



Astrodienst Ephemeris Tables for the year 1698

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 D5EPX

ASTRODIENST EPHEMERIS for the year 1698

geocentric

JANUARY 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|---------------------|--------------------|--------------------|---------------------|--------------------|-------------------|---------------------|------|
| W 1 | 6 44 23 | 11 ³ 13'00 | 4 ¹¹ 45 | 10 ³ 51 | 15 ³ 36 | 5 ¹ 19 | 20 ¹ 16 | 7 ¹ 37 | 29 ¹ R21 | 28 ¹ 24 | 7 ¹ R33 | 26 ¹ R32 | 26 ¹ 0 | 5 ¹ 8 | 25 ¹ R57 | W 1 |
| T 2 | 6 48 20 | 12°14'09 | 17°19 | 12°28 | 16°51 | 5°42 | 20°26 | 7°44 | 29 ^{II} 18 | 28°25 | 7 ¹ 32 | 26 ¹ 27 | 25°57 | 5°15 | 25 ¹ 55 | T 2 |
| F 3 | 6 52 17 | 13°15'18 | 29°34 | 14° 6 | 18° 6 | 6° 5 | 20°36 | 7°50 | 29°16 | 28°25 | 7°30 | 26°24 | 25°54 | 5°22 | 25°52 | F 3 |
| S 4 | 6 56 13 | 14°16'28 | 11 ¹ 34 | 15°44 | 19°20 | 6°28 | 20°47 | 7°57 | 29°13 | 28°26 | 7°29 | 26°D24 | 25°50 | 5°28 | 25°49 | S 4 |
| S 5 | 7 0 10 | 15°17'37 | 23°24 | 17°23 | 20°35 | 6°50 | 20°57 | 8° 4 | 29°11 | 28°27 | 7°28 | 26°R24 | 25°47 | 5°35 | 25°47 | S 5 |
| M 6 | 7 4 6 | 16°18'47 | 5 ¹ 11 | 19° 2 | 21°50 | 7°12 | 21° 7 | 8°11 | 29° 8 | 28°28 | 7°27 | 26°23 | 25°44 | 5°42 | 25°44 | M 6 |
| T 7 | 7 8 3 | 17°19'56 | 17° 0 | 20°42 | 23° 5 | 7°34 | 21°17 | 8°18 | 29° 6 | 28°29 | 7°25 | 26°22 | 25°41 | 5°48 | 25°41 | T 7 |
| W 8 | 7 11 59 | 18°21'05 | 28°56 | 22°22 | 24°20 | 7°55 | 21°27 | 8°24 | 29° 4 | 28°30 | 7°24 | 26°18 | 25°38 | 5°55 | 25°38 | W 8 |
| T 9 | 7 15 56 | 19°22'15 | 11 ¹ 2 | 24° 2 | 25°35 | 8°16 | 21°36 | 8°31 | 29° 1 | 28°31 | 7°23 | 26°11 | 25°34 | 6° 1 | 25°35 | T 9 |
| F 10 | 7 19 52 | 20°23'24 | 23°23 | 25°43 | 26°50 | 8°37 | 21°46 | 8°38 | 28°59 | 28°32 | 7°21 | 26° 1 | 25°31 | 6° 8 | 25°31 | F 10 |
| S 11 | 7 23 49 | 21°24'32 | 6 ¹ 0 | 27°24 | 28° 5 | 8°57 | 21°56 | 8°45 | 28°57 | 28°33 | 7°20 | 25°49 | 25°28 | 6°15 | 25°28 | S 11 |
| S 12 | 7 27 46 | 22°25'40 | 18°54 | 29° 6 | 29°20 | 9°17 | 22° 5 | 8°52 | 28°54 | 28°35 | 7°19 | 25°36 | 25°25 | 6°21 | 25°25 | S 12 |
| M13 | 7 31 42 | 23°26'48 | 2 ¹ 4 | 0 ¹ 48 | 0 ¹ 34 | 9°36 | 22°14 | 8°59 | 28°52 | 28°36 | 7°17 | 25°22 | 25°22 | 6°28 | 25°21 | M13 |
| T 14 | 7 35 39 | 24°27'55 | 15°27 | 2°30 | 1°49 | 9°56 | 22°24 | 9° 6 | 28°50 | 28°37 | 7°16 | 25° 9 | 25°19 | 6°35 | 25°18 | T 14 |
| W15 | 7 39 35 | 25°29'01 | 29° 2 | 4°13 | 3° 4 | 10°14 | 22°33 | 9°13 | 28°47 | 28°38 | 7°15 | 24°58 | 25°15 | 6°41 | 25°14 | W15 |
| T 16 | 7 43 32 | 26°30'06 | 12 ¹ 46 | 5°55 | 4°19 | 10°33 | 22°42 | 9°20 | 28°45 | 28°39 | 7°13 | 24°50 | 25°12 | 6°48 | 25°10 | T 16 |
| F 17 | 7 47 28 | 27°31'10 | 26°37 | 7°38 | 5°34 | 10°51 | 22°51 | 9°27 | 28°43 | 28°41 | 7°12 | 24°46 | 25° 9 | 6°55 | 25° 6 | F 17 |
| S 18 | 7 51 25 | 28°32'14 | 10 ¹ 33 | 9°21 | 6°49 | 11° 8 | 22°59 | 9°34 | 28°41 | 28°42 | 7°11 | 24°44 | 25° 6 | 7° 1 | 25° 3 | S 18 |
| S 19 | 7 55 21 | 29°33'16 | 24°34 | 11° 3 | 8° 4 | 11°25 | 23° 8 | 9°42 | 28°39 | 28°43 | 7° 9 | 24°43 | 25° 3 | 7° 8 | 24°59 | S 19 |
| M20 | 7 59 18 | 0 ¹ 34'17 | 8 ¹ 38 | 12°46 | 9°19 | 11°42 | 23°16 | 9°49 | 28°37 | 28°45 | 7° 8 | 24°43 | 25° 0 | 7°15 | 24°55 | M20 |
| T 21 | 8 3 15 | 1°35'17 | 22°46 | 14°27 | 10°34 | 11°58 | 23°25 | 9°56 | 28°35 | 28°46 | 7° 6 | 24°42 | 24°56 | 7°21 | 24°51 | T 21 |
| W22 | 8 7 11 | 2°36'16 | 6 ^{II} 56 | 16° 8 | 11°49 | 12°14 | 23°33 | 10° 3 | 28°33 | 28°48 | 7° 5 | 24°38 | 24°53 | 7°28 | 24°47 | W22 |
| T 23 | 8 11 8 | 3°37'14 | 21° 6 | 17°48 | 13° 4 | 12°29 | 23°41 | 10°10 | 28°31 | 28°49 | 7° 4 | 24°32 | 24°50 | 7°35 | 24°42 | T 23 |
| F 24 | 8 15 4 | 4°38'10 | 5 ¹ 62 | 19°27 | 14°19 | 12°44 | 23°49 | 10°17 | 28°29 | 28°50 | 7° 2 | 24°23 | 24°47 | 7°41 | 24°38 | F 24 |
| S 25 | 8 19 1 | 5°39'06 | 19°11 | 21° 4 | 15°34 | 12°58 | 23°57 | 10°24 | 28°27 | 28°52 | 7° 1 | 24°11 | 24°44 | 7°48 | 24°34 | S 25 |
| S 26 | 8 22 57 | 6°40'00 | 2 ¹ 58 | 22°39 | 16°49 | 13°12 | 24° 5 | 10°32 | 28°25 | 28°53 | 6°59 | 23°59 | 24°40 | 7°55 | 24°30 | S 26 |
| M27 | 8 26 54 | 7°40'53 | 16°28 | 24°11 | 18° 3 | 13°25 | 24°12 | 10°39 | 28°23 | 28°55 | 6°58 | 23°46 | 24°37 | 8° 1 | 24°25 | M27 |
| T 28 | 8 30 50 | 8°41'45 | 29°40 | 25°41 | 19°18 | 13°38 | 24°20 | 10°46 | 28°21 | 28°57 | 6°57 | 23°35 | 24°34 | 8° 8 | 24°21 | T 28 |
| W29 | 8 34 47 | 9°42'37 | 12 ¹ 31 | 27° 6 | 20°33 | 13°51 | 24°27 | 10°53 | 28°19 | 28°58 | 6°55 | 23°26 | 24°31 | 8°14 | 24°16 | W29 |
| T 30 | 8 38 44 | 10°43'27 | 25° 3 | 28°28 | 21°48 | 14° 2 | 24°34 | 11° 0 | 28°18 | 29° 0 | 6°54 | 23°20 | 24°28 | 8°21 | 24°12 | T 30 |
| F 31 | 8 42 40 | 11 ¹ 44'16 | 7 ¹ 17 | 29 ¹ 44 | 23 ¹ 3 | 14 ¹ 14 | 24 ¹ 41 | 11 ¹ 7 | 28 ^{II} 16 | 29 ¹ 2 | 6 ¹ 52 | 23 ¹ 17 | 24 ¹ 25 | 8 ¹ 28 | 24 ¹ 7 | F 31 |

| Day | ☉ | ☾ | | ♀ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|------|-------|-------|-------|------|------|-----|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| W 1 | 23s 0 | 6n 5 | 3s58 | 24s51 | 1s49 | 21s46 | 0n57 | 0n 6 | 2n25 | 16s54 | 0n59 | 19s 7 | 0s45 | 23n43 | 0n15 | 1s56 | 1s24 | 24n33 | 6n21 | 10s15 | 10s 3 | 12s29 | 6n19 | 6s58 | | | |
| T 2 | 22 55 | 2 4 | 3 12 | 24 45 | 1 52 | 21 56 | 0 54 | 0s 2 | 2 26 | 16 56 | 0 59 | 19 6 | 0 45 | 23 43 | 0 15 | 1 55 | 1 24 | 24 33 | 6 22 | 10 13 | 10 2 | 12 30 | 6 20 | 6 59 | | | |
| F 3 | 22 49 | 1s56 | 2 17 | 24 38 | 1 55 | 22 5 | 0 52 | 0 10 | 2 27 | 16 59 | 0 59 | 19 4 | 0 45 | 23 43 | 0 15 | 1 55 | 1 24 | 24 34 | 6 22 | 10 12 | 10 1 | 12 32 | 6 20 | 6 59 | | | |
| S 4 | 22 43 | 5 47 | 1 18 | 24 30 | 1 58 | 22 14 | 0 49 | 0 18 | 2 28 | 17 2 | 0 59 | 19 2 | 0 45 | 23 43 | 0 15 | 1 54 | 1 24 | 24 34 | 6 22 | 10 12 | 10 0 | 12 33 | 6 21 | 6 59 | | | |
| S 5 | 22 36 | 9 21 | 0 16 | 24 20 | 2 0 | 22 22 | 0 46 | 0 26 | 2 29 | 17 4 | 0 59 | 19 0 | 0 45 | 23 43 | 0 15 | 1 54 | 1 24 | 24 35 | 6 22 | 10 12 | 9 59 | 12 35 | 6 21 | 7 0 | | | |
| M 6 | 22 29 | 12 32 | 0n47 | 24 8 | 2 2 | 22 30 | 0 44 | 0 34 | 2 30 | 17 7 | 0 59 | 18 59 | 0 45 | 23 43 | 0 15 | 1 54 | 1 24 | 24 35 | 6 22 | 10 12 | 9 58 | 12 36 | 6 22 | 7 0 | | | |
| T 7 | 22 21 | 15 14 | 1 47 | 23 55 | 2 4 | 22 36 | 0 41 | 0 42 | 2 31 | 17 9 | 0 59 | 18 57 | 0 45 | 23 43 | 0 15 | 1 53 | 1 24 | 24 36 | 6 22 | 10 11 | 9 56 | 12 37 | 6 22 | 7 1 | | | |
| W 8 | 22 13 | 17 18 | 2 43 | 23 40 | 2 5 | 22 43 | 0 39 | 0 49 | 2 32 | 17 12 | 0 59 | 18 55 | 0 45 | 23 43 | 0 15 | 1 53 | 1 24 | 24 36 | 6 22 | 10 10 | 9 55 | 12 39 | 6 23 | 7 1 | | | |
| T 9 | 22 4 | 18 37 | 3 33 | 23 24 | 2 6 | 22 48 | 0 36 | 0 57 | 2 33 | 17 14 | 0 59 | 18 53 | 0 45 | 23 43 | 0 15 | 1 52 | 1 24 | 24 37 | 6 23 | 10 7 | 9 54 | 12 40 | 6 24 | 7 1 | | | |
| F 10 | 21 56 | 19 5 | 4 14 | 23 6 | 2 6 | 22 53 | 0 33 | 1 4 | 2 34 | 17 17 | 1 0 | 18 52 | 0 46 | 23 43 | 0 15 | 1 52 | 1 24 | 24 37 | 6 23 | 10 4 | 9 53 | 12 41 | 6 24 | 7 2 | | | |
| S 11 | 21 46 | 18 38 | 4 43 | 22 46 | 2 6 | 22 57 | 0 31 | 1 11 | 2 35 | 17 19 | 1 0 | 18 50 | 0 46 | 23 43 | 0 15 | 1 51 | 1 24 | 24 38 | 6 23 | 9 59 | 9 52 | 12 43 | 6 25 | 7 2 | | | |
| S 12 | 21 36 | 17 13 | 4 58 | 22 25 | 2 5 | 23 0 | 0 28 | 1 18 | 2 36 | 17 21 | 1 0 | 18 48 | 0 46 | 23 43 | 0 15 | 1 51 | 1 24 | 24 38 | 6 23 | 9 55 | 9 51 | 12 44 | 6 26 | 7 3 | | | |
| M13 | 21 26 | 14 53 | 4 58 | 22 2 | 2 4 | 23 3 | 0 25 | 1 25 | 2 36 | 17 24 | 1 0 | 18 46 | 0 46 | 23 43 | 0 15 | 1 50 | 1 24 | 24 39 | 6 23 | 9 49 | 9 50 | 12 45 | 6 27 | 7 3 | | | |
| T 14 | 21 16 | 11 44 | 4 42 | 21 37 | 2 3 | 23 5 | 0 23 | 1 31 | 2 37 | 17 26 | 1 0 | 18 44 | 0 46 | 23 43 | 0 15 | 1 50 | 1 24 | 24 39 | 6 23 | 9 45 | 9 48 | 12 47 | 6 28 | 7 3 | | | |
| W15 | 21 5 | 7 56 | 4 9 | 21 11 | 2 1 | 23 6 | 0 20 | 1 38 | 2 38 | 17 28 | 1 0 | 18 43 | 0 46 | 23 43 | 0 15 | 1 49 | 1 24 | 24 40 | 6 23 | 9 41 | 9 47 | 12 48 | 6 28 | 7 3 | | | |
| T 16 | 20 53 | 3 40 | 3 22 | 20 44 | 1 58 | 23 7 | 0 17 | 1 44 | 2 39 | 17 30 | 1 0 | 18 41 | 0 46 | 23 43 | 0 15 | 1 49 | 1 24 | 24 40 | 6 23 | 9 38 | 9 46 | 12 50 | 6 29 | 7 4 | | | |
| F 17 | 20 41 | 0n50 | 2 23 | 20 15 | 1 55 | 23 7 | 0 15 | 1 50 | 2 40 | 17 32 | 1 0 | 18 39 | 0 46 | 23 43 | 0 15 | 1 48 | 1 24 | 24 40 | 6 24 | 9 36 | 9 45 | 12 51 | 6 30 | 7 4 | | | |
| S 18 | 20 29 | 5 19 | 1 14 | 19 44 | 1 51 | 23 6 | 0 12 | 1 56 | 2 41 | 17 35 | 1 0 | 18 37 | 0 46 | 23 43 | 0 15 | 1 48 | 1 24 | 24 41 | 6 24 | 9 36 | 9 44 | 12 52 | 6 31 | 7 4 | | | |
| S 19 | 20 17 | 9 33 | 0 1 | 19 12 | 1 47 | 23 4 | 0 9 | 2 2 | 2 42 | 17 37 | 1 0 | 18 35 | 0 46 | 23 43 | 0 15 | 1 47 | 1 24 | 24 41 | 6 24 | 9 35 | 9 43 | 12 54 | 6 32 | 7 5 | | | |
| M20 | 20 4 | 13 15 | 1s13 | 18 38 | 1 42 | 23 2 | 0 7 | 2 8 | 2 43 | 17 39 | 1 0 | 18 33 | 0 46 | 23 43 | 0 15 | 1 47 | 1 23 | 24 42 | 6 24 | 9 35 | 9 41 | 12 55 | 6 33 | 7 5 | | | |
| T 21 | 19 50 | 16 12 | 2 23 | 18 3 | 1 36 | 22 59 | 0 4 | 2 13 | 2 44 | 17 41 | 1 1 | 18 32 | 0 46 | 23 43 | 0 15 | 1 46 | 1 23 | 24 42 | 6 24 | 9 35 | 9 40 | 12 56 | 6 35 | 7 5 | | | |
| W22 | 19 37 | 18 9 | 3 23 | 17 27 | 1 30 | 22 55 | 0 2 | 2 18 | 2 45 | 17 43 | 1 1 | 18 30 | 0 46 | 23 43 | 0 15 | 1 45 | 1 23 | 24 43 | 6 24 | 9 34 | 9 39 | 12 58 | 6 36 | 7 5 | | | |
| T 23 | 19 22 | 18 59 | 4 12 | 16 50 | 1 22 | 22 51 | 0s 1 | 2 23 | 2 46 | 17 45 | 1 1 | 18 28 | 0 46 | 23 43 | 0 15 | 1 45 | 1 23 | 24 43 | 6 24 | 9 31 | 9 38 | 12 59 | 6 37 | 7 5 | | | |
| F 24 | 19 8 | 18 38 | 4 44 | 16 11 | 1 15 | 22 46 | 0 4 | 2 28 | 2 47 | 17 46 | 1 1 | 18 26 | 0 46 | 23 43 | 0 15 | 1 44 | 1 23 | 24 44 | 6 24 | 9 28 | 9 37 | 13 0 | 6 38 | 7 6 | | | |
| S 25 | 18 53 | 17 9 | 5 0 | 15 32 | 1 6 | 22 40 | 0 6 | 2 33 | 2 48 | 17 48 | 1 1 | 18 24 | 0 46 | 23 43 | 0 15 | 1 44 | 1 23 | 24 44 | 6 24 | 9 24 | 9 36 | 13 2 | 6 39 | 7 6 | | | |
| S 26 | 18 38 | 14 42 | 4 57 | 14 52 | 0 56 | 22 34 | 0 9 | 2 37 | 2 49 | 17 50 | 1 1 | 18 22 | 0 46 | 23 43 | 0 15 | 1 43 | 1 23 | 24 45 | 6 24 | 9 19 | 9 34 | 13 3 | 6 41 | 7 6 | | | |
| M27 | 18 23 | 11 30 | 4 38 | 14 12 | 0 46 | 22 27 | 0 11 | 2 41 | 2 50 | 17 52 | 1 1 | 18 20 | 0 46 | 23 43 | 0 15 | 1 42 | 1 23 | 24 45 | 6 24 | 9 14 | 9 33 | 13 4 | 6 42 | 7 6 | | | |
| T 28 | 18 7 | 7 48 | 4 4 | 13 31 | 0 35 | 22 19 | 0 14 | 2 45 | 2 51 | 17 54 | 1 1 | 18 18 | 0 47 | 23 43 | 0 15 | 1 42 | 1 23 | 24 45 | 6 25 | 9 10 | 9 32 | 13 6 | 6 43 | 7 6 | | | |
| W29 | 17 51 | 3 49 | 3 18 | 12 51 | 0 23 | 22 10 | 0 17 | 2 49 | 2 52 | 17 55 | 1 1 | 18 17 | 0 47 | 23 43 | 0 15 | 1 41 | 1 23 | 24 46 | 6 25 | 9 7 | 9 31 | 13 7 | 6 45 | 7 6 | | | |
| T 30 | 17 34 | 0s14 | 2 24 | 12 11 | 0 10 | 22 1 | 0 19 | 2 53 | 2 53 | 17 57 | 1 1 | 18 15 | 0 47 | 23 43 | 0 15 | 1 40 | 1 23 | 24 46 | 6 25 | 9 5 | 9 30 | 13 8 | 6 46 | 7 6 | | | |
| F 31 | 17s18 | 4s11 | 1s24 | 11s31 | 0n 4 | 21s51 | 0s22 | 2s56 | 2n54 | 17s59 | 1n 2 | 18s13 | 0s47 | 23n43 | 0n15 | 1s40 | 1s23 | 24n47 | 6n25 | 9s 3 | 9s29 | 13s10 | 6n47 | 7s 6 | | | |

