



Astrodienst Ephemeris Tables for the year 1618

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 1618

geocentric

JANUARY 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|----------|----------|----------|----------|----------|----------|----------|---------|---------|----------|----------|----------|----------|------|
| M 1 | 6 41 56 | 10°37'43 | 0°58'58 | 27°40'40 | 9°19'19 | 29°37'37 | 6°43'43 | 17°R29 | 17°R 9 | 7°25'25 | 8°R42 | 11°53'53 | 13°19'19 | 19°49'49 | 19°10'10 | M 1 |
| T 2 | 6 45 53 | 11°38'54 | 14°52'52 | 29°11'11 | 10°33'33 | 0°24'24 | 6°57'57 | 17°8'27 | 17°6'6 | 7°25'25 | 8°R42 | 11°55'55 | 13°16'16 | 19°56'56 | 19°14'14 | T 2 |
| W 3 | 6 49 50 | 12°40'05 | 28°52'52 | 0°43'43 | 11°47'47 | 1°11'11 | 7°11'11 | 17°25'25 | 17°4'4 | 7°25'25 | 8°41'41 | 11°56'56 | 13°13'13 | 20°3'3 | 19°17'17 | W 3 |
| T 4 | 6 53 46 | 13°41'15 | 12°59'59 | 2°15'15 | 13°1'1 | 1°59'59 | 7°24'24 | 17°23'23 | 17°1'1 | 7°26'26 | 8°41'41 | 11°R57 | 13°10'10 | 20°10'10 | 19°21'21 | T 4 |
| F 5 | 6 57 43 | 14°42'24 | 27°10'10 | 3°48'48 | 14°16'16 | 2°46'46 | 7°38'38 | 17°22'22 | 16°58'58 | 7°26'26 | 8°40'40 | 11°56'56 | 13°6'6 | 20°16'16 | 19°25'25 | F 5 |
| S 6 | 7 1 39 | 15°43'33 | 11°24'24 | 5°21'21 | 15°30'30 | 3°33'33 | 7°52'52 | 17°20'20 | 16°56'56 | 7°26'26 | 8°40'40 | 11°54'54 | 13°3'3 | 20°23'23 | 19°28'28 | S 6 |
| S 7 | 7 5 36 | 16°44'42 | 25°38'38 | 6°55'55 | 16°44'44 | 4°20'20 | 8°6'6 | 17°19'19 | 16°53'53 | 7°26'26 | 8°40'40 | 11°51'51 | 13°0'0 | 20°30'30 | 19°32'32 | S 7 |
| M 8 | 7 9 32 | 17°45'49 | 9°48'48 | 8°29'29 | 17°59'59 | 5°8'8 | 8°20'20 | 17°18'18 | 16°50'50 | 7°R26 | 8°39'39 | 11°48'48 | 12°57'57 | 20°36'36 | 19°36'36 | M 8 |
| T 9 | 7 13 29 | 18°46'57 | 23°50'50 | 10°3'3 | 19°13'13 | 5°55'55 | 8°34'34 | 17°17'17 | 16°48'48 | 7°26'26 | 8°39'39 | 11°44'44 | 12°54'54 | 20°43'43 | 19°40'40 | T 9 |
| W10 | 7 17 26 | 19°48'03 | 7°40'40 | 11°38'38 | 20°27'27 | 6°43'43 | 8°47'47 | 17°16'16 | 16°45'45 | 7°26'26 | 8°39'39 | 11°41'41 | 12°51'51 | 20°50'50 | 19°44'44 | W10 |
| T 11 | 7 21 22 | 20°49'09 | 21°16'16 | 13°14'14 | 21°42'42 | 7°30'30 | 9°1'1 | 17°15'15 | 16°43'43 | 7°26'26 | 8°39'39 | 11°39'39 | 12°47'47 | 20°57'57 | 19°48'48 | T 11 |
| F 12 | 7 25 19 | 21°50'15 | 4°23'23 | 14°50'50 | 22°56'56 | 8°17'17 | 9°15'15 | 17°14'14 | 16°40'40 | 7°26'26 | 8°38'38 | 11°38'38 | 12°44'44 | 21°3'3 | 19°51'51 | F 12 |
| S 13 | 7 29 15 | 22°51'20 | 17°32'32 | 16°26'26 | 24°11'11 | 9°5'5 | 9°29'29 | 17°14'14 | 16°37'37 | 7°26'26 | 8°38'38 | 11°D38 | 12°41'41 | 21°10'10 | 19°55'55 | S 13 |
| S 14 | 7 33 12 | 23°52'24 | 0°13'13 | 18°4'4 | 25°25'25 | 9°52'52 | 9°43'43 | 17°13'13 | 16°35'35 | 7°25'25 | 8°38'38 | 11°39'39 | 12°38'38 | 21°17'17 | 19°59'59 | S 14 |
| M15 | 7 37 8 | 24°53'28 | 12°37'37 | 19°41'41 | 26°39'39 | 10°39'39 | 9°58'58 | 17°13'13 | 16°32'32 | 7°25'25 | 8°38'38 | 11°40'40 | 12°35'35 | 21°23'23 | 20°3'3 | M15 |
| T 16 | 7 41 5 | 25°54'31 | 24°47'47 | 21°19'19 | 27°54'54 | 11°27'27 | 10°12'12 | 17°12'12 | 16°30'30 | 7°25'25 | 8°38'38 | 11°42'42 | 12°32'32 | 21°30'30 | 20°7'7 | T 16 |
| W17 | 7 45 1 | 26°55'34 | 6°46'46 | 22°58'58 | 29°8'8 | 12°14'14 | 10°26'26 | 17°12'12 | 16°27'27 | 7°25'25 | 8°37'37 | 11°43'43 | 12°28'28 | 21°37'37 | 20°11'11 | W17 |
| T 18 | 7 48 58 | 27°56'36 | 18°39'39 | 24°38'38 | 0°23'23 | 13°2'2 | 10°40'40 | 17°D12 | 16°25'25 | 7°24'24 | 8°37'37 | 11°44'44 | 12°25'25 | 21°44'44 | 20°15'15 | T 18 |
| F 19 | 7 52 55 | 28°57'38 | 0°13'13 | 26°18'18 | 1°37'37 | 13°49'49 | 10°54'54 | 17°12'12 | 16°22'22 | 7°24'24 | 8°37'37 | 11°R44 | 12°22'22 | 21°50'50 | 20°19'19 | F 19 |
| S 20 | 7 56 51 | 29°58'39 | 12°27'27 | 27°58'58 | 2°52'52 | 14°37'37 | 11°8'8 | 17°12'12 | 16°20'20 | 7°24'24 | 8°37'37 | 11°44'44 | 12°19'19 | 21°57'57 | 20°23'23 | S 20 |
| S 21 | 8 0 48 | 0°59'40 | 24°30'30 | 29°40'40 | 4°6'6 | 15°24'24 | 11°23'23 | 17°12'12 | 16°17'17 | 7°23'23 | 8°37'37 | 11°43'43 | 12°16'16 | 22°4'4 | 20°28'28 | S 21 |
| M22 | 8 4 44 | 2°0'40 | 6°46'46 | 1°22'22 | 5°21'21 | 16°12'12 | 11°37'37 | 17°13'13 | 16°15'15 | 7°23'23 | 8°D37 | 11°41'41 | 12°12'12 | 22°10'10 | 20°32'32 | M22 |
| T 23 | 8 8 41 | 3°1'39 | 19°18'18 | 3°4'4 | 6°36'36 | 16°59'59 | 11°51'51 | 17°13'13 | 16°12'12 | 7°22'22 | 8°37'37 | 11°40'40 | 12°9'9 | 22°17'17 | 20°36'36 | T 23 |
| W24 | 8 12 37 | 4°2'38 | 2°9'9 | 4°47'47 | 7°50'50 | 17°46'46 | 12°5'5 | 17°14'14 | 16°10'10 | 7°22'22 | 8°37'37 | 11°39'39 | 12°6'6 | 22°24'24 | 20°40'40 | W24 |
| T 25 | 8 16 34 | 5°3'36 | 15°19'19 | 6°31'31 | 9°5'5 | 18°34'34 | 12°20'20 | 17°15'15 | 16°7'7 | 7°21'21 | 8°37'37 | 11°38'38 | 12°3'3 | 22°31'31 | 20°44'44 | T 25 |
| F 26 | 8 20 30 | 6°4'33 | 28°49'49 | 8°16'16 | 10°19'19 | 19°21'21 | 12°34'34 | 17°15'15 | 16°5'5 | 7°21'21 | 8°37'37 | 11°38'38 | 12°0'0 | 22°37'37 | 20°48'48 | F 26 |
| S 27 | 8 24 27 | 7°5'29 | 12°38'38 | 10°1'1 | 11°34'34 | 20°9'9 | 12°48'48 | 17°16'16 | 16°2'2 | 7°20'20 | 8°37'37 | 11°D38 | 11°57'57 | 22°44'44 | 20°53'53 | S 27 |
| S 28 | 8 28 24 | 8°6'23 | 26°41'41 | 11°47'47 | 12°48'48 | 20°56'56 | 13°3'3 | 17°17'17 | 16°0'0 | 7°19'19 | 8°38'38 | 11°38'38 | 11°53'53 | 22°51'51 | 20°57'57 | S 28 |
| M29 | 8 32 20 | 9°7'16 | 10°55'55 | 13°33'33 | 14°3'3 | 21°44'44 | 13°17'17 | 17°19'19 | 15°58'58 | 7°19'19 | 8°38'38 | 11°38'38 | 11°50'50 | 22°58'58 | 21°1'1 | M29 |
| T 30 | 8 36 17 | 10°8'08 | 25°15'15 | 15°20'20 | 15°18'18 | 22°31'31 | 13°31'31 | 17°20'20 | 15°55'55 | 7°18'18 | 8°38'38 | 11°38'38 | 11°47'47 | 23°4'4 | 21°5'5 | T 30 |
| W31 | 8 40 13 | 11°8'59 | 9°38'38 | 17°7'7 | 16°32'32 | 23°19'19 | 13°46'46 | 17°21'21 | 15°53'53 | 7°17'17 | 8°38'38 | 11°38'38 | 11°44'44 | 23°11'11 | 21°9'9 | 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 |
| M 1 | 23s 4 | 9s33 | 1n43 | 24s 6 | 0s38 | 20s32 | 1n22 | 21s22 | 1s 7 | 19s16 | 0s39 | 14n54 | 2s17 | 22n51 | 0n28 | 1s32 | 1n32 | 0s36 | 15s50 | 17s16 | 16s51 | 12s 8 | 9s22 | 6n 2 | 5s57 |
| T 2 | 22 59 | 3 21 | 2 51 | 24 14 | 0 45 | 20 46 | 1 20 | 21 12 | 1 7 | 19 12 | 0 39 | 14 53 | 2 16 | 22 51 | 0 28 | 1 32 | 1 32 | 0 36 | 15 50 | 17 15 | 16 52 | 12 11 | 9 22 | 6 1 | 5 57 |
| W 3 | 22 53 | 3n 3 | 3 49 | 24 20 | 0 51 | 20 58 | 1 18 | 21 2 | 1 7 | 19 9 | 0 39 | 14 53 | 2 16 | 22 52 | 0 28 | 1 32 | 1 32 | 0 36 | 15 50 | 17 15 | 16 53 | 12 14 | 9 21 | 6 1 | 5 57 |
| T 4 | 22 47 | 9 21 | 4 35 | 24 25 | 0 57 | 21 10 | 1 15 | 20 51 | 1 7 | 19 5 | 0 39 | 14 53 | 2 16 | 22 52 | 0 28 | 1 33 | 1 32 | 0 36 | 15 49 | 17 15 | 16 54 | 12 17 | 9 20 | 6 1 | 5 57 |
| F 5 | 22 41 | 15 12 | 5 3 | 24 29 | 1 3 | 21 21 | 1 13 | 20 41 | 1 7 | 19 2 | 0 39 | 14 53 | 2 16 | 22 52 | 0 28 | 1 33 | 1 32 | 0 35 | 15 49 | 17 15 | 16 55 | 12 20 | 9 19 | 6 1 | 5 57 |
| S 6 | 22 34 | 20 15 | 5 13 | 24 31 | 1 9 | 21 32 | 1 10 | 20 29 | 1 7 | 18 58 | 0 39 | 14 53 | 2 15 | 22 53 | 0 28 | 1 32 | 1 32 | 0 35 | 15 49 | 17 15 | 16 56 | 12 22 | 9 18 | 6 0 | 5 56 |
| S 7 | 22 26 | 24 8 | 5 5 | 24 33 | 1 14 | 21 42 | 1 8 | 20 18 | 1 7 | 18 55 | 0 39 | 14 53 | 2 15 | 22 53 | 0 28 | 1 32 | 1 32 | 0 35 | 15 48 | 17 16 | 16 57 | 12 25 | 9 17 | 6 0 | 5 56 |
| M 8 | 22 19 | 26 32 | 4 37 | 24 32 | 1 19 | 21 52 | 1 5 | 20 7 | 1 7 | 18 51 | 0 39 | 14 53 | 2 15 | 22 53 | 0 28 | 1 32 | 1 32 | 0 35 | 15 48 | 17 17 | 16 58 | 12 28 | 9 16 | 6 0 | 5 56 |
| T 9 | 22 10 | 27 14 | 3 53 | 24 31 | 1 24 | 22 1 | 1 2 | 19 55 | 1 7 | 18 48 | 0 39 | 14 53 | 2 15 | 22 54 | 0 28 | 1 32 | 1 32 | 0 35 | 15 48 | 17 18 | 16 59 | 12 31 | 9 15 | 6 0 | 5 56 |
| W10 | 22 2 | 26 12 | 2 56 | 24 28 | 1 29 | 22 9 | 1 0 | 19 43 | 1 7 | 18 44 | 0 39 | 14 53 | 2 14 | 22 54 | 0 28 | 1 32 | 1 33 | 0 34 | 15 47 | 17 19 | 17 0 | 12 34 | 9 14 | 5 59 | 5 56 |
| T 11 | 21 52 | 23 37 | 1 50 | 24 23 | 1 34 | 22 17 | 0 57 | 19 31 | 1 7 | 18 40 | 0 39 | 14 53 | 2 14 | 22 54 | 0 28 | 1 32 | 1 33 | 0 34 | 15 47 | 17 20 | 17 0 | 12 37 | 9 13 | 5 59 | 5 56 |
| F 12 | 21 43 | 19 48 | 0 39 | 24 17 | 1 38 | 22 24 | 0 55 | 19 18 | 1 7 | 18 37 | 0 39 | 14 53 | 2 14 | 22 55 | 0 28 | 1 32 | 1 33 | 0 34 | 15 47 | 17 20 | 17 1 | 12 40 | 9 12 | 5 59 | 5 56 |
| S 13 | 21 33 | 15 6 | 0s33 | 24 10 | 1 42 | 22 30 | 0 52 | 19 6 | 1 7 | 18 33 | 0 40 | 14 53 | 2 13 | 22 55 | 0 28 | 1 32 | 1 33 | 0 34 | 15 46 | 17 20 | 17 2 | 12 43 | 9 11 | 5 59 | 5 56 |
| S 14 | 21 23 | 9 51 | 1 41 | 24 1 | 1 46 | 22 36 | 0 49 | 18 53 | 1 7 | 18 29 | 0 40 | 14 53 | 2 13 | 22 55 | 0 28 | 1 32 | 1 33 | 0 33 | 15 46 | 17 20 | 17 3 | 12 45 | 9 10 | 5 59 | 5 56 |
| M15 | 21 12 | 4 20 | 2 43 | 23 50 | 1 49 | 22 40 | 0 46 | 18 40 | 1 6 | 18 26 | 0 40 | 14 53 | 2 13 | 22 56 | 0 28 | 1 32 | 1 33 | 0 33 | 15 46 | 17 19 | 17 4 | 12 48 | 9 9 | 5 58 | 5 56 |
| T 16 | 21 1 | 1s14 | 3 36 | 23 39 | 1 52 | 22 45 | 0 44 | 18 27 | 1 6 | 18 22 | 0 40 | 14 53 | 2 12 | 22 56 | 0 28 | 1 32 | 1 33 | 0 33 | 15 45 | 17 19 | 17 5 | 12 51 | 9 8 | 5 58 | 5 56 |
| W17 | 20 49 | 6 40 | 4 20 | 23 25 | 1 55 | 22 48 | 0 41 | 18 13 | 1 6 | 18 18 | 0 40 | 14 54 | 2 12 | 22 56 | 0 28 | 1 31 | 1 33 | 0 32 | 15 45 | 17 19 | 17 6 | 12 54 | 9 7 | 5 58 | 5 56 |
| T 18 | 20 37 | 11 49 | 4 51 | 23 10 | 1 57 | 22 51 | 0 38 | 18 0 | 1 6 | 18 14 | 0 40 | 14 54 | 2 12 | 22 57 | 0 28 | 1 31 | 1 33 | 0 32 | 15 45 | 17 18 | 17 7 | 12 57 | 9 6 | 5 58 | 5 56 |
| F 19 | 20 25 | 16 31 | 5 10 | 22 54 | 2 0 | 22 53 | 0 35 | 17 46 | 1 6 | 18 10 | 0 40 | 14 54 | 2 12 | 22 57 | 0 28 | 1 31 | 1 33 | 0 32 | 15 44 | 17 18 | 17 8 | 13 0 | 9 5 | 5 58 | 5 56 |
| S 20 | 20 12 | 20 37 | 5 16 | 22 36 | 2 1 | 22 55 | 0 33 | 17 32 | 1 6 | 18 7 | 0 40 | 14 54 | 2 11 | 22 57 | 0 28 | 1 31 | 1 33 | 0 32 | 15 44 | 17 18 | 17 9 | 13 2 | 9 4 | 5 58 | 5 56 |
| S 21 | 19 59 | 23 55 | 5 9 | 22 16 | 2 3 | 22 56 | 0 30 | 17 18 | 1 6 | 18 3 | 0 40 | 14 55 | 2 11 | 22 57 | 0 28 | 1 31 | 1 33 | 0 31 | 15 43 | 17 19 | 17 9 | 13 5 | 9 3 | 5 57 | 5 56 |
| M22 | 19 45 | 26 12 | 4 47 | 21 55 | 2 4 | 22 56 | 0 27 | 17 3 | 1 5 | 17 59 | 0 40 | 14 55 | 2 11 | 22 58 | 0 28 | 1 30 | 1 33 | 0 31 | 15 43 | 17 19 | 17 10 | 13 8 | 9 2 | 5 57 | 5 56 |
| T 23 | 19 31 | 27 14 | 4 11 | 21 32 | 2 4 | 22 55 | 0 24 | 16 49 | 1 5 | 17 55 | 0 40 | 14 56 | 2 10 | 22 58 | 0 28 | 1 30 | 1 33 | 0 31 | 15 43 | 17 19 | 17 11 | 13 11 | 9 0 | 5 57 | 5 56 |
| W24 | 19 17 | 26 50 | 3 22 | 21 7 | 2 5 | 22 54 | 0 21 | 16 34 | 1 5 | 17 51 | 0 40 | 14 56 | 2 10 | 22 58 | 0 28 | 1 30 | 1 33 | 0 30 | 15 42 | 17 20 | 17 12 | 13 14 | 8 59 | 5 57 | 5 56 |
| T 25 | 19 3 | 24 56 | 2 21 | 20 41 | 2 4 | 22 52 | 0 19 | 16 19 | 1 5 | 17 47 | 0 40 | 14 56 | 2 10 | 22 59 | 0 28 | 1 30 | 1 33 | 0 30 | 15 42 | 17 20 | 17 13 | 13 16 | 8 58 | 5 57 | 5 56 |
| F 26 | 18 48 | 21 35 | 1 10 | 20 14 | 2 4 | 22 50 | 0 16 | 16 4 | 1 5 | 17 43 | 0 40 | 14 57 | 2 10 | 22 59 | 0 28 | 1 29 | 1 33 | 0 30 | 15 42 | 17 20 | 17 14 | 13 19 | 8 57 | 5 57 | 5 56 |
| S 27 | 18 32 | 16 58 | 0n 6 | 19 44 | 2 2 | 22 46 | 0 13 | 15 49 | 1 4 | 17 39 | 0 40 | 14 58 | 2 9 | 22 59 | 0 28 | 1 29 | 1 34 | 0 29 | 15 41 | 17 20 | 17 15 | 13 22 | 8 56 | 5 56 | 5 56 |
| S 28 | 18 17 | 11 21 | 1 23 | 19 13 | 2 1 | 22 42 | 0 10 | 15 34 | 1 4 | 17 35 | 0 40 | 14 58 | 2 9 | 23 0 | 0 28 | 1 29 | 1 34 | 0 29 | 15 41 | 17 20 | 17 16 | 13 25 | 8 55 | 5 56 | 5 56 |
| M29 | 18 1 | 5 5 | 2 35 | 18 41 | 1 59 | 22 37 | 0 7 | 15 18 | 1 4 | 17 31 | 0 41 | 14 59 | 2 9 | 23 0 | 0 28 | 1 29 | 1 34 | 0 28 | 15 41 | 17 20 | 17 17 | 13 28 | 8 53 | 5 56 | 5 56 |
| T 30 | 17 45 | 1n28 | 3 39 | 18 7 | 1 56 | 22 32 | 0 5 | 15 2 | 1 4 | 17 27 | 0 41 | 14 59 | 2 8 | 23 0 | 0 28 | 1 28 | 1 34 | 0 28 | 15 40 | 17 20 | 17 17 | 13 30 | 8 52 | 5 56 | 5 56 |
| W31 | 17s28 | 7n57 | 4n29 | 17s31 | 1s53 | 22s26 | 0n 2 | 14s47 | 1s 4 | 17s23 | 0s41 | 15n 0 | 2s 8 | 23n 0 | 0n28 | 1s28 | 1n34 | 0s28 | 15s40 | 17s20 | 17s18 | 13s33 | 8s51 | 5n56 | 5 56 |

