



# Astrodienst Ephemeris Tables for the year 1730

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 1730  
geocentric

JANUARY 1730

00:00 UT

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

Delta T = 11.20 sec

Greg. Calendar

FEBRUARY 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽       | ♀      | ♂      | ♂      | ♂      | ♂      | ♂     | ♂       | ♂      | ♂     | ♂     | ♂       | ♂      | Day  |
|------|----------|----------|---------|--------|--------|--------|--------|--------|-------|---------|--------|-------|-------|---------|--------|------|
| W 1  | 8 43 40  | 11°58'26 | 17°39   | 20°33  | 25°42  | 20°39  | 2°R45  | 8°4    | 0°51  | 10°R16  | 12°R50 | 5°40  | 5°29  | 20°II44 | 21°Y 5 | W 1  |
| T 2  | 8 47 36  | 12°59'14 | 29°46   | 22°20  | 26°57  | 20°55  | 2°Ω37  | 8°11   | 0°53  | 10°II16 | 12°Ω50 | 5°R40 | 5°26  | 20°51   | 21° 7  | T 2  |
| F 3  | 8 51 33  | 14° 0'00 | 12°Ω 4  | 24° 7  | 28°12  | 21° 9  | 2°29   | 8°18   | 0°55  | 10°15   | 12°49  | 5°40  | 5°23  | 20°58   | 21° 9  | F 3  |
| S 4  | 8 55 29  | 15° 0'46 | 24°33   | 25°54  | 29°27  | 21°24  | 2°21   | 8°25   | 0°57  | 10°15   | 12°49  | 5°39  | 5°20  | 21° 4   | 21°11  | S 4  |
| S 5  | 8 59 26  | 16° 1'30 | 7°η16   | 27°41  | 0°42   | 21°38  | 2°14   | 8°32   | 0°58  | 10°14   | 12°48  | 5°38  | 5°16  | 21°11   | 21°13  | S 5  |
| M 6  | 9 3 22   | 17° 2'13 | 20°2'13 | 29°26  | 1°57   | 21°51  | 2° 6   | 8°39   | 1° 0  | 10°14   | 12°47  | 5°37  | 5°13  | 21°18   | 21°15  | M 6  |
| T 7  | 9 7 19   | 18° 2'54 | 3°Ω20   | 1°K11  | 3°12   | 22° 4  | 1°59   | 8°46   | 1° 1  | 10°13   | 12°46  | 5°35  | 5°10  | 21°24   | 21°17  | T 7  |
| W 8  | 9 11 15  | 19° 3'35 | 16°43   | 2°55   | 4°27   | 22°16  | 1°51   | 8°53   | 1° 3  | 10°13   | 12°46  | 5°34  | 5° 7  | 21°31   | 21°19  | W 8  |
| T 9  | 9 15 12  | 20° 4'14 | 0°Π19   | 4°37   | 5°42   | 22°28  | 1°44   | 9° 0   | 1° 4  | 10°12   | 12°45  | 5°32  | 5° 4  | 21°38   | 21°21  | T 9  |
| F 10 | 9 19 8   | 21° 4'53 | 14° 9   | 6°17   | 6°57   | 22°39  | 1°37   | 9° 7   | 1° 5  | 10°12   | 12°44  | 5°31  | 5° 0  | 21°44   | 21°23  | F 10 |
| S 11 | 9 23 5   | 22° 5'30 | 28°10   | 7°54   | 8°12   | 22°50  | 1°30   | 9°14   | 1° 7  | 10°12   | 12°43  | 5°D31 | 4°57  | 21°51   | 21°26  | S 11 |
| S 12 | 9 27 2   | 23° 6'06 | 12°x23  | 9°28   | 9°27   | 23° 0  | 1°23   | 9°21   | 1° 8  | 10°11   | 12°42  | 5°32  | 4°54  | 21°58   | 21°28  | S 12 |
| M13  | 9 30 58  | 24° 6'41 | 26°46   | 10°59  | 10°42  | 23° 9  | 1°16   | 9°29   | 1° 9  | 10°11   | 12°41  | 5°33  | 4°51  | 22° 4   | 21°30  | M13  |
| T 14 | 9 34 55  | 25° 7'15 | 11°Ω14  | 12°25  | 11°57  | 23°18  | 1° 9   | 9°36   | 1°10  | 10°11   | 12°40  | 5°35  | 4°48  | 22°11   | 21°33  | T 14 |
| W15  | 9 38 51  | 26° 7'47 | 25°45   | 13°46  | 13°12  | 23°26  | 1° 2   | 9°43   | 1°11  | 10°11   | 12°39  | 5°36  | 4°45  | 22°18   | 21°35  | W15  |
| T 16 | 9 42 48  | 27° 8'18 | 10°Ω13  | 15° 2  | 14°27  | 23°34  | 0°56   | 9°50   | 1°12  | 10°11   | 12°38  | 5°R36 | 4°41  | 22°25   | 21°38  | T 16 |
| F 17 | 9 46 44  | 28° 8'48 | 24°32   | 16°11  | 15°42  | 23°41  | 0°49   | 9°57   | 1°13  | 10°11   | 12°37  | 5°35  | 4°38  | 22°31   | 21°40  | F 17 |
| S 18 | 9 50 41  | 29° 9'15 | 8°K38   | 17°14  | 16°57  | 23°47  | 0°43   | 10° 5  | 1°14  | 10°11   | 12°36  | 5°33  | 4°35  | 22°38   | 21°43  | S 18 |
| S 19 | 9 54 38  | 0°K 9'41 | 22°25   | 18° 9  | 18°12  | 23°53  | 0°37   | 10°12  | 1°15  | 10°D11  | 12°35  | 5°29  | 4°32  | 22°45   | 21°45  | S 19 |
| M20  | 9 58 34  | 1°10'05  | 5°Y51   | 18°56  | 19°27  | 23°58  | 0°31   | 10°19  | 1°16  | 10°11   | 12°34  | 5°25  | 4°29  | 22°51   | 21°48  | M20  |
| T 21 | 10 2 31  | 2°10'28  | 18°56   | 19°34  | 20°42  | 24° 3  | 0°25   | 10°27  | 1°17  | 10°11   | 12°33  | 5°21  | 4°26  | 22°58   | 21°51  | T 21 |
| W22  | 10 6 27  | 3°10'48  | 1°Ω39   | 20° 3  | 21°57  | 24° 6  | 0°19   | 10°34  | 1°17  | 10°11   | 12°31  | 5°17  | 4°22  | 23° 5   | 21°54  | W22  |
| T 23 | 10 10 24 | 4°11'07  | 14° 3   | 20°22  | 23°12  | 24° 9  | 0°14   | 10°41  | 1°18  | 10°11   | 12°30  | 5°14  | 4°19  | 23°11   | 21°56  | T 23 |
| F 24 | 10 14 20 | 5°11'23  | 26°11   | 20°32  | 24°27  | 24°12  | 0° 8   | 10°49  | 1°18  | 10°11   | 12°29  | 5°12  | 4°16  | 23°18   | 21°59  | F 24 |
| S 25 | 10 18 17 | 6°11'38  | 8°II 8  | 20°R32 | 25°42  | 24°13  | 0° 3   | 10°56  | 1°19  | 10°11   | 12°28  | 5°D12 | 4°13  | 23°25   | 22° 2  | S 25 |
| S 26 | 10 22 13 | 7°11'50  | 19°59   | 20°23  | 26°57  | 24°14  | 29°58  | 11° 3  | 1°19  | 10°11   | 12°27  | 5°13  | 4°10  | 23°31   | 22° 5  | S 26 |
| M27  | 10 26 10 | 8°12'00  | 1°Ω49   | 20° 4  | 28°11  | 24°R15 | 29°53  | 11°11  | 1°20  | 10°12   | 12°25  | 5°14  | 4° 6  | 23°38   | 22° 8  | M27  |
| T 28 | 10 30 7  | 9°K12'09 | 13°Ω42  | 19°K37 | 29°Ω26 | 24°Ω14 | 29°Ω48 | 11°K18 | 1°x20 | 10°II12 | 12°Ω24 | 5°Ω16 | 4°Ω 3 | 23°II45 | 22°Y11 | T 28 |