ASTRODIENST EPHEMERIS for the year 1698

geocentric

FEBRUARY 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|------|
| S 1 | 8 46 37 | 12 ⁴⁵ 04 | 19 ¹⁸ 18 | 0 ⁵⁵ 55 | 24 ³⁸ 18 | 14 ²⁴ 24 | 24 ⁴⁸ 48 | 11 ¹⁵ 15 | 28 ^R 14 | 29 ³ 3 | 6 ^R 51 | 23 ^D 15 | 24 ²¹ 21 | 8 ³⁴ 34 | 24 ^R 3 | S 1 |
| S 2 | 8 50 33 | 13 ⁴⁵ 51 | 1 ¹⁰ 10 | 1 ⁵⁹ 59 | 25 ³³ 33 | 14 ³⁴ 34 | 24 ⁵⁵ 55 | 11 ²² 22 | 28 ^{II} 13 | 29 ⁵ 5 | 6 ⁵⁰ 50 | 23 ¹⁵ 15 | 24 ¹⁸ 18 | 8 ⁴¹ 41 | 23 ⁵⁸ 58 | S 2 |
| M 3 | 8 54 30 | 14 ⁴⁶ 37 | 12 ⁵⁸ 58 | 2 ⁵⁶ 56 | 26 ⁴⁸ 48 | 14 ⁴⁴ 44 | 25 ² 2 | 11 ²⁹ 29 | 28 ¹¹ 11 | 29 ⁷ 7 | 6 ⁴⁸ 48 | 23 ^R 16 | 24 ¹⁵ 15 | 8 ⁴⁸ 48 | 23 ⁵⁴ 54 | M 3 |
| T 4 | 8 58 26 | 15 ⁴⁷ 22 | 24 ⁴⁸ 48 | 3 ⁴⁶ 46 | 28 ³ 3 | 14 ⁵³ 53 | 25 ⁸ 8 | 11 ³⁶ 36 | 28 ¹⁰ 10 | 29 ⁸ 8 | 6 ⁴⁷ 47 | 23 ¹⁵ 15 | 24 ¹² 12 | 8 ⁵⁴ 54 | 23 ⁴⁹ 49 | T 4 |
| W 5 | 9 2 23 | 16 ⁴⁸ 07 | 6 ⁴⁴ 44 | 4 ²⁶ 26 | 29 ¹⁸ 18 | 15 ¹ 1 | 25 ¹⁵ 15 | 11 ⁴³ 43 | 28 ⁸ 8 | 29 ¹⁰ 10 | 6 ⁴⁵ 45 | 23 ¹³ 13 | 24 ⁹ 9 | 9 ¹ 1 | 23 ⁴⁴ 44 | W 5 |
| T 6 | 9 6 19 | 17 ⁴⁸ 50 | 18 ⁵⁴ 54 | 4 ⁵⁷ 57 | 0 ³³ 33 | 15 ⁹ 9 | 25 ²¹ 21 | 11 ⁵⁰ 50 | 28 ⁷ 7 | 29 ¹² 12 | 6 ⁴⁴ 44 | 23 ⁹ 9 | 24 ⁶ 6 | 9 ⁸ 8 | 23 ⁴⁰ 40 | T 6 |
| F 7 | 9 10 16 | 18 ⁴⁹ 32 | 1 ³⁹ 39 | 5 ¹⁸ 18 | 1 ⁴⁸ 48 | 15 ¹⁶ 16 | 25 ²⁷ 27 | 11 ⁵⁸ 58 | 28 ⁵ 5 | 29 ¹⁴ 14 | 6 ⁴³ 43 | 23 ² 2 | 24 ² 2 | 9 ¹⁴ 14 | 23 ³⁵ 35 | F 7 |
| S 8 | 9 14 13 | 19 ⁵⁰ 12 | 14 ⁵ 5 | 5 ²⁹ 29 | 3 ³ 3 | 15 ²² 22 | 25 ³³ 33 | 12 ⁵ 5 | 28 ⁴ 4 | 29 ¹⁶ 16 | 6 ⁴¹ 41 | 22 ⁵³ 53 | 23 ⁵⁹ 59 | 9 ²¹ 21 | 23 ³⁰ 30 | S 8 |
| S 9 | 9 18 9 | 20 ⁵⁰ 52 | 27 ¹¹ 11 | 5 ^R 30 | 4 ¹⁸ 18 | 15 ²⁸ 28 | 25 ³⁸ 38 | 12 ¹² 12 | 28 ³ 3 | 29 ¹⁸ 18 | 6 ⁴⁰ 40 | 22 ⁴² 42 | 23 ⁵⁶ 56 | 9 ²⁸ 28 | 23 ²⁵ 25 | S 9 |
| M10 | 9 22 6 | 21 ⁵¹ 30 | 10 ³⁹ 39 | 5 ¹⁹ 19 | 5 ³³ 33 | 15 ³³ 33 | 25 ⁴⁴ 44 | 12 ¹⁹ 19 | 28 ² 2 | 29 ¹⁹ 19 | 6 ³⁹ 39 | 22 ³¹ 31 | 23 ⁵³ 53 | 9 ³⁴ 34 | 23 ²¹ 21 | M10 |
| T 11 | 9 26 2 | 22 ⁵² 07 | 24 ²⁵ 25 | 4 ⁵⁹ 59 | 6 ⁴⁷ 47 | 15 ³⁷ 37 | 25 ⁴⁹ 49 | 12 ²⁶ 26 | 28 ⁰ 0 | 29 ²¹ 21 | 6 ³⁷ 37 | 22 ²¹ 21 | 23 ⁵⁰ 50 | 9 ⁴¹ 41 | 23 ¹⁶ 16 | T 11 |
| W12 | 9 29 59 | 23 ⁵² 42 | 8 ²⁵ 25 | 4 ²⁹ 29 | 8 ² 2 | 15 ⁴¹ 41 | 25 ⁵⁵ 55 | 12 ³³ 33 | 27 ⁵⁹ 59 | 29 ²³ 23 | 6 ³⁶ 36 | 22 ¹² 12 | 23 ⁴⁶ 46 | 9 ⁴⁸ 48 | 23 ¹¹ 11 | W12 |
| T 13 | 9 33 55 | 24 ⁵³ 15 | 22 ³⁷ 37 | 3 ⁴⁹ 49 | 9 ¹⁷ 17 | 15 ⁴⁴ 44 | 26 ⁰ 0 | 12 ⁴⁰ 40 | 27 ⁵⁸ 58 | 29 ²⁵ 25 | 6 ³⁵ 35 | 22 ⁶ 6 | 23 ⁴³ 43 | 9 ⁵⁴ 54 | 23 ⁶ 6 | T 13 |
| F 14 | 9 37 52 | 25 ⁵³ 47 | 6 ⁵³ 53 | 3 ¹ 1 | 10 ³² 32 | 15 ⁴⁶ 46 | 26 ⁴ 4 | 12 ⁴⁷ 47 | 27 ⁵⁷ 57 | 29 ²⁷ 27 | 6 ³³ 33 | 22 ³ 3 | 23 ⁴⁰ 40 | 10 ¹ 1 | 23 ² 2 | F 14 |
| S 15 | 9 41 48 | 26 ⁵⁴ 17 | 21 ¹¹ 11 | 2 ⁷ 7 | 11 ⁴⁷ 47 | 15 ⁴⁸ 48 | 26 ⁹ 9 | 12 ⁵⁴ 54 | 27 ⁵⁶ 56 | 29 ²⁹ 29 | 6 ³² 32 | 22 ^D 2 | 23 ³⁷ 37 | 10 ⁸ 8 | 22 ⁵⁷ 57 | S 15 |
| S 16 | 9 45 45 | 27 ⁵⁴ 45 | 5 ²⁶ 26 | 1 ⁷ 7 | 13 ² 2 | 15 ⁴⁹ 49 | 26 ¹⁴ 14 | 13 ¹ 1 | 27 ⁵⁵ 55 | 29 ³¹ 31 | 6 ³¹ 31 | 22 ² 2 | 23 ³⁴ 34 | 10 ¹⁴ 14 | 22 ⁵² 52 | S 16 |
| M17 | 9 49 42 | 28 ⁵⁵ 11 | 19 ³⁷ 37 | 0 ⁴ 4 | 14 ¹⁷ 17 | 15 ^R 49 | 26 ¹⁸ 18 | 13 ⁸ 8 | 27 ⁵⁴ 54 | 29 ³³ 33 | 6 ²⁹ 29 | 22 ³ 3 | 23 ³¹ 31 | 10 ²¹ 21 | 22 ⁴⁷ 47 | M17 |
| T 18 | 9 53 38 | 29 ⁵⁵ 35 | 3 ⁴² 42 | 28 ⁵⁸ 58 | 15 ³² 32 | 15 ⁴⁹ 49 | 26 ²² 22 | 13 ¹⁵ 15 | 27 ⁵³ 53 | 29 ³⁵ 35 | 6 ²⁸ 28 | 22 ^R 3 | 23 ²⁷ 27 | 10 ²⁷ 27 | 22 ⁴³ 43 | T 18 |
| W19 | 9 57 35 | 0 ⁵⁵ 58 | 17 ⁴¹ 41 | 27 ⁵² 52 | 16 ⁴⁷ 47 | 15 ⁴⁷ 47 | 26 ²⁶ 26 | 13 ²² 22 | 27 ⁵³ 53 | 29 ³⁷ 37 | 6 ²⁷ 27 | 22 ² 2 | 23 ²⁴ 24 | 10 ³⁴ 34 | 22 ³⁸ 38 | W19 |
| T 20 | 10 1 31 | 1 ⁵⁶ 18 | 1 ³¹ 31 | 26 ⁴⁷ 47 | 18 ¹ 1 | 15 ⁴⁵ 45 | 26 ³⁰ 30 | 13 ²⁹ 29 | 27 ⁵² 52 | 29 ³⁹ 39 | 6 ²⁶ 26 | 21 ⁵⁸ 58 | 23 ²¹ 21 | 10 ⁴¹ 41 | 22 ³³ 33 | T 20 |
| F 21 | 10 5 28 | 2 ⁵⁶ 36 | 15 ¹³ 13 | 25 ⁴⁵ 45 | 19 ¹⁶ 16 | 15 ⁴² 42 | 26 ³⁴ 34 | 13 ³⁶ 36 | 27 ⁵¹ 51 | 29 ⁴¹ 41 | 6 ²⁴ 24 | 21 ⁵³ 53 | 23 ¹⁸ 18 | 10 ⁴⁷ 47 | 22 ²⁹ 29 | F 21 |
| S 22 | 10 9 24 | 3 ⁵⁶ 53 | 28 ⁴⁵ 45 | 24 ⁴⁷ 47 | 20 ³¹ 31 | 15 ³⁹ 39 | 26 ³⁸ 38 | 13 ⁴³ 43 | 27 ⁵⁰ 50 | 29 ⁴³ 43 | 6 ²³ 23 | 21 ⁴⁵ 45 | 23 ¹⁵ 15 | 10 ⁵⁴ 54 | 22 ²⁴ 24 | S 22 |
| S 23 | 10 13 21 | 4 ⁵⁷ 07 | 12 ⁵ 5 | 23 ⁵⁴ 54 | 21 ⁴⁶ 46 | 15 ³⁵ 35 | 26 ⁴¹ 41 | 13 ⁵⁰ 50 | 27 ⁵⁰ 50 | 29 ⁴⁵ 45 | 6 ²² 22 | 21 ³⁷ 37 | 23 ¹² 12 | 11 ¹ 1 | 22 ¹⁹ 19 | S 23 |
| M24 | 10 17 17 | 5 ⁵⁷ 19 | 25 ¹¹ 11 | 23 ⁶ 6 | 23 ¹ 1 | 15 ²⁹ 29 | 26 ⁴⁴ 44 | 13 ⁵⁷ 57 | 27 ⁴⁹ 49 | 29 ⁴⁸ 48 | 6 ²¹ 21 | 21 ²⁹ 29 | 23 ⁸ 8 | 11 ⁷ 7 | 22 ¹⁵ 15 | M24 |
| T 25 | 10 21 14 | 6 ⁵⁷ 30 | 8 ¹⁹ 19 | 22 ²⁵ 25 | 24 ¹⁵ 15 | 15 ²⁴ 24 | 26 ⁴⁷ 47 | 14 ⁴ 4 | 27 ⁴⁹ 49 | 29 ⁵⁰ 50 | 6 ²⁰ 20 | 21 ²¹ 21 | 23 ⁵ 5 | 11 ¹⁴ 14 | 22 ¹⁰ 10 | T 25 |
| W26 | 10 25 11 | 7 ⁵⁷ 39 | 20 ⁴⁰ 40 | 21 ⁵¹ 51 | 25 ³⁰ 30 | 15 ¹⁷ 17 | 26 ⁵⁰ 50 | 14 ¹⁰ 10 | 27 ⁴⁸ 48 | 29 ⁵² 52 | 6 ¹⁸ 18 | 21 ¹⁵ 15 | 23 ² 2 | 11 ²¹ 21 | 22 ⁶ 6 | W26 |
| T 27 | 10 29 7 | 8 ⁵⁷ 46 | 3 ² 2 | 21 ²³ 23 | 26 ⁴⁵ 45 | 15 ⁹ 9 | 26 ⁵³ 53 | 14 ¹⁷ 17 | 27 ⁴⁸ 48 | 29 ⁵⁴ 54 | 6 ¹⁷ 17 | 21 ¹² 12 | 22 ⁵⁹ 59 | 11 ²⁷ 27 | 22 ¹ 1 | T 27 |
| F 28 | 10 33 4 | 9 ⁵⁷ 51 | 15 ¹² 12 | 21 ³³ 33 | 28 ⁰ 0 | 15 ¹ 1 | 26 ⁵⁵ 55 | 14 ²⁴ 24 | 27 ⁴⁸ 48 | 29 ⁵⁶ 56 | 6 ¹⁶ 16 | 21 ¹⁰ 10 | 22 ⁵⁶ 56 | 11 ³⁴ 34 | 21 ⁵⁷ 57 | F 28 |

| Day | ☉ | ☾ | | ♀ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|-----|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| S 1 | 17s 1 | 7s54 | 0s21 | 10s53 | 0n18 | 21s41 | 0s24 | 2s59 | 2n55 | 18s 0 | 1n 2 | 18s11 | 0s47 | 23n43 | 0n15 | 1s39 | 1s23 | 24n47 | 6n25 | 9s 3 | 9s27 | 13s11 | 6n49 | 7s 6 | | | |
| S 2 | 16 43 | 11 14 | 0n42 | 10 16 | 0 33 | 21 30 | 0 26 | 3 2 | 2 56 | 18 2 | 1 2 | 18 9 | 0 47 | 23 43 | 0 15 | 1 38 | 1 23 | 24 48 | 6 25 | 9 3 | 9 26 | 13 12 | 6 50 | 7 6 | | | |
| M 3 | 16 26 | 14 7 | 1 43 | 9 41 | 0 49 | 21 18 | 0 29 | 3 5 | 2 57 | 18 3 | 1 2 | 18 7 | 0 47 | 23 43 | 0 15 | 1 37 | 1 23 | 24 48 | 6 25 | 9 3 | 9 25 | 13 14 | 6 52 | 7 6 | | | |
| T 4 | 16 8 | 16 25 | 2 40 | 9 8 | 1 5 | 21 6 | 0 31 | 3 8 | 2 58 | 18 5 | 1 2 | 18 5 | 0 47 | 23 43 | 0 15 | 1 37 | 1 23 | 24 48 | 6 25 | 9 3 | 9 24 | 13 15 | 6 53 | 7 7 | | | |
| W 5 | 15 49 | 18 1 | 3 30 | 8 39 | 1 21 | 20 52 | 0 33 | 3 10 | 2 59 | 18 6 | 1 2 | 18 3 | 0 47 | 23 43 | 0 15 | 1 36 | 1 23 | 24 49 | 6 25 | 9 2 | 9 23 | 13 16 | 6 55 | 7 6 | | | |
| T 6 | 15 31 | 18 50 | 4 12 | 8 12 | 1 37 | 20 39 | 0 36 | 3 12 | 3 0 | 18 7 | 1 2 | 18 1 | 0 47 | 23 43 | 0 15 | 1 35 | 1 23 | 24 49 | 6 25 | 9 1 | 9 22 | 13 17 | 6 56 | 7 6 | | | |
| F 7 | 15 12 | 18 45 | 4 43 | 7 49 | 1 54 | 20 24 | 0 38 | 3 14 | 3 1 | 18 9 | 1 2 | 17 59 | 0 47 | 23 43 | 0 15 | 1 34 | 1 23 | 24 50 | 6 25 | 8 58 | 9 20 | 13 19 | 6 58 | 7 6 | | | |
| S 8 | 14 53 | 17 45 | 5 0 | 7 30 | 2 10 | 20 10 | 0 40 | 3 16 | 3 2 | 18 10 | 1 3 | 17 57 | 0 47 | 23 43 | 0 15 | 1 34 | 1 23 | 24 50 | 6 25 | 8 55 | 9 19 | 13 20 | 6 59 | 7 6 | | | |
| S 9 | 14 34 | 15 48 | 5 3 | 7 15 | 2 26 | 19 54 | 0 42 | 3 17 | 3 3 | 18 11 | 1 3 | 17 55 | 0 47 | 23 43 | 0 15 | 1 33 | 1 23 | 24 50 | 6 25 | 8 51 | 9 18 | 13 21 | 7 1 | 7 6 | | | |
| M10 | 14 15 | 12 57 | 4 49 | 7 5 | 2 41 | 19 38 | 0 45 | 3 18 | 3 4 | 18 12 | 1 3 | 17 53 | 0 47 | 23 42 | 0 15 | 1 32 | 1 23 | 24 51 | 6 25 | 8 46 | 9 17 | 13 23 | 7 3 | 7 6 | | | |
| T 11 | 13 55 | 9 21 | 4 18 | 6 59 | 2 55 | 19 21 | 0 47 | 3 19 | 3 5 | 18 13 | 1 3 | 17 52 | 0 48 | 23 42 | 0 15 | 1 31 | 1 23 | 24 51 | 6 25 | 8 43 | 9 16 | 13 24 | 7 4 | 7 6 | | | |
| W12 | 13 35 | 5 9 | 3 31 | 6 58 | 3 8 | 19 4 | 0 49 | 3 19 | 3 6 | 18 15 | 1 3 | 17 50 | 0 48 | 23 42 | 0 15 | 1 31 | 1 23 | 24 51 | 6 25 | 8 39 | 9 14 | 13 25 | 7 6 | 7 6 | | | |
| T 13 | 13 15 | 0 38 | 2 31 | 7 2 | 3 19 | 18 46 | 0 51 | 3 20 | 3 7 | 18 16 | 1 3 | 17 48 | 0 48 | 23 42 | 0 15 | 1 30 | 1 23 | 24 52 | 6 25 | 8 37 | 9 13 | 13 27 | 7 7 | 7 6 | | | |
| F 14 | 12 54 | 3n58 | 1 20 | 7 10 | 3 28 | 18 28 | 0 53 | 3 20 | 3 8 | 18 17 | 1 3 | 17 46 | 0 48 | 23 42 | 0 15 | 1 29 | 1 23 | 24 52 | 6 25 | 8 36 | 9 12 | 13 28 | 7 9 | 7 6 | | | |
| S 15 | 12 34 | 8 21 | 0 5 | 7 23 | 3 36 | 18 9 | 0 55 | 3 20 | 3 8 | 18 18 | 1 3 | 17 44 | 0 48 | 23 42 | 0 15 | 1 28 | 1 23 | 24 53 | 6 25 | 8 36 | 9 11 | 13 29 | 7 11 | 7 5 | | | |
| S 16 | 12 13 | 12 14 | 1s11 | 7 39 | 3 41 | 17 50 | 0 57 | 3 19 | 3 9 | 18 19 | 1 4 | 17 42 | 0 48 | 23 42 | 0 15 | 1 27 | 1 23 | 24 53 | 6 25 | 8 36 | 9 10 | 13 30 | 7 13 | 7 5 | | | |
| M17 | 11 52 | 15 22 | 2 23 | 7 58 | 3 44 | 17 30 | 0 58 | 3 19 | 3 10 | 18 19 | 1 4 | 17 40 | 0 48 | 23 42 | 0 15 | 1 27 | 1 23 | 24 53 | 6 25 | 8 36 | 9 9 | 13 32 | 7 14 | 7 5 | | | |
| T 18 | 11 31 | 17 34 | 3 25 | 8 20 | 3 45 | 17 10 | 1 0 | 3 18 | 3 11 | 18 20 | 1 4 | 17 38 | 0 48 | 23 42 | 0 15 | 1 26 | 1 23 | 24 54 | 6 25 | 8 36 | 9 7 | 13 33 | 7 16 | 7 5 | | | |
| W19 | 11 10 | 18 41 | 4 14 | 8 44 | 3 43 | 16 49 | 1 2 | 3 16 | 3 12 | 18 21 | 1 4 | 17 36 | 0 48 | 23 42 | 0 15 | 1 25 | 1 23 | 24 54 | 6 25 | 8 36 | 9 6 | 13 34 | 7 18 | 7 4 | | | |
| T 20 | 10 48 | 18 40 | 4 48 | 9 10 | 3 39 | 16 28 | 1 4 | 3 15 | 3 12 | 18 22 | 1 4 | 17 34 | 0 48 | 23 42 | 0 15 | 1 24 | 1 23 | 24 54 | 6 25 | 8 34 | 9 5 | 13 35 | 7 19 | 7 4 | | | |
| F 21 | 10 26 | 17 33 | 5 5 | 9 36 | 3 34 | 16 6 | 1 5 | 3 13 | 3 13 | 18 23 | 1 4 | 17 32 | 0 48 | 23 42 | 0 15 | 1 23 | 1 23 | 24 55 | 6 25 | 8 32 | 9 4 | 13 37 | 7 21 | 7 4 | | | |
| S 22 | 10 5 | 15 28 | 5 5 | 10 2 | 3 26 | 15 44 | 1 7 | 3 11 | 3 14 | 18 23 | 1 4 | 17 30 | 0 49 | 23 42 | 0 15 | 1 22 | 1 23 | 24 55 | 6 25 | 8 29 | 9 3 | 13 38 | 7 23 | 7 4 | | | |
| S 23 | 9 43 | 12 35 | 4 48 | 10 28 | 3 17 | 15 21 | 1 8 | 3 9 | 3 14 | 18 24 | 1 4 | 17 29 | 0 49 | 23 42 | 0 15 | 1 22 | 1 23 | 24 55 | 6 25 | 8 26 | 9 2 | 13 39 | 7 25 | 7 3 | | | |
| M24 | 9 20 | 9 7 | 4 17 | 10 54 | 3 7 | 14 58 | 1 10 | 3 6 | 3 15 | 18 25 | 1 5 | 17 27 | 0 49 | 23 42 | 0 15 | 1 21 | 1 23 | 24 55 | 6 25 | 8 23 | 9 0 | 13 40 | 7 26 | 7 3 | | | |
| T 25 | 8 58 | 5 17 | 3 32 | 11 18 | 2 55 | 14 31 | 1 11 | 3 4 | 3 16 | 18 25 | 1 5 | 17 25 | 0 49 | 23 42 | 0 15 | 1 20 | 1 23 | 24 56 | 6 25 | 8 20 | 8 59 | 13 42 | 7 28 | 7 3 | | | |
| W26 | 8 36 | 1 17 | 2 38 | 11 41 | 2 43 | 14 11 | 1 12 | 3 1 | 3 16 | 18 26 | 1 5 | 17 23 | 0 49 | 23 42 | 0 15 | 1 19 | 1 23 | 24 56 | 6 25 | 8 18 | 8 58 | 13 43 | 7 30 | 7 2 | | | |
| T 27 | 8 13 | 2s42 | 1 37 | 12 2 | 2 30 | 13 46 | 1 14 | 2 57 | 3 17 | 18 26 | 1 5 | 17 21 | 0 49 | 23 42 | 0 15 | 1 18 | 1 23 | 24 56 | 6 25 | 8 17 | 8 57 | 13 44 | 7 32 | 7 2 | | | |
| F 28 | 7s51 | 6s29 | 0s32 | 12s21 | 2n16 | 13s22 | 1s15 | 2s54 | 3n17 | 18s27 | 1n 5 | 17s19 | 0s49 | 23n42 | 0n15 | 1s17 | 1s23 | 24n57 | 6n25 | 8s16 | 8s56 | 13s45 | 7n34 | 7s 6 | | | |

ASTRODIENST EPHEMERIS for the year 1698
geocentric

MARCH 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|-------|--------|-------|--------|--------|-------|--------|-------|-------|--------|-------|-------|--------|------|
| S 1 | 10 37 0 | 10♌57°54 | 27♏10 | 20°R50 | 29♌15 | 14°R52 | 26♏57 | 14♌31 | 27°R47 | 29♌58 | 6°R15 | 21°D10 | 22♏52 | 11♏41 | 21°R53 | S 1 |
| S 2 | 10 40 57 | 11°57'56 | 9♏2 | 20♌43 | 0♌29 | 14♏43 | 27°0 | 14°37 | 27♏47 | 0♏0 | 6♏14 | 21♏11 | 22°49 | 11°47 | 21♏48 | S 2 |
| M 3 | 10 44 53 | 12°57'56 | 20°50 | 20°D42 | 1°44 | 14°32 | 27°1 | 14°44 | 27°47 | 0°3 | 6°13 | 21°13 | 22°46 | 11°54 | 21°44 | M 3 |
| T 4 | 10 48 50 | 13°57'55 | 2♌40 | 20°48 | 2°59 | 14°21 | 27°3 | 14°51 | 27°47 | 0°5 | 6°12 | 21°14 | 22°43 | 12°1 | 21°40 | T 4 |
| W 5 | 10 52 46 | 14°57'52 | 14°36 | 21°0 | 4°14 | 14°9 | 27°5 | 14°57 | 27°47 | 0°7 | 6°11 | 21°R15 | 22°40 | 12°7 | 21°36 | W 5 |
| T 6 | 10 56 43 | 15°57'47 | 26°45 | 21°18 | 5°28 | 13°56 | 27°6 | 15°4 | 27°D47 | 0°9 | 6°10 | 21°14 | 22°37 | 12°14 | 21°31 | T 6 |
| F 7 | 11 0 40 | 16°57'40 | 9♌10 | 21°40 | 6°43 | 13°42 | 27°7 | 15°10 | 27°47 | 0°11 | 6°9 | 21°12 | 22°33 | 12°21 | 21°27 | F 7 |
| S 8 | 11 4 36 | 17°57'32 | 21°56 | 22°8 | 7°58 | 13°28 | 27°8 | 15°17 | 27°47 | 0°14 | 6°8 | 21°9 | 22°30 | 12°27 | 21°23 | S 8 |
| S 9 | 11 8 33 | 18°57'23 | 5♌5 | 22°40 | 9°12 | 13°13 | 27°9 | 15°23 | 27°47 | 0°16 | 6°7 | 21°4 | 22°27 | 12°34 | 21°20 | S 9 |
| M10 | 11 12 29 | 19°57'11 | 18°40 | 23°17 | 10°27 | 12°57 | 27°10 | 15°29 | 27°47 | 0°18 | 6°6 | 20°59 | 22°24 | 12°41 | 21°16 | M10 |
| T 11 | 11 16 26 | 20°56'57 | 2♌38 | 23°57 | 11°42 | 12°41 | 27°10 | 15°36 | 27°48 | 0°20 | 6°5 | 20°54 | 22°21 | 12°47 | 21°12 | T 11 |
| W12 | 11 20 22 | 21°56'42 | 16°57 | 24°41 | 12°56 | 12°24 | 27°10 | 15°42 | 27°48 | 0°23 | 6°4 | 20°50 | 22°17 | 12°54 | 21°8 | W12 |
| T 13 | 11 24 19 | 22°56'24 | 1°Y31 | 25°29 | 14°11 | 12°6 | 27°R10 | 15°48 | 27°48 | 0°25 | 6°3 | 20°48 | 22°14 | 13°0 | 21°5 | T 13 |
| F 14 | 11 28 15 | 23°56'05 | 16°14 | 26°21 | 15°26 | 11°48 | 27°10 | 15°54 | 27°49 | 0°27 | 6°2 | 20°D46 | 22°11 | 13°7 | 21°1 | F 14 |
| S 15 | 11 32 12 | 24°55'43 | 0♌58 | 27°15 | 16°40 | 11°29 | 27°10 | 16°0 | 27°49 | 0°29 | 6°1 | 20°47 | 22°8 | 13°14 | 20°57 | S 15 |
| S 16 | 11 36 8 | 25°55'19 | 15°38 | 28°12 | 17°55 | 11°10 | 27°9 | 16°7 | 27°50 | 0°32 | 6°0 | 20°48 | 22°5 | 13°20 | 20°54 | S 16 |
| M17 | 11 40 5 | 26°54'53 | 0♏8 | 29°13 | 19°10 | 10°50 | 27°9 | 16°13 | 27°50 | 0°34 | 6°0 | 20°49 | 22°2 | 13°27 | 20°51 | M17 |
| T 18 | 11 44 2 | 27°54'25 | 14°24 | 0♌15 | 20°24 | 10°30 | 27°8 | 16°19 | 27°51 | 0°36 | 5°59 | 20°50 | 21°58 | 13°34 | 20°47 | T 18 |
| W19 | 11 47 58 | 28°53'54 | 28°24 | 1°20 | 21°39 | 10°9 | 27°7 | 16°24 | 27°52 | 0°38 | 5°58 | 20°R51 | 21°55 | 13°40 | 20°44 | W19 |
| T 20 | 11 51 55 | 29°53'21 | 12♏9 | 2°28 | 22°53 | 9°47 | 27°6 | 16°30 | 27°52 | 0°41 | 5°57 | 20°50 | 21°52 | 13°47 | 20°41 | T 20 |
| F 21 | 11 55 51 | 0°Y52'46 | 25°37 | 3°38 | 24°8 | 9°26 | 27°4 | 16°36 | 27°53 | 0°43 | 5°57 | 20°49 | 21°49 | 13°54 | 20°38 | F 21 |
| S 22 | 11 59 48 | 1°52'08 | 8♏49 | 4°50 | 25°22 | 9°4 | 27°2 | 16°42 | 27°54 | 0°45 | 5°56 | 20°47 | 21°46 | 14°0 | 20°35 | S 22 |
| S 23 | 12 3 44 | 2°51'28 | 21°47 | 6°4 | 26°37 | 8°42 | 27°1 | 16°48 | 27°55 | 0°48 | 5°55 | 20°44 | 21°43 | 14°7 | 20°32 | S 23 |
| M24 | 12 7 41 | 3°50'45 | 4♏31 | 7°20 | 27°51 | 8°19 | 26°59 | 16°53 | 27°56 | 0°50 | 5°55 | 20°42 | 21°39 | 14°14 | 20°30 | M24 |
| T 25 | 12 11 37 | 4°50'01 | 17°2 | 8°38 | 29°6 | 7°56 | 26°56 | 16°59 | 27°57 | 0°52 | 5°54 | 20°39 | 21°36 | 14°20 | 20°27 | T 25 |
| W26 | 12 15 34 | 5°49'14 | 29°22 | 9°57 | 0°Y20 | 7°33 | 26°54 | 17°5 | 27°58 | 0°54 | 5°53 | 20°38 | 21°33 | 14°27 | 20°25 | W26 |
| T 27 | 12 19 31 | 6°48'25 | 11♏31 | 11°19 | 1°35 | 7°10 | 26°52 | 17°10 | 27°59 | 0°57 | 5°53 | 20°37 | 21°30 | 14°34 | 20°22 | T 27 |
| F 28 | 12 23 27 | 7°47'34 | 23°32 | 12°42 | 2°49 | 6°47 | 26°49 | 17°15 | 28°0 | 0°59 | 5°52 | 20°D36 | 21°27 | 14°40 | 20°20 | F 28 |
| S 29 | 12 27 24 | 8°46'41 | 5♏26 | 14°7 | 4°4 | 6°24 | 26°46 | 17°21 | 28°2 | 1°1 | 5°52 | 20°37 | 21°23 | 14°47 | 20°18 | S 29 |
| S 30 | 12 31 20 | 9°45'47 | 17°15 | 15°33 | 5°18 | 6°1 | 26°43 | 17°26 | 28°3 | 1°3 | 5°51 | 20°38 | 21°20 | 14°54 | 20°15 | S 30 |
| M31 | 12 35 17 | 10°Y44'50 | 29♏4 | 17♌2 | 6°Y32 | 5♏38 | 26♏40 | 17♌31 | 28♏4 | 1°Y6 | 5♏51 | 20♏39 | 21♏17 | 15♏0 | 20♏13 | M31 |

