



Astrodienst Ephemeris Tables for the year 1862

tropical geocentric zodiac

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

Programming
Dieter Koch and Alois Treindl
based on Swiss Ephemeris
Code D5EPH

ASTRODIENST EPHEMERIS for the year 1862
geocentric

JANUARY 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|---------|-----------|-----------|------|
| W 1 | 6 41 33 | 10°22'56 | 16°32' 2 | 3°46' 26 | 26°40' 26 | 26°28' 26 | 27°16' 27 | 22°41' 22 | 13°R17 | 28°58' 28 | 8°R33 | 4°R20 | 4°32' 4 | 18°20' 18 | 28°52' 28 | W 1 |
| T 2 | 6 45 30 | 11°24'07 | 0°18' 5 | 5°21' 27 | 27°33' 27 | 27°8' 27 | 27°18' 22 | 22°R41 | 13°II15 | 28°59' 28 | 8°33' 4 | 4°32' 4 | 4°32' 4 | 18°26' 18 | 28°55' 28 | T 2 |
| F 3 | 6 49 26 | 12°25'18 | 14°12' 6 | 6°56' 28 | 28°24' 27 | 27°48' 27 | 27°20' 22 | 22°41' 13 | 13°13' 29 | 29°0' 8 | 8°33' 4 | 4°19' 4 | 4°0' 4 | 18°33' 18 | 28°58' 28 | F 3 |
| S 4 | 6 53 23 | 13°26'29 | 27°43' 8 | 8°31' 29 | 29°15' 28 | 28°28' 27 | 27°21' 22 | 22°41' 13 | 13°11' 29 | 29°1' 8 | 8°32' 4 | 4°18' 4 | 3°57' 3 | 18°40' 18 | 29°2' 29 | S 4 |
| S 5 | 6 57 20 | 14°27'40 | 10°49' 10 | 7°0' 29 | 29°9' 27 | 27°23' 22 | 27°23' 22 | 22°41' 13 | 13°8' 29 | 29°2' 8 | 8°32' 4 | 4°16' 4 | 3°54' 3 | 18°46' 18 | 29°5' 29 | S 5 |
| M 6 | 7 1 16 | 15°28'50 | 23°32' 11 | 4°43' 0 | 5°55' 29 | 29°49' 29 | 27°24' 22 | 22°40' 13 | 13°6' 29 | 29°2' 8 | 8°31' 4 | 4°15' 4 | 3°51' 3 | 18°53' 18 | 29°8' 29 | M 6 |
| T 7 | 7 5 13 | 16°29'59 | 5°56' 13 | 1°43' 1 | 4°43' 0 | 5°29' 27 | 27°25' 22 | 22°40' 13 | 13°4' 29 | 29°3' 8 | 8°31' 4 | 4°14' 4 | 3°47' 3 | 19°0' 19 | 29°11' 29 | T 7 |
| W 8 | 7 9 9 | 17°31'09 | 18°5' 14 | 5°56' 2 | 2°31' 1 | 9°1' 27 | 27°26' 22 | 22°39' 13 | 13°2' 29 | 29°4' 8 | 8°31' 4 | 4°D14 | 3°44' 3 | 19°6' 19 | 29°14' 29 | W 8 |
| T 9 | 7 13 6 | 18°32'17 | 0°8' 2 | 16°33' 3 | 1°50' 2 | 3°17' 1 | 27°27' 22 | 22°39' 13 | 13°0' 29 | 29°5' 8 | 8°30' 4 | 4°14' 4 | 3°41' 3 | 19°13' 19 | 29°18' 29 | T 9 |
| F 10 | 7 17 2 | 19°33'25 | 11°53' 18 | 11°4' 2 | 3°30' 2 | 4°3' 27 | 27°27' 22 | 22°38' 12 | 12°58' 29 | 29°6' 8 | 8°30' 4 | 4°15' 4 | 3°38' 3 | 19°20' 19 | 29°21' 29 | F 10 |
| S 11 | 7 20 59 | 20°34'33 | 23°43' 19 | 4°49' 4 | 4°47' 3 | 10°3' 27 | 27°27' 22 | 22°37' 12 | 12°57' 29 | 29°7' 8 | 8°30' 4 | 4°17' 4 | 3°35' 3 | 19°26' 19 | 29°24' 29 | S 11 |
| S 12 | 7 24 55 | 21°35'40 | 5°35' 21 | 2°28' 5 | 5°31' 3 | 5°1' 27 | 27°R28 | 22°36' 12 | 12°55' 29 | 29°8' 8 | 8°30' 4 | 4°18' 4 | 3°32' 3 | 19°33' 19 | 29°28' 29 | S 12 |
| M13 | 7 28 52 | 22°36'46 | 17°35' 23 | 7°3' 6 | 6°13' 4 | 3°1' 27 | 27°27' 22 | 22°35' 12 | 12°53' 29 | 29°10' 8 | 8°29' 4 | 4°20' 4 | 3°28' 3 | 19°40' 19 | 29°31' 29 | M13 |
| T 14 | 7 32 49 | 23°37'52 | 29°45' 24 | 4°47' 6 | 5°12' 5 | 1°2' 27 | 27°27' 22 | 22°33' 12 | 12°51' 29 | 29°11' 8 | 8°29' 4 | 4°R20 | 3°25' 3 | 19°47' 19 | 29°35' 29 | T 14 |
| W15 | 7 36 45 | 24°38'57 | 12°57' 12 | 7°26' 7 | 5°52' 7 | 3°5' 27 | 27°27' 22 | 22°32' 12 | 12°49' 29 | 29°12' 8 | 8°29' 4 | 4°20' 4 | 3°22' 3 | 19°53' 19 | 29°38' 29 | W15 |
| T 16 | 7 40 42 | 25°40'02 | 24°44' 28 | 8°8' 8 | 8°13' 6 | 3°33' 27 | 27°26' 22 | 22°31' 12 | 12°48' 29 | 29°13' 8 | 8°29' 4 | 4°19' 4 | 3°19' 3 | 20°0' 20 | 29°42' 29 | T 16 |
| F 17 | 7 44 38 | 26°41'06 | 7°35' 29 | 4°49' 8 | 5°1' 7 | 1°13' 27 | 27°25' 22 | 22°29' 12 | 12°46' 29 | 29°14' 8 | 8°29' 4 | 4°17' 4 | 3°16' 3 | 20°7' 20 | 29°45' 29 | F 17 |
| S 18 | 7 48 35 | 27°42'09 | 20°41' 1 | 3°30' 1 | 9°27' 8 | 5°4' 27 | 27°24' 22 | 22°27' 12 | 12°45' 29 | 29°16' 8 | 8°29' 4 | 4°13' 4 | 3°13' 3 | 20°13' 20 | 29°49' 29 | S 18 |
| S 19 | 7 52 31 | 28°43'12 | 4°12' 3 | 10°2' 10 | 8°34' 8 | 3°27' 27 | 27°23' 22 | 22°26' 12 | 12°43' 29 | 29°17' 8 | 8°29' 4 | 4°10' 4 | 3°9' 3 | 20°20' 20 | 29°53' 29 | S 19 |
| M20 | 7 56 28 | 29°44'14 | 17°33' 17 | 4°55' 10 | 10°35' 9 | 1°15' 27 | 27°21' 22 | 22°24' 12 | 12°41' 29 | 29°18' 8 | 8°29' 4 | 4°6' 4 | 3°6' 3 | 20°27' 20 | 29°56' 29 | M20 |
| T 21 | 8 0 24 | 0°45'16 | 1°17' 6 | 6°38' 11 | 7°9' 9 | 5°5' 27 | 27°20' 22 | 22°22' 12 | 12°40' 29 | 29°20' 8 | 8°29' 4 | 4°2' 4 | 3°3' 3 | 20°33' 20 | 29°59' 29 | T 21 |
| W22 | 8 4 21 | 1°46'18 | 15°10' 8 | 8°22' 11 | 11°37' 10 | 3°36' 27 | 27°18' 22 | 22°20' 12 | 12°39' 29 | 29°21' 8 | 8°D28 | 4°0' 4 | 3°0' 3 | 20°40' 0 | 0°4' 0 | W22 |
| T 23 | 8 8 18 | 2°47'19 | 29°11' 10 | 6°12' 5 | 11°16' 11 | 1°16' 27 | 27°16' 22 | 22°18' 12 | 12°37' 29 | 29°23' 8 | 8°29' 4 | 3°D59 | 2°57' 2 | 20°47' 0 | 0°7' 0 | T 23 |
| F 24 | 8 12 14 | 3°48'19 | 13°11' 11 | 5°12' 11 | 12°32' 11 | 5°7' 27 | 27°14' 22 | 22°15' 12 | 12°36' 29 | 29°24' 8 | 8°29' 4 | 3°59' 4 | 2°53' 2 | 20°53' 0 | 0°11' 0 | F 24 |
| S 25 | 8 16 11 | 4°49'19 | 27°32' 13 | 3°34' 12 | 12°57' 12 | 7°13' 27 | 27°11' 22 | 22°13' 12 | 12°35' 29 | 29°25' 8 | 8°29' 4 | 4°0' 4 | 2°50' 2 | 21°0' 0 | 0°15' 0 | S 25 |
| S 26 | 8 20 7 | 5°50'19 | 11°48' 15 | 19°13' 13 | 13°21' 13 | 1°18' 27 | 27°9' 22 | 22°10' 12 | 12°33' 29 | 29°27' 8 | 8°29' 4 | 4°2' 4 | 2°47' 2 | 21°7' 0 | 0°19' 0 | S 26 |
| M27 | 8 24 4 | 6°51'17 | 26°5' 17 | 3°13' 13 | 13°42' 13 | 5°59' 27 | 27°6' 22 | 22°8' 12 | 12°32' 29 | 29°28' 8 | 8°29' 4 | 4°3' 4 | 2°44' 2 | 21°13' 0 | 0°22' 0 | M27 |
| T 28 | 8 28 0 | 7°52'15 | 10°19' 18 | 4°48' 14 | 2°14' 14 | 3°39' 27 | 27°3' 22 | 22°5' 12 | 12°31' 29 | 29°30' 8 | 8°29' 4 | 4°R3 | 2°41' 2 | 21°20' 0 | 0°26' 0 | T 28 |
| W29 | 8 31 57 | 8°53'13 | 24°27' 20 | 3°32' 14 | 19°15' 15 | 2°0' 27 | 27°0' 22 | 22°3' 12 | 12°30' 29 | 29°32' 8 | 8°29' 4 | 4°2' 4 | 2°38' 2 | 21°27' 0 | 0°30' 0 | W29 |
| T 30 | 8 35 54 | 9°54'09 | 8°24' 22 | 16°16' 16 | 1°16' 16 | 1°26' 27 | 27°0' 22 | 22°0' 12 | 12°29' 29 | 29°33' 8 | 8°29' 4 | 3°58' 4 | 2°34' 2 | 21°33' 0 | 0°34' 0 | T 30 |
| F 31 | 8 39 50 | 10°55'04 | 22°6' 23 | 3°59' 14 | 14°48' 16 | 1°42' 26 | 27°53' 21 | 22°57' 12 | 12°28' 29 | 29°35' 8 | 8°29' 4 | 3°53' 4 | 2°31' 2 | 21°40' 0 | 0°38' 0 | F 31 |

