



Astrodienst Ephemeris Tables for the year 1412

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 1412
geocentric

JANUARY 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	7 13 5	18°34'16	5°13	24°59	10°36	8°R19	12°15	18°R29	7°51	2°R18	15°R56	5°R17	7°11	8°42	22°13	F 1
S 2	7 17 2	19°49'21	17°10	25°47	11°51	8°19	12°18	18°28	7°54	2°17	15°55	5°13	7° 7	8°49	22°16	S 2
S 3	7 20 58	20°50'25	29°12	26°39	13° 6	8°17	12°21	18°27	7°57	2°15	15°54	5°11	7° 4	8°55	22°19	S 3
M 4	7 24 55	21°51'28	11°24	27°34	14°22	8°15	12°24	18°26	8° 1	2°14	15°53	5°D11	7° 1	9° 2	22°22	M 4
T 5	7 28 52	22°52'32	23°47	28°33	15°37	8°12	12°27	18°26	8° 4	2°12	15°52	5°12	6°58	9° 9	22°25	T 5
W 6	7 32 48	23°53'34	6°26	29°34	16°52	8° 8	12°29	18°25	8° 8	2°10	15°51	5°13	6°55	9°15	22°28	W 6
T 7	7 36 45	24°54'36	19°24	0°39	18° 8	8° 4	12°32	18°24	8°11	2° 9	15°50	5°R15	6°52	9°22	22°30	T 7
F 8	7 40 41	25°55'38	2°46	1°45	19°23	7°59	12°34	18°24	8°14	2° 7	15°49	5°14	6°48	9°29	22°33	F 8
S 9	7 44 38	26°56'39	16°33	2°54	20°39	7°53	12°36	18°24	8°18	2° 6	15°48	5°13	6°45	9°35	22°35	S 9
S 10	7 48 34	27°57'40	0°46	4° 5	21°54	7°46	12°38	18°23	8°21	2° 4	15°47	5° 9	6°42	9°42	22°37	S 10
M 11	7 52 31	28°58'40	15°25	5°18	23° 9	7°38	12°40	18°D23	8°25	2° 3	15°47	5° 5	6°39	9°49	22°39	M 11
T 12	7 56 28	29°59'39	0°23	6°33	24°25	7°29	12°41	18°23	8°28	2° 1	15°46	4°59	6°36	9°56	22°41	T 12
W 13	8 0 24	1° 0'38	15°33	7°49	25°40	7°20	12°42	18°23	8°32	2° 0	15°45	4°54	6°33	10° 2	22°43	W 13
T 14	8 4 21	2° 1'35	0°46	9° 6	26°55	7°10	12°43	18°24	8°35	1°58	15°44	4°50	6°29	10° 9	22°45	T 14
F 15	8 8 17	3° 2'32	15°50	10°25	28°11	6°59	12°44	18°24	8°39	1°57	15°43	4°47	6°26	10°16	22°46	F 15
S 16	8 12 14	4° 3'27	0°37	11°45	29°26	6°47	12°45	18°24	8°42	1°56	15°43	4°D46	6°23	10°22	22°48	S 16
S 17	8 16 10	5° 4'21	15° 0	13° 6	0°41	6°35	12°46	18°25	8°46	1°54	15°42	4°46	6°20	10°29	22°49	S 17
M 18	8 20 7	6° 5'13	28°56	14°29	1°56	6°22	12°46	18°26	8°49	1°53	15°41	4°47	6°17	10°36	22°50	M 18
T 19	8 24 3	7° 6'04	12°25	15°52	3°12	6° 8	12°R46	18°27	8°53	1°52	15°41	4°49	6°13	10°42	22°51	T 19
W 20	8 28 0	8° 6'54	25°27	17°17	4°27	5°53	12°46	18°28	8°56	1°50	15°40	4°50	6°10	10°49	22°52	W 20
T 21	8 31 57	9° 7'42	8° 7	18°43	5°42	5°38	12°46	18°29	9° 0	1°49	15°39	4°R51	6° 7	10°56	22°53	T 21
F 22	8 35 53	10° 8'29	20°29	20° 9	6°57	5°21	12°45	18°30	9° 3	1°48	15°39	4°50	6° 4	11° 3	22°54	F 22
S 23	8 39 50	11° 9'14	2°17	21°37	8°13	5° 5	12°45	18°31	9° 7	1°46	15°38	4°49	6° 1	11° 9	22°55	S 23
S 24	8 43 46	12° 9'57	14°35	23° 5	9°28	4°47	12°44	18°32	9°10	1°45	15°37	4°46	5°58	11°16	22°55	S 24
M 25	8 47 43	13°10'39	26°27	24°34	10°43	4°29	12°43	18°34	9°14	1°44	15°37	4°43	5°54	11°23	22°56	M 25
T 26	8 51 39	14°11'19	8°17	26° 5	11°58	4°10	12°42	18°35	9°17	1°43	15°36	4°39	5°51	11°29	22°56	T 26
W 27	8 55 36	15°11'58	20° 8	27°36	13°13	3°51	12°40	18°37	9°21	1°42	15°36	4°35	5°48	11°36	22°56	W 27
T 28	8 59 32	16°12'35	2° 3	29° 8	14°29	3°31	12°39	18°39	9°24	1°41	15°35	4°33	5°45	11°43	22°R56	T 28
F 29	9 3 29	17°13'11	14° 3	0°41	15°44	3°11	12°37	18°41	9°27	1°40	15°35	4°31	5°42	11°49	22°56	F 29
S 30	9 7 26	18°13'45	26° 9	2°14	16°59	2°50	12°35	18°43	9°31	1°38	15°34	4°30	5°39	11°56	22°56	S 30
S 31	9 11 22	19°14'17	8°25	3°49	18°14	2°29	12°33	18°45	9°34	1°37	15°34	4°D29	5°35	12° 3	22°55	S 31

Delta T = 07m34s

Julian Calendar 1 Jan. 1412 == Greg. Calendar 10 Jan. 1412

FEBRUARY 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	9 15 19	20°14'48	20°51	5°25	19°29	2°R 7	12°R31	18°47	9°38	1°R36	15°R33	4°R30	5°R32	12°10	22°R55	M 1
T 2	9 19 15	21°15'18	3°28	7° 1	20°44	1°14	12°28	18°50	9°41	1°35	15°33	4°31	5°29	12°16	22°55	T 2
W 3	9 23 12	22°15'46	16°19	8°39	21°59	1°22	12°25	18°52	9°45	1°34	15°33	4°32	5°26	12°23	22°54	W 3
T 4	9 27 8	23°16'13	29°26	10°17	23°14	0°59	12°23	18°55	9°48	1°34	15°32	4°33	5°23	12°30	22°53	T 4
F 5	9 31 5	24°16'38	12°50	11°56	24°30	0°36	12°19	18°57	9°52	1°33	15°32	4°34	5°19	12°36	22°52	F 5
S 6	9 35 1	25°17'02	26°33	13°36	25°45	0°13	12°16	19° 0	9°55	1°32	15°32	4°R34	5°16	12°43	22°51	S 6
S 7	9 38 58	26°17'25	10°34	15°17	27° 0	29°49	12°13	19° 3	9°58	1°31	15°31	4°34	5°13	12°50	22°50	S 7
M 8	9 42 55	27°17'47	24°54	17° 0	28°15	29°25	12° 9	19° 6	10° 2	1°30	15°31	4°33	5°10	12°56	22°49	M 8
T 9	9 46 51	28°18'07	9°29	18°43	29°30	29° 2	12° 6	19° 9	10° 5	1°29	15°31	4°33	5° 7	13° 3	22°48	T 9
W 10	9 50 48	29°18'25	24°15	20°27	0°45	28°38	12° 2	19°12	10° 8	1°29	15°31	4°32	5° 4	13°10	22°46	W 10
T 11	9 54 44	0°18'42	9° 5	22°12	2° 0	28°14	11°58	19°16	10°12	1°28	15°30	4°31	5° 0	13°16	22°45	T 11
F 12	9 58 41	1°18'57	23°52	23°58	3°15	27°50	11°53	19°19	10°15	1°27	15°30	4°31	4°57	13°23	22°43	F 12
S 13	10 2 37	2°19'10	8°29	25°45	4°30	27°26	11°49	19°23	10°18	1°26	15°30	4°D31	4°54	13°30	22°41	S 13
S 14	10 6 34	3°19'22	22°49	27°34	5°45	27° 3	11°44	19°26	10°22	1°26	15°30	4°31	4°51	13°37	22°39	S 14
M 15	10 10 30	4°19'31	6°47	29°23	7° 0	26°39	11°40	19°30	10°25	1°25	15°30	4°R31	4°48	13°43	22°37	M 15
T 16	10 14 27	5°19'38	20°21	1°13	8°14	26°16	11°35	19°34	10°28	1°25	15°30	4°31	4°44	13°50	22°35	T 16
W 17	10 18 24	6°19'44	3°30	3° 5	9°29	25°53	11°30	19°37	10°31	1°24	15°30	4°31	4°41	13°57	22°33	W 17
T 18	10 22 20	7°19'47	16°17	4°57	10°44	25°31	11°24	19°41	10°35	1°24	15°29	4°31	4°38	14° 3	22°31	T 18
F 19	10 26 17	8°19'48	28°43	6°50	11°59	25° 9	11°19	19°45	10°38	1°23	15°29	4°31	4°35	14°10	22°28	F 19
S 20	10 30 13	9°19'47	10°54	8°45	13°14	24°47	11°14	19°50	10°41	1°23	15°D29	4°D31	4°32	14°17	22°26	S 20
S 21	10 34 10	10°19'44	22°53	10°40	14°29	24°25	11° 8	19°54	10°44	1°22	15°29	4°31	4°29	14°23	22°23	S 21
M 22	10 38 6	11°19'38	4°45	12°36	15°44	24° 4	11° 2	19°58	10°47	1°22	15°30	4°31	4°25	14°30	22°21	M 22
T 23	10 42 3	12°19'31	16°35	14°33	16°58	23°44	10°56	20° 3	10°50	1°22	15°30	4°32	4°22	14°37	22°18	T 23
W 24	10 45 59	13°19'21	28°27	16°31	18°13	23°24	10°50	20° 7	10°54	1°21	15°30	4°33	4°19	14°43	22°15	W 24
T 25	10 49 56	14°19'09	10°25	18°29	19°28	23° 5	10°44	20°12	10°57	1°21	15°30	4°34	4°16	14°50	22°12	T 25
F 26	10 53 53	15°18'55	22°32	20°28	20°43	22°46	10°38	20°16	11° 0	1°21	15°30	4°34	4°13	14°57	22° 9	F 26
S 27	10 57 49	16°18'38	4°50	22°27	21°57	22°28	10°32	20°21	11° 3	1°21	15°30	4°R35	4°10	15° 4	22° 6	S 27
S 28	11 1 46	17°18'20	17°21	24°26	23°12	22°10	10°25	20°26	11° 6	1°20	15°30	4°34	4° 6	15°10	22° 3	S 28
M 29	11 5 42	18°17'59	0° 6	26°25	24°27	21°54	10°18	20°31	11° 9	1°20	15°30	4°R33	4° 3	15°17	22° 0	M 29

