



Astrodienst Ephemeris Tables for the year 1886

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 1886
geocentric

JANUARY 1886

00:00 UT

| Day | Sid.t | ☉ | ☾ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|--------|-------|-------|-------|--------|-------|--------|-------|------|--------|------|
| F 1 | 6 42 16 | 10♂33'10 | 22♂10 | 19♂30 | 25♂29 | 21♂49 | 5♂25 | 4♂R28 | 7♂40 | 23♂R 4 | 1♂R28 | 19♂R 8 | 19♂55 | 4♂53 | 12♂R11 | F 1 |
| S 2 | 6 46 13 | 11♂34'20 | 4♂38 | 19♂55 | 26♂16 | 22♂ 4 | 5♂28 | 4♂23 | 7♂40 | 23♂R 3 | 1♂R27 | 18♂59 | 19♂51 | 5♂ 0 | 12♂R 8 | S 2 |
| S 3 | 6 50 10 | 12♂35'31 | 16♂55 | 20♂26 | 27♂ 1 | 22♂19 | 5♂32 | 4♂18 | 7♂41 | 23♂ 2 | 1♂27 | 18♂47 | 19♂48 | 5♂ 7 | 12♂ 5 | S 3 |
| M 4 | 6 54 6 | 13♂36'42 | 29♂ 4 | 21♂ 4 | 27♂45 | 22♂33 | 5♂35 | 4♂13 | 7♂41 | 23♂ 1 | 1♂26 | 18♂34 | 19♂45 | 5♂13 | 12♂ 2 | M 4 |
| T 5 | 6 58 3 | 14♂37'53 | 11♂ 6 | 21♂46 | 28♂29 | 22♂46 | 5♂38 | 4♂ 8 | 7♂42 | 23♂ 0 | 1♂25 | 18♂21 | 19♂42 | 5♂20 | 12♂ 0 | T 5 |
| W 6 | 7 1 59 | 15♂39'04 | 23♂ 2 | 22♂34 | 29♂11 | 22♂59 | 5♂41 | 4♂ 3 | 7♂42 | 22♂59 | 1♂24 | 18♂ 9 | 19♂39 | 5♂27 | 11♂57 | W 6 |
| T 7 | 7 5 56 | 16♂40'14 | 4♂54 | 23♂26 | 29♂52 | 23♂12 | 5♂43 | 3♂59 | 7♂42 | 22♂58 | 1♂24 | 17♂59 | 19♂35 | 5♂34 | 11♂54 | T 7 |
| F 8 | 7 9 52 | 17♂41'24 | 16♂42 | 24♂22 | 0♂32 | 23♂24 | 5♂46 | 3♂54 | 7♂43 | 22♂57 | 1♂23 | 17♂51 | 19♂32 | 5♂40 | 11♂51 | F 8 |
| S 9 | 7 13 49 | 18♂42'34 | 28♂30 | 25♂21 | 1♂10 | 23♂35 | 5♂48 | 3♂49 | 7♂43 | 22♂56 | 1♂22 | 17♂47 | 19♂29 | 5♂47 | 11♂48 | S 9 |
| S 10 | 7 17 45 | 19♂43'43 | 10♂20 | 26♂23 | 1♂48 | 23♂46 | 5♂50 | 3♂44 | 7♂43 | 22♂56 | 1♂21 | 17♂44 | 19♂26 | 5♂54 | 11♂46 | S 10 |
| M 11 | 7 21 42 | 20♂44'52 | 22♂17 | 27♂29 | 2♂24 | 23♂56 | 5♂52 | 3♂40 | 7♂43 | 22♂55 | 1♂21 | 17♂D44 | 19♂23 | 6♂ 0 | 11♂43 | M 11 |
| T 12 | 7 25 39 | 21♂46'00 | 4♂24 | 28♂36 | 2♂58 | 24♂ 6 | 5♂54 | 3♂35 | 7♂R43 | 22♂54 | 1♂20 | 17♂45 | 19♂20 | 6♂ 7 | 11♂41 | T 12 |
| W 13 | 7 29 35 | 22♂47'07 | 16♂47 | 29♂46 | 3♂31 | 24♂15 | 5♂55 | 3♂31 | 7♂43 | 22♂53 | 1♂19 | 17♂R46 | 19♂16 | 6♂14 | 11♂38 | W 13 |
| T 14 | 7 33 32 | 23♂48'14 | 29♂31 | 0♂58 | 4♂ 3 | 24♂24 | 5♂56 | 3♂26 | 7♂43 | 22♂53 | 1♂19 | 17♂46 | 19♂13 | 6♂20 | 11♂36 | T 14 |
| F 15 | 7 37 28 | 24♂49'20 | 12♂40 | 2♂12 | 4♂33 | 24♂32 | 5♂57 | 3♂22 | 7♂43 | 22♂52 | 1♂18 | 17♂44 | 19♂10 | 6♂27 | 11♂33 | F 15 |
| S 16 | 7 41 25 | 25♂50'25 | 26♂18 | 3♂27 | 5♂ 1 | 24♂39 | 5♂58 | 3♂17 | 7♂43 | 22♂52 | 1♂17 | 17♂40 | 19♂ 7 | 6♂34 | 11♂31 | S 16 |
| S 17 | 7 45 21 | 26♂51'30 | 10♂26 | 4♂44 | 5♂27 | 24♂45 | 5♂59 | 3♂13 | 7♂42 | 22♂51 | 1♂17 | 17♂35 | 19♂ 4 | 6♂40 | 11♂29 | S 17 |
| M 18 | 7 49 18 | 27♂52'33 | 25♂ 3 | 6♂ 2 | 5♂52 | 24♂51 | 6♂ 0 | 3♂ 9 | 7♂42 | 22♂50 | 1♂16 | 17♂27 | 19♂ 1 | 6♂47 | 11♂27 | M 18 |
| T 19 | 7 53 14 | 28♂53'36 | 10♂23 | 7♂21 | 6♂15 | 24♂57 | 6♂ 0 | 3♂ 4 | 7♂42 | 22♂50 | 1♂16 | 17♂19 | 18♂57 | 6♂54 | 11♂24 | T 19 |
| W 20 | 7 57 11 | 29♂54'38 | 25♂18 | 8♂42 | 6♂36 | 25♂ 1 | 6♂R 0 | 3♂ 0 | 7♂41 | 22♂50 | 1♂15 | 17♂12 | 18♂54 | 7♂ 0 | 11♂22 | W 20 |
| T 21 | 8 1 8 | 0♂55'39 | 10♂27 | 10♂ 4 | 6♂55 | 25♂ 5 | 6♂ 0 | 2♂56 | 7♂41 | 22♂49 | 1♂15 | 17♂ 6 | 18♂51 | 7♂ 7 | 11♂20 | T 21 |
| F 22 | 8 5 4 | 1♂56'40 | 25♂49 | 11♂27 | 7♂12 | 25♂ 8 | 6♂ 0 | 2♂52 | 7♂40 | 22♂49 | 1♂14 | 17♂ 2 | 18♂48 | 7♂14 | 11♂19 | F 22 |
| S 23 | 8 9 1 | 2♂57'40 | 10♂44 | 12♂51 | 7♂27 | 25♂11 | 5♂59 | 2♂48 | 7♂40 | 22♂48 | 1♂14 | 17♂D 0 | 18♂45 | 7♂20 | 11♂17 | S 23 |
| S 24 | 8 12 57 | 3♂58'39 | 25♂16 | 14♂16 | 7♂40 | 25♂13 | 5♂59 | 2♂44 | 7♂39 | 22♂48 | 1♂13 | 17♂ 0 | 18♂41 | 7♂27 | 11♂15 | S 24 |
| M 25 | 8 16 54 | 4♂59'38 | 9♂23 | 15♂41 | 7♂50 | 25♂14 | 5♂58 | 2♂41 | 7♂38 | 22♂48 | 1♂13 | 17♂ 1 | 18♂38 | 7♂34 | 11♂13 | M 25 |
| T 26 | 8 20 50 | 6♂ 0'36 | 23♂ 2 | 17♂ 8 | 7♂59 | 25♂R14 | 5♂57 | 2♂37 | 7♂38 | 22♂47 | 1♂12 | 17♂ 3 | 18♂35 | 7♂40 | 11♂12 | T 26 |
| W 27 | 8 24 47 | 7♂ 1'33 | 6♂16 | 18♂35 | 8♂ 5 | 25♂14 | 5♂56 | 2♂33 | 7♂37 | 22♂47 | 1♂12 | 17♂R 4 | 18♂32 | 7♂47 | 11♂10 | W 27 |
| T 28 | 8 28 43 | 8♂ 2'30 | 19♂ 8 | 20♂ 3 | 8♂ 8 | 25♂12 | 5♂55 | 2♂30 | 7♂36 | 22♂47 | 1♂12 | 17♂ 3 | 18♂29 | 7♂54 | 11♂ 8 | T 28 |
| F 29 | 8 32 40 | 9♂ 3'26 | 1♂41 | 21♂32 | 8♂R 9 | 25♂10 | 5♂53 | 2♂26 | 7♂35 | 22♂47 | 1♂11 | 17♂ 0 | 18♂26 | 8♂ 1 | 11♂ 7 | F 29 |
| S 30 | 8 36 37 | 10♂ 4'22 | 14♂ 0 | 23♂ 2 | 8♂ 8 | 25♂ 8 | 5♂51 | 2♂23 | 7♂34 | 22♂47 | 1♂11 | 16♂56 | 18♂22 | 8♂ 7 | 11♂ 6 | S 30 |
| S 31 | 8 40 33 | 11♂ 5'16 | 26♂ 8 | 24♂32 | 8♂ 4 | 25♂ 4 | 5♂49 | 2♂19 | 7♂33 | 22♂47 | 1♂11 | 16♂51 | 18♂19 | 8♂14 | 11♂ 4 | S 31 |