ASTRODIENST EPHEMERIS for the year 1730  
geocentric

MARCH 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♂      | ♀     | ♂      | ♂      | ♂     | ♂     | ♂     | ♂      | ♂     | ♂    | ♂     | ♂      | Day  |
|------|----------|----------|-------|--------|-------|--------|--------|-------|-------|-------|--------|-------|------|-------|--------|------|
| W 1  | 10 34 3  | 10♌12'15 | 25♎44 | 19°R 2 | 0♌41  | 24°R13 | 29°R43 | 11♌25 | 1♌21  | 10♌12 | 12°R23 | 5♌18  | 4♌0  | 23♌51 | 22°V14 | W 1  |
| T 2  | 10 38 0  | 11°12'19 | 7♎58  | 18♌19  | 1°56  | 24♌11  | 29♎39  | 11°33 | 1°21  | 10°13 | 12♌21  | 5°R18 | 3°57 | 23°58 | 22°17  | T 2  |
| F 3  | 10 41 56 | 12°12'21 | 20°27 | 17°31  | 3°11  | 24° 8  | 29°35  | 11°40 | 1°21  | 10°13 | 12°20  | 5°17  | 3°54 | 24° 5 | 22°20  | F 3  |
| S 4  | 10 45 53 | 13°12'21 | 3♎13  | 16°37  | 4°26  | 24° 4  | 29°30  | 11°47 | 1°21  | 10°13 | 12°18  | 5°14  | 3°51 | 24°11 | 22°23  | S 4  |
| S 5  | 10 49 49 | 14°12'19 | 16°17 | 15°41  | 5°40  | 24° 0  | 29°27  | 11°55 | 1°21  | 10°14 | 12°17  | 5° 9  | 3°47 | 24°18 | 22°26  | S 5  |
| M 6  | 10 53 46 | 15°12'15 | 29°37 | 14°42  | 6°55  | 23°55  | 29°23  | 12° 2 | 1°R21 | 10°14 | 12°16  | 5° 3  | 3°44 | 24°25 | 22°29  | M 6  |
| T 7  | 10 57 42 | 16°12'10 | 13♌13 | 13°42  | 8°10  | 23°49  | 29°19  | 12° 9 | 1°21  | 10°15 | 12°14  | 4°56  | 3°41 | 24°31 | 22°33  | T 7  |
| W 8  | 11 1 39  | 17°12'02 | 27° 1 | 12°43  | 9°25  | 23°43  | 29°16  | 12°17 | 1°21  | 10°15 | 12°13  | 4°49  | 3°38 | 24°38 | 22°36  | W 8  |
| T 9  | 11 5 35  | 18°11'53 | 10♌58 | 11°46  | 10°39 | 23°35  | 29°13  | 12°24 | 1°21  | 10°16 | 12°11  | 4°43  | 3°35 | 24°45 | 22°39  | T 9  |
| F 10 | 11 9 32  | 19°11'42 | 25° 1 | 10°51  | 11°54 | 23°27  | 29° 9  | 12°31 | 1°21  | 10°17 | 12°10  | 4°39  | 3°31 | 24°51 | 22°42  | F 10 |
| S 11 | 11 13 29 | 20°11'30 | 9♌ 8  | 10° 1  | 13° 9 | 23°18  | 29° 7  | 12°39 | 1°21  | 10°17 | 12° 8  | 4°36  | 3°28 | 24°58 | 22°46  | S 11 |
| S 12 | 11 17 25 | 21°11'15 | 23°17 | 9°15   | 14°24 | 23° 8  | 29° 4  | 12°46 | 1°21  | 10°18 | 12° 7  | 4°D36 | 3°25 | 25° 5 | 22°49  | S 12 |
| M13  | 11 21 22 | 22°11'00 | 7♎25  | 8°35   | 15°38 | 22°58  | 29° 1  | 12°53 | 1°20  | 10°19 | 12° 5  | 4°36  | 3°22 | 25°11 | 22°52  | M13  |
| T 14 | 11 25 18 | 23°10'42 | 21°32 | 8° 1   | 16°53 | 22°47  | 28°59  | 13° 1 | 1°20  | 10°19 | 12° 4  | 4°38  | 3°19 | 25°18 | 22°56  | T 14 |
| W15  | 11 29 15 | 24°10'23 | 5♌36  | 7°32   | 18° 8 | 22°35  | 28°57  | 13° 8 | 1°19  | 10°20 | 12° 2  | 4°R38 | 3°16 | 25°25 | 22°59  | W15  |
| T 16 | 11 33 11 | 25°10'02 | 19°36 | 7°10   | 19°22 | 22°22  | 28°55  | 13°15 | 1°19  | 10°21 | 12° 0  | 4°37  | 3°12 | 25°31 | 23° 3  | T 16 |
| F 17 | 11 37 8  | 26° 9'39 | 3♌28  | 6°53   | 20°37 | 22° 8  | 28°53  | 13°23 | 1°18  | 10°22 | 11°59  | 4°34  | 3° 9 | 25°38 | 23° 6  | F 17 |
| S 18 | 11 41 4  | 27° 9'13 | 17°10 | 6°44   | 21°52 | 21°54  | 28°52  | 13°30 | 1°18  | 10°23 | 11°57  | 4°28  | 3° 6 | 25°45 | 23°10  | S 18 |
| S 19 | 11 45 1  | 28° 8'46 | 0♌40  | 6°D40  | 23° 6 | 21°39  | 28°50  | 13°37 | 1°17  | 10°24 | 11°56  | 4°20  | 3° 3 | 25°51 | 23°13  | S 19 |
| M20  | 11 48 58 | 29° 8'17 | 13°54 | 6°42   | 24°21 | 21°24  | 28°49  | 13°44 | 1°17  | 10°25 | 11°54  | 4°11  | 3° 0 | 25°58 | 23°17  | M20  |
| T 21 | 11 52 54 | 0♌746    | 26°50 | 6°49   | 25°36 | 21° 7  | 28°48  | 13°51 | 1°16  | 10°25 | 11°52  | 4° 0  | 2°57 | 26° 5 | 23°20  | T 21 |
| W22  | 11 56 51 | 1° 7'13  | 9♌30  | 7° 2   | 26°50 | 20°50  | 28°48  | 13°59 | 1°15  | 10°26 | 11°51  | 3°51  | 2°53 | 26°12 | 23°24  | W22  |
| T 23 | 12 0 47  | 2° 6'37  | 21°52 | 7°21   | 28° 5 | 20°33  | 28°47  | 14° 6 | 1°14  | 10°28 | 11°49  | 3°42  | 2°50 | 26°18 | 23°28  | T 23 |
| F 24 | 12 4 44  | 3° 6'00  | 4♌ 0  | 7°44   | 29°19 | 20°15  | 28°47  | 14°13 | 1°13  | 10°29 | 11°47  | 3°36  | 2°47 | 26°25 | 23°31  | F 24 |
| S 25 | 12 8 40  | 4° 5'20  | 15°57 | 8°12   | 0♌34  | 19°56  | 28°D46 | 14°20 | 1°12  | 10°30 | 11°46  | 3°32  | 2°44 | 26°32 | 23°35  | S 25 |
| S 26 | 12 12 37 | 5° 4'37  | 27°48 | 8°44   | 1°48  | 19°37  | 28°46  | 14°27 | 1°11  | 10°31 | 11°44  | 3°30  | 2°41 | 26°38 | 23°38  | S 26 |
| M27  | 12 16 33 | 6° 3'53  | 9♎38  | 9°20   | 3° 3  | 19°17  | 28°47  | 14°34 | 1°10  | 10°32 | 11°42  | 3°D29 | 2°37 | 26°45 | 23°42  | M27  |
| T 28 | 12 20 30 | 7° 3'06  | 21°31 | 10° 1  | 4°17  | 18°57  | 28°47  | 14°41 | 1° 9  | 10°33 | 11°41  | 3°30  | 2°34 | 26°52 | 23°46  | T 28 |
| W29  | 12 24 27 | 8° 2'16  | 3♌33  | 10°45  | 5°32  | 18°36  | 28°48  | 14°48 | 1° 8  | 10°34 | 11°39  | 3°R30 | 2°31 | 26°58 | 23°50  | W29  |
| T 30 | 12 28 23 | 9° 1'25  | 15°50 | 11°32  | 6°46  | 18°15  | 28°48  | 14°55 | 1° 7  | 10°36 | 11°37  | 3°30  | 2°28 | 27° 5 | 23°53  | T 30 |
| F 31 | 12 32 20 | 10♌0'31  | 28♌26 | 12♌23  | 8♌ 1  | 17♌53  | 28♎49  | 15♌ 2 | 1♌ 6  | 10♌37 | 11♌36  | 3♌27  | 2♌25 | 27♌12 | 23♌57  | F 31 |

Delta T = 11.23 sec

Greg. Calendar

APRIL 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♂      | ♀     | ♂      | ♂     | ♂     | ♂     | ♂     | ♂      | ♂     | ♂    | ♂     | ♂      | Day  |
|------|----------|----------|-------|--------|-------|--------|-------|-------|-------|-------|--------|-------|------|-------|--------|------|
| S 1  | 12 36 16 | 10♌59'34 | 11♎23 | 13♌17  | 9♌15  | 17°R32 | 28♎50 | 15♌ 9 | 1°R 4 | 10♌38 | 11°R34 | 3°R22 | 2♌22 | 27♌18 | 24°V 1 | S 1  |
| S 2  | 12 40 13 | 11°58'36 | 24°42 | 14°14  | 10°29 | 17♌10  | 28°52 | 15°16 | 1♌ 3  | 10°39 | 11♌32  | 3♌14  | 2°18 | 27°25 | 24° 4  | S 2  |
| M 3  | 12 44 9  | 12°57'35 | 8♌25  | 15°14  | 11°44 | 16°47  | 28°53 | 15°22 | 1° 2  | 10°41 | 11°31  | 3° 4  | 2°15 | 27°32 | 24° 8  | M 3  |
| T 4  | 12 48 6  | 13°56'33 | 22°26 | 16°17  | 12°58 | 16°25  | 28°55 | 15°29 | 1° 0  | 10°42 | 11°29  | 2°53  | 2°12 | 27°38 | 24°12  | T 4  |
| W 5  | 12 52 2  | 14°55'28 | 6♌42  | 17°22  | 14°13 | 16° 2  | 28°57 | 15°36 | 0°59  | 10°44 | 11°27  | 2°42  | 2° 9 | 27°45 | 24°16  | W 5  |
| T 6  | 12 55 59 | 15°54'22 | 21° 6 | 18°30  | 15°27 | 15°39  | 28°59 | 15°43 | 0°58  | 10°45 | 11°26  | 2°32  | 2° 6 | 27°52 | 24°20  | T 6  |
| F 7  | 12 59 56 | 16°53'13 | 5♌33  | 19°40  | 16°41 | 15°16  | 29° 1 | 15°49 | 0°56  | 10°47 | 11°24  | 2°24  | 2° 3 | 27°58 | 24°23  | F 7  |
| S 8  | 13 3 52  | 17°52'04 | 19°58 | 20°52  | 17°56 | 14°53  | 29° 4 | 15°56 | 0°54  | 10°48 | 11°22  | 2°19  | 1°59 | 28° 5 | 24°27  | S 8  |
| S 9  | 13 7 49  | 18°50'52 | 4♌15  | 22° 7  | 19°10 | 14°30  | 29° 6 | 16° 3 | 0°53  | 10°50 | 11°21  | 2°17  | 1°56 | 28°12 | 24°31  | S 9  |
| M10  | 13 11 45 | 19°49'39 | 18°23 | 23°24  | 20°24 | 14° 7  | 29° 9 | 16° 9 | 0°51  | 10°51 | 11°19  | 2°D16 | 1°53 | 28°18 | 24°35  | M10  |
| T 11 | 13 15 42 | 20°48'23 | 2♌21  | 24°42  | 21°38 | 13°44  | 29°12 | 16°16 | 0°50  | 10°53 | 11°17  | 2°R16 | 1°50 | 28°25 | 24°39  | T 11 |
| W12  | 13 19 38 | 21°47'07 | 16° 9 | 26° 3  | 22°53 | 13°22  | 29°15 | 16°22 | 0°48  | 10°54 | 11°16  | 2°16  | 1°47 | 28°32 | 24°42  | W12  |
| T 13 | 13 23 35 | 22°45'48 | 29°47 | 27°26  | 24° 7 | 12°59  | 29°18 | 16°29 | 0°46  | 10°56 | 11°14  | 2°13  | 1°43 | 28°38 | 24°46  | T 13 |
| F 14 | 13 27 31 | 23°44'28 | 13♌15 | 28°50  | 25°21 | 12°37  | 29°22 | 16°35 | 0°44  | 10°57 | 11°12  | 2° 9  | 1°40 | 28°45 | 24°50  | F 14 |
| S 15 | 13 31 28 | 24°43'05 | 26°33 | 0♌17   | 26°35 | 12°15  | 29°26 | 16°41 | 0°42  | 10°59 | 11°11  | 2° 1  | 1°37 | 28°52 | 24°54  | S 15 |
| S 16 | 13 35 25 | 25°41'42 | 9♌40  | 1°45   | 27°50 | 11°53  | 29°29 | 16°48 | 0°41  | 11° 1 | 11° 9  | 1°50  | 1°34 | 28°58 | 24°58  | S 16 |
| M17  | 13 39 21 | 26°40'16 | 22°34 | 3°15   | 29° 4 | 11°32  | 29°33 | 16°54 | 0°39  | 11° 2 | 11° 8  | 1°37  | 1°31 | 29° 5 | 25° 1  | M17  |
| T 18 | 13 43 18 | 27°38'48 | 5♌15  | 4°47   | 0♌18  | 11°11  | 29°38 | 17° 0 | 0°37  | 11° 4 | 11° 6  | 1°24  | 1°28 | 29°12 | 25° 5  | T 18 |
| W19  | 13 47 14 | 28°37'19 | 17°44 | 6°20   | 1°32  | 10°50  | 29°42 | 17° 6 | 0°35  | 11° 6 | 11° 4  | 1°11  | 1°24 | 29°18 | 25° 9  | W19  |
| T 20 | 13 51 11 | 29°35'47 | 29°59 | 7°56   | 2°46  | 10°30  | 29°46 | 17°12 | 0°33  | 11° 8 | 11° 3  | 0°59  | 1°21 | 29°25 | 25°13  | T 20 |
| F 21 | 13 55 7  | 0♌34'14  | 12♌ 2 | 9°33   | 4° 0  | 10°11  | 29°51 | 17°18 | 0°31  | 11° 9 | 11° 1  | 0°49  | 1°18 | 29°32 | 25°17  | F 21 |
| S 22 | 13 59 4  | 1°32'38  | 23°57 | 11°12  | 5°14  | 9°52   | 29°56 | 17°24 | 0°29  | 11°11 | 11° 0  | 0°43  | 1°15 | 29°38 | 25°21  | S 22 |
| S 23 | 14 3 0   | 2°31'01  | 5♎46  | 12°52  | 6°28  | 9°33   | 0♌ 1  | 17°30 | 0°27  | 11°13 | 10°58  | 0°39  | 1°12 | 29°45 | 25°24  | S 23 |
| M24  | 14 6 57  | 3°29'21  | 17°34 | 14°34  | 7°43  | 9°16   | 0° 6  | 17°36 | 0°25  | 11°15 | 10°57  | 0°37  | 1° 9 | 29°52 | 25°28  | M24  |
| T 25 | 14 10 54 | 4°27'39  | 29°26 | 16°19  | 8°57  | 8°58   | 0°11  | 17°42 | 0°22  | 11°17 | 10°55  | 0°37  | 1° 5 | 29°58 | 25°32  | T 25 |
| W26  | 14 14 50 | 5°25'55  | 11♌27 | 18° 4  | 10°11 | 8°42   | 0°17  | 17°48 | 0°20  | 11°19 | 10°54  | 0°37  | 1° 2 | 0♌ 5  | 25°36  | W26  |
| T 27 | 14 18 47 | 6°24'10  | 23°44 | 19°52  | 11°25 | 8°26   | 0°22  | 17°54 | 0°18  | 11°21 | 10°52  | 0°36  | 0°59 | 0°12  | 25°40  | T 27 |
| F 28 | 14 22 43 | 7°22'22  | 6♌20  | 21°41  | 12°39 | 8°11   | 0°28  | 17°59 | 0°16  | 11°22 | 10°51  | 0°33  | 0°56 | 0°18  | 25°43  | F 28 |
| S 29 | 14 26 40 | 8°20'32  | 19°20 | 23°33  | 13°53 | 7°57   | 0°34  | 18° 5 | 0°14  | 11°24 | 10°49  | 0°28  | 0°53 | 0°25  | 25°47  | S 29 |
| S 30 | 14 30 36 | 9♌18'40  | 2♌47  | 25°V26 | 15♌ 7 | 7♌43   | 0♌40  | 18♌10 | 0♌11  | 11♌26 | 10♌48  | 0♌21  | 0♌49 | 0♌32  | 25°V51 | S 30 |