ASTRODIENST EPHEMERIS for the year 1618

geocentric

FEBRUARY 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|------|
| T 1 | 8 44 10 | 12 ²⁸ 9'48 | 23 ³⁷ 58 | 18 ²⁸ 55 | 17 ³⁸ 47 | 24 ²⁸ 6 | 14 ²⁸ 0 | 17 ³⁸ 23 | 15 ²⁸ 51 | 7 ²⁸ 17 | 8 ²⁸ 38 | 11 ²⁸ 38 | 11 ²⁸ 38 | 23 ²⁸ 18 | 21 ²⁸ 14 | T 1 |
| F 2 | 8 48 6 | 13 ²⁸ 10'36 | 8 ²⁸ 13 | 20 ²⁸ 43 | 19 ²⁸ 1 | 24 ²⁸ 54 | 14 ²⁸ 14 | 17 ²⁸ 24 | 15 ²⁸ 49 | 7 ²⁸ 16 | 8 ²⁸ 38 | 11 ²⁸ 38 | 11 ²⁸ 38 | 23 ²⁸ 24 | 21 ²⁸ 18 | F 2 |
| S 3 | 8 52 3 | 14 ²⁸ 11'21 | 22 ²⁸ 20 | 22 ²⁸ 32 | 20 ²⁸ 16 | 25 ²⁸ 41 | 14 ²⁸ 29 | 17 ²⁸ 26 | 15 ²⁸ 46 | 7 ²⁸ 15 | 8 ²⁸ 39 | 11 ²⁸ 38 | 11 ²⁸ 34 | 23 ²⁸ 31 | 21 ²⁸ 22 | S 3 |
| S 4 | 8 55 59 | 15 ²⁸ 12'06 | 6 ²⁸ 11 | 24 ²⁸ 20 | 21 ²⁸ 31 | 26 ²⁸ 29 | 14 ²⁸ 43 | 17 ²⁸ 28 | 15 ²⁸ 44 | 7 ²⁸ 14 | 8 ²⁸ 39 | 11 ²⁸ 38 | 11 ²⁸ 31 | 23 ²⁸ 38 | 21 ²⁸ 26 | S 4 |
| M 5 | 8 59 56 | 16 ²⁸ 12'49 | 20 ²⁸ 3 | 26 ²⁸ 9 | 22 ²⁸ 45 | 27 ²⁸ 16 | 14 ²⁸ 57 | 17 ²⁸ 30 | 15 ²⁸ 42 | 7 ²⁸ 13 | 8 ²⁸ 39 | 11 ²⁸ 39 | 11 ²⁸ 28 | 23 ²⁸ 45 | 21 ²⁸ 31 | M 5 |
| T 6 | 9 3 53 | 17 ²⁸ 13'30 | 3 ²⁸ 37 | 27 ²⁸ 57 | 24 ²⁸ 0 | 28 ²⁸ 3 | 15 ²⁸ 12 | 17 ²⁸ 32 | 15 ²⁸ 40 | 7 ²⁸ 12 | 8 ²⁸ 40 | 11 ²⁸ 39 | 11 ²⁸ 25 | 23 ²⁸ 51 | 21 ²⁸ 35 | T 6 |
| W 7 | 9 7 49 | 18 ²⁸ 14'09 | 16 ²⁸ 59 | 29 ²⁸ 44 | 25 ²⁸ 14 | 28 ²⁸ 51 | 15 ²⁸ 26 | 17 ²⁸ 34 | 15 ²⁸ 38 | 7 ²⁸ 11 | 8 ²⁸ 40 | 11 ²⁸ 40 | 11 ²⁸ 22 | 23 ²⁸ 58 | 21 ²⁸ 39 | W 7 |
| T 8 | 9 11 46 | 19 ²⁸ 14'47 | 0 ²⁸ 8 | 1 ²⁸ 31 | 26 ²⁸ 29 | 29 ²⁸ 38 | 15 ²⁸ 41 | 17 ²⁸ 36 | 15 ²⁸ 36 | 7 ²⁸ 10 | 8 ²⁸ 40 | 11 ²⁸ 40 | 11 ²⁸ 18 | 24 ²⁸ 5 | 21 ²⁸ 44 | T 8 |
| F 9 | 9 15 42 | 20 ²⁸ 15'24 | 13 ²⁸ 4 | 3 ²⁸ 17 | 27 ²⁸ 44 | 0 ²⁸ 25 | 15 ²⁸ 55 | 17 ²⁸ 39 | 15 ²⁸ 34 | 7 ²⁸ 9 | 8 ²⁸ 41 | 11 ²⁸ 41 | 11 ²⁸ 15 | 24 ²⁸ 11 | 21 ²⁸ 48 | F 9 |
| S 10 | 9 19 39 | 21 ²⁸ 15'58 | 25 ²⁸ 46 | 5 ²⁸ 2 | 28 ²⁸ 58 | 1 ²⁸ 13 | 16 ²⁸ 9 | 17 ²⁸ 41 | 15 ²⁸ 32 | 7 ²⁸ 8 | 8 ²⁸ 41 | 11 ²⁸ 40 | 11 ²⁸ 12 | 24 ²⁸ 18 | 21 ²⁸ 52 | S 10 |
| S 11 | 9 23 35 | 22 ²⁸ 16'32 | 8 ²⁸ 16 | 6 ²⁸ 45 | 0 ²⁸ 13 | 2 ²⁸ 0 | 16 ²⁸ 24 | 17 ²⁸ 44 | 15 ²⁸ 30 | 7 ²⁸ 7 | 8 ²⁸ 41 | 11 ²⁸ 39 | 11 ²⁸ 9 | 24 ²⁸ 25 | 21 ²⁸ 56 | S 11 |
| M 12 | 9 27 32 | 23 ²⁸ 17'03 | 20 ²⁸ 33 | 8 ²⁸ 25 | 1 ²⁸ 27 | 2 ²⁸ 47 | 16 ²⁸ 38 | 17 ²⁸ 46 | 15 ²⁸ 28 | 7 ²⁸ 6 | 8 ²⁸ 42 | 11 ²⁸ 38 | 11 ²⁸ 6 | 24 ²⁸ 32 | 22 ²⁸ 1 | M 12 |
| T 13 | 9 31 28 | 24 ²⁸ 17'34 | 2 ²⁸ 40 | 10 ²⁸ 3 | 2 ²⁸ 42 | 3 ²⁸ 35 | 16 ²⁸ 52 | 17 ²⁸ 49 | 15 ²⁸ 26 | 7 ²⁸ 5 | 8 ²⁸ 42 | 11 ²⁸ 36 | 11 ²⁸ 3 | 24 ²⁸ 38 | 22 ²⁸ 5 | T 13 |
| W 14 | 9 35 25 | 25 ²⁸ 18'03 | 14 ²⁸ 39 | 11 ²⁸ 38 | 3 ²⁸ 57 | 4 ²⁸ 22 | 17 ²⁸ 6 | 17 ²⁸ 52 | 15 ²⁸ 24 | 7 ²⁸ 4 | 8 ²⁸ 43 | 11 ²⁸ 34 | 10 ²⁸ 59 | 24 ²⁸ 45 | 22 ²⁸ 9 | W 14 |
| T 15 | 9 39 22 | 26 ²⁸ 18'30 | 26 ²⁸ 33 | 13 ²⁸ 9 | 5 ²⁸ 11 | 5 ²⁸ 9 | 17 ²⁸ 21 | 17 ²⁸ 55 | 15 ²⁸ 22 | 7 ²⁸ 3 | 8 ²⁸ 43 | 11 ²⁸ 32 | 10 ²⁸ 56 | 24 ²⁸ 52 | 22 ²⁸ 14 | T 15 |
| F 16 | 9 43 18 | 27 ²⁸ 18'56 | 8 ²⁸ 25 | 14 ²⁸ 36 | 6 ²⁸ 26 | 5 ²⁸ 57 | 17 ²⁸ 35 | 17 ²⁸ 58 | 15 ²⁸ 21 | 7 ²⁸ 2 | 8 ²⁸ 44 | 11 ²⁸ 30 | 10 ²⁸ 53 | 24 ²⁸ 58 | 22 ²⁸ 18 | F 16 |
| S 17 | 9 47 15 | 28 ²⁸ 19'21 | 20 ²⁸ 19 | 15 ²⁸ 57 | 7 ²⁸ 40 | 6 ²⁸ 44 | 17 ²⁸ 49 | 18 ²⁸ 1 | 15 ²⁸ 19 | 7 ²⁸ 1 | 8 ²⁸ 44 | 11 ²⁸ 29 | 10 ²⁸ 50 | 25 ²⁸ 5 | 22 ²⁸ 22 | S 17 |
| S 18 | 9 51 11 | 29 ²⁸ 19'44 | 2 ²⁸ 21 | 17 ²⁸ 13 | 8 ²⁸ 55 | 7 ²⁸ 31 | 18 ²⁸ 3 | 18 ²⁸ 5 | 15 ²⁸ 17 | 6 ²⁸ 59 | 8 ²⁸ 45 | 11 ²⁸ 29 | 10 ²⁸ 47 | 25 ²⁸ 12 | 22 ²⁸ 26 | S 18 |
| M 19 | 9 55 8 | 0 ²⁸ 20'06 | 14 ²⁸ 34 | 18 ²⁸ 23 | 10 ²⁸ 10 | 8 ²⁸ 18 | 18 ²⁸ 18 | 18 ²⁸ 8 | 15 ²⁸ 16 | 6 ²⁸ 58 | 8 ²⁸ 46 | 11 ²⁸ 30 | 10 ²⁸ 44 | 25 ²⁸ 19 | 22 ²⁸ 31 | M 19 |
| T 20 | 9 59 4 | 1 ²⁸ 20'27 | 27 ²⁸ 4 | 19 ²⁸ 25 | 11 ²⁸ 24 | 9 ²⁸ 6 | 18 ²⁸ 32 | 18 ²⁸ 12 | 15 ²⁸ 14 | 6 ²⁸ 57 | 8 ²⁸ 46 | 11 ²⁸ 31 | 10 ²⁸ 40 | 25 ²⁸ 25 | 22 ²⁸ 35 | T 20 |
| W 21 | 10 3 1 | 2 ²⁸ 20'46 | 9 ²⁸ 54 | 20 ²⁸ 20 | 12 ²⁸ 39 | 9 ²⁸ 53 | 18 ²⁸ 46 | 18 ²⁸ 15 | 15 ²⁸ 12 | 6 ²⁸ 56 | 8 ²⁸ 47 | 11 ²⁸ 33 | 10 ²⁸ 37 | 25 ²⁸ 32 | 22 ²⁸ 39 | W 21 |
| T 22 | 10 6 57 | 3 ²⁸ 21'04 | 23 ²⁸ 8 | 21 ²⁸ 7 | 13 ²⁸ 53 | 10 ²⁸ 40 | 19 ²⁸ 0 | 18 ²⁸ 19 | 15 ²⁸ 11 | 6 ²⁸ 54 | 8 ²⁸ 47 | 11 ²⁸ 34 | 10 ²⁸ 34 | 25 ²⁸ 39 | 22 ²⁸ 43 | T 22 |
| F 23 | 10 10 54 | 4 ²⁸ 21'20 | 6 ²⁸ 46 | 21 ²⁸ 46 | 15 ²⁸ 8 | 11 ²⁸ 27 | 19 ²⁸ 14 | 18 ²⁸ 23 | 15 ²⁸ 9 | 6 ²⁸ 53 | 8 ²⁸ 48 | 11 ²⁸ 35 | 10 ²⁸ 31 | 25 ²⁸ 45 | 22 ²⁸ 48 | F 23 |
| S 24 | 10 14 51 | 5 ²⁸ 21'34 | 20 ²⁸ 50 | 22 ²⁸ 15 | 16 ²⁸ 23 | 12 ²⁸ 14 | 19 ²⁸ 29 | 18 ²⁸ 27 | 15 ²⁸ 8 | 6 ²⁸ 52 | 8 ²⁸ 49 | 11 ²⁸ 35 | 10 ²⁸ 28 | 25 ²⁸ 52 | 22 ²⁸ 52 | S 24 |
| S 25 | 10 18 47 | 6 ²⁸ 21'46 | 5 ²⁸ 14 | 22 ²⁸ 36 | 17 ²⁸ 37 | 13 ²⁸ 1 | 19 ²⁸ 43 | 18 ²⁸ 31 | 15 ²⁸ 7 | 6 ²⁸ 50 | 8 ²⁸ 49 | 11 ²⁸ 33 | 10 ²⁸ 24 | 25 ²⁸ 59 | 22 ²⁸ 56 | S 25 |
| M 26 | 10 22 44 | 7 ²⁸ 21'57 | 19 ²⁸ 55 | 22 ²⁸ 46 | 18 ²⁸ 52 | 13 ²⁸ 48 | 19 ²⁸ 57 | 18 ²⁸ 35 | 15 ²⁸ 5 | 6 ²⁸ 49 | 8 ²⁸ 50 | 11 ²⁸ 31 | 10 ²⁸ 21 | 26 ²⁸ 6 | 23 ²⁸ 0 | M 26 |
| T 27 | 10 26 40 | 8 ²⁸ 22'05 | 4 ²⁸ 45 | 22 ²⁸ 48 | 20 ²⁸ 6 | 14 ²⁸ 35 | 20 ²⁸ 11 | 18 ²⁸ 39 | 15 ²⁸ 4 | 6 ²⁸ 48 | 8 ²⁸ 51 | 11 ²⁸ 27 | 10 ²⁸ 18 | 26 ²⁸ 12 | 23 ²⁸ 4 | T 27 |
| W 28 | 10 30 37 | 9 ²⁸ 22'12 | 19 ²⁸ 35 | 22 ²⁸ 40 | 21 ²⁸ 21 | 15 ²⁸ 22 | 20 ²⁸ 25 | 18 ²⁸ 43 | 15 ²⁸ 3 | 6 ²⁸ 46 | 8 ²⁸ 52 | 11 ²⁸ 23 | 10 ²⁸ 15 | 26 ²⁸ 19 | 23 ²⁸ 8 | W 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 | decl | lat |
| T 1 | 17s11 | 14n 0 | 5n 2 | 16s54 | 1s49 | 22s19 | 0s 1 | 14s31 | 1s 3 | 17s19 | 0s41 | 15n 1 | 2s 8 | 23n 1 | 0n28 | 1s27 | 1n34 | 0s27 | 1s540 | 17s20 | 17s19 | 13s36 | 8s50 | 5n56 | | | | | |
| F 2 | 16 54 | 19 16 | 5 17 | 16 16 | 1 44 | 22 12 | 0 3 | 14 15 | 1 3 | 17 15 | 0 41 | 15 1 | 2 7 | 23 1 | 0 28 | 1 27 | 1 34 | 0 27 | 15 39 | 17 20 | 17 20 | 13 39 | 8 48 | 5 56 | | | | | |
| S 3 | 16 36 | 23 24 | 5 12 | 15 36 | 1 39 | 22 4 | 0 6 | 13 58 | 1 3 | 17 11 | 0 41 | 15 2 | 2 7 | 23 1 | 0 28 | 1 27 | 1 34 | 0 26 | 15 39 | 17 20 | 17 21 | 13 42 | 8 47 | 5 56 | | | | | |
| S 4 | 16 19 | 26 8 | 4 48 | 14 55 | 1 34 | 21 55 | 0 9 | 13 42 | 1 3 | 17 6 | 0 41 | 15 3 | 2 7 | 23 1 | 0 28 | 1 26 | 1 34 | 0 26 | 15 39 | 17 20 | 17 22 | 13 44 | 8 46 | 5 56 | | | | | |
| M 5 | 16 1 | 27 15 | 4 9 | 14 12 | 1 27 | 21 45 | 0 12 | 13 25 | 1 2 | 17 2 | 0 41 | 15 4 | 2 7 | 23 2 | 0 28 | 1 26 | 1 34 | 0 26 | 15 38 | 17 20 | 17 23 | 13 47 | 8 45 | 5 56 | | | | | |
| T 6 | 15 42 | 26 42 | 3 16 | 13 28 | 1 20 | 21 35 | 0 14 | 13 9 | 1 2 | 16 58 | 0 41 | 15 5 | 2 6 | 23 2 | 0 28 | 1 26 | 1 34 | 0 25 | 15 38 | 17 20 | 17 24 | 13 50 | 8 43 | 5 56 | | | | | |
| W 7 | 15 24 | 24 36 | 2 13 | 12 43 | 1 13 | 21 25 | 0 17 | 12 52 | 1 2 | 16 54 | 0 41 | 15 6 | 2 6 | 23 2 | 0 28 | 1 25 | 1 34 | 0 25 | 15 38 | 17 19 | 17 24 | 13 53 | 8 42 | 5 56 | | | | | |
| T 8 | 15 5 | 21 12 | 1 4 | 11 57 | 1 4 | 21 13 | 0 19 | 12 35 | 1 1 | 16 50 | 0 41 | 15 6 | 2 6 | 23 2 | 0 28 | 1 25 | 1 34 | 0 24 | 15 37 | 17 19 | 17 25 | 13 55 | 8 41 | 5 55 | | | | | |
| F 9 | 14 46 | 16 49 | 0s 8 | 11 11 | 0 55 | 21 1 | 0 22 | 12 18 | 1 1 | 16 46 | 0 41 | 15 7 | 2 5 | 23 3 | 0 28 | 1 24 | 1 34 | 0 24 | 15 37 | 17 19 | 17 26 | 13 58 | 8 40 | 5 55 | | | | | |
| S 10 | 14 27 | 11 45 | 1 17 | 10 23 | 0 45 | 20 48 | 0 24 | 12 1 | 1 1 | 16 41 | 0 41 | 15 8 | 2 5 | 23 3 | 0 28 | 1 24 | 1 34 | 0 24 | 15 37 | 17 19 | 17 27 | 14 1 | 8 38 | 5 55 | | | | | |
| S 11 | 14 7 | 6 18 | 2 22 | 9 36 | 0 35 | 20 35 | 0 27 | 11 44 | 1 1 | 16 37 | 0 42 | 15 9 | 2 5 | 23 3 | 0 28 | 1 23 | 1 34 | 0 23 | 15 36 | 17 20 | 17 28 | 14 4 | 8 37 | 5 55 | | | | | |
| M 12 | 13 47 | 0 42 | 3 19 | 8 48 | 0 24 | 20 21 | 0 29 | 11 26 | 1 0 | 16 33 | 0 42 | 15 10 | 2 5 | 23 3 | 0 28 | 1 23 | 1 34 | 0 23 | 15 36 | 17 20 | 17 29 | 14 6 | 8 36 | 5 55 | | | | | |
| T 13 | 13 27 | 4s49 | 4 6 | 8 0 | 0 12 | 20 7 | 0 32 | 11 9 | 1 0 | 16 29 | 0 42 | 15 11 | 2 4 | 23 3 | 0 28 | 1 23 | 1 34 | 0 22 | 15 36 | 17 20 | 17 30 | 14 9 | 8 34 | 5 55 | | | | | |
| W 14 | 13 7 | 10 7 | 4 42 | 7 12 | 0n 1 | 19 52 | 0 34 | 10 51 | 1 0 | 16 24 | 0 42 | 15 13 | 2 4 | 23 4 | 0 28 | 1 22 | 1 34 | 0 22 | 15 35 | 17 21 | 17 31 | 14 12 | 8 33 | 5 55 | | | | | |
| T 15 | 12 46 | 15 0 | 5 5 | 6 25 | 0 14 | 19 36 | 0 37 | 10 34 | 0 59 | 16 20 | 0 42 | 15 14 | 2 4 | 23 4 | 0 28 | 1 22 | 1 34 | 0 21 | 15 35 | 17 22 | 17 31 | 14 15 | 8 32 | 5 55 | | | | | |
| F 16 | 12 26 | 19 18 | 5 15 | 5 39 | 0 27 | 19 20 | 0 39 | 10 16 | 0 59 | 16 16 | 0 42 | 15 15 | 2 3 | 23 4 | 0 28 | 1 21 | 1 34 | 0 21 | 15 35 | 17 22 | 17 32 | 14 17 | 8 30 | 5 55 | | | | | |
| S 17 | 12 5 | 22 52 | 5 12 | 4 55 | 0 41 | 19 3 | 0 41 | 9 58 | 0 59 | 16 12 | 0 42 | 15 16 | 2 3 | 23 4 | 0 28 | 1 21 | 1 35 | 0 20 | 15 34 | 17 22 | 17 33 | 14 20 | 8 29 | 5 55 | | | | | |
| S 18 | 11 44 | 25 30 | 4 55 | 4 12 | 0 56 | 18 46 | 0 43 | 9 40 | 0 58 | 16 7 | 0 42 | 15 17 | 2 3 | 23 4 | 0 28 | 1 20 | 1 35 | 0 20 | 15 34 | 17 22 | 17 34 | 14 23 | 8 28 | 5 55 | | | | | |
| M 19 | 11 23 | 26 59 | 4 25 | 3 31 | 1 11 | 18 28 | 0 46 | 9 22 | 0 58 | 16 3 | 0 42 | 15 18 | 2 3 | 23 5 | 0 28 | 1 19 | 1 35 | 0 19 | 15 34 | 17 22 | 17 35 | 14 25 | 8 26 | 5 55 | | | | | |
| T 20 | 11 1 | 27 9 | 3 41 | 2 53 | 1 26 | 18 10 | 0 48 | 9 4 | 0 58 | 15 59 | 0 42 | 15 19 | 2 2 | 23 5 | 0 28 | 1 19 | 1 35 | 0 19 | 15 33 | 17 22 | 17 36 | 14 28 | 8 25 | 5 55 | | | | | |
| W 21 | 10 40 | 25 52 | 2 46 | 2 18 | 1 40 | 17 51 | 0 50 | 8 46 | 0 57 | 15 54 | 0 43 | 15 21 | 2 2 | 23 5 | 0 28 | 1 18 | 1 35 | 0 18 | 15 33 | 17 21 | 17 37 | 14 31 | 8 24 | 5 55 | | | | | |
| T 22 | 10 18 | 23 9 | 1 40 | 1 46 | 1 55 | 17 31 | 0 52 | 8 28 | 0 57 | 15 50 | 0 43 | 15 22 | 2 2 | 23 5 | 0 28 | 1 18 | 1 35 | 0 18 | 15 33 | 17 21 | 17 38 | 14 33 | 8 22 | 5 55 | | | | | |
| F 23 | 9 56 | 19 3 | 0 26 | 1 17 | 2 10 | 17 11 | 0 54 | 8 9 | 0 57 | 15 46 | 0 43 | 15 23 | 2 2 | 23 5 | 0 28 | 1 17 | 1 35 | 0 17 | 15 32 | 17 21 | 17 38 | 14 36 | 8 21 | 5 55 | | | | | |
| S 24 | 9 34 | 13 47 | 0n51 | 0 53 | 2 24 | 16 51 | 0 56 | 7 51 | 0 56 | 15 41 | 0 43 | 15 25 | 2 1 | 23 5 | 0 28 | 1 17 | 1 35 | 0 17 | 15 32 | 17 21 | 17 39 | 14 39 | 8 19 | 5 55 | | | | | |
| S 25 | 9 12 | 7 39 | 2 6 | 0 32 | 2 37 | 16 30 | 0 58 | 7 33 | 0 56 | 15 37 | 0 43 | 15 26 | 2 1 | 23 6 | 0 28 | 1 16 | 1 35 | 0 16 | 15 32 | 17 21 | 17 40 | 14 42 | 8 18 | 5 55 | | | | | |
| M 26 | 8 49 | 1 1 | 3 15 | 0 16 | 2 50 | 16 9 | 1 0 | 7 14 | 0 55 | 15 33 | 0 43 | 15 27 | 2 1 | 23 6 | 0 28 | 1 16 | 1 35 | 0 16 | 15 31 | 17 22 | 17 41 | 14 44 | 8 17 | 5 55 | | | | | |
| T 27 | 8 27 | 5n44 | 4 11 | 0 5 | 3 2 | 15 47 | 1 1 | 6 56 | 0 55 | 15 28 | 0 43 | 15 29 | 2 1 | 23 6 | 0 28 | 1 15 | 1 35 | 0 15 | 15 31 | 17 23 | 17 42 | 14 47 | 8 15 | 5 55 | | | | | |
| W 28 | 8s 4 | 12n 9 | 4n51 | 0n 2 | 3n12 | 15s25 | 1s 3 | 6s37 | 0s55 | 15s24 | 0s43 | 15n30 | 2s 0 | 23n 6 | 0n28 | 1s14 | 1n35 | 0s15 | 15s31 | 17s24 | 17s43 | 14s50 | 8s14 | 5n55 | | | | | |

ASTRODIENST EPHEMERIS for the year 1618
geocentric

MARCH 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|--------------------|--------------------|--------------------|--------------------|------|
| T 1 | 10 34 33 | 10 ^h 22'16 | 4 ^h 19 | 22 ^h 23 | 22 ^h 35 | 16 ^h 9 | 20 ^h 39 | 18 ^h 47 | 15 ^h 2 | 6 ^h 45 | 8 ^h 52 | 11 ^h 19 | 10 ^h 12 | 26 ^h 26 | 23 ^h 13 | T 1 |
| F 2 | 10 38 30 | 11 ^h 22'19 | 18 ^h 50 | 21 ^h 58 | 23 ^h 50 | 16 ^h 56 | 20 ^h 53 | 18 ^h 52 | 15 ^h 2 | 6 ^h 43 | 8 ^h 53 | 11 ^h 16 | 10 ^h 9 | 26 ^h 32 | 23 ^h 17 | F 2 |
| S 3 | 10 42 26 | 12 ^h 22'19 | 3 ^h 11 | 21 ^h 25 | 25 ^h 5 | 17 ^h 43 | 21 ^h 6 | 18 ^h 56 | 14 ^h 59 | 6 ^h 42 | 8 ^h 54 | 11 ^h 14 | 10 ^h 5 | 26 ^h 39 | 23 ^h 21 | S 3 |
| S 4 | 10 46 23 | 13 ^h 22'17 | 16 ^h 58 | 20 ^h 45 | 26 ^h 19 | 18 ^h 30 | 21 ^h 20 | 19 ^h 1 | 14 ^h 58 | 6 ^h 40 | 8 ^h 55 | 11 ^h 14 | 10 ^h 2 | 26 ^h 46 | 23 ^h 25 | S 4 |
| M 5 | 10 50 20 | 14 ^h 22'13 | 0 ^h 33 | 19 ^h 59 | 27 ^h 34 | 19 ^h 17 | 21 ^h 34 | 19 ^h 6 | 14 ^h 57 | 6 ^h 39 | 8 ^h 56 | 11 ^h 15 | 9 ^h 59 | 26 ^h 53 | 23 ^h 29 | M 5 |
| T 6 | 10 54 16 | 15 ^h 22'07 | 13 ^h 50 | 19 ^h 8 | 28 ^h 48 | 20 ^h 4 | 21 ^h 48 | 19 ^h 10 | 14 ^h 57 | 6 ^h 37 | 8 ^h 57 | 11 ^h 17 | 9 ^h 56 | 26 ^h 59 | 23 ^h 33 | T 6 |
| W 7 | 10 58 13 | 16 ^h 21'58 | 26 ^h 51 | 18 ^h 14 | 0 ^h 3 | 20 ^h 51 | 22 ^h 2 | 19 ^h 15 | 14 ^h 56 | 6 ^h 36 | 8 ^h 57 | 11 ^h 18 | 9 ^h 53 | 27 ^h 6 | 23 ^h 37 | W 7 |
| T 8 | 11 2 9 | 17 ^h 21'47 | 9 ^h 13 | 17 ^h 17 | 1 ^h 17 | 21 ^h 37 | 22 ^h 15 | 19 ^h 20 | 14 ^h 55 | 6 ^h 34 | 8 ^h 58 | 11 ^h 19 | 9 ^h 50 | 27 ^h 13 | 23 ^h 41 | T 8 |
| F 9 | 11 6 6 | 18 ^h 21'34 | 22 ^h 13 | 16 ^h 19 | 2 ^h 32 | 22 ^h 24 | 22 ^h 29 | 19 ^h 25 | 14 ^h 54 | 6 ^h 33 | 8 ^h 59 | 11 ^h 18 | 9 ^h 46 | 27 ^h 20 | 23 ^h 45 | F 9 |
| S 10 | 11 10 2 | 19 ^h 21'19 | 4 ^h 37 | 15 ^h 22 | 3 ^h 46 | 23 ^h 11 | 22 ^h 43 | 19 ^h 30 | 14 ^h 53 | 6 ^h 31 | 9 ^h 0 | 11 ^h 16 | 9 ^h 43 | 27 ^h 26 | 23 ^h 49 | S 10 |
| S 11 | 11 13 59 | 20 ^h 21'02 | 16 ^h 53 | 14 ^h 26 | 5 ^h 0 | 23 ^h 57 | 22 ^h 56 | 19 ^h 35 | 14 ^h 53 | 6 ^h 30 | 9 ^h 1 | 11 ^h 12 | 9 ^h 40 | 27 ^h 33 | 23 ^h 53 | S 11 |
| M 12 | 11 17 55 | 21 ^h 20'42 | 29 ^h 0 | 13 ^h 32 | 6 ^h 15 | 24 ^h 44 | 23 ^h 10 | 19 ^h 41 | 14 ^h 52 | 6 ^h 28 | 9 ^h 2 | 11 ^h 5 | 9 ^h 37 | 27 ^h 40 | 23 ^h 57 | M 12 |
| T 13 | 11 21 52 | 22 ^h 20'21 | 11 ^h 1 | 12 ^h 42 | 7 ^h 29 | 25 ^h 31 | 23 ^h 23 | 19 ^h 46 | 14 ^h 51 | 6 ^h 27 | 9 ^h 3 | 10 ^h 58 | 9 ^h 34 | 27 ^h 46 | 24 ^h 1 | T 13 |
| W 14 | 11 25 48 | 23 ^h 19'58 | 22 ^h 57 | 11 ^h 56 | 8 ^h 44 | 26 ^h 17 | 23 ^h 37 | 19 ^h 51 | 14 ^h 51 | 6 ^h 25 | 9 ^h 4 | 10 ^h 50 | 9 ^h 30 | 27 ^h 53 | 24 ^h 5 | W 14 |
| T 15 | 11 29 45 | 24 ^h 19'32 | 4 ^h 15 | 11 ^h 16 | 9 ^h 58 | 27 ^h 4 | 23 ^h 50 | 19 ^h 57 | 14 ^h 50 | 6 ^h 23 | 9 ^h 5 | 10 ^h 42 | 9 ^h 27 | 28 ^h 0 | 24 ^h 8 | T 15 |
| F 16 | 11 33 42 | 25 ^h 19'05 | 16 ^h 42 | 10 ^h 40 | 11 ^h 13 | 27 ^h 50 | 24 ^h 3 | 20 ^h 2 | 14 ^h 50 | 6 ^h 22 | 9 ^h 6 | 10 ^h 34 | 9 ^h 24 | 28 ^h 7 | 24 ^h 12 | F 16 |
| S 17 | 11 37 38 | 26 ^h 18'37 | 28 ^h 36 | 10 ^h 11 | 12 ^h 27 | 28 ^h 37 | 24 ^h 17 | 20 ^h 8 | 14 ^h 50 | 6 ^h 20 | 9 ^h 7 | 10 ^h 29 | 9 ^h 21 | 28 ^h 13 | 24 ^h 16 | S 17 |
| S 18 | 11 41 35 | 27 ^h 18'06 | 10 ^h 36 | 9 ^h 47 | 13 ^h 42 | 29 ^h 23 | 24 ^h 30 | 20 ^h 14 | 14 ^h 49 | 6 ^h 18 | 9 ^h 8 | 10 ^h 25 | 9 ^h 18 | 28 ^h 20 | 24 ^h 20 | S 18 |
| M 19 | 11 45 31 | 28 ^h 17'34 | 22 ^h 47 | 9 ^h 30 | 14 ^h 56 | 0 ^h 10 | 24 ^h 43 | 20 ^h 19 | 14 ^h 49 | 6 ^h 17 | 9 ^h 9 | 10 ^h 23 | 9 ^h 15 | 28 ^h 27 | 24 ^h 24 | M 19 |
| T 20 | 11 49 28 | 29 ^h 16'59 | 5 ^h 12 | 9 ^h 18 | 16 ^h 10 | 0 ^h 56 | 24 ^h 56 | 20 ^h 25 | 14 ^h 49 | 6 ^h 15 | 9 ^h 10 | 10 ^h 23 | 9 ^h 11 | 28 ^h 33 | 24 ^h 27 | T 20 |
| W 21 | 11 53 24 | 0 ^h 16'23 | 17 ^h 57 | 9 ^h 13 | 17 ^h 25 | 1 ^h 42 | 25 ^h 9 | 20 ^h 31 | 14 ^h 49 | 6 ^h 14 | 9 ^h 11 | 10 ^h 24 | 9 ^h 8 | 28 ^h 40 | 24 ^h 31 | W 21 |
| T 22 | 11 57 21 | 1 ^h 15'46 | 1 ^h 6 | 9 ^h 13 | 18 ^h 39 | 2 ^h 29 | 25 ^h 22 | 20 ^h 37 | 14 ^h 49 | 6 ^h 12 | 9 ^h 12 | 10 ^h 25 | 9 ^h 5 | 28 ^h 47 | 24 ^h 34 | T 22 |
| F 23 | 12 1 17 | 2 ^h 15'06 | 14 ^h 42 | 9 ^h 19 | 19 ^h 54 | 3 ^h 15 | 25 ^h 35 | 20 ^h 43 | 14 ^h 49 | 6 ^h 10 | 9 ^h 14 | 10 ^h 26 | 9 ^h 2 | 28 ^h 54 | 24 ^h 38 | F 23 |
| S 24 | 12 5 14 | 3 ^h 14'25 | 28 ^h 46 | 9 ^h 30 | 21 ^h 8 | 4 ^h 1 | 25 ^h 48 | 20 ^h 49 | 14 ^h 49 | 6 ^h 9 | 9 ^h 15 | 10 ^h 24 | 8 ^h 59 | 29 ^h 0 | 24 ^h 42 | S 24 |
| S 25 | 12 9 11 | 4 ^h 13'41 | 13 ^h 18 | 9 ^h 46 | 22 ^h 22 | 4 ^h 47 | 26 ^h 1 | 20 ^h 55 | 14 ^h 49 | 6 ^h 7 | 9 ^h 16 | 10 ^h 20 | 8 ^h 55 | 29 ^h 7 | 24 ^h 45 | S 25 |
| M 26 | 12 13 7 | 5 ^h 12'56 | 28 ^h 12 | 10 ^h 8 | 23 ^h 37 | 5 ^h 33 | 26 ^h 14 | 21 ^h 1 | 14 ^h 49 | 6 ^h 5 | 9 ^h 17 | 10 ^h 14 | 8 ^h 52 | 29 ^h 14 | 24 ^h 49 | M 26 |
| T 27 | 12 17 4 | 6 ^h 12'08 | 13 ^h 20 | 10 ^h 34 | 24 ^h 51 | 6 ^h 19 | 26 ^h 26 | 21 ^h 8 | 14 ^h 49 | 6 ^h 4 | 9 ^h 18 | 10 ^h 7 | 8 ^h 49 | 29 ^h 20 | 24 ^h 52 | T 27 |
| W 28 | 12 21 0 | 7 ^h 11'19 | 28 ^h 34 | 11 ^h 5 | 26 ^h 5 | 7 ^h 5 | 26 ^h 39 | 21 ^h 14 | 14 ^h 49 | 6 ^h 2 | 9 ^h 19 | 9 ^h 58 | 8 ^h 46 | 29 ^h 27 | 24 ^h 56 | W 28 |
| T 29 | 12 24 57 | 8 ^h 10'27 | 13 ^h 30 | 11 ^h 39 | 27 ^h 20 | 7 ^h 51 | 26 ^h 51 | 21 ^h 20 | 14 ^h 50 | 6 ^h 0 | 9 ^h 20 | 9 ^h 49 | 8 ^h 43 | 29 ^h 34 | 24 ^h 59 | T 29 |
| F 30 | 12 28 53 | 9 ^h 9'33 | 28 ^h 31 | 12 ^h 18 | 28 ^h 34 | 8 ^h 37 | 27 ^h 4 | 21 ^h 27 | 14 ^h 50 | 5 ^h 59 | 9 ^h 22 | 9 ^h 42 | 8 ^h 40 | 29 ^h 41 | 25 ^h 2 | F 30 |
| S 31 | 12 32 50 | 10 ^h 9'37 | 13 ^h 11 | 13 ^h 1 | 29 ^h 48 | 9 ^h 23 | 27 ^h 16 | 21 ^h 33 | 14 ^h 50 | 5 ^h 57 | 9 ^h 23 | 9 ^h 43 | 8 ^h 36 | 29 ^h 47 | 25 ^h 6 | S 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 | decl | lat |
| T 1 | 7s42 | 17n51 | 5n10 | 0n 3 | 3n21 | 15s 2 | 1s 5 | 6s18 | 0s54 | 15s20 | 0s43 | 15n32 | 2s 0 | 23n 6 | 0n28 | 1s14 | 1n35 | 0s14 | 15s31 | 17s25 | 17s44 | 14s52 | 8s13 | 5n55 | | | | | |
| F 2 | 7 19 | 22 25 | 5 10 | 0 0 | 3 29 | 14 39 | 1 7 | 6 0 | 0 54 | 15 15 | 0 44 | 15 33 | 2 0 | 23 6 | 0 28 | 1 13 | 1 35 | 0 14 | 15 30 | 17 26 | 17 44 | 14 55 | 8 11 | 5 56 | | | | | |
| S 3 | 6 56 | 25 34 | 4 51 | 0s 8 | 3 34 | 14 16 | 1 8 | 5 41 | 0 53 | 15 11 | 0 44 | 15 34 | 2 0 | 23 6 | 0 28 | 1 13 | 1 35 | 0 13 | 15 30 | 17 26 | 17 45 | 14 58 | 8 10 | 5 56 | | | | | |
| S 4 | 6 33 | 27 4 | 4 14 | 0 20 | 3 38 | 13 52 | 1 10 | 5 22 | 0 53 | 15 7 | 0 44 | 15 36 | 1 59 | 23 6 | 0 28 | 1 12 | 1 35 | 0 13 | 15 30 | 17 27 | 17 46 | 15 0 | 8 8 | 5 56 | | | | | |
| M 5 | 6 10 | 26 54 | 3 24 | 0 36 | 3 40 | 13 28 | 1 11 | 5 3 | 0 52 | 15 2 | 0 44 | 15 37 | 1 59 | 23 6 | 0 28 | 1 11 | 1 35 | 0 12 | 15 29 | 17 26 | 17 47 | 15 3 | 8 7 | 5 56 | | | | | |
| T 6 | 5 47 | 25 10 | 2 24 | 0 56 | 3 40 | 13 3 | 1 13 | 4 44 | 0 52 | 14 58 | 0 44 | 15 39 | 1 59 | 23 7 | 0 28 | 1 11 | 1 35 | 0 12 | 15 29 | 17 26 | 17 48 | 15 6 | 8 6 | 5 56 | | | | | |
| W 7 | 5 23 | 22 6 | 1 18 | 1 19 | 3 38 | 12 38 | 1 14 | 4 26 | 0 52 | 14 54 | 0 44 | 15 40 | 1 59 | 23 7 | 0 28 | 1 10 | 1 35 | 0 11 | 15 29 | 17 25 | 17 49 | 15 8 | 8 4 | 5 56 | | | | | |
| T 8 | 5 0 | 18 1 | 0 9 | 1 45 | 3 34 | 12 13 | 1 15 | 4 7 | 0 51 | 14 49 | 0 44 | 15 42 | 1 58 | 23 7 | 0 28 | 1 10 | 1 35 | 0 11 | 15 29 | 17 25 | 17 50 | 15 11 | 8 3 | 5 56 | | | | | |
| F 9 | 4 37 | 13 12 | 0s59 | 2 13 | 3 28 | 11 47 | 1 16 | 3 48 | 0 51 | 14 45 | 0 44 | 15 44 | 1 58 | 23 7 | 0 28 | 1 9 | 1 35 | 0 10 | 15 28 | 17 25 | 17 50 | 15 13 | 8 1 | 5 56 | | | | | |
| S 10 | 4 13 | 7 55 | 2 3 | 2 43 | 3 20 | 11 21 | 1 18 | 3 29 | 0 50 | 14 41 | 0 45 | 15 45 | 1 58 | 23 7 | 0 28 | 1 8 | 1 35 | 0 10 | 15 28 | 17 26 | 17 51 | 15 16 | 8 0 | 5 56 | | | | | |
| S 11 | 3 50 | 2 25 | 3 1 | 3 13 | 3 10 | 10 55 | 1 19 | 3 10 | 0 50 | 14 36 | 0 45 | 15 47 | 1 58 | 23 7 | 0 28 | 1 8 | 1 35 | 0 9 | 15 28 | 17 27 | 17 52 | 15 19 | 7 59 | 5 56 | | | | | |
| M 12 | 3 26 | 3s 7 | 3 50 | 3 43 | 2 59 | 10 28 | 1 20 | 2 51 | 0 49 | 14 32 | 0 45 | 15 48 | 1 57 | 23 7 | 0 28 | 1 7 | 1 35 | 0 9 | 15 28 | 17 29 | 17 53 | 15 21 | 7 57 | 5 56 | | | | | |
| T 13 | 3 3 | 8 28 | 4 28 | 4 14 | 2 47 | 10 2 | 1 21 | 2 32 | 0 49 | 14 28 | 0 45 | 15 50 | 1 57 | 23 7 | 0 28 | 1 6 | 1 35 | 0 8 | 15 27 | 17 31 | 17 54 | 15 24 | 7 56 | 5 57 | | | | | |
| W 14 | 2 39 | 13 29 | 4 53 | 4 43 | 2 34 | 9 35 | 1 22 | 2 13 | 0 48 | 14 23 | 0 45 | 15 52 | 1 57 | 23 7 | 0 28 | 1 6 | 1 35 | 0 8 | 15 27 | 17 33 | 17 55 | 15 27 | 7 55 | 5 57 | | | | | |
| T 15 | 2 16 | 17 58 | 5 6 | 5 12 | 2 20 | 9 7 | 1 23 | 1 54 | 0 48 | 14 19 | 0 45 | 15 53 | 1 57 | 23 7 | 0 28 | 1 5 | 1 35 | 0 7 | 15 27 | 17 35 | 17 55 | 15 29 | 7 53 | 5 57 | | | | | |
| F 16 | 1 52 | 21 45 | 5 6 | 5 39 | 2 6 | 8 40 | 1 23 | 1 35 | 0 47 | 14 15 | 0 45 | 15 55 | 1 56 | 23 7 | 0 28 | 1 4 | 1 35 | 0 6 | 15 27 | 17 37 | 17 56 | 15 32 | 7 52 | 5 57 | | | | | |
| S 17 | 1 28 | 24 39 | 4 53 | 6 4 | 1 51 | 8 12 | 1 24 | 1 16 | 0 47 | 14 10 | 0 45 | 15 57 | 1 56 | 23 7 | 0 28 | 1 4 | 1 35 | 0 6 | 15 26 | 17 39 | 17 57 | 15 34 | 7 50 | 5 57 | | | | | |
| S 18 | 1 5 | 26 29 | 4 27 | 6 27 | 1 35 | 7 44 | 1 25 | 0 57 | 0 47 | 14 6 | 0 46 | 15 59 | 1 56 | 23 7 | 0 27 | 1 3 | 1 35 | 0 5 | 15 26 | 17 40 | 17 58 | 15 37 | 7 49 | 5 57 | | | | | |
| M 19 | 0 41 | 27 5 | 3 48 | 6 47 | 1 20 | 7 16 | 1 25 | 0 38 | 0 46 | 14 2 | 0 46 | 16 0 | 1 56 | 23 7 | 0 27 | 1 2 | 1 35 | 0 5 | 15 26 | 17 40 | 17 59 | 15 40 | 7 48 | 5 57 | | | | | |
| T 20 | 0 17 | 26 21 | 2 58 | 7 6 | 1 5 | 6 47 | 1 26 | 0 19 | 0 46 | 13 57 | 0 46 | 16 2 | 1 56 | 23 7 | 0 27 | 1 2 | 1 35 | 0 4 | 15 26 | 17 40 | 18 0 | 15 42 | 7 46 | 5 58 | | | | | |
| W 21 | 0n 7 | 24 14 | 1 58 | 7 22 | 0 50 | 6 19 | 1 26 | 0 1 | 0 45 | 13 53 | 0 46 | 16 4 | 1 55 | 23 7 | 0 27 | 1 1 | 1 35 | 0 4 | 15 25 | 17 40 | 18 1 | 15 45 | 7 45 | 5 58 | | | | | |
| T 22 | 0 30 | 20 46 | 0 50 | 7 35 | 0 35 | 5 50 | 1 27 | 0n18 | 0 45 | 13 49 | 0 46 | 16 6 | 1 55 | 23 7 | 0 27 | 1 0 | 1 35 | 0 3 | 15 25 | 17 40 | 18 1 | 15 47 | 7 44 | 5 58 | | | | | |
| F 23 | 0 54 | 16 6 | 0n23 | 7 46 | 0 21 | 5 21 | 1 27 | 0 37 | 0 44 | 13 45 | 0 46 | 16 7 | 1 55 | 23 7 | 0 27 | 1 0 | 1 35 | 0 3 | 15 25 | 17 40 | 18 2 | 15 50 | 7 42 | 5 58 | | | | | |
| S 24 | 1 17 | 10 25 | 1 37 | 7 55 | 0 7 | 4 52 | 1 27 | 0 56 | 0 43 | 13 41 | 0 46 | 16 9 | 1 55 | 23 7 | 0 27 | 0 59 | 1 35 | 0 2 | 15 25 | 17 40 | 18 3 | 15 53 | 7 41 | 5 58 | | | | | |
| S 25 | 1 41 | 4 1 | 2 47 | 8 2 | 0s 7 | 4 22 | 1 28 | 1 15 | 0 43 | 13 36 | 0 47 | 16 11 | 1 55 | 23 7 | 0 27 | 0 58 | 1 35 | 0 2 | 15 25 | 17 41 | 18 4 | 15 55 | 7 40 | 5 58 | | | | | |
| M 26 | 2 5 | 2n45 | 3 47 | 8 5 | 0 20 | 3 53 | 1 28 | 1 34 | 0 42 | 13 32 | 0 47 | 16 13 | 1 54 | 23 7 | 0 27 | 0 58 | 1 35 | 0 1 | 15 24 | 17 43 | 18 5 | 15 58 | 7 38 | 5 59 | | | | | |
| T 27 | 2 28 | 9 27 | 4 32 | 8 7 | 0 32 | 3 24 | 1 28 | 1 52 | 0 42 | 13 28 | 0 47 | 16 15 | 1 54 | 23 7 | 0 27 | 0 57 | 1 35 | 0 1 | 15 24 | 17 45 | 18 6 | 16 0 | 7 37 | 5 59 | | | | | |
| W 28 | 2 52 | 15 38 | 4 59 | 8 7 | 0 44 | 2 54 | 1 28 | 2 11 | 0 41 | 13 24 | 0 47 | 16 16 | 1 54 | 23 7 | 0 27 | 0 56 | 1 35 | 0 0 | 15 24 | 17 47 | 18 6 | 16 3 | 7 36 | 5 59 | | | | | |
| T 29 | 3 15 | 20 48 | 5 4 | 8 4 | 0 56 | 2 24 | 1 28 | 2 30 | 0 41 | 13 20 | 0 47 | 16 18 | 1 54 | 23 7 | 0 27 | 0 56 | 1 35 | 0n 0 | 15 24 | 17 50 | 18 7 | 16 5 | 7 34 | 5 59 | | | | | |
| F 30 | 3 38 | 24 34 | 4 49 | 7 59 | 1 7 | 1 55 | 1 28 | 2 49 | 0 40 | 13 16 | 0 47 | 16 20 | 1 54 | 23 7 | 0 27 | 0 55 | 1 35 | 0 1 | 15 24 | 17 52 | 18 8 | 16 8 | 7 33 | 5 59 | | | | | |
| S 31 | 4n 2 | 26n37 | 4n15 | 7s52 | 1s17 | 1s25 | 1s28 | 3n 7 | 0s40 | 13s11 | 0s48 | 16n22 | 1s53 | 23n 7 | 0n27 | 0s54 | 1n35 | 0n 2 | 15s23 | 17s53 | 18s 9 | 16s10 | 7s32 | 6n 0 | | | | | |