Delta T = -4.33 sec

FEBRUARY 1886

00:00 UT

| Day | Sid.t | ☉ | ☾ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|--------|-------|-------|-------|--------|-------|--------|-------|-------|--------|------|
| M 1 | 8 44 30 | 12♂ 6'10 | 8♂ 8 | 26♂ 4 | 7♂R58 | 25♂R 0 | 5♂R47 | 2♂R16 | 7♂R32 | 22♂R47 | 1♂R10 | 16♂R44 | 18♂16 | 8♂21 | 11♂R 3 | M 1 |
| T 2 | 8 48 26 | 13♂ 7'03 | 20♂ 2 | 27♂36 | 7♂48 | 24♂55 | 5♂45 | 2♂13 | 7♂31 | 22♂D47 | 1♂R10 | 16♂37 | 18♂13 | 8♂27 | 11♂R 2 | T 2 |
| W 3 | 8 52 23 | 14♂ 7'55 | 1♂52 | 29♂ 9 | 7♂38 | 24♂49 | 5♂42 | 2♂10 | 7♂30 | 22♂D47 | 1♂R10 | 16♂31 | 18♂10 | 8♂34 | 11♂ 1 | W 3 |
| T 4 | 8 56 19 | 15♂ 8'45 | 13♂41 | 0♂42 | 7♂24 | 24♂42 | 5♂40 | 2♂ 7 | 7♂28 | 22♂47 | 1♂10 | 16♂26 | 18♂ 7 | 8♂41 | 11♂ 0 | T 4 |
| F 5 | 9 0 16 | 16♂ 9'35 | 25♂31 | 2♂16 | 7♂ 8 | 24♂35 | 5♂37 | 2♂ 4 | 7♂27 | 22♂47 | 1♂ 9 | 16♂23 | 18♂ 3 | 8♂47 | 10♂59 | F 5 |
| S 6 | 9 4 12 | 17♂10'23 | 7♂22 | 3♂51 | 6♂49 | 24♂26 | 5♂34 | 2♂ 1 | 7♂26 | 22♂47 | 1♂ 9 | 16♂21 | 18♂ 0 | 8♂54 | 10♂58 | S 6 |
| S 7 | 9 8 9 | 18♂11'09 | 19♂18 | 5♂27 | 6♂28 | 24♂17 | 5♂31 | 1♂59 | 7♂24 | 22♂47 | 1♂ 9 | 16♂D20 | 17♂57 | 9♂ 1 | 10♂58 | S 7 |
| M 8 | 9 12 6 | 19♂11'55 | 1♂21 | 7♂ 4 | 6♂ 4 | 24♂ 8 | 5♂27 | 1♂56 | 7♂23 | 22♂47 | 1♂ 9 | 16♂21 | 17♂54 | 9♂ 7 | 10♂57 | M 8 |
| T 9 | 9 16 2 | 20♂12'38 | 13♂34 | 8♂41 | 5♂39 | 23♂57 | 5♂24 | 1♂54 | 7♂22 | 22♂48 | 1♂ 9 | 16♂23 | 17♂51 | 9♂14 | 10♂56 | T 9 |
| W 10 | 9 19 59 | 21♂13'21 | 26♂ 1 | 10♂20 | 5♂11 | 23♂45 | 5♂20 | 1♂51 | 7♂20 | 22♂48 | 1♂ 9 | 16♂24 | 17♂47 | 9♂21 | 10♂56 | W 10 |
| T 11 | 9 23 55 | 22♂14'01 | 8♂45 | 11♂59 | 4♂42 | 23♂33 | 5♂16 | 1♂49 | 7♂19 | 22♂48 | 1♂ 9 | 16♂26 | 17♂44 | 9♂27 | 10♂55 | T 11 |
| F 12 | 9 27 52 | 23♂14'40 | 21♂50 | 13♂38 | 4♂11 | 23♂20 | 5♂12 | 1♂47 | 7♂17 | 22♂48 | 1♂ 9 | 16♂R26 | 17♂41 | 9♂34 | 10♂55 | F 12 |
| S 13 | 9 31 48 | 24♂15'17 | 5♂19 | 15♂19 | 3♂38 | 23♂ 7 | 5♂ 8 | 1♂45 | 7♂15 | 22♂49 | 1♂ 9 | 16♂26 | 17♂38 | 9♂41 | 10♂55 | S 13 |
| S 14 | 9 35 45 | 25♂15'53 | 19♂14 | 17♂ 1 | 3♂ 3 | 22♂52 | 5♂ 3 | 1♂43 | 7♂14 | 22♂49 | 1♂D 9 | 16♂25 | 17♂35 | 9♂47 | 10♂54 | S 14 |
| M 15 | 9 39 41 | 26♂16'27 | 3♂34 | 18♂43 | 2♂28 | 22♂37 | 4♂58 | 1♂41 | 7♂12 | 22♂50 | 1♂ 9 | 16♂22 | 17♂32 | 9♂54 | 10♂54 | M 15 |
| T 16 | 9 43 38 | 27♂16'59 | 18♂18 | 20♂27 | 1♂52 | 22♂21 | 4♂54 | 1♂39 | 7♂10 | 22♂50 | 1♂ 9 | 16♂20 | 17♂28 | 10♂ 1 | 10♂D54 | T 16 |
| W 17 | 9 47 35 | 28♂17'29 | 3♂20 | 22♂11 | 1♂15 | 22♂ 5 | 4♂49 | 1♂38 | 7♂ 8 | 22♂51 | 1♂ 9 | 16♂17 | 17♂25 | 10♂ 7 | 10♂54 | W 17 |
| T 18 | 9 51 31 | 29♂17'58 | 18♂31 | 23♂56 | 0♂37 | 21♂48 | 4♂44 | 1♂36 | 7♂ 7 | 22♂51 | 1♂ 9 | 16♂15 | 17♂22 | 10♂14 | 10♂54 | T 18 |
| F 19 | 9 55 28 | 0♂18'25 | 3♂42 | 25♂42 | 29♂59 | 21♂30 | 4♂39 | 1♂35 | 7♂ 5 | 22♂52 | 1♂ 9 | 16♂14 | 17♂19 | 10♂21 | 10♂55 | F 19 |
| S 20 | 9 59 24 | 1♂18'50 | 18♂42 | 27♂29 | 29♂22 | 21♂12 | 4♂33 | 1♂33 | 7♂ 3 | 22♂52 | 1♂ 9 | 16♂D14 | 17♂16 | 10♂27 | 10♂55 | S 20 |
| S 21 | 10 3 21 | 2♂19'14 | 3♂25 | 29♂17 | 28♂45 | 20♂53 | 4♂28 | 1♂32 | 7♂ 1 | 22♂53 | 1♂ 9 | 16♂14 | 17♂12 | 10♂34 | 10♂55 | S 21 |
| M 22 | 10 7 17 | 3♂19'36 | 17♂44 | 1♂ 6 | 28♂ 9 | 20♂33 | 4♂22 | 1♂31 | 6♂59 | 22♂54 | 1♂ 9 | 16♂15 | 17♂ 9 | 10♂41 | 10♂56 | M 22 |
| T 23 | 10 11 14 | 4♂19'56 | 1♂36 | 2♂56 | 27♂33 | 20♂13 | 4♂16 | 1♂30 | 6♂57 | 22♂54 | 1♂10 | 16♂17 | 17♂ 6 | 10♂47 | 10♂56 | T 23 |
| W 24 | 10 15 10 | 5♂20'16 | 15♂ 0 | 4♂47 | 26♂58 | 19♂52 | 4♂10 | 1♂29 | 6♂55 | 22♂55 | 1♂10 | 16♂17 | 17♂ 3 | 10♂54 | 10♂57 | W 24 |
| T 25 | 10 19 7 | 6♂20'34 | 27♂59 | 6♂38 | 26♂25 | 19♂31 | 4♂ 4 | 1♂29 | 6♂53 | 22♂56 | 1♂10 | 16♂18 | 17♂ 0 | 11♂ 1 | 10♂57 | T 25 |
| F 26 | 10 23 3 | 7♂20'50 | 10♂36 | 8♂31 | 25♂53 | 19♂10 | 3♂58 | 1♂28 | 6♂51 | 22♂57 | 1♂10 | 16♂R18 | 16♂57 | 11♂ 7 | 10♂58 | F 26 |
| S 27 | 10 27 0 | 8♂21'06 | 22♂55 | 10♂24 | 25♂24 | 18♂48 | 3♂52 | 1♂27 | 6♂48 | 22♂58 | 1♂10 | 16♂18 | 16♂53 | 11♂14 | 10♂59 | S 27 |
| S 28 | 10 30 57 | 9♂21'19 | 5♂ 1 | 12♂18 | 24♂55 | 18♂25 | 3♂45 | 1♂27 | 6♂46 | 22♂58 | 1♂11 | 16♂17 | 16♂50 | 11♂21 | 11♂ 0 | S 28 |

Delta T = -4.32 sec

ASTRODIENST EPHEMERIS for the year 1886

geocentric

MARCH 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|-----------|-----------|--------|--------|--------|-------|-------|--------|-------|--------|--------|--------|--------|------|
| M 1 | 10 34 53 | 10°11'31" | 16°35'56" | 14°11'13" | 24°R29 | 18°R 3 | 3°R39 | 1°R27 | 6°R44 | 22°R59 | 1°R11 | 16°R16 | 16°R47 | 11°R27 | 11°R 1 | M 1 |
| T 2 | 10 38 50 | 11°21'42" | 28°46' | 16° 8' | 24°R 5 | 17°R40 | 3°R32 | 1°R26 | 6°R42 | 23° 0' | 1°11 | 16°R16 | 16°44' | 11°34' | 11° 2' | T 2 |
| W 3 | 10 42 46 | 12°21'50" | 10°R34 | 18° 4' | 23°44' | 17°16' | 3°25' | 1°D26 | 6°39' | 23° 1' | 1°12 | 16°15' | 16°41' | 11°41' | 11° 3' | W 3 |
| T 4 | 10 46 43 | 13°21'57" | 22°24' | 20° 0' | 23°24' | 16°53' | 3°19' | 1°26' | 6°37' | 23° 2' | 1°12 | 16°15' | 16°38' | 11°47' | 11° 4' | T 4 |
| F 5 | 10 50 39 | 14°22'03" | 4°R16 | 21°56' | 23° 7' | 16°29' | 3°12' | 1°27' | 6°35' | 23° 3' | 1°13 | 16°14' | 16°34' | 11°54' | 11° 5' | F 5 |
| S 6 | 10 54 36 | 15°22'06" | 16°15' | 23°52' | 22°53' | 16° 6' | 3° 5' | 1°27' | 6°32' | 23° 4' | 1°13 | 16°D14 | 16°31' | 12° 1' | 11° 7' | S 6 |
| S 7 | 10 58 32 | 16°22'08" | 28°22' | 25°48' | 22°41' | 15°42' | 2°58' | 1°27' | 6°30' | 23° 5' | 1°13 | 16°R14 | 16°28' | 12° 7' | 11° 8' | S 7 |
| M 8 | 11 2 29 | 17°22'07" | 10°R38 | 27°44' | 22°31' | 15°18' | 2°50' | 1°28' | 6°28' | 23° 7' | 1°14 | 16°14' | 16°25' | 12°14' | 11° 9' | M 8 |
| T 9 | 11 6 26 | 18°22'05" | 23° 5' | 29°38' | 22°24' | 14°55' | 2°43' | 1°28' | 6°25' | 23° 8' | 1°14 | 16°14' | 16°22' | 12°21' | 11°11' | T 9 |
| W10 | 11 10 22 | 19°22'00" | 5°R45 | 1°R31 | 22°19' | 14°31' | 2°36' | 1°29' | 6°23' | 23° 9' | 1°15 | 16°14' | 16°18' | 12°27' | 11°13' | W10 |
| T 11 | 11 14 19 | 20°21'54" | 18°40' | 3°22' | 22°D16 | 14° 8' | 2°28' | 1°30' | 6°20' | 23°10' | 1°15 | 16°13' | 16°15' | 12°34' | 11°14' | T 11 |
| F 12 | 11 18 15 | 21°21'45" | 1°R51 | 5°12' | 22°17' | 13°44' | 2°21' | 1°31' | 6°18' | 23°11' | 1°16 | 16°13' | 16°12' | 12°41' | 11°16' | F 12 |
| S 13 | 11 22 12 | 22°21'34" | 15°19' | 6°59' | 22°19' | 13°21' | 2°13' | 1°32' | 6°15' | 23°13' | 1°17 | 16°13' | 16° 9' | 12°47' | 11°18' | S 13 |
| S 14 | 11 26 8 | 23°21'21" | 29° 6' | 8°42' | 22°24' | 12°58' | 2° 6' | 1°33' | 6°13' | 23°14' | 1°17 | 16°D13 | 16° 6' | 12°54' | 11°20' | S 14 |
| M15 | 11 30 5 | 24°21'05" | 13°R12 | 10°23' | 22°31' | 12°36' | 1°58' | 1°34' | 6°10' | 23°15' | 1°18 | 16°13' | 16° 3' | 13° 1' | 11°22' | M15 |
| T 16 | 11 34 1 | 25°20'47" | 27°36' | 11°59' | 22°40' | 12°14' | 1°50' | 1°36' | 6° 8' | 23°17' | 1°18 | 16°14' | 15°59' | 13° 7' | 11°24' | T 16 |
| W17 | 11 37 58 | 26°20'27" | 12°R14 | 13°31' | 22°51' | 11°52' | 1°43' | 1°37' | 6° 5' | 23°18' | 1°19 | 16°15' | 15°56' | 13°14' | 11°26' | W17 |
| T 18 | 11 41 55 | 27°20'05" | 27° 2' | 14°58' | 23° 5' | 11°30' | 1°35' | 1°39' | 6° 3' | 23°19' | 1°20 | 16°15' | 15°53' | 13°21' | 11°28' | T 18 |
| F 19 | 11 45 51 | 28°19'40" | 11°R54 | 16°20' | 23°21' | 11° 9' | 1°27' | 1°40' | 6° 0' | 23°21' | 1°20 | 16°R16 | 15°50' | 13°27' | 11°31' | F 19 |
| S 20 | 11 49 48 | 29°19'14" | 26°41' | 17°36' | 23°38' | 10°49' | 1°20' | 1°42' | 5°58' | 23°22' | 1°21 | 16°16' | 15°47' | 13°34' | 11°33' | S 20 |
| S 21 | 11 53 44 | 0°R18'45" | 11°R17 | 18°46' | 23°58' | 10°29' | 1°12' | 1°44' | 5°55' | 23°24' | 1°22 | 16°15' | 15°44' | 13°41' | 11°35' | S 21 |
| M22 | 11 57 41 | 1°18'14" | 25°36' | 19°49' | 24°19' | 10°10' | 1° 4' | 1°46' | 5°53' | 23°25' | 1°23 | 16°13' | 15°40' | 13°47' | 11°38' | M22 |
| T 23 | 12 1 37 | 2°17'41" | 9°R13 | 20°46' | 24°42' | 9°51' | 0°56' | 1°48' | 5°50' | 23°27' | 1°23 | 16°11' | 15°37' | 13°54' | 11°40' | T 23 |
| W24 | 12 5 34 | 3°17'07" | 23° 3' | 21°35' | 25° 7' | 9°32' | 0°49' | 1°50' | 5°47' | 23°28' | 1°24 | 16° 9' | 15°34' | 14° 1' | 11°43' | W24 |
| T 25 | 12 9 30 | 4°16'31" | 6°R 9 | 22°18' | 25°34' | 9°15' | 0°41' | 1°53' | 5°45' | 23°30' | 1°25 | 16° 7' | 15°31' | 14° 7' | 11°46' | T 25 |
| F 26 | 12 13 27 | 5°15'53" | 18°52' | 22°53' | 26° 2' | 8°58' | 0°33' | 1°55' | 5°42' | 23°32' | 1°26 | 16° 5' | 15°28' | 14°14' | 11°48' | F 26 |
| S 27 | 12 17 23 | 6°15'13" | 1°R15 | 23°20' | 26°32' | 8°41' | 0°25' | 1°58' | 5°40' | 23°33' | 1°27 | 16°D 4 | 15°24' | 14°21' | 11°51' | S 27 |
| S 28 | 12 21 20 | 7°14'32" | 13°22' | 23°40' | 27° 3' | 8°26' | 0°18' | 2° 0' | 5°37' | 23°35' | 1°27 | 16° 4' | 15°21' | 14°27' | 11°54' | S 28 |
| M29 | 12 25 17 | 8°13'48" | 25°18' | 23°52' | 27°36' | 8°11' | 0°10' | 2° 3' | 5°34' | 23°37' | 1°28 | 16° 5' | 15°18' | 14°34' | 11°57' | M29 |
| T 30 | 12 29 13 | 9°13'03" | 7°R 7 | 23°R57 | 28°10' | 7°57' | 0° 2' | 2° 6' | 5°32' | 23°38' | 1°29 | 16° 7' | 15°15' | 14°41' | 12° 0' | T 30 |
| W31 | 12 33 10 | 10°R12'16" | 18°R56 | 23°R55 | 28°R46 | 7°R43 | 29°R55 | 2°R 9 | 5°R29 | 23°R40 | 1°R30 | 16°R 8 | 15°R12 | 14°R47 | 12°R 3 | W31 |