Delta T = 11.24 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1730  
geocentric

MAY 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♂     | ♂     | ♂    | ♂     | ♂     | ♂     | ♂      | ♂      | ♂     | ♂    | ♂     | Day  |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|-------|--------|--------|-------|------|-------|------|
| M 1  | 14 34 33 | 10♈16'46 | 16♊41 | 27♏20 | 16♈20 | 7°R30 | 0♈46 | 18♈16 | 0°R 9 | 11♏28 | 10°R46 | 0°R11  | 0♈46  | 0♈38 | 25♏55 | M 1  |
| T 2  | 14 38 29 | 11°14'50 | 0♏59  | 29°17 | 17°34 | 7♊18  | 0°53 | 18°21 | 0♈7   | 11°30 | 10♊45  | 29♏59  | 0°43  | 0°45 | 25°58 | T 2  |
| W 3  | 14 42 26 | 12°12'53 | 15°36 | 1♈15  | 18°48 | 7° 6  | 0°59 | 18°27 | 0° 4  | 11°32 | 10°44  | 29°49  | 0°40  | 0°52 | 26° 2 | W 3  |
| T 4  | 14 46 22 | 13°10'54 | 0♈25  | 3°15  | 20° 2 | 6°56  | 1° 6 | 18°32 | 0° 2  | 11°34 | 10°42  | 29°39  | 0°37  | 0°58 | 26° 6 | T 4  |
| F 5  | 14 50 19 | 14° 8'54 | 15°17 | 5°17  | 21°16 | 6°46  | 1°13 | 18°37 | 29♏59 | 11°36 | 10°41  | 29°31  | 0°34  | 1° 5 | 26° 9 | F 5  |
| S 6  | 14 54 16 | 15° 6'52 | 0♈4   | 7°20  | 22°30 | 6°37  | 1°19 | 18°42 | 29°57 | 11°38 | 10°40  | 29°26  | 0°30  | 1°12 | 26°13 | S 6  |
| S 7  | 14 58 12 | 16° 4'49 | 14°39 | 9°25  | 23°44 | 6°28  | 1°27 | 18°47 | 29°55 | 11°40 | 10°38  | 29°23  | 0°27  | 1°18 | 26°17 | S 7  |
| M 8  | 15 2 9   | 17° 2'44 | 28°59 | 11°31 | 24°58 | 6°21  | 1°34 | 18°52 | 29°53 | 11°43 | 10°37  | 29°D22 | 0°24  | 1°25 | 26°20 | M 8  |
| T 9  | 15 6 5   | 18° 0'38 | 13♊1  | 13°38 | 26°11 | 6°14  | 1°41 | 18°57 | 29°50 | 11°45 | 10°36  | 29°R23 | 0°21  | 1°32 | 26°24 | T 9  |
| W10  | 15 10 2  | 18°58'31 | 26°46 | 15°47 | 27°25 | 6° 8  | 1°48 | 19° 2 | 29°48 | 11°47 | 10°34  | 29°22  | 0°18  | 1°38 | 26°28 | W10  |
| T 11 | 15 13 58 | 19°56'23 | 10♈14 | 17°56 | 28°39 | 6° 3  | 1°56 | 19° 7 | 29°45 | 11°49 | 10°33  | 29°21  | 0°14  | 1°45 | 26°31 | T 11 |
| F 12 | 15 17 55 | 20°54'13 | 23°26 | 20° 7 | 29°53 | 5°59  | 2° 4 | 19°12 | 29°43 | 11°51 | 10°32  | 29°17  | 0°11  | 1°52 | 26°35 | F 12 |
| S 13 | 15 21 51 | 21°52'03 | 6♏26  | 22°18 | 1♏7   | 5°55  | 2°12 | 19°16 | 29°40 | 11°53 | 10°31  | 29°10  | 0° 8  | 1°58 | 26°38 | S 13 |
| S 14 | 15 25 48 | 22°49'51 | 19°12 | 24°29 | 2°20  | 5°53  | 2°20 | 19°21 | 29°38 | 11°55 | 10°30  | 29° 1  | 0° 5  | 2° 5 | 26°42 | S 14 |
| M15  | 15 29 45 | 23°47'38 | 1♈48  | 26°40 | 3°34  | 5°51  | 2°28 | 19°25 | 29°35 | 11°57 | 10°29  | 28°50  | 0° 2  | 2°12 | 26°45 | M15  |
| T 16 | 15 33 41 | 24°45'23 | 14°12 | 28°51 | 4°48  | 5°50  | 2°36 | 19°30 | 29°33 | 11°59 | 10°28  | 28°39  | 29♏59 | 2°18 | 26°49 | T 16 |
| W17  | 15 37 38 | 25°43'07 | 26°26 | 1♏2   | 6° 2  | 5°D49 | 2°44 | 19°34 | 29°30 | 12° 2 | 10°26  | 28°27  | 29°55 | 2°25 | 26°52 | W17  |
| T 18 | 15 41 34 | 26°40'50 | 8♏13  | 3°12  | 7°15  | 5°50  | 2°53 | 19°39 | 29°28 | 12° 4 | 10°25  | 28°17  | 29°52 | 2°32 | 26°56 | T 18 |
| F 19 | 15 45 31 | 27°38'32 | 20°28 | 5°21  | 8°29  | 5°51  | 3° 1 | 19°43 | 29°25 | 12° 6 | 10°24  | 28° 9  | 29°49 | 2°38 | 26°59 | F 19 |
| S 20 | 15 49 27 | 28°36'12 | 2♈19  | 7°28  | 9°43  | 5°53  | 3°10 | 19°47 | 29°23 | 12° 8 | 10°23  | 28° 3  | 29°46 | 2°45 | 27° 3 | S 20 |
| S 21 | 15 53 24 | 29°33'51 | 14° 6 | 9°34  | 10°56 | 5°56  | 3°19 | 19°51 | 29°20 | 12°10 | 10°22  | 28° 0  | 29°43 | 2°51 | 27° 6 | S 21 |
| M22  | 15 57 21 | 0♏31'28  | 25°53 | 11°38 | 12°10 | 5°59  | 3°27 | 19°55 | 29°18 | 12°13 | 10°22  | 27°D59 | 29°40 | 2°58 | 27° 9 | M22  |
| T 23 | 16 1 17  | 1°29'04  | 7♊45  | 13°40 | 13°24 | 6° 3  | 3°36 | 19°59 | 29°16 | 12°15 | 10°21  | 27°59  | 29°36 | 3° 5 | 27°13 | T 23 |
| W24  | 16 5 14  | 2°26'39  | 19°45 | 15°40 | 14°37 | 6° 8  | 3°46 | 20° 3 | 29°13 | 12°17 | 10°20  | 28° 0  | 29°33 | 3°11 | 27°16 | W24  |
| T 25 | 16 9 10  | 3°24'12  | 2♏0   | 17°37 | 15°51 | 6°14  | 3°55 | 20° 6 | 29°11 | 12°19 | 10°19  | 28°R 1 | 29°30 | 3°18 | 27°19 | T 25 |
| F 26 | 16 13 7  | 4°21'44  | 14°34 | 19°33 | 17° 4 | 6°20  | 4° 4 | 20°10 | 29° 8 | 12°21 | 10°18  | 28° 0  | 29°27 | 3°25 | 27°22 | F 26 |
| S 27 | 16 17 3  | 5°19'14  | 27°32 | 21°25 | 18°18 | 6°28  | 4°13 | 20°13 | 29° 6 | 12°24 | 10°17  | 27°58  | 29°24 | 3°31 | 27°26 | S 27 |
| S 28 | 16 21 0  | 6°16'43  | 10♊57 | 23°15 | 19°31 | 6°35  | 4°23 | 20°17 | 29° 3 | 12°26 | 10°17  | 27°54  | 29°20 | 3°38 | 27°29 | S 28 |
| M29  | 16 24 56 | 7°14'10  | 24°52 | 25° 3 | 20°45 | 6°44  | 4°33 | 20°20 | 29° 1 | 12°28 | 10°16  | 27°48  | 29°17 | 3°45 | 27°32 | M29  |
| T 30 | 16 28 53 | 8°11'37  | 9♏14  | 26°48 | 21°58 | 6°53  | 4°42 | 20°24 | 28°58 | 12°30 | 10°15  | 27°41  | 29°14 | 3°51 | 27°35 | T 30 |
| W31  | 16 32 50 | 9♏9'02   | 23♏59 | 28♏30 | 23♏12 | 7♊3   | 4♊52 | 20♈27 | 28♏56 | 12♏33 | 10♊14  | 27♏33  | 29♏11 | 3♈58 | 27♏38 | W31  |

