



Astrodienst Ephemeris Tables for the year 2020

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 2020

geocentric

JANUARY 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|---------|---------|---------|---------|---------|---------|--------|---------|---------|--------|--------|---------|--------|------|
| W 1 | 6 40 28 | 10°03'4 | 16°8'8 | 4°23'3 | 14°25'5 | 28°23'3 | 6°40'0 | 21°24'4 | 2°R42 | 16°16'1 | 22°23'3 | 8°R23 | 8°14'4 | 27°3'3 | 1°V36 | W 1 |
| T 2 | 6 44 25 | 11°1'44 | 28°1'1 | 5°58'1 | 15°38'1 | 29°3'3 | 6°54'4 | 21°31'1 | 2°B41 | 16°17'1 | 22°25'5 | 8°B23 | 8°11'1 | 27°10'1 | 1°37'1 | T 2 |
| F 3 | 6 48 21 | 12°2'54 | 9°V53 | 7°33'3 | 16°52'2 | 29°44'4 | 7°8'8 | 21°38'1 | 2°41'1 | 16°18'1 | 22°27'1 | 8°D23 | 8°8'1 | 27°17'1 | 1°38'1 | F 3 |
| S 4 | 6 52 18 | 13°4'04 | 21°5'0 | 9°8'8 | 18°5'5 | 0°24'2 | 7°22'2 | 21°45'1 | 2°40'1 | 16°19'1 | 22°29'1 | 8°23'1 | 8°5'5 | 27°23'1 | 1°39'1 | S 4 |
| S 5 | 6 56 14 | 14°5'13 | 3°B55 | 10°44'4 | 19°18'1 | 1°5'5 | 7°35'5 | 21°52'2 | 2°40'1 | 16°21'1 | 22°31'1 | 8°23'1 | 8°2'2 | 27°30'1 | 1°40'1 | S 5 |
| M 6 | 7 0 11 | 15°6'22 | 16°14'4 | 12°20'0 | 20°32'2 | 1°45'5 | 7°49'9 | 21°59'2 | 2°40'1 | 16°22'1 | 22°33'1 | 8°24'1 | 7°58'1 | 27°37'1 | 1°42'1 | M 6 |
| T 7 | 7 4 8 | 16°7'31 | 28°5'0 | 13°56'6 | 21°45'5 | 2°25'5 | 8°3'3 | 22°6'2 | 2°39'1 | 16°23'1 | 22°35'1 | 8°25'1 | 7°55'1 | 27°43'1 | 1°43'1 | T 7 |
| W 8 | 7 8 4 | 17°8'39 | 11°II47 | 15°33'3 | 22°58'2 | 3°6'6 | 8°17'7 | 22°13'2 | 2°39'1 | 16°25'1 | 22°37'1 | 8°26'1 | 7°52'1 | 27°50'1 | 1°44'1 | W 8 |
| T 9 | 7 12 1 | 18°9'48 | 25°5'4 | 17°10'0 | 24°11'1 | 3°46'6 | 8°31'7 | 22°20'2 | 2°39'1 | 16°26'1 | 22°39'1 | 8°26'1 | 7°49'1 | 27°57'1 | 1°46'1 | T 9 |
| F 10 | 7 15 57 | 19°10'55 | 8°B44 | 18°47'2 | 25°24'4 | 4°27'7 | 8°44'8 | 22°27'2 | 2°39'1 | 16°27'1 | 22°41'1 | 8°R27 | 7°46'1 | 28°4'1 | 1°47'1 | F 10 |
| S 11 | 7 19 54 | 20°12'03 | 22°44'4 | 20°25'5 | 26°37'7 | 5°8'8 | 8°58'8 | 22°34'2 | 2°D39 | 16°29'1 | 22°43'1 | 8°26'1 | 7°43'1 | 28°10'1 | 1°49'1 | S 11 |
| S 12 | 7 23 50 | 21°13'11 | 7°B0 | 22°4'4 | 27°50'2 | 5°48'8 | 9°12'9 | 22°42'2 | 2°39'1 | 16°30'1 | 22°45'1 | 8°25'1 | 7°39'1 | 28°17'1 | 1°50'1 | S 12 |
| M13 | 7 27 47 | 22°14'18 | 21°27'2 | 23°43'3 | 29°3'3 | 6°29'9 | 9°25'9 | 22°49'2 | 2°39'1 | 16°32'1 | 22°47'1 | 8°24'1 | 7°36'1 | 28°24'1 | 1°52'1 | M13 |
| T 14 | 7 31 43 | 23°15'25 | 6°B16 | 25°22'2 | 0°16'1 | 7°9'9 | 9°39'9 | 22°56'2 | 2°39'1 | 16°33'1 | 22°49'1 | 8°22'1 | 7°33'1 | 28°30'1 | 1°54'1 | T 14 |
| W15 | 7 35 40 | 24°16'31 | 20°32'2 | 27°2'2 | 1°29'9 | 7°50'9 | 9°53'9 | 23°3'2 | 2°39'1 | 16°35'1 | 22°51'1 | 8°20'1 | 7°30'1 | 28°37'1 | 1°55'1 | W15 |
| T 16 | 7 39 37 | 25°17'38 | 4°B58 | 28°42'2 | 2°42'2 | 8°31'7 | 10°6'6 | 23°10'2 | 2°40'1 | 16°36'1 | 22°53'1 | 8°18'1 | 7°27'1 | 28°44'1 | 1°57'1 | T 16 |
| F 17 | 7 43 33 | 26°18'44 | 19°14'4 | 0°23'2 | 3°54'4 | 9°11'9 | 10°20'9 | 23°17'2 | 2°40'1 | 16°38'1 | 22°55'1 | 8°17'1 | 7°24'1 | 28°51'1 | 1°59'1 | F 17 |
| S 18 | 7 47 30 | 27°19'51 | 3°B18 | 2°4'4 | 5°7'7 | 9°52'9 | 10°34'9 | 23°24'2 | 2°40'1 | 16°40'1 | 22°57'1 | 8°D17 | 7°20'1 | 28°57'1 | 2°1'1 | S 18 |
| S 19 | 7 51 26 | 28°20'57 | 17°8'8 | 3°46'6 | 6°20'0 | 10°33'9 | 10°47'9 | 23°31'2 | 2°41'1 | 16°41'1 | 22°59'1 | 8°18'1 | 7°17'1 | 29°4'1 | 2°3'1 | S 19 |
| M20 | 7 55 23 | 29°22'03 | 0°14'4 | 5°28'8 | 7°32'2 | 11°13'9 | 11°1'9 | 23°38'2 | 2°41'1 | 16°43'1 | 23°1'1 | 8°19'1 | 7°14'1 | 29°11'1 | 2°5'1 | M20 |
| T 21 | 7 59 19 | 0°23'08 | 14°7'7 | 7°10'0 | 8°44'4 | 11°54'9 | 11°14'9 | 23°45'2 | 2°42'1 | 16°45'1 | 23°3'1 | 8°21'1 | 7°11'1 | 29°18'1 | 2°7'1 | T 21 |
| W22 | 8 3 16 | 1°24'13 | 27°17'2 | 8°53'3 | 9°57'7 | 12°35'9 | 11°28'9 | 23°53'2 | 2°42'1 | 16°46'1 | 23°5'1 | 8°22'1 | 7°8'1 | 29°24'1 | 2°9'1 | W22 |
| T 23 | 8 7 12 | 2°25'18 | 10°B14 | 10°36'6 | 11°9'9 | 13°16'9 | 11°41'9 | 24°0'2 | 2°43'1 | 16°48'1 | 23°7'1 | 8°R23 | 7°4'1 | 29°31'1 | 2°11'1 | T 23 |
| F 24 | 8 11 9 | 3°26'22 | 23°0'0 | 12°20'2 | 12°21'2 | 13°57'9 | 11°54'9 | 24°7'2 | 2°43'1 | 16°50'1 | 23°9'1 | 8°22'1 | 7°1'1 | 29°38'1 | 2°13'1 | F 24 |
| S 25 | 8 15 6 | 4°27'25 | 5°B33 | 14°3'3 | 13°33'3 | 14°37'9 | 12°8'8 | 24°14'2 | 2°44'1 | 16°52'1 | 23°11'1 | 8°19'1 | 6°58'1 | 29°44'1 | 2°15'1 | S 25 |
| S 26 | 8 19 2 | 5°28'28 | 17°56'6 | 15°46'6 | 14°45'5 | 15°18'9 | 12°21'9 | 24°21'2 | 2°45'1 | 16°53'1 | 23°13'1 | 8°16'1 | 6°55'1 | 29°51'1 | 2°17'1 | S 26 |
| M27 | 8 22 59 | 6°29'30 | 0°18'8 | 17°30'0 | 15°57'5 | 15°59'9 | 12°34'9 | 24°28'2 | 2°46'1 | 16°55'1 | 23°15'1 | 8°11'1 | 6°52'1 | 29°58'1 | 2°19'1 | M27 |
| T 28 | 8 26 55 | 7°30'30 | 12°12'2 | 19°13'3 | 17°9'9 | 16°40'9 | 12°48'9 | 24°35'2 | 2°46'1 | 16°57'1 | 23°17'1 | 8°6'1 | 6°49'1 | 0°V5 | 2°22'1 | T 28 |
| W29 | 8 30 52 | 8°31'30 | 24°8'8 | 20°56'6 | 18°20'0 | 17°21'9 | 13°1'9 | 24°42'2 | 2°47'1 | 16°59'1 | 23°19'1 | 8°0'1 | 6°45'1 | 0°11'1 | 2°24'1 | W29 |
| T 30 | 8 34 48 | 9°32'28 | 6°V0 | 22°38'8 | 19°32'2 | 18°2'2 | 13°14'9 | 24°49'2 | 2°48'1 | 17°1'1 | 23°21'1 | 7°55'1 | 6°42'1 | 0°18'1 | 2°26'1 | T 30 |
| F 31 | 8 38 45 | 10°33'26 | 17°V52 | 24°19'9 | 20°14'4 | 18°14'9 | 13°27'9 | 24°56'2 | 2°B49 | 17°3'3 | 23°23'1 | 7°51'1 | 6°39'1 | 0°V25 | 2°V29 | F 31 |

| Day | ☉ | ☾ | | ♀ | | ♀ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | | ♂ | |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|-------|------|-------|-------|------|------|------|-----|------|-----|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| W 1 | 23s 4 | 9s58 | 4s54 | 24s38 | 1s16 | 18s16 | 1s50 | 19s27 | 0n22 | 23s11 | 0n 5 | 21s41 | 0n 3 | 11n57 | 0s30 | 6s22 | 1s 2 | 22s13 | 0s39 | 23n10 | 23n11 | 5s48 | 3n19 | 2n55 | | | |
| T 2 | 22 59 | 5 33 | 5 12 | 24 40 | 1 22 | 17 54 | 1 50 | 19 36 | 0 21 | 23 10 | 0 5 | 21 40 | 0 3 | 11 56 | 0 30 | 6 21 | 1 2 | 22 13 | 0 39 | 23 10 | 23 11 | 5 46 | 3 19 | 2 55 | | | |
| F 3 | 22 53 | 0 57 | 5 17 | 24 40 | 1 26 | 17 31 | 1 49 | 19 45 | 0 20 | 23 10 | 0 5 | 21 39 | 0 3 | 11 56 | 0 30 | 6 21 | 1 2 | 22 13 | 0 39 | 23 10 | 23 11 | 5 43 | 3 19 | 2 55 | | | |
| S 4 | 22 48 | 3n44 | 5 8 | 24 38 | 1 31 | 17 8 | 1 48 | 19 55 | 0 20 | 23 9 | 0 5 | 21 38 | 0 3 | 11 56 | 0 30 | 6 20 | 1 2 | 22 13 | 0 39 | 23 10 | 23 11 | 5 41 | 3 20 | 2 55 | | | |
| S 5 | 22 41 | 8 20 | 4 46 | 24 35 | 1 36 | 16 44 | 1 48 | 20 3 | 0 19 | 23 8 | 0 5 | 21 37 | 0 3 | 11 56 | 0 29 | 6 20 | 1 2 | 22 12 | 0 40 | 23 10 | 23 12 | 5 38 | 3 20 | 2 54 | | | |
| M 6 | 22 35 | 12 41 | 4 11 | 24 31 | 1 40 | 16 20 | 1 47 | 20 12 | 0 19 | 23 7 | 0 5 | 21 36 | 0 3 | 11 56 | 0 29 | 6 19 | 1 1 | 22 12 | 0 40 | 23 10 | 23 12 | 5 36 | 3 20 | 2 54 | | | |
| T 7 | 22 28 | 16 36 | 3 22 | 24 26 | 1 44 | 15 55 | 1 46 | 20 21 | 0 18 | 23 7 | 0 5 | 21 35 | 0 3 | 11 56 | 0 29 | 6 19 | 1 1 | 22 12 | 0 40 | 23 10 | 23 12 | 5 33 | 3 21 | 2 54 | | | |
| W 8 | 22 20 | 19 51 | 2 22 | 24 18 | 1 47 | 15 30 | 1 45 | 20 29 | 0 17 | 23 6 | 0 5 | 21 34 | 0 3 | 11 56 | 0 29 | 6 18 | 1 1 | 22 12 | 0 40 | 23 10 | 23 12 | 5 31 | 3 21 | 2 54 | | | |
| T 9 | 22 12 | 22 7 | 1 13 | 24 10 | 1 51 | 15 5 | 1 44 | 20 38 | 0 17 | 23 5 | 0 5 | 21 33 | 0 3 | 11 56 | 0 29 | 6 18 | 1 1 | 22 11 | 0 40 | 23 10 | 23 12 | 5 28 | 3 21 | 2 54 | | | |
| F 10 | 22 4 | 23 11 | 0n 2 | 24 0 | 1 54 | 14 39 | 1 42 | 20 46 | 0 16 | 23 4 | 0 4 | 21 32 | 0 2 | 11 56 | 0 29 | 6 17 | 1 1 | 22 11 | 0 40 | 23 10 | 23 13 | 5 25 | 3 22 | 2 53 | | | |
| S 11 | 21 55 | 22 48 | 1 18 | 23 48 | 1 57 | 14 13 | 1 41 | 20 54 | 0 15 | 23 4 | 0 4 | 21 30 | 0 2 | 11 56 | 0 29 | 6 17 | 1 1 | 22 11 | 0 40 | 23 10 | 23 13 | 5 23 | 3 22 | 2 53 | | | |
| S 12 | 21 46 | 20 58 | 2 32 | 23 35 | 1 59 | 13 47 | 1 40 | 21 2 | 0 15 | 23 3 | 0 4 | 21 29 | 0 2 | 11 56 | 0 29 | 6 16 | 1 1 | 22 11 | 0 40 | 23 10 | 23 13 | 5 20 | 3 23 | 2 53 | | | |
| M13 | 21 36 | 17 45 | 3 36 | 23 21 | 2 1 | 13 20 | 1 38 | 21 9 | 0 14 | 23 2 | 0 4 | 21 28 | 0 2 | 11 56 | 0 29 | 6 15 | 1 1 | 22 10 | 0 40 | 23 10 | 23 13 | 5 18 | 3 23 | 2 53 | | | |
| T 14 | 21 26 | 13 26 | 4 27 | 23 4 | 2 3 | 12 53 | 1 36 | 21 17 | 0 14 | 23 1 | 0 4 | 21 27 | 0 2 | 11 56 | 0 29 | 6 15 | 1 1 | 22 10 | 0 40 | 23 10 | 23 13 | 5 15 | 3 23 | 2 53 | | | |
| W15 | 21 15 | 8 21 | 5 1 | 22 47 | 2 4 | 12 25 | 1 35 | 21 24 | 0 13 | 23 0 | 0 4 | 21 26 | 0 2 | 11 56 | 0 29 | 6 14 | 1 1 | 22 10 | 0 40 | 23 10 | 23 13 | 5 13 | 3 24 | 2 52 | | | |
| T 16 | 21 5 | 2 51 | 5 15 | 22 28 | 2 5 | 11 57 | 1 33 | 21 31 | 0 12 | 22 59 | 0 4 | 21 25 | 0 2 | 11 56 | 0 29 | 6 14 | 1 1 | 22 10 | 0 40 | 23 11 | 23 14 | 5 10 | 3 24 | 2 52 | | | |
| F 17 | 20 53 | 2s45 | 5 10 | 22 7 | 2 6 | 11 29 | 1 31 | 21 38 | 0 12 | 22 58 | 0 4 | 21 24 | 0 2 | 11 56 | 0 29 | 6 13 | 1 1 | 22 9 | 0 41 | 23 11 | 23 14 | 5 8 | 3 25 | 2 52 | | | |
| S 18 | 20 41 | 8 7 | 4 46 | 21 45 | 2 6 | 11 1 | 1 29 | 21 45 | 0 11 | 22 57 | 0 4 | 21 23 | 0 2 | 11 57 | 0 29 | 6 12 | 1 1 | 22 9 | 0 41 | 23 11 | 23 14 | 5 5 | 3 26 | 2 52 | | | |
| S 19 | 20 29 | 13 1 | 4 6 | 21 21 | 2 6 | 10 32 | 1 27 | 21 51 | 0 10 | 22 56 | 0 4 | 21 21 | 0 2 | 11 57 | 0 29 | 6 12 | 1 1 | 22 9 | 0 41 | 23 11 | 23 14 | 5 3 | 3 26 | 2 52 | | | |
| M20 | 20 17 | 17 10 | 3 13 | 20 55 | 2 5 | 10 3 | 1 25 | 21 58 | 0 9 | 22 55 | 0 4 | 21 20 | 0 2 | 11 57 | 0 29 | 6 11 | 1 1 | 22 9 | 0 41 | 23 10 | 23 14 | 5 0 | 3 27 | 2 51 | | | |
| T 21 | 20 4 | 20 21 | 2 10 | 20 28 | 2 4 | 9 34 | 1 23 | 22 4 | 0 9 | 22 54 | 0 3 | 21 19 | 0 2 | 11 57 | 0 29 | 6 10 | 1 1 | 22 8 | 0 41 | 23 10 | 23 14 | 4 57 | 3 27 | 2 51 | | | |
| W22 | 19 51 | 22 24 | 1 1 | 20 0 | 2 2 | 9 5 | 1 20 | 22 10 | 0 8 | 22 53 | 0 3 | 21 18 | 0 2 | 11 57 | 0 29 | 6 10 | 1 1 | 22 8 | 0 41 | 23 10 | 23 15 | 4 55 | 3 28 | 2 51 | | | |
| T 23 | 19 37 | 23 13 | 0s10 | 19 30 | 2 0 | 8 35 | 1 18 | 22 16 | 0 7 | 22 52 | 0 3 | 21 17 | 0 2 | 11 58 | 0 29 | 6 9 | 1 1 | 22 8 | 0 41 | 23 10 | 23 15 | 4 52 | 3 29 | 2 51 | | | |
| F 24 | 19 23 | 22 47 | 1 19 | 18 59 | 1 57 | 8 5 | 1 15 | 22 22 | 0 7 | 22 51 | 0 3 | 21 16 | 0 1 | 11 58 | 0 29 | 6 8 | 1 1 | 22 8 | 0 41 | 23 10 | 23 15 | 4 50 | 3 29 | 2 51 | | | |
| S 25 | 19 9 | 21 12 | 2 24 | 18 26 | 1 54 | 7 35 | 1 13 | 22 27 | 0 6 | 22 50 | 0 3 | 21 15 | 0 1 | 11 58 | 0 29 | 6 8 | 1 1 | 22 7 | 0 41 | 23 10 | 23 15 | 4 47 | 3 30 | 2 50 | | | |
| S 26 | 18 54 | 18 38 | 3 20 | 17 51 | 1 50 | 7 5 | 1 10 | 22 32 | 0 5 | 22 49 | 0 3 | 21 13 | 0 1 | 11 58 | 0 29 | 6 7 | 1 1 | 22 7 | 0 41 | 23 11 | 23 15 | 4 45 | 3 31 | 2 50 | | | |
| M27 | 18 39 | 15 16 | 4 6 | 17 16 | 1 45 | 6 35 | 1 8 | 22 38 | 0 4 | 22 48 | 0 3 | 21 12 | 0 1 | 11 59 | 0 29 | 6 6 | 1 1 | 22 7 | 0 41 | 23 11 | 23 16 | 4 42 | 3 31 | 2 50 | | | |
| T 28 | 18 23 | 11 19 | 4 41 | 16 39 | 1 40 | 6 4 | 1 5 | 22 42 | 0 4 | 22 46 | 0 3 | 21 11 | 0 1 | 11 59 | 0 29 | 6 5 | 1 1 | 22 7 | 0 42 | 23 11 | 23 16 | 4 39 | 3 32 | 2 50 | | | |
| W29 | 18 8 | 6 58 | 5 3 | 16 0 | 1 34 | 5 33 | 1 2 | 22 47 | 0 3 | 22 45 | 0 3 | 21 10 | 0 1 | 11 59 | 0 29 | 6 5 | 1 1 | 22 6 | 0 42 | 23 12 | 23 16 | 4 37 | 3 33 | 2 50 | | | |
| T 30 | 17 52 | 2 23 | 5 12 | 15 21 | 1 28 | 5 3 | 0 59 | 22 52 | 0 2 | 22 44 | 0 3 | 21 9 | 0 1 | 12 0 | 0 29 | 6 4 | 1 1 | 22 6 | 0 42 | 23 12 | 23 16 | 4 34 | 3 34 | 2 49 | | | |
| F 31 | 17s35 | 2n16 | 5s 7 | 14s41 | 1s20 | 4s32 | 0s56 | 22s56 | 0n 1 | 22s43 | 0n 3 | 21s 8 | 0n 1 | 12n 0 | 0s29 | 6s 3 | 1s 1 | 22s 6 | 0s42 | 23n12 | 23n16 | 4s32 | 3n34 | 2n49 | | | |

