



# Astrodienst Ephemeris Tables for the year 1480

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 1480  
geocentric

JANUARY 1480 JC

00:00 UT

| Day  | Sid.t   | ☉        | ☽       | ♀        | ♂      | ♂      | ♂      | ♂     | ♂     | ♂     | ♂     | ♂      | ♂      | ♂      | ♂      | Day  |
|------|---------|----------|---------|----------|--------|--------|--------|-------|-------|-------|-------|--------|--------|--------|--------|------|
| S 1  | 7 15 9  | 19°17'23 | 0°10'10 | 12°34'48 | 8°R26  | 4°M29  | 27°R58 | 0°R52 | 5°A14 | 2°A35 | 3°R53 | 12°R23 | 11°E57 | 15°K30 | 12°K42 | S 1  |
| S 2  | 7 19 5  | 20°18'28 | 14°48   | 14°25    | 8°A 4  | 5° 2   | 27°I51 | 0°A52 | 5°17  | 2°37  | 3°A52 | 12°E22 | 11°53  | 15°37  | 12°44  | S 2  |
| M 3  | 7 23 2  | 21°19'33 | 29°17   | 16° 2    | 7°40   | 5°36   | 27°44  | 0°52  | 5°20  | 2°39  | 3°52  | 12°21  | 11°50  | 15°44  | 12°47  | M 3  |
| T 4  | 7 26 58 | 22°20'38 | 13°A33  | 17°40    | 7°14   | 6° 9   | 27°37  | 0°52  | 5°23  | 2°40  | 3°52  | 12°21  | 11°47  | 15°50  | 12°49  | T 4  |
| W 5  | 7 30 55 | 23°21'42 | 27°34   | 19°19    | 6°46   | 6°43   | 27°30  | 0°52  | 5°25  | 2°42  | 3°52  | 12°D21 | 11°44  | 15°57  | 12°52  | W 5  |
| T 6  | 7 34 51 | 24°22'46 | 11°M19  | 20°58    | 6°16   | 7°16   | 27°24  | 0°51  | 5°28  | 2°43  | 3°52  | 12°21  | 11°41  | 16° 4  | 12°55  | T 6  |
| F 7  | 7 38 48 | 25°23'49 | 24°48   | 22°37    | 5°44   | 7°49   | 27°17  | 0°51  | 5°31  | 2°45  | 3°51  | 12°22  | 11°37  | 16°10  | 12°58  | F 7  |
| S 8  | 7 42 45 | 26°24'52 | 8°A 1   | 24°18    | 5°11   | 8°22   | 27°11  | 0°50  | 5°33  | 2°46  | 3°51  | 12°23  | 11°34  | 16°17  | 13° 0  | S 8  |
| S 9  | 7 46 41 | 27°25'55 | 21° 0   | 25°59    | 4°37   | 8°55   | 27° 5  | 0°49  | 5°36  | 2°48  | 3°50  | 12°25  | 11°31  | 16°24  | 13° 3  | S 9  |
| M10  | 7 50 38 | 28°26'56 | 3°A6    | 27°40    | 4° 2   | 9°28   | 26°59  | 0°48  | 5°39  | 2°49  | 3°50  | 12°25  | 11°28  | 16°31  | 13° 6  | M10  |
| T 11 | 7 54 34 | 29°27'57 | 16°20   | 29°22    | 3°26   | 10° 1  | 26°53  | 0°47  | 5°41  | 2°51  | 3°50  | 12°R26 | 11°25  | 16°37  | 13° 9  | T 11 |
| W12  | 7 58 31 | 0°A28'57 | 28°44   | 1°A 5    | 2°49   | 10°33  | 26°47  | 0°46  | 5°44  | 2°52  | 3°49  | 12°25  | 11°22  | 16°44  | 13°12  | W12  |
| T 13 | 8 2 27  | 1°29'56  | 10°A57  | 2°48     | 2°12   | 11° 6  | 26°42  | 0°45  | 5°46  | 2°54  | 3°49  | 12°23  | 11°18  | 16°51  | 13°15  | T 13 |
| F 14 | 8 6 24  | 2°30'54  | 23° 2   | 4°32     | 1°35   | 11°38  | 26°37  | 0°44  | 5°49  | 2°55  | 3°48  | 12°20  | 11°15  | 16°57  | 13°18  | F 14 |
| S 15 | 8 10 20 | 3°31'51  | 5°K 0   | 6°17     | 0°58   | 12°11  | 26°31  | 0°42  | 5°51  | 2°56  | 3°47  | 12°17  | 11°12  | 17° 4  | 13°21  | S 15 |
| S 16 | 8 14 17 | 4°32'46  | 16°53   | 8° 2     | 0°22   | 12°43  | 26°26  | 0°41  | 5°53  | 2°58  | 3°47  | 12°13  | 11° 9  | 17°11  | 13°24  | S 16 |
| M17  | 8 18 14 | 5°33'41  | 28°43   | 9°48     | 29°A46 | 13°15  | 26°21  | 0°39  | 5°56  | 2°59  | 3°46  | 12° 9  | 11° 6  | 17°17  | 13°27  | M17  |
| T 18 | 8 22 10 | 6°34'33  | 10°V35  | 11°35    | 29°11  | 13°47  | 26°17  | 0°37  | 5°58  | 3° 0  | 3°46  | 12° 6  | 11° 3  | 17°24  | 13°31  | T 18 |
| W19  | 8 26 7  | 7°35'25  | 22°32   | 13°22    | 28°37  | 14°19  | 26°12  | 0°36  | 6° 0  | 3° 2  | 3°45  | 12° 3  | 10°59  | 17°31  | 13°34  | W19  |
| T 20 | 8 30 3  | 8°36'15  | 4°B38   | 15° 9    | 28° 5  | 14°51  | 26° 8  | 0°34  | 6° 2  | 3° 3  | 3°44  | 12°D 2 | 10°56  | 17°38  | 13°37  | T 20 |
| F 21 | 8 34 0  | 9°37'03  | 16°58   | 16°57    | 27°34  | 15°23  | 26° 4  | 0°32  | 6° 5  | 3° 4  | 3°43  | 12° 3  | 10°53  | 17°44  | 13°40  | F 21 |
| S 22 | 8 37 56 | 10°37'51 | 29°36   | 18°45    | 27° 5  | 15°54  | 26° 0  | 0°30  | 6° 7  | 3° 5  | 3°42  | 12° 4  | 10°50  | 17°51  | 13°43  | S 22 |
| S 23 | 8 41 53 | 11°38'36 | 12°I37  | 20°33    | 26°38  | 16°26  | 25°56  | 0°27  | 6° 9  | 3° 6  | 3°42  | 12° 5  | 10°47  | 17°58  | 13°47  | S 23 |
| M24  | 8 45 49 | 12°39'20 | 26° 4   | 22°21    | 26°13  | 16°57  | 25°53  | 0°25  | 6°11  | 3° 7  | 3°41  | 12° 7  | 10°43  | 18° 4  | 13°50  | M24  |
| T 25 | 8 49 46 | 13°40'03 | 9°E58   | 24° 9    | 25°50  | 17°28  | 25°49  | 0°23  | 6°13  | 3° 8  | 3°40  | 12°R 8 | 10°40  | 18°11  | 13°53  | T 25 |
| W26  | 8 53 43 | 14°40'43 | 24°19   | 25°56    | 25°30  | 17°59  | 25°46  | 0°20  | 6°14  | 3° 9  | 3°39  | 12° 7  | 10°37  | 18°18  | 13°57  | W26  |
| T 27 | 8 57 39 | 15°41'23 | 9°O 2   | 27°43    | 25°11  | 18°30  | 25°43  | 0°18  | 6°16  | 3°10  | 3°38  | 12° 5  | 10°34  | 18°25  | 14° 0  | T 27 |
| F 28 | 9 1 36  | 16°42'01 | 24° 2   | 29°29    | 24°56  | 19° 1  | 25°40  | 0°15  | 6°18  | 3°11  | 3°37  | 12° 1  | 10°31  | 18°31  | 14° 4  | F 28 |
| S 29 | 9 5 32  | 17°42'37 | 9°M10   | 1°K14    | 24°42  | 19°32  | 25°37  | 0°12  | 6°20  | 3°12  | 3°36  | 11°56  | 10°28  | 18°38  | 14° 7  | S 29 |
| S 30 | 9 9 29  | 18°43'12 | 24°14   | 2°57     | 24°31  | 20° 2  | 25°35  | 0° 9  | 6°22  | 3°13  | 3°35  | 11°51  | 10°24  | 18°45  | 14°10  | S 30 |
| M31  | 9 13 25 | 19°43'46 | 9°A 7   | 4°K39    | 24°E23 | 20°M33 | 25°I33 | 0°A 6 | 6°A23 | 3°A14 | 3°A34 | 11°E45 | 10°E21 | 18°K51 | 14°K14 | M31  |

Delta T = 05m33s

Julian Calendar 1 Jan. 1480 == Greg. Calendar 10 Jan. 1480

FEBRUARY 1480 JC

00:00 UT

| Day  | Sid.t    | ☉         | ☽      | ♀      | ♂      | ♂      | ♂      | ♂      | ♂     | ♂     | ♂     | ♂      | ♂      | ♂      | ♂      | Day  |
|------|----------|-----------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------|--------|--------|--------|------|
| T 1  | 9 17 22  | 20°44'18  | 23°A42 | 6°K18  | 24°R17 | 21°M 3 | 25°R31 | 0°R 3  | 6°A25 | 3°A15 | 3°R33 | 11°R41 | 10°E18 | 18°K58 | 14°K17 | T 1  |
| W 2  | 9 21 18  | 21°44'49  | 7°M53  | 7°53   | 24°B14 | 21°33  | 25°I29 | 0°A 0  | 6°26  | 3°15  | 3°A32 | 11°E38 | 10°15  | 19° 5  | 14°21  | W 2  |
| T 3  | 9 25 15  | 22°45'19  | 21°59  | 9°26   | 24°D13 | 22° 3  | 25°27  | 29°M57 | 6°28  | 3°16  | 3°31  | 11°D37 | 10°12  | 19°12  | 14°24  | T 3  |
| F 4  | 9 29 12  | 23°45'48  | 5°A 2  | 10°54  | 24°14  | 22°33  | 25°26  | 29°54  | 6°29  | 3°17  | 3°29  | 11°38  | 10° 9  | 19°18  | 14°28  | F 4  |
| S 5  | 9 33 8   | 24°46'15  | 18° 4  | 12°17  | 24°18  | 23° 3  | 25°25  | 29°51  | 6°31  | 3°18  | 3°28  | 11°39  | 10° 5  | 19°25  | 14°32  | S 5  |
| S 6  | 9 37 5   | 25°46'41  | 0°B47  | 13°35  | 24°24  | 23°32  | 25°23  | 29°47  | 6°32  | 3°18  | 3°27  | 11°41  | 10° 2  | 19°32  | 14°35  | S 6  |
| M 7  | 9 41 1   | 26°47'05  | 13°16  | 14°47  | 24°33  | 24° 2  | 25°23  | 29°44  | 6°34  | 3°19  | 3°26  | 11°R41 | 9°59   | 19°38  | 14°39  | M 7  |
| T 8  | 9 44 58  | 27°47'28  | 25°34  | 15°52  | 24°44  | 24°31  | 25°22  | 29°40  | 6°35  | 3°20  | 3°25  | 11°40  | 9°56   | 19°45  | 14°42  | T 8  |
| W 9  | 9 48 54  | 28°47'50  | 7°A42  | 16°50  | 24°56  | 25° 0  | 25°21  | 29°36  | 6°36  | 3°20  | 3°23  | 11°37  | 9°53   | 19°52  | 14°46  | W 9  |
| T 10 | 9 52 51  | 29°48'09  | 19°44  | 17°40  | 25°11  | 25°28  | 25°21  | 29°33  | 6°37  | 3°21  | 3°22  | 11°31  | 9°49   | 19°59  | 14°50  | T 10 |
| F 11 | 9 56 47  | 0°K48'27  | 1°K41  | 18°22  | 25°28  | 25°57  | 25°D21 | 29°29  | 6°38  | 3°21  | 3°21  | 11°23  | 9°46   | 20° 5  | 14°53  | F 11 |
| S 12 | 10 0 44  | 1°48'44   | 13°35  | 18°54  | 25°47  | 26°25  | 25°21  | 29°25  | 6°39  | 3°22  | 3°19  | 11°13  | 9°43   | 20°12  | 14°57  | S 12 |
| S 13 | 10 4 41  | 2°48'58   | 25°27  | 19°18  | 26° 8  | 26°54  | 25°22  | 29°21  | 6°40  | 3°22  | 3°18  | 11° 3  | 9°40   | 20°19  | 15° 1  | S 13 |
| M14  | 10 8 37  | 3°49'10   | 7°V18  | 19°32  | 26°31  | 27°22  | 25°22  | 29°17  | 6°41  | 3°22  | 3°17  | 10°52  | 9°37   | 20°25  | 15° 4  | M14  |
| T 15 | 10 12 34 | 4°49'20   | 19°11  | 19°R36 | 26°55  | 27°50  | 25°23  | 29°13  | 6°42  | 3°23  | 3°15  | 10°43  | 9°34   | 20°32  | 15° 8  | T 15 |
| W16  | 10 16 30 | 5°49'29   | 1°B 9  | 19°31  | 27°22  | 28°17  | 25°24  | 29° 9  | 6°43  | 3°23  | 3°14  | 10°35  | 9°30   | 20°39  | 15°12  | W16  |
| T 17 | 10 20 27 | 6°49'35   | 13°14  | 19°17  | 27°49  | 28°45  | 25°25  | 29° 5  | 6°44  | 3°23  | 3°12  | 10°30  | 9°27   | 20°46  | 15°16  | T 17 |
| F 18 | 10 24 23 | 7°49'39   | 25°31  | 18°55  | 28°19  | 29°12  | 25°26  | 29° 1  | 6°45  | 3°24  | 3°11  | 10°27  | 9°24   | 20°52  | 15°19  | F 18 |
| S 19 | 10 28 20 | 8°49'41   | 8°I 4  | 18°24  | 28°50  | 29°39  | 25°28  | 28°57  | 6°45  | 3°24  | 3° 9  | 10°D26 | 9°21   | 20°59  | 15°23  | S 19 |
| S 20 | 10 32 16 | 9°49'41   | 20°57  | 17°46  | 29°22  | 0°A 6  | 25°30  | 28°52  | 6°46  | 3°24  | 3° 8  | 10°27  | 9°18   | 21° 6  | 15°27  | S 20 |
| M21  | 10 36 13 | 10°49'39  | 4°E16  | 17° 1  | 29°56  | 0°32   | 25°31  | 28°48  | 6°46  | 3°24  | 3° 6  | 10°R27 | 9°15   | 21°12  | 15°31  | M21  |
| T 22 | 10 40 10 | 11°49'35  | 18° 2  | 16°11  | 0°A31  | 0°58   | 25°34  | 28°44  | 6°47  | 3°24  | 3° 5  | 10°27  | 9°11   | 21°19  | 15°34  | T 22 |
| W23  | 10 44 6  | 12°49'28  | 2°O17  | 15°17  | 1° 7   | 1°24   | 25°36  | 28°39  | 6°47  | 3°24  | 3° 3  | 10°25  | 9° 8   | 21°26  | 15°38  | W23  |
| T 24 | 10 48 3  | 13°49'19  | 16°59  | 14°20  | 1°45   | 1°50   | 25°38  | 28°35  | 6°48  | 3°24  | 3° 2  | 10°21  | 9° 5   | 21°33  | 15°42  | T 24 |
| F 25 | 10 51 59 | 14°49'08  | 2°M 4  | 13°22  | 2°24   | 2°16   | 25°41  | 28°30  | 6°48  | 3°R24 | 3° 0  | 10°14  | 9° 2   | 21°39  | 15°46  | F 25 |
| S 26 | 10 55 56 | 15°48'55  | 17°22  | 12°24  | 3° 4   | 2°41   | 25°44  | 28°26  | 6°48  | 3°24  | 2°59  | 10° 5  | 8°59   | 21°46  | 15°49  | S 26 |
| S 27 | 10 59 52 | 16°48'39  | 2°A43  | 11°27  | 3°45   | 3° 6   | 25°47  | 28°21  | 6°49  | 3°24  | 2°57  | 9°55   | 8°55   | 21°53  | 15°53  | S 27 |
| M28  | 11 3 49  | 17°48'22  | 17°54  | 10°32  | 4°27   | 3°31   | 25°50  | 28°17  | 6°49  | 3°24  | 2°56  | 9°45   | 8°52   | 21°59  | 15°57  | M28  |
| T 29 | 11 7 45  | 18°K48'03 | 2°M46  | 9°K41  | 5°A10  | 3°A56  | 25°I53 | 28°M12 | 6°A49 | 3°A24 | 2°A54 | 9°E37  | 8°E49  | 22°K 6 | 16°K 1 | T 29 |