Delta T = 07m34s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1412

geocentric

MARCH 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	11 9 39	19°17'37	13°16'06	28°14'24	25°14'41	21°13'37	10°12'12	20°18'36	11°18'12	1°18'20	15°11'31	4°18'32	4°18'00	15°18'24	21°18'56	T 1
W 2	11 13 35	20°17'12	26°19'19	0°17'22	26°16'56	21°18'22	10°18'05	20°14'41	11°14'14	1°18'20	15°13'31	4°18'30	3°15'57	15°15'30	21°18'53	W 2
T 3	11 17 32	21°16'46	9°16'46	2°19'19	28°10'10	21°17'07	9°15'58	20°14'46	11°17'17	1°20'12	15°13'31	4°17'27	3°15'54	15°13'37	21°14'49	T 3
F 4	11 21 28	22°16'18	22°16'18	4°14'14	29°25'25	20°15'53	9°15'51	20°15'51	11°20'10	1°20'10	15°13'31	4°17'25	3°15'50	15°14'44	21°14'46	F 4
S 5	11 25 25	23°15'48	7°15'15	6°18'08	0°17'40	20°14'40	9°14'44	20°15'57	11°23'12	1°20'10	15°13'32	4°17'24	3°14'47	15°15'50	21°14'42	S 5
S 6	11 29 21	24°15'17	21°16'16	8°18'00	1°15'54	20°12'27	9°13'37	21°12'02	11°26'12	1°20'10	15°13'32	4°17'23	3°14'44	15°15'57	21°13'38	S 6
M 7	11 33 18	25°14'44	5°13'26	9°14'48	3°19'09	20°16'16	9°13'30	21°12'08	11°29'19	1°20'10	15°13'32	4°17'23	3°14'41	16°16'04	21°13'34	M 7
T 8	11 37 15	26°14'09	19°14'42	11°13'34	4°12'23	20°15'05	9°12'22	21°13'13	11°31'13	1°20'10	15°13'33	4°17'24	3°13'38	16°16'10	21°13'30	T 8
W 9	11 41 11	27°13'32	4°13'32	13°17'17	5°13'38	19°15'54	9°11'51	21°19'19	11°34'13	1°21'10	15°13'33	4°17'26	3°13'35	16°16'17	21°12'27	W 9
T 10	11 45 08	28°12'53	18°12'53	14°15'55	6°15'52	19°14'45	9°10'08	21°24'14	11°37'13	1°21'10	15°13'34	4°17'27	3°13'31	16°16'24	21°12'23	T 10
F 11	11 49 04	29°12'13	2°14'45	16°12'29	8°17'07	19°13'36	9°10'00	21°30'10	11°39'13	1°21'10	15°13'34	4°17'27	3°12'28	16°16'31	21°11'18	F 11
S 12	11 53 01	0°11'30	16°15'57	17°15'59	9°12'21	19°12'28	8°15'53	21°36'12	11°42'12	1°21'10	15°13'34	4°17'27	3°12'25	16°16'37	21°11'14	S 12
S 13	11 56 57	1°10'46	0°17'59	19°12'23	10°13'35	19°12'21	8°14'45	21°42'12	11°44'12	1°22'10	15°13'35	4°17'25	3°12'22	16°16'44	21°11'10	S 13
M14	12 00 54	2°19'59	14°14'45	20°14'42	11°15'50	19°15'15	8°13'37	21°48'12	11°47'12	1°22'10	15°13'35	4°17'22	3°11'19	16°16'51	21°11'06	M14
T 15	12 04 50	3°19'11	28°12'12	21°15'55	13°14'04	19°15'09	8°13'30	21°54'12	11°49'12	1°22'10	15°13'36	4°17'18	3°11'16	16°16'57	21°11'02	T 15
W16	12 08 47	4°18'20	11°18'20	23°13'03	14°14'18	19°15'05	8°12'22	22°00'12	11°52'12	1°23'10	15°13'36	4°17'13	3°11'12	17°17'04	20°15'57	W16
T 17	12 12 44	5°17'27	24°17'27	24°15'33	15°13'31	19°15'01	8°14'14	22°06'12	11°54'12	1°23'10	15°13'37	4°17'08	3°10'09	17°17'11	20°15'53	T 17
F 18	12 16 40	6°16'31	6°16'31	24°15'59	16°14'47	18°15'58	8°17'07	22°12'12	11°57'12	1°24'10	15°13'38	4°17'04	3°10'06	17°17'17	20°14'49	F 18
S 19	12 20 37	7°15'34	18°14'48	25°14'48	18°15'01	18°15'55	7°15'59	22°18'12	11°59'12	1°24'10	15°13'38	4°17'01	3°10'03	17°17'24	20°14'44	S 19
S 20	12 24 33	8°14'34	0°14'34	26°12'29	19°15'15	18°15'54	7°15'51	22°25'12	12°12'01	1°25'10	15°13'39	3°15'59	3°10'00	17°17'31	20°14'40	S 20
M21	12 28 30	9°13'32	12°14'42	27°12'05	20°13'30	18°15'53	7°14'44	22°31'12	12°14'04	1°25'10	15°13'40	3°15'59	2°15'56	17°17'37	20°13'35	M21
T 22	12 32 26	10°12'27	24°12'32	27°13'33	21°14'44	18°15'53	7°13'36	22°38'12	12°16'06	1°26'10	15°13'40	4°17'00	2°15'53	17°17'44	20°13'31	T 22
W23	12 36 23	11°12'00	6°12'00	27°15'55	22°15'58	18°15'53	7°12'28	22°44'12	12°18'08	1°26'10	15°13'41	4°17'01	2°15'50	17°17'51	20°12'26	W23
T 24	12 40 19	12°11'01	18°11'01	28°10'12	24°12'12	18°15'55	7°12'21	22°51'12	12°19'10	1°27'10	15°13'42	4°17'03	2°14'47	17°17'57	20°12'21	T 24
F 25	12 44 16	12°10'59	0°10'59	28°18'18	25°12'26	18°15'57	7°13'13	22°57'12	12°19'12	1°28'10	15°13'42	4°17'04	2°14'44	18°18'04	20°11'17	F 25
S 26	12 48 13	13°15'46	13°15'46	28°18'20	26°14'40	18°15'59	7°15'05	23°04'12	12°19'14	1°29'10	15°13'43	4°17'04	2°14'41	18°18'11	20°11'12	S 26
S 27	12 52 09	14°15'30	25°14'49	28°15'15	27°15'54	19°15'03	6°15'58	23°11'12	12°19'16	1°29'10	15°13'44	4°17'01	2°13'37	18°18'17	20°11'08	S 27
M28	12 56 06	15°15'12	8°15'12	28°15'05	29°15'08	19°15'07	6°15'50	23°17'12	12°18'18	1°30'10	15°13'45	3°15'57	2°13'34	18°18'24	20°11'03	M28
T 29	13 00 02	16°15'52	22°15'52	27°14'48	0°12'22	19°15'12	6°14'43	23°24'12	12°20'10	1°31'10	15°13'45	3°15'52	2°13'31	18°18'31	19°15'58	T 29
W30	13 03 59	17°15'23	5°15'23	27°12'27	1°13'36	19°15'17	6°13'35	23°31'12	12°22'10	1°32'10	15°13'46	3°14'45	2°12'28	18°18'38	19°15'54	W30
T 31	13 07 55	18°15'07	19°15'07	27°11'01	2°18'50	19°15'24	6°14'28	23°38'12	12°24'12	1°33'10	15°13'47	3°14'37	2°12'25	18°18'44	19°15'49	T 31

Delta T = 07m34s

Julian Calendar 1 March 1412 == Greg. Calendar 10 March 1412

APRIL 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	13 11 52	19°49'42	3°53'	26°R30	4°8'4	19°Ω30	6°R20	23°♂45	12°♂26	1°♂34	15°Π48	3°R31	2°♂21	18°♂51	19°R44	F 1
S 2	13 15 48	20°48'14	18° 3	25°♀56	5°18	19°38	6°♂13	23°52	12°28	1°35	15°49	3°♂25	2°18	18°58	19°♂40	S 2
S 3	13 19 45	21°46'46	2°♂15	25°19	6°32	19°46	6° 6	23°59	12°30	1°36	15°50	3°21	2°15	19° 4	19°35	S 3
M 4	13 23 42	22°45'15	16°27	24°40	7°46	19°54	5°59	24° 6	12°31	1°37	15°51	3°20	2°12	19°11	19°30	M 4
T 5	13 27 38	23°43'43	0°♂36	23°59	8°59	20° 4	5°52	24°13	12°33	1°38	15°51	3°D20	2° 9	19°18	19°26	T 5
W 6	13 31 35	24°42'10	14°41	23°18	10°13	20°14	5°45	24°20	12°35	1°39	15°52	3°21	2° 6	19°24	19°21	W 6
T 7	13 35 31	25°40'34	28°41	22°37	11°27	20°24	5°38	24°27	12°36	1°40	15°53	3°R21	2° 2	19°31	19°16	T 7
F 8	13 39 28	26°38'57	12°♂35	21°56	12°41	20°35	5°31	24°34	12°38	1°41	15°54	3°21	1°59	19°38	19°12	F 8
S 9	13 43 24	27°37'19	26°21	21°17	13°55	20°46	5°24	24°42	12°39	1°42	15°55	3°19	1°56	19°44	19° 7	S 9
S 10	13 47 21	28°35'38	9°♀57	20°41	15° 8	20°59	5°17	24°49	12°40	1°43	15°56	3°14	1°53	19°51	19° 2	S 10
M11	13 51 17	29°33'56	23°21	20° 7	16°22	21°11	5°11	24°56	12°42	1°44	15°57	3° 7	1°50	19°58	18°58	M11
T 12	13 55 14	0°♂32'13	6°♂32	19°36	17°36	21°24	5° 5	25° 4	12°43	1°46	15°58	2°58	1°47	20° 4	18°53	T 12
W13	13 59 11	1°30'27	19°28	19° 9	18°49	21°38	4°58	25°11	12°44	1°47	15°59	2°48	1°43	20°11	18°49	W13
T 14	14 3 7	2°28'40	2°II 8	18°46	20° 3	21°52	4°52	25°19	12°46	1°48	16° 0	2°37	1°40	20°18	18°44	T 14
F 15	14 7 4	3°26'51	14°32	18°27	21°16	22° 7	4°46	25°26	12°47	1°50	16° 2	2°27	1°37	20°24	18°40	F 15
S 16	14 11 0	4°24'59	26°43	18°13	22°30	22°22	4°40	25°33	12°48	1°51	16° 3	2°19	1°34	20°31	18°36	S 16
S 17	14 14 57	5°23'06	8°♂42	18° 3	23°43	22°38	4°34	25°41	12°49	1°52	16° 4	2°14	1°31	20°38	18°31	S 17
M18	14 18 53	6°21'11	20°34	17°58	24°57	22°54	4°29	25°48	12°50	1°54	16° 5	2°10	1°27	20°44	18°27	M18
T 19	14 22 50	7°19'15	22°124	17°D58	26°10	23°10	4°23	25°56	12°51	1°55	16° 6	2°D 9	1°24	20°51	18°23	T 19
W20	14 26 46	8°17'16	14°16	18° 3	27°24	23°27	4°18	26° 4	12°52	1°57	16° 7	2° 9	1°21	20°58	18°18	W20
T 21	14 30 43	9°15'15	26°16	18°12	28°37	23°45	4°12	26°11	12°53	1°58	16° 8	2°R 9	1°18	21° 4	18°14	T 21
F 22	14 34 40	10°13'12	8°♂29	18°26	29°50	24° 3	4° 7	26°19	12°54	2° 0	16° 9	2° 9	1°15	21°11	18°10	F 22
S 23	14 38 36	11°11'08	21° 0	18°44	1°II 4	24°21	4° 2	26°27	12°55	2° 1	16°11	2° 8	1°12	21°18	18° 6	S 23
S 24	14 42 33	12° 9'01	3°♂53	19° 7	2°17	24°40	3°57	26°34	12°55	2° 3	16°12	2° 4	1° 8	21°25	18° 2	S 24
M25	14 46 29	13° 6'53	17° 9	19°34	3°30	24°59	3°53	26°42	12°56	2° 4	16°13	1°58	1° 5	21°31	17°58	M25
T 26	14 50 26	14° 4'43	0°II50	20° 5	4°43	25°18	3°48	26°50	12°57	2° 6	16°14	1°49	1° 2	21°38	17°54	T 26
W27	14 54 22	15° 2'32	14°52	20°40	5°57	25°38	3°44	26°57	12°57	2° 7	16°16	1°39	0°59	21°45	17°51	W27
T 28	14 58 19	16° 0'19	29°12	21°19	7°10	25°59	3°40	27° 5	12°58	2° 9	16°17	1°28	0°56	21°51	17°47	T 28
F 29	15 2 15	16°58'05	13°♂44	22° 2	8°23	26°19	3°36	27°13	12°59	2°11	16°18	1°17	0°53	21°58	17°43	F 29
S 30	15 6 12	17°♂55'50	28°♂19	22°♀49	9°II36	26°Ω40	3°♂32	27°♂21	12°♂59	2°♂12	16°II19	1°♂ 8	0°♂49	22°♂ 5	17°♂40	S 30