ASTRODIENST EPHEMERIS for the year 1618

geocentric

APRIL 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-------------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|---------|---------|------|
| S 1 | 12 36 46 | 11° 7' 39" | 27° 3' | 13° 47' | 1° 2' | 10° 9' | 27° 29' | 21° 40' | 14° 51' | 5° 55' | 9° 24' | 9° 34' | 8° 33' | 29° 54' | 25° 9' | S 1 |
| M 2 | 12 40 43 | 12° 6' 38" | 10° 39' | 14° 37' | 2° 17' | 10° 55' | 27° 41' | 21° 46' | 14° 51' | 5° 54' | 9° 25' | 9° 33' | 8° 30' | 0° 1' | 25° 12' | M 2 |
| T 3 | 12 44 40 | 13° 5' 35" | 23° 52' | 15° 30' | 3° 31' | 11° 41' | 27° 53' | 21° 53' | 14° 52' | 5° 52' | 9° 26' | 9° 33' | 8° 27' | 0° 8' | 25° 15' | T 3 |
| W 4 | 12 48 36 | 14° 4' 30" | 6° 43' | 16° 26' | 4° 45' | 12° 27' | 28° 5' | 22° 0' | 14° 52' | 5° 51' | 9° 28' | 9° 34' | 8° 24' | 0° 14' | 25° 18' | W 4 |
| T 5 | 12 52 33 | 15° 3' 22" | 19° 18' | 17° 24' | 5° 59' | 13° 12' | 28° 17' | 22° 6' | 14° 53' | 5° 49' | 9° 29' | 9° 33' | 8° 21' | 0° 21' | 25° 22' | T 5 |
| F 6 | 12 56 29 | 16° 2' 12" | 1° 39' | 18° 26' | 7° 14' | 13° 58' | 28° 29' | 22° 13' | 14° 54' | 5° 47' | 9° 30' | 9° 31' | 8° 17' | 0° 28' | 25° 25' | F 6 |
| S 7 | 13 0 26 | 17° 0' 59" | 13° 50' | 19° 30' | 8° 28' | 14° 43' | 28° 41' | 22° 20' | 14° 55' | 5° 46' | 9° 31' | 9° 26' | 8° 14' | 0° 34' | 25° 28' | S 7 |
| S 8 | 13 4 22 | 17° 59' 45" | 25° 53' | 20° 37' | 9° 42' | 15° 29' | 28° 53' | 22° 27' | 14° 55' | 5° 44' | 9° 33' | 9° 19' | 8° 11' | 0° 41' | 25° 31' | S 8 |
| M 9 | 13 8 19 | 18° 58' 28" | 7° 52' | 21° 46' | 10° 56' | 16° 15' | 29° 4' | 22° 34' | 14° 56' | 5° 42' | 9° 34' | 9° 8' | 8° 8' | 0° 48' | 25° 34' | M 9 |
| T 10 | 13 12 15 | 19° 57' 09" | 19° 47' | 22° 58' | 12° 10' | 17° 0' | 29° 16' | 22° 41' | 14° 57' | 5° 41' | 9° 35' | 8° 56' | 8° 5' | 0° 55' | 25° 36' | T 10 |
| W 11 | 13 16 12 | 20° 55' 49" | 1° 40' | 24° 12' | 13° 25' | 17° 45' | 29° 27' | 22° 48' | 14° 58' | 5° 39' | 9° 37' | 8° 43' | 8° 1' | 1° 1' | 25° 39' | W 11 |
| T 12 | 13 20 9 | 21° 54' 26" | 13° 33' | 25° 28' | 14° 39' | 18° 31' | 29° 39' | 22° 55' | 14° 59' | 5° 38' | 9° 38' | 8° 30' | 7° 58' | 1° 8' | 25° 42' | T 12 |
| F 13 | 13 24 5 | 22° 53' 02" | 25° 27' | 26° 46' | 15° 53' | 19° 16' | 29° 50' | 23° 2' | 15° 0' | 5° 36' | 9° 39' | 8° 18' | 7° 55' | 1° 15' | 25° 45' | F 13 |
| S 14 | 13 28 2 | 23° 51' 36" | 7° 23' | 28° 6' | 17° 7' | 20° 1' | 0° 1' | 23° 9' | 15° 2' | 5° 35' | 9° 41' | 8° 8' | 7° 52' | 1° 21' | 25° 48' | S 14 |
| S 15 | 13 31 58 | 24° 50' 08" | 19° 25' | 29° 28' | 18° 21' | 20° 47' | 0° 12' | 23° 16' | 15° 3' | 5° 33' | 9° 42' | 8° 0' | 7° 49' | 1° 28' | 25° 50' | S 15 |
| M 16 | 13 35 55 | 25° 48' 38" | 1° 36' | 0° 52' | 19° 35' | 21° 32' | 0° 24' | 23° 24' | 15° 4' | 5° 31' | 9° 43' | 7° 55' | 7° 46' | 1° 35' | 25° 53' | M 16 |
| T 17 | 13 39 51 | 26° 47' 07" | 14° 0' | 2° 18' | 20° 49' | 22° 17' | 0° 34' | 23° 31' | 15° 5' | 5° 30' | 9° 45' | 7° 53' | 7° 42' | 1° 42' | 25° 55' | T 17 |
| W 18 | 13 43 48 | 27° 45' 34" | 26° 41' | 3° 46' | 22° 3' | 23° 2' | 0° 45' | 23° 38' | 15° 7' | 5° 28' | 9° 46' | 7° 53' | 7° 39' | 1° 48' | 25° 58' | W 18 |
| T 19 | 13 47 44 | 28° 43' 59" | 9° 44' | 5° 16' | 23° 17' | 23° 47' | 0° 56' | 23° 45' | 15° 8' | 5° 27' | 9° 47' | 7° 53' | 7° 36' | 1° 55' | 26° 0' | T 19 |
| F 20 | 13 51 41 | 29° 42' 23" | 23° 13' | 6° 48' | 24° 31' | 24° 32' | 1° 7' | 23° 53' | 15° 9' | 5° 25' | 9° 49' | 7° 52' | 7° 33' | 2° 2' | 26° 3' | F 20 |
| S 21 | 13 55 38 | 0° 40' 46" | 7° 10' | 8° 21' | 25° 45' | 25° 17' | 1° 17' | 24° 0' | 15° 11' | 5° 24' | 9° 50' | 7° 50' | 7° 30' | 2° 9' | 26° 5' | S 21 |
| S 22 | 13 59 34 | 1° 39' 06" | 21° 35' | 9° 57' | 27° 0' | 26° 2' | 1° 28' | 24° 8' | 15° 12' | 5° 23' | 9° 51' | 7° 45' | 7° 27' | 2° 15' | 26° 7' | S 22 |
| M 23 | 14 3 31 | 2° 37' 25" | 6° 26' | 11° 34' | 28° 14' | 26° 47' | 1° 38' | 24° 15' | 15° 14' | 5° 21' | 9° 53' | 7° 38' | 7° 23' | 2° 22' | 26° 10' | M 23 |
| T 24 | 14 7 27 | 3° 35' 42" | 21° 37' | 13° 13' | 29° 28' | 27° 31' | 1° 48' | 24° 22' | 15° 16' | 5° 20' | 9° 54' | 7° 28' | 7° 20' | 2° 29' | 26° 12' | T 24 |
| W 25 | 14 11 24 | 4° 33' 58" | 6° 56' | 14° 54' | 0° 42' | 28° 16' | 1° 58' | 24° 30' | 15° 17' | 5° 18' | 9° 55' | 7° 17' | 7° 17' | 2° 35' | 26° 14' | W 25 |
| T 26 | 14 15 20 | 5° 32' 12" | 22° 14' | 16° 36' | 1° 56' | 29° 1' | 2° 8' | 24° 37' | 15° 19' | 5° 17' | 9° 57' | 7° 6' | 7° 14' | 2° 42' | 26° 16' | T 26 |
| F 27 | 14 19 17 | 6° 30' 24" | 7° 18' | 18° 21' | 3° 10' | 29° 45' | 2° 18' | 24° 45' | 15° 21' | 5° 16' | 9° 58' | 6° 56' | 7° 11' | 2° 49' | 26° 18' | F 27 |
| S 28 | 14 23 13 | 7° 28' 35" | 21° 59' | 20° 7' | 4° 24' | 0° 30' | 2° 28' | 24° 53' | 15° 23' | 5° 14' | 9° 59' | 6° 49' | 7° 7' | 2° 56' | 26° 20' | S 28 |
| S 29 | 14 27 10 | 8° 26' 43" | 6° 13' | 21° 55' | 5° 38' | 1° 14' | 2° 38' | 25° 0' | 15° 24' | 5° 13' | 10° 1' | 6° 45' | 7° 4' | 3° 2' | 26° 22' | S 29 |
| M 30 | 14 31 7 | 9° 24' 49" | 19° 58' | 23° 45' | 6° 52' | 1° 59' | 2° 47' | 25° 8' | 15° 26' | 5° 12' | 10° 2' | 6° 42' | 7° 1' | 3° 9' | 26° 24' | M 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 | 4n25 | 26n54 | 3n27 | 7s43 | 1s26 | 0s55 | 1s27 | 3n26 | 0s39 | 13s 7 | 0s48 | 16n24 | 1s53 | 23n 7 | 0n27 | 0s54 | 1n35 | 0n 2 | 15s23 | 17s54 | 18s10 | 16s13 | 7s31 | 6n 0 | | | |
| M 2 | 4 48 | 25 31 | 2 28 | 7 32 | 1 35 | 0 25 | 1 27 | 3 44 | 0 39 | 13 3 | 0 48 | 16 26 | 1 53 | 23 7 | 0 27 | 0 53 | 1 35 | 0 3 | 15 23 | 17 54 | 18 11 | 16 15 | 7 29 | 6 0 | | | |
| T 3 | 5 11 | 22 44 | 1 23 | 7 20 | 1 44 | 0n 5 | 1 27 | 4 3 | 0 38 | 12 59 | 0 48 | 16 27 | 1 53 | 23 7 | 0 27 | 0 52 | 1 35 | 0 3 | 15 23 | 17 54 | 18 11 | 16 18 | 7 28 | 6 1 | | | |
| W 4 | 5 34 | 18 53 | 0 15 | 7 5 | 1 52 | 0 35 | 1 26 | 4 21 | 0 38 | 12 55 | 0 48 | 16 29 | 1 53 | 23 7 | 0 27 | 0 52 | 1 35 | 0 4 | 15 23 | 17 54 | 18 12 | 16 20 | 7 27 | 6 1 | | | |
| T 5 | 5 57 | 14 15 | 0s52 | 6 49 | 1 59 | 1 4 | 1 26 | 4 39 | 0 37 | 12 51 | 0 48 | 16 31 | 1 53 | 23 6 | 0 27 | 0 51 | 1 35 | 0 4 | 15 23 | 17 54 | 18 13 | 16 23 | 7 26 | 6 1 | | | |
| F 6 | 6 19 | 9 8 | 1 55 | 6 31 | 2 6 | 1 34 | 1 25 | 4 58 | 0 37 | 12 47 | 0 49 | 16 33 | 1 52 | 23 6 | 0 27 | 0 51 | 1 35 | 0 5 | 15 22 | 17 54 | 18 14 | 16 26 | 7 24 | 6 1 | | | |
| S 7 | 6 42 | 3 44 | 2 51 | 6 11 | 2 12 | 2 4 | 1 24 | 5 16 | 0 36 | 12 43 | 0 49 | 16 35 | 1 52 | 23 6 | 0 27 | 0 50 | 1 35 | 0 5 | 15 22 | 17 56 | 18 15 | 16 28 | 7 23 | 6 1 | | | |
| S 8 | 7 4 | 1s43 | 3 40 | 5 50 | 2 17 | 2 34 | 1 24 | 5 34 | 0 35 | 12 39 | 0 49 | 16 37 | 1 52 | 23 6 | 0 27 | 0 49 | 1 35 | 0 6 | 15 22 | 17 58 | 18 16 | 16 31 | 7 22 | 6 2 | | | |
| M 9 | 7 27 | 7 4 | 4 18 | 5 27 | 2 22 | 3 4 | 1 23 | 5 52 | 0 35 | 12 35 | 0 49 | 16 39 | 1 52 | 23 6 | 0 27 | 0 49 | 1 35 | 0 6 | 15 22 | 18 1 | 18 16 | 16 33 | 7 21 | 6 2 | | | |
| T 10 | 7 49 | 12 8 | 4 44 | 5 3 | 2 27 | 3 34 | 1 22 | 6 10 | 0 34 | 12 31 | 0 49 | 16 41 | 1 52 | 23 6 | 0 27 | 0 48 | 1 35 | 0 7 | 15 22 | 18 4 | 18 17 | 16 36 | 7 20 | 6 2 | | | |
| W 11 | 8 11 | 16 44 | 4 58 | 4 37 | 2 30 | 4 3 | 1 21 | 6 28 | 0 34 | 12 28 | 0 50 | 16 43 | 1 52 | 23 6 | 0 27 | 0 47 | 1 35 | 0 7 | 15 22 | 18 7 | 18 18 | 16 38 | 7 18 | 6 2 | | | |
| T 12 | 8 33 | 20 42 | 4 59 | 4 9 | 2 34 | 4 33 | 1 20 | 6 46 | 0 33 | 12 24 | 0 50 | 16 45 | 1 51 | 23 6 | 0 27 | 0 47 | 1 35 | 0 8 | 15 22 | 18 11 | 18 19 | 16 41 | 7 17 | 6 3 | | | |
| F 13 | 8 55 | 23 49 | 4 48 | 3 41 | 2 36 | 5 2 | 1 19 | 7 3 | 0 33 | 12 20 | 0 50 | 16 47 | 1 51 | 23 6 | 0 27 | 0 46 | 1 35 | 0 8 | 15 21 | 18 14 | 18 20 | 16 43 | 7 16 | 6 3 | | | |
| S 14 | 9 17 | 25 55 | 4 23 | 3 11 | 2 38 | 5 32 | 1 18 | 7 21 | 0 32 | 12 16 | 0 50 | 16 48 | 1 51 | 23 5 | 0 27 | 0 46 | 1 35 | 0 9 | 15 21 | 18 16 | 18 20 | 16 45 | 7 15 | 6 3 | | | |
| S 15 | 9 38 | 26 50 | 3 46 | 2 39 | 2 40 | 6 1 | 1 17 | 7 39 | 0 31 | 12 12 | 0 50 | 16 50 | 1 51 | 23 5 | 0 27 | 0 45 | 1 35 | 0 9 | 15 21 | 18 18 | 18 21 | 16 48 | 7 14 | 6 3 | | | |
| M 16 | 10 0 | 26 28 | 2 59 | 2 7 | 2 41 | 6 30 | 1 16 | 7 56 | 0 31 | 12 9 | 0 50 | 16 52 | 1 51 | 23 5 | 0 27 | 0 44 | 1 35 | 0 10 | 15 21 | 18 20 | 18 22 | 16 50 | 7 13 | 6 4 | | | |
| T 17 | 10 21 | 24 47 | 2 3 | 1 33 | 2 41 | 6 59 | 1 15 | 8 14 | 0 30 | 12 5 | 0 51 | 16 54 | 1 51 | 23 5 | 0 27 | 0 44 | 1 35 | 0 10 | 15 21 | 18 20 | 18 23 | 16 53 | 7 11 | 6 4 | | | |
| W 18 | 10 42 | 21 50 | 0 59 | 0 58 | 2 41 | 7 28 | 1 14 | 8 31 | 0 30 | 12 1 | 0 51 | 16 56 | 1 51 | 23 5 | 0 27 | 0 43 | 1 35 | 0 11 | 15 21 | 18 20 | 18 24 | 16 55 | 7 10 | 6 4 | | | |
| T 19 | 11 3 | 17 42 | 0n10 | 0 21 | 2 41 | 7 57 | 1 12 | 8 48 | 0 29 | 11 58 | 0 51 | 16 58 | 1 50 | 23 5 | 0 27 | 0 43 | 1 35 | 0 11 | 15 21 | 18 20 | 18 25 | 16 58 | 7 9 | 6 4 | | | |
| F 20 | 11 24 | 12 33 | 1 20 | 0n16 | 2 39 | 8 25 | 1 11 | 9 5 | 0 28 | 11 54 | 0 51 | 17 0 | 1 50 | 23 4 | 0 27 | 0 42 | 1 35 | 0 12 | 15 21 | 18 20 | 18 25 | 17 0 | 7 8 | 6 5 | | | |
| S 21 | 11 44 | 6 37 | 2 28 | 0 54 | 2 38 | 8 54 | 1 10 | 9 22 | 0 28 | 11 50 | 0 51 | 17 2 | 1 50 | 23 4 | 0 27 | 0 41 | 1 35 | 0 12 | 15 21 | 18 21 | 18 26 | 17 3 | 7 7 | 6 5 | | | |
| S 22 | 12 4 | 0 9 | 3 29 | 1 34 | 2 35 | 9 22 | 1 8 | 9 39 | 0 27 | 11 47 | 0 52 | 17 4 | 1 50 | 23 4 | 0 27 | 0 41 | 1 35 | 0 12 | 15 21 | 18 22 | 18 27 | 17 5 | 7 6 | 6 5 | | | |
| M 23 | 12 25 | 6n30 | 4 17 | 2 15 | 2 32 | 9 50 | 1 7 | 9 56 | 0 27 | 11 43 | 0 52 | 17 6 | 1 50 | 23 4 | 0 27 | 0 40 | 1 35 | 0 13 | 15 21 | 18 24 | 18 28 | 17 8 | 7 5 | 6 6 | | | |
| T 24 | 12 44 | 12 54 | 4 49 | 2 56 | 2 29 | 10 18 | 1 5 | 10 13 | 0 26 | 11 40 | 0 52 | 17 8 | 1 50 | 23 4 | 0 27 | 0 40 | 1 35 | 0 13 | 15 21 | 18 27 | 18 29 | 17 10 | 7 4 | 6 6 | | | |
| W 25 | 13 4 | 18 35 | 5 0 | 3 39 | 2 25 | 10 45 | 1 3 | 10 29 | 0 25 | 11 37 | 0 52 | 17 10 | 1 50 | 23 3 | 0 27 | 0 39 | 1 35 | 0 14 | 15 20 | 18 29 | 18 29 | 17 12 | 7 3 | 6 6 | | | |
| T 26 | 13 24 | 23 2 | 4 50 | 4 22 | 2 21 | 11 12 | 1 2 | 10 46 | 0 25 | 11 33 | 0 53 | 17 12 | 1 50 | 23 3 | 0 27 | 0 39 | 1 35 | 0 14 | 15 20 | 18 32 | 18 30 | 17 15 | 7 2 | 6 7 | | | |
| F 27 | 13 43 | 25 50 | 4 20 | 5 7 | 2 16 | 11 39 | 1 0 | 11 2 | 0 24 | 11 30 | 0 53 | 17 14 | 1 49 | 23 3 | 0 27 | 0 38 | 1 35 | 0 15 | 15 20 | 18 35 | 18 31 | 17 17 | 7 1 | 6 7 | | | |
| S 28 | 14 2 | 26 47 | 3 33 | 5 52 | 2 10 | 12 6 | 0 58 | 11 18 | 0 24 | 11 26 | 0 53 | 17 15 | 1 49 | 23 3 | 0 27 | 0 38 | 1 35 | 0 15 | 15 20 | 18 36 | 18 32 | 17 20 | 7 0 | 6 7 | | | |
| S 29 | 14 21 | 25 54 | 2 33 | 6 38 | 2 5 | 12 32 | 0 56 | 11 34 | 0 23 | 11 23 | 0 53 | 17 17 | 1 49 | 23 3 | 0 27 | 0 37 | 1 35 | 0 16 | 15 20 | 18 38 | 18 33 | 17 22 | 6 59 | 6 7 | | | |
| M 30 | 14n40 | 23n26 | 1n27 | 7n25 | 1s58 | 12n58 | 0s55 | 11n50 | 0s22 | 11s20 | 0s53 | 17n19 | 1s49 | 23n 2 | 0n27 | 0s37 | 1n35 | 0n16 | 15s20 | 18s38 | 18s33 | 17s24 | 6s58 | 6n 0 | | | |

