54 | 3♌49 | 17° 6 | 21°49 | 16°55 | 1°51 | 15°56 | 4°10 | 6° 2 | 8°51 | 2° 6 | 3°10 | 17°41 | 22°55 | T 23 | | |
| W24 | 4 34 43 | 8° 2'00 | 17°10 | 18°23 | 23° 5 | 17°42 | 1°46 | 16° 1 | 4° 8 | 6° 1 | 8°51 | 2° 2 | 3° 7 | 17°47 | 22°53 | W24 | | |
| T 25 | 4 38 39 | 9° 3'06 | 0♌17 | 19°42 | 24°20 | 18°28 | 1°41 | 16° 7 | 4° 6 | 6° 0 | 8°50 | 1°59 | 3° 4 | 17°54 | 22°51 | T 25 | | |
| F 26 | 4 42 36 | 10° 4'14 | 13° 9 | 21° 3 | 25°35 | 19°15 | 1°36 | 16°12 | 4° 4 | 5°59 | 8°50 | 1°57 | 3° 1 | 18° 1 | 22°49 | F 26 | | |
| S 27 | 4 46 32 | 11° 5'22 | 25°45 | 22°25 | 26°50 | 20° 2 | 1°31 | 16°17 | 4° 3 | 5°59 | 8°49 | 1°56 | 2°58 | 18° 7 | 22°48 | S 27 | | |
| S 28 | 4 50 29 | 12° 6'31 | 8♋ 8 | 23°48 | 28° 5 | 20°49 | 1°27 | 16°22 | 4° 1 | 5°58 | 8°49 | 1°D56 | 2°55 | 18°14 | 22°46 | S 28 | | |
| M29 | 4 54 26 | 13° 7'40 | 20°17 | 25°12 | 29°21 | 21°36 | 1°22 | 16°27 | 3°59 | 5°57 | 8°48 | 1°56 | 2°51 | 18°21 | 22°44 | M29 | | |
| T 30 | 4 58 22 | 14♌ 8'50 | 2♌16 | 26♌38 | 0♋36 | 22♋23 | 1♋18 | 16♌32 | 3♋57 | 5♌56 | 8°Y48 | 1♋58 | 2♋48 | 18♌27 | 22°Y43 | T 30 | | |

Delta T = 17m46s Julian Calendar 1 Nov. 1098 == Greg. Calendar 7 Nov. 1098

DECEMBER 1098 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|--------|------|-----|
| W 1 | 5 2 19 | 15♌ 9'59 | 14♌ 9 | 28♌ 4 | 1♋51 | 23♋10 | 1°R14 | 16♌37 | 3°R55 | 5°R55 | 8°R48 | 2♋ 0 | 2♋45 | 18♌34 | 22°R41 | W 1 | |
| T 2 | 5 6 15 | 16°11'09 | 25°58 | 29°30 | 3° 6 | 23°57 | 1♋11 | 16°42 | 3♋54 | 5♌54 | 8°Y47 | 2° 1 | 2°42 | 18°41 | 22°Y40 | T 2 | |
| F 3 | 5 10 12 | 17°12'19 | 7♋50 | 0♌58 | 4°21 | 24°44 | 1° 7 | 16°47 | 3°52 | 5°53 | 8°47 | 2° 2 | 2°39 | 18°48 | 22°38 | F 3 | |
| S 4 | 5 14 8 | 18°13'30 | 19°47 | 2°26 | 5°36 | 25°31 | 1° 4 | 16°52 | 3°51 | 5°52 | 8°47 | 2°R 2 | 2°35 | 18°54 | 22°37 | S 4 | |
| S 5 | 5 18 5 | 19°14'40 | 1°Y56 | 3°54 | 6°51 | 26°18 | 1° 0 | 16°56 | 3°49 | 5°51 | 8°46 | 2° 2 | 2°32 | 19° 1 | 22°36 | S 5 | |
| M 6 | 5 22 1 | 20°15'50 | 14°21 | 5°23 | 8° 7 | 27° 5 | 0°58 | 17° 1 | 3°48 | 5°50 | 8°46 | 2° 1 | 2°29 | 19° 8 | 22°34 | M 6 | |
| T 7 | 5 25 58 | 21°17'01 | 27° 6 | 6°53 | 9°22 | 27°52 | 0°55 | 17° 5 | 3°46 | 5°49 | 8°46 | 1°59 | 2°26 | 19°14 | 22°33 | T 7 | |
| W 8 | 5 29 55 | 22°18'11 | 10♋14 | 8°23 | 10°37 | 28°39 | 0°52 | 17° 9 | 3°45 | 5°48 | 8°46 | 1°58 | 2°23 | 19°21 | 22°32 | W 8 | |
| T 9 | 5 33 51 | 23°19'22 | 23°45 | 9°53 | 11°52 | 29°26 | 0°50 | 17°14 | 3°43 | 5°47 | 8°45 | 1°57 | 2°20 | 19°28 | 22°31 | T 9 | |
| F 10 | 5 37 48 | 24°20'32 | 7♌40 | 11°24 | 13° 7 | 0♌13 | 0°48 | 17°18 | 3°42 | 5°46 | 8°45 | 1°56 | 2°16 | 19°34 | 22°30 | F 10 | |
| S 11 | 5 41 44 | 25°21'43 | 21°56 | 12°55 | 14°22 | 1° 0 | 0°46 | 17°22 | 3°41 | 5°45 | 8°45 | 1°55 | 2°13 | 19°41 | 22°29 | S 11 | |
| S 12 | 5 45 41 | 26°22'54 | 6♋27 | 14°26 | 15°37 | 1°48 | 0°44 | 17°26 | 3°39 | 5°43 | 8°45 | 1°D55 | 2°10 | 19°48 | 22°28 | S 12 | |
| M13 | 5 49 37 | 27°24'04 | 21° 9 | 15°58 | 16°52 | 2°35 | 0°42 | 17°30 | 3°38 | 5°42 | 8°45 | 1°56 | 2° 7 | 19°54 | 22°27 | M13 | |
| T 14 | 5 53 34 | 28°25'15 | 5♌53 | 17°30 | 18° 7 | 3°22 | 0°41 | 17°34 | 3°37 | 5°41 | 8°45 | 1°56 | 2° 4 | 20° 1 | 22°26 | T 14 | |
| W15 | 5 57 30 | 29°26'26 | 20°34 | 19° 2 | 19°22 | 4° 9 | 0°40 | 17°38 | 3°36 | 5°40 | 8°45 | 1°56 | 2° 1 | 20° 8 | 22°26 | W15 | |
| T 16 | 6 1 27 | 0♋27'37 | 5♌ 5 | 20°35 | 20°37 | 4°56 | 0°39 | 17°41 | 3°35 | 5°38 | 8°45 | 1°56 | 1°57 | 20°15 | 22°25 | T 16 | |
| F 17 | 6 5 24 | 1°28'49 | 19°23 | 22° 8 | 21°52 | 5°43 | 0°38 | 17°45 | 3°34 | 5°37 | 8°D45 | 1°56 | 1°54 | 20°21 | 22°24 | F 17 | |
| S 18 | 6 9 20 | 2°30'00 | 3♌25 | 23°42 | 23° 7 | 6°30 | 0°38 | 17°48 | 3°33 | 5°36 | 8°45 | 1°56 | 1°51 | 20°28 | 22°24 | S 18 | |
| S 19 | 6 13 17 | 3°31'12 | 17°10 | 25°16 | 24°22 | 7°17 | 0°37 | 17°52 | 3°32 | 5°34 | 8°45 | 1°57 | 1°48 | 20°35 | 22°23 | S 19 | |
| M20 | 6 17 13 | 4°32'23 | 0♌37 | 26°50 | 25°37 | 8° 5 | 0°D37 | 17°55 | 3°31 | 5°33 | 8°45 | 1°57 | 1°45 | 20°41 | 22°23 | M20 | |
| T 21 | 6 21 10 | 5°33'35 | 13°49 | 28°25 | 26°52 | 8°52 | 0°37 | 17°58 | 3°30 | 5°32 | 8°45 | 1°57 | 1°41 | 20°48 | 22°22 | T 21 | |
| W22 | 6 25 6 | 6°34'46 | 26°46 | 29°59 | 28° 7 | 9°39 | 0°38 | 18° 2 | 3°30 | 5°30 | 8°45 | 1°57 | 1°38 | 20°55 | 22°22 | W22 | |
| T 23 | 6 29 3 | 7°35'58 | 9♌29 | 1♋36 | 29°22 | 10°26 | 0°38 | 18° 5 | 3°29 | 5°29 | 8°45 | 1°58 | 1°35 | 21° 1 | 22°22 | T 23 | |
| F 24 | 6 32 59 | 8°37'09 | 22° 0 | 3°12 | 0♌36 | 11°13 | 0°39 | 18° 8 | 3°28 | 5°27 | 8°45 | 1°58 | 1°32 | 21° 8 | 22°22 | F 24 | |
| S 25 | 6 36 56 | 9°38'20 | 4♋20 | 4°48 | 1°51 | 12° 0 | 0°40 | 18°10 | 3°28 | 5°26 | 8°45 | 1°R59 | 1°29 | 21°15 | 22°21 | S 25 | |
| S 26 | 6 40 53 | 10°39'31 | 16°30 | 6°25 | 3° 6 | 12°48 | 0°41 | 18°13 | 3°27 | 5°24 | 8°45 | 1°58 | 1°26 | 21°21 | 22°21 | S 26 | |
| M27 | 6 44 49 | 11°40'41 | 28°33 | 8° 3 | 4°21 | 13°35 | 0°43 | 18°16 | 3°26 | 5°23 | 8°46 | 1°57 | 1°22 | 21°28 | 22°D21 | M27 | |
| T 28 | 6 48 46 | 12°41'50 | 10♌28 | 9°41 | 5°36 | 14°22 | 0°44 | 18°18 | 3°26 | 5°21 | 8°46 | 1°56 | 1°19 | 21°35 | 22°21 | T 28 | |
| W29 | 6 52 42 | 13°42'58 | 22°19 | 11°19 | 6°50 | 15° 9 | 0°46 | 18°21 | 3°26 | 5°20 | 8°46 | 1°54 | 1°16 | 21°41 | 22°21 | W29 | |
| T 30 | 6 56 39 | 14°44'06 | 4♋ 9 | 12°58 | 8° 5 | 15°56 | 0°48 | 18°23 | 3°25 | 5°18 | 8°46 | 1°52 | 1°13 | 21°48 | 22°22 | T 30 | |
| F 31 | 7 0 35 | 15♌45'13 | 16♋ 0 | 14♋38 | 9♌20 | 16♌43 | 0♋50 | 18♌26 | 3♋25 | 5♌17 | 8°Y47 | 1♋50 | 1♋10 | 21♌55 | 22°Y22 | F 31 | |

Delta T = 17m46s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1099
geocentric