Delta T = 11.25 sec

Greg. Calendar

JUNE 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀      | ♂     | ♂     | ♂     | ♂     | ♂      | ♂     | ♂      | ♂      | ♂     | ♂    | ♂     | Day  |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|-------|--------|--------|-------|------|-------|------|
| T 1  | 16 36 46 | 10♏6'27  | 9♈1   | 0♈9    | 24♏25 | 7♊13  | 5♊2   | 20♈30 | 28°R53 | 12♏35 | 10°R14 | 27°R26 | 29♏8  | 4♈5  | 27♏41 | T 1  |
| F 2  | 16 40 43 | 11° 3'50 | 24°10 | 1°46   | 25°39 | 7°24  | 5°12  | 20°33 | 28♏51  | 12°37 | 10♊13  | 27♏21  | 29° 5 | 4°11 | 27°44 | F 2  |
| S 3  | 16 44 39 | 12° 1'13 | 9♈16  | 3°19   | 26°52 | 7°35  | 5°22  | 20°36 | 28°48  | 12°39 | 10°13  | 27°18  | 29° 1 | 4°18 | 27°47 | S 3  |
| S 4  | 16 48 36 | 12°58'35 | 24°10 | 4°50   | 28° 6 | 7°48  | 5°32  | 20°39 | 28°46  | 12°42 | 10°12  | 27°D17 | 28°58 | 4°25 | 27°50 | S 4  |
| M 5  | 16 52 32 | 13°55'56 | 8♈46  | 6°18   | 29°19 | 8° 0  | 5°42  | 20°41 | 28°44  | 12°44 | 10°12  | 27°17  | 28°55 | 4°31 | 27°53 | M 5  |
| T 6  | 16 56 29 | 14°53'17 | 23° 0 | 7°43   | 0♈33  | 8°14  | 5°53  | 20°44 | 28°41  | 12°46 | 10°11  | 27°18  | 28°52 | 4°38 | 27°56 | T 6  |
| W 7  | 17 0 25  | 15°50'37 | 6♈52  | 9° 5   | 1°46  | 8°28  | 6° 3  | 20°47 | 28°39  | 12°48 | 10°11  | 27°20  | 28°49 | 4°45 | 27°59 | W 7  |
| T 8  | 17 4 22  | 16°47'57 | 20°20 | 10°25  | 2°59  | 8°42  | 6°14  | 20°49 | 28°37  | 12°51 | 10°10  | 27°R20 | 28°46 | 4°51 | 28° 2 | T 8  |
| F 9  | 17 8 19  | 17°45'16 | 3♏28  | 11°41  | 4°13  | 8°57  | 6°24  | 20°51 | 28°34  | 12°53 | 10°10  | 27°19  | 28°42 | 4°58 | 28° 4 | F 9  |
| S 10 | 17 12 15 | 18°42'35 | 16°18 | 12°54  | 5°26  | 9°13  | 6°35  | 20°54 | 28°32  | 12°55 | 10° 9  | 27°16  | 28°39 | 5° 5 | 28° 7 | S 10 |
| S 11 | 17 16 12 | 19°39'53 | 28°52 | 14° 4  | 6°40  | 9°29  | 6°46  | 20°56 | 28°30  | 12°57 | 10° 9  | 27°11  | 28°36 | 5°11 | 28°10 | S 11 |
| M12  | 17 20 8  | 20°37'11 | 11♏14 | 15°11  | 7°53  | 9°45  | 6°57  | 20°58 | 28°27  | 12°59 | 10° 9  | 27° 6  | 28°33 | 5°18 | 28°12 | M12  |
| T 13 | 17 24 5  | 21°34'29 | 23°25 | 16°15  | 9° 6  | 10° 3 | 7° 8  | 21° 0 | 28°25  | 13° 2 | 10° 9  | 26°59  | 28°30 | 5°25 | 28°15 | T 13 |
| W14  | 17 28 1  | 22°31'47 | 5♏27  | 17°15  | 10°20 | 10°20 | 7°19  | 21° 2 | 28°23  | 13° 4 | 10° 8  | 26°53  | 28°26 | 5°31 | 28°18 | W14  |
| T 15 | 17 31 58 | 23°29'03 | 17°23 | 18°12  | 11°33 | 10°38 | 7°30  | 21° 4 | 28°21  | 13° 6 | 10° 8  | 26°48  | 28°23 | 5°38 | 28°20 | T 15 |
| F 16 | 17 35 54 | 24°26'20 | 29°13 | 19° 5  | 12°46 | 10°57 | 7°41  | 21° 5 | 28°19  | 13° 8 | 10° 8  | 26°44  | 28°20 | 5°45 | 28°23 | F 16 |
| S 17 | 17 39 51 | 25°23'36 | 11♈1  | 19°55  | 13°59 | 11°16 | 7°52  | 21° 7 | 28°17  | 13°11 | 10° 8  | 26°41  | 28°17 | 5°51 | 28°25 | S 17 |
| S 18 | 17 43 48 | 26°20'51 | 22°48 | 20°41  | 15°13 | 11°36 | 8° 3  | 21° 9 | 28°14  | 13°13 | 10° 8  | 26°D40 | 28°14 | 5°58 | 28°28 | S 18 |
| M19  | 17 47 44 | 27°18'06 | 4♊37  | 21°24  | 16°26 | 11°56 | 8°15  | 21°10 | 28°12  | 13°15 | 10° 8  | 26°40  | 28°11 | 6° 5 | 28°30 | M19  |
| T 20 | 17 51 41 | 28°15'20 | 16°32 | 22° 2  | 17°39 | 12°16 | 8°26  | 21°11 | 28°10  | 13°17 | 10°D 8 | 26°41  | 28° 7 | 6°11 | 28°32 | T 20 |
| W21  | 17 55 37 | 29°12'34 | 28°35 | 22°37  | 18°52 | 12°37 | 8°37  | 21°13 | 28° 8  | 13°19 | 10° 8  | 26°43  | 28° 4 | 6°18 | 28°35 | W21  |
| T 22 | 17 59 34 | 0♈9'47   | 10♏52 | 23° 7  | 20° 6 | 12°59 | 8°49  | 21°14 | 28° 6  | 13°21 | 10° 8  | 26°44  | 28° 1 | 6°25 | 28°37 | T 22 |
| F 23 | 18 3 30  | 1° 7'00  | 23°25 | 23°33  | 21°19 | 13°20 | 9° 1  | 21°15 | 28° 4  | 13°24 | 10° 8  | 26°45  | 27°58 | 6°31 | 28°39 | F 23 |
| S 24 | 18 7 27  | 2° 4'12  | 6♊20  | 23°55  | 22°32 | 13°43 | 9°12  | 21°16 | 28° 2  | 13°26 | 10° 8  | 26°R45 | 27°55 | 6°38 | 28°41 | S 24 |
| S 25 | 18 11 23 | 3° 1'24  | 19°41 | 24°12  | 23°45 | 14° 5 | 9°24  | 21°16 | 28° 0  | 13°28 | 10° 8  | 26°45  | 27°52 | 6°45 | 28°43 | S 25 |
| M26  | 18 15 20 | 3°58'35  | 3♏28  | 24°25  | 24°58 | 14°28 | 9°36  | 21°17 | 27°59  | 13°30 | 10° 8  | 26°43  | 27°48 | 6°51 | 28°45 | M26  |
| T 27 | 18 19 17 | 4°55'46  | 17°43 | 24°33  | 26°11 | 14°52 | 9°48  | 21°18 | 27°57  | 13°32 | 10° 8  | 26°40  | 27°45 | 6°58 | 28°47 | T 27 |
| W28  | 18 23 13 | 5°52'57  | 2♈22  | 24°R36 | 27°24 | 15°15 | 9°59  | 21°18 | 27°55  | 13°34 | 10° 9  | 26°38  | 27°42 | 7° 5 | 28°49 | W28  |
| T 29 | 18 27 10 | 6°50'07  | 17°21 | 24°35  | 28°37 | 15°39 | 10°11 | 21°19 | 27°53  | 13°36 | 10° 9  | 26°35  | 27°39 | 7°11 | 28°51 | T 29 |
| F 30 | 18 31 6  | 7°47'17  | 2♏32  | 24♈29  | 29♈51 | 16♊4  | 10♊23 | 21♈19 | 27♏52  | 13♏38 | 10♊9   | 26♏33  | 27♏36 | 7♈18 | 28♏53 | F 30 |

Delta T = 11.27 sec

Greg. Calendar

## ASTRODIENST EPHEMERIS for the year 1730

geocentric

JULY 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽       | ♀      | ♂     | ♂     | ♂      | ♂      | ♂      | ♂       | ♂      | ♂      | ♂      | ♂      | ♂      | Day  |
|------|----------|----------|---------|--------|-------|-------|--------|--------|--------|---------|--------|--------|--------|--------|--------|------|
| S 1  | 18 35 3  | 8°44'27  | 17°34'5 | 24°R19 | 1°L 4 | 16°29 | 10°L35 | 21°H19 | 27°R50 | 13°II41 | 10°L 9 | 26°R32 | 27°332 | 7°224  | 28°V55 | S 1  |
| S 2  | 18 38 59 | 9°41'38  | 2°51    | 24°S 4 | 2°17  | 16°54 | 10°47  | 21°19  | 27°M48 | 13°43   | 10°10  | 26°D32 | 27°29  | 7°31   | 28°57  | S 2  |
| M 3  | 18 42 56 | 10°38'48 | 17°40   | 23°45  | 3°30  | 17°20 | 11° 0  | 21°R19 | 27°47  | 13°45   | 10°10  | 26°333 | 27°26  | 7°38   | 28°58  | M 3  |
| T 4  | 18 46 53 | 11°35'59 | 2°H 8   | 23°22  | 4°43  | 17°45 | 11°12  | 21°19  | 27°45  | 13°47   | 10°11  | 26°34  | 27°23  | 7°44   | 29° 0  | T 4  |
| W 5  | 18 50 49 | 12°33'09 | 16°10   | 22°55  | 5°55  | 18°12 | 11°24  | 21°19  | 27°43  | 13°49   | 10°11  | 26°35  | 27°20  | 7°51   | 29° 2  | W 5  |
| T 6  | 18 54 46 | 13°30'21 | 29°46   | 22°25  | 7° 8  | 18°38 | 11°36  | 21°19  | 27°42  | 13°51   | 10°12  | 26°36  | 27°17  | 7°58   | 29° 3  | T 6  |
| F 7  | 18 58 42 | 14°27'32 | 12°V57  | 21°51  | 8°21  | 19° 5 | 11°49  | 21°18  | 27°41  | 13°53   | 10°12  | 26°R36 | 27°13  | 8° 4   | 29° 5  | F 7  |
| S 8  | 19 2 39  | 15°24'45 | 25°45   | 21°16  | 9°34  | 19°32 | 12° 1  | 21°18  | 27°39  | 13°55   | 10°13  | 26°36  | 27°10  | 8°11   | 29° 6  | S 8  |
| S 9  | 19 6 35  | 16°21'57 | 8°L15   | 20°38  | 10°47 | 20° 0 | 12°13  | 21°17  | 27°38  | 13°57   | 10°13  | 26°35  | 27° 7  | 8°18   | 29° 8  | S 9  |
| M10  | 19 10 32 | 17°19'11 | 20°30   | 19°59  | 12° 0 | 20°28 | 12°26  | 21°17  | 27°36  | 13°59   | 10°14  | 26°34  | 27° 4  | 8°24   | 29° 9  | M10  |
| T 11 | 19 14 28 | 18°16'25 | 2°II33  | 19°20  | 13°13 | 20°56 | 12°38  | 21°16  | 27°35  | 14° 1   | 10°15  | 26°33  | 27° 1  | 8°31   | 29°10  | T 11 |
| W12  | 19 18 25 | 19°13'39 | 14°27   | 18°40  | 14°26 | 21°24 | 12°51  | 21°15  | 27°34  | 14° 2   | 10°15  | 26°32  | 26°58  | 8°38   | 29°12  | W12  |
| T 13 | 19 22 22 | 20°10'54 | 26°17   | 18° 2  | 15°38 | 21°53 | 13° 3  | 21°14  | 27°33  | 14° 4   | 10°16  | 26°31  | 26°54  | 8°44   | 29°13  | T 13 |
| F 14 | 19 26 18 | 21° 8'10 | 8°S 5   | 17°24  | 16°51 | 22°22 | 13°16  | 21°13  | 27°32  | 14° 6   | 10°17  | 26°31  | 26°51  | 8°51   | 29°14  | F 14 |
| S 15 | 19 30 15 | 22° 5'26 | 19°52   | 16°49  | 18° 4 | 22°51 | 13°29  | 21°12  | 27°30  | 14° 8   | 10°18  | 26°30  | 26°48  | 8°58   | 29°15  | S 15 |
| S 16 | 19 34 11 | 23° 2'43 | 1°L43   | 16°17  | 19°17 | 23°21 | 13°41  | 21°11  | 27°29  | 14°10   | 10°19  | 26°D30 | 26°45  | 9° 4   | 29°16  | S 16 |
| M17  | 19 38 8  | 23°59'59 | 13°38   | 15°48  | 20°29 | 23°50 | 13°54  | 21° 9  | 27°28  | 14°12   | 10°19  | 26°30  | 26°42  | 9°11   | 29°17  | M17  |
| T 18 | 19 42 4  | 24°57'17 | 25°40   | 15°22  | 21°42 | 24°21 | 14° 7  | 21° 8  | 27°27  | 14°14   | 10°20  | 26°31  | 26°38  | 9°18   | 29°18  | T 18 |
| W19  | 19 46 1  | 25°54'35 | 7°H52   | 15° 1  | 22°55 | 24°51 | 14°20  | 21° 6  | 27°26  | 14°15   | 10°21  | 26°31  | 26°35  | 9°24   | 29°19  | W19  |
| T 20 | 19 49 57 | 26°51'53 | 20°16   | 14°45  | 24° 7 | 25°22 | 14°32  | 21° 5  | 27°26  | 14°17   | 10°22  | 26°R31 | 26°32  | 9°31   | 29°20  | T 20 |
| F 21 | 19 53 54 | 27°49'11 | 2°L56   | 14°34  | 25°20 | 25°52 | 14°45  | 21° 3  | 27°25  | 14°19   | 10°23  | 26°31  | 26°29  | 9°38   | 29°21  | F 21 |
| S 22 | 19 57 51 | 28°46'30 | 15°52   | 14°D29 | 26°33 | 26°24 | 14°58  | 21° 1  | 27°24  | 14°21   | 10°24  | 26°31  | 26°26  | 9°44   | 29°21  | S 22 |
| S 23 | 20 1 47  | 29°43'49 | 29°10   | 14°29  | 27°45 | 26°55 | 15°11  | 20°59  | 27°23  | 14°22   | 10°25  | 26°D31 | 26°23  | 9°51   | 29°22  | S 23 |
| M24  | 20 5 44  | 0°L41'09 | 12°M50  | 14°35  | 28°58 | 27°27 | 15°24  | 20°57  | 27°23  | 14°24   | 10°26  | 26°31  | 26°19  | 9°57   | 29°23  | M24  |
| T 25 | 20 9 40  | 1°38'30  | 26°52   | 14°47  | 0°H10 | 27°58 | 15°37  | 20°55  | 27°22  | 14°26   | 10°27  | 26°31  | 26°16  | 10° 4  | 29°23  | T 25 |
| W26  | 20 13 37 | 2°35'51  | 11°L18  | 15° 6  | 1°23  | 28°31 | 15°50  | 20°53  | 27°21  | 14°27   | 10°29  | 26°31  | 26°13  | 10°11  | 29°24  | W26  |
| T 27 | 20 17 33 | 3°33'12  | 26° 2   | 15°30  | 2°35  | 29° 3 | 16° 3  | 20°50  | 27°21  | 14°29   | 10°30  | 26°32  | 26°10  | 10°17  | 29°24  | T 27 |
| F 28 | 20 21 30 | 4°30'34  | 11°S 0  | 16° 1  | 3°48  | 29°35 | 16°16  | 20°48  | 27°20  | 14°31   | 10°31  | 26°32  | 26° 7  | 10°24  | 29°25  | F 28 |
| S 29 | 20 25 26 | 5°27'57  | 26° 5   | 16°38  | 5° 0  | 0°M 8 | 16°29  | 20°45  | 27°20  | 14°32   | 10°32  | 26°R33 | 26° 4  | 10°31  | 29°25  | S 29 |
| S 30 | 20 29 23 | 6°25'21  | 11°L 7  | 17°21  | 6°12  | 0°41  | 16°42  | 20°43  | 27°19  | 14°34   | 10°34  | 26°32  | 26° 0  | 10°37  | 29°25  | S 30 |
| M31  | 20 33 20 | 7°L22'45 | 25°S59  | 18°S10 | 7°H25 | 1°M14 | 16°L55 | 20°H40 | 27°M19 | 14°II35 | 10°L35 | 26°332 | 25°S57 | 10°S44 | 29°V25 | M31  |