ASTRODIENST EPHEMERIS for the year 1618

geocentric

MAY 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|-------------------|---------------------|------|
| T 1 | 14 35 3 | 10 ⁸ 22'54 | 3 ⁸ 14 | 25 ⁷ 37 | 8 ⁸ 5 | 2 ⁸ 43 | 2 ⁸ 57 | 25 ⁸ 15 | 15 ⁸ 28 | 5 ⁸ R10 | 10 ⁸ 3 | 6 ⁸ R42 | 6 ⁸ 58 | 3 ⁸ 16 | 26 ⁸ 26 | T 1 |
| W 2 | 14 39 0 | 11 ⁸ 20'56 | 16 ⁸ 6 | 27 ⁸ 30 | 9 ⁸ 19 | 3 ⁸ 28 | 3 ⁸ 6 | 25 ⁸ 23 | 15 ⁸ 30 | 5 ⁸ 9 | 10 ⁸ 5 | 6 ⁸ 42 | 6 ⁸ 55 | 3 ⁸ 23 | 26 ⁸ 28 | W 2 |
| T 3 | 14 42 56 | 12 ⁸ 18'56 | 28 ⁸ 38 | 29 ⁸ 26 | 10 ⁸ 33 | 4 ⁸ 12 | 3 ⁸ 15 | 25 ⁸ 31 | 15 ⁸ 32 | 5 ⁸ 8 | 10 ⁸ 6 | 6 ⁸ 41 | 6 ⁸ 52 | 3 ⁸ 29 | 26 ⁸ 29 | T 3 |
| F 4 | 14 46 53 | 13 ⁸ 16'55 | 10 ⁸ 54 | 1 ⁸ 23 | 11 ⁸ 47 | 4 ⁸ 56 | 3 ⁸ 24 | 25 ⁸ 38 | 15 ⁸ 34 | 5 ⁸ 6 | 10 ⁸ 7 | 6 ⁸ 39 | 6 ⁸ 48 | 3 ⁸ 36 | 26 ⁸ 31 | F 4 |
| S 5 | 14 50 49 | 14 ⁸ 14'51 | 22 ⁸ 59 | 3 ⁸ 22 | 13 ⁸ 1 | 5 ⁸ 40 | 3 ⁸ 33 | 25 ⁸ 46 | 15 ⁸ 37 | 5 ⁸ 5 | 10 ⁸ 9 | 6 ⁸ 34 | 6 ⁸ 45 | 3 ⁸ 43 | 26 ⁸ 33 | S 5 |
| S 6 | 14 54 46 | 15 ⁸ 12'46 | 4 ⁸ 56 | 5 ⁸ 23 | 14 ⁸ 15 | 6 ⁸ 25 | 3 ⁸ 42 | 25 ⁸ 54 | 15 ⁸ 39 | 5 ⁸ 4 | 10 ⁸ 10 | 6 ⁸ 26 | 6 ⁸ 42 | 3 ⁸ 49 | 26 ⁸ 34 | S 6 |
| M 7 | 14 58 42 | 16 ⁸ 10'39 | 16 ⁸ 50 | 7 ⁸ 25 | 15 ⁸ 29 | 7 ⁸ 9 | 3 ⁸ 50 | 26 ⁸ 2 | 15 ⁸ 41 | 5 ⁸ 3 | 10 ⁸ 12 | 6 ⁸ 16 | 6 ⁸ 39 | 3 ⁸ 56 | 26 ⁸ 36 | M 7 |
| T 8 | 15 2 39 | 17 ⁸ 8'30 | 28 ⁸ 42 | 9 ⁸ 29 | 16 ⁸ 43 | 7 ⁸ 53 | 3 ⁸ 59 | 26 ⁸ 9 | 15 ⁸ 43 | 5 ⁸ 2 | 10 ⁸ 13 | 6 ⁸ 3 | 6 ⁸ 36 | 4 ⁸ 3 | 26 ⁸ 37 | T 8 |
| W 9 | 15 6 36 | 18 ⁸ 6'20 | 10 ⁸ 34 | 11 ⁸ 34 | 17 ⁸ 57 | 8 ⁸ 37 | 4 ⁸ 7 | 26 ⁸ 17 | 15 ⁸ 46 | 5 ⁸ 1 | 10 ⁸ 14 | 5 ⁸ 50 | 6 ⁸ 33 | 4 ⁸ 10 | 26 ⁸ 39 | W 9 |
| T 10 | 15 10 32 | 19 ⁸ 4'09 | 22 ⁸ 29 | 13 ⁸ 41 | 19 ⁸ 10 | 9 ⁸ 21 | 4 ⁸ 16 | 26 ⁸ 25 | 15 ⁸ 48 | 5 ⁸ 0 | 10 ⁸ 16 | 5 ⁸ 36 | 6 ⁸ 29 | 4 ⁸ 16 | 26 ⁸ 40 | T 10 |
| F 11 | 15 14 29 | 20 ⁸ 1'56 | 4 ⁸ 27 | 15 ⁸ 49 | 20 ⁸ 24 | 10 ⁸ 5 | 4 ⁸ 24 | 26 ⁸ 33 | 15 ⁸ 50 | 4 ⁸ 59 | 10 ⁸ 17 | 5 ⁸ 24 | 6 ⁸ 26 | 4 ⁸ 23 | 26 ⁸ 41 | F 11 |
| S 12 | 15 18 25 | 20 ⁸ 59'41 | 16 ⁸ 30 | 17 ⁸ 59 | 21 ⁸ 38 | 10 ⁸ 48 | 4 ⁸ 32 | 26 ⁸ 40 | 15 ⁸ 53 | 4 ⁸ 57 | 10 ⁸ 18 | 5 ⁸ 14 | 6 ⁸ 23 | 4 ⁸ 30 | 26 ⁸ 42 | S 12 |
| S 13 | 15 22 22 | 21 ⁸ 57'26 | 28 ⁸ 39 | 20 ⁸ 9 | 22 ⁸ 52 | 11 ⁸ 32 | 4 ⁸ 40 | 26 ⁸ 48 | 15 ⁸ 55 | 4 ⁸ 56 | 10 ⁸ 20 | 5 ⁸ 6 | 6 ⁸ 20 | 4 ⁸ 36 | 26 ⁸ 43 | S 13 |
| M14 | 15 26 18 | 22 ⁸ 55'09 | 10 ⁸ 57 | 22 ⁸ 20 | 24 ⁸ 6 | 12 ⁸ 16 | 4 ⁸ 47 | 26 ⁸ 56 | 15 ⁸ 58 | 4 ⁸ 55 | 10 ⁸ 21 | 5 ⁸ 1 | 6 ⁸ 17 | 4 ⁸ 43 | 26 ⁸ 45 | M14 |
| T 15 | 15 30 15 | 23 ⁸ 52'51 | 23 ⁸ 27 | 24 ⁸ 31 | 25 ⁸ 20 | 13 ⁸ 0 | 4 ⁸ 55 | 27 ⁸ 4 | 16 ⁸ 0 | 4 ⁸ 55 | 10 ⁸ 22 | 4 ⁸ 59 | 6 ⁸ 13 | 4 ⁸ 50 | 26 ⁸ 46 | T 15 |
| W16 | 15 34 11 | 24 ⁸ 50'31 | 6 ⁸ 11 | 26 ⁸ 43 | 26 ⁸ 33 | 13 ⁸ 43 | 5 ⁸ 2 | 27 ⁸ 12 | 16 ⁸ 3 | 4 ⁸ 54 | 10 ⁸ 24 | 4 ⁸ D58 | 6 ⁸ 10 | 4 ⁸ 57 | 26 ⁸ 47 | W16 |
| T 17 | 15 38 8 | 25 ⁸ 48'11 | 19 ⁸ 13 | 28 ⁸ 54 | 27 ⁸ 47 | 14 ⁸ 27 | 5 ⁸ 10 | 27 ⁸ 19 | 16 ⁸ 5 | 4 ⁸ 53 | 10 ⁸ 25 | 4 ⁸ R58 | 6 ⁸ 7 | 5 ⁸ 3 | 26 ⁸ 47 | T 17 |
| F 18 | 15 42 5 | 26 ⁸ 45'50 | 2 ⁸ 37 | 1 ⁸ 11 | 29 ⁸ 1 | 15 ⁸ 10 | 5 ⁸ 17 | 27 ⁸ 27 | 16 ⁸ 8 | 4 ⁸ 52 | 10 ⁸ 26 | 4 ⁸ 58 | 6 ⁸ 4 | 5 ⁸ 10 | 26 ⁸ 48 | F 18 |
| S 19 | 15 46 1 | 27 ⁸ 43'27 | 16 ⁸ 26 | 3 ⁸ 16 | 0 ⁸ 11 | 15 ⁸ 54 | 5 ⁸ 24 | 27 ⁸ 35 | 16 ⁸ 11 | 4 ⁸ 51 | 10 ⁸ 28 | 4 ⁸ 57 | 6 ⁸ 1 | 5 ⁸ 17 | 26 ⁸ 49 | S 19 |
| S 20 | 15 49 58 | 28 ⁸ 41'04 | 0 ⁸ 76 | 5 ⁸ 25 | 1 ⁸ 29 | 16 ⁸ 37 | 5 ⁸ 31 | 27 ⁸ 43 | 16 ⁸ 13 | 4 ⁸ 50 | 10 ⁸ 29 | 4 ⁸ 54 | 5 ⁸ 58 | 5 ⁸ 24 | 26 ⁸ 50 | S 20 |
| M21 | 15 53 54 | 29 ⁸ 38'40 | 15 ⁸ 18 | 7 ⁸ 34 | 2 ⁸ 42 | 17 ⁸ 20 | 5 ⁸ 37 | 27 ⁸ 51 | 16 ⁸ 16 | 4 ⁸ 49 | 10 ⁸ 30 | 4 ⁸ 48 | 5 ⁸ 54 | 5 ⁸ 30 | 26 ⁸ 50 | M21 |
| T 22 | 15 57 51 | 0 ⁸ 11'36 | 15 ⁸ 15 | 9 ⁸ 41 | 3 ⁸ 56 | 18 ⁸ 4 | 5 ⁸ 44 | 27 ⁸ 58 | 16 ⁸ 19 | 4 ⁸ 48 | 10 ⁸ 31 | 4 ⁸ 40 | 5 ⁸ 51 | 5 ⁸ 37 | 26 ⁸ 51 | T 22 |
| W23 | 16 1 47 | 1 ⁸ 33'49 | 15 ⁸ 24 | 11 ⁸ 46 | 5 ⁸ 10 | 18 ⁸ 47 | 5 ⁸ 50 | 28 ⁸ 6 | 16 ⁸ 22 | 4 ⁸ 48 | 10 ⁸ 33 | 4 ⁸ 31 | 5 ⁸ 48 | 5 ⁸ 44 | 26 ⁸ 52 | W23 |
| T 24 | 16 5 44 | 2 ⁸ 31'22 | 0 ⁸ 11 | 13 ⁸ 50 | 6 ⁸ 24 | 19 ⁸ 30 | 5 ⁸ 56 | 28 ⁸ 14 | 16 ⁸ 24 | 4 ⁸ 47 | 10 ⁸ 34 | 4 ⁸ 22 | 5 ⁸ 45 | 5 ⁸ 50 | 26 ⁸ 52 | T 24 |
| F 25 | 16 9 40 | 3 ⁸ 28'54 | 15 ⁸ 37 | 15 ⁸ 51 | 7 ⁸ 37 | 20 ⁸ 13 | 6 ⁸ 3 | 28 ⁸ 22 | 16 ⁸ 27 | 4 ⁸ 46 | 10 ⁸ 35 | 4 ⁸ 14 | 5 ⁸ 42 | 5 ⁸ 57 | 26 ⁸ 52 | F 25 |
| S 26 | 16 13 37 | 4 ⁸ 26'24 | 0 ⁸ 20 | 17 ⁸ 51 | 8 ⁸ 51 | 20 ⁸ 56 | 6 ⁸ 8 | 28 ⁸ 30 | 16 ⁸ 30 | 4 ⁸ 46 | 10 ⁸ 37 | 4 ⁸ 7 | 5 ⁸ 39 | 6 ⁸ 4 | 26 ⁸ 53 | S 26 |
| S 27 | 16 17 34 | 5 ⁸ 23'54 | 14 ⁸ 39 | 19 ⁸ 48 | 10 ⁸ 5 | 21 ⁸ 39 | 6 ⁸ 14 | 28 ⁸ 37 | 16 ⁸ 33 | 4 ⁸ 45 | 10 ⁸ 38 | 4 ⁸ 4 | 5 ⁸ 35 | 6 ⁸ 11 | 26 ⁸ 53 | S 27 |
| M28 | 16 21 30 | 6 ⁸ 21'22 | 28 ⁸ 30 | 21 ⁸ 43 | 11 ⁸ 19 | 22 ⁸ 22 | 6 ⁸ 20 | 28 ⁸ 45 | 16 ⁸ 36 | 4 ⁸ 44 | 10 ⁸ 39 | 4 ⁸ D 2 | 5 ⁸ 32 | 6 ⁸ 17 | 26 ⁸ 53 | M28 |
| T 29 | 16 25 27 | 7 ⁸ 18'50 | 11 ⁸ 52 | 23 ⁸ 35 | 12 ⁸ 32 | 23 ⁸ 5 | 6 ⁸ 25 | 28 ⁸ 53 | 16 ⁸ 39 | 4 ⁸ 44 | 10 ⁸ 40 | 4 ⁸ 2 | 5 ⁸ 29 | 6 ⁸ 24 | 26 ⁸ 53 | T 29 |
| W30 | 16 29 23 | 8 ⁸ 16'15 | 24 ⁸ 49 | 25 ⁸ 25 | 13 ⁸ 46 | 23 ⁸ 48 | 6 ⁸ 30 | 29 ⁸ 1 | 16 ⁸ 42 | 4 ⁸ 43 | 10 ⁸ 42 | 4 ⁸ 3 | 5 ⁸ 26 | 6 ⁸ 31 | 26 ⁸ 54 | W30 |
| T 31 | 16 33 20 | 9 ⁸ 11'34 | 7 ⁸ 23 | 27 ⁸ 12 | 15 ⁸ 11 | 24 ⁸ 31 | 6 ⁸ 35 | 29 ⁸ 8 | 16 ⁸ 45 | 4 ⁸ 43 | 10 ⁸ 43 | 4 ⁸ R 4 | 5 ⁸ 23 | 6 ⁸ 38 | 26 ⁸ R54 | T 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 | decl | lat |
| T 1 | 14n58 | 19n46 | 0n18 | 8n12 | 1s51 | 13n24 | 0s53 | 12n 6 | 0s22 | 11s17 | 0s54 | 17n21 | 1s49 | 23n 2 | 0n27 | 0s36 | 1n35 | 0n16 | 15s20 | 18s38 | 18s34 | 17s27 | 6s57 | 6n 8 | | | | | |
| W 2 | 15 16 | 15 15 | 0s50 | 9 0 | 1 44 | 13 50 | 0 51 | 12 22 | 0 21 | 11 14 | 0 54 | 17 23 | 1 49 | 23 2 | 0 27 | 0 36 | 1 35 | 0 17 | 15 20 | 18 38 | 18 35 | 17 29 | 6 56 | 6 8 | | | | | |
| T 3 | 15 34 | 10 12 | 1 53 | 9 48 | 1 36 | 14 15 | 0 49 | 12 38 | 0 20 | 11 10 | 0 54 | 17 25 | 1 49 | 23 2 | 0 27 | 0 35 | 1 35 | 0 17 | 15 20 | 18 39 | 18 36 | 17 32 | 6 56 | 6 9 | | | | | |
| F 4 | 15 52 | 4 52 | 2 50 | 10 37 | 1 28 | 14 40 | 0 47 | 12 53 | 0 20 | 11 7 | 0 54 | 17 27 | 1 49 | 23 1 | 0 27 | 0 35 | 1 35 | 0 18 | 15 20 | 18 39 | 18 37 | 17 34 | 6 55 | 6 9 | | | | | |
| S 5 | 16 9 | 0s33 | 3 38 | 11 25 | 1 19 | 15 4 | 0 45 | 13 8 | 0 19 | 11 4 | 0 55 | 17 29 | 1 49 | 23 1 | 0 27 | 0 34 | 1 35 | 0 18 | 15 20 | 18 40 | 18 37 | 17 36 | 6 54 | 6 9 | | | | | |
| S 6 | 16 26 | 5 53 | 4 17 | 12 15 | 1 10 | 15 28 | 0 43 | 13 24 | 0 19 | 11 1 | 0 55 | 17 31 | 1 49 | 23 1 | 0 27 | 0 34 | 1 35 | 0 19 | 15 20 | 18 42 | 18 38 | 17 39 | 6 53 | 6 10 | | | | | |
| M 7 | 16 43 | 10 59 | 4 43 | 13 4 | 1 1 | 15 52 | 0 41 | 13 39 | 0 18 | 10 58 | 0 55 | 17 33 | 1 49 | 23 1 | 0 27 | 0 33 | 1 35 | 0 19 | 15 20 | 18 45 | 18 39 | 17 41 | 6 52 | 6 10 | | | | | |
| T 8 | 16 59 | 15 40 | 4 58 | 13 53 | 0 51 | 16 15 | 0 39 | 13 54 | 0 17 | 10 56 | 0 55 | 17 35 | 1 48 | 23 0 | 0 27 | 0 33 | 1 35 | 0 19 | 15 20 | 18 48 | 18 40 | 17 43 | 6 51 | 6 10 | | | | | |
| W 9 | 17 16 | 19 45 | 4 59 | 14 41 | 0 41 | 16 38 | 0 37 | 14 8 | 0 17 | 10 53 | 0 55 | 17 36 | 1 48 | 23 0 | 0 27 | 0 33 | 1 35 | 0 20 | 15 20 | 18 51 | 18 41 | 17 46 | 6 51 | 6 11 | | | | | |
| T 10 | 17 32 | 23 3 | 4 47 | 15 30 | 0 31 | 17 0 | 0 34 | 14 23 | 0 16 | 10 50 | 0 56 | 17 38 | 1 48 | 23 0 | 0 27 | 0 32 | 1 35 | 0 20 | 15 20 | 18 55 | 18 41 | 17 48 | 6 50 | 6 11 | | | | | |
| F 11 | 17 47 | 25 23 | 4 23 | 16 17 | 0 20 | 17 22 | 0 32 | 14 38 | 0 15 | 10 47 | 0 56 | 17 40 | 1 48 | 22 59 | 0 27 | 0 32 | 1 35 | 0 20 | 15 20 | 18 58 | 18 42 | 17 51 | 6 49 | 6 11 | | | | | |
| S 12 | 18 3 | 26 34 | 3 47 | 17 4 | 0 10 | 17 44 | 0 30 | 14 52 | 0 15 | 10 45 | 0 56 | 17 42 | 1 48 | 22 59 | 0 27 | 0 31 | 1 35 | 0 21 | 15 20 | 19 0 | 18 43 | 17 53 | 6 48 | 6 12 | | | | | |
| S 13 | 18 18 | 26 29 | 3 0 | 17 50 | 0n 1 | 18 5 | 0 28 | 15 6 | 0 14 | 10 42 | 0 56 | 17 44 | 1 48 | 22 59 | 0 27 | 0 31 | 1 35 | 0 21 | 15 20 | 19 2 | 18 44 | 17 55 | 6 48 | 6 12 | | | | | |
| M14 | 18 32 | 25 6 | 2 4 | 18 35 | 0 11 | 18 25 | 0 25 | 15 20 | 0 13 | 10 39 | 0 57 | 17 46 | 1 48 | 22 58 | 0 27 | 0 31 | 1 35 | 0 21 | 15 20 | 19 3 | 18 45 | 17 58 | 6 47 | 6 12 | | | | | |
| T 15 | 18 47 | 22 27 | 1 1 | 19 18 | 0 22 | 18 46 | 0 23 | 15 34 | 0 13 | 10 37 | 0 57 | 17 48 | 1 48 | 22 58 | 0 27 | 0 30 | 1 35 | 0 22 | 15 20 | 19 4 | 18 45 | 18 0 | 6 47 | 6 13 | | | | | |
| W16 | 19 1 | 18 40 | 0n 6 | 19 59 | 0 32 | 19 5 | 0 21 | 15 48 | 0 12 | 10 34 | 0 57 | 17 49 | 1 48 | 22 58 | 0 27 | 0 30 | 1 35 | 0 22 | 15 21 | 19 4 | 18 46 | 18 2 | 6 46 | 6 13 | | | | | |
| T 17 | 19 15 | 13 54 | 1 15 | 20 39 | 0 42 | 19 24 | 0 19 | 16 1 | 0 12 | 10 32 | 0 57 | 17 51 | 1 48 | 22 58 | 0 27 | 0 30 | 1 35 | 0 23 | 15 21 | 19 4 | 18 47 | 18 4 | 6 45 | 6 13 | | | | | |
| F 18 | 19 28 | 8 22 | 2 21 | 21 16 | 0 52 | 19 43 | 0 16 | 16 15 | 0 11 | 10 29 | 0 58 | 17 53 | 1 48 | 22 57 | 0 27 | 0 29 | 1 35 | 0 23 | 15 21 | 19 4 | 18 48 | 18 7 | 6 45 | 6 14 | | | | | |
| S 19 | 19 42 | 2 16 | 3 22 | 21 52 | 1 1 | 20 1 | 0 14 | 16 28 | 0 10 | 10 27 | 0 58 | 17 55 | 1 48 | 22 57 | 0 27 | 0 29 | 1 35 | 0 23 | 15 21 | 19 4 | 18 49 | 18 9 | 6 44 | 6 14 | | | | | |
| S 20 | 19 55 | 4n 6 | 4 11 | 22 24 | 1 10 | 20 19 | 0 12 | 16 41 | 0 10 | 10 25 | 0 58 | 17 57 | 1 48 | 22 57 | 0 27 | 0 29 | 1 35 | 0 23 | 15 21 | 19 5 | 18 49 | 18 11 | 6 43 | 6 15 | | | | | |
| M21 | 20 7 | 10 26 | 4 46 | 22 55 | 1 19 | 20 36 | 0 9 | 16 54 | 0 9 | 10 23 | 0 58 | 17 58 | 1 48 | 22 56 | 0 27 | 0 28 | 1 35 | 0 24 | 15 21 | 19 6 | 18 50 | 18 14 | 6 43 | 6 15 | | | | | |
| T 22 | 20 19 | 16 18 | 5 2 | 23 23 | 1 27 | 20 52 | 0 7 | 17 7 | 0 8 | 10 20 | 0 59 | 18 0 | 1 48 | 22 56 | 0 27 | 0 28 | 1 34 | 0 24 | 15 21 | 19 8 | 18 51 | 18 16 | 6 42 | 6 15 | | | | | |
| W23 | 20 31 | 21 14 | 4 58 | 23 48 | 1 34 | 21 8 | 0 4 | 17 19 | 0 8 | 10 18 | 0 59 | 18 2 | 1 47 | 22 55 | 0 27 | 0 28 | 1 34 | 0 24 | 15 21 | 19 10 | 18 52 | 18 18 | 6 42 | 6 16 | | | | | |
| T 24 | 20 43 | 24 45 | 4 32 | 24 11 | 1 41 | 21 23 | 0 2 | 17 32 | 0 7 | 10 16 | 0 59 | 18 4 | 1 47 | 22 55 | 0 27 | 0 28 | 1 34 | 0 25 | 15 21 | 19 13 | 18 52 | 18 21 | 6 41 | 6 16 | | | | | |
| F 25 | 20 54 | 26 30 | 3 48 | 24 30 | 1 47 | 21 38 | 0n 0 | 17 44 | 0 6 | 10 14 | 1 0 | 18 6 | 1 47 | 22 55 | 0 27 | 0 27 | 1 34 | 0 25 | 15 21 | 19 15 | 18 53 | 18 23 | 6 41 | 6 16 | | | | | |
| S 26 | 21 4 | 26 19 | 2 50 | 24 47 | 1 52 | 21 52 | 0 3 | 17 56 | 0 6 | 10 12 | 1 0 | 18 7 | 1 47 | 22 54 | 0 27 | 0 27 | 1 34 | 0 25 | 15 21 | 19 16 | 18 54 | 18 25 | 6 40 | 6 17 | | | | | |
| S 27 | 21 15 | 24 22 | 1 42 | 25 2 | 1 56 | 22 6 | 0 5 | 18 8 | 0 5 | 10 10 | 1 0 | 18 9 | 1 47 | 22 54 | 0 27 | 0 27 | 1 34 | 0 25 | 15 21 | 19 17 | 18 55 | 18 27 | 6 40 | 6 17 | | | | | |
| M28 | 21 25 | 20 59 | 0 30 | 25 14 | 2 0 | 22 18 | 0 7 | 18 20 | 0 4 | 10 9 | 1 0 | 18 11 | 1 47 | 22 54 | 0 27 | 0 27 | 1 34 | 0 26 | 15 21 | 19 17 | 18 56 | 18 30 | 6 40 | 6 17 | | | | | |
| T 29 | 21 35 | 16 36 | 0s42 | 25 23 | 2 3 | 22 31 | 0 10 | 18 31 | 0 4 | 10 7 | 1 1 | 18 12 | 1 47 | 22 53 | 0 26 | 0 27 | 1 34 | 0 26 | 15 22 | 19 17 | 18 56 | 18 32 | 6 39 | 6 18 | | | | | |
| W30 | 21 44 | 11 34 | 1 49 | 25 30 | 2 5 | 22 42 | 0 12 | 18 43 | 0 3 | 10 5 | 1 1 | 18 14 | 1 47 | 22 53 | 0 26 | 0 26 | 1 34 | 0 26 | 15 22 | 19 17 | 18 57 | 18 34 | 6 39 | 6 18 | | | | | |
| T 31 | 21n53 | 6n12 | 2s49 | 25n35 | 2n 7 | 22n53 | 0n15 | 18n54 | 0s 3 | 10s 4 | 1s 1 | 18n16 | 1s47 | 22n53 | 0n26 | 0s26 | 1n34 | 0n26 | 15s22 | 19s17 | 18s58 | 18s36 | 6s38 | 6n18 | | | | | |