JANUARY 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|---------|----------|--------|-------|--------|--------|-------|--------|-------|-------|-------|-------|--------|--------|--------|-------|-----|---|---|---|---|---|---|-----|
| S 1 | 7 4 32 | 16°34'19 | 27°56 | 16°18 | 10°35 | 17°30 | 0°52 | 18°28 | 3°R25 | 5°R15 | 8°V47 | 1°R49 | 1°3 | 22° 8 | 22°22 | 22°22 | S 1 | | | | | | | |
| S 2 | 7 8 29 | 17°47'24 | 10°V 3 | 17°59 | 11°49 | 18°17 | 0°55 | 18°30 | 3°R24 | 5°L13 | 8°47 | 1°348 | 1° 3 | 22° 8 | 22°22 | S 2 | | | | | | | | |
| M 3 | 7 12 25 | 18°48'28 | 22°23 | 19°40 | 13° 4 | 19° 4 | 0°58 | 18°32 | 3°24 | 5°12 | 8°48 | 1°D48 | 1° 0 | 22°15 | 22°23 | M 3 | | | | | | | | |
| T 4 | 7 16 22 | 19°49'31 | 5°R 1 | 21°22 | 14°19 | 19°52 | 1° 1 | 18°34 | 3°24 | 5°10 | 8°48 | 1°48 | 0°57 | 22°22 | 22°23 | T 4 | | | | | | | | |
| W 5 | 7 20 18 | 20°50'32 | 18° 3 | 23° 5 | 15°33 | 20°39 | 1° 4 | 18°35 | 3°D24 | 5° 9 | 8°49 | 1°50 | 0°54 | 22°28 | 22°24 | W 5 | | | | | | | | |
| T 6 | 7 24 15 | 21°51'33 | 11°29 | 24°48 | 16°48 | 21°26 | 1° 7 | 18°37 | 3°24 | 5° 7 | 8°49 | 1°51 | 0°51 | 22°35 | 22°24 | T 6 | | | | | | | | |
| F 7 | 7 28 11 | 22°52'33 | 15°24 | 26°31 | 18° 2 | 22°13 | 1°11 | 18°39 | 3°24 | 5° 5 | 8°49 | 1°52 | 0°47 | 22°42 | 22°25 | F 7 | | | | | | | | |
| S 8 | 7 32 8 | 23°53'31 | 29°44 | 28°15 | 19°17 | 23° 0 | 1°15 | 18°40 | 3°24 | 5° 4 | 8°50 | 1°R53 | 0°44 | 22°48 | 22°26 | S 8 | | | | | | | | |
| S 9 | 7 36 4 | 24°54'29 | 14°28 | 0° 0 | 20°31 | 23°47 | 1°18 | 18°41 | 3°25 | 5° 2 | 8°50 | 1°53 | 0°41 | 22°55 | 22°27 | S 9 | | | | | | | | |
| M10 | 7 40 1 | 25°55'25 | 29°29 | 1°45 | 21°46 | 24°34 | 1°23 | 18°43 | 3°25 | 5° 0 | 8°51 | 1°51 | 0°38 | 23° 2 | 22°27 | M10 | | | | | | | | |
| T 11 | 7 43 58 | 26°56'20 | 14°L38 | 3°31 | 23° 0 | 25°21 | 1°27 | 18°44 | 3°25 | 4°59 | 8°51 | 1°48 | 0°35 | 23° 9 | 22°28 | T 11 | | | | | | | | |
| W12 | 7 47 54 | 27°57'15 | 29°45 | 5°17 | 24°14 | 26° 7 | 1°31 | 18°45 | 3°25 | 4°57 | 8°52 | 1°45 | 0°32 | 23°15 | 22°29 | W12 | | | | | | | | |
| T 13 | 7 51 51 | 28°58'08 | 14°M41 | 7° 3 | 25°29 | 26°54 | 1°36 | 18°46 | 3°26 | 4°55 | 8°53 | 1°41 | 0°28 | 23°22 | 22°30 | T 13 | | | | | | | | |
| F 14 | 7 55 47 | 29°59'00 | 29°19 | 8°49 | 26°43 | 27°41 | 1°41 | 18°47 | 3°26 | 4°54 | 8°53 | 1°37 | 0°25 | 23°29 | 22°31 | F 14 | | | | | | | | |
| S 15 | 7 59 44 | 0°59'52 | 13°24 | 10°36 | 27°57 | 28°28 | 1°46 | 18°47 | 3°27 | 4°52 | 8°54 | 1°35 | 0°22 | 23°35 | 22°32 | S 15 | | | | | | | | |
| S 16 | 8 3 40 | 2° 0'42 | 27°23 | 12°22 | 29°11 | 29°15 | 1°51 | 18°48 | 3°27 | 4°50 | 8°54 | 1°D34 | 0°19 | 23°42 | 22°34 | S 16 | | | | | | | | |
| M17 | 8 7 37 | 3° 1'32 | 10°L48 | 14° 9 | 0°X26 | 0°X 2 | 1°56 | 18°48 | 3°28 | 4°49 | 8°55 | 1°34 | 0°16 | 23°49 | 22°35 | M17 | | | | | | | | |
| T 18 | 8 11 33 | 4° 2'21 | 23°50 | 15°54 | 1°40 | 0°49 | 2° 2 | 18°49 | 3°28 | 4°47 | 8°56 | 1°35 | 0°13 | 23°55 | 22°36 | T 18 | | | | | | | | |
| W19 | 8 15 30 | 5° 3'09 | 6°X33 | 17°39 | 2°54 | 1°35 | 2° 8 | 18°49 | 3°29 | 4°45 | 8°57 | 1°37 | 0° 9 | 24° 2 | 22°37 | W19 | | | | | | | | |
| T 20 | 8 19 27 | 6° 3'55 | 19° 0 | 19°24 | 4° 8 | 2°22 | 2°14 | 18°49 | 3°30 | 4°44 | 8°57 | 1°38 | 0° 6 | 24° 9 | 22°39 | T 20 | | | | | | | | |
| F 21 | 8 23 23 | 7° 4'41 | 1°35 | 21° 6 | 5°22 | 3° 9 | 2°20 | 18°R49 | 3°31 | 4°42 | 8°58 | 1°R39 | 0° 3 | 24°15 | 22°40 | F 21 | | | | | | | | |
| S 22 | 8 27 20 | 8° 5'25 | 13°21 | 22°47 | 6°36 | 3°56 | 2°26 | 18°49 | 3°32 | 4°40 | 8°59 | 1°38 | 29°X59 | 24°22 | 22°42 | S 22 | | | | | | | | |
| S 23 | 8 31 16 | 9° 6'08 | 25°20 | 24°26 | 7°50 | 4°42 | 2°32 | 18°49 | 3°32 | 4°39 | 9° 0 | 1°35 | 29°57 | 24°29 | 22°43 | S 23 | | | | | | | | |
| M24 | 8 35 13 | 10° 6'50 | 7°X14 | 26° 3 | 9° 4 | 5°29 | 2°39 | 18°49 | 3°33 | 4°37 | 9° 0 | 1°31 | 29°53 | 24°36 | 22°45 | M24 | | | | | | | | |
| T 25 | 8 39 9 | 11° 7'30 | 19° 6 | 27°36 | 10°18 | 6°16 | 2°46 | 18°49 | 3°34 | 4°35 | 9° 1 | 1°24 | 29°50 | 24°42 | 22°47 | T 25 | | | | | | | | |
| W26 | 8 43 6 | 12° 8'09 | 0°X56 | 29° 6 | 11°31 | 7° 2 | 2°53 | 18°48 | 3°35 | 4°34 | 9° 2 | 1°17 | 29°47 | 24°49 | 22°48 | W26 | | | | | | | | |
| T 27 | 8 47 2 | 13° 8'46 | 12°47 | 0°X31 | 12°45 | 7°49 | 3° 0 | 18°48 | 3°37 | 4°32 | 9° 3 | 1° 8 | 29°44 | 24°56 | 22°50 | T 27 | | | | | | | | |
| F 28 | 8 50 59 | 14° 9'21 | 24°41 | 1°52 | 13°59 | 8°35 | 3° 7 | 18°47 | 3°38 | 4°30 | 9° 4 | 1° 0 | 29°41 | 25° 2 | 22°52 | F 28 | | | | | | | | |
| S 29 | 8 54 56 | 15° 9'54 | 6°V40 | 3° 6 | 15°13 | 9°22 | 3°14 | 18°46 | 3°39 | 4°29 | 9° 5 | 0°53 | 29°38 | 25° 9 | 22°54 | S 29 | | | | | | | | |
| S 30 | 8 58 52 | 16°10'26 | 18°46 | 4°15 | 16°26 | 10° 8 | 3°22 | 18°46 | 3°40 | 4°27 | 9° 6 | 0°47 | 29°34 | 25°16 | 22°56 | S 30 | | | | | | | | |
| M31 | 9 2 49 | 17°10'56 | 1°X 4 | 5°X16 | 17°X40 | 10°X55 | 3°X29 | 18°X45 | 3°X41 | 4°X25 | 9°V 6 | 0°X44 | 29°X31 | 25°X22 | 22°V58 | M31 | | | | | | | | |

Delta T = 17m46s Julian Calendar 1 Jan. 1099 == Greg. Calendar 7 Jan. 1099

FEBRUARY 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|-----------|--------|--------|--------|--------|-------|--------|-------|-------|-------|--------|--------|--------|--------|------|---|---|---|---|---|---|---|-----|
| T 1 | 9 6 45 | 18°11'24 | 13°R38 | 6°X10 | 18°X53 | 11°X41 | 3°X37 | 18°R44 | 3°R43 | 4°R24 | 9°V 7 | 0°D42 | 29°X28 | 25°X29 | 23°V 0 | T 1 | | | | | | | | |
| W 2 | 9 10 42 | 19°11'50 | 26°31 | 6°55 | 20° 7 | 12°28 | 3°45 | 18°X42 | 3°44 | 4°L22 | 9° 8 | 0°X42 | 29°25 | 25°36 | 23° 2 | W 2 | | | | | | | | |
| T 3 | 9 14 38 | 20°12'14 | 9°M48 | 7°32 | 21°20 | 13°14 | 3°53 | 18°41 | 3°46 | 4°20 | 9° 9 | 0°43 | 29°22 | 25°43 | 23° 4 | T 3 | | | | | | | | |
| F 4 | 9 18 35 | 21°12'37 | 23°32 | 7°59 | 22°33 | 14° 0 | 4° 1 | 18°40 | 3°47 | 4°19 | 9°10 | 0°R44 | 29°18 | 25°49 | 23° 6 | F 4 | | | | | | | | |
| S 5 | 9 22 31 | 22°12'57 | 7°24 | 8°17 | 23°47 | 14°47 | 4°10 | 18°38 | 3°49 | 4°17 | 9°11 | 0°44 | 29°15 | 25°56 | 23° 8 | S 5 | | | | | | | | |
| S 6 | 9 26 28 | 23°13'15 | 22°22 | 8°R25 | 25° 0 | 15°33 | 4°18 | 18°37 | 3°50 | 4°16 | 9°12 | 0°42 | 29°12 | 26° 3 | 23°11 | S 6 | | | | | | | | |
| M 7 | 9 30 25 | 24°13'31 | 7°L24 | 8°23 | 26°13 | 16°19 | 4°27 | 18°35 | 3°52 | 4°14 | 9°13 | 0°38 | 29° 9 | 26° 9 | 23°13 | M 7 | | | | | | | | |
| T 8 | 9 34 21 | 25°13'46 | 22°40 | 8°11 | 27°26 | 17° 5 | 4°36 | 18°33 | 3°54 | 4°12 | 9°15 | 0°32 | 29° 6 | 26°16 | 23°15 | T 8 | | | | | | | | |
| W 9 | 9 38 18 | 26°13'58 | 8°M 1 | 7°50 | 28°39 | 17°51 | 4°45 | 18°32 | 3°55 | 4°11 | 9°16 | 0°23 | 29° 3 | 26°23 | 23°18 | W 9 | | | | | | | | |
| T 10 | 9 42 14 | 27°14'09 | 23°14 | 7°20 | 29°52 | 18°37 | 4°54 | 18°30 | 3°57 | 4° 9 | 9°17 | 0°14 | 28°59 | 26°29 | 23°20 | T 10 | | | | | | | | |
| F 11 | 9 46 11 | 28°14'17 | 8°L10 | 6°42 | 1°V 5 | 19°24 | 5° 3 | 18°28 | 3°59 | 4° 8 | 9°18 | 0° 6 | 28°56 | 26°36 | 23°23 | F 11 | | | | | | | | |
| S 12 | 9 50 7 | 29°14'25 | 22°40 | 5°58 | 2°18 | 20°10 | 5°12 | 18°25 | 4° 1 | 4° 6 | 9°19 | 29°X59 | 28°53 | 26°43 | 23°25 | S 12 | | | | | | | | |
| S 13 | 9 54 4 | 0°X14'30 | 6°M42 | 5° 7 | 3°31 | 20°56 | 5°22 | 18°23 | 4° 3 | 4° 5 | 9°20 | 29°54 | 28°50 | 26°50 | 23°28 | S 13 | | | | | | | | |
| M14 | 9 58 0 | 1°14'35 | 20°13 | 4°12 | 4°43 | 21°41 | 5°31 | 18°21 | 4° 5 | 4° 3 | 9°21 | 29°52 | 28°47 | 26°56 | 23°31 | M14 | | | | | | | | |
| T 15 | 10 1 57 | 2°14'37 | 3°X17 | 3°13 | 5°56 | 22°27 | 5°41 | 18°19 | 4° 7 | 4° 2 | 9°22 | 29°D51 | 28°44 | 27° 3 | 23°33 | T 15 | | | | | | | | |
| W16 | 10 5 54 | 3°14'38 | 15°58 | 2°13 | 7° 8 | 23°13 | 5°51 | 18°16 | 4° 9 | 4° 0 | 9°23 | 29°52 | 28°40 | 27°10 | 23°36 | W16 | | | | | | | | |
| T 17 | 10 9 50 | 4°14'37 | 28°19 | 1°12 | 8°21 | 23°59 | 6° 0 | 18°13 | 4°11 | 3°59 | 9°25 | 29°R52 | 28°37 | 27°16 | 23°39 | T 17 | | | | | | | | |
| F 18 | 10 13 47 | 5°14'35 | 10°R27 | 0°12 | 9°33 | 24°45 | 6°10 | 18°11 | 4°13 | 3°58 | 9°26 | 29°52 | 28°34 | 27°23 | 23°42 | F 18 | | | | | | | | |
| S 19 | 10 17 43 | 6°14'31 | 22°24 | 29°X15 | 10°46 | 25°31 | 6°21 | 18° 8 | 4°15 | 3°56 | 9°27 | 29°49 | 28°31 | 27°30 | 23°45 | S 19 | | | | | | | | |
| S 20 | 10 21 40 | 7°14'25 | 4°X17 | 28°21 | 11°58 | 26°16 | 6°31 | 18° 5 | 4°17 | 3°55 | 9°28 | 29°44 | 28°28 | 27°36 | 23°47 | S 20 | | | | | | | | |
| M21 | 10 25 36 | 8°14'17 | 16° 6 | 27°31 | 13°10 | 27° 2 | 6°41 | 18° 2 | 4°19 | 3°54 | 9°30 | 29°36 | 28°24 | 27°43 | 23°50 | M21 | | | | | | | | |
| T 22 | 10 29 33 | 9°14'07 | 27°56 | 26°46 | 14°22 | 27°48 | 6°52 | 17°59 | 4°22 | 3°52 | 9°31 | 29°25 | 28°21 | 27°50 | 23°53 | T 22 | | | | | | | | |
| W23 | 10 33 29 | 10°13'55 | 9°X48 | 26° 7 | 15°34 | 28°33 | 7° 2 | 17°56 | 4°24 | 3°51 | 9°32 | 29°12 | 28°18 | 27°57 | 23°56 | W23 | | | | | | | | |
| T 24 | 10 37 26 | 11°13'41 | 21°43 | 25°34 | 16°46 | 29°19 | 7°13 | 17°53 | 4°26 | 3°50 | 9°33 | 28°59 | 28°15 | 28° 3 | 23°59 | T 24 | | | | | | | | |
| F 25 | 10 41 22 | 12°13'26 | 3°V43 | 25° 7 | 17°58 | 0°V 4 | 7°24 | 17°50 | 4°29 | 3°48 | 9°35 | 28°45 | 28°12 | 28°10 | 24° 2 | F 25 | | | | | | | | |
| S 26 | 10 45 19 | 13°13'07 | 15°49 | 24°46 | 19°10 | 0°50 | 7°34 | 17°47 | 4°31 | 3°47 | 9°36 | 28°33 | 28° 9 | 28°17 | 24° 6 | S 26 | | | | | | | | |
| S 27 | 10 49 16 | 14°12'47 | 28° 3 | 24°31 | 20°22 | 1°35 | 7°45 | 17°43 | 4°34 | 3°46 | 9°37 | 28°23 | 28° 5 | 28°23 | 24° 9 | S 27 | | | | | | | | |
| M28 | 10 53 12 | 15°X12'25 | 10°X26 | 24°X23 | 21°V33 | 2°V20 | 7°X56 | 17°X40 | 4°X36 | 3°X45 | 9°V38 | 28°X15 | 28°X 2 | 28°X30 | 24°V12 | M28 | | | | | | | | |

Delta T = 17m45s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1099
geocentric