ASTRODIENST EPHEMERIS for the year 1412

geocentric

MAY 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	15 10 9	18 ⁸ 53'34	12 ³ 52	23 ⁷ 39	10 ¹¹ 49	27 ⁰ 2	3 ⁰ R28	27 ⁸ 28	12 ² 59	2 ² 14	16 ¹¹ 21	1 ⁰ R 2	0 ⁰ 46	22 ² 11	17 ⁰ R36	S 1
M 2	15 14 5	19 ⁰ 51'16	27 ⁰ 18	24 ⁰ 32	12 ⁰ 2	27 ² 23	3 ⁰ Δ25	27 ⁰ 36	13 ⁰ 0	2 ⁰ 16	16 ⁰ 22	0 ⁰ 58	0 ⁰ 43	22 ⁰ 18	17 ⁰ Δ33	M 2
T 3	15 18 2	20 ⁰ 48'57	11 ⁰ 32	25 ⁰ 29	13 ⁰ 15	27 ⁰ 45	3 ⁰ 21	27 ⁰ 44	13 ⁰ 0	2 ⁰ 18	16 ⁰ 23	0 ⁰ 57	0 ⁰ 40	22 ⁰ 25	17 ⁰ 29	T 3
W 4	15 21 58	21 ⁰ 46'38	25 ⁰ 34	26 ⁰ 29	14 ⁰ 28	28 ⁰ 8	3 ⁰ 18	27 ⁰ 52	13 ⁰ 0	2 ⁰ 19	16 ⁰ 24	0 ⁰ 57	0 ⁰ 37	22 ⁰ 31	17 ⁰ 26	W 4
T 5	15 25 55	22 ⁰ 44'17	9 ⁰ 23	27 ⁰ 32	15 ⁰ 41	28 ⁰ 30	3 ⁰ 15	27 ⁰ 59	13 ⁰ 1	2 ⁰ 21	16 ⁰ 26	0 ⁰ 57	0 ⁰ 33	22 ⁰ 38	17 ⁰ 23	T 5
F 6	15 29 51	23 ⁰ 41'55	23 ⁰ 0	28 ⁰ 38	16 ⁰ 54	28 ⁰ 53	3 ⁰ 12	28 ⁰ 7	13 ⁰ 1	2 ⁰ 23	16 ⁰ 27	0 ⁰ 55	0 ⁰ 30	22 ⁰ 45	17 ⁰ 20	F 6
S 7	15 33 48	24 ⁰ 39'32	6 ⁰ 24	29 ⁰ 47	18 ⁰ 7	29 ⁰ 17	3 ⁰ 9	28 ⁰ 15	13 ⁰ 1	2 ⁰ 25	16 ⁰ 28	0 ⁰ 52	0 ⁰ 27	22 ⁰ 51	17 ⁰ 17	S 7
S 8	15 37 44	25 ⁰ 37'08	19 ⁰ 38	0 ⁰ 59	19 ⁰ 20	29 ⁰ 40	3 ⁰ 7	28 ⁰ 23	13 ⁰ 1	2 ⁰ 27	16 ⁰ 30	0 ⁰ 46	0 ⁰ 24	22 ⁰ 58	17 ⁰ 14	S 8
M 9	15 41 41	26 ⁰ 34'43	2 ⁰ 40	2 ⁰ 14	20 ⁰ 33	0 ⁰ 11 4	3 ⁰ 5	28 ⁰ 31	13 ⁰ R 1	2 ⁰ 29	16 ⁰ 31	0 ⁰ 36	0 ⁰ 21	23 ⁰ 5	17 ⁰ 11	M 9
T 10	15 45 38	27 ⁰ 32'17	15 ⁰ 30	3 ⁰ 31	21 ⁰ 46	0 ⁰ 28	3 ⁰ 2	28 ⁰ 39	13 ⁰ 1	2 ⁰ 31	16 ⁰ 32	0 ⁰ 25	0 ⁰ 18	23 ⁰ 11	17 ⁰ 8	T 10
W 11	15 49 34	28 ⁰ 29'50	28 ⁰ 9	4 ⁰ 52	22 ⁰ 58	0 ⁰ 53	3 ⁰ 0	28 ⁰ 46	13 ⁰ 1	2 ⁰ 32	16 ⁰ 34	0 ⁰ 12	0 ⁰ 14	23 ⁰ 18	17 ⁰ 5	W 11
T 12	15 53 31	29 ⁰ 27'22	10 ⁰ 11 36	6 ⁰ 14	24 ⁰ 11	1 ⁰ 18	2 ⁰ 59	28 ⁰ 54	13 ⁰ 1	2 ⁰ 34	16 ⁰ 35	29 ⁰ Δ58	0 ⁰ 11	23 ⁰ 25	17 ⁰ 3	T 12
F 13	15 57 27	0 ⁰ 11 24'53	22 ⁰ 51	7 ⁰ 40	25 ⁰ 24	1 ⁰ 43	2 ⁰ 57	29 ⁰ 2	13 ⁰ 1	2 ⁰ 36	16 ⁰ 37	29 ⁰ 46	0 ⁰ 8	23 ⁰ 31	17 ⁰ 0	F 13
S 14	16 1 24	1 ⁰ 22'23	4 ⁰ 55	9 ⁰ 8	26 ⁰ 37	2 ⁰ 8	2 ⁰ 56	29 ⁰ 10	13 ⁰ 0	2 ⁰ 38	16 ⁰ 38	29 ⁰ 35	0 ⁰ 5	23 ⁰ 38	16 ⁰ 58	S 14
S 15	16 5 20	2 ⁰ 19'52	16 ⁰ 50	10 ⁰ 38	27 ⁰ 49	2 ⁰ 34	2 ⁰ 54	29 ⁰ 18	13 ⁰ 0	2 ⁰ 40	16 ⁰ 39	29 ⁰ 27	0 ⁰ 2	23 ⁰ 45	16 ⁰ 55	S 15
M 16	16 9 17	3 ⁰ 17'19	28 ⁰ 40	12 ⁰ 12	29 ⁰ 2	3 ⁰ 0	2 ⁰ 53	29 ⁰ 26	13 ⁰ 0	2 ⁰ 42	16 ⁰ 41	29 ⁰ 21	29 ⁰ Δ59	23 ⁰ 51	16 ⁰ 53	M 16
T 17	16 13 13	4 ⁰ 14'45	10 ⁰ Δ28	13 ⁰ 47	0 ⁰ 51 14	3 ⁰ 26	2 ⁰ 52	29 ⁰ 33	12 ⁰ 59	2 ⁰ 44	16 ⁰ 42	29 ⁰ 18	29 ⁰ 55	23 ⁰ 58	16 ⁰ 51	T 17
W 18	16 17 10	5 ⁰ 12'10	22 ⁰ 19	15 ⁰ 26	1 ⁰ 27	3 ⁰ 52	2 ⁰ 52	29 ⁰ 41	12 ⁰ 59	2 ⁰ 46	16 ⁰ 43	29 ⁰ 17	29 ⁰ 52	24 ⁰ 5	16 ⁰ 49	W 18
T 19	16 21 7	6 ⁰ 9'33	4 ⁰ 11 17	17 ⁰ 7	2 ⁰ 40	4 ⁰ 19	2 ⁰ 51	29 ⁰ 49	12 ⁰ 59	2 ⁰ 48	16 ⁰ 45	29 ⁰ 17	29 ⁰ 49	24 ⁰ 11	16 ⁰ 47	T 19
F 20	16 25 3	7 ⁰ 6'56	16 ⁰ 29	18 ⁰ 50	3 ⁰ 52	4 ⁰ 46	2 ⁰ 51	29 ⁰ 57	12 ⁰ 58	2 ⁰ 50	16 ⁰ 46	29 ⁰ 17	29 ⁰ 46	24 ⁰ 18	16 ⁰ 45	F 20
S 21	16 29 0	8 ⁰ 4'17	29 ⁰ 0	20 ⁰ 36	5 ⁰ 5	5 ⁰ 13	2 ⁰ D51	0 ⁰ 11 5	12 ⁰ 58	2 ⁰ 52	16 ⁰ 48	29 ⁰ 16	29 ⁰ 43	24 ⁰ 25	16 ⁰ 43	S 21
S 22	16 32 56	9 ⁰ 1'37	11 ⁰ Δ54	22 ⁰ 24	6 ⁰ 17	5 ⁰ 41	2 ⁰ 51	0 ⁰ 12	12 ⁰ 57	2 ⁰ 54	16 ⁰ 49	29 ⁰ 12	29 ⁰ 39	24 ⁰ 31	16 ⁰ 42	S 22
M 23	16 36 53	9 ⁰ 58'57	25 ⁰ 14	24 ⁰ 15	7 ⁰ 29	6 ⁰ 8	2 ⁰ 51	0 ⁰ 20	12 ⁰ 56	2 ⁰ 56	16 ⁰ 50	29 ⁰ 6	29 ⁰ 36	24 ⁰ 38	16 ⁰ 40	M 23
T 24	16 40 49	10 ⁰ 56'15	9 ⁰ 11 3	26 ⁰ 8	8 ⁰ 42	6 ⁰ 36	2 ⁰ 51	0 ⁰ 28	12 ⁰ 56	2 ⁰ 59	16 ⁰ 52	28 ⁰ 58	29 ⁰ 33	24 ⁰ 45	16 ⁰ 39	T 24
W 25	16 44 46	11 ⁰ 53'32	23 ⁰ 18	28 ⁰ 4	9 ⁰ 54	7 ⁰ 4	2 ⁰ 52	0 ⁰ 36	12 ⁰ 55	3 ⁰ 1	16 ⁰ 53	28 ⁰ 48	29 ⁰ 30	24 ⁰ 51	16 ⁰ 37	W 25
T 26	16 48 42	12 ⁰ 50'49	7 ⁰ Δ55	0 ⁰ 11 2	11 ⁰ 6	7 ⁰ 32	2 ⁰ 52	0 ⁰ 43	12 ⁰ 54	3 ⁰ 3	16 ⁰ 55	28 ⁰ 38	29 ⁰ 27	24 ⁰ 58	16 ⁰ 36	T 26
F 27	16 52 39	13 ⁰ 48'05	22 ⁰ 48	2 ⁰ 2	12 ⁰ 18	8 ⁰ 1	2 ⁰ 53	0 ⁰ 51	12 ⁰ 53	3 ⁰ 5	16 ⁰ 56	28 ⁰ 27	29 ⁰ 24	25 ⁰ 5	16 ⁰ 35	F 27
S 28	16 56 36	14 ⁰ 45'21	7 ⁰ Δ46	4 ⁰ 4	13 ⁰ 31	8 ⁰ 30	2 ⁰ 54	0 ⁰ 59	12 ⁰ 52	3 ⁰ 7	16 ⁰ 58	28 ⁰ 19	29 ⁰ 20	25 ⁰ 11	16 ⁰ 34	S 28
S 29	17 0 32	15 ⁰ 42'36	22 ⁰ 42	6 ⁰ 8	14 ⁰ 43	8 ⁰ 59	2 ⁰ 56	1 ⁰ 7	12 ⁰ 51	3 ⁰ 9	16 ⁰ 59	28 ⁰ 12	29 ⁰ 17	25 ⁰ 18	16 ⁰ 33	S 29
M 30	17 4 29	16 ⁰ 39'50	7 ⁰ Δ27	8 ⁰ 14	15 ⁰ 55	9 ⁰ 28	2 ⁰ 57	1 ⁰ 14	12 ⁰ 51	3 ⁰ 11	17 ⁰ 0	28 ⁰ 9	29 ⁰ 14	25 ⁰ 25	16 ⁰ 32	M 30
T 31	17 8 25	17 ⁰ 11 37'05	21 ⁰ Δ55	10 ⁰ 11 21	17 ⁰ Δ 7	9 ⁰ 11 57	2 ⁰ Δ59	1 ⁰ 11 22	12 ⁰ Δ50	3 ⁰ Δ14	17 ⁰ 11 2	28 ⁰ D 7	29 ⁰ Δ11	25 ⁰ Δ31	16 ⁰ Δ32	T 31