ASTRODIENST EPHEMERIS for the year 1618

geocentric

JUNE 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|----------------------|---------------------|---------------------|----------------------|--------------------|----------------------|----------------------|--------------------|----------------------|-------------------|---------------------|---------------------|----------------------|------|
| F 1 | 16 37 16 | 10 ^{II} 11'03 | 19 ^{III} 41 | 28 ^{II} 57 | 16 ^{II} 13 | 25 ^{III} 14 | 6 ^{II} 40 | 29 ^{III} 16 | 16 ^{III} 48 | 4 ^R 42 | 10 ^{III} 44 | 4 ^R 3 | 5 ^{III} 19 | 6 ^{III} 44 | 26 ^R 54 | F 1 |
| S 2 | 16 41 13 | 11° 8'25 | 1 ^{II} 45 | 0 ^{III} 39 | 17°27 | 25°56 | 6°45 | 29°24 | 16°51 | 4 ^{II} 42 | 10°45 | 4 ^{II} 1 | 5°16 | 6°51 | 26 ^{III} 54 | S 2 |
| S 3 | 16 45 9 | 12° 5'46 | 13°41 | 2°18 | 18°41 | 26°39 | 6°50 | 29°32 | 16°55 | 4°41 | 10°46 | 3°56 | 5°13 | 6°58 | 26°53 | S 3 |
| M 4 | 16 49 6 | 13° 3'07 | 25°34 | 3°55 | 19°55 | 27°22 | 6°54 | 29°39 | 16°58 | 4°41 | 10°48 | 3°50 | 5°10 | 7° 4 | 26°53 | M 4 |
| T 5 | 16 53 3 | 14° 0'26 | 7 ^{III} 26 | 5°29 | 21° 8 | 28° 4 | 6°58 | 29°47 | 17° 1 | 4°41 | 10°49 | 3°42 | 5° 7 | 7°11 | 26°53 | T 5 |
| W 6 | 16 56 59 | 14°57'44 | 19°20 | 7° 0 | 22°22 | 28°47 | 7° 2 | 29°55 | 17° 4 | 4°40 | 10°50 | 3°33 | 5° 4 | 7°18 | 26°53 | W 6 |
| T 7 | 17 0 56 | 15°55'02 | 1 ^{II} 19 | 8°28 | 23°36 | 29°29 | 7° 6 | 0 ^{II} 2 | 17° 7 | 4°40 | 10°51 | 3°24 | 5° 0 | 7°25 | 26°52 | T 7 |
| F 8 | 17 4 52 | 16°52'18 | 13°25 | 9°54 | 24°49 | 0 ^{III} 11 | 7°10 | 0°10 | 17°11 | 4°40 | 10°52 | 3°16 | 4°57 | 7°31 | 26°52 | F 8 |
| S 9 | 17 8 49 | 17°49'35 | 25°38 | 11°17 | 26° 3 | 0°54 | 7°13 | 0°17 | 17°14 | 4°40 | 10°53 | 3° 9 | 4°54 | 7°38 | 26°51 | S 9 |
| S 10 | 17 12 45 | 18°46'50 | 7 ^{III} 59 | 12°37 | 27°16 | 1°36 | 7°17 | 0°25 | 17°17 | 4°39 | 10°54 | 3° 5 | 4°51 | 7°45 | 26°51 | S 10 |
| M 11 | 17 16 42 | 19°44'05 | 20°31 | 13°54 | 28°30 | 2°18 | 7°20 | 0°32 | 17°21 | 4°39 | 10°56 | 3° 2 | 4°48 | 7°51 | 26°50 | M 11 |
| T 12 | 17 20 39 | 20°41'20 | 3 ^{III} 14 | 15° 8 | 29°44 | 3° 0 | 7°23 | 0°40 | 17°24 | 4°39 | 10°57 | 3°D 1 | 4°45 | 7°58 | 26°49 | T 12 |
| W 13 | 17 24 35 | 21°38'34 | 16°10 | 16°19 | 0 ^{III} 57 | 3°42 | 7°26 | 0°47 | 17°27 | 4°39 | 10°58 | 3° 2 | 4°41 | 8° 5 | 26°49 | W 13 |
| T 14 | 17 28 32 | 22°35'48 | 29°22 | 17°27 | 2°11 | 4°25 | 7°28 | 0°55 | 17°31 | 4°39 | 10°59 | 3° 3 | 4°38 | 8°12 | 26°48 | T 14 |
| F 15 | 17 32 28 | 23°33'02 | 12 ^{II} 50 | 18°32 | 3°25 | 5° 7 | 7°31 | 1° 2 | 17°34 | 4°39 | 11° 0 | 3° 4 | 4°35 | 8°18 | 26°47 | F 15 |
| S 16 | 17 36 25 | 24°30'15 | 26°36 | 19°34 | 4°38 | 5°48 | 7°33 | 1°10 | 17°38 | 4°D39 | 11° 1 | 3°R 5 | 4°32 | 8°25 | 26°46 | S 16 |
| S 17 | 17 40 21 | 25°27'29 | 10 ^{III} 42 | 20°32 | 5°52 | 6°30 | 7°35 | 1°17 | 17°41 | 4°39 | 11° 2 | 3° 4 | 4°29 | 8°32 | 26°45 | S 17 |
| M 18 | 17 44 18 | 26°24'42 | 25° 5 | 21°27 | 7° 5 | 7°12 | 7°37 | 1°25 | 17°44 | 4°39 | 11° 3 | 3° 1 | 4°25 | 8°39 | 26°44 | M 18 |
| T 19 | 17 48 14 | 27°21'55 | 9 ^{II} 44 | 22°19 | 8°19 | 7°54 | 7°38 | 1°32 | 17°48 | 4°39 | 11° 4 | 2°57 | 4°22 | 8°45 | 26°43 | T 19 |
| W 20 | 17 52 11 | 28°19'09 | 24°31 | 23° 7 | 9°33 | 8°36 | 7°40 | 1°39 | 17°51 | 4°39 | 11° 5 | 2°53 | 4°19 | 8°52 | 26°42 | W 20 |
| T 21 | 17 56 8 | 29°16'22 | 9 ^{III} 21 | 23°51 | 10°46 | 9°17 | 7°41 | 1°46 | 17°55 | 4°39 | 11° 6 | 2°48 | 4°16 | 8°59 | 26°41 | T 21 |
| F 22 | 18 0 4 | 0 ^{III} 13'35 | 24° 5 | 24°32 | 12° 0 | 9°59 | 7°42 | 1°54 | 17°58 | 4°39 | 11° 7 | 2°44 | 4°13 | 9° 5 | 26°40 | F 22 |
| S 23 | 18 4 1 | 1°10'49 | 8 ^{III} 36 | 25° 9 | 13°14 | 10°41 | 7°43 | 2° 1 | 18° 2 | 4°40 | 11° 8 | 2°40 | 4°10 | 9°12 | 26°38 | S 23 |
| S 24 | 18 7 57 | 2° 8'01 | 22°48 | 25°41 | 14°27 | 11°22 | 7°44 | 2° 8 | 18° 5 | 4°40 | 11° 9 | 2°39 | 4° 6 | 9°19 | 26°37 | S 24 |
| M 25 | 18 11 54 | 3° 5'14 | 6 ^{II} 36 | 26°10 | 15°41 | 12° 4 | 7°44 | 2°15 | 18° 9 | 4°40 | 11°10 | 2°D38 | 4° 3 | 9°26 | 26°35 | M 25 |
| T 26 | 18 15 50 | 4° 2'26 | 19°59 | 26°34 | 16°54 | 12°45 | 7°45 | 2°22 | 18°13 | 4°40 | 11°11 | 2°39 | 4° 0 | 9°32 | 26°34 | T 26 |
| W 27 | 18 19 47 | 4°59'38 | 2 ^{III} 59 | 26°53 | 18° 8 | 13°26 | 7°R45 | 2°29 | 18°16 | 4°41 | 11°11 | 2°41 | 3°57 | 9°39 | 26°32 | W 27 |
| T 28 | 18 23 43 | 5°56'50 | 15°37 | 27° 9 | 19°22 | 14° 8 | 7°45 | 2°36 | 18°20 | 4°41 | 11°12 | 2°42 | 3°54 | 9°46 | 26°31 | T 28 |
| F 29 | 18 27 40 | 6°54'01 | 27°57 | 27°19 | 20°35 | 14°49 | 7°44 | 2°43 | 18°23 | 4°42 | 11°13 | 2°43 | 3°51 | 9°53 | 26°29 | F 29 |
| S 30 | 18 31 37 | 7°51'12 | 10 ^{II} 4 | 27°525 | 21°549 | 15°II30 | 7°H44 | 2°II50 | 18°527 | 4°H42 | 11°D14 | 2°R44 | 3°H47 | 9°II59 | 26°H28 | S 30 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | 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 | |
| F 1 | 22n 1 | 0n44 3s40 | 25n37 2n 8 | 23n 3 0n17 | 19n 5 0s 2 | 10s 2 1s 1 | 18n18 1s47 | 22n52 0n26 | 0s26 1n34 | 0n27 15s22 | 19s17 18s59 | 18s39 6s38 | 6n19 6 19 | | | |
| S 2 | 22 10 | 4s40 4 19 | 25 37 2 8 | 23 13 0 19 | 19 16 0 1 | 10 0 1 2 | 18 19 1 47 | 22 52 0 26 | 0 26 1 34 | 0 27 15 22 | 19 18 18 59 | 18 41 6 38 | 6 19 6 19 | | | |
| S 3 | 22 17 | 9 49 4 48 | 25 35 2 7 | 23 22 0 22 | 19 26 0 1 | 9 59 1 2 | 18 21 1 47 | 22 51 0 26 | 0 26 1 34 | 0 27 15 22 | 19 19 19 0 | 18 43 6 38 | 6 19 6 19 | | | |
| M 4 | 22 25 | 14 36 5 3 | 25 31 2 5 | 23 30 0 24 | 19 37 0n 0 | 9 58 1 2 | 18 23 1 47 | 22 51 0 26 | 0 26 1 34 | 0 27 15 22 | 19 20 19 1 | 18 45 6 37 | 6 20 6 20 | | | |
| T 5 | 22 32 | 18 50 5 6 | 25 25 2 3 | 23 38 0 26 | 19 47 0 1 | 9 56 1 3 | 18 24 1 47 | 22 51 0 26 | 0 26 1 34 | 0 28 15 23 | 19 22 19 2 | 18 48 6 37 | 6 20 6 20 | | | |
| W 6 | 22 38 | 22 19 4 55 | 25 18 2 0 | 23 45 0 29 | 19 57 0 1 | 9 55 1 3 | 18 26 1 47 | 22 50 0 26 | 0 26 1 34 | 0 28 15 23 | 19 24 19 3 | 18 50 6 37 | 6 20 6 20 | | | |
| T 7 | 22 45 | 24 53 4 31 | 25 9 1 56 | 23 51 0 31 | 20 7 0 2 | 9 54 1 3 | 18 27 1 47 | 22 50 0 26 | 0 25 1 34 | 0 28 15 23 | 19 26 19 3 | 18 52 6 37 | 6 21 6 21 | | | |
| F 8 | 22 50 | 26 21 3 55 | 24 58 1 52 | 23 56 0 33 | 20 17 0 3 | 9 53 1 3 | 18 29 1 47 | 22 49 0 26 | 0 25 1 34 | 0 28 15 23 | 19 28 19 4 | 18 54 6 37 | 6 21 6 21 | | | |
| S 9 | 22 56 | 26 33 3 8 | 24 47 1 46 | 24 1 0 35 | 20 26 0 3 | 9 52 1 4 | 18 31 1 47 | 22 49 0 26 | 0 25 1 34 | 0 28 15 23 | 19 30 19 5 | 18 56 6 36 | 6 21 6 21 | | | |
| S 10 | 23 1 | 25 26 2 11 | 24 33 1 40 | 24 5 0 38 | 20 35 0 4 | 9 51 1 4 | 18 32 1 47 | 22 48 0 26 | 0 25 1 34 | 0 28 15 23 | 19 31 19 6 | 18 59 6 36 | 6 22 6 22 | | | |
| M 11 | 23 6 | 23 2 1 7 | 24 19 1 34 | 24 9 0 40 | 20 45 0 5 | 9 50 1 4 | 18 34 1 47 | 22 48 0 26 | 0 25 1 34 | 0 29 15 23 | 19 31 19 6 | 19 1 6 36 | 6 22 6 22 | | | |
| T 12 | 23 10 | 19 27 0n 1 | 24 4 1 27 | 24 11 0 42 | 20 53 0 5 | 9 49 1 5 | 18 35 1 47 | 22 48 0 26 | 0 25 1 34 | 0 29 15 24 | 19 31 19 7 | 19 3 6 36 | 6 22 6 22 | | | |
| W 13 | 23 14 | 14 54 1 11 | 23 47 1 19 | 24 13 0 44 | 21 2 0 6 | 9 48 1 5 | 18 37 1 47 | 22 47 0 26 | 0 25 1 34 | 0 29 15 24 | 19 31 19 8 | 19 5 6 36 | 6 23 6 23 | | | |
| T 14 | 23 17 | 9 34 2 18 | 23 30 1 10 | 24 15 0 46 | 21 11 0 7 | 9 48 1 5 | 18 38 1 47 | 22 47 0 26 | 0 25 1 33 | 0 29 15 24 | 19 31 19 9 | 19 7 6 36 | 6 23 6 23 | | | |
| F 15 | 23 20 | 3 41 3 19 | 23 13 1 1 | 24 15 0 48 | 21 19 0 7 | 9 47 1 5 | 18 40 1 47 | 22 46 0 26 | 0 25 1 33 | 0 29 15 24 | 19 31 19 9 | 19 9 6 36 | 6 23 6 23 | | | |
| S 16 | 23 23 | 2n28 4 10 | 22 54 0 51 | 24 15 0 50 | 21 27 0 8 | 9 46 1 6 | 18 41 1 47 | 22 46 0 26 | 0 25 1 33 | 0 29 15 24 | 19 31 19 10 | 19 12 6 36 | 6 24 6 24 | | | |
| S 17 | 23 25 | 8 39 4 48 | 22 35 0 41 | 24 14 0 52 | 21 35 0 9 | 9 46 1 6 | 18 43 1 47 | 22 45 0 26 | 0 25 1 33 | 0 29 15 25 | 19 31 19 11 | 19 14 6 36 | 6 24 6 24 | | | |
| M 18 | 23 26 | 14 30 5 8 | 22 16 0 30 | 24 12 0 54 | 21 43 0 9 | 9 46 1 6 | 18 44 1 47 | 22 45 0 26 | 0 25 1 33 | 0 30 15 25 | 19 31 19 12 | 19 16 6 36 | 6 24 6 24 | | | |
| T 19 | 23 28 | 19 38 5 9 | 21 56 0 18 | 24 10 0 56 | 21 50 0 10 | 9 45 1 7 | 18 46 1 47 | 22 44 0 26 | 0 26 1 33 | 0 30 15 25 | 19 32 19 12 | 19 18 6 36 | 6 25 6 25 | | | |
| W 20 | 23 29 | 23 36 4 49 | 21 36 0 6 | 24 7 0 58 | 21 57 0 11 | 9 45 1 7 | 18 47 1 47 | 22 44 0 26 | 0 26 1 33 | 0 30 15 25 | 19 33 19 13 | 19 20 6 36 | 6 25 6 25 | | | |
| T 21 | 23 29 | 26 1 4 10 | 21 16 0s 7 | 24 3 1 0 | 22 4 0 11 | 9 45 1 7 | 18 49 1 47 | 22 43 0 26 | 0 26 1 33 | 0 30 15 25 | 19 35 19 14 | 19 22 6 36 | 6 25 6 25 | | | |
| F 22 | 23 29 | 26 36 3 15 | 20 56 0 20 | 23 59 1 2 | 22 11 0 12 | 9 45 1 8 | 18 50 1 47 | 22 43 0 26 | 0 26 1 33 | 0 30 15 26 | 19 36 19 15 | 19 24 6 36 | 6 26 6 26 | | | |
| S 23 | 23 29 | 25 20 8 20 | 36 0 34 | 23 53 1 4 | 22 18 0 12 | 9 45 1 8 | 18 51 1 47 | 22 43 0 26 | 0 26 1 33 | 0 30 15 26 | 19 36 19 15 | 19 27 6 37 6 37 | | | | |
| S 24 | 23 28 | 22 26 0 54 | 20 16 0 48 | 23 47 1 6 | 22 25 0 13 | 9 45 1 8 | 18 53 1 47 | 22 42 0 26 | 0 26 1 33 | 0 30 15 26 | 19 37 19 16 | 19 29 6 37 6 37 | | | | |
| M 25 | 23 27 | 18 19 0s22 | 19 57 1 2 | 23 41 1 7 | 22 31 0 14 | 9 45 1 8 | 18 54 1 47 | 22 42 0 26 | 0 26 1 33 | 0 30 15 26 | 19 37 19 17 | 19 31 6 37 6 37 | | | | |
| T 26 | 23 26 | 13 22 1 34 | 19 38 1 17 | 23 33 1 9 | 22 37 0 14 | 9 45 1 9 | 18 55 1 47 | 22 41 0 26 | 0 26 1 33 | 0 30 15 27 | 19 37 19 18 | 19 33 6 37 6 37 | | | | |
| W 27 | 23 24 | 7 58 2 39 | 19 19 1 32 | 23 25 1 11 | 22 43 0 15 | 9 45 1 9 | 18 57 1 47 | 22 41 0 26 | 0 27 1 33 | 0 30 15 27 | 19 36 19 18 | 19 35 6 37 6 37 | | | | |
| T 28 | 23 21 | 2 24 3 34 | 19 2 1 47 | 23 17 1 12 | 22 48 0 16 | 9 45 1 9 | 18 58 1 47 | 22 40 0 26 | 0 27 1 33 | 0 30 15 27 | 19 36 19 19 | 19 37 6 38 6 38 | | | | |
| F 29 | 23 19 | 3s 8 4 18 | 18 44 2 2 | 23 7 1 14 | 22 54 0 16 | 9 46 1 10 | 18 59 1 47 | 22 40 0 26 | 0 27 1 33 | 0 30 15 27 | 19 36 19 20 | 19 39 6 38 6 38 | | | | |
| S 30 | 23n15 | 8s26 4s50 | 18n28 2s18 | 22n57 1n15 | 22n59 0n17 | 9s46 1s10 | 19n 1 1s48 | 22n39 0n26 | 0s27 1n33 | 0n30 15s27 | 19s36 19s21 | 19s41 6s38 | 6n28 6n28 | | | |

Julian Day Number = 2312173.5, Delta T = 68.04 sec
 Ecliptic obliquity = 23°29'25, Nutation = 0°00'13, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°24'52, Lahiri = 18°31'53Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1618

geocentric

JULY 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|-------|-------|-------|------|-------|------|-------|-------|------|-------|--------|------|
| S 1 | 18 35 33 | 8°48'23 | 22♂ 1 | 27°R27 | 23♂ 2 | 16Ⅱ11 | 7°R43 | 2Ⅱ57 | 18♂31 | 4♂43 | 11♂15 | 2°R43 | 3♂44 | 10Ⅲ 6 | 26°R26 | S 1 |
| M 2 | 18 39 30 | 9°45'33 | 3Ⅲ55 | 27♂23 | 24°16 | 16°52 | 7♂42 | 3° 4 | 18°34 | 4°43 | 11°16 | 2♂41 | 3°41 | 10°13 | 26♂24 | M 2 |
| T 3 | 18 43 26 | 10°42'44 | 15°48 | 27°15 | 25°29 | 17°33 | 7°41 | 3°10 | 18°38 | 4°44 | 11°16 | 2°39 | 3°38 | 10°19 | 26°22 | T 3 |
| W 4 | 18 47 23 | 11°39'54 | 27°45 | 27° 3 | 26°43 | 18°14 | 7°40 | 3°17 | 18°42 | 4°44 | 11°17 | 2°35 | 3°35 | 10°26 | 26°20 | W 4 |
| T 5 | 18 51 19 | 12°37'05 | 9♂49 | 26°45 | 27°56 | 18°55 | 7°38 | 3°24 | 18°45 | 4°45 | 11°18 | 2°32 | 3°31 | 10°33 | 26°18 | T 5 |
| F 6 | 18 55 16 | 13°34'16 | 22° 2 | 26°24 | 29°10 | 19°36 | 7°37 | 3°30 | 18°49 | 4°45 | 11°19 | 2°29 | 3°28 | 10°40 | 26°17 | F 6 |
| S 7 | 18 59 12 | 14°31'27 | 4♂27 | 25°58 | 0♂23 | 20°17 | 7°35 | 3°37 | 18°52 | 4°46 | 11°19 | 2°27 | 3°25 | 10°46 | 26°15 | S 7 |
| S 8 | 19 3 9 | 15°28'38 | 17° 4 | 25°29 | 1°37 | 20°58 | 7°33 | 3°44 | 18°56 | 4°47 | 11°20 | 2°26 | 3°22 | 10°53 | 26°12 | S 8 |
| M 9 | 19 7 6 | 16°25'49 | 29°55 | 24°57 | 2°50 | 21°38 | 7°31 | 3°50 | 19° 0 | 4°47 | 11°21 | 2°D25 | 3°19 | 11° 0 | 26°10 | M 9 |
| T 10 | 19 11 2 | 17°23'01 | 12♂58 | 24°21 | 4° 4 | 22°19 | 7°28 | 3°56 | 19° 3 | 4°48 | 11°21 | 2°25 | 3°16 | 11° 6 | 26° 8 | T 10 |
| W 11 | 19 14 59 | 18°20'13 | 26°15 | 23°44 | 5°17 | 23° 0 | 7°26 | 4° 3 | 19° 7 | 4°49 | 11°22 | 2°26 | 3°12 | 11°13 | 26° 6 | W 11 |
| T 12 | 19 18 55 | 19°17'26 | 9♂45 | 23° 4 | 6°31 | 23°40 | 7°23 | 4° 9 | 19°11 | 4°50 | 11°23 | 2°27 | 3° 9 | 11°20 | 26° 4 | T 12 |
| F 13 | 19 22 52 | 20°14'39 | 23°28 | 22°24 | 7°44 | 24°21 | 7°20 | 4°15 | 19°14 | 4°51 | 11°23 | 2°28 | 3° 6 | 11°27 | 26° 2 | F 13 |
| S 14 | 19 26 48 | 21°11'53 | 7°23 | 21°43 | 8°58 | 25° 1 | 7°17 | 4°22 | 19°18 | 4°52 | 11°24 | 2°29 | 3° 3 | 11°33 | 25°59 | S 14 |
| S 15 | 19 30 45 | 22° 9'08 | 21°28 | 21° 2 | 10°11 | 25°42 | 7°14 | 4°28 | 19°22 | 4°52 | 11°24 | 2°R29 | 3° 0 | 11°40 | 25°57 | S 15 |
| M 16 | 19 34 41 | 23° 6'24 | 5♂43 | 20°23 | 11°25 | 26°22 | 7°10 | 4°34 | 19°25 | 4°53 | 11°25 | 2°29 | 2°56 | 11°47 | 25°54 | M 16 |
| T 17 | 19 38 38 | 24° 3'41 | 20° 4 | 19°45 | 12°38 | 27° 2 | 7° 6 | 4°40 | 19°29 | 4°54 | 11°25 | 2°28 | 2°53 | 11°54 | 25°52 | T 17 |
| W 18 | 19 42 35 | 25° 0'59 | 4Ⅱ28 | 19°10 | 13°52 | 27°43 | 7° 2 | 4°46 | 19°33 | 4°55 | 11°26 | 2°28 | 2°50 | 12° 0 | 25°50 | W 18 |
| T 19 | 19 46 31 | 25°58'17 | 18°51 | 18°37 | 15° 5 | 28°23 | 6°58 | 4°52 | 19°36 | 4°56 | 11°26 | 2°27 | 2°47 | 12° 7 | 25°47 | T 19 |
| F 20 | 19 50 28 | 26°55'37 | 3♂ 9 | 18° 9 | 16°19 | 29° 3 | 6°54 | 4°58 | 19°40 | 4°57 | 11°27 | 2°26 | 2°44 | 12°14 | 25°45 | F 20 |
| S 21 | 19 54 24 | 27°52'57 | 17°16 | 17°45 | 17°32 | 29°43 | 6°50 | 5° 3 | 19°44 | 4°59 | 11°27 | 2°26 | 2°41 | 12°20 | 25°42 | S 21 |
| S 22 | 19 58 21 | 28°50'18 | 1♂ 9 | 17°25 | 18°45 | 0♂23 | 6°45 | 5° 9 | 19°47 | 5° 0 | 11°28 | 2°D26 | 2°37 | 12°27 | 25°39 | S 22 |
| M 23 | 20 2 17 | 29°47'40 | 14°45 | 17°11 | 19°59 | 1° 3 | 6°40 | 5°15 | 19°51 | 5° 1 | 11°28 | 2°26 | 2°34 | 12°34 | 25°37 | M 23 |
| T 24 | 20 6 14 | 0♂45'02 | 28° 1 | 17° 2 | 21°12 | 1°43 | 6°36 | 5°20 | 19°55 | 5° 2 | 11°29 | 2°26 | 2°31 | 12°41 | 25°34 | T 24 |
| W 25 | 20 10 10 | 1°42'26 | 10♂57 | 16°D59 | 22°26 | 2°23 | 6°31 | 5°26 | 19°58 | 5° 3 | 11°29 | 2°26 | 2°28 | 12°47 | 25°31 | W 25 |
| T 26 | 20 14 7 | 2°39'49 | 23°34 | 17° 2 | 23°39 | 3° 3 | 6°25 | 5°31 | 20° 2 | 5° 4 | 11°29 | 2°R26 | 2°25 | 12°54 | 25°29 | T 26 |
| F 27 | 20 18 4 | 3°37'14 | 5♂55 | 17°12 | 24°52 | 3°43 | 6°20 | 5°36 | 20° 5 | 5° 6 | 11°30 | 2°26 | 2°22 | 13° 1 | 25°26 | F 27 |
| S 28 | 20 22 0 | 4°34'39 | 18° 3 | 17°28 | 26° 6 | 4°22 | 6°14 | 5°42 | 20° 9 | 5° 7 | 11°30 | 2°26 | 2°18 | 13° 8 | 25°23 | S 28 |
| S 29 | 20 25 57 | 5°32'04 | 0Ⅲ 2 | 17°50 | 27°19 | 5° 2 | 6° 9 | 5°47 | 20°12 | 5° 8 | 11°30 | 2°D26 | 2°15 | 13°14 | 25°20 | S 29 |
| M 30 | 20 29 53 | 6°29'31 | 11°56 | 18°19 | 28°32 | 5°42 | 6° 3 | 5°52 | 20°16 | 5°10 | 11°31 | 2°26 | 2°12 | 13°21 | 25°17 | M 30 |
| T 31 | 20 33 50 | 7♂26'58 | 23Ⅲ50 | 18♂54 | 29♂46 | 6♂21 | 5♂57 | 5Ⅱ57 | 20♂20 | 5♂11 | 11♂31 | 2♂26 | 2♂ 9 | 13Ⅲ28 | 25♂15 | T 31 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------|-------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| S 1 | 23n12 | 13s22 | 5 s 9 | 18n13 | 2s33 | 22n46 | 1n16 | 23n 4 | 0n18 | 9s47 | 1s10 | 19n 2 | 1s48 | 22n39 | 0n26 | 0s27 | 1n33 |
| M 2 | 23 8 | 17 46 | 5 14 | 17 59 | 2 48 | 22 35 | 1 18 | 23 9 | 0 18 | 9 47 | 1 11 | 19 3 | 1 48 | 22 38 | 0 26 | 0 28 | 1 33 |
| T 3 | 23 3 | 21 29 | 5 6 | 17 45 | 3 3 | 22 23 | 1 19 | 23 13 | 0 19 | 9 48 | 1 11 | 19 4 | 1 48 | 22 38 | 0 26 | 0 28 | 1 33 |
| W 4 | 22 59 | 24 19 | 4 44 | 17 34 | 3 18 | 22 10 | 1 20 | 23 18 | 0 20 | 9 49 | 1 11 | 19 6 | 1 48 | 22 37 | 0 26 | 0 28 | 1 33 |
| T 5 | 22 53 | 26 6 | 4 10 | 17 23 | 3 32 | 21 57 | 1 22 | 23 22 | 0 20 | 9 50 | 1 11 | 19 7 | 1 48 | 22 37 | 0 26 | 0 28 | 1 33 |
| F 6 | 22 48 | 26 39 | 3 24 | 17 14 | 3 45 | 21 43 | 1 23 | 23 26 | 0 21 | 9 50 | 1 12 | 19 8 | 1 48 | 22 36 | 0 26 | 0 29 | 1 32 |
| S 7 | 22 42 | 25 53 | 2 28 | 17 6 | 3 58 | 21 28 | 1 24 | 23 30 | 0 22 | 9 51 | 1 12 | 19 9 | 1 48 | 22 36 | 0 26 | 0 29 | 1 32 |
| S 8 | 22 35 | 23 47 | 1 24 | 17 0 | 4 10 | 21 13 | 1 25 | 23 33 | 0 22 | 9 52 | 1 12 | 19 10 | 1 48 | 22 35 | 0 26 | 0 29 | 1 32 |
| M 9 | 22 29 | 20 26 | 0 14 | 16 55 | 4 20 | 20 57 | 1 26 | 23 36 | 0 23 | 9 54 | 1 13 | 19 12 | 1 48 | 22 35 | 0 26 | 0 30 | 1 32 |
| T 10 | 22 21 | 16 2 | 0n58 | 16 52 | 4 30 | 20 41 | 1 27 | 23 40 | 0 24 | 9 55 | 1 13 | 19 13 | 1 48 | 22 34 | 0 26 | 0 30 | 1 32 |
| W 11 | 22 14 | 10 47 | 2 8 | 16 50 | 4 38 | 20 24 | 1 27 | 23 42 | 0 24 | 9 56 | 1 13 | 19 14 | 1 48 | 22 34 | 0 26 | 0 30 | 1 32 |
| T 12 | 22 6 | 4 58 | 3 12 | 16 50 | 4 45 | 20 6 | 1 28 | 23 45 | 0 25 | 9 57 | 1 13 | 19 15 | 1 48 | 22 33 | 0 27 | 0 31 | 1 32 |
| F 13 | 21 58 | 1n10 | 4 6 | 16 52 | 4 50 | 19 48 | 1 29 | 23 48 | 0 26 | 9 59 | 1 14 | 19 16 | 1 48 | 22 33 | 0 27 | 0 31 | 1 32 |
| S 14 | 21 49 | 7 19 | 4 47 | 16 55 | 4 53 | 19 30 | 1 29 | 23 50 | 0 26 | 10 0 | 1 14 | 19 17 | 1 48 | 22 32 | 0 27 | 0 32 | 1 32 |
| S 15 | 21 40 | 13 11 | 5 11 | 16 59 | 4 55 | 19 10 | 1 30 | 23 52 | 0 27 | 10 2 | 1 14 | 19 18 | 1 48 | 22 32 | 0 27 | 0 32 | 1 32 |
| M 16 | 21 30 | 18 25 | 5 16 | 17 5 | 4 55 | 18 51 | 1 31 | 23 54 | 0 27 | 10 3 | 1 15 | 19 19 | 1 49 | 22 31 | 0 27 | 0 32 | 1 32 |
| T 17 | 21 21 | 22 38 | 5 2 | 17 12 | 4 53 | 18 30 | 1 31 | 23 56 | 0 28 | 10 5 | 1 15 | 19 20 | 1 49 | 22 31 | 0 27 | 0 33 | 1 32 |
| W 18 | 21 10 | 25 29 | 4 28 | 17 20 | 4 50 | 18 10 | 1 31 | 23 57 | 0 29 | 10 6 | 1 15 | 19 21 | 1 49 | 22 30 | 0 27 | 0 33 | 1 32 |
| T 19 | 21 0 | 26 39 | 3 38 | 17 29 | 4 45 | 17 48 | 1 32 | 23 58 | 0 29 | 10 8 | 1 15 | 19 22 | 1 49 | 22 30 | 0 27 | 0 34 | 1 32 |
| F 20 | 20 49 | 26 2 | 2 35 | 17 40 | 4 38 | 17 26 | 1 32 | 23 59 | 0 30 | 10 10 | 1 16 | 19 23 | 1 49 | 22 29 | 0 27 | 0 34 | 1 32 |
| S 21 | 20 38 | 23 45 | 1 23 | 17 51 | 4 30 | 17 4 | 1 32 | 24 0 | 0 31 | 10 12 | 1 16 | 19 24 | 1 49 | 22 28 | 0 27 | 0 35 | 1 32 |
| S 22 | 20 26 | 20 4 | 0 7 | 18 3 | 4 21 | 16 42 | 1 32 | 24 1 | 0 31 | 10 14 | 1 16 | 19 25 | 1 49 | 22 28 | 0 27 | 0 35 | 1 32 |
| M 23 | 20 14 | 15 22 | 1s 8 | 18 15 | 4 10 | 16 18 | 1 32 | 24 1 | 0 32 | 10 16 | 1 17 | 19 26 | 1 49 | 22 27 | 0 27 | 0 36 | 1 32 |
| T 24 | 20 2 | 10 3 | 2 17 | 18 28 | 3 58 | 15 55 | 1 32 | 24 1 | 0 33 | 10 18 | 1 17 | 19 27 | 1 49 | 22 27 | 0 27 | 0 36 | 1 32 |
| W 25 | 19 49 | 4 26 | 3 18 | 18 41 | 3 45 | 15 31 | 1 32 | 24 1 | 0 33 | 10 20 | 1 17 | 19 28 | 1 49 | 22 26 | 0 27 | 0 37 | 1 32 |
| T 26 | 19 36 | 1s13 | 4 7 | 18 54 | 3 32 | 15 6 | 1 32 | 24 1 | 0 34 | 10 22 | 1 17 | 19 28 | 1 49 | 22 26 | 0 27 | 0 37 | 1 32 |
| F 27 | 19 23 | 6 42 | 4 44 | 19 7 | 3 17 | 14 42 | 1 31 | 24 1 | 0 35 | 10 24 | 1 18 | 19 29 | 1 50 | 22 25 | 0 27 | 0 38 | 1 32 |
| S 28 | 19 10 | 11 49 | 5 7 | 19 20 | 3 3 | 14 16 | 1 31 | 24 0 | 0 35 | 10 27 | 1 18 | 19 30 | 1 50 | 22 25 | 0 27 | 0 38 | 1 32 |
| S 29 | 18 56 | 16 26 | 5 16 | 19 32 | 2 47 | 13 51 | 1 31 | 23 59 | 0 36 | 10 29 | 1 18 | 19 31 | 1 50 | 22 24 | 0 27 | 0 39 | 1 32 |
| M 30 | 18 41 | 20 24 | 5 12 | 19 44 | 2 31 | 13 25 | 1 30 | 23 58 | 0 36 | 10 31 | 1 18 | 19 32 | 1 50 | 22 24 | 0 27 | 0 39 | 1 31 |
| T 31 | 18n27 | 23s32 | 4s55 | 19n55 | 2s16 | 12n59 | 1n30 | 23n57 | 0n37 | 10s34 | 1s18 | 19n32 | 1s50 | 22n23 | 0n27 | 0s40 | 1n31 |