Delta T = 11.28 sec

Greg. Calendar

AUGUST 1730

00:00 UT

| Day  | Sid.t    | ☉        | ☽       | ♀      | ♂      | ♂      | ♂      | ♂      | ♂      | ♂       | ♂      | ♂      | ♂      | ♂      | ♂      | Day  |
|------|----------|----------|---------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|--------|--------|------|
| T 1  | 20 37 16 | 8°L20'11 | 10°H33  | 19°S 6 | 8°H37  | 1°M48  | 17°L 8 | 20°R38 | 27°R19 | 14°II37 | 10°L36 | 26°R30 | 25°S54 | 10°S51 | 29°V25 | T 1  |
| W 2  | 20 41 13 | 9°17'38  | 24°42   | 20° 7  | 9°49   | 2°21   | 17°21  | 20°H35 | 27°M19 | 14°38   | 10°37  | 26°S29 | 25°51  | 10°57  | 29°26  | W 2  |
| T 3  | 20 45 9  | 10°15'05 | 8°V26   | 21°14  | 11° 1  | 2°55   | 17°34  | 20°32  | 27°18  | 14°40   | 10°39  | 26°27  | 25°48  | 11° 4  | 29°R26 | T 3  |
| F 4  | 20 49 6  | 11°12'35 | 21°43   | 22°27  | 12°13  | 3°29   | 17°47  | 20°29  | 27°18  | 14°41   | 10°40  | 26°26  | 25°44  | 11°11  | 29°26  | F 4  |
| S 5  | 20 53 2  | 12°10'05 | 4°S35   | 23°45  | 13°26  | 4° 4   | 18° 0  | 20°26  | 27°18  | 14°42   | 10°42  | 26°25  | 25°41  | 11°17  | 29°26  | S 5  |
| S 6  | 20 56 59 | 13° 7'37 | 17° 5   | 25° 8  | 14°38  | 4°38   | 18°13  | 20°23  | 27°D18 | 14°44   | 10°43  | 26°D25 | 25°38  | 11°24  | 29°25  | S 6  |
| M 7  | 21 0 55  | 14° 5'11 | 29°18   | 26°36  | 15°50  | 5°13   | 18°26  | 20°20  | 27°18  | 14°45   | 10°45  | 26°26  | 25°35  | 11°31  | 29°25  | M 7  |
| T 8  | 21 4 52  | 15° 2'45 | 11°II18 | 28° 9  | 17° 2  | 5°47   | 18°39  | 20°16  | 27°18  | 14°46   | 10°46  | 26°27  | 25°32  | 11°37  | 29°25  | T 8  |
| W 9  | 21 8 49  | 16° 0'22 | 23°10   | 29°46  | 18°14  | 6°22   | 18°52  | 20°13  | 27°18  | 14°48   | 10°48  | 26°28  | 25°29  | 11°44  | 29°25  | W 9  |
| T 10 | 21 12 45 | 16°57'59 | 4°S58   | 1°L27  | 19°26  | 6°58   | 19° 5  | 20°10  | 27°19  | 14°49   | 10°49  | 26°30  | 25°25  | 11°51  | 29°24  | T 10 |
| F 11 | 21 16 42 | 17°55'39 | 16°45   | 3°12   | 20°38  | 7°33   | 19°19  | 20° 6  | 27°19  | 14°50   | 10°51  | 26°31  | 25°22  | 11°57  | 29°24  | F 11 |
| S 12 | 21 20 38 | 18°53'19 | 28°36   | 5° 0   | 21°50  | 8° 9   | 19°32  | 20° 3  | 27°19  | 14°51   | 10°52  | 26°R31 | 25°19  | 12° 4  | 29°23  | S 12 |
| S 13 | 21 24 35 | 19°51'01 | 10°L33  | 6°51   | 23° 2  | 8°44   | 19°45  | 19°59  | 27°19  | 14°53   | 10°54  | 26°31  | 25°16  | 12°10  | 29°23  | S 13 |
| M14  | 21 28 31 | 20°48'44 | 22°38   | 8°45   | 24°14  | 9°20   | 19°58  | 19°55  | 27°20  | 14°54   | 10°56  | 26°29  | 25°13  | 12°17  | 29°22  | M14  |
| T 15 | 21 32 28 | 21°46'29 | 4°H54   | 10°40  | 25°25  | 9°56   | 20°11  | 19°51  | 27°20  | 14°55   | 10°57  | 26°26  | 25°10  | 12°24  | 29°22  | T 15 |
| W16  | 21 36 24 | 22°44'14 | 17°20   | 12°38  | 26°37  | 10°33  | 20°24  | 19°48  | 27°21  | 14°56   | 10°59  | 26°22  | 25° 6  | 12°30  | 29°21  | W16  |
| T 17 | 21 40 21 | 23°42'01 | 29°59   | 14°36  | 27°49  | 11° 9  | 20°37  | 19°44  | 27°21  | 14°57   | 11° 1  | 26°17  | 25° 3  | 12°37  | 29°20  | T 17 |
| F 18 | 21 44 18 | 24°39'50 | 12°L53  | 16°35  | 29° 1  | 11°46  | 20°50  | 19°40  | 27°22  | 14°58   | 11° 3  | 26°13  | 25° 0  | 12°44  | 29°20  | F 18 |
| S 19 | 21 48 14 | 25°37'39 | 26° 0   | 18°35  | 0°L12  | 12°23  | 21° 4  | 19°36  | 27°23  | 14°59   | 11° 4  | 26° 9  | 24°57  | 12°50  | 29°19  | S 19 |
| S 20 | 21 52 11 | 26°35'30 | 9°M22   | 20°35  | 1°24   | 13° 0  | 21°17  | 19°32  | 27°23  | 15° 0   | 11° 6  | 26° 7  | 24°54  | 12°57  | 29°18  | S 20 |
| M21  | 21 56 7  | 27°33'22 | 23° 0   | 22°36  | 2°35   | 13°37  | 21°30  | 19°28  | 27°24  | 15° 1   | 11° 8  | 26°D 6 | 24°50  | 13° 4  | 29°17  | M21  |
| T 22 | 22 0 4   | 28°31'15 | 6°L54   | 24°36  | 3°47   | 14°14  | 21°43  | 19°24  | 27°25  | 15° 2   | 11°10  | 26° 6  | 24°47  | 13°10  | 29°16  | T 22 |
| W23  | 22 4 0   | 29°29'10 | 21° 5   | 26°35  | 4°58   | 14°52  | 21°56  | 19°19  | 27°26  | 15° 3   | 11°12  | 26° 7  | 24°44  | 13°17  | 29°15  | W23  |
| T 24 | 22 7 57  | 0°H27'05 | 5°S30   | 28°34  | 6°10   | 15°29  | 22° 9  | 19°15  | 27°26  | 15° 4   | 11°14  | 26° 9  | 24°41  | 13°24  | 29°14  | T 24 |
| F 25 | 22 11 53 | 1°25'02  | 20° 6   | 0°H32  | 7°21   | 16° 7  | 22°22  | 19°11  | 27°27  | 15° 4   | 11°16  | 26°R10 | 24°38  | 13°30  | 29°12  | F 25 |
| S 26 | 22 15 50 | 2°23'01  | 4°S50   | 2°29   | 8°33   | 16°45  | 22°35  | 19° 7  | 27°28  | 15° 5   | 11°18  | 26° 9  | 24°35  | 13°37  | 29°11  | S 26 |
| S 27 | 22 19 47 | 3°21'01  | 19°36   | 4°26   | 9°44   | 17°23  | 22°48  | 19° 2  | 27°30  | 15° 6   | 11°19  | 26° 8  | 24°31  | 13°44  | 29°10  | S 27 |
| M28  | 22 23 43 | 4°19'02  | 4°H15   | 6°21   | 10°55  | 18° 1  | 23° 1  | 18°58  | 27°31  | 15° 7   | 11°21  | 26° 4  | 24°28  | 13°50  | 29° 9  | M28  |
| T 29 | 22 27 40 | 5°17'05  | 18°42   | 8°15   | 12° 6  | 18°40  | 23°14  | 18°54  | 27°32  | 15° 7   | 11°23  | 25°59  | 24°25  | 13°57  | 29° 7  | T 29 |
| W30  | 22 31 36 | 6°15'10  | 2°V50   | 10° 8  | 13°17  | 19°18  | 23°27  | 18°49  | 27°33  | 15° 8   | 11°25  | 25°53  | 24°22  | 14° 4  | 29° 6  | W30  |
| T 31 | 22 35 33 | 7°H13'16 | 16°V35  | 12°H 0 | 14°L28 | 19°M57 | 23°L40 | 18°H45 | 27°M34 | 15°II 9 | 11°L27 | 25°S46 | 24°S19 | 14°S10 | 29°V 4 | T 31 |