MARCH 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♄ | ♃ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|------|-------|-------|--------|-------|-------|--------|------|
| T 1 | 10 57 9 | 16♋12'00 | 23♉2 | 24♌D21 | 22♍45 | 3♎6 | 8♏8 | 17°R36 | 4♐39 | 3°R44 | 9♑40 | 28°R11 | 27♒59 | 28♓37 | 24♈15 | T 1 |
| W 2 | 11 1 5 | 17°11'33 | 5♊54 | 24♌25 | 23°56 | 3°51 | 8°19 | 17♌33 | 4°41 | 3♎43 | 9°41 | 28♒9 | 27°56 | 28°44 | 24°18 | W 2 |
| T 3 | 11 5 2 | 18°11'04 | 19°5 | 24°34 | 25°7 | 4°36 | 8°30 | 17°29 | 4°44 | 3°41 | 9°42 | 28°D 8 | 27°53 | 28°50 | 24°22 | T 3 |
| F 4 | 11 8 58 | 19°10'32 | 2♌39 | 24°49 | 26°19 | 5°21 | 8°41 | 17°25 | 4°47 | 3°40 | 9°44 | 28°R 8 | 27°50 | 28°57 | 24°25 | F 4 |
| S 5 | 11 12 55 | 20°9'58 | 16°37 | 25°9 | 27°30 | 6°7 | 8°53 | 17°22 | 4°49 | 3°39 | 9°45 | 28°8 | 27°46 | 29°4 | 24°28 | S 5 |
| S 6 | 11 16 51 | 21°9'22 | 1♌1 | 25°34 | 28°41 | 6°52 | 9°5 | 17°18 | 4°52 | 3°38 | 9°46 | 28°5 | 27°43 | 29°10 | 24°32 | S 6 |
| M 7 | 11 20 48 | 22°8'43 | 15°48 | 26°3 | 29°52 | 7°37 | 9°16 | 17°14 | 4°55 | 3°37 | 9°48 | 27°59 | 27°40 | 29°17 | 24°35 | M 7 |
| T 8 | 11 24 45 | 23°8'02 | 0♎53 | 26°37 | 1♌3 | 8°22 | 9°28 | 17°10 | 4°57 | 3°36 | 9°49 | 27°51 | 27°37 | 29°24 | 24°38 | T 8 |
| W 9 | 11 28 41 | 24°7'19 | 16°7 | 27°15 | 2°13 | 9°7 | 9°40 | 17°6 | 5°0 | 3°35 | 9°50 | 27°41 | 27°34 | 29°30 | 24°42 | W 9 |
| T 10 | 11 32 38 | 25°6'33 | 1♌20 | 27°57 | 3°24 | 9°52 | 9°52 | 17°2 | 5°3 | 3°34 | 9°52 | 27°29 | 27°30 | 29°37 | 24°45 | T 10 |
| F 11 | 11 36 34 | 26°5'45 | 16°19 | 28°42 | 4°34 | 10°36 | 10°4 | 16°58 | 5°6 | 3°33 | 9°53 | 27°18 | 27°27 | 29°44 | 24°49 | F 11 |
| S 12 | 11 40 31 | 27°4'56 | 0♎57 | 29°31 | 5°45 | 11°21 | 10°16 | 16°54 | 5°9 | 3°33 | 9°55 | 27°9 | 27°24 | 29°51 | 24°52 | S 12 |
| S 13 | 11 44 27 | 28°4'05 | 15°7 | 0♋23 | 6°55 | 12°6 | 10°28 | 16°50 | 5°12 | 3°32 | 9°56 | 27°2 | 27°21 | 29°57 | 24°56 | S 13 |
| M14 | 11 48 24 | 29°3'11 | 28°47 | 1°18 | 8°5 | 12°51 | 10°40 | 16°45 | 5°15 | 3°31 | 9°57 | 26°57 | 27°18 | 0♋4 | 24°59 | M14 |
| T 15 | 11 52 20 | 0♍2'17 | 11♌57 | 2°17 | 9°15 | 13°35 | 10°52 | 16°41 | 5°18 | 3°30 | 9°59 | 26°55 | 27°15 | 0°11 | 25°3 | T 15 |
| W16 | 11 56 17 | 1°1'20 | 24°42 | 3°18 | 10°25 | 14°20 | 11°5 | 16°37 | 5°21 | 3°29 | 10°0 | 26°55 | 27°11 | 0°17 | 25°7 | W16 |
| T 17 | 12 0 14 | 2°0'21 | 7♌6 | 4°21 | 11°35 | 15°4 | 11°17 | 16°32 | 5°24 | 3°29 | 10°2 | 26°55 | 27°8 | 0°24 | 25°10 | T 17 |
| F 18 | 12 4 10 | 2°59'21 | 19°13 | 5°27 | 12°44 | 15°49 | 11°30 | 16°28 | 5°27 | 3°28 | 10°3 | 26°54 | 27°5 | 0°31 | 25°14 | F 18 |
| S 19 | 12 8 7 | 3°58'19 | 1♌10 | 6°36 | 13°54 | 16°33 | 11°42 | 16°24 | 5°30 | 3°27 | 10°4 | 26°51 | 27°2 | 0°38 | 25°18 | S 19 |
| S 20 | 12 12 3 | 4°57'15 | 13°0 | 7°47 | 15°3 | 17°18 | 11°55 | 16°19 | 5°33 | 3°27 | 10°6 | 26°46 | 26°59 | 0°44 | 25°21 | S 20 |
| M21 | 12 16 0 | 5°56'09 | 24°49 | 9°0 | 16°13 | 18°2 | 12°7 | 16°15 | 5°36 | 3°26 | 10°7 | 26°38 | 26°55 | 0°51 | 25°25 | M21 |
| T 22 | 12 19 56 | 6°55'01 | 6♋40 | 10°15 | 17°22 | 18°46 | 12°20 | 16°10 | 5°39 | 3°25 | 10°9 | 26°28 | 26°52 | 0°58 | 25°29 | T 22 |
| W23 | 12 23 53 | 7°53'51 | 18°35 | 11°32 | 18°31 | 19°31 | 12°33 | 16°6 | 5°42 | 3°25 | 10°10 | 26°15 | 26°49 | 1°0 | 25°32 | W23 |
| T 24 | 12 27 49 | 8°52'39 | 0♍37 | 12°52 | 19°40 | 20°15 | 12°46 | 16°1 | 5°45 | 3°24 | 10°11 | 26°1 | 26°46 | 1°11 | 25°36 | T 24 |
| F 25 | 12 31 46 | 9°51'26 | 12°46 | 14°13 | 20°48 | 20°59 | 12°59 | 15°57 | 5°49 | 3°24 | 10°13 | 25°48 | 26°43 | 1°18 | 25°40 | F 25 |
| S 26 | 12 35 42 | 10°50'10 | 25°4 | 15°36 | 21°57 | 21°43 | 13°12 | 15°52 | 5°52 | 3°23 | 10°14 | 25°35 | 26°40 | 1°24 | 25°44 | S 26 |
| S 27 | 12 39 39 | 11°48'52 | 7♌31 | 17°1 | 23°6 | 22°27 | 13°25 | 15°48 | 5°55 | 3°23 | 10°16 | 25°25 | 26°36 | 1°31 | 25°48 | S 27 |
| M28 | 12 43 36 | 12°47'33 | 20°7 | 18°28 | 24°14 | 23°11 | 13°38 | 15°43 | 5°58 | 3°23 | 10°17 | 25°18 | 26°33 | 1°38 | 25°51 | M28 |
| T 29 | 12 47 32 | 13°46'11 | 2♌55 | 19°56 | 25°22 | 23°55 | 13°51 | 15°39 | 6°2 | 3°22 | 10°18 | 25°13 | 26°30 | 1°45 | 25°55 | T 29 |
| W30 | 12 51 29 | 14°44'47 | 15°56 | 21°27 | 26°30 | 24°39 | 14°4 | 15°34 | 6°5 | 3°22 | 10°20 | 25°11 | 26°27 | 1°51 | 25°59 | W30 |
| T 31 | 12 55 25 | 15°43'20 | 29♌12 | 22♋59 | 27♌38 | 25°23 | 14♌17 | 15♌29 | 6♌8 | 3♎22 | 10°21 | 25°D11 | 26♒24 | 1♋58 | 26°V 3 | T 31 |

Delta T = 17m45s Julian Calendar 1 March 1099 == Greg. Calendar 7 March 1099

APRIL 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♄ | ♃ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|------|-------|--------|--------|-------|------|---------|------|
| F 1 | 12 59 22 | 16♍41'52 | 12♌44 | 24♋33 | 28♌45 | 26♍7 | 14♎30 | 15°R25 | 6♏12 | 3°R21 | 10♑23 | 25°R11 | 26♒21 | 2♋5 | 26°V 7 | F 1 |
| S 2 | 13 3 18 | 17°40'21 | 26°36 | 26°8 | 29°53 | 26°51 | 14°44 | 15♌20 | 6°15 | 3♎21 | 10°24 | 25♒11 | 26°17 | 2°11 | 26°11 | S 2 |
| S 3 | 13 7 15 | 18°38'48 | 10♌46 | 27°46 | 1♌0 | 27°34 | 14°57 | 15°16 | 6°18 | 3°21 | 10°26 | 25°9 | 26°14 | 2°18 | 26°14 | S 3 |
| M 4 | 13 11 11 | 19°37'13 | 25°16 | 29°25 | 2°7 | 28°18 | 15°10 | 15°11 | 6°22 | 3°21 | 10°27 | 25°5 | 26°11 | 2°25 | 26°18 | M 4 |
| T 5 | 13 15 8 | 20°35'35 | 10♎0 | 1°V 5 | 3°14 | 29°2 | 15°24 | 15°7 | 6°25 | 3°21 | 10°28 | 24°58 | 26°8 | 2°32 | 26°22 | T 5 |
| W 6 | 13 19 5 | 21°33'56 | 24°53 | 2°48 | 4°21 | 29°45 | 15°37 | 15°2 | 6°28 | 3°21 | 10°30 | 24°50 | 26°5 | 2°38 | 26°26 | W 6 |
| T 7 | 13 23 1 | 22°32'14 | 9♌46 | 4°32 | 5°28 | 0♎29 | 15°51 | 14°58 | 6°32 | 3°21 | 10°31 | 24°41 | 26°1 | 2°45 | 26°30 | T 7 |
| F 8 | 13 26 58 | 23°30'31 | 24°32 | 6°18 | 6°34 | 1°12 | 16°4 | 14°53 | 6°35 | 3°D21 | 10°32 | 24°31 | 25°58 | 2°52 | 26°34 | F 8 |
| S 9 | 13 30 54 | 24°28'45 | 9♎1 | 8°5 | 7°40 | 1°56 | 16°18 | 14°49 | 6°39 | 3°21 | 10°34 | 24°23 | 25°55 | 2°58 | 26°38 | S 9 |
| S 10 | 13 34 51 | 25°26'58 | 23°7 | 9°55 | 8°46 | 2°39 | 16°31 | 14°44 | 6°42 | 3°21 | 10°35 | 24°17 | 25°52 | 3°5 | 26°42 | S 10 |
| M11 | 13 38 47 | 26°25'10 | 6♒47 | 11°46 | 9°52 | 3°22 | 16°45 | 14°40 | 6°45 | 3°21 | 10°37 | 24°14 | 25°49 | 3°12 | 26°45 | M11 |
| T 12 | 13 42 44 | 27°23'20 | 20°1 | 13°39 | 10°57 | 4°5 | 16°58 | 14°35 | 6°49 | 3°21 | 10°38 | 24°D12 | 25°46 | 3°19 | 26°49 | T 12 |
| W13 | 13 46 40 | 28°21'28 | 2♌50 | 15°33 | 12°3 | 4°49 | 17°12 | 14°31 | 6°52 | 3°21 | 10°39 | 24°12 | 25°42 | 3°25 | 26°53 | W13 |
| T 14 | 13 50 37 | 29°19'35 | 15°18 | 17°30 | 13°8 | 5°32 | 17°26 | 14°26 | 6°56 | 3°21 | 10°41 | 24°13 | 25°39 | 3°32 | 26°57 | T 14 |
| F 15 | 13 54 34 | 0♋17'40 | 27°29 | 19°28 | 14°13 | 6°15 | 17°40 | 14°22 | 6°59 | 3°21 | 10°42 | 24°R14 | 25°36 | 3°39 | 27°1 | F 15 |
| S 16 | 13 58 30 | 1°15'44 | 9♓28 | 21°27 | 15°17 | 6°58 | 17°53 | 14°18 | 7°3 | 3°22 | 10°43 | 24°14 | 25°33 | 3°45 | 27°5 | S 16 |
| S 17 | 14 2 27 | 2°13'46 | 21°20 | 23°29 | 16°22 | 7°41 | 18°7 | 14°14 | 7°6 | 3°22 | 10°45 | 24°12 | 25°30 | 3°52 | 27°9 | S 17 |
| M18 | 14 6 23 | 3°11'47 | 3♋11 | 25°32 | 17°26 | 8°24 | 18°21 | 14°9 | 7°10 | 3°22 | 10°46 | 24°8 | 25°27 | 3°59 | 27°13 | M18 |
| T 19 | 14 10 20 | 4°9'47 | 15°5 | 27°36 | 18°30 | 9°7 | 18°35 | 14°5 | 7°13 | 3°23 | 10°47 | 24°1 | 25°23 | 4°6 | 27°17 | T 19 |
| W20 | 14 14 16 | 5°7'45 | 27°4 | 29°42 | 19°33 | 9°50 | 18°49 | 14°1 | 7°17 | 3°23 | 10°49 | 23°54 | 25°20 | 4°12 | 27°20 | W20 |
| T 21 | 14 18 13 | 6°5'42 | 9♍12 | 1♋49 | 20°37 | 10°32 | 19°3 | 13°57 | 7°20 | 3°23 | 10°50 | 23°45 | 25°17 | 4°19 | 27°24 | T 21 |
| F 22 | 14 22 9 | 7°3'37 | 21°32 | 3°58 | 21°40 | 11°15 | 19°16 | 13°53 | 7°24 | 3°24 | 10°51 | 23°36 | 25°14 | 4°26 | 27°28 | F 22 |
| S 23 | 14 26 6 | 8°1'31 | 4♌3 | 6°7 | 22°42 | 11°58 | 19°30 | 13°49 | 7°27 | 3°24 | 10°53 | 23°28 | 25°11 | 4°32 | 27°32 | S 23 |
| S 24 | 14 30 3 | 8°59'23 | 16°46 | 8°17 | 23°45 | 12°40 | 19°44 | 13°45 | 7°31 | 3°25 | 10°54 | 23°22 | 25°7 | 4°39 | 27°36 | S 24 |
| M25 | 14 33 59 | 9°57'14 | 29°42 | 10°28 | 24°47 | 13°23 | 19°58 | 13°41 | 7°34 | 3°25 | 10°55 | 23°17 | 25°4 | 4°46 | 27°40 | M25 |
| T 26 | 14 37 56 | 10°55'03 | 12♌49 | 12°39 | 25°49 | 14°6 | 20°12 | 13°37 | 7°37 | 3°26 | 10°56 | 23°15 | 25°1 | 4°53 | 27°44 | T 26 |
| W27 | 14 41 52 | 11°52'51 | 26°9 | 14°50 | 26°51 | 14°48 | 20°26 | 13°34 | 7°41 | 3°26 | 10°58 | 23°D15 | 24°58 | 4°59 | 27°47 | W27 |
| T 28 | 14 45 49 | 12°50'37 | 9♌40 | 17°1 | 27°52 | 15°31 | 20°40 | 13°30 | 7°44 | 3°27 | 10°59 | 23°16 | 24°55 | 5°6 | 27°51 | T 28 |
| F 29 | 14 49 45 | 13°48'21 | 23°24 | 19°11 | 28°53 | 16°13 | 20°54 | 13°26 | 7°48 | 3°28 | 11°0 | 23°17 | 24°52 | 5°13 | 27°55 | F 29 |
| S 30 | 14 53 42 | 14♋46'04 | 7♌19 | 21♋21 | 29♌54 | 16♌55 | 21♌8 | 13♌23 | 7♌51 | 3♎28 | 11°V 1 | 23♒18 | 24♒48 | 5♋19 | 27°V 59 | S 30 |