Delta T = 8.97 sec

FEBRUARY 1862

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|--------|--------|-------|--------|--------|--------|-------|------|-------|------|-------|------|------|
| S 1 | 8 43 47 | 11°55'58 | 5°30 | 25°41 | 14°59 | 17°22 | 26°R50 | 21°R54 | 12°R27 | 29°36 | 8°30 | 3°R46 | 2°28 | 21°47 | 0°42 | S 1 |
| S 2 | 8 47 43 | 12°56'51 | 18°34 | 27°21 | 15° 8 | 18° 3 | 26°46 | 21°51 | 12°26 | 29°38 | 8°30 | 3°39 | 2°25 | 21°53 | 0°46 | S 2 |
| M 3 | 8 51 40 | 13°57'42 | 1°18 | 29° 0 | 15°14 | 18°44 | 26°42 | 21°47 | 12°25 | 29°40 | 8°30 | 3°32 | 2°22 | 22° 0 | 0°50 | M 3 |
| T 4 | 8 55 36 | 14°58'32 | 13°44 | 0°37 | 15°18 | 19°25 | 26°38 | 21°44 | 12°24 | 29°42 | 8°30 | 3°27 | 2°19 | 22° 7 | 0°54 | T 4 |
| W 5 | 8 59 33 | 15°59'21 | 25°54 | 2°12 | 15°R20 | 20° 5 | 26°33 | 21°41 | 12°23 | 29°43 | 8°31 | 3°23 | 2°15 | 22°13 | 0°58 | W 5 |
| T 6 | 9 3 29 | 17° 0'08 | 7°53 | 3°43 | 15°19 | 20°46 | 26°29 | 21°37 | 12°23 | 29°45 | 8°31 | 3°20 | 2°12 | 22°20 | 1° 2 | T 6 |
| F 7 | 9 7 26 | 18° 0'53 | 19°44 | 5°11 | 15°16 | 21°27 | 26°24 | 21°34 | 12°22 | 29°47 | 8°31 | 3°D20 | 2° 9 | 22°27 | 1° 6 | F 7 |
| S 8 | 9 11 22 | 19° 1'37 | 1°33 | 6°34 | 15°10 | 22° 8 | 26°19 | 21°30 | 12°21 | 29°49 | 8°32 | 3°21 | 2° 6 | 22°34 | 1°10 | S 8 |
| S 9 | 9 15 19 | 20° 2'20 | 13°26 | 7°53 | 15° 2 | 22°49 | 26°14 | 21°27 | 12°21 | 29°51 | 8°32 | 3°22 | 2° 3 | 22°40 | 1°14 | S 9 |
| M10 | 9 19 16 | 21° 3'01 | 25°27 | 9° 5 | 14°51 | 23°29 | 26° 9 | 21°23 | 12°20 | 29°52 | 8°32 | 3°23 | 1°59 | 22°47 | 1°18 | M10 |
| T 11 | 9 23 12 | 22° 3'40 | 7°42 | 10°12 | 14°38 | 24°10 | 26° 4 | 21°19 | 12°20 | 29°54 | 8°33 | 3°R23 | 1°56 | 22°54 | 1°22 | T 11 |
| W12 | 9 27 9 | 23° 4'18 | 20°12 | 11°11 | 14°22 | 24°51 | 25°58 | 21°15 | 12°20 | 29°56 | 8°33 | 3°22 | 1°53 | 23° 0 | 1°26 | W12 |
| T 13 | 9 31 5 | 24° 4'54 | 3°32 | 12° 2 | 14° 4 | 25°32 | 25°53 | 21°12 | 12°19 | 29°58 | 8°34 | 3°18 | 1°50 | 23° 7 | 1°30 | T 13 |
| F 14 | 9 35 2 | 25° 5'28 | 16°13 | 12°45 | 13°43 | 26°13 | 25°47 | 21° 8 | 12°19 | 29°59 | 8°34 | 3°12 | 1°47 | 23°14 | 1°34 | F 14 |
| S 15 | 9 38 58 | 26° 6'01 | 29°43 | 13°19 | 13°20 | 26°54 | 25°41 | 21° 4 | 12°19 | 0°Y 2 | 8°35 | 3° 4 | 1°44 | 23°20 | 1°38 | S 15 |
| S 16 | 9 42 55 | 27° 6'33 | 13°31 | 13°43 | 12°54 | 27°35 | 25°35 | 20°59 | 12°18 | 0° 4 | 8°35 | 2°55 | 1°40 | 23°27 | 1°42 | S 16 |
| M17 | 9 46 51 | 28° 7'03 | 27°32 | 13°57 | 12°27 | 28°16 | 25°29 | 20°55 | 12°18 | 0° 6 | 8°36 | 2°45 | 1°37 | 23°34 | 1°46 | M17 |
| T 18 | 9 50 48 | 29° 7'31 | 11°41 | 14°R 1 | 11°58 | 28°57 | 25°23 | 20°51 | 12°18 | 0° 8 | 8°36 | 2°37 | 1°34 | 23°40 | 1°50 | T 18 |
| W19 | 9 54 45 | 0°7'58 | 25°55 | 13°54 | 11°27 | 29°38 | 25°16 | 20°47 | 12°D18 | 0°10 | 8°37 | 2°30 | 1°31 | 23°47 | 1°54 | W19 |
| T 20 | 9 58 41 | 1° 8'24 | 10°11 | 13°38 | 10°54 | 0°319 | 25°10 | 20°42 | 12°18 | 0°12 | 8°37 | 2°26 | 1°28 | 23°54 | 1°58 | T 20 |
| F 21 | 10 2 38 | 2° 8'49 | 24°20 | 13°12 | 10°20 | 1° 0 | 25° 3 | 20°38 | 12°18 | 0°14 | 8°38 | 2°24 | 1°24 | 24° 0 | 2° 2 | F 21 |
| S 22 | 10 6 34 | 3° 9'12 | 8°27 | 12°37 | 9°45 | 1°41 | 24°57 | 20°34 | 12°18 | 0°16 | 8°39 | 2°D24 | 1°21 | 24° 7 | 2° 6 | S 22 |
| S 23 | 10 10 31 | 4° 9'34 | 22°28 | 11°54 | 9° 9 | 2°22 | 24°50 | 20°29 | 12°19 | 0°18 | 8°39 | 2°24 | 1°18 | 24°14 | 2°11 | S 23 |
| M24 | 10 14 27 | 5° 9'54 | 6°32 | 11° 4 | 8°32 | 3° 3 | 24°43 | 20°25 | 12°19 | 0°20 | 8°40 | 2°R25 | 1°15 | 24°20 | 2°15 | M24 |
| T 25 | 10 18 24 | 6°10'14 | 20°10 | 10° 9 | 7°55 | 3°44 | 24°36 | 20°20 | 12°19 | 0°22 | 8°41 | 2°23 | 1°12 | 24°27 | 2°19 | T 25 |
| W26 | 10 22 20 | 7°10'31 | 3°50 | 9° 9 | 7°17 | 4°25 | 24°29 | 20°16 | 12°20 | 0°24 | 8°41 | 2°19 | 1° 9 | 24°34 | 2°23 | W26 |
| T 27 | 10 26 17 | 8°10'47 | 17°21 | 8° 7 | 6°40 | 5° 6 | 24°22 | 20°11 | 12°20 | 0°27 | 8°42 | 2°13 | 1° 5 | 24°40 | 2°27 | T 27 |
| F 28 | 10 30 14 | 9°11'01 | 0°40 | 7°3 | 6°32 | 5°347 | 24°14 | 20°7 | 12°20 | 0°Y29 | 8°43 | 2°3 | 1°32 | 24°47 | 2°31 | F 28 |

ASTRODIENST EPHEMERIS for the year 1862

geocentric

MARCH 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|-------|--------|--------|---------|-------|-------|--------|--------|--------|-------|------|
| S 1 | 10 34 10 | 10°11'14 | 13°47 | 6°R 0 | 5°R26 | 6°28 | 24°R 7 | 20°R 2 | 12°II21 | 0°V31 | 8°844 | 1°R52 | 0°359 | 24°854 | 2°H35 | S 1 |
| S 2 | 10 38 7 | 11°11'24 | 26°39 | 4°H59 | 4°H50 | 7°10 | 24°H 0 | 19°H57 | 12°21 | 0°33 | 8°45 | 1°39 | 0°56 | 25° 0 | 2°39 | S 2 |
| M 3 | 10 42 3 | 12°11'33 | 9°V15 | 4° 1 | 4°15 | 7°51 | 23°52 | 19°53 | 12°22 | 0°35 | 8°45 | 1°27 | 0°53 | 25° 7 | 2°43 | M 3 |
| T 4 | 10 46 0 | 13°11'39 | 21°37 | 3° 7 | 3°42 | 8°32 | 23°45 | 19°48 | 12°23 | 0°37 | 8°46 | 1°15 | 0°50 | 25°14 | 2°47 | T 4 |
| W 5 | 10 49 56 | 14°11'44 | 3°845 | 2°19 | 3° 9 | 9°13 | 23°37 | 19°43 | 12°23 | 0°40 | 8°47 | 1° 6 | 0°46 | 25°20 | 2°51 | W 5 |
| T 6 | 10 53 53 | 15°11'47 | 15°42 | 1°36 | 2°39 | 9°54 | 23°29 | 19°38 | 12°24 | 0°42 | 8°48 | 1° 0 | 0°43 | 25°27 | 2°55 | T 6 |
| F 7 | 10 57 49 | 16°11'47 | 27°33 | 0°59 | 2°10 | 10°35 | 23°22 | 19°34 | 12°25 | 0°44 | 8°49 | 0°56 | 0°40 | 25°34 | 2°59 | F 7 |
| S 8 | 11 1 46 | 17°11'46 | 9°II21 | 0°29 | 1°43 | 11°16 | 23°14 | 19°29 | 12°26 | 0°46 | 8°50 | 0°55 | 0°37 | 25°40 | 3° 3 | S 8 |
| S 9 | 11 5 43 | 18°11'42 | 21°13 | 0° 5 | 1°19 | 11°58 | 23° 6 | 19°24 | 12°27 | 0°48 | 8°51 | 0°D54 | 0°34 | 25°47 | 3° 7 | S 9 |
| M10 | 11 9 39 | 19°11'36 | 3°813 | 29°48 | 0°56 | 12°39 | 22°59 | 19°19 | 12°28 | 0°51 | 8°52 | 0°R54 | 0°30 | 25°54 | 3°11 | M10 |
| T 11 | 11 13 36 | 20°11'28 | 15°27 | 29°37 | 0°36 | 13°20 | 22°51 | 19°15 | 12°29 | 0°53 | 8°52 | 0°54 | 0°27 | 26° 0 | 3°15 | T 11 |
| W12 | 11 17 32 | 21°11'17 | 28° 0 | 29°D33 | 0°18 | 14° 1 | 22°43 | 19°10 | 12°30 | 0°55 | 8°53 | 0°51 | 0°24 | 26° 7 | 3°19 | W12 |
| T 13 | 11 21 29 | 22°11'05 | 10°857 | 29°35 | 0° 2 | 14°42 | 22°35 | 19° 5 | 12°31 | 0°57 | 8°54 | 0°46 | 0°21 | 26°14 | 3°23 | T 13 |
| F 14 | 11 25 25 | 23°10'50 | 24°18 | 29°43 | 29°49 | 15°23 | 22°27 | 19° 0 | 12°32 | 1° 0 | 8°55 | 0°38 | 0°18 | 26°20 | 3°27 | F 14 |
| S 15 | 11 29 22 | 24°10'33 | 8°H 5 | 29°57 | 29°38 | 16° 5 | 22°20 | 18°56 | 12°34 | 1° 2 | 8°56 | 0°28 | 0°15 | 26°27 | 3°30 | S 15 |
| S 16 | 11 33 18 | 25°10'14 | 22°14 | 0°H15 | 29°30 | 16°46 | 22°12 | 18°51 | 12°35 | 1° 4 | 8°57 | 0°16 | 0°11 | 26°34 | 3°34 | S 16 |
| M17 | 11 37 15 | 26° 9'53 | 6°41 | 0°39 | 29°25 | 17°27 | 22° 4 | 18°46 | 12°36 | 1° 6 | 8°58 | 0° 4 | 0° 8 | 26°40 | 3°38 | M17 |
| T 18 | 11 41 12 | 27° 9'30 | 21°18 | 1° 8 | 29°21 | 18° 8 | 21°56 | 18°41 | 12°38 | 1° 9 | 8°59 | 29°53 | 0° 5 | 26°47 | 3°42 | T 18 |
| W19 | 11 45 8 | 28° 9'05 | 5°H59 | 1°41 | 29°D21 | 18°50 | 21°49 | 18°37 | 12°39 | 1°11 | 9° 1 | 29°44 | 0° 2 | 26°54 | 3°46 | W19 |
| T 20 | 11 49 5 | 29° 8'38 | 20°36 | 2°19 | 29°22 | 19°31 | 21°41 | 18°32 | 12°40 | 1°13 | 9° 2 | 29°38 | 29°59 | 27° 0 | 3°50 | T 20 |
| F 21 | 11 53 1 | 0°V8'10 | 5°H 3 | 3° 0 | 29°26 | 20°12 | 21°33 | 18°28 | 12°42 | 1°15 | 9° 3 | 29°34 | 29°56 | 27° 7 | 3°53 | F 21 |
| S 22 | 11 56 58 | 1° 7'40 | 19°17 | 3°45 | 29°33 | 20°53 | 21°26 | 18°23 | 12°44 | 1°18 | 9° 4 | 29°33 | 29°52 | 27°14 | 3°57 | S 22 |
| S 23 | 12 0 54 | 2° 7'08 | 3°317 | 4°34 | 29°41 | 21°35 | 21°18 | 18°18 | 12°45 | 1°20 | 9° 5 | 29°33 | 29°49 | 27°20 | 4° 1 | S 23 |
| M24 | 12 4 51 | 3° 6'35 | 17° 3 | 5°25 | 29°52 | 22°16 | 21°11 | 18°14 | 12°47 | 1°22 | 9° 6 | 29°33 | 29°46 | 27°27 | 4° 4 | M24 |
| T 25 | 12 8 47 | 4° 5'59 | 0°355 | 6°20 | 0°H 5 | 22°57 | 21° 3 | 18° 9 | 12°49 | 1°25 | 9° 7 | 29°31 | 29°43 | 27°34 | 4° 8 | T 25 |
| W26 | 12 12 44 | 5° 5'22 | 13°55 | 7°18 | 0°20 | 23°38 | 20°56 | 18° 5 | 12°50 | 1°27 | 9° 8 | 29°27 | 29°40 | 27°40 | 4°12 | W26 |
| T 27 | 12 16 41 | 6° 4'43 | 27° 3 | 8°19 | 0°37 | 24°20 | 20°48 | 18° 0 | 12°52 | 1°29 | 9°10 | 29°19 | 29°36 | 27°47 | 4°15 | T 27 |
| F 28 | 12 20 37 | 7° 4'02 | 10°H 0 | 9°22 | 0°56 | 25° 1 | 20°41 | 17°56 | 12°54 | 1°31 | 9°11 | 29° 9 | 29°33 | 27°54 | 4°19 | F 28 |
| S 29 | 12 24 34 | 8° 3'20 | 22°46 | 10°28 | 1°17 | 25°42 | 20°34 | 17°52 | 12°56 | 1°34 | 9°12 | 28°57 | 29°30 | 28° 0 | 4°22 | S 29 |
| S 30 | 12 28 30 | 9° 2'35 | 5°V20 | 11°36 | 1°39 | 26°23 | 20°27 | 17°47 | 12°58 | 1°36 | 9°13 | 28°43 | 29°27 | 28° 7 | 4°26 | S 30 |
| M31 | 12 32 27 | 10°V 1'48 | 17°V43 | 12°H47 | 2°H 4 | 27°35 | 20°H20 | 17°H43 | 13°II 0 | 1°V38 | 9°H14 | 28°H30 | 29°H24 | 28°H14 | 4°H29 | M31 |