| Day | ☉ | ☾ | | ♂ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| S 1 | 7s28 | 9s58 | 0n33 | 12s38 | 2n 2 | 12s57 | 1s16 | 2s50 | 3n17 | 18s27 | 1n 5 | 17s17 | 0s49 | 23n42 | 0n15 | 1s16 | 1s23 | 24n57 | 6n25 | 8s16 | 8s54 | 13s47 | 7n35 | 7s 1 | |
| S 2 | 7 5 | 13 1 | 1 36 | 12 54 | 1 48 | 12 31 | 1 17 | 2 46 | 3 18 | 18 27 | 1 5 | 17 15 | 0 49 | 23 42 | 0 15 | 1 16 | 1 23 | 24 57 | 6 25 | 8 17 | 8 53 | 13 48 | 7 37 | 7 1 | |
| M 3 | 6 42 | 15 30 | 2 35 | 13 7 | 1 34 | 12 6 | 1 18 | 2 42 | 3 18 | 18 28 | 1 5 | 17 14 | 0 49 | 23 42 | 0 15 | 1 15 | 1 23 | 24 57 | 6 25 | 8 17 | 8 52 | 13 49 | 7 39 | 7 0 | |
| T 4 | 6 19 | 17 20 | 3 27 | 13 18 | 1 21 | 11 40 | 1 19 | 2 37 | 3 18 | 18 28 | 1 6 | 17 12 | 0 50 | 23 42 | 0 15 | 1 14 | 1 23 | 24 58 | 6 25 | 8 18 | 8 51 | 13 50 | 7 41 | 7 0 | |
| W 5 | 5 56 | 18 26 | 4 11 | 13 28 | 1 7 | 11 13 | 1 20 | 2 32 | 3 19 | 18 28 | 1 6 | 17 10 | 0 50 | 23 42 | 0 15 | 1 13 | 1 23 | 24 58 | 6 25 | 8 18 | 8 50 | 13 52 | 7 42 | 6 59 | |
| T 6 | 5 33 | 18 42 | 4 45 | 13 35 | 0 53 | 10 47 | 1 21 | 2 27 | 3 19 | 18 28 | 1 6 | 17 8 | 0 50 | 23 42 | 0 15 | 1 12 | 1 23 | 24 58 | 6 25 | 8 18 | 8 49 | 13 53 | 7 44 | 6 59 | |
| F 7 | 5 9 | 18 4 | 5 6 | 13 40 | 0 40 | 10 20 | 1 22 | 2 22 | 3 19 | 18 29 | 1 6 | 17 6 | 0 50 | 23 42 | 0 15 | 1 11 | 1 23 | 24 58 | 6 25 | 8 17 | 8 47 | 13 54 | 7 46 | 6 58 | |
| S 8 | 4 46 | 16 33 | 5 13 | 13 44 | 0 27 | 9 53 | 1 23 | 2 16 | 3 19 | 18 29 | 1 6 | 17 5 | 0 50 | 23 42 | 0 15 | 1 10 | 1 23 | 24 59 | 6 25 | 8 16 | 8 46 | 13 55 | 7 48 | 6 58 | |
| S 9 | 4 23 | 14 7 | 5 3 | 13 45 | 0 15 | 9 25 | 1 23 | 2 10 | 3 19 | 18 29 | 1 6 | 17 3 | 0 50 | 23 42 | 0 15 | 1 9 | 1 23 | 24 59 | 6 25 | 8 14 | 8 45 | 13 57 | 7 49 | 6 57 | |
| M10 | 3 59 | 10 52 | 4 37 | 13 44 | 0 3 | 8 57 | 1 24 | 2 4 | 3 19 | 18 29 | 1 6 | 17 1 | 0 50 | 23 42 | 0 15 | 1 8 | 1 23 | 24 59 | 6 25 | 8 12 | 8 44 | 13 58 | 7 51 | 6 57 | |
| T 11 | 3 36 | 6 55 | 3 54 | 13 42 | 0s 9 | 8 29 | 1 25 | 1 58 | 3 19 | 18 29 | 1 6 | 16 59 | 0 50 | 23 42 | 0 15 | 1 8 | 1 23 | 24 59 | 6 25 | 8 10 | 8 43 | 13 59 | 7 53 | 6 56 | |
| W12 | 3 12 | 2 28 | 2 55 | 13 38 | 0 20 | 8 1 | 1 25 | 1 52 | 3 18 | 18 29 | 1 7 | 16 57 | 0 50 | 23 42 | 0 15 | 1 7 | 1 23 | 24 59 | 6 25 | 8 9 | 8 41 | 14 0 | 7 54 | 6 55 | |
| T 13 | 2 48 | 2n11 | 1 44 | 13 32 | 0 31 | 7 33 | 1 25 | 1 45 | 3 18 | 18 29 | 1 7 | 16 56 | 0 51 | 23 42 | 0 15 | 1 6 | 1 23 | 24 59 | 6 25 | 8 8 | 8 40 | 14 1 | 7 56 | 6 55 | |
| F 14 | 2 25 | 6 47 | 0 25 | 13 24 | 0 42 | 7 4 | 1 26 | 1 39 | 3 18 | 18 28 | 1 7 | 16 54 | 0 51 | 23 42 | 0 15 | 1 5 | 1 23 | 25 0 | 6 25 | 8 7 | 8 39 | 14 3 | 7 58 | 6 54 | |
| S 15 | 2 1 | 10 57 | 0s56 | 13 15 | 0 51 | 6 35 | 1 26 | 1 32 | 3 17 | 18 28 | 1 7 | 16 52 | 0 51 | 23 42 | 0 15 | 1 4 | 1 23 | 25 0 | 6 24 | 8 7 | 8 38 | 14 4 | 7 59 | 6 54 | |
| S 16 | 1 37 | 14 26 | 2 13 | 13 4 | 1 1 | 6 7 | 1 26 | 1 25 | 3 17 | 18 28 | 1 7 | 16 50 | 0 51 | 23 42 | 0 15 | 1 3 | 1 23 | 25 0 | 6 24 | 8 8 | 8 37 | 14 5 | 8 1 | 6 53 | |
| M17 | 1 14 | 16 57 | 3 20 | 12 51 | 1 10 | 5 37 | 1 27 | 1 17 | 3 16 | 18 28 | 1 7 | 16 49 | 0 51 | 23 42 | 0 15 | 1 2 | 1 23 | 25 0 | 6 24 | 8 8 | 8 36 | 14 6 | 8 3 | 6 52 | |
| T 18 | 0 50 | 18 21 | 4 14 | 12 37 | 1 18 | 5 8 | 1 27 | 1 10 | 3 15 | 18 27 | 1 7 | 16 47 | 0 51 | 23 42 | 0 15 | 1 1 | 1 23 | 25 0 | 6 24 | 8 9 | 8 34 | 14 7 | 8 4 | 6 52 | |
| W19 | 0 26 | 18 36 | 4 52 | 12 21 | 1 26 | 4 39 | 1 27 | 1 3 | 3 14 | 18 27 | 1 7 | 16 45 | 0 51 | 23 42 | 0 15 | 1 0 | 1 23 | 25 0 | 6 24 | 8 9 | 8 33 | 14 9 | 8 6 | 6 51 | |
| T 20 | 0 3 | 17 45 | 5 12 | 12 4 | 1 34 | 4 9 | 1 27 | 0 55 | 3 14 | 18 27 | 1 8 | 16 44 | 0 51 | 23 42 | 0 15 | 0 59 | 1 23 | 25 0 | 6 24 | 8 9 | 8 32 | 14 10 | 8 8 | 6 50 | |
| F 21 | 0n21 | 15 54 | 5 14 | 11 45 | 1 41 | 3 40 | 1 27 | 0 47 | 3 13 | 18 26 | 1 8 | 16 42 | 0 51 | 23 42 | 0 15 | 0 59 | 1 23 | 25 1 | 6 24 | 8 8 | 8 31 | 14 11 | 8 9 | 6 50 | |
| S 22 | 0 45 | 13 15 | 5 0 | 11 25 | 1 47 | 3 10 | 1 26 | 0 40 | 3 12 | 18 26 | 1 8 | 16 41 | 0 52 | 23 42 | 0 15 | 0 58 | 1 23 | 25 1 | 6 24 | 8 7 | 8 30 | 14 12 | 8 11 | 6 49 | |
| S 23 | 1 8 | 10 0 | 4 31 | 11 3 | 1 53 | 2 40 | 1 26 | 0 32 | 3 10 | 18 25 | 1 8 | 16 39 | 0 52 | 23 42 | 0 15 | 0 57 | 1 23 | 25 1 | 6 24 | 8 7 | 8 28 | 14 13 | 8 12 | 6 48 | |
| M24 | 1 32 | 6 20 | 3 48 | 10 40 | 1 59 | 2 10 | 1 26 | 0 24 | 3 9 | 18 25 | 1 8 | 16 37 | 0 52 | 23 42 | 0 15 | 0 56 | 1 23 | 25 1 | 6 24 | 8 6 | 8 27 | 14 15 | 8 14 | 6 48 | |
| T 25 | 1 55 | 2 26 | 2 55 | 10 16 | 2 4 | 1 40 | 1 26 | 0 17 | 3 8 | 18 24 | 1 8 | 16 36 | 0 52 | 23 42 | 0 15 | 0 55 | 1 23 | 25 1 | 6 24 | 8 5 | 8 26 | 14 16 | 8 15 | 6 47 | |
| W26 | 2 19 | 1s30 | 1 55 | 9 50 | 2 9 | 1 10 | 1 25 | 0 9 | 3 7 | 18 23 | 1 8 | 16 34 | 0 52 | 23 42 | 0 15 | 0 54 | 1 23 | 25 1 | 6 24 | 8 4 | 8 25 | 14 17 | 8 17 | 6 46 | |
| T 27 | 2 42 | 5 20 | 0 50 | 9 23 | 2 13 | 0 40 | 1 25 | 0 1 | 3 5 | 18 23 | 1 8 | 16 33 | 0 52 | 23 42 | 0 15 | 0 53 | 1 23 | 25 1 | 6 24 | 8 4 | 8 24 | 14 18 | 8 18 | 6 45 | |
| F 28 | 3 6 | 8 54 | 0n16 | 8 54 | 2 16 | 0 10 | 1 24 | 0n 7 | 3 4 | 18 22 | 1 8 | 16 31 | 0 52 | 23 42 | 0 15 | 0 52 | 1 23 | 25 1 | 6 24 | 8 4 | 8 22 | 14 19 | 8 20 | 6 45 | |
| S 29 | 3 29 | 12 4 | 1 21 | 8 24 | 2 20 | 0n20 | 1 24 | 0 14 | 3 2 | 18 21 | 1 8 | 16 30 | 0 53 | 23 42 | 0 15 | 0 51 | 1 23 | 25 1 | 6 23 | 8 4 | 8 21 | 14 20 | 8 21 | 6 44 | |
| S 30 | 3 52 | 12 44 | 2 23 | 7 53 | 2 22 | 0 50 | 1 23 | 0 22 | 3 0 | 18 20 | 1 9 | 16 28 | 0 53 | 23 42 | 0 15 | 0 51 | 1 23 | 25 1 | 6 23 | 8 4 | 8 20 | 14 22 | 8 22 | 6 43 | |
| M31 | 4n16 | 16s46 | 3n18 | 7s21 | 2s25 | 1n21 | 1s22 | 0n30 | 2n59 | 18s20 | 1n 9 | 16s27 | 0s53 | 23n42 | 0n15 | 0s50 | 1s23 | 25n 1 | 6n23 | 8s 4 | 8s19 | 14s23 | 8n24 | 6s42 | |

ASTRODIENST EPHEMERIS for the year 1698

geocentric

APRIL 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|----------|-----------|----------|----------|----------|----------|----------|---------|---------|----------|----------|----------|----------|------|
| T 1 | 12 39 13 | 11°43'52 | 10°45'55 | 18°31'31 | 7°47'47 | 5°R15 | 26°R36 | 17°37'37 | 28°II 5 | 1°V 8 | 5°R50 | 20°40'40 | 21°41'14 | 15°M 7 | 20°R11 | T 1 |
| W 2 | 12 43 10 | 12°42'51 | 22°52'52 | 20° 3' 9 | 9° 1' 4 | 4°45'52 | 26°M33 | 17°42'42 | 28° 7' 1 | 1°10 | 5°45'50 | 20°41'41 | 21°11'11 | 15°14'14 | 20°41'10 | W 2 |
| T 3 | 12 47 6 | 13°41'49 | 4°35'59 | 21°36'36 | 10°16'16 | 4°29'29 | 26°29'29 | 17°47'47 | 28° 8' 1 | 1°12 | 5°49'49 | 20°41'41 | 21° 8' 1 | 15°20'20 | 20° 8' 1 | T 3 |
| F 4 | 12 51 3 | 14°40'46 | 17°22'22 | 23°10'10 | 11°30'30 | 4° 6' 6 | 26°25'25 | 17°52'52 | 28°10'10 | 1°15 | 5°49'49 | 20°R41 | 21° 4' 4 | 15°27'27 | 20° 6' 6 | F 4 |
| S 5 | 12 55 0 | 15°39'40 | 0°38'48 | 24°46'46 | 12°44'44 | 3°44'44 | 26°21'21 | 17°57'57 | 28°11'11 | 1°17 | 5°49'49 | 20°41'41 | 21° 1' 1 | 15°34'34 | 20° 5' 5 | S 5 |
| S 6 | 12 58 56 | 16°38'33 | 13° 9' 9 | 26°24'24 | 13°59'59 | 3°22'22 | 26°17'17 | 18° 1' 1 | 28°13'13 | 1°19 | 5°48'48 | 20°41'41 | 20°58'58 | 15°40'40 | 20° 3' 3 | S 6 |
| M 7 | 13 2 53 | 17°37'24 | 26°40'40 | 28° 3' 3 | 15°13'13 | 3° 1' 1 | 26°12'12 | 18° 6' 6 | 28°15'15 | 1°21 | 5°48'48 | 20°40'40 | 20°55'55 | 15°47'47 | 20° 2' 2 | M 7 |
| T 8 | 13 6 49 | 18°36'13 | 10°38'38 | 29°44'44 | 16°27'27 | 2°39'39 | 26° 8' 8 | 18°11'11 | 28°16'16 | 1°23 | 5°48'48 | 20°40'40 | 20°52'52 | 15°54'54 | 20° 1' 1 | T 8 |
| W 9 | 13 10 46 | 19°35'00 | 25° 1' 1 | 1°V26 | 17°41'41 | 2°18'18 | 26° 3' 3 | 18°16'16 | 28°18'18 | 1°26 | 5°48'48 | 20°40'40 | 20°48'48 | 16° 0' 0 | 20° 0' 0 | W 9 |
| T 10 | 13 14 42 | 20°33'45 | 9°V44 | 3°10'10 | 18°56'56 | 1°58'58 | 25°58'58 | 18°20'20 | 28°20'20 | 1°28 | 5°47'47 | 20°D40 | 20°45'45 | 16° 7' 7 | 19°59'59 | T 10 |
| F 11 | 13 18 39 | 21°32'29 | 24°43'43 | 4°56'56 | 20°10'10 | 1°38'38 | 25°53'53 | 18°25'25 | 28°22'22 | 1°30 | 5°47'47 | 20°R40 | 20°42'42 | 16°13'13 | 19°58'58 | F 11 |
| S 12 | 13 22 35 | 22°31'10 | 9°B48 | 6°43'43 | 21°24'24 | 1°19'19 | 25°48'48 | 18°29'29 | 28°24'24 | 1°32 | 5°47'47 | 20°40'40 | 20°39'39 | 16°20'20 | 19°57'57 | S 12 |
| S 13 | 13 26 32 | 23°29'50 | 24°51'51 | 8°31'31 | 22°38'38 | 1° 0' 0 | 25°42'42 | 18°33'33 | 28°26'26 | 1°34 | 5°47'47 | 20°39'39 | 20°36'36 | 16°27'27 | 19°56'56 | S 13 |
| M14 | 13 30 28 | 24°28'27 | 9°II43 | 10°21'21 | 23°53'53 | 0°42'42 | 25°37'37 | 18°38'38 | 28°28'28 | 1°36 | 5°47'47 | 20°39'39 | 20°33'33 | 16°33'33 | 19°56'56 | M14 |
| T 15 | 13 34 25 | 25°27'03 | 24°17'17 | 12°13'13 | 25° 7' 7 | 0°24'24 | 25°31'31 | 18°42'42 | 28°30'30 | 1°39 | 5°47'47 | 20°39'39 | 20°29'29 | 16°40'40 | 19°55'55 | T 15 |
| W16 | 13 38 22 | 26°25'36 | 8°B30 | 14° 7' 7 | 26°21'21 | 0° 7' 7 | 25°26'26 | 18°46'46 | 28°32'32 | 1°41 | 5°47'47 | 20°38'38 | 20°26'26 | 16°47'47 | 19°55'55 | W16 |
| T 17 | 13 42 18 | 27°24'07 | 22°19'19 | 16° 2' 2 | 27°35'35 | 29°M51 | 25°20'20 | 18°50'50 | 28°34'34 | 1°43 | 5°D47 | 20°D38 | 20°23'23 | 16°53'53 | 19°55'55 | T 17 |
| F 18 | 13 46 15 | 28°22'35 | 5°45'45 | 17°58'58 | 28°49'49 | 29°36'36 | 25°14'14 | 18°54'54 | 28°36'36 | 1°45 | 5°47'47 | 20°38'38 | 20°20'20 | 17° 0' 0 | 19°D55 | F 18 |
| S 19 | 13 50 11 | 29°21'02 | 18°49'49 | 19°56'56 | 0°B 3' 3 | 29°21'21 | 25° 8' 8 | 18°58'58 | 28°38'38 | 1°47 | 5°47'47 | 20°38'38 | 20°17'17 | 17° 7' 7 | 19°55'55 | S 19 |
| S 20 | 13 54 8 | 0°B19'26 | 1°M34 | 21°56'56 | 1°18'18 | 29° 7' 7 | 25° 2' 2 | 19° 1' 1 | 28°40'40 | 1°49 | 5°47'47 | 20°39'39 | 20°14'14 | 17°13'13 | 19°55'55 | S 20 |
| M21 | 13 58 4 | 1°17'48 | 14° 3' 3 | 23°57'57 | 2°32'32 | 28°53'53 | 24°55'55 | 19° 5' 5 | 28°43'43 | 1°51 | 5°47'47 | 20°40'40 | 20°10'10 | 17°20'20 | 19°55'55 | M21 |
| T 22 | 14 2 1 | 2°16'08 | 26°19'19 | 26° 0' 0 | 3°46'46 | 28°41'41 | 24°49'49 | 19° 9' 9 | 28°45'45 | 1°53 | 5°47'47 | 20°41'41 | 20° 7' 7 | 17°27'27 | 19°56'56 | T 22 |
| W23 | 14 5 57 | 3°14'26 | 8°42'42 | 28° 4' 4 | 5° 0' 0 | 28°29'29 | 24°42'42 | 19°12'12 | 28°47'47 | 1°55 | 5°47'47 | 20°42'42 | 20° 4' 4 | 17°33'33 | 19°56'56 | W23 |
| T 24 | 14 9 54 | 4°12'43 | 20°22'22 | 0°B 9' 9 | 6°14'14 | 28°18'18 | 24°36'36 | 19°16'16 | 28°50'50 | 1°57 | 5°47'47 | 20°R42 | 20° 1' 1 | 17°40'40 | 19°57'57 | T 24 |
| F 25 | 14 13 51 | 5°10'57 | 2°M15 | 2°16'16 | 7°28'28 | 28° 8' 8 | 24°29'29 | 19°19'19 | 28°52'52 | 1°59 | 5°47'47 | 20°42'42 | 19°58'58 | 17°47'47 | 19°57'57 | F 25 |
| S 26 | 14 17 47 | 6° 9'09 | 14° 5' 5 | 4°23'23 | 8°42'42 | 27°58'58 | 24°22'22 | 19°22'22 | 28°54'54 | 2° 1' 1 | 5°48'48 | 20°41'41 | 19°54'54 | 17°53'53 | 19°58'58 | S 26 |
| S 27 | 14 21 44 | 7° 7'20 | 25°54'54 | 6°32'32 | 9°56'56 | 27°49'49 | 24°15'15 | 19°26'26 | 28°57'57 | 2° 3' 3 | 5°48'48 | 20°39'39 | 19°51'51 | 18° 0' 0 | 19°59'59 | S 27 |
| M28 | 14 25 40 | 8° 5'29 | 7°47'47 | 8°41'41 | 11°10'10 | 27°41'41 | 24° 8' 8 | 19°29'29 | 28°59'59 | 2° 5' 5 | 5°48'48 | 20°36'36 | 19°48'48 | 18° 7' 7 | 20° 0' 0 | M28 |
| T 29 | 14 29 37 | 9° 3'37 | 19°38'38 | 10°51'51 | 12°24'24 | 27°34'34 | 24° 1' 1 | 19°32'32 | 29° 2' 2 | 2° 7' 7 | 5°48'48 | 20°34'34 | 19°45'45 | 18°13'13 | 20° 1' 1 | T 29 |
| W30 | 14 33 33 | 10°B 1'43 | 1°B39 | 13°B 1' 1 | 13°B38 | 27°M28 | 23°M54 | 19°33'33 | 29°II 5 | 2°V 9 | 5°49'49 | 20°43'43 | 19°42'42 | 18°M20 | 20°42'42 | W30 |

| Day | ☉ | ☾ | | ♂ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|-----|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| T 1 | 4n39 | 18s 5 | 4n 5 | 6s47 | 2s26 | 1n51 | 1s21 | 0n37 | 2n57 | 18s19 | 1n 9 | 16s25 | 0s53 | 23n42 | 0n15 | 0s49 | 1s23 | 25n 1 | 6n23 | 8s 5 | 8s18 | 14s24 | 8n25 | 6s42 | | | |
| W 2 | 5 2 | 18 36 | 4 41 | 6 12 | 2 27 | 2 21 | 1 21 | 0 44 | 2 55 | 18 18 | 1 9 | 16 24 | 0 53 | 23 42 | 0 15 | 0 48 | 1 23 | 25 1 | 6 23 | 8 5 | 8 16 | 14 25 | 8 26 | 6 41 | | | |
| T 3 | 5 25 | 18 17 | 5 6 | 5 36 | 2 28 | 2 51 | 1 20 | 0 52 | 2 53 | 18 17 | 1 9 | 16 22 | 0 53 | 23 42 | 0 15 | 0 47 | 1 23 | 25 1 | 6 23 | 8 5 | 8 15 | 14 26 | 8 28 | 6 40 | | | |
| F 4 | 5 48 | 17 6 | 5 17 | 4 59 | 2 28 | 3 21 | 1 19 | 0 59 | 2 51 | 18 16 | 1 9 | 16 21 | 0 53 | 23 42 | 0 15 | 0 46 | 1 23 | 25 1 | 6 23 | 8 5 | 8 14 | 14 27 | 8 29 | 6 39 | | | |
| S 5 | 6 10 | 15 3 | 5 14 | 4 21 | 2 28 | 3 51 | 1 18 | 1 6 | 2 49 | 18 15 | 1 9 | 16 20 | 0 53 | 23 42 | 0 15 | 0 45 | 1 23 | 25 1 | 6 23 | 8 5 | 8 13 | 14 28 | 8 30 | 6 39 | | | |
| S 6 | 6 33 | 12 12 | 4 54 | 3 41 | 2 27 | 4 21 | 1 17 | 1 12 | 2 47 | 18 14 | 1 9 | 16 18 | 0 54 | 23 42 | 0 15 | 0 44 | 1 23 | 25 1 | 6 23 | 8 5 | 8 12 | 14 30 | 8 31 | 6 38 | | | |
| M 7 | 6 56 | 8 36 | 4 17 | 3 0 | 2 26 | 4 50 | 1 16 | 1 19 | 2 44 | 18 13 | 1 9 | 16 17 | 0 54 | 23 42 | 0 15 | 0 44 | 1 23 | 25 1 | 6 23 | 8 5 | 8 11 | 14 31 | 8 32 | 6 37 | | | |
| T 8 | 7 18 | 4 26 | 3 25 | 2 19 | 2 24 | 5 20 | 1 14 | 1 25 | 2 42 | 18 12 | 1 9 | 16 16 | 0 54 | 23 43 | 0 15 | 0 43 | 1 23 | 25 1 | 6 23 | 8 5 | 8 9 | 14 32 | 8 34 | 6 36 | | | |
| W 9 | 7 40 | 0n 7 | 2 18 | 1 36 | 2 22 | 5 50 | 1 13 | 1 31 | 2 40 | 18 10 | 1 9 | 16 14 | 0 54 | 23 43 | 0 15 | 0 42 | 1 23 | 25 1 | 6 22 | 8 5 | 8 8 | 14 33 | 8 35 | 6 35 | | | |
| T 10 | 8 3 | 4 47 | 1 0 | 0 52 | 2 19 | 6 19 | 1 12 | 1 37 | 2 37 | 18 9 | 1 9 | 16 13 | 0 54 | 23 43 | 0 15 | 0 41 | 1 23 | 25 1 | 6 22 | 8 5 | 8 7 | 14 34 | 8 36 | 6 34 | | | |
| F 11 | 8 25 | 9 14 | 0s23 | 0 7 | 2 16 | 6 48 | 1 11 | 1 43 | 2 35 | 18 8 | 1 9 | 16 12 | 0 54 | 23 43 | 0 15 | 0 40 | 1 23 | 25 1 | 6 22 | 8 5 | 8 6 | 14 35 | 8 37 | 6 34 | | | |
| S 12 | 8 47 | 13 7 | 1 44 | 0n39 | 2 12 | 7 17 | 1 9 | 1 48 | 2 32 | 18 7 | 1 9 | 16 10 | 0 55 | 23 43 | 0 15 | 0 39 | 1 23 | 25 1 | 6 22 | 8 5 | 8 5 | 14 36 | 8 38 | 6 33 | | | |
| S 13 | 9 8 | 16 7 | 2 59 | 1 26 | 2 8 | 7 46 | 1 8 | 1 54 | 2 30 | 18 5 | 1 10 | 16 9 | 0 55 | 23 43 | 0 15 | 0 38 | 1 23 | 25 1 | 6 22 | 8 5 | 8 3 | 14 38 | 8 39 | 6 32 | | | |
| M14 | 9 30 | 17 59 | 4 0 | 2 14 | 2 3 | 8 15 | 1 6 | 1 58 | 2 27 | 18 4 | 1 10 | 16 8 | 0 55 | 23 43 | 0 15 | 0 38 | 1 23 | 25 1 | 6 22 | 8 5 | 8 2 | 14 39 | 8 40 | 6 31 | | | |
| T 15 | 9 51 | 18 37 | 4 45 | 3 2 | 1 57 | 8 44 | 1 5 | 2 3 | 2 25 | 18 3 | 1 10 | 16 7 | 0 55 | 23 43 | 0 15 | 0 37 | 1 23 | 25 1 | 6 22 | 8 4 | 8 1 | 14 40 | 8 41 | 6 30 | | | |
| W16 | 10 13 | 18 2 | 5 11 | 3 52 | 1 52 | 9 12 | 1 3 | 2 7 | 2 22 | 18 1 | 1 10 | 16 6 | 0 55 | 23 43 | 0 15 | 0 36 | 1 23 | 25 1 | 6 22 | 8 4 | 8 0 | 14 41 | 8 42 | 6 29 | | | |
| T 17 | 10 34 | 16 24 | 5 18 | 4 42 | 1 45 | 9 40 | 1 1 | 2 12 | 2 20 | 18 0 | 1 10 | 16 5 | 0 55 | 23 43 | 0 15 | 0 35 | 1 23 | 25 1 | 6 22 | 8 4 | 7 59 | 14 42 | 8 43 | 6 29 | | | |
| F 18 | 10 55 | 13 54 | 5 7 | 5 33 | 1 38 | 10 8 | 1 0 | 2 15 | 2 17 | 17 58 | 1 10 | 16 4 | 0 55 | 23 43 | 0 15 | 0 34 | 1 23 | 25 1 | 6 22 | 8 4 | 7 57 | 14 43 | 8 43 | 6 28 | | | |
| S 19 | 11 16 | 10 46 | 4 40 | 6 24 | 1 31 | 10 36 | 0 58 | 2 19 | 2 14 | 17 57 | 1 10 | 16 3 | 0 56 | 23 43 | 0 15 | 0 34 | 1 23 | 25 1 | 6 21 | 8 4 | 7 56 | 14 44 | 8 44 | 6 27 | | | |
| S 20 | 11 36 | 7 11 | 4 0 | 7 16 | 1 23 | 11 4 | 0 56 | 2 22 | 2 12 | 17 55 | 1 10 | 16 2 | 0 56 | 23 43 | 0 15 | 0 33 | 1 23 | 25 0 | 6 21 | 8 5 | 7 55 | 14 45 | 8 45 | 6 26 | | | |
| M21 | 11 57 | 3 22 | 3 10 | 8 9 | 1 15 | 11 31 | 0 54 | 2 25 | 2 9 | 17 54 | 1 10 | 16 1 | 0 56 | 23 43 | 0 15 | 0 32 | 1 23 | 25 0 | 6 21 | 8 5 | 7 54 | 14 46 | 8 46 | 6 25 | | | |
| T 22 | 12 17 | 0s32 | 2 11 | 9 2 | 1 6 | 11 58 | 0 53 | 2 27 | 2 6 | 17 52 | 1 10 | 16 0 | 0 56 | 23 43 | 0 15 | 0 31 | 1 23 | 25 0 | 6 21 | 8 5 | 7 53 | 14 48 | 8 46 | 6 24 | | | |
| W23 | 12 37 | 4 22 | 1 8 | 9 55 | 0 57 | 12 25 | 0 51 | 2 30 | 2 4 | 17 51 | 1 10 | 15 59 | 0 56 | 23 43 | 0 15 | 0 30 | 1 23 | 25 0 | 6 21 | 8 6 | 7 51 | 14 49 | 8 47 | 6 23 | | | |
| T 24 | 12 57 | 8 0 | 0 2 | 10 48 | 0 48 | 12 51 | 0 49 | 2 32 | 2 1 | 17 49 | 1 10 | 15 58 | 0 56 | 23 43 | 0 15 | 0 30 | 1 23 | 25 0 | 6 21 | 8 6 | 7 50 | 14 50 | 8 48 | 6 23 | | | |
| F 25 | 13 16 | 11 17 | 1n 4 | 11 41 | 0 38 | 13 17 | 0 47 | 2 33 | 1 58 | 17 47 | 1 10 | 15 57 | 0 57 | 23 43 | 0 15 | 0 29 | 1 23 | 25 0 | 6 21 | 8 6 | 7 49 | 14 51 | 8 48 | 6 22 | | | |
| S 26 | 13 36 | 14 5 | 2 6 | 12 34 | 0 28 | 13 43 | 0 45 | 2 34 | 1 55 | 17 46 | 1 10 | 15 56 | 0 57 | 23 43 | 0 15 | 0 28 | 1 23 | 25 0 | 6 21 | 8 5 | 7 48 | 14 52 | 8 49 | 6 21 | | | |
| S 27 | 13 55 | 16 18 | 3 3 | 13 26 | 0 18 | 14 8 | 0 43 | 2 36 | 1 53 | 17 44 | 1 10 | 15 55 | 0 57 | 23 43 | 0 15 | 0 27 | 1 23 | 25 0 | 6 21 | 8 5 | 7 47 | 14 53 | 8 50 | 6 20 | | | |
| M28 | 14 14 | 17 49 | 3 52 | 14 18 | 0 7 | 14 33 | 0 41 | 2 36 | 1 50 | 17 42 | 1 10 | 15 54 | 0 57 | 23 43 | 0 15 | 0 27 | 1 23 | 24 59 | 6 21 | 8 4 | 7 45 | 14 54 | 8 50 | 6 19 | | | |
| T 29 | 14 32 | 18 34 | 4 31 | 15 9 | 0n 3 | 14 58 | 0 39 | 2 37 | 1 47 | 17 41 | 1 10 | 15 53 | 0 57 | 23 43 | 0 15 | 0 26 | 1 23 | 24 59 | 6 20 | 8 3 | 7 44 | 14 55 | 8 51 | 6 18 | | | |
| W30 | 14n51 | 18s29 | 4n59 | 15n59 | 0n14 | 15n23 | 0s36 | 2n37 | 1n45 | 17s39 | 1n10 | 15s53 | 0s57 | 23n43 | 0n15 | 0s25 | 1s23 | 24n59 | 6n20 | 8s 1 | 7s43 | 14s56 | 8n51 | 6s17 | | | |