Delta T = 07m33s

Julian Calendar 1 May 1412 == Greg. Calendar 10 May 1412

JUNE 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	17 12 22	18 ¹¹ 34'18	6 ⁰ Δ 5	12 ¹¹ 30	18 ⁰ Δ19	10 ⁰ 11 27	3 ⁰ Δ 0	1 ⁰ 11 29	12 ⁰ R48	3 ⁰ Δ16	17 ⁰ 11 3	28 ⁰ Δ 7	29 ⁰ Δ 8	25 ⁰ Δ38	16 ⁰ R31	W 1
T 2	17 16 18	19 ⁰ 31'32	19 ⁰ 54	14 ⁰ 40	19 ⁰ 31	10 ⁰ 56	3 ⁰ 2	1 ⁰ 37	12 ⁰ Δ47	3 ⁰ 18	17 ⁰ 5	28 ⁰ R 8	29 ⁰ 5	25 ⁰ Δ5	16 ⁰ Δ31	T 2
F 3	17 20 15	20 ⁰ 28'46	3 ⁰ Y25	16 ⁰ 50	20 ⁰ 43	11 ⁰ 26	3 ⁰ 5	1 ⁰ 45	12 ⁰ Δ46	3 ⁰ 20	17 ⁰ 6	28 ⁰ 7	29 ⁰ 1	25 ⁰ Δ1	16 ⁰ Δ30	F 3
S 4	17 24 11	21 ⁰ 25'59	16 ⁰ 38	19 ⁰ 1	21 ⁰ 55	11 ⁰ 56	3 ⁰ 7	1 ⁰ 52	12 ⁰ Δ45	3 ⁰ 22	17 ⁰ 7	28 ⁰ 4	28 ⁰ 58	25 ⁰ 58	16 ⁰ 30	S 4
S 5	17 28 8	22 ⁰ 23'12	29 ⁰ 37	21 ⁰ 13	23 ⁰ 7	12 ⁰ 27	3 ⁰ 9	2 ⁰ 0	12 ⁰ Δ44	3 ⁰ 24	17 ⁰ 9	27 ⁰ 59	28 ⁰ 55	26 ⁰ 5	16 ⁰ 30	S 5
M 6	17 32 5	23 ⁰ 20'26	12 ⁰ Δ21	23 ⁰ 24	24 ⁰ 18	12 ⁰ 57	3 ⁰ 12	2 ⁰ 7	12 ⁰ Δ43	3 ⁰ 27	17 ⁰ 10	27 ⁰ 52	28 ⁰ 52	26 ⁰ 11	16 ⁰ D30	M 6
T 7	17 36 1	24 ⁰ 17'39	24 ⁰ 54	25 ⁰ 35	25 ⁰ 30	13 ⁰ 28	3 ⁰ 15	2 ⁰ 15	12 ⁰ Δ41	3 ⁰ 29	17 ⁰ 12	27 ⁰ 42	28 ⁰ 49	26 ⁰ 18	16 ⁰ 30	T 7
W 8	17 39 58	25 ⁰ 14'52	7 ⁰ 11 17	27 ⁰ 46	26 ⁰ 42	13 ⁰ 59	3 ⁰ 18	2 ⁰ 22	12 ⁰ Δ40	3 ⁰ 31	17 ⁰ 13	27 ⁰ 31	28 ⁰ 45	26 ⁰ 25	16 ⁰ 30	W 8
T 9	17 43 54	26 ⁰ 12'05	19 ⁰ 29	29 ⁰ 56	27 ⁰ 54	14 ⁰ 30	3 ⁰ 21	2 ⁰ 30	12 ⁰ Δ39	3 ⁰ 33	17 ⁰ 15	27 ⁰ 20	28 ⁰ 42	26 ⁰ 31	16 ⁰ 30	T 9
F 10	17 47 51	27 ⁰ 9'17	1 ⁰ Δ33	2 ⁰ Δ 5	29 ⁰ 5	15 ⁰ 1	3 ⁰ 24	2 ⁰ 37	12 ⁰ Δ37	3 ⁰ 35	17 ⁰ 16	27 ⁰ 9	28 ⁰ 39	26 ⁰ 38	16 ⁰ 31	F 10
S 11	17 51 47	28 ⁰ 6'30	13 ⁰ 30	4 ⁰ 13	0 ⁰ Δ17	15 ⁰ 32	3 ⁰ 28	2 ⁰ 44	12 ⁰ Δ36	3 ⁰ 38	17 ⁰ 17	27 ⁰ 0	28 ⁰ 36	26 ⁰ 45	16 ⁰ 31	S 11
S 12	17 55 44	29 ⁰ 3'42	25 ⁰ 21	6 ⁰ 19	1 ⁰ 28	16 ⁰ 4	3 ⁰ 31	2 ⁰ 52	12 ⁰ Δ34	3 ⁰ 40	17 ⁰ 19	26 ⁰ 54	28 ⁰ 33	26 ⁰ 51	16 ⁰ 32	S 12
M 13	17 59 41	0 ⁰ Δ 0'54	7 ⁰ Δ 8	8 ⁰ 24	2 ⁰ 40	16 ⁰ 36	3 ⁰ 35	2 ⁰ 59	12 ⁰ Δ33	3 ⁰ 42	17 ⁰ 20	26 ⁰ 49	28 ⁰ 30	26 ⁰ 58	16 ⁰ 33	M 13
T 14	18 3 37	0 ⁰ 58'05	18 ⁰ 56	10 ⁰ 27	3 ⁰ 51	17 ⁰ 8	3 ⁰ 39	3 ⁰ 6	12 ⁰ Δ31	3 ⁰ 44	17 ⁰ 22	26 ⁰ 47	28 ⁰ 26	27 ⁰ 5	16 ⁰ 34	T 14
W 15	18 7 34	1 ⁰ 55'17	0 ⁰ 11 46	12 ⁰ 28	5 ⁰ 3	17 ⁰ 40	3 ⁰ 43	3 ⁰ 13	12 ⁰ Δ29	3 ⁰ 47	17 ⁰ 23	26 ⁰ D47	28 ⁰ 23	27 ⁰ 11	16 ⁰ 35	W 15
T 16	18 11 30	2 ⁰ 52'28	12 ⁰ 45	14 ⁰ 28	6 ⁰ 14	18 ⁰ 12	3 ⁰ 48	3 ⁰ 21	12 ⁰ Δ28	3 ⁰ 49	17 ⁰ 24	26 ⁰ 48	28 ⁰ 20	27 ⁰ 18	16 ⁰ 36	T 16
F 17	18 15 27	3 ⁰ 49'39	24 ⁰ 56	16 ⁰ 26	7 ⁰ 25	18 ⁰ 44	3 ⁰ 52	3 ⁰ 28	12 ⁰ Δ26	3 ⁰ 51	17 ⁰ 26	26 ⁰ 49	28 ⁰ 17	27 ⁰ 25	16 ⁰ 37	F 17
S 18	18 19 23	4 ⁰ 46'49	7 ⁰ Δ24	18 ⁰ 22	8 ⁰ 37	19 ⁰ 17	3 ⁰ 57	3 ⁰ 35	12 ⁰ Δ24	3 ⁰ 53	17 ⁰ 27	26 ⁰ R49	28 ⁰ 14	27 ⁰ 31	16 ⁰ 38	S 18
S 19	18 23 20	5 ⁰ 43'59	20 ⁰ 16	20 ⁰ 16	9 ⁰ 48	19 ⁰ 50	4 ⁰ 2	3 ⁰ 42	12 ⁰ Δ23	3 ⁰ 56	17 ⁰ 28	26 ⁰ 48	28 ⁰ 11	27 ⁰ 38	16 ⁰ 39	S 19
M 20	18 27 16	6 ⁰ 41'10	3 ⁰ 11 33	22 ⁰ 8	10 ⁰ 59	20 ⁰ 22	4 ⁰ 6	3 ⁰ 49	12 ⁰ Δ21	3 ⁰ 58	17 ⁰ 30	26 ⁰ 45	28 ⁰ 7	27 ⁰ 45	16 ⁰ 41	M 20
T 21	18 31 13	7 ⁰ 38'20	17 ⁰ 20	23 ⁰ 58	12 ⁰ 10	20 ⁰ 55	4 ⁰ 12	3 ⁰ 56	12 ⁰ Δ19	4 ⁰ 0	17 ⁰ 31	26 ⁰ 40	28 ⁰ 4	27 ⁰ 51	16 ⁰ 43	T 21
W 22	18 35 10	8 ⁰ 35'30	1 ⁰ Δ35	25 ⁰ 46	13 ⁰ 21	21 ⁰ 28	4 ⁰ 17	4 ⁰ 3	12 ⁰ Δ17	4 ⁰ 2	17 ⁰ 32	26 ⁰ 34	28 ⁰ 1	27 ⁰ 58	16 ⁰ 44	W 22
T 23	18 39 6	9 ⁰ 32'40	16 ⁰ 16	27 ⁰ 33	14 ⁰ 32	22 ⁰ 2	4 ⁰ 22	4 ⁰ 10	12 ⁰ Δ15	4 ⁰ 4	17 ⁰ 34	26 ⁰ 27	27 ⁰ 58	28 ⁰ 5	16 ⁰ 46	T 23
F 24	18 43 3	10 ⁰ 29'50	1 ⁰ Δ17	29 ⁰ 17	15 ⁰ 43	22 ⁰ 35	4 ⁰ 28	4 ⁰ 17	12 ⁰ Δ14	4 ⁰ 7	17 ⁰ 35	26 ⁰ 20	27 ⁰ 55	28 ⁰ 11	16 ⁰ 48	F 24
S 25	18 46 59	11 ⁰ 27'01	16 ⁰ 27	0 ⁰ Δ59	16 ⁰ 54	23 ⁰ 9	4 ⁰ 33	4 ⁰ 24	12 ⁰ Δ12	4 ⁰ 9	17 ⁰ 36	26 ⁰ 14	27 ⁰ 51	28 ⁰ 18	16 ⁰ 50	S 25
S 26	18 50 56	12 ⁰ 24'12	1 ⁰ Δ39	2 ⁰ 39	18 ⁰ 5	23 ⁰ 42	4 ⁰ 39	4 ⁰ 30	12 ⁰ Δ10	4 ⁰ 11	17 ⁰ 38	26 ⁰ 10	27 ⁰ 48	28 ⁰ 25	16 ⁰ 52	S 26
M 27	18 54 52	13 ⁰ 21'23	16 ⁰ 41	4 ⁰ 17	19 ⁰ 15	24 ⁰ 16	4 ⁰ 45	4 ⁰ 37	12 ⁰ 8	4 ⁰ 13	17 ⁰ 39	26 ⁰ 8	27 ⁰ 45	28 ⁰ 31	16 ⁰ 54	M 27
T 28	18 58 49	14 ⁰ 18'35	1 ⁰ Δ26	5 ⁰ 54	20 ⁰ 26	24 ⁰ 50	4 ⁰ 51	4 ⁰ 44	12 ⁰ 6	4 ⁰ 16	17 ⁰ 40	26 ⁰ D 8	27 ⁰ 42	28 ⁰ 38	16 ⁰ 57	T 28
W 29	19 2 45	15 ⁰ 15'47	15 ⁰ 48	7 ⁰ 28	21 ⁰ 36	25 ⁰ 24	4 ⁰ 57	4 ⁰ 50	12 ⁰ 4	4 ⁰ 18	17 ⁰ 42	26 ⁰ 9	27 ⁰ 39	28 ⁰ 45	16 ⁰ 59	W 29
T 30	19 6 42	16 ⁰ 13'00	29 ⁰ Δ47	9 ⁰ 0	22 ⁰ Δ47	25 ⁰ 11 59	5 ⁰ Δ 4	4 ⁰ 11 57	12 ⁰ Δ 2	4 ⁰ Δ20	17 ⁰ 11 43	26 ⁰ Δ11	27 ⁰ Δ36	28 ⁰ Δ51	17 ⁰ Δ 2	T 30