Delta T = -4.30 sec

APRIL 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------|--------|--------|--------|-------|--------|-------|-------|--------|-------|--------|--------|--------|--------|------|
| T 1 | 12 37 6 | 11°R11'28" | 0°R47 | 23°R46 | 29°R22 | 7°R31 | 29°R47 | 2°R12 | 5°R27 | 23°R42 | 1°R31 | 16°R10 | 15°R 9 | 14°R54 | 12°R 6 | T 1 |
| F 2 | 12 41 3 | 12°10'37" | 12°44' | 23°R30 | 0°R 8 | 7°R19 | 29°R40 | 2°15' | 5°R24 | 23°R44 | 1°32 | 16°R11 | 15° 5' | 15° 1' | 12° 9' | F 2 |
| S 3 | 12 44 59 | 13° 9'44" | 24°52' | 23° 8' | 0°39' | 7° 7' | 29°32' | 2°18' | 5°21' | 23°45' | 1°33 | 16°10' | 15° 2' | 15° 7' | 12°13' | S 3 |
| S 4 | 12 48 56 | 14° 8'50" | 7°R11 | 22°41' | 1°20' | 6°57' | 29°25' | 2°22' | 5°19' | 23°47' | 1°34 | 16° 9' | 14°59' | 15°14' | 12°16' | S 4 |
| M 5 | 12 52 52 | 15° 7'53" | 19°44' | 22° 8' | 2° 1' | 6°47' | 29°18' | 2°25' | 5°16' | 23°49' | 1°35 | 16° 6' | 14°56' | 15°21' | 12°19' | M 5 |
| T 6 | 12 56 49 | 16° 6'54" | 2°R31 | 21°31' | 2°43' | 6°38' | 29°11' | 2°29' | 5°14' | 23°51' | 1°36 | 16° 1' | 14°53' | 15°27' | 12°23' | T 6 |
| W 7 | 13 0 46 | 17° 5'54" | 15°32' | 20°51' | 3°27' | 6°30' | 29° 4' | 2°32' | 5°11' | 23°53' | 1°37 | 15°56' | 14°49' | 15°34' | 12°26' | W 7 |
| T 8 | 13 4 42 | 18° 4'51" | 28°47' | 20° 8' | 4°11' | 6°23' | 28°57' | 2°36' | 5° 9' | 23°55' | 1°38 | 15°51' | 14°46' | 15°41' | 12°30' | T 8 |
| F 9 | 13 8 39 | 19° 3'46" | 12°R15 | 19°23' | 4°56' | 6°17' | 28°50' | 2°40' | 5° 6' | 23°57' | 1°39 | 15°47' | 14°43' | 15°47' | 12°33' | F 9 |
| S 10 | 13 12 35 | 20° 2'39" | 25°55' | 18°38' | 5°42' | 6°11' | 28°43' | 2°44' | 5° 4' | 23°58' | 1°40 | 15°43' | 14°40' | 15°54' | 12°37' | S 10 |
| S 11 | 13 16 32 | 21° 1'29" | 9°R46 | 17°52' | 6°29' | 6° 6' | 28°36' | 2°48' | 5° 1' | 24° 0' | 1°41 | 15°41' | 14°37' | 16° 1' | 12°40' | S 11 |
| M12 | 13 20 28 | 22° 0'17" | 23°47' | 17° 7' | 7°17' | 6° 2' | 28°29' | 2°52' | 4°59' | 24° 2' | 1°42 | 15°D40 | 14°34' | 16° 7' | 12°44' | M12 |
| T 13 | 13 24 25 | 22°59'07" | 7°R58 | 16°24' | 8° 5' | 5°59' | 28°23' | 2°56' | 4°56' | 24° 4' | 1°43 | 15°41' | 14°30' | 16°14' | 12°48' | T 13 |
| W14 | 13 28 21 | 23°57'47" | 22°15' | 15°43' | 8°54' | 5°56' | 28°16' | 3° 0' | 4°54' | 24° 6' | 1°44 | 15°42' | 14°27' | 16°21' | 12°52' | W14 |
| T 15 | 13 32 18 | 24°56'28" | 6°R38 | 15° 5' | 9°44' | 5°54' | 28°10' | 3° 5' | 4°52' | 24° 8' | 1°45 | 15°44' | 14°24' | 16°27' | 12°56' | T 15 |
| F 16 | 13 36 15 | 25°55'07" | 21° 3' | 14°31' | 10°35' | 5°53' | 28° 4' | 3° 9' | 4°49' | 24°10' | 1°46 | 15°R44 | 14°21' | 16°34' | 13° 0' | F 16 |
| S 17 | 13 40 11 | 26°53'44" | 5°R25 | 14° 0' | 11°26' | 5°D53 | 27°58' | 3°14' | 4°47' | 24°12' | 1°48 | 15°42' | 14°18' | 16°41' | 13° 4' | S 17 |
| S 18 | 13 44 8 | 27°52'19" | 19°41' | 13°34' | 12°18' | 5°54' | 27°52' | 3°18' | 4°44' | 24°14' | 1°49 | 15°39' | 14°15' | 16°47' | 13° 8' | S 18 |
| M19 | 13 48 4 | 28°50'52" | 3°R44 | 13°13' | 13°11' | 5°55' | 27°46' | 3°23' | 4°42' | 24°17' | 1°50 | 15°33' | 14°11' | 16°54' | 13°12' | M19 |
| T 20 | 13 52 1 | 29°49'23" | 17°30' | 12°56' | 14° 4' | 5°57' | 27°40' | 3°28' | 4°40' | 24°19' | 1°51 | 15°26' | 14° 8' | 17° 1' | 13°16' | T 20 |
| W21 | 13 55 57 | 0°R47'52" | 0°R57 | 12°45' | 14°58' | 5°59' | 27°35' | 3°33' | 4°38' | 24°21' | 1°52 | 15°19' | 14° 5' | 17° 7' | 13°20' | W21 |
| T 22 | 13 59 54 | 1°46'20" | 14° 2' | 12°39' | 15°52' | 6° 3' | 27°29' | 3°38' | 4°35' | 24°23' | 1°53 | 15°11' | 14° 2' | 17°14' | 13°24' | T 22 |
| F 23 | 14 3 50 | 2°44'45" | 26°46' | 12°D37 | 16°47' | 6° 7' | 27°24' | 3°43' | 4°33' | 24°25' | 1°55 | 15° 5' | 13°59' | 17°21' | 13°28' | F 23 |
| S 24 | 14 7 47 | 3°43'10" | 9°R11 | 12°41' | 17°43' | 6°12' | 27°19' | 3°48' | 4°31' | 24°27' | 1°56 | 15° 0' | 13°55' | 17°27' | 13°33' | S 24 |
| S 25 | 14 11 44 | 4°41'32" | 21°20' | 12°49' | 18°38' | 6°17' | 27°14' | 3°53' | 4°29' | 24°29' | 1°57 | 14°57' | 13°52' | 17°34' | 13°37' | S 25 |
| M26 | 14 15 40 | 5°39'53" | 3°R17 | 13° 3' | 19°35' | 6°23' | 27° 9' | 3°58' | 4°27' | 24°31' | 1°58 | 14°D56 | 13°49' | 17°41' | 13°41' | M26 |
| T 27 | 14 19 37 | 6°38'13" | 15° 7' | 13°21' | 20°32' | 6°30' | 27° 5' | 4° 3' | 4°25' | 24°33' | 1°59 | 14°56' | 13°46' | 17°47' | 13°46' | T 27 |
| W28 | 14 23 33 | 7°36'31" | 26°56' | 13°43' | 21°29' | 6°37' | 27° 0' | 4° 9' | 4°23' | 24°36' | 2° 1 | 14°57' | 13°43' | 17°54' | 13°50' | W28 |
| T 29 | 14 27 30 | 8°34'47" | 8°R49 | 14°10' | 22°27' | 6°45' | 26°56' | 4°14' | 4°21' | 24°38' | 2° 2 | 14°R58 | 13°40' | 18° 1' | 13°55' | T 29 |
| F 30 | 14 31 26 | 9°R33'02" | 20°R50 | 14°R41 | 23°R25 | 6°R53 | 26°R52 | 4°R20 | 4°R19 | 24°R40 | 2°R 3 | 14°R58 | 13°R36 | 18°R 7 | 13°R59 | F 30 |

Delta T = -4.29 sec

ASTRODIENST EPHEMERIS for the year 1886

geocentric

MAY 1886

00:00 UT

| Day | Sid.t | ☉ | ☾ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|--------|------|------|-------|------|--------|-------|-------|-------|------|
| S 1 | 14 35 23 | 10♈31'15 | 3♈5 | 15♈16 | 24♈23 | 7♈3 | 26♈48 | 4♈25 | 4♈17 | 24♈42 | 2♈5 | 14♈56 | 13♈33 | 18♈14 | 14♈4 | S 1 |
| S 2 | 14 39 19 | 11°29'27 | 15°35 | 15°55 | 25°22 | 7°12 | 26♈44 | 4°31 | 4♈15 | 24°44 | 2°6 | 14♈52 | 13°30 | 18°21 | 14°8 | S 2 |
| M 3 | 14 43 16 | 12°27'37 | 28°24 | 16°38 | 26°22 | 7°23 | 26°40 | 4°37 | 4°13 | 24°47 | 2°7 | 14°46 | 13°27 | 18°27 | 14°13 | M 3 |
| T 4 | 14 47 12 | 13°25'45 | 11♈31 | 17°24 | 27°21 | 7°34 | 26°36 | 4°42 | 4°11 | 24°49 | 2°8 | 14°38 | 13°24 | 18°34 | 14°18 | T 4 |
| W 5 | 14 51 9 | 14°23'52 | 24°57 | 18°14 | 28°21 | 7°45 | 26°33 | 4°48 | 4°9 | 24°51 | 2°10 | 14°28 | 13°20 | 18°41 | 14°22 | W 5 |
| T 6 | 14 55 6 | 15°21'57 | 8♈37 | 19°7 | 29°22 | 7°57 | 26°30 | 4°54 | 4°8 | 24°53 | 2°11 | 14°18 | 13°17 | 18°47 | 14°27 | T 6 |
| F 7 | 14 59 2 | 16°20'01 | 22°30 | 20°4 | 0♈22 | 8°10 | 26°27 | 5°0 | 4°6 | 24°55 | 2°12 | 14°8 | 13°14 | 18°54 | 14°32 | F 7 |
| S 8 | 15 2 59 | 17°18'02 | 6♈31 | 21°3 | 1°23 | 8°23 | 26°24 | 5°6 | 4°4 | 24°58 | 2°14 | 14°1 | 13°11 | 19°1 | 14°36 | S 8 |
| S 9 | 15 6 55 | 18°16'02 | 20°38 | 22°5 | 2°24 | 8°37 | 26°21 | 5°12 | 4°3 | 25°0 | 2°15 | 13°55 | 13°8 | 19°7 | 14°41 | S 9 |
| M10 | 15 10 52 | 19°14'00 | 4♈46 | 23°11 | 3°26 | 8°51 | 26°19 | 5°19 | 4°1 | 25°2 | 2°16 | 13°53 | 13°5 | 19°14 | 14°46 | M10 |
| T 11 | 15 14 48 | 20°11'56 | 18°55 | 24°19 | 4°28 | 9°6 | 26°17 | 5°25 | 3°59 | 25°4 | 2°18 | 13°D52 | 13°1 | 19°21 | 14°51 | T 11 |
| W12 | 15 18 45 | 21°9'50 | 3♈2 | 25°29 | 5°30 | 9°21 | 26°14 | 5°31 | 3°58 | 25°7 | 2°19 | 13°52 | 12°58 | 19°27 | 14°56 | W12 |
| T 13 | 15 22 41 | 22°7'42 | 17°7 | 26°42 | 6°32 | 9°37 | 26°13 | 5°38 | 3°56 | 25°9 | 2°20 | 13°R52 | 12°55 | 19°34 | 15°1 | T 13 |
| F 14 | 15 26 38 | 23°5'33 | 1♈9 | 27°58 | 7°35 | 9°53 | 26°11 | 5°44 | 3°55 | 25°11 | 2°22 | 13°51 | 12°52 | 19°40 | 15°6 | F 14 |
| S 15 | 15 30 35 | 24°3'22 | 15°5 | 29°17 | 8°37 | 10°10 | 26°9 | 5°50 | 3°54 | 25°13 | 2°23 | 13°48 | 12°49 | 19°47 | 15°11 | S 15 |
| S 16 | 15 34 31 | 25°1'09 | 28°55 | 0♈37 | 9°40 | 10°27 | 26°8 | 5°57 | 3°52 | 25°16 | 2°24 | 13°42 | 12°46 | 19°54 | 15°16 | S 16 |
| M17 | 15 38 28 | 25°58'54 | 12♈35 | 2°1 | 10°44 | 10°44 | 26°7 | 6°3 | 3°51 | 25°18 | 2°26 | 13°33 | 12°42 | 20°0 | 15°21 | M17 |
| T 18 | 15 42 24 | 26°56'39 | 26°1 | 3°26 | 11°47 | 11°2 | 26°6 | 6°10 | 3°50 | 25°20 | 2°27 | 13°22 | 12°39 | 20°7 | 15°26 | T 18 |
| W19 | 15 46 21 | 27°54'22 | 9♈13 | 4°54 | 12°51 | 11°21 | 26°5 | 6°17 | 3°49 | 25°22 | 2°28 | 13°11 | 12°36 | 20°14 | 15°31 | W19 |
| T 20 | 15 50 17 | 28°52'03 | 22°8 | 6°25 | 13°55 | 11°40 | 26°4 | 6°23 | 3°47 | 25°25 | 2°30 | 12°59 | 12°33 | 20°20 | 15°36 | T 20 |
| F 21 | 15 54 14 | 29°49'44 | 4♈45 | 7°57 | 14°59 | 11°59 | 26°3 | 6°30 | 3°46 | 25°27 | 2°31 | 12°48 | 12°30 | 20°27 | 15°41 | F 21 |
| S 22 | 15 58 10 | 0♈47'23 | 17°6 | 9°32 | 16°4 | 12°18 | 26°3 | 6°37 | 3°45 | 25°29 | 2°32 | 12°39 | 12°26 | 20°34 | 15°46 | S 22 |
| S 23 | 16 2 7 | 1°45'01 | 29°13 | 11°9 | 17°8 | 12°38 | 26°D 3 | 6°44 | 3°44 | 25°31 | 2°34 | 12°33 | 12°23 | 20°40 | 15°51 | S 23 |
| M24 | 16 6 4 | 2°42'38 | 11♈10 | 12°49 | 18°13 | 12°59 | 26°3 | 6°51 | 3°43 | 25°34 | 2°35 | 12°29 | 12°20 | 20°47 | 15°56 | M24 |
| T 25 | 16 10 0 | 3°40'14 | 23°0 | 14°31 | 19°18 | 13°20 | 26°3 | 6°58 | 3°42 | 25°36 | 2°37 | 12°27 | 12°17 | 20°54 | 16°1 | T 25 |
| W26 | 16 13 57 | 4°37'49 | 4♈49 | 16°15 | 20°23 | 13°41 | 26°4 | 7°5 | 3°42 | 25°38 | 2°38 | 12°27 | 12°14 | 21°0 | 16°6 | W26 |
| T 27 | 16 17 53 | 5°35'24 | 16°42 | 18°1 | 21°29 | 14°2 | 26°4 | 7°12 | 3°41 | 25°40 | 2°39 | 12°27 | 12°11 | 21°7 | 16°12 | T 27 |
| F 28 | 16 21 50 | 6°32'57 | 28°45 | 19°50 | 22°34 | 14°24 | 26°5 | 7°19 | 3°40 | 25°43 | 2°41 | 12°26 | 12°7 | 21°14 | 16°17 | F 28 |
| S 29 | 16 25 46 | 7°30'30 | 11♈3 | 21°41 | 23°40 | 14°46 | 26°6 | 7°26 | 3°39 | 25°45 | 2°42 | 12°23 | 12°4 | 21°20 | 16°22 | S 29 |
| S 30 | 16 29 43 | 8°28'01 | 23°40 | 23°34 | 24°46 | 15°9 | 26°7 | 7°33 | 3°39 | 25°47 | 2°43 | 12°19 | 12°1 | 21°27 | 16°27 | S 30 |
| M31 | 16 33 39 | 9♈25'32 | 6♈39 | 25♈29 | 25♈52 | 15♈32 | 26♈8 | 7°34 | 3♈38 | 25♈49 | 2♈45 | 12♈11 | 11♈58 | 21♈34 | 16♈32 | M31 |