ASTRODIENST EPHEMERIS for the year 1698
geocentric

MAY 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | ♈ | ♉ | Day |
|------|----------|----------|-------|-------|-------|--------|--------|--------|-------|------|------|--------|-------|-------|-------|------|
| T 1 | 14 37 30 | 10♌59'48 | 13♌49 | 15♌10 | 14♌52 | 27°R22 | 23°R47 | 19♌38 | 29♏ 7 | 2♑11 | 5♏49 | 20°R28 | 19♌39 | 18♏27 | 20♏ 4 | T 1 |
| F 2 | 14 41 26 | 11°57'51 | 26°12 | 17°20 | 16° 6 | 27♏18 | 23♏39 | 19°40 | 29°10 | 2°12 | 5°50 | 20♌26 | 19°35 | 18°33 | 20° 5 | F 2 |
| S 3 | 14 45 23 | 12°55'53 | 8♌51 | 19°29 | 17°20 | 27°14 | 23°32 | 19°43 | 29°13 | 2°14 | 5°50 | 20°D26 | 19°32 | 18°40 | 20° 7 | S 3 |
| S 4 | 14 49 20 | 13°53'53 | 21°51 | 21°37 | 18°34 | 27°10 | 23°25 | 19°46 | 29°15 | 2°16 | 5°50 | 20°26 | 19°29 | 18°47 | 20° 8 | S 4 |
| M 5 | 14 53 16 | 14°51'52 | 5♏14 | 23°44 | 19°47 | 27° 8 | 23°17 | 19°48 | 29°18 | 2°18 | 5°51 | 20°27 | 19°26 | 18°53 | 20°10 | M 5 |
| T 6 | 14 57 13 | 15°49'50 | 19° 3 | 25°50 | 21° 1 | 27° 6 | 23°10 | 19°50 | 29°21 | 2°20 | 5°51 | 20°28 | 19°23 | 19° 0 | 20°12 | T 6 |
| W 7 | 15 1 9 | 16°47'46 | 3♑18 | 27°53 | 22°15 | 27° 5 | 23° 2 | 19°53 | 29°24 | 2°21 | 5°52 | 20°29 | 19°20 | 19° 7 | 20°14 | W 7 |
| T 8 | 15 5 6 | 17°45'41 | 17°57 | 29°55 | 23°29 | 27°D 5 | 22°55 | 19°55 | 29°27 | 2°23 | 5°52 | 20°R30 | 19°16 | 19°13 | 20°16 | T 8 |
| F 9 | 15 9 2 | 18°43'35 | 2♌56 | 1♏55 | 24°43 | 27° 6 | 22°47 | 19°57 | 29°30 | 2°25 | 5°53 | 20°30 | 19°13 | 19°20 | 20°18 | F 9 |
| S 10 | 15 12 59 | 19°41'28 | 18° 6 | 3°52 | 25°57 | 27° 7 | 22°39 | 19°59 | 29°33 | 2°27 | 5°53 | 20°28 | 19°10 | 19°27 | 20°21 | S 10 |
| S 11 | 15 16 55 | 20°39'19 | 3♏20 | 5°47 | 27°11 | 27°10 | 22°32 | 20° 1 | 29°36 | 2°28 | 5°54 | 20°25 | 19° 7 | 19°33 | 20°23 | S 11 |
| M12 | 15 20 52 | 21°37'08 | 18°27 | 7°39 | 28°24 | 27°13 | 22°24 | 20° 3 | 29°39 | 2°30 | 5°55 | 20°21 | 19° 4 | 19°40 | 20°26 | M12 |
| T 13 | 15 24 49 | 22°34'56 | 3♌17 | 9°28 | 29°38 | 27°16 | 22°16 | 20° 5 | 29°42 | 2°31 | 5°55 | 20°16 | 19° 0 | 19°47 | 20°28 | T 13 |
| W14 | 15 28 45 | 23°32'42 | 17°43 | 11°14 | 0♏52 | 27°21 | 22° 9 | 20° 6 | 29°45 | 2°33 | 5°56 | 20°12 | 18°57 | 19°53 | 20°31 | W14 |
| T 15 | 15 32 42 | 24°30'27 | 1♏42 | 12°57 | 2° 6 | 27°26 | 22° 1 | 20° 8 | 29°48 | 2°35 | 5°57 | 20° 9 | 18°54 | 20° 0 | 20°34 | T 15 |
| F 16 | 15 36 38 | 25°28'10 | 15°13 | 14°37 | 3°20 | 27°32 | 21°53 | 20° 9 | 29°51 | 2°36 | 5°58 | 20° 7 | 18°51 | 20° 7 | 20°37 | F 16 |
| S 17 | 15 40 35 | 26°25'51 | 28°18 | 16°14 | 4°33 | 27°38 | 21°46 | 20°11 | 29°54 | 2°38 | 5°58 | 20°D 6 | 18°48 | 20°13 | 20°40 | S 17 |
| S 18 | 15 44 31 | 27°23'31 | 10♏59 | 17°48 | 5°47 | 27°45 | 21°38 | 20°12 | 29°57 | 2°39 | 5°59 | 20° 7 | 18°45 | 20°20 | 20°43 | S 18 |
| M19 | 15 48 28 | 28°21'09 | 23°21 | 19°18 | 7° 1 | 27°53 | 21°31 | 20°13 | 0♌ 0 | 2°41 | 6° 0 | 20° 8 | 18°41 | 20°27 | 20°46 | M19 |
| T 20 | 15 52 24 | 29°18'46 | 5♌29 | 20°45 | 8°15 | 28° 2 | 21°23 | 20°14 | 0° 4 | 2°42 | 6° 1 | 20°10 | 18°38 | 20°33 | 20°50 | T 20 |
| W21 | 15 56 21 | 0♏16'21 | 17°26 | 22° 9 | 9°28 | 28°11 | 21°16 | 20°15 | 0° 7 | 2°44 | 6° 2 | 20°R11 | 18°35 | 20°40 | 20°53 | W21 |
| T 22 | 16 0 18 | 1°13'55 | 29°18 | 23°29 | 10°42 | 28°21 | 21° 8 | 20°16 | 0°10 | 2°45 | 6° 2 | 20°10 | 18°32 | 20°47 | 20°57 | T 22 |
| F 23 | 16 4 14 | 2°11'27 | 11♏ 6 | 24°46 | 11°56 | 28°31 | 21° 1 | 20°17 | 0°13 | 2°46 | 6° 3 | 20° 8 | 18°29 | 20°53 | 21° 1 | F 23 |
| S 24 | 16 8 11 | 3° 8'58 | 22°55 | 25°59 | 13° 9 | 28°42 | 20°54 | 20°17 | 0°17 | 2°48 | 6° 4 | 20° 4 | 18°25 | 21° 0 | 21° 4 | S 24 |
| S 25 | 16 12 7 | 4° 6'29 | 4♏46 | 27° 9 | 14°23 | 28°54 | 20°46 | 20°18 | 0°20 | 2°49 | 6° 5 | 19°58 | 18°22 | 21° 7 | 21° 8 | S 25 |
| M26 | 16 16 4 | 5° 3'58 | 16°41 | 28°15 | 15°37 | 29° 6 | 20°39 | 20°18 | 0°23 | 2°50 | 6° 6 | 19°51 | 18°19 | 21°13 | 21°12 | M26 |
| T 27 | 16 20 0 | 6° 1'26 | 28°42 | 29°18 | 16°50 | 29°19 | 20°32 | 20°19 | 0°27 | 2°52 | 6° 7 | 19°42 | 18°16 | 21°20 | 21°16 | T 27 |
| W28 | 16 23 57 | 6°58'53 | 10♌50 | 0♌17 | 18° 4 | 29°32 | 20°25 | 20°19 | 0°30 | 2°53 | 6° 8 | 19°34 | 18°13 | 21°27 | 21°20 | W28 |
| T 29 | 16 27 53 | 7°56'19 | 23° 8 | 1°12 | 19°17 | 29°46 | 20°18 | 20°19 | 0°33 | 2°54 | 6° 9 | 19°26 | 18°10 | 21°33 | 21°24 | T 29 |
| F 30 | 16 31 50 | 8°53'45 | 5♏38 | 2° 3 | 20°31 | 0♌ 0 | 20°11 | 20°R19 | 0°37 | 2°55 | 6°10 | 19°20 | 18° 6 | 21°40 | 21°29 | F 30 |
| S 31 | 16 35 47 | 9♏51'10 | 18♌21 | 2♌51 | 21♏45 | 0♌15 | 20♏ 4 | 20♌19 | 0♌40 | 2♑56 | 6♏11 | 19♌15 | 18♌ 3 | 21♏47 | 21♏33 | S 31 |

| Day | ☉ | ☾ | | ♊ | | ♋ | | ♌ | | ♍ | | ♎ | | ♏ | | ♐ | | ♑ | | ♒ | ♓ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | decl | decl | decl | decl | decl | decl | decl | decl | decl | decl | decl | decl | decl | decl |
| T 1 | 15n 9 | 17s34 | 5n13 | 16n48 | 0n24 | 15n47 | 0s34 | 2n36 | 1n42 | 17s37 | 1n10 | 15s52 | 0s58 | 23n43 | 0n15 | 0s25 | 1s23 | 24n59 | 6n20 | 8s 0 | 7s42 | 14s57 | 8n51 | 6s17 | | | | | | | | | | |
| F 2 | 15 27 | 15 48 | 5 14 | 17 36 | 0 35 | 16 10 | 0 32 | 2 36 | 1 39 | 17 35 | 1 10 | 15 51 | 0 58 | 23 43 | 0 15 | 0 24 | 1 23 | 24 59 | 6 20 | 8 0 | 7 41 | 14 58 | 8 52 | 6 16 | | | | | | | | | | |
| S 3 | 15 45 | 13 15 | 4 59 | 18 21 | 0 45 | 16 33 | 0 30 | 2 35 | 1 37 | 17 34 | 1 10 | 15 50 | 0 58 | 23 43 | 0 15 | 0 23 | 1 23 | 24 58 | 6 20 | 7 59 | 7 39 | 14 59 | 8 52 | 6 15 | | | | | | | | | | |
| S 4 | 16 2 | 10 0 | 4 29 | 19 5 | 0 55 | 16 56 | 0 28 | 2 34 | 1 34 | 17 32 | 1 10 | 15 50 | 0 58 | 23 43 | 0 15 | 0 22 | 1 24 | 24 58 | 6 20 | 8 0 | 7 38 | 15 1 | 8 52 | 6 14 | | | | | | | | | | |
| M 5 | 16 19 | 6 8 | 3 44 | 19 47 | 1 5 | 17 18 | 0 25 | 2 33 | 1 32 | 17 30 | 1 10 | 15 49 | 0 58 | 23 43 | 0 15 | 0 22 | 1 24 | 24 58 | 6 20 | 8 0 | 7 37 | 15 2 | 8 53 | 6 13 | | | | | | | | | | |
| T 6 | 16 36 | 1 49 | 2 45 | 20 27 | 1 15 | 17 40 | 0 23 | 2 31 | 1 29 | 17 28 | 1 9 | 15 49 | 0 58 | 23 43 | 0 15 | 0 21 | 1 24 | 24 58 | 6 20 | 8 0 | 7 36 | 15 3 | 8 53 | 6 12 | | | | | | | | | | |
| W 7 | 16 53 | 2n44 | 1 33 | 21 5 | 1 24 | 18 2 | 0 21 | 2 29 | 1 26 | 17 26 | 1 9 | 15 48 | 0 59 | 23 43 | 0 15 | 0 20 | 1 24 | 24 58 | 6 20 | 8 1 | 7 35 | 15 4 | 8 53 | 6 11 | | | | | | | | | | |
| T 8 | 17 9 | 7 16 | 0 14 | 21 40 | 1 32 | 18 23 | 0 18 | 2 27 | 1 24 | 17 25 | 1 9 | 15 48 | 0 59 | 23 43 | 0 15 | 0 20 | 1 24 | 24 57 | 6 20 | 8 1 | 7 33 | 15 5 | 8 53 | 6 11 | | | | | | | | | | |
| F 9 | 17 25 | 11 27 | 1s 8 | 22 12 | 1 40 | 18 43 | 0 16 | 2 24 | 1 21 | 17 23 | 1 9 | 15 47 | 0 59 | 23 43 | 0 15 | 0 19 | 1 24 | 24 57 | 6 19 | 8 1 | 7 32 | 15 6 | 8 53 | 6 10 | | | | | | | | | | |
| S 10 | 17 41 | 14 55 | 2 26 | 22 43 | 1 47 | 19 3 | 0 14 | 2 21 | 1 19 | 17 21 | 1 9 | 15 47 | 0 59 | 23 43 | 0 15 | 0 18 | 1 24 | 24 57 | 6 19 | 8 0 | 7 31 | 15 7 | 8 53 | 6 9 | | | | | | | | | | |
| S 11 | 17 57 | 17 22 | 3 34 | 23 10 | 1 54 | 19 22 | 0 11 | 2 18 | 1 16 | 17 19 | 1 9 | 15 46 | 0 59 | 23 43 | 0 15 | 0 18 | 1 24 | 24 57 | 6 19 | 7 59 | 7 30 | 15 8 | 8 53 | 6 8 | | | | | | | | | | |
| M12 | 18 12 | 18 34 | 4 26 | 23 35 | 2 0 | 19 41 | 0 9 | 2 15 | 1 14 | 17 17 | 1 9 | 15 46 | 0 59 | 23 43 | 0 15 | 0 17 | 1 24 | 24 56 | 6 19 | 7 58 | 7 28 | 15 9 | 8 53 | 6 7 | | | | | | | | | | |
| T 13 | 18 27 | 18 27 | 4 59 | 23 57 | 2 5 | 20 0 | 0 7 | 2 11 | 1 12 | 17 15 | 1 9 | 15 45 | 1 0 | 23 43 | 0 15 | 0 17 | 1 24 | 24 56 | 6 19 | 7 56 | 7 27 | 15 10 | 8 53 | 6 6 | | | | | | | | | | |
| W14 | 18 41 | 17 8 | 5 12 | 24 17 | 2 9 | 20 18 | 0 4 | 2 7 | 1 9 | 17 13 | 1 9 | 15 45 | 1 0 | 23 43 | 0 15 | 0 16 | 1 24 | 24 56 | 6 19 | 7 54 | 7 26 | 15 11 | 8 53 | 6 5 | | | | | | | | | | |
| T 15 | 18 56 | 14 50 | 5 6 | 24 35 | 2 13 | 20 35 | 0 2 | 2 3 | 1 7 | 17 12 | 1 9 | 15 45 | 1 0 | 23 43 | 0 15 | 0 15 | 1 24 | 24 56 | 6 19 | 7 53 | 7 25 | 15 12 | 8 53 | 6 5 | | | | | | | | | | |
| F 16 | 19 10 | 11 47 | 4 43 | 24 50 | 2 15 | 20 52 | 0n 1 | 1 58 | 1 4 | 17 10 | 1 9 | 15 44 | 1 0 | 23 43 | 0 15 | 0 15 | 1 24 | 24 55 | 6 19 | 7 52 | 7 24 | 15 13 | 8 53 | 6 4 | | | | | | | | | | |
| S 17 | 19 23 | 8 14 | 4 6 | 25 2 | 2 17 | 21 8 | 0 3 | 1 54 | 1 2 | 17 8 | 1 9 | 15 44 | 1 0 | 23 43 | 0 15 | 0 14 | 1 24 | 24 55 | 6 19 | 7 52 | 7 22 | 15 14 | 8 53 | 6 3 | | | | | | | | | | |
| S 18 | 19 36 | 4 25 | 3 18 | 25 13 | 2 18 | 21 24 | 0 6 | 1 49 | 1 0 | 17 6 | 1 8 | 15 44 | 1 0 | 23 43 | 0 15 | 0 14 | 1 24 | 24 55 | 6 19 | 7 52 | 7 21 | 15 15 | 8 53 | 6 2 | | | | | | | | | | |
| M19 | 19 49 | 0 29 | 2 21 | 25 21 | 2 19 | 21 39 | 0 8 | 1 43 | 0 58 | 17 4 | 1 8 | 15 44 | 1 1 | 23 43 | 0 15 | 0 13 | 1 24 | 24 54 | 6 19 | 7 53 | 7 20 | 15 16 | 8 53 | 6 1 | | | | | | | | | | |
| T 20 | 20 2 | 3s24 | 1 19 | 25 27 | 2 18 | 21 53 | 0 10 | 1 38 | 0 55 | 17 2 | 1 8 | 15 43 | 1 1 | 23 43 | 0 15 | 0 13 | 1 24 | 24 54 | 6 18 | 7 54 | 7 19 | 15 17 | 8 52 | 6 1 | | | | | | | | | | |
| W21 | 20 14 | 7 5 | 0 15 | 25 31 | 2 17 | 22 7 | 0 13 | 1 32 | 0 53 | 17 0 | 1 8 | 15 43 | 1 1 | 23 43 | 0 15 | 0 12 | 1 24 | 24 54 | 6 18 | 7 54 | 7 18 | 15 18 | 8 52 | 6 0 | | | | | | | | | | |
| T 22 | 20 26 | 10 28 | 0n49 | 25 33 | 2 14 | 22 20 | 0 15 | 1 26 | 0 51 | 16 59 | 1 8 | 15 43 | 1 1 | 23 43 | 0 15 | 0 12 | 1 24 | 24 53 | 6 18 | 7 54 | 7 16 | 15 19 | 8 52 | 5 59 | | | | | | | | | | |
| F 23 | 20 38 | 13 25 | 1 51 | 25 34 | 2 11 | 22 33 | 0 18 | 1 20 | 0 49 | 16 57 | 1 8 | 15 43 | 1 1 | 23 43 | 0 15 | 0 11 | 1 24 | 24 53 | 6 18 | 7 53 | 7 15 | 15 20 | 8 51 | 5 58 | | | | | | | | | | |
| S 24 | 20 49 | 15 49 | 2 48 | 25 32 | 2 7 | 22 45 | 0 20 | 1 14 | 0 47 | 16 55 | 1 8 | 15 43 | 1 2 | 23 43 | 0 15 | 0 11 | 1 24 | 24 53 | 6 18 | 7 51 | 7 14 | 15 21 | 8 51 | 5 57 | | | | | | | | | | |
| S 25 | 21 0 | 17 33 | 3 38 | 25 29 | 2 3 | 22 56 | 0 22 | 1 7 | 0 45 | 16 53 | 1 8 | 15 43 | 1 2 | 23 43 | 0 15 | 0 10 | 1 24 | 24 53 | 6 18 | 7 49 | 7 13 | 15 22 | 8 50 | 5 57 | | | | | | | | | | |
| M26 | 21 11 | 18 32 | 4 18 | 25 25 | 1 57 | 23 6 | 0 25 | 1 1 | 0 43 | 16 52 | 1 7 | 15 43 | 1 2 | 23 43 | 0 15 | 0 10 | 1 24 | 24 52 | 6 18 | 7 46 | 7 12 | 15 23 | 8 50 | 5 56 | | | | | | | | | | |
| T 27 | 21 21 | 18 41 | 4 47 | 25 19 | 1 51 | 23 16 | 0 27 | 0 54 | 0 41 | 16 50 | 1 7 | 15 43 | 1 2 | 23 43 | 0 15 | 0 9 | 1 25 | 24 52 | 6 18 | 7 43 | 7 10 | 15 24 | 8 49 | 5 55 | | | | | | | | | | |
| W28 | 21 31 | 17 59 | 5 4 | 25 12 | 1 43 | 23 26 | 0 29 | 0 47 | 0 39 | 16 48 | 1 7 | 15 43 | 1 2 | 23 43 | 0 15 | 0 9 | 1 25 | 24 52 | 6 18 | 7 40 | 7 9 | 15 25 | 8 49 | 5 54 | | | | | | | | | | |
| T 29 | 21 40 | 16 27 | 5 7 | 25 3 | 1 35 | 23 34 | 0 32 | 0 39 | 0 37 | 16 46 | 1 7 | 15 43 | 1 2 | 23 43 | 0 15 | 0 8 | 1 25 | 24 51 | 6 18 | 7 37 | 7 8 | 15 26 | 8 48 | 5 53 | | | | | | | | | | |
| F 30 | 21 49 | 14 7 | 4 55 | 24 54 | 1 26 | 23 42 | 0 34 | 0 32 | 0 35 | 16 45 | 1 7 | 15 43 | 1 3 | 23 43 | 0 15 | 0 8 | 1 25 | 24 51 | 6 18 | 7 35 | 7 7 | 15 27 | 8 48 | 5 53 | | | | | | | | | | |
| S 31 | 21n58 | 11s 5 | 4n29 | 24n43 | 1n17 | 23n49 | 0n36 | 0n24 | 0n33 | 16s43 | 1n 7 | 15s44 | 1s 3 | 23n43 | 0n15 | 0s 8 | 1s25 | 24n50 | 6n18 | 7s33 | 7s 6 | 15s28 | 8n47 | 5s52 | | | | | | | | | | |