Delta T = 11.29 sec

Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1730

## geocentric

SEPTEMBER 1730

00:00 UT

| Day  | Sid.t    | ☉                     | ☽                     | ♀                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | Day  |
|------|----------|-----------------------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------|
| F 1  | 22 39 29 | 8 <sup>h</sup> 11'24" | 29 <sup>h</sup> 54'   | 13 <sup>h</sup> 51' | 15 <sup>h</sup> 39' | 20 <sup>h</sup> 35' | 23 <sup>h</sup> 53' | 18 <sup>h</sup> 40' | 27 <sup>h</sup> 35' | 15 <sup>h</sup> 11' | 11 <sup>h</sup> 30' | 25 <sup>h</sup> 40' | 24 <sup>h</sup> 16' | 14 <sup>h</sup> 17' | 29 <sup>h</sup> 03' | F 1  |
| S 2  | 22 43 26 | 9° 9'35"              | 12 <sup>h</sup> 34'   | 15°40'              | 16°50'              | 21°14'              | 24° 6'              | 18 <sup>h</sup> 36' | 27°37'              | 15°10'              | 11°32'              | 25 <sup>h</sup> 35' | 24°12'              | 14°23'              | 29 <sup>h</sup> 01' | S 2  |
| S 3  | 22 47 22 | 10° 7'47"             | 25°22'                | 17°29'              | 18° 1'              | 21°53'              | 24°19'              | 18°31'              | 27°38'              | 15°10'              | 11°34'              | 25°32'              | 24° 9'              | 14°30'              | 28°59'              | S 3  |
| M 4  | 22 51 19 | 11° 6'02"             | 7 <sup>h</sup> 11'36" | 19°16'              | 19°12'              | 22°33'              | 24°31'              | 18°27'              | 27°40'              | 15°11'              | 11°36'              | 25°D31'             | 24° 6'              | 14°37'              | 28°58'              | M 4  |
| T 5  | 22 55 16 | 12° 4'19"             | 19°36'                | 21° 2'              | 20°23'              | 23°12'              | 24°44'              | 18°22'              | 27°41'              | 15°11'              | 11°38'              | 25°31'              | 24° 3'              | 14°43'              | 28°56'              | T 5  |
| W 6  | 22 59 12 | 13° 2'37"             | 1 <sup>h</sup> 52'27" | 22°47'              | 21°34'              | 23°52'              | 24°57'              | 18°17'              | 27°43'              | 15°12'              | 11°40'              | 25°33'              | 24° 0'              | 14°50'              | 28°54'              | W 6  |
| T 7  | 23 3 9   | 14° 0'58"             | 13°15'                | 24°31'              | 22°44'              | 24°31'              | 25°10'              | 18°13'              | 27°44'              | 15°12'              | 11°42'              | 25°34'              | 23°56'              | 14°57'              | 28°52'              | T 7  |
| F 8  | 23 7 5   | 14°59'21"             | 25° 4'                | 26°13'              | 23°55'              | 25°11'              | 25°22'              | 18° 8'              | 27°46'              | 15°13'              | 11°44'              | 25°R35'             | 23°53'              | 15° 3'              | 28°51'              | F 8  |
| S 9  | 23 11 2  | 15°57'46"             | 6 <sup>h</sup> 52'59" | 27°55'              | 25° 6'              | 25°51'              | 25°35'              | 18° 4'              | 27°48'              | 15°13'              | 11°46'              | 25°34'              | 23°50'              | 15°10'              | 28°49'              | S 9  |
| S 10 | 23 14 58 | 16°56'12"             | 19° 3'                | 29°35'              | 26°16'              | 26°31'              | 25°48'              | 17°59'              | 27°49'              | 15°13'              | 11°49'              | 25°31'              | 23°47'              | 15°17'              | 28°47'              | S 10 |
| M 11 | 23 18 55 | 17°54'41"             | 1 <sup>h</sup> 20'    | 1 <sup>h</sup> 14'  | 27°27'              | 27°11'              | 26° 0'              | 17°54'              | 27°51'              | 15°13'              | 11°51'              | 25°26'              | 23°44'              | 15°23'              | 28°45'              | M 11 |
| T 12 | 23 22 51 | 18°53'12"             | 13°51'                | 2°52'               | 28°37'              | 27°51'              | 26°13'              | 17°50'              | 27°53'              | 15°14'              | 11°53'              | 25°19'              | 23°41'              | 15°30'              | 28°43'              | T 12 |
| W 13 | 23 26 48 | 19°51'44"             | 26°37'                | 4°30'               | 29°47'              | 28°32'              | 26°26'              | 17°45'              | 27°55'              | 15°14'              | 11°55'              | 25°10'              | 23°37'              | 15°37'              | 28°41'              | W 13 |
| T 14 | 23 30 44 | 20°50'19"             | 9 <sup>h</sup> 38'    | 6° 6'               | 0 <sup>h</sup> 58'  | 29°12'              | 26°38'              | 17°40'              | 27°57'              | 15°14'              | 11°58'              | 25° 0'              | 23°34'              | 15°43'              | 28°38'              | T 14 |
| F 15 | 23 34 41 | 21°48'55"             | 22°52'                | 7°41'               | 2° 8'               | 29°53'              | 26°51'              | 17°36'              | 27°59'              | 15°14'              | 12° 0'              | 24°50'              | 23°31'              | 15°50'              | 28°36'              | F 15 |
| S 16 | 23 38 38 | 22°47'34"             | 6 <sup>h</sup> 18'    | 9°15'               | 3°18'               | 0 <sup>h</sup> 34'  | 27° 3'              | 17°31'              | 28° 1'              | 15°14'              | 12° 2'              | 24°41'              | 23°28'              | 15°56'              | 28°34'              | S 16 |
| S 17 | 23 42 34 | 23°46'14"             | 19°56'                | 10°48'              | 4°28'               | 1°14'               | 27°15'              | 17°27'              | 28° 3'              | 15°14'              | 12° 4'              | 24°35'              | 23°25'              | 16° 3'              | 28°32'              | S 17 |
| M 18 | 23 46 31 | 24°44'55"             | 3 <sup>h</sup> 42'    | 12°20'              | 5°38'               | 1°55'               | 27°28'              | 17°22'              | 28° 5'              | 15°R14'             | 12° 7'              | 24°31'              | 23°21'              | 16°10'              | 28°29'              | M 18 |
| T 19 | 23 50 27 | 25°43'39"             | 17°37'                | 13°51'              | 6°48'               | 2°37'               | 27°40'              | 17°17'              | 28° 7'              | 15°14'              | 12° 9'              | 24°29'              | 23°18'              | 16°16'              | 28°27'              | T 19 |
| W 20 | 23 54 24 | 26°42'24"             | 1 <sup>h</sup> 30'    | 15°21'              | 7°58'               | 3°18'               | 27°52'              | 17°13'              | 28° 9'              | 15°14'              | 12°11'              | 24°D29'             | 23°15'              | 16°23'              | 28°25'              | W 20 |
| T 21 | 23 58 20 | 27°41'11"             | 15°50'                | 16°50'              | 9° 8'               | 3°59'               | 28° 5'              | 17° 8'              | 28°11'              | 15°14'              | 12°14'              | 24°29'              | 23°12'              | 16°30'              | 28°22'              | T 21 |
| F 22 | 0 2 17   | 28°39'59"             | 0 <sup>h</sup> 36'    | 18°18'              | 10°17'              | 4°41'               | 28°17'              | 17° 4'              | 28°14'              | 15°14'              | 12°16'              | 24°R29'             | 23° 9'              | 16°36'              | 28°20'              | F 22 |
| S 23 | 0 6 14   | 29°38'50"             | 14°25'                | 19°45'              | 11°27'              | 5°22'               | 28°29'              | 16°59'              | 28°16'              | 15°14'              | 12°18'              | 24°28'              | 23° 6'              | 16°43'              | 28°18'              | S 23 |
| S 24 | 0 10 10  | 0 <sup>h</sup> 37'42" | 28°46'                | 21°11'              | 12°37'              | 6° 4'               | 28°41'              | 16°55'              | 28°18'              | 15°14'              | 12°20'              | 24°24'              | 23° 2'              | 16°50'              | 28°15'              | S 24 |
| M 25 | 0 14 7   | 1°36'35"              | 13 <sup>h</sup> 36'   | 22°36'              | 13°46'              | 6°46'               | 28°53'              | 16°51'              | 28°21'              | 15°14'              | 12°23'              | 24°17'              | 22°59'              | 16°56'              | 28°13'              | M 25 |
| T 26 | 0 18 3   | 2°35'31"              | 27° 9'                | 24° 0'              | 14°55'              | 7°28'               | 29° 5'              | 16°46'              | 28°23'              | 15°13'              | 12°25'              | 24° 8'              | 22°56'              | 17° 3'              | 28°10'              | T 26 |
| W 27 | 0 22 0   | 3°34'28"              | 11 <sup>h</sup> 3'    | 25°23'              | 16° 5'              | 8°10'               | 29°17'              | 16°42'              | 28°26'              | 15°13'              | 12°27'              | 23°57'              | 22°53'              | 17°10'              | 28° 7'              | W 27 |
| T 28 | 0 25 56  | 4°33'28"              | 24°38'                | 26°44'              | 17°14'              | 8°52'               | 29°29'              | 16°38'              | 28°28'              | 15°13'              | 12°30'              | 23°45'              | 22°50'              | 17°16'              | 28° 5'              | T 28 |
| F 29 | 0 29 53  | 5°32'30"              | 7 <sup>h</sup> 53'    | 28° 5'              | 18°23'              | 9°34'               | 29°40'              | 16°33'              | 28°31'              | 15°12'              | 12°32'              | 23°34'              | 22°47'              | 17°23'              | 28° 2'              | F 29 |
| S 30 | 0 33 49  | 6 <sup>h</sup> 31'34" | 20 <sup>h</sup> 34'   | 29 <sup>h</sup> 24' | 19 <sup>h</sup> 32' | 10 <sup>h</sup> 16' | 29 <sup>h</sup> 52' | 16 <sup>h</sup> 29' | 28 <sup>h</sup> 33' | 15 <sup>h</sup> 12' | 12 <sup>h</sup> 35' | 23 <sup>h</sup> 25' | 22 <sup>h</sup> 34' | 17 <sup>h</sup> 23' | 27 <sup>h</sup> 59' | S 30 |