ASTRODIENST EPHEMERIS for the year 1412

geocentric

JULY 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	19 10 39	17°10'14"	13°21'	10°31'	23°57'	26°33'	5°10'	5°11'	11°R59	4°22'	17°II44	26°R11	27°32'	28°58'	17°14'	F 1
S 2	19 14 35	18° 7'28"	26°33'	11°59'	25° 8'	27° 8'	5°17'	5°10'	11°57'	4°24'	17°45'	26°11'	27°29'	29° 5'	17° 7'	S 2
S 3	19 18 32	19° 4'43"	9°26'	13°25'	26°18'	27°42'	5°24'	5°16'	11°55'	4°27'	17°47'	26° 9'	27°26'	29°11'	17°10'	S 3
M 4	19 22 28	20° 2'00"	22° 1'	14°50'	27°28'	28°17'	5°31'	5°23'	11°53'	4°29'	17°48'	26° 6'	27°23'	29°18'	17°13'	M 4
T 5	19 26 25	20°59'17"	4°II22	16°12'	28°39'	28°52'	5°38'	5°29'	11°51'	4°31'	17°49'	26° 1'	27°20'	29°25'	17°16'	T 5
W 6	19 30 21	21°56'34"	16°33'	17°32'	29°49'	29°27'	5°45'	5°35'	11°49'	4°33'	17°50'	25°55'	27°17'	29°31'	17°19'	W 6
T 7	19 34 18	22°53'53"	28°35'	18°50'	0°59'	0° 2'	5°52'	5°41'	11°46'	4°35'	17°52'	25°50'	27°13'	29°38'	17°23'	T 7
F 8	19 38 14	23°51'13"	10°32'30	20° 5'	2° 9'	0°37'	6° 0'	5°48'	11°44'	4°37'	17°53'	25°44'	27°10'	29°45'	17°26'	F 8
S 9	19 42 11	24°48'33"	22°20'	21°19'	3°19'	1°13'	6° 7'	5°54'	11°42'	4°39'	17°54'	25°39'	27° 7'	29°51'	17°29'	S 9
S 10	19 46 8	25°45'54"	4° 8'	22°30'	4°28'	1°48'	6°15'	6° 0'	11°40'	4°42'	17°55'	25°36'	27° 4'	29°58'	17°33'	S 10
M 11	19 50 4	26°43'16"	15°56'	23°39'	5°38'	2°24'	6°23'	6° 6'	11°37'	4°44'	17°56'	25°34'	27° 1'	0° 5'	17°37'	M 11
T 12	19 54 1	27°40'38"	27°46'	24°45'	6°48'	3° 0'	6°31'	6°11'	11°35'	4°46'	17°57'	25°D34	26°57'	0°11'	17°40'	T 12
W 13	19 57 57	28°38'01"	9°40'	25°48'	7°57'	3°36'	6°39'	6°17'	11°33'	4°48'	17°59'	25°35'	26°54'	0°18'	17°44'	W 13
T 14	20 1 54	29°35'25"	21°42'	26°49'	9° 7'	4°12'	6°47'	6°23'	11°31'	4°50'	18° 0'	25°36'	26°51'	0°25'	17°48'	T 14
F 15	20 5 50	0°32'49"	3°56'	27°47'	10°16'	4°48'	6°55'	6°29'	11°28'	4°52'	18° 1'	25°38'	26°48'	0°31'	17°52'	F 15
S 16	20 9 47	1°30'14"	16°26'	28°42'	11°26'	5°24'	7° 4'	6°34'	11°26'	4°54'	18° 2'	25°39'	26°45'	0°38'	17°57'	S 16
S 17	20 13 43	2°27'40"	29°16'	29°34'	12°35'	6° 0'	7°12'	6°40'	11°24'	4°56'	18° 3'	25°R40	26°42'	0°45'	18° 1'	S 17
M 18	20 17 40	3°25'06"	12°29'	0°23'	13°44'	6°37'	7°21'	6°45'	11°21'	4°58'	18° 4'	25°40'	26°38'	0°51'	18° 5'	M 18
T 19	20 21 37	4°22'33"	26° 8'	1° 9'	14°53'	7°14'	7°29'	6°51'	11°19'	5° 0'	18° 5'	25°38'	26°35'	0°58'	18°10'	T 19
W 20	20 25 33	5°20'01"	10°15'	1°50'	16° 2'	7°50'	7°38'	6°56'	11°16'	5° 2'	18° 6'	25°36'	26°32'	1° 5'	18°14'	W 20
T 21	20 29 30	6°17'30"	2°29'	17°11'	8°27'	7°47'	7° 1'	11°14'	5° 4'	18° 7'	25°34'	26°29'	26°29'	1°11'	18°19'	T 21
F 22	20 33 26	7°15'00"	9°40'	3° 3'	18°20'	9° 4'	7°56'	7° 7'	11°12'	5° 6'	18° 8'	25°32'	26°26'	1°18'	18°23'	F 22
S 23	20 37 23	8°12'31"	24°48'	3°33'	19°28'	9°41'	8° 5'	7°12'	11° 9'	5° 8'	18° 9'	25°30'	26°23'	1°25'	18°28'	S 23
S 24	20 41 19	9°10'03"	10° 1'	3°59'	20°37'	10°18'	8°15'	7°17'	11° 7'	5°10'	18°10'	25°28'	26°19'	1°31'	18°33'	S 24
M 25	20 45 16	10° 7'36"	25° 9'	4°20'	21°45'	10°55'	8°24'	7°22'	11° 4'	5°12'	18°11'	25°D28	26°16'	1°38'	18°38'	M 25
T 26	20 49 13	11° 5'10"	10° 4'	4°37'	22°53'	11°33'	8°34'	7°27'	11° 2'	5°14'	18°12'	25°28'	26°13'	1°45'	18°43'	T 26
W 27	20 53 9	12° 2'45"	24°39'	4°49'	24° 2'	12°10'	8°43'	7°31'	11° 0'	5°16'	18°13'	25°29'	26°10'	1°51'	18°48'	W 27
T 28	20 57 6	13° 0'22"	8°49'	4°55'	25°10'	12°48'	8°53'	7°36'	10°57'	5°17'	18°14'	25°30'	26° 7'	1°58'	18°53'	T 28
F 29	21 1 2	13°58'01"	22°32'	4°R56	26°18'	13°25'	9° 3'	7°41'	10°55'	5°19'	18°15'	25°31'	26° 3'	2° 5'	18°58'	F 29
S 30	21 4 59	14°55'41"	5°49'	4°52'	27°26'	14° 3'	9°12'	7°45'	10°52'	5°21'	18°16'	25°32'	26° 0'	2°11'	19° 4'	S 30
S 31	21 8 55	15°53'23"	18°43'	4°42'	28°33'	14°41'	9°22'	7°II50	10°550	5°223	18°II16	25°R32	25°57'	2°II18	19° 9'	S 31