ASTRODIENST EPHEMERIS for the year 1698
geocentric

JUNE 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|------|
| S 1 | 16 39 43 | 10 ^{II} 48'34 | 1 ^{II} 20 | 3 ^{II} 34 | 22 ^{II} 58 | 0 ^{II} 31 | 19°R57 | 20°R19 | 0 ^{II} 34 | 2 ^{II} 57 | 6 ^{II} 12 | 19°R13 | 18 ^{II} 0 | 21 ^{II} 53 | 21 ^{II} 38 | S 1 |
| M 2 | 16 43 40 | 11°45'57 | 14°38 | 4°13 | 24°12 | 0°47 | 19 ^{II} 51 | 20 ^{II} 19 | 0°47 | 2°59 | 6°14 | 19°D13 | 17°57 | 22° 0 | 21°42 | M 2 |
| T 3 | 16 47 36 | 12°43'20 | 28°18 | 4°48 | 25°25 | 1° 3 | 19°44 | 20°19 | 0°50 | 3° 0 | 6°15 | 19 ^{II} 13 | 17°54 | 22° 7 | 21°47 | T 3 |
| W 4 | 16 51 33 | 13°40'42 | 12 ^{II} Y20 | 5°19 | 26°39 | 1°20 | 19°37 | 20°18 | 0°54 | 3° 1 | 6°16 | 19°R14 | 17°51 | 22°13 | 21°52 | W 4 |
| T 5 | 16 55 29 | 14°38'04 | 26°46 | 5°45 | 27°52 | 1°38 | 19°31 | 20°18 | 0°57 | 3° 2 | 6°17 | 19°14 | 17°47 | 22°20 | 21°57 | T 5 |
| F 6 | 16 59 26 | 15°35'25 | 11 ^{II} 832 | 6° 7 | 29° 6 | 1°56 | 19°25 | 20°17 | 1° 1 | 3° 3 | 6°18 | 19°12 | 17°44 | 22°27 | 22° 1 | F 6 |
| S 7 | 17 3 22 | 16°32'46 | 26°34 | 6°24 | 0 ^{II} 319 | 2°14 | 19°19 | 20°17 | 1° 4 | 3° 4 | 6°20 | 19° 8 | 17°41 | 22°33 | 22° 6 | S 7 |
| S 8 | 17 7 19 | 17°30'07 | 11 ^{II} 42 | 6°37 | 1°33 | 2°33 | 19°13 | 20°16 | 1° 8 | 3° 4 | 6°21 | 19° 2 | 17°38 | 22°40 | 22°12 | S 8 |
| M 9 | 17 11 16 | 18°27'26 | 26°48 | 6°45 | 2°46 | 2°52 | 19° 7 | 20°15 | 1°11 | 3° 5 | 6°22 | 18°54 | 17°35 | 22°47 | 22°17 | M 9 |
| T 10 | 17 15 12 | 19°24'45 | 11 ^{II} 342 | 6°R49 | 4° 0 | 3°12 | 19° 1 | 20°14 | 1°15 | 3° 6 | 6°23 | 18°44 | 17°31 | 22°53 | 22°22 | T 10 |
| W11 | 17 19 9 | 20°22'04 | 26°14 | 6°48 | 5°13 | 3°32 | 18°55 | 20°13 | 1°19 | 3° 7 | 6°25 | 18°36 | 17°28 | 23° 0 | 22°27 | W11 |
| T 12 | 17 23 5 | 21°19'21 | 10 ^{II} 20 | 6°43 | 6°27 | 3°53 | 18°50 | 20°12 | 1°22 | 3° 8 | 6°26 | 18°28 | 17°25 | 23° 7 | 22°33 | T 12 |
| F 13 | 17 27 2 | 22°16'38 | 23°57 | 6°33 | 7°40 | 4°14 | 18°45 | 20°10 | 1°26 | 3° 9 | 6°27 | 18°23 | 17°22 | 23°13 | 22°38 | F 13 |
| S 14 | 17 30 58 | 23°13'53 | 7 ^{II} 5 | 6°19 | 8°54 | 4°36 | 18°39 | 20° 9 | 1°29 | 3° 9 | 6°29 | 18°20 | 17°19 | 23°20 | 22°44 | S 14 |
| S 15 | 17 34 55 | 24°11'08 | 19°48 | 6° 2 | 10° 7 | 4°58 | 18°34 | 20° 8 | 1°33 | 3°10 | 6°30 | 18°D18 | 17°16 | 23°27 | 22°50 | S 15 |
| M16 | 17 38 51 | 25° 8'22 | 2 ^{II} 10 | 5°40 | 11°20 | 5°20 | 18°29 | 20° 6 | 1°36 | 3°11 | 6°31 | 18°18 | 17°12 | 23°33 | 22°55 | M16 |
| T 17 | 17 42 48 | 26° 5'36 | 14°16 | 5°15 | 12°34 | 5°43 | 18°25 | 20° 4 | 1°40 | 3°11 | 6°33 | 18°R19 | 17° 9 | 23°40 | 23° 1 | T 17 |
| W18 | 17 46 45 | 27° 2'49 | 26°11 | 4°47 | 13°47 | 6° 6 | 18°20 | 20° 3 | 1°44 | 3°12 | 6°34 | 18°19 | 17° 6 | 23°47 | 23° 7 | W18 |
| T 19 | 17 50 41 | 28° 0'01 | 8 ^{II} 0 | 4°17 | 15° 1 | 6°29 | 18°15 | 20° 1 | 1°47 | 3°12 | 6°36 | 18°17 | 17° 3 | 23°53 | 23°13 | T 19 |
| F 20 | 17 54 38 | 28°57'13 | 19°48 | 3°44 | 16°14 | 6°53 | 18°11 | 19°59 | 1°51 | 3°13 | 6°37 | 18°13 | 17° 0 | 24° 0 | 23°19 | F 20 |
| S 21 | 17 58 34 | 29°54'24 | 1 ^{II} 738 | 3°10 | 17°27 | 7°17 | 18° 7 | 19°57 | 1°54 | 3°13 | 6°39 | 18° 6 | 16°57 | 24° 7 | 23°25 | S 21 |
| S 22 | 18 2 31 | 0 ^{II} 51'35 | 13°34 | 2°35 | 18°41 | 7°42 | 18° 3 | 19°55 | 1°58 | 3°14 | 6°40 | 17°57 | 16°53 | 24°13 | 23°31 | S 22 |
| M23 | 18 6 27 | 1°48'46 | 25°37 | 1°59 | 19°54 | 8° 7 | 17°59 | 19°53 | 2° 2 | 3°14 | 6°42 | 17°46 | 16°50 | 24°20 | 23°37 | M23 |
| T 24 | 18 10 24 | 2°45'57 | 7 ^{II} 348 | 1°24 | 21° 7 | 8°32 | 17°55 | 19°51 | 2° 5 | 3°15 | 6°43 | 17°33 | 16°47 | 24°27 | 23°44 | T 24 |
| W25 | 18 14 20 | 3°43'07 | 20°10 | 0°49 | 22°20 | 8°57 | 17°52 | 19°48 | 2° 9 | 3°15 | 6°45 | 17°20 | 16°44 | 24°33 | 23°50 | W25 |
| T 26 | 18 18 17 | 4°40'17 | 2 ^{II} 42 | 0°16 | 23°34 | 9°23 | 17°49 | 19°46 | 2°13 | 3°16 | 6°46 | 17° 9 | 16°41 | 24°40 | 23°57 | T 26 |
| F 27 | 18 22 14 | 5°37'28 | 15°24 | 29 ^{II} 45 | 24°47 | 9°49 | 17°45 | 19°43 | 2°16 | 3°16 | 6°48 | 16°59 | 16°37 | 24°47 | 24° 3 | F 27 |
| S 28 | 18 26 10 | 6°34'38 | 28°18 | 29°16 | 26° 0 | 10°16 | 17°42 | 19°41 | 2°20 | 3°16 | 6°49 | 16°52 | 16°34 | 24°54 | 24°10 | S 28 |
| S 29 | 18 30 7 | 7°31'48 | 11 ^{II} 25 | 28°50 | 27°13 | 10°43 | 17°40 | 19°38 | 2°23 | 3°16 | 6°51 | 16°47 | 16°31 | 25° 0 | 24°16 | S 29 |
| M30 | 18 34 3 | 8 ^{II} 28'59 | 24 ^{II} 47 | 28 ^{II} 28 | 28 ^{II} 27 | 11 ^{II} 10 | 17 ^{II} 37 | 19 ^{II} 35 | 2 ^{II} 27 | 3 ^{II} Y17 | 6 ^{II} 52 | 16 ^{II} 45 | 16 ^{II} 28 | 25 ^{II} 7 | 24 ^{II} 23 | M30 |

| Day | ☉ | ☾ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| S 1 | 22n 6 | 7s27 | 3n49 | 24n32 | 1n 6 | 23n56 | 0n39 | 0n16 | 0n31 | 16s41 | 1n 6 | 15s44 | 1s 3 | 23n43 | 0n15 | 0s 7 | 1s25 | 24n50 | 6n18 | 7s32 | 7s 4 | 15s29 | 8n46 | 5s51 | |
| M 2 | 22 14 | 3 22 | 2 55 | 24 19 | 0 55 | 24 2 | 0 41 | 0 8 | 0 29 | 16 40 | 1 6 | 15 44 | 1 3 | 23 43 | 0 15 | 0 7 | 1 25 | 24 50 | 6 17 | 7 32 | 7 3 | 15 30 | 8 46 | 5 50 | |
| T 3 | 22 21 | 1n 0 | 1 50 | 24 6 | 0 43 | 24 7 | 0 43 | 0s 0 | 0 27 | 16 38 | 1 6 | 15 44 | 1 3 | 23 43 | 0 15 | 0 6 | 1 25 | 24 49 | 6 17 | 7 32 | 7 2 | 15 31 | 8 45 | 5 50 | |
| W 4 | 22 29 | 5 27 | 0 37 | 23 52 | 0 30 | 24 11 | 0 45 | 0 9 | 0 25 | 16 37 | 1 6 | 15 45 | 1 4 | 23 43 | 0 15 | 0 6 | 1 25 | 24 49 | 6 17 | 7 33 | 7 1 | 15 32 | 8 44 | 5 49 | |
| T 5 | 22 35 | 9 43 | 0s40 | 23 38 | 0 17 | 24 15 | 0 48 | 0 18 | 0 23 | 16 35 | 1 6 | 15 45 | 1 4 | 23 43 | 0 15 | 0 6 | 1 25 | 24 49 | 6 17 | 7 32 | 6 59 | 15 33 | 8 43 | 5 48 | |
| F 6 | 22 42 | 13 28 | 1 57 | 23 23 | 0 3 | 24 18 | 0 50 | 0 26 | 0 22 | 16 34 | 1 5 | 15 45 | 1 4 | 23 43 | 0 15 | 0 5 | 1 25 | 24 48 | 6 17 | 7 32 | 6 58 | 15 34 | 8 42 | 5 47 | |
| S 7 | 22 48 | 16 24 | 3 6 | 23 7 | 0s12 | 24 20 | 0 52 | 0 35 | 0 20 | 16 32 | 1 5 | 15 46 | 1 4 | 23 43 | 0 15 | 0 5 | 1 25 | 24 48 | 6 17 | 7 30 | 6 57 | 15 35 | 8 41 | 5 47 | |
| S 8 | 22 53 | 18 13 | 4 3 | 22 51 | 0 27 | 24 22 | 0 54 | 0 44 | 0 18 | 16 31 | 1 5 | 15 46 | 1 4 | 23 43 | 0 15 | 0 5 | 1 25 | 24 48 | 6 17 | 7 28 | 6 56 | 15 36 | 8 40 | 5 46 | |
| M 9 | 22 58 | 18 44 | 4 43 | 22 35 | 0 43 | 24 23 | 0 56 | 0 54 | 0 16 | 16 29 | 1 5 | 15 47 | 1 4 | 23 43 | 0 15 | 0 4 | 1 25 | 24 47 | 6 17 | 7 25 | 6 55 | 15 37 | 8 39 | 5 45 | |
| T 10 | 23 3 | 17 56 | 5 2 | 22 19 | 0 59 | 24 23 | 0 58 | 1 3 | 0 15 | 16 28 | 1 5 | 15 47 | 1 5 | 23 43 | 0 15 | 0 4 | 1 25 | 24 47 | 6 17 | 7 21 | 6 53 | 15 38 | 8 38 | 5 45 | |
| W11 | 23 8 | 15 59 | 5 2 | 22 3 | 1 15 | 24 22 | 1 0 | 1 13 | 0 13 | 16 27 | 1 4 | 15 48 | 1 5 | 23 43 | 0 15 | 0 4 | 1 25 | 24 46 | 6 17 | 7 18 | 6 52 | 15 39 | 8 37 | 5 44 | |
| T 12 | 23 11 | 13 8 | 4 43 | 21 47 | 1 32 | 24 21 | 1 2 | 1 22 | 0 11 | 16 25 | 1 4 | 15 48 | 1 5 | 23 43 | 0 15 | 0 4 | 1 25 | 24 46 | 6 17 | 7 15 | 6 51 | 15 40 | 8 36 | 5 43 | |
| F 13 | 23 15 | 9 39 | 4 8 | 21 30 | 1 49 | 24 19 | 1 4 | 1 32 | 0 10 | 16 24 | 1 4 | 15 49 | 1 5 | 23 43 | 0 15 | 0 3 | 1 25 | 24 46 | 6 17 | 7 13 | 6 50 | 15 41 | 8 35 | 5 43 | |
| S 14 | 23 18 | 5 48 | 3 22 | 21 14 | 2 5 | 24 16 | 1 6 | 1 42 | 0 8 | 16 23 | 1 4 | 15 49 | 1 5 | 23 43 | 0 15 | 0 3 | 1 25 | 24 45 | 6 17 | 7 12 | 6 49 | 15 42 | 8 34 | 5 42 | |
| S 15 | 23 21 | 1 48 | 2 26 | 20 59 | 2 22 | 24 13 | 1 7 | 1 53 | 0 6 | 16 22 | 1 4 | 15 50 | 1 5 | 23 43 | 0 15 | 0 3 | 1 26 | 24 45 | 6 17 | 7 11 | 6 47 | 15 43 | 8 33 | 5 41 | |
| M16 | 23 23 | 2s10 | 1 25 | 20 43 | 2 38 | 24 8 | 1 9 | 2 3 | 0 5 | 16 20 | 1 3 | 15 51 | 1 6 | 23 43 | 0 15 | 0 3 | 1 26 | 24 44 | 6 17 | 7 11 | 6 46 | 15 44 | 8 32 | 5 40 | |
| T 17 | 23 25 | 5 58 | 0 22 | 20 28 | 2 54 | 24 3 | 1 11 | 2 13 | 0 3 | 16 19 | 1 3 | 15 51 | 1 6 | 23 43 | 0 15 | 0 2 | 1 26 | 24 44 | 6 17 | 7 11 | 6 45 | 15 45 | 8 30 | 5 40 | |
| W18 | 23 27 | 9 28 | 0n42 | 20 14 | 3 9 | 23 58 | 1 13 | 2 24 | 0 2 | 16 18 | 1 3 | 15 52 | 1 6 | 23 43 | 0 15 | 0 2 | 1 26 | 24 44 | 6 17 | 7 11 | 6 44 | 15 46 | 8 29 | 5 39 | |
| T 19 | 23 28 | 12 35 | 1 43 | 20 1 | 3 24 | 23 51 | 1 14 | 2 34 | 0 0 | 16 17 | 1 3 | 15 53 | 1 6 | 23 43 | 0 15 | 0 2 | 1 26 | 24 43 | 6 17 | 7 11 | 6 42 | 15 47 | 8 28 | 5 39 | |
| F 20 | 23 28 | 15 10 | 2 39 | 19 48 | 3 38 | 23 44 | 1 16 | 2 45 | 0s 1 | 16 16 | 1 2 | 15 53 | 1 6 | 23 43 | 0 15 | 0 2 | 1 26 | 24 43 | 6 17 | 7 9 | 6 41 | 15 48 | 8 27 | 5 38 | |
| S 21 | 23 29 | 17 7 | 3 29 | 19 36 | 3 50 | 23 37 | 1 17 | 2 56 | 0 3 | 16 15 | 1 2 | 15 54 | 1 7 | 23 42 | 0 15 | 0 2 | 1 26 | 24 42 | 6 17 | 7 7 | 6 40 | 15 49 | 8 25 | 5 37 | |
| S 22 | 23 28 | 18 20 | 4 9 | 19 25 | 4 2 | 23 28 | 1 19 | 3 7 | 0 4 | 16 14 | 1 2 | 15 55 | 1 7 | 23 42 | 0 15 | 0 2 | 1 26 | 24 42 | 6 16 | 7 3 | 6 39 | 15 49 | 8 24 | 5 37 | |
| M23 | 23 28 | 18 45 | 4 39 | 19 15 | 4 12 | 23 19 | 1 20 | 3 18 | 0 5 | 16 14 | 1 2 | 15 56 | 1 7 | 23 42 | 0 15 | 0 1 | 1 26 | 24 42 | 6 16 | 6 59 | 6 38 | 15 50 | 8 22 | 5 36 | |
| T 24 | 23 27 | 18 18 | 4 57 | 19 7 | 4 21 | 23 9 | 1 22 | 3 30 | 0 7 | 16 13 | 1 2 | 15 57 | 1 7 | 23 42 | 0 15 | 0 1 | 1 26 | 24 41 | 6 16 | 6 54 | 6 36 | 15 51 | 8 21 | 5 35 | |
| W25 | 23 25 | 17 0 | 5 1 | 19 0 | 4 29 | 22 59 | 1 23 | 3 41 | 0 8 | 16 12 | 1 1 | 15 58 | 1 7 | 23 42 | 0 15 | 0 1 | 1 26 | 24 41 | 6 16 | 6 49 | 6 35 | 15 52 | 8 19 | 5 35 | |
| T 26 | 23 24 | 14 53 | 4 50 | 18 54 | 4 35 | 22 48 | 1 24 | 3 52 | 0 10 | 16 11 | 1 1 | 15 59 | 1 7 | 23 42 | 0 15 | 0 1 | 1 26 | 24 40 | 6 16 | 6 45 | 6 34 | 15 53 | 8 18 | 5 34 | |
| F 27 | 23 21 | 12 1 | 4 25 | 18 49 | 4 39 | 22 36 | 1 25 | 4 4 | 0 11 | 16 11 | 1 1 | 16 0 | 1 8 | 23 42 | 0 15 | 0 1 | 1 26 | 24 40 | 6 16 | 6 41 | 6 33 | 15 54 | 8 16 | 5 34 | |
| S 28 | 23 19 | 8 32 | 3 47 | 18 46 | 4 42 | 22 24 | 1 26 | 4 16 | 0 12 | 16 10 | 1 1 | 16 1 | 1 8 | 23 42 | 0 15 | 0 1 | 1 26 | 24 39 | 6 16 | 6 38 | 6 31 | 15 55 | 8 15 | 5 33 | |
| S 29 | 23 16 | 4 35 | 2 55 | 18 45 | 4 43 | 22 11 | 1 27 | 4 27 | 0 14 | 16 10 | 1 0 | 16 2 | 1 8 | 23 42 | 0 15 | 0 1 | 1 26 | 24 39 | 6 16 | 6 36 | 6 30 | 15 56 | 8 13 | 5 32 | |
| M30 | 23n12 | 0s20 | 1n54 | 18n45 | 4s43 | 21n57 | 1n28 | 4s39 | 0s15 | 16s 9 | 1n 0 | 16s 3 | 1s 8 | 23n42 | 0n15 | 0s 1 | 1s26 | 24n39 | 6n16 | 6s36 | 6s29 | 15s57 | 8n12 | 5s32 | |

Julian Day Number = 2341393.5, Delta T = 14.86 sec
Ecliptic obliquity = 23°28'33, Nutation = 0°00'05, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°31'49, Lahiri = 19°38'50Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1698
geocentric

AUGUST 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|--------|------|-------|------|--------|-------|-------|-------|------|
| F 1 | 20 40 13 | 9♌ 2'07 | 1♏21 | 29♍ 5 | 7♎21 | 27♎50 | 17♎47 | 17°R35 | 4♏16 | 3°R 6 | 7♏47 | 13°R57 | 14♏46 | 28♎41 | 28♏23 | F 1 |
| S 2 | 20 44 10 | 9°59'37 | 15°44 | 1♌ 6 | 8°33 | 28°24 | 17°50 | 17°31 | 4°19 | 3°V 6 | 7°49 | 13°52 | 14°43 | 28°47 | 28°31 | S 2 |
| S 3 | 20 48 6 | 10°57'08 | 0♏11 | 3° 9 | 9°46 | 28°59 | 17°53 | 17°26 | 4°22 | 3° 5 | 7°51 | 13°46 | 14°40 | 28°54 | 28°39 | S 3 |
| M 4 | 20 52 3 | 11°54'40 | 14°36 | 5°12 | 10°59 | 29°34 | 17°57 | 17°22 | 4°25 | 3° 4 | 7°53 | 13°37 | 14°37 | 29° 1 | 28°47 | M 4 |
| T 5 | 20 55 59 | 12°52'14 | 28°55 | 7°15 | 12°11 | 0♎10 | 18° 1 | 17°17 | 4°28 | 3° 3 | 7°55 | 13°28 | 14°34 | 29° 7 | 28°55 | T 5 |
| W 6 | 20 59 56 | 13°49'48 | 13♌ 1 | 9°19 | 13°24 | 0°45 | 18° 5 | 17°13 | 4°31 | 3° 2 | 7°56 | 13°18 | 14°30 | 29°14 | 29° 4 | W 6 |
| T 7 | 21 3 52 | 14°47'24 | 26°48 | 11°22 | 14°36 | 1°21 | 18° 9 | 17° 8 | 4°34 | 3° 1 | 7°58 | 13°10 | 14°27 | 29°21 | 29°12 | T 7 |
| F 8 | 21 7 49 | 15°45'01 | 10♎15 | 13°26 | 15°49 | 1°56 | 18°13 | 17° 4 | 4°37 | 3° 0 | 8° 0 | 13° 4 | 14°24 | 29°27 | 29°20 | F 8 |
| S 9 | 21 11 45 | 16°42'39 | 23°19 | 15°28 | 17° 1 | 2°32 | 18°17 | 16°59 | 4°40 | 2°59 | 8° 2 | 13° 0 | 14°21 | 29°34 | 29°28 | S 9 |
| S 10 | 21 15 42 | 17°40'18 | 6♌ 1 | 17°30 | 18°13 | 3° 9 | 18°22 | 16°55 | 4°43 | 2°58 | 8° 3 | 12°58 | 14°18 | 29°41 | 29°37 | S 10 |
| M 11 | 21 19 39 | 18°37'58 | 18°24 | 19°31 | 19°26 | 3°45 | 18°27 | 16°50 | 4°46 | 2°57 | 8° 5 | 12°D58 | 14°15 | 29°47 | 29°45 | M 11 |
| T 12 | 21 23 35 | 19°35'39 | 0♎32 | 21°31 | 20°38 | 4°21 | 18°32 | 16°46 | 4°49 | 2°56 | 8° 7 | 12°59 | 14°11 | 29°54 | 29°53 | T 12 |
| W 13 | 21 27 32 | 20°33'21 | 12°29 | 23°30 | 21°50 | 4°58 | 18°37 | 16°41 | 4°51 | 2°55 | 8° 9 | 13° 0 | 14° 8 | 0♏ 1 | 0♎ 2 | W 13 |
| T 14 | 21 31 28 | 21°31'05 | 24°21 | 25°28 | 23° 3 | 5°35 | 18°42 | 16°37 | 4°54 | 2°54 | 8°10 | 13°R 0 | 14° 5 | 0° 7 | 0°10 | T 14 |
| F 15 | 21 35 25 | 22°28'49 | 6♏12 | 27°24 | 24°15 | 6°12 | 18°47 | 16°32 | 4°57 | 2°52 | 8°12 | 12°59 | 14° 2 | 0°14 | 0°18 | F 15 |
| S 16 | 21 39 21 | 23°26'35 | 18° 7 | 29°19 | 25°27 | 6°49 | 18°53 | 16°28 | 5° 0 | 2°51 | 8°14 | 12°56 | 13°59 | 0°21 | 0°27 | S 16 |
| S 17 | 21 43 18 | 24°24'22 | 0♏12 | 1♎13 | 26°39 | 7°26 | 18°58 | 16°24 | 5° 2 | 2°50 | 8°16 | 12°51 | 13°55 | 0°28 | 0°35 | S 17 |
| M 18 | 21 47 14 | 25°22'10 | 12°29 | 3° 6 | 27°51 | 8° 3 | 19° 4 | 16°19 | 5° 5 | 2°49 | 8°17 | 12°44 | 13°52 | 0°34 | 0°44 | M 18 |
| T 19 | 21 51 11 | 26°19'59 | 25° 2 | 4°57 | 29° 3 | 8°41 | 19°10 | 16°15 | 5° 7 | 2°48 | 8°19 | 12°36 | 13°49 | 0°41 | 0°52 | T 19 |
| W 20 | 21 55 8 | 27°17'50 | 7♏52 | 6°47 | 0♏15 | 9°18 | 19°16 | 16°10 | 5°10 | 2°46 | 8°21 | 12°28 | 13°46 | 0°48 | 1° 0 | W 20 |
| T 21 | 21 59 4 | 28°15'42 | 20°58 | 8°35 | 1°27 | 9°56 | 19°23 | 16° 6 | 5°12 | 2°45 | 8°22 | 12°21 | 13°43 | 0°54 | 1° 9 | T 21 |
| F 22 | 22 3 1 | 29°13'36 | 4♏21 | 10°22 | 2°39 | 10°34 | 19°29 | 16° 2 | 5°15 | 2°44 | 8°24 | 12°15 | 13°40 | 1° 1 | 1°17 | F 22 |
| S 23 | 22 6 57 | 0♎11'31 | 17°58 | 12° 8 | 3°51 | 11°12 | 19°35 | 15°57 | 5°17 | 2°42 | 8°26 | 12°10 | 13°36 | 1° 8 | 1°26 | S 23 |
| S 24 | 22 10 54 | 1° 9'28 | 1♎46 | 13°53 | 5° 3 | 11°50 | 19°42 | 15°53 | 5°20 | 2°41 | 8°27 | 12° 8 | 13°33 | 1°14 | 1°34 | S 24 |
| M 25 | 22 14 50 | 2° 7'26 | 15°44 | 15°36 | 6°15 | 12°29 | 19°49 | 15°49 | 5°22 | 2°40 | 8°29 | 12°D 8 | 13°30 | 1°21 | 1°43 | M 25 |
| T 26 | 22 18 47 | 3° 5'27 | 29°48 | 17°18 | 7°27 | 13° 7 | 19°56 | 15°45 | 5°24 | 2°38 | 8°31 | 12° 9 | 13°27 | 1°28 | 1°51 | T 26 |
| W 27 | 22 22 43 | 4° 3'29 | 13♏56 | 18°59 | 8°39 | 13°46 | 20° 3 | 15°41 | 5°27 | 2°37 | 8°32 | 12°10 | 13°24 | 1°34 | 2° 0 | W 27 |
| T 28 | 22 26 40 | 5° 1'33 | 28° 6 | 20°38 | 9°50 | 14°25 | 20°10 | 15°37 | 5°29 | 2°36 | 8°34 | 12°11 | 13°20 | 1°41 | 2° 8 | T 28 |
| F 29 | 22 30 37 | 5°59'40 | 12♏17 | 22°16 | 11° 2 | 15° 3 | 20°18 | 15°32 | 5°31 | 2°34 | 8°36 | 12°R11 | 13°17 | 1°48 | 2°16 | F 29 |
| S 30 | 22 34 33 | 6°57'48 | 26°27 | 23°53 | 12°14 | 15°43 | 20°25 | 15°28 | 5°33 | 2°33 | 8°37 | 12°10 | 13°14 | 1°54 | 2°25 | S 30 |
| S 31 | 22 38 30 | 7♎55'59 | 10♏33 | 25♎29 | 13♏26 | 16♎22 | 20♎33 | 15°24 | 5°35 | 2°V31 | 8♏39 | 12°5 7 | 13°11 | 2♏ 1 | 2♎33 | S 31 |