Julian Day Number = 2312203.5, Delta T = 67.96 sec
 Ecliptic obliquity = 23°29'25", Nutation = 0°00'14", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°24'56", Lahiri = 18°31'57"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1618
geocentric

AUGUST 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|-------|------|--------|-------|------|-------|--------|------|
| W 1 | 20 37 46 | 8♌24'26 | 5♊48 | 19♍35 | 0♏59 | 7♌1 | 5♏R51 | 6♏2 | 20♍23 | 5♏12 | 11♏31 | 2♏26 | 2♏6 | 13♏34 | 25♏R12 | W 1 |
| T 2 | 20 41 43 | 9°21'55 | 17°55 | 20°23 | 2°12 | 7°40 | 5♏45 | 6°7 | 20°27 | 5°14 | 11°31 | 2°27 | 2°2 | 13°41 | 25♏9 | T 2 |
| F 3 | 20 45 39 | 10°19'25 | 0♌14 | 21°18 | 3°26 | 8°20 | 5°38 | 6°12 | 20°30 | 5°15 | 11°31 | 2°28 | 1°59 | 13°48 | 25°6 | F 3 |
| S 4 | 20 49 36 | 11°16'55 | 12°48 | 22°18 | 4°39 | 8°59 | 5°32 | 6°17 | 20°34 | 5°17 | 11°32 | 2°28 | 1°56 | 13°55 | 25°3 | S 4 |
| S 5 | 20 53 33 | 12°14'27 | 25°39 | 23°24 | 5°52 | 9°38 | 5°25 | 6°21 | 20°37 | 5°18 | 11°32 | 2°29 | 1°53 | 14°1 | 25°0 | S 5 |
| M 6 | 20 57 29 | 13°12'00 | 8♏49 | 24°36 | 7°5 | 10°18 | 5°19 | 6°26 | 20°41 | 5°20 | 11°32 | 2°R29 | 1°50 | 14°8 | 24°57 | M 6 |
| T 7 | 21 1 26 | 14°9'33 | 22°16 | 25°54 | 8°18 | 10°57 | 5°12 | 6°30 | 20°44 | 5°21 | 11°32 | 2°28 | 1°47 | 14°15 | 24°54 | T 7 |
| W 8 | 21 5 22 | 15°7'08 | 5♏59 | 27°17 | 9°32 | 11°36 | 5°5 | 6°35 | 20°47 | 5°23 | 11°32 | 2°27 | 1°43 | 14°21 | 24°51 | W 8 |
| T 9 | 21 9 19 | 16°4'45 | 19°55 | 28°45 | 10°45 | 12°15 | 4°58 | 6°39 | 20°51 | 5°24 | 11°32 | 2°26 | 1°40 | 14°28 | 24°48 | T 9 |
| F 10 | 21 13 15 | 17°2'23 | 4♏2 | 0♌18 | 11°58 | 12°54 | 4°51 | 6°43 | 20°54 | 5°26 | 11°32 | 2°24 | 1°37 | 14°35 | 24°45 | F 10 |
| S 11 | 21 17 12 | 18°0'02 | 18°15 | 1°55 | 13°11 | 13°33 | 4°44 | 6°47 | 20°58 | 5°27 | 11°R32 | 2°22 | 1°34 | 14°42 | 24°42 | S 11 |
| S 12 | 21 21 8 | 18°57'43 | 2♏30 | 3°37 | 14°24 | 14°12 | 4°36 | 6°52 | 21°1 | 5°29 | 11°32 | 2°21 | 1°31 | 14°48 | 24°39 | S 12 |
| M13 | 21 25 5 | 19°55'25 | 16°46 | 5°21 | 15°37 | 14°51 | 4°29 | 6°56 | 21°4 | 5°31 | 11°32 | 2°D20 | 1°28 | 14°55 | 24°36 | M13 |
| T 14 | 21 29 2 | 20°53'10 | 0♏58 | 7°9 | 16°50 | 15°30 | 4°22 | 6°59 | 21°8 | 5°32 | 11°32 | 2°21 | 1°24 | 15°2 | 24°33 | T 14 |
| W15 | 21 32 58 | 21°50'56 | 15°5 | 9°0 | 18°4 | 16°9 | 4°14 | 7°3 | 21°11 | 5°34 | 11°32 | 2°21 | 1°21 | 15°8 | 24°30 | W15 |
| T 16 | 21 36 55 | 22°48'44 | 29°5 | 10°53 | 19°17 | 16°47 | 4°6 | 7°7 | 21°14 | 5°36 | 11°32 | 2°23 | 1°18 | 15°15 | 24°27 | T 16 |
| F 17 | 21 40 51 | 23°46'33 | 12♍55 | 12°48 | 20°30 | 17°26 | 3°59 | 7°11 | 21°17 | 5°38 | 11°32 | 2°24 | 1°15 | 15°22 | 24°24 | F 17 |
| S 18 | 21 44 48 | 24°44'24 | 26°36 | 14°45 | 21°43 | 18°5 | 3°51 | 7°14 | 21°21 | 5°39 | 11°32 | 2°R25 | 1°12 | 15°29 | 24°21 | S 18 |
| S 19 | 21 48 44 | 25°42'17 | 10♌4 | 16°43 | 22°56 | 18°43 | 3°43 | 7°18 | 21°24 | 5°41 | 11°32 | 2°25 | 1°8 | 15°35 | 24°18 | S 19 |
| M20 | 21 52 41 | 26°40'11 | 23°19 | 18°41 | 24°9 | 19°22 | 3°36 | 7°21 | 21°27 | 5°43 | 11°31 | 2°24 | 1°5 | 15°42 | 24°15 | M20 |
| T 21 | 21 56 38 | 27°38'07 | 6♏20 | 20°40 | 25°22 | 20°0 | 3°28 | 7°24 | 21°30 | 5°45 | 11°31 | 2°21 | 1°2 | 15°49 | 24°12 | T 21 |
| W22 | 22 0 34 | 28°36'04 | 19°5 | 22°39 | 26°35 | 20°39 | 3°20 | 7°27 | 21°33 | 5°47 | 11°31 | 2°17 | 0°59 | 15°56 | 24°9 | W22 |
| T 23 | 22 4 31 | 29°34'03 | 1♌37 | 24°39 | 27°48 | 21°17 | 3°12 | 7°30 | 21°36 | 5°49 | 11°31 | 2°13 | 0°56 | 16°2 | 24°6 | T 23 |
| F 24 | 22 8 27 | 0♏32'05 | 13°54 | 26°37 | 29°1 | 21°56 | 3°4 | 7°33 | 21°39 | 5°50 | 11°31 | 2°8 | 0°53 | 16°9 | 24°3 | F 24 |
| S 25 | 22 12 24 | 1°30'05 | 26°0 | 28°36 | 0♏14 | 22°34 | 2°56 | 7°36 | 21°42 | 5°52 | 11°30 | 2°4 | 0°49 | 16°16 | 24°0 | S 25 |
| S 26 | 22 16 20 | 2°28'08 | 7♏58 | 0♏33 | 1°26 | 23°12 | 2°48 | 7°39 | 21°45 | 5°54 | 11°30 | 2°0 | 0°46 | 16°22 | 23°57 | S 26 |
| M27 | 22 20 17 | 3°26'13 | 19°51 | 2°30 | 2°39 | 23°50 | 2°40 | 7°42 | 21°48 | 5°56 | 11°30 | 1°58 | 0°43 | 16°29 | 23°54 | M27 |
| T 28 | 22 24 13 | 4°24'19 | 1♌44 | 4°26 | 3°52 | 24°28 | 2°32 | 7°44 | 21°51 | 5°58 | 11°29 | 1°D57 | 0°40 | 16°36 | 23°51 | T 28 |
| W29 | 22 28 10 | 5°22'26 | 13°40 | 6°22 | 5°5 | 25°6 | 2°24 | 7°47 | 21°54 | 6°0 | 11°29 | 1°57 | 0°37 | 16°43 | 23°48 | W29 |
| T 30 | 22 32 6 | 6°20'35 | 25°46 | 8°16 | 6°18 | 25°44 | 2°16 | 7°49 | 21°57 | 6°2 | 11°29 | 1°59 | 0°34 | 16°49 | 23°45 | T 30 |
| F 31 | 22 36 3 | 7♏18'46 | 8♌6 | 10♏9 | 7♌30 | 26♍22 | 2♏9 | 7♏51 | 22♍0 | 6♏4 | 11♏28 | 2♏0 | 0♏30 | 16♏56 | 23♏42 | 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 | decl lat | decl lat |
| W 1 | 18n12 | 25s40 | 4s25 | 20n 5 | 1s59 | 12n32 | 1n29 | 23n56 | 0n38 | 10s36 | 1s19 | 19n33 | 1s50 | 22n23 | 0n27 | 0s40 |
| T 2 | 17 57 | 26 38 | 3 42 | 20 14 | 1 43 | 12 5 | 1 28 | 23 54 | 0 38 | 10 39 | 1 19 | 19 34 | 1 50 | 22 22 | 0 27 | 0 41 |
| F 3 | 17 41 | 26 19 | 2 49 | 20 22 | 1 27 | 11 38 | 1 28 | 23 53 | 0 39 | 10 41 | 1 19 | 19 35 | 1 50 | 22 22 | 0 27 | 0 42 |
| S 4 | 17 26 | 24 39 | 1 47 | 20 28 | 1 12 | 11 10 | 1 27 | 23 51 | 0 40 | 10 44 | 1 19 | 19 35 | 1 50 | 22 21 | 0 27 | 0 42 |
| S 5 | 17 10 | 21 40 | 0 38 | 20 32 | 0 56 | 10 42 | 1 26 | 23 49 | 0 40 | 10 47 | 1 20 | 19 36 | 1 50 | 22 21 | 0 27 | 0 43 |
| M 6 | 16 54 | 17 32 | 0n35 | 20 35 | 0 41 | 10 14 | 1 25 | 23 46 | 0 41 | 10 49 | 1 20 | 19 37 | 1 51 | 22 20 | 0 27 | 0 43 |
| T 7 | 16 37 | 12 26 | 1 47 | 20 35 | 0 26 | 9 46 | 1 24 | 23 44 | 0 42 | 10 52 | 1 20 | 19 37 | 1 51 | 22 20 | 0 27 | 0 44 |
| W 8 | 16 20 | 6 38 | 2 55 | 20 33 | 0 12 | 9 17 | 1 23 | 23 41 | 0 42 | 10 55 | 1 20 | 19 38 | 1 51 | 22 19 | 0 27 | 0 45 |
| T 9 | 16 3 | 0 26 | 3 53 | 20 29 | 0n 2 | 8 48 | 1 21 | 23 38 | 0 43 | 10 57 | 1 20 | 19 39 | 1 51 | 22 19 | 0 27 | 0 45 |
| F 10 | 15 46 | 5n51 | 4 38 | 20 22 | 0 14 | 8 19 | 1 20 | 23 35 | 0 43 | 11 0 | 1 21 | 19 39 | 1 51 | 22 18 | 0 27 | 0 46 |
| S 11 | 15 28 | 11 53 | 5 6 | 20 12 | 0 27 | 7 50 | 1 19 | 23 32 | 0 44 | 11 3 | 1 21 | 19 40 | 1 51 | 22 18 | 0 27 | 0 47 |
| S 12 | 15 10 | 17 18 | 5 15 | 20 0 | 0 38 | 7 21 | 1 17 | 23 28 | 0 45 | 11 6 | 1 21 | 19 40 | 1 51 | 22 17 | 0 27 | 0 47 |
| M13 | 14 52 | 21 45 | 5 5 | 19 45 | 0 49 | 6 51 | 1 16 | 23 25 | 0 45 | 11 9 | 1 21 | 19 41 | 1 51 | 22 17 | 0 27 | 0 48 |
| T 14 | 14 34 | 24 55 | 4 37 | 19 28 | 0 58 | 6 21 | 1 14 | 23 21 | 0 46 | 11 12 | 1 21 | 19 41 | 1 52 | 22 16 | 0 27 | 0 49 |
| W15 | 14 15 | 26 30 | 3 52 | 19 7 | 1 7 | 5 51 | 1 13 | 23 17 | 0 47 | 11 14 | 1 21 | 19 42 | 1 52 | 22 16 | 0 27 | 0 50 |
| T 16 | 13 56 | 26 23 | 2 43 | 18 44 | 1 15 | 5 21 | 1 11 | 23 13 | 0 47 | 11 17 | 1 21 | 19 42 | 1 52 | 22 15 | 0 27 | 0 50 |
| F 17 | 13 37 | 24 36 | 1 55 | 18 19 | 1 22 | 4 50 | 1 9 | 23 9 | 0 48 | 11 20 | 1 22 | 19 43 | 1 52 | 22 15 | 0 27 | 0 51 |
| S 18 | 13 18 | 21 24 | 0 32 | 17 51 | 1 28 | 4 20 | 1 8 | 23 4 | 0 49 | 11 23 | 1 22 | 19 43 | 1 52 | 22 14 | 0 27 | 0 52 |
| S 19 | 12 59 | 17 5 | 0s42 | 17 20 | 1 33 | 3 49 | 1 6 | 22 59 | 0 49 | 11 26 | 1 22 | 19 44 | 1 52 | 22 14 | 0 27 | 0 52 |
| M20 | 12 39 | 12 0 | 1 52 | 16 48 | 1 37 | 3 18 | 1 4 | 22 55 | 0 50 | 11 29 | 1 22 | 19 44 | 1 52 | 22 13 | 0 27 | 0 53 |
| T 21 | 12 19 | 6 29 | 2 55 | 16 14 | 1 41 | 2 48 | 1 2 | 22 50 | 0 50 | 11 32 | 1 22 | 19 45 | 1 52 | 22 13 | 0 27 | 0 54 |
| W22 | 11 59 | 0 49 | 3 48 | 15 37 | 1 43 | 2 17 | 1 0 | 22 45 | 0 51 | 11 35 | 1 22 | 19 45 | 1 53 | 22 12 | 0 27 | 0 55 |
| T 23 | 11 39 | 4s45 | 4 29 | 14 59 | 1 45 | 1 46 | 0 58 | 22 39 | 0 52 | 11 38 | 1 22 | 19 45 | 1 53 | 22 12 | 0 27 | 0 55 |
| F 24 | 11 18 | 10 3 | 4 57 | 14 20 | 1 46 | 1 15 | 0 55 | 22 34 | 0 52 | 11 41 | 1 22 | 19 46 | 1 53 | 22 11 | 0 27 | 0 56 |
| S 25 | 10 58 | 14 53 | 5 11 | 13 39 | 1 47 | 0 43 | 0 53 | 22 28 | 0 53 | 11 44 | 1 23 | 19 46 | 1 53 | 22 11 | 0 27 | 0 57 |
| S 26 | 10 37 | 19 5 | 5 11 | 12 57 | 1 46 | 0 12 | 0 51 | 22 22 | 0 54 | 11 47 | 1 23 | 19 46 | 1 53 | 22 11 | 0 27 | 0 58 |
| M27 | 10 16 | 22 30 | 4 57 | 12 14 | 1 45 | 0s19 | 0 49 | 22 16 | 0 54 | 11 50 | 1 23 | 19 47 | 1 53 | 22 10 | 0 27 | 0 59 |
| T 28 | 9 55 | 24 59 | 4 31 | 11 31 | 1 44 | 0 50 | 0 46 | 22 10 | 0 55 | 11 53 | 1 23 | 19 47 | 1 53 | 22 10 | 0 27 | 0 59 |
| W29 | 9 34 | 26 21 | 3 53 | 10 46 | 1 41 | 1 21 | 0 44 | 22 4 | 0 56 | 11 56 | 1 23 | 19 47 | 1 54 | 22 9 | 0 27 | 1 0 |
| T 30 | 9 12 | 26 30 | 3 5 | 10 1 | 1 39 | 1 52 | 0 41 | 21 58 | 0 56 | 11 59 | 1 23 | 19 47 | 1 54 | 22 9 | 0 27 | 1 1 |
| F 31 | 8n51 | 25s21 | 2s 7 | 9n15 | 1n36 | 2s24 | 0n39 | 21n51 | 0n57 | 12s 1 | 1s23 | 19n48 | 1s54 | 22n 8 | 0n27 | 1s 2 |

Julian Day Number = 2312234.5, Delta T = 67.88 sec
Ecliptic obliquity = 23°29'25", Nutation = 0°00'15", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°25'01", Lahiri = 18°32'01"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1618

geocentric

SEPTEMBER 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|-------|--------|------|
| S 1 | 22 40 0 | 8♍16'58 | 20♌44 | 12♍1 | 8♌43 | 27♌0 | 2°R 1 | 7♍54 | 22♌3 | 6♌6 | 11°R28 | 2♌2 | 0♌27 | 17♍3 | 23°R39 | S 1 |
| S 2 | 22 43 56 | 9°15'11 | 3♌44 | 13°52 | 9°56 | 27°38 | 1♌53 | 7°56 | 22° 5 | 6° 8 | 11♌27 | 2°R 2 | 0°24 | 17° 9 | 23°36 | S 2 |
| M 3 | 22 47 53 | 10°13'27 | 17° 7 | 15°41 | 11° 9 | 28°16 | 1°45 | 7°58 | 22° 8 | 6°10 | 11°27 | 2° 1 | 0°21 | 17°16 | 23°33 | M 3 |
| T 4 | 22 51 49 | 11°11'43 | 0♌53 | 17°30 | 12°21 | 28°54 | 1°37 | 7°59 | 22°11 | 6°12 | 11°26 | 1°58 | 0°18 | 17°23 | 23°30 | T 4 |
| W 5 | 22 55 46 | 12°10'02 | 15° 0 | 19°17 | 13°34 | 29°31 | 1°30 | 8° 1 | 22°14 | 6°14 | 11°26 | 1°54 | 0°14 | 17°30 | 23°27 | W 5 |
| T 6 | 22 59 42 | 13° 8'22 | 29°25 | 21° 3 | 14°47 | 0♌9 | 1°22 | 8° 3 | 22°16 | 6°16 | 11°25 | 1°48 | 0°11 | 17°36 | 23°25 | T 6 |
| F 7 | 23 3 39 | 14° 6'44 | 14♍0 | 22°49 | 15°59 | 0°46 | 1°15 | 8° 4 | 22°19 | 6°19 | 11°25 | 1°42 | 0° 8 | 17°43 | 23°22 | F 7 |
| S 8 | 23 7 35 | 15° 5'09 | 28°38 | 24°33 | 17°12 | 1°24 | 1° 7 | 8° 6 | 22°21 | 6°21 | 11°24 | 1°35 | 0° 5 | 17°50 | 23°19 | S 8 |
| S 9 | 23 11 32 | 16° 3'35 | 13♌14 | 26°16 | 18°24 | 2° 1 | 1° 0 | 8° 7 | 22°24 | 6°23 | 11°24 | 1°30 | 0° 2 | 17°56 | 23°16 | S 9 |
| M10 | 23 15 29 | 17° 2'04 | 27°41 | 27°57 | 19°37 | 2°39 | 0°52 | 8° 8 | 22°26 | 6°25 | 11°23 | 1°27 | 29♌59 | 18° 3 | 23°14 | M10 |
| T 11 | 23 19 25 | 18° 0'35 | 11♍56 | 29°38 | 20°49 | 3°16 | 0°45 | 8° 9 | 22°29 | 6°27 | 11°23 | 1°D25 | 29°55 | 18°10 | 23°11 | T 11 |
| W12 | 23 23 22 | 18°59'08 | 25°56 | 1♌18 | 22° 2 | 3°53 | 0°38 | 8°10 | 22°31 | 6°29 | 11°22 | 1°25 | 29°52 | 18°17 | 23° 8 | W12 |
| T 13 | 23 27 18 | 19°57'43 | 9♌41 | 2°57 | 23°14 | 4°31 | 0°31 | 8°11 | 22°34 | 6°31 | 11°21 | 1°26 | 29°49 | 18°23 | 23° 6 | T 13 |
| F 14 | 23 31 15 | 20°56'21 | 23°12 | 4°34 | 24°26 | 5° 8 | 0°24 | 8°12 | 22°36 | 6°33 | 11°21 | 1°27 | 29°46 | 18°30 | 23° 3 | F 14 |
| S 15 | 23 35 11 | 21°55'01 | 6♌29 | 6°11 | 25°39 | 5°45 | 0°17 | 8°13 | 22°38 | 6°36 | 11°20 | 1°R27 | 29°43 | 18°37 | 23° 0 | S 15 |
| S 16 | 23 39 8 | 22°53'43 | 19°34 | 7°47 | 26°51 | 6°22 | 0°10 | 8°13 | 22°40 | 6°38 | 11°19 | 1°26 | 29°40 | 18°43 | 22°58 | S 16 |
| M17 | 23 43 4 | 23°52'27 | 2♍27 | 9°21 | 28° 3 | 6°59 | 0° 4 | 8°14 | 22°43 | 6°40 | 11°19 | 1°22 | 29°36 | 18°50 | 22°55 | M17 |
| T 18 | 23 47 1 | 24°51'13 | 15° 9 | 10°55 | 29°16 | 7°36 | 29♌57 | 8°14 | 22°45 | 6°42 | 11°18 | 1°15 | 29°33 | 18°57 | 22°53 | T 18 |
| W19 | 23 50 58 | 25°50'01 | 27°40 | 12°28 | 0♍28 | 8°13 | 29°51 | 8°14 | 22°47 | 6°44 | 11°17 | 1° 7 | 29°30 | 19° 4 | 22°51 | W19 |
| T 20 | 23 54 54 | 26°48'51 | 10♌0 | 14° 0 | 1°40 | 8°50 | 29°45 | 8°R14 | 22°49 | 6°47 | 11°17 | 0°56 | 29°27 | 19°10 | 22°48 | T 20 |
| F 21 | 23 58 51 | 27°47'44 | 22°11 | 15°31 | 2°52 | 9°26 | 29°38 | 8°14 | 22°51 | 6°49 | 11°16 | 0°46 | 29°24 | 19°17 | 22°46 | F 21 |
| S 22 | 0 2 47 | 28°46'38 | 4♍13 | 17° 1 | 4° 5 | 10° 3 | 29°32 | 8°14 | 22°53 | 6°51 | 11°15 | 0°35 | 29°20 | 19°24 | 22°44 | S 22 |
| S 23 | 0 6 44 | 29°45'34 | 16° 7 | 18°30 | 5°17 | 10°40 | 29°27 | 8°14 | 22°55 | 6°53 | 11°14 | 0°26 | 29°17 | 19°30 | 22°41 | S 23 |
| M24 | 0 10 40 | 0♌44'31 | 27°58 | 19°58 | 6°29 | 11°16 | 29°21 | 8°14 | 22°57 | 6°55 | 11°13 | 0°18 | 29°14 | 19°37 | 22°39 | M24 |
| T 25 | 0 14 37 | 1°43'31 | 9♌48 | 21°25 | 7°41 | 11°53 | 29°15 | 8°13 | 22°59 | 6°58 | 11°13 | 0°13 | 29°11 | 19°44 | 22°37 | T 25 |
| W26 | 0 18 33 | 2°42'33 | 21°42 | 22°51 | 8°53 | 12°29 | 29°10 | 8°13 | 23° 0 | 7° 0 | 11°12 | 0°11 | 29° 8 | 19°51 | 22°35 | W26 |
| T 27 | 0 22 30 | 3°41'36 | 3♌45 | 24°16 | 10° 5 | 13° 6 | 29° 5 | 8°12 | 23° 2 | 7° 2 | 11°11 | 0°D10 | 29° 5 | 19°57 | 22°33 | T 27 |
| F 28 | 0 26 27 | 4°40'41 | 16° 1 | 25°40 | 11°17 | 13°42 | 29° 0 | 8°11 | 23° 4 | 7° 4 | 11°10 | 0°11 | 29° 1 | 20° 4 | 22°31 | F 28 |
| S 29 | 0 30 23 | 5°39'48 | 28°37 | 27° 3 | 12°29 | 14°18 | 28°55 | 8°10 | 23° 5 | 7° 7 | 11° 9 | 0°R11 | 28°58 | 20°11 | 22°29 | S 29 |
| S 30 | 0 34 20 | 6♌38'57 | 11♌36 | 28♌25 | 13♍41 | 14♌54 | 28♌50 | 8♍9 | 23°7 | 7♌9 | 11♌8 | 0♌11 | 28♌55 | 20♍17 | 22♌27 | 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 |
| S 1 | 8n29 | 22s54 | 1 s 1 | 8n29 | 1n32 | 2s55 | 0n36 | 21n44 | 0n57 | 12s 4 | 1 s23 | 19n48 | 1 s54 | 22n 8 | 0n27 | 1 s 3 | 1n31 | 0n17 | 15s45 | 19s45 | 20s 6 | 21s41 | 7s29 | 6n32 | |
| S 2 | 8 7 | 19 13 | 0n 9 | 7 43 | 1 28 | 3 26 | 0 33 | 21 38 | 0 58 | 12 7 | 1 23 | 19 48 | 1 54 | 22 7 | 0 27 | 1 3 | 1 31 | 0 17 | 15 46 | 19 45 | 20 6 | 21 43 | 7 30 | 6 32 | |
| M 3 | 7 45 | 14 27 | 1 21 | 6 56 | 1 24 | 3 57 | 0 31 | 21 31 | 0 59 | 12 10 | 1 23 | 19 48 | 1 54 | 22 7 | 0 27 | 1 4 | 1 31 | 0 16 | 15 46 | 19 45 | 20 7 | 21 44 | 7 32 | 6 32 | |
| T 4 | 7 23 | 8 51 | 2 30 | 6 10 | 1 19 | 4 28 | 0 28 | 21 24 | 0 59 | 12 13 | 1 23 | 19 48 | 1 54 | 22 7 | 0 27 | 1 5 | 1 31 | 0 16 | 15 46 | 19 46 | 20 8 | 21 46 | 7 33 | 6 32 | |
| W 5 | 7 1 | 2 40 | 3 32 | 5 23 | 1 14 | 4 59 | 0 25 | 21 16 | 1 0 | 12 16 | 1 23 | 19 48 | 1 55 | 22 6 | 0 27 | 1 6 | 1 31 | 0 16 | 15 46 | 19 47 | 20 9 | 21 48 | 7 34 | 6 31 | |
| T 6 | 6 38 | 3n45 | 4 21 | 4 36 | 1 8 | 5 30 | 0 22 | 21 9 | 1 1 | 12 18 | 1 23 | 19 49 | 1 55 | 22 6 | 0 27 | 1 7 | 1 30 | 0 15 | 15 47 | 19 48 | 20 9 | 21 50 | 7 35 | 6 31 | |
| F 7 | 6 16 | 10 3 | 4 54 | 3 49 | 1 3 | 6 0 | 0 19 | 21 1 | 1 1 | 12 21 | 1 23 | 19 49 | 1 55 | 22 5 | 0 28 | 1 8 | 1 30 | 0 15 | 15 47 | 19 50 | 20 10 | 21 51 | 7 36 | 6 31 | |
| S 8 | 5 53 | 15 48 | 5 8 | 3 2 | 0 57 | 6 31 | 0 16 | 20 54 | 1 2 | 12 24 | 1 23 | 19 49 | 1 55 | 22 5 | 0 28 | 1 8 | 1 30 | 0 14 | 15 47 | 19 51 | 20 11 | 21 53 | 7 37 | 6 31 | |
| S 9 | 5 31 | 20 38 | 5 2 | 2 16 | 0 51 | 7 1 | 0 14 | 20 46 | 1 3 | 12 26 | 1 23 | 19 49 | 1 55 | 22 5 | 0 28 | 1 9 | 1 30 | 0 14 | 15 47 | 19 52 | 20 11 | 21 55 | 7 38 | 6 31 | |
| M10 | 5 8 | 24 11 | 4 37 | 1 30 | 0 44 | 7 32 | 0 11 | 20 38 | 1 3 | 12 29 | 1 23 | 19 49 | 1 55 | 22 4 | 0 28 | 1 10 | 1 30 | 0 14 | 15 48 | 19 53 | 20 12 | 21 56 | 7 39 | 6 30 | |
| T 11 | 4 45 | 26 9 | 3 55 | 0 43 | 0 38 | 8 2 | 0 7 | 20 30 | 1 4 | 12 32 | 1 23 | 19 49 | 1 55 | 22 4 | 0 28 | 1 11 | 1 30 | 0 13 | 15 48 | 19 53 | 20 13 | 21 58 | 7 40 | 6 30 | |
| W12 | 4 22 | 26 25 | 3 0 | 0s 2 | 0 31 | 8 32 | 0 4 | 20 22 | 1 4 | 12 34 | 1 23 | 19 49 | 1 56 | 22 4 | 0 28 | 1 12 | 1 30 | 0 13 | 15 48 | 19 53 | 20 13 | 22 0 | 7 41 | 6 30 | |
| T 13 | 3 59 | 25 2 | 1 55 | 0 48 | 0 24 | 9 2 | 0 1 | 20 14 | 1 5 | 12 37 | 1 23 | 19 49 | 1 56 | 22 3 | 0 28 | 1 13 | 1 30 | 0 12 | 15 48 | 19 53 | 20 14 | 22 1 | 7 42 | 6 30 | |
| F 14 | 3 36 | 22 13 | 0 44 | 1 33 | 0 17 | 9 31 | 0s 2 | 20 5 | 1 6 | 12 39 | 1 23 | 19 49 | 1 56 | 22 3 | 0 28 | 1 14 | 1 30 | 0 12 | 15 49 | 19 53 | 20 15 | 22 3 | 7 43 | 6 29 | |
| S 15 | 3 13 | 18 15 | 0s27 | 2 18 | 0 10 | 10 1 | 0 5 | 19 57 | 1 6 | 12 41 | 1 23 | 19 49 | 1 56 | 22 2 | 0 28 | 1 14 | 1 30 | 0 12 | 15 49 | 19 53 | 20 15 | 22 4 | 7 44 | 6 29 | |
| S 16 | 2 50 | 13 28 | 1 36 | 3 3 | 0 3 | 10 30 | 0 8 | 19 48 | 1 7 | 12 44 | 1 23 | 19 49 | 1 56 | 22 2 | 0 28 | 1 15 | 1 30 | 0 11 | 15 49 | 19 53 | 20 16 | 22 6 | 7 46 | 6 29 | |
| M17 | 2 26 | 8 10 | 2 38 | 3 47 | 0s 4 | 10 59 | 0 11 | 19 39 | 1 8 | 12 46 | 1 23 | 19 49 | 1 56 | 22 2 | 0 28 | 1 16 | 1 30 | 0 11 | 15 49 | 19 54 | 20 17 | 22 8 | 7 47 | 6 29 | |
| T 18 | 2 3 | 2 36 | 3 32 | 4 30 | 0 11 | 11 28 | 0 15 | 19 31 | 1 8 | 12 48 | 1 23 | 19 49 | 1 56 | 22 1 | 0 28 | 1 17 | 1 30 | 0 10 | 15 49 | 19 55 | 20 17 | 22 9 | 7 48 | 6 28 | |
| W19 | 1 40 | 2s58 | 4 14 | 5 13 | 0 19 | 11 56 | 0 18 | 19 22 | 1 9 | 12 51 | 1 23 | 19 48 | 1 57 | 22 1 | 0 28 | 1 18 | 1 30 | 0 10 | 15 50 | 19 57 | 20 18 | 22 11 | 7 49 | 6 28 | |
| T 20 | 1 16 | 8 19 | 4 44 | 5 56 | 0 26 | 12 25 | 0 21 | 19 13 | 1 10 | 12 53 | 1 23 | 19 48 | 1 57 | 22 1 | 0 28 | 1 19 | 1 30 | 0 10 | 15 50 | 19 59 | 20 19 | 22 13 | 7 50 | 6 28 | |
| F 21 | 0 53 | 13 18 | 5 1 | 6 38 | 0 34 | 12 53 | 0 24 | 19 3 | 1 10 | 12 55 | 1 23 | 19 48 | 1 57 | 22 1 | 0 28 | 1 20 | 1 30 | 0 9 | 15 50 | 20 2 | 20 19 | 22 14 | 7 51 | 6 27 | |
| S 22 | 0 29 | 17 42 | 5 3 | 7 20 | 0 41 | 13 20 | 0 28 | 18 54 | 1 11 | 12 57 | 1 23 | 19 48 | 1 57 | 22 0 | 0 28 | 1 21 | 1 30 | 0 9 | 15 50 | 20 4 | 20 20 | 22 16 | 7 52 | 6 27 | |
| S 23 | 0 6 | 21 22 | 4 53 | 8 1 | 0 48 | 13 48 | 0 31 | 18 45 | 1 12 | 12 59 | 1 23 | 19 48 | 1 57 | 22 0 | 0 28 | 1 21 | 1 30 | 0 8 | 15 51 | 20 6 | 20 21 | 22 17 | 7 53 | 6 27 | |
| M24 | 0s18 | 24 8 | 4 30 | 8 41 | 0 56 | 14 15 | 0 34 | 18 35 | 1 12 | 13 1 | 1 22 | 19 48 | 1 57 | 22 0 | 0 28 | 1 22 | 1 30 | 0 8 | 15 51 | 20 8 | 20 21 | 22 19 | 7 54 | 6 27 | |
| T 25 | 0 41 | 25 50 | 3 55 | 9 21 | 1 3 | 14 42 | 0 38 | 18 26 | 1 13 | 13 3 | 1 22 | 19 47 | 1 57 | 21 59 | 0 28 | 1 23 | 1 30 | 0 7 | 15 51 | 20 9 | 20 22 | 22 20 | 7 55 | 6 26 | |
| W26 | 1 5 | 26 23 | 3 10 | 10 0 | 1 11 | 15 8 | 0 41 | 18 16 | 1 13 | 13 4 | 1 22 | 19 47 | 1 58 | 21 59 | 0 28 | 1 24 | 1 30 | 0 7 | 15 51 | 20 9 | 20 23 | 22 22 | 7 56 | 6 26 | |
| T 27 | 1 28 | 25 42 | 2 16 | 10 38 | 1 18 | 15 34 | 0 44 | 18 6 | 1 14 | 13 6 | 1 22 | 19 47 | 1 58 | 21 59 | 0 28 | 1 25 | 1 30 | 0 7 | 15 51 | 20 9 | 20 23 | 22 24 | 7 57 | 6 26 | |
| F 28 | 1 52 | 23 46 | 1 15 | 11 16 | 1 25 | 16 0 | 0 48 | 17 56 | 1 15 | 13 8 | 1 22 | 19 47 | 1 58 | 21 59 | 0 28 | 1 26 | 1 30 | 0 6 | 15 51 | 20 9 | 20 24 | 22 25 | 7 58 | 6 25 | |
| S 29 | 2 15 | 20 37 | 0 8 | 11 53 | 1 32 | 16 25 | 0 51 | 17 47 | 1 15 | 13 9 | 1 22 | 19 46 | 1 58 | 21 58 | 0 28 | 1 27 | 1 30 | 0 6 | 15 52 | 20 9 | 20 25 | 22 27 | 7 59 | 6 25 | |
| S 30 | 2s39 | 16s23 | 1n 0 | 12s29 | 1s39 | 16s50 | 0s54 | 17n37 | 1n16 | 13s11 | 1s22 | 19n46 | 1s58 | 21n58 | 0n28 | 1s28 | 1n30 | 0n 5 | 15s52 | 20s 9 | 20s25 | 22s28 | 7s59 | 6n25 | |