Delta T = 8.97 sec

APRIL 1862

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|--------|--------|--------|--------|--------|--------|---------|-------|-------|--------|--------|--------|-------|------|
| T 1 | 12 36 23 | 11°V 0'59 | 29°V55 | 13°H59 | 2°H30 | 27°346 | 20°R13 | 17°R39 | 13°II 2 | 1°V40 | 9°815 | 28°R17 | 29°H21 | 28°820 | 4°H33 | T 1 |
| W 2 | 12 40 20 | 12° 0'08 | 11°857 | 15°14 | 2°57 | 28°27 | 20°H 6 | 17°H35 | 13° 4 | 1°43 | 9°17 | 28°H 7 | 29°17 | 28°27 | 4°36 | W 2 |
| T 3 | 12 44 16 | 12°59'15 | 23°51 | 16°31 | 3°27 | 29° 8 | 19°59 | 17°31 | 13° 6 | 1°45 | 9°18 | 27°59 | 29°14 | 28°34 | 4°40 | T 3 |
| F 4 | 12 48 13 | 13°58'20 | 5°II39 | 17°49 | 3°57 | 29°50 | 19°53 | 17°27 | 13° 8 | 1°47 | 9°19 | 27°55 | 29°11 | 28°40 | 4°43 | F 4 |
| S 5 | 12 52 9 | 14°57'22 | 17°26 | 19°10 | 4°30 | 0°331 | 19°46 | 17°23 | 13°10 | 1°49 | 9°20 | 27°53 | 29° 8 | 28°47 | 4°46 | S 5 |
| S 6 | 12 56 6 | 15°56'22 | 29°16 | 20°32 | 5° 3 | 1°12 | 19°40 | 17°19 | 13°13 | 1°52 | 9°22 | 27°D52 | 29° 5 | 28°54 | 4°50 | S 6 |
| M 7 | 13 0 3 | 16°55'20 | 11°815 | 21°56 | 5°38 | 1°53 | 19°33 | 17°15 | 13°15 | 1°54 | 9°23 | 27°R52 | 29° 1 | 29° 0 | 4°53 | M 7 |
| T 8 | 13 3 59 | 17°54'16 | 23°27 | 23°22 | 6°14 | 2°34 | 19°27 | 17°11 | 13°17 | 1°56 | 9°24 | 27°52 | 28°58 | 29° 7 | 4°56 | T 8 |
| W 9 | 13 7 56 | 18°53'09 | 5°H58 | 24°50 | 6°51 | 3°16 | 19°21 | 17° 8 | 13°20 | 1°58 | 9°26 | 27°51 | 28°55 | 29°14 | 4°59 | W 9 |
| T 10 | 13 11 52 | 19°52'00 | 18°53 | 26°19 | 7°30 | 3°57 | 19°15 | 17° 4 | 13°22 | 2° 0 | 9°27 | 27°48 | 28°52 | 29°20 | 5° 2 | T 10 |
| F 11 | 13 15 49 | 20°50'49 | 2°H16 | 27°50 | 8°10 | 4°38 | 19°10 | 17° 1 | 13°24 | 2° 3 | 9°28 | 27°42 | 28°49 | 29°27 | 5° 6 | F 11 |
| S 12 | 13 19 45 | 21°49'35 | 16° 6 | 29°22 | 8°50 | 5°19 | 19° 4 | 16°57 | 13°27 | 2° 5 | 9°29 | 27°34 | 28°46 | 29°34 | 5° 9 | S 12 |
| S 13 | 13 23 42 | 22°48'20 | 0°H25 | 0°V57 | 9°32 | 6° 0 | 18°58 | 16°54 | 13°29 | 2° 7 | 9°31 | 27°24 | 28°42 | 29°40 | 5°12 | S 13 |
| M14 | 13 27 38 | 23°47'02 | 15° 6 | 2°32 | 10°15 | 6°41 | 18°53 | 16°50 | 13°32 | 2° 9 | 9°32 | 27°14 | 28°39 | 29°47 | 5°15 | M14 |
| T 15 | 13 31 35 | 24°45'42 | 0°H 3 | 4°10 | 10°59 | 7°22 | 18°48 | 16°47 | 13°34 | 2°11 | 9°33 | 27° 5 | 28°36 | 29°54 | 5°18 | T 15 |
| W16 | 13 35 32 | 25°44'20 | 15° 6 | 5°49 | 11°43 | 8° 4 | 18°43 | 16°44 | 13°37 | 2°13 | 9°35 | 26°58 | 28°33 | 0°II 0 | 5°21 | W16 |
| T 17 | 13 39 28 | 26°42'57 | 0°H 5 | 7°30 | 12°29 | 8°45 | 18°38 | 16°41 | 13°40 | 2°15 | 9°36 | 26°53 | 28°30 | 0° 7 | 5°23 | T 17 |
| F 18 | 13 43 25 | 27°41'32 | 14°54 | 9°12 | 13°16 | 9°26 | 18°33 | 16°38 | 13°42 | 2°18 | 9°37 | 26°50 | 28°27 | 0°14 | 5°26 | F 18 |
| S 19 | 13 47 21 | 28°40'05 | 29°25 | 10°56 | 14° 3 | 10° 7 | 18°29 | 16°35 | 13°45 | 2°20 | 9°39 | 26°D50 | 28°23 | 0°20 | 5°29 | S 19 |
| S 20 | 13 51 18 | 29°38'36 | 13°36 | 12°42 | 14°51 | 10°48 | 18°24 | 16°32 | 13°48 | 2°22 | 9°40 | 26°50 | 28°20 | 0°27 | 5°32 | S 20 |
| M21 | 13 55 14 | 0°H37'06 | 27°26 | 14°29 | 15°40 | 11°29 | 18°20 | 16°29 | 13°51 | 2°24 | 9°41 | 26°R51 | 28°17 | 0°34 | 5°35 | M21 |
| T 22 | 13 59 11 | 1°35'34 | 10°856 | 16°18 | 16°30 | 12°10 | 18°16 | 16°27 | 13°53 | 2°26 | 9°43 | 26°50 | 28°14 | 0°40 | 5°37 | T 22 |
| W23 | 14 3 7 | 2°34'01 | 24° 7 | 18° 9 | 17°20 | 12°51 | 18°12 | 16°24 | 13°56 | 2°28 | 9°44 | 26°48 | 28°11 | 0°47 | 5°40 | W23 |
| T 24 | 14 7 4 | 3°32'26 | 7°H 2 | 20° 1 | 18°11 | 13°32 | 18° 8 | 16°22 | 13°59 | 2°30 | 9°45 | 26°44 | 28° 7 | 0°54 | 5°42 | T 24 |
| F 25 | 14 11 1 | 4°30'49 | 19°42 | 21°55 | 19° 3 | 14°13 | 18° 5 | 16°19 | 14° 2 | 2°32 | 9°47 | 26°37 | 28° 4 | 1° 0 | 5°45 | F 25 |
| S 26 | 14 14 57 | 5°29'11 | 2°V11 | 23°51 | 19°55 | 14°54 | 18° 1 | 16°17 | 14° 5 | 2°34 | 9°48 | 26°29 | 28° 1 | 1° 7 | 5°47 | S 26 |
| S 27 | 14 18 54 | 6°27'31 | 14°29 | 25°49 | 20°48 | 15°35 | 17°58 | 16°15 | 14° 8 | 2°36 | 9°50 | 26°20 | 27°58 | 1°14 | 5°50 | S 27 |
| M28 | 14 22 50 | 7°25'49 | 26°38 | 27°48 | 21°41 | 16°15 | 17°55 | 16°13 | 14°11 | 2°38 | 9°51 | 26°10 | 27°55 | 1°20 | 5°52 | M28 |
| T 29 | 14 26 47 | 8°24'06 | 8°H39 | 29°48 | 22°35 | 16°56 | 17°52 | 16°11 | 14°14 | 2°40 | 9°52 | 26° 2 | 27°52 | 1°27 | 5°55 | T 29 |
| W30 | 14 30 43 | 9°22'21 | 20°H34 | 18°50 | 23°H30 | 17°37 | 17°H49 | 16°H 9 | 14°II17 | 2°V42 | 9°H54 | 25°H55 | 27°H48 | 1°II34 | 5°H57 | W30 |

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ASTRODIENST EPHEMERIS for the year 1862