ASTRODIENST EPHEMERIS for the year 2020

geocentric

FEBRUARY 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|------|
| S 1 | 8 42 41 | 11°34'22 | 29°46 | 25°59 | 21°55 | 19°24 | 13°40 | 25°3 | 28°50 | 17°5 | 23°25 | 7°R49 | 6°36 | 0°Y31 | 2°Y31 | S 1 |
| S 2 | 8 46 38 | 12°35'17 | 11°48 | 27°37 | 23°6 | 20°5 | 13°53 | 25°10 | 2°51 | 17°7 | 23°27 | 7°D48 | 6°33 | 0°38 | 2°34 | S 2 |
| M 3 | 8 50 35 | 13°36'10 | 24°3 | 29°14 | 24°17 | 20°46 | 14°6 | 25°16 | 2°53 | 17°9 | 23°29 | 7°49 | 6°30 | 0°45 | 2°36 | M 3 |
| T 4 | 8 54 31 | 14°37'02 | 6°II35 | 0°48 | 25°29 | 21°27 | 14°19 | 25°23 | 2°54 | 17°11 | 23°31 | 7°50 | 6°26 | 0°52 | 2°39 | T 4 |
| W 5 | 8 58 28 | 15°37'53 | 19°28 | 2°20 | 26°40 | 22°8 | 14°32 | 25°30 | 2°55 | 17°13 | 23°33 | 7°52 | 6°23 | 0°58 | 2°42 | W 5 |
| T 6 | 9 2 24 | 16°38'43 | 2°47 | 3°48 | 27°50 | 22°49 | 14°45 | 25°37 | 2°56 | 17°15 | 23°34 | 7°R53 | 6°20 | 1°5 | 2°44 | T 6 |
| F 7 | 9 6 21 | 17°39'31 | 16°33 | 5°11 | 29°1 | 23°30 | 14°58 | 25°44 | 2°58 | 17°17 | 23°36 | 7°53 | 6°17 | 1°12 | 2°47 | F 7 |
| S 8 | 9 10 17 | 18°40'18 | 0°45 | 6°31 | 0°Y12 | 24°11 | 15°10 | 25°50 | 2°59 | 17°19 | 23°38 | 7°51 | 6°14 | 1°19 | 2°50 | S 8 |
| S 9 | 9 14 14 | 19°41'03 | 15°21 | 7°44 | 1°22 | 24°52 | 15°23 | 25°57 | 3°1 | 17°21 | 23°40 | 7°47 | 6°10 | 1°25 | 2°52 | S 9 |
| M10 | 9 18 10 | 20°41'47 | 0°11 | 8°52 | 2°32 | 25°33 | 15°35 | 26°4 | 3°2 | 17°23 | 23°42 | 7°41 | 6°7 | 1°32 | 2°55 | M10 |
| T 11 | 9 22 7 | 21°42'30 | 15°14 | 9°53 | 3°43 | 26°14 | 15°48 | 26°11 | 3°4 | 17°25 | 23°44 | 7°34 | 6°4 | 1°39 | 2°58 | T 11 |
| W12 | 9 26 4 | 22°43'11 | 0°14 | 10°46 | 4°53 | 26°55 | 16°0 | 26°17 | 3°5 | 17°27 | 23°46 | 7°27 | 6°1 | 1°45 | 3°1 | W12 |
| T 13 | 9 30 0 | 23°43'52 | 15°4 | 11°30 | 6°3 | 27°36 | 16°13 | 26°24 | 3°7 | 17°29 | 23°47 | 7°21 | 5°58 | 1°52 | 3°4 | T 13 |
| F 14 | 9 33 57 | 24°44'31 | 29°38 | 12°6 | 7°12 | 28°18 | 16°25 | 26°30 | 3°9 | 17°31 | 23°49 | 7°16 | 5°55 | 1°59 | 3°7 | F 14 |
| S 15 | 9 37 53 | 25°45'09 | 13°11 | 12°32 | 8°22 | 28°59 | 16°37 | 26°37 | 3°10 | 17°33 | 23°51 | 7°13 | 5°51 | 2°6 | 3°10 | S 15 |
| S 16 | 9 41 50 | 26°45'46 | 27°40 | 12°48 | 9°31 | 29°40 | 16°50 | 26°43 | 3°12 | 17°36 | 23°53 | 7°D13 | 5°48 | 2°12 | 3°12 | S 16 |
| M17 | 9 45 46 | 27°46'22 | 11°8 | 12°R53 | 10°41 | 0°21 | 17°2 | 26°50 | 3°14 | 17°38 | 23°54 | 7°13 | 5°45 | 2°19 | 3°15 | M17 |
| T 18 | 9 49 43 | 28°46'57 | 24°17 | 12°49 | 11°50 | 1°3 | 17°14 | 26°56 | 3°16 | 17°40 | 23°56 | 7°14 | 5°42 | 2°26 | 3°18 | T 18 |
| W19 | 9 53 39 | 29°47'31 | 7°3 | 12°33 | 12°59 | 1°44 | 17°26 | 27°3 | 3°18 | 17°42 | 23°58 | 7°R15 | 5°39 | 2°33 | 3°22 | W19 |
| T 20 | 9 57 36 | 0°48'03 | 19°47 | 12°8 | 14°8 | 2°25 | 17°38 | 27°9 | 3°20 | 17°44 | 24°0 | 7°14 | 5°36 | 2°39 | 3°25 | T 20 |
| F 21 | 10 1 33 | 1°48'34 | 2°43 | 11°34 | 15°16 | 3°7 | 17°50 | 27°15 | 3°22 | 17°46 | 24°1 | 7°11 | 5°32 | 2°46 | 3°28 | F 21 |
| S 22 | 10 5 29 | 2°49'03 | 14°30 | 10°51 | 16°25 | 3°48 | 18°1 | 27°22 | 3°24 | 17°49 | 24°3 | 7°5 | 5°29 | 2°53 | 3°31 | S 22 |
| S 23 | 10 9 26 | 3°49'31 | 26°40 | 10°1 | 17°33 | 4°29 | 18°13 | 27°28 | 3°26 | 17°51 | 24°5 | 6°57 | 5°26 | 2°59 | 3°34 | S 23 |
| M24 | 10 13 22 | 4°49'57 | 8°43 | 9°4 | 18°41 | 5°11 | 18°25 | 27°34 | 3°28 | 17°53 | 24°6 | 6°47 | 5°23 | 3°6 | 3°37 | M24 |
| T 25 | 10 17 19 | 5°50'22 | 20°41 | 8°4 | 19°49 | 5°52 | 18°36 | 27°40 | 3°30 | 17°55 | 24°8 | 6°35 | 5°20 | 3°13 | 3°40 | T 25 |
| W26 | 10 21 15 | 6°50'44 | 2°Y35 | 7°0 | 20°57 | 6°33 | 18°48 | 27°46 | 3°32 | 17°58 | 24°9 | 6°23 | 5°16 | 3°20 | 3°44 | W26 |
| T 27 | 10 25 12 | 7°51'05 | 14°26 | 5°55 | 22°5 | 7°15 | 18°59 | 27°52 | 3°34 | 18°0 | 24°11 | 6°11 | 5°13 | 3°26 | 3°47 | T 27 |
| F 28 | 10 29 8 | 8°51'24 | 26°17 | 4°50 | 23°12 | 7°56 | 19°10 | 27°58 | 3°37 | 18°2 | 24°12 | 6°1 | 5°10 | 3°33 | 3°50 | F 28 |
| S 29 | 10 33 5 | 9°51'41 | 8°11 | 3°48 | 24°Y19 | 8°38 | 19°22 | 28°3 | 3°39 | 18°4 | 24°14 | 5°54 | 5°7 | 3°Y40 | 3°Y53 | S 29 |

| Day | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | lat |
| S 1 | 17s19 | 6n52 | 4s49 | 13s59 | 1s12 | 4s 1 | 0s53 | 23s 0 | 0n 1 | 22s42 | 0n 2 | 21s 6 | 0n 1 | 12n 0 | 0s29 | 6s 2 |
| S 2 | 17 2 11 16 | 4 19 | 13 17 | 1 3 | 3 30 | 0 49 | 23 4 | 0s 0 | 22 40 | 0 2 | 21 5 | 0 1 | 12 1 | 0 29 | 6 2 | 1 1 |
| M 3 | 16 44 15 17 | 3 36 | 12 35 | 0 54 | 2 58 | 0 46 | 23 8 | 0 1 | 22 39 | 0 2 | 21 4 | 0 1 | 12 1 | 0 29 | 6 1 | 1 1 |
| T 4 | 16 27 18 44 | 2 42 | 11 52 | 0 43 | 2 27 | 0 43 | 23 11 | 0 2 | 22 38 | 0 2 | 21 3 | 0 1 | 12 2 | 0 29 | 6 0 | 1 1 |
| W 5 | 16 9 21 23 | 1 39 | 11 9 | 0 32 | 1 56 | 0 39 | 23 15 | 0 3 | 22 37 | 0 2 | 21 2 | 0 1 | 12 2 | 0 29 | 5 59 | 1 1 |
| T 6 | 15 51 22 57 | 0 28 | 10 26 | 0 20 | 1 24 | 0 36 | 23 18 | 0 3 | 22 35 | 0 2 | 21 0 | 0 1 | 12 3 | 0 28 | 5 58 | 1 1 |
| F 7 | 15 32 23 11 | 0n47 | 9 43 | 0 7 | 0 53 | 0 32 | 23 21 | 0 4 | 22 34 | 0 2 | 20 59 | 0 0 | 12 3 | 0 28 | 5 58 | 1 1 |
| S 8 | 15 14 21 57 | 2 1 | 9 2 | 0n 6 | 0 21 | 0 28 | 23 23 | 0 5 | 22 33 | 0 2 | 20 58 | 0 0 | 12 4 | 0 28 | 5 57 | 1 1 |
| S 9 | 14 55 19 14 | 3 9 | 8 21 | 0 20 | 0n10 | 0 25 | 23 26 | 0 6 | 22 31 | 0 2 | 20 57 | 0 0 | 12 4 | 0 28 | 5 56 | 1 1 |
| M10 | 14 36 15 13 | 4 5 | 7 42 | 0 35 | 0 41 | 0 21 | 23 28 | 0 7 | 22 30 | 0 2 | 20 56 | 0 0 | 12 5 | 0 28 | 5 55 | 1 1 |
| T 11 | 14 16 10 12 | 4 45 | 7 5 | 0 50 | 1 13 | 0 17 | 23 30 | 0 7 | 22 29 | 0 1 | 20 55 | 0 0 | 12 5 | 0 28 | 5 54 | 1 1 |
| W12 | 13 56 4 35 | 5 6 | 6 31 | 1 6 | 1 44 | 0 13 | 23 32 | 0 8 | 22 27 | 0 1 | 20 53 | 0 0 | 12 6 | 0 28 | 5 54 | 1 1 |
| T 13 | 13 37 1s14 | 5 5 | 5 59 | 1 22 | 2 16 | 0 9 | 23 34 | 0 9 | 22 26 | 0 1 | 20 52 | 0 0 | 12 6 | 0 28 | 5 53 | 1 1 |
| F 14 | 13 16 6 53 | 4 45 | 5 30 | 1 38 | 2 47 | 0 5 | 23 36 | 0 10 | 22 24 | 0 1 | 20 51 | 0s 0 | 12 7 | 0 28 | 5 52 | 1 1 |
| S 15 | 12 56 12 3 | 4 8 | 5 6 | 1 54 | 3 18 | 0 1 | 23 37 | 0 11 | 22 23 | 0 1 | 20 50 | 0 0 | 12 8 | 0 28 | 5 51 | 1 1 |
| S 16 | 12 35 16 27 | 3 17 | 4 45 | 2 10 | 3 49 | 0n 3 | 23 38 | 0 12 | 22 22 | 0 1 | 20 49 | 0 0 | 12 8 | 0 28 | 5 50 | 1 1 |
| M17 | 12 15 19 52 | 2 16 | 4 28 | 2 26 | 4 20 | 0 7 | 23 39 | 0 13 | 22 20 | 0 1 | 20 48 | 0 0 | 12 9 | 0 28 | 5 49 | 1 1 |
| T 18 | 11 54 22 10 | 1 9 | 4 17 | 2 40 | 4 51 | 0 12 | 23 39 | 0 13 | 22 19 | 0 1 | 20 46 | 0 0 | 12 10 | 0 28 | 5 49 | 1 1 |
| W19 | 11 33 23 14 | 0 1 | 4 10 | 2 54 | 5 22 | 0 16 | 23 40 | 0 14 | 22 17 | 0 1 | 20 45 | 0 0 | 12 10 | 0 28 | 5 48 | 1 1 |
| T 20 | 11 11 23 5 | 1s 7 | 4 8 | 3 7 | 5 53 | 0 20 | 23 40 | 0 15 | 22 16 | 0 1 | 20 44 | 0 0 | 12 11 | 0 28 | 5 47 | 1 1 |
| F 21 | 10 50 21 46 | 2 10 | 4 11 | 3 18 | 6 24 | 0 25 | 23 40 | 0 16 | 22 14 | 0 1 | 20 43 | 0 1 | 12 12 | 0 28 | 5 46 | 1 1 |
| S 22 | 10 28 19 26 | 3 6 | 4 18 | 3 27 | 6 54 | 0 29 | 23 40 | 0 17 | 22 13 | 0 0 | 20 42 | 0 1 | 12 12 | 0 28 | 5 45 | 1 1 |
| S 23 | 10 6 16 16 | 3 52 | 4 30 | 3 34 | 7 25 | 0 34 | 23 40 | 0 18 | 22 12 | 0 0 | 20 41 | 0 1 | 12 13 | 0 28 | 5 44 | 1 1 |
| M24 | 9 44 12 26 | 4 28 | 4 47 | 3 39 | 7 55 | 0 38 | 23 39 | 0 19 | 22 10 | 0 0 | 20 39 | 0 1 | 12 14 | 0 28 | 5 43 | 1 1 |
| T 25 | 9 22 8 10 | 4 52 | 5 6 | 3 42 | 8 25 | 0 43 | 23 38 | 0 20 | 22 9 | 0 0 | 20 38 | 0 1 | 12 15 | 0 28 | 5 42 | 1 1 |
| W26 | 9 0 3 36 | 5 2 | 5 29 | 3 43 | 8 55 | 0 48 | 23 37 | 0 21 | 22 7 | 0 0 | 20 37 | 0 1 | 12 15 | 0 28 | 5 42 | 1 1 |
| T 27 | 8 37 1n 5 | 5 0 | 5 54 | 3 42 | 9 24 | 0 52 | 23 36 | 0 22 | 22 6 | 0s 0 | 20 36 | 0 1 | 12 16 | 0 28 | 5 41 | 1 1 |
| F 28 | 8 15 5 43 | 4 45 | 6 21 | 3 38 | 9 54 | 0 57 | 23 35 | 0 23 | 22 4 | 0 0 | 20 35 | 0 1 | 12 17 | 0 28 | 5 40 | 1 1 |
| S 29 | 7s52 | 10n11 | 4s17 | 6s49 | 3n32 | 10n23 | 1n 2 | 23s33 | 0s24 | 22s 3 | 0s 0 | 20s34 | 0s 1 | 12n18 | 0s28 | 5s39 |

Julian Day Number = 2458880.5, Delta T = 69.37 sec
 Ecliptic obliquity = 23°26'11, Nutation = - 0°00'16, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 25°01'15, Lahiri = 24°08'16

ASTRODIENST EPHEMERIS for the year 2020

geocentric

MARCH 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|-------|--------|--------|-------|--------|--------|-------|-------|-------|-------|------|
| S 1 | 10 37 2 | 10°51'57 | 20°12' | 2°R48 | 25°Y26 | 9°Z19 | 19°Z33 | 28°Z10 | 3°B41 | 18°K 7 | 24°Z16 | 5°R49 | 5°Z 4 | 3°Y46 | 3°Y57 | S 1 |
| M 2 | 10 40 58 | 11°52'10 | 21°12' | 1°K53 | 26°33 | 10° 1 | 19°44 | 28°16 | 3°44 | 18° 9 | 24°17 | 5°Z47 | 5° 1 | 3°53 | 4° 0 | M 2 |
| T 3 | 10 44 55 | 12°52'21 | 14°49 | 1° 3 | 27°39 | 10°42 | 19°55 | 28°21 | 3°46 | 18°11 | 24°18 | 5°D47 | 4°57 | 4° 0 | 4° 3 | T 3 |
| W 4 | 10 48 51 | 13°52'30 | 27°36 | 0°18 | 28°45 | 11°23 | 20° 5 | 28°27 | 3°49 | 18°13 | 24°20 | 5°47 | 4°54 | 4° 7 | 4° 7 | W 4 |
| T 5 | 10 52 48 | 14°52'37 | 10°Z48 | 29°Z41 | 29°51 | 12° 5 | 20°16 | 28°33 | 3°51 | 18°16 | 24°21 | 5°R47 | 4°51 | 4°13 | 4°10 | T 5 |
| F 6 | 10 56 44 | 15°52'42 | 24°28 | 29° 9 | 0°Z57 | 12°46 | 20°27 | 28°38 | 3°54 | 18°18 | 24°23 | 5°46 | 4°48 | 4°20 | 4°13 | F 6 |
| S 7 | 11 0 41 | 16°52'45 | 8°Z39 | 28°45 | 2° 3 | 13°28 | 20°37 | 28°44 | 3°56 | 18°20 | 24°24 | 5°42 | 4°45 | 4°27 | 4°17 | S 7 |
| S 8 | 11 4 37 | 17°52'45 | 23°17 | 28°28 | 3° 8 | 14° 9 | 20°48 | 28°49 | 3°59 | 18°23 | 24°25 | 5°36 | 4°41 | 4°34 | 4°20 | S 8 |
| M 9 | 11 8 34 | 18°52'44 | 8°Z19 | 28°17 | 4°13 | 14°51 | 20°58 | 28°55 | 4° 2 | 18°25 | 24°27 | 5°27 | 4°38 | 4°40 | 4°24 | M 9 |
| T 10 | 11 12 31 | 19°52'40 | 23°35 | 28°D13 | 5°17 | 15°33 | 21° 8 | 29° 0 | 4° 4 | 18°27 | 24°28 | 5°17 | 4°35 | 4°47 | 4°27 | T 10 |
| W 11 | 11 16 27 | 20°52'35 | 8°Z54 | 28°15 | 6°22 | 16°14 | 21°18 | 29° 5 | 4° 7 | 18°29 | 24°29 | 5° 6 | 4°32 | 4°54 | 4°31 | W 11 |
| T 12 | 11 20 24 | 21°52'28 | 24° 5 | 28°23 | 7°26 | 16°56 | 21°28 | 29°11 | 4°10 | 18°32 | 24°31 | 4°56 | 4°29 | 5° 0 | 4°34 | T 12 |
| F 13 | 11 24 20 | 22°52'19 | 8°Z58 | 28°37 | 8°30 | 17°37 | 21°38 | 29°16 | 4°12 | 18°34 | 24°32 | 4°48 | 4°26 | 5° 7 | 4°37 | F 13 |
| S 14 | 11 28 17 | 23°52'08 | 23°26 | 28°56 | 9°33 | 18°19 | 21°48 | 29°21 | 4°15 | 18°36 | 24°33 | 4°42 | 4°22 | 5°14 | 4°41 | S 14 |
| S 15 | 11 32 13 | 24°51'56 | 7°Z26 | 29°21 | 10°36 | 19° 1 | 21°58 | 29°26 | 4°18 | 18°38 | 24°34 | 4°39 | 4°19 | 5°21 | 4°44 | S 15 |
| M 16 | 11 36 10 | 25°51'42 | 20°59 | 29°50 | 11°39 | 19°42 | 22° 7 | 29°31 | 4°21 | 18°41 | 24°35 | 4°38 | 4°16 | 5°27 | 4°48 | M 16 |
| T 17 | 11 40 6 | 26°51'27 | 4°Z 6 | 0°K23 | 12°42 | 20°24 | 22°17 | 29°36 | 4°24 | 18°43 | 24°37 | 4°38 | 4°13 | 5°34 | 4°51 | T 17 |
| W 18 | 11 44 3 | 27°51'09 | 16°52 | 1° 1 | 13°44 | 21° 5 | 22°26 | 29°41 | 4°27 | 18°45 | 24°38 | 4°38 | 4°10 | 5°41 | 4°55 | W 18 |
| T 19 | 11 48 0 | 28°50'50 | 29°21 | 1°43 | 14°46 | 21°47 | 22°35 | 29°45 | 4°30 | 18°48 | 24°39 | 4°36 | 4° 7 | 5°47 | 4°58 | T 19 |
| F 20 | 11 51 56 | 29°50'29 | 11°Z37 | 2°29 | 15°47 | 22°29 | 22°45 | 29°50 | 4°32 | 18°50 | 24°40 | 4°32 | 4° 3 | 5°54 | 5° 2 | F 20 |
| S 21 | 11 55 53 | 0°Y50'07 | 23°43 | 3°18 | 16°48 | 23°10 | 22°54 | 29°55 | 4°35 | 18°52 | 24°41 | 4°24 | 4° 0 | 6° 1 | 5° 6 | S 21 |
| S 22 | 11 59 49 | 1°49'42 | 5°K43 | 4°10 | 17°49 | 23°52 | 23° 2 | 29°59 | 4°38 | 18°54 | 24°42 | 4°14 | 3°57 | 6° 8 | 5° 9 | S 22 |
| M 23 | 12 3 46 | 2°49'16 | 17°38 | 5° 5 | 18°49 | 24°34 | 23°11 | 0°Z 4 | 4°42 | 18°56 | 24°43 | 4° 1 | 3°54 | 6°14 | 5°13 | M 23 |
| T 24 | 12 7 42 | 3°48'47 | 29°31 | 6° 3 | 19°49 | 25°16 | 23°20 | 0° 8 | 4°45 | 18°59 | 24°44 | 3°47 | 3°51 | 6°21 | 5°16 | T 24 |
| W 25 | 12 11 39 | 4°48'17 | 11°Y23 | 7° 4 | 20°48 | 25°57 | 23°28 | 0°12 | 4°48 | 19° 1 | 24°45 | 3°32 | 3°47 | 6°28 | 5°20 | W 25 |
| T 26 | 12 15 35 | 5°47'44 | 23°15 | 8° 8 | 21°47 | 26°39 | 23°37 | 0°17 | 4°51 | 19° 3 | 24°46 | 3°18 | 3°44 | 6°35 | 5°23 | T 26 |
| F 27 | 12 19 32 | 6°47'09 | 5°Z 9 | 9°14 | 22°46 | 27°21 | 23°45 | 0°21 | 4°54 | 19° 5 | 24°47 | 3° 5 | 3°41 | 6°41 | 5°27 | F 27 |
| S 28 | 12 23 28 | 7°46'33 | 17° 7 | 10°22 | 23°44 | 28° 2 | 23°53 | 0°25 | 4°57 | 19° 7 | 24°47 | 2°56 | 3°38 | 6°48 | 5°30 | S 28 |
| S 29 | 12 27 25 | 8°45'54 | 29°10 | 11°33 | 24°41 | 28°44 | 24° 1 | 0°29 | 5° 0 | 19°10 | 24°48 | 2°49 | 3°35 | 6°55 | 5°34 | S 29 |
| M 30 | 12 31 22 | 9°45'12 | 11°Z23 | 12°46 | 25°38 | 29°26 | 24° 9 | 0°33 | 5° 3 | 19°12 | 24°49 | 2°46 | 3°32 | 7° 1 | 5°37 | M 30 |
| T 31 | 12 35 18 | 10°Y44'29 | 23°Z49 | 14°K 0 | 26°Z35 | 0°Z 7 | 24°Z16 | 0°Z37 | 5°Z 7 | 19°K14 | 24°Z50 | 2°Z44 | 3°Z28 | 7°Y 8 | 5°Y41 | T 31 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | lat |
| S 1 | 7s29 | 14n18 | 3s38 | 7s17 | 3n25 | 10n52 | 1n 7 | 23s31 | 0s25 | 22s 1 | 0s 0 | 20s33 | 0s 1 | 12n19 | 0s28 | 5s38 |
| M 2 | 7 7 | 17 54 | 2 48 | 7 45 | 3 16 | 11 21 | 1 12 | 23 29 | 0 26 | 22 0 | 0 0 | 20 32 | 0 1 | 12 19 | 0 28 | 5 37 |
| T 3 | 6 44 | 20 46 | 1 49 | 8 13 | 3 5 | 11 50 | 1 16 | 23 27 | 0 27 | 21 58 | 0 1 | 20 31 | 0 1 | 12 20 | 0 28 | 5 36 |
| W 4 | 6 21 | 22 41 | 0 43 | 8 39 | 2 54 | 12 18 | 1 21 | 23 24 | 0 28 | 21 57 | 0 1 | 20 30 | 0 1 | 12 21 | 0 28 | 5 35 |
| T 5 | 5 57 | 23 26 | 0n27 | 9 4 | 2 41 | 12 46 | 1 26 | 23 22 | 0 29 | 21 55 | 0 1 | 20 28 | 0 2 | 12 22 | 0 28 | 5 35 |
| F 6 | 5 34 | 22 49 | 1 37 | 9 27 | 2 28 | 13 14 | 1 31 | 23 19 | 0 30 | 21 54 | 0 1 | 20 27 | 0 2 | 12 23 | 0 28 | 5 34 |
| S 7 | 5 11 | 20 45 | 2 45 | 9 49 | 2 14 | 13 41 | 1 36 | 23 16 | 0 31 | 21 52 | 0 1 | 20 26 | 0 2 | 12 24 | 0 28 | 5 33 |
| S 8 | 4 47 | 17 16 | 3 44 | 10 8 | 2 0 | 14 8 | 1 41 | 23 12 | 0 32 | 21 51 | 0 1 | 20 25 | 0 2 | 12 25 | 0 28 | 5 32 |
| M 9 | 4 24 | 12 36 | 4 28 | 10 25 | 1 46 | 14 35 | 1 46 | 23 9 | 0 33 | 21 49 | 0 1 | 20 24 | 0 2 | 12 26 | 0 28 | 5 31 |
| T 10 | 4 0 | 7 4 | 4 55 | 10 40 | 1 32 | 15 1 | 1 51 | 23 5 | 0 34 | 21 48 | 0 1 | 20 23 | 0 2 | 12 26 | 0 28 | 5 30 |
| W 11 | 3 37 | 1 4 | 5 0 | 10 52 | 1 17 | 15 28 | 1 56 | 23 1 | 0 35 | 21 46 | 0 1 | 20 22 | 0 2 | 12 27 | 0 28 | 5 29 |
| T 12 | 3 13 | 4s56 | 4 45 | 11 3 | 1 3 | 15 53 | 2 1 | 22 57 | 0 36 | 21 45 | 0 2 | 20 21 | 0 2 | 12 28 | 0 28 | 5 28 |
| F 13 | 2 50 | 10 32 | 4 10 | 11 11 | 0 50 | 16 19 | 2 6 | 22 53 | 0 37 | 21 43 | 0 2 | 20 20 | 0 2 | 12 29 | 0 28 | 5 27 |
| S 14 | 2 26 | 15 25 | 3 19 | 11 17 | 0 36 | 16 44 | 2 11 | 22 49 | 0 38 | 21 42 | 0 2 | 20 19 | 0 2 | 12 30 | 0 27 | 5 27 |
| S 15 | 2 2 | 19 16 | 2 19 | 11 21 | 0 23 | 17 9 | 2 16 | 22 44 | 0 39 | 21 41 | 0 2 | 20 18 | 0 2 | 12 31 | 0 27 | 5 26 |
| M 16 | 1 39 | 21 56 | 1 12 | 11 22 | 0 10 | 17 33 | 2 20 | 22 39 | 0 40 | 21 39 | 0 2 | 20 17 | 0 2 | 12 32 | 0 27 | 5 25 |
| T 17 | 1 15 | 23 20 | 0 3 | 11 22 | 0s 2 | 17 57 | 2 25 | 22 34 | 0 41 | 21 38 | 0 2 | 20 16 | 0 2 | 12 33 | 0 27 | 5 24 |
| W 18 | 0 51 | 23 26 | 1s 4 | 11 20 | 0 14 | 18 21 | 2 30 | 22 29 | 0 42 | 21 36 | 0 2 | 20 15 | 0 3 | 12 34 | 0 27 | 5 23 |
| T 19 | 0 28 | 22 21 | 2 7 | 11 15 | 0 25 | 18 44 | 2 35 | 22 23 | 0 43 | 21 35 | 0 2 | 20 15 | 0 3 | 12 35 | 0 27 | 5 22 |
| F 20 | 0 4 | 20 13 | 3 2 | 11 9 | 0 36 | 19 7 | 2 40 | 22 18 | 0 44 | 21 34 | 0 2 | 20 14 | 0 3 | 12 36 | 0 27 | 5 21 |
| S 21 | 0n20 | 17 12 | 3 48 | 11 1 | 0 47 | 19 29 | 2 45 | 22 12 | 0 46 | 21 32 | 0 3 | 20 13 | 0 3 | 12 37 | 0 27 | 5 21 |
| S 22 | 0 44 | 13 30 | 4 24 | 10 52 | 0 57 | 19 51 | 2 50 | 22 6 | 0 47 | 21 31 | 0 3 | 20 12 | 0 3 | 12 38 | 0 27 | 5 20 |
| M 23 | 1 7 | 9 17 | 4 47 | 10 40 | 1 6 | 20 13 | 2 54 | 21 59 | 0 48 | 21 29 | 0 3 | 20 11 | 0 3 | 12 39 | 0 27 | 5 19 |
| T 24 | 1 31 | 4 45 | 4 58 | 10 27 | 1 15 | 20 34 | 2 59 | 21 53 | 0 49 | 21 28 | 0 3 | 20 10 | 0 3 | 12 40 | 0 27 | 5 18 |
| W 25 | 1 55 | 0 3 | 4 56 | 10 12 | 1 24 | 20 54 | 3 4 | 21 46 | 0 50 | 21 27 | 0 3 | 20 9 | 0 3 | 12 41 | 0 27 | 5 17 |
| T 26 | 2 18 | 4n40 | 4 42 | 9 56 | 1 31 | 21 15 | 3 9 | 21 40 | 0 51 | 21 25 | 0 3 | 20 8 | 0 3 | 12 42 | 0 27 | 5 16 |
| F 27 | 2 42 | 9 14 | 4 14 | 9 38 | 1 39 | 21 34 | 3 13 | 21 33 | 0 52 | 21 24 | 0 3 | 20 8 | 0 3 | 12 44 | 0 27 | 5 15 |
| S 28 | 3 5 | 13 29 | 3 36 | 9 19 | 1 46 | 21 54 | 3 18 | 21 26 | 0 54 | 21 23 | 0 3 | 20 7 | 0 3 | 12 45 | 0 27 | 5 15 |
| S 29 | 3 28 | 17 15 | 2 47 | 8 58 | 1 52 | 22 12 | 3 22 | 21 18 | 0 55 | 21 22 | 0 3 | 20 6 | 0 3 | 12 46 | 0 27 | 5 14 |
| M 30 | 3 52 | 20 19 | 1 50 | 8 35 | 1 58 | 22 31 | 3 27 | 21 11 | 0 56 | 21 20 | 0 4 | 20 5 | 0 4 | 12 47 | 0 27 | 5 13 |
| T 31 | 4n15 | 22n31 | 0s47 | 8s12 | 2s 4 | 22n49 | 3n31 | 21s 3 | 0s57 | 21s19 | 0s 4 | 20s 5 | 0s 4 | 12n48 | 0s27 | 5s12 |