ASTRODIENST EPHEMERIS for the year 1618

geocentric

OCTOBER 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|--------|--------|-------|-------|--------|--------|--------|------|--------|--------|-------|-------|--------|------|
| M 1 | 0 38 16 | 7♂38'07 | 25♂2 | 29♂46 | 14♂52 | 15♂31 | 28°R45 | 8°R 8 | 23♂9 | 7♂11 | 11°R 7 | 0°R 8 | 28♂52 | 20♂24 | 22°R25 | M 1 |
| T 2 | 0 42 13 | 8°37'19 | 8♂57 | 1♂6 | 16°4 | 16°7 | 28♂41 | 8♂II 7 | 23°10 | 7°13 | 11♂6 | 0♂3 | 28°49 | 20°31 | 22♂23 | T 2 |
| W 3 | 0 46 9 | 9°36'33 | 23°18 | 2°24 | 17°16 | 16°43 | 28°37 | 8°6 | 23°12 | 7°16 | 11°6 | 29♂56 | 28°45 | 20°38 | 22°22 | W 3 |
| T 4 | 0 50 6 | 10°35'49 | 8°Y 3 | 3°42 | 18°27 | 17°18 | 28°33 | 8°4 | 23°13 | 7°18 | 11°5 | 29°46 | 28°42 | 20°44 | 22°20 | T 4 |
| F 5 | 0 54 2 | 11°35'07 | 23°2 | 4°58 | 19°39 | 17°54 | 28°29 | 8°3 | 23°14 | 7°20 | 11°4 | 29°35 | 28°39 | 20°51 | 22°18 | F 5 |
| S 6 | 0 57 59 | 12°34'28 | 8♂6 | 6°12 | 20°51 | 18°30 | 28°25 | 8°1 | 23°16 | 7°22 | 11°3 | 29°25 | 28°36 | 20°58 | 22°17 | S 6 |
| S 7 | 1 1 55 | 13°33'50 | 23°6 | 7°25 | 22°2 | 19°6 | 28°22 | 7°59 | 23°17 | 7°24 | 11°2 | 29°16 | 28°33 | 21°4 | 22°15 | S 7 |
| M 8 | 1 5 52 | 14°33'15 | 7♂II53 | 8°36 | 23°14 | 19°41 | 28°18 | 7°58 | 23°18 | 7°27 | 11°1 | 29°9 | 28°30 | 21°11 | 22°14 | M 8 |
| T 9 | 1 9 49 | 15°32'42 | 22°20 | 9°46 | 24°25 | 20°17 | 28°15 | 7°56 | 23°19 | 7°29 | 11°0 | 29°5 | 28°26 | 21°18 | 22°12 | T 9 |
| W10 | 1 13 45 | 16°32'12 | 6♂25 | 10°53 | 25°37 | 20°52 | 28°12 | 7°54 | 23°20 | 7°31 | 10°59 | 29°3 | 28°23 | 21°25 | 22°11 | W10 |
| T 11 | 1 17 42 | 17°31'44 | 20°8 | 11°59 | 26°48 | 21°28 | 28°10 | 7°51 | 23°21 | 7°33 | 10°58 | 29°D 3 | 28°20 | 21°31 | 22°9 | T 11 |
| F 12 | 1 21 38 | 18°31'18 | 3♂230 | 13°2 | 27°59 | 22°3 | 28°7 | 7°49 | 23°22 | 7°36 | 10°57 | 29°R 3 | 28°17 | 21°38 | 22°8 | F 12 |
| S 13 | 1 25 35 | 19°30'54 | 16°34 | 14°3 | 29°11 | 22°39 | 28°5 | 7°47 | 23°23 | 7°38 | 10°56 | 29°2 | 28°14 | 21°45 | 22°7 | S 13 |
| S 14 | 1 29 31 | 20°30'33 | 29°22 | 15°0 | 0♂211 | 23°14 | 28°3 | 7°44 | 23°24 | 7°40 | 10°55 | 28°59 | 28°11 | 21°51 | 22°6 | S 14 |
| M15 | 1 33 28 | 21°30'14 | 11♂58 | 15°55 | 1°33 | 23°49 | 28°1 | 7°42 | 23°25 | 7°42 | 10°54 | 28°53 | 28°7 | 21°58 | 22°5 | M15 |
| T 16 | 1 37 24 | 22°29'57 | 24°23 | 16°47 | 2°44 | 24°24 | 27°59 | 7°39 | 23°26 | 7°44 | 10°53 | 28°44 | 28°4 | 22°5 | 22°3 | T 16 |
| W17 | 1 41 21 | 23°29'42 | 6♂40 | 17°35 | 3°55 | 24°59 | 27°57 | 7°36 | 23°27 | 7°47 | 10°51 | 28°32 | 28°1 | 22°12 | 22°2 | W17 |
| T 18 | 1 45 18 | 24°29'30 | 18°49 | 18°18 | 5°6 | 25°34 | 27°56 | 7°34 | 23°27 | 7°49 | 10°50 | 28°19 | 27°58 | 22°18 | 22°2 | T 18 |
| F 19 | 1 49 14 | 25°29'19 | 0♂51 | 18°57 | 6°17 | 26°9 | 27°55 | 7°31 | 23°28 | 7°51 | 10°49 | 28°4 | 27°55 | 22°25 | 22°1 | F 19 |
| S 20 | 1 53 11 | 26°29'10 | 12°47 | 19°31 | 7°28 | 26°43 | 27°54 | 7°28 | 23°28 | 7°53 | 10°48 | 27°49 | 27°51 | 22°32 | 22°0 | S 20 |
| S 21 | 1 57 7 | 27°29'04 | 24°39 | 20°0 | 8°39 | 27°18 | 27°53 | 7°24 | 23°29 | 7°55 | 10°47 | 27°36 | 27°48 | 22°38 | 21°59 | S 21 |
| M22 | 2 1 4 | 28°28'59 | 6♂28 | 20°22 | 9°50 | 27°52 | 27°53 | 7°21 | 23°29 | 7°57 | 10°46 | 27°26 | 27°45 | 22°45 | 21°58 | M22 |
| T 23 | 2 5 0 | 29°28'56 | 18°18 | 20°38 | 11°0 | 28°27 | 27°52 | 7°18 | 23°30 | 7°59 | 10°45 | 27°18 | 27°42 | 22°52 | 21°58 | T 23 |
| W24 | 2 8 57 | 0♂28'54 | 0♂11 | 20°46 | 12°11 | 29°1 | 27°D52 | 7°15 | 23°30 | 8°1 | 10°44 | 27°13 | 27°39 | 22°59 | 21°57 | W24 |
| T 25 | 2 12 53 | 1°28'55 | 12°11 | 20°R47 | 13°21 | 29°36 | 27°52 | 7°11 | 23°30 | 8°4 | 10°43 | 27°11 | 27°36 | 23°5 | 21°57 | T 25 |
| F 26 | 2 16 50 | 2°28'57 | 24°24 | 20°39 | 14°32 | 0♂10 | 27°53 | 7°8 | 23°31 | 8°6 | 10°42 | 27°10 | 27°32 | 23°12 | 21°56 | F 26 |
| S 27 | 2 20 47 | 3°29'00 | 6♂54 | 20°21 | 15°42 | 0°44 | 27°53 | 7°4 | 23°31 | 8°8 | 10°41 | 27°10 | 27°29 | 23°19 | 21°56 | S 27 |
| S 28 | 2 24 43 | 4°29'06 | 19°47 | 19°55 | 16°53 | 1°18 | 27°54 | 7°0 | 23°31 | 8°10 | 10°39 | 27°10 | 27°26 | 23°25 | 21°56 | S 28 |
| M29 | 2 28 40 | 5°29'12 | 3♂7 | 19°19 | 18°3 | 1°52 | 27°55 | 6°57 | 23°31 | 8°12 | 10°38 | 27°7 | 27°23 | 23°32 | 21°55 | M29 |
| T 30 | 2 32 36 | 6°29'20 | 16°58 | 18°33 | 19°13 | 2°26 | 27°56 | 6°53 | 23°R31 | 8°14 | 10°37 | 27°2 | 27°20 | 23°39 | 21°55 | T 30 |
| W31 | 2 36 33 | 7♂29'30 | 1°Y18 | 17♂38 | 20♂23 | 2♂59 | 27♂57 | 6♂II49 | 23♂31 | 8♂16 | 10♂36 | 26♂55 | 27♂17 | 23♂45 | 21♂55 | W31 |

| Day | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | lat |
| M 1 | 3s 2 | 11s12 | 2n 8 | 13s 4 | 1s46 | 17s15 | 0s58 | 17n26 | 1n17 | 13s13 | 1s22 | 19n46 | 1s58 | 21n58 | 0n28 | 1s28 |
| T 2 | 3 26 | 5 18 | 3 10 | 13 39 | 1 53 | 17 39 | 1 1 | 17 16 | 1 17 | 13 14 | 1 22 | 19 46 | 1 58 | 21 58 | 0 28 | 1 29 |
| W 3 | 3 49 | 1n 3 | 4 3 | 14 12 | 2 0 | 18 3 | 1 4 | 17 6 | 1 18 | 13 15 | 1 22 | 19 45 | 1 59 | 21 57 | 0 28 | 1 30 |
| T 4 | 4 12 | 7 29 | 4 40 | 14 45 | 2 6 | 18 26 | 1 8 | 16 56 | 1 19 | 13 17 | 1 21 | 19 45 | 1 59 | 21 57 | 0 28 | 1 31 |
| F 5 | 4 35 | 13 36 | 4 59 | 15 17 | 2 12 | 18 49 | 1 11 | 16 45 | 1 19 | 13 18 | 1 21 | 19 45 | 1 59 | 21 57 | 0 28 | 1 32 |
| S 6 | 4 59 | 18 56 | 4 58 | 15 47 | 2 18 | 19 12 | 1 14 | 16 35 | 1 20 | 13 19 | 1 21 | 19 44 | 1 59 | 21 57 | 0 28 | 1 33 |
| S 7 | 5 22 | 23 2 | 4 36 | 16 17 | 2 24 | 19 34 | 1 17 | 16 24 | 1 21 | 13 20 | 1 21 | 19 44 | 1 59 | 21 57 | 0 28 | 1 34 |
| M 8 | 5 45 | 25 33 | 3 56 | 16 46 | 2 30 | 19 55 | 1 21 | 16 14 | 1 21 | 13 21 | 1 21 | 19 43 | 1 59 | 21 56 | 0 28 | 1 35 |
| T 9 | 6 8 | 26 17 | 3 1 | 17 13 | 2 35 | 20 16 | 1 24 | 16 3 | 1 22 | 13 22 | 1 21 | 19 43 | 1 59 | 21 56 | 0 28 | 1 35 |
| W10 | 6 31 | 25 17 | 1 57 | 17 40 | 2 40 | 20 37 | 1 27 | 15 52 | 1 23 | 13 23 | 1 21 | 19 42 | 1 59 | 21 56 | 0 29 | 1 36 |
| T 11 | 6 54 | 22 45 | 0 47 | 18 5 | 2 45 | 20 57 | 1 30 | 15 42 | 1 23 | 13 24 | 1 20 | 19 42 | 1 59 | 21 56 | 0 29 | 1 37 |
| F 12 | 7 16 | 19 2 | 0s24 | 18 28 | 2 49 | 21 16 | 1 33 | 15 31 | 1 24 | 13 24 | 1 20 | 19 42 | 2 0 | 21 56 | 0 29 | 1 38 |
| S 13 | 7 39 | 14 27 | 1 31 | 18 50 | 2 53 | 21 35 | 1 36 | 15 20 | 1 25 | 13 25 | 1 20 | 19 41 | 2 0 | 21 56 | 0 29 | 1 39 |
| S 14 | 8 2 | 9 20 | 2 33 | 19 11 | 2 57 | 21 53 | 1 39 | 15 9 | 1 25 | 13 26 | 1 20 | 19 41 | 2 0 | 21 56 | 0 29 | 1 40 |
| M15 | 8 24 | 3 55 | 3 26 | 19 30 | 2 59 | 22 11 | 1 42 | 14 58 | 1 26 | 13 26 | 1 20 | 19 40 | 2 0 | 21 56 | 0 29 | 1 41 |
| T 16 | 8 46 | 1s34 | 4 8 | 19 47 | 3 2 | 22 28 | 1 45 | 14 47 | 1 27 | 13 27 | 1 20 | 19 40 | 2 0 | 21 55 | 0 29 | 1 41 |
| W17 | 9 9 | 6 54 | 4 38 | 20 3 | 3 4 | 22 45 | 1 48 | 14 36 | 1 27 | 13 27 | 1 19 | 19 39 | 2 0 | 21 55 | 0 29 | 1 42 |
| T 18 | 9 31 | 11 56 | 4 55 | 20 16 | 3 5 | 23 1 | 1 51 | 14 24 | 1 28 | 13 27 | 1 19 | 19 38 | 2 0 | 21 55 | 0 29 | 1 43 |
| F 19 | 9 53 | 16 27 | 4 59 | 20 27 | 3 5 | 23 17 | 1 54 | 14 13 | 1 29 | 13 28 | 1 19 | 19 38 | 2 0 | 21 55 | 0 29 | 1 44 |
| S 20 | 10 14 | 20 18 | 4 49 | 20 36 | 3 4 | 23 31 | 1 57 | 14 2 | 1 29 | 13 28 | 1 19 | 19 37 | 2 0 | 21 55 | 0 29 | 1 45 |
| S 21 | 10 36 | 23 17 | 4 27 | 20 43 | 3 3 | 23 46 | 2 0 | 13 51 | 1 30 | 13 28 | 1 19 | 19 37 | 2 0 | 21 55 | 0 29 | 1 46 |
| M22 | 10 57 | 25 16 | 3 54 | 20 46 | 3 0 | 23 59 | 2 2 | 13 39 | 1 31 | 13 28 | 1 19 | 19 36 | 2 0 | 21 55 | 0 29 | 1 46 |
| T 23 | 11 19 | 26 7 | 3 10 | 20 47 | 2 57 | 24 12 | 2 5 | 13 28 | 1 31 | 13 28 | 1 18 | 19 36 | 2 1 | 21 55 | 0 29 | 1 47 |
| W24 | 11 40 | 25 47 | 2 17 | 20 45 | 2 52 | 24 24 | 2 7 | 13 17 | 1 32 | 13 28 | 1 18 | 19 35 | 2 1 | 21 55 | 0 29 | 1 48 |
| T 25 | 12 1 | 24 14 | 1 18 | 20 39 | 2 46 | 24 36 | 2 10 | 13 5 | 1 33 | 13 28 | 1 18 | 19 34 | 2 1 | 21 55 | 0 29 | 1 49 |
| F 26 | 12 22 | 21 32 | 0 15 | 20 29 | 2 38 | 24 47 | 2 12 | 12 54 | 1 33 | 13 27 | 1 18 | 19 34 | 2 1 | 21 55 | 0 29 | 1 50 |
| S 27 | 12 42 | 17 46 | 0n51 | 20 15 | 2 28 | 24 57 | 2 15 | 12 42 | 1 34 | 13 27 | 1 18 | 19 33 | 2 1 | 21 55 | 0 29 | 1 50 |
| S 28 | 13 3 | 13 4 | 1 57 | 19 58 | 2 18 | 25 7 | 2 17 | 12 31 | 1 35 | 13 26 | 1 17 | 19 32 | 2 1 | 21 55 | 0 29 | 1 51 |
| M29 | 13 23 | 7 37 | 2 58 | 19 36 | 2 5 | 25 16 | 2 19 | 12 19 | 1 36 | 13 26 | 1 17 | 19 32 | 2 1 | 21 55 | 0 29 | 1 52 |
| T 30 | 13 43 | 1 37 | 3 51 | 19 9 | 1 51 | 25 24 | 2 21 | 12 8 | 1 36 | 13 25 | 1 17 | 19 31 | 2 1 | 21 55 | 0 29 | 1 53 |
| W31 | 14s 2 | 4n40 | 4n32 | 18s38 | 1s34 | 25s32 | 2s24 | 11n56 | 1n37 | 13s25 | 1s17 | 19n30 | 2s 1 | 21n55 | 0n29 | 1s53 |

Julian Day Number = 2312295.5, Delta T = 67.73 sec

Ecliptic obliquity = 23°29'25", Nutation = 0°00'14", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 19°25'09", Lahiri = 18°32'10"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1618
geocentric