Delta T = 07m33s

Julian Calendar 1 July 1412 == Greg. Calendar 10 July 1412

AUGUST 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	21 12 52	16°51'06"	1°II16	4°R26	29°41'	15°19'	9°32'	7°II54	10°R48	5°25'	18°II17	25°R32	25°54'	2°II25	19°15'	M 1
T 2	21 16 48	17°48'51"	13°33'	4°5'	0°48'	15°57'	9°42'	7°59'	10°445	5°26'	18°18'	25°31'	25°51'	2°31'	19°20'	T 2
W 3	21 20 45	18°46'38"	25°37'	3°38'	1°56'	16°35'	9°53'	8° 3'	10°43'	5°28'	18°19'	25°30'	25°48'	2°38'	19°26'	W 3
T 4	21 24 42	19°44'27"	7°32'	3° 6'	3° 3'	17°14'	10° 3'	8° 7'	10°41'	5°30'	18°20'	25°29'	25°44'	2°45'	19°32'	T 4
F 5	21 28 38	20°42'17"	19°22'	2°28'	4°10'	17°52'	10°13'	8°11'	10°38'	5°32'	18°20'	25°29'	25°41'	2°51'	19°38'	F 5
S 6	21 32 35	21°40'08"	1°II10	1°46'	5°17'	18°30'	10°24'	8°15'	10°36'	5°33'	18°21'	25°28'	25°38'	2°58'	19°43'	S 6
S 7	21 36 31	22°38'02"	12°59'	0°59'	6°24'	19° 9'	10°34'	8°19'	10°34'	5°35'	18°22'	25°28'	25°35'	3° 5'	19°49'	S 7
M 8	21 40 28	23°35'56"	24°50'	0° 9'	7°30'	19°48'	10°45'	8°23'	10°31'	5°37'	18°23'	25°D28	25°32'	3°11'	19°56'	M 8
T 9	21 44 24	24°33'53"	6°46'	29°II16	8°37'	20°27'	10°56'	8°26'	10°29'	5°38'	18°23'	25°28'	25°29'	3°18'	20° 2'	T 9
W 10	21 48 21	25°31'51"	18°49'	28°22'	9°43'	21° 5'	11° 7'	8°30'	10°27'	5°40'	18°24'	25°R28	25°25'	3°24'	20° 8'	W 10
T 11	21 52 17	26°29'50"	1° 2'	27°26'	10°49'	21°44'	11°17'	8°33'	10°24'	5°41'	18°25'	25°28'	25°22'	3°31'	20°14'	T 11
F 12	21 56 14	27°27'51"	13°26'	26°31'	11°56'	22°24'	11°28'	8°37'	10°22'	5°43'	18°25'	25°28'	25°19'	3°38'	20°20'	F 12
S 13	22 0 10	28°25'53"	26° 4'	25°38'	13° 1'	23° 3'	11°39'	8°40'	10°20'	5°44'	18°26'	25°27'	25°16'	3°44'	20°27'	S 13
S 14	22 4 7	29°23'57"	8°II58	24°47'	14° 7'	23°42'	11°51'	8°43'	10°18'	5°46'	18°26'	25°27'	25°13'	3°51'	20°33'	S 14
M 15	22 8 4	0°22'02"	22°11'	24° 0'	15°13'	24°21'	12° 2'	8°46'	10°15'	5°47'	18°27'	25°27'	25° 9'	3°58'	20°40'	M 15
T 16	22 12 0	1°20'08"	5°445	23°18'	16°18'	25° 1'	12°13'	8°49'	10°13'	5°49'	18°27'	25°D27	25° 6'	4° 4'	20°46'	T 16
W 17	22 15 57	2°18'16"	19°40'	22°42'	17°23'	25°40'	12°24'	8°52'	10°11'	5°50'	18°28'	25°27'	25° 3'	4°11'	20°53'	W 17
T 18	22 19 53	3°16'26"	3°57'	22°12'	18°28'	26°20'	12°36'	8°55'	10° 9'	5°52'	18°29'	25°27'	25° 0'	4°18'	21° 0'	T 18
F 19	22 23 50	4°14'37"	18°33'	21°51'	19°33'	27° 0'	12°47'	8°58'	10° 7'	5°53'	18°29'	25°28'	24°57'	4°24'	21° 6'	F 19
S 20	22 27 46	5°12'50"	3°23'	21°37'	20°38'	27°40'	12°59'	9° 1'	10° 5'	5°54'	18°29'	25°29'	24°54'	4°31'	21°13'	S 20
S 21	22 31 43	6°11'04"	18°22'	21°D33	21°42'	28°20'	13°10'	9° 3'	10° 3'	5°56'	18°30'	25°R29	24°50'	4°38'	21°20'	S 21
M 22	22 35 40	7° 9'19"	3°II22	21°37'	22°46'	29° 0'	13°22'	9° 5'	10° 1'	5°57'	18°30'	25°29'	24°47'	4°44'	21°27'	M 22
T 23	22 39 36	8° 7'37"	18°15'	21°50'	23°50'	29°40'	13°33'	9° 8'	9°59'	5°58'	18°31'	25°29'	24°44'	4°51'	21°34'	T 23
W 24	22 43 33	9° 5'56"	2°52'	22°12'	24°54'	0°II20	13°45'	9°10'	9°57'	5°59'	18°31'	25°27'	24°41'	4°58'	21°41'	W 24
T 25	22 47 29	10° 4'18"	17° 7'	22°42'	25°57'	1° 0'	13°57'	9°12'	9°55'	6° 1'	18°31'	25°26'	24°38'	5° 4'	21°48'	T 25
F 26	22 51 26	11° 2'41"	0°57'	23°22'	27° 0'	1°41'	14° 9'	9°14'	9°53'	6° 2'	18°32'	25°24'	24°34'	5°11'	21°55'	F 26
S 27	22 55 22	12° 1'07"	14°21'	24°10'	28° 3'	2°21'	14°21'	9°16'	9°51'	6° 3'	18°32'	25°22'	24°31'	5°18'	22° 3'	S 27
S 28	22 59 19	12°59'34"	27°19'	25° 5'	29° 6'	3° 2'	14°33'	9°18'	9°49'	6° 4'	18°32'	25°20'	24°28'	5°24'	22°10'	S 28
M 29	23 3 15	13°58'05"	9°II55	26° 8'	0°II 8	3°42'	14°45'	9°20'	9°47'	6° 5'	18°33'	25°D20	24°25'	5°31'	22°17'	M 29
T 30	23 7 12	14°56'37"	22°12'	27°18'	1°10'	4°23'	14°57'	9°21'	9°45'	6° 6'	18°33'	25°20'	24°22'	5°38'	22°24'	T 30
W 31	23 11 8	15°55'11"	4°15'	28°II34	2°II12	5°II 4	15°49'	9°II23	9°443	6° 7'	18°II33	25°21'	24°19'	5°II44	22°32'	W 31