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MAY 1862

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|-------|-------|-------|--------|--------|-------|------|-------|--------|-------|------|------|------|
| T 1 | 14 34 40 | 10°32'34 | 211°23 | 3°54 | 24°25 | 18°18 | 17°46 | 16°R 7 | 14°20 | 2°44 | 9°55 | 25°R50 | 27°45 | 1°40 | 5°59 | T 1 |
| F 2 | 14 38 36 | 11°18'45 | 14°10 | 5°59 | 25°21 | 18°59 | 17°44 | 16°R 5 | 14°23 | 2°45 | 9°56 | 25°R47 | 27°42 | 1°47 | 6° 1 | F 2 |
| S 3 | 14 42 33 | 12°16'55 | 25°58 | 8° 5 | 26°17 | 19°39 | 17°42 | 16° 3 | 14°26 | 2°47 | 9°58 | 25°D46 | 27°39 | 1°54 | 6° 3 | S 3 |
| S 4 | 14 46 30 | 13°15'02 | 7°54 | 10°13 | 27°13 | 20°20 | 17°40 | 16° 2 | 14°29 | 2°49 | 9°59 | 25°47 | 27°36 | 2° 0 | 6° 6 | S 4 |
| M 5 | 14 50 26 | 14°13'08 | 19°48 | 12°21 | 28°10 | 21° 0 | 17°38 | 16° 1 | 14°33 | 2°51 | 10° 0 | 25°48 | 27°33 | 2° 7 | 6° 8 | M 5 |
| T 6 | 14 54 23 | 15°11'12 | 2°0 | 14°31 | 29° 8 | 21°41 | 17°36 | 15°59 | 14°36 | 2°53 | 10° 2 | 25°50 | 27°29 | 2°14 | 6°10 | T 6 |
| W 7 | 14 58 19 | 16° 9'14 | 14°29 | 16°41 | 0°Y 6 | 22°22 | 17°35 | 15°58 | 14°39 | 2°55 | 10° 3 | 25°R51 | 27°26 | 2°20 | 6°12 | W 7 |
| T 8 | 15 2 16 | 17° 7'14 | 27°21 | 18°51 | 1° 4 | 23° 2 | 17°34 | 15°57 | 14°42 | 2°56 | 10° 5 | 25°50 | 27°23 | 2°27 | 6°13 | T 8 |
| F 9 | 15 6 12 | 18° 5'12 | 10°38 | 21° 2 | 2° 2 | 23°42 | 17°33 | 15°56 | 14°45 | 2°58 | 10° 6 | 25°48 | 27°20 | 2°34 | 6°15 | F 9 |
| S 10 | 15 10 9 | 19° 3'08 | 24°24 | 23°12 | 3° 1 | 24°23 | 17°32 | 15°55 | 14°49 | 3° 0 | 10° 7 | 25°44 | 27°17 | 2°40 | 6°17 | S 10 |
| S 11 | 15 14 5 | 20° 1'02 | 8°39 | 25°22 | 4° 1 | 25° 3 | 17°31 | 15°54 | 14°52 | 3° 2 | 10° 9 | 25°40 | 27°13 | 2°47 | 6°19 | S 11 |
| M12 | 15 18 2 | 20°58'55 | 23°19 | 27°32 | 5° 0 | 25°43 | 17°30 | 15°53 | 14°55 | 3° 3 | 10°10 | 25°35 | 27°10 | 2°53 | 6°20 | M12 |
| T 13 | 15 21 59 | 21°56'46 | 8°19 | 29°40 | 6° 0 | 26°24 | 17°30 | 15°53 | 14°59 | 3° 5 | 10°11 | 25°30 | 27° 7 | 3° 0 | 6°22 | T 13 |
| W14 | 15 25 55 | 22°54'35 | 23°30 | 1°48 | 7° 1 | 27° 4 | 17°30 | 15°52 | 15° 2 | 3° 6 | 10°13 | 25°26 | 27° 4 | 3° 7 | 6°24 | W14 |
| T 15 | 15 29 52 | 23°52'23 | 8°43 | 3°53 | 8° 1 | 27°44 | 17°D30 | 15°52 | 15° 5 | 3° 8 | 10°14 | 25°24 | 27° 1 | 3°13 | 6°25 | T 15 |
| F 16 | 15 33 48 | 24°50'10 | 23°48 | 5°57 | 9° 2 | 28°24 | 17°30 | 15°52 | 15° 9 | 3°10 | 10°15 | 25°D23 | 26°58 | 3°20 | 6°27 | F 16 |
| S 17 | 15 37 45 | 25°47'56 | 8°36 | 7°59 | 10° 4 | 29° 4 | 17°30 | 15°51 | 15°12 | 3°11 | 10°17 | 25°23 | 26°54 | 3°27 | 6°28 | S 17 |
| S 18 | 15 41 41 | 26°45'40 | 23° 2 | 9°59 | 11° 5 | 29°44 | 17°31 | 15°D51 | 15°15 | 3°13 | 10°18 | 25°25 | 26°51 | 3°33 | 6°29 | S 18 |
| M19 | 15 45 38 | 27°43'23 | 7°3 | 11°56 | 12° 7 | 0°24 | 17°31 | 15°51 | 15°19 | 3°14 | 10°19 | 25°26 | 26°48 | 3°40 | 6°31 | M19 |
| T 20 | 15 49 34 | 28°41'05 | 20°40 | 13°51 | 13° 9 | 1° 4 | 17°32 | 15°51 | 15°22 | 3°16 | 10°21 | 25°27 | 26°45 | 3°47 | 6°32 | T 20 |
| W21 | 15 53 31 | 29°38'46 | 3°52 | 15°44 | 14°12 | 1°44 | 17°33 | 15°52 | 15°26 | 3°17 | 10°22 | 25°R27 | 26°42 | 3°53 | 6°33 | W21 |
| T 22 | 15 57 28 | 0°36'26 | 16°44 | 17°33 | 15°14 | 2°23 | 17°35 | 15°52 | 15°29 | 3°19 | 10°23 | 25°26 | 26°39 | 4° 0 | 6°34 | T 22 |
| F 23 | 16 1 24 | 1°34'05 | 29°17 | 19°20 | 16°17 | 3° 3 | 17°36 | 15°52 | 15°33 | 3°20 | 10°24 | 25°24 | 26°35 | 4° 7 | 6°35 | F 23 |
| S 24 | 16 5 21 | 2°31'43 | 11°36 | 21° 4 | 17°20 | 3°42 | 17°38 | 15°53 | 15°36 | 3°21 | 10°26 | 25°21 | 26°32 | 4°13 | 6°36 | S 24 |
| S 25 | 16 9 17 | 3°29'20 | 23°43 | 22°45 | 18°24 | 4°22 | 17°39 | 15°53 | 15°40 | 3°23 | 10°27 | 25°18 | 26°29 | 4°20 | 6°37 | S 25 |
| M26 | 16 13 14 | 4°26'56 | 5°42 | 24°23 | 19°27 | 5° 1 | 17°41 | 15°54 | 15°43 | 3°24 | 10°28 | 25°15 | 26°26 | 4°27 | 6°38 | M26 |
| T 27 | 16 17 10 | 5°24'31 | 17°35 | 25°58 | 20°31 | 5°41 | 17°43 | 15°55 | 15°47 | 3°25 | 10°29 | 25°11 | 26°23 | 4°33 | 6°39 | T 27 |
| W28 | 16 21 7 | 6°22'05 | 29°24 | 27°30 | 21°35 | 6°20 | 17°46 | 15°56 | 15°50 | 3°27 | 10°31 | 25° 9 | 26°19 | 4°40 | 6°40 | W28 |
| T 29 | 16 25 3 | 7°19'38 | 11°12 | 28°58 | 22°40 | 6°59 | 17°48 | 15°57 | 15°54 | 3°28 | 10°32 | 25° 8 | 26°16 | 4°47 | 6°41 | T 29 |
| F 30 | 16 29 0 | 8°17'10 | 23° 0 | 0°24 | 23°44 | 7°38 | 17°51 | 15°58 | 15°57 | 3°29 | 10°33 | 25°D 7 | 26°13 | 4°53 | 6°41 | F 30 |
| S 31 | 16 32 57 | 9°11'44 | 4°51 | 1°47 | 24°49 | 8°17 | 17°54 | 15°59 | 16°11 | 3°30 | 10°34 | 25°7 | 26°10 | 5°11 | 6°42 | S 31 |

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|------|----------|----------|-------|--------|-------|-------|-------|--------|-------|------|-------|--------|-------|------|------|------|
| S 1 | 16 36 53 | 10°11'10 | 16°47 | 3°56 | 25°53 | 8°56 | 17°57 | 16°R 1 | 16°11 | 3°33 | 10°36 | 25°R 8 | 26°47 | 5°11 | 6°42 | S 1 |
| M 2 | 16 40 50 | 11° 9'39 | 28°53 | 4°22 | 26°58 | 9°35 | 18° 0 | 16° 2 | 16° 8 | 3°33 | 10°37 | 25° 9 | 26° 4 | 5°13 | 6°43 | M 2 |
| T 3 | 16 44 46 | 12° 7'06 | 11°10 | 5°35 | 28° 4 | 10°13 | 18° 3 | 16° 4 | 16°11 | 3°34 | 10°38 | 25°10 | 26° 0 | 5°20 | 6°43 | T 3 |
| W 4 | 16 48 43 | 13° 4'32 | 23°42 | 6°44 | 29° 9 | 10°52 | 18° 7 | 16° 5 | 16°15 | 3°35 | 10°39 | 25°11 | 25°57 | 5°27 | 6°44 | W 4 |
| T 5 | 16 52 39 | 14° 1'57 | 6°33 | 7°50 | 0°14 | 11°30 | 18°10 | 16° 7 | 16°18 | 3°36 | 10°40 | 25°12 | 25°54 | 5°33 | 6°44 | T 5 |
| F 6 | 16 56 36 | 14°59'21 | 19°47 | 8°52 | 1°20 | 12° 8 | 18°14 | 16° 9 | 16°22 | 3°37 | 10°42 | 25°R12 | 25°51 | 5°40 | 6°44 | F 6 |
| S 7 | 17 0 32 | 15°56'43 | 3°25 | 9°51 | 2°26 | 12°47 | 18°18 | 16°11 | 16°26 | 3°38 | 10°43 | 25°12 | 25°48 | 5°47 | 6°45 | S 7 |
| S 8 | 17 4 29 | 16°54'04 | 17°29 | 10°47 | 3°32 | 13°25 | 18°22 | 16°13 | 16°29 | 3°39 | 10°44 | 25°11 | 25°44 | 5°53 | 6°45 | S 8 |
| M 9 | 17 8 26 | 17°51'25 | 1°57 | 11°38 | 4°38 | 14° 2 | 18°27 | 16°15 | 16°33 | 3°40 | 10°45 | 25°10 | 25°41 | 6° 0 | 6°45 | M 9 |
| T 10 | 17 12 22 | 18°48'44 | 16°46 | 12°26 | 5°44 | 14°40 | 18°31 | 16°17 | 16°36 | 3°41 | 10°46 | 25° 9 | 25°38 | 6° 7 | 6°45 | T 10 |
| W11 | 17 16 19 | 19°46'03 | 1°50 | 13°10 | 6°50 | 15°18 | 18°36 | 16°20 | 16°40 | 3°41 | 10°47 | 25° 9 | 25°35 | 6°13 | 6°45 | W11 |
| T 12 | 17 20 15 | 20°43'21 | 17° 0 | 13°49 | 7°57 | 15°56 | 18°40 | 16°22 | 16°43 | 3°42 | 10°48 | 25° 9 | 25°32 | 6°20 | 6°45 | T 12 |
| F 13 | 17 24 12 | 21°40'38 | 2°3 | 14°25 | 9° 4 | 16°33 | 18°45 | 16°25 | 16°47 | 3°43 | 10°49 | 25°D 9 | 25°29 | 6°26 | 6°45 | F 13 |
| S 14 | 17 28 8 | 22°37'55 | 17° 3 | 14°57 | 10°10 | 17°10 | 18°50 | 16°27 | 16°50 | 3°44 | 10°50 | 25° 9 | 25°25 | 6°33 | 6°44 | S 14 |
| S 15 | 17 32 5 | 23°35'11 | 1°39 | 15°24 | 11°17 | 17°47 | 18°56 | 16°30 | 16°54 | 3°45 | 10°52 | 25° 9 | 25°22 | 6°40 | 6°44 | S 15 |
| M16 | 17 36 2 | 24°32'27 | 15°51 | 15°47 | 12°25 | 18°24 | 19° 1 | 16°33 | 16°58 | 3°45 | 10°53 | 25° 9 | 25°19 | 6°46 | 6°44 | M16 |
| T 17 | 17 39 58 | 25°29'42 | 29°37 | 16° 5 | 13°32 | 19° 1 | 19° 7 | 16°36 | 17° 1 | 3°46 | 10°54 | 25°R 9 | 25°16 | 6°53 | 6°43 | T 17 |
| W18 | 17 43 55 | 26°26'57 | 12°56 | 16°19 | 14°39 | 19°38 | 19°12 | 16°39 | 17° 5 | 3°47 | 10°55 | 25° 9 | 25°13 | 7° 0 | 6°43 | W18 |
| T 19 | 17 47 51 | 27°24'12 | 25°50 | 16°29 | 15°47 | 20°15 | 19°18 | 16°42 | 17° 8 | 3°47 | 10°56 | 25°D 9 | 25°10 | 7° 6 | 6°42 | T 19 |
| F 20 | 17 51 48 | 28°21'27 | 8°23 | 16°33 | 16°54 | 20°51 | 19°24 | 16°45 | 17°12 | 3°48 | 10°57 | 25° 9 | 25° 6 | 7°13 | 6°42 | F 20 |
| S 21 | 17 55 44 | 29°18'41 | 20°39 | 16°R34 | 18° 2 | 21°27 | 19°30 | 16°48 | 17°15 | 3°48 | 10°58 | 25° 9 | 25° 3 | 7°20 | 6°41 | S 21 |
| S 22 | 17 59 41 | 0°15'56 | 2°42 | 16°30 | 19°10 | 22° 3 | 19°36 | 16°51 | 17°19 | 3°49 | 10°59 | 25°10 | 25° 0 | 7°26 | 6°41 | S 22 |
| M23 | 18 3 37 | 1°13'10 | 14°36 | 16°21 | 20°18 | 22°39 | 19°43 | 16°55 | 17°22 | 3°49 | 11° 0 | 25°10 | 24°57 | 7°33 | 6°40 | M23 |
| T 24 | 18 7 34 | 2°10'24 | 26°24 | 16° 8 | 21°26 | 23°15 | 19°49 | 16°58 | 17°26 | 3°50 | 11° 1 | 25°11 | 24°54 | 7°40 | 6°39 | T 24 |
| W25 | 18 11 31 | 3° 7'39 | 8°12 | 15°51 | 22°34 | 23°50 | 19°56 | 17° 2 | 17°29 | 3°50 | 11° 1 | 25°12 | 24°50 | 7°46 | 6°38 | W25 |
| T 26 | 18 15 27 | 4° 4'53 | 20° 0 | 15°30 | 23°42 | 24°25 | 20° 3 | 17° 6 | 17°32 | 3°51 | 11° 2 | 25°R12 | 24°47 | 7°53 | 6°37 | T 26 |
| F 27 | 18 19 24 | 5° 2'07 | 1°53 | 15° 5 | 24°50 | 25° 0 | 20°10 | 17° 9 | 17°36 | 3°51 | 11° 3 | 25°12 | 24°44 | 8° 0 | 6°36 | F 27 |
| S 28 | 18 23 20 | 5°59'20 | 13°51 | 14°37 | 25°59 | 25°35 | 20°17 | 17°13 | 17°39 | 3°51 | 11° 4 | 25°11 | 24°41 | 8° 6 | 6°35 | S 28 |
| S 29 | 18 27 17 | 6°56'34 | 25°59 | 14° 7 | 27° 7 | 26°10 | 20°24 | 17°17 | 17°43 | 3°52 | 11° 5 | 25°10 | 24°38 | 8°13 | 6°34 | S 29 |
| M30 | 18 31 13 | 7°53'47 | 8°16 | 13°33 | 28°16 | 26°44 | 20°31 | 17°21 | 17°46 | 3°52 | 11° 6 | 25°9 | 24°35 | 8°11 | 6°33 | M30 |

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ASTRODIENST EPHEMERIS for the year 1862
geocentric