Delta T = 17m45s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1099
geocentric

MAY 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|------|------|-------|--------|-------|------|-------|------|-----|
| S 1 | 14 57 38 | 15♌43'44 | 21♌26 | 23♌29 | 0♌54 | 17♌38 | 21♌22 | 13°R19 | 7♌55 | 3♌29 | 11♌3 | 23°R18 | 24♌45 | 5♌26 | 28♌2 | S 1 | |
| M 2 | 15 1 35 | 16°41'24 | 5♌43 | 25°36 | 1°54 | 18°20 | 21°36 | 13♌16 | 7°58 | 3°30 | 11° 4 | 23♌17 | 24°42 | 5°33 | 28° 6 | M 2 | |
| T 3 | 15 5 32 | 17°39'01 | 20° 7 | 27°42 | 2°53 | 19° 2 | 21°50 | 13°12 | 8° 2 | 3°31 | 11° 5 | 23°14 | 24°39 | 5°40 | 28°10 | T 3 | |
| W 4 | 15 9 28 | 18°36'37 | 4♌35 | 29°46 | 3°52 | 19°44 | 22° 4 | 13° 9 | 8° 5 | 3°31 | 11° 6 | 23°10 | 24°36 | 5°46 | 28°14 | W 4 | |
| T 5 | 15 13 25 | 19°34'12 | 19° 2 | 1♌48 | 4°51 | 20°26 | 22°18 | 13° 6 | 8° 9 | 3°32 | 11° 7 | 23° 5 | 24°32 | 5°53 | 28°17 | T 5 | |
| F 6 | 15 17 21 | 20°31'45 | 3♌22 | 3°47 | 5°49 | 21° 8 | 22°32 | 13° 3 | 8°12 | 3°33 | 11° 8 | 23° 0 | 24°29 | 6° 0 | 28°21 | F 6 | |
| S 7 | 15 21 18 | 21°29'17 | 17°28 | 5°45 | 6°47 | 21°50 | 22°46 | 13° 0 | 8°15 | 3°34 | 11° 9 | 22°56 | 24°26 | 6° 6 | 28°25 | S 7 | |
| S 8 | 15 25 14 | 22°26'47 | 1♌18 | 7°40 | 7°44 | 22°32 | 23° 0 | 12°57 | 8°19 | 3°35 | 11°11 | 22°53 | 24°23 | 6°13 | 28°28 | S 8 | |
| M 9 | 15 29 11 | 23°24'17 | 14°48 | 9°32 | 8°41 | 23°14 | 23°14 | 12°54 | 8°22 | 3°36 | 11°12 | 22°51 | 24°20 | 6°20 | 28°32 | M 9 | |
| T 10 | 15 33 7 | 24°21'46 | 27°56 | 11°22 | 9°37 | 23°56 | 23°28 | 12°51 | 8°26 | 3°37 | 11°13 | 22°D51 | 24°17 | 6°27 | 28°36 | T 10 | |
| W11 | 15 37 4 | 25°19'14 | 10♌43 | 13° 9 | 10°33 | 24°38 | 23°42 | 12°48 | 8°29 | 3°38 | 11°14 | 22°52 | 24°13 | 6°33 | 28°39 | W11 | |
| T 12 | 15 41 1 | 26°16'41 | 23°11 | 14°53 | 11°29 | 25°20 | 23°56 | 12°45 | 8°32 | 3°39 | 11°15 | 22°54 | 24°10 | 6°40 | 28°43 | T 12 | |
| F 13 | 15 44 57 | 27°14'07 | 5♌24 | 16°35 | 12°24 | 26° 1 | 24°10 | 12°43 | 8°36 | 3°40 | 11°16 | 22°55 | 24° 7 | 6°47 | 28°46 | F 13 | |
| S 14 | 15 48 54 | 28°11'32 | 17°26 | 18°14 | 13°18 | 26°43 | 24°24 | 12°40 | 8°39 | 3°41 | 11°17 | 22°56 | 24° 4 | 6°53 | 28°50 | S 14 | |
| S 15 | 15 52 50 | 29° 8'56 | 29°21 | 19°50 | 14°12 | 27°25 | 24°38 | 12°38 | 8°42 | 3°42 | 11°18 | 22°R57 | 24° 1 | 7° 0 | 28°53 | S 15 | |
| M16 | 15 56 47 | 0♌6'20 | 11♌13 | 21°23 | 15° 5 | 28° 6 | 24°52 | 12°35 | 8°46 | 3°44 | 11°19 | 22°56 | 23°58 | 7° 7 | 28°57 | M16 | |
| T 17 | 16 0 43 | 1° 3'43 | 23° 9 | 22°53 | 15°57 | 28°48 | 25° 6 | 12°33 | 8°49 | 3°45 | 11°20 | 22°55 | 23°54 | 7°14 | 29° 0 | T 17 | |
| W18 | 16 4 40 | 2° 1'05 | 5♌11 | 24°20 | 16°49 | 29°29 | 25°20 | 12°31 | 8°52 | 3°46 | 11°21 | 22°53 | 23°51 | 7°20 | 29° 4 | W18 | |
| T 19 | 16 8 36 | 2°58'27 | 17°24 | 25°44 | 17°41 | 0♌11 | 25°34 | 12°29 | 8°56 | 3°47 | 11°22 | 22°50 | 23°48 | 7°27 | 29° 7 | T 19 | |
| F 20 | 16 12 33 | 3°55'48 | 29°51 | 27° 5 | 18°31 | 0°52 | 25°48 | 12°27 | 8°59 | 3°49 | 11°23 | 22°47 | 23°45 | 7°34 | 29°10 | F 20 | |
| S 21 | 16 16 30 | 4°53'09 | 12♌33 | 28°24 | 19°21 | 1°33 | 26° 2 | 12°25 | 9° 2 | 3°50 | 11°24 | 22°44 | 23°42 | 7°40 | 29°14 | S 21 | |
| S 22 | 16 20 26 | 5°50'29 | 25°32 | 29°39 | 20°11 | 2°15 | 26°16 | 12°23 | 9° 5 | 3°51 | 11°25 | 22°42 | 23°38 | 7°47 | 29°17 | S 22 | |
| M23 | 16 24 23 | 6°47'48 | 8♌48 | 0♌51 | 20°59 | 2°56 | 26°30 | 12°21 | 9° 8 | 3°53 | 11°26 | 22°41 | 23°35 | 7°54 | 29°20 | M23 | |
| T 24 | 16 28 19 | 7°45'07 | 22°19 | 1°59 | 21°47 | 3°37 | 26°44 | 12°20 | 9°12 | 3°54 | 11°27 | 22°D41 | 23°32 | 8° 1 | 29°24 | T 24 | |
| W25 | 16 32 16 | 8°42'25 | 6♌ 4 | 3° 5 | 22°34 | 4°18 | 26°58 | 12°18 | 9°15 | 3°55 | 11°27 | 22°41 | 23°29 | 8° 7 | 29°27 | W25 | |
| T 26 | 16 36 12 | 9°39'42 | 20° 0 | 4° 7 | 23°20 | 5° 0 | 27°12 | 12°17 | 9°18 | 3°57 | 11°28 | 22°42 | 23°26 | 8°14 | 29°30 | T 26 | |
| F 27 | 16 40 9 | 10°36'58 | 4♌ 4 | 5° 6 | 24° 5 | 5°41 | 27°25 | 12°15 | 9°21 | 3°58 | 11°29 | 22°43 | 23°23 | 8°21 | 29°33 | F 27 | |
| S 28 | 16 44 5 | 11°34'14 | 18°15 | 6° 1 | 24°49 | 6°22 | 27°39 | 12°14 | 9°24 | 4° 0 | 11°30 | 22°44 | 23°19 | 8°28 | 29°36 | S 28 | |
| S 29 | 16 48 2 | 12°31'28 | 2♌29 | 6°53 | 25°33 | 7° 3 | 27°53 | 12°13 | 9°27 | 4° 1 | 11°31 | 22°44 | 23°16 | 8°34 | 29°40 | S 29 | |
| M30 | 16 51 59 | 13°28'42 | 16°43 | 7°41 | 26°15 | 7°44 | 28° 7 | 12°12 | 9°30 | 4° 3 | 11°31 | 22°R44 | 23°13 | 8°41 | 29°43 | M30 | |
| T 31 | 16 55 55 | 14♌25'55 | 0♌56 | 8♌25 | 26♌57 | 8♌24 | 28♌20 | 12♌11 | 9♌33 | 4♌ 4 | 11♌32 | 22♌44 | 23♌10 | 8♌48 | 29♌46 | T 31 | |