Julian Day Number = 2458909.5, Delta T = 69.37 sec
 Ecliptic obliquity = 23°26'12, Nutation = - 0°00'17, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 25°01'19, Lahiri = 24°08'20

ASTRODIENST EPHEMERIS for the year 2020

geocentric

APRIL 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|------|------|-------|--------|-------|------|-------|------|------|
| W 1 | 12 39 15 | 11°43'43 | 6°33 | 15°17 | 27°31 | 0°49 | 24°24 | 0°40 | 5°10 | 19°16 | 24°51 | 2°R44 | 3°25 | 7°15 | 5°44 | W 1 |
| T 2 | 12 43 11 | 12°42'55 | 19°39 | 16°36 | 28°26 | 1°31 | 24°31 | 0°44 | 5°13 | 19°18 | 24°51 | 2°44 | 3°22 | 7°22 | 5°48 | T 2 |
| F 3 | 12 47 8 | 13°42'05 | 3°11 | 17°56 | 29°21 | 2°13 | 24°38 | 0°48 | 5°16 | 19°20 | 24°52 | 2°43 | 3°19 | 7°28 | 5°51 | F 3 |
| S 4 | 12 51 4 | 14°41'12 | 17°10 | 19°18 | 0°11 | 2°54 | 24°46 | 0°51 | 5°20 | 19°23 | 24°53 | 2°39 | 3°16 | 7°35 | 5°55 | S 4 |
| S 5 | 12 55 1 | 15°40'17 | 1°39 | 20°42 | 1° 9 | 3°36 | 24°52 | 0°55 | 5°23 | 19°25 | 24°53 | 2°34 | 3°12 | 7°42 | 5°58 | S 5 |
| M 6 | 12 58 57 | 16°39'19 | 16°32 | 22° 8 | 2° 2 | 4°18 | 24°59 | 0°58 | 5°26 | 19°27 | 24°54 | 2°25 | 3° 9 | 7°49 | 6° 2 | M 6 |
| T 7 | 13 2 54 | 17°38'19 | 1°44 | 23°35 | 2°54 | 4°59 | 25° 6 | 1° 1 | 5°29 | 19°29 | 24°54 | 2°15 | 3° 6 | 7°55 | 6° 5 | T 7 |
| W 8 | 13 6 51 | 18°37'18 | 17° 5 | 25° 4 | 3°46 | 5°41 | 25°12 | 1° 4 | 5°33 | 19°31 | 24°55 | 2° 5 | 3° 3 | 8° 2 | 6° 9 | W 8 |
| T 9 | 13 10 47 | 19°36'14 | 2°11 | 26°35 | 4°37 | 6°23 | 25°19 | 1° 8 | 5°36 | 19°33 | 24°55 | 1°55 | 3° 0 | 8° 9 | 6°12 | T 9 |
| F 10 | 13 14 44 | 20°35'08 | 17°24 | 28° 7 | 5°27 | 7° 4 | 25°25 | 1°11 | 5°40 | 19°35 | 24°56 | 1°47 | 2°57 | 8°15 | 6°16 | F 10 |
| S 11 | 13 18 40 | 21°34'00 | 2°3 | 29°41 | 6°16 | 7°46 | 25°31 | 1°13 | 5°43 | 19°37 | 24°56 | 1°41 | 2°53 | 8°22 | 6°19 | S 11 |
| S 12 | 13 22 37 | 22°32'51 | 16°15 | 1°16 | 7° 5 | 8°28 | 25°37 | 1°16 | 5°46 | 19°39 | 24°57 | 1°38 | 2°50 | 8°29 | 6°23 | S 12 |
| M13 | 13 26 33 | 23°31'40 | 29°57 | 2°53 | 7°52 | 9°10 | 25°43 | 1°19 | 5°50 | 19°41 | 24°57 | 1°D37 | 2°47 | 8°36 | 6°26 | M13 |
| T 14 | 13 30 30 | 24°30'27 | 13°31 | 4°32 | 8°39 | 9°51 | 25°48 | 1°22 | 5°53 | 19°43 | 24°57 | 1°37 | 2°44 | 8°42 | 6°29 | T 14 |
| W15 | 13 34 26 | 25°29'13 | 26° 0 | 6°12 | 9°25 | 10°33 | 25°54 | 1°24 | 5°56 | 19°45 | 24°58 | 1°R38 | 2°41 | 8°49 | 6°33 | W15 |
| T 16 | 13 38 23 | 26°27'56 | 8°29 | 7°54 | 10°10 | 11°15 | 25°59 | 1°27 | 6° 0 | 19°47 | 24°58 | 1°37 | 2°38 | 8°56 | 6°36 | T 16 |
| F 17 | 13 42 20 | 27°26'38 | 20°43 | 9°37 | 10°54 | 11°56 | 26° 4 | 1°29 | 6° 3 | 19°49 | 24°58 | 1°34 | 2°34 | 9° 2 | 6°39 | F 17 |
| S 18 | 13 46 16 | 28°25'19 | 2°45 | 11°22 | 11°37 | 12°38 | 26° 9 | 1°31 | 6° 7 | 19°50 | 24°59 | 1°29 | 2°31 | 9° 9 | 6°43 | S 18 |
| S 19 | 13 50 13 | 29°23'57 | 14°41 | 13° 9 | 12°19 | 13°20 | 26°14 | 1°34 | 6°10 | 19°52 | 24°59 | 1°22 | 2°28 | 9°16 | 6°46 | S 19 |
| M20 | 13 54 9 | 0°22'34 | 26°32 | 14°57 | 13° 0 | 14° 1 | 26°18 | 1°36 | 6°14 | 19°54 | 24°59 | 1°12 | 2°25 | 9°23 | 6°49 | M20 |
| T 21 | 13 58 6 | 1°21'09 | 8°24 | 16°47 | 13°40 | 14°43 | 26°23 | 1°38 | 6°17 | 19°56 | 24°59 | 1° 1 | 2°22 | 9°29 | 6°53 | T 21 |
| W22 | 14 2 2 | 2°19'42 | 20°16 | 18°38 | 14°19 | 15°25 | 26°27 | 1°40 | 6°20 | 19°58 | 24°59 | 0°49 | 2°18 | 9°36 | 6°56 | W22 |
| T 23 | 14 5 59 | 3°18'13 | 2°11 | 20°31 | 14°56 | 16° 6 | 26°31 | 1°41 | 6°24 | 20° 0 | 24°59 | 0°38 | 2°15 | 9°43 | 6°59 | T 23 |
| F 24 | 14 9 55 | 4°16'43 | 14°11 | 22°26 | 15°33 | 16°48 | 26°35 | 1°43 | 6°27 | 20° 1 | 24°59 | 0°29 | 2°12 | 9°50 | 7° 2 | F 24 |
| S 25 | 14 13 52 | 5°15'10 | 26°17 | 24°22 | 16° 8 | 17°29 | 26°39 | 1°45 | 6°31 | 20° 3 | 25° 0 | 0°22 | 2° 9 | 9°56 | 7° 6 | S 25 |
| S 26 | 14 17 49 | 6°13'36 | 8°30 | 26°20 | 16°41 | 18°11 | 26°42 | 1°46 | 6°34 | 20° 5 | 25°R 0 | 0°17 | 2° 6 | 10° 3 | 7° 9 | S 26 |
| M27 | 14 21 45 | 7°12'00 | 20°52 | 28°20 | 17°13 | 18°52 | 26°45 | 1°48 | 6°38 | 20° 7 | 25° 0 | 0°14 | 2° 3 | 10°10 | 7°12 | M27 |
| T 28 | 14 25 42 | 8°10'22 | 3°27 | 0°21 | 17°44 | 19°34 | 26°49 | 1°49 | 6°41 | 20° 8 | 24°59 | 0°D14 | 1°59 | 10°16 | 7°15 | T 28 |
| W29 | 14 29 38 | 9° 8'41 | 16°16 | 2°23 | 18°13 | 20°15 | 26°52 | 1°50 | 6°45 | 20°10 | 24°59 | 0°15 | 1°56 | 10°23 | 7°18 | W29 |
| T 30 | 14 33 35 | 10° 6'59 | 29°23 | 4°27 | 18°14 | 20°57 | 26°54 | 1°51 | 6°48 | 20°12 | 24°59 | 0°16 | 1°53 | 10°23 | 7°21 | T 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 |
| W 1 | 4n38 | 23n37 | 0n20 | 7s47 | 2s 9 | 23n 6 | 3n35 | 20s55 | 0s58 | 21s18 | 0s 4 | 20s 4 | 0s 4 | 12n49 | 0s27 | 5s11 | 1s 1 | 21s57 | 0s48 | 23n25 | 23n24 | 1s50 | 4n46 | 2n42 | | | |
| T 2 | 5 1 | 23 27 | 1 28 | 7 20 | 2 13 | 23 23 | 3 40 | 20 47 | 0 59 | 21 17 | 0 4 | 20 3 | 0 4 | 12 50 | 0 27 | 5 10 | 1 1 | 21 57 | 0 48 | 23 25 | 23 24 | 1 48 | 4 47 | 2 42 | | | |
| F 3 | 5 24 | 21 56 | 2 34 | 6 52 | 2 17 | 23 39 | 3 44 | 20 39 | 1 1 | 21 16 | 0 4 | 20 2 | 0 4 | 12 51 | 0 27 | 5 10 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 45 | 4 48 | 2 42 | | | |
| S 4 | 5 47 | 19 3 | 3 32 | 6 23 | 2 21 | 23 55 | 3 48 | 20 31 | 1 2 | 21 14 | 0 4 | 20 2 | 0 4 | 12 52 | 0 27 | 5 9 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 42 | 4 50 | 2 42 | | | |
| S 5 | 6 10 | 14 55 | 4 19 | 5 53 | 2 24 | 24 10 | 3 52 | 20 22 | 1 3 | 21 13 | 0 4 | 20 1 | 0 4 | 12 53 | 0 27 | 5 8 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 40 | 4 51 | 2 42 | | | |
| M 6 | 6 33 | 9 46 | 4 50 | 5 22 | 2 26 | 24 25 | 3 56 | 20 13 | 1 4 | 21 12 | 0 4 | 20 0 | 0 4 | 12 54 | 0 27 | 5 7 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 37 | 4 52 | 2 42 | | | |
| T 7 | 6 55 | 3 55 | 5 1 | 4 49 | 2 28 | 24 39 | 4 0 | 20 5 | 1 6 | 21 11 | 0 5 | 20 0 | 0 4 | 12 56 | 0 27 | 5 6 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 34 | 4 54 | 2 42 | | | |
| W 8 | 7 18 | 2s13 | 4 51 | 4 15 | 2 30 | 24 53 | 4 4 | 19 56 | 1 7 | 21 10 | 0 5 | 19 59 | 0 4 | 12 57 | 0 27 | 5 6 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 32 | 4 55 | 2 42 | | | |
| T 9 | 7 40 | 8 13 | 4 20 | 3 40 | 2 31 | 25 6 | 4 7 | 19 46 | 1 8 | 21 9 | 0 5 | 19 59 | 0 4 | 12 58 | 0 27 | 5 5 | 1 1 | 21 57 | 0 49 | 23 25 | 23 24 | 1 29 | 4 56 | 2 42 | | | |
| F 10 | 8 2 | 13 38 | 3 32 | 3 4 | 2 31 | 25 19 | 4 11 | 19 37 | 1 9 | 21 8 | 0 5 | 19 58 | 0 4 | 12 59 | 0 27 | 5 4 | 1 2 | 21 57 | 0 49 | 23 25 | 23 24 | 1 26 | 4 58 | 2 42 | | | |
| S 11 | 8 24 | 18 7 | 2 30 | 2 26 | 2 31 | 25 31 | 4 14 | 19 28 | 1 11 | 21 7 | 0 5 | 19 57 | 0 5 | 13 0 | 0 27 | 5 3 | 1 2 | 21 57 | 0 49 | 23 26 | 23 24 | 1 23 | 4 59 | 2 42 | | | |
| S 12 | 8 46 | 21 23 | 1 21 | 1 48 | 2 31 | 25 43 | 4 17 | 19 18 | 1 12 | 21 6 | 0 5 | 19 57 | 0 5 | 13 1 | 0 27 | 5 3 | 1 2 | 21 57 | 0 50 | 23 26 | 23 24 | 1 21 | 5 0 | 2 42 | | | |
| M13 | 9 8 | 23 17 | 0 9 | 1 8 | 2 30 | 25 54 | 4 21 | 19 8 | 1 13 | 21 5 | 0 5 | 19 56 | 0 5 | 13 2 | 0 27 | 5 2 | 1 2 | 21 57 | 0 50 | 23 26 | 23 24 | 1 18 | 5 2 | 2 42 | | | |
| T 14 | 9 30 | 23 48 | 1s 1 | 0 28 | 2 28 | 26 5 | 4 24 | 18 58 | 1 14 | 21 4 | 0 6 | 19 56 | 0 5 | 13 3 | 0 27 | 5 1 | 1 2 | 21 57 | 0 50 | 23 26 | 23 25 | 1 15 | 5 3 | 2 42 | | | |
| W15 | 9 51 | 23 0 | 2 6 | 0n14 | 2 26 | 26 15 | 4 27 | 18 48 | 1 16 | 21 3 | 0 6 | 19 55 | 0 5 | 13 5 | 0 27 | 5 0 | 1 2 | 21 57 | 0 50 | 23 26 | 23 25 | 1 13 | 5 4 | 2 42 | | | |
| T 16 | 10 13 | 21 5 | 3 3 | 0 56 | 2 23 | 26 25 | 4 29 | 18 38 | 1 17 | 21 3 | 0 6 | 19 55 | 0 5 | 13 6 | 0 27 | 5 0 | 1 2 | 21 57 | 0 50 | 23 26 | 23 25 | 1 10 | 5 6 | 2 42 | | | |
| F 17 | 10 34 | 18 13 | 3 50 | 1 40 | 2 20 | 26 34 | 4 32 | 18 28 | 1 18 | 21 2 | 0 6 | 19 55 | 0 5 | 13 7 | 0 27 | 4 59 | 1 2 | 21 57 | 0 50 | 23 26 | 23 25 | 1 7 | 5 7 | 2 42 | | | |
| S 18 | 10 55 | 14 38 | 4 26 | 2 24 | 2 17 | 26 42 | 4 34 | 18 17 | 1 20 | 21 1 | 0 6 | 19 54 | 0 5 | 13 8 | 0 27 | 4 58 | 1 2 | 21 57 | 0 50 | 23 26 | 23 25 | 1 4 | 5 8 | 2 42 | | | |
| S 19 | 11 16 | 10 30 | 4 51 | 3 9 | 2 13 | 26 50 | 4 37 | 18 7 | 1 21 | 21 0 | 0 6 | 19 54 | 0 5 | 13 9 | 0 27 | 4 57 | 1 2 | 21 58 | 0 50 | 23 26 | 23 25 | 1 2 | 5 10 | 2 42 | | | |
| M20 | 11 36 | 6 0 | 5 2 | 3 55 | 2 8 | 26 58 | 4 39 | 17 56 | 1 22 | 21 0 | 0 6 | 19 53 | 0 5 | 13 10 | 0 27 | 4 57 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 59 | 5 11 | 2 42 | | | |
| T 21 | 11 57 | 1 17 | 5 1 | 4 42 | 2 3 | 27 5 | 4 41 | 17 45 | 1 24 | 20 59 | 0 6 | 19 53 | 0 5 | 13 11 | 0 27 | 4 56 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 56 | 5 12 | 2 42 | | | |
| W22 | 12 17 | 3n30 | 4 46 | 5 30 | 1 57 | 27 11 | 4 43 | 17 34 | 1 25 | 20 58 | 0 7 | 19 53 | 0 5 | 13 13 | 0 27 | 4 55 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 53 | 5 14 | 2 42 | | | |
| T 23 | 12 37 | 8 10 | 4 19 | 6 18 | 1 51 | 27 17 | 4 44 | 17 23 | 1 26 | 20 58 | 0 7 | 19 52 | 0 6 | 13 14 | 0 27 | 4 55 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 51 | 5 15 | 2 42 | | | |
| F 24 | 12 57 | 12 35 | 3 40 | 7 7 | 1 45 | 27 23 | 4 45 | 17 12 | 1 28 | 20 57 | 0 7 | 19 52 | 0 6 | 13 15 | 0 27 | 4 54 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 48 | 5 16 | 2 42 | | | |
| S 25 | 13 16 | 16 32 | 2 51 | 7 56 | 1 38 | 27 28 | 4 47 | 17 0 | 1 29 | 20 56 | 0 7 | 19 52 | 0 6 | 13 16 | 0 27 | 4 53 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 45 | 5 17 | 2 42 | | | |
| S 26 | 13 36 | 19 51 | 1 54 | 8 46 | 1 30 | 27 32 | 4 47 | 16 49 | 1 30 | 20 56 | 0 7 | 19 51 | 0 6 | 13 17 | 0 27 | 4 53 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 43 | 5 19 | 2 42 | | | |
| M27 | 13 55 | 22 17 | 0 50 | 9 36 | 1 22 | 27 36 | 4 48 | 16 37 | 1 32 | 20 55 | 0 7 | 19 51 | 0 6 | 13 18 | 0 27 | 4 52 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 40 | 5 20 | 2 42 | | | |
| T 28 | 14 14 | 23 41 | 0n17 | 10 27 | 1 14 | 27 40 | 4 49 | 16 25 | 1 33 | 20 55 | 0 7 | 19 51 | 0 6 | 13 19 | 0 27 | 4 51 | 1 2 | 21 58 | 0 51 | 23 26 | 23 25 | 0 37 | 5 21 | 2 42 | | | |
| W29 | 14 33 | 23 51 | 1 25 | 11 17 | 1 5 | 27 42 | 4 49 | 16 14 | 1 34 | 20 54 | 0 8 | 19 51 | 0 6 | 13 21 | 0 27 | 4 51 | 1 2 | 21 59 | 0 52 | 23 26 | 23 25 | 0 34 | 5 22 | 2 42 | | | |
| T 30 | 14n51 | 22n44 | 2n30 | 12n 8 | 0s56 | 27n45 | 4n49 | 16s 2 | 1s36 | 20s54 | 0s 8 | 19s51 | 0s 6 | 13n22 | 0s27 | 4s50 | 1s 2 | 21s59 | 0s52 | 23n26 | 23n25 | 0s32 | 5n24 | 2n42 | | | |