Delta T = 05m32s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1480

## geocentric

MARCH 1480 JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽      | ♀     | ♂     | ♂     | ♂     | ♂      | ♂     | ♂     | ♂     | ♂     | ♂    | ♂     | ♂     | Day  |
|------|----------|----------|--------|-------|-------|-------|-------|--------|-------|-------|-------|-------|------|-------|-------|------|
| W 1  | 11 11 42 | 19°47'42 | 17°12  | 8°R53 | 5°54  | 4°20  | 25°57 | 28°R 8 | 6°49  | 3°R24 | 2°R52 | 9°R31 | 8°46 | 22°13 | 16°4  | W 1  |
| T 2  | 11 15 39 | 20°47'20 | 1°9    | 8°11  | 6°40  | 4°44  | 26°1  | 28°R 3 | 6°R49 | 3°R24 | 2°51  | 9°27  | 8°43 | 22°20 | 16°8  | T 2  |
| F 3  | 11 19 35 | 21°46'56 | 14°37  | 7°34  | 7°26  | 5°8   | 26°5  | 27°58  | 6°49  | 3°24  | 2°49  | 9°25  | 8°40 | 22°26 | 16°12 | F 3  |
| S 4  | 11 23 32 | 22°46'30 | 27°39  | 7°2   | 8°13  | 5°31  | 26°9  | 27°54  | 6°49  | 3°23  | 2°47  | 9°D25 | 8°36 | 22°33 | 16°15 | S 4  |
| S 5  | 11 27 28 | 23°46'02 | 10°319 | 6°37  | 9°0   | 5°54  | 26°13 | 27°49  | 6°49  | 3°23  | 2°46  | 9°R25 | 8°33 | 22°40 | 16°19 | S 5  |
| M 6  | 11 31 25 | 24°45'33 | 22°40  | 6°17  | 9°49  | 6°17  | 26°18 | 27°44  | 6°49  | 3°23  | 2°44  | 9°25  | 8°30 | 22°47 | 16°23 | M 6  |
| T 7  | 11 35 21 | 25°45'02 | 4°49   | 6°4   | 10°38 | 6°39  | 26°22 | 27°40  | 6°49  | 3°22  | 2°43  | 9°22  | 8°27 | 22°53 | 16°27 | T 7  |
| W 8  | 11 39 18 | 26°44'29 | 16°49  | 5°57  | 11°29 | 7°2   | 26°27 | 27°35  | 6°48  | 3°22  | 2°41  | 9°17  | 8°24 | 23°0  | 16°30 | W 8  |
| T 9  | 11 43 14 | 27°43'54 | 28°44  | 5°D55 | 12°19 | 7°23  | 26°32 | 27°30  | 6°48  | 3°22  | 2°39  | 9°9   | 8°20 | 23°7  | 16°34 | T 9  |
| F 10 | 11 47 11 | 28°43'17 | 10°35  | 5°59  | 13°11 | 7°45  | 26°37 | 27°26  | 6°48  | 3°21  | 2°38  | 8°57  | 8°17 | 23°13 | 16°38 | F 10 |
| S 11 | 11 51 8  | 29°42'38 | 22°27  | 6°9   | 14°3  | 8°6   | 26°42 | 27°21  | 6°47  | 3°21  | 2°36  | 8°44  | 8°14 | 23°20 | 16°41 | S 11 |
| S 12 | 11 55 4  | 0°41'56  | 4°19   | 6°24  | 14°56 | 8°27  | 26°48 | 27°16  | 6°47  | 3°20  | 2°34  | 8°30  | 8°11 | 23°27 | 16°45 | S 12 |
| M13  | 11 59 1  | 1°41'13  | 16°13  | 6°44  | 15°49 | 8°47  | 26°53 | 27°12  | 6°46  | 3°20  | 2°33  | 8°15  | 8°8  | 23°34 | 16°49 | M13  |
| T 14 | 12 2 57  | 2°40'28  | 28°11  | 7°9   | 16°43 | 9°7   | 26°59 | 27°7   | 6°46  | 3°19  | 2°31  | 8°2   | 8°5  | 23°40 | 16°52 | T 14 |
| W15  | 12 6 54  | 3°39'41  | 10°14  | 7°39  | 17°38 | 9°26  | 27°5  | 27°2   | 6°45  | 3°19  | 2°29  | 7°51  | 8°1  | 23°47 | 16°56 | W15  |
| T 16 | 12 10 50 | 4°38'51  | 22°25  | 8°13  | 18°33 | 9°46  | 27°11 | 26°58  | 6°44  | 3°18  | 2°28  | 7°43  | 7°58 | 23°54 | 17°0  | T 16 |
| F 17 | 12 14 47 | 5°37'59  | 4°46   | 8°50  | 19°28 | 10°4  | 27°18 | 26°53  | 6°44  | 3°17  | 2°26  | 7°37  | 7°55 | 24°0  | 17°3  | F 17 |
| S 18 | 12 18 43 | 6°37'05  | 17°19  | 9°32  | 20°24 | 10°23 | 27°24 | 26°48  | 6°43  | 3°17  | 2°24  | 7°35  | 7°52 | 24°7  | 17°7  | S 18 |
| S 19 | 12 22 40 | 7°36'09  | 0°20   | 10°17 | 21°21 | 10°41 | 27°31 | 26°44  | 6°42  | 3°16  | 2°23  | 7°34  | 7°49 | 24°14 | 17°10 | S 19 |
| M20  | 12 26 36 | 8°35'10  | 13°22  | 11°6  | 22°18 | 10°58 | 27°37 | 26°39  | 6°41  | 3°15  | 2°21  | 7°34  | 7°46 | 24°21 | 17°14 | M20  |
| T 21 | 12 30 33 | 9°34'09  | 26°59  | 11°58 | 23°15 | 11°15 | 27°44 | 26°35  | 6°40  | 3°14  | 2°19  | 7°33  | 7°42 | 24°27 | 17°18 | T 21 |
| W22  | 12 34 30 | 10°33'05 | 11°2   | 12°53 | 24°13 | 11°32 | 27°51 | 26°30  | 6°39  | 3°14  | 2°18  | 7°31  | 7°39 | 24°34 | 17°21 | W22  |
| T 23 | 12 38 26 | 11°32'00 | 25°32  | 13°51 | 25°12 | 11°48 | 27°58 | 26°26  | 6°38  | 3°13  | 2°16  | 7°26  | 7°36 | 24°41 | 17°25 | T 23 |
| F 24 | 12 42 23 | 12°30'51 | 10°25  | 14°52 | 26°10 | 12°4  | 28°5  | 26°21  | 6°37  | 3°12  | 2°14  | 7°19  | 7°33 | 24°47 | 17°28 | F 24 |
| S 25 | 12 46 19 | 13°29'41 | 25°35  | 15°56 | 27°9  | 12°19 | 28°13 | 26°17  | 6°36  | 3°11  | 2°13  | 7°9   | 7°30 | 24°54 | 17°31 | S 25 |
| S 26 | 12 50 16 | 14°28'28 | 10°53  | 17°2  | 28°9  | 12°34 | 28°20 | 26°13  | 6°35  | 3°10  | 2°11  | 6°58  | 7°26 | 25°1  | 17°35 | S 26 |
| M27  | 12 54 12 | 15°27'14 | 26°6   | 18°10 | 29°9  | 12°48 | 28°28 | 26°8   | 6°34  | 3°9   | 2°9   | 6°47  | 7°23 | 25°8  | 17°38 | M27  |
| T 28 | 12 58 9  | 16°25'57 | 11°4   | 19°21 | 0°8   | 13°2  | 28°36 | 26°4   | 6°32  | 3°8   | 2°8   | 6°38  | 7°20 | 25°14 | 17°42 | T 28 |
| W29  | 13 2 5   | 17°24'39 | 25°39  | 20°35 | 1°10  | 13°15 | 28°44 | 26°0   | 6°31  | 3°7   | 2°6   | 6°30  | 7°17 | 25°21 | 17°45 | W29  |
| T 30 | 13 6 2   | 18°23'19 | 9°45   | 21°50 | 2°10  | 13°28 | 28°52 | 25°56  | 6°30  | 3°6   | 2°5   | 6°26  | 7°14 | 25°28 | 17°48 | T 30 |
| F 31 | 13 9 59  | 19°21'58 | 23°21  | 23°8  | 3°12  | 13°40 | 29°11 | 25°52  | 6°28  | 3°5   | 2°3   | 6°23  | 7°11 | 25°34 | 17°52 | F 31 |