| Day | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl |
| F 1 | 18n 1 | 16n48 | 3s44 | 21n27 | 1n 6 | 10n 7 | 1n24 | 11s28 | 0s49 | 16s20 | 0n52 | 16s44 | 1s12 | 23n40 | 0n15 | 0s 7 |
| S 2 | 17 46 | 18 16 | 4 28 | 21 9 | 1 14 | 9 39 | 1 23 | 11 42 | 0 49 | 16 21 | 0 52 | 16 45 | 1 12 | 23 40 | 0 15 | 0 7 |
| S 3 | 17 31 | 18 33 | 4 56 | 20 47 | 1 21 | 9 10 | 1 21 | 11 55 | 0 50 | 16 22 | 0 52 | 16 47 | 1 12 | 23 39 | 0 15 | 0 7 |
| M 4 | 17 15 | 17 38 | 5 4 | 20 24 | 1 27 | 8 41 | 1 20 | 12 8 | 0 51 | 16 23 | 0 51 | 16 48 | 1 13 | 23 39 | 0 15 | 0 8 |
| T 5 | 16 59 | 15 37 | 4 53 | 19 58 | 1 32 | 8 12 | 1 18 | 12 21 | 0 52 | 16 24 | 0 51 | 16 50 | 1 13 | 23 39 | 0 15 | 0 8 |
| W 6 | 16 42 | 12 42 | 4 25 | 19 30 | 1 36 | 7 43 | 1 16 | 12 35 | 0 53 | 16 26 | 0 51 | 16 51 | 1 13 | 23 39 | 0 15 | 0 8 |
| T 7 | 16 25 | 9 8 | 3 41 | 18 59 | 1 40 | 7 13 | 1 15 | 12 48 | 0 54 | 16 27 | 0 51 | 16 53 | 1 13 | 23 39 | 0 15 | 0 9 |
| F 8 | 16 8 | 5 11 | 2 46 | 18 27 | 1 42 | 6 43 | 1 13 | 13 1 | 0 54 | 16 28 | 0 50 | 16 54 | 1 13 | 23 39 | 0 15 | 0 9 |
| S 9 | 15 51 | 1 5 | 1 43 | 17 53 | 1 44 | 6 13 | 1 11 | 13 14 | 0 55 | 16 30 | 0 50 | 16 56 | 1 13 | 23 39 | 0 15 | 0 10 |
| S 10 | 15 34 | 2s58 | 0 37 | 17 17 | 1 45 | 5 43 | 1 9 | 13 27 | 0 56 | 16 31 | 0 50 | 16 57 | 1 13 | 23 39 | 0 15 | 0 10 |
| M 11 | 15 16 | 6 46 | 0n29 | 16 40 | 1 46 | 5 13 | 1 7 | 13 40 | 0 57 | 16 33 | 0 50 | 16 59 | 1 13 | 23 39 | 0 15 | 0 11 |
| T 12 | 14 58 | 10 13 | 1 33 | 16 1 | 1 46 | 4 43 | 1 5 | 13 53 | 0 57 | 16 34 | 0 49 | 17 0 | 1 13 | 23 39 | 0 15 | 0 11 |
| W 13 | 14 40 | 13 12 | 2 32 | 15 21 | 1 45 | 4 12 | 1 3 | 14 6 | 0 58 | 16 36 | 0 49 | 17 1 | 1 13 | 23 39 | 0 15 | 0 12 |
| T 14 | 14 21 | 15 35 | 3 24 | 14 41 | 1 44 | 3 42 | 1 1 | 14 19 | 0 59 | 16 38 | 0 49 | 17 3 | 1 13 | 23 39 | 0 15 | 0 12 |
| F 15 | 14 2 | 17 19 | 4 7 | 13 59 | 1 42 | 3 11 | 0 58 | 14 32 | 0 59 | 16 39 | 0 49 | 17 4 | 1 13 | 23 38 | 0 16 | 0 13 |
| S 16 | 13 44 | 18 18 | 4 40 | 13 16 | 1 39 | 2 40 | 0 56 | 14 45 | 1 0 | 16 41 | 0 48 | 17 6 | 1 14 | 23 38 | 0 16 | 0 13 |
| S 17 | 13 24 | 18 28 | 5 1 | 12 33 | 1 36 | 2 9 | 0 54 | 14 58 | 1 1 | 16 43 | 0 48 | 17 7 | 1 14 | 23 38 | 0 16 | 0 14 |
| M 18 | 13 5 | 17 47 | 5 8 | 11 49 | 1 32 | 1 38 | 0 51 | 15 11 | 1 1 | 16 45 | 0 48 | 17 8 | 1 14 | 23 38 | 0 16 | 0 14 |
| T 19 | 12 46 | 16 14 | 5 1 | 11 5 | 1 28 | 1 7 | 0 49 | 15 24 | 1 2 | 16 47 | 0 48 | 17 10 | 1 14 | 23 38 | 0 16 | 0 15 |
| W 20 | 12 26 | 13 50 | 4 39 | 10 20 | 1 24 | 0 36 | 0 46 | 15 36 | 1 3 | 16 48 | 0 48 | 17 11 | 1 14 | 23 38 | 0 16 | 0 15 |
| T 21 | 12 6 | 10 43 | 4 1 | 9 35 | 1 19 | 0 5 | 0 43 | 15 49 | 1 3 | 16 50 | 0 47 | 17 13 | 1 14 | 23 38 | 0 16 | 0 16 |
| F 22 | 11 46 | 6 59 | 3 10 | 8 50 | 1 14 | 0s26 | 0 41 | 16 2 | 1 4 | 16 52 | 0 47 | 17 14 | 1 14 | 23 38 | 0 16 | 0 16 |
| S 23 | 11 25 | 2 49 | 2 7 | 8 5 | 1 9 | 0 57 | 0 38 | 16 14 | 1 5 | 16 54 | 0 47 | 17 15 | 1 14 | 23 38 | 0 16 | 0 17 |
| S 24 | 11 5 | 1n34 | 0 56 | 7 19 | 1 3 | 1 28 | 0 35 | 16 27 | 1 5 | 16 56 | 0 47 | 17 17 | 1 14 | 23 38 | 0 16 | 0 17 |
| M 25 | 10 44 | 5 54 | 0s20 | 6 34 | 0 57 | 2 0 | 0 32 | 16 39 | 1 6 | 16 58 | 0 46 | 17 18 | 1 14 | 23 38 | 0 16 | 0 18 |
| T 26 | 10 23 | 9 56 | 1 35 | 5 48 | 0 51 | 2 31 | 0 29 | 16 51 | 1 6 | 17 0 | 0 46 | 17 19 | 1 14 | 23 38 | 0 16 | 0 19 |
| W 27 | 10 2 | 13 26 | 2 44 | 5 3 | 0 44 | 3 2 | 0 26 | 17 4 | 1 7 | 17 3 | 0 46 | 17 20 | 1 14 | 23 38 | 0 16 | 0 19 |
| T 28 | 9 41 | 16 7 | 3 44 | 4 18 | 0 38 | 3 33 | 0 23 | 17 16 | 1 8 | 17 5 | 0 46 | 17 22 | 1 14 | 23 37 | 0 16 | 0 20 |
| F 29 | 9 20 | 17 50 | 4 30 | 3 32 | 0 31 | 4 4 | 0 20 | 17 28 | 1 8 | 17 7 | 0 46 | 17 23 | 1 14 | 23 37 | 0 16 | 0 20 |
| S 30 | 8 58 | 18 26 | 5 0 | 2 47 | 0 23 | 4 35 | 0 17 | 17 40 | 1 9 | 17 9 | 0 45 | 17 24 | 1 14 | 23 37 | 0 16 | 0 21 |
| S 31 | 8n36 | 17n53 | 5s12 | 2n 3 | 0n16 | 5s 6 | 0n14 | 17s52 | 1s 9 | 17s11 | 0n45 | 17s25 | 1s14 | 23n37 | 0n16 | 0s22 |

Julian Day Number = 2341454.5, Delta T = 14.79 sec
Ecliptic obliquity = 23°28'33, Nutation = 0°00'05, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°31'58, Lahiri = 19°38'58Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1698

geocentric

SEPTEMBER 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|---|---------------------------------|---|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|--------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|------|
| M 1 | 22 42 26 | 8 ^h 54 ^m 11 ^s | 24 ^h 34 ^m | 27 ^h 4 ^m 4 ^s | 14 ^h 37 ^m | 17 ^h 1 ^m | 20 ^h 41 ^m | 15 ^h 20 ^m | 5 ^h 37 ^m | 2 ^h 30 ^m | 8 ^h 40 ^m | 12 ^h 3 ^m | 13 ^h 8 ^m | 2 ^h 8 ^m | 2 ^h 42 ^m | M 1 |
| T 2 | 22 46 23 | 9 ^h 52 ^m 26 ^s | 8 ^h 25 ^m | 28 ^h 37 ^m | 15 ^h 49 ^m | 17 ^h 40 ^m | 20 ^h 48 ^m | 15 ^h 17 ^m | 5 ^h 39 ^m | 2 ^h 28 ^m | 8 ^h 42 ^m | 11 ^h 58 ^m | 13 ^h 5 ^m | 2 ^h 15 ^m | 2 ^h 50 ^m | T 2 |
| W 3 | 22 50 19 | 10 ^h 50 ^m 42 ^s | 22 ^h 4 ^m | 0 ^h 9 ^m | 17 ^h 0 ^m | 18 ^h 20 ^m | 20 ^h 57 ^m | 15 ^h 13 ^m | 5 ^h 41 ^m | 2 ^h 27 ^m | 8 ^h 44 ^m | 11 ^h 53 ^m | 13 ^h 1 ^m | 2 ^h 21 ^m | 2 ^h 59 ^m | W 3 |
| T 4 | 22 54 16 | 11 ^h 49 ^m 00 ^s | 5 ^h 29 ^m | 1 ^h 40 ^m | 18 ^h 12 ^m | 19 ^h 0 ^m | 21 ^h 5 ^m | 15 ^h 9 ^m | 5 ^h 43 ^m | 2 ^h 25 ^m | 8 ^h 45 ^m | 11 ^h 48 ^m | 12 ^h 58 ^m | 2 ^h 28 ^m | 3 ^h 7 ^m | T 4 |
| F 5 | 22 58 12 | 12 ^h 47 ^m 20 ^s | 18 ^h 37 ^m | 3 ^h 10 ^m | 19 ^h 23 ^m | 19 ^h 39 ^m | 21 ^h 13 ^m | 15 ^h 5 ^m | 5 ^h 45 ^m | 2 ^h 24 ^m | 8 ^h 47 ^m | 11 ^h 45 ^m | 12 ^h 55 ^m | 2 ^h 35 ^m | 3 ^h 15 ^m | F 5 |
| S 6 | 23 2 9 | 13 ^h 45 ^m 42 ^s | 1 ^h 27 ^m | 4 ^h 38 ^m | 20 ^h 35 ^m | 20 ^h 19 ^m | 21 ^h 21 ^m | 15 ^h 2 ^m | 5 ^h 47 ^m | 2 ^h 22 ^m | 8 ^h 48 ^m | 11 ^h 43 ^m | 12 ^h 52 ^m | 2 ^h 41 ^m | 3 ^h 24 ^m | S 6 |
| S 7 | 23 6 5 | 14 ^h 44 ^m 05 ^s | 14 ^h 1 ^m | 6 ^h 6 ^m | 21 ^h 46 ^m | 20 ^h 59 ^m | 21 ^h 30 ^m | 14 ^h 58 ^m | 5 ^h 49 ^m | 2 ^h 21 ^m | 8 ^h 50 ^m | 11 ^h 43 ^m | 12 ^h 49 ^m | 2 ^h 48 ^m | 3 ^h 32 ^m | S 7 |
| M 8 | 23 10 2 | 15 ^h 42 ^m 30 ^s | 26 ^h 20 ^m | 7 ^h 32 ^m | 22 ^h 57 ^m | 21 ^h 39 ^m | 21 ^h 39 ^m | 14 ^h 54 ^m | 5 ^h 51 ^m | 2 ^h 19 ^m | 8 ^h 51 ^m | 11 ^h 44 ^m | 12 ^h 46 ^m | 2 ^h 55 ^m | 3 ^h 41 ^m | M 8 |
| T 9 | 23 13 59 | 16 ^h 40 ^m 57 ^s | 8 ^h 26 ^m | 8 ^h 57 ^m | 24 ^h 8 ^m | 22 ^h 20 ^m | 21 ^h 47 ^m | 14 ^h 51 ^m | 5 ^h 52 ^m | 2 ^h 17 ^m | 8 ^h 53 ^m | 11 ^h 45 ^m | 12 ^h 42 ^m | 3 ^h 1 ^m | 3 ^h 49 ^m | T 9 |
| W10 | 23 17 55 | 17 ^h 39 ^m 26 ^s | 20 ^h 22 ^m | 10 ^h 21 ^m | 25 ^h 20 ^m | 23 ^h 0 ^m | 21 ^h 56 ^m | 14 ^h 48 ^m | 5 ^h 54 ^m | 2 ^h 16 ^m | 8 ^h 54 ^m | 11 ^h 47 ^m | 12 ^h 39 ^m | 3 ^h 8 ^m | 3 ^h 57 ^m | W10 |
| T 11 | 23 21 52 | 18 ^h 37 ^m 56 ^s | 2 ^h 14 ^m | 11 ^h 43 ^m | 26 ^h 31 ^m | 23 ^h 41 ^m | 22 ^h 5 ^m | 14 ^h 44 ^m | 5 ^h 56 ^m | 2 ^h 14 ^m | 8 ^h 56 ^m | 11 ^h 48 ^m | 12 ^h 36 ^m | 3 ^h 15 ^m | 4 ^h 6 ^m | T 11 |
| F 12 | 23 25 48 | 19 ^h 36 ^m 29 ^s | 14 ^h 5 ^m | 13 ^h 4 ^m | 27 ^h 42 ^m | 24 ^h 21 ^m | 22 ^h 14 ^m | 14 ^h 41 ^m | 5 ^h 57 ^m | 2 ^h 13 ^m | 8 ^h 57 ^m | 11 ^h 49 ^m | 12 ^h 33 ^m | 3 ^h 21 ^m | 4 ^h 14 ^m | F 12 |
| S 13 | 23 29 45 | 20 ^h 35 ^m 02 ^s | 26 ^h 1 ^m | 14 ^h 24 ^m | 28 ^h 53 ^m | 25 ^h 2 ^m | 22 ^h 23 ^m | 14 ^h 38 ^m | 5 ^h 59 ^m | 2 ^h 11 ^m | 8 ^h 58 ^m | 11 ^h 49 ^m | 12 ^h 30 ^m | 3 ^h 28 ^m | 4 ^h 22 ^m | S 13 |
| S 14 | 23 33 41 | 21 ^h 33 ^m 38 ^s | 8 ^h 5 ^m | 15 ^h 42 ^m | 0 ^h 4 ^m | 25 ^h 43 ^m | 22 ^h 33 ^m | 14 ^h 35 ^m | 6 ^h 0 ^m | 2 ^h 9 ^m | 9 ^h 0 ^m | 11 ^h 48 ^m | 12 ^h 26 ^m | 3 ^h 35 ^m | 4 ^h 30 ^m | S 14 |
| M15 | 23 37 38 | 22 ^h 32 ^m 15 ^s | 20 ^h 24 ^m | 16 ^h 59 ^m | 1 ^h 15 ^m | 26 ^h 24 ^m | 22 ^h 42 ^m | 14 ^h 32 ^m | 6 ^h 2 ^m | 2 ^h 8 ^m | 9 ^h 1 ^m | 11 ^h 47 ^m | 12 ^h 23 ^m | 3 ^h 42 ^m | 4 ^h 39 ^m | M15 |
| T 16 | 23 41 34 | 23 ^h 30 ^m 54 ^s | 3 ^h 0 ^m | 18 ^h 15 ^m | 2 ^h 26 ^m | 27 ^h 5 ^m | 22 ^h 52 ^m | 14 ^h 29 ^m | 6 ^h 3 ^m | 2 ^h 6 ^m | 9 ^h 3 ^m | 11 ^h 44 ^m | 12 ^h 20 ^m | 3 ^h 48 ^m | 4 ^h 47 ^m | T 16 |
| W17 | 23 45 31 | 24 ^h 29 ^m 34 ^s | 15 ^h 56 ^m | 19 ^h 28 ^m | 3 ^h 37 ^m | 27 ^h 46 ^m | 23 ^h 1 ^m | 14 ^h 26 ^m | 6 ^h 4 ^m | 2 ^h 4 ^m | 9 ^h 4 ^m | 11 ^h 42 ^m | 12 ^h 17 ^m | 3 ^h 55 ^m | 4 ^h 55 ^m | W17 |
| T 18 | 23 49 28 | 25 ^h 28 ^m 17 ^s | 29 ^h 13 ^m | 20 ^h 41 ^m | 4 ^h 47 ^m | 28 ^h 27 ^m | 23 ^h 11 ^m | 14 ^h 23 ^m | 6 ^h 6 ^m | 2 ^h 3 ^m | 9 ^h 5 ^m | 11 ^h 39 ^m | 12 ^h 14 ^m | 4 ^h 2 ^m | 5 ^h 3 ^m | T 18 |
| F 19 | 23 53 24 | 26 ^h 27 ^m 01 ^s | 12 ^h 52 ^m | 21 ^h 51 ^m | 5 ^h 58 ^m | 29 ^h 9 ^m | 23 ^h 21 ^m | 14 ^h 20 ^m | 6 ^h 7 ^m | 2 ^h 1 ^m | 9 ^h 6 ^m | 11 ^h 37 ^m | 12 ^h 11 ^m | 4 ^h 8 ^m | 5 ^h 11 ^m | F 19 |
| S 20 | 23 57 21 | 27 ^h 25 ^m 47 ^s | 26 ^h 50 ^m | 22 ^h 59 ^m | 7 ^h 9 ^m | 29 ^h 50 ^m | 23 ^h 31 ^m | 14 ^h 17 ^m | 6 ^h 8 ^m | 1 ^h 59 ^m | 9 ^h 8 ^m | 11 ^h 36 ^m | 12 ^h 7 ^m | 4 ^h 15 ^m | 5 ^h 20 ^m | S 20 |
| S 21 | 0 1 17 | 28 ^h 24 ^m 35 ^s | 11 ^h 4 ^m | 24 ^h 6 ^m | 8 ^h 19 ^m | 0 ^h 32 ^m | 23 ^h 41 ^m | 14 ^h 15 ^m | 6 ^h 9 ^m | 1 ^h 58 ^m | 9 ^h 9 ^m | 11 ^h 36 ^m | 12 ^h 4 ^m | 4 ^h 22 ^m | 5 ^h 28 ^m | S 21 |
| M22 | 0 5 14 | 29 ^h 23 ^m 25 ^s | 25 ^h 29 ^m | 25 ^h 10 ^m | 9 ^h 30 ^m | 1 ^h 14 ^m | 23 ^h 51 ^m | 14 ^h 12 ^m | 6 ^h 10 ^m | 1 ^h 56 ^m | 9 ^h 10 ^m | 11 ^h 36 ^m | 12 ^h 1 ^m | 4 ^h 28 ^m | 5 ^h 36 ^m | M22 |
| T 23 | 0 9 10 | 0 ^h 22 ^m 17 ^s | 10 ^h 8 ^m | 26 ^h 12 ^m | 10 ^h 40 ^m | 1 ^h 55 ^m | 24 ^h 1 ^m | 14 ^h 10 ^m | 6 ^h 11 ^m | 1 ^h 54 ^m | 9 ^h 12 ^m | 11 ^h 37 ^m | 11 ^h 58 ^m | 4 ^h 35 ^m | 5 ^h 44 ^m | T 23 |
| W24 | 0 13 7 | 1 ^h 21 ^m 12 ^s | 24 ^h 31 ^m | 27 ^h 12 ^m | 11 ^h 51 ^m | 2 ^h 37 ^m | 24 ^h 12 ^m | 14 ^h 8 ^m | 6 ^h 12 ^m | 1 ^h 53 ^m | 9 ^h 13 ^m | 11 ^h 38 ^m | 11 ^h 55 ^m | 4 ^h 42 ^m | 5 ^h 52 ^m | W24 |
| T 25 | 0 17 3 | 2 ^h 20 ^m 09 ^s | 8 ^h 57 ^m | 28 ^h 9 ^m | 13 ^h 1 ^m | 3 ^h 19 ^m | 24 ^h 22 ^m | 14 ^h 5 ^m | 6 ^h 13 ^m | 1 ^h 51 ^m | 9 ^h 14 ^m | 11 ^h 39 ^m | 11 ^h 52 ^m | 4 ^h 48 ^m | 6 ^h 0 ^m | T 25 |
| F 26 | 0 21 0 | 3 ^h 19 ^m 08 ^s | 23 ^h 16 ^m | 29 ^h 3 ^m | 14 ^h 11 ^m | 4 ^h 1 ^m | 24 ^h 33 ^m | 14 ^h 3 ^m | 6 ^h 14 ^m | 1 ^h 49 ^m | 9 ^h 15 ^m | 11 ^h 39 ^m | 11 ^h 48 ^m | 4 ^h 55 ^m | 6 ^h 8 ^m | F 26 |
| S 27 | 0 24 57 | 4 ^h 18 ^m 10 ^s | 7 ^h 23 ^m | 29 ^h 54 ^m | 15 ^h 21 ^m | 4 ^h 44 ^m | 24 ^h 43 ^m | 14 ^h 1 ^m | 6 ^h 15 ^m | 1 ^h 48 ^m | 9 ^h 16 ^m | 11 ^h 39 ^m | 11 ^h 45 ^m | 5 ^h 2 ^m | 6 ^h 16 ^m | S 27 |
| S 28 | 0 28 53 | 5 ^h 17 ^m 14 ^s | 21 ^h 18 ^m | 0 ^h 41 ^m | 16 ^h 31 ^m | 5 ^h 26 ^m | 24 ^h 54 ^m | 13 ^h 59 ^m | 6 ^h 15 ^m | 1 ^h 46 ^m | 9 ^h 17 ^m | 11 ^h 39 ^m | 11 ^h 42 ^m | 5 ^h 9 ^m | 6 ^h 24 ^m | S 28 |
| M29 | 0 32 50 | 6 ^h 16 ^m 20 ^s | 5 ^h 0 ^m | 1 ^h 25 ^m | 17 ^h 41 ^m | 6 ^h 8 ^m | 25 ^h 5 ^m | 13 ^h 57 ^m | 6 ^h 16 ^m | 1 ^h 44 ^m | 9 ^h 18 ^m | 11 ^h 38 ^m | 11 ^h 39 ^m | 5 ^h 15 ^m | 6 ^h 31 ^m | M29 |
| T 30 | 0 36 46 | 7 ^h 15 ^m 29 ^s | 18 ^h 28 ^m | 2 ^h 5 ^m | 18 ^h 51 ^m | 6 ^h 51 ^m | 25 ^h 16 ^m | 13 ^h 55 ^m | 6 ^h 17 ^m | 1 ^h 43 ^m | 9 ^h 20 ^m | 11 ^h 38 ^m | 11 ^h 36 ^m | 5 ^h 22 ^m | 6 ^h 39 ^m | T 30 |

| Day | ☉ | ☾ | | ♀ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
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|-----|---|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|