ASTRODIENST EPHEMERIS for the year 2020

geocentric

MAY 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------------|------------|---------|-------------|---------|---------|--------|--------|---------|---------|-------------|--------|---------|--------|------|
| F 1 | 14 37 31 | 11° 5' 14" | 12° 52' | 6° 33' | 19° 11' | 21° 38' | 26° 57' | 1° 52' | 6° 52' | 20° 13' | 24° 59' | 0° 16' | 1° 50' | 10° 37' | 7° 24' | F 1 |
| S 2 | 14 41 28 | 12° 3' 28" | 26° 43' | 8° 39' | 19° 31' | 22° 19' | 26° 59' | 1° 53' | 6° 55' | 20° 15' | 24° 59' | 0° 15' | 1° 47' | 10° 43' | 7° 28' | S 2 |
| S 3 | 14 45 24 | 13° 1' 39" | 10° 58' | 10° 47' | 19° 54' | 23° 1' | 27° 2' | 1° 54' | 6° 58' | 20° 16' | 24° 59' | 0° 12' | 1° 44' | 10° 50' | 7° 31' | S 3 |
| M 4 | 14 49 21 | 13° 59' 48" | 25° 35' | 12° 55' | 20° 15' | 23° 42' | 27° 4' | 1° 55' | 7° 2' | 20° 18' | 24° 59' | 0° 8' | 1° 40' | 10° 57' | 7° 34' | M 4 |
| T 5 | 14 53 18 | 14° 57' 56" | 10° 29' | 15° 5' | 20° 34' | 24° 23' | 27° 6' | 1° 56' | 7° 5' | 20° 19' | 24° 58' | 0° 2' | 1° 37' | 11° 3' | 7° 36' | T 5 |
| W 6 | 14 57 14 | 15° 56' 01" | 25° 33' | 17° 15' | 20° 51' | 25° 5' | 27° 7' | 1° 56' | 7° 9' | 20° 21' | 24° 58' | 29° 11' 55" | 1° 34' | 11° 10' | 7° 39' | W 6 |
| T 7 | 15 1 11 | 16° 54' 05" | 10° 37' | 19° 25' | 21° 6' | 25° 46' | 27° 9' | 1° 57' | 7° 12' | 20° 22' | 24° 58' | 29° 49' | 1° 31' | 11° 17' | 7° 42' | T 7 |
| F 8 | 15 5 7 | 17° 52' 07" | 25° 33' | 21° 35' | 21° 19' | 26° 27' | 27° 10' | 1° 57' | 7° 16' | 20° 24' | 24° 57' | 29° 44' | 1° 28' | 11° 24' | 7° 45' | F 8 |
| S 9 | 15 9 4 | 18° 50' 07" | 10° 10' | 23° 45' | 21° 29' | 27° 8' | 27° 11' | 1° 57' | 7° 19' | 20° 25' | 24° 57' | 29° 40' | 1° 24' | 11° 30' | 7° 48' | S 9 |
| S 10 | 15 13 0 | 19° 48' 06" | 24° 24' | 25° 55' | 21° 38' | 27° 49' | 27° 12' | 1° 57' | 7° 22' | 20° 26' | 24° 57' | 29° 39' | 1° 21' | 11° 37' | 7° 51' | S 10 |
| M 11 | 15 16 57 | 20° 46' 04" | 8° 12' | 28° 3' | 21° 44' | 28° 31' | 27° 13' | 1° 57' | 7° 26' | 20° 28' | 24° 56' | 29° 39' | 1° 18' | 11° 44' | 7° 54' | M 11 |
| T 12 | 15 20 53 | 21° 44' 00" | 21° 32' | 0° 11' | 21° 48' | 29° 12' | 27° 14' | 1° 57' | 7° 29' | 20° 29' | 24° 56' | 29° 40' | 1° 15' | 11° 51' | 7° 56' | T 12 |
| W 13 | 15 24 50 | 22° 41' 55" | 4° 27' | 2° 17' | 21° 50' | 29° 53' | 27° 14' | 1° 57' | 7° 32' | 20° 30' | 24° 55' | 29° 42' | 1° 12' | 11° 57' | 7° 59' | W 13 |
| T 14 | 15 28 47 | 23° 39' 49" | 17° 1' | 4° 22' | 21° 50' | 0° 34' | 27° 14' | 1° 57' | 7° 36' | 20° 32' | 24° 55' | 29° 43' | 1° 9' | 12° 4' | 8° 2' | T 14 |
| F 15 | 15 32 43 | 24° 37' 41" | 29° 17' | 6° 24' | 21° 47' | 1° 15' | 27° 14' | 1° 57' | 7° 39' | 20° 33' | 24° 54' | 29° 43' | 1° 5' | 12° 11' | 8° 5' | F 15 |
| S 16 | 15 36 40 | 25° 35' 32" | 11° 21' | 8° 25' | 21° 42' | 1° 56' | 27° 14' | 1° 56' | 7° 42' | 20° 34' | 24° 54' | 29° 42' | 1° 2' | 12° 17' | 8° 7' | S 16 |
| S 17 | 15 40 36 | 26° 33' 22" | 23° 17' | 10° 23' | 21° 34' | 2° 36' | 27° 14' | 1° 56' | 7° 46' | 20° 35' | 24° 53' | 29° 39' | 0° 59' | 12° 24' | 8° 10' | S 17 |
| M 18 | 15 44 33 | 27° 31' 11" | 5° 8' | 12° 19' | 21° 24' | 3° 17' | 27° 13' | 1° 55' | 7° 49' | 20° 37' | 24° 53' | 29° 35' | 0° 56' | 12° 31' | 8° 12' | M 18 |
| T 19 | 15 48 29 | 28° 28' 58" | 17° 0' | 14° 12' | 21° 11' | 3° 58' | 27° 13' | 1° 54' | 7° 52' | 20° 38' | 24° 52' | 29° 30' | 0° 53' | 12° 38' | 8° 15' | T 19 |
| W 20 | 15 52 26 | 29° 26' 44" | 28° 55' | 16° 2' | 20° 56' | 4° 39' | 27° 12' | 1° 54' | 7° 56' | 20° 39' | 24° 51' | 29° 25' | 0° 50' | 12° 44' | 8° 17' | W 20 |
| T 21 | 15 56 22 | 0° 11' 24" 29" | 10° 55' | 17° 50' | 20° 39' | 5° 19' | 27° 11' | 1° 53' | 7° 59' | 20° 40' | 24° 51' | 29° 19' | 0° 46' | 12° 51' | 8° 20' | T 21 |
| F 22 | 16 0 19 | 1° 22' 13" | 23° 4' | 19° 35' | 20° 19' | 6° 0' | 27° 9' | 1° 52' | 8° 2' | 20° 41' | 24° 50' | 29° 15' | 0° 43' | 12° 58' | 8° 22' | F 22 |
| S 23 | 16 4 16 | 2° 19' 56" | 5° 11' 21" | 21° 16' | 19° 58' | 6° 40' | 27° 8' | 1° 51' | 8° 5' | 20° 42' | 24° 49' | 29° 12' | 0° 40' | 13° 4' | 8° 25' | S 23 |
| S 24 | 16 8 12 | 3° 17' 37" | 17° 48' | 22° 55' | 19° 34' | 7° 21' | 27° 6' | 1° 49' | 8° 9' | 20° 43' | 24° 48' | 29° 10' | 0° 37' | 13° 11' | 8° 27' | S 24 |
| M 25 | 16 12 9 | 4° 15' 17" | 0° 27' | 24° 30' | 19° 7' | 8° 1' | 27° 4' | 1° 48' | 8° 12' | 20° 44' | 24° 48' | 29° 10' | 0° 34' | 13° 18' | 8° 29' | M 25 |
| T 26 | 16 16 5 | 5° 12' 56" | 13° 18' | 26° 2' | 18° 39' | 8° 42' | 27° 2' | 1° 47' | 8° 15' | 20° 45' | 24° 47' | 29° 10' | 0° 30' | 13° 25' | 8° 31' | T 26 |
| W 27 | 16 20 2 | 6° 10' 33" | 26° 23' | 27° 31' | 18° 9' | 9° 22' | 27° 0' | 1° 45' | 8° 18' | 20° 46' | 24° 46' | 29° 12' | 0° 27' | 13° 31' | 8° 34' | W 27 |
| T 28 | 16 23 58 | 7° 8' 09" | 9° 14' 38" | 28° 57' | 17° 38' | 10° 2' | 26° 57' | 1° 44' | 8° 21' | 20° 46' | 24° 45' | 29° 13' | 0° 24' | 13° 38' | 8° 36' | T 28 |
| F 29 | 16 27 55 | 8° 5' 44" | 23° 18' | 0° 20' | 17° 5' | 10° 42' | 26° 55' | 1° 42' | 8° 24' | 20° 47' | 24° 44' | 29° 14' | 0° 21' | 13° 45' | 8° 38' | F 29 |
| S 30 | 16 31 51 | 9° 3' 17" | 7° 10' 9" | 1° 39' | 16° 30' | 11° 22' | 26° 52' | 1° 40' | 8° 27' | 20° 48' | 24° 43' | 29° 15' | 0° 18' | 13° 51' | 8° 40' | S 30 |
| S 31 | 16 35 48 | 10° 11' 0" 48" | 21° 16' | 2° 55' | 15° 11' 55" | 12° 2' | 26° 49' | 1° 39' | 8° 31' | 20° 49' | 24° 42' | 29° 14' | 0° 15' | 13° 58' | 8° 42' | S 31 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|
| F 1 | 15n 9 | 20n17 | 3n29 | 12n58 | 0s46 | 27n47 | 4n48 | 15s50 | 1s37 | 20s54 | 0s 8 | 19s51 | 0s 6 | 13n23 | 0s27 | F 1 |
| S 2 | 15 27 | 16 38 | 4 17 | 13 49 | 0 36 | 27 48 | 4 47 | 15 37 | 1 39 | 20 53 | 0 8 | 19 50 | 0 6 | 13 24 | 0 27 | S 2 |
| S 3 | 15 45 | 11 56 | 4 51 | 14 39 | 0 26 | 27 49 | 4 46 | 15 25 | 1 40 | 20 53 | 0 8 | 19 50 | 0 6 | 13 25 | 0 27 | S 3 |
| M 4 | 16 2 | 6 27 | 5 7 | 15 28 | 0 16 | 27 49 | 4 45 | 15 13 | 1 41 | 20 53 | 0 8 | 19 50 | 0 7 | 13 26 | 0 27 | M 4 |
| T 5 | 16 19 | 0 30 | 5 3 | 16 16 | 0 5 | 27 49 | 4 43 | 15 0 | 1 43 | 20 53 | 0 8 | 19 50 | 0 7 | 13 27 | 0 27 | T 5 |
| W 6 | 16 36 | 5s33 | 4 38 | 17 4 | 0n 5 | 27 48 | 4 41 | 14 48 | 1 44 | 20 52 | 0 9 | 19 50 | 0 7 | 13 28 | 0 27 | W 6 |
| T 7 | 16 53 | 11 18 | 3 54 | 17 50 | 0 16 | 27 47 | 4 39 | 14 35 | 1 46 | 20 52 | 0 9 | 19 50 | 0 7 | 13 30 | 0 27 | T 7 |
| F 8 | 17 9 | 16 20 | 2 54 | 18 35 | 0 26 | 27 45 | 4 36 | 14 23 | 1 47 | 20 52 | 0 9 | 19 50 | 0 7 | 13 31 | 0 27 | F 8 |
| S 9 | 17 25 | 20 16 | 1 44 | 19 18 | 0 37 | 27 42 | 4 33 | 14 10 | 1 49 | 20 52 | 0 9 | 19 50 | 0 7 | 13 32 | 0 27 | S 9 |
| S 10 | 17 41 | 22 51 | 0 28 | 19 59 | 0 47 | 27 39 | 4 29 | 13 57 | 1 50 | 20 52 | 0 9 | 19 50 | 0 7 | 13 33 | 0 27 | S 10 |
| M 11 | 17 57 | 23 57 | 0s46 | 20 39 | 0 57 | 27 36 | 4 25 | 13 44 | 1 51 | 20 52 | 0 9 | 19 50 | 0 7 | 13 34 | 0 27 | M 11 |
| T 12 | 18 12 | 23 38 | 1 56 | 21 16 | 1 6 | 27 31 | 4 21 | 13 31 | 1 53 | 20 52 | 0 10 | 19 50 | 0 7 | 13 35 | 0 27 | T 12 |
| W 13 | 18 27 | 22 1 | 2 58 | 21 51 | 1 16 | 27 26 | 4 16 | 13 18 | 1 54 | 20 52 | 0 10 | 19 51 | 0 7 | 13 36 | 0 27 | W 13 |
| T 14 | 18 41 | 19 22 | 3 49 | 22 24 | 1 24 | 27 21 | 4 10 | 13 5 | 1 56 | 20 52 | 0 10 | 19 51 | 0 7 | 13 37 | 0 27 | T 14 |
| F 15 | 18 55 | 15 55 | 4 29 | 22 54 | 1 33 | 27 15 | 4 4 | 12 51 | 1 57 | 20 52 | 0 10 | 19 51 | 0 8 | 13 38 | 0 27 | F 15 |
| S 16 | 19 9 | 11 52 | 4 56 | 23 21 | 1 40 | 27 8 | 3 58 | 12 38 | 1 59 | 20 53 | 0 10 | 19 51 | 0 8 | 13 39 | 0 27 | S 16 |
| S 17 | 19 23 | 7 24 | 5 10 | 23 46 | 1 47 | 27 1 | 3 51 | 12 25 | 2 0 | 20 53 | 0 10 | 19 51 | 0 8 | 13 41 | 0 27 | S 17 |
| M 18 | 19 36 | 2 42 | 5 10 | 24 8 | 1 53 | 26 53 | 3 44 | 12 11 | 2 2 | 20 53 | 0 10 | 19 51 | 0 8 | 13 42 | 0 27 | M 18 |
| T 19 | 19 49 | 2n 6 | 4 57 | 24 28 | 1 59 | 26 44 | 3 36 | 11 58 | 2 3 | 20 53 | 0 11 | 19 52 | 0 8 | 13 43 | 0 27 | T 19 |
| W 20 | 20 2 | 6 51 | 4 32 | 24 45 | 2 4 | 26 34 | 3 27 | 11 44 | 2 5 | 20 54 | 0 11 | 19 52 | 0 8 | 13 44 | 0 27 | W 20 |
| T 21 | 20 14 | 11 24 | 3 54 | 25 0 | 2 8 | 26 24 | 3 18 | 11 31 | 2 6 | 20 54 | 0 11 | 19 52 | 0 8 | 13 45 | 0 27 | T 21 |
| F 22 | 20 26 | 15 33 | 3 5 | 25 12 | 2 11 | 26 13 | 3 9 | 11 17 | 2 8 | 20 54 | 0 11 | 19 53 | 0 8 | 13 46 | 0 27 | F 22 |
| S 23 | 20 38 | 19 7 | 2 7 | 25 22 | 2 13 | 26 1 | 2 59 | 11 4 | 2 9 | 20 55 | 0 11 | 19 53 | 0 8 | 13 47 | 0 27 | S 23 |
| S 24 | 20 49 | 21 51 | 1 2 | 25 30 | 2 15 | 25 49 | 2 48 | 10 50 | 2 11 | 20 55 | 0 11 | 19 53 | 0 8 | 13 48 | 0 27 | S 24 |
| M 25 | 21 0 | 23 33 | 0n 7 | 25 35 | 2 16 | 25 36 | 2 37 | 10 36 | 2 12 | 20 56 | 0 12 | 19 54 | 0 9 | 13 49 | 0 27 | M 25 |
| T 26 | 21 10 | 24 3 | 1 17 | 25 38 | 2 16 | 25 22 | 2 25 | 10 22 | 2 14 | 20 56 | 0 12 | 19 54 | 0 9 | 13 50 | 0 27 | T 26 |
| W 27 | 21 20 | 23 14 | 2 24 | 25 40 | 2 15 | 25 7 | 2 13 | 10 9 | 2 15 | 20 57 | 0 12 | 19 55 | 0 9 | 13 51 | 0 27 | W 27 |
| T 28 | 21 30 | 21 6 | 3 25 | 25 39 | 2 13 | 24 52 | 2 1 | 9 55 | 2 17 | 20 58 | 0 12 | 19 55 | 0 9 | 13 52 | 0 27 | T 28 |
| F 29 | 21 39 | 17 46 | 4 15 | 25 37 | 2 11 | 24 36 | 1 48 | 9 41 | 2 18 | 20 58 | 0 12 | 19 55 | 0 9 | 13 53 | 0 27 | F 29 |
| S 30 | 21 48 | 13 24 | 4 52 | 25 33 | 2 7 | 24 20 | 1 35 | 9 27 | 2 20 | 20 59 | 0 12 | 19 56 | 0 9 | 13 54 | 0 27 | S 30 |
| S 31 | 21n57 | 8n14 | 5n12 | 25n27 | 2n 3 | 24n 2 | 1n21 | 9s13 | 2s21 | 21s 0 | 0s13 | 19s56 | 0s 9 | 13n55 | 0s27 | S 31 |

Julian Day Number = 2458970.5, Delta T = 69.37 sec
 Ecliptic obliquity = 23°26'12", Nutation = -0°00'18", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 25°01'27", Lahiri = 24°08'28"