Delta T = 05m32s

Julian Calendar 1 March 1480 == Greg. Calendar 10 March 1480

APRIL 1480 JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♂     | ♂      | ♂     | ♂      | ♂     | ♂     | ♂     | ♂     | ♂    | ♂     | ♂     | Day  |
|------|----------|----------|-------|-------|-------|--------|-------|--------|-------|-------|-------|-------|------|-------|-------|------|
| S 1  | 13 13 55 | 20°20'34 | 6°29  | 24°27 | 4°13  | 13°51  | 29°11 | 25°R48 | 6°R27 | 3°R 4 | 2°R 1 | 6°D23 | 7°2  | 25°41 | 17°55 | S 1  |
| S 2  | 13 17 52 | 21°19'09 | 19°12 | 25°49 | 5°15  | 14°2   | 29°17 | 25°44  | 6°25  | 3°3   | 2°0   | 6°R23 | 7°4  | 25°48 | 17°58 | S 2  |
| M 3  | 13 21 48 | 22°17'42 | 1°36  | 27°12 | 6°17  | 14°13  | 29°25 | 25°40  | 6°24  | 3°2   | 1°58  | 6°23  | 7°1  | 25°55 | 18°2  | M 3  |
| T 4  | 13 25 45 | 23°16'14 | 13°43 | 28°38 | 7°19  | 14°22  | 29°34 | 25°36  | 6°22  | 3°1   | 1°57  | 6°21  | 6°58 | 26°1  | 18°5  | T 4  |
| W 5  | 13 29 41 | 24°14'44 | 25°41 | 0°5   | 8°22  | 14°32  | 29°43 | 25°32  | 6°21  | 3°0   | 1°55  | 6°17  | 6°55 | 26°8  | 18°8  | W 5  |
| T 6  | 13 33 38 | 25°13'12 | 7°33  | 1°34  | 9°25  | 14°40  | 29°52 | 25°28  | 6°19  | 2°58  | 1°54  | 6°10  | 6°52 | 26°15 | 18°11 | T 6  |
| F 7  | 13 37 34 | 26°11'38 | 19°24 | 3°5   | 10°28 | 14°48  | 0°1   | 25°24  | 6°18  | 2°57  | 1°52  | 6°0   | 6°48 | 26°22 | 18°14 | F 7  |
| S 8  | 13 41 31 | 27°10'03 | 1°15  | 4°38  | 11°32 | 14°56  | 0°10  | 25°21  | 6°16  | 2°56  | 1°51  | 5°49  | 6°45 | 26°28 | 18°17 | S 8  |
| S 9  | 13 45 28 | 28°8'26  | 13°10 | 6°13  | 12°35 | 15°2   | 0°19  | 25°17  | 6°14  | 2°55  | 1°49  | 5°37  | 6°42 | 26°35 | 18°20 | S 9  |
| M10  | 13 49 24 | 29°6'47  | 25°10 | 7°50  | 13°39 | 15°8   | 0°29  | 25°14  | 6°12  | 2°54  | 1°48  | 5°24  | 6°39 | 26°42 | 18°24 | M10  |
| T 11 | 13 53 21 | 0°5'07   | 7°16  | 9°28  | 14°43 | 15°13  | 0°38  | 25°10  | 6°11  | 2°52  | 1°46  | 5°12  | 6°36 | 26°48 | 18°27 | T 11 |
| W12  | 13 57 17 | 1°3'24   | 19°30 | 11°8  | 15°47 | 15°18  | 0°48  | 25°7   | 6°9   | 2°51  | 1°45  | 5°3   | 6°32 | 26°55 | 18°30 | W12  |
| T 13 | 14 1 14  | 2°1'40   | 1°52  | 12°50 | 16°52 | 15°22  | 0°57  | 25°4   | 6°7   | 2°50  | 1°44  | 4°56  | 6°29 | 27°2  | 18°32 | T 13 |
| F 14 | 14 5 10  | 2°59'54  | 14°24 | 14°34 | 17°56 | 15°25  | 1°7   | 25°0   | 6°5   | 2°48  | 1°42  | 4°51  | 6°26 | 27°9  | 18°35 | F 14 |
| S 15 | 14 9 7   | 3°58'06  | 27°8  | 16°19 | 19°1  | 15°28  | 1°17  | 24°57  | 6°3   | 2°47  | 1°41  | 4°49  | 6°23 | 27°15 | 18°38 | S 15 |
| S 16 | 14 13 3  | 4°56'16  | 10°7  | 18°6  | 20°6  | 15°30  | 1°27  | 24°54  | 6°1   | 2°46  | 1°40  | 4°D49 | 6°20 | 27°22 | 18°41 | S 16 |
| M17  | 14 17 0  | 5°54'24  | 23°21 | 19°55 | 21°12 | 15°31  | 1°37  | 24°51  | 5°59  | 2°44  | 1°38  | 4°50  | 6°17 | 27°29 | 18°44 | M17  |
| T 18 | 14 20 57 | 6°52'30  | 6°55  | 21°46 | 22°17 | 15°R31 | 1°48  | 24°48  | 5°57  | 2°43  | 1°37  | 4°R50 | 6°13 | 27°35 | 18°47 | T 18 |
| W19  | 14 24 53 | 7°50'34  | 20°50 | 23°39 | 23°23 | 15°31  | 1°58  | 24°46  | 5°55  | 2°41  | 1°36  | 4°49  | 6°10 | 27°42 | 18°49 | W19  |
| T 20 | 14 28 50 | 8°48'36  | 5°6   | 25°34 | 24°28 | 15°29  | 2°8   | 24°43  | 5°53  | 2°40  | 1°34  | 4°47  | 6°7  | 27°49 | 18°52 | T 20 |
| F 21 | 14 32 46 | 9°46'36  | 19°42 | 27°30 | 25°34 | 15°28  | 2°19  | 24°40  | 5°51  | 2°38  | 1°33  | 4°42  | 6°4  | 27°56 | 18°55 | F 21 |
| S 22 | 14 36 43 | 10°44'34 | 4°32  | 29°28 | 26°40 | 15°25  | 2°29  | 24°38  | 5°48  | 2°37  | 1°32  | 4°35  | 6°1  | 28°2  | 18°57 | S 22 |
| S 23 | 14 40 39 | 11°42'30 | 19°31 | 1°28  | 27°46 | 15°22  | 2°40  | 24°35  | 5°46  | 2°35  | 1°31  | 4°27  | 5°57 | 28°9  | 19°0  | S 23 |
| M24  | 14 44 36 | 12°40'25 | 4°28  | 3°30  | 28°53 | 15°18  | 2°51  | 24°33  | 5°44  | 2°34  | 1°30  | 4°19  | 5°54 | 28°16 | 19°2  | M24  |
| T 25 | 14 48 32 | 13°38'18 | 19°15 | 5°33  | 29°59 | 15°13  | 3°1   | 24°31  | 5°42  | 2°32  | 1°29  | 4°12  | 5°51 | 28°23 | 19°5  | T 25 |
| W26  | 14 52 29 | 14°36'10 | 3°44  | 7°37  | 1°6   | 15°7   | 3°12  | 24°29  | 5°40  | 2°31  | 1°27  | 4°7   | 5°48 | 28°29 | 19°7  | W26  |
| T 27 | 14 56 26 | 15°34'00 | 17°50 | 9°44  | 2°13  | 15°1   | 3°23  | 24°26  | 5°37  | 2°29  | 1°26  | 4°4   | 5°45 | 28°36 | 19°10 | T 27 |
| F 28 | 15 0 22  | 16°31'49 | 1°28  | 11°51 | 3°19  | 14°54  | 3°34  | 24°24  | 5°35  | 2°28  | 1°25  | 4°D 3 | 5°42 | 28°43 | 19°12 | F 28 |
| S 29 | 15 4 19  | 17°29'37 | 14°41 | 14°0  | 4°27  | 14°46  | 3°46  | 24°23  | 5°33  | 2°26  | 1°24  | 4°3   | 5°38 | 28°49 | 19°15 | S 29 |
| S 30 | 15 8 15  | 18°27'23 | 27°29 | 16°10 | 5°34  | 14°37  | 3°57  | 24°21  | 5°31  | 2°25  | 1°23  | 4°2   | 5°35 | 28°56 | 19°17 | S 30 |

Delta T = 05m32s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1480

## geocentric

MAY 1480 JC

00:00 UT

| Day  | Sid.t    | ☉          | ☽        | ♀        | ♂        | ♂        | ♂       | ♂      | ♂       | ♂       | ♂       | ♂       | ♂       | ♂        | ♂        | Day  |
|------|----------|------------|----------|----------|----------|----------|---------|--------|---------|---------|---------|---------|---------|----------|----------|------|
| M 1  | 15 12 12 | 19°8'25"08 | 9°56'56  | 18°8'20  | 6°41'41  | 14°R28   | 4°8'8   | 24°R19 | 5°R28   | 2°R23   | 1°R22   | 4°6'6   | 5°32'32 | 29°3'3   | 19°19'19 | M 1  |
| T 2  | 15 16 8  | 20°22'52   | 22°7'7   | 20°31'7  | 7°48'48  | 14°R18   | 4°19'19 | 24°R17 | 5°R26   | 2°R22   | 1°R21   | 4°R6'6  | 5°29'29 | 29°10'10 | 19°21'21 | T 2  |
| W 3  | 15 20 5  | 21°20'35   | 4°4'4    | 22°43'43 | 8°56'56  | 14°7'7   | 4°31'31 | 24°R16 | 5°23'23 | 2°20'20 | 1°20'20 | 4°5'5   | 5°26'26 | 29°16'16 | 19°24'24 | W 3  |
| T 4  | 15 24 1  | 22°18'17   | 16°0'0   | 24°54'54 | 10°4'4   | 13°55'55 | 4°42'42 | 24°R14 | 5°21'21 | 2°19'19 | 1°19'19 | 4°2'2   | 5°23'23 | 29°23'23 | 19°26'26 | T 4  |
| F 5  | 15 27 58 | 23°15'58   | 27°52'52 | 27°5'5   | 11°11'11 | 13°43'43 | 4°54'54 | 24°R13 | 5°19'19 | 2°17'17 | 1°19'19 | 3°58'58 | 5°19'19 | 29°30'30 | 19°28'28 | F 5  |
| S 6  | 15 31 55 | 24°13'38   | 9°45'45  | 29°16'16 | 12°19'19 | 13°30'30 | 5°6'6   | 24°R12 | 5°16'16 | 2°15'15 | 1°18'18 | 3°52'52 | 5°16'16 | 29°36'36 | 19°30'30 | S 6  |
| S 7  | 15 35 51 | 25°11'16   | 21°44'44 | 1°II26   | 13°27'27 | 13°17'17 | 5°17'17 | 24°R11 | 5°14'14 | 2°14'14 | 1°17'17 | 3°45'45 | 5°13'13 | 29°43'43 | 19°32'32 | S 7  |
| M 8  | 15 39 48 | 26°8'54    | 3°8'51   | 3°35'35  | 14°35'35 | 13°3'3   | 5°29'29 | 24°R10 | 5°11'11 | 2°12'12 | 1°16'16 | 3°38'38 | 5°10'10 | 29°50'50 | 19°34'34 | M 8  |
| T 9  | 15 43 44 | 27°6'30    | 16°7'7   | 5°43'43  | 15°44'44 | 12°48'48 | 5°41'41 | 24°R9  | 5°9'9   | 2°10'10 | 1°15'15 | 3°32'32 | 5°7'7   | 29°57'57 | 19°36'36 | T 9  |
| W10  | 15 47 41 | 28°4'05    | 28°34'34 | 7°49'49  | 16°52'52 | 12°32'32 | 5°53'53 | 24°R8  | 5°7'7   | 2°9'9   | 1°15'15 | 3°27'27 | 5°3'3   | 0°4'4    | 19°37'37 | W10  |
| T 11 | 15 51 37 | 29°1'40    | 11°II12  | 9°53'53  | 18°0'0   | 12°16'16 | 6°5'5   | 24°R7  | 5°4'4   | 2°7'7   | 1°14'14 | 3°23'23 | 5°0'0   | 0°10'10  | 19°39'39 | T 11 |
| F 12 | 15 55 34 | 29°59'13   | 24°2'2   | 11°56'56 | 19°9'9   | 12°0'0   | 6°17'17 | 24°R7  | 5°2'2   | 2°6'6   | 1°13'13 | 3°21'21 | 4°57'57 | 0°17'17  | 19°41'41 | F 12 |
| S 13 | 15 59 30 | 0°II56'45  | 7°5'5    | 13°56'56 | 20°17'17 | 11°43'43 | 6°29'29 | 24°R6  | 4°59'59 | 2°4'4   | 1°13'13 | 3°D21   | 4°54'54 | 0°24'24  | 19°43'43 | S 13 |
| S 14 | 16 3 27  | 1°54'15    | 20°21'21 | 15°54'54 | 21°26'26 | 11°25'25 | 6°41'41 | 24°R6  | 4°57'57 | 2°2'2   | 1°12'12 | 3°22'22 | 4°51'51 | 0°30'30  | 19°44'44 | S 14 |
| M15  | 16 7 24  | 2°51'45    | 3°II49   | 17°50'50 | 22°35'35 | 11°8'8   | 6°53'53 | 24°R5  | 4°54'54 | 2°1'1   | 1°11'11 | 3°23'23 | 4°48'48 | 0°37'37  | 19°46'46 | M15  |
| T 16 | 16 11 20 | 3°49'13    | 17°32'32 | 19°43'43 | 23°43'43 | 10°49'49 | 7°6'6   | 24°R5  | 4°52'52 | 1°59'59 | 1°11'11 | 3°25'25 | 4°44'44 | 0°44'44  | 19°47'47 | T 16 |
| W17  | 16 15 17 | 4°46'39    | 1°II28   | 21°34'34 | 24°52'52 | 10°31'31 | 7°18'18 | 24°R5  | 4°49'49 | 1°58'58 | 1°10'10 | 3°R26   | 4°41'41 | 0°50'50  | 19°49'49 | W17  |
| T 18 | 16 19 13 | 5°44'05    | 15°37'37 | 23°22'22 | 26°1'1   | 10°12'12 | 7°30'30 | 24°D5  | 4°47'47 | 1°56'56 | 1°10'10 | 3°25'25 | 4°38'38 | 0°57'57  | 19°50'50 | T 18 |
| F 19 | 16 23 10 | 6°41'29    | 29°58'58 | 25°8'8   | 27°10'10 | 9°53'53  | 7°43'43 | 24°R5  | 4°44'44 | 1°54'54 | 1°9'9   | 3°24'24 | 4°35'35 | 1°4'4    | 19°52'52 | F 19 |
| S 20 | 16 27 6  | 7°38'51    | 14°II27  | 26°51'51 | 28°19'19 | 9°33'33  | 7°55'55 | 24°R5  | 4°42'42 | 1°53'53 | 1°9'9   | 3°21'21 | 4°32'32 | 1°11'11  | 19°53'53 | S 20 |
| S 21 | 16 31 3  | 8°36'13    | 29°0'0   | 28°31'31 | 29°29'29 | 9°14'14  | 8°8'8   | 24°R5  | 4°39'39 | 1°51'51 | 1°8'8   | 3°18'18 | 4°29'29 | 1°17'17  | 19°54'54 | S 21 |
| M22  | 16 34 59 | 9°33'34    | 13°II31  | 0°9'9    | 0°8'38   | 8°54'54  | 8°20'20 | 24°R6  | 4°37'37 | 1°49'49 | 1°8'8   | 3°15'15 | 4°25'25 | 1°24'24  | 19°56'56 | M22  |
| T 23 | 16 38 56 | 10°30'54   | 27°55'55 | 1°44'44  | 1°47'47  | 8°34'34  | 8°33'33 | 24°R6  | 4°34'34 | 1°48'48 | 1°8'8   | 3°12'12 | 4°22'22 | 1°31'31  | 19°57'57 | T 23 |
| W24  | 16 42 53 | 11°28'13   | 12°II5   | 3°16'16  | 2°57'57  | 8°15'15  | 8°45'45 | 24°R7  | 4°32'32 | 1°46'46 | 1°7'7   | 3°10'10 | 4°19'19 | 1°38'38  | 19°58'58 | W24  |
| T 25 | 16 46 49 | 12°25'31   | 25°56'56 | 4°45'45  | 4°6'6    | 7°55'55  | 8°58'58 | 24°R8  | 4°30'30 | 1°45'45 | 1°7'7   | 3°9'9   | 4°16'16 | 1°44'44  | 19°59'59 | T 25 |
| F 26 | 16 50 46 | 13°22'49   | 9°II27   | 6°11'11  | 5°16'16  | 7°35'35  | 9°11'11 | 24°R8  | 4°27'27 | 1°43'43 | 1°7'7   | 3°D9    | 4°13'13 | 1°51'51  | 20°0'0   | F 26 |
| S 27 | 16 54 42 | 14°20'06   | 22°37'37 | 7°35'35  | 6°25'25  | 7°15'15  | 9°23'23 | 24°R9  | 4°25'25 | 1°41'41 | 1°7'7   | 3°10'10 | 4°9'9   | 1°58'58  | 20°1'1   | S 27 |
| S 28 | 16 58 39 | 15°17'23   | 5°II25   | 8°56'56  | 7°35'35  | 6°56'56  | 9°36'36 | 24°R10 | 4°22'22 | 1°40'40 | 1°7'7   | 3°11'11 | 4°6'6   | 2°4'4    | 20°2'2   | S 28 |
| M29  | 17 2 35  | 16°14'39   | 17°54'54 | 10°14'14 | 8°45'45  | 6°36'36  | 9°49'49 | 24°R11 | 4°20'20 | 1°38'38 | 1°6'6   | 3°12'12 | 4°3'3   | 2°11'11  | 20°3'3   | M29  |
| T 30 | 17 6 32  | 17°11'54   | 0°II7    | 11°29'29 | 9°55'55  | 6°17'17  | 10°2'2  | 24°R13 | 4°17'17 | 1°37'37 | 1°6'6   | 3°13'13 | 4°0'0   | 2°18'18  | 20°4'4   | T 30 |
| W31  | 17 10 28 | 18°II9'10  | 12°II10  | 12°II41  | 11°II4   | 5°II58   | 10°II15 | 24°R14 | 4°15'15 | 1°35'35 | 1°II6   | 3°II14  | 3°II57  | 2°II25   | 20°II5   | W31  |