Delta T = -4.28 sec

JUNE 1886

00:00 UT

| Day | Sid.t | ☉ | ☾ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|-------|------|
| T 1 | 16 37 36 | 10♈23'02 | 20♈1 | 27♈27 | 26♈58 | 15♈55 | 26♈10 | 7°34 | 3°R38 | 25♈51 | 2♈46 | 12°R 1 | 11♈55 | 21♈40 | 16♈38 | T 1 |
| W 2 | 16 41 33 | 11°20'31 | 3♈46 | 28°4 | 16°18 | 26°12 | 26°12 | 7°55 | 3♈37 | 25°54 | 2°47 | 11♈50 | 11°52 | 21°47 | 16°43 | W 2 |
| T 3 | 16 45 29 | 12°17'59 | 17°51 | 1♈28 | 29°10 | 16°42 | 26°13 | 8°2 | 3°37 | 25°56 | 2°49 | 11°38 | 11°48 | 21°54 | 16°48 | T 3 |
| F 4 | 16 49 26 | 13°15'27 | 2♈9 | 3°31 | 0♈17 | 17°6 | 26°15 | 8°9 | 3°36 | 25°58 | 2°50 | 11°27 | 11°45 | 22°0 | 16°53 | F 4 |
| S 5 | 16 53 22 | 14°12'53 | 16°36 | 5°37 | 1°24 | 17°31 | 26°18 | 8°17 | 3°36 | 26°0 | 2°51 | 11°18 | 11°42 | 22°7 | 16°59 | S 5 |
| S 6 | 16 57 19 | 15°10'18 | 1♈5 | 7°43 | 2°30 | 17°56 | 26°20 | 8°24 | 3°36 | 26°2 | 2°53 | 11°11 | 11°39 | 22°14 | 17°4 | S 6 |
| M 7 | 17 1 15 | 16°7'43 | 15°31 | 9°52 | 3°37 | 18°21 | 26°22 | 8°31 | 3°35 | 26°4 | 2°54 | 11°7 | 11°36 | 22°20 | 17°9 | M 7 |
| T 8 | 17 5 12 | 17°5'06 | 29°50 | 12°1 | 4°44 | 18°46 | 26°25 | 8°39 | 3°35 | 26°7 | 2°55 | 11°6 | 11°32 | 22°27 | 17°14 | T 8 |
| W 9 | 17 9 9 | 18°2'27 | 13♈59 | 14°12 | 5°52 | 19°12 | 26°28 | 8°46 | 3°35 | 26°9 | 2°57 | 11°6 | 11°29 | 22°34 | 17°20 | W 9 |
| T 10 | 17 13 5 | 18°59'48 | 27°58 | 16°23 | 6°59 | 19°38 | 26°31 | 8°54 | 3°35 | 26°11 | 2°58 | 11°5 | 11°26 | 22°40 | 17°25 | T 10 |
| F 11 | 17 17 2 | 19°57'08 | 11♈46 | 18°35 | 8°6 | 20°4 | 26°34 | 9°1 | 3°D35 | 26°13 | 2°59 | 11°4 | 11°23 | 22°47 | 17°30 | F 11 |
| S 12 | 17 20 58 | 20°54'27 | 25°24 | 20°47 | 9°14 | 20°30 | 26°38 | 9°9 | 3°35 | 26°15 | 3°1 | 11°1 | 11°20 | 22°53 | 17°35 | S 12 |
| S 13 | 17 24 55 | 21°51'44 | 8♈5 | 22°59 | 10°22 | 20°57 | 26°41 | 9°16 | 3°35 | 26°17 | 3°2 | 10°54 | 11°17 | 23°0 | 17°41 | S 13 |
| M14 | 17 28 51 | 22°49'02 | 22°7 | 25°10 | 11°29 | 21°24 | 26°45 | 9°24 | 3°35 | 26°19 | 3°3 | 10°46 | 11°13 | 23°7 | 17°46 | M14 |
| T 15 | 17 32 48 | 23°46'18 | 5♈11 | 27°21 | 12°37 | 21°51 | 26°49 | 9°31 | 3°35 | 26°21 | 3°5 | 10°35 | 11°10 | 23°13 | 17°51 | T 15 |
| W16 | 17 36 44 | 24°43'34 | 18°3 | 29°32 | 13°45 | 22°19 | 26°53 | 9°39 | 3°36 | 26°23 | 3°6 | 10°22 | 11°7 | 23°20 | 17°56 | W16 |
| T 17 | 17 40 41 | 25°40'49 | 0♈42 | 1♈41 | 14°53 | 22°47 | 26°57 | 9°47 | 3°36 | 26°25 | 3°7 | 10°10 | 11°4 | 23°27 | 18°2 | T 17 |
| F 18 | 17 44 38 | 26°38'03 | 13°7 | 3°49 | 16°1 | 23°15 | 27°1 | 9°54 | 3°36 | 26°27 | 3°8 | 9°59 | 11°1 | 23°33 | 18°7 | F 18 |
| S 19 | 17 48 34 | 27°35'18 | 25°19 | 5°55 | 17°10 | 23°43 | 27°6 | 10°2 | 3°37 | 26°29 | 3°10 | 9°50 | 10°58 | 23°40 | 18°12 | S 19 |
| S 20 | 17 52 31 | 28°32'31 | 7♈21 | 8°0 | 18°18 | 24°11 | 27°10 | 10°10 | 3°37 | 26°31 | 3°11 | 9°43 | 10°54 | 23°47 | 18°17 | S 20 |
| M21 | 17 56 27 | 29°29'45 | 19°14 | 10°3 | 19°27 | 24°40 | 27°15 | 10°17 | 3°38 | 26°33 | 3°12 | 9°39 | 10°51 | 23°53 | 18°23 | M21 |
| T 22 | 18 0 24 | 0♈26'58 | 1♈2 | 12°4 | 20°35 | 25°9 | 27°20 | 10°25 | 3°38 | 26°35 | 3°13 | 9°37 | 10°48 | 24°0 | 18°28 | T 22 |
| W23 | 18 4 20 | 1°24'12 | 12°51 | 14°3 | 21°44 | 25°38 | 27°25 | 10°33 | 3°39 | 26°37 | 3°15 | 9°D37 | 10°45 | 24°7 | 18°33 | W23 |
| T 24 | 18 8 17 | 2°21'25 | 24°43 | 16°1 | 22°53 | 26°7 | 27°31 | 10°41 | 3°39 | 26°39 | 3°16 | 9°37 | 10°42 | 24°13 | 18°38 | T 24 |
| F 25 | 18 12 13 | 3°18'38 | 6♈46 | 17°56 | 24°1 | 26°37 | 27°36 | 10°48 | 3°40 | 26°41 | 3°17 | 9°R37 | 10°38 | 24°20 | 18°43 | F 25 |
| S 26 | 18 16 10 | 4°15'51 | 19°3 | 19°49 | 25°10 | 27°6 | 27°41 | 10°56 | 3°41 | 26°43 | 3°18 | 9°36 | 10°35 | 24°27 | 18°49 | S 26 |
| S 27 | 18 20 7 | 5°13'04 | 1♈41 | 21°40 | 26°19 | 27°36 | 27°47 | 11°4 | 3°42 | 26°45 | 3°19 | 9°33 | 10°32 | 24°33 | 18°54 | S 27 |
| M28 | 18 24 3 | 6°10'17 | 14°44 | 23°29 | 27°29 | 28°6 | 27°53 | 11°12 | 3°43 | 26°46 | 3°21 | 9°28 | 10°29 | 24°40 | 18°59 | M28 |
| T 29 | 18 28 0 | 7°7'31 | 28°12 | 25°16 | 28°38 | 28°37 | 27°59 | 11°19 | 3°44 | 26°48 | 3°22 | 9°20 | 10°26 | 24°47 | 19°4 | T 29 |
| W30 | 18 31 56 | 8°3'44 | 12♈7 | 27°31 | 29♈47 | 29♈7 | 28♈5 | 11°37 | 3♈44 | 26♈50 | 3♈23 | 9♈12 | 10♈23 | 24°53 | 19♈9 | W30 |