ASTRODIENST EPHEMERIS for the year 2020

geocentric

JUNE 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|------|
| M 1 | 16 39 45 | 10 ^{II} 58'18 | 5 ^{II} 38 | 4 ^{II} 7 | 15°R18 | 12 ^{II} 42 | 26°R46 | 1°R37 | 8 ^{II} 34 | 20 ^{II} 50 | 24°R42 | 29°R13 | 0 ^{II} 11 | 14 ^{II} 5 | 8 ^{II} 44 | M 1 |
| T 2 | 16 43 41 | 11°55'47 | 20°11 | 5°16 | 14 ^{II} 41 | 13°22 | 26 ^{II} 43 | 1 ^{II} 35 | 8°37 | 20°50 | 24 ^{II} 41 | 29 ^{II} 12 | 0°8 | 14°12 | 8°46 | T 2 |
| W 3 | 16 47 38 | 12°53'14 | 4 ^{II} 50 | 6°21 | 14°4 | 14°1 | 26°39 | 1°33 | 8°40 | 20°51 | 24°40 | 29°10 | 0°5 | 14°18 | 8°48 | W 3 |
| T 4 | 16 51 34 | 13°50'41 | 19°30 | 7°23 | 13°26 | 14°41 | 26°35 | 1°30 | 8°43 | 20°52 | 24°39 | 29°8 | 0°2 | 14°25 | 8°50 | T 4 |
| F 5 | 16 55 31 | 14°48'06 | 4 ^{II} 4 | 8°21 | 12°48 | 15°20 | 26°32 | 1°28 | 8°46 | 20°52 | 24°38 | 29°6 | 29 ^{II} 59 | 14°32 | 8°52 | F 5 |
| S 6 | 16 59 27 | 15°45'31 | 18°25 | 9°16 | 12°11 | 16°0 | 26°28 | 1°26 | 8°48 | 20°53 | 24°37 | 29°5 | 29°56 | 14°39 | 8°54 | S 6 |
| S 7 | 17 3 24 | 16°42'54 | 2 ^{II} 28 | 10°6 | 11°34 | 16°39 | 26°23 | 1°23 | 8°51 | 20°53 | 24°36 | 29°D 5 | 29°52 | 14°45 | 8°55 | S 7 |
| M 8 | 17 7 20 | 17°40'17 | 16°11 | 10°53 | 10°58 | 17°19 | 26°19 | 1°21 | 8°54 | 20°54 | 24°34 | 29°6 | 29°49 | 14°52 | 8°57 | M 8 |
| T 9 | 17 11 17 | 18°37'39 | 29°30 | 11°35 | 10°23 | 17°58 | 26°15 | 1°18 | 8°57 | 20°54 | 24°33 | 29°6 | 29°46 | 14°59 | 8°59 | T 9 |
| W10 | 17 15 14 | 19°35'00 | 12 ^{II} 28 | 12°14 | 9°49 | 18°37 | 26°10 | 1°16 | 9°0 | 20°55 | 24°32 | 29°7 | 29°43 | 15°5 | 9°0 | W10 |
| T 11 | 17 19 10 | 20°32'21 | 25°5 | 12°48 | 9°17 | 19°16 | 26°5 | 1°13 | 9°3 | 20°55 | 24°31 | 29°8 | 29°40 | 15°12 | 9°2 | T 11 |
| F 12 | 17 23 7 | 21°29'41 | 7 ^{II} 34 | 13°19 | 8°46 | 19°55 | 26°0 | 1°10 | 9°5 | 20°56 | 24°30 | 29°9 | 29°36 | 15°19 | 9°3 | F 12 |
| S 13 | 17 27 3 | 22°27'01 | 19°30 | 13°44 | 8°17 | 20°33 | 25°55 | 1°7 | 9°8 | 20°56 | 24°29 | 29°R 9 | 29°33 | 15°26 | 9°5 | S 13 |
| S 14 | 17 31 0 | 23°24'20 | 1 ^{II} 28 | 14°6 | 7°50 | 21°12 | 25°50 | 1°4 | 9°11 | 20°56 | 24°28 | 29°9 | 29°30 | 15°32 | 9°6 | S 14 |
| M15 | 17 34 56 | 24°21'39 | 13°21 | 14°22 | 7°25 | 21°50 | 25°44 | 1°1 | 9°14 | 20°57 | 24°26 | 29°9 | 29°27 | 15°39 | 9°8 | M15 |
| T 16 | 17 38 53 | 25°18'58 | 25°14 | 14°35 | 7°2 | 22°29 | 25°39 | 0°58 | 9°16 | 20°57 | 24°25 | 29°8 | 29°24 | 15°46 | 9°9 | T 16 |
| W17 | 17 42 49 | 26°16'16 | 7 ^{II} 11 | 14°43 | 6°41 | 23°7 | 25°33 | 0°55 | 9°19 | 20°57 | 24°24 | 29°8 | 29°21 | 15°52 | 9°10 | W17 |
| T 18 | 17 46 46 | 27°13'34 | 19°17 | 14°R46 | 6°23 | 23°45 | 25°27 | 0°52 | 9°21 | 20°57 | 24°23 | 29°7 | 29°17 | 15°59 | 9°12 | T 18 |
| F 19 | 17 50 43 | 28°10'51 | 1 ^{II} 33 | 14°44 | 6°7 | 24°23 | 25°21 | 0°48 | 9°24 | 20°57 | 24°21 | 29°7 | 29°14 | 16°6 | 9°13 | F 19 |
| S 20 | 17 54 39 | 29°8'09 | 14°2 | 14°39 | 5°53 | 25°1 | 25°15 | 0°45 | 9°26 | 20°57 | 24°20 | 29°D 7 | 29°11 | 16°13 | 9°14 | S 20 |
| S 21 | 17 58 36 | 0 ^{II} 5'25 | 26°46 | 14°29 | 5°42 | 25°38 | 25°9 | 0°41 | 9°29 | 20°58 | 24°19 | 29°R 7 | 29°8 | 16°19 | 9°15 | S 21 |
| M22 | 18 2 32 | 1°2'42 | 9 ^{II} 45 | 14°14 | 5°33 | 26°16 | 25°3 | 0°38 | 9°31 | 20°58 | 24°18 | 29°7 | 29°5 | 16°26 | 9°16 | M22 |
| T 23 | 18 6 29 | 1°59'58 | 22°59 | 13°56 | 5°26 | 26°53 | 24°56 | 0°34 | 9°34 | 20°R58 | 24°16 | 29°7 | 29°2 | 16°33 | 9°17 | T 23 |
| W24 | 18 10 25 | 2°57'13 | 6 ^{II} 27 | 13°34 | 5°22 | 27°30 | 24°50 | 0°31 | 9°36 | 20°58 | 24°15 | 29°7 | 28°58 | 16°39 | 9°18 | W24 |
| T 25 | 18 14 22 | 3°54'28 | 20°8 | 13°8 | 5°D20 | 28°7 | 24°43 | 0°27 | 9°39 | 20°58 | 24°14 | 29°6 | 28°55 | 16°46 | 9°19 | T 25 |
| F 26 | 18 18 19 | 4°51'42 | 4 ^{II} 1 | 12°40 | 5°21 | 28°44 | 24°36 | 0°23 | 9°41 | 20°57 | 24°12 | 29°6 | 28°52 | 16°53 | 9°20 | F 26 |
| S 27 | 18 22 15 | 5°48'56 | 18°3 | 12°9 | 5°24 | 29°21 | 24°29 | 0°20 | 9°43 | 20°57 | 24°11 | 29°5 | 28°49 | 17°0 | 9°20 | S 27 |
| S 28 | 18 26 12 | 6°46'09 | 2 ^{II} 12 | 11°36 | 5°29 | 29°57 | 24°22 | 0°16 | 9°45 | 20°57 | 24°10 | 29°D 5 | 28°46 | 17°6 | 9°21 | S 28 |
| M29 | 18 30 8 | 7°43'22 | 16°26 | 11°1 | 5°36 | 0°Y34 | 24°15 | 0°12 | 9°48 | 20°57 | 24°8 | 29°5 | 28°42 | 17°13 | 9°22 | M29 |
| T 30 | 18 34 5 | 8°40'34 | 0 ^{II} 43 | 10 ^{II} 25 | 5 ^{II} 45 | 1°Y10 | 24°38 | 0°8 | 9°50 | 20°57 | 24°37 | 29°II 5 | 28°II39 | 17°Y20 | 9°Y23 | T 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 | decl | lat |
| M 1 | 22n 5 | 2n33 | 5n13 | 25n20 | 1n58 | 23n45 | 1n 8 | 8s59 | 2s23 | 21s 1 | 0s13 | 19s57 | 0s 9 | 13n56 | 0s27 | 4s36 | 1s 3 | 22s 6 | 0s55 | 23n26 | 23n26 | 0n57 | 5n58 | 2n43 | | | | | |
| T 2 | 22 13 | 3s20 | 4 54 | 25 12 | 1 52 | 23 27 | 0 54 | 8 45 | 2 24 | 21 1 | 0 13 | 19 57 | 0 9 | 13 57 | 0 27 | 4 36 | 1 3 | 22 6 | 0 56 | 23 26 | 23 26 | 1 0 | 5 58 | 2 43 | | | | | |
| W 3 | 22 20 | 9 6 | 4 16 | 25 2 | 1 46 | 23 8 | 0 40 | 8 31 | 2 26 | 21 2 | 0 13 | 19 58 | 0 9 | 13 58 | 0 27 | 4 36 | 1 3 | 22 6 | 0 56 | 23 26 | 23 26 | 1 2 | 5 59 | 2 43 | | | | | |
| T 4 | 22 28 | 14 22 | 3 22 | 24 52 | 1 38 | 22 50 | 0 25 | 8 18 | 2 27 | 21 3 | 0 13 | 19 59 | 0 9 | 13 59 | 0 27 | 4 36 | 1 4 | 22 6 | 0 56 | 23 26 | 23 26 | 1 5 | 6 0 | 2 43 | | | | | |
| F 5 | 22 34 | 18 46 | 2 14 | 24 40 | 1 30 | 22 31 | 0 11 | 8 4 | 2 29 | 21 4 | 0 13 | 19 59 | 0 10 | 14 0 | 0 27 | 4 36 | 1 4 | 22 7 | 0 56 | 23 26 | 23 26 | 1 8 | 6 1 | 2 43 | | | | | |
| S 6 | 22 41 | 21 57 | 0 59 | 24 27 | 1 21 | 22 12 | 0s 3 | 7 50 | 2 30 | 21 5 | 0 14 | 20 0 | 0 10 | 14 1 | 0 27 | 4 35 | 1 4 | 22 7 | 0 56 | 23 26 | 23 26 | 1 11 | 6 2 | 2 43 | | | | | |
| S 7 | 22 46 | 23 44 | 0s19 | 24 14 | 1 11 | 21 53 | 0 17 | 7 36 | 2 32 | 21 6 | 0 14 | 20 0 | 0 10 | 14 2 | 0 27 | 4 35 | 1 4 | 22 7 | 0 56 | 23 26 | 23 26 | 1 13 | 6 2 | 2 43 | | | | | |
| M 8 | 22 52 | 24 0 | 1 33 | 24 0 | 1 0 | 21 34 | 0 31 | 7 22 | 2 33 | 21 7 | 0 14 | 20 1 | 0 10 | 14 2 | 0 27 | 4 35 | 1 4 | 22 8 | 0 56 | 23 26 | 23 26 | 1 16 | 6 3 | 2 43 | | | | | |
| T 9 | 22 57 | 22 52 | 2 40 | 23 45 | 0 49 | 21 16 | 0 45 | 7 8 | 2 35 | 21 8 | 0 14 | 20 2 | 0 10 | 14 3 | 0 27 | 4 35 | 1 4 | 22 8 | 0 56 | 23 26 | 23 26 | 1 19 | 6 4 | 2 43 | | | | | |
| W10 | 23 2 | 20 32 | 3 38 | 23 29 | 0 37 | 20 57 | 0 58 | 6 54 | 2 36 | 21 9 | 0 14 | 20 2 | 0 10 | 14 4 | 0 27 | 4 35 | 1 4 | 22 8 | 0 56 | 23 26 | 23 26 | 1 22 | 6 4 | 2 44 | | | | | |
| T 11 | 23 6 | 17 17 | 4 23 | 23 14 | 0 24 | 20 39 | 1 12 | 6 40 | 2 38 | 21 10 | 0 14 | 20 3 | 0 10 | 14 5 | 0 27 | 4 35 | 1 4 | 22 9 | 0 57 | 23 26 | 23 26 | 1 25 | 6 5 | 2 44 | | | | | |
| F 12 | 23 10 | 13 20 | 4 54 | 22 57 | 0 11 | 20 22 | 1 25 | 6 26 | 2 39 | 21 11 | 0 15 | 20 4 | 0 10 | 14 6 | 0 27 | 4 35 | 1 4 | 22 9 | 0 57 | 23 26 | 23 26 | 1 27 | 6 6 | 2 44 | | | | | |
| S 13 | 23 13 | 8 56 | 5 12 | 22 41 | 0s 3 | 20 5 | 1 37 | 6 12 | 2 41 | 21 12 | 0 15 | 20 5 | 0 10 | 14 7 | 0 27 | 4 34 | 1 4 | 22 9 | 0 57 | 23 26 | 23 26 | 1 30 | 6 6 | 2 44 | | | | | |
| S 14 | 23 16 | 4 15 | 5 16 | 22 24 | 0 17 | 19 49 | 1 50 | 5 59 | 2 42 | 21 13 | 0 15 | 20 5 | 0 10 | 14 8 | 0 27 | 4 34 | 1 4 | 22 9 | 0 57 | 23 26 | 23 26 | 1 33 | 6 7 | 2 44 | | | | | |
| M15 | 23 19 | 0n33 | 5 7 | 22 7 | 0 32 | 19 33 | 2 1 | 5 45 | 2 44 | 21 14 | 0 15 | 20 6 | 0 11 | 14 9 | 0 27 | 4 34 | 1 4 | 22 10 | 0 57 | 23 26 | 23 26 | 1 36 | 6 8 | 2 44 | | | | | |
| T 16 | 23 21 | 5 21 | 4 45 | 21 51 | 0 48 | 19 18 | 2 13 | 5 31 | 2 45 | 21 16 | 0 15 | 20 7 | 0 11 | 14 9 | 0 27 | 4 34 | 1 4 | 22 10 | 0 57 | 23 26 | 23 26 | 1 39 | 6 8 | 2 44 | | | | | |
| W17 | 23 23 | 9 58 | 4 10 | 21 34 | 1 4 | 19 4 | 2 24 | 5 17 | 2 47 | 21 17 | 0 15 | 20 8 | 0 11 | 14 10 | 0 27 | 4 34 | 1 4 | 22 10 | 0 57 | 23 26 | 23 26 | 1 41 | 6 9 | 2 44 | | | | | |
| T 18 | 23 24 | 14 17 | 3 23 | 21 17 | 1 20 | 18 50 | 2 34 | 5 4 | 2 48 | 21 18 | 0 16 | 20 8 | 0 11 | 14 11 | 0 27 | 4 34 | 1 4 | 22 11 | 0 57 | 23 26 | 23 26 | 1 44 | 6 9 | 2 44 | | | | | |
| F 19 | 23 25 | 18 4 | 2 27 | 21 1 | 1 37 | 18 38 | 2 44 | 4 50 | 2 50 | 21 19 | 0 16 | 20 9 | 0 11 | 14 12 | 0 27 | 4 34 | 1 4 | 22 11 | 0 57 | 23 26 | 23 26 | 1 47 | 6 10 | 2 44 | | | | | |
| S 20 | 23 26 | 21 7 | 1 23 | 20 45 | 1 53 | 18 26 | 2 53 | 4 36 | 2 51 | 21 21 | 0 16 | 20 10 | 0 11 | 14 13 | 0 27 | 4 34 | 1 4 | 22 11 | 0 58 | 23 26 | 23 26 | 1 50 | 6 11 | 2 44 | | | | | |
| S 21 | 23 26 | 23 11 | 0 13 | 20 30 | 2 10 | 18 16 | 3 2 | 4 23 | 2 53 | 21 22 | 0 16 | 20 11 | 0 11 | 14 13 | 0 27 | 4 34 | 1 4 | 22 12 | 0 58 | 23 26 | 23 26 | 1 53 | 6 11 | 2 44 | | | | | |
| M22 | 23 26 | 24 3 | 0n59 | 20 15 | 2 26 | 18 6 | 3 11 | 4 9 | 2 54 | 21 23 | 0 16 | 20 12 | 0 11 | 14 14 | 0 27 | 4 34 | 1 4 | 22 12 | 0 58 | 23 26 | 23 26 | 1 55 | 6 12 | 2 44 | | | | | |
| T 23 | 23 25 | 23 35 | 2 8 | 20 1 | 2 42 | 17 57 | 3 19 | 3 56 | 2 56 | 21 25 | 0 16 | 20 13 | 0 11 | 14 15 | 0 27 | 4 34 | 1 4 | 22 12 | 0 58 | 23 26 | 23 26 | 1 58 | 6 12 | 2 45 | | | | | |
| W24 | 23 24 | 21 46 | 3 12 | 19 47 | 2 58 | 17 49 | 3 26 | 3 42 | 2 57 | 21 26 | 0 17 | 20 13 | 0 11 | 14 16 | 0 27 | 4 34 | 1 4 | 22 13 | 0 58 | 23 26 | 23 26 | 2 1 | 6 12 | 2 45 | | | | | |
| T 25 | 23 23 | 18 40 | 4 6 | 19 35 | 3 14 | 17 41 | 3 33 | 3 29 | 2 59 | 21 27 | 0 17 | 20 14 | 0 12 | 14 16 | 0 27 | 4 34 | 1 4 | 22 13 | 0 58 | 23 26 | 23 26 | 2 4 | 6 13 | 2 45 | | | | | |
| F 26 | 23 21 | 14 29 | 4 47 | 19 23 | 3 28 | 17 35 | 3 40 | 3 16 | 3 0 | 21 29 | 0 17 | 20 15 | 0 12 | 14 17 | 0 27 | 4 34 | 1 5 | 22 13 | 0 58 | 23 26 | 23 26 | 2 7 | 6 13 | 2 45 | | | | | |
| S 27 | 23 19 | 9 29 | 5 11 | 19 12 | 3 42 | 17 30 | 3 46 | 3 3 | 3 2 | 21 30 | 0 17 | 20 16 | 0 12 | 14 18 | 0 27 | 4 34 | 1 5 | 22 14 | 0 58 | 23 26 | 23 26 | 2 9 | 6 14 | 2 45 | | | | | |
| S 28 | 23 16 | 3 57 | 5 16 | 19 2 | 3 55 | 17 25 | 3 52 | 2 49 | 3 3 | 21 31 | 0 17 | 20 17 | 0 12 | 14 18 | 0 27 | 4 35 | 1 5 | 22 14 | 0 58 | 23 26 | 23 26 | 2 12 | 6 14 | 2 45 | | | | | |
| M29 | 23 13 | 1s49 | 5 2 | 18 53 | 4 6 | 17 21 | 3 57 | 2 36 | 3 5 | 21 33 | 0 17 | 20 18 | 0 12 | 14 19 | 0 27 | 4 35 | 1 5 | 22 14 | 0 58 | 23 26 | 23 26 | 2 15 | 6 14 | 2 45 | | | | | |
| T 30 | 23n 9 | 7s30 | 4n30 | 18n46 | 4s17 | 17n18 | 4s 2 | 2s23 | 3s 6 | 21s34 | 0s18 | 20s19 | 0s12 | 14n20 | 0s27 | 4s35 | 1s 5 | 22s15 | 0s59 | 23n26 | 23n26 | 2n18 | 6n15 | 2n45 | | | | | |

ASTRODIENST EPHEMERIS for the year 2020

geocentric

JULY 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|----------|--------|---------|--------|--------|--------|--------|--------|--------|---------|---------|--------|-------|------|
| W 1 | 18 38 1 | 9°37'46 | 14°15'59 | 9°R49 | 5°II56 | 1°V46 | 24°R 1 | 0°R 4 | 9°B52 | 20°R57 | 24°R 5 | 29°II 6 | 28°II36 | 17°V26 | 9°V23 | W 1 |
| T 2 | 18 41 58 | 10°34'57 | 29°12 | 9°B13 | 6°10 | 2°21 | 23°B54 | 29°B59 | 9°54 | 20°H56 | 24°B 4 | 29° 7 | 28°33 | 17°33 | 9°24 | T 2 |
| F 3 | 18 45 54 | 11°32'08 | 13°A18 | 8°38 | 6°25 | 2°57 | 23°46 | 29°56 | 9°56 | 20°56 | 24° 3 | 29° 8 | 28°30 | 17°40 | 9°24 | F 3 |
| S 4 | 18 49 51 | 12°29'19 | 27°14 | 8° 4 | 6°43 | 3°32 | 23°39 | 29°52 | 9°58 | 20°56 | 24° 1 | 29°R 8 | 28°27 | 17°47 | 9°25 | S 4 |
| S 5 | 18 53 48 | 13°26'30 | 10°B57 | 7°33 | 7° 2 | 4° 8 | 23°32 | 29°48 | 10° 0 | 20°55 | 24° 0 | 29° 8 | 28°23 | 17°53 | 9°25 | S 5 |
| M 6 | 18 57 44 | 14°23'41 | 24°24 | 7° 4 | 7°23 | 4°42 | 23°24 | 29°43 | 10° 2 | 20°55 | 23°58 | 29° 7 | 28°20 | 18° 0 | 9°25 | M 6 |
| T 7 | 19 1 141 | 15°20'52 | 7°A34 | 6°38 | 7°46 | 5°17 | 23°17 | 29°39 | 10° 4 | 20°55 | 23°57 | 29° 5 | 28°17 | 18° 7 | 9°26 | T 7 |
| W 8 | 19 5 37 | 16°18'03 | 20°26 | 6°16 | 8°10 | 5°52 | 23° 9 | 29°35 | 10° 6 | 20°54 | 23°56 | 29° 3 | 28°14 | 18°13 | 9°26 | W 8 |
| T 9 | 19 9 34 | 17°15'15 | 3°H 1 | 5°57 | 8°36 | 6°26 | 23° 1 | 29°31 | 10° 7 | 20°54 | 23°54 | 29° 0 | 28°11 | 18°20 | 9°26 | T 9 |
| F 10 | 19 13 30 | 18°12'26 | 15°20 | 5°43 | 9° 4 | 7° 0 | 22°54 | 29°27 | 10° 9 | 20°53 | 23°53 | 28°58 | 28° 8 | 18°27 | 9°26 | F 10 |
| S 11 | 19 17 27 | 19° 9'38 | 27°27 | 5°34 | 9°33 | 7°34 | 22°46 | 29°22 | 10°11 | 20°53 | 23°51 | 28°56 | 28° 4 | 18°34 | 9°26 | S 11 |
| S 12 | 19 21 23 | 20° 6'51 | 9°V25 | 5°D30 | 10° 3 | 8° 7 | 22°38 | 29°18 | 10°12 | 20°52 | 23°50 | 28°54 | 28° 1 | 18°40 | 9°R26 | S 12 |
| M13 | 19 25 20 | 21° 4'03 | 21°18 | 5°31 | 10°35 | 8°41 | 22°31 | 29°13 | 10°14 | 20°51 | 23°48 | 28°D54 | 27°58 | 18°47 | 9°26 | M13 |
| T 14 | 19 29 17 | 22° 1'17 | 3°B12 | 5°37 | 11° 9 | 9°14 | 22°23 | 29° 9 | 10°16 | 20°51 | 23°47 | 28°54 | 27°55 | 18°54 | 9°26 | T 14 |
| W15 | 19 33 13 | 22°58'31 | 15°10 | 5°48 | 11°43 | 9°46 | 22°15 | 29° 5 | 10°17 | 20°50 | 23°45 | 28°56 | 27°52 | 19° 0 | 9°26 | W15 |
| T 16 | 19 37 10 | 23°55'45 | 27°17 | 6° 5 | 12°19 | 10°19 | 22° 7 | 29° 0 | 10°19 | 20°49 | 23°44 | 28°57 | 27°48 | 19° 7 | 9°26 | T 16 |
| F 17 | 19 41 6 | 24°53'01 | 9°II38 | 6°27 | 12°56 | 10°51 | 22° 0 | 28°56 | 10°20 | 20°49 | 23°43 | 28°59 | 27°45 | 19°14 | 9°26 | F 17 |
| S 18 | 19 45 3 | 25°50'17 | 22°16 | 6°55 | 13°35 | 11°23 | 21°52 | 28°51 | 10°22 | 20°48 | 23°41 | 29° 0 | 27°42 | 19°21 | 9°25 | S 18 |
| S 19 | 19 48 59 | 26°47'33 | 5°B13 | 7°28 | 14°14 | 11°54 | 21°44 | 28°47 | 10°23 | 20°47 | 23°40 | 29°R 0 | 27°39 | 19°27 | 9°25 | S 19 |
| M20 | 19 52 56 | 27°44'50 | 18°31 | 8° 7 | 14°54 | 12°26 | 21°37 | 28°43 | 10°24 | 20°46 | 23°38 | 28°59 | 27°36 | 19°34 | 9°25 | M20 |
| T 21 | 19 56 52 | 28°42'08 | 2°B 8 | 8°52 | 15°36 | 12°57 | 21°29 | 28°38 | 10°25 | 20°45 | 23°37 | 28°56 | 27°33 | 19°41 | 9°24 | T 21 |
| W22 | 20 0 49 | 29°39'26 | 16° 3 | 9°41 | 16°18 | 13°27 | 21°21 | 28°34 | 10°27 | 20°45 | 23°35 | 28°52 | 27°29 | 19°47 | 9°24 | W22 |
| T 23 | 20 4 46 | 0°L36'44 | 0°H12 | 10°36 | 17° 2 | 13°57 | 21°14 | 28°29 | 10°28 | 20°44 | 23°34 | 28°47 | 27°26 | 19°54 | 9°23 | T 23 |
| F 24 | 20 8 42 | 1°34'03 | 14°30 | 11°36 | 17°46 | 14°27 | 21° 6 | 28°25 | 10°29 | 20°43 | 23°32 | 28°43 | 27°23 | 20° 1 | 9°22 | F 24 |
| S 25 | 20 12 39 | 2°31'22 | 28°52 | 12°42 | 18°31 | 14°57 | 20°59 | 28°20 | 10°30 | 20°42 | 23°31 | 28°39 | 27°20 | 20° 8 | 9°22 | S 25 |
| S 26 | 20 16 35 | 3°28'42 | 13°B13 | 13°52 | 19°17 | 15°26 | 20°51 | 28°16 | 10°31 | 20°41 | 23°30 | 28°36 | 27°17 | 20°14 | 9°21 | S 26 |
| M27 | 20 20 32 | 4°26'02 | 27°31 | 15° 8 | 20° 4 | 15°55 | 20°44 | 28°12 | 10°32 | 20°40 | 23°28 | 28°34 | 27°13 | 20°21 | 9°20 | M27 |
| T 28 | 20 24 28 | 5°23'22 | 11°B41 | 16°28 | 20°51 | 16°23 | 20°37 | 28° 7 | 10°33 | 20°39 | 23°27 | 28°D34 | 27°10 | 20°28 | 9°20 | T 28 |
| W29 | 20 28 25 | 6°20'43 | 25°42 | 17°53 | 21°40 | 16°51 | 20°30 | 28° 3 | 10°34 | 20°38 | 23°25 | 28°35 | 27° 7 | 20°34 | 9°19 | W29 |
| T 30 | 20 32 21 | 7°18'04 | 9°A34 | 19°23 | 22°29 | 17°19 | 20°22 | 27°58 | 10°35 | 20°37 | 23°24 | 28°37 | 27° 4 | 20°41 | 9°18 | T 30 |
| F 31 | 20 36 18 | 8°L15'26 | 23°A15 | 20°B57 | 23°II19 | 17°V46 | 20°B15 | 27°B54 | 10°B36 | 20°H36 | 23°B23 | 28°R38 | 27°II 1 | 20°V48 | 9°V17 | F 31 |