Delta T = 05m32s

Julian Calendar 1 May 1480 == Greg. Calendar 10 May 1480

JUNE 1480 JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀      | ♂     | ♂     | ♂     | ♂     | ♂     | ♂     | ♂     | ♂     | ♂    | ♂    | ♂      | Day  |
|------|----------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|------|
| T 1  | 17 14 25 | 19Ⅱ 6'25 | 24Ⅱ 5 | 13Ⅴ50  | 12Ⅱ14 | 5°R40 | 10Ⅴ28 | 24Ⅱ15 | 4°R13 | 1°R34 | 1°R 6 | 3°R14 | 3Ⅴ54 | 2Ⅱ31 | 20Ⅱ 5  | T 1  |
| F 2  | 17 18 22 | 20° 3'40 | 5Ⅱ58  | 14°55  | 13°24 | 5Ⅱ22  | 10°41 | 24°17 | 4Ⅱ10  | 1Ⅱ32  | 1°D 6 | 3Ⅴ13  | 3°50 | 2°38 | 20° 6  | F 2  |
| S 3  | 17 22 18 | 21° 0'54 | 17°54 | 15°58  | 14°35 | 5° 4  | 10°54 | 24°18 | 4° 8  | 1°31  | 1Ⅴ6   | 3°12  | 3°47 | 2°45 | 20° 7  | S 3  |
| S 4  | 17 26 15 | 21°58'09 | 29°55 | 16°57  | 15°45 | 4°46  | 11° 7 | 24°20 | 4° 6  | 1°29  | 1° 6  | 3°11  | 3°44 | 2°51 | 20° 7  | S 4  |
| M 5  | 17 30 11 | 22°55'23 | 12Ⅱ 7 | 17°53  | 16°55 | 4°29  | 11°20 | 24°22 | 4° 3  | 1°28  | 1° 6  | 3° 9  | 3°41 | 2°58 | 20° 8  | M 5  |
| T 6  | 17 34 8  | 23°52'37 | 24°32 | 18°45  | 18° 5 | 4°13  | 11°33 | 24°24 | 4° 1  | 1°26  | 1° 6  | 3° 8  | 3°38 | 3° 5 | 20° 8  | T 6  |
| W 7  | 17 38 4  | 24°49'51 | 7Ⅱ11  | 19°34  | 19°16 | 3°57  | 11°46 | 24°26 | 3°59  | 1°25  | 1° 7  | 3° 7  | 3°35 | 3°12 | 20° 9  | W 7  |
| T 8  | 17 42 1  | 25°47'05 | 20° 6 | 20°20  | 20°26 | 3°42  | 11°59 | 24°28 | 3°57  | 1°23  | 1° 7  | 3° 7  | 3°31 | 3°18 | 20° 9  | T 8  |
| F 9  | 17 45 57 | 26°44'18 | 3Ⅴ17  | 21° 1  | 21°37 | 3°27  | 12°12 | 24°30 | 3°54  | 1°22  | 1° 7  | 3°D 6 | 3°28 | 3°25 | 20° 9  | F 9  |
| S 10 | 17 49 54 | 27°41'32 | 16°44 | 21°38  | 22°47 | 3°13  | 12°26 | 24°32 | 3°52  | 1°20  | 1° 7  | 3° 7  | 3°25 | 3°32 | 20° 9  | S 10 |
| S 11 | 17 53 51 | 28°38'44 | 0Ⅱ24  | 22°12  | 23°58 | 3° 0  | 12°39 | 24°34 | 3°50  | 1°19  | 1° 8  | 3° 7  | 3°22 | 3°39 | 20°10  | S 11 |
| M12  | 17 57 47 | 29°35'57 | 14°16 | 22°41  | 25° 8 | 2°47  | 12°52 | 24°37 | 3°48  | 1°18  | 1° 8  | 3° 7  | 3°19 | 3°45 | 20°10  | M12  |
| T 13 | 18 1 44  | 0Ⅴ33'09  | 28°17 | 23° 6  | 26°19 | 2°35  | 13° 5 | 24°39 | 3°46  | 1°16  | 1° 8  | 3° 8  | 3°15 | 3°52 | 20°10  | T 13 |
| W14  | 18 5 40  | 1°30'21  | 12Ⅱ26 | 23°27  | 27°30 | 2°24  | 13°19 | 24°42 | 3°44  | 1°15  | 1° 9  | 3° 8  | 3°12 | 3°59 | 20°R10 | W14  |
| T 15 | 18 9 37  | 2°27'32  | 26°39 | 23°43  | 28°40 | 2°13  | 13°32 | 24°45 | 3°41  | 1°14  | 1° 9  | 3° 8  | 3° 9 | 4° 5 | 20°10  | T 15 |
| F 16 | 18 13 33 | 3°24'43  | 10Ⅴ54 | 23°55  | 29°51 | 2° 4  | 13°45 | 24°48 | 3°39  | 1°12  | 1°10  | 3° 8  | 3° 6 | 4°12 | 20°10  | F 16 |
| S 17 | 18 17 30 | 4°21'54  | 25° 8 | 24° 2  | 1Ⅱ 2  | 1°55  | 13°58 | 24°51 | 3°37  | 1°11  | 1°10  | 3° 8  | 3° 3 | 4°19 | 20°10  | S 17 |
| S 18 | 18 21 26 | 5°19'04  | 9Ⅱ18  | 24°R 4 | 2°13  | 1°47  | 14°12 | 24°54 | 3°35  | 1°10  | 1°11  | 3° 8  | 3° 0 | 4°26 | 20° 9  | S 18 |
| M19  | 18 25 23 | 6°16'14  | 23°23 | 24° 2  | 3°24  | 1°40  | 14°25 | 24°57 | 3°33  | 1° 8  | 1°11  | 3° 8  | 2°56 | 4°32 | 20° 9  | M19  |
| T 20 | 18 29 20 | 7°13'24  | 7Ⅱ18  | 23°55  | 4°35  | 1°33  | 14°39 | 25° 0 | 3°32  | 1° 7  | 1°12  | 3° 9  | 2°53 | 4°39 | 20° 9  | T 20 |
| W21  | 18 33 16 | 8°10'34  | 21° 2 | 23°43  | 5°46  | 1°28  | 14°52 | 25° 3 | 3°30  | 1° 6  | 1°12  | 3° 9  | 2°50 | 4°46 | 20° 8  | W21  |
| T 22 | 18 37 13 | 9° 7'44  | 4Ⅴ31  | 23°27  | 6°57  | 1°23  | 15° 5 | 25° 6 | 3°28  | 1° 5  | 1°13  | 3°R 9 | 2°47 | 4°53 | 20° 8  | T 22 |
| F 23 | 18 41 9  | 10° 4'55 | 17°45 | 23° 7  | 8° 9  | 1°19  | 15°19 | 25°10 | 3°26  | 1° 4  | 1°14  | 3° 9  | 2°44 | 4°59 | 20° 8  | F 23 |
| S 24 | 18 45 6  | 11° 2'05 | 0Ⅱ43  | 22°42  | 9°20  | 1°16  | 15°32 | 25°13 | 3°24  | 1° 2  | 1°14  | 3° 8  | 2°41 | 5° 6 | 20° 7  | S 24 |
| S 25 | 18 49 2  | 11°59'16 | 13°24 | 22°14  | 10°31 | 1°14  | 15°45 | 25°17 | 3°22  | 1° 1  | 1°15  | 3° 7  | 2°37 | 5°13 | 20° 6  | S 25 |
| M26  | 18 52 59 | 12°56'27 | 25°50 | 21°43  | 11°43 | 1°12  | 15°59 | 25°21 | 3°21  | 1° 0  | 1°16  | 3° 6  | 2°34 | 5°19 | 20° 6  | M26  |
| T 27 | 18 56 56 | 13°53'39 | 8Ⅱ 3  | 21° 8  | 12°54 | 1°D12 | 16°12 | 25°25 | 3°19  | 0°59  | 1°17  | 3° 5  | 2°31 | 5°26 | 20° 5  | T 27 |
| W28  | 19 0 52  | 14°50'51 | 20° 5 | 20°31  | 14° 5 | 1°12  | 16°26 | 25°28 | 3°17  | 0°58  | 1°18  | 3° 3  | 2°28 | 5°33 | 20° 4  | W28  |
| T 29 | 19 4 49  | 15°48'04 | 2Ⅱ 1  | 19°52  | 15°17 | 1°13  | 16°39 | 25°32 | 3°16  | 0°57  | 1°18  | 3° 2  | 2°25 | 5°40 | 20° 4  | T 29 |
| F 30 | 19 8 45  | 16°45'17 | 13Ⅱ54 | 19Ⅴ12  | 16Ⅱ29 | 1Ⅱ15  | 16Ⅴ52 | 25Ⅱ36 | 3Ⅱ14  | 0Ⅱ56  | 1Ⅴ19  | 3°D 2 | 2Ⅴ21 | 5Ⅱ46 | 20Ⅱ 3  | F 30 |

# ASTRODIENST EPHEMERIS for the year 1480

## geocentric

JULY 1480 JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽      | ♀      | ♂       | ♂    | ♂     | ♂     | ♂     | ♂     | ♂    | ♂     | ♂    | ♂    | ♂      | Day  |
|------|----------|----------|--------|--------|---------|------|-------|-------|-------|-------|------|-------|------|------|--------|------|
| S 1  | 19 12 42 | 17°42'31 | 25°50  | 18°R32 | 17°II40 | 1°18 | 17°6  | 25°40 | 3°R13 | 0°R55 | 1°20 | 3°2   | 2°18 | 5°53 | 20°R 2 | S 1  |
| S 2  | 19 16 38 | 18°39'46 | 7°52   | 17°52  | 18°52   | 1°22 | 17°19 | 25°45 | 3°11  | 0°54  | 1°21 | 3°3   | 2°15 | 6°0  | 20°1   | S 2  |
| M 3  | 19 20 35 | 19°37'01 | 20°5   | 17°12  | 20°4    | 1°26 | 17°33 | 25°49 | 3°10  | 0°53  | 1°22 | 3°4   | 2°12 | 6°6  | 20°0   | M 3  |
| T 4  | 19 24 31 | 20°34'18 | 2°II34 | 16°34  | 21°15   | 1°31 | 17°46 | 25°53 | 3°8   | 0°52  | 1°23 | 3°5   | 2°9  | 6°13 | 19°59  | T 4  |
| W 5  | 19 28 28 | 21°31'35 | 15°21  | 15°59  | 22°27   | 1°37 | 17°59 | 25°58 | 3°7   | 0°51  | 1°24 | 3°7   | 2°6  | 6°20 | 19°58  | W 5  |
| T 6  | 19 32 25 | 22°28'53 | 28°28  | 15°26  | 23°39   | 1°44 | 18°13 | 26°2  | 3°6   | 0°50  | 1°25 | 3°R 7 | 2°2  | 6°27 | 19°57  | T 6  |
| F 7  | 19 36 21 | 23°26'12 | 11°57  | 14°57  | 24°51   | 1°52 | 18°26 | 26°7  | 3°4   | 0°50  | 1°27 | 3°7   | 1°59 | 6°33 | 19°55  | F 7  |
| S 8  | 19 40 18 | 24°23'31 | 25°46  | 14°32  | 26°3    | 2°0  | 18°40 | 26°11 | 3°3   | 0°49  | 1°28 | 3°6   | 1°56 | 6°40 | 19°54  | S 8  |
| S 9  | 19 44 14 | 25°20'52 | 9°53   | 14°12  | 27°15   | 2°9  | 18°53 | 26°16 | 3°2   | 0°48  | 1°29 | 3°4   | 1°53 | 6°47 | 19°53  | S 9  |
| M10  | 19 48 11 | 26°18'12 | 24°13  | 13°56  | 28°27   | 2°19 | 19°6  | 26°21 | 3°1   | 0°47  | 1°30 | 3°1   | 1°50 | 6°54 | 19°51  | M10  |
| T 11 | 19 52 7  | 27°15'34 | 8°41   | 13°46  | 29°39   | 2°30 | 19°20 | 26°26 | 3°0   | 0°46  | 1°31 | 2°58  | 1°47 | 7°0  | 19°50  | T 11 |
| W12  | 19 56 4  | 28°12'55 | 23°10  | 13°D42 | 0°51    | 2°41 | 19°33 | 26°31 | 2°58  | 0°46  | 1°33 | 2°55  | 1°43 | 7°7  | 19°49  | W12  |
| T 13 | 20 0 0   | 29°10'18 | 7°37   | 13°44  | 2°4     | 2°53 | 19°46 | 26°36 | 2°57  | 0°45  | 1°34 | 2°52  | 1°40 | 7°14 | 19°47  | T 13 |
| F 14 | 20 3 57  | 0°740    | 21°56  | 13°52  | 3°16    | 3°6  | 20°0  | 26°41 | 2°56  | 0°44  | 1°35 | 2°51  | 1°37 | 7°20 | 19°46  | F 14 |
| S 15 | 20 7 54  | 1°5'04   | 6°5    | 14°6   | 4°28    | 3°19 | 20°13 | 26°46 | 2°56  | 0°44  | 1°37 | 2°D51 | 1°34 | 7°27 | 19°44  | S 15 |
| S 16 | 20 11 50 | 2°2'28   | 20°2   | 14°27  | 5°41    | 3°34 | 20°26 | 26°51 | 2°55  | 0°43  | 1°38 | 2°52  | 1°31 | 7°34 | 19°42  | S 16 |
| M17  | 20 15 47 | 2°59'53  | 3°46   | 14°53  | 6°53    | 3°49 | 20°39 | 26°56 | 2°54  | 0°43  | 1°39 | 2°53  | 1°27 | 7°41 | 19°41  | M17  |
| T 18 | 20 19 43 | 3°57'18  | 17°17  | 15°27  | 8°5     | 4°4  | 20°52 | 27°2  | 2°53  | 0°42  | 1°41 | 2°54  | 1°24 | 7°47 | 19°39  | T 18 |
| W19  | 20 23 40 | 4°54'44  | 0°36   | 16°7   | 9°18    | 4°20 | 21°6  | 27°7  | 2°52  | 0°42  | 1°42 | 2°R55 | 1°21 | 7°54 | 19°37  | W19  |
| T 20 | 20 27 36 | 5°52'12  | 13°42  | 16°53  | 10°30   | 4°37 | 21°19 | 27°12 | 2°52  | 0°41  | 1°44 | 2°55  | 1°18 | 8°1  | 19°35  | T 20 |
| F 21 | 20 31 33 | 6°49'40  | 26°35  | 17°45  | 11°43   | 4°55 | 21°32 | 27°18 | 2°51  | 0°41  | 1°45 | 2°53  | 1°15 | 8°8  | 19°34  | F 21 |
| S 22 | 20 35 29 | 7°47'09  | 9°16   | 18°43  | 12°56   | 5°13 | 21°45 | 27°23 | 2°50  | 0°40  | 1°47 | 2°49  | 1°12 | 8°14 | 19°32  | S 22 |
| S 23 | 20 39 26 | 8°44'39  | 21°45  | 19°48  | 14°8    | 5°31 | 21°58 | 27°29 | 2°50  | 0°40  | 1°48 | 2°44  | 1°8  | 8°21 | 19°30  | S 23 |
| M24  | 20 43 23 | 9°42'10  | 4°3    | 20°58  | 15°21   | 5°50 | 22°11 | 27°35 | 2°49  | 0°40  | 1°50 | 2°38  | 1°5  | 8°28 | 19°28  | M24  |
| T 25 | 20 47 19 | 10°39'42 | 16°11  | 22°14  | 16°34   | 6°10 | 22°24 | 27°41 | 2°49  | 0°39  | 1°52 | 2°31  | 1°2  | 8°34 | 19°26  | T 25 |
| W26  | 20 51 16 | 11°37'16 | 28°11  | 23°35  | 17°47   | 6°31 | 22°37 | 27°46 | 2°48  | 0°39  | 1°53 | 2°24  | 0°59 | 8°41 | 19°24  | W26  |
| T 27 | 20 55 12 | 12°34'51 | 10°5   | 25°1   | 19°0    | 6°51 | 22°50 | 27°52 | 2°48  | 0°39  | 1°55 | 2°19  | 0°56 | 8°48 | 19°22  | T 27 |
| F 28 | 20 59 9  | 13°32'28 | 21°57  | 26°32  | 20°13   | 7°13 | 23°3  | 27°58 | 2°48  | 0°39  | 1°57 | 2°15  | 0°53 | 8°55 | 19°20  | F 28 |
| S 29 | 21 3 5   | 14°30'06 | 3°51   | 28°8   | 21°26   | 7°35 | 23°16 | 28°4  | 2°48  | 0°38  | 1°58 | 2°12  | 0°49 | 9°1  | 19°17  | S 29 |
| S 30 | 21 7 2   | 15°27'46 | 15°51  | 29°48  | 22°39   | 7°57 | 23°29 | 28°10 | 2°47  | 0°38  | 2°0  | 2°D12 | 0°46 | 9°8  | 19°15  | S 30 |
| M31  | 21 10 58 | 16°25'27 | 28°2   | 1°32   | 23°52   | 8°20 | 23°42 | 28°16 | 2°47  | 0°38  | 2°2  | 2°D12 | 0°43 | 9°15 | 19°13  | M31  |