JULY 1862

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|------|----------|----------|--------|--------|---------|--------|-------|-------|-------|-------|--------|--------|---------|--------|-------|------|
| T 1 | 18 35 10 | 8°51'00 | 20°45 | 12°R58 | 29°8'25 | 27°18 | 20°39 | 17°25 | 17°49 | 3°V52 | 11°8 6 | 25°R 7 | 24°7'31 | 8°II26 | 6°R32 | T 1 |
| W 2 | 18 39 6 | 9°48'13 | 3°28 | 12°22 | 0°II33 | 27°52 | 20°46 | 17°30 | 17°53 | 3°52 | 11° 7 | 25°7 5 | 24°28 | 8°33 | 6°K31 | W 2 |
| T 3 | 18 43 3 | 10°45'25 | 16°26 | 11°45 | 1°42 | 28°26 | 20°54 | 17°34 | 17°56 | 3°52 | 11° 8 | 25° 3 | 24°25 | 8°40 | 6°30 | T 3 |
| F 4 | 18 47 0 | 11°42'38 | 29°42 | 11° 8 | 2°51 | 28°59 | 21° 2 | 17°38 | 18° 0 | 3°52 | 11° 9 | 25° 2 | 24°22 | 8°46 | 6°28 | F 4 |
| S 5 | 18 50 56 | 12°39'50 | 13°17 | 10°32 | 4° 0 | 29°32 | 21° 9 | 17°43 | 18° 3 | 3°53 | 11°10 | 25°D 2 | 24°19 | 8°53 | 6°27 | S 5 |
| S 6 | 18 54 53 | 13°37'01 | 27°11 | 9°57 | 5°10 | 0°V 5 | 21°18 | 17°47 | 18° 6 | 3°53 | 11°10 | 25° 2 | 24°16 | 8°59 | 6°25 | S 6 |
| M 7 | 18 58 49 | 14°34'13 | 11°24 | 9°24 | 6°19 | 0°38 | 21°26 | 17°52 | 18° 9 | 3°R53 | 11°11 | 25° 3 | 24°12 | 9° 6 | 6°24 | M 7 |
| T 8 | 19 2 46 | 15°31'24 | 25°56 | 8°53 | 7°28 | 1°10 | 21°34 | 17°56 | 18°13 | 3°53 | 11°12 | 25° 5 | 24° 9 | 9°13 | 6°22 | T 8 |
| W 9 | 19 6 42 | 16°28'36 | 10°41 | 8°25 | 8°38 | 1°43 | 21°42 | 18° 1 | 18°16 | 3°53 | 11°12 | 25° 6 | 24° 6 | 9°19 | 6°21 | W 9 |
| T 10 | 19 10 39 | 17°25'48 | 25°34 | 8° 0 | 9°47 | 2°14 | 21°51 | 18° 6 | 18°19 | 3°52 | 11°13 | 25°R 6 | 24° 3 | 9°26 | 6°19 | T 10 |
| F 11 | 19 14 35 | 18°22'59 | 10°29 | 7°40 | 10°57 | 2°46 | 21°59 | 18°11 | 18°22 | 3°52 | 11°14 | 25° 5 | 24° 0 | 9°33 | 6°18 | F 11 |
| S 12 | 19 18 32 | 19°20'11 | 25°18 | 7°24 | 12° 6 | 3°17 | 22° 8 | 18°16 | 18°26 | 3°52 | 11°14 | 25° 4 | 23°56 | 9°39 | 6°16 | S 12 |
| S 13 | 19 22 29 | 20°17'23 | 9°52 | 7°12 | 13°16 | 3°48 | 22°17 | 18°21 | 18°29 | 3°52 | 11°15 | 25° 1 | 23°53 | 9°46 | 6°14 | S 13 |
| M14 | 19 26 25 | 21°14'36 | 24° 7 | 7° 6 | 14°26 | 4°19 | 22°26 | 18°26 | 18°32 | 3°52 | 11°15 | 24°57 | 23°50 | 9°53 | 6°12 | M14 |
| T 15 | 19 30 22 | 22°11'49 | 7°56 | 7°D 4 | 15°36 | 4°49 | 22°35 | 18°31 | 18°35 | 3°52 | 11°16 | 24°54 | 23°47 | 9°59 | 6°10 | T 15 |
| W16 | 19 34 18 | 23° 9'02 | 21°20 | 7° 8 | 16°46 | 5°19 | 22°44 | 18°36 | 18°38 | 3°51 | 11°17 | 24°50 | 23°44 | 10° 6 | 6° 9 | W16 |
| T 17 | 19 38 15 | 24° 6'16 | 4°V19 | 7°18 | 17°56 | 5°49 | 22°53 | 18°42 | 18°41 | 3°51 | 11°17 | 24°47 | 23°41 | 10°13 | 6° 7 | T 17 |
| F 18 | 19 42 11 | 25° 3'31 | 16°54 | 7°33 | 19° 6 | 6°18 | 23° 3 | 18°47 | 18°44 | 3°51 | 11°18 | 24°46 | 23°37 | 10°19 | 6° 5 | F 18 |
| S 19 | 19 46 8 | 26° 0'47 | 29°11 | 7°54 | 20°16 | 6°47 | 23°12 | 18°52 | 18°47 | 3°50 | 11°18 | 24°D46 | 23°34 | 10°26 | 6° 3 | S 19 |
| S 20 | 19 50 4 | 26°58'04 | 11°13 | 8°21 | 21°27 | 7°16 | 23°22 | 18°58 | 18°50 | 3°50 | 11°19 | 24°46 | 23°31 | 10°33 | 6° 0 | S 20 |
| M21 | 19 54 1 | 27°55'21 | 23° 6 | 8°53 | 22°37 | 7°44 | 23°31 | 19° 3 | 18°53 | 3°50 | 11°19 | 24°48 | 23°28 | 10°39 | 5°58 | M21 |
| T 22 | 19 57 58 | 28°52'39 | 4°II54 | 9°31 | 23°47 | 8°12 | 23°41 | 19° 9 | 18°56 | 3°49 | 11°19 | 24°50 | 23°25 | 10°46 | 5°56 | T 22 |
| W23 | 20 1 54 | 29°49'58 | 16°42 | 10°15 | 24°58 | 8°39 | 23°51 | 19°15 | 18°59 | 3°49 | 11°20 | 24°51 | 23°22 | 10°53 | 5°54 | W23 |
| T 24 | 20 5 51 | 0°47'18 | 28°33 | 11° 4 | 26° 9 | 9° 6 | 24° 1 | 19°20 | 19° 2 | 3°48 | 11°20 | 24°R51 | 23°18 | 10°59 | 5°52 | T 24 |
| F 25 | 20 9 47 | 1°44'39 | 10°23 | 11°59 | 27°19 | 9°33 | 24°11 | 19°26 | 19° 5 | 3°48 | 11°21 | 24°50 | 23°15 | 11° 6 | 5°49 | F 25 |
| S 26 | 20 13 44 | 2°42'00 | 22°42 | 12°59 | 28°30 | 9°59 | 24°21 | 19°32 | 19° 7 | 3°47 | 11°21 | 24°47 | 23°12 | 11°12 | 5°47 | S 26 |
| S 27 | 20 17 40 | 3°39'23 | 5°D 3 | 14° 5 | 29°41 | 10°24 | 24°31 | 19°38 | 19°10 | 3°46 | 11°21 | 24°42 | 23° 9 | 11°19 | 5°45 | S 27 |
| M28 | 20 21 37 | 4°36'46 | 17°37 | 15°16 | 0°25 | 10°50 | 24°41 | 19°44 | 19°13 | 3°46 | 11°22 | 24°36 | 23° 6 | 11°26 | 5°42 | M28 |
| T 29 | 20 25 33 | 5°34'09 | 0°25 | 16°32 | 2° 3 | 11°14 | 24°51 | 19°50 | 19°16 | 3°45 | 11°22 | 24°29 | 23° 2 | 11°32 | 5°40 | T 29 |
| W30 | 20 29 30 | 6°31'34 | 13°26 | 17°53 | 3°14 | 11°39 | 25° 2 | 19°56 | 19°18 | 3°44 | 11°22 | 24°22 | 22°59 | 11°39 | 5°38 | W30 |
| T 31 | 20 33 27 | 7°28'59 | 26°41 | 19°18 | 4°25 | 12°V 2 | 25°12 | 20°22 | 19°21 | 3°V44 | 11°22 | 24°16 | 22°56 | 11°46 | 5°K35 | T 31 |

Delta T = 8.96 sec

AUGUST 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|-------|--------|--------|-------|-------|-------|-------|--------|--------|-------|---------|-------|------|
| F 1 | 20 37 23 | 8°26'25 | 10°8 8 | 20°24 | 5°26 | 12°V26 | 25°23 | 20°28 | 19°24 | 3°R43 | 11°23 | 24°R11 | 22°53 | 11°II52 | 5°R32 | F 1 |
| S 2 | 20 41 20 | 9°23'51 | 23°48 | 22°24 | 6°47 | 12°48 | 25°34 | 20°15 | 19°26 | 3°V42 | 11°23 | 24°7 8 | 22°50 | 11°59 | 5°K30 | S 2 |
| S 3 | 20 45 16 | 10°21'18 | 7°14 | 24° 3 | 7°58 | 13°11 | 25°44 | 20°21 | 19°29 | 3°41 | 11°23 | 24°D 7 | 22°47 | 12° 6 | 5°27 | S 3 |
| M 4 | 20 49 13 | 11°18'46 | 21°44 | 25°45 | 9°10 | 13°32 | 25°55 | 20°27 | 19°31 | 3°40 | 11°23 | 24° 7 | 22°43 | 12°12 | 5°25 | M 4 |
| T 5 | 20 53 9 | 12°16'14 | 5°59 | 27°32 | 10°21 | 13°54 | 26° 6 | 20°33 | 19°34 | 3°40 | 11°23 | 24° 9 | 22°40 | 12°19 | 5°22 | T 5 |
| W 6 | 20 57 6 | 13°13'44 | 20°23 | 29°21 | 11°33 | 14°14 | 26°17 | 20°40 | 19°36 | 3°39 | 11°23 | 24°R 9 | 22°37 | 12°26 | 5°19 | W 6 |
| T 7 | 21 1 2 | 14°11'14 | 4°53 | 1°14 | 12°44 | 14°34 | 26°28 | 20°46 | 19°39 | 3°38 | 11°24 | 24° 9 | 22°34 | 12°32 | 5°17 | T 7 |
| F 8 | 21 4 59 | 15° 8'45 | 19°26 | 3° 9 | 13°56 | 14°54 | 26°39 | 20°53 | 19°41 | 3°37 | 11°24 | 24° 7 | 22°31 | 12°39 | 5°14 | F 8 |
| S 9 | 21 8 56 | 16° 6'17 | 3°54 | 5° 6 | 15° 8 | 15°13 | 26°50 | 20°59 | 19°43 | 3°36 | 11°24 | 24° 2 | 22°28 | 12°46 | 5°11 | S 9 |
| S 10 | 21 12 52 | 17° 3'50 | 18°14 | 7° 5 | 16°19 | 15°31 | 27° 1 | 21° 6 | 19°45 | 3°35 | 11°24 | 23°55 | 22°24 | 12°52 | 5° 9 | S 10 |
| M11 | 21 16 49 | 18° 1'24 | 2°18 | 9° 5 | 17°31 | 15°49 | 27°13 | 21°13 | 19°48 | 3°34 | 11°R24 | 23°47 | 22°21 | 12°59 | 5° 6 | M11 |
| T 12 | 21 20 45 | 18°58'59 | 16° 3 | 11° 6 | 18°43 | 16° 6 | 27°24 | 21°19 | 19°50 | 3°33 | 11°24 | 23°38 | 22°18 | 13° 5 | 5° 3 | T 12 |
| W13 | 21 24 42 | 19°56'36 | 29°24 | 13° 8 | 19°55 | 16°22 | 27°35 | 21°26 | 19°52 | 3°32 | 11°24 | 23°29 | 22°15 | 13°12 | 5° 0 | W13 |
| T 14 | 21 28 38 | 20°54'14 | 12°V23 | 15°10 | 21° 7 | 16°38 | 27°47 | 21°33 | 19°54 | 3°31 | 11°24 | 23°22 | 22°12 | 13°19 | 4°57 | T 14 |
| F 15 | 21 32 35 | 21°51'53 | 24°59 | 17°12 | 22°19 | 16°53 | 27°58 | 21°40 | 19°56 | 3°29 | 11°24 | 23°16 | 22° 8 | 13°25 | 4°54 | F 15 |
| S 16 | 21 36 31 | 22°49'35 | 7°17 | 19°14 | 23°31 | 17° 8 | 28°10 | 21°46 | 19°58 | 3°28 | 11°23 | 23°13 | 22° 5 | 13°32 | 4°52 | S 16 |
| S 17 | 21 40 28 | 23°47'17 | 19°19 | 21°16 | 24°43 | 17°21 | 28°22 | 21°53 | 20° 0 | 3°27 | 11°23 | 23°D12 | 22° 2 | 13°39 | 4°49 | S 17 |
| M18 | 21 44 25 | 24°45'02 | 1°II12 | 23°17 | 25°55 | 17°34 | 28°33 | 22° 0 | 20° 2 | 3°26 | 11°23 | 23°12 | 21°59 | 13°45 | 4°46 | M18 |
| T 19 | 21 48 21 | 25°42'48 | 13° 0 | 25°17 | 27° 8 | 17°47 | 28°45 | 22° 7 | 20° 4 | 3°25 | 11°23 | 23°12 | 21°56 | 13°52 | 4°43 | T 19 |
| W20 | 21 52 18 | 26°40'36 | 24°50 | 27°17 | 28°20 | 17°58 | 28°57 | 22°14 | 20° 6 | 3°23 | 11°23 | 23°R13 | 21°53 | 13°59 | 4°40 | W20 |
| T 21 | 21 56 14 | 27°38'25 | 6°24 | 29°15 | 29°33 | 18° 9 | 29° 9 | 22°21 | 20° 8 | 3°22 | 11°23 | 23°12 | 21°49 | 14° 5 | 4°37 | T 21 |
| F 22 | 22 0 11 | 28°36'16 | 18°50 | 1°13 | 0°L45 | 18°19 | 29°21 | 22°28 | 20°10 | 3°21 | 11°23 | 23° 9 | 21°46 | 14°12 | 4°34 | F 22 |
| S 23 | 22 4 7 | 29°34'09 | 1°L 9 | 3° 9 | 1°58 | 18°28 | 29°33 | 22°35 | 20°12 | 3°20 | 11°22 | 23° 3 | 21°43 | 14°19 | 4°31 | S 23 |
| S 24 | 22 8 4 | 0°32'03 | 13°45 | 5° 4 | 3°10 | 18°36 | 29°45 | 22°42 | 20°13 | 3°18 | 11°22 | 22°55 | 21°40 | 14°25 | 4°28 | S 24 |
| M25 | 22 12 0 | 1°29'59 | 26°37 | 6°58 | 4°23 | 18°44 | 29°57 | 22°49 | 20°15 | 3°17 | 11°22 | 22°45 | 21°37 | 14°32 | 4°25 | M25 |
| T 26 | 22 15 57 | 2°27'57 | 9°27 | 8°51 | 5°36 | 18°51 | 0°2 9 | 22°57 | 20°16 | 3°16 | 11°21 | 22°34 | 21°34 | 14°39 | 4°22 | T 26 |
| W27 | 22 19 54 | 3°25'55 | 23°12 | 10°42 | 6°48 | 18°57 | 0°21 | 23° 4 | 20°18 | 3°14 | 11°21 | 22°22 | 21°30 | 14°45 | 4°19 | W27 |
| T 28 | 22 23 50 | 4°23'56 | 6°25 | 12°32 | 8° 1 | 19° 2 | 0°33 | 23°11 | 20°20 | 3°13 | 11°21 | 22°12 | 21°27 | 14°52 | 4°16 | T 28 |
| F 29 | 22 27 47 | 5°21'58 | 20°38 | 14°21 | 9°14 | 19° 6 | 0°46 | 23°18 | 20°21 | 3°11 | 11°20 | 22° 3 | 21°24 | 14°58 | 4°13 | F 29 |
| S 30 | 22 31 43 | 6°20'01 | 4°13 | 16° 8 | 10°27 | 19° 9 | 0°58 | 23°25 | 20°22 | 3°10 | 11°20 | 21°57 | 21°21 | 15° 5 | 4°11 | S 30 |
| S 31 | 22 35 40 | 7°18'06 | 18°13 | 17°54 | 11°L40 | 19°V12 | 1°12 | 23°33 | 20°24 | 3°V 8 | 11°20 | 21°54 | 21°18 | 15°II12 | 4°K 8 | S 31 |