NOVEMBER 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|-------|--------|------|--------|--------|-------|-------|--------|------|
| T 1 | 2 40 29 | 8♍29'42 | 16♊6 | 16°R35 | 21♊33 | 3♉33 | 27♊59 | 6°R45 | 23°R31 | 8♌18 | 10°R35 | 26°R45 | 27♊13 | 23♍52 | 21°R55 | T 1 |
| F 2 | 2 44 26 | 9°29'55 | 1♉15 | 15♍24 | 22°43 | 4°7 | 28°0 | 6♊41 | 23♊31 | 8°20 | 10♌34 | 26♊34 | 27°10 | 23°59 | 21°D55 | F 2 |
| S 3 | 2 48 22 | 10°30'10 | 16°34 | 14°9 | 23°53 | 4°40 | 28°2 | 6°37 | 23°31 | 8°22 | 10°33 | 26°23 | 27°7 | 24°6 | 21°55 | S 3 |
| S 4 | 2 52 19 | 11°30'26 | 1♊52 | 12°50 | 25°2 | 5°13 | 28°4 | 6°32 | 23°30 | 8°24 | 10°32 | 26°13 | 27°4 | 24°12 | 21°55 | S 4 |
| M 5 | 2 56 16 | 12°30'45 | 16°57 | 11°30 | 26°12 | 5°47 | 28°7 | 6°28 | 23°30 | 8°26 | 10°30 | 26°6 | 27°1 | 24°19 | 21°55 | M 5 |
| T 6 | 3 0 12 | 13°31'06 | 1♊42 | 10°12 | 27°21 | 6°20 | 28°9 | 6°24 | 23°30 | 8°28 | 10°29 | 26°1 | 26°57 | 24°26 | 21°56 | T 6 |
| W 7 | 3 4 9 | 14°31'28 | 16°1 | 8°58 | 28°31 | 6°53 | 28°12 | 6°20 | 23°29 | 8°30 | 10°28 | 25°59 | 26°54 | 24°32 | 21°56 | W 7 |
| T 8 | 3 8 5 | 15°31'53 | 29°53 | 7°51 | 29°40 | 7°26 | 28°15 | 6°15 | 23°29 | 8°31 | 10°27 | 25°D59 | 26°51 | 24°39 | 21°56 | T 8 |
| F 9 | 3 12 2 | 16°32'19 | 13♊18 | 6°53 | 0♊49 | 7°59 | 28°18 | 6°11 | 23°28 | 8°33 | 10°26 | 25°R59 | 26°48 | 24°46 | 21°57 | F 9 |
| S 10 | 3 15 58 | 17°32'47 | 26°21 | 6°4 | 1°58 | 8°31 | 28°21 | 6°6 | 23°28 | 8°35 | 10°25 | 25°59 | 26°45 | 24°53 | 21°57 | S 10 |
| S 11 | 3 19 55 | 18°33'17 | 9♉3 | 5°27 | 3°7 | 9°4 | 28°25 | 6°2 | 23°27 | 8°37 | 10°24 | 25°57 | 26°42 | 24°59 | 21°58 | S 11 |
| M12 | 3 23 51 | 19°33'49 | 21°30 | 5°2 | 4°16 | 9°36 | 28°28 | 5°57 | 23°26 | 8°39 | 10°23 | 25°52 | 26°38 | 25°6 | 21°58 | M12 |
| T 13 | 3 27 48 | 20°34'23 | 3♌44 | 4°48 | 5°25 | 10°9 | 28°32 | 5°52 | 23°26 | 8°41 | 10°21 | 25°45 | 26°35 | 25°13 | 21°59 | T 13 |
| W14 | 3 31 45 | 21°34'58 | 15°50 | 4°D45 | 6°33 | 10°41 | 28°36 | 5°48 | 23°25 | 8°42 | 10°20 | 25°35 | 26°32 | 25°19 | 22°0 | W14 |
| T 15 | 3 35 41 | 22°35'35 | 27°49 | 4°54 | 7°42 | 11°13 | 28°40 | 5°43 | 23°24 | 8°44 | 10°19 | 25°24 | 26°29 | 25°26 | 22°1 | T 15 |
| F 16 | 3 39 38 | 23°36'14 | 9♍44 | 5°12 | 8°50 | 11°45 | 28°45 | 5°38 | 23°23 | 8°46 | 10°18 | 25°11 | 26°26 | 25°33 | 22°1 | F 16 |
| S 17 | 3 43 34 | 24°36'54 | 21°37 | 5°40 | 9°58 | 12°17 | 28°49 | 5°33 | 23°22 | 8°47 | 10°17 | 24°59 | 26°22 | 25°39 | 22°2 | S 17 |
| S 18 | 3 47 31 | 25°37'36 | 3♊27 | 6°17 | 11°6 | 12°49 | 28°54 | 5°29 | 23°21 | 8°49 | 10°16 | 24°47 | 26°19 | 25°46 | 22°3 | S 18 |
| M19 | 3 51 27 | 26°38'19 | 15°18 | 7°0 | 12°14 | 13°20 | 28°59 | 5°24 | 23°20 | 8°51 | 10°15 | 24°38 | 26°16 | 25°53 | 22°4 | M19 |
| T 20 | 3 55 24 | 27°39'03 | 27°11 | 7°51 | 13°22 | 13°52 | 29°4 | 5°19 | 23°19 | 8°52 | 10°14 | 24°32 | 26°13 | 26°0 | 22°6 | T 20 |
| W21 | 3 59 20 | 28°39'49 | 9♊7 | 8°47 | 14°29 | 14°23 | 29°10 | 5°14 | 23°18 | 8°54 | 10°13 | 24°28 | 26°10 | 26°6 | 22°7 | W21 |
| T 22 | 4 3 17 | 29°40'36 | 21°11 | 9°48 | 15°36 | 14°54 | 29°15 | 5°9 | 23°17 | 8°56 | 10°12 | 24°D27 | 26°7 | 26°13 | 22°8 | T 22 |
| F 23 | 4 7 14 | 0♊41'24 | 3♌26 | 10°54 | 16°44 | 15°26 | 29°21 | 5°4 | 23°15 | 8°57 | 10°11 | 24°27 | 26°3 | 26°20 | 22°9 | F 23 |
| S 24 | 4 11 10 | 1°42'12 | 15°56 | 12°3 | 17°51 | 15°56 | 29°27 | 4°59 | 23°14 | 8°59 | 10°10 | 24°28 | 26°0 | 26°26 | 22°11 | S 24 |
| S 25 | 4 15 7 | 2°43'02 | 28°45 | 13°16 | 18°57 | 16°27 | 29°33 | 4°54 | 23°13 | 9°0 | 10°9 | 24°R29 | 25°57 | 26°33 | 22°12 | S 25 |
| M26 | 4 19 3 | 3°43'53 | 11♊57 | 14°31 | 20°4 | 16°58 | 29°39 | 4°49 | 23°11 | 9°2 | 10°8 | 24°29 | 25°54 | 26°40 | 22°14 | M26 |
| T 27 | 4 23 0 | 4°44'44 | 25°37 | 15°49 | 21°10 | 17°28 | 29°46 | 4°44 | 23°10 | 9°3 | 10°7 | 24°26 | 25°51 | 26°47 | 22°15 | T 27 |
| W28 | 4 26 56 | 5°45'36 | 9♊45 | 17°9 | 22°16 | 17°59 | 29°52 | 4°39 | 23°8 | 9°5 | 10°6 | 24°22 | 25°48 | 26°53 | 22°17 | W28 |
| T 29 | 4 30 53 | 6°46'29 | 24°20 | 18°31 | 23°22 | 18°29 | 29°59 | 4°34 | 23°7 | 9°6 | 10°5 | 24°16 | 25°44 | 27°0 | 22°18 | T 29 |
| F 30 | 4 34 49 | 7♊47'23 | 9♊19 | 19♍55 | 24♊28 | 18♉59 | 0♊6 | 4♊30 | 23♊5 | 9♌7 | 10♌4 | 24♊9 | 25♊41 | 27♍7 | 22°20 | F 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 |
| T 1 | 14s22 | 10n54 | 4n56 | 18 s 3 | 1s17 | 25s38 | 2s26 | 11n45 | 1n38 | 13s24 | 1s17 | 19n30 | 2s 1 | 21n55 | 0n29 | 1s54 | 1n31 | 0s 7 | 15s54 | 20s51 | 20s46 | 23s14 | 8s22 | 6n12 | |
| F 2 | 14 41 | 16 37 | 5 0 | 17 25 | 0 58 | 25 45 | 2 27 | 11 33 | 1 38 | 13 23 | 1 17 | 19 29 | 2 1 | 21 55 | 0 29 | 1 55 | 1 31 | 0 7 | 15 54 | 20 53 | 20 46 | 23 15 | 8 22 | 6 11 | |
| S 3 | 15 0 | 21 20 | 4 43 | 16 43 | 0 38 | 25 50 | 2 29 | 11 21 | 1 39 | 13 22 | 1 16 | 19 28 | 2 1 | 21 55 | 0 29 | 1 56 | 1 31 | 0 7 | 15 54 | 20 55 | 20 47 | 23 17 | 8 22 | 6 11 | |
| S 4 | 15 19 | 24 35 | 4 5 | 16 0 | 0 18 | 25 55 | 2 31 | 11 10 | 1 40 | 13 22 | 1 16 | 19 27 | 2 1 | 21 55 | 0 29 | 1 56 | 1 31 | 0 8 | 15 54 | 20 57 | 20 47 | 23 18 | 8 23 | 6 11 | |
| M 5 | 15 38 | 26 1 | 3 11 | 15 16 | 0n3 | 25 59 | 2 33 | 10 58 | 1 41 | 13 21 | 1 16 | 19 27 | 2 1 | 21 55 | 0 29 | 1 57 | 1 31 | 0 8 | 15 54 | 20 58 | 20 48 | 23 19 | 8 23 | 6 10 | |
| T 6 | 15 56 | 25 34 | 2 5 | 14 32 | 0 23 | 26 2 | 2 34 | 10 47 | 1 41 | 13 20 | 1 16 | 19 26 | 2 1 | 21 55 | 0 29 | 1 58 | 1 31 | 0 8 | 15 54 | 20 59 | 20 49 | 23 21 | 8 24 | 6 10 | |
| W 7 | 16 14 | 23 24 | 0 53 | 13 50 | 0 43 | 26 5 | 2 36 | 10 35 | 1 42 | 13 18 | 1 16 | 19 25 | 2 1 | 21 56 | 0 29 | 1 59 | 1 31 | 0 9 | 15 54 | 21 0 | 20 49 | 23 22 | 8 24 | 6 9 | |
| T 8 | 16 32 | 19 53 | 0s21 | 13 11 | 1 2 | 26 7 | 2 37 | 10 23 | 1 43 | 13 17 | 1 15 | 19 24 | 2 1 | 21 56 | 0 30 | 1 59 | 1 31 | 0 9 | 15 54 | 21 0 | 20 50 | 23 23 | 8 24 | 6 9 | |
| F 9 | 16 49 | 15 25 | 1 31 | 12 36 | 1 19 | 26 8 | 2 38 | 10 12 | 1 43 | 13 16 | 1 15 | 19 24 | 2 1 | 21 56 | 0 30 | 2 0 | 1 31 | 0 9 | 15 54 | 21 0 | 20 50 | 23 24 | 8 24 | 6 8 | |
| S 10 | 17 6 | 10 21 | 2 34 | 12 6 | 1 34 | 26 8 | 2 40 | 10 0 | 1 44 | 13 15 | 1 15 | 19 23 | 2 1 | 21 56 | 0 30 | 2 1 | 1 31 | 0 9 | 15 54 | 21 0 | 20 51 | 23 26 | 8 25 | 6 8 | |
| S 11 | 17 23 | 4 59 | 3 28 | 11 41 | 1 47 | 26 8 | 2 41 | 9 48 | 1 45 | 13 13 | 1 15 | 19 22 | 2 1 | 21 56 | 0 30 | 2 1 | 1 31 | 0 10 | 15 54 | 21 0 | 20 52 | 23 27 | 8 25 | 6 8 | |
| M12 | 17 40 | 0s27 | 4 11 | 11 22 | 1 58 | 26 7 | 2 42 | 9 37 | 1 46 | 13 12 | 1 15 | 19 21 | 2 1 | 21 56 | 0 30 | 2 2 | 1 31 | 0 10 | 15 54 | 21 1 | 20 52 | 23 28 | 8 25 | 6 7 | |
| T 13 | 17 56 | 5 47 | 4 41 | 11 8 | 2 8 | 26 5 | 2 43 | 9 25 | 1 46 | 13 10 | 1 14 | 19 20 | 2 1 | 21 56 | 0 30 | 2 3 | 1 31 | 0 10 | 15 54 | 21 2 | 20 53 | 23 29 | 8 25 | 6 7 | |
| W14 | 18 12 | 10 50 | 4 58 | 11 1 | 2 15 | 26 3 | 2 43 | 9 14 | 1 47 | 13 9 | 1 14 | 19 20 | 2 1 | 21 57 | 0 30 | 2 3 | 1 31 | 0 10 | 15 54 | 21 4 | 20 54 | 23 31 | 8 25 | 6 6 | |
| T 15 | 18 28 | 15 25 | 5 2 | 10 58 | 2 21 | 26 0 | 2 44 | 9 2 | 1 48 | 13 7 | 1 14 | 19 19 | 2 1 | 21 57 | 0 30 | 2 4 | 1 32 | 0 11 | 15 54 | 21 6 | 20 54 | 23 32 | 8 26 | 6 6 | |
| F 16 | 18 43 | 19 23 | 4 53 | 11 1 | 2 25 | 25 56 | 2 44 | 8 51 | 1 49 | 13 5 | 1 14 | 19 18 | 2 1 | 21 57 | 0 30 | 2 5 | 1 32 | 0 11 | 15 54 | 21 9 | 20 55 | 23 33 | 8 26 | 6 5 | |
| S 17 | 18 58 | 22 34 | 4 31 | 11 8 | 2 27 | 25 51 | 2 45 | 8 39 | 1 49 | 13 4 | 1 14 | 19 17 | 2 1 | 21 57 | 0 30 | 2 5 | 1 32 | 0 11 | 15 53 | 21 11 | 20 55 | 23 34 | 8 26 | 6 5 | |
| S 18 | 19 12 | 24 46 | 3 57 | 11 19 | 2 28 | 25 46 | 2 45 | 8 28 | 1 50 | 13 2 | 1 14 | 19 16 | 2 1 | 21 57 | 0 30 | 2 6 | 1 32 | 0 11 | 15 53 | 21 13 | 20 56 | 23 36 | 8 26 | 6 4 | |
| M19 | 19 27 | 25 53 | 3 13 | 11 33 | 2 28 | 25 40 | 2 45 | 8 16 | 1 51 | 13 0 | 1 13 | 19 16 | 2 1 | 21 58 | 0 30 | 2 7 | 1 32 | 0 12 | 15 53 | 21 14 | 20 57 | 23 37 | 8 26 | 6 4 | |
| T 20 | 19 41 | 25 48 | 2 21 | 11 51 | 2 26 | 25 34 | 2 45 | 8 5 | 1 52 | 12 58 | 1 13 | 19 15 | 2 1 | 21 58 | 0 30 | 2 7 | 1 32 | 0 12 | 15 53 | 21 16 | 20 57 | 23 38 | 8 26 | 6 4 | |
| W21 | 19 54 | 24 32 | 1 21 | 12 11 | 2 24 | 25 26 | 2 45 | 7 53 | 1 52 | 12 56 | 1 13 | 19 14 | 2 1 | 21 58 | 0 30 | 2 8 | 1 32 | 0 12 | 15 53 | 21 16 | 20 58 | 23 39 | 8 26 | 6 3 | |
| T 22 | 20 7 | 22 6 | 0 17 | 12 33 | 2 21 | 25 18 | 2 45 | 7 42 | 1 53 | 12 54 | 1 13 | 19 13 | 2 1 | 21 58 | 0 30 | 2 8 | 1 32 | 0 12 | 15 53 | 21 17 | 20 58 | 23 40 | 8 26 | 6 3 | |
| F 23 | 20 20 | 18 39 | 0n48 | 12 57 | 2 17 | 25 10 | 2 45 | 7 30 | 1 54 | 12 51 | 1 13 | 19 12 | 2 1 | 21 58 | 0 30 | 2 9 | 1 32 | 0 12 | 15 53 | 21 17 | 20 59 | 23 42 | 8 26 | 6 2 | |
| S 24 | 20 33 | 14 18 | 1 53 | 13 23 | 2 13 | 25 1 | 2 44 | 7 19 | 1 55 | 12 49 | 1 12 | 19 12 | 2 1 | 21 59 | 0 30 | 2 10 | 1 32 | 0 12 | 15 53 | 21 16 | 21 0 | 23 43 | 8 26 | 6 2 | |
| S 25 | 20 45 | 9 13 | 2 54 | 13 49 | 2 8 | 24 51 | 2 44 | 7 8 | 1 56 | 12 47 | 1 12 | 19 11 | 2 1 | 21 59 | 0 30 | 2 10 | 1 32 | 0 13 | 15 52 | 21 16 | 21 0 | 23 44 | 8 26 | 6 2 | |
| M26 | 20 57 | 3 35 | 3 47 | 14 17 | 2 2 | 24 40 | 2 43 | 6 57 | 1 56 | 12 45 | 1 12 | 19 10 | 2 1 | 21 59 | 0 30 | 2 11 | 1 32 | 0 13 | 15 52 | 21 16 | 21 1 | 23 45 | 8 26 | 6 1 | |
| T 27 | 21 8 | 2n23 | 4 30 | 14 45 | 1 56 | 24 29 | 2 42 | 6 45 | 1 57 | 12 42 | 1 12 | 19 9 | 2 1 | 22 0 | 0 30 | 2 11 | 1 32 | 0 13 | 15 52 | 21 17 | 21 1 | 23 46 | 8 26 | 6 1 | |
| W28 | 21 19 | 8 26 | 4 58 | 15 14 | 1 50 | 24 18 | 2 41 | 6 34 | 1 58 | 12 40 | 1 12 | 19 8 | 2 1 | 22 0 | 0 30 | 2 12 | 1 32 | 0 13 | 15 52 | 21 17 | 21 2 | 23 47 | 8 26 | 6 0 | |
| T 29 | 21 29 | 14 13 | 5 8 | 15 43 | 1 44 | 24 5 | 2 40 | 6 23 | 1 59 | 12 37 | 1 12 | 19 8 | 2 0 | 22 0 | 0 30 | 2 12 | 1 32 | 0 13 | 15 52 | 21 18 | 21 2 | 23 49 | 8 26 | 6 0 | |
| F 30 | 21s39 | 19n19 | 4n57 | 16s12 | 1n37 | 23s52 | 2s39 | 6n12 | 2n 0 | 12s34 | 1s11 | 19n 7 | 2s 0 | 22n 0 | 0n30 | 2s13 | 1n32 | 0s13 | 15s52 | 21s20 | 21s 3 | 23s50 | 8s25 | 6n 0 | |

ASTRODIENST EPHEMERIS for the year 1618
geocentric

DECEMBER 1618 GC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|------|-------|--------|------|--------|--------|-------|-------|-------|------|
| S 1 | 4 38 46 | 8♌48'18 | 24♋33 | 21♏19 | 25♊33 | 19♏29 | 0♏13 | 4°R25 | 23°R 4 | 9♏ 9 | 10°R 3 | 24°R 2 | 25♊38 | 27♏13 | 22♏22 | S 1 |
| S 2 | 4 42 43 | 9°49'14 | 9♏51 | 22°45 | 26°39 | 19°58 | 0°20 | 4♏20 | 23°2 2 | 9°10 | 10° 2 | 23♊55 | 25°35 | 27°20 | 22°24 | S 2 |
| M 3 | 4 46 39 | 10°50'11 | 25° 3 | 24°12 | 27°44 | 20°28 | 0°27 | 4°15 | 23° 0 | 9°11 | 10° 1 | 23°51 | 25°32 | 27°27 | 22°26 | M 3 |
| T 4 | 4 50 36 | 11°51'09 | 9♏59 | 25°39 | 28°48 | 20°57 | 0°35 | 4°10 | 22°59 | 9°13 | 10° 0 | 23°48 | 25°28 | 27°33 | 22°28 | T 4 |
| W 5 | 4 54 32 | 12°52'08 | 24°31 | 27° 8 | 29°53 | 21°27 | 0°43 | 4° 5 | 22°57 | 9°14 | 9°59 | 23°D47 | 25°25 | 27°40 | 22°30 | W 5 |
| T 6 | 4 58 29 | 13°53'08 | 8♏36 | 28°36 | 0♏57 | 21°56 | 0°50 | 4° 0 | 22°55 | 9°15 | 9°58 | 23°48 | 25°22 | 27°47 | 22°32 | T 6 |
| F 7 | 5 2 25 | 14°54'08 | 22°12 | 0♏ 6 | 2° 1 | 22°24 | 0°58 | 3°55 | 22°53 | 9°16 | 9°57 | 23°49 | 25°19 | 27°54 | 22°34 | F 7 |
| S 8 | 5 6 22 | 15°55'10 | 5♏22 | 1°36 | 3° 4 | 22°53 | 1° 6 | 3°51 | 22°51 | 9°17 | 9°56 | 23°51 | 25°16 | 28° 0 | 22°36 | S 8 |
| S 9 | 5 10 19 | 16°56'13 | 18° 8 | 3° 6 | 4° 7 | 23°22 | 1°15 | 3°46 | 22°49 | 9°18 | 9°55 | 23°R51 | 25°13 | 28° 7 | 22°38 | S 9 |
| M10 | 5 14 15 | 17°57'17 | 0♏35 | 4°36 | 5°10 | 23°50 | 1°23 | 3°41 | 22°47 | 9°19 | 9°54 | 23°50 | 25° 9 | 28°14 | 22°41 | M10 |
| T 11 | 5 18 12 | 18°58'22 | 12°46 | 6° 7 | 6°13 | 24°18 | 1°32 | 3°36 | 22°45 | 9°20 | 9°54 | 23°48 | 25° 6 | 28°20 | 22°43 | T 11 |
| W12 | 5 22 8 | 19°59'28 | 24°48 | 7°38 | 7°15 | 24°46 | 1°40 | 3°32 | 22°43 | 9°21 | 9°53 | 23°43 | 25° 3 | 28°27 | 22°45 | W12 |
| T 13 | 5 26 5 | 21° 0'35 | 6♏42 | 9°10 | 8°17 | 25°14 | 1°49 | 3°27 | 22°41 | 9°22 | 9°52 | 23°38 | 25° 0 | 28°34 | 22°48 | T 13 |
| F 14 | 5 30 1 | 22° 1'42 | 18°33 | 10°42 | 9°18 | 25°41 | 1°58 | 3°23 | 22°39 | 9°23 | 9°51 | 23°32 | 24°57 | 28°40 | 22°50 | F 14 |
| S 15 | 5 33 58 | 23° 2'51 | 0♏23 | 12°13 | 10°20 | 26° 8 | 2° 7 | 3°18 | 22°37 | 9°24 | 9°50 | 23°26 | 24°54 | 28°47 | 22°53 | S 15 |
| S 16 | 5 37 54 | 24° 4'00 | 12°15 | 13°46 | 11°20 | 26°35 | 2°17 | 3°14 | 22°35 | 9°25 | 9°50 | 23°21 | 24°50 | 28°54 | 22°55 | S 16 |
| M17 | 5 41 51 | 25° 5'09 | 24°10 | 15°18 | 12°21 | 27° 2 | 2°26 | 3° 9 | 22°33 | 9°26 | 9°49 | 23°16 | 24°47 | 29° 1 | 22°58 | M17 |
| T 18 | 5 45 48 | 26° 6'19 | 6♏10 | 16°51 | 13°20 | 27°29 | 2°36 | 3° 5 | 22°30 | 9°27 | 9°48 | 23°14 | 24°44 | 29° 7 | 23° 1 | T 18 |
| W19 | 5 49 44 | 27° 7'29 | 18°17 | 18°23 | 14°20 | 27°55 | 2°45 | 3° 1 | 22°28 | 9°28 | 9°47 | 23°D12 | 24°41 | 29°14 | 23° 3 | W19 |
| T 20 | 5 53 41 | 28° 8'39 | 0♏32 | 19°57 | 15°19 | 28°21 | 2°55 | 2°56 | 22°26 | 9°28 | 9°47 | 23°12 | 24°38 | 29°21 | 23° 6 | T 20 |
| F 21 | 5 57 37 | 29° 9'50 | 12°58 | 21°30 | 16°17 | 28°47 | 3° 5 | 2°52 | 22°23 | 9°29 | 9°46 | 23°14 | 24°35 | 29°27 | 23° 9 | F 21 |
| S 22 | 6 1 34 | 0♏11'00 | 25°37 | 23° 3 | 17°15 | 29°13 | 3°15 | 2°48 | 22°21 | 9°30 | 9°45 | 23°15 | 24°31 | 29°34 | 23°12 | S 22 |
| S 23 | 6 5 30 | 1°12'11 | 8♏31 | 24°37 | 18°13 | 29°38 | 3°25 | 2°44 | 22°19 | 9°31 | 9°45 | 23°17 | 24°28 | 29°41 | 23°15 | S 23 |
| M24 | 6 9 27 | 2°13'21 | 21°44 | 26°11 | 19°10 | 0♏ 3 | 3°35 | 2°40 | 22°16 | 9°31 | 9°44 | 23°18 | 24°25 | 29°47 | 23°18 | M24 |
| T 25 | 6 13 23 | 3°14'32 | 5♏17 | 27°46 | 20° 6 | 0°28 | 3°46 | 2°36 | 22°14 | 9°32 | 9°43 | 23°R18 | 24°22 | 29°54 | 23°21 | T 25 |
| W26 | 6 17 20 | 4°15'42 | 19°13 | 29°20 | 21° 2 | 0°53 | 3°56 | 2°32 | 22°11 | 9°32 | 9°43 | 23°18 | 24°19 | 0♏ 1 | 23°24 | W26 |
| T 27 | 6 21 17 | 5°16'52 | 3♏30 | 0♏55 | 21°57 | 1°17 | 4° 7 | 2°29 | 22° 9 | 9°33 | 9°42 | 23°16 | 24°15 | 0° 8 | 23°27 | T 27 |
| F 28 | 6 25 13 | 6°18'01 | 18° 7 | 2°30 | 22°51 | 1°41 | 4°18 | 2°25 | 22° 7 | 9°33 | 9°42 | 23°14 | 24°12 | 0°14 | 23°30 | F 28 |
| S 29 | 6 29 10 | 7°19'11 | 2♏58 | 4° 6 | 23°45 | 2° 5 | 4°29 | 2°21 | 22° 4 | 9°34 | 9°41 | 23°12 | 24° 9 | 0°21 | 23°33 | S 29 |
| S 30 | 6 33 6 | 8°20'20 | 17°58 | 5°42 | 24°38 | 2°28 | 4°39 | 2°18 | 22° 2 | 9°34 | 9°41 | 23°10 | 24° 6 | 0°28 | 23°36 | S 30 |
| M31 | 6 37 3 | 9♏21'30 | 2♏56 | 7♏18 | 25♏30 | 2♏52 | 4♏51 | 2♏14 | 21♏59 | 9♏35 | 9♏40 | 23♏ 9 | 24♏ 3 | 0♏34 | 23♏39 | M31 |

| Day | ☉ | ☾ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|------|-------|-------|--------|-------|------|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | decl | decl | lat | decl | lat |
| S 1 | 21s49 | 23n14 | 4n26 | 16s41 | 1n30 | 23s39 | 2s37 | 6n 1 | 2n 0 | 12s32 | 1s11 | 19n 6 | 2s 0 | 22n 1 | 0n30 | 2s13 | 1n32 | 0s13 | 15s51 | 21s21 | 21 s 4 | 23s51 | 8s25 | 5n59 | |
| S 2 | 21 58 | 25 31 | 3 35 | 17 10 | 1 23 | 23 25 | 2 36 | 5 50 | 2 1 | 12 29 | 1 11 | 19 5 | 2 0 | 22 1 | 0 30 | 2 14 | 1 32 | 0 14 | 15 51 | 21 22 | 21 4 | 23 52 | 8 25 | 5 59 | |
| M 3 | 22 7 | 25 53 | 2 29 | 17 38 | 1 16 | 23 10 | 2 34 | 5 39 | 2 2 | 12 26 | 1 11 | 19 4 | 2 0 | 22 1 | 0 30 | 2 14 | 1 32 | 0 14 | 15 51 | 21 23 | 21 5 | 23 53 | 8 25 | 5 58 | |
| T 4 | 22 15 | 24 21 | 1 14 | 18 6 | 1 9 | 22 55 | 2 32 | 5 28 | 2 3 | 12 24 | 1 11 | 19 4 | 2 0 | 22 2 | 0 30 | 2 14 | 1 32 | 0 14 | 15 51 | 21 23 | 21 5 | 23 54 | 8 25 | 5 58 | |
| W 5 | 22 23 | 21 12 | 0s 4 | 18 34 | 1 1 | 22 39 | 2 30 | 5 18 | 2 4 | 12 21 | 1 11 | 19 3 | 2 0 | 22 2 | 0 30 | 2 15 | 1 32 | 0 14 | 15 51 | 21 23 | 21 6 | 23 55 | 8 24 | 5 58 | |
| T 6 | 22 31 | 16 52 | 1 20 | 19 1 | 0 54 | 22 23 | 2 28 | 5 7 | 2 4 | 12 18 | 1 10 | 19 2 | 2 0 | 22 2 | 0 30 | 2 15 | 1 33 | 0 14 | 15 50 | 21 23 | 21 7 | 23 56 | 8 24 | 5 57 | |
| F 7 | 22 38 | 11 48 | 2 28 | 19 27 | 0 47 | 22 7 | 2 25 | 4 56 | 2 5 | 12 15 | 1 10 | 19 1 | 2 0 | 22 3 | 0 30 | 2 16 | 1 33 | 0 14 | 15 50 | 21 23 | 21 7 | 23 57 | 8 24 | 5 57 | |
| S 8 | 22 45 | 6 21 | 3 27 | 19 53 | 0 39 | 21 49 | 2 23 | 4 46 | 2 6 | 12 12 | 1 10 | 19 0 | 1 59 | 22 3 | 0 30 | 2 16 | 1 33 | 0 14 | 15 50 | 21 23 | 21 8 | 23 58 | 8 23 | 5 56 | |
| S 9 | 22 51 | 0 49 | 4 13 | 20 18 | 0 32 | 21 32 | 2 20 | 4 35 | 2 7 | 12 9 | 1 10 | 19 0 | 1 59 | 22 3 | 0 30 | 2 17 | 1 33 | 0 14 | 15 50 | 21 23 | 21 8 | 24 0 | 8 23 | 5 56 | |
| M10 | 22 57 | 4s36 | 4 46 | 20 42 | 0 24 | 21 14 | 2 17 | 4 25 | 2 8 | 12 5 | 1 10 | 18 59 | 1 59 | 22 4 | 0 30 | 2 17 | 1 33 | 0 14 | 15 50 | 21 23 | 21 9 | 24 1 | 8 23 | 5 56 | |
| T 11 | 23 2 | 9 45 | 5 6 | 21 6 | 0 17 | 20 55 | 2 14 | 4 14 | 2 9 | 12 2 | 1 10 | 18 58 | 1 59 | 22 4 | 0 30 | 2 17 | 1 33 | 0 14 | 15 49 | 21 23 | 21 9 | 24 2 | 8 22 | 5 55 | |
| W12 | 23 7 | 14 27 | 5 11 | 21 28 | 0 10 | 20 36 | 2 11 | 4 4 | 2 10 | 11 59 | 1 9 | 18 57 | 1 59 | 22 4 | 0 31 | 2 18 | 1 33 | 0 14 | 15 49 | 21 24 | 21 10 | 24 3 | 8 22 | 5 55 | |
| T 13 | 23 11 | 18 33 | 5 3 | 21 49 | 0 3 | 20 17 | 2 7 | 3 54 | 2 10 | 11 56 | 1 9 | 18 57 | 1 59 | 22 5 | 0 31 | 2 18 | 1 33 | 0 14 | 15 49 | 21 25 | 21 11 | 24 4 | 8 21 | 5 55 | |
| F 14 | 23 15 | 21 54 | 4 43 | 22 10 | 0s 4 | 19 57 | 2 4 | 3 44 | 2 11 | 11 52 | 1 9 | 18 56 | 1 59 | 22 5 | 0 31 | 2 18 | 1 33 | 0 14 | 15 49 | 21 26 | 21 11 | 24 5 | 8 21 | 5 54 | |
| S 15 | 23 18 | 24 20 | 4 10 | 22 29 | 0 11 | 19 37 | 2 0 | 3 34 | 2 12 | 11 49 | 1 9 | 18 55 | 1 58 | 22 5 | 0 31 | 2 19 | 1 33 | 0 14 | 15 48 | 21 27 | 21 12 | 24 6 | 8 20 | 5 54 | |
| S 16 | 23 21 | 25 42 | 3 26 | 22 48 | 0 18 | 19 16 | 1 56 | 3 24 | 2 13 | 11 45 | 1 9 | 18 55 | 1 58 | 22 6 | 0 31 | 2 19 | 1 33 | 0 14 | 15 48 | 21 28 | 21 12 | 24 7 | 8 20 | 5 53 | |
| M17 | 23 24 | 25 54 | 2 33 | 23 5 | 0 25 | 18 55 | 1 52 | 3 14 | 2 14 | 11 42 | 1 9 | 18 54 | 1 58 | 22 6 | 0 31 | 2 19 | 1 33 | 0 14 | 15 48 | 21 29 | 21 13 | 24 8 | 8 19 | 5 53 | |
| T 18 | 23 26 | 24 53 | 1 32 | 23 21 | 0 31 | 18 34 | 1 48 | 3 4 | 2 15 | 11 38 | 1 9 | 18 53 | 1 58 | 22 7 | 0 31 | 2 19 | 1 33 | 0 14 | 15 48 | 21 29 | 21 13 | 24 9 | 8 19 | 5 53 | |
| W19 | 23 28 | 22 41 | 0 27 | 23 37 | 0 38 | 18 13 | 1 43 | 2 54 | 2 16 | 11 35 | 1 8 | 18 53 | 1 58 | 22 7 | 0 31 | 2 20 | 1 33 | 0 14 | 15 47 | 21 29 | 21 14 | 24 10 | 8 18 | 5 52 | |
| T 20 | 23 29 | 19 25 | 0n40 | 23 50 | 0 44 | 17 51 | 1 38 | 2 45 | 2 17 | 11 31 | 1 8 | 18 52 | 1 58 | 22 7 | 0 31 | 2 20 | 1 33 | 0 14 | 15 47 | 21 29 | 21 15 | 24 11 | 8 18 | 5 52 | |
| F 21 | 23 29 | 15 15 | 1 47 | 24 3 | 0 50 | 17 29 | 1 34 | 2 35 | 2 18 | 11 27 | 1 8 | 18 51 | 1 57 | 22 8 | 0 31 | 2 20 | 1 33 | 0 14 | 15 47 | 21 29 | 21 15 | 24 12 | 8 17 | 5 52 | |
| S 22 | 23 29 | 10 21 | 2 49 | 24 15 | 0 56 | 17 6 | 1 29 | 2 26 | 2 19 | 11 23 | 1 8 | 18 51 | 1 57 | 22 8 | 0 31 | 2 20 | 1 33 | 0 14 | 15 47 | 21 29 | 21 16 | 24 13 | 8 17 | 5 51 | |
| S 23 | 23 29 | 4 55 | 3 44 | 24 25 | 1 2 | 16 43 | 1 23 | 2 17 | 2 20 | 11 20 | 1 8 | 18 50 | 1 57 | 22 9 | 0 31 | 2 21 | 1 33 | 0 14 | 15 46 | 21 29 | 21 16 | 24 14 | 8 16 | 5 51 | |
| M24 | 23 28 | 0n50 | 4 29 | 24 34 | 1 8 | 16 20 | 1 18 | 2 8 | 2 20 | 11 16 | 1 8 | 18 50 | 1 57 | 22 9 | 0 31 | 2 21 | 1 34 | 0 14 | 15 46 | 21 28 | 21 17 | 24 15 | 8 15 | 5 51 | |
| T 25 | 23 27 | 6 42 | 5 0 | 24 41 | 1 13 | 15 57 | 1 12 | 1 58 | 2 21 | 11 12 | 1 8 | 18 49 | 1 57 | 22 9 | 0 31 | 2 21 | 1 34 | 0 14 | 15 46 | 21 28 | 21 17 | 24 16 | 8 15 | 5 50 | |
| W26 | 23 25 | 12 23 | 5 15 | 24 48 | 1 18 | 15 34 | 1 6 | 1 50 | 2 22 | 11 8 | 1 7 | 18 49 | 1 56 | 22 10 | 0 31 | 2 21 | 1 34 | 0 14 | 15 45 | 21 29 | 21 18 | 24 17 | 8 14 | 5 50 | |
| T 27 | 23 23 | 17 34 | 5 11 | 24 53 | 1 23 | 15 10 | 1 0 | 1 41 | 2 23 | 11 4 | 1 7 | 18 48 | 1 56 | 22 10 | 0 31 | 2 21 | 1 34 | 0 13 | 15 45 | 21 29 | 21 19 | 24 18 | 8 13 | 5 50 | |
| F 28 | 23 20 | 21 51 | 4 47 | 24 56 | 1 28 | 14 47 | 0 54 | 1 32 | 2 24 | 11 0 | 1 7 | 18 48 | 1 56 | 22 11 | 0 31 | 2 21 | 1 34 | 0 13 | 15 45 | 21 29 | 21 19 | 24 19 | 8 13 | 5 50 | |
| S 29 | 23 17 | 24 46 | 4 3 | 24 58 | 1 33 | 14 23 | 0 48 | 1 23 | 2 25 | 10 56 | 1 7 | 18 47 | 1 56 | 22 11 | 0 31 | 2 22 | 1 34 | 0 13 | 15 45 | 21 29 | 21 20 | 24 20 | 8 12 | 5 49 | |
| S 30 | 23 14 | 25 58 | 3 3 | 24 59 | 1 37 | 13 59 | 0 41 | 1 15 | 2 26 | 10 52 | 1 7 | 18 47 | 1 56 | 22 12 | 0 31 | 2 22 | 1 34 | 0 13 | 15 44 | 21 30 | 21 20 | 24 21 | 8 11 | 5 49 | |
| M31 | 23s10 | 25n17 | 1n50 | 24s58 | 1s41 | 13s35 | 0s34 | 1n 7 | 2n27 | 10s48 | 1s 7 | 18n46 | 1s55 | 22n12 | 0n31 | 2s22 | 1n34 | 0s13 | 15s44 | 21s30 | 21s21 | 24s22 | 8s10 | 5n49 | |