Delta T = 07m33s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1412

geocentric

SEPTEMBER 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	23 15 5	16 ¹¹ 53'48	16 ¹¹ 53'48	29 ¹¹ 56	3 ¹¹ 14	5 ¹¹ 45	15 ¹¹ 21	9 ¹¹ 24	9 ¹¹ 42	6 ¹¹ 8	18 ¹¹ 33	25 ¹¹ 22	24 ¹¹ 15	5 ¹¹ 51	22 ¹¹ 39	T 1
F 2	23 19 2	17 ¹¹ 52'27	27 ¹¹ 56	1 ¹¹ 23	4 ¹¹ 15	6 ¹¹ 26	15 ¹¹ 33	9 ¹¹ 25	9 ¹¹ 40	6 ¹¹ 9	18 ¹¹ 34	25 ¹¹ 24	24 ¹¹ 12	5 ¹¹ 58	22 ¹¹ 47	F 2
S 3	23 22 58	18 ¹¹ 51'08	9 ¹¹ 44	2 ¹¹ 54	5 ¹¹ 16	7 ¹¹ 7	15 ¹¹ 46	9 ¹¹ 26	9 ¹¹ 38	6 ¹¹ 10	18 ¹¹ 34	25 ¹¹ 25	24 ¹¹ 9	6 ¹¹ 4	22 ¹¹ 54	S 3
S 4	23 26 55	19 ¹¹ 49'51	21 ¹¹ 35	4 ¹¹ 29	6 ¹¹ 17	7 ¹¹ 48	15 ¹¹ 58	9 ¹¹ 27	9 ¹¹ 37	6 ¹¹ 11	18 ¹¹ 34	25 ¹¹ 26	24 ¹¹ 6	6 ¹¹ 11	23 ¹¹ 2	S 4
M 5	23 30 51	20 ¹¹ 48'36	3 ¹¹ 32	6 ¹¹ 7	7 ¹¹ 17	8 ¹¹ 29	16 ¹¹ 10	9 ¹¹ 28	9 ¹¹ 35	6 ¹¹ 12	18 ¹¹ 34	25 ¹¹ 26	24 ¹¹ 3	6 ¹¹ 17	23 ¹¹ 10	M 5
T 6	23 34 48	21 ¹¹ 47'23	15 ¹¹ 38	7 ¹¹ 48	8 ¹¹ 17	9 ¹¹ 10	16 ¹¹ 23	9 ¹¹ 29	9 ¹¹ 33	6 ¹¹ 13	18 ¹¹ 34	25 ¹¹ 24	24 ¹¹ 0	6 ¹¹ 24	23 ¹¹ 17	T 6
W 7	23 38 44	22 ¹¹ 46'12	27 ¹¹ 55	9 ¹¹ 31	9 ¹¹ 17	9 ¹¹ 52	16 ¹¹ 35	9 ¹¹ 30	9 ¹¹ 32	6 ¹¹ 13	18 ¹¹ 34	25 ¹¹ 21	23 ¹¹ 56	6 ¹¹ 31	23 ¹¹ 25	W 7
T 8	23 42 41	23 ¹¹ 45'04	10 ¹¹ 24	11 ¹¹ 16	10 ¹¹ 17	10 ¹¹ 33	16 ¹¹ 48	9 ¹¹ 30	9 ¹¹ 30	6 ¹¹ 14	18 ¹¹ 34	25 ¹¹ 17	23 ¹¹ 53	6 ¹¹ 37	23 ¹¹ 33	T 8
F 9	23 46 37	24 ¹¹ 43'57	23 ¹¹ 6	13 ¹¹ 3	11 ¹¹ 16	11 ¹¹ 15	17 ¹¹ 0	9 ¹¹ 31	9 ¹¹ 29	6 ¹¹ 15	18 ¹¹ 34	25 ¹¹ 13	23 ¹¹ 50	6 ¹¹ 44	23 ¹¹ 40	F 9
S 10	23 50 34	25 ¹¹ 42'52	6 ¹¹ 1	14 ¹¹ 50	12 ¹¹ 14	11 ¹¹ 57	17 ¹¹ 13	9 ¹¹ 31	9 ¹¹ 27	6 ¹¹ 16	18 ¹¹ 34	25 ¹¹ 8	23 ¹¹ 47	6 ¹¹ 51	23 ¹¹ 48	S 10
S 11	23 54 31	26 ¹¹ 41'49	19 ¹¹ 9	16 ¹¹ 38	13 ¹¹ 12	12 ¹¹ 38	17 ¹¹ 25	9 ¹¹ 32	9 ¹¹ 26	6 ¹¹ 16	18 ¹¹ 34	25 ¹¹ 3	23 ¹¹ 44	6 ¹¹ 57	23 ¹¹ 56	S 11
M 12	23 58 27	27 ¹¹ 40'48	2 ¹¹ 31	18 ¹¹ 26	14 ¹¹ 10	13 ¹¹ 20	17 ¹¹ 38	9 ¹¹ 32	9 ¹¹ 25	6 ¹¹ 17	18 ¹¹ 34	24 ¹¹ 59	23 ¹¹ 40	7 ¹¹ 4	24 ¹¹ 4	M 12
T 13	0 2 24	28 ¹¹ 39'49	16 ¹¹ 7	20 ¹¹ 15	15 ¹¹ 7	14 ¹¹ 2	17 ¹¹ 51	9 ¹¹ 32	9 ¹¹ 23	6 ¹¹ 18	18 ¹¹ 34	24 ¹¹ 57	23 ¹¹ 37	7 ¹¹ 11	24 ¹¹ 12	T 13
W 14	0 6 20	29 ¹¹ 38'51	29 ¹¹ 57	22 ¹¹ 4	16 ¹¹ 4	14 ¹¹ 44	18 ¹¹ 3	9 ¹¹ 32	9 ¹¹ 22	6 ¹¹ 18	18 ¹¹ 34	24 ¹¹ D57	23 ¹¹ 34	7 ¹¹ 17	24 ¹¹ 20	W 14
T 15	0 10 17	0 ¹¹ 37'56	14 ¹¹ 3	23 ¹¹ 52	17 ¹¹ 1	15 ¹¹ 26	18 ¹¹ 16	9 ¹¹ 32	9 ¹¹ 21	6 ¹¹ 19	18 ¹¹ 34	24 ¹¹ 57	23 ¹¹ 31	7 ¹¹ 24	24 ¹¹ 28	T 15
F 16	0 14 13	1 ¹¹ 37'02	28 ¹¹ 18	25 ¹¹ 40	17 ¹¹ 57	16 ¹¹ 8	18 ¹¹ 29	9 ¹¹ 31	9 ¹¹ 20	6 ¹¹ 19	18 ¹¹ 34	24 ¹¹ 59	23 ¹¹ 28	7 ¹¹ 31	24 ¹¹ 36	F 16
S 17	0 18 10	2 ¹¹ 36'09	12 ¹¹ 46	27 ¹¹ 28	18 ¹¹ 52	16 ¹¹ 51	18 ¹¹ 42	9 ¹¹ 31	9 ¹¹ 18	6 ¹¹ 20	18 ¹¹ 34	25 ¹¹ 0	23 ¹¹ 25	7 ¹¹ 37	24 ¹¹ 44	S 17
S 18	0 22 6	3 ¹¹ 35'19	27 ¹¹ 21	29 ¹¹ 15	19 ¹¹ 47	17 ¹¹ 33	18 ¹¹ 55	9 ¹¹ 30	9 ¹¹ 17	6 ¹¹ 20	18 ¹¹ 33	25 ¹¹ R 0	23 ¹¹ 21	7 ¹¹ 44	24 ¹¹ 52	S 18
M 19	0 26 3	4 ¹¹ 34'30	11 ¹¹ 59	1 ¹¹ 2	20 ¹¹ 41	18 ¹¹ 15	19 ¹¹ 7	9 ¹¹ 30	9 ¹¹ 16	6 ¹¹ 21	18 ¹¹ 33	24 ¹¹ 59	23 ¹¹ 18	7 ¹¹ 51	25 ¹¹ 0	M 19
T 20	0 30 0	5 ¹¹ 33'44	26 ¹¹ 34	2 ¹¹ 48	21 ¹¹ 35	18 ¹¹ 58	19 ¹¹ 20	9 ¹¹ 29	9 ¹¹ 15	6 ¹¹ 21	18 ¹¹ 33	24 ¹¹ 56	23 ¹¹ 15	7 ¹¹ 57	25 ¹¹ 8	T 20
W 21	0 33 56	6 ¹¹ 32'59	10 ¹¹ 59	4 ¹¹ 33	22 ¹¹ 28	19 ¹¹ 40	19 ¹¹ 33	9 ¹¹ 28	9 ¹¹ 14	6 ¹¹ 21	18 ¹¹ 33	24 ¹¹ 51	23 ¹¹ 12	8 ¹¹ 4	25 ¹¹ 16	W 21
T 22	0 37 53	7 ¹¹ 32'16	25 ¹¹ 8	6 ¹¹ 18	23 ¹¹ 21	20 ¹¹ 23	19 ¹¹ 46	9 ¹¹ 27	9 ¹¹ 13	6 ¹¹ 22	18 ¹¹ 32	24 ¹¹ 45	23 ¹¹ 9	8 ¹¹ 11	25 ¹¹ 25	T 22
F 23	0 41 49	8 ¹¹ 31'36	8 ¹¹ 57	8 ¹¹ 2	24 ¹¹ 13	21 ¹¹ 6	19 ¹¹ 59	9 ¹¹ 26	9 ¹¹ 13	6 ¹¹ 22	18 ¹¹ 32	24 ¹¹ 37	23 ¹¹ 6	8 ¹¹ 17	25 ¹¹ 33	F 23
S 24	0 45 46	9 ¹¹ 30'58	22 ¹¹ 22	9 ¹¹ 46	25 ¹¹ 4	21 ¹¹ 48	20 ¹¹ 12	9 ¹¹ 25	9 ¹¹ 12	6 ¹¹ 22	18 ¹¹ 32	24 ¹¹ 30	23 ¹¹ 2	8 ¹¹ 24	25 ¹¹ 41	S 24
S 25	0 49 42	10 ¹¹ 30'22	5 ¹¹ 22	11 ¹¹ 28	25 ¹¹ 55	22 ¹¹ 31	20 ¹¹ 25	9 ¹¹ 24	9 ¹¹ 11	6 ¹¹ 22	18 ¹¹ 32	24 ¹¹ 24	22 ¹¹ 59	8 ¹¹ 30	25 ¹¹ 49	S 25
M 26	0 53 39	11 ¹¹ 29'48	18 ¹¹ 1	13 ¹¹ 10	26 ¹¹ 45	23 ¹¹ 14	20 ¹¹ 38	9 ¹¹ 22	9 ¹¹ 10	6 ¹¹ 23	18 ¹¹ 31	24 ¹¹ 19	22 ¹¹ 56	8 ¹¹ 37	25 ¹¹ 58	M 26
T 27	0 57 35	12 ¹¹ 29'17	0 ¹¹ 59	14 ¹¹ 52	27 ¹¹ 34	23 ¹¹ 57	20 ¹¹ 51	9 ¹¹ 21	9 ¹¹ 10	6 ¹¹ 23	18 ¹¹ 31	24 ¹¹ 16	22 ¹¹ 53	8 ¹¹ 44	26 ¹¹ 6	T 27
W 28	1 1 32	13 ¹¹ 28'48	12 ¹¹ 23	16 ¹¹ 32	28 ¹¹ 22	24 ¹¹ 40	21 ¹¹ 4	9 ¹¹ 19	9 ¹¹ 9	6 ¹¹ 23	18 ¹¹ 30	24 ¹¹ D15	22 ¹¹ 50	8 ¹¹ 50	26 ¹¹ 14	W 28
T 29	1 5 29	14 ¹¹ 28'22	24 ¹¹ 16	18 ¹¹ 12	29 ¹¹ 10	25 ¹¹ 23	21 ¹¹ 17	9 ¹¹ 18	9 ¹¹ 8	6 ¹¹ 23	18 ¹¹ 30	24 ¹¹ 16	22 ¹¹ 46	8 ¹¹ 57	26 ¹¹ 22	T 29
F 30	1 9 25	15 ¹¹ 27'57	6 ¹¹ 4	19 ¹¹ 51	29 ¹¹ 57	26 ¹¹ 1	21 ¹¹ 30	9 ¹¹ 16	9 ¹¹ 8	6 ¹¹ 23	18 ¹¹ 30	24 ¹¹ 17	22 ¹¹ 43	9 ¹¹ 4	26 ¹¹ 31	F 30