Delta T = 17m44s Julian Calendar 1 May 1099 = Greg. Calendar 7 May 1099

JUNE 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|--------|-------|------|-------|--------|-------|-------|-------|------|-----|
| W 1 | 16 59 52 | 15♌23'07 | 15♌ 4 | 9♌ 6 | 27♌37 | 9♌ 5 | 28♌34 | 12°R10 | 9♌36 | 4♌ 6 | 11♌33 | 22°R43 | 23♌ 7 | 8♌54 | 29♌49 | W 1 | |
| T 2 | 17 3 48 | 16°20'18 | 29° 6 | 9°42 | 28°16 | 9°46 | 28°48 | 12♌ 9 | 9°39 | 4° 8 | 11°34 | 22♌43 | 23° 4 | 9° 1 | 29°52 | T 2 | |
| F 3 | 17 7 45 | 17°17'29 | 12♌57 | 10°14 | 28°55 | 10°27 | 29° 1 | 12° 8 | 9°42 | 4° 9 | 11°34 | 22°42 | 23° 0 | 9° 8 | 29°55 | F 3 | |
| S 4 | 17 11 41 | 18°14'40 | 26°37 | 10°42 | 29°31 | 11° 7 | 29°15 | 12° 8 | 9°45 | 4°11 | 11°35 | 22°41 | 22°57 | 9°15 | 29°57 | S 4 | |
| S 5 | 17 15 38 | 19°11'50 | 10♌ 2 | 11° 6 | 0♌ 7 | 11°48 | 29°28 | 12° 7 | 9°48 | 4°13 | 11°36 | 22°41 | 22°54 | 9°21 | 0♌ 0 | S 5 | |
| M 6 | 17 19 34 | 20° 8'59 | 23°13 | 11°25 | 0°42 | 12°29 | 29°42 | 12° 7 | 9°51 | 4°14 | 11°36 | 22°D41 | 22°51 | 9°28 | 0° 3 | M 6 | |
| T 7 | 17 23 31 | 21° 6'09 | 6♌ 3 | 11°40 | 1°15 | 13° 9 | 29°56 | 12° 6 | 9°53 | 4°16 | 11°37 | 22°41 | 22°48 | 9°35 | 0° 6 | T 7 | |
| W 8 | 17 27 28 | 22° 3'18 | 18°45 | 11°50 | 1°47 | 13°50 | 0♌ 9 | 12° 6 | 9°56 | 4°18 | 11°38 | 22°41 | 22°44 | 9°41 | 0° 9 | W 8 | |
| T 9 | 17 31 24 | 23° 0'27 | 1♌ 9 | 11°56 | 2°17 | 14°30 | 0°22 | 12° 6 | 9°59 | 4°19 | 11°38 | 22°R41 | 22°41 | 9°48 | 0°11 | T 9 | |
| F 10 | 17 35 21 | 23°57'36 | 13°20 | 11°R57 | 2°46 | 15°11 | 0°36 | 12°D 6 | 10° 2 | 4°21 | 11°39 | 22°41 | 22°38 | 9°55 | 0°14 | F 10 | |
| S 11 | 17 39 17 | 24°54'45 | 25°21 | 11°54 | 3°13 | 15°51 | 0°49 | 12° 6 | 10° 4 | 4°23 | 11°39 | 22°41 | 22°35 | 10° 2 | 0°17 | S 11 | |
| S 12 | 17 43 14 | 25°51'55 | 7♌16 | 11°46 | 3°39 | 16°32 | 1° 2 | 12° 6 | 10° 7 | 4°25 | 11°40 | 22°41 | 22°32 | 10° 8 | 0°19 | S 12 | |
| M13 | 17 47 10 | 26°49'04 | 19°10 | 11°33 | 4° 3 | 17°12 | 1°16 | 12° 7 | 10°10 | 4°27 | 11°40 | 22°40 | 22°29 | 10°15 | 0°22 | M13 | |
| T 14 | 17 51 7 | 27°46'14 | 1♌ 5 | 11°16 | 4°26 | 17°52 | 1°29 | 12° 7 | 10°12 | 4°29 | 11°41 | 22°D40 | 22°25 | 10°22 | 0°24 | T 14 | |
| W15 | 17 55 4 | 28°43'24 | 13° 8 | 10°55 | 4°46 | 18°32 | 1°42 | 12° 8 | 10°15 | 4°30 | 11°41 | 22°41 | 22°22 | 10°28 | 0°27 | W15 | |
| T 16 | 17 59 0 | 29°40'34 | 25°22 | 10°30 | 5° 5 | 19°13 | 1°55 | 12° 8 | 10°18 | 4°32 | 11°42 | 22°41 | 22°19 | 10°35 | 0°29 | T 16 | |
| F 17 | 18 2 57 | 0♌37'44 | 7♌51 | 10° 2 | 5°22 | 19°53 | 2° 8 | 12° 9 | 10°20 | 4°34 | 11°42 | 22°42 | 22°16 | 10°42 | 0°31 | F 17 | |
| S 18 | 18 6 53 | 1°34'55 | 20°39 | 9°31 | 5°37 | 20°33 | 2°21 | 12°10 | 10°23 | 4°36 | 11°42 | 22°43 | 22°13 | 10°49 | 0°34 | S 18 | |
| S 19 | 18 10 50 | 2°32'07 | 3♌48 | 8°57 | 5°50 | 21°13 | 2°34 | 12°11 | 10°25 | 4°38 | 11°43 | 22°43 | 22°10 | 10°55 | 0°36 | S 19 | |
| M20 | 18 14 46 | 3°29'18 | 17°19 | 8°21 | 6° 2 | 21°53 | 2°47 | 12°11 | 10°27 | 4°40 | 11°43 | 22°R44 | 22° 6 | 11° 2 | 0°38 | M20 | |
| T 21 | 18 18 43 | 4°26'30 | 1♌11 | 7°43 | 6°11 | 22°33 | 3° 0 | 12°13 | 10°30 | 4°42 | 11°43 | 22°44 | 22° 3 | 11° 9 | 0°40 | T 21 | |
| W22 | 18 22 39 | 5°23'43 | 15°20 | 7° 5 | 6°18 | 23°13 | 3°13 | 12°14 | 10°32 | 4°44 | 11°44 | 22°43 | 22° 0 | 11°16 | 0°43 | W22 | |
| T 23 | 18 26 36 | 6°20'55 | 29°44 | 6°26 | 6°22 | 23°53 | 3°26 | 12°15 | 10°34 | 4°46 | 11°44 | 22°42 | 21°57 | 11°22 | 0°45 | T 23 | |
| F 24 | 18 30 33 | 7°18'08 | 14♌15 | 5°48 | 6°25 | 24°33 | 3°39 | 12°16 | 10°37 | 4°48 | 11°44 | 22°40 | 21°54 | 11°29 | 0°47 | F 24 | |
| S 25 | 18 34 29 | 8°15'20 | 28°50 | 5°11 | 6°R25 | 25°13 | 3°51 | 12°18 | 10°39 | 4°50 | 11°45 | 22°38 | 21°50 | 11°36 | 0°49 | S 25 | |
| S 26 | 18 38 26 | 9°12'33 | 13♌20 | 4°35 | 6°23 | 25°53 | 4° 4 | 12°19 | 10°41 | 4°52 | 11°45 | 22°37 | 21°47 | 11°42 | 0°51 | S 26 | |
| M27 | 18 42 22 | 10° 9'46 | 27°43 | 4° 2 | 6°18 | 26°32 | 4°17 | 12°21 | 10°43 | 4°54 | 11°45 | 22°36 | 21°44 | 11°49 | 0°53 | M27 | |
| T 28 | 18 46 19 | 11° 6'59 | 11♌54 | 3°32 | 6°11 | 27°12 | 4°29 | 12°23 | 10°45 | 4°56 | 11°45 | 22°D35 | 21°41 | 11°56 | 0°54 | T 28 | |
| W29 | 18 50 15 | 12° 4'12 | 25°52 | 3° 5 | 6° 2 | 27°52 | 4°42 | 12°25 | 10°47 | 4°58 | 11°45 | 22°36 | 21°38 | 12° 3 | 0°56 | W29 | |
| T 30 | 18 54 12 | 13♌1'25 | 9♌36 | 2♌43 | 5♌50 | 28♌31 | 4♌54 | 12♌27 | 10♌49 | 5♌ 0 | 11♌46 | 22♌37 | 21♌35 | 12♌ 9 | 0♌58 | T 30 | |

Delta T = 17m44s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1099
geocentric

JULY 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------------|---------------------|---------------------|---------------------|---------------------|------------------|------|---|---|---|---|---|---|---|-----|
| F 1 | 18 58 8 | 13 ⁵⁸ 58'39 | 23 ¹¹ 5 | 2°R24 | 5°R36 | 29 ¹¹ 11 | 5 ¹¹ 6 | 12 ²⁹ 29 | 10 ⁵¹ 51 | 5 ² 2 | 11 ⁴⁶ 46 | 22 ³⁸ 38 | 21 ³¹ 31 | 12 ¹⁶ 16 | 1 ⁰ 0 | F 1 | | | | | | | | |
| S 2 | 19 2 5 | 14°55'53 | 6 ²⁰ 20 | 2 ⁵¹ 11 | 5 ¹⁹ 19 | 29°51 | 5°18 | 12°31 | 10°53 | 5°4 | 11°46 | 22°39 | 21°28 | 12°23 | 1°1 | S 2 | | | | | | | | |
| S 3 | 19 6 2 | 15°53'07 | 19°21 | 2°3 | 5°1 | 0 ³⁰ 30 | 5°31 | 12°33 | 10°55 | 5°7 | 11°46 | 22°R40 | 21°25 | 12°30 | 1°3 | S 3 | | | | | | | | |
| M 4 | 19 9 58 | 16°50'22 | 2 ¹⁰ 10 | 2°D 1 | 4°40 | 1°10 | 5°43 | 12°35 | 10°57 | 5°9 | 11°46 | 22°40 | 21°22 | 12°36 | 1°4 | M 4 | | | | | | | | |
| T 5 | 19 13 55 | 17°47'38 | 14°47 | 2°4 | 4°16 | 1°49 | 5°55 | 12°38 | 10°59 | 5°11 | 11°46 | 22°38 | 21°19 | 12°43 | 1°6 | T 5 | | | | | | | | |
| W 6 | 19 17 51 | 18°44'54 | 27°12 | 2°13 | 3°51 | 2°29 | 6°7 | 12°40 | 11°1 | 5°13 | 11°R46 | 22°36 | 21°16 | 12°50 | 1°7 | W 6 | | | | | | | | |
| T 7 | 19 21 48 | 19°42'11 | 9 ²⁷ 27 | 2°28 | 3°24 | 3°8 | 6°19 | 12°43 | 11°3 | 5°15 | 11°46 | 22°32 | 21°12 | 12°56 | 1°9 | T 7 | | | | | | | | |
| F 8 | 19 25 44 | 20°39'28 | 21°32 | 2°49 | 2°54 | 3°47 | 6°30 | 12°45 | 11°4 | 5°17 | 11°46 | 22°27 | 21°9 | 13°3 | 1°10 | F 8 | | | | | | | | |
| S 9 | 19 29 41 | 21°36'47 | 3 ³¹ 31 | 3°16 | 2°24 | 4°27 | 6°42 | 12°48 | 11°6 | 5°20 | 11°46 | 22°22 | 21°6 | 13°10 | 1°11 | S 9 | | | | | | | | |
| S 10 | 19 33 37 | 22°34'07 | 15°25 | 3°49 | 1°51 | 5°6 | 6°54 | 12°51 | 11°7 | 5°22 | 11°46 | 22°18 | 21°3 | 13°17 | 1°13 | S 10 | | | | | | | | |
| M 11 | 19 37 34 | 23°31'27 | 27°17 | 4°28 | 1°18 | 5°45 | 7°6 | 12°54 | 11°9 | 5°24 | 11°46 | 22°14 | 21°0 | 13°23 | 1°14 | M 11 | | | | | | | | |
| T 12 | 19 41 31 | 24°28'49 | 9 ¹¹ 11 | 5°13 | 0°43 | 6°24 | 7°17 | 12°57 | 11°11 | 5°26 | 11°46 | 22°11 | 20°56 | 13°30 | 1°15 | T 12 | | | | | | | | |
| W 13 | 19 45 27 | 25°26'11 | 21°12 | 6°5 | 0°7 | 7°3 | 7°28 | 13°0 | 11°12 | 5°28 | 11°46 | 22°D10 | 20°53 | 13°37 | 1°16 | W 13 | | | | | | | | |
| T 14 | 19 49 24 | 26°23'36 | 3 ²⁴ 24 | 7°2 | 29 ³⁰ 30 | 7°43 | 7°40 | 13°3 | 11°13 | 5°30 | 11°45 | 22°10 | 20°50 | 13°43 | 1°17 | T 14 | | | | | | | | |
| F 15 | 19 53 20 | 27°21'01 | 15°51 | 8°4 | 28°53 | 8°22 | 7°51 | 13°7 | 11°15 | 5°33 | 11°45 | 22°11 | 20°47 | 13°50 | 1°18 | F 15 | | | | | | | | |
| S 16 | 19 57 17 | 28°18'27 | 28°38 | 9°13 | 28°16 | 9°1 | 8°2 | 13°10 | 11°16 | 5°35 | 11°45 | 22°13 | 20°44 | 13°57 | 1°19 | S 16 | | | | | | | | |
| S 17 | 20 1 13 | 29°15'55 | 11 ⁴⁹ 49 | 10°27 | 27°39 | 9°40 | 8°13 | 13°13 | 11°17 | 5°37 | 11°45 | 22°14 | 20°41 | 14°4 | 1°20 | S 17 | | | | | | | | |
| M 18 | 20 5 10 | 0 ¹³ 13'25 | 25°26 | 11°46 | 27°2 | 10°19 | 8°24 | 13°17 | 11°19 | 5°39 | 11°45 | 22°R15 | 20°37 | 14°10 | 1°20 | M 18 | | | | | | | | |
| T 19 | 20 9 6 | 1°10'55 | 9 ²⁹ 29 | 13°10 | 26°25 | 10°58 | 8°35 | 13°21 | 11°20 | 5°42 | 11°44 | 22°14 | 20°34 | 14°17 | 1°21 | T 19 | | | | | | | | |
| W 20 | 20 13 3 | 2°8'27 | 23°56 | 14°39 | 25°49 | 11°37 | 8°46 | 13°24 | 11°21 | 5°44 | 11°44 | 22°11 | 20°31 | 14°24 | 1°22 | W 20 | | | | | | | | |
| T 21 | 20 17 0 | 3°6'00 | 8 ²⁴ 24 | 16°13 | 25°14 | 12°16 | 8°57 | 13°28 | 11°22 | 5°46 | 11°44 | 22°6 | 20°28 | 14°31 | 1°22 | T 21 | | | | | | | | |
| F 22 | 20 20 56 | 4°3'33 | 23°39 | 17°50 | 24°41 | 12°54 | 9°7 | 13°32 | 11°23 | 5°48 | 11°43 | 22°0 | 20°25 | 14°37 | 1°23 | F 22 | | | | | | | | |
| S 23 | 20 24 53 | 5°1'08 | 8 ³⁸ 38 | 19°32 | 24°8 | 13°33 | 9°18 | 13°36 | 11°24 | 5°50 | 11°43 | 21°54 | 20°22 | 14°44 | 1°23 | S 23 | | | | | | | | |
| S 24 | 20 28 49 | 5°58'44 | 23°31 | 21°18 | 23°37 | 14°12 | 9°28 | 13°40 | 11°25 | 5°53 | 11°43 | 21°48 | 20°18 | 14°51 | 1°24 | S 24 | | | | | | | | |
| M 25 | 20 32 46 | 6°56'21 | 8 ⁹ 9 | 23°6 | 23°8 | 14°51 | 9°39 | 13°44 | 11°26 | 5°55 | 11°42 | 21°43 | 20°15 | 14°57 | 1°24 | M 25 | | | | | | | | |
| T 26 | 20 36 42 | 7°53'59 | 22°29 | 24°58 | 22°40 | 15°30 | 9°49 | 13°48 | 11°27 | 5°57 | 11°42 | 21°40 | 20°12 | 15°4 | 1°24 | T 26 | | | | | | | | |
| W 27 | 20 40 39 | 8°51'38 | 6 ²⁷ 27 | 26°52 | 22°14 | 16°8 | 9°59 | 13°52 | 11°28 | 5°59 | 11°42 | 21°D39 | 20°9 | 15°11 | 1°25 | W 27 | | | | | | | | |
| T 28 | 20 44 35 | 9°49'18 | 20°3 | 28°48 | 21°51 | 16°47 | 10°9 | 13°57 | 11°28 | 6°2 | 11°41 | 21°40 | 20°6 | 15°18 | 1°25 | T 28 | | | | | | | | |
| F 29 | 20 48 32 | 10°46'59 | 3 ¹⁹ 19 | 0 ⁴⁶ 46 | 21°29 | 17°26 | 10°19 | 14°1 | 11°29 | 6°4 | 11°41 | 21°41 | 20°2 | 15°24 | 1°25 | F 29 | | | | | | | | |
| S 30 | 20 52 29 | 11°44'41 | 16°17 | 2°44 | 21°10 | 18°4 | 10°29 | 14°6 | 11°30 | 6°6 | 11°40 | 21°R42 | 19°59 | 15°31 | 1°25 | S 30 | | | | | | | | |
| S 31 | 20 56 25 | 12 ⁴² 42'25 | 29 ⁰ 0 | 4 ⁴⁴ 44 | 20 ⁵³ 53 | 18 ⁴³ 43 | 10 ³⁹ 39 | 14 ¹⁰ 10 | 11 ³⁰ 30 | 6 ⁸ 8 | 11 ⁴⁰ 40 | 21 ⁴² 42 | 19 ⁵⁶ 56 | 15 ³⁸ 38 | 1°R25 | S 31 | | | | | | | | |