Delta T = 8.96 sec

ASTRODIENST EPHEMERIS for the year 1862
geocentric

SEPTEMBER 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|--------|------|-------|-------|-------|-------|--------|--------|--------|-------|------|
| M 1 | 22 39 36 | 8♉16'12 | 2♊38 | 19♉39 | 12♉53 | 19♉14 | 1♉23 | 23♉40 | 20♉25 | 3♉7 | 11♉19 | 21♉53 | 21♉14 | 15♉18 | 4♉5 | M 1 |
| T 2 | 22 43 33 | 9♈14'19 | 16♈45 | 21♈23 | 14♈6 | 19♈14 | 1♈35 | 23♈47 | 20♈26 | 3♈6 | 11♈19 | 21♈53 | 21♈11 | 15♈25 | 4♈2 | T 2 |
| W 3 | 22 47 29 | 10♈12'28 | 0♈54 | 23♈5 | 15♈19 | 19♈14 | 1♈48 | 23♈55 | 20♈28 | 3♈4 | 11♈18 | 21♈53 | 21♈8 | 15♈32 | 3♈59 | W 3 |
| T 4 | 22 51 26 | 11♈10'39 | 15♈3 | 24♈47 | 16♈33 | 19♈14 | 2♈0 | 24♈2 | 20♈29 | 3♈3 | 11♈18 | 21♈51 | 21♈5 | 15♈38 | 3♈56 | T 4 |
| F 5 | 22 55 23 | 12♈8'50 | 29♈10 | 26♈27 | 17♈46 | 19♈12 | 2♈13 | 24♈9 | 20♈30 | 3♈1 | 11♈17 | 21♈47 | 21♈2 | 15♈45 | 3♈53 | F 5 |
| S 6 | 22 59 19 | 13♈7'04 | 13♈14 | 28♈6 | 18♈59 | 19♈9 | 2♈25 | 24♈17 | 20♈31 | 3♈0 | 11♈17 | 21♈41 | 20♈59 | 15♈52 | 3♈50 | S 6 |
| S 7 | 23 3 16 | 14♈5'18 | 27♈9 | 29♈43 | 20♈13 | 19♈6 | 2♈38 | 24♈24 | 20♈32 | 2♈58 | 11♈16 | 21♈31 | 20♈55 | 15♈58 | 3♈47 | S 7 |
| M 8 | 23 7 12 | 15♈3'35 | 10♈53 | 1♉20 | 21♈26 | 19♈2 | 2♈50 | 24♈31 | 20♈33 | 2♈56 | 11♈16 | 21♈20 | 20♈52 | 16♈5 | 3♈44 | M 8 |
| T 9 | 23 11 9 | 16♈1'53 | 24♈22 | 2♈55 | 22♈40 | 18♈56 | 3♈3 | 24♈39 | 20♈34 | 2♈55 | 11♈15 | 21♈7 | 20♈49 | 16♈12 | 3♈41 | T 9 |
| W10 | 23 15 5 | 17♈0'13 | 7♉32 | 4♈30 | 23♈53 | 18♈50 | 3♈16 | 24♈46 | 20♈35 | 2♈53 | 11♈15 | 20♈55 | 20♈46 | 16♈18 | 3♈39 | W10 |
| T 11 | 23 19 2 | 17♈58'35 | 20♈23 | 6♈3 | 25♈7 | 18♈44 | 3♈28 | 24♈54 | 20♈36 | 2♈52 | 11♈14 | 20♈44 | 20♈43 | 16♈25 | 3♈36 | T 11 |
| F 12 | 23 22 58 | 18♈57'00 | 2♉55 | 7♈35 | 26♈20 | 18♈36 | 3♈41 | 25♈1 | 20♈36 | 2♈50 | 11♈14 | 20♈35 | 20♈39 | 16♈31 | 3♈33 | F 12 |
| S 13 | 23 26 55 | 19♈55'26 | 15♈11 | 9♈6 | 27♈34 | 18♈28 | 3♈54 | 25♈9 | 20♈37 | 2♈48 | 11♈13 | 20♈29 | 20♈36 | 16♈38 | 3♈30 | S 13 |
| S 14 | 23 30 51 | 20♈53'54 | 27♈12 | 10♈36 | 28♈48 | 18♈18 | 4♈7 | 25♈16 | 20♈38 | 2♈47 | 11♈12 | 20♈26 | 20♈33 | 16♈45 | 3♈27 | S 14 |
| M15 | 23 34 48 | 21♈52'25 | 9♉4 | 12♈4 | 0♉1 | 18♈8 | 4♈19 | 25♈24 | 20♈38 | 2♈45 | 11♈12 | 20♈24 | 20♈30 | 16♈51 | 3♈25 | M15 |
| T 16 | 23 38 45 | 22♈50'57 | 20♈53 | 13♈32 | 1♈15 | 17♈57 | 4♈32 | 25♈31 | 20♈39 | 2♈44 | 11♈11 | 20♈24 | 20♈27 | 16♈58 | 3♈22 | T 16 |
| W17 | 23 42 41 | 23♈49'32 | 2♉42 | 14♈59 | 2♈29 | 17♈46 | 4♈45 | 25♈38 | 20♈40 | 2♈42 | 11♈10 | 20♈24 | 20♈24 | 17♈5 | 3♈19 | W17 |
| T 18 | 23 46 38 | 24♈48'09 | 14♈38 | 16♈24 | 3♈43 | 17♈34 | 4♈58 | 25♈46 | 20♈40 | 2♈40 | 11♈9 | 20♈23 | 20♈20 | 17♈11 | 3♈16 | T 18 |
| F 19 | 23 50 34 | 25♈46'49 | 26♈47 | 17♈48 | 4♈57 | 17♈21 | 5♈11 | 25♈53 | 20♈40 | 2♈39 | 11♈9 | 20♈20 | 20♈17 | 17♈18 | 3♈14 | F 19 |
| S 20 | 23 54 31 | 26♈45'30 | 9♉12 | 19♈11 | 6♈11 | 17♈7 | 5♈24 | 26♈1 | 20♈41 | 2♈37 | 11♈8 | 20♈14 | 20♈14 | 17♈25 | 3♈11 | S 20 |
| S 21 | 23 58 27 | 27♈44'14 | 21♈56 | 20♈33 | 7♈25 | 16♈53 | 5♈37 | 26♈8 | 20♈41 | 2♈35 | 11♈7 | 20♈6 | 20♈11 | 17♈31 | 3♈8 | S 21 |
| M22 | 0 2 24 | 28♈42'59 | 5♉3 | 21♈53 | 8♈39 | 16♈38 | 5♈50 | 26♈16 | 20♈41 | 2♈34 | 11♈6 | 19♈55 | 20♈8 | 17♈38 | 3♈6 | M22 |
| T 23 | 0 6 20 | 29♈41'47 | 18♈31 | 23♈13 | 9♈53 | 16♈22 | 6♈3 | 26♈23 | 20♈42 | 2♈32 | 11♈6 | 19♈43 | 20♈5 | 17♈45 | 3♈3 | T 23 |
| W24 | 0 10 17 | 0♉40'37 | 2♉19 | 24♈31 | 11♈7 | 16♈6 | 6♈16 | 26♈31 | 20♈42 | 2♈30 | 11♈5 | 19♈31 | 20♈1 | 17♈51 | 3♈1 | W24 |
| T 25 | 0 14 14 | 1♈39'28 | 16♈23 | 25♈47 | 12♈22 | 15♈50 | 6♈28 | 26♈38 | 20♈42 | 2♈29 | 11♈4 | 19♈20 | 19♈58 | 17♈58 | 2♈58 | T 25 |
| F 26 | 0 18 10 | 2♈38'22 | 0♉37 | 27♈2 | 13♈36 | 15♈33 | 6♈41 | 26♈46 | 20♈42 | 2♈27 | 11♈3 | 19♈11 | 19♈55 | 18♈4 | 2♈56 | F 26 |
| S 27 | 0 22 7 | 3♈37'18 | 14♈56 | 28♈16 | 14♈50 | 15♈15 | 6♈54 | 26♈53 | 20♈42 | 2♈25 | 11♈2 | 19♈4 | 19♈52 | 18♈11 | 2♈53 | S 27 |
| S 28 | 0 26 3 | 4♈36'15 | 29♈16 | 29♈27 | 16♈4 | 14♈58 | 7♈7 | 27♈0 | 20♈42 | 2♈24 | 11♈1 | 19♈1 | 19♈49 | 18♈18 | 2♈51 | S 28 |
| M29 | 0 30 0 | 5♈35'15 | 13♉33 | 0♉37 | 17♈19 | 14♈40 | 7♈20 | 27♈8 | 20♈42 | 2♈22 | 11♈1 | 18♈D59 | 19♈45 | 18♈24 | 2♈49 | M29 |
| T 30 | 0 33 56 | 6♈34'16 | 27♉44 | 1♉46 | 18♈33 | 14♈Y22 | 7♈33 | 27♈15 | 20♈42 | 2♈Y20 | 11♈0 | 19♈X0 | 19♈X42 | 18♈I31 | 2♈X46 | T 30 |