Delta T = -4.27 sec

ASTRODIENST EPHEMERIS for the year 1886
geocentric

JULY 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|----------|----------|-----------|-----------|-----------|------|
| T 1 | 18 35 53 | 9°58'15" | 26°11'27" | 28°43'28" | 0°11'57" | 29°11'38" | 28°11'11" | 11°35'35" | 3°46'46" | 26°52'52" | 3°11'24" | 9°R 2 | 10°11'19" | 25°38'00" | 19°11'14" | T 1 |
| F 2 | 18 39 49 | 9°59'11" | 11°58'04" | 0°12'24" | 2°06'00" | 0°09'09" | 28°18'18" | 11°43'43" | 3°47'47" | 26°54'54" | 3°25'25" | 8°11'53" | 10°16'16" | 25°06'06" | 19°19'19" | F 2 |
| S 3 | 18 43 46 | 10°56'25" | 25°54'54" | 2°02'02" | 3°16'16" | 0°40'40" | 28°24'24" | 11°51'51" | 3°48'48" | 26°55'55" | 3°26'26" | 8°46'46" | 10°13'13" | 25°13'13" | 19°24'24" | S 3 |
| S 4 | 18 47 42 | 11°53'38" | 10°12'46" | 3°38'38" | 4°25'25" | 1°12'12" | 28°31'31" | 11°58'58" | 3°49'49" | 26°57'57" | 3°27'27" | 8°41'41" | 10°10'10" | 25°20'20" | 19°29'29" | S 4 |
| M 5 | 18 51 39 | 12°50'52" | 25°33'33" | 5°12'12" | 5°35'35" | 1°43'43" | 28°38'38" | 12°06'06" | 3°50'50" | 26°59'59" | 3°29'29" | 8°38'38" | 10°07'07" | 25°26'26" | 19°34'34" | M 5 |
| T 6 | 18 55 36 | 13°48'05" | 10°11'10" | 6°44'44" | 6°45'45" | 2°15'15" | 28°45'45" | 12°14'14" | 3°51'51" | 27°00'00" | 3°30'30" | 8°D38 | 10°04'04" | 25°33'33" | 19°39'39" | T 6 |
| W 7 | 18 59 32 | 14°45'17" | 24°31'31" | 8°13'13" | 7°54'54" | 2°47'47" | 28°52'52" | 12°22'22" | 3°53'53" | 27°02'02" | 3°31'31" | 8°38'38" | 10°00'00" | 25°40'40" | 19°44'44" | W 7 |
| T 8 | 19 3 29 | 15°42'30" | 8°43'34" | 9°41'41" | 9°04'04" | 3°19'19" | 28°59'59" | 12°30'30" | 3°54'54" | 27°04'04" | 3°32'32" | 8°39'39" | 9°57'57" | 25°46'46" | 19°49'49" | T 8 |
| F 9 | 19 7 25 | 16°39'43" | 22°20'20" | 11°06'06" | 10°14'14" | 3°51'51" | 29°06'06" | 12°37'37" | 3°56'56" | 27°05'05" | 3°33'33" | 8°R39 | 9°54'54" | 25°53'53" | 19°54'54" | F 9 |
| S 10 | 19 11 22 | 17°36'55" | 5°11'49" | 12°29'29" | 11°24'24" | 4°23'23" | 29°14'14" | 12°45'45" | 3°57'57" | 27°07'07" | 3°34'34" | 8°38'38" | 9°51'51" | 26°00'00" | 19°59'59" | S 10 |
| S 11 | 19 15 18 | 18°34'07" | 19°02'02" | 13°49'49" | 12°34'34" | 4°56'56" | 29°21'21" | 12°53'53" | 3°59'59" | 27°09'09" | 3°35'35" | 8°34'34" | 9°48'48" | 26°06'06" | 20°04'04" | S 11 |
| M12 | 19 19 15 | 19°31'20" | 2°11'01" | 15°07'07" | 13°45'45" | 5°29'29" | 29°29'29" | 13°01'01" | 4°00'00" | 27°10'10" | 3°36'36" | 8°28'28" | 9°44'44" | 26°13'13" | 20°08'08" | M12 |
| T 13 | 19 23 11 | 20°28'32" | 14°46'46" | 16°23'23" | 14°55'55" | 6°02'02" | 29°37'37" | 13°09'09" | 4°02'02" | 27°12'12" | 3°37'37" | 8°21'21" | 9°41'41" | 26°20'20" | 20°13'13" | T 13 |
| W14 | 19 27 8 | 21°25'45" | 27°19'19" | 17°37'37" | 16°05'05" | 6°35'35" | 29°45'45" | 13°16'16" | 4°03'03" | 27°13'13" | 3°38'38" | 8°13'13" | 9°38'38" | 26°26'26" | 20°18'18" | W14 |
| T 15 | 19 31 5 | 22°22'58" | 9°34'41" | 18°47'47" | 17°16'16" | 7°08'08" | 29°53'53" | 13°24'24" | 4°05'05" | 27°15'15" | 3°39'39" | 8°05'05" | 9°35'35" | 26°33'33" | 20°23'23" | T 15 |
| F 16 | 19 35 1 | 23°20'11" | 21°52'52" | 19°56'56" | 18°26'26" | 7°41'41" | 0°01'01" | 13°32'32" | 4°07'07" | 27°16'16" | 3°40'40" | 7°57'57" | 9°32'32" | 26°40'40" | 20°27'27" | F 16 |
| S 17 | 19 38 58 | 24°17'25" | 3°35'55" | 21°01'01" | 19°37'37" | 8°15'15" | 0°09'09" | 13°40'40" | 4°09'09" | 27°17'17" | 3°41'41" | 7°51'51" | 9°29'29" | 26°46'46" | 20°32'32" | S 17 |
| S 18 | 19 42 54 | 25°14'39" | 15°50'50" | 22°04'04" | 20°47'47" | 8°48'48" | 0°18'18" | 13°47'47" | 4°11'11" | 27°19'19" | 3°42'42" | 7°47'47" | 9°25'25" | 26°53'53" | 20°37'37" | S 18 |
| M19 | 19 46 51 | 26°11'54" | 27°39'39" | 23°04'04" | 21°58'58" | 9°22'22" | 0°26'26" | 13°55'55" | 4°13'13" | 27°20'20" | 3°42'42" | 7°44'44" | 9°22'22" | 27°00'00" | 20°41'41" | M19 |
| T 20 | 19 50 47 | 27°09'09" | 9°11'26" | 24°01'01" | 23°09'09" | 9°56'56" | 0°35'35" | 14°03'03" | 4°15'15" | 27°21'21" | 3°43'43" | 7°D44 | 9°19'19" | 27°06'06" | 20°46'46" | T 20 |
| W21 | 19 54 44 | 28°06'25" | 21°14'14" | 24°55'55" | 24°19'19" | 10°30'30" | 0°44'44" | 14°10'10" | 4°17'17" | 27°23'23" | 3°44'44" | 7°45'45" | 9°16'16" | 27°13'13" | 20°50'50" | W21 |
| T 22 | 19 58 40 | 29°03'42" | 3°11'07" | 25°46'46" | 25°30'30" | 11°04'04" | 0°53'53" | 14°18'18" | 4°19'19" | 27°24'24" | 3°45'45" | 7°46'46" | 9°13'13" | 27°19'19" | 20°55'55" | T 22 |
| F 23 | 20 2 37 | 0°11'00" | 15°09'09" | 26°33'33" | 26°41'41" | 11°39'39" | 1°01'01" | 14°25'25" | 4°21'21" | 27°25'25" | 3°46'46" | 7°48'48" | 9°10'10" | 27°26'26" | 20°59'59" | F 23 |
| S 24 | 20 6 34 | 0°58'18" | 27°26'26" | 27°17'17" | 27°52'52" | 12°13'13" | 1°11'11" | 14°33'33" | 4°23'23" | 27°27'27" | 3°47'47" | 7°R49 | 9°06'06" | 27°33'33" | 21°04'04" | S 24 |
| S 25 | 20 10 30 | 1°55'38" | 10°18'08" | 27°57'57" | 29°03'03" | 12°48'48" | 1°20'20" | 14°41'41" | 4°25'25" | 27°28'28" | 3°48'48" | 7°48'48" | 9°03'03" | 27°39'39" | 21°08'08" | S 25 |
| M26 | 20 14 27 | 2°52'58" | 23°02'02" | 28°34'34" | 0°15'15" | 13°23'23" | 1°29'29" | 14°48'48" | 4°27'27" | 27°29'29" | 3°48'48" | 7°47'47" | 9°00'00" | 27°46'46" | 21°13'13" | M26 |
| T 27 | 20 18 23 | 3°50'20" | 6°11'28" | 29°06'06" | 1°26'26" | 13°58'58" | 1°38'38" | 14°56'56" | 4°29'29" | 27°30'30" | 3°49'49" | 7°44'44" | 8°57'57" | 27°53'53" | 21°17'17" | T 27 |
| W28 | 20 22 20 | 4°47'42" | 20°23'23" | 29°35'35" | 2°37'37" | 14°33'33" | 1°48'48" | 15°03'03" | 4°32'32" | 27°31'31" | 3°50'50" | 7°40'40" | 8°54'54" | 27°59'59" | 21°21'21" | W28 |
| T 29 | 20 26 16 | 5°45'06" | 4°44'44" | 29°59'59" | 3°48'48" | 15°08'08" | 1°57'57" | 15°11'11" | 4°34'34" | 27°32'32" | 3°51'51" | 7°35'35" | 8°50'50" | 28°06'06" | 21°25'25" | T 29 |
| F 30 | 20 30 13 | 6°42'31" | 19°28'28" | 0°18'18" | 5°00'00" | 15°44'44" | 2°07'07" | 15°18'18" | 4°37'37" | 27°33'33" | 3°51'51" | 7°31'31" | 8°47'47" | 28°13'13" | 21°30'30" | F 30 |
| S 31 | 20 34 9 | 7°13'56" | 4°12'28" | 0°11'33" | 6°11'11" | 16°19'19" | 2°17'17" | 15°26'26" | 4°39'39" | 27°34'34" | 3°11'52" | 7°11'27" | 8°11'44" | 28°19'19" | 21°11'34" | S 31 |

Delta T = -4.25 sec

AUGUST 1886

00:00 UT

| Day | Sid.t | ☉ | ☾ | ♂ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|----------|--------|--------|--------|-------|-------|-------|------|--------|------|-------|------|-------|-------|------|
| S 1 | 20 38 6 | 8♂13'23 | 19♂135 | 0♂143 | 7♂23 | 16♂55 | 2♂27 | 15♂33 | 4♂41 | 27♂35 | 3♂53 | 7°R25 | 8♂41 | 28♂26 | 21♂38 | S 1 |
| M 2 | 20 42 3 | 9°34'50 | 4♂41 | 0°R48 | 8°34 | 17°31 | 2°36 | 15°40 | 4°44 | 27°36 | 3°53 | 7°D24 | 8°38 | 28°33 | 21°42 | M 2 |
| T 3 | 20 45 59 | 10°32'18 | 19°36 | 0°48 | 9°46 | 18° 7 | 2°46 | 15°48 | 4°46 | 27°37 | 3°54 | 7♂124 | 8°35 | 28°39 | 21°46 | T 3 |
| W 4 | 20 49 56 | 11°29'47 | 4♂13 | 0°43 | 10°58 | 18°43 | 2°57 | 15°55 | 4°49 | 27°38 | 3°55 | 7°25 | 8°31 | 28°46 | 21°50 | W 4 |
| T 5 | 20 53 52 | 12°27'16 | 18°29 | 0°32 | 12°10 | 19°19 | 3° 7 | 16° 2 | 4°52 | 27°39 | 3°55 | 7°27 | 8°28 | 28°53 | 21°54 | T 5 |
| F 6 | 20 57 49 | 13°24'46 | 2♂122 | 0°16 | 13°21 | 19°55 | 3°17 | 16°10 | 4°54 | 27°40 | 3°56 | 7°28 | 8°25 | 28°59 | 21°58 | F 6 |
| S 7 | 21 1 145 | 14°22'17 | 15°52 | 29♂55 | 14°33 | 20°32 | 3°27 | 16°17 | 4°57 | 27°41 | 3°56 | 7°R28 | 8°22 | 29° 6 | 22° 2 | S 7 |
| S 8 | 21 5 42 | 15°19'49 | 29° 0 | 29°28 | 15°45 | 21° 8 | 3°38 | 16°24 | 5° 0 | 27°41 | 3°57 | 7°27 | 8°19 | 29°12 | 22° 5 | S 8 |
| M 9 | 21 9 38 | 16°17'22 | 11♂50 | 28°57 | 16°57 | 21°45 | 3°48 | 16°31 | 5° 3 | 27°42 | 3°57 | 7°26 | 8°16 | 29°19 | 22° 9 | M 9 |
| T 10 | 21 13 35 | 17°14'55 | 24°23 | 28°21 | 18° 9 | 22°22 | 3°59 | 16°38 | 5° 5 | 27°43 | 3°58 | 7°23 | 8°12 | 29°26 | 22°13 | T 10 |
| W11 | 21 17 32 | 18°12'30 | 6♂42 | 27°41 | 19°21 | 22°59 | 4°10 | 16°45 | 5° 8 | 27°44 | 3°58 | 7°21 | 8° 9 | 29°32 | 22°16 | W11 |
| T 12 | 21 21 28 | 19°10'05 | 18°51 | 26°57 | 20°34 | 23°36 | 4°20 | 16°52 | 5°11 | 27°44 | 3°59 | 7°18 | 8° 6 | 29°39 | 22°20 | T 12 |
| F 13 | 21 25 25 | 20° 7'42 | 0♂51 | 26°10 | 21°46 | 24°13 | 4°31 | 16°59 | 5°14 | 27°45 | 3°59 | 7°15 | 8° 3 | 29°46 | 22°23 | F 13 |
| S 14 | 21 29 21 | 21° 5'20 | 12°45 | 25°21 | 22°58 | 24°50 | 4°42 | 17° 6 | 5°17 | 27°46 | 4° 0 | 7°13 | 8° 0 | 29°52 | 22°27 | S 14 |
| S 15 | 21 33 18 | 22° 2'59 | 24°35 | 24°30 | 24°10 | 25°28 | 4°53 | 17°13 | 5°20 | 27°46 | 4° 0 | 7°12 | 7°56 | 29°59 | 22°30 | S 15 |
| M16 | 21 37 14 | 23° 0'39 | 6♂22 | 23°39 | 25°23 | 26° 5 | 5° 4 | 17°20 | 5°23 | 27°47 | 4° 1 | 7°D12 | 7°53 | 0♂6 | 22°34 | M16 |
| T 17 | 21 41 11 | 23°58'20 | 18°10 | 22°48 | 26°35 | 26°43 | 5°15 | 17°27 | 5°26 | 27°47 | 4° 1 | 7°12 | 7°50 | 0°12 | 22°37 | T 17 |
| W18 | 21 45 7 | 24°56'03 | 0°11 | 21°59 | 27°48 | 27°21 | 5°26 | 17°34 | 5°29 | 27°48 | 4° 1 | 7°13 | 7°47 | 0°19 | 22°40 | W18 |
| T 19 | 21 49 4 | 25°53'48 | 11°58 | 21°13 | 29° 0 | 27°58 | 5°38 | 17°40 | 5°32 | 27°48 | 4° 2 | 7°14 | 7°44 | 0°26 | 22°43 | T 19 |
| F 20 | 21 53 0 | 26°51'34 | 24° 4 | 20°30 | 0♂13 | 28°36 | 5°49 | 17°47 | 5°35 | 27°48 | 4° 2 | 7°15 | 7°41 | 0°32 | 22°46 | F 20 |
| S 21 | 21 56 57 | 27°49'22 | 6♂23 | 19°51 | 1°26 | 29°14 | 6° 0 | 17°54 | 5°38 | 27°49 | 4° 2 | 7°16 | 7°37 | 0°39 | 22°49 | S 21 |
| S 22 | 22 0 54 | 28°47'11 | 18°59 | 19°18 | 2°38 | 29°53 | 6°12 | 18° 0 | 5°42 | 27°49 | 4° 3 | 7°16 | 7°34 | 0°46 | 22°52 | S 22 |
| M23 | 22 4 50 | 29°45'02 | 1♂56 | 18°51 | 3°51 | 0♂131 | 6°23 | 18° 7 | 5°45 | 27°49 | 4° 3 | 7°R16 | 7°31 | 0°52 | 22°55 | M23 |
| T 24 | 22 8 47 | 0♂142'55 | 15°16 | 18°30 | 5° 4 | 1° 9 | 6°35 | 18°13 | 5°48 | 27°50 | 4° 3 | 7°16 | 7°28 | 0°59 | 22°58 | T 24 |
| W25 | 22 12 43 | 1°40'50 | 29° 1 | 18°17 | 6°17 | 1°48 | 6°46 | 18°20 | 5°51 | 27°50 | 4° 3 | 7°16 | 7°25 | 1° 5 | 23° 1 | W25 |
| T 26 | 22 16 40 | 2°38'47 | 13♂14 | 18°D12 | 7°30 | 2°26 | 6°58 | 18°26 | 5°55 | 27°50 | 4° 3 | 7°15 | 7°21 | 1°12 | 23° 4 | T 26 |
| F 27 | 22 20 36 | 3°36'46 | 27°50 | 18°14 | 8°43 | 3° 5 | 7°10 | 18°32 | 5°58 | 27°50 | 4° 4 | 7°15 | 7°18 | 1°19 | 23° 7 | F 27 |
| S 28 | 22 24 33 | 4°34'46 | 12♂146 | 18°25 | 9°56 | 3°44 | 7°22 | 18°39 | 6° 1 | 27°50 | 4° 4 | 7°14 | 7°15 | 1°25 | 23° 9 | S 28 |
| S 29 | 22 28 29 | 5°32'48 | 27°54 | 18°44 | 11° 9 | 4°23 | 7°34 | 18°45 | 6° 5 | 27°50 | 4° 4 | 7°14 | 7°12 | 1°32 | 23°12 | S 29 |
| M30 | 22 32 26 | 6°30'51 | 13♂5 | 19°11 | 12°22 | 5° 2 | 7°45 | 18°51 | 6° 8 | 27°51 | 4° 4 | 7°D14 | 7° 9 | 1°39 | 23°14 | M30 |
| T 31 | 22 36 23 | 7♂128'57 | 28♂11 | 19♂147 | 13♂136 | 5♂141 | 7♂157 | 18♂57 | 6♂12 | 27°R51 | 4♂11 | 7°R14 | 7♂6 | 1♂45 | 23♂17 | T 31 |