Delta T = 17m44s

Julian Calendar 1 July 1099 == Greg. Calendar 7 July 1099

AUGUST 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | Day |
|------|----------|------------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------|---------------------|---------------------|---------------------|--------------------|------|---|---|---|---|---|---|---|-----|
| M 1 | 21 0 22 | 13 ⁴⁰ 40'10 | 11 ³¹ 31 | 6 ⁴⁵ 45 | 20°R39 | 19 ²¹ 21 | 10 ⁴⁸ 48 | 14 ¹⁵ 15 | 11 ³¹ 31 | 6 ¹⁰ 10 | 11°R39 | 21°R40 | 19 ⁵³ 53 | 15 ⁴⁴ 44 | 1°R25 | M 1 | | | | | | | | |
| T 2 | 21 4 18 | 14°37'55 | 23°52 | 8°46 | 20 ²⁶ 26 | 20°0 | 10°58 | 14°20 | 11°32 | 6°13 | 11°Y39 | 21 ³⁵ 35 | 19°50 | 15°51 | 1 ²⁵ 25 | T 2 | | | | | | | | |
| W 3 | 21 8 15 | 15°35'43 | 6 ⁴ 4 | 10°46 | 20°17 | 20°38 | 11°7 | 14°24 | 11°32 | 6°15 | 11°38 | 21°29 | 19°47 | 15°58 | 1°25 | W 3 | | | | | | | | |
| T 4 | 21 12 11 | 16°33'31 | 18°9 | 12°47 | 20°9 | 21°16 | 11°16 | 14°29 | 11°32 | 6°17 | 11°38 | 21°20 | 19°43 | 16°5 | 1°25 | T 4 | | | | | | | | |
| F 5 | 21 16 8 | 17°31'22 | 0 ⁸ 8 | 14°47 | 20°4 | 21°55 | 11°25 | 14°34 | 11°33 | 6°19 | 11°37 | 21°10 | 19°40 | 16°11 | 1°24 | F 5 | | | | | | | | |
| S 6 | 21 20 4 | 18°29'13 | 12°3 | 16°46 | 20°2 | 22°33 | 11°34 | 14°39 | 11°33 | 6°21 | 11°36 | 20°59 | 19°37 | 16°18 | 1°24 | S 6 | | | | | | | | |
| S 7 | 21 24 1 | 19°27'07 | 23°55 | 18°45 | 20°D 1 | 23°12 | 11°43 | 14°44 | 11°33 | 6°24 | 11°36 | 20°48 | 19°34 | 16°25 | 1°24 | S 7 | | | | | | | | |
| M 8 | 21 27 58 | 20°25'02 | 5 ⁴⁷ 47 | 20°43 | 20°3 | 23°50 | 11°52 | 14°49 | 11°34 | 6°26 | 11°35 | 20°39 | 19°31 | 16°32 | 1°23 | M 8 | | | | | | | | |
| T 9 | 21 31 54 | 21°22'59 | 17°41 | 22°40 | 20°8 | 24°28 | 12°1 | 14°54 | 11°34 | 6°28 | 11°34 | 20°32 | 19°28 | 16°38 | 1°23 | T 9 | | | | | | | | |
| W 10 | 21 35 51 | 22°20'58 | 29°40 | 24°36 | 20°14 | 25°6 | 12°9 | 14°59 | 11°34 | 6°30 | 11°34 | 20°27 | 19°24 | 16°45 | 1°22 | W 10 | | | | | | | | |
| T 11 | 21 39 47 | 23°18'58 | 11 ³⁵ 35 | 26°30 | 20°23 | 25°44 | 12°18 | 15°5 | 11°34 | 6°32 | 11°33 | 20°24 | 19°21 | 16°52 | 1°22 | T 11 | | | | | | | | |
| F 12 | 21 43 44 | 24°17'01 | 24°13 | 28°24 | 20°34 | 26°23 | 12°26 | 15°10 | 11°R34 | 6°34 | 11°32 | 20°D24 | 19°18 | 16°58 | 1°21 | F 12 | | | | | | | | |
| S 13 | 21 47 40 | 25°15'06 | 6 ⁵⁶ 56 | 0 ¹⁷ 17 | 20°47 | 27°1 | 12°34 | 15°16 | 11°34 | 6°37 | 11°32 | 20°24 | 19°15 | 17°5 | 1°20 | S 13 | | | | | | | | |
| S 14 | 21 51 37 | 26°13'13 | 20°2 | 2°8 | 21°2 | 27°39 | 12°42 | 15°21 | 11°34 | 6°39 | 11°31 | 20°R24 | 19°12 | 17°12 | 1°19 | S 14 | | | | | | | | |
| M 15 | 21 55 33 | 27°11'22 | 3 ³⁶ 36 | 3°58 | 21°19 | 28°17 | 12°50 | 15°27 | 11°34 | 6°41 | 11°30 | 20°24 | 19°8 | 17°19 | 1°19 | M 15 | | | | | | | | |
| T 16 | 21 59 30 | 28°9'32 | 17°39 | 5°47 | 21°38 | 28°55 | 12°57 | 15°32 | 11°33 | 6°43 | 11°29 | 20°21 | 19°5 | 17°25 | 1°18 | T 16 | | | | | | | | |
| W 17 | 22 3 27 | 29°7'45 | 2 ¹⁰ 10 | 7°34 | 21°59 | 29°33 | 13°5 | 15°38 | 11°33 | 6°45 | 11°29 | 20°16 | 19°2 | 17°32 | 1°17 | W 17 | | | | | | | | |
| T 18 | 22 7 23 | 0 ⁶ 6'00 | 17°4 | 9°21 | 22°22 | 0 ¹¹ 11 | 13°12 | 15°43 | 11°33 | 6°47 | 11°28 | 20°8 | 18°59 | 17°39 | 1°16 | T 18 | | | | | | | | |
| F 19 | 22 11 20 | 1°4'16 | 2 ¹⁶ 16 | 11°6 | 22°46 | 0°49 | 13°20 | 15°49 | 11°33 | 6°49 | 11°27 | 19°59 | 18°56 | 17°46 | 1°15 | F 19 | | | | | | | | |
| S 20 | 22 15 16 | 2°2'35 | 17°33 | 12°50 | 23°12 | 1°27 | 13°27 | 15°55 | 11°32 | 6°51 | 11°26 | 19°48 | 18°53 | 17°52 | 1°14 | S 20 | | | | | | | | |
| S 21 | 22 19 13 | 3°0'55 | 2 ⁴⁴ 44 | 14°33 | 23°40 | 2°5 | 13°34 | 16°1 | 11°32 | 6°53 | 11°25 | 19°38 | 18°49 | 17°59 | 1°12 | S 21 | | | | | | | | |
| M 22 | 22 23 9 | 3°59'16 | 17°40 | 16°15 | 24°9 | 2°42 | 13°41 | 16°7 | 11°31 | 6°55 | 11°24 | 19°30 | 18°46 | 18°6 | 1°11 | M 22 | | | | | | | | |
| T 23 | 22 27 6 | 4°57'40 | 2 ¹³ 13 | 17°55 | 24°39 | 3°20 | 13°47 | 16°13 | 11°31 | 6°57 | 11°23 | 19°24 | 18°43 | 18°12 | 1°10 | T 23 | | | | | | | | |
| W 24 | 22 31 2 | 5°56'05 | 16°19 | 19°35 | 25°11 | 3°58 | 13°54 | 16°19 | 11°30 | 6°59 | 11°23 | 19°21 | 18°40 | 18°19 | 1°9 | W 24 | | | | | | | | |
| T 25 | 22 34 59 | 6°54'32 | 29°58 | 21°13 | 25°45 | 4°36 | 14°0 | 16°25 | 11°29 | 7°1 | 11°22 | 19°20 | 18°37 | 18°26 | 1°7 | T 25 | | | | | | | | |
| F 26 | 22 38 56 | 7°53'00 | 13 ¹² 12 | 22°50 | 26°20 | 5°14 | 14°6 | 16°31 | 11°29 | 7°3 | 11°21 | 19°20 | 18°33 | 18°33 | 1°6 | F 26 | | | | | | | | |
| S 27 | 22 42 52 | 8°51'30 | 26°3 | 24°27 | 26°56 | 5°51 | 14°13 | 16°37 | 11°28 | 7°5 | 11°20 | 19°20 | 18°30 | 18°39 | 1°4 | S 27 | | | | | | | | |
| S 28 | 22 46 49 | 9°50'02 | 8 ³⁷ 37 | | | | | | | | | | | | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1099
geocentric

SEPTEMBER 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|----------|----------|-------|-------|-------|-------|---------|-------|--------|------|--------|--------|-------|-------|--------|------|-----|
| T 1 | 23 2 35 | 13♐44'26 | 27♋5 | 2♌12 | 0♈14 | 8♏59 | 14♐40 | 17♎9 | 11°R24 | 7♏15 | 11°R15 | 18°R48 | 18♌14 | 19♋13 | 0°R56 | T 1 | |
| F 2 | 23 6 31 | 14°43'06 | 9♌0 | 3°42 | 0°57 | 9°36 | 14°45 | 17°15 | 11♉23 | 7°17 | 11°Y14 | 18♌34 | 18°11 | 19°20 | 0♉54 | F 2 | |
| S 3 | 23 10 28 | 15°41'49 | 20°53 | 5°11 | 1°41 | 10°14 | 14°50 | 17°22 | 11°22 | 7°19 | 11°13 | 18°20 | 18°8 | 19°26 | 0°52 | S 3 | |
| S 4 | 23 14 25 | 16°40'34 | 2♎45 | 6°39 | 2°26 | 10°51 | 14°55 | 17°28 | 11°20 | 7°20 | 11°12 | 18°6 | 18°5 | 19°33 | 0°51 | S 4 | |
| M 5 | 23 18 21 | 17°39'20 | 14°39 | 8°6 | 3°11 | 11°29 | 15°0 | 17°35 | 11°19 | 7°22 | 11°11 | 17°53 | 18°2 | 19°40 | 0°49 | M 5 | |
| T 6 | 23 22 18 | 18°38'09 | 26°36 | 9°32 | 3°58 | 12°6 | 15°4 | 17°41 | 11°18 | 7°24 | 11°10 | 17°43 | 17°59 | 19°47 | 0°47 | T 6 | |
| W 7 | 23 26 14 | 19°37'00 | 8♌38 | 10°56 | 4°46 | 12°43 | 15°8 | 17°48 | 11°17 | 7°26 | 11°9 | 17°36 | 17°55 | 19°53 | 0°45 | W 7 | |
| T 8 | 23 30 11 | 20°35'54 | 20°49 | 12°20 | 5°34 | 13°21 | 15°12 | 17°54 | 11°16 | 7°27 | 11°8 | 17°31 | 17°52 | 20°0 | 0°43 | T 8 | |
| F 9 | 23 34 7 | 21°34'50 | 3♐13 | 13°43 | 6°24 | 13°58 | 15°16 | 18°1 | 11°14 | 7°29 | 11°7 | 17°29 | 17°49 | 20°7 | 0°40 | F 9 | |
| S 10 | 23 38 4 | 22°33'48 | 15°52 | 15°4 | 7°14 | 14°35 | 15°20 | 18°8 | 11°13 | 7°31 | 11°6 | 17°29 | 17°46 | 20°13 | 0°38 | S 10 | |
| S 11 | 23 42 0 | 23°32'48 | 28°53 | 16°24 | 8°5 | 15°12 | 15°23 | 18°15 | 11°11 | 7°33 | 11°5 | 17°29 | 17°43 | 20°20 | 0°36 | S 11 | |
| M12 | 23 45 57 | 24°31'51 | 12♉19 | 17°43 | 8°56 | 15°49 | 15°27 | 18°21 | 11°10 | 7°34 | 11°3 | 17°28 | 17°39 | 20°27 | 0°34 | M12 | |
| T 13 | 23 49 53 | 25°30'57 | 26°13 | 19°1 | 9°48 | 16°27 | 15°30 | 18°28 | 11°8 | 7°36 | 11°2 | 17°25 | 17°36 | 20°34 | 0°32 | T 13 | |
| W14 | 23 53 50 | 26°30'04 | 10♏35 | 20°17 | 10°41 | 17°4 | 15°33 | 18°35 | 11°7 | 7°38 | 11°1 | 17°20 | 17°33 | 20°40 | 0°29 | W14 | |
| T 15 | 23 57 47 | 27°29'14 | 25°24 | 21°32 | 11°35 | 17°41 | 15°35 | 18°42 | 11°5 | 7°39 | 11°0 | 17°12 | 17°30 | 20°47 | 0°27 | T 15 | |
| F 16 | 0 1 43 | 28°28'26 | 10♐32 | 22°45 | 12°29 | 18°18 | 15°38 | 18°49 | 11°4 | 7°41 | 10°59 | 17°2 | 17°27 | 20°54 | 0°25 | F 16 | |
| S 17 | 0 5 40 | 29°27'40 | 25°51 | 23°56 | 13°24 | 18°55 | 15°40 | 18°56 | 11°2 | 7°42 | 10°58 | 16°51 | 17°24 | 21°1 | 0°22 | S 17 | |
| S 18 | 0 9 36 | 0♌26'57 | 11♎9 | 25°6 | 14°19 | 19°32 | 15°42 | 19°3 | 11°0 | 7°44 | 10°57 | 16°40 | 17°20 | 21°7 | 0°20 | S 18 | |
| M19 | 0 13 33 | 1°26'15 | 26°14 | 26°14 | 15°15 | 20°9 | 15°44 | 19°10 | 10°59 | 7°45 | 10°56 | 16°31 | 17°17 | 21°14 | 0°17 | M19 | |
| T 20 | 0 17 29 | 2°25'36 | 10♌58 | 27°20 | 16°12 | 20°45 | 15°46 | 19°17 | 10°57 | 7°47 | 10°55 | 16°25 | 17°14 | 21°21 | 0°15 | T 20 | |
| W21 | 0 21 26 | 3°24'58 | 25°15 | 28°24 | 17°9 | 21°22 | 15°48 | 19°24 | 10°55 | 7°48 | 10°53 | 16°21 | 17°11 | 21°27 | 0°12 | W21 | |
| T 22 | 0 25 22 | 4°24'22 | 9♌2 | 29°25 | 18°6 | 21°59 | 15°49 | 19°31 | 10°53 | 7°50 | 10°52 | 16°19 | 17°8 | 21°34 | 0°10 | T 22 | |
| F 23 | 0 29 19 | 5°23'48 | 22°21 | 0♌24 | 19°5 | 22°36 | 15°50 | 19°38 | 10°51 | 7°51 | 10°51 | 16°D19 | 17°5 | 21°41 | 0°7 | F 23 | |
| S 24 | 0 33 16 | 6°23'16 | 5♌15 | 1°20 | 20°3 | 23°12 | 15°51 | 19°45 | 10°49 | 7°52 | 10°50 | 16°R19 | 17°1 | 21°48 | 0°4 | S 24 | |
| S 25 | 0 37 12 | 7°22'46 | 17°47 | 2°12 | 21°2 | 23°49 | 15°52 | 19°52 | 10°47 | 7°54 | 10°49 | 16°19 | 16°58 | 21°54 | 0°2 | S 25 | |
| M26 | 0 41 9 | 8°22'17 | 0♌4 | 3°1 | 22°2 | 24°26 | 15°53 | 19°59 | 10°45 | 7°55 | 10°48 | 16°17 | 16°55 | 22°1 | 29°Y59 | M26 | |
| T 27 | 0 45 5 | 9°21'50 | 12°8 | 3°47 | 23°2 | 25°2 | 15°53 | 20°6 | 10°43 | 7°56 | 10°46 | 16°12 | 16°52 | 22°8 | 29°56 | T 27 | |
| W28 | 0 49 2 | 10°21'25 | 24°6 | 4°28 | 24°2 | 25°39 | 15°R53 | 20°13 | 10°41 | 7°57 | 10°45 | 16°4 | 16°49 | 22°14 | 29°53 | W28 | |
| T 29 | 0 52 58 | 11°21'02 | 5♌59 | 5°5 | 25°3 | 26°15 | 15°53 | 20°20 | 10°39 | 7°59 | 10°44 | 15°55 | 16°45 | 22°21 | 29°51 | T 29 | |
| F 30 | 0 56 55 | 12♌20'41 | 17♌51 | 5♌36 | 26♌4 | 26♌52 | 15°II53 | 20♌28 | 10♌37 | 8♌0 | 10°Y43 | 15♌43 | 16♌42 | 22♌28 | 29°Y48 | F 30 | |