Delta T = 8.96 sec

OCTOBER 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|--------|--------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|-------|------|
| W 1 | 0 37 53 | 7♈33'19 | 11♉49 | 2♉52 | 19♉48 | 14♈R 3 | 7♈46 | 27♈23 | 20♈R41 | 2♈R19 | 10♈R59 | 19♈R 0 | 19♈X39 | 18♈I38 | 2♈R44 | W 1 |
| T 2 | 0 41 49 | 8♈32'23 | 25♈46 | 3♈56 | 21♈2 | 13♈Y45 | 7♈59 | 27♈30 | 20♈I41 | 2♈Y17 | 10♈X58 | 18♈X58 | 19♈36 | 18♈44 | 2♈X42 | T 2 |
| F 3 | 0 45 46 | 9♈31'29 | 9♈X34 | 4♈57 | 22♈17 | 13♈26 | 8♈12 | 27♈37 | 20♈41 | 2♈15 | 10♈57 | 18♈55 | 19♈33 | 18♈51 | 2♈40 | F 3 |
| S 4 | 0 49 43 | 10♈30'37 | 23♈15 | 5♈57 | 23♈31 | 13♈8 | 8♈25 | 27♈45 | 20♈40 | 2♈14 | 10♈56 | 18♈49 | 19♈30 | 18♈58 | 2♈38 | S 4 |
| S 5 | 0 53 39 | 11♈29'47 | 6♈X45 | 6♈53 | 24♈46 | 12♈49 | 8♈38 | 27♈52 | 20♈40 | 2♈12 | 10♈55 | 18♈41 | 19♈26 | 19♈4 | 2♈35 | S 5 |
| M 6 | 0 57 36 | 12♈28'58 | 20♈4 | 7♈46 | 26♈0 | 12♈31 | 8♈51 | 28♈0 | 20♈40 | 2♈10 | 10♈54 | 18♈30 | 19♈23 | 19♈11 | 2♈33 | M 6 |
| T 7 | 1 1 32 | 13♈28'12 | 3♈Y11 | 8♈37 | 27♈15 | 12♈12 | 9♈4 | 28♈7 | 20♈39 | 2♈9 | 10♈53 | 18♈19 | 19♈20 | 19♈18 | 2♈31 | T 7 |
| W 8 | 1 5 29 | 14♈27'27 | 16♈3 | 9♈23 | 28♈30 | 11♈54 | 9♈17 | 28♈14 | 20♈38 | 2♈7 | 10♈52 | 18♈7 | 19♈17 | 19♈24 | 2♈29 | W 8 |
| T 9 | 1 9 25 | 15♈26'45 | 28♈40 | 10♈6 | 29♈44 | 11♈36 | 9♈30 | 28♈21 | 20♈38 | 2♈6 | 10♈51 | 17♈57 | 19♈14 | 19♈31 | 2♈27 | T 9 |
| F 10 | 1 13 22 | 16♈26'04 | 11♈X3 | 10♈44 | 0♈59 | 11♈18 | 9♈43 | 28♈29 | 20♈37 | 2♈4 | 10♈50 | 17♈49 | 19♈11 | 19♈37 | 2♈26 | F 10 |
| S 11 | 1 17 18 | 17♈25'26 | 23♈12 | 11♈18 | 2♈14 | 11♈0 | 9♈56 | 28♈36 | 20♈36 | 2♈2 | 10♈49 | 17♈44 | 19♈7 | 19♈44 | 2♈24 | S 11 |
| S 12 | 1 21 15 | 18♈24'50 | 5♈I10 | 11♈46 | 3♈29 | 10♈43 | 10♈9 | 28♈43 | 20♈36 | 2♈1 | 10♈48 | 17♈41 | 19♈4 | 19♈51 | 2♈22 | S 12 |
| M13 | 1 25 12 | 19♈24'17 | 17♈0 | 12♈9 | 4♈43 | 10♈26 | 10♈22 | 28♈50 | 20♈35 | 1♈59 | 10♈47 | 17♈D40 | 19♈1 | 19♈57 | 2♈20 | M13 |
| T 14 | 1 29 8 | 20♈23'45 | 28♈47 | 12♈26 | 5♈58 | 10♈10 | 10♈35 | 28♈57 | 20♈34 | 1♈58 | 10♈46 | 17♈40 | 18♈58 | 20♈4 | 2♈19 | T 14 |
| W15 | 1 33 5 | 21♈23'16 | 10♈X36 | 12♈37 | 7♈13 | 9♈54 | 10♈48 | 29♈4 | 20♈33 | 1♈56 | 10♈45 | 17♈41 | 18♈55 | 20♈11 | 2♈17 | W15 |
| T 16 | 1 37 1 | 22♈22'49 | 22♈31 | 12♈R40 | 8♈28 | 9♈38 | 11♈1 | 29♈12 | 20♈32 | 1♈55 | 10♈44 | 17♈R42 | 18♈51 | 20♈17 | 2♈15 | T 16 |
| F 17 | 1 40 58 | 23♈22'25 | 4♈I39 | 12♈35 | 9♈43 | 9♈23 | 11♈14 | 29♈19 | 20♈31 | 1♈53 | 10♈43 | 17♈41 | 18♈48 | 20♈24 | 2♈14 | F 17 |
| S 18 | 1 44 54 | 24♈22'03 | 17♈3 | 12♈22 | 10♈58 | 9♈9 | 11♈26 | 29♈26 | 20♈30 | 1♈51 | 10♈42 | 17♈38 | 18♈45 | 20♈31 | 2♈12 | S 18 |
| S 19 | 1 48 51 | 25♈21'43 | 29♈50 | 12♈1 | 12♈13 | 8♈55 | 11♈39 | 29♈33 | 20♈29 | 1♈50 | 10♈41 | 17♈34 | 18♈42 | 20♈37 | 2♈11 | S 19 |
| M20 | 1 52 47 | 26♈21'25 | 13♈I1 | 11♈31 | 13♈28 | 8♈42 | 11♈52 | 29♈40 | 20♈28 | 1♈48 | 10♈40 | 17♈27 | 18♈39 | 20♈44 | 2♈9 | M20 |
| T 21 | 1 56 44 | 27♈21'09 | 26♈38 | 10♈52 | 14♈43 | 8♈29 | 12♈5 | 29♈47 | 20♈27 | 1♈47 | 10♈39 | 17♈19 | 18♈36 | 20♈51 | 2♈8 | T 21 |
| W22 | 2 0 40 | 28♈20'55 | 10♈X40 | 10♈4 | 15♈58 | 8♈17 | 12♈18 | 29♈53 | 20♈25 | 1♈46 | 10♈37 | 17♈10 | 18♈32 | 20♈57 | 2♈7 | W22 |
| T 23 | 2 4 37 | 29♈20'44 | 25♈2 | 9♈9 | 17♈13 | 8♈6 | 12♈30 | 0♈0 | 20♈24 | 1♈44 | 10♈36 | 17♈3 | 18♈29 | 21♈4 | 2♈6 | T 23 |
| F 24 | 2 8 34 | 0♈20'35 | 9♈I40 | 8♈5 | 18♈28 | 7♈56 | 12♈43 | 0♈7 | 20♈23 | 1♈43 | 10♈35 | 16♈56 | 18♈26 | 21♈11 | 2♈4 | F 24 |
| S 25 | 2 12 30 | 1♈20'27 | 24♈25 | 6♈56 | 19♈43 | 7♈46 | 12♈56 | 0♈14 | 20♈21 | 1♈41 | 10♈34 | 16♈52 | 18♈23 | 21♈17 | 2♈3 | S 25 |
| S 26 | 2 16 27 | 2♈20'22 | 9♈X11 | 5♈42 | 20♈58 | 7♈37 | 13♈8 | 0♈21 | 20♈20 | 1♈40 | 10♈33 | 16♈50 | 18♈20 | 21♈24 | 2♈2 | S 26 |
| M27 | 2 20 23 | 3♈20'18 | 23♈50 | 4♈25 | 22♈14 | 7♈29 | 13♈21 | 0♈27 | 20♈18 | 1♈39 | 10♈32 | 16♈D50 | 18♈16 | 21♈30 | 2♈1 | M27 |
| T 28 | 2 24 20 | 4♈20'16 | 8♈X18 | 3♈9 | 23♈29 | 7♈22 | 13♈33 | 0♈34 | 20♈17 | 1♈37 | 10♈31 | 16♈51 | 18♈13 | 21♈37 | 2♈0 | T 28 |
| W29 | 2 28 16 | 5♈20'15 | 22♈31 | 1♈54 | 24♈44 | 7♈15 | 13♈46 | 0♈41 | 20♈15 | 1♈36 | 10♈30 | 16♈53 | 18♈10 | 21♈44 | 1♈59 | W29 |
| T 30 | 2 32 13 | 6♈20'16 | 6♈X29 | 0♈43 | 25♈59 | 7♈9 | 13♈59 | 0♈47 | 20♈14 | 1♈35 | 10♈29 | 16♈R53 | 18♈7 | 21♈50 | 1♈59 | T 30 |
| F 31 | 2 36 10 | 7♈20'19 | 20♈X10 | 29♈X40 | 27♈X14 | 7♈Y5 | 14♈X11 | 0♈X54 | 20♈I12 | 1♈Y33 | 10♈X27 | 16♈X52 | 18♈X4 | 21♈I57 | 1♈X58 | F 31 |