| Day | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| W 1 | 23n 5 | 12s49 | 3n41 | 18n39 | 4s26 | 17n15 | 4s 6 | 2s10 | 3s 8 | 21s36 | 0s18 | 20s20 | 0s12 | 14n20 | 0s27 | 4s35 | 1s 5 |
| T 2 | 23 1 | 17 24 | 2 38 | 18 34 | 4 34 | 17 14 | 4 10 | 1 58 | 3 9 | 21 37 | 0 18 | 20 21 | 0 12 | 14 21 | 0 27 | 4 35 | 1 5 |
| F 3 | 22 56 | 20 58 | 1 26 | 18 30 | 4 40 | 17 13 | 4 13 | 1 45 | 3 11 | 21 38 | 0 18 | 20 22 | 0 12 | 14 22 | 0 27 | 4 35 | 1 5 |
| S 4 | 22 51 | 23 14 | 0 11 | 18 28 | 4 44 | 17 13 | 4 17 | 1 32 | 3 12 | 21 40 | 0 18 | 20 23 | 0 12 | 14 22 | 0 27 | 4 35 | 1 5 |
| S 5 | 22 45 | 24 4 | 1s 5 | 18 26 | 4 47 | 17 13 | 4 20 | 1 20 | 3 14 | 21 41 | 0 18 | 20 24 | 0 12 | 14 23 | 0 27 | 4 36 | 1 5 |
| M 6 | 22 40 | 23 27 | 2 15 | 18 27 | 4 49 | 17 14 | 4 22 | 1 7 | 3 15 | 21 43 | 0 18 | 20 25 | 0 13 | 14 24 | 0 27 | 4 36 | 1 5 |
| T 7 | 22 33 | 21 32 | 3 16 | 18 28 | 4 49 | 17 15 | 4 24 | 0 55 | 3 17 | 21 44 | 0 19 | 20 26 | 0 13 | 14 24 | 0 27 | 4 36 | 1 5 |
| W 8 | 22 27 | 18 34 | 4 6 | 18 31 | 4 47 | 17 17 | 4 26 | 0 42 | 3 18 | 21 46 | 0 19 | 20 27 | 0 13 | 14 25 | 0 27 | 4 36 | 1 5 |
| T 9 | 22 19 | 14 48 | 4 43 | 18 35 | 4 44 | 17 20 | 4 28 | 0 30 | 3 20 | 21 47 | 0 19 | 20 28 | 0 13 | 14 25 | 0 27 | 4 36 | 1 5 |
| F 10 | 22 12 | 10 29 | 5 6 | 18 40 | 4 39 | 17 23 | 4 29 | 0 18 | 3 21 | 21 48 | 0 19 | 20 29 | 0 13 | 14 26 | 0 27 | 4 37 | 1 5 |
| S 11 | 22 4 | 5 50 | 5 15 | 18 46 | 4 33 | 17 26 | 4 30 | 0 6 | 3 23 | 21 50 | 0 19 | 20 30 | 0 13 | 14 26 | 0 27 | 4 37 | 1 5 |
| S 12 | 21 56 | 1 1 | 5 9 | 18 53 | 4 26 | 17 30 | 4 31 | 0n 6 | 3 24 | 21 51 | 0 19 | 20 31 | 0 13 | 14 27 | 0 27 | 4 37 | 1 5 |
| M13 | 21 47 | 3n48 | 4 51 | 19 1 | 4 18 | 17 34 | 4 31 | 0 18 | 3 25 | 21 53 | 0 19 | 20 32 | 0 13 | 14 27 | 0 27 | 4 37 | 1 5 |
| T 14 | 21 38 | 8 30 | 4 20 | 19 11 | 4 9 | 17 38 | 4 31 | 0 29 | 3 27 | 21 54 | 0 20 | 20 33 | 0 13 | 14 28 | 0 27 | 4 38 | 1 5 |
| W15 | 21 29 | 12 54 | 3 38 | 19 20 | 3 59 | 17 43 | 4 31 | 0 41 | 3 28 | 21 55 | 0 20 | 20 34 | 0 13 | 14 28 | 0 27 | 4 38 | 1 5 |
| T 16 | 21 19 | 16 52 | 2 45 | 19 31 | 3 47 | 17 48 | 4 31 | 0 52 | 3 30 | 21 57 | 0 20 | 20 35 | 0 13 | 14 29 | 0 27 | 4 39 | 1 5 |
| F 17 | 21 9 | 20 10 | 1 44 | 19 41 | 3 36 | 17 53 | 4 30 | 1 3 | 3 31 | 21 58 | 0 20 | 20 36 | 0 14 | 14 29 | 0 27 | 4 38 | 1 5 |
| S 18 | 20 59 | 22 36 | 0 37 | 19 52 | 3 23 | 17 58 | 4 30 | 1 15 | 3 32 | 22 0 | 0 20 | 20 37 | 0 14 | 14 30 | 0 27 | 4 39 | 1 5 |
| S 19 | 20 48 | 23 54 | 0n34 | 20 4 | 3 10 | 18 3 | 4 29 | 1 26 | 3 34 | 22 1 | 0 20 | 20 38 | 0 14 | 14 30 | 0 27 | 4 39 | 1 5 |
| M20 | 20 37 | 23 53 | 1 45 | 20 15 | 2 57 | 18 9 | 4 28 | 1 36 | 3 35 | 22 2 | 0 20 | 20 39 | 0 14 | 14 30 | 0 27 | 4 40 | 1 6 |
| T 21 | 20 25 | 22 28 | 2 51 | 20 26 | 2 43 | 18 15 | 4 26 | 1 47 | 3 36 | 22 4 | 0 21 | 20 40 | 0 14 | 14 31 | 0 27 | 4 40 | 1 6 |
| W22 | 20 13 | 19 40 | 3 49 | 20 37 | 2 28 | 18 20 | 4 25 | 1 58 | 3 38 | 22 5 | 0 21 | 20 41 | 0 14 | 14 31 | 0 27 | 4 40 | 1 6 |
| T 23 | 20 1 | 15 40 | 4 34 | 20 47 | 2 14 | 18 26 | 4 23 | 2 8 | 3 39 | 22 6 | 0 21 | 20 41 | 0 14 | 14 32 | 0 27 | 4 41 | 1 6 |
| F 24 | 19 49 | 10 44 | 5 2 | 20 57 | 1 59 | 18 32 | 4 21 | 2 18 | 3 40 | 22 8 | 0 21 | 20 42 | 0 14 | 14 32 | 0 27 | 4 41 | 1 6 |
| S 25 | 19 36 | 5 13 | 5 11 | 21 6 | 1 45 | 18 38 | 4 19 | 2 29 | 3 42 | 22 9 | 0 21 | 20 43 | 0 14 | 14 32 | 0 27 | 4 42 | 1 6 |
| S 26 | 19 23 | 0s35 | 5 1 | 21 13 | 1 30 | 18 44 | 4 17 | 2 39 | 3 43 | 22 10 | 0 21 | 20 44 | 0 14 | 14 32 | 0 27 | 4 42 | 1 6 |
| M27 | 19 9 | 6 20 | 4 33 | 21 20 | 1 15 | 18 50 | 4 15 | 2 48 | 3 44 | 22 11 | 0 21 | 20 45 | 0 14 | 14 33 | 0 27 | 4 42 | 1 6 |
| T 28 | 18 55 | 11 43 | 3 48 | 21 25 | 1 1 | 18 55 | 4 13 | 2 58 | 3 46 | 22 13 | 0 21 | 20 46 | 0 15 | 14 33 | 0 27 | 4 43 | 1 6 |
| W29 | 18 41 | 16 26 | 2 49 | 21 28 | 0 47 | 19 1 | 4 10 | 3 8 | 3 47 | 22 14 | 0 22 | 20 47 | 0 15 | 14 33 | 0 27 | 4 43 | 1 6 |
| T 30 | 18 27 | 20 12 | 1 42 | 21 30 | 0 33 | 19 6 | 4 7 | 3 17 | 3 48 | 22 15 | 0 22 | 20 48 | 0 15 | 14 34 | 0 27 | 4 44 | 1 6 |
| F 31 | 18n12 | 22s47 | 0n29 | 21n29 | 0s19 | 19n12 | 4s 5 | 3n26 | 3s49 | 22s16 | 0s22 | 20s49 | 0s15 | 14n34 | 0s28 | 4s44 | 1s 6 |

Julian Day Number = 2459031.5, Delta T = 69.37 sec

Ecliptic obliquity = 23°26'12", Nutation = - 0°00'17", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 25°01'36", Lahiri = 24°08'36"

ASTRODIENST EPHEMERIS for the year 2020

geocentric

AUGUST 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|--------|--------|--------|--------|---------|---------|--------|-------|------|
| S 1 | 20 40 15 | 9♌12'49 | 6♋45 | 22♊35 | 24♏ 9 | 18♏13 | 20♏R 8 | 27♏R50 | 10♏36 | 20♏R34 | 23♏R21 | 28♏R37 | 26♏II58 | 20♏V55 | 9♏R16 | S 1 |
| S 2 | 20 44 11 | 10°10'12 | 20° 3 | 24°17 | 25° 0 | 18°39 | 20♏ 2 | 27♏46 | 10°37 | 20♏33 | 23♏20 | 28♏II36 | 26°54 | 21° 1 | 9♏V15 | S 2 |
| M 3 | 20 48 8 | 11° 7'36 | 3♋ 9 | 26° 2 | 25°52 | 19° 5 | 19°55 | 27°41 | 10°38 | 20°32 | 23°18 | 28°32 | 26°51 | 21° 8 | 9°14 | M 3 |
| T 4 | 20 52 4 | 12° 5'01 | 16° 3 | 27°51 | 26°44 | 19°31 | 19°48 | 27°37 | 10°38 | 20°31 | 23°17 | 28°26 | 26°48 | 21°15 | 9°13 | T 4 |
| W 5 | 20 56 1 | 13° 2'27 | 28°43 | 29°43 | 27°37 | 19°56 | 19°42 | 27°33 | 10°39 | 20°30 | 23°16 | 28°19 | 26°45 | 21°21 | 9°11 | W 5 |
| T 6 | 20 59 57 | 13°59'54 | 11♏10 | 1♏38 | 28°31 | 20°21 | 19°35 | 27°29 | 10°39 | 20°29 | 23°14 | 28°11 | 26°42 | 21°28 | 9°10 | T 6 |
| F 7 | 21 3 54 | 14°57'21 | 23°24 | 3°35 | 29°25 | 20°45 | 19°29 | 27°25 | 10°40 | 20°27 | 23°13 | 28° 2 | 26°39 | 21°35 | 9° 9 | F 7 |
| S 8 | 21 7 50 | 15°54'51 | 5♏28 | 5°34 | 0♏20 | 21° 8 | 19°23 | 27°20 | 10°40 | 20°26 | 23°12 | 27°55 | 26°35 | 21°42 | 9° 8 | S 8 |
| S 9 | 21 11 47 | 16°52'21 | 17°25 | 7°34 | 1°15 | 21°31 | 19°17 | 27°16 | 10°40 | 20°25 | 23°10 | 27°49 | 26°32 | 21°48 | 9° 6 | S 9 |
| M10 | 21 15 44 | 17°49'52 | 29°17 | 9°35 | 2°11 | 21°54 | 19°11 | 27°12 | 10°41 | 20°23 | 23° 9 | 27°45 | 26°29 | 21°55 | 9° 5 | M10 |
| T 11 | 21 19 40 | 18°47'25 | 11♏8 | 11°38 | 3° 7 | 22°16 | 19° 5 | 27° 8 | 10°41 | 20°22 | 23° 8 | 27°43 | 26°26 | 22° 2 | 9° 3 | T 11 |
| W12 | 21 23 37 | 19°45'00 | 23° 5 | 13°41 | 4° 4 | 22°38 | 18°59 | 27° 4 | 10°41 | 20°21 | 23° 7 | 27°D43 | 26°23 | 22° 8 | 9° 2 | W12 |
| T 13 | 21 27 33 | 20°42'36 | 5♏11 | 15°44 | 5° 1 | 22°59 | 18°54 | 27° 1 | 10°41 | 20°19 | 23° 5 | 27°44 | 26°19 | 22°15 | 9° 0 | T 13 |
| F 14 | 21 31 30 | 21°40'13 | 17°32 | 17°47 | 5°58 | 23°19 | 18°48 | 26°57 | 10°41 | 20°18 | 23° 4 | 27°45 | 26°16 | 22°22 | 8°59 | F 14 |
| S 15 | 21 35 26 | 22°37'52 | 0♏13 | 19°50 | 6°56 | 23°39 | 18°43 | 26°53 | 10°42 | 20°17 | 23° 3 | 27°R45 | 26°13 | 22°29 | 8°57 | S 15 |
| S 16 | 21 39 23 | 23°35'32 | 13°17 | 21°52 | 7°55 | 23°58 | 18°38 | 26°49 | 10°R42 | 20°15 | 23° 2 | 27°44 | 26°10 | 22°35 | 8°55 | S 16 |
| M17 | 21 43 19 | 24°33'14 | 26°46 | 23°53 | 8°54 | 24°17 | 18°33 | 26°46 | 10°41 | 20°14 | 23° 1 | 27°41 | 26° 7 | 22°42 | 8°54 | M17 |
| T 18 | 21 47 16 | 25°30'57 | 10♏41 | 25°54 | 9°53 | 24°35 | 18°28 | 26°42 | 10°41 | 20°12 | 22°59 | 27°35 | 26° 4 | 22°49 | 8°52 | T 18 |
| W19 | 21 51 13 | 26°28'42 | 24°58 | 27°54 | 10°53 | 24°52 | 18°23 | 26°38 | 10°41 | 20°11 | 22°58 | 27°27 | 26° 0 | 22°55 | 8°50 | W19 |
| T 20 | 21 55 9 | 27°26'28 | 9♏37 | 29°53 | 11°53 | 25° 9 | 18°19 | 26°35 | 10°41 | 20° 9 | 22°57 | 27°18 | 25°57 | 23° 2 | 8°48 | T 20 |
| F 21 | 21 59 6 | 28°24'15 | 24°17 | 1♏50 | 12°53 | 25°25 | 18°14 | 26°31 | 10°41 | 20° 8 | 22°56 | 27° 9 | 25°54 | 23° 9 | 8°46 | F 21 |
| S 22 | 22 3 2 | 29°22'03 | 9♏ 5 | 3°47 | 13°54 | 25°40 | 18°10 | 26°28 | 10°40 | 20° 6 | 22°55 | 27° 1 | 25°51 | 23°15 | 8°44 | S 22 |
| S 23 | 22 6 59 | 0♏19'53 | 23°46 | 5°42 | 14°55 | 25°55 | 18° 6 | 26°25 | 10°40 | 20° 5 | 22°54 | 26°54 | 25°48 | 23°22 | 8°42 | S 23 |
| M24 | 22 10 55 | 1°17'44 | 8♏16 | 7°35 | 15°56 | 26° 9 | 18° 2 | 26°22 | 10°40 | 20° 3 | 22°53 | 26°50 | 25°45 | 23°29 | 8°40 | M24 |
| T 25 | 22 14 52 | 2°15'36 | 22°31 | 9°28 | 16°58 | 26°22 | 17°59 | 26°18 | 10°39 | 20° 2 | 22°52 | 26°48 | 25°41 | 23°36 | 8°38 | T 25 |
| W26 | 22 18 48 | 3°13'29 | 6♏28 | 11°19 | 18° 0 | 26°35 | 17°55 | 26°15 | 10°39 | 20° 0 | 22°51 | 26°D47 | 25°38 | 23°42 | 8°36 | W26 |
| T 27 | 22 22 45 | 4°11'24 | 20° 8 | 13° 9 | 19° 2 | 26°47 | 17°52 | 26°12 | 10°38 | 19°59 | 22°50 | 26°R48 | 25°35 | 23°49 | 8°34 | T 27 |
| F 28 | 22 26 42 | 5° 9'19 | 3♏33 | 14°58 | 20° 4 | 26°58 | 17°49 | 26° 9 | 10°38 | 19°57 | 22°49 | 26°48 | 25°32 | 23°56 | 8°32 | F 28 |
| S 29 | 22 30 38 | 6° 7'16 | 16°43 | 16°45 | 21° 7 | 27° 8 | 17°46 | 26° 6 | 10°37 | 19°55 | 22°48 | 26°46 | 25°29 | 24° 2 | 8°30 | S 29 |
| S 30 | 22 34 35 | 7° 5'15 | 29°40 | 18°31 | 22°10 | 27°17 | 17°43 | 26° 4 | 10°36 | 19°54 | 22°47 | 26°42 | 25°25 | 24° 9 | 8°28 | S 30 |
| M31 | 22 38 31 | 8♏ 3'15 | 12♏26 | 20♏15 | 23♏14 | 27♏26 | 17♏41 | 26♏1 | 10♏36 | 19♏52 | 22♏46 | 26♏II35 | 25♏II22 | 24♏V16 | 8♏Y26 | M31 |

| Day | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| S 1 | 17n57 | 24s 0 | 0s44 | 21n27 | 0s 6 | 19n17 | 4s 2 | 3n35 | 3s51 | 22s17 | 0s22 | 20s50 | 0s15 | 14n34 | 0s28 | 4s45 | 1s 6 |
| S 2 | 17 42 | 23 49 | 1 53 | 21 22 | 0n 6 | 19 22 | 3 59 | 3 44 | 3 52 | 22 18 | 0 22 | 20 51 | 0 15 | 14 34 | 0 28 | 4 45 | 1 6 |
| M 3 | 17 26 | 22 18 | 2 56 | 21 14 | 0 18 | 19 27 | 3 55 | 3 53 | 3 53 | 22 19 | 0 22 | 20 52 | 0 15 | 14 34 | 0 28 | 4 46 | 1 6 |
| T 4 | 17 10 | 19 39 | 3 48 | 21 4 | 0 30 | 19 32 | 3 52 | 4 1 | 3 54 | 22 21 | 0 22 | 20 53 | 0 15 | 14 35 | 0 28 | 4 46 | 1 6 |
| W 5 | 16 54 | 16 6 | 4 28 | 20 52 | 0 40 | 19 36 | 3 49 | 4 10 | 3 55 | 22 22 | 0 22 | 20 54 | 0 15 | 14 35 | 0 28 | 4 47 | 1 6 |
| T 6 | 16 38 | 11 54 | 4 54 | 20 37 | 0 50 | 19 40 | 3 45 | 4 18 | 3 56 | 22 23 | 0 22 | 20 55 | 0 15 | 14 35 | 0 28 | 4 47 | 1 6 |
| F 7 | 16 21 | 7 18 | 5 6 | 20 19 | 1 0 | 19 44 | 3 42 | 4 26 | 3 58 | 22 24 | 0 23 | 20 56 | 0 15 | 14 35 | 0 28 | 4 48 | 1 6 |
| S 8 | 16 4 | 2 29 | 5 5 | 19 59 | 1 8 | 19 48 | 3 38 | 4 33 | 3 59 | 22 25 | 0 23 | 20 57 | 0 15 | 14 35 | 0 28 | 4 48 | 1 6 |
| S 9 | 15 47 | 2n22 | 4 50 | 19 36 | 1 15 | 19 51 | 3 34 | 4 41 | 4 0 | 22 26 | 0 23 | 20 57 | 0 16 | 14 35 | 0 28 | 4 49 | 1 6 |
| M10 | 15 29 | 7 7 | 4 22 | 19 10 | 1 22 | 19 55 | 3 31 | 4 48 | 4 1 | 22 27 | 0 23 | 20 58 | 0 16 | 14 35 | 0 28 | 4 49 | 1 6 |
| T 11 | 15 11 | 11 37 | 3 44 | 18 42 | 1 28 | 19 57 | 3 27 | 4 56 | 4 2 | 22 27 | 0 23 | 20 59 | 0 16 | 14 35 | 0 28 | 4 50 | 1 6 |
| W12 | 14 53 | 15 43 | 2 55 | 18 12 | 1 33 | 20 0 | 3 23 | 5 3 | 4 3 | 22 28 | 0 23 | 21 0 | 0 16 | 14 35 | 0 28 | 4 50 | 1 6 |
| T 13 | 14 35 | 19 13 | 1 58 | 17 40 | 1 37 | 20 2 | 3 19 | 5 10 | 4 4 | 22 29 | 0 23 | 21 1 | 0 16 | 14 35 | 0 28 | 4 51 | 1 6 |
| F 14 | 14 17 | 21 57 | 0 55 | 17 6 | 1 40 | 20 4 | 3 15 | 5 16 | 4 5 | 22 30 | 0 23 | 21 2 | 0 16 | 14 35 | 0 28 | 4 52 | 1 6 |
| S 15 | 13 58 | 23 39 | 0n13 | 16 30 | 1 43 | 20 5 | 3 11 | 5 23 | 4 6 | 22 31 | 0 23 | 21 2 | 0 16 | 14 35 | 0 28 | 4 52 | 1 6 |
| S 16 | 13 39 | 24 8 | 1 22 | 15 52 | 1 44 | 20 6 | 3 6 | 5 29 | 4 6 | 22 32 | 0 23 | 21 3 | 0 16 | 14 35 | 0 28 | 4 53 | 1 6 |
| M17 | 13 20 | 23 14 | 2 29 | 15 13 | 1 45 | 20 6 | 3 2 | 5 35 | 4 7 | 22 32 | 0 23 | 21 4 | 0 16 | 14 35 | 0 28 | 4 53 | 1 6 |
| T 18 | 13 1 | 20 54 | 3 28 | 14 32 | 1 46 | 20 7 | 2 58 | 5 40 | 4 8 | 22 33 | 0 24 | 21 5 | 0 16 | 14 35 | 0 28 | 4 54 | 1 6 |
| W19 | 12 41 | 17 14 | 4 17 | 13 51 | 1 45 | 20 6 | 2 54 | 5 46 | 4 9 | 22 34 | 0 24 | 21 5 | 0 16 | 14 35 | 0 28 | 4 55 | 1 7 |
| T 20 | 12 22 | 12 27 | 4 49 | 13 8 | 1 44 | 20 6 | 2 49 | 5 51 | 4 10 | 22 35 | 0 24 | 21 6 | 0 16 | 14 35 | 0 28 | 4 55 | 1 7 |
| F 21 | 12 2 | 6 54 | 5 3 | 12 25 | 1 43 | 20 5 | 2 45 | 5 56 | 4 10 | 22 35 | 0 24 | 21 7 | 0 16 | 14 35 | 0 28 | 4 56 | 1 7 |
| S 22 | 11 42 | 0 57 | 4 57 | 11 41 | 1 40 | 20 3 | 2 40 | 6 1 | 4 11 | 22 36 | 0 24 | 21 8 | 0 16 | 14 35 | 0 28 | 4 56 | 1 7 |
| S 23 | 11 21 | 5s 1 | 4 31 | 10 56 | 1 38 | 20 1 | 2 36 | 6 6 | 4 12 | 22 37 | 0 24 | 21 8 | 0 17 | 14 35 | 0 28 | 4 57 | 1 7 |
| M24 | 11 1 | 10 39 | 3 48 | 10 11 | 1 34 | 19 59 | 2 31 | 6 10 | 4 12 | 22 37 | 0 24 | 21 9 | 0 17 | 14 35 | 0 28 | 4 58 | 1 7 |
| T 25 | 10 45 | 15 38 | 2 52 | 9 25 | 1 31 | 19 56 | 2 27 | 6 15 | 4 13 | 22 38 | 0 24 | 21 10 | 0 17 | 14 35 | 0 28 | 4 58 | 1 7 |
| W26 | 10 19 | 19 39 | 1 46 | 8 39 | 1 27 | 19 52 | 2 22 | 6 19 | 4 13 | 22 38 | 0 24 | 21 10 | 0 17 | 14 34 | 0 28 | 4 59 | 1 7 |
| T 27 | 9 58 | 22 29 | 0 35 | 7 53 | 1 22 | 19 49 | 2 18 | 6 22 | 4 14 | 22 39 | 0 24 | 21 11 | 0 17 | 14 34 | 0 28 | 5 0 | 1 7 |
| F 28 | 9 37 | 23 59 | 0s36 | 7 7 | 1 17 | 19 44 | 2 13 | 6 26 | 4 14 | 22 39 | 0 24 | 21 12 | 0 17 | 14 34 | 0 28 | 5 0 | 1 7 |
| S 29 | 9 16 | 24 6 | 1 44 | 6 20 | 1 12 | 19 40 | 2 9 | 6 29 | 4 15 | 22 40 | 0 24 | 21 12 | 0 17 | 14 34 | 0 28 | 5 1 | 1 7 |
| S 30 | 8 54 | 22 54 | 2 45 | 5 34 | 1 6 | 19 34 | 2 4 | 6 32 | 4 15 | 22 40 | 0 24 | 21 13 | 0 17 | 14 34 | 0 28 | 5 1 | 1 7 |
| M31 | 8n33 | 20s32 | 3s37 | 4n47 | 1n 1 | 19n29 | 1s59 | 6n35 | 4s15 | 22s40 | 0s25 | 21s13 | 0s17 | 14n33 | 0s28 | 5s 2 | 1s 7 |

Julian Day Number = 2459062.5, Delta T = 69.37 sec
 Ecliptic obliquity = 23°26'12, Nutation = - 0°00'16, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 25°01'40, Lahiri = 24°08'41