ASTRODIENST EPHEMERIS for the year 1698

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|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|-------|------|--------|-------|------|-------|------|-----|
| W 1 | 0 40 43 | 8♌14'40 | 1♏41 | 2♏41 | 20♏1 | 7♏34 | 25♏27 | 13°R54 | 6♏17 | 1°R41 | 9♏21 | 11°R37 | 11♏32 | 5♏29 | 6♏47 | W 1 | |
| T 2 | 0 44 39 | 9°13'53 | 14°41 | 3°11 | 21°11 | 8°16 | 25°38 | 13°52 | 6°18 | 1°Y39 | 9°22 | 11♏37 | 11°29 | 5°35 | 6°55 | T 2 | |
| F 3 | 0 48 36 | 10°13'08 | 27°27 | 3°37 | 22°21 | 8°59 | 25°49 | 13°51 | 6°18 | 1°38 | 9°23 | 11°37 | 11°26 | 5°42 | 7°2 | F 3 | |
| S 4 | 0 52 32 | 11°12'26 | 10♌0 | 3°57 | 23°31 | 9°42 | 26°0 | 13°49 | 6°19 | 1°36 | 9°24 | 11°37 | 11°23 | 5°49 | 7°10 | S 4 | |
| S 5 | 0 56 29 | 12°11'45 | 22°22 | 4°11 | 24°40 | 10°25 | 26°11 | 13°48 | 6°19 | 1°35 | 9°25 | 11°37 | 11°20 | 5°55 | 7°18 | S 5 | |
| M 6 | 1 0 25 | 13°11'07 | 4♏32 | 4°R18 | 25°50 | 11°8 | 26°23 | 13°47 | 6°20 | 1°33 | 9°26 | 11°37 | 11°17 | 6°2 | 7°25 | M 6 | |
| T 7 | 1 4 22 | 14°10'30 | 16°33 | 4°18 | 26°59 | 11°51 | 26°34 | 13°45 | 6°20 | 1°31 | 9°26 | 11°37 | 11°13 | 6°9 | 7°33 | T 7 | |
| W 8 | 1 8 19 | 15°9'55 | 28°27 | 4°10 | 28°8 | 12°34 | 26°46 | 13°44 | 6°20 | 1°30 | 9°27 | 11°36 | 11°10 | 6°16 | 7°40 | W 8 | |
| T 9 | 1 12 15 | 16°9'23 | 10♏18 | 3°54 | 29°18 | 13°18 | 26°57 | 13°43 | 6°20 | 1°28 | 9°28 | 11°36 | 11°7 | 6°22 | 7°48 | T 9 | |
| F 10 | 1 16 12 | 17°8'52 | 22°8 | 3°30 | 0♏27 | 14°1 | 27°9 | 13°43 | 6°20 | 1°26 | 9°29 | 11°35 | 11°4 | 6°29 | 7°55 | F 10 | |
| S 11 | 1 20 8 | 18°8'23 | 4♏3 | 2°58 | 1°36 | 14°45 | 27°21 | 13°42 | 6°20 | 1°25 | 9°30 | 11°35 | 11°1 | 6°36 | 8°2 | S 11 | |
| S 12 | 1 24 5 | 19°7'56 | 16°5 | 2°17 | 2°45 | 15°28 | 27°32 | 13°41 | 6°R21 | 1°23 | 9°31 | 11°D34 | 10°57 | 6°42 | 8°10 | S 12 | |
| M13 | 1 28 1 | 20°7'30 | 28°20 | 1°28 | 3°54 | 16°12 | 27°44 | 13°41 | 6°20 | 1°22 | 9°32 | 11°34 | 10°54 | 6°49 | 8°17 | M13 | |
| T 14 | 1 31 58 | 21°7'07 | 10♏53 | 0°31 | 5°2 | 16°56 | 27°56 | 13°40 | 6°20 | 1°20 | 9°32 | 11°35 | 10°51 | 6°56 | 8°24 | T 14 | |
| W15 | 1 35 54 | 22°6'45 | 23°46 | 29♏27 | 6°11 | 17°39 | 28°8 | 13°40 | 6°20 | 1°19 | 9°33 | 11°36 | 10°48 | 7°2 | 8°31 | W15 | |
| T 16 | 1 39 51 | 23°6'25 | 7♏4 | 28°18 | 7°20 | 18°23 | 28°20 | 13°40 | 6°20 | 1°17 | 9°34 | 11°37 | 10°45 | 7°9 | 8°38 | T 16 | |
| F 17 | 1 43 48 | 24°6'06 | 20°48 | 27°5 | 8°28 | 19°7 | 28°32 | 13°40 | 6°20 | 1°16 | 9°34 | 11°38 | 10°42 | 7°16 | 8°45 | F 17 | |
| S 18 | 1 47 44 | 25°5'49 | 4♏57 | 25°50 | 9°36 | 19°51 | 28°45 | 13°D40 | 6°19 | 1°14 | 9°35 | 11°R38 | 10°38 | 7°22 | 8°52 | S 18 | |
| S 19 | 1 51 41 | 26°5'35 | 19°28 | 24°35 | 10°44 | 20°36 | 28°57 | 13°40 | 6°19 | 1°13 | 9°36 | 11°38 | 10°35 | 7°29 | 8°59 | S 19 | |
| M20 | 1 55 37 | 27°5'22 | 4♏16 | 23°22 | 11°52 | 21°20 | 29°9 | 13°40 | 6°19 | 1°11 | 9°36 | 11°37 | 10°32 | 7°36 | 9°6 | M20 | |
| T 21 | 1 59 34 | 28°5'11 | 19°14 | 22°14 | 13°0 | 22°4 | 29°21 | 13°40 | 6°18 | 1°10 | 9°37 | 11°36 | 10°29 | 7°43 | 9°12 | T 21 | |
| W22 | 2 3 30 | 29°5'03 | 4♏12 | 21°13 | 14°8 | 22°48 | 29°34 | 13°41 | 6°18 | 1°8 | 9°37 | 11°34 | 10°26 | 7°49 | 9°19 | W22 | |
| T 23 | 2 7 27 | 0♏4'56 | 19°2 | 20°20 | 15°15 | 23°33 | 29°46 | 13°41 | 6°17 | 1°7 | 9°38 | 11°31 | 10°23 | 7°56 | 9°26 | T 23 | |
| F 24 | 2 11 23 | 1°4'52 | 3♏39 | 19°37 | 16°23 | 24°17 | 29°59 | 13°42 | 6°17 | 1°5 | 9°38 | 11°29 | 10°19 | 8°3 | 9°32 | F 24 | |
| S 25 | 2 15 20 | 2°4'50 | 17°56 | 19°5 | 17°30 | 25°2 | 0♏11 | 13°42 | 6°16 | 1°4 | 9°39 | 11°28 | 10°16 | 8°9 | 9°39 | S 25 | |
| S 26 | 2 19 17 | 3°4'50 | 1♏52 | 18°44 | 18°37 | 25°47 | 0°24 | 13°43 | 6°15 | 1°3 | 9°39 | 11°D27 | 10°13 | 8°16 | 9°45 | S 26 | |
| M27 | 2 23 13 | 4°4'53 | 15°26 | 18°D35 | 19°44 | 26°31 | 0°37 | 13°44 | 6°14 | 1°1 | 9°40 | 11°28 | 10°10 | 8°23 | 9°51 | M27 | |
| T 28 | 2 27 10 | 5°4'57 | 28°40 | 18°38 | 20°51 | 27°16 | 0°49 | 13°45 | 6°13 | 1°0 | 9°40 | 11°29 | 10°7 | 8°29 | 9°58 | T 28 | |
| W29 | 2 31 6 | 6°5'04 | 11♏36 | 18°51 | 21°58 | 28°1 | 1°2 | 13°46 | 6°13 | 0°59 | 9°40 | 11°30 | 10°3 | 8°36 | 10°4 | W29 | |
| T 30 | 2 35 3 | 7°5'13 | 24°16 | 19°15 | 23°4 | 28°46 | 1°15 | 13°47 | 6°12 | 0°57 | 9°41 | 11°32 | 10°0 | 8°43 | 10°10 | T 30 | |
| F 31 | 2 38 59 | 8♏5'23 | 6♏43 | 19♏48 | 24♏11 | 29♏31 | 1♏28 | 13°49 | 6♏11 | 0°Y56 | 9♏41 | 11°R33 | 9♏57 | 8♏50 | 10♏16 | F 31 | |

| Day | ☉ | ☾ | | ♀ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|-----|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| W 1 | 3s16 | 7n43 | 3s24 | 15s34 | 3s21 | 19s19 | 1s36 | 22s56 | 1s21 | 18s31 | 0n40 | 17s52 | 1s14 | 23n36 | 0n17 | 0s42 | 1s30 | 24n 9 | 6n27 | 4s36 | 4s34 | 17s 9 | 4n14 | 5s10 | | | |
| T 2 | 3 40 | 3 49 | 2 24 | 15 47 | 3 24 | 19 41 | 1 40 | 23 4 | 1 22 | 18 33 | 0 39 | 17 52 | 1 14 | 23 36 | 0 17 | 0 43 | 1 30 | 24 9 | 6 27 | 4 36 | 4 33 | 17 10 | 4 11 | 5 11 | | | |
| F 3 | 4 3 | 0s11 | 1 18 | 15 58 | 3 26 | 20 3 | 1 43 | 23 11 | 1 22 | 18 36 | 0 39 | 17 53 | 1 14 | 23 36 | 0 17 | 0 43 | 1 30 | 24 9 | 6 27 | 4 36 | 4 32 | 17 10 | 4 8 | 5 11 | | | |
| S 4 | 4 26 | 4 6 | 0 9 | 16 6 | 3 27 | 20 24 | 1 47 | 23 17 | 1 22 | 18 39 | 0 39 | 17 53 | 1 14 | 23 36 | 0 17 | 0 44 | 1 30 | 24 9 | 6 27 | 4 36 | 4 31 | 17 11 | 4 5 | 5 11 | | | |
| S 5 | 4 50 | 7 48 | 0n59 | 16 10 | 3 27 | 20 45 | 1 50 | 23 24 | 1 22 | 18 42 | 0 39 | 17 53 | 1 14 | 23 36 | 0 17 | 0 45 | 1 30 | 24 9 | 6 28 | 4 36 | 4 29 | 17 12 | 4 2 | 5 11 | | | |
| M 6 | 5 13 | 11 6 | 2 4 | 16 12 | 3 26 | 21 5 | 1 53 | 23 30 | 1 22 | 18 45 | 0 39 | 17 54 | 1 14 | 23 36 | 0 17 | 0 45 | 1 30 | 24 9 | 6 28 | 4 36 | 4 28 | 17 12 | 3 59 | 5 11 | | | |
| T 7 | 5 36 | 13 54 | 3 2 | 16 10 | 3 24 | 21 25 | 1 57 | 23 36 | 1 23 | 18 47 | 0 39 | 17 54 | 1 14 | 23 36 | 0 17 | 0 46 | 1 30 | 24 8 | 6 28 | 4 36 | 4 27 | 17 13 | 3 56 | 5 11 | | | |
| W 8 | 5 59 | 16 5 | 3 52 | 16 4 | 3 20 | 21 44 | 2 0 | 23 42 | 1 23 | 18 50 | 0 39 | 17 54 | 1 14 | 23 36 | 0 17 | 0 46 | 1 30 | 24 8 | 6 28 | 4 36 | 4 26 | 17 13 | 3 53 | 5 11 | | | |
| T 9 | 6 22 | 17 33 | 4 31 | 15 54 | 3 15 | 22 2 | 2 4 | 23 48 | 1 23 | 18 53 | 0 38 | 17 54 | 1 14 | 23 36 | 0 17 | 0 47 | 1 30 | 24 8 | 6 28 | 4 36 | 4 24 | 17 14 | 3 50 | 5 12 | | | |
| F 10 | 6 45 | 18 16 | 4 59 | 15 39 | 3 9 | 22 21 | 2 7 | 23 54 | 1 23 | 18 56 | 0 38 | 17 55 | 1 14 | 23 36 | 0 17 | 0 48 | 1 30 | 24 8 | 6 29 | 4 35 | 4 23 | 17 15 | 3 47 | 5 12 | | | |
| S 11 | 7 7 | 18 11 | 5 14 | 15 20 | 3 0 | 22 38 | 2 10 | 23 59 | 1 23 | 18 59 | 0 38 | 17 55 | 1 14 | 23 36 | 0 17 | 0 48 | 1 30 | 24 8 | 6 29 | 4 35 | 4 22 | 17 15 | 3 45 | 5 12 | | | |
| S 12 | 7 30 | 17 16 | 5 16 | 14 57 | 2 50 | 22 55 | 2 13 | 24 4 | 1 23 | 19 1 | 0 38 | 17 55 | 1 14 | 23 36 | 0 17 | 0 49 | 1 30 | 24 8 | 6 29 | 4 35 | 4 21 | 17 16 | 3 42 | 5 12 | | | |
| M13 | 7 53 | 15 34 | 5 4 | 14 29 | 2 39 | 23 12 | 2 16 | 24 9 | 1 24 | 19 4 | 0 38 | 17 55 | 1 14 | 23 36 | 0 17 | 0 50 | 1 30 | 24 8 | 6 29 | 4 35 | 4 19 | 17 17 | 3 39 | 5 12 | | | |
| T 14 | 8 15 | 13 5 | 4 37 | 13 56 | 2 25 | 23 27 | 2 19 | 24 13 | 1 24 | 19 7 | 0 38 | 17 55 | 1 14 | 23 36 | 0 17 | 0 50 | 1 30 | 24 8 | 6 30 | 4 35 | 4 18 | 17 17 | 3 36 | 5 12 | | | |
| W15 | 8 37 | 9 55 | 3 55 | 13 19 | 2 10 | 23 43 | 2 22 | 24 18 | 1 24 | 19 10 | 0 38 | 17 55 | 1 13 | 23 36 | 0 17 | 0 51 | 1 30 | 24 9 | 6 30 | 4 36 | 4 17 | 17 18 | 3 33 | 5 13 | | | |
| T 16 | 9 0 | 6 8 | 3 0 | 12 38 | 1 52 | 23 57 | 2 25 | 24 22 | 1 24 | 19 13 | 0 37 | 17 55 | 1 13 | 23 36 | 0 17 | 0 51 | 1 30 | 24 9 | 6 30 | 4 36 | 4 16 | 17 18 | 3 30 | 5 13 | | | |
| F 17 | 9 22 | 1 55 | 1 53 | 11 55 | 1 34 | 24 11 | 2 28 | 24 26 | 1 24 | 19 16 | 0 37 | 17 55 | 1 13 | 23 36 | 0 17 | 0 52 | 1 30 | 24 9 | 6 30 | 4 36 | 4 14 | 17 19 | 3 28 | 5 13 | | | |
| S 18 | 9 44 | 2n32 | 0 37 | 11 9 | 1 14 | 24 25 | 2 31 | 24 29 | 1 24 | 19 18 | 0 37 | 17 55 | 1 13 | 23 36 | 0 17 | 0 53 | 1 30 | 24 9 | 6 31 | 4 37 | 4 13 | 17 20 | 3 25 | 5 13 | | | |
| S 19 | 10 5 | 6 58 | 0s43 | 10 22 | 0 54 | 24 38 | 2 34 | 24 33 | 1 24 | 19 21 | 0 37 | 17 55 | 1 13 | 23 36 | 0 17 | 0 53 | 1 29 | 24 9 | 6 31 | 4 37 | 4 12 | 17 20 | 3 22 | 5 13 | | | |
| M20 | 10 27 | 11 3 | 2 2 | 9 36 | 0 33 | 24 50 | 2 37 | 24 36 | 1 24 | 19 24 | 0 37 | 17 55 | 1 13 | 23 36 | 0 17 | 0 54 | 1 29 | 24 9 | 6 31 | 4 36 | 4 11 | 17 21 | 3 19 | 5 14 | | | |
| T 21 | 10 49 | 14 28 | 3 13 | 8 52 | 0 13 | 25 1 | 2 39 | 24 39 | 1 24 | 19 27 | 0 37 | 17 55 | 1 13 | 23 37 | 0 17 | 0 54 | 1 29 | 24 9 | 6 31 | 4 36 | 4 9 | 17 21 | 3 17 | 5 14 | | | |
| W22 | 11 10 | 16 54 | 4 11 | 8 10 | 0n 7 | 25 12 | 2 42 | 24 41 | 1 24 | 19 30 | 0 37 | 17 55 | 1 13 | 23 37 | 0 17 | 0 55 | 1 29 | 24 9 | 6 32 | 4 35 | 4 8 | 17 22 | 3 14 | 5 14 | | | |
| T 23 | 11 31 | 18 11 | 4 52 | 7 33 | 0 27 | 25 23 | 2 44 | 24 44 | 1 25 | 19 32 | 0 37 | 17 55 | 1 13 | 23 37 | 0 17 | 0 55 | 1 29 | 24 9 | 6 32 | 4 34 | 4 7 | 17 22 | 3 11 | 5 14 | | | |
| F 24 | 11 52 | 18 13 | 5 13 | 7 0 | 0 45 | 25 32 | 2 47 | 24 46 | 1 25 | 19 35 | 0 36 | 17 54 | 1 13 | 23 37 | 0 17 | 0 56 | 1 29 | 24 9 | 6 32 | 4 33 | 4 6 | 17 23 | 3 9 | 5 15 | | | |
| S 25 | 12 13 | 17 6 | 5 13 | 6 32 | 1 1 | 25 41 | 2 49 | 24 47 | 1 25 | 19 38 | 0 36 | 17 54 | 1 13 | 23 37 | 0 17 | 0 56 | 1 29 | 24 9 | 6 32 | 4 32 | 4 4 | 17 24 | 3 6 | 5 15 | | | |
| S 26 | 12 34 | 14 58 | 4 56 | 6 11 | 1 16 | 25 50 | 2 51 | 24 49 | 1 25 | 19 41 | 0 36 | 17 54 | 1 13 | 23 37 | 0 17 | 0 57 | 1 29 | 24 9 | 6 33 | 4 32 | 4 3 | 17 24 | 3 3 | 5 15 | | | |
| M27 | 12 54 | 12 4 | 4 22 | 5 55 | 1 29 | 25 57 | 2 53 | 24 50 | 1 25 | 19 43 | 0 36 | 17 54 | 1 13 | 23 37 | 0 17 | 0 58 | 1 29 | 24 10 | 6 33 | 4 32 | 4 2 | 17 25 | 3 1 | 5 16 | | | |
| T 28 | 13 14 | 8 36 | 3 35 | 5 46 | 1 41 | 26 4 | 2 55 | 24 51 | 1 25 | 19 46 | 0 36 | 17 53 | 1 13 | 23 37 | 0 17 | 0 58 | 1 29 | 24 10 | 6 33 | 4 33 | 4 1 | 17 25 | 2 58 | 5 16 | | | |
| W29 | 13 34 | 4 48 | 2 37 | 5 42 | 1 50 | 26 11 | 2 57 | 24 52 | 1 25 | 19 49 | 0 36 | 17 53 | 1 13 | 23 37 | 0 17 | 0 59 | 1 29 | 24 10 | 6 33 | 4 33 | 3 59 | 17 26 | 2 56 | 5 16 | | | |
| T 30 | 13 54 | 0 51 | 1 34 | 5 43 | 1 58 | 26 16 | 2 59 | 24 53 | 1 25 | 19 52 | 0 36 | 17 52 | 1 13 | 23 37 | 0 17 | 0 59 | 1 29 | 24 10 | 6 34 | 4 34 | 3 58 | 17 26 | 2 53 | 5 16 | | | |
| F 31 | 14s14 | 3s 5 | 0s27 | 5s50 | 2n 4 | 26s21 | 3s 0 | 24s53 | 1s25 | 19s54 | 0n36 | 17s52 | 1s13 | 23n37 | 0n17 | 0s59 | 1s29 | 24n10 | 6n34 | 4s34 | 3s57 | 17s27 | 2n51 | 5s17 | | | |

ASTRODIENST EPHEMERIS for the year 1698
geocentric

NOVEMBER 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|--------|-------|-------|-------|------|-------|-------|-------|-------|--------|------|-------|-------|------|
| S 1 | 2 42 56 | 9♍ 5'36 | 18♌59 | 20♌29 | 25♌17 | 0♈16 | 1♌41 | 13♌50 | 6°R10 | 0°R55 | 9♏41 | 11°R33 | 9♌54 | 8♌56 | 10♐22 | S 1 |
| S 2 | 2 46 52 | 10° 5'51 | 1♍ 7 | 21°19 | 26°23 | 1° 1 | 1°54 | 13°52 | 6♌ 9 | 0°Y54 | 9°42 | 11♌31 | 9°51 | 9° 3 | 10°28 | S 2 |
| M 3 | 2 50 49 | 11° 6'07 | 13° 8 | 22°15 | 27°28 | 1°46 | 2° 7 | 13°53 | 6° 7 | 0°53 | 9°42 | 11°28 | 9°48 | 9°10 | 10°33 | M 3 |
| T 4 | 2 54 46 | 12° 6'26 | 25° 3 | 23°17 | 28°34 | 2°32 | 2°20 | 13°55 | 6° 6 | 0°51 | 9°42 | 11°23 | 9°44 | 9°16 | 10°39 | T 4 |
| W 5 | 2 58 42 | 13° 6'46 | 6♌55 | 24°24 | 29°39 | 3°17 | 2°33 | 13°57 | 6° 5 | 0°50 | 9°42 | 11°18 | 9°41 | 9°23 | 10°45 | W 5 |
| T 6 | 3 2 39 | 14° 7'07 | 18°45 | 25°36 | 0♈44 | 4° 2 | 2°46 | 13°59 | 6° 4 | 0°49 | 9°42 | 11°11 | 9°38 | 9°30 | 10°50 | T 6 |
| F 7 | 3 6 35 | 15° 7'30 | 0♈36 | 26°52 | 1°49 | 4°48 | 2°59 | 14° 1 | 6° 2 | 0°48 | 9°42 | 11° 5 | 9°35 | 9°37 | 10°56 | F 7 |
| S 8 | 3 10 32 | 16° 7'55 | 12°30 | 28°11 | 2°54 | 5°33 | 3°12 | 14° 3 | 6° 1 | 0°47 | 9°42 | 11° 0 | 9°32 | 9°43 | 11° 1 | S 8 |
| S 9 | 3 14 28 | 17° 8'21 | 24°32 | 29°33 | 3°58 | 6°19 | 3°25 | 14° 5 | 6° 0 | 0°46 | 9°42 | 10°56 | 9°28 | 9°50 | 11° 7 | S 9 |
| M10 | 3 18 25 | 18° 8'49 | 6♌43 | 0♍57 | 5° 3 | 7° 4 | 3°38 | 14° 7 | 5°58 | 0°45 | 9°R42 | 10°53 | 9°25 | 9°57 | 11°12 | M10 |
| T 11 | 3 22 21 | 19° 9'18 | 19°10 | 2°23 | 6° 6 | 7°50 | 3°52 | 14°10 | 5°57 | 0°44 | 9°42 | 10°D53 | 9°22 | 10° 3 | 11°17 | T 11 |
| W12 | 3 26 18 | 20° 9'48 | 1♌56 | 3°51 | 7°10 | 8°36 | 4° 5 | 14°12 | 5°55 | 0°43 | 9°42 | 10°53 | 9°19 | 10°10 | 11°22 | W12 |
| T 13 | 3 30 15 | 21°10'19 | 15° 6 | 5°20 | 8°13 | 9°22 | 4°18 | 14°15 | 5°54 | 0°42 | 9°42 | 10°55 | 9°16 | 10°17 | 11°27 | T 13 |
| F 14 | 3 34 11 | 22°10'52 | 28°43 | 6°50 | 9°16 | 10° 7 | 4°32 | 14°17 | 5°52 | 0°41 | 9°42 | 10°56 | 9°13 | 10°23 | 11°32 | F 14 |
| S 15 | 3 38 8 | 23°11'26 | 12°Y48 | 8°21 | 10°19 | 10°53 | 4°45 | 14°20 | 5°50 | 0°40 | 9°42 | 10°R57 | 9° 9 | 10°30 | 11°36 | S 15 |
| S 16 | 3 42 4 | 24°12'01 | 27°21 | 9°53 | 11°21 | 11°39 | 4°58 | 14°23 | 5°49 | 0°39 | 9°42 | 10°55 | 9° 6 | 10°37 | 11°41 | S 16 |
| M17 | 3 46 1 | 25°12'38 | 12♌17 | 11°26 | 12°24 | 12°25 | 5°12 | 14°26 | 5°47 | 0°39 | 9°42 | 10°52 | 9° 3 | 10°44 | 11°46 | M17 |
| T 18 | 3 49 57 | 26°13'16 | 27°29 | 12°59 | 13°25 | 13°11 | 5°25 | 14°29 | 5°45 | 0°38 | 9°42 | 10°47 | 9° 0 | 10°50 | 11°50 | T 18 |
| W19 | 3 53 54 | 27°13'55 | 12♌47 | 14°32 | 14°27 | 13°57 | 5°38 | 14°32 | 5°43 | 0°37 | 9°41 | 10°40 | 8°57 | 10°57 | 11°55 | W19 |
| T 20 | 3 57 50 | 28°14'36 | 28° 0 | 16° 5 | 15°28 | 14°43 | 5°52 | 14°35 | 5°41 | 0°36 | 9°41 | 10°33 | 8°54 | 11° 4 | 11°59 | T 20 |
| F 21 | 4 1 47 | 29°15'18 | 12♌58 | 17°39 | 16°28 | 15°29 | 6° 5 | 14°39 | 5°39 | 0°36 | 9°41 | 10°26 | 8°50 | 11°10 | 12° 3 | F 21 |
| S 22 | 4 5 44 | 0♌16'02 | 27°32 | 19°13 | 17°28 | 16°15 | 6°19 | 14°42 | 5°37 | 0°35 | 9°40 | 10°20 | 8°47 | 11°17 | 12° 7 | S 22 |
| S 23 | 4 9 40 | 1°16'48 | 11♏39 | 20°47 | 18°28 | 17° 2 | 6°32 | 14°46 | 5°36 | 0°34 | 9°40 | 10°16 | 8°44 | 11°24 | 12°11 | S 23 |
| M24 | 4 13 37 | 2°17'35 | 25°18 | 22°21 | 19°28 | 17°48 | 6°46 | 14°49 | 5°34 | 0°34 | 9°40 | 10°14 | 8°41 | 11°31 | 12°15 | M24 |
| T 25 | 4 17 33 | 3°18'24 | 8♐30 | 23°55 | 20°27 | 18°34 | 6°59 | 14°53 | 5°31 | 0°33 | 9°39 | 10°D14 | 8°38 | 11°37 | 12°19 | T 25 |
| W26 | 4 21 30 | 4°19'14 | 21°19 | 25°29 | 21°25 | 19°21 | 7°13 | 14°57 | 5°29 | 0°33 | 9°39 | 10°15 | 8°34 | 11°44 | 12°22 | W26 |
| T 27 | 4 25 26 | 5°20'05 | 3♌49 | 27° 3 | 22°23 | 20° 7 | 7°26 | 15° 1 | 5°27 | 0°32 | 9°39 | 10°R15 | 8°31 | 11°51 | 12°26 | T 27 |
| F 28 | 4 29 23 | 6°20'58 | 16° 4 | 28°37 | 23°21 | 20°53 | 7°40 | 15° 5 | 5°25 | 0°32 | 9°38 | 10°15 | 8°28 | 11°57 | 12°29 | F 28 |
| S 29 | 4 33 19 | 7°21'52 | 28° 9 | 0♌11 | 24°18 | 21°40 | 7°53 | 15° 9 | 5°23 | 0°31 | 9°38 | 10°14 | 8°25 | 12° 4 | 12°33 | S 29 |
| S 30 | 4 37 16 | 8♌22'48 | 10♍ 6 | 1♌45 | 25♈14 | 22♈26 | 8♌ 7 | 15♌13 | 5♌21 | 0°Y31 | 9♏37 | 10♌ 9 | 8♌22 | 12♌11 | 12♐36 | S 30 |