Delta T = 11.31 sec

Greg. Calendar

OCTOBER 1730

00:00 UT

| Day  | Sid.t   | ☉                     | ☽                     | ♀                   | ♂                   | ♂                   | ♂                  | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | ♂                   | Day  |
|------|---------|-----------------------|-----------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------|
| S 1  | 0 37 46 | 7 <sup>h</sup> 30'41" | 3 <sup>h</sup> 11'17" | 0 <sup>h</sup> 42'  | 20 <sup>h</sup> 41' | 10 <sup>h</sup> 59' | 0 <sup>h</sup> 4'  | 16°R25'             | 28 <sup>h</sup> 36' | 15°R12'             | 12 <sup>h</sup> 37' | 23°R18'             | 22 <sup>h</sup> 34' | 17 <sup>h</sup> 36' | 27°R57'             | S 1  |
| M 2  | 0 41 42 | 8°29'49"              | 15°31'                | 1°59'               | 21°49'              | 11°41'              | 0°15'              | 16 <sup>h</sup> 31' | 28°39'              | 15°11'              | 12°39'              | 23 <sup>h</sup> 13' | 22°37'              | 17°43'              | 27°Y54'             | M 2  |
| T 3  | 0 45 39 | 9°29'00"              | 27°32'                | 3°14'               | 22°58'              | 12°24'              | 0°27'              | 16°17'              | 28°41'              | 15°11'              | 12°42'              | 23°11'              | 22°34'              | 17°49'              | 27°51'              | T 3  |
| W 4  | 0 49 36 | 10°28'14"             | 9 <sup>h</sup> 52'23" | 4°28'               | 24° 7'              | 13° 6'              | 0°38'              | 16°13'              | 28°44'              | 15°10'              | 12°44'              | 23°D10'             | 22°31'              | 17°56'              | 27°49'              | W 4  |
| T 5  | 0 53 32 | 11°27'29"             | 21°11'                | 5°40'               | 25°15'              | 13°49'              | 0°50'              | 16° 9'              | 28°47'              | 15°10'              | 12°46'              | 23°R10'             | 22°27'              | 18° 3'              | 27°46'              | T 5  |
| F 6  | 0 57 29 | 12°26'47"             | 3 <sup>h</sup> 01'    | 6°51'               | 26°23'              | 14°32'              | 1° 1'              | 16° 5'              | 28°50'              | 15° 9'              | 12°49'              | 23°10'              | 22°24'              | 18° 9'              | 27°43'              | F 6  |
| S 7  | 1 1 25  | 13°26'08"             | 14°58'                | 8° 0'               | 27°32'              | 15°15'              | 1°12'              | 16° 1'              | 28°52'              | 15° 9'              | 12°51'              | 23° 8'              | 22°21'              | 18°16'              | 27°40'              | S 7  |
| S 8  | 1 5 22  | 14°25'30"             | 27° 8'                | 9° 6'               | 28°40'              | 15°58'              | 1°23'              | 15°57'              | 28°55'              | 15° 8'              | 12°54'              | 23° 4'              | 22°18'              | 18°23'              | 27°37'              | S 8  |
| M 9  | 1 9 18  | 15°24'55"             | 9 <sup>h</sup> 33'    | 10°11'              | 29°48'              | 16°41'              | 1°35'              | 15°53'              | 28°58'              | 15° 7'              | 12°56'              | 22°58'              | 22°15'              | 18°29'              | 27°34'              | M 9  |
| T 10 | 1 13 15 | 16°24'22"             | 22°17'                | 11°13'              | 0 <sup>h</sup> 56'  | 17°25'              | 1°46'              | 15°50'              | 29° 1'              | 15° 7'              | 12°58'              | 22°48'              | 22°12'              | 18°36'              | 27°32'              | T 10 |
| W 11 | 1 17 11 | 17°23'51"             | 5 <sup>h</sup> 21'    | 12°13'              | 2° 3'               | 18° 8'              | 1°56'              | 15°46'              | 29° 4'              | 15° 6'              | 13° 1'              | 22°36'              | 22° 8'              | 18°43'              | 27°29'              | W 11 |
| T 12 | 1 21 8  | 18°23'22"             | 18°44'                | 13°10'              | 3°11'               | 18°51'              | 2° 7'              | 15°43'              | 29° 7'              | 15° 5'              | 13° 3'              | 22°24'              | 22° 5'              | 18°49'              | 27°26'              | T 12 |
| F 13 | 1 25 5  | 19°22'55"             | 2 <sup>h</sup> 23'    | 14° 4'              | 4°19'               | 19°35'              | 2°18'              | 15°39'              | 29°10'              | 15° 4'              | 13° 5'              | 22°11'              | 22° 2'              | 18°56'              | 27°23'              | F 13 |
| S 14 | 1 29 1  | 20°22'30"             | 16°15'                | 14°54'              | 5°26'               | 20°19'              | 2°29'              | 15°36'              | 29°13'              | 15° 4'              | 13° 8'              | 21°59'              | 21°59'              | 19° 3'              | 27°20'              | S 14 |
| S 15 | 1 32 58 | 21°22'08"             | 0 <sup>h</sup> 17'    | 15°41'              | 6°33'               | 21° 2'              | 2°39'              | 15°33'              | 29°16'              | 15° 3'              | 13°10'              | 21°50'              | 21°56'              | 19° 9'              | 27°17'              | S 15 |
| M 16 | 1 36 54 | 22°21'47"             | 14°23'                | 16°24'              | 7°40'               | 21°46'              | 2°50'              | 15°29'              | 29°19'              | 15° 2'              | 13°12'              | 21°44'              | 21°53'              | 19°16'              | 27°14'              | M 16 |
| T 17 | 1 40 51 | 23°21'28"             | 28°31'                | 17° 2'              | 8°47'               | 22°30'              | 3° 0'              | 15°26'              | 29°22'              | 15° 1'              | 13°15'              | 21°41'              | 21°49'              | 19°22'              | 27°11'              | T 17 |
| W 18 | 1 44 47 | 24°21'10"             | 12 <sup>h</sup> 33'   | 17°35'              | 9°54'               | 23°14'              | 3°11'              | 15°23'              | 29°26'              | 15° 0'              | 13°17'              | 21°39'              | 21°46'              | 19°29'              | 27° 8'              | W 18 |
| T 19 | 1 48 44 | 25°20'54"             | 26°46'                | 18° 2'              | 11° 1'              | 23°58'              | 3°21'              | 15°20'              | 29°29'              | 14°59'              | 13°19'              | 21°39'              | 21°43'              | 19°36'              | 27° 5'              | T 19 |
| F 20 | 1 52 40 | 26°20'40"             | 10 <sup>h</sup> 34'   | 18°24'              | 12° 7'              | 24°42'              | 3°31'              | 15°17'              | 29°32'              | 14°58'              | 13°22'              | 21°39'              | 21°40'              | 19°42'              | 27° 2'              | F 20 |
| S 21 | 1 56 37 | 27°20'28"             | 24°49'                | 18°39'              | 13°13'              | 25°26'              | 3°41'              | 15°14'              | 29°35'              | 14°57'              | 13°24'              | 21°37'              | 21°37'              | 19°49'              | 26°59'              | S 21 |
| S 22 | 2 0 34  | 28°20'17"             | 8 <sup>h</sup> 45'    | 18°R47'             | 14°19'              | 26°11'              | 3°51'              | 15°12'              | 29°39'              | 14°56'              | 13°26'              | 21°32'              | 21°33'              | 19°56'              | 26°56'              | S 22 |
| M 23 | 2 4 30  | 29°20'08"             | 22°35'                | 18°46'              | 15°25'              | 26°55'              | 4° 1'              | 15° 9'              | 29°42'              | 14°55'              | 13°29'              | 21°25'              | 21°30'              | 20° 2'              | 26°54'              | M 23 |
| T 24 | 2 8 27  | 0 <sup>h</sup> 20'00" | 6 <sup>h</sup> 17'    | 18°38'              | 16°31'              | 27°39'              | 4°11'              | 15° 6'              | 29°45'              | 14°54'              | 13°31'              | 21°15'              | 21°27'              | 20° 9'              | 26°51'              | T 24 |
| W 25 | 2 12 23 | 1°19'55"              | 19°47'                | 18°21'              | 17°36'              | 28°24'              | 4°21'              | 15° 4'              | 29°49'              | 14°53'              | 13°33'              | 21° 2'              | 21°24'              | 20°16'              | 26°48'              | W 25 |
| T 26 | 2 16 20 | 2°19'51"              | 3 <sup>h</sup> 3'     | 17°54'              | 18°42'              | 29° 8'              | 4°30'              | 15° 1'              | 29°52'              | 14°52'              | 13°36'              | 20°49'              | 21°21'              | 20°22'              | 26°45'              | T 26 |
| F 27 | 2 20 16 | 3°19'49"              | 16° 3'                | 17°19'              | 19°47'              | 29°53'              | 4°40'              | 14°59'              | 29°55'              | 14°51'              | 13°38'              | 20°37'              | 21°18'              | 20°29'              | 26°42'              | F 27 |
| S 28 | 2 24 13 | 4°19'49"              | 28°46'                | 16°33'              | 20°51'              | 0 <sup>h</sup> 38'  | 4°49'              | 14°57'              | 29°59'              | 14°49'              | 13°40'              | 20°26'              | 21°14'              | 20°36'              | 26°39'              | S 28 |
| S 29 | 2 28 9  | 5°19'52"              | 11 <sup>h</sup> 12'   | 15°39'              | 21°56'              | 1°23'               | 4°58'              | 14°55'              | 0 <sup>h</sup> 2'   | 14°48'              | 13°42'              | 20°17'              | 21°11'              | 20°42'              | 26°36'              | S 29 |
| M 30 | 2 32 6  | 6°19'56"              | 23°23'                | 14°37'              | 23° 0'              | 2° 7'               | 5° 7'              | 14°53'              | 0° 6'               | 14°47'              | 13°45'              | 20°12'              | 21° 8'              | 20°49'              | 26°33'              | M 30 |
| T 31 | 2 36 3  | 7 <sup>h</sup> 20'03" | 5 <sup>h</sup> 52'    | 13 <sup>h</sup> 28' | 24 <sup>h</sup> 34' | 2 <sup>h</sup> 52'  | 5 <sup>h</sup> 16' | 14 <sup>h</sup> 51' | 0 <sup>h</sup> 9'   | 14 <sup>h</sup> 46' | 13 <sup>h</sup> 47' | 20 <sup>h</sup> 39' | 21 <sup>h</sup> 35' | 20 <sup>h</sup> 55' | 26 <sup>h</sup> 30' | T 31 |

Delta T = 11.32 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1730  
geocentric

NOVEMBER 1730

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀      | ♂     | ♂     | ♂    | ♂      | ♂    | ♂      | ♂      | ♂      | ♂      | ♂      | ♂      | Day  |
|------|---------|----------|-------|--------|-------|-------|------|--------|------|--------|--------|--------|--------|--------|--------|------|
| W 1  | 2 39 59 | 8♍20°11  | 17♌12 | 12°R13 | 25♌ 8 | 3♌37  | 5♍25 | 14°R49 | 0♌13 | 14°R44 | 13♌49  | 20°D 8 | 21♌ 2  | 21♌ 2  | 26°R27 | W 1  |
| T 2  | 2 43 56 | 9°20'22  | 28°59 | 10♍55  | 26°12 | 4°22  | 5°34 | 14°H47 | 0°16 | 14°H43 | 13°51  | 20°R 8 | 20°58  | 21° 9  | 26°Y24 | T 2  |
| F 3  | 2 47 52 | 10°20'34 | 10♌49 | 9°36   | 27°15 | 5° 7  | 5°43 | 14°46  | 0°20 | 14°42  | 13°53  | 20°R 8 | 20°55  | 21°15  | 26°22  | F 3  |
| S 4  | 2 51 49 | 11°20'49 | 22°46 | 8°19   | 28°18 | 5°53  | 5°51 | 14°44  | 0°23 | 14°40  | 13°56  | 20° 7  | 20°52  | 21°22  | 26°19  | S 4  |
| S 5  | 2 55 45 | 12°21'05 | 4♍56  | 7° 5   | 29°21 | 6°38  | 6° 0 | 14°43  | 0°27 | 14°39  | 13°58  | 20° 5  | 20°49  | 21°29  | 26°16  | S 5  |
| M 6  | 2 59 42 | 13°21'24 | 17°24 | 5°58   | 0♌24  | 7°23  | 6° 8 | 14°41  | 0°30 | 14°38  | 14° 0  | 20° 0  | 20°46  | 21°35  | 26°13  | M 6  |
| T 7  | 3 3 38  | 14°21'44 | 0♌14  | 4°59   | 1°26  | 8° 8  | 6°16 | 14°40  | 0°34 | 14°36  | 14° 2  | 19°53  | 20°43  | 21°42  | 26°10  | T 7  |
| W 8  | 3 7 35  | 15°22'07 | 13°27 | 4°10   | 2°28  | 8°54  | 6°25 | 14°39  | 0°37 | 14°35  | 14° 4  | 19°43  | 20°39  | 21°49  | 26° 8  | W 8  |
| T 9  | 3 11 32 | 16°22'31 | 27° 5 | 3°33   | 3°29  | 9°39  | 6°32 | 14°38  | 0°41 | 14°33  | 14° 6  | 19°32  | 20°36  | 21°55  | 26° 5  | T 9  |
| F 10 | 3 15 28 | 17°22'57 | 11♍ 4 | 3° 6   | 4°30  | 10°25 | 6°40 | 14°37  | 0°45 | 14°32  | 14° 8  | 19°22  | 20°33  | 22° 2  | 26° 2  | F 10 |
| S 11 | 3 19 25 | 18°23'25 | 25°21 | 2°52   | 5°31  | 11°10 | 6°48 | 14°36  | 0°48 | 14°30  | 14°10  | 19°12  | 20°30  | 22° 9  | 25°59  | S 11 |
| S 12 | 3 23 21 | 19°23'54 | 9♌49  | 2°D49  | 6°32  | 11°56 | 6°56 | 14°36  | 0°52 | 14°29  | 14°12  | 19° 4  | 20°27  | 22°15  | 25°57  | S 12 |
| M13  | 3 27 18 | 20°24'25 | 24°23 | 2°57   | 7°32  | 12°42 | 7° 3 | 14°35  | 0°56 | 14°27  | 14°14  | 18°59  | 20°24  | 22°22  | 25°54  | M13  |
| T 14 | 3 31 14 | 21°24'58 | 8♌55  | 3°15   | 8°32  | 13°27 | 7°10 | 14°34  | 0°59 | 14°26  | 14°16  | 18°57  | 20°20  | 22°29  | 25°52  | T 14 |
| W15  | 3 35 11 | 22°25'31 | 23°21 | 3°42   | 9°31  | 14°13 | 7°17 | 14°34  | 1° 3 | 14°24  | 14°18  | 18°D56 | 20°17  | 22°35  | 25°49  | W15  |
| T 16 | 3 39 7  | 23°26'06 | 7♌37  | 4°19   | 10°30 | 14°59 | 7°24 | 14°34  | 1° 7 | 14°23  | 14°20  | 18°57  | 20°14  | 22°42  | 25°47  | T 16 |
| F 17 | 3 43 4  | 24°26'42 | 21°42 | 5° 2   | 11°28 | 15°45 | 7°31 | 14°34  | 1°10 | 14°21  | 14°22  | 18°R58 | 20°11  | 22°48  | 25°44  | F 17 |
| S 18 | 3 47 1  | 25°27'19 | 5♌36  | 5°53   | 12°26 | 16°31 | 7°38 | 14°D34 | 1°14 | 14°20  | 14°24  | 18°57  | 20° 8  | 22°55  | 25°42  | S 18 |
| S 19 | 3 50 57 | 26°27'57 | 19°17 | 6°50   | 13°24 | 17°17 | 7°44 | 14°34  | 1°18 | 14°18  | 14°26  | 18°55  | 20° 4  | 23° 2  | 25°39  | S 19 |
| M20  | 3 54 54 | 27°28'37 | 2°Y47 | 7°51   | 14°21 | 18° 3 | 7°51 | 14°34  | 1°21 | 14°16  | 14°28  | 18°50  | 20° 1  | 23° 8  | 25°37  | M20  |
| T 21 | 3 58 50 | 28°29'17 | 16° 4 | 8°58   | 15°17 | 18°49 | 7°57 | 14°34  | 1°25 | 14°15  | 14°30  | 18°43  | 19°58  | 23°15  | 25°34  | T 21 |
| W22  | 4 2 47  | 29°29'59 | 29°10 | 10° 8  | 16°13 | 19°35 | 8° 3 | 14°34  | 1°29 | 14°13  | 14°32  | 18°35  | 19°55  | 23°22  | 25°32  | W22  |
| T 23 | 4 6 43  | 0♌30'42  | 12♌ 3 | 11°22  | 17° 8 | 20°21 | 8° 9 | 14°35  | 1°32 | 14°12  | 14°34  | 18°26  | 19°52  | 23°28  | 25°30  | T 23 |
| F 24 | 4 10 40 | 1°31'26  | 24°44 | 12°38  | 18° 3 | 21° 7 | 8°15 | 14°35  | 1°36 | 14°10  | 14°35  | 18°17  | 19°49  | 23°35  | 25°27  | F 24 |
| S 25 | 4 14 36 | 2°32'12  | 7♍11  | 13°57  | 18°57 | 21°54 | 8°21 | 14°36  | 1°40 | 14° 8  | 14°37  | 18° 9  | 19°45  | 23°42  | 25°25  | S 25 |
| S 26 | 4 18 33 | 3°32'58  | 19°26 | 15°18  | 19°50 | 22°40 | 8°26 | 14°37  | 1°43 | 14° 7  | 14°39  | 18° 3  | 19°42  | 23°48  | 25°23  | S 26 |
| M27  | 4 22 30 | 4°33'46  | 1♌30  | 16°41  | 20°43 | 23°26 | 8°31 | 14°38  | 1°47 | 14° 5  | 14°41  | 18° 0  | 19°39  | 23°55  | 25°21  | M27  |
| T 28 | 4 26 26 | 5°34'36  | 13°25 | 18° 5  | 21°35 | 24°13 | 8°37 | 14°39  | 1°51 | 14° 3  | 14°42  | 17°D58 | 19°36  | 24° 2  | 25°19  | T 28 |
| W29  | 4 30 23 | 6°35'26  | 25°14 | 19°31  | 22°26 | 24°59 | 8°42 | 14°40  | 1°55 | 14° 2  | 14°44  | 17°58  | 19°33  | 24° 8  | 25°17  | W29  |
| T 30 | 4 34 19 | 7♌36'18  | 7♌ 0  | 20♍58  | 23♌17 | 25♌45 | 8♍46 | 14°H41 | 1°58 | 14°H 0 | 14°H46 | 18♌ 0  | 19°R30 | 24°R15 | 25°Y15 | T 30 |