Delta T = 8.95 sec

ASTRODIENST EPHEMERIS for the year 1862
geocentric

NOVEMBER 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|------|--------|-------|--------|--------|-------|-------|-------|------|
| S 1 | 2 40 6 | 8♉20°23 | 3♊36 | 28♈R44 | 28♏29 | 7♈R 0 | 14♏23 | 1♏0 | 20♈R10 | 1♈R32 | 10♈R26 | 16♈R50 | 18♏1 | 22♏4 | 1♈R57 | S 1 |
| S 2 | 2 44 3 | 9°20'29 | 16°47 | 27♏59 | 29°45 | 6♏57 | 14°36 | 1° 7 | 20♏9 | 1♏31 | 10♏25 | 16♏46 | 17°57 | 22°10 | 1♏56 | S 2 |
| M 3 | 2 47 59 | 10°20'36 | 29°45 | 27°25 | 1♏0 | 6°55 | 14°48 | 1°13 | 20° 7 | 1°30 | 10°24 | 16°40 | 17°54 | 22°17 | 1°56 | M 3 |
| T 4 | 2 51 56 | 11°20'45 | 12♏29 | 27° 2 | 2°15 | 6°53 | 15° 1 | 1°19 | 20° 5 | 1°28 | 10°23 | 16°34 | 17°51 | 22°24 | 1°55 | T 4 |
| W 5 | 2 55 52 | 12°20'55 | 25° 2 | 26°D50 | 3°30 | 6°52 | 15°13 | 1°25 | 20° 3 | 1°27 | 10°22 | 16°27 | 17°48 | 22°30 | 1°55 | W 5 |
| T 6 | 2 59 49 | 13°21'07 | 7♏22 | 26°51 | 4°46 | 6°D52 | 15°25 | 1°32 | 20° 1 | 1°26 | 10°21 | 16°22 | 17°45 | 22°37 | 1°54 | T 6 |
| F 7 | 3 3 45 | 14°21'21 | 19°32 | 27° 2 | 6° 1 | 6°53 | 15°37 | 1°38 | 19°59 | 1°25 | 10°20 | 16°17 | 17°42 | 22°44 | 1°54 | F 7 |
| S 8 | 3 7 42 | 15°21'37 | 1♏33 | 27°23 | 7°16 | 6°54 | 15°49 | 1°44 | 19°57 | 1°24 | 10°18 | 16°15 | 17°38 | 22°50 | 1°54 | S 8 |
| S 9 | 3 11 38 | 16°21'55 | 13°26 | 27°54 | 8°32 | 6°57 | 16° 1 | 1°50 | 19°56 | 1°23 | 10°17 | 16°D14 | 17°35 | 22°57 | 1°54 | S 9 |
| M10 | 3 15 35 | 17°22'15 | 25°15 | 28°34 | 9°47 | 7° 0 | 16°13 | 1°56 | 19°53 | 1°22 | 10°16 | 16°14 | 17°32 | 23° 3 | 1°53 | M10 |
| T 11 | 3 19 32 | 18°22'36 | 7♏1 | 29°21 | 11° 2 | 7° 3 | 16°25 | 2° 2 | 19°51 | 1°21 | 10°15 | 16°15 | 17°29 | 23°10 | 1°53 | T 11 |
| W12 | 3 23 28 | 19°22'59 | 18°49 | 0♏15 | 12°18 | 7° 8 | 16°37 | 2° 8 | 19°49 | 1°20 | 10°14 | 16°17 | 17°26 | 23°17 | 1°D53 | W12 |
| T 13 | 3 27 25 | 20°23'24 | 0♏44 | 1°15 | 13°33 | 7°13 | 16°49 | 2°14 | 19°47 | 1°19 | 10°13 | 16°19 | 17°22 | 23°23 | 1°53 | T 13 |
| F 14 | 3 31 21 | 21°23'51 | 12°50 | 2°20 | 14°49 | 7°19 | 17° 1 | 2°19 | 19°45 | 1°18 | 10°12 | 16°20 | 17°19 | 23°30 | 1°53 | F 14 |
| S 15 | 3 35 18 | 22°24'20 | 25°11 | 3°30 | 16° 4 | 7°26 | 17°13 | 2°25 | 19°43 | 1°17 | 10°11 | 16°R20 | 17°16 | 23°37 | 1°54 | S 15 |
| S 16 | 3 39 14 | 23°24'50 | 7♏53 | 4°43 | 17°19 | 7°34 | 17°24 | 2°31 | 19°41 | 1°16 | 10°10 | 16°20 | 17°13 | 23°43 | 1°54 | S 16 |
| M17 | 3 43 11 | 24°25'23 | 21° 0 | 6° 0 | 18°35 | 7°42 | 17°36 | 2°36 | 19°39 | 1°15 | 10° 8 | 16°18 | 17°10 | 23°50 | 1°54 | M17 |
| T 18 | 3 47 7 | 25°25'57 | 4♏33 | 7°20 | 19°50 | 7°51 | 17°48 | 2°42 | 19°36 | 1°14 | 10° 7 | 16°15 | 17° 7 | 23°57 | 1°54 | T 18 |
| W19 | 3 51 4 | 26°26'33 | 18°34 | 8°42 | 21° 6 | 8° 0 | 17°59 | 2°47 | 19°34 | 1°13 | 10° 6 | 16°12 | 17° 3 | 24° 3 | 1°55 | W19 |
| T 20 | 3 55 1 | 27°27'10 | 3♏1 | 10° 6 | 22°21 | 8°11 | 18°11 | 2°53 | 19°32 | 1°13 | 10° 5 | 16°10 | 17° 0 | 24°10 | 1°55 | T 20 |
| F 21 | 3 58 57 | 28°27'50 | 17°49 | 11°32 | 23°36 | 8°21 | 18°22 | 2°58 | 19°29 | 1°12 | 10° 4 | 16° 8 | 16°57 | 24°17 | 1°56 | F 21 |
| S 22 | 4 2 54 | 29°28'31 | 2♏51 | 12°59 | 24°52 | 8°33 | 18°33 | 3° 3 | 19°27 | 1°11 | 10° 3 | 16° 6 | 16°54 | 24°23 | 1°56 | S 22 |
| S 23 | 4 6 50 | 0♏29°13 | 17°58 | 14°27 | 26° 7 | 8°45 | 18°45 | 3° 8 | 19°25 | 1°11 | 10° 2 | 16°D 6 | 16°51 | 24°30 | 1°57 | S 23 |
| M24 | 4 10 47 | 1°29'56 | 3♏0 | 15°56 | 27°23 | 8°58 | 18°56 | 3°13 | 19°22 | 1°10 | 10° 1 | 16° 6 | 16°48 | 24°37 | 1°57 | M24 |
| T 25 | 4 14 43 | 2°30'41 | 17°51 | 17°27 | 28°38 | 9°11 | 19° 7 | 3°18 | 19°20 | 1° 9 | 10° 0 | 16° 7 | 16°44 | 24°43 | 1°58 | T 25 |
| W26 | 4 18 40 | 3°31'27 | 2♏23 | 18°57 | 29°54 | 9°26 | 19°18 | 3°23 | 19°17 | 1° 9 | 9°59 | 16° 8 | 16°41 | 24°50 | 1°59 | W26 |
| T 27 | 4 22 37 | 4°32'13 | 16°33 | 20°29 | 1♏9 | 9°40 | 19°29 | 3°28 | 19°15 | 1° 8 | 9°58 | 16° 9 | 16°38 | 24°56 | 2° 0 | T 27 |
| F 28 | 4 26 33 | 5°33'01 | 0♏20 | 22° 0 | 2°25 | 9°55 | 19°40 | 3°33 | 19°13 | 1° 8 | 9°57 | 16°R10 | 16°35 | 25° 3 | 2° 1 | F 28 |
| S 29 | 4 30 30 | 6°33'49 | 13°44 | 23°32 | 3°40 | 10°11 | 19°50 | 3°37 | 19°10 | 1° 7 | 9°56 | 16°10 | 16°32 | 25°10 | 2° 2 | S 29 |
| S 30 | 4 34 26 | 7♏34°39 | 26♏47 | 25♏5 | 4♏56 | 10♏28 | 20♏1 | 3♏42 | 19♏8 | 1♏7 | 9♏55 | 16♏9 | 16♏28 | 25♏16 | 2♏3 | S 30 |

Delta T = 8.95 sec

DECEMBER 1862

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|------|--------|-------|-------|--------|-------|-------|------|------|
| M 1 | 4 38 23 | 8♏35°29 | 9♏31 | 26♏37 | 6♏11 | 10♏44 | 20♏12 | 3♏47 | 19♈R 5 | 1♈R 6 | 9♈R54 | 16♈R 8 | 16♏25 | 25♏23 | 2♏4 | M 1 |
| T 2 | 4 42 19 | 9°36'20 | 22° 0 | 28°10 | 7°27 | 11° 2 | 20°22 | 3°51 | 19♏3 | 1♏6 | 9♏53 | 16♏8 | 16°22 | 25°30 | 2° 5 | T 2 |
| W 3 | 4 46 16 | 10°37'12 | 4♏16 | 29°43 | 8°42 | 11°20 | 20°33 | 3°55 | 19° 0 | 1° 6 | 9°52 | 16° 7 | 16°19 | 25°36 | 2° 6 | W 3 |
| T 4 | 4 50 12 | 11°38'05 | 16°23 | 1♏16 | 9°58 | 11°38 | 20°43 | 4° 0 | 18°58 | 1° 5 | 9°51 | 16° 6 | 16°16 | 25°43 | 2° 8 | T 4 |
| F 5 | 4 54 9 | 12°38'59 | 28°21 | 2°49 | 11°13 | 11°57 | 20°53 | 4° 4 | 18°55 | 1° 5 | 9°50 | 16° 6 | 16°13 | 25°50 | 2° 9 | F 5 |
| S 6 | 4 58 6 | 13°39'54 | 10♏14 | 4°22 | 12°29 | 12°16 | 21° 3 | 4° 8 | 18°52 | 1° 5 | 9°49 | 16°D 6 | 16° 9 | 25°56 | 2°10 | S 6 |
| S 7 | 5 2 2 | 14°40'49 | 22° 3 | 5°55 | 13°44 | 12°36 | 21°13 | 4°12 | 18°50 | 1° 5 | 9°48 | 16° 6 | 16° 6 | 26° 3 | 2°12 | S 7 |
| M 8 | 5 5 59 | 15°41'46 | 3♏50 | 7°29 | 15° 0 | 12°56 | 21°23 | 4°16 | 18°47 | 1° 4 | 9°47 | 16°R 6 | 16° 3 | 26°10 | 2°13 | M 8 |
| T 9 | 5 9 55 | 16°42'44 | 15°39 | 9° 2 | 16°15 | 13°17 | 21°33 | 4°20 | 18°45 | 1° 4 | 9°47 | 16° 6 | 16° 0 | 26°16 | 2°15 | T 9 |
| W10 | 5 13 52 | 17°43'43 | 27°31 | 10°36 | 17°31 | 13°38 | 21°43 | 4°23 | 18°42 | 1° 4 | 9°46 | 16° 5 | 15°57 | 26°23 | 2°16 | W10 |
| T 11 | 5 17 48 | 18°44'42 | 9♏29 | 12° 9 | 18°46 | 14° 0 | 21°53 | 4°27 | 18°40 | 1° 4 | 9°45 | 16° 5 | 15°54 | 26°30 | 2°18 | T 11 |
| F 12 | 5 21 45 | 19°45'43 | 21°36 | 13°43 | 20° 2 | 14°21 | 22° 2 | 4°31 | 18°37 | 1° 4 | 9°44 | 16° 5 | 15°50 | 26°36 | 2°20 | F 12 |
| S 13 | 5 25 41 | 20°46'45 | 3♏57 | 15°17 | 21°17 | 14°44 | 22°12 | 4°34 | 18°35 | 1°D 4 | 9°43 | 16° 4 | 15°47 | 26°43 | 2°22 | S 13 |
| S 14 | 5 29 38 | 21°47'47 | 16°35 | 16°50 | 22°33 | 15° 6 | 22°21 | 4°38 | 18°32 | 1° 4 | 9°42 | 16°D 4 | 15°44 | 26°49 | 2°24 | S 14 |
| M15 | 5 33 35 | 22°48'51 | 29°34 | 18°24 | 23°48 | 15°29 | 22°30 | 4°41 | 18°29 | 1° 4 | 9°42 | 16° 4 | 15°41 | 26°56 | 2°25 | M15 |
| T 16 | 5 37 31 | 23°49'55 | 12♏57 | 19°58 | 25° 4 | 15°53 | 22°39 | 4°44 | 18°27 | 1° 4 | 9°41 | 16° 4 | 15°38 | 27° 3 | 2°27 | T 16 |
| W17 | 5 41 28 | 24°51'01 | 26°46 | 21°32 | 26°19 | 16°17 | 22°48 | 4°47 | 18°24 | 1° 4 | 9°40 | 16° 5 | 15°34 | 27° 9 | 2°29 | W17 |
| T 18 | 5 45 24 | 25°52'07 | 11♏2 | 23° 7 | 27°35 | 16°41 | 22°57 | 4°50 | 18°22 | 1° 5 | 9°39 | 16° 6 | 15°31 | 27°16 | 2°31 | T 18 |
| F 19 | 5 49 21 | 26°53'15 | 25°43 | 24°41 | 28°50 | 17° 5 | 23° 6 | 4°53 | 18°19 | 1° 5 | 9°39 | 16° 7 | 15°28 | 27°23 | 2°33 | F 19 |
| S 20 | 5 53 17 | 27°54'22 | 10♏43 | 26°16 | 0♏6 | 17°30 | 23°15 | 4°56 | 18°17 | 1° 5 | 9°38 | 16°R 7 | 15°25 | 27°29 | 2°36 | S 20 |
| S 21 | 5 57 14 | 28°55'31 | 25°55 | 27°51 | 1°21 | 17°55 | 23°23 | 4°58 | 18°14 | 1° 5 | 9°37 | 16° 7 | 15°22 | 27°36 | 2°38 | S 21 |
| M22 | 6 1 10 | 29°56'40 | 11♏9 | 29°26 | 2°37 | 18°21 | 23°32 | 5° 1 | 18°12 | 1° 6 | 9°37 | 16° 6 | 15°19 | 27°43 | 2°40 | M22 |
| T 23 | 6 5 7 | 0♏57°49 | 26°16 | 1♏1 | 3°52 | 18°46 | 23°40 | 5° 4 | 18° 9 | 1° 6 | 9°36 | 16° 5 | 15°15 | 27°49 | 2°42 | T 23 |
| W24 | 6 9 4 | 1°58'59 | 11♏7 | 2°37 | 5° 8 | 19°12 | 23°48 | 5° 6 | 18° 7 | 1° 6 | 9°35 | 16° 3 | 15°12 | 27°56 | 2°45 | W24 |
| T 25 | 6 13 0 | 3° 0'08 | 25°34 | 4°13 | 6°23 | 19°39 | 23°56 | 5° 8 | 18° 4 | 1° 7 | 9°35 | 16° 1 | 15° 9 | 28° 3 | 2°47 | T 25 |
| F 26 | 6 16 57 | 4° 1'18 | 9♏34 | 5°49 | 7°39 | 20° 5 | 24° 4 | 5°10 | 18° 2 | 1° 7 | 9°34 | 15°59 | 15° 6 | 28° 9 | 2°50 | F 26 |
| S 27 | 6 20 53 | 5° 2'27 | 23° 6 | 7°25 | 8°54 | 20°32 | 24°12 | 5°12 | 18° 0 | 1° 8 | 9°33 | 15°57 | 15° 3 | 28°16 | 2°52 | S 27 |
| S 28 | 6 24 50 | 6° 3'36 | 6♏11 | 9° 2 | 10°10 | 21° 0 | 24°20 | 5°14 | 17°57 | 1° 8 | 9°33 | 15°D57 | 15° 0 | 28°23 | 2°55 | S 28 |
| M29 | 6 28 46 | 7° 4'46 | 18°53 | 10°38 | 11°25 | 21°27 | 24°27 | 5°16 | 17°55 | 1° 9 | 9°32 | 15°57 | 14°56 | 28°29 | 2°57 | M29 |
| T 30 | 6 32 43 | 8° 5'55 | 1♏16 | 12°16 | 12°41 | 21°55 | 24°35 | 5°18 | 17°52 | 1° 9 | 9°32 | 15°59 | 14°53 | 28°36 | 3° 0 | T 30 |
| W31 | 6 36 39 | 9♏7°04 | 13♏24 | 13♏53 | 13♏56 | 22♏23 | 24♏42 | 5♏20 | 17♏50 | 1♏10 | 9♏31 | 16♏0 | 14♏50 | 28♏42 | 3♏3 | W31 |

Delta T = 8.94 sec