ASTRODIENST EPHEMERIS for the year 1886

geocentric

SEPTEMBER 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|----------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|--------------------|--------------------|--------------------|--------------------|---------------------|------|
| W 1 | 22 40 19 | 8 ^h 27'03" | 13 ^h 11' | 20 ^h 30' | 14 ^h 49' | 6 ^h 21' | 8 ^h 09' | 19 ^h 03' | 6 ^h 15' | 27 ^h 51' | 4 ^h 41' | 7 ^h 14' | 7 ^h 21' | 1 ^h 52' | 23 ^h 19' | W 1 |
| T 2 | 22 44 16 | 9 ^h 25'11" | 27 ^h 30' | 21 ^h 21' | 16 ^h 02' | 7 ^h 00' | 8 ^h 22' | 19 ^h 09' | 6 ^h 18' | 27 ^h 51' | 4 ^h 44' | 7 ^h 14' | 6 ^h 59' | 1 ^h 59' | 23 ^h 21' | T 2 |
| F 3 | 22 48 12 | 10 ^h 23'21" | 11 ^h 34' | 22 ^h 20' | 17 ^h 16' | 7 ^h 39' | 8 ^h 34' | 19 ^h 15' | 6 ^h 22' | 27 ^h 50' | 4 ^h 48' | 7 ^h 14' | 6 ^h 56' | 2 ^h 05' | 23 ^h 24' | F 3 |
| S 4 | 22 52 09 | 11 ^h 21'32" | 25 ^h 12' | 23 ^h 25' | 18 ^h 29' | 8 ^h 19' | 8 ^h 46' | 19 ^h 21' | 6 ^h 25' | 27 ^h 50' | 4 ^h 44' | 7 ^h 13' | 6 ^h 53' | 2 ^h 12' | 23 ^h 26' | S 4 |
| S 5 | 22 56 05 | 12 ^h 19'45" | 8 ^h 23' | 24 ^h 37' | 19 ^h 42' | 8 ^h 59' | 8 ^h 58' | 19 ^h 26' | 6 ^h 29' | 27 ^h 50' | 4 ^h 44' | 7 ^h 13' | 6 ^h 50' | 2 ^h 19' | 23 ^h 28' | S 5 |
| M 6 | 23 00 02 | 13 ^h 17'59" | 21 ^h 11' | 25 ^h 55' | 20 ^h 56' | 9 ^h 38' | 9 ^h 10' | 19 ^h 32' | 6 ^h 33' | 27 ^h 50' | 4 ^h 44' | 7 ^h 13' | 6 ^h 47' | 2 ^h 25' | 23 ^h 30' | M 6 |
| T 7 | 23 03 58 | 14 ^h 16'15" | 3 ^h 39' | 27 ^h 19' | 22 ^h 09' | 10 ^h 18' | 9 ^h 23' | 19 ^h 38' | 6 ^h 36' | 27 ^h 50' | 4 ^h 44' | 7 ^h 14' | 6 ^h 43' | 2 ^h 32' | 23 ^h 32' | T 7 |
| W 8 | 23 07 55 | 15 ^h 14'32" | 15 ^h 52' | 28 ^h 48' | 23 ^h 23' | 10 ^h 58' | 9 ^h 35' | 19 ^h 43' | 6 ^h 40' | 27 ^h 50' | 4 ^h 44' | 7 ^h 14' | 6 ^h 40' | 2 ^h 38' | 23 ^h 34' | W 8 |
| T 9 | 23 11 52 | 16 ^h 12'50" | 27 ^h 53' | 0 ^h 21' | 24 ^h 37' | 11 ^h 38' | 9 ^h 47' | 19 ^h 49' | 6 ^h 43' | 27 ^h 49' | 4 ^h 44' | 7 ^h 15' | 6 ^h 37' | 2 ^h 45' | 23 ^h 35' | T 9 |
| F 10 | 23 15 48 | 17 ^h 11'11" | 9 ^h 46' | 1 ^h 58' | 25 ^h 50' | 12 ^h 19' | 10 ^h 00' | 19 ^h 54' | 6 ^h 47' | 27 ^h 49' | 4 ^h 44' | 7 ^h 16' | 6 ^h 34' | 2 ^h 52' | 23 ^h 37' | F 10 |
| S 11 | 23 19 45 | 18 ^h 09'33" | 21 ^h 35' | 3 ^h 39' | 27 ^h 04' | 12 ^h 59' | 10 ^h 12' | 19 ^h 59' | 6 ^h 51' | 27 ^h 49' | 4 ^h 44' | 7 ^h 17' | 6 ^h 31' | 2 ^h 58' | 23 ^h 39' | S 11 |
| S 12 | 23 23 41 | 19 ^h 07'56" | 3 ^h 23' | 5 ^h 22' | 28 ^h 18' | 13 ^h 39' | 10 ^h 25' | 20 ^h 05' | 6 ^h 54' | 27 ^h 48' | 4 ^h 43' | 7 ^h 17' | 6 ^h 27' | 3 ^h 05' | 23 ^h 40' | S 12 |
| M 13 | 23 27 38 | 20 ^h 06'22" | 15 ^h 11' | 7 ^h 08' | 29 ^h 32' | 14 ^h 20' | 10 ^h 37' | 20 ^h 10' | 6 ^h 58' | 27 ^h 48' | 4 ^h 43' | 7 ^h 17' | 6 ^h 24' | 3 ^h 12' | 23 ^h 42' | M 13 |
| T 14 | 23 31 34 | 21 ^h 04'49" | 27 ^h 04' | 8 ^h 56' | 0 ^h 46' | 15 ^h 00' | 10 ^h 50' | 20 ^h 15' | 7 ^h 02' | 27 ^h 48' | 4 ^h 43' | 7 ^h 16' | 6 ^h 21' | 3 ^h 18' | 23 ^h 43' | T 14 |
| W 15 | 23 35 31 | 22 ^h 03'18" | 9 ^h 03' | 10 ^h 45' | 2 ^h 00' | 15 ^h 41' | 11 ^h 02' | 20 ^h 20' | 7 ^h 05' | 27 ^h 47' | 4 ^h 43' | 7 ^h 15' | 6 ^h 18' | 3 ^h 25' | 23 ^h 45' | W 15 |
| T 16 | 23 39 27 | 23 ^h 01'49" | 21 ^h 09' | 12 ^h 35' | 3 ^h 13' | 16 ^h 22' | 11 ^h 15' | 20 ^h 25' | 7 ^h 09' | 27 ^h 47' | 4 ^h 42' | 7 ^h 13' | 6 ^h 15' | 3 ^h 32' | 23 ^h 46' | T 16 |
| F 17 | 23 43 24 | 24 ^h 00'22" | 3 ^h 25' | 14 ^h 26' | 4 ^h 27' | 17 ^h 02' | 11 ^h 27' | 20 ^h 30' | 7 ^h 13' | 27 ^h 46' | 4 ^h 42' | 7 ^h 10' | 6 ^h 12' | 3 ^h 38' | 23 ^h 47' | F 17 |
| S 18 | 23 47 21 | 24 ^h 58'58" | 15 ^h 53' | 16 ^h 18' | 5 ^h 42' | 17 ^h 43' | 11 ^h 40' | 20 ^h 34' | 7 ^h 16' | 27 ^h 46' | 4 ^h 42' | 7 ^h 08' | 6 ^h 08' | 3 ^h 45' | 23 ^h 48' | S 18 |
| S 19 | 23 51 17 | 25 ^h 57'35" | 28 ^h 34' | 18 ^h 10' | 6 ^h 56' | 18 ^h 24' | 11 ^h 53' | 20 ^h 39' | 7 ^h 20' | 27 ^h 45' | 4 ^h 42' | 7 ^h 06' | 6 ^h 05' | 3 ^h 52' | 23 ^h 49' | S 19 |
| M 20 | 23 55 14 | 26 ^h 56'15" | 11 ^h 33' | 20 ^h 01' | 8 ^h 10' | 19 ^h 05' | 12 ^h 06' | 20 ^h 44' | 7 ^h 24' | 27 ^h 44' | 4 ^h 41' | 7 ^h 04' | 6 ^h 02' | 3 ^h 58' | 23 ^h 50' | M 20 |
| T 21 | 23 59 10 | 27 ^h 54'57" | 24 ^h 49' | 21 ^h 53' | 9 ^h 24' | 19 ^h 47' | 12 ^h 18' | 20 ^h 48' | 7 ^h 28' | 27 ^h 44' | 4 ^h 41' | 7 ^h 03' | 5 ^h 59' | 4 ^h 05' | 23 ^h 51' | T 21 |
| W 22 | 00 03 07 | 28 ^h 53'41" | 8 ^h 27' | 23 ^h 44' | 10 ^h 38' | 20 ^h 28' | 12 ^h 31' | 20 ^h 53' | 7 ^h 31' | 27 ^h 43' | 4 ^h 41' | 7 ^h 03' | 5 ^h 56' | 4 ^h 11' | 23 ^h 52' | W 22 |
| T 23 | 00 07 03 | 29 ^h 52'28" | 22 ^h 26' | 25 ^h 35' | 11 ^h 52' | 21 ^h 09' | 12 ^h 44' | 20 ^h 57' | 7 ^h 35' | 27 ^h 42' | 4 ^h 40' | 7 ^h 04' | 5 ^h 52' | 4 ^h 18' | 23 ^h 53' | T 23 |
| F 24 | 00 11 00 | 0 ^h 51'17" | 6 ^h 26' | 27 ^h 26' | 13 ^h 07' | 21 ^h 51' | 12 ^h 57' | 21 ^h 01' | 7 ^h 39' | 27 ^h 42' | 4 ^h 40' | 7 ^h 06' | 5 ^h 49' | 4 ^h 25' | 23 ^h 53' | F 24 |
| S 25 | 00 14 56 | 1 ^h 50'08" | 21 ^h 25' | 29 ^h 15' | 14 ^h 21' | 22 ^h 32' | 13 ^h 10' | 21 ^h 06' | 7 ^h 43' | 27 ^h 41' | 3 ^h 59' | 7 ^h 07' | 5 ^h 46' | 4 ^h 31' | 23 ^h 54' | S 25 |
| S 26 | 00 18 53 | 2 ^h 49'01" | 6 ^h 18' | 1 ^h 04' | 15 ^h 35' | 23 ^h 14' | 13 ^h 22' | 21 ^h 10' | 7 ^h 46' | 27 ^h 40' | 3 ^h 59' | 7 ^h 08' | 5 ^h 43' | 4 ^h 38' | 23 ^h 55' | S 26 |
| M 27 | 00 22 49 | 3 ^h 47'56" | 21 ^h 20' | 2 ^h 52' | 16 ^h 50' | 23 ^h 56' | 13 ^h 35' | 21 ^h 14' | 7 ^h 50' | 27 ^h 39' | 3 ^h 58' | 7 ^h 07' | 5 ^h 40' | 4 ^h 45' | 23 ^h 55' | M 27 |
| T 28 | 00 26 46 | 4 ^h 46'54" | 6 ^h 21' | 4 ^h 40' | 18 ^h 04' | 24 ^h 38' | 13 ^h 48' | 21 ^h 18' | 7 ^h 54' | 27 ^h 38' | 3 ^h 58' | 7 ^h 05' | 5 ^h 37' | 4 ^h 51' | 23 ^h 55' | T 28 |
| W 29 | 00 30 43 | 5 ^h 45'53" | 21 ^h 13' | 6 ^h 26' | 19 ^h 19' | 25 ^h 19' | 14 ^h 01' | 21 ^h 21' | 7 ^h 58' | 27 ^h 37' | 3 ^h 57' | 7 ^h 02' | 5 ^h 33' | 4 ^h 58' | 23 ^h 56' | W 29 |
| T 30 | 00 34 39 | 6 ^h 44'55" | 5 ^h 47' | 8 ^h 12' | 20 ^h 33' | 26 ^h 11' | 14 ^h 14' | 21 ^h 25' | 8 ^h 01' | 27 ^h 36' | 3 ^h 57' | 6 ^h 58' | 5 ^h 30' | 5 ^h 45' | 23 ^h 56' | T 30 |