Delta T = 11.33 sec

Greg. Calendar

DECEMBER 1730

00:00 UT

| Day  | Sid.t   | ☉        | ☽      | ♀     | ♂     | ♂     | ♂     | ♂      | ♂    | ♂      | ♂      | ♂      | ♂      | ♂      | ♂      | Day  |
|------|---------|----------|--------|-------|-------|-------|-------|--------|------|--------|--------|--------|--------|--------|--------|------|
| F 1  | 4 38 16 | 8♌37°11  | 18♌49  | 22♍25 | 24♌ 7 | 26♌32 | 8♍51  | 14°H42 | 2♌ 2 | 13°R58 | 14♌47  | 18♌ 1  | 19°R26 | 24♌21  | 25°R13 | F 1  |
| S 2  | 4 42 12 | 9°38'06  | 0♍44   | 23°54 | 24°56 | 27°18 | 8°56  | 14°44  | 2° 6 | 13°H57 | 14°49  | 18° 3  | 19°23  | 24°28  | 25°Y11 | S 2  |
| S 3  | 4 46 9  | 10°39'02 | 12°52  | 25°23 | 25°44 | 28° 5 | 9° 0  | 14°45  | 2° 9 | 13°55  | 14°50  | 18°R 3 | 19°20  | 24°35  | 25° 9  | S 3  |
| M 4  | 4 50 5  | 11°39'59 | 25°17  | 26°53 | 26°31 | 28°51 | 9° 4  | 14°47  | 2°13 | 13°53  | 14°52  | 18° 2  | 19°17  | 24°41  | 25° 7  | M 4  |
| T 5  | 4 54 2  | 12°40'57 | 8♌ 4   | 28°23 | 27°18 | 29°38 | 9° 8  | 14°49  | 2°17 | 13°51  | 14°53  | 17°59  | 19°14  | 24°48  | 25° 5  | T 5  |
| W 6  | 4 57 59 | 13°41'56 | 21°16  | 29°53 | 28° 3 | 0♌24  | 9°12  | 14°50  | 2°20 | 13°50  | 14°55  | 17°55  | 19°10  | 24°55  | 25° 4  | W 6  |
| T 7  | 5 1 55  | 14°42'57 | 4♍56   | 1♌24  | 28°47 | 1°11  | 9°15  | 14°52  | 2°24 | 13°48  | 14°56  | 17°50  | 19° 7  | 25° 1  | 25° 2  | T 7  |
| F 8  | 5 5 52  | 15°43'59 | 19° 2  | 2°55  | 29°31 | 1°58  | 9°19  | 14°54  | 2°28 | 13°46  | 14°58  | 17°45  | 19° 4  | 25° 8  | 25° 0  | F 8  |
| S 9  | 5 9 48  | 16°45'02 | 3♌32   | 4°27  | 0♌13  | 2°44  | 9°22  | 14°57  | 2°31 | 13°45  | 14°59  | 17°40  | 19° 1  | 25°15  | 24°59  | S 9  |
| S 10 | 5 13 45 | 17°46'05 | 18°18  | 5°59  | 0°54  | 3°31  | 9°25  | 14°59  | 2°35 | 13°43  | 15° 0  | 17°36  | 18°58  | 25°21  | 24°57  | S 10 |
| M11  | 5 17 41 | 18°47'10 | 3♌15   | 7°31  | 1°34  | 4°18  | 9°28  | 15° 1  | 2°38 | 13°41  | 15° 2  | 17°34  | 18°55  | 25°28  | 24°56  | M11  |
| T 12 | 5 21 38 | 19°48'15 | 18°13  | 9° 3  | 2°13  | 5° 4  | 9°31  | 15° 4  | 2°42 | 13°40  | 15° 3  | 17°D33 | 18°51  | 25°35  | 24°55  | T 12 |
| W13  | 5 25 34 | 20°49'21 | 3♌ 4   | 10°35 | 2°51  | 5°51  | 9°33  | 15° 6  | 2°46 | 13°38  | 15° 4  | 17°34  | 18°48  | 25°41  | 24°53  | W13  |
| T 14 | 5 29 31 | 21°50'26 | 17°42  | 12° 7 | 3°27  | 6°38  | 9°36  | 15° 9  | 2°49 | 13°36  | 15° 6  | 17°35  | 18°45  | 25°48  | 24°52  | T 14 |
| F 15 | 5 33 28 | 22°51'33 | 2♌ 2   | 13°40 | 4° 2  | 7°25  | 9°38  | 15°12  | 2°53 | 13°35  | 15° 7  | 17°37  | 18°42  | 25°55  | 24°51  | F 15 |
| S 16 | 5 37 24 | 23°52'39 | 16° 3  | 15°13 | 4°35  | 8°12  | 9°40  | 15°14  | 2°56 | 13°33  | 15° 8  | 17°38  | 18°39  | 26° 1  | 24°49  | S 16 |
| S 17 | 5 41 21 | 24°53'46 | 29°43  | 16°46 | 5° 7  | 8°58  | 9°42  | 15°17  | 3° 0 | 13°31  | 15° 9  | 17°R38 | 18°36  | 26° 8  | 24°48  | S 17 |
| M18  | 5 45 17 | 25°54'53 | 13°Y 4 | 18°19 | 5°38  | 9°45  | 9°43  | 15°20  | 3° 3 | 13°30  | 15°10  | 17°37  | 18°32  | 26°14  | 24°47  | M18  |
| T 19 | 5 49 14 | 26°56'00 | 26° 8  | 19°52 | 6° 6  | 10°32 | 9°45  | 15°24  | 3° 7 | 13°28  | 15°11  | 17°35  | 18°29  | 26°21  | 24°46  | T 19 |
| W20  | 5 53 10 | 27°57'07 | 8♌55   | 21°26 | 6°33  | 11°19 | 9°46  | 15°27  | 3°10 | 13°26  | 15°12  | 17°32  | 18°26  | 26°28  | 24°45  | W20  |
| T 21 | 5 57 7  | 28°58'14 | 21°29  | 23° 0 | 6°59  | 12° 6 | 9°47  | 15°30  | 3°14 | 13°25  | 15°13  | 17°29  | 18°23  | 26°34  | 24°44  | T 21 |
| F 22 | 6 1 3   | 29°59'22 | 3♍50   | 24°34 | 7°22  | 12°53 | 9°48  | 15°34  | 3°17 | 13°23  | 15°14  | 17°26  | 18°20  | 26°41  | 24°44  | F 22 |
| S 23 | 6 5 0   | 1♌ 0'30  | 16° 2  | 26° 8 | 7°44  | 13°40 | 9°48  | 15°37  | 3°20 | 13°21  | 15°15  | 17°24  | 18°16  | 26°48  | 24°43  | S 23 |
| S 24 | 6 8 57  | 2° 1'38  | 28° 4  | 27°42 | 8° 3  | 14°27 | 9°49  | 15°41  | 3°24 | 13°20  | 15°16  | 17°22  | 18°13  | 26°54  | 24°42  | S 24 |
| M25  | 6 12 53 | 3° 2'46  | 10♌ 0  | 29°17 | 8°21  | 15°13 | 9°49  | 15°44  | 3°27 | 13°18  | 15°17  | 17°21  | 18°10  | 27° 1  | 24°41  | M25  |
| T 26 | 6 16 50 | 4° 3'55  | 21°51  | 0♌52  | 8°36  | 16° 0 | 9°R49 | 15°48  | 3°30 | 13°17  | 15°18  | 17°D21 | 18° 7  | 27° 8  | 24°41  | T 26 |
| W27  | 6 20 46 | 5° 5'04  | 3♌28   | 2°27  | 8°50  | 16°47 | 9°49  | 15°52  | 3°34 | 13°15  | 15°19  | 17°22  | 18° 4  | 27°14  | 24°40  | W27  |
| T 28 | 6 24 43 | 6° 6'13  | 15°26  | 4° 3  | 9° 1  | 17°34 | 9°49  | 15°56  | 3°37 | 13°14  | 15°19  | 17°23  | 18° 1  | 27°21  | 24°40  | T 28 |
| F 29 | 6 28 39 | 7° 7'22  | 27°16  | 5°39  | 9°10  | 18°21 | 9°48  | 16° 0  | 3°40 | 13°12  | 15°20  | 17°24  | 17°57  | 27°28  | 24°39  | F 29 |
| S 30 | 6 32 36 | 8° 8'31  | 9♍13   | 7°15  | 9°17  | 19° 8 | 9°47  | 16° 4  | 3°43 | 13°11  | 15°21  | 17°25  | 17°54  | 27°34  | 24°39  | S 30 |
| S 31 | 6 36 33 | 9♌ 9'41  | 21♍20  | 8♌52  | 9♌21  | 19♌55 | 9♍47  | 16°H 8 | 3°47 | 13°H 9 | 15°H21 | 17°R26 | 17°R51 | 27°R41 | 24°Y39 | S 31 |

Delta T = 11.35 sec

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