ASTRODIENST EPHEMERIS for the year 2020

geocentric

OCTOBER 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|--------|--------|-------|--------|-------|-------|-------|--------|--------|--------|-------|--------|-------|------|
| T 1 | 0 40 44 | 8♈16'26 | 28♋36 | 3♈57 | 27♏50 | 25°R 3 | 17♌55 | 25♌20 | 9°R52 | 19°R 2 | 22°R29 | 23°R 7 | 23♈44 | 27°Y44 | 7°R 6 | T 1 |
| F 2 | 0 44 41 | 9°15'25 | 10°Y35 | 4°56 | 28°59 | 24°Y46 | 17°59 | 25°21 | 9♌50 | 19°Y 0 | 22♌29 | 22♈54 | 23°41 | 27°50 | 7°Y 4 | F 2 |
| S 3 | 0 48 37 | 10°14'26 | 22°29 | 5°52 | 0♈9 | 24°29 | 18° 3 | 25°21 | 9°48 | 18°59 | 22°29 | 22°41 | 23°37 | 27°57 | 7° 1 | S 3 |
| S 4 | 0 52 34 | 11°13'29 | 4♌20 | 6°45 | 1°19 | 24°12 | 18° 6 | 25°21 | 9°46 | 18°57 | 22°29 | 22°30 | 23°34 | 28° 4 | 6°58 | S 4 |
| M 5 | 0 56 31 | 12°12'34 | 16° 9 | 7°35 | 2°29 | 23°54 | 18°11 | 25°22 | 9°44 | 18°56 | 22°D29 | 22°22 | 23°31 | 28°10 | 6°56 | M 5 |
| T 6 | 1 0 27 | 13°11'42 | 28° 0 | 8°21 | 3°40 | 23°36 | 18°15 | 25°23 | 9°41 | 18°54 | 22°29 | 22°17 | 23°28 | 28°17 | 6°53 | T 6 |
| W 7 | 1 4 24 | 14°10'52 | 9♈55 | 9° 4 | 4°50 | 23°18 | 18°19 | 25°23 | 9°39 | 18°53 | 22°29 | 22°14 | 23°25 | 28°24 | 6°50 | W 7 |
| T 8 | 1 8 20 | 15°10'04 | 21°58 | 9°42 | 6° 1 | 22°59 | 18°24 | 25°24 | 9°37 | 18°51 | 22°29 | 22°D13 | 23°22 | 28°30 | 6°48 | T 8 |
| F 9 | 1 12 17 | 16° 9'18 | 4♏15 | 10°16 | 7°11 | 22°40 | 18°28 | 25°25 | 9°35 | 18°50 | 22°29 | 22°14 | 23°18 | 28°37 | 6°45 | F 9 |
| S 10 | 1 16 13 | 17° 8'35 | 16°49 | 10°45 | 8°22 | 22°21 | 18°33 | 25°26 | 9°33 | 18°49 | 22°30 | 22°R14 | 23°15 | 28°44 | 6°42 | S 10 |
| S 11 | 1 20 10 | 18° 7'54 | 29°47 | 11° 8 | 9°33 | 22° 2 | 18°39 | 25°27 | 9°31 | 18°47 | 22°30 | 22°13 | 23°12 | 28°51 | 6°40 | S 11 |
| M12 | 1 24 6 | 19° 7'15 | 13♏11 | 11°25 | 10°44 | 21°43 | 18°44 | 25°28 | 9°28 | 18°46 | 22°30 | 22°11 | 23° 9 | 28°57 | 6°37 | M12 |
| T 13 | 1 28 3 | 20° 6'39 | 27° 5 | 11°36 | 11°55 | 21°23 | 18°49 | 25°30 | 9°26 | 18°44 | 22°30 | 22° 6 | 23° 6 | 29° 4 | 6°34 | T 13 |
| W14 | 1 32 0 | 21° 6'05 | 11♈28 | 11°R40 | 13° 7 | 21° 4 | 18°55 | 25°31 | 9°24 | 18°43 | 22°31 | 21°59 | 23° 2 | 29°11 | 6°32 | W14 |
| T 15 | 1 35 56 | 22° 5'33 | 26°18 | 11°37 | 14°18 | 20°45 | 19° 1 | 25°33 | 9°21 | 18°42 | 22°31 | 21°50 | 22°59 | 29°17 | 6°29 | T 15 |
| F 16 | 1 39 53 | 23° 5'03 | 11♌27 | 11°25 | 15°30 | 20°26 | 19° 7 | 25°34 | 9°19 | 18°40 | 22°31 | 21°41 | 22°56 | 29°24 | 6°27 | F 16 |
| S 17 | 1 43 49 | 24° 4'36 | 26°45 | 11° 6 | 16°41 | 20° 8 | 19°13 | 25°36 | 9°17 | 18°39 | 22°31 | 21°32 | 22°53 | 29°31 | 6°24 | S 17 |
| S 18 | 1 47 46 | 25° 4'10 | 12♈1 | 10°38 | 17°53 | 19°49 | 19°19 | 25°38 | 9°14 | 18°38 | 22°32 | 21°25 | 22°50 | 29°37 | 6°21 | S 18 |
| M19 | 1 51 42 | 26° 3'47 | 27° 5 | 10° 1 | 19° 5 | 19°31 | 19°25 | 25°40 | 9°12 | 18°37 | 22°32 | 21°21 | 22°47 | 29°44 | 6°19 | M19 |
| T 20 | 1 55 39 | 27° 3'25 | 11♌48 | 9°15 | 20°17 | 19°13 | 19°32 | 25°42 | 9°10 | 18°35 | 22°33 | 21°19 | 22°43 | 29°51 | 6°16 | T 20 |
| W21 | 1 59 35 | 28° 3'05 | 26° 5 | 8°22 | 21°29 | 18°56 | 19°39 | 25°44 | 9° 7 | 18°34 | 22°33 | 21°D18 | 22°40 | 29°58 | 6°14 | W21 |
| T 22 | 2 3 32 | 29° 2'47 | 9♌55 | 7°21 | 22°41 | 18°39 | 19°45 | 25°46 | 9° 5 | 18°33 | 22°34 | 21°19 | 22°37 | 0♌4 | 6°11 | T 22 |
| F 23 | 2 7 29 | 0♈2'30 | 23°18 | 6°13 | 23°53 | 18°23 | 19°53 | 25°48 | 9° 2 | 18°32 | 22°34 | 21°20 | 22°34 | 0°11 | 6° 9 | F 23 |
| S 24 | 2 11 25 | 1° 2'16 | 6♌18 | 5° 1 | 25° 5 | 18° 7 | 20° 0 | 25°51 | 9° 0 | 18°31 | 22°35 | 21°R20 | 22°31 | 0°18 | 6° 7 | S 24 |
| S 25 | 2 15 22 | 2° 2'03 | 18°59 | 3°46 | 26°17 | 17°51 | 20° 7 | 25°53 | 8°57 | 18°30 | 22°35 | 21°18 | 22°28 | 0°24 | 6° 4 | S 25 |
| M26 | 2 19 18 | 3° 1'51 | 1♌23 | 2°30 | 27°30 | 17°37 | 20°15 | 25°56 | 8°55 | 18°29 | 22°36 | 21°15 | 22°24 | 0°31 | 6° 2 | M26 |
| T 27 | 2 23 15 | 4° 1'41 | 13°35 | 1°15 | 28°42 | 17°22 | 20°22 | 25°58 | 8°53 | 18°28 | 22°37 | 21° 9 | 22°21 | 0°38 | 6° 0 | T 27 |
| W28 | 2 27 11 | 5° 1'33 | 25°38 | 0° 4 | 29°55 | 17° 9 | 20°30 | 26° 1 | 8°50 | 18°27 | 22°37 | 21° 1 | 22°18 | 0°44 | 5°57 | W28 |
| T 29 | 2 31 8 | 6° 1'27 | 7°Y35 | 28♌59 | 1♌8 | 16°56 | 20°38 | 26° 4 | 8°48 | 18°26 | 22°38 | 20°53 | 22°15 | 0°51 | 5°55 | T 29 |
| F 30 | 2 35 4 | 7° 1'22 | 19°28 | 28° 2 | 2°20 | 16°44 | 20°46 | 26° 7 | 8°45 | 18°25 | 22°39 | 20°44 | 22°12 | 0°58 | 5°53 | F 30 |
| S 31 | 2 39 1 | 8♈1'20 | 1♌20 | 27♌14 | 3♌33 | 16°Y33 | 20♌54 | 26♌10 | 8♌43 | 18°Y24 | 22♌40 | 20♈36 | 22♈8 | 1♌4 | 5°Y51 | S 31 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| T 1 | 3s17 | 5s 8 | 4s59 | 15s27 | 2s47 | 12n28 | 0n16 | 6n14 | 3s43 | 22s40 | 0s26 | 21s23 | 0s19 | 14n19 | 0s28 | 5s22 | 1s 7 |
| F 2 | 3 40 | 0 12 | 4 47 | 15 52 | 2 53 | 12 8 | 0 19 | 6 11 | 3 40 | 22 39 | 0 26 | 21 23 | 0 19 | 14 19 | 0 28 | 5 23 | 1 7 |
| S 3 | 4 3 | 4n42 | 4 22 | 16 16 | 2 58 | 11 46 | 0 23 | 6 7 | 3 37 | 22 39 | 0 26 | 21 23 | 0 19 | 14 18 | 0 28 | 5 23 | 1 7 |
| S 4 | 4 26 | 9 26 | 3 45 | 16 39 | 3 3 | 11 25 | 0 27 | 6 4 | 3 34 | 22 39 | 0 26 | 21 23 | 0 19 | 14 17 | 0 28 | 5 24 | 1 7 |
| M 5 | 4 50 | 13 49 | 2 59 | 17 0 | 3 8 | 11 3 | 0 30 | 6 0 | 3 31 | 22 38 | 0 26 | 21 23 | 0 19 | 14 17 | 0 28 | 5 24 | 1 7 |
| T 6 | 5 13 | 17 41 | 2 5 | 17 19 | 3 12 | 10 41 | 0 33 | 5 56 | 3 28 | 22 37 | 0 26 | 21 22 | 0 19 | 14 16 | 0 28 | 5 25 | 1 7 |
| W 7 | 5 36 | 20 52 | 1 5 | 17 36 | 3 16 | 10 18 | 0 37 | 5 53 | 3 25 | 22 37 | 0 26 | 21 22 | 0 19 | 14 15 | 0 28 | 5 26 | 1 7 |
| T 8 | 5 58 | 23 10 | 0 1 | 17 51 | 3 19 | 9 56 | 0 40 | 5 49 | 3 21 | 22 36 | 0 26 | 21 22 | 0 19 | 14 15 | 0 28 | 5 26 | 1 7 |
| F 9 | 6 21 | 24 26 | 1n 4 | 18 4 | 3 21 | 9 32 | 0 43 | 5 45 | 3 18 | 22 36 | 0 26 | 21 22 | 0 19 | 14 14 | 0 28 | 5 27 | 1 7 |
| S 10 | 6 44 | 24 29 | 2 7 | 18 15 | 3 23 | 9 9 | 0 47 | 5 41 | 3 15 | 22 35 | 0 26 | 21 22 | 0 19 | 14 13 | 0 28 | 5 27 | 1 7 |
| S 11 | 7 7 | 23 14 | 3 6 | 18 23 | 3 23 | 8 45 | 0 50 | 5 38 | 3 11 | 22 34 | 0 26 | 21 22 | 0 19 | 14 13 | 0 28 | 5 28 | 1 7 |
| M12 | 7 29 | 20 39 | 3 57 | 18 28 | 3 23 | 8 21 | 0 53 | 5 34 | 3 7 | 22 34 | 0 26 | 21 22 | 0 19 | 14 12 | 0 28 | 5 28 | 1 7 |
| T 13 | 7 52 | 16 48 | 4 36 | 18 31 | 3 22 | 7 57 | 0 56 | 5 30 | 3 3 | 22 33 | 0 26 | 21 21 | 0 19 | 14 11 | 0 28 | 5 29 | 1 7 |
| W14 | 8 14 | 11 52 | 4 59 | 18 30 | 3 20 | 7 32 | 0 58 | 5 27 | 3 0 | 22 32 | 0 26 | 21 21 | 0 19 | 14 10 | 0 28 | 5 29 | 1 7 |
| T 15 | 8 36 | 6 7 | 5 4 | 18 25 | 3 16 | 7 7 | 1 1 | 5 23 | 2 56 | 22 31 | 0 26 | 21 21 | 0 20 | 14 10 | 0 28 | 5 30 | 1 7 |
| F 16 | 8 58 | 0s 8 | 4 47 | 18 17 | 3 11 | 6 42 | 1 4 | 5 20 | 2 52 | 22 31 | 0 26 | 21 21 | 0 20 | 14 9 | 0 28 | 5 30 | 1 7 |
| S 17 | 9 20 | 6 26 | 4 9 | 18 4 | 3 4 | 6 17 | 1 7 | 5 16 | 2 48 | 22 30 | 0 26 | 21 20 | 0 20 | 14 8 | 0 28 | 5 31 | 1 7 |
| S 18 | 9 42 | 12 21 | 3 14 | 17 48 | 2 56 | 5 51 | 1 9 | 5 13 | 2 44 | 22 29 | 0 26 | 21 20 | 0 20 | 14 7 | 0 28 | 5 31 | 1 7 |
| M19 | 10 4 | 17 27 | 2 6 | 17 27 | 2 46 | 5 25 | 1 12 | 5 10 | 2 40 | 22 28 | 0 26 | 21 20 | 0 20 | 14 7 | 0 28 | 5 32 | 1 7 |
| T 20 | 10 25 | 21 22 | 0 51 | 17 1 | 2 34 | 4 59 | 1 14 | 5 7 | 2 35 | 22 27 | 0 27 | 21 20 | 0 20 | 14 6 | 0 28 | 5 32 | 1 7 |
| W21 | 10 47 | 23 48 | 0s26 | 16 31 | 2 21 | 4 33 | 1 16 | 5 5 | 2 31 | 22 26 | 0 27 | 21 19 | 0 20 | 14 5 | 0 28 | 5 33 | 1 7 |
| T 22 | 11 8 | 24 42 | 1 38 | 15 56 | 2 6 | 4 7 | 1 19 | 5 2 | 2 27 | 22 25 | 0 27 | 21 19 | 0 20 | 14 4 | 0 28 | 5 33 | 1 7 |
| F 23 | 11 29 | 24 7 | 2 43 | 15 18 | 1 49 | 3 40 | 1 21 | 5 0 | 2 23 | 22 24 | 0 27 | 21 18 | 0 20 | 14 4 | 0 28 | 5 34 | 1 7 |
| S 24 | 11 50 | 22 13 | 3 38 | 14 37 | 1 30 | 3 13 | 1 23 | 4 58 | 2 19 | 22 23 | 0 27 | 21 18 | 0 20 | 14 3 | 0 28 | 5 34 | 1 7 |
| S 25 | 12 11 | 19 15 | 4 20 | 13 53 | 1 11 | 2 46 | 1 25 | 4 56 | 2 14 | 22 22 | 0 27 | 21 18 | 0 20 | 14 2 | 0 28 | 5 34 | 1 7 |
| M26 | 12 31 | 15 29 | 4 50 | 13 8 | 0 51 | 2 19 | 1 27 | 4 54 | 2 10 | 22 21 | 0 27 | 21 17 | 0 20 | 14 1 | 0 28 | 5 35 | 1 7 |
| T 27 | 12 52 | 11 9 | 5 5 | 12 23 | 0 30 | 1 52 | 1 29 | 4 53 | 2 6 | 22 20 | 0 27 | 21 17 | 0 20 | 14 1 | 0 28 | 5 35 | 1 7 |
| W28 | 13 12 | 6 25 | 5 7 | 11 38 | 0 9 | 1 25 | 1 30 | 4 52 | 2 2 | 22 19 | 0 27 | 21 16 | 0 20 | 14 0 | 0 28 | 5 36 | 1 7 |
| T 29 | 13 32 | 1 30 | 4 55 | 10 57 | 0n11 | 0 57 | 1 32 | 4 51 | 1 57 | 22 18 | 0 27 | 21 16 | 0 20 | 13 59 | 0 28 | 5 36 | 1 7 |
| F 30 | 13 51 | 3n27 | 4 30 | 10 18 | 0 30 | 0 30 | 1 33 | 4 50 | 1 53 | 22 16 | 0 27 | 21 15 | 0 20 | 13 58 | 0 28 | 5 36 | 1 7 |
| S 31 | 14s11 | 8n16 | 3s54 | 9s44 | 0n48 | 0n 2 | 1n35 | 4n50 | 1s49 | 22s15 | 0s27 | 21s15 | 0s20 | 13n57 | 0s28 | 5s37 | 1s 7 |

Julian Day Number = 2459123.5, Delta T = 69.37 sec
 Ecliptic obliquity = 23°26'13", Nutation = - 0°00'18", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 25°01'49", Lahiri = 24°08'49"

ASTRODIENST EPHEMERIS for the year 2020

geocentric

NOVEMBER 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|--------|--------|-------|--------|-------|-------|-------|--------|-------|--------|-------|------|-------|------|
| S 1 | 2 42 57 | 9♉ 1'19 | 13♏ 10 | 26°R37 | 4♉46 | 16°R22 | 21♊ 3 | 26♊13 | 8°R40 | 18°R23 | 22♊40 | 20°R29 | 22♊ 5 | 1♏11 | 5°R48 | S 1 |
| M 2 | 2 46 54 | 10° 1'20 | 25° 3 | 26♉11 | 5°59 | 16°Y12 | 21°11 | 26°16 | 8♊38 | 18°R22 | 22°41 | 20°R24 | 22° 2 | 1°18 | 5°Y46 | M 2 |
| T 3 | 2 50 51 | 11° 1'23 | 6♊58 | 25°57 | 7°12 | 16° 3 | 21°20 | 26°20 | 8°35 | 18°21 | 22°42 | 20°21 | 21°59 | 1°25 | 5°44 | T 3 |
| W 4 | 2 54 47 | 12° 1'28 | 18°59 | 25°D54 | 8°25 | 15°54 | 21°28 | 26°23 | 8°33 | 18°20 | 22°43 | 20°D20 | 21°56 | 1°31 | 5°42 | W 4 |
| T 5 | 2 58 44 | 13° 1'35 | 1♉ 9 | 26° 3 | 9°39 | 15°47 | 21°37 | 26°26 | 8°30 | 18°19 | 22°44 | 20°20 | 21°53 | 1°38 | 5°40 | T 5 |
| F 6 | 3 2 40 | 14° 1'44 | 13°30 | 26°21 | 10°52 | 15°40 | 21°46 | 26°30 | 8°28 | 18°19 | 22°45 | 20°22 | 21°49 | 1°45 | 5°38 | F 6 |
| S 7 | 3 6 37 | 15° 1'56 | 26° 6 | 26°50 | 12° 5 | 15°34 | 21°55 | 26°34 | 8°25 | 18°18 | 22°46 | 20°23 | 21°46 | 1°51 | 5°36 | S 7 |
| S 8 | 3 10 33 | 16° 2'09 | 9♊ 2 | 27°28 | 13°19 | 15°29 | 22° 5 | 26°37 | 8°23 | 18°17 | 22°47 | 20°25 | 21°43 | 1°58 | 5°34 | S 8 |
| M 9 | 3 14 30 | 17° 2'24 | 22°20 | 28°13 | 14°32 | 15°24 | 22°14 | 26°41 | 8°21 | 18°17 | 22°48 | 20°R25 | 21°40 | 2° 5 | 5°32 | M 9 |
| T 10 | 3 18 27 | 18° 2'41 | 6♊ 4 | 29° 6 | 15°46 | 15°21 | 22°24 | 26°45 | 8°18 | 18°16 | 22°49 | 20°23 | 21°37 | 2°11 | 5°31 | T 10 |
| W11 | 3 22 23 | 19° 3'01 | 20°14 | 0♉ 5 | 16°59 | 15°18 | 22°33 | 26°49 | 8°16 | 18°15 | 22°50 | 20°21 | 21°33 | 2°18 | 5°29 | W11 |
| T 12 | 3 26 20 | 20° 3'22 | 4♉48 | 1°10 | 18°13 | 15°16 | 22°43 | 26°53 | 8°13 | 18°15 | 22°51 | 20°17 | 21°30 | 2°25 | 5°27 | T 12 |
| F 13 | 3 30 16 | 21° 3'45 | 19°44 | 2°19 | 19°27 | 15°14 | 22°53 | 26°57 | 8°11 | 18°14 | 22°52 | 20°12 | 21°27 | 2°31 | 5°25 | F 13 |
| S 14 | 3 34 13 | 22° 4'10 | 4♊52 | 3°33 | 20°41 | 15°D14 | 23° 3 | 27° 1 | 8° 8 | 18°14 | 22°53 | 20° 8 | 21°24 | 2°38 | 5°24 | S 14 |
| S 15 | 3 38 9 | 23° 4'37 | 20° 4 | 4°50 | 21°54 | 15°14 | 23°13 | 27° 6 | 8° 6 | 18°13 | 22°54 | 20° 5 | 21°21 | 2°45 | 5°22 | S 15 |
| M16 | 3 42 6 | 24° 5'05 | 5♊ 9 | 6°10 | 23° 8 | 15°16 | 23°23 | 27°10 | 8° 4 | 18°13 | 22°55 | 20° 3 | 21°18 | 2°52 | 5°20 | M16 |
| T 17 | 3 46 2 | 25° 5'35 | 19°58 | 7°32 | 24°22 | 15°18 | 23°33 | 27°15 | 8° 1 | 18°12 | 22°57 | 20°D 2 | 21°14 | 2°58 | 5°19 | T 17 |
| W18 | 3 49 59 | 26° 6'07 | 4♊26 | 8°57 | 25°36 | 15°20 | 23°44 | 27°19 | 7°59 | 18°12 | 22°58 | 20° 3 | 21°11 | 3° 5 | 5°17 | W18 |
| T 19 | 3 53 56 | 27° 6'40 | 18°26 | 10°23 | 26°50 | 15°24 | 23°54 | 27°24 | 7°57 | 18°11 | 22°59 | 20° 4 | 21° 8 | 3°12 | 5°16 | T 19 |
| F 20 | 3 57 52 | 28° 7'14 | 2♊ 0 | 11°51 | 28° 5 | 15°28 | 24° 5 | 27°28 | 7°55 | 18°11 | 23° 0 | 20° 6 | 21° 5 | 3°18 | 5°15 | F 20 |
| S 21 | 4 1 49 | 29° 7'49 | 15° 7 | 13°20 | 29°19 | 15°33 | 24°16 | 27°33 | 7°52 | 18°11 | 23° 2 | 20° 7 | 21° 2 | 3°25 | 5°13 | S 21 |
| S 22 | 4 5 45 | 0♊ 8'26 | 27°52 | 14°50 | 0♉33 | 15°39 | 24°27 | 27°38 | 7°50 | 18°11 | 23° 3 | 20°R 8 | 20°59 | 3°32 | 5°12 | S 22 |
| M23 | 4 9 42 | 1° 9'03 | 10♊17 | 16°21 | 1°47 | 15°46 | 24°38 | 27°43 | 7°48 | 18°10 | 23° 4 | 20° 7 | 20°55 | 3°38 | 5°11 | M23 |
| T 24 | 4 13 38 | 2° 9'42 | 22°27 | 17°52 | 3° 1 | 15°53 | 24°49 | 27°48 | 7°46 | 18°10 | 23° 6 | 20° 6 | 20°52 | 3°45 | 5°10 | T 24 |
| W25 | 4 17 35 | 3°10'22 | 4♊27 | 19°24 | 4°16 | 16° 1 | 25° 0 | 27°53 | 7°43 | 18°10 | 23° 7 | 20° 4 | 20°49 | 3°52 | 5° 8 | W25 |
| T 26 | 4 21 31 | 4°11'03 | 16°20 | 20°57 | 5°30 | 16°10 | 25°11 | 27°58 | 7°41 | 18°10 | 23° 9 | 20° 2 | 20°46 | 3°58 | 5° 7 | T 26 |
| F 27 | 4 25 28 | 5°11'45 | 28°10 | 22°30 | 6°44 | 16°19 | 25°23 | 28° 3 | 7°39 | 18°10 | 23°10 | 19°59 | 20°43 | 4° 5 | 5° 6 | F 27 |
| S 28 | 4 29 25 | 6°12'28 | 10♊ 0 | 24° 3 | 7°59 | 16°29 | 25°34 | 28° 8 | 7°37 | 18°10 | 23°12 | 19°57 | 20°39 | 4°12 | 5° 5 | S 28 |
| S 29 | 4 33 21 | 7°13'13 | 21°54 | 25°36 | 9°13 | 16°40 | 25°45 | 28°14 | 7°35 | 18°D10 | 23°13 | 19°55 | 20°36 | 4°18 | 5° 4 | S 29 |
| M30 | 4 37 18 | 8♊13'59 | 3♊52 | 27♉ 9 | 10♉28 | 16°Y51 | 25♊57 | 28♊19 | 7♊33 | 18°R10 | 23♊15 | 19♊54 | 20♊33 | 4♊25 | 5°Y 3 | M30 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|-------|-------|------|-------|------|-------|------|------|------|-------|------|-------|------|-------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | |
| S 1 | 14s30 | 12n48 | 3s 8 | 9s15 | 1n 5 | 0s25 | 1n36 | 4n49 | 1s45 | 22s14 | 0s27 | 21s14 | 0s20 | 13n57 | 0s28 | S 1 |
| M 2 | 14 49 | 16 52 | 2 13 | 8 52 | 1 20 | 0 53 | 1 38 | 4 49 | 1 41 | 22 13 | 0 27 | 21 14 | 0 20 | 13 56 | 0 28 | M 2 |
| T 3 | 15 8 | 20 17 | 1 12 | 8 35 | 1 33 | 1 21 | 1 39 | 4 50 | 1 37 | 22 11 | 0 27 | 21 13 | 0 20 | 13 55 | 0 28 | T 3 |
| W 4 | 15 27 | 22 52 | 0 7 | 8 23 | 1 44 | 1 49 | 1 40 | 4 50 | 1 32 | 22 10 | 0 27 | 21 12 | 0 20 | 13 54 | 0 28 | W 4 |
| T 5 | 15 45 | 24 25 | 0n59 | 8 17 | 1 54 | 2 16 | 1 41 | 4 51 | 1 28 | 22 9 | 0 27 | 21 12 | 0 20 | 13 53 | 0 28 | T 5 |
| F 6 | 16 3 | 24 48 | 2 3 | 8 17 | 2 1 | 2 44 | 1 42 | 4 52 | 1 24 | 22 7 | 0 27 | 21 11 | 0 21 | 13 53 | 0 28 | F 6 |
| S 7 | 16 21 | 23 55 | 3 3 | 8 22 | 2 7 | 3 12 | 1 43 | 4 53 | 1 20 | 22 6 | 0 27 | 21 11 | 0 21 | 13 52 | 0 28 | S 7 |
| S 8 | 16 38 | 21 46 | 3 55 | 8 31 | 2 12 | 3 40 | 1 44 | 4 55 | 1 17 | 22 4 | 0 27 | 21 10 | 0 21 | 13 51 | 0 28 | S 8 |
| M 9 | 16 55 | 18 25 | 4 36 | 8 44 | 2 15 | 4 8 | 1 44 | 4 57 | 1 13 | 22 3 | 0 27 | 21 9 | 0 21 | 13 50 | 0 28 | M 9 |
| T 10 | 17 12 | 13 59 | 5 3 | 9 1 | 2 17 | 4 35 | 1 45 | 4 59 | 1 9 | 22 1 | 0 27 | 21 9 | 0 21 | 13 50 | 0 28 | T 10 |
| W11 | 17 29 | 8 40 | 5 13 | 9 21 | 2 17 | 5 3 | 1 45 | 5 1 | 1 5 | 22 0 | 0 27 | 21 8 | 0 21 | 13 49 | 0 28 | W11 |
| T 12 | 17 45 | 2 43 | 5 3 | 9 44 | 2 17 | 5 31 | 1 46 | 5 4 | 1 1 | 21 58 | 0 27 | 21 7 | 0 21 | 13 48 | 0 28 | T 12 |
| F 13 | 18 1 | 3s30 | 4 33 | 10 9 | 2 15 | 5 58 | 1 46 | 5 7 | 0 58 | 21 57 | 0 27 | 21 6 | 0 21 | 13 47 | 0 28 | F 13 |
| S 14 | 18 17 | 9 38 | 3 43 | 10 37 | 2 13 | 6 26 | 1 46 | 5 10 | 0 54 | 21 55 | 0 27 | 21 6 | 0 21 | 13 47 | 0 28 | S 14 |
| S 15 | 18 32 | 15 14 | 2 37 | 11 5 | 2 10 | 6 53 | 1 47 | 5 13 | 0 51 | 21 53 | 0 27 | 21 5 | 0 21 | 13 46 | 0 28 | S 15 |
| M16 | 18 47 | 19 50 | 1 21 | 11 35 | 2 6 | 7 20 | 1 47 | 5 17 | 0 47 | 21 52 | 0 27 | 21 4 | 0 21 | 13 45 | 0 28 | M16 |
| T 17 | 19 2 | 23 3 | 0 0 | 12 6 | 2 2 | 7 48 | 1 47 | 5 21 | 0 44 | 21 50 | 0 27 | 21 3 | 0 21 | 13 44 | 0 28 | T 17 |
| W18 | 19 17 | 24 40 | 1s18 | 12 37 | 1 57 | 8 15 | 1 47 | 5 25 | 0 41 | 21 48 | 0 27 | 21 2 | 0 21 | 13 44 | 0 28 | W18 |
| T 19 | 19 31 | 24 39 | 2 30 | 13 9 | 1 52 | 8 41 | 1 47 | 5 29 | 0 37 | 21 46 | 0 27 | 21 1 | 0 21 | 13 43 | 0 28 | T 19 |
| F 20 | 19 44 | 23 8 | 3 31 | 13 42 | 1 47 | 9 8 | 1 46 | 5 34 | 0 34 | 21 45 | 0 27 | 21 1 | 0 21 | 13 42 | 0 28 | F 20 |
| S 21 | 19 58 | 20 25 | 4 19 | 14 14 | 1 41 | 9 35 | 1 46 | 5 39 | 0 31 | 21 43 | 0 27 | 21 0 | 0 21 | 13 41 | 0 28 | S 21 |
| S 22 | 20 11 | 16 47 | 4 52 | 14 46 | 1 35 | 10 1 | 1 46 | 5 44 | 0 28 | 21 41 | 0 28 | 20 59 | 0 21 | 13 41 | 0 28 | S 22 |
| M23 | 20 23 | 12 30 | 5 11 | 15 19 | 1 28 | 10 27 | 1 45 | 5 49 | 0 25 | 21 39 | 0 28 | 20 58 | 0 21 | 13 40 | 0 28 | M23 |
| T 24 | 20 36 | 7 49 | 5 15 | 15 51 | 1 22 | 10 53 | 1 45 | 5 55 | 0 22 | 21 37 | 0 28 | 20 57 | 0 21 | 13 39 | 0 28 | T 24 |
| W25 | 20 47 | 2 55 | 5 6 | 16 22 | 1 15 | 11 18 | 1 44 | 6 0 | 0 19 | 21 35 | 0 28 | 20 56 | 0 21 | 13 39 | 0 28 | W25 |
| T 26 | 20 59 | 2n 4 | 4 43 | 16 53 | 1 8 | 11 44 | 1 43 | 6 6 | 0 16 | 21 33 | 0 28 | 20 55 | 0 21 | 13 38 | 0 28 | T 26 |
| F 27 | 21 10 | 6 57 | 4 9 | 17 24 | 1 2 | 12 9 | 1 43 | 6 13 | 0 13 | 21 31 | 0 28 | 20 54 | 0 21 | 13 37 | 0 28 | F 27 |
| S 28 | 21 21 | 11 36 | 3 23 | 17 54 | 0 55 | 12 34 | 1 42 | 6 19 | 0 11 | 21 29 | 0 28 | 20 53 | 0 22 | 13 37 | 0 28 | S 28 |
| S 29 | 21 31 | 15 50 | 2 29 | 18 23 | 0 47 | 12 58 | 1 41 | 6 26 | 0 8 | 21 27 | 0 28 | 20 52 | 0 22 | 13 36 | 0 28 | S 29 |
| M30 | 21s41 | 19n29 | 1s28 | 18s52 | 0n40 | 13s23 | 1n40 | 6n32 | 0s 5 | 21s25 | 0s28 | 20s51 | 0s22 | 13n35 | 0s28 | M30 |