Delta T = 17m43s Julian Calendar 1 Sept. 1099 == Greg. Calendar 7 Sept. 1099

OCTOBER 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | Day |
|------|---------|----------|--------|--------|-------|-------|---------|-------|--------|------|--------|--------|-------|-------|--------|------|-----|
| S 1 | 1 0 51 | 13♎20'22 | 29♋44 | 6♌2 | 27♏5 | 27♏28 | 15°R52 | 20♌35 | 10°R35 | 8♌1 | 10°R42 | 15°R31 | 16♌39 | 22♋35 | 29°R45 | S 1 | |
| S 2 | 1 4 48 | 14°20'04 | 11°Y40 | 6°22 | 28°7 | 28°5 | 15°II52 | 20°42 | 10♉33 | 8°2 | 10°Y41 | 15♌19 | 16°36 | 22°41 | 29°Y42 | S 2 | |
| M 3 | 1 8 45 | 15°19'49 | 23°39 | 6°35 | 29°10 | 28°41 | 15°51 | 20°49 | 10°31 | 8°3 | 10°40 | 15°8 | 16°33 | 22°48 | 29°39 | M 3 | |
| T 4 | 1 12 41 | 16°19'36 | 5♌44 | 6°R42 | 0♐12 | 29°18 | 15°50 | 20°56 | 10°29 | 8°4 | 10°38 | 14°59 | 16°30 | 22°55 | 29°36 | T 4 | |
| W 5 | 1 16 38 | 17°19'25 | 17°56 | 6°40 | 1°15 | 29°54 | 15°49 | 21°3 | 10°26 | 8°5 | 10°37 | 14°53 | 16°26 | 23°2 | 29°33 | W 5 | |
| T 6 | 1 20 34 | 18°19'16 | 0♐16 | 6°30 | 2°19 | 0♐30 | 15°47 | 21°11 | 10°24 | 8°6 | 10°36 | 14°50 | 16°23 | 23°8 | 29°31 | T 6 | |
| F 7 | 1 24 31 | 19°19'09 | 12°47 | 6°11 | 3°22 | 1°6 | 15°46 | 21°18 | 10°22 | 8°7 | 10°35 | 14°D49 | 16°20 | 23°15 | 29°28 | F 7 | |
| S 8 | 1 28 27 | 20°19'05 | 25°32 | 5°43 | 4°27 | 1°42 | 15°44 | 21°25 | 10°20 | 8°8 | 10°34 | 14°49 | 16°17 | 23°22 | 29°25 | S 8 | |
| S 9 | 1 32 24 | 21°19'02 | 8♉33 | 5°6 | 5°31 | 2°19 | 15°42 | 21°32 | 10°17 | 8°9 | 10°33 | 14°50 | 16°14 | 23°28 | 29°22 | S 9 | |
| M10 | 1 36 20 | 22°19'02 | 21°55 | 4°20 | 6°36 | 2°55 | 15°40 | 21°39 | 10°15 | 8°10 | 10°32 | 14°R51 | 16°10 | 23°35 | 29°19 | M10 | |
| T 11 | 1 40 17 | 23°19'04 | 5♏40 | 3°25 | 7°41 | 3°31 | 15°37 | 21°47 | 10°13 | 8°11 | 10°31 | 14°50 | 16°7 | 23°42 | 29°16 | T 11 | |
| W12 | 1 44 14 | 24°19'09 | 19°48 | 2°22 | 8°46 | 4°7 | 15°35 | 21°54 | 10°10 | 8°12 | 10°29 | 14°47 | 16°4 | 23°49 | 29°13 | W12 | |
| T 13 | 1 48 10 | 25°19'15 | 4♐20 | 1°12 | 9°51 | 4°43 | 15°32 | 22°1 | 10°8 | 8°13 | 10°28 | 14°42 | 16°1 | 23°55 | 29°10 | T 13 | |
| F 14 | 1 52 7 | 26°19'24 | 19°10 | 29♌57 | 10°57 | 5°19 | 15°29 | 22°8 | 10°5 | 8°13 | 10°27 | 14°36 | 15°58 | 24°2 | 29°7 | F 14 | |
| S 15 | 1 56 3 | 27°19'35 | 4♌13 | 28°40 | 12°3 | 5°55 | 15°26 | 22°15 | 10°3 | 8°14 | 10°26 | 14°28 | 15°55 | 24°9 | 29°4 | S 15 | |
| S 16 | 2 0 0 | 28°19'47 | 19°19 | 27°21 | 13°10 | 6°30 | 15°22 | 22°23 | 10°1 | 8°15 | 10°25 | 14°21 | 15°51 | 24°15 | 29°1 | S 16 | |
| M17 | 2 3 56 | 29°20'02 | 4♌18 | 26°5 | 14°16 | 7°6 | 15°19 | 22°30 | 9°58 | 8°15 | 10°24 | 14°15 | 15°48 | 24°22 | 28°58 | M17 | |
| T 18 | 2 7 53 | 0♌20'19 | 19°1 | 24°52 | 15°23 | 7°42 | 15°15 | 22°37 | 9°56 | 8°16 | 10°23 | 14°10 | 15°45 | 24°29 | 28°55 | T 18 | |
| W19 | 2 11 49 | 1°20'37 | 3♌21 | 23°47 | 16°30 | 8°18 | 15°11 | 22°44 | 9°53 | 8°17 | 10°22 | 14°8 | 15°42 | 24°36 | 28°52 | W19 | |
| T 20 | 2 15 46 | 2°20'57 | 17°15 | 22°49 | 17°37 | 8°53 | 15°7 | 22°51 | 9°51 | 8°17 | 10°21 | 14°D 7 | 15°39 | 24°42 | 28°49 | T 20 | |
| F 21 | 2 19 42 | 3°21'18 | 0♌41 | 22°2 | 18°45 | 9°29 | 15°2 | 22°58 | 9°48 | 8°18 | 10°20 | 14°8 | 15°36 | 24°49 | 28°46 | F 21 | |
| S 22 | 2 23 39 | 4°21'41 | 13°41 | 21°25 | 19°53 | 10°4 | 14°58 | 23°6 | 9°46 | 8°18 | 10°19 | 14°10 | 15°32 | 24°56 | 28°43 | S 22 | |
| S 23 | 2 27 36 | 5°22'06 | 26°18 | 21°1 | 21°0 | 10°40 | 14°53 | 23°13 | 9°43 | 8°19 | 10°18 | 14°11 | 15°29 | 25°3 | 28°40 | S 23 | |
| M24 | 2 31 32 | 6°22'31 | 8♌37 | 20°47 | 22°9 | 11°15 | 14°48 | 23°20 | 9°41 | 8°19 | 10°17 | 14°R12 | 15°26 | 25°9 | 28°37 | M24 | |
| T 25 | 2 35 29 | 7°22'59 | 20°42 | 20°D46 | 23°17 | 11°51 | 14°43 | 23°27 | 9°38 | 8°19 | 10°16 | 14°11 | 15°23 | 25°16 | 28°34 | T 25 | |
| W26 | 2 39 25 | 8°23'27 | 2♌39 | 20°55 | 24°25 | 12°26 | 14°38 | 23°34 | 9°36 | 8°20 | 10°15 | 14°8 | 15°20 | 25°23 | 28°31 | W26 | |
| T 27 | 2 43 22 | 9°23'57 | 14°31 | 21°15 | 25°34 | 13°1 | 14°33 | 23°41 | 9°33 | 8°20 | 10°14 | 14°3 | 15°16 | 25°29 | 28°28 | T 27 | |
| F 28 | 2 47 18 | 10°24'28 | 26°23 | 21°44 | 26°43 | 13°36 | 14°27 | 23°48 | 9°31 | 8°20 | 10°13 | 13°58 | 15°13 | 25°36 | 28°25 | F 28 | |
| S 29 | 2 51 15 | 11°25'01 | 8°Y18 | 22°21 | 27°52 | 14°12 | 14°21 | 23°55 | 9°28 | 8°21 | 10°12 | 13°52 | 15°10 | 25°43 | 28°22 | S 29 | |
| S 30 | 2 55 11 | 12°25'35 | 20°18 | 23°6 | 29°1 | 14°47 | 14°16 | 24°2 | 9°26 | 8°21 | 10°11 | 13°46 | 15°7 | 25°50 | 28°19 | S 30 | |
| M31 | 2 59 8 | 13♌26'10 | 2♌26 | 23♌58 | 0♌11 | 15♐22 | 14°II10 | 24♌9 | 9♌23 | 8♌21 | 10°Y10 | 13♌41 | 15♌4 | 25♌56 | 28°Y16 | M31 | |

Delta T = 17m43s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1099
geocentric