Delta T = -4.22 sec

OCTOBER 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|------|------|--------|------|
| F 1 | 0 38 36 | 7♌43'58 | 19♍59 | 9♊57 | 21♏48 | 26♍44 | 14♎27 | 21♏29 | 8♊5 | 27°R36 | 3°R56 | 6°R53 | 5♍27 | 5♏11 | 23♐56 | F 1 |
| S 2 | 0 42 32 | 8°43'03 | 3♌43 | 11°41 | 23° 2 | 27°26 | 14°40 | 21°32 | 8° 9 | 27♌35 | 3♐56 | 6♍49 | 5°24 | 5°18 | 23°R56 | S 2 |
| S 3 | 0 46 29 | 9°42'10 | 17° 1 | 13°24 | 24°17 | 28° 8 | 14°53 | 21°36 | 8°13 | 27°34 | 3°55 | 6°45 | 5°21 | 5°25 | 23°56 | S 3 |
| M 4 | 0 50 25 | 10°41'19 | 29°52 | 15° 6 | 25°32 | 28°50 | 15° 6 | 21°39 | 8°17 | 27°33 | 3°54 | 6°43 | 5°18 | 5°31 | 23°56 | M 4 |
| T 5 | 0 54 22 | 11°40'30 | 12♌21 | 16°48 | 26°46 | 29°33 | 15°19 | 21°42 | 8°20 | 27°32 | 3°54 | 6°D43 | 5°14 | 5°38 | 23°56 | T 5 |
| W 6 | 0 58 18 | 12°39'42 | 24°33 | 18°29 | 28° 1 | 0♌15 | 15°32 | 21°46 | 8°24 | 27°30 | 3°53 | 6°43 | 5°11 | 5°45 | 23°55 | W 6 |
| T 7 | 1 2 15 | 13°38'56 | 6♎31 | 20° 8 | 29°16 | 0°58 | 15°45 | 21°49 | 8°28 | 27°29 | 3°53 | 6°45 | 5° 8 | 5°51 | 23°55 | T 7 |
| F 8 | 1 6 12 | 14°38'12 | 18°21 | 21°48 | 0♊30 | 1°41 | 15°58 | 21°52 | 8°32 | 27°28 | 3°52 | 6°47 | 5° 5 | 5°58 | 23°55 | F 8 |
| S 9 | 1 10 8 | 15°37'30 | 0♏9 | 23°26 | 1°45 | 2°23 | 16°11 | 21°54 | 8°36 | 27°27 | 3°51 | 6°48 | 5° 2 | 6° 4 | 23°54 | S 9 |
| S 10 | 1 14 5 | 16°36'49 | 11°57 | 25° 4 | 3° 0 | 3° 6 | 16°24 | 21°57 | 8°39 | 27°26 | 3°50 | 6°R48 | 4°58 | 6°11 | 23°54 | S 10 |
| M11 | 1 18 1 | 17°36'10 | 23°49 | 26°40 | 4°15 | 3°49 | 16°37 | 22° 0 | 8°43 | 27°25 | 3°50 | 6°46 | 4°55 | 6°18 | 23°53 | M11 |
| T 12 | 1 21 58 | 18°35'34 | 5♏50 | 28°17 | 5°30 | 4°32 | 16°50 | 22° 2 | 8°47 | 27°23 | 3°49 | 6°43 | 4°52 | 6°24 | 23°52 | T 12 |
| W13 | 1 25 54 | 19°34'59 | 17°59 | 29°52 | 6°45 | 5°15 | 17° 3 | 22° 5 | 8°51 | 27°22 | 3°48 | 6°37 | 4°49 | 6°31 | 23°51 | W13 |
| T 14 | 1 29 51 | 20°34'26 | 0♌20 | 1♌27 | 7°59 | 5°58 | 17°16 | 22° 7 | 8°54 | 27°21 | 3°47 | 6°30 | 4°46 | 6°38 | 23°50 | T 14 |
| F 15 | 1 33 47 | 21°33'56 | 12°52 | 3° 1 | 9°14 | 6°41 | 17°29 | 22°10 | 8°58 | 27°20 | 3°47 | 6°22 | 4°43 | 6°44 | 23°49 | F 15 |
| S 16 | 1 37 44 | 22°33'27 | 25°37 | 4°35 | 10°29 | 7°25 | 17°42 | 22°12 | 9° 2 | 27°18 | 3°46 | 6°14 | 4°39 | 6°51 | 23°48 | S 16 |
| S 17 | 1 41 41 | 23°33'01 | 8♐34 | 6° 8 | 11°44 | 8° 8 | 17°55 | 22°14 | 9° 5 | 27°17 | 3°45 | 6° 6 | 4°36 | 6°58 | 23°47 | S 17 |
| M18 | 1 45 37 | 24°32'37 | 21°43 | 7°40 | 12°59 | 8°52 | 18° 8 | 22°16 | 9° 9 | 27°16 | 3°44 | 6° 0 | 4°33 | 7° 4 | 23°46 | M18 |
| T 19 | 1 49 34 | 25°32'16 | 5♏6 | 9°11 | 14°14 | 9°35 | 18°21 | 22°17 | 9°13 | 27°14 | 3°43 | 5°56 | 4°30 | 7°11 | 23°45 | T 19 |
| W20 | 1 53 30 | 26°31'56 | 18°42 | 10°42 | 15°29 | 10°19 | 18°34 | 22°19 | 9°17 | 27°13 | 3°43 | 5°54 | 4°27 | 7°18 | 23°43 | W20 |
| T 21 | 1 57 27 | 27°31'39 | 2♌33 | 12°13 | 16°44 | 11° 2 | 18°47 | 22°21 | 9°20 | 27°12 | 3°42 | 5°D53 | 4°24 | 7°24 | 23°42 | T 21 |
| F 22 | 2 1 23 | 28°31'24 | 16°38 | 13°43 | 18° 0 | 11°46 | 19° 0 | 22°22 | 9°24 | 27°10 | 3°41 | 5°54 | 4°20 | 7°31 | 23°41 | F 22 |
| S 23 | 2 5 20 | 29°31'12 | 0♍57 | 15°12 | 19°15 | 12°30 | 19°13 | 22°24 | 9°27 | 27° 9 | 3°40 | 5°R55 | 4°17 | 7°37 | 23°39 | S 23 |
| S 24 | 2 9 16 | 0♍31'01 | 15°28 | 16°41 | 20°30 | 13°14 | 19°26 | 22°25 | 9°31 | 27° 7 | 3°39 | 5°55 | 4°14 | 7°44 | 23°37 | S 24 |
| M25 | 2 13 13 | 1°30'53 | 0♊7 | 18° 9 | 21°45 | 13°58 | 19°38 | 22°26 | 9°35 | 27° 6 | 3°38 | 5°52 | 4°11 | 7°51 | 23°36 | M25 |
| T 26 | 2 17 10 | 2°30'47 | 14°48 | 19°36 | 23° 0 | 14°42 | 19°51 | 22°27 | 9°38 | 27° 4 | 3°37 | 5°48 | 4° 8 | 7°57 | 23°34 | T 26 |
| W27 | 2 21 6 | 3°30'43 | 29°25 | 21° 3 | 24°15 | 15°26 | 20° 4 | 22°28 | 9°42 | 27° 3 | 3°36 | 5°40 | 4° 4 | 8° 4 | 23°32 | W27 |
| T 28 | 2 25 3 | 4°30'41 | 13♍51 | 22°29 | 25°31 | 16°10 | 20°17 | 22°29 | 9°45 | 27° 1 | 3°35 | 5°31 | 4° 1 | 8°11 | 23°30 | T 28 |
| F 29 | 2 28 59 | 5°30'41 | 27°59 | 23°54 | 26°46 | 16°54 | 20°30 | 22°30 | 9°49 | 27° 0 | 3°34 | 5°21 | 3°58 | 8°17 | 23°28 | F 29 |
| S 30 | 2 32 56 | 6°30'42 | 11♌43 | 25°19 | 28° 1 | 17°39 | 20°43 | 22°30 | 9°52 | 26°58 | 3°33 | 5°11 | 3°55 | 8°24 | 23°26 | S 30 |
| S 31 | 2 36 52 | 7♍30'46 | 25♌3 | 26♍43 | 29♎16 | 18♌23 | 20♊55 | 22♏31 | 9♊56 | 26♌56 | 3♐32 | 5♍2 | 3♍52 | 8♏31 | 23♐24 | S 31 |