Delta T = 05m32s

Julian Calendar 1 July 1480 == Greg. Calendar 10 July 1480

AUGUST 1480 JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽       | ♀     | ♂     | ♂     | ♂     | ♂     | ♂     | ♂     | ♂    | ♂       | ♂       | ♂      | ♂      | Day  |
|------|----------|----------|---------|-------|-------|-------|-------|-------|-------|-------|------|---------|---------|--------|--------|------|
| T 1  | 21 14 55 | 17°23'10 | 10°II30 | 3°18  | 25°5  | 8°44  | 23°55 | 28°22 | 2°R47 | 0°R38 | 2°3  | 2°14    | 0°340   | 9°Y21  | 19°R11 | T 1  |
| W 2  | 21 18 52 | 18°20'55 | 23°17   | 5°8   | 26°18 | 9°8   | 24°7  | 28°28 | 2°D47 | 0°38  | 2°5  | 2°15    | 0°37    | 9°28   | 19°8   | W 2  |
| T 3  | 21 22 48 | 19°18'41 | 6°29    | 7°1   | 27°31 | 9°32  | 24°20 | 28°35 | 2°47  | 0°D38 | 2°7  | 2°R15   | 0°33    | 9°35   | 19°6   | T 3  |
| F 4  | 21 26 45 | 20°16'29 | 20°7    | 8°55  | 28°45 | 9°57  | 24°33 | 28°41 | 2°47  | 0°38  | 2°9  | 2°14    | 0°30    | 9°42   | 19°4   | F 4  |
| S 5  | 21 30 41 | 21°14'18 | 4°11    | 10°52 | 29°58 | 10°23 | 24°45 | 28°47 | 2°47  | 0°38  | 2°11 | 2°10    | 0°27    | 9°48   | 19°1   | S 5  |
| S 6  | 21 34 38 | 22°12'09 | 18°39   | 12°49 | 1°11  | 10°48 | 24°58 | 28°54 | 2°47  | 0°38  | 2°13 | 2°5     | 0°24    | 9°55   | 18°59  | S 6  |
| M 7  | 21 38 34 | 23°10'02 | 3°23    | 14°48 | 2°25  | 11°15 | 25°11 | 29°0  | 2°48  | 0°38  | 2°15 | 1°57    | 0°21    | 10°2   | 18°56  | M 7  |
| T 8  | 21 42 31 | 24°7'56  | 18°17   | 16°47 | 3°38  | 11°42 | 25°23 | 29°7  | 2°48  | 0°38  | 2°17 | 1°49    | 0°18    | 10°9   | 18°54  | T 8  |
| W 9  | 21 46 27 | 25°5'51  | 3°12    | 18°46 | 4°52  | 12°9  | 25°36 | 29°13 | 2°48  | 0°39  | 2°18 | 1°42    | 0°14    | 10°15  | 18°51  | W 9  |
| T 10 | 21 50 24 | 26°3'47  | 18°0    | 20°46 | 6°5   | 12°36 | 25°48 | 29°20 | 2°49  | 0°39  | 2°20 | 1°35    | 0°11    | 10°22  | 18°49  | T 10 |
| F 11 | 21 54 21 | 27°1'45  | 2°33    | 22°45 | 7°19  | 13°4  | 26°0  | 29°26 | 2°49  | 0°39  | 2°22 | 1°31    | 0°8     | 10°29  | 18°46  | F 11 |
| S 12 | 21 58 17 | 27°59'44 | 16°47   | 24°44 | 8°32  | 13°33 | 26°13 | 29°33 | 2°49  | 0°39  | 2°24 | 1°28    | 0°5     | 10°35  | 18°44  | S 12 |
| S 13 | 22 2 14  | 28°57'45 | 0°41    | 26°42 | 9°46  | 14°2  | 26°25 | 29°39 | 2°50  | 0°40  | 2°26 | 1°D28   | 0°2     | 10°42  | 18°41  | S 13 |
| M14  | 22 6 10  | 29°55'47 | 14°15   | 28°39 | 11°0  | 14°31 | 26°37 | 29°46 | 2°51  | 0°40  | 2°28 | 1°28    | 29°II58 | 10°49  | 18°39  | M14  |
| T 15 | 22 10 7  | 0°53'50  | 27°31   | 0°36  | 12°13 | 15°0  | 26°49 | 29°53 | 2°51  | 0°40  | 2°31 | 1°R29   | 29°55   | 10°56  | 18°36  | T 15 |
| W16  | 22 14 3  | 1°51'55  | 10°31   | 2°32  | 13°27 | 15°30 | 27°1  | 29°59 | 2°52  | 0°41  | 2°33 | 1°29    | 29°52   | 11°2   | 18°33  | W16  |
| T 17 | 22 18 0  | 2°50'01  | 23°17   | 4°27  | 14°41 | 16°1  | 27°13 | 0°16  | 2°53  | 0°41  | 2°35 | 1°27    | 29°49   | 11°9   | 18°31  | T 17 |
| F 18 | 22 21 56 | 3°48'09  | 5°52    | 6°21  | 15°55 | 16°31 | 27°25 | 0°13  | 2°53  | 0°42  | 2°37 | 1°22    | 29°46   | 11°16  | 18°28  | F 18 |
| S 19 | 22 25 53 | 4°46'19  | 18°17   | 8°13  | 17°9  | 17°2  | 27°37 | 0°20  | 2°54  | 0°42  | 2°39 | 1°15    | 29°43   | 11°22  | 18°25  | S 19 |
| S 20 | 22 29 50 | 5°44'29  | 0°33    | 10°5  | 18°23 | 17°34 | 27°49 | 0°27  | 2°55  | 0°43  | 2°41 | 1°5     | 29°39   | 11°29  | 18°22  | S 20 |
| M21  | 22 33 46 | 6°42'42  | 12°41   | 11°55 | 19°36 | 18°5  | 28°1  | 0°34  | 2°56  | 0°43  | 2°43 | 0°53    | 29°36   | 11°36  | 18°20  | M21  |
| T 22 | 22 37 43 | 7°40'57  | 24°42   | 13°44 | 20°50 | 18°37 | 28°13 | 0°41  | 2°57  | 0°44  | 2°45 | 0°41    | 29°33   | 11°43  | 18°17  | T 22 |
| W23  | 22 41 39 | 8°39'13  | 6°Y38   | 15°32 | 22°5  | 19°10 | 28°24 | 0°48  | 2°58  | 0°44  | 2°47 | 0°29    | 29°30   | 11°49  | 18°14  | W23  |
| T 24 | 22 45 36 | 9°37'31  | 18°30   | 17°19 | 23°19 | 19°42 | 28°36 | 0°55  | 2°59  | 0°45  | 2°50 | 0°18    | 29°27   | 11°56  | 18°11  | T 24 |
| F 25 | 22 49 32 | 10°35'51 | 0°21    | 19°5  | 24°33 | 20°15 | 28°47 | 1°2   | 3°0   | 0°46  | 2°52 | 0°9     | 29°24   | 12°3   | 18°9   | F 25 |
| S 26 | 22 53 29 | 11°34'14 | 12°13   | 20°50 | 25°47 | 20°48 | 28°59 | 1°9   | 3°1   | 0°46  | 2°54 | 0°3     | 29°20   | 12°10  | 18°6   | S 26 |
| S 27 | 22 57 25 | 12°32'38 | 24°11   | 22°33 | 27°1  | 21°22 | 29°10 | 1°16  | 3°3   | 0°47  | 2°56 | 29°II59 | 29°17   | 12°16  | 18°3   | S 27 |
| M28  | 23 1 22  | 13°31'05 | 6°II20  | 24°16 | 28°15 | 21°55 | 29°21 | 1°23  | 3°4   | 0°48  | 2°58 | 29°57   | 29°14   | 12°23  | 18°0   | M28  |
| T 29 | 23 5 18  | 14°29'34 | 18°43   | 25°57 | 29°30 | 22°29 | 29°33 | 1°30  | 3°5   | 0°49  | 3°1  | 29°D57  | 29°11   | 12°30  | 17°57  | T 29 |
| W30  | 23 9 15  | 15°28'05 | 1°27    | 27°37 | 0°44  | 23°4  | 29°44 | 1°38  | 3°7   | 0°50  | 3°3  | 29°R57  | 29°8    | 12°36  | 17°55  | W30  |
| T 31 | 23 13 12 | 16°26'38 | 14°35   | 29°17 | 1°58  | 23°38 | 29°55 | 1°45  | 3°8   | 0°51  | 3°5  | 29°II57 | 29°II 4 | 12°Y43 | 17°52  | T 31 |