NOVEMBER 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|-------|-------|--------|--------|-------|-------|--------|------|---|-----|
| T 1 | 3 3 5 | 14♌26'48 | 14♋42 | 24♊56 | 1♑20 | 15♎57 | 14°R 4 | 24♊16 | 9°R21 | 8♏21 | 10°R 9 | 13°R36 | 15♌1 | 26♋3 | 28°R14 | T 1 | | |
| W 2 | 3 7 1 | 15°27'26 | 27° 8 | 25°59 | 2°30 | 16°32 | 13♐57 | 24°23 | 9♏18 | 8°21 | 10°Y 8 | 13♌34 | 14°57 | 26°10 | 28°Y11 | W 2 | | |
| T 3 | 3 10 58 | 16°28'06 | 9♐45 | 27° 7 | 3°40 | 17° 7 | 13°51 | 24°30 | 9°16 | 8°21 | 10° 7 | 13°D33 | 14°54 | 26°16 | 28° 8 | T 3 | | |
| F 4 | 3 14 54 | 17°28'48 | 22°34 | 28°18 | 4°50 | 17°41 | 13°44 | 24°36 | 9°13 | 8°21 | 10° 6 | 13°33 | 14°51 | 26°23 | 28° 5 | F 4 | | |
| S 5 | 3 18 51 | 18°29'31 | 5♌34 | 29°33 | 6° 0 | 18°16 | 13°38 | 24°43 | 9°11 | 8°R21 | 10° 5 | 13°34 | 14°48 | 26°30 | 28° 2 | S 5 | | |
| S 6 | 3 22 47 | 19°30'16 | 18°49 | 0♌50 | 7°10 | 18°51 | 13°31 | 24°50 | 9° 8 | 8°21 | 10° 4 | 13°36 | 14°45 | 26°37 | 28° 0 | S 6 | | |
| M 7 | 3 26 44 | 20°31'02 | 2♏18 | 2°11 | 8°21 | 19°25 | 13°24 | 24°57 | 9° 6 | 8°21 | 10° 4 | 13°37 | 14°42 | 26°43 | 27°57 | M 7 | | |
| T 8 | 3 30 40 | 21°31'50 | 16° 2 | 3°33 | 9°32 | 20° 0 | 13°17 | 25° 4 | 9° 4 | 8°21 | 10° 3 | 13°R38 | 14°38 | 26°50 | 27°54 | T 8 | | |
| W 9 | 3 34 37 | 22°32'40 | 0♎2 | 4°56 | 10°42 | 20°35 | 13°10 | 25°10 | 9° 1 | 8°21 | 10° 2 | 13°38 | 14°35 | 26°57 | 27°51 | W 9 | | |
| T 10 | 3 38 34 | 23°33'31 | 14°18 | 6°22 | 11°53 | 21° 9 | 13° 2 | 25°17 | 8°59 | 8°21 | 10° 1 | 13°37 | 14°32 | 27° 4 | 27°49 | T 10 | | |
| F 11 | 3 42 30 | 24°34'23 | 28°45 | 7°48 | 13° 4 | 21°43 | 12°55 | 25°24 | 8°56 | 8°21 | 10° 0 | 13°35 | 14°29 | 27°10 | 27°46 | F 11 | | |
| S 12 | 3 46 27 | 25°35'17 | 13♊22 | 9°16 | 14°15 | 22°18 | 12°48 | 25°30 | 8°54 | 8°21 | 10° 0 | 13°33 | 14°26 | 27°17 | 27°44 | S 12 | | |
| S 13 | 3 50 23 | 26°36'13 | 28° 1 | 10°44 | 15°27 | 22°52 | 12°40 | 25°37 | 8°52 | 8°20 | 9°59 | 13°30 | 14°22 | 27°24 | 27°41 | S 13 | | |
| M14 | 3 54 20 | 27°37'09 | 12♌37 | 12°13 | 16°38 | 23°26 | 12°32 | 25°43 | 8°49 | 8°20 | 9°58 | 13°28 | 14°19 | 27°30 | 27°39 | M14 | | |
| T 15 | 3 58 16 | 28°38'07 | 27° 3 | 13°43 | 17°50 | 24° 0 | 12°25 | 25°50 | 8°47 | 8°20 | 9°57 | 13°27 | 14°16 | 27°37 | 27°36 | T 15 | | |
| W16 | 4 2 13 | 29°39'06 | 11♌12 | 15°14 | 19° 1 | 24°34 | 12°17 | 25°56 | 8°45 | 8°19 | 9°57 | 13°D26 | 14°13 | 27°44 | 27°34 | W16 | | |
| T 17 | 4 6 9 | 0♌40'06 | 25° 1 | 16°44 | 20°13 | 25° 8 | 12° 9 | 26° 2 | 8°42 | 8°19 | 9°56 | 13°26 | 14°10 | 27°51 | 27°31 | T 17 | | |
| F 18 | 4 10 6 | 1°41'07 | 8♌27 | 18°15 | 21°25 | 25°42 | 12° 1 | 26° 9 | 8°40 | 8°19 | 9°55 | 13°27 | 14° 7 | 27°57 | 27°29 | F 18 | | |
| S 19 | 4 14 3 | 2°42'09 | 21°31 | 19°47 | 22°37 | 26°16 | 11°53 | 26°15 | 8°38 | 8°18 | 9°55 | 13°28 | 14° 3 | 28° 4 | 27°27 | S 19 | | |
| S 20 | 4 17 59 | 3°43'11 | 4♌13 | 21°19 | 23°49 | 26°50 | 11°45 | 26°21 | 8°36 | 8°18 | 9°54 | 13°29 | 14° 0 | 28°11 | 27°24 | S 20 | | |
| M21 | 4 21 56 | 4°44'14 | 16°36 | 22°51 | 25° 1 | 27°23 | 11°37 | 26°27 | 8°33 | 8°17 | 9°53 | 13°30 | 13°57 | 28°17 | 27°22 | M21 | | |
| T 22 | 4 25 52 | 5°45'17 | 28°45 | 24°23 | 26°13 | 27°57 | 11°29 | 26°34 | 8°31 | 8°17 | 9°53 | 13°31 | 13°54 | 28°24 | 27°20 | T 22 | | |
| W23 | 4 29 49 | 6°46'21 | 10♋43 | 25°55 | 27°25 | 28°30 | 11°21 | 26°40 | 8°29 | 8°16 | 9°52 | 13°R31 | 13°51 | 28°31 | 27°18 | W23 | | |
| T 24 | 4 33 45 | 7°47'26 | 22°36 | 27°27 | 28°37 | 29° 4 | 11°13 | 26°46 | 8°27 | 8°15 | 9°52 | 13°30 | 13°47 | 28°38 | 27°16 | T 24 | | |
| F 25 | 4 37 42 | 8°48'31 | 4♎28 | 29° 0 | 29°50 | 29°37 | 11° 5 | 26°52 | 8°25 | 8°15 | 9°51 | 13°30 | 13°44 | 28°44 | 27°13 | F 25 | | |
| S 26 | 4 41 38 | 9°49'36 | 16°24 | 0♌33 | 1♌ 2 | 0♑10 | 10°56 | 26°58 | 8°23 | 8°14 | 9°51 | 13°29 | 13°41 | 28°51 | 27°11 | S 26 | | |
| S 27 | 4 45 35 | 10°50'42 | 28°28 | 2° 6 | 2°15 | 0°43 | 10°48 | 27° 4 | 8°21 | 8°13 | 9°50 | 13°29 | 13°38 | 28°58 | 27° 9 | S 27 | | |
| M28 | 4 49 32 | 11°51'48 | 10♋42 | 3°39 | 3°28 | 1°16 | 10°40 | 27° 9 | 8°19 | 8°12 | 9°50 | 13°29 | 13°35 | 29° 4 | 27° 8 | M28 | | |
| T 29 | 4 53 28 | 12°52'55 | 23° 9 | 5°12 | 4°40 | 1°49 | 10°32 | 27°15 | 8°17 | 8°12 | 9°49 | 13°29 | 13°32 | 29°11 | 27° 6 | T 29 | | |
| W30 | 4 57 25 | 13°54'02 | 5♐51 | 6♌45 | 5♌53 | 2♑22 | 10♐24 | 27♊21 | 8♏15 | 8♏11 | 9°Y49 | 13°D29 | 13♌28 | 29♋18 | 27°Y 4 | W30 | | |

Delta T = 17m43s Julian Calendar 1 Nov. 1099 == Greg. Calendar 7 Nov. 1099

DECEMBER 1099 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | Day |
|------|---------|----------|-------|-------|-------|-------|--------|-------|-------|-------|-------|--------|-------|-------|--------|------|---|-----|
| T 1 | 5 1 21 | 14♌55'10 | 18♐48 | 8♌19 | 7♌ 6 | 2♑55 | 10°R16 | 27♊26 | 8°R13 | 8°R10 | 9°R49 | 13°R29 | 13♌25 | 29♋25 | 27°R 2 | T 1 | | |
| F 2 | 5 5 18 | 15°56'19 | 2♑ 0 | 9°52 | 8°19 | 3°28 | 10♐ 8 | 27°32 | 8♏11 | 8♏ 9 | 9°Y48 | 13♌28 | 13°22 | 29°31 | 27°Y 0 | F 2 | | |
| S 3 | 5 9 14 | 16°57'27 | 15°26 | 11°26 | 9°32 | 4° 0 | 10° 0 | 27°38 | 8°10 | 8° 8 | 9°48 | 13°28 | 13°19 | 29°38 | 26°59 | S 3 | | |
| S 4 | 5 13 11 | 17°58'37 | 29° 5 | 13° 0 | 10°45 | 4°33 | 9°52 | 27°43 | 8° 8 | 8° 7 | 9°48 | 13°28 | 13°16 | 29°45 | 26°57 | S 4 | | |
| M 5 | 5 17 8 | 18°59'47 | 12♏55 | 14°34 | 11°58 | 5° 5 | 9°44 | 27°48 | 8° 6 | 8° 6 | 9°47 | 13°27 | 13°13 | 29°52 | 26°55 | M 5 | | |
| T 6 | 5 21 4 | 20° 0'57 | 26°53 | 16° 9 | 13°11 | 5°38 | 9°36 | 27°54 | 8° 4 | 8° 5 | 9°47 | 13°27 | 13° 9 | 29°58 | 26°54 | T 6 | | |
| W 7 | 5 25 1 | 21° 2'08 | 10♎58 | 17°43 | 14°24 | 6°10 | 9°28 | 27°59 | 8° 3 | 8° 4 | 9°47 | 13°26 | 13° 6 | 0°Y 5 | 26°52 | W 7 | | |
| T 8 | 5 28 57 | 22° 3'19 | 25° 8 | 19°18 | 15°38 | 6°42 | 9°20 | 28° 4 | 8° 1 | 8° 3 | 9°46 | 13°D26 | 13° 3 | 0°12 | 26°51 | T 8 | | |
| F 9 | 5 32 54 | 23° 4'31 | 9♑20 | 20°54 | 16°51 | 7°14 | 9°12 | 28° 9 | 8° 0 | 8° 2 | 9°46 | 13°26 | 13° 0 | 0°18 | 26°50 | F 9 | | |
| S 10 | 5 36 50 | 24° 5'44 | 23°33 | 22°29 | 18° 4 | 7°46 | 9° 5 | 28°14 | 7°58 | 8° 1 | 9°46 | 13°27 | 12°57 | 0°25 | 26°48 | S 10 | | |
| S 11 | 5 40 47 | 25° 6'57 | 7♌43 | 24° 5 | 19°18 | 8°17 | 8°57 | 28°19 | 7°57 | 8° 0 | 9°46 | 13°28 | 12°53 | 0°32 | 26°47 | S 11 | | |
| M12 | 5 44 43 | 26° 8'10 | 21°49 | 25°41 | 20°31 | 8°49 | 8°49 | 28°24 | 7°55 | 7°59 | 9°46 | 13°29 | 12°50 | 0°39 | 26°46 | M12 | | |
| T 13 | 5 48 40 | 27° 9'24 | 5♌46 | 27°17 | 21°45 | 9°21 | 8°42 | 28°29 | 7°54 | 7°58 | 9°45 | 13°30 | 12°47 | 0°45 | 26°45 | T 13 | | |
| W14 | 5 52 37 | 28°10'38 | 19°32 | 28°54 | 22°58 | 9°52 | 8°35 | 28°34 | 7°52 | 7°57 | 9°45 | 13°R30 | 12°44 | 0°52 | 26°44 | W14 | | |
| T 15 | 5 56 33 | 29°11'51 | 3♌ 3 | 0♌31 | 24°12 | 10°23 | 8°28 | 28°39 | 7°51 | 7°55 | 9°45 | 13°29 | 12°41 | 0°59 | 26°43 | T 15 | | |
| F 16 | 6 0 30 | 0♌13'05 | 16°19 | 2° 9 | 25°26 | 10°54 | 8°20 | 28°43 | 7°50 | 7°54 | 9°45 | 13°27 | 12°38 | 1° 5 | 26°42 | F 16 | | |
| S 17 | 6 4 26 | 1°14'19 | 29°16 | 3°47 | 26°39 | 11°25 | 8°13 | 28°48 | 7°49 | 7°53 | 9°45 | 13°25 | 12°34 | 1°12 | 26°41 | S 17 | | |
| S 18 | 6 8 23 | 2°15'32 | 11♌57 | 5°25 | 27°53 | 11°56 | 8° 7 | 28°52 | 7°47 | 7°52 | 9°45 | 13°22 | 12°31 | 1°19 | 26°40 | S 18 | | |
| M19 | 6 12 19 | 3°16'44 | 24°21 | 7° 4 | 29° 7 | 12°27 | 8° 0 | 28°57 | 7°46 | 7°50 | 9°D45 | 13°19 | 12°28 | 1°26 | 26°39 | M19 | | |
| T 20 | 6 16 16 | 4°17'57 | 6♋31 | 8°43 | 0♌21 | 12°58 | 7°53 | 29° 1 | 7°45 | 7°49 | 9°45 | 13°16 | 12°25 | 1°32 | 26°39 | T 20 | | |
| W21 | 6 20 12 | 5°19'08 | 18°31 | 10°22 | 1°35 | 13°28 | 7°47 | 29° 5 | 7°44 | 7°48 | 9°45 | 13°14 | 12°22 | 1°39 | 26°38 | W21 | | |
| T 22 | 6 24 9 | 6°20'19 | 0°Y24 | 12° 2 | 2°48 | 13°58 | 7°40 | 29° 9 | 7°43 | 7°46 | 9°45 | 13°13 | 12°19 | 1°46 | 26°37 | T 22 | | |
| F 23 | 6 28 6 | 7°21'30 | 12°16 | 13°42 | 4° 2 | 14°28 | 7°34 | 29°13 | 7°42 | 7°45 | 9°45 | 13°D12 | 12°15 | 1°52 | 26°37 | F 23 | | |
| S 24 | 6 32 2 | 8°22'40 | 24°11 | 15°22 | 5°16 | 14°59 | 7°28 | 29°17 | 7°41 | 7°43 | 9°45 | 13°13 | 12°12 | 1°59 | 26°36 | S 24 | | |
| S 25 | 6 35 59 | 9°23'49 | 6♌14 | 17° 3 | 6°30 | 15°28 | 7°22 | 29°21 | 7°41 | 7°42 | 9°46 | 13°15 | 12° 9 | 2° 6 | 26°36 | S 25 | | |
| M26 | 6 39 55 | 10°24'58 | 18°29 | 18°44 | 7°44 | 15°58 | 7°17 | 29°25 | 7°40 | 7°41 | 9°46 | 13°17 | 12° 6 | 2°13 | 26°36 | M26 | | |
| T 27 | 6 43 52 | 11°26'06 | 1♐ 2 | 20°25 | 8°58 | 16°28 | 7°11 | 29°29 | 7°39 | 7°39 | 9°46 | 13°18 | 12° 3 | 2°19 | 26°35 | T 27 | | |
| W28 | 6 47 48 | 12°27'13 | 13°54 | 22° 6 | 10°12 | 16°57 | 7° 6 | 29°32 | 7°38 | 7°38 | 9°46 | 13°R19 | 11°59 | 2°26 | 26°35 | W28 | | |
| T 29 | 6 51 45 | 13°28'19 | 27° 7 | 23°48 | 11°26 | 17°26 | 7° 0 | 29°36 | 7°38 | 7°36 | 9°46 | 13°18 | 11°56 | 2°33 | 26°35 | T 29 | | |
| F 30 | 6 55 41 | 14°29'25 | 10♌41 | 25°29 | 12°40 | 17°55 | 6°55 | 29°39 | 7°37 | 7°35 | 9°47 | 13°16 | 11°53 | 2°39 | 26°35 | F 30 | | |
| S 31 | 6 59 38 | 15°30'30 | 24♌34 | 27♌10 | 13♌54 | 18♊24 | 6♐50 | 29♊43 | 7♏37 | 7♏33 | 9°Y47 | 13♌12 | 11♌50 | 2°Y46 | 26°D35 | S 31 | | |

Delta T = 17m43s Julian Calendar