ASTRODIENST EPHEMERIS for the year 1886
geocentric

NOVEMBER 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|--------|-------|-------|------|-------|--------|------|
| M 1 | 2 40 49 | 8♍30°51 | 7♂57 | 28♍6 | 0♍31 | 19♂8 | 21♂8 | 22♂31 | 9♂59 | 26°R55 | 3°R31 | 4°R56 | 3♍49 | 8♂37 | 23°R22 | M 1 |
| T 2 | 2 44 45 | 9°30'57 | 20°28 | 29°28 | 1°47 | 19°52 | 21°21 | 22°31 | 10°3 | 26♂53 | 3♍30 | 4♍52 | 3°45 | 8°44 | 23♍19 | T 2 |
| W 3 | 2 48 42 | 10°31'06 | 2♍41 | 0♂49 | 3°2 | 20°37 | 21°33 | 22°32 | 10°6 | 26°52 | 3°29 | 4°50 | 3°42 | 8°51 | 23°17 | W 3 |
| T 4 | 2 52 39 | 11°31'15 | 14°40 | 2°10 | 4°17 | 21°22 | 21°46 | 22°R32 | 10°10 | 26°50 | 3°28 | 4°D49 | 3°39 | 8°57 | 23°15 | T 4 |
| F 5 | 2 56 35 | 12°31'27 | 26°30 | 3°29 | 5°33 | 22°6 | 21°59 | 22°32 | 10°13 | 26°48 | 3°27 | 4°50 | 3°36 | 9°4 | 23°12 | F 5 |
| S 6 | 3 0 32 | 13°31'39 | 8♂17 | 4°46 | 6°48 | 22°51 | 22°11 | 22°31 | 10°16 | 26°47 | 3°26 | 4°R50 | 3°33 | 9°10 | 23°10 | S 6 |
| S 7 | 3 4 28 | 14°31'54 | 20°7 | 6°3 | 8°3 | 23°36 | 22°24 | 22°31 | 10°20 | 26°45 | 3°25 | 4°49 | 3°29 | 9°17 | 23°7 | S 7 |
| M 8 | 3 8 25 | 15°32'09 | 2♍3 | 7°18 | 9°19 | 24°21 | 22°36 | 22°31 | 10°23 | 26°43 | 3°24 | 4°46 | 3°26 | 9°24 | 23°4 | M 8 |
| T 9 | 3 12 21 | 16°32'27 | 14°11 | 8°31 | 10°34 | 25°6 | 22°49 | 22°30 | 10°26 | 26°42 | 3°23 | 4°39 | 3°23 | 9°30 | 23°2 | T 9 |
| W10 | 3 16 18 | 17°32'45 | 26°32 | 9°42 | 11°49 | 25°51 | 23°1 | 22°29 | 10°29 | 26°40 | 3°22 | 4°31 | 3°20 | 9°37 | 22°59 | W10 |
| T 11 | 3 20 14 | 18°33'06 | 9♂8 | 10°51 | 13°5 | 26°36 | 23°14 | 22°29 | 10°32 | 26°38 | 3°21 | 4°19 | 3°17 | 9°44 | 22°56 | T 11 |
| F 12 | 3 24 11 | 19°33'28 | 22°0 | 11°58 | 14°20 | 27°21 | 23°26 | 22°28 | 10°36 | 26°37 | 3°20 | 4°7 | 3°14 | 9°50 | 22°53 | F 12 |
| S 13 | 3 28 7 | 20°33'52 | 5♍6 | 13°2 | 15°35 | 28°6 | 23°38 | 22°27 | 10°39 | 26°35 | 3°18 | 3°54 | 3°10 | 9°57 | 22°50 | S 13 |
| S 14 | 3 32 4 | 21°34'18 | 18°26 | 14°3 | 16°51 | 28°52 | 23°51 | 22°26 | 10°42 | 26°33 | 3°17 | 3°42 | 3°7 | 10°4 | 22°47 | S 14 |
| M15 | 3 36 1 | 22°34'45 | 1♂57 | 15°1 | 18°6 | 29°37 | 24°3 | 22°25 | 10°45 | 26°32 | 3°16 | 3°31 | 3°4 | 10°10 | 22°44 | M15 |
| T 16 | 3 39 57 | 23°35'14 | 15°38 | 15°54 | 19°22 | 0♂22 | 24°15 | 22°23 | 10°48 | 26°30 | 3°15 | 3°24 | 3°1 | 10°17 | 22°41 | T 16 |
| W17 | 3 43 54 | 24°35'45 | 29°25 | 16°44 | 20°37 | 1°8 | 24°27 | 22°22 | 10°51 | 26°28 | 3°14 | 3°20 | 2°58 | 10°24 | 22°38 | W17 |
| T 18 | 3 47 50 | 25°36'18 | 13♂20 | 17°28 | 21°52 | 1°53 | 24°39 | 22°20 | 10°54 | 26°27 | 3°13 | 3°18 | 2°55 | 10°30 | 22°35 | T 18 |
| F 19 | 3 51 47 | 26°36'52 | 27°20 | 18°7 | 23°8 | 2°39 | 24°51 | 22°19 | 10°57 | 26°25 | 3°12 | 3°17 | 2°51 | 10°37 | 22°32 | F 19 |
| S 20 | 3 55 43 | 27°37'28 | 11♍26 | 18°39 | 24°23 | 3°24 | 25°3 | 22°17 | 11°0 | 26°23 | 3°11 | 3°17 | 2°48 | 10°44 | 22°29 | S 20 |
| S 21 | 3 59 40 | 28°38'06 | 25°37 | 19°5 | 25°39 | 4°10 | 25°15 | 22°15 | 11°3 | 26°22 | 3°10 | 3°16 | 2°45 | 10°50 | 22°25 | S 21 |
| M22 | 4 3 36 | 29°38'46 | 9♂51 | 19°22 | 26°54 | 4°56 | 25°27 | 22°13 | 11°6 | 26°20 | 3°8 | 3°12 | 2°42 | 10°57 | 22°22 | M22 |
| T 23 | 4 7 33 | 0♂39°27 | 24°6 | 19°R31 | 28°10 | 5°42 | 25°39 | 22°11 | 11°8 | 26°18 | 3°7 | 3°6 | 2°39 | 11°3 | 22°19 | T 23 |
| W24 | 4 11 30 | 1°40'10 | 8♍18 | 19°31 | 29°25 | 6°28 | 25°50 | 22°9 | 11°11 | 26°16 | 3°6 | 2°57 | 2°35 | 11°10 | 22°15 | W24 |
| T 25 | 4 15 26 | 2°40'54 | 22°21 | 19°21 | 0♂40 | 7°13 | 26°2 | 22°7 | 11°14 | 26°15 | 3°5 | 2°45 | 2°32 | 11°17 | 22°12 | T 25 |
| F 26 | 4 19 23 | 3°41'40 | 6♂11 | 19°0 | 1°56 | 7°59 | 26°14 | 22°4 | 11°17 | 26°13 | 3°4 | 2°32 | 2°29 | 11°23 | 22°8 | F 26 |
| S 27 | 4 23 19 | 4°42'27 | 19°43 | 18°29 | 3°11 | 8°45 | 26°25 | 22°2 | 11°19 | 26°11 | 3°3 | 2°19 | 2°26 | 11°30 | 22°5 | S 27 |
| S 28 | 4 27 16 | 5°43'16 | 2♂55 | 17°46 | 4°27 | 9°31 | 26°37 | 21°59 | 11°22 | 26°10 | 3°2 | 2°7 | 2°23 | 11°37 | 22°1 | S 28 |
| M29 | 4 31 12 | 6°44'05 | 15°46 | 16°53 | 5°42 | 10°18 | 26°48 | 21°57 | 11°24 | 26°8 | 3°0 | 1°57 | 2°20 | 11°43 | 21°57 | M29 |
| T 30 | 4 35 9 | 7♂44'56 | 28♂16 | 15♂50 | 6♂58 | 11♂4 | 26♂59 | 21♂54 | 11♂27 | 26♂6 | 2♍59 | 1♍51 | 2♍16 | 11♂50 | 21♍54 | T 30 |

Delta T = -4.20 sec

DECEMBER 1886

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | ♂ | Day |
|------|---------|----------|-------|--------|-------|-------|-------|--------|-------|-------|-------|-------|------|-------|--------|------|
| W 1 | 4 39 6 | 8♍45°47 | 10♍29 | 14°R39 | 8♍13 | 11♂50 | 27♂11 | 21°R51 | 11♂29 | 26°R5 | 2°R58 | 1°R47 | 2♍13 | 11♂57 | 21°R50 | W 1 |
| T 2 | 4 43 2 | 9°46'39 | 22°28 | 13♂21 | 9°29 | 12°36 | 27°22 | 21♂48 | 11°32 | 26♂3 | 2♍57 | 1♍45 | 2°10 | 12°3 | 21♍47 | T 2 |
| F 3 | 4 46 59 | 10°47'32 | 4♂19 | 11°59 | 10°44 | 13°22 | 27°33 | 21°45 | 11°34 | 26°2 | 2°56 | 1°45 | 2°7 | 12°10 | 21°43 | F 3 |
| S 4 | 4 50 55 | 11°48'26 | 16°7 | 10°37 | 12°0 | 14°9 | 27°44 | 21°42 | 11°36 | 26°0 | 2°55 | 1°45 | 2°4 | 12°17 | 21°39 | S 4 |
| S 5 | 4 54 52 | 12°49'20 | 27°57 | 9°15 | 13°15 | 14°55 | 27°55 | 21°39 | 11°39 | 25°58 | 2°54 | 1°44 | 2°1 | 12°23 | 21°35 | S 5 |
| M 6 | 4 58 48 | 13°50'16 | 9♍55 | 7°58 | 14°31 | 15°41 | 28°6 | 21°36 | 11°41 | 25°57 | 2°53 | 1°41 | 1°57 | 12°30 | 21°32 | M 6 |
| T 7 | 5 2 45 | 14°51'12 | 22°5 | 6°47 | 15°46 | 16°28 | 28°17 | 21°32 | 11°43 | 25°55 | 2°51 | 1°36 | 1°54 | 12°37 | 21°28 | T 7 |
| W 8 | 5 6 41 | 15°52'08 | 4♂33 | 5°46 | 17°2 | 17°14 | 28°28 | 21°29 | 11°45 | 25°54 | 2°50 | 1°28 | 1°51 | 12°43 | 21°24 | W 8 |
| T 9 | 5 10 38 | 16°53'06 | 17°20 | 4°54 | 18°17 | 18°1 | 28°38 | 21°25 | 11°48 | 25°52 | 2°49 | 1°17 | 1°48 | 12°50 | 21°20 | T 9 |
| F 10 | 5 14 34 | 17°54'04 | 0♍27 | 4°13 | 19°33 | 18°47 | 28°49 | 21°22 | 11°50 | 25°50 | 2°48 | 1°5 | 1°45 | 12°56 | 21°17 | F 10 |
| S 11 | 5 18 31 | 18°55'03 | 13°55 | 3°43 | 20°48 | 19°34 | 28°59 | 21°18 | 11°52 | 25°49 | 2°47 | 0°53 | 1°41 | 13°3 | 21°13 | S 11 |
| S 12 | 5 22 28 | 19°56'03 | 27°39 | 3°24 | 22°4 | 20°21 | 29°10 | 21°14 | 11°54 | 25°47 | 2°46 | 0°41 | 1°38 | 13°10 | 21°9 | S 12 |
| M13 | 5 26 24 | 20°57'04 | 11♂27 | 3°D17 | 23°19 | 21°7 | 29°20 | 21°10 | 11°56 | 25°46 | 2°45 | 0°31 | 1°35 | 13°16 | 21°5 | M13 |
| T 14 | 5 30 21 | 21°58'05 | 25°44 | 3°19 | 24°35 | 21°54 | 29°30 | 21°6 | 11°57 | 25°44 | 2°44 | 0°24 | 1°32 | 13°23 | 21°2 | T 14 |
| W15 | 5 34 17 | 22°59'08 | 9♍55 | 3°31 | 25°50 | 22°41 | 29°40 | 21°2 | 11°59 | 25°43 | 2°43 | 0°20 | 1°29 | 13°30 | 20°58 | W15 |
| T 16 | 5 38 14 | 24°0'11 | 24°7 | 3°52 | 27°6 | 23°28 | 29°50 | 20°58 | 12°1 | 25°41 | 2°42 | 0°D18 | 1°26 | 13°36 | 20°54 | T 16 |
| F 17 | 5 42 10 | 25°1'15 | 8♍18 | 4°21 | 28°21 | 24°14 | 0♍0 | 20°54 | 12°3 | 25°40 | 2°41 | 0°18 | 1°22 | 13°43 | 20°50 | F 17 |
| S 18 | 5 46 7 | 26°2'20 | 22°25 | 4°56 | 29°36 | 25°1 | 0°10 | 20°50 | 12°4 | 25°39 | 2°40 | 0°R19 | 1°19 | 13°50 | 20°46 | S 18 |
| S 19 | 5 50 4 | 27°3'26 | 6♂28 | 5°38 | 0♂52 | 25°48 | 0°20 | 20°46 | 12°6 | 25°37 | 2°39 | 0°18 | 1°16 | 13°56 | 20°43 | S 19 |
| M20 | 5 54 0 | 28°4'32 | 20°26 | 6°26 | 2°7 | 26°35 | 0°29 | 20°41 | 12°8 | 25°36 | 2°38 | 0°16 | 1°13 | 14°3 | 20°39 | M20 |
| T 21 | 5 57 57 | 29°5'40 | 4♍18 | 7°18 | 3°23 | 27°22 | 0°39 | 20°37 | 12°9 | 25°34 | 2°37 | 0°12 | 1°10 | 14°10 | 20°35 | T 21 |
| W22 | 6 1 53 | 0♂6'48 | 18°3 | 8°15 | 4°38 | 28°9 | 0°48 | 20°32 | 12°11 | 25°33 | 2°36 | 0°4 | 1°7 | 14°16 | 20°31 | W22 |
| T 23 | 6 5 50 | 1°7'57 | 1♂39 | 9°16 | 5°54 | 28°56 | 0°57 | 20°28 | 12°12 | 25°32 | 2°35 | 29♍55 | 1°3 | 14°23 | 20°28 | T 23 |
| F 24 | 6 9 46 | 2°9'06 | 15°3 | 10°20 | 7°9 | 29°43 | 1°7 | 20°23 | 12°13 | 25°30 | 2°34 | 29°44 | 1°0 | 14°30 | 20°24 | F 24 |
| S 25 | 6 13 43 | 3°10'16 | 28°13 | 11°27 | 8°25 | 0♍30 | 1°16 | 20°19 | 12°15 | 25°29 | 2°33 | 29°34 | 0°57 | 14°36 | 20°20 | S 25 |
| S 26 | 6 17 39 | 4°11'26 | 11♂8 | 12°37 | 9°40 | 1°17 | 1°25 | 20°14 | 12°16 | 25°28 | 2°32 | 29°24 | 0°54 | 14°43 | 20°16 | S 26 |
| M27 | 6 21 36 | 5°12'36 | 23°47 | 13°49 | 10°56 | 2°4 | 1°33 | 20°9 | 12°17 | 25°27 | 2°31 | 29°16 | 0°51 | 14°49 | 20°13 | M27 |
| T 28 | 6 25 33 | 6°13'47 | 6♍10 | 15°3 | 12°11 | 2°51 | 1°42 | 20°5 | 12°18 | 25°25 | 2°30 | 29°11 | 0°47 | 14°56 | 20°9 | T 28 |
| W29 | 6 29 29 | 7°14'57 | 18°19 | 16°19 | 13°27 | 3°38 | 1°51 | 20°0 | 12°19 | 25°24 | 2°29 | 29°8 | 0°44 | 15°3 | 20°6 | W29 |
| T 30 | 6 33 26 | 8°16'07 | 0♂17 | 17°37 | 14°42 | 4°26 | 1°59 | 19°55 | 12°20 | 25°23 | 2°28 | 29°D7 | 0°41 | 15°9 | 20°2 | T 30 |
| F 31 | 6 37 22 | 9♂17'17 | 12♂7 | 18♂56 | 15♂58 | 5♍13 | 2♍8 | 19♂50 | 12♂21 | 25♂22 | 2♍27 | 29♍8 | 0♍38 | 15♂16 | 19♍59 | F 31 |

Delta T = -4.18 sec