Delta T = 05m31s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1480

## geocentric

SEPTEMBER 1480 JC

00:00 UT

| Day  | Sid.t    | ☉                      | ☽                   | ♀                     | ♂                   | ♂                   | ♂                  | ♂                  | ♂                  | ♂                  | ♂                  | ♂                     | ♂                     | ♂                   | ♂                   | Day  |
|------|----------|------------------------|---------------------|-----------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-----------------------|-----------------------|---------------------|---------------------|------|
| F 1  | 23 17 8  | 17 <sup>h</sup> 25'14" | 28 <sup>h</sup> 12' | 0 <sup>h</sup> 55'    | 3 <sup>h</sup> 13'  | 24 <sup>h</sup> 13' | 0 <sup>h</sup> 6'  | 1 <sup>h</sup> 52' | 3 <sup>h</sup> 10' | 0 <sup>h</sup> 51' | 3 <sup>h</sup> 7'  | 29 <sup>h</sup> R54   | 29 <sup>h</sup> II 1  | 12 <sup>h</sup> Y50 | 17 <sup>h</sup> R49 | F 1  |
| S 2  | 23 21 5  | 18 <sup>h</sup> 23'52" | 12 <sup>h</sup> 19' | 2 <sup>h</sup> 32'    | 4 <sup>h</sup> 27'  | 24 <sup>h</sup> 48' | 0 <sup>h</sup> 17' | 1 <sup>h</sup> 59' | 3 <sup>h</sup> 11' | 0 <sup>h</sup> 52' | 3 <sup>h</sup> 10' | 29 <sup>h</sup> II 49 | 28 <sup>h</sup> 58'   | 12 <sup>h</sup> 57' | 17 <sup>h</sup> X46 | S 2  |
| S 3  | 23 25 1  | 19 <sup>h</sup> 22'31" | 26 <sup>h</sup> 53' | 4 <sup>h</sup> 8'     | 5 <sup>h</sup> 41'  | 25 <sup>h</sup> 23' | 0 <sup>h</sup> 27' | 2 <sup>h</sup> 6'  | 3 <sup>h</sup> 13' | 0 <sup>h</sup> 53' | 3 <sup>h</sup> 12' | 29 <sup>h</sup> 41'   | 28 <sup>h</sup> 55'   | 13 <sup>h</sup> 3'  | 17 <sup>h</sup> 43' | S 3  |
| M 4  | 23 28 58 | 20 <sup>h</sup> 21'13" | 11 <sup>h</sup> 50' | 5 <sup>h</sup> 43'    | 6 <sup>h</sup> 56'  | 25 <sup>h</sup> 59' | 0 <sup>h</sup> 38' | 2 <sup>h</sup> 14' | 3 <sup>h</sup> 14' | 0 <sup>h</sup> 54' | 3 <sup>h</sup> 14' | 29 <sup>h</sup> 31'   | 28 <sup>h</sup> 52'   | 13 <sup>h</sup> 10' | 17 <sup>h</sup> 40' | M 4  |
| T 5  | 23 32 54 | 21 <sup>h</sup> 19'57" | 27 <sup>h</sup> 2'  | 7 <sup>h</sup> 18'    | 8 <sup>h</sup> 10'  | 26 <sup>h</sup> 35' | 0 <sup>h</sup> 49' | 2 <sup>h</sup> 21' | 3 <sup>h</sup> 16' | 0 <sup>h</sup> 55' | 3 <sup>h</sup> 17' | 29 <sup>h</sup> 20'   | 28 <sup>h</sup> 49'   | 13 <sup>h</sup> 17' | 17 <sup>h</sup> 38' | T 5  |
| W 6  | 23 36 51 | 22 <sup>h</sup> 18'43" | 12 <sup>h</sup> 17' | 8 <sup>h</sup> 51'    | 9 <sup>h</sup> 25'  | 27 <sup>h</sup> 11' | 0 <sup>h</sup> 59' | 2 <sup>h</sup> 28' | 3 <sup>h</sup> 18' | 0 <sup>h</sup> 56' | 3 <sup>h</sup> 19' | 29 <sup>h</sup> 9'    | 28 <sup>h</sup> 45'   | 13 <sup>h</sup> 23' | 17 <sup>h</sup> 35' | W 6  |
| T 7  | 23 40 47 | 23 <sup>h</sup> 17'30" | 27 <sup>h</sup> 24' | 10 <sup>h</sup> 23'   | 10 <sup>h</sup> 40' | 27 <sup>h</sup> 47' | 1 <sup>h</sup> 10' | 2 <sup>h</sup> 36' | 3 <sup>h</sup> 19' | 0 <sup>h</sup> 58' | 3 <sup>h</sup> 21' | 29 <sup>h</sup> 0'    | 28 <sup>h</sup> 42'   | 13 <sup>h</sup> 30' | 17 <sup>h</sup> 32' | T 7  |
| F 8  | 23 44 44 | 24 <sup>h</sup> 16'20" | 12 <sup>h</sup> 15' | 11 <sup>h</sup> 54'   | 11 <sup>h</sup> 54' | 28 <sup>h</sup> 24' | 1 <sup>h</sup> 20' | 2 <sup>h</sup> 43' | 3 <sup>h</sup> 21' | 0 <sup>h</sup> 59' | 3 <sup>h</sup> 24' | 28 <sup>h</sup> 53'   | 28 <sup>h</sup> 39'   | 13 <sup>h</sup> 37' | 17 <sup>h</sup> 29' | F 8  |
| S 9  | 23 48 41 | 25 <sup>h</sup> 15'11" | 26 <sup>h</sup> 42' | 13 <sup>h</sup> 25'   | 13 <sup>h</sup> 9'  | 29 <sup>h</sup> 0'  | 1 <sup>h</sup> 30' | 2 <sup>h</sup> 50' | 3 <sup>h</sup> 23' | 1 <sup>h</sup> 0'  | 3 <sup>h</sup> 26' | 28 <sup>h</sup> 48'   | 28 <sup>h</sup> 36'   | 13 <sup>h</sup> 44' | 17 <sup>h</sup> 26' | S 9  |
| S 10 | 23 52 37 | 26 <sup>h</sup> 14'04" | 10 <sup>h</sup> 43' | 14 <sup>h</sup> 54'   | 14 <sup>h</sup> 23' | 29 <sup>h</sup> 37' | 1 <sup>h</sup> 41' | 2 <sup>h</sup> 57' | 3 <sup>h</sup> 25' | 1 <sup>h</sup> 1'  | 3 <sup>h</sup> 28' | 28 <sup>h</sup> 46'   | 28 <sup>h</sup> 33'   | 13 <sup>h</sup> 50' | 17 <sup>h</sup> 24' | S 10 |
| M 11 | 23 56 34 | 27 <sup>h</sup> 12'59" | 24 <sup>h</sup> 18' | 16 <sup>h</sup> 23'   | 15 <sup>h</sup> 38' | 0 <sup>h</sup> 14'  | 1 <sup>h</sup> 51' | 3 <sup>h</sup> 5'  | 3 <sup>h</sup> 27' | 1 <sup>h</sup> 2'  | 3 <sup>h</sup> 30' | 28 <sup>h</sup> 46'   | 28 <sup>h</sup> 30'   | 13 <sup>h</sup> 57' | 17 <sup>h</sup> 21' | M 11 |
| T 12 | 0 0 30   | 28 <sup>h</sup> 11'56" | 7 <sup>h</sup> 30'  | 17 <sup>h</sup> 50'   | 16 <sup>h</sup> 53' | 0 <sup>h</sup> 52'  | 2 <sup>h</sup> 1'  | 3 <sup>h</sup> 12' | 3 <sup>h</sup> 29' | 1 <sup>h</sup> 3'  | 3 <sup>h</sup> 33' | 28 <sup>h</sup> 46'   | 28 <sup>h</sup> 26'   | 14 <sup>h</sup> 4'  | 17 <sup>h</sup> 18' | T 12 |
| W 13 | 0 4 27   | 29 <sup>h</sup> 10'54" | 20 <sup>h</sup> 22' | 19 <sup>h</sup> 16'   | 18 <sup>h</sup> 8'  | 1 <sup>h</sup> 29'  | 2 <sup>h</sup> 10' | 3 <sup>h</sup> 19' | 3 <sup>h</sup> 31' | 1 <sup>h</sup> 5'  | 3 <sup>h</sup> 35' | 28 <sup>h</sup> 45'   | 28 <sup>h</sup> 23'   | 14 <sup>h</sup> 10' | 17 <sup>h</sup> 15' | W 13 |
| T 14 | 0 8 23   | 0 <sup>h</sup> 9'54"   | 2 <sup>h</sup> 57'  | 20 <sup>h</sup> 42'   | 19 <sup>h</sup> 22' | 2 <sup>h</sup> 7'   | 2 <sup>h</sup> 20' | 3 <sup>h</sup> 27' | 3 <sup>h</sup> 33' | 1 <sup>h</sup> 6'  | 3 <sup>h</sup> 37' | 28 <sup>h</sup> 42'   | 28 <sup>h</sup> 20'   | 14 <sup>h</sup> 17' | 17 <sup>h</sup> 13' | T 14 |
| F 15 | 0 12 20  | 1 <sup>h</sup> 8'56"   | 15 <sup>h</sup> 19' | 22 <sup>h</sup> 6'    | 20 <sup>h</sup> 37' | 2 <sup>h</sup> 45'  | 2 <sup>h</sup> 30' | 3 <sup>h</sup> 34' | 3 <sup>h</sup> 35' | 1 <sup>h</sup> 7'  | 3 <sup>h</sup> 40' | 28 <sup>h</sup> 36'   | 28 <sup>h</sup> 17'   | 14 <sup>h</sup> 24' | 17 <sup>h</sup> 10' | F 15 |
| S 16 | 0 16 16  | 2 <sup>h</sup> 8'00"   | 27 <sup>h</sup> 31' | 23 <sup>h</sup> 30'   | 21 <sup>h</sup> 52' | 3 <sup>h</sup> 23'  | 2 <sup>h</sup> 39' | 3 <sup>h</sup> 42' | 3 <sup>h</sup> 37' | 1 <sup>h</sup> 9'  | 3 <sup>h</sup> 42' | 28 <sup>h</sup> 28'   | 28 <sup>h</sup> 14'   | 14 <sup>h</sup> 31' | 17 <sup>h</sup> 7'  | S 16 |
| S 17 | 0 20 13  | 3 <sup>h</sup> 7'05"   | 9 <sup>h</sup> 36'  | 24 <sup>h</sup> 52'   | 23 <sup>h</sup> 7'  | 4 <sup>h</sup> 1'   | 2 <sup>h</sup> 49' | 3 <sup>h</sup> 49' | 3 <sup>h</sup> 40' | 1 <sup>h</sup> 10' | 3 <sup>h</sup> 45' | 28 <sup>h</sup> 16'   | 28 <sup>h</sup> 10'   | 14 <sup>h</sup> 37' | 17 <sup>h</sup> 5'  | S 17 |
| M 18 | 0 24 10  | 4 <sup>h</sup> 6'13"   | 21 <sup>h</sup> 36' | 26 <sup>h</sup> 13'   | 24 <sup>h</sup> 22' | 4 <sup>h</sup> 40'  | 2 <sup>h</sup> 58' | 3 <sup>h</sup> 56' | 3 <sup>h</sup> 42' | 1 <sup>h</sup> 11' | 3 <sup>h</sup> 47' | 28 <sup>h</sup> 3'    | 28 <sup>h</sup> 7'    | 14 <sup>h</sup> 44' | 17 <sup>h</sup> 2'  | M 18 |
| T 19 | 0 28 6   | 5 <sup>h</sup> 5'22"   | 3 <sup>h</sup> Y31  | 27 <sup>h</sup> 33'   | 25 <sup>h</sup> 36' | 5 <sup>h</sup> 19'  | 3 <sup>h</sup> 7'  | 4 <sup>h</sup> 4'  | 3 <sup>h</sup> 44' | 1 <sup>h</sup> 13' | 3 <sup>h</sup> 49' | 27 <sup>h</sup> 49'   | 28 <sup>h</sup> 4'    | 14 <sup>h</sup> 51' | 16 <sup>h</sup> 59' | T 19 |
| W 20 | 0 32 3   | 6 <sup>h</sup> 4'34"   | 15 <sup>h</sup> 24' | 28 <sup>h</sup> 52'   | 26 <sup>h</sup> 51' | 5 <sup>h</sup> 57'  | 3 <sup>h</sup> 17' | 4 <sup>h</sup> 11' | 3 <sup>h</sup> 46' | 1 <sup>h</sup> 14' | 3 <sup>h</sup> 52' | 27 <sup>h</sup> 34'   | 28 <sup>h</sup> 1'    | 14 <sup>h</sup> 57' | 16 <sup>h</sup> 57' | W 20 |
| T 21 | 0 35 59  | 7 <sup>h</sup> 3'48"   | 27 <sup>h</sup> 16' | 0 <sup>h</sup> 10'10" | 28 <sup>h</sup> 6'  | 6 <sup>h</sup> 36'  | 3 <sup>h</sup> 26' | 4 <sup>h</sup> 18' | 3 <sup>h</sup> 49' | 1 <sup>h</sup> 16' | 3 <sup>h</sup> 54' | 27 <sup>h</sup> 22'   | 27 <sup>h</sup> 58'   | 15 <sup>h</sup> 4'  | 16 <sup>h</sup> 54' | T 21 |
| F 22 | 0 39 56  | 8 <sup>h</sup> 3'03"   | 9 <sup>h</sup> X8   | 1 <sup>h</sup> 26'    | 29 <sup>h</sup> 21' | 7 <sup>h</sup> 16'  | 3 <sup>h</sup> 34' | 4 <sup>h</sup> 26' | 3 <sup>h</sup> 51' | 1 <sup>h</sup> 17' | 3 <sup>h</sup> 56' | 27 <sup>h</sup> 11'   | 27 <sup>h</sup> 55'   | 15 <sup>h</sup> 11' | 16 <sup>h</sup> 51' | F 22 |
| S 23 | 0 43 52  | 9 <sup>h</sup> 2'22"   | 21 <sup>h</sup> 2'  | 2 <sup>h</sup> 41'    | 0 <sup>h</sup> 536  | 7 <sup>h</sup> 55'  | 3 <sup>h</sup> 43' | 4 <sup>h</sup> 33' | 3 <sup>h</sup> 54' | 1 <sup>h</sup> 19' | 3 <sup>h</sup> 59' | 27 <sup>h</sup> 3'    | 27 <sup>h</sup> 51'   | 15 <sup>h</sup> 18' | 16 <sup>h</sup> 49' | S 23 |
| S 24 | 0 47 49  | 10 <sup>h</sup> 1'42"  | 3 <sup>h</sup> II 2 | 3 <sup>h</sup> 54'    | 1 <sup>h</sup> 51'  | 8 <sup>h</sup> 34'  | 3 <sup>h</sup> 52' | 4 <sup>h</sup> 40' | 3 <sup>h</sup> 56' | 1 <sup>h</sup> 20' | 4 <sup>h</sup> 1'  | 26 <sup>h</sup> 58'   | 27 <sup>h</sup> 48'   | 15 <sup>h</sup> 24' | 16 <sup>h</sup> 46' | S 24 |
| M 25 | 0 51 45  | 11 <sup>h</sup> 1'05"  | 15 <sup>h</sup> 11' | 5 <sup>h</sup> 6'     | 3 <sup>h</sup> 6'   | 9 <sup>h</sup> 14'  | 4 <sup>h</sup> 0'  | 4 <sup>h</sup> 48' | 3 <sup>h</sup> 59' | 1 <sup>h</sup> 22' | 4 <sup>h</sup> 3'  | 26 <sup>h</sup> 56'   | 27 <sup>h</sup> 45'   | 15 <sup>h</sup> 31' | 16 <sup>h</sup> 44' | M 25 |
| T 26 | 0 55 42  | 12 <sup>h</sup> 0'30"  | 27 <sup>h</sup> 33' | 6 <sup>h</sup> 16'    | 4 <sup>h</sup> 21'  | 9 <sup>h</sup> 54'  | 4 <sup>h</sup> 9'  | 4 <sup>h</sup> 55' | 4 <sup>h</sup> 1'  | 1 <sup>h</sup> 24' | 4 <sup>h</sup> 6'  | 26 <sup>h</sup> D56   | 27 <sup>h</sup> 42'   | 15 <sup>h</sup> 38' | 16 <sup>h</sup> 41' | T 26 |
| W 27 | 0 59 39  | 12 <sup>h</sup> 59'57" | 10 <sup>h</sup> 513 | 7 <sup>h</sup> 24'    | 5 <sup>h</sup> 36'  | 10 <sup>h</sup> 34' | 4 <sup>h</sup> 17' | 5 <sup>h</sup> 2'  | 4 <sup>h</sup> 4'  | 1 <sup>h</sup> 25' | 4 <sup>h</sup> 8'  | 26 <sup>h</sup> R56   | 27 <sup>h</sup> 39'   | 15 <sup>h</sup> 44' | 16 <sup>h</sup> 39' | W 27 |
| T 28 | 1 3 35   | 13 <sup>h</sup> 59'27" | 23 <sup>h</sup> 15' | 8 <sup>h</sup> 30'    | 6 <sup>h</sup> 51'  | 11 <sup>h</sup> 14' | 4 <sup>h</sup> 25' | 5 <sup>h</sup> 10' | 4 <sup>h</sup> 6'  | 1 <sup>h</sup> 27' | 4 <sup>h</sup> 10' | 26 <sup>h</sup> 56'   | 27 <sup>h</sup> 35'   | 15 <sup>h</sup> 51' | 16 <sup>h</sup> 36' | T 28 |
| F 29 | 1 7 32   | 14 <sup>h</sup> 58'59" | 6 <sup>h</sup> 144  | 9 <sup>h</sup> 34'    | 8 <sup>h</sup> 6'   | 11 <sup>h</sup> 54' | 4 <sup>h</sup> 33' | 5 <sup>h</sup> 17' | 4 <sup>h</sup> 9'  | 1 <sup>h</sup> 29' | 4 <sup>h</sup> 12' | 26 <sup>h</sup> 54'   | 27 <sup>h</sup> 32'   | 15 <sup>h</sup> 58' | 16 <sup>h</sup> 34' | F 29 |
| S 30 | 1 11 28  | 15 <sup>h</sup> 58'33" | 20 <sup>h</sup> 143 | 10 <sup>h</sup> 135   | 9 <sup>h</sup> 522  | 12 <sup>h</sup> 334 | 4 <sup>h</sup> 141 | 5 <sup>h</sup> 24  | 4 <sup>h</sup> 12  | 1 <sup>h</sup> 30  | 4 <sup>h</sup> 15  | 26 <sup>h</sup> II 50 | 27 <sup>h</sup> II 29 | 16 <sup>h</sup> Y 5 | 16 <sup>h</sup> X32 | S 30 |