| Day | ☉ | ☾ | | ♀ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|-------|------|------|------|-------|------|------|-----|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| S 1 | 14s33 | 6s49 | 0n41 | 6s 1 | 2n 9 | 26s25 | 3s 2 | 24s53 | 1s25 | 19s57 | 0n35 | 17s52 | 1s13 | 23n37 | 0n17 | 1s 0 | 1s29 | 24n10 | 6n34 | 4s34 | 3s56 | 17s28 | 2n48 | 5s17 | | | |
| S 2 | 14 52 | 10 14 | 1 45 | 6 17 | 2 12 | 26 29 | 3 4 | 24 53 | 1 25 | 20 0 | 0 35 | 17 51 | 1 13 | 23 37 | 0 17 | 1 0 | 1 29 | 24 10 | 6 34 | 4 34 | 3 54 | 17 28 | 2 46 | 5 17 | | | |
| M 3 | 15 11 | 13 11 | 2 44 | 6 36 | 2 14 | 26 32 | 3 5 | 24 52 | 1 25 | 20 2 | 0 35 | 17 51 | 1 13 | 23 37 | 0 17 | 1 1 | 1 29 | 24 11 | 6 35 | 4 33 | 3 53 | 17 29 | 2 43 | 5 18 | | | |
| T 4 | 15 30 | 15 34 | 3 36 | 6 58 | 2 15 | 26 34 | 3 6 | 24 52 | 1 24 | 20 5 | 0 35 | 17 50 | 1 12 | 23 37 | 0 17 | 1 1 | 1 29 | 24 11 | 6 35 | 4 31 | 3 52 | 17 29 | 2 41 | 5 18 | | | |
| W 5 | 15 48 | 17 16 | 4 17 | 7 23 | 2 15 | 26 36 | 3 7 | 24 50 | 1 24 | 20 8 | 0 35 | 17 49 | 1 12 | 23 37 | 0 17 | 1 2 | 1 29 | 24 11 | 6 35 | 4 28 | 3 51 | 17 30 | 2 38 | 5 18 | | | |
| T 6 | 16 6 | 18 13 | 4 48 | 7 50 | 2 14 | 26 37 | 3 8 | 24 49 | 1 24 | 20 10 | 0 35 | 17 49 | 1 12 | 23 38 | 0 17 | 1 2 | 1 29 | 24 11 | 6 35 | 4 26 | 3 49 | 17 30 | 2 36 | 5 19 | | | |
| F 7 | 16 24 | 18 22 | 5 6 | 8 19 | 2 12 | 26 37 | 3 9 | 24 48 | 1 24 | 20 13 | 0 35 | 17 48 | 1 12 | 23 38 | 0 17 | 1 3 | 1 29 | 24 11 | 6 36 | 4 24 | 3 48 | 17 31 | 2 33 | 5 19 | | | |
| S 8 | 16 41 | 17 43 | 5 11 | 8 50 | 2 9 | 26 36 | 3 10 | 24 46 | 1 24 | 20 16 | 0 35 | 17 47 | 1 12 | 23 38 | 0 17 | 1 3 | 1 29 | 24 12 | 6 36 | 4 22 | 3 47 | 17 31 | 2 31 | 5 19 | | | |
| S 9 | 16 59 | 16 17 | 5 3 | 9 22 | 2 6 | 26 35 | 3 11 | 24 43 | 1 24 | 20 18 | 0 35 | 17 47 | 1 12 | 23 38 | 0 17 | 1 3 | 1 29 | 24 12 | 6 36 | 4 20 | 3 46 | 17 32 | 2 29 | 5 20 | | | |
| M10 | 17 16 | 14 6 | 4 40 | 9 55 | 2 2 | 26 34 | 3 11 | 24 41 | 1 24 | 20 21 | 0 34 | 17 46 | 1 12 | 23 38 | 0 17 | 1 4 | 1 29 | 24 12 | 6 36 | 4 19 | 3 44 | 17 32 | 2 27 | 5 20 | | | |
| T 11 | 17 32 | 11 13 | 4 5 | 10 29 | 1 58 | 26 31 | 3 11 | 24 38 | 1 24 | 20 23 | 0 34 | 17 45 | 1 12 | 23 38 | 0 17 | 1 4 | 1 29 | 24 12 | 6 37 | 4 19 | 3 43 | 17 33 | 2 24 | 5 20 | | | |
| W12 | 17 49 | 7 45 | 3 16 | 11 3 | 1 53 | 26 28 | 3 12 | 24 35 | 1 24 | 20 26 | 0 34 | 17 45 | 1 12 | 23 38 | 0 18 | 1 4 | 1 29 | 24 13 | 6 37 | 4 19 | 3 42 | 17 33 | 2 22 | 5 21 | | | |
| T 13 | 18 5 | 3 47 | 2 16 | 11 38 | 1 47 | 26 24 | 3 12 | 24 32 | 1 24 | 20 29 | 0 34 | 17 44 | 1 12 | 23 38 | 0 18 | 1 5 | 1 29 | 24 13 | 6 37 | 4 19 | 3 41 | 17 34 | 2 20 | 5 21 | | | |
| F 14 | 18 21 | 0n30 | 1 6 | 12 13 | 1 42 | 26 20 | 3 12 | 24 29 | 1 23 | 20 31 | 0 34 | 17 43 | 1 12 | 23 38 | 0 18 | 1 5 | 1 29 | 24 13 | 6 37 | 4 20 | 3 39 | 17 35 | 2 18 | 5 21 | | | |
| S 15 | 18 36 | 4 55 | 0s10 | 12 48 | 1 36 | 26 15 | 3 11 | 24 25 | 1 23 | 20 34 | 0 34 | 17 42 | 1 12 | 23 38 | 0 18 | 1 5 | 1 29 | 24 13 | 6 38 | 4 20 | 3 38 | 17 35 | 2 16 | 5 22 | | | |
| S 16 | 18 51 | 9 11 | 1 28 | 13 23 | 1 30 | 26 10 | 3 11 | 24 21 | 1 23 | 20 36 | 0 34 | 17 41 | 1 12 | 23 38 | 0 18 | 1 6 | 1 29 | 24 14 | 6 38 | 4 20 | 3 37 | 17 36 | 2 13 | 5 22 | | | |
| M17 | 19 6 | 12 59 | 2 41 | 13 58 | 1 23 | 26 3 | 3 10 | 24 16 | 1 23 | 20 39 | 0 34 | 17 40 | 1 12 | 23 39 | 0 18 | 1 6 | 1 29 | 24 14 | 6 38 | 4 19 | 3 36 | 17 36 | 2 11 | 5 22 | | | |
| T 18 | 19 20 | 15 59 | 3 45 | 14 32 | 1 17 | 25 57 | 3 10 | 24 12 | 1 23 | 20 41 | 0 34 | 17 39 | 1 12 | 23 39 | 0 18 | 1 6 | 1 29 | 24 14 | 6 38 | 4 16 | 3 34 | 17 37 | 2 9 | 5 23 | | | |
| W19 | 19 34 | 17 52 | 4 32 | 15 6 | 1 10 | 25 49 | 3 9 | 24 7 | 1 23 | 20 44 | 0 34 | 17 38 | 1 12 | 23 39 | 0 18 | 1 7 | 1 29 | 24 15 | 6 39 | 4 14 | 3 33 | 17 37 | 2 7 | 5 23 | | | |
| T 20 | 19 48 | 18 27 | 5 0 | 15 40 | 1 3 | 25 41 | 3 8 | 24 2 | 1 22 | 20 46 | 0 34 | 17 37 | 1 12 | 23 39 | 0 18 | 1 7 | 1 29 | 24 15 | 6 39 | 4 11 | 3 32 | 17 38 | 2 5 | 5 24 | | | |
| F 21 | 20 1 | 17 45 | 5 7 | 16 13 | 0 57 | 25 33 | 3 7 | 23 56 | 1 22 | 20 48 | 0 33 | 17 36 | 1 12 | 23 39 | 0 18 | 1 7 | 1 29 | 24 15 | 6 39 | 4 8 | 3 31 | 17 38 | 2 3 | 5 24 | | | |
| S 22 | 20 14 | 15 53 | 4 54 | 16 46 | 0 50 | 25 23 | 3 5 | 23 51 | 1 22 | 20 51 | 0 33 | 17 35 | 1 12 | 23 39 | 0 18 | 1 7 | 1 29 | 24 16 | 6 39 | 4 6 | 3 29 | 17 39 | 2 2 | 5 24 | | | |
| S 23 | 20 27 | 13 6 | 4 23 | 17 17 | 0 43 | 25 14 | 3 4 | 23 45 | 1 22 | 20 53 | 0 33 | 17 34 | 1 12 | 23 39 | 0 18 | 1 7 | 1 28 | 24 16 | 6 40 | 4 4 | 3 28 | 17 39 | 2 0 | 5 25 | | | |
| M24 | 20 39 | 9 41 | 3 38 | 17 49 | 0 36 | 25 4 | 3 2 | 23 38 | 1 22 | 20 56 | 0 33 | 17 33 | 1 11 | 23 39 | 0 18 | 1 8 | 1 28 | 24 16 | 6 40 | 4 3 | 3 27 | 17 40 | 1 58 | 5 25 | | | |
| T 25 | 20 51 | 5 53 | 2 42 | 18 19 | 0 29 | 24 53 | 3 0 | 23 32 | 1 21 | 20 58 | 0 33 | 17 32 | 1 11 | 23 39 | 0 18 | 1 8 | 1 28 | 24 17 | 6 40 | 4 3 | 3 26 | 17 40 | 1 56 | 5 26 | | | |
| W26 | 21 2 | 1 55 | 1 40 | 18 49 | 0 22 | 24 42 | 2 58 | 23 25 | 1 21 | 21 0 | 0 33 | 17 31 | 1 11 | 23 39 | 0 18 | 1 8 | 1 28 | 24 17 | 6 40 | 4 4 | 3 24 | 17 40 | 1 54 | 5 26 | | | |
| T 27 | 21 13 | 2s 3 | 0 35 | 19 17 | 0 15 | 24 30 | 2 55 | 23 18 | 1 21 | 21 3 | 0 33 | 17 30 | 1 11 | 23 40 | 0 18 | 1 8 | 1 28 | 24 17 | 6 41 | 4 4 | 3 23 | 17 41 | 1 52 | 5 26 | | | |
| F 28 | 21 24 | 5 51 | 0n31 | 19 45 | 0 8 | 24 18 | 2 53 | 23 11 | 1 21 | 21 5 | 0 33 | 17 28 | 1 11 | 23 40 | 0 18 | 1 8 | 1 28 | 24 18 | 6 41 | 4 4 | 3 22 | 17 41 | 1 51 | 5 27 | | | |
| S 29 | 21 34 | 9 22 | 1 34 | 20 12 | 0 1 | 24 5 | 2 50 | 23 3 | 1 20 | 21 7 | 0 33 | 17 27 | 1 11 | 23 40 | 0 18 | 1 8 | 1 28 | 24 18 | 6 41 | 4 3 | 3 21 | 17 42 | 1 49 | 5 27 | | | |
| S 30 | 21s44 | 12s27 | 2n33 | 20s38 | 0s 6 | 23s52 | 2s47 | 22s55 | 1s20 | 21s 9 | 0n33 | 17s26 | 1s11 | 23n40 | 0n18 | 1s 9 | 1s28 | 24n18 | 6n41 | 4s 2 | 3s19 | 17s42 | 1n48 | 5s28 | | | |

ASTRODIENST EPHEMERIS for the year 1698
geocentric

DECEMBER 1698 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|-------|--------|------|
| M 1 | 4 41 13 | 9♂23'45 | 22♂ 0 | 3♂19 | 26♂10 | 23♂13 | 8♂20 | 15♂17 | 5♂R18 | 0♂R31 | 9♂R36 | 10♂R 2 | 8♂19 | 12♂17 | 12♂39 | M 1 |
| T 2 | 4 45 9 | 10°24'43 | 3♂51 | 4°53 | 27° 6 | 23°59 | 8°34 | 15°21 | 5♂16 | 0♂Y30 | 9♂36 | 9♂52 | 8°15 | 12°24 | 12°42 | T 2 |
| W 3 | 4 49 6 | 11°25'42 | 15°42 | 6°27 | 28° 0 | 24°46 | 8°47 | 15°26 | 5°14 | 0°30 | 9°35 | 9°41 | 8°12 | 12°31 | 12°45 | W 3 |
| T 4 | 4 53 2 | 12°26'41 | 27°34 | 8° 1 | 28°54 | 25°33 | 9° 1 | 15°30 | 5°12 | 0°30 | 9°35 | 9°28 | 8° 9 | 12°38 | 12°48 | T 4 |
| F 5 | 4 56 59 | 13°27'42 | 9♂29 | 9°35 | 29°48 | 26°19 | 9°14 | 15°34 | 5° 9 | 0°29 | 9°34 | 9°15 | 8° 6 | 12°44 | 12°51 | F 5 |
| S 6 | 5 0 55 | 14°28'44 | 21°27 | 11° 9 | 0♂41 | 27° 6 | 9°28 | 15°39 | 5° 7 | 0°29 | 9°33 | 9° 3 | 8° 3 | 12°51 | 12°53 | S 6 |
| S 7 | 5 4 52 | 15°29'46 | 3♂32 | 12°43 | 1°33 | 27°53 | 9°41 | 15°44 | 5° 5 | 0°29 | 9°33 | 8°53 | 8° 0 | 12°58 | 12°56 | S 7 |
| M 8 | 5 8 48 | 16°30'48 | 15°46 | 14°17 | 2°24 | 28°40 | 9°55 | 15°48 | 5° 2 | 0°29 | 9°32 | 8°46 | 7°56 | 13° 4 | 12°58 | M 8 |
| T 9 | 5 12 45 | 17°31'52 | 28°11 | 15°52 | 3°15 | 29°26 | 10° 8 | 15°53 | 5° 0 | 0°29 | 9°31 | 8°42 | 7°53 | 13°11 | 13° 0 | T 9 |
| W10 | 5 16 42 | 18°32'55 | 10♂53 | 17°26 | 4° 5 | 0♂13 | 10°22 | 15°58 | 4°57 | 0°29 | 9°30 | 8°40 | 7°50 | 13°18 | 13° 2 | W10 |
| T 11 | 5 20 38 | 19°33'59 | 23°54 | 19° 1 | 4°54 | 1° 0 | 10°35 | 16° 3 | 4°55 | 0°D29 | 9°30 | 8°D40 | 7°47 | 13°25 | 13° 4 | T 11 |
| F 12 | 5 24 35 | 20°35'04 | 7♂20 | 20°35 | 5°42 | 1°47 | 10°49 | 16° 8 | 4°52 | 0°29 | 9°29 | 8°R40 | 7°44 | 13°31 | 13° 6 | F 12 |
| S 13 | 5 28 31 | 21°36'09 | 21°12 | 22°10 | 6°30 | 2°34 | 11° 2 | 16°13 | 4°50 | 0°29 | 9°28 | 8°40 | 7°40 | 13°38 | 13° 8 | S 13 |
| S 14 | 5 32 28 | 22°37'14 | 5♂32 | 23°45 | 7°16 | 3°21 | 11°15 | 16°18 | 4°47 | 0°29 | 9°27 | 8°38 | 7°37 | 13°45 | 13°10 | S 14 |
| M15 | 5 36 24 | 23°38'19 | 20°18 | 25°20 | 8° 1 | 4° 7 | 11°29 | 16°24 | 4°45 | 0°29 | 9°26 | 8°32 | 7°34 | 13°51 | 13°11 | M15 |
| T 16 | 5 40 21 | 24°39'25 | 5♂26 | 26°55 | 8°45 | 4°54 | 11°42 | 16°29 | 4°42 | 0°29 | 9°25 | 8°24 | 7°31 | 13°58 | 13°13 | T 16 |
| W17 | 5 44 17 | 25°40'31 | 20°45 | 28°30 | 9°29 | 5°41 | 11°56 | 16°34 | 4°40 | 0°29 | 9°24 | 8°14 | 7°28 | 14° 5 | 13°14 | W17 |
| T 18 | 5 48 14 | 26°41'38 | 6♂ 5 | 0♂ 6 | 10°11 | 6°28 | 12° 9 | 16°40 | 4°37 | 0°29 | 9°23 | 8° 3 | 7°25 | 14°12 | 13°15 | T 18 |
| F 19 | 5 52 11 | 27°42'45 | 21°14 | 1°42 | 10°52 | 7°15 | 12°22 | 16°45 | 4°35 | 0°30 | 9°22 | 7°52 | 7°21 | 14°18 | 13°16 | F 19 |
| S 20 | 5 56 7 | 28°43'53 | 6♂ 2 | 3°18 | 11°32 | 8° 2 | 12°36 | 16°51 | 4°32 | 0°30 | 9°21 | 7°42 | 7°18 | 14°25 | 13°17 | S 20 |
| S 21 | 6 0 4 | 29°45'01 | 20°22 | 4°54 | 12°10 | 8°49 | 12°49 | 16°56 | 4°29 | 0°30 | 9°20 | 7°34 | 7°15 | 14°32 | 13°18 | S 21 |
| M22 | 6 4 0 | 0♂46'10 | 4♂11 | 6°31 | 12°47 | 9°36 | 13° 2 | 17° 2 | 4°27 | 0°31 | 9°19 | 7°30 | 7°12 | 14°38 | 13°19 | M22 |
| T 23 | 6 7 57 | 1°47'19 | 17°31 | 8° 7 | 13°23 | 10°23 | 13°15 | 17° 8 | 4°24 | 0°31 | 9°18 | 7°28 | 7° 9 | 14°45 | 13°19 | T 23 |
| W24 | 6 11 53 | 2°48'29 | 0♂23 | 9°44 | 13°58 | 11°10 | 13°28 | 17°14 | 4°22 | 0°32 | 9°17 | 7°27 | 7° 6 | 14°52 | 13°20 | W24 |
| T 25 | 6 15 50 | 3°49'39 | 12°53 | 11°22 | 14°31 | 11°57 | 13°42 | 17°20 | 4°19 | 0°32 | 9°16 | 7°27 | 7° 2 | 14°59 | 13°20 | T 25 |
| F 26 | 6 19 46 | 4°50'49 | 25° 6 | 12°59 | 15° 3 | 12°44 | 13°55 | 17°25 | 4°16 | 0°32 | 9°15 | 7°26 | 6°59 | 15° 5 | 13°20 | F 26 |
| S 27 | 6 23 43 | 5°52'00 | 7♂ 6 | 14°36 | 15°33 | 13°31 | 14° 8 | 17°31 | 4°14 | 0°33 | 9°14 | 7°23 | 6°56 | 15°12 | 13°R20 | S 27 |
| S 28 | 6 27 40 | 6°53'11 | 18°59 | 16°14 | 16° 1 | 14°18 | 14°21 | 17°37 | 4°11 | 0°34 | 9°13 | 7°18 | 6°53 | 15°19 | 13°20 | S 28 |
| M29 | 6 31 36 | 7°54'23 | 0♂49 | 17°52 | 16°28 | 15° 6 | 14°34 | 17°44 | 4° 9 | 0°34 | 9°12 | 7°10 | 6°50 | 15°25 | 13°20 | M29 |
| T 30 | 6 35 33 | 8°55'35 | 12°39 | 19°30 | 16°53 | 15°53 | 14°47 | 17°50 | 4° 6 | 0°35 | 9°10 | 6°58 | 6°46 | 15°32 | 13°20 | T 30 |
| W31 | 6 39 29 | 9♂56'46 | 24♂31 | 21♂ 8 | 17♂16 | 16♂40 | 15♂ 0 | 17♂56 | 4♂ 4 | 0♂Y35 | 9♂ 9 | 6♂44 | 6♂43 | 15♂39 | 13♂20 | W31 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------------|------------|------------|------------|------------|------------|------------|-----------|------------|-----------|------------|-----------|----------|----------|----------|----------|
| | decl | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat | decl lat |
| M 1 | 21s54 | 15s 1 3n24 | 21s 3 0s13 | 23s38 | 2s44 | 22s47 | 1s20 | 21s12 | 0n33 | 17s25 | 1s11 | 23n40 | 0n18 | 1s 9 | 1s28 | 24n19 |
| T 2 | 22 3 16 56 | 4 6 21 28 | 0 19 23 24 | 2 41 22 39 | 1 20 21 14 | 0 33 17 23 | 1 11 23 40 | 0 18 1 9 | 1 28 24 19 | 6 42 3 55 | 3 17 17 43 | 1 44 5 29 | | | | |
| W 3 | 22 11 18 7 | 4 37 21 51 | 0 26 23 9 | 2 37 22 30 | 1 19 21 16 | 0 32 17 22 | 1 11 23 40 | 0 18 1 9 | 1 28 24 20 | 6 42 3 50 | 3 16 17 44 | 1 43 5 29 | | | | |
| T 4 | 22 19 18 31 | 4 56 22 13 | 0 32 22 54 | 2 33 22 22 | 1 19 21 18 | 0 32 17 21 | 1 11 23 40 | 0 18 1 9 | 1 28 24 20 | 6 42 3 45 | 3 14 17 44 | 1 41 5 29 | | | | |
| F 5 | 22 27 18 7 | 5 2 22 34 | 0 39 22 39 | 2 29 22 12 | 1 19 21 20 | 0 32 17 19 | 1 11 23 40 | 0 18 1 9 | 1 28 24 20 | 6 43 3 40 | 3 13 17 45 | 1 40 5 30 | | | | |
| S 6 | 22 34 16 54 | 4 56 22 53 | 0 45 22 24 | 2 25 22 3 | 1 18 21 22 | 0 32 17 18 | 1 11 23 41 | 0 18 1 9 | 1 28 24 21 | 6 43 3 36 | 3 12 17 45 | 1 39 5 30 | | | | |
| S 7 | 22 41 14 56 | 4 35 23 12 | 0 51 22 8 | 2 20 21 54 | 1 18 21 24 | 0 32 17 16 | 1 11 23 41 | 0 18 1 9 | 1 28 24 21 | 6 43 3 32 | 3 11 17 46 | 1 37 5 31 | | | | |
| M 8 | 22 47 12 17 | 4 2 23 30 | 0 57 21 51 | 2 16 21 44 | 1 18 21 27 | 0 32 17 15 | 1 11 23 41 | 0 18 1 9 | 1 28 24 22 | 6 43 3 29 | 3 9 17 46 | 1 36 5 31 | | | | |
| T 9 | 22 53 9 2 | 3 17 23 46 | 1 3 21 35 | 2 11 21 34 | 1 17 21 29 | 0 32 17 14 | 1 11 23 41 | 0 18 1 9 | 1 28 24 22 | 6 43 3 27 | 3 8 17 46 | 1 35 5 32 | | | | |
| W10 | 22 59 5 19 | 2 22 24 1 | 1 8 21 18 | 2 6 21 23 | 1 17 21 31 | 0 32 17 12 | 1 11 23 41 | 0 18 1 9 | 1 28 24 23 | 6 44 3 27 | 3 7 17 47 | 1 34 5 32 | | | | |
| T 11 | 23 4 1 14 | 1 18 24 15 | 1 14 21 1 | 2 0 21 13 | 1 17 21 33 | 0 32 17 11 | 1 11 23 41 | 0 18 1 9 | 1 28 24 23 | 6 44 3 27 | 3 5 17 47 | 1 32 5 32 | | | | |
| F 12 | 23 8 3n 1 | 0 7 24 27 | 1 19 20 43 | 1 54 21 2 | 1 16 21 35 | 0 32 17 9 | 1 11 23 41 | 0 18 1 9 | 1 28 24 23 | 6 44 3 27 | 3 4 17 48 | 1 31 5 33 | | | | |
| S 13 | 23 13 7 16 | 1s 6 24 39 | 1 24 20 26 | 1 48 20 51 | 1 16 21 36 | 0 32 17 7 | 1 11 23 41 | 0 18 1 9 | 1 28 24 24 | 6 44 3 26 | 3 3 17 48 | 1 30 5 33 | | | | |
| S 14 | 23 16 11 14 | 2 17 24 49 | 1 29 20 8 | 1 42 20 40 | 1 16 21 38 | 0 32 17 6 | 1 11 23 41 | 0 18 1 9 | 1 28 24 24 | 6 45 3 25 | 3 2 17 49 | 1 29 5 34 | | | | |
| M15 | 23 19 14 37 | 3 21 24 57 | 1 34 19 50 | 1 36 20 28 | 1 15 21 40 | 0 32 17 4 | 1 11 23 42 | 0 18 1 9 | 1 28 24 25 | 6 45 3 23 | 3 0 17 49 | 1 28 5 34 | | | | |
| T 16 | 23 22 17 5 | 4 13 25 5 | 1 38 19 31 | 1 29 20 17 | 1 15 21 42 | 0 32 17 3 | 1 11 23 42 | 0 18 1 9 | 1 28 24 25 | 6 45 3 20 | 2 59 17 50 | 1 27 5 35 | | | | |
| W17 | 23 24 18 23 | 4 47 25 10 | 1 42 19 13 | 1 22 20 5 | 1 15 21 44 | 0 31 17 1 | 1 11 23 42 | 0 18 1 9 | 1 27 24 26 | 6 45 3 16 | 2 58 17 50 | 1 26 5 35 | | | | |
| T 18 | 23 26 18 20 | 5 1 25 15 | 1 46 18 55 | 1 14 19 53 | 1 14 21 46 | 0 31 16 59 | 1 11 23 42 | 0 18 1 8 | 1 27 24 26 | 6 45 3 12 | 2 57 17 50 | 1 25 5 36 | | | | |
| F 19 | 23 27 16 59 | 4 53 25 18 | 1 50 18 36 | 1 7 19 41 | 1 14 21 48 | 0 31 16 58 | 1 11 23 42 | 0 18 1 8 | 1 27 24 27 | 6 46 3 7 | 2 55 17 51 | 1 25 5 36 | | | | |
| S 20 | 23 28 14 30 | 4 25 25 20 | 1 53 18 17 | 0 59 19 28 | 1 13 21 49 | 0 31 16 56 | 1 11 23 42 | 0 18 1 8 | 1 27 24 27 | 6 46 3 3 | 2 54 17 51 | 1 24 5 36 | | | | |
| S 21 | 23 29 11 13 | 3 42 25 20 | 1 57 17 59 | 0 50 19 15 | 1 13 21 51 | 0 31 16 54 | 1 11 23 42 | 0 18 1 8 | 1 27 24 27 | 6 46 3 1 | 2 53 17 52 | 1 23 5 37 | | | | |
| M22 | 23 28 7 24 | 2 46 25 18 | 1 59 17 40 | 0 42 19 2 | 1 13 21 53 | 0 31 16 52 | 1 11 23 42 | 0 18 1 8 | 1 27 24 28 | 6 46 2 59 | 2 52 17 52 | 1 23 5 37 | | | | |
| T 23 | 23 28 3 21 | 1 43 25 15 | 2 2 17 21 | 0 33 18 49 | 1 12 21 55 | 0 31 16 51 | 1 11 23 42 | 0 18 1 8 | 1 27 24 28 | 6 46 2 58 | 2 50 17 52 | 1 22 5 38 | | | | |
| W24 | 23 27 0s43 | 0 37 25 11 | 2 4 17 2 | 0 24 18 36 | 1 12 21 56 | 0 31 16 49 | 1 11 23 42 | 0 18 1 7 | 1 27 24 29 | 6 47 2 58 | 2 49 17 53 | 1 21 5 38 | | | | |
| T 25 | 23 25 4 39 | 0n29 25 5 | 2 6 16 44 | 0 14 18 22 | 1 11 21 58 | 0 31 16 47 | 1 11 23 43 | 0 18 1 7 | 1 27 24 29 | 6 47 2 58 | 2 48 17 53 | 1 21 5 39 | | | | |
| F 26 | 23 23 8 18 | 1 32 24 57 | 2 7 16 25 | 0 4 18 9 | 1 11 22 0 | 0 31 16 45 | 1 11 23 43 | 0 18 1 7 | 1 27 24 30 | 6 47 2 57 | 2 47 17 54 | 1 20 5 39 | | | | |
| S 27 | 23 21 11 33 | 2 30 24 48 | 2 8 16 6 | 0n 6 17 55 | 1 10 22 1 | 0 31 16 43 | 1 11 23 43 | 0 18 1 7 | 1 27 24 30 | 6 47 2 56 | 2 45 17 54 | 1 20 5 39 | | | | |
| S 28 | 23 18 14 17 | 3 20 24 37 | 2 9 15 48 | 0 16 17 41 | 1 10 22 3 | 0 31 16 42 | 1 11 23 43 | 0 18 1 6 | 1 27 24 31 | 6 47 2 54 | 2 44 17 54 | 1 20 5 40 | | | | |
| M29 | 23 14 16 24 | 4 2 24 25 | 2 9 15 30 | 0 27 17 26 | 1 9 22 4 | 0 31 16 40 | 1 11 23 43 | 0 18 1 6 | 1 27 24 31 | 6 48 2 51 | 2 43 17 55 | 1 19 5 40 | | | | |
| T 30 | 23 10 17 50 | 4 33 24 11 | 2 9 15 11 | 0 38 17 12 | 1 9 22 6 | 0 31 16 38 | 1 11 23 43 | 0 18 1 6 | 1 27 24 32 | 6 48 2 46 | 2 42 17 55 | 1 19 5 41 | | | | |
| W31 | 23s 6 18s29 | 4n53 23s55 | 2s 8 14s54 | 0n50 16s57 | 1s 9 22s 7 | 0n31 16s36 | 1s11 23n43 | 0n18 1s 6 | 1s27 24n32 | 6n48 2s41 | 2s40 17s56 | 1n19 5s41 | | | | |

Julian Day Number = 2341576.5, Delta T = 14.67 sec
Ecliptic obliquity = 23°28'33", Nutation = 0°00'01", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°32'15", Lahiri = 19°39'15"Greg. Calendar