Julian Day Number = 2459154.5, Delta T = 69.37 sec

Ecliptic obliquity = 23°26'13, Nutation = - 0°00'19, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 25°01'53, Lahiri = 24°08'53

ASTRODIENST EPHEMERIS for the year 2020

geocentric

DECEMBER 2020

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|--------|-------|--------|--------|-------|-------|-------|--------|-------|---------|---------|-------|-------|------|
| T 1 | 4 41 14 | 9♂14'46 | 15♂57 | 28♂43 | 11♂42 | 17♂3 | 26♂9 | 28♂24 | 7♂R31 | 18♂10 | 23♂16 | 19♂D54 | 20♂II30 | 4♂B32 | 5♂R 3 | T 1 |
| W 2 | 4 45 11 | 10°15'34 | 28°11 | 0♂16 | 12°57 | 17°16 | 26°21 | 28°30 | 7♂B29 | 18°10 | 23°18 | 19♂II54 | 20°27 | 4°39 | 5♂Y 2 | W 2 |
| T 3 | 4 49 7 | 11°16'24 | 10♂34 | 1°50 | 14°11 | 17°29 | 26°32 | 28°35 | 7°27 | 18°10 | 23°19 | 19°54 | 20°24 | 4°45 | 5° 1 | T 3 |
| F 4 | 4 53 4 | 12°17'14 | 23° 9 | 3°23 | 15°26 | 17°43 | 26°44 | 28°41 | 7°25 | 18°10 | 23°21 | 19°55 | 20°20 | 4°52 | 5° 0 | F 4 |
| S 5 | 4 57 0 | 13°18'06 | 5♂L58 | 4°57 | 16°41 | 17°57 | 26°56 | 28°47 | 7°23 | 18°10 | 23°22 | 19°56 | 20°17 | 4°59 | 5° 0 | S 5 |
| S 6 | 5 0 57 | 14°19'00 | 19° 2 | 6°31 | 17°55 | 18°12 | 27° 9 | 28°52 | 7°21 | 18°11 | 23°24 | 19°56 | 20°14 | 5° 5 | 4°59 | S 6 |
| M 7 | 5 4 54 | 15°19'54 | 2♂P22 | 8° 5 | 19°10 | 18°27 | 27°21 | 28°58 | 7°20 | 18°11 | 23°26 | 19°57 | 20°11 | 5°12 | 4°59 | M 7 |
| T 8 | 5 8 50 | 16°20'50 | 16° 1 | 9°38 | 20°25 | 18°43 | 27°33 | 29° 4 | 7°18 | 18°11 | 23°27 | 19°R57 | 20° 8 | 5°19 | 4°58 | T 8 |
| W 9 | 5 12 47 | 17°21'47 | 29°59 | 11°12 | 21°40 | 19° 0 | 27°45 | 29°10 | 7°16 | 18°11 | 23°29 | 19°57 | 20° 5 | 5°25 | 4°58 | W 9 |
| T 10 | 5 16 43 | 18°22'45 | 14♂L15 | 12°46 | 22°55 | 19°17 | 27°58 | 29°16 | 7°14 | 18°12 | 23°31 | 19°57 | 20° 1 | 5°32 | 4°57 | T 10 |
| F 11 | 5 20 40 | 19°23'45 | 28°48 | 14°20 | 24° 9 | 19°35 | 28°10 | 29°22 | 7°13 | 18°12 | 23°32 | 19°56 | 19°58 | 5°39 | 4°57 | F 11 |
| S 12 | 5 24 36 | 20°24'46 | 13♂L32 | 15°54 | 25°24 | 19°53 | 28°23 | 29°28 | 7°11 | 18°13 | 23°34 | 19°D56 | 19°55 | 5°45 | 4°57 | S 12 |
| S 13 | 5 28 33 | 21°25'47 | 28°22 | 17°28 | 26°39 | 20°11 | 28°36 | 29°34 | 7°10 | 18°13 | 23°36 | 19°57 | 19°52 | 5°52 | 4°57 | S 13 |
| M14 | 5 32 29 | 22°26'50 | 13♂L10 | 19° 2 | 27°54 | 20°30 | 28°48 | 29°40 | 7° 8 | 18°14 | 23°38 | 19°R57 | 19°49 | 5°59 | 4°57 | M14 |
| T 15 | 5 36 26 | 23°27'54 | 27°50 | 20°36 | 29° 9 | 20°50 | 29° 1 | 29°46 | 7° 7 | 18°14 | 23°39 | 19°57 | 19°45 | 6° 5 | 4°56 | T 15 |
| W16 | 5 40 23 | 24°28'58 | 12♂L14 | 22°10 | 0♂24 | 21°10 | 29°14 | 29°52 | 7° 5 | 18°15 | 23°41 | 19°56 | 19°42 | 6°12 | 4°D56 | W16 |
| T 17 | 5 44 19 | 25°30'03 | 26°17 | 23°45 | 1°39 | 21°30 | 29°27 | 29°59 | 7° 4 | 18°15 | 23°43 | 19°56 | 19°39 | 6°19 | 4°56 | T 17 |
| F 18 | 5 48 16 | 26°31'08 | 9♂L57 | 25°19 | 2°54 | 21°51 | 29°40 | 0♂L5 | 7° 2 | 18°16 | 23°45 | 19°55 | 19°36 | 6°25 | 4°57 | F 18 |
| S 19 | 5 52 12 | 27°32'14 | 23°11 | 26°54 | 4° 9 | 22°12 | 29°53 | 0°11 | 7° 1 | 18°17 | 23°47 | 19°54 | 19°33 | 6°32 | 4°57 | S 19 |
| S 20 | 5 56 9 | 28°33'20 | 6♂L2 | 28°29 | 5°24 | 22°34 | 0♂L6 | 0°18 | 7° 0 | 18°17 | 23°48 | 19°53 | 19°30 | 6°39 | 4°57 | S 20 |
| M21 | 6 0 5 | 29°34'26 | 18°31 | 0♂L3 | 6°39 | 22°56 | 0°19 | 0°24 | 6°58 | 18°18 | 23°50 | 19°53 | 19°26 | 6°46 | 4°57 | M21 |
| T 22 | 6 4 2 | 0♂L35'33 | 0♂Y44 | 1°39 | 7°54 | 23°18 | 0°32 | 0°31 | 6°57 | 18°19 | 23°52 | 19°D52 | 19°23 | 6°52 | 4°57 | T 22 |
| W23 | 6 7 58 | 1°36'40 | 12°44 | 3°14 | 9° 9 | 23°41 | 0°46 | 0°37 | 6°56 | 18°20 | 23°54 | 19°53 | 19°20 | 6°59 | 4°58 | W23 |
| T 24 | 6 11 55 | 2°37'46 | 24°37 | 4°50 | 10°24 | 24° 4 | 0°59 | 0°44 | 6°55 | 18°21 | 23°56 | 19°54 | 19°17 | 7° 6 | 4°58 | T 24 |
| F 25 | 6 15 52 | 3°38'53 | 6♂L26 | 6°25 | 11°39 | 24°28 | 1°12 | 0°50 | 6°54 | 18°21 | 23°58 | 19°55 | 19°14 | 7°12 | 4°59 | F 25 |
| S 26 | 6 19 48 | 4°40'01 | 18°17 | 8° 1 | 12°54 | 24°51 | 1°26 | 0°57 | 6°53 | 18°22 | 24° 0 | 19°56 | 19°11 | 7°19 | 4°59 | S 26 |
| S 27 | 6 23 45 | 5°41'08 | 0♂L14 | 9°38 | 14° 9 | 25°16 | 1°39 | 1° 4 | 6°52 | 18°23 | 24° 2 | 19°57 | 19° 7 | 7°26 | 5° 0 | S 27 |
| M28 | 6 27 41 | 6°42'15 | 12°19 | 11°14 | 15°24 | 25°40 | 1°53 | 1°10 | 6°51 | 18°24 | 24° 4 | 19°58 | 19° 4 | 7°32 | 5° 0 | M28 |
| T 29 | 6 31 38 | 7°43'23 | 24°35 | 12°51 | 16°39 | 26° 5 | 2° 6 | 1°17 | 6°50 | 18°25 | 24° 5 | 19°R58 | 19° 1 | 7°39 | 5° 1 | T 29 |
| W30 | 6 35 34 | 8°44'31 | 7♂L4 | 14°28 | 17°54 | 26°30 | 2°20 | 1°24 | 6°49 | 18°26 | 24° 7 | 19°58 | 18°58 | 7°46 | 5° 2 | W30 |
| T 31 | 6 39 31 | 9♂L45'39 | 19♂L47 | 16♂L5 | 19♂L10 | 26♂Y56 | 2♂L33 | 1♂L31 | 6♂L49 | 18♂L27 | 24♂L9 | 19♂II56 | 18♂II55 | 7♂L52 | 5♂Y 3 | T 31 |

| Day | ☉ | ☽ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|-------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|------|------|
| | decl | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat | decl | lat |
| T 1 | 21s50 | 22n20 | 0s22 | 19s20 | 0n33 | 13s47 | 1n39 | 6n39 | 0s 3 | 21s22 | 0s28 | 20s50 | 0s22 | 13n35 | 0s28 | 5s41 | 1s 6 |
| W 2 | 21 59 | 24 11 | 0n46 | 19 47 | 0 26 | 14 10 | 1 38 | 6 46 | 0 0 | 21 20 | 0 28 | 20 49 | 0 22 | 13 34 | 0 28 | 5 41 | 1 6 |
| T 3 | 22 8 | 24 53 | 1 52 | 20 13 | 0 19 | 14 34 | 1 36 | 6 54 | 0n 2 | 21 18 | 0 28 | 20 48 | 0 22 | 13 33 | 0 28 | 5 41 | 1 6 |
| F 4 | 22 16 | 24 19 | 2 54 | 20 38 | 0 12 | 14 57 | 1 35 | 7 1 | 0 4 | 21 16 | 0 28 | 20 47 | 0 22 | 13 33 | 0 28 | 5 41 | 1 6 |
| S 5 | 22 24 | 22 28 | 3 49 | 21 2 | 0 5 | 15 19 | 1 34 | 7 9 | 0 7 | 21 14 | 0 28 | 20 46 | 0 22 | 13 32 | 0 28 | 5 41 | 1 6 |
| S 6 | 22 31 | 19 26 | 4 33 | 21 25 | 0s 2 | 15 41 | 1 33 | 7 17 | 0 9 | 21 11 | 0 28 | 20 44 | 0 22 | 13 32 | 0 28 | 5 41 | 1 6 |
| M 7 | 22 38 | 15 20 | 5 3 | 21 48 | 0 9 | 16 3 | 1 31 | 7 24 | 0 11 | 21 9 | 0 28 | 20 43 | 0 22 | 13 31 | 0 28 | 5 41 | 1 6 |
| T 8 | 22 44 | 10 23 | 5 17 | 22 9 | 0 15 | 16 25 | 1 30 | 7 33 | 0 13 | 21 7 | 0 28 | 20 42 | 0 22 | 13 31 | 0 28 | 5 41 | 1 6 |
| W 9 | 22 50 | 4 47 | 5 13 | 22 29 | 0 22 | 16 46 | 1 28 | 7 41 | 0 16 | 21 4 | 0 28 | 20 41 | 0 22 | 13 30 | 0 28 | 5 40 | 1 6 |
| T 10 | 22 56 | 1s10 | 4 50 | 22 48 | 0 29 | 17 6 | 1 26 | 7 49 | 0 18 | 21 2 | 0 28 | 20 40 | 0 22 | 13 30 | 0 28 | 5 40 | 1 5 |
| F 11 | 23 1 | 7 11 | 4 8 | 23 6 | 0 35 | 17 26 | 1 25 | 7 58 | 0 20 | 20 59 | 0 28 | 20 39 | 0 22 | 13 29 | 0 28 | 5 40 | 1 5 |
| S 12 | 23 5 | 12 54 | 3 9 | 23 23 | 0 41 | 17 46 | 1 23 | 8 6 | 0 22 | 20 57 | 0 28 | 20 37 | 0 22 | 13 29 | 0 28 | 5 40 | 1 5 |
| S 13 | 23 10 | 17 53 | 1 57 | 23 38 | 0 48 | 18 5 | 1 21 | 8 15 | 0 24 | 20 54 | 0 28 | 20 36 | 0 22 | 13 28 | 0 28 | 5 40 | 1 5 |
| M14 | 23 13 | 21 45 | 0 38 | 23 53 | 0 54 | 18 24 | 1 19 | 8 24 | 0 25 | 20 52 | 0 28 | 20 35 | 0 22 | 13 28 | 0 28 | 5 39 | 1 5 |
| T 15 | 23 17 | 24 9 | 0s44 | 24 6 | 1 0 | 18 42 | 1 17 | 8 33 | 0 27 | 20 49 | 0 28 | 20 34 | 0 22 | 13 27 | 0 28 | 5 39 | 1 5 |
| W16 | 23 19 | 24 53 | 2 1 | 24 18 | 1 5 | 19 0 | 1 16 | 8 42 | 0 29 | 20 46 | 0 29 | 20 32 | 0 22 | 13 26 | 0 27 | 5 39 | 1 5 |
| T 17 | 23 22 | 23 58 | 3 8 | 24 28 | 1 11 | 19 17 | 1 14 | 8 51 | 0 31 | 20 44 | 0 29 | 20 31 | 0 22 | 13 26 | 0 27 | 5 39 | 1 5 |
| F 18 | 23 23 | 21 40 | 4 3 | 24 37 | 1 16 | 19 34 | 1 12 | 9 1 | 0 32 | 20 41 | 0 29 | 20 30 | 0 23 | 13 26 | 0 27 | 5 38 | 1 5 |
| S 19 | 23 25 | 18 15 | 4 43 | 24 45 | 1 21 | 19 50 | 1 9 | 9 10 | 0 34 | 20 38 | 0 29 | 20 29 | 0 23 | 13 25 | 0 27 | 5 38 | 1 5 |
| S 20 | 23 26 | 14 4 | 5 8 | 24 52 | 1 26 | 20 6 | 1 7 | 9 20 | 0 36 | 20 36 | 0 29 | 20 27 | 0 23 | 13 25 | 0 27 | 5 38 | 1 5 |
| M21 | 23 26 | 9 24 | 5 17 | 24 57 | 1 31 | 20 21 | 1 5 | 9 29 | 0 37 | 20 33 | 0 29 | 20 26 | 0 23 | 13 25 | 0 27 | 5 38 | 1 5 |
| T 22 | 23 26 | 4 28 | 5 11 | 25 1 | 1 36 | 20 35 | 1 3 | 9 39 | 0 39 | 20 30 | 0 29 | 20 25 | 0 23 | 13 24 | 0 27 | 5 37 | 1 5 |
| W23 | 23 26 | 0n33 | 4 52 | 25 4 | 1 40 | 20 49 | 1 1 | 9 49 | 0 40 | 20 27 | 0 29 | 20 23 | 0 23 | 13 24 | 0 27 | 5 37 | 1 5 |
| T 24 | 23 25 | 5 29 | 4 21 | 25 5 | 1 44 | 21 2 | 0 59 | 9 59 | 0 42 | 20 25 | 0 29 | 20 22 | 0 23 | 13 24 | 0 27 | 5 36 | 1 5 |
| F 25 | 23 23 | 10 14 | 3 38 | 25 5 | 1 48 | 21 15 | 0 56 | 10 9 | 0 43 | 20 22 | 0 29 | 20 20 | 0 23 | 13 23 | 0 27 | 5 36 | 1 5 |
| S 26 | 23 21 | 14 36 | 2 47 | 25 3 | 1 51 | 21 27 | 0 54 | 10 19 | 0 45 | 20 19 | 0 29 | 20 19 | 0 23 | 13 23 | 0 27 | 5 36 | 1 5 |
| S 27 | 23 19 | 18 27 | 1 47 | 25 0 | 1 55 | 21 39 | 0 52 | 10 29 | 0 46 | 20 16 | 0 29 | 20 18 | 0 23 | 13 23 | 0 27 | 5 35 | 1 5 |
| M28 | 23 16 | 21 34 | 0 42 | 24 55 | 1 58 | 21 49 | 0 49 | 10 39 | 0 47 | 20 13 | 0 29 | 20 16 | 0 23 | 13 22 | 0 27 | 5 35 | 1 5 |
| T 29 | 23 13 | 23 45 | 0n25 | 24 49 | 2 0 | 21 59 | 0 47 | 10 50 | 0 49 | 20 10 | 0 29 | 20 15 | 0 23 | 13 22 | 0 27 | 5 35 | 1 5 |
| W30 | 23 9 | 24 48 | 1 33 | 24 41 | 2 3 | 22 9 | 0 44 | 11 0 | 0 50 | 20 7 | 0 29 | 20 13 | 0 23 | 13 22 | 0 27 | 5 34 | 1 5 |
| T 31 | 23s 5 | 24n34 | 2n37 | 24s32 | 2s 5 | 22s18 | 0n42 | 11n10 | 0n51 | 20s 4 | 0s29 | 20s12 | 0s23 | 13n22 | 0s27 | 5s34 | 1s 5 |

Julian Day Number = 2459184.5, Delta T = 69.36 sec

Ecliptic obliquity = 23°26'13", Nutation = - 0°00'18", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 25°01'57", Lahiri = 24°08'57"