Delta T = 05m31s

Julian Calendar 1 Sept. 1480 == Greg. Calendar 10 Sept. 1480

OCTOBER 1480 JC

00:00 UT

| Day  | Sid.t   | ☉                       | ☽                   | ♀                   | ♀                   | ♂                  | ♂                  | ♂                  | ♂                  | ♂                  | ♂                  | ♂                    | ♂                    | ♂                   | ♂                   | Day  |
|------|---------|-------------------------|---------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|---------------------|---------------------|------|
| S 1  | 1 15 25 | 16 <sup>h</sup> 58'10   | 5 <sup>h</sup> 10   | 11 <sup>h</sup> 34  | 10 <sup>h</sup> 37  | 13 <sup>h</sup> 15 | 4 <sup>h</sup> 49  | 5 <sup>h</sup> 32  | 4 <sup>h</sup> 15  | 1 <sup>h</sup> 32  | 4 <sup>h</sup> 17  | 26 <sup>h</sup> R43  | 27 <sup>h</sup> II26 | 16 <sup>h</sup> Y11 | 16 <sup>h</sup> R29 | S 1  |
| M 2  | 1 19 21 | 17 <sup>h</sup> 57'48   | 20° 3               | 12°29               | 11°52               | 13°55              | 4°57               | 5°39               | 4°17               | 1°34               | 4°19               | 26 <sup>h</sup> II34 | 27°23                | 16°18               | 16 <sup>h</sup> X27 | M 2  |
| T 3  | 1 23 18 | 18 <sup>h</sup> 57'29   | 5 <sup>h</sup> 15   | 13°22               | 13° 7               | 14°36              | 5° 4               | 5°46               | 4°20               | 1°35               | 4°22               | 26°24                | 27°20                | 16°25               | 16°25               | T 3  |
| W 4  | 1 27 14 | 19 <sup>h</sup> 57'12   | 20 <sup>h</sup> 35  | 14°11               | 14°22               | 15°17              | 5°11               | 5°53               | 4°23               | 1°37               | 4°24               | 26°14                | 27°16                | 16°31               | 16°22               | W 4  |
| T 5  | 1 31 11 | 20 <sup>h</sup> 56'58   | 5 <sup>h</sup> 15.1 | 14°56               | 15°37               | 15°58              | 5°19               | 6° 1               | 4°26               | 1°39               | 4°26               | 26° 5                | 27°13                | 16°38               | 16°20               | T 5  |
| F 6  | 1 35 7  | 21 <sup>h</sup> 56'45   | 20°54               | 15°36               | 16°53               | 16°39              | 5°26               | 6° 8               | 4°29               | 1°41               | 4°29               | 25°58                | 27°10                | 16°45               | 16°18               | F 6  |
| S 7  | 1 39 4  | 22 <sup>h</sup> 56'34   | 5 <sup>h</sup> 13.4 | 16°12               | 18° 8               | 17°20              | 5°33               | 6°15               | 4°32               | 1°43               | 4°31               | 25°54                | 27° 7                | 16°52               | 16°16               | S 7  |
| S 8  | 1 43 1  | 23 <sup>h</sup> 56'24   | 19°47               | 16°42               | 19°23               | 18° 1              | 5°39               | 6°22               | 4°35               | 1°45               | 4°33               | 25°D53               | 27° 4                | 16°58               | 16°14               | S 8  |
| M 9  | 1 46 57 | 24 <sup>h</sup> 56'17   | 3 <sup>h</sup> 32   | 17° 7               | 20°38               | 18°43              | 5°46               | 6°29               | 4°38               | 1°46               | 4°35               | 25°53                | 27° 1                | 17° 5               | 16°12               | M 9  |
| T 10 | 1 50 54 | 25 <sup>h</sup> 56'11   | 16°49               | 17°25               | 21°53               | 19°24              | 5°52               | 6°36               | 4°41               | 1°48               | 4°37               | 25°53                | 26°57                | 17°12               | 16°10               | T 10 |
| W 11 | 1 54 50 | 26 <sup>h</sup> 56'07   | 29°42               | 17°36               | 23° 9               | 20° 6              | 5°59               | 6°43               | 4°44               | 1°50               | 4°40               | 25°R54               | 26°54                | 17°19               | 16° 8               | W 11 |
| T 12 | 1 58 47 | 27 <sup>h</sup> 56'04   | 12 <sup>h</sup> 14  | 17 <sup>h</sup> R39 | 24°24               | 20°48              | 6° 5               | 6°50               | 4°47               | 1°52               | 4°42               | 25°52                | 26°51                | 17°25               | 16° 6               | T 12 |
| F 13 | 2 2 43  | 28 <sup>h</sup> 56'03   | 24°32               | 17°34               | 25°39               | 21°30              | 6°11               | 6°57               | 4°50               | 1°54               | 4°44               | 25°49                | 26°48                | 17°32               | 16° 4               | F 13 |
| S 14 | 2 6 40  | 29 <sup>h</sup> 56'04   | 6 <sup>h</sup> X38  | 17°20               | 26°55               | 22°12              | 6°17               | 7° 4               | 4°53               | 1°56               | 4°46               | 25°43                | 26°45                | 17°39               | 16° 2               | S 14 |
| S 15 | 2 10 36 | 0 <sup>h</sup> 156'06   | 18°37               | 16°57               | 28°10               | 22°54              | 6°22               | 7°11               | 4°56               | 1°58               | 4°48               | 25°35                | 26°41                | 17°45               | 16° 0               | S 15 |
| M 16 | 2 14 33 | 1°56'11                 | 0 <sup>h</sup> Y31  | 16°24               | 29°25               | 23°36              | 6°28               | 7°18               | 5° 0               | 2° 0               | 4°51               | 25°26                | 26°38                | 17°52               | 15°59               | M 16 |
| T 17 | 2 18 30 | 2°56'16                 | 12°23               | 15°42               | 0 <sup>h</sup> 140  | 24°18              | 6°33               | 7°25               | 5° 3               | 2° 2               | 4°53               | 25°15                | 26°35                | 17°59               | 15°57               | T 17 |
| W 18 | 2 22 26 | 3°56'24                 | 24°15               | 14°50               | 1°56                | 25° 0              | 6°39               | 7°32               | 5° 6               | 2° 4               | 4°55               | 25° 5                | 26°32                | 18° 5               | 15°55               | W 18 |
| T 19 | 2 26 23 | 4°56'33                 | 6 <sup>h</sup> 9    | 13°50               | 3°11                | 25°43              | 6°44               | 7°39               | 5° 9               | 2° 6               | 4°57               | 24°55                | 26°29                | 18°12               | 15°54               | T 19 |
| F 20 | 2 30 19 | 5°56'44                 | 18° 6               | 12°43               | 4°26                | 26°25              | 6°49               | 7°46               | 5°13               | 2° 8               | 4°59               | 24°48                | 26°26                | 18°19               | 15°52               | F 20 |
| S 21 | 2 34 16 | 6°56'57                 | 0 <sup>h</sup> II 7 | 11°29               | 5°42                | 27° 8              | 6°53               | 7°53               | 5°16               | 2°10               | 5° 1               | 24°42                | 26°22                | 18°26               | 15°51               | S 21 |
| S 22 | 2 38 12 | 7°57'12                 | 12°15               | 10°11               | 6°57                | 27°50              | 6°58               | 7°59               | 5°19               | 2°12               | 5° 3               | 24°39                | 26°19                | 18°32               | 15°49               | S 22 |
| M 23 | 2 42 9  | 8°57'29                 | 24°32               | 8°52                | 8°12                | 28°33              | 7° 2               | 8° 6               | 5°23               | 2°15               | 5° 5               | 24°D38               | 26°16                | 18°39               | 15°48               | M 23 |
| T 24 | 2 46 5  | 9°57'48                 | 7 <sup>h</sup> 0    | 7°33                | 9°28                | 29°16              | 7° 6               | 8°13               | 5°26               | 2°17               | 5° 7               | 24°39                | 26°13                | 18°46               | 15°46               | T 24 |
| W 25 | 2 50 2  | 10°58'09                | 19°44               | 6°17                | 10°43               | 29°59              | 7°10               | 8°19               | 5°30               | 2°19               | 5° 9               | 24°40                | 26°10                | 18°52               | 15°45               | W 25 |
| T 26 | 2 53 59 | 11°58'32                | 2 <sup>h</sup> 146  | 5° 8                | 11°59               | 0 <sup>h</sup> 141 | 7°14               | 8°26               | 5°33               | 2°21               | 5°11               | 24°42                | 26° 7                | 18°59               | 15°44               | T 26 |
| F 27 | 2 57 55 | 12°58'57                | 16° 9               | 4° 6                | 13°14               | 1°24               | 7°18               | 8°32               | 5°36               | 2°23               | 5°13               | 24°R42               | 26° 3                | 19° 6               | 15°43               | F 27 |
| S 28 | 3 1 52  | 13°59'24                | 29°57               | 3°13                | 14°29               | 2° 7               | 7°21               | 8°39               | 5°40               | 2°25               | 5°15               | 24°41                | 26° 0                | 19°13               | 15°42               | S 28 |
| S 29 | 3 5 48  | 14°59'52                | 14 <sup>h</sup> 9   | 2°32                | 15°45               | 2°51               | 7°25               | 8°45               | 5°43               | 2°27               | 5°17               | 24°38                | 25°57                | 19°19               | 15°40               | S 29 |
| M 30 | 3 9 45  | 16° 0'23                | 28°45               | 2° 2                | 17° 0               | 3°34               | 7°28               | 8°52               | 5°47               | 2°30               | 5°19               | 24°33                | 25°54                | 19°26               | 15°39               | M 30 |
| T 31 | 3 13 41 | 17 <sup>h</sup> 11 0'55 | 13 <sup>h</sup> 140 | 1 <sup>h</sup> 144  | 18 <sup>h</sup> 116 | 4 <sup>h</sup> 117 | 7 <sup>h</sup> 131 | 8 <sup>h</sup> 158 | 5 <sup>h</sup> 150 | 2 <sup>h</sup> 132 | 5 <sup>h</sup> 121 | 24 <sup>h</sup> II28 | 25 <sup>h</sup> II51 | 19 <sup>h</sup> Y33 | 15 <sup>h</sup> X38 | T 31 |

ASTRODIENST EPHEMERIS for the year 1480  
geocentric

NOVEMBER 1480 JC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀     | ♂     | ♂     | ♂     | ♂     | ♂    | ♂    | ♂    | ♂      | ♂     | ♂     | ♂      | Day  |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|------|------|--------|-------|-------|--------|------|
| W 1  | 3 17 38 | 18♌ 1'29 | 28♌46 | 1°D37 | 19♌31 | 5≈ 0  | 7♌33  | 9♌ 4  | 5♌54 | 2♌34 | 5♌23 | 24°R22 | 25♌47 | 19♌39 | 15°R37 | W 1  |
| T 2  | 3 21 34 | 19° 2'05 | 13♌54 | 1♌42  | 20°46 | 5°44  | 7°36  | 9°10  | 5°58 | 2°36 | 5°24 | 24♌17  | 25°44 | 19°46 | 15°K37 | T 2  |
| F 3  | 3 25 31 | 20° 2'42 | 28°54 | 1°57  | 22° 2 | 6°27  | 7°38  | 9°17  | 6° 1 | 2°38 | 5°26 | 24°13  | 25°41 | 19°53 | 15°36  | F 3  |
| S 4  | 3 29 28 | 21° 3'21 | 13♌37 | 2°21  | 23°17 | 7°10  | 7°41  | 9°23  | 6° 5 | 2°41 | 5°28 | 24°11  | 25°38 | 20° 0 | 15°35  | S 4  |
| S 5  | 3 33 24 | 22° 4'01 | 27°57 | 2°54  | 24°33 | 7°54  | 7°43  | 9°29  | 6° 8 | 2°43 | 5°30 | 24°D11 | 25°35 | 20° 6 | 15°34  | S 5  |
| M 6  | 3 37 21 | 23° 4'43 | 11♌50 | 3°35  | 25°48 | 8°37  | 7°44  | 9°35  | 6°12 | 2°45 | 5°32 | 24°12  | 25°32 | 20°13 | 15°34  | M 6  |
| T 7  | 3 41 17 | 24° 5'26 | 25°15 | 4°24  | 27° 4 | 9°21  | 7°46  | 9°41  | 6°15 | 2°47 | 5°33 | 24°13  | 25°28 | 20°20 | 15°33  | T 7  |
| W 8  | 3 45 14 | 25° 6'09 | 8≈15  | 5°18  | 28°19 | 10° 5 | 7°47  | 9°47  | 6°19 | 2°50 | 5°35 | 24°15  | 25°25 | 20°26 | 15°32  | W 8  |
| T 9  | 3 49 10 | 26° 6'54 | 20°53 | 6°17  | 29°34 | 10°48 | 7°49  | 9°53  | 6°23 | 2°52 | 5°37 | 24°R16 | 25°22 | 20°33 | 15°32  | T 9  |
| F 10 | 3 53 7  | 27° 7'40 | 3♌12  | 7°22  | 0♌50  | 11°32 | 7°50  | 9°58  | 6°26 | 2°54 | 5°38 | 24°16  | 25°19 | 20°40 | 15°31  | F 10 |
| S 11 | 3 57 3  | 28° 8'27 | 15°18 | 8°30  | 2° 5  | 12°16 | 7°50  | 10° 4 | 6°30 | 2°56 | 5°40 | 24°14  | 25°16 | 20°47 | 15°31  | S 11 |
| S 12 | 4 1 0   | 29° 9'14 | 27°15 | 9°42  | 3°21  | 13° 0 | 7°51  | 10°10 | 6°34 | 2°59 | 5°42 | 24°12  | 25°13 | 20°53 | 15°31  | S 12 |
| M13  | 4 4 57  | 0♌10'03  | 9♌ 7  | 10°57 | 4°36  | 13°43 | 7°52  | 10°15 | 6°37 | 3° 1 | 5°43 | 24° 8  | 25° 9 | 21° 0 | 15°30  | M13  |
| T 14 | 4 8 53  | 1°10'53  | 20°59 | 12°14 | 5°51  | 14°27 | 7°52  | 10°21 | 6°41 | 3° 3 | 5°45 | 24° 4  | 25° 6 | 21° 7 | 15°30  | T 14 |
| W15  | 4 12 50 | 2°11'44  | 2♌52  | 13°34 | 7° 7  | 15°11 | 7°R52 | 10°26 | 6°45 | 3° 5 | 5°46 | 24° 0  | 25° 3 | 21°13 | 15°30  | W15  |
| T 16 | 4 16 46 | 3°12'35  | 14°50 | 14°55 | 8°22  | 15°55 | 7°52  | 10°32 | 6°48 | 3° 8 | 5°48 | 23°57  | 25° 0 | 21°20 | 15°30  | T 16 |
| F 17 | 4 20 43 | 4°13'28  | 26°54 | 16°18 | 9°38  | 16°39 | 7°51  | 10°37 | 6°52 | 3°10 | 5°49 | 23°54  | 24°57 | 21°27 | 15°D30 | F 17 |
| S 18 | 4 24 39 | 5°14'22  | 9♌ 7  | 17°43 | 10°53 | 17°23 | 7°51  | 10°42 | 6°56 | 3°12 | 5°51 | 23°52  | 24°53 | 21°34 | 15°30  | S 18 |
| S 19 | 4 28 36 | 6°15'17  | 21°29 | 19° 9 | 12° 9 | 18° 7 | 7°50  | 10°48 | 6°59 | 3°14 | 5°52 | 23°D52 | 24°50 | 21°40 | 15°30  | S 19 |
| M20  | 4 32 32 | 7°16'13  | 4♌ 2  | 20°35 | 13°24 | 18°51 | 7°49  | 10°53 | 7° 3 | 3°17 | 5°53 | 23°52  | 24°47 | 21°47 | 15°30  | M20  |
| T 21 | 4 36 29 | 8°17'11  | 16°47 | 22° 3 | 14°39 | 19°35 | 7°48  | 10°58 | 7° 7 | 3°19 | 5°55 | 23°53  | 24°44 | 21°54 | 15°30  | T 21 |
| W22  | 4 40 26 | 9°18'09  | 29°45 | 23°31 | 15°55 | 20°19 | 7°47  | 11° 3 | 7°10 | 3°21 | 5°56 | 23°54  | 24°41 | 22° 0 | 15°31  | W22  |
| T 23 | 4 44 22 | 10°19'09 | 12♌52 | 25° 0 | 17°10 | 21° 3 | 7°45  | 11° 8 | 7°14 | 3°23 | 5°57 | 23°55  | 24°38 | 22° 7 | 15°31  | T 23 |
| F 24 | 4 48 19 | 11°20'09 | 26°26 | 26°29 | 18°26 | 21°47 | 7°43  | 11°13 | 7°18 | 3°26 | 5°59 | 23°56  | 24°34 | 22°14 | 15°31  | F 24 |
| S 25 | 4 52 15 | 12°21'11 | 10♌10 | 27°59 | 19°41 | 22°31 | 7°42  | 11°17 | 7°21 | 3°28 | 6° 0 | 23°R57 | 24°31 | 22°20 | 15°32  | S 25 |
| S 26 | 4 56 12 | 13°22'13 | 24°12 | 29°30 | 20°56 | 23°15 | 7°39  | 11°22 | 7°25 | 3°30 | 6° 1 | 23°57  | 24°28 | 22°27 | 15°32  | S 26 |
| M27  | 5 0 8   | 14°23'17 | 8♌29  | 1♌ 0  | 22°12 | 23°59 | 7°37  | 11°27 | 7°29 | 3°32 | 6° 2 | 23°56  | 24°25 | 22°34 | 15°33  | M27  |
| T 28 | 5 4 5   | 15°24'22 | 23° 0 | 2°31  | 23°27 | 24°43 | 7°35  | 11°31 | 7°32 | 3°35 | 6° 3 | 23°55  | 24°22 | 22°41 | 15°33  | T 28 |
| W29  | 5 8 1   | 16°25'28 | 7♌40  | 4° 2  | 24°43 | 25°28 | 7°32  | 11°36 | 7°36 | 3°37 | 6° 4 | 23°54  | 24°18 | 22°47 | 15°34  | W29  |
| T 30 | 5 11 58 | 17♌26'35 | 22♌23 | 5♌34  | 25♌58 | 26≈12 | 7♌29  | 11♌40 | 7♌40 | 3♌39 | 6♌ 5 | 23♌53  | 24♌15 | 22♌54 | 15♌35  | T 30 |

Delta T = 05m31s

Julian Calendar 1 Nov. 1480 == Greg. Calendar 10 Nov. 1480

DECEMBER 1480 JC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀     | ♂      | ♂     | ♂     | ♂     | ♂    | ♂    | ♂     | ♂      | ♂     | ♂     | ♂      | Day  |
|------|---------|----------|-------|-------|--------|-------|-------|-------|------|------|-------|--------|-------|-------|--------|------|
| F 1  | 5 15 55 | 18♌27'42 | 7♌ 2  | 7♌ 6  | 27°R14 | 26≈56 | 7°R26 | 11♌44 | 7♌43 | 3♌41 | 6♌ 6  | 23°R53 | 24♌12 | 23♌ 1 | 15°K36 | F 1  |
| S 2  | 5 19 51 | 19°28'50 | 21°31 | 8°37  | 28°29  | 27°40 | 7♌23  | 11°49 | 7°47 | 3°44 | 6° 7  | 23°D53 | 24° 9 | 23° 7 | 15°36  | S 2  |
| S 3  | 5 23 48 | 20°29'59 | 5♌44  | 10°10 | 29°44  | 28°24 | 7°19  | 11°53 | 7°50 | 3°46 | 6° 8  | 23♌53  | 24° 6 | 23°14 | 15°37  | S 3  |
| M 4  | 5 27 44 | 21°31'09 | 19°35 | 11°42 | 1♌ 0   | 29° 9 | 7°16  | 11°57 | 7°54 | 3°48 | 6° 9  | 23°53  | 24° 3 | 23°21 | 15°38  | M 4  |
| T 5  | 5 31 41 | 22°32'18 | 3≈ 4  | 13°15 | 2°15   | 29°53 | 7°12  | 12° 1 | 7°58 | 3°50 | 6°10  | 23°53  | 23°59 | 23°28 | 15°39  | T 5  |
| W 6  | 5 35 37 | 23°33'28 | 16° 9 | 14°47 | 3°31   | 0♌37  | 7° 8  | 12° 4 | 8° 1 | 3°52 | 6°11  | 23°R53 | 23°56 | 23°34 | 15°40  | W 6  |
| T 7  | 5 39 34 | 24°34'38 | 28°52 | 16°20 | 4°46   | 1°21  | 7° 4  | 12° 8 | 8° 5 | 3°54 | 6°12  | 23°53  | 23°53 | 23°41 | 15°41  | T 7  |
| F 8  | 5 43 31 | 25°35'48 | 11♌16 | 17°54 | 6° 1   | 2° 6  | 6°59  | 12°12 | 8° 8 | 3°57 | 6°13  | 23°53  | 23°50 | 23°48 | 15°43  | F 8  |
| S 9  | 5 47 27 | 26°36'58 | 23°25 | 19°27 | 7°17   | 2°50  | 6°55  | 12°15 | 8°12 | 3°59 | 6°14  | 23°D53 | 23°47 | 23°54 | 15°44  | S 9  |
| S 10 | 5 51 24 | 27°38'08 | 5♌24  | 21° 1 | 8°32   | 3°34  | 6°50  | 12°19 | 8°15 | 4° 1 | 6°14  | 23°53  | 23°44 | 24° 1 | 15°45  | S 10 |
| M11  | 5 55 20 | 28°39'17 | 17°16 | 22°35 | 9°47   | 4°18  | 6°45  | 12°22 | 8°19 | 4° 3 | 6°15  | 23°53  | 23°40 | 24° 8 | 15°46  | M11  |
| T 12 | 5 59 17 | 29°40'27 | 29° 7 | 24° 9 | 11° 3  | 5° 2  | 6°40  | 12°26 | 8°22 | 4° 5 | 6°16  | 23°54  | 23°37 | 24°14 | 15°48  | T 12 |
| W13  | 6 3 13  | 0♌41'37  | 11♌ 1 | 25°43 | 12°18  | 5°47  | 6°35  | 12°29 | 8°26 | 4° 7 | 6°16  | 23°54  | 23°34 | 24°21 | 15°49  | W13  |
| T 14 | 6 7 10  | 1°42'47  | 23° 3 | 27°18 | 13°33  | 6°31  | 6°29  | 12°32 | 8°29 | 4° 9 | 6°17  | 23°55  | 23°31 | 24°28 | 15°51  | T 14 |
| F 15 | 6 11 6  | 2°43'57  | 5♌14  | 28°53 | 14°49  | 7°15  | 6°24  | 12°35 | 8°33 | 4°11 | 6°17  | 23°56  | 23°28 | 24°35 | 15°52  | F 15 |
| S 16 | 6 15 3  | 3°45'07  | 17°39 | 0♌29  | 16° 4  | 7°59  | 6°18  | 12°38 | 8°36 | 4°13 | 6°18  | 23°R56 | 23°24 | 24°41 | 15°54  | S 16 |
| S 17 | 6 19 0  | 4°46'16  | 0♌17  | 2° 5  | 17°19  | 8°43  | 6°13  | 12°41 | 8°40 | 4°15 | 6°18  | 23°56  | 23°21 | 24°48 | 15°55  | S 17 |
| M18  | 6 22 56 | 5°47'26  | 13°11 | 3°41  | 18°35  | 9°28  | 6° 7  | 12°44 | 8°43 | 4°17 | 6°19  | 23°56  | 23°18 | 24°55 | 15°57  | M18  |
| T 19 | 6 26 53 | 6°48'36  | 26°19 | 5°17  | 19°50  | 10°12 | 6° 0  | 12°46 | 8°46 | 4°19 | 6°19  | 23°55  | 23°15 | 25° 1 | 15°59  | T 19 |
| W20  | 6 30 49 | 7°49'45  | 9♌42  | 6°54  | 21° 5  | 10°56 | 5°54  | 12°49 | 8°50 | 4°21 | 6°20  | 23°53  | 23°12 | 25° 8 | 16° 1  | W20  |
| T 21 | 6 34 46 | 8°50'55  | 23°18 | 8°31  | 22°20  | 11°40 | 5°48  | 12°51 | 8°53 | 4°23 | 6°20  | 23°51  | 23° 9 | 25°15 | 16° 3  | T 21 |
| F 22 | 6 38 42 | 9°52'04  | 7♌ 4  | 10° 9 | 23°36  | 12°24 | 5°41  | 12°54 | 8°56 | 4°25 | 6°20  | 23°49  | 23° 5 | 25°22 | 16° 4  | F 22 |
| S 23 | 6 42 39 | 10°53'14 | 21° 0 | 11°47 | 24°51  | 13° 8 | 5°35  | 12°56 | 9° 0 | 4°27 | 6°21  | 23°47  | 23° 2 | 25°28 | 16° 6  | S 23 |
| S 24 | 6 46 35 | 11°54'24 | 5♌ 3  | 13°25 | 26° 6  | 13°52 | 5°28  | 12°58 | 9° 3 | 4°29 | 6°21  | 23°46  | 22°59 | 25°35 | 16° 8  | S 24 |
| M25  | 6 50 32 | 12°55'33 | 19°12 | 15° 4 | 27°21  | 14°37 | 5°21  | 13° 0 | 9° 6 | 4°31 | 6°21  | 23°D46 | 22°56 | 25°42 | 16°10  | M25  |
| T 26 | 6 54 29 | 13°56'43 | 3♌24  | 16°44 | 28°37  | 15°21 | 5°14  | 13° 2 | 9° 9 | 4°33 | 6°21  | 23°47  | 22°53 | 25°48 | 16°12  | T 26 |
| W27  | 6 58 25 | 14°57'52 | 17°39 | 18°24 | 29°52  | 16° 5 | 5° 7  | 13° 4 | 9°12 | 4°35 | 6°21  | 23°48  | 22°50 | 25°55 | 16°15  | W27  |
| T 28 | 7 2 22  | 15°59'02 | 1♌52  | 20° 4 | 1≈ 7   | 16°49 | 5° 0  | 13° 5 | 9°16 | 4°36 | 6°21  | 23°50  | 22°46 | 26° 2 | 16°17  | T 28 |
| F 29 | 7 6 18  | 17° 0'11 | 16° 2 | 21°45 | 2°22   | 17°33 | 4°53  | 13° 7 | 9°19 | 4°38 | 6°21  | 23°51  | 22°43 | 26° 8 | 16°19  | F 29 |
| S 30 | 7 10 15 | 18° 1'20 | 0♌ 4  | 23°26 | 3°37   | 18°17 | 4°45  | 13° 9 | 9°22 | 4°40 | 6°R21 | 23°R51 | 22°40 | 26°15 | 16°21  | S 30 |
| S 31 | 7 14 11 | 19♌ 2'29 | 13♌55 | 25♌ 7 | 4≈52   | 19♌ 1 | 4♌38  | 13♌10 | 9♌25 | 4♌42 | 6♌21  | 23♌50  | 22♌37 | 26♌22 | 16♌24  | S 31 |

Delta T = 05m31s

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