Delta T = 07m33s

Julian Calendar 1 Sept. 1412 == Greg. Calendar 10 Sept. 1412

OCTOBER 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	1 13 22	16♂27'35	17♂53	21♂30	0♂43	26♂50	21♂43	9°R14	9°R 7	6°R23	18°R29	24≈18	22≈40	9♂10	26♂39	S 1
S 2	1 17 18	17°27'16	29°46	23° 8	1°28	27°33	21°56	9♂12	9≈ 7	6♂23	18♂29	24°R18	22°37	9°17	26°48	S 2
M 3	1 21 15	18°26'58	11♂50	24°45	2°12	28°17	22° 9	9°10	9° 6	6°23	18°28	24°16	22°34	9°24	26°56	M 3
T 4	1 25 11	19°26'43	24° 6	26°22	2°55	29° 0	22°23	9° 7	9° 6	6°23	18°28	24°12	22°31	9°30	27° 4	T 4
W 5	1 29 8	20°26'29	6♂37	27°58	3°38	29°44	22°36	9° 5	9° 6	6°23	18°27	24° 6	22°27	9°37	27°13	W 5
T 6	1 33 4	21°26'18	19°25	29°33	4°19	0♂28	22°49	9° 3	9° 6	6°22	18°27	23°57	22°24	9°44	27°21	T 6
F 7	1 37 1	22°26'09	2♂29	1♂ 8	4°59	1°11	23° 2	9° 0	9° 5	6°22	18°26	23°47	22°21	9°50	27°29	F 7
S 8	1 40 57	23°26'02	15°47	2°43	5°38	1°55	23°15	8°58	9° 5	6°22	18°25	23°36	22°18	9°57	27°38	S 8
S 9	1 44 54	24°25'56	29°19	4°17	6°16	2°39	23°28	8°55	9° 5	6°22	18°25	23°26	22°15	10° 4	27°46	S 9
M10	1 48 51	25°25'53	13♂1	5°50	6°52	3°23	23°41	8°52	9°D 5	6°21	18°24	23°18	22°11	10°10	27°55	M10
T 11	1 52 47	26°25'51	26°51	7°23	7°27	4° 7	23°54	8°49	9° 5	6°21	18°24	23°12	22° 8	10°17	28° 3	T 11
W12	1 56 44	27°25'51	10♂48	8°55	8° 1	4°51	24° 7	8°46	9° 5	6°21	18°23	23° 8	22° 5	10°24	28°12	W12
T 13	2 0 40	28°25'53	24°50	10°27	8°34	5°35	24°21	8°43	9° 5	6°20	18°22	23°D 7	22° 2	10°30	28°20	T 13
F 14	2 4 37	29°25'56	8≈56	11°58	9° 5	6°20	24°34	8°40	9° 6	6°20	18°21	23° 7	21°59	10°37	28°28	F 14
S 15	2 8 33	0♂26'00	23°5	13°29	9°34	7° 4	24°47	8°37	9° 6	6°19	18°21	23°R 8	21°56	10°43	28°37	S 15
S 16	2 12 30	1°26'07	7♂16	15° 0	10° 2	7°48	25° 0	8°33	9° 6	6°19	18°20	23° 7	21°52	10°50	28°45	S 16
M17	2 16 27	2°26'14	21°27	16°30	10°28	8°33	25°13	8°30	9° 6	6°18	18°19	23° 4	21°49	10°57	28°54	M17
T 18	2 20 23	3°26'24	5♂36	17°59	10°53	9°17	25°26	8°26	9° 7	6°18	18°18	22°58	21°46	11° 3	29° 2	T 18
W19	2 24 20	4°26'35	19°37	19°28	11°16	10° 2	25°39	8°23	9° 7	6°17	18°18	22°50	21°43	11°10	29°10	W19
T 20	2 28 16	5°26'47	3♂27	20°57	11°37	10°46	25°52	8°19	9° 8	6°17	18°17	22°39	21°40	11°17	29°19	T 20
F 21	2 32 13	6°27'02	17° 2	22°25	11°56	11°31	26° 5	8°15	9° 8	6°16	18°16	22°26	21°37	11°23	29°27	F 21
S 22	2 36 9	7°27'18	0♂18	23°53	12°13	12°16	26°18	8°11	9° 9	6°15	18°15	22°14	21°33	11°30	29°36	S 22
S 23	2 40 6	8°27'37	13°14	25°20	12°28	13° 1	26°31	8° 7	9° 9	6°15	18°14	22° 3	21°30	11°37	29°44	S 23
M24	2 44 2	9°27'57	25°51	26°46	12°41	13°45	26°44	8° 3	9°10	6°14	18°13	21°53	21°27	11°43	29°52	M24
T 25	2 47 59	10°28'19	8♂9	28°12	12°52	14°30	26°57	7°59	9°11	6°13	18°13	21°47	21°24	11°50	0♂1	T 25
W26	2 51 56	11°28'44	20°12	29°37	13° 1	15°15	27°10	7°55	9°12	6°12	18°12	21°43	21°21	11°57	0° 9	W26
T 27	2 55 52	12°29'10	2♂ 5	1♂ 1	13° 7	16° 0	27°23	7°51	9°12	6°11	18°11	21°41	21°17	12° 3	0°17	T 27
F 28	2 59 49	13°29'37	13°53	2°25	13°11	16°46	27°36	7°47	9°13	6°11	18°10	21°D40	21°14	12°10	0°25	F 28
S 29	3 3 45	14°30'07	25°42	3°48	13°R13	17°31	27°49	7°43	9°14	6°10	18° 9	21°R40	21°11	12°17	0°34	S 29
S 30	3 7 42	15°30'39	7♂36	5°10	13°13	18°16	28° 2	7°38	9°15	6° 9	18° 8	21°40	21° 8	12°23	0°42	S 30
M31	3 11 38	16♂31'12	19♂42	6♂30	13♂10	19♂ 1	28♂14	7♂34	9≈16	6♂ 8	18♂ 7	21≈37	21≈ 5	12♂30	0♂50	M31

ASTRODIENST EPHEMERIS for the year 1412

geocentric

NOVEMBER 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	3 15 35	17 ¹¹ 31'47	2 ¹¹ 4	7 ¹¹ 50	13 ¹⁸ 4	19 ¹¹ 47	28 ¹¹ 27	7 ¹⁸ 29	9 ¹¹ 17	6 ¹⁸ 7	18 ¹⁸ 6	21 ¹⁸ 32	21 ¹⁸ 2	12 ¹⁸ 36	0 ¹⁸ 58	T 1
W 2	3 19 31	18 ¹⁸ 32'24	14 ¹⁸ 45	9 ¹⁸ 8	12 ¹⁸ 56	20 ¹⁸ 32	28 ¹⁸ 40	7 ¹⁸ 25	9 ¹⁸ 18	6 ¹⁸ 6	18 ¹⁸ 5	21 ¹⁸ 24	20 ¹⁸ 58	12 ¹⁸ 43	1 ¹⁸ 7	W 2
T 3	3 23 28	19 ¹⁸ 33'02	27 ¹⁸ 47	10 ¹⁸ 25	12 ¹⁸ 46	21 ¹⁸ 17	28 ¹⁸ 53	7 ¹⁸ 20	9 ¹⁸ 20	6 ¹⁸ 5	18 ¹⁸ 4	21 ¹⁸ 13	20 ¹⁸ 55	12 ¹⁸ 50	1 ¹⁸ 15	T 3
F 4	3 27 24	20 ¹⁸ 33'43	11 ¹⁸ 11	11 ¹⁸ 39	12 ¹⁸ 33	22 ¹⁸ 3	29 ¹⁸ 5	7 ¹⁸ 16	9 ¹⁸ 21	6 ¹⁸ 4	18 ¹⁸ 3	21 ¹⁸ 1	20 ¹⁸ 52	12 ¹⁸ 56	1 ¹⁸ 23	F 4
S 5	3 31 21	21 ¹⁸ 34'24	24 ¹⁸ 54	12 ¹⁸ 52	12 ¹⁸ 18	22 ¹⁸ 48	29 ¹⁸ 18	7 ¹⁸ 11	9 ¹⁸ 22	6 ¹⁸ 3	18 ¹⁸ 2	20 ¹⁸ 47	20 ¹⁸ 49	13 ¹⁸ 3	1 ¹⁸ 31	S 5
S 6	3 35 18	22 ¹⁸ 35'07	8 ¹⁸ 52	14 ¹⁸ 3	12 ¹⁸ 1	23 ¹⁸ 34	29 ¹⁸ 31	7 ¹⁸ 6	9 ¹⁸ 23	6 ¹⁸ 1	18 ¹⁸ 1	20 ¹⁸ 35	20 ¹⁸ 46	13 ¹⁸ 10	1 ¹⁸ 39	S 6
M 7	3 39 14	23 ¹⁸ 35'52	23 ¹⁸ 2	15 ¹⁸ 11	11 ¹⁸ 41	24 ¹⁸ 20	29 ¹⁸ 43	7 ¹⁸ 2	9 ¹⁸ 25	6 ¹⁸ 0	18 ¹⁸ 0	20 ¹⁸ 24	20 ¹⁸ 43	13 ¹⁸ 16	1 ¹⁸ 47	M 7
T 8	3 43 11	24 ¹⁸ 36'38	7 ¹⁸ 37	16 ¹⁸ 16	11 ¹⁸ 19	25 ¹⁸ 6	29 ¹⁸ 56	6 ¹⁸ 57	9 ¹⁸ 26	5 ¹⁸ 59	17 ¹⁸ 59	20 ¹⁸ 16	20 ¹⁸ 39	13 ¹⁸ 23	1 ¹⁸ 55	T 8
W 9	3 47 7	25 ¹⁸ 37'24	21 ¹⁸ 33	17 ¹⁸ 17	10 ¹⁸ 55	25 ¹⁸ 51	0 ¹⁸ 8	6 ¹⁸ 52	9 ¹⁸ 28	5 ¹⁸ 58	17 ¹⁸ 58	20 ¹⁸ 11	20 ¹⁸ 36	13 ¹⁸ 30	2 ¹⁸ 3	W 9
T 10	3 51 4	26 ¹⁸ 38'12	5 ¹⁸ 46	18 ¹⁸ 15	10 ¹⁸ 29	26 ¹⁸ 37	0 ¹⁸ 21	6 ¹⁸ 47	9 ¹⁸ 29	5 ¹⁸ 57	17 ¹⁸ 57	20 ¹⁸ 9	20 ¹⁸ 33	13 ¹⁸ 36	2 ¹⁸ 11	T 10
F 11	3 55 0	27 ¹⁸ 39'01	19 ¹⁸ 55	19 ¹⁸ 9	10 ¹⁸ 0	27 ¹⁸ 23	0 ¹⁸ 33	6 ¹⁸ 42	9 ¹⁸ 31	5 ¹⁸ 56	17 ¹⁸ 55	20 ¹⁸ 9	20 ¹⁸ 30	13 ¹⁸ 43	2 ¹⁸ 19	F 11
S 12	3 58 57	28 ¹⁸ 39'51	3 ¹⁸ 58	19 ¹⁸ 57	9 ¹⁸ 30	28 ¹⁸ 9	0 ¹⁸ 46	6 ¹⁸ 37	9 ¹⁸ 32	5 ¹⁸ 54	17 ¹⁸ 54	20 ¹⁸ 9	20 ¹⁸ 27	13 ¹⁸ 50	2 ¹⁸ 27	S 12
S 13	4 2 54	29 ¹⁸ 40'41	17 ¹⁸ 55	20 ¹⁸ 40	8 ¹⁸ 59	28 ¹⁸ 55	0 ¹⁸ 58	6 ¹⁸ 32	9 ¹⁸ 34	5 ¹⁸ 53	17 ¹⁸ 53	20 ¹⁸ 8	20 ¹⁸ 23	13 ¹⁸ 56	2 ¹⁸ 35	S 13
M14	4 6 50	0 ¹⁸ 41'32	1 ¹⁸ 46	21 ¹⁸ 16	8 ¹⁸ 26	29 ¹⁸ 41	1 ¹⁸ 10	6 ¹⁸ 28	9 ¹⁸ 36	5 ¹⁸ 52	17 ¹⁸ 52	20 ¹⁸ 5	20 ¹⁸ 20	14 ¹⁸ 3	2 ¹⁸ 42	M14
T 15	4 10 47	1 ¹⁸ 42'24	15 ¹⁸ 29	21 ¹⁸ 46	7 ¹⁸ 52	0 ¹⁸ 27	1 ¹⁸ 22	6 ¹⁸ 23	9 ¹⁸ 37	5 ¹⁸ 50	17 ¹⁸ 51	19 ¹⁸ 59	20 ¹⁸ 17	14 ¹⁸ 10	2 ¹⁸ 50	T 15
W16	4 14 43	2 ¹⁸ 43'18	29 ¹⁸ 4	22 ¹⁸ 7	7 ¹⁸ 17	1 ¹⁸ 13	1 ¹⁸ 35	6 ¹⁸ 18	9 ¹⁸ 39	5 ¹⁸ 49	17 ¹⁸ 50	19 ¹⁸ 50	20 ¹⁸ 14	14 ¹⁸ 16	2 ¹⁸ 58	W16
T 17	4 18 40	3 ¹⁸ 44'12	12 ¹⁸ 28	22 ¹⁸ 20	6 ¹⁸ 41	1 ¹⁸ 59	1 ¹⁸ 47	6 ¹⁸ 13	9 ¹⁸ 41	5 ¹⁸ 48	17 ¹⁸ 49	19 ¹⁸ 38	20 ¹⁸ 11	14 ¹⁸ 23	3 ¹⁸ 6	T 17
F 18	4 22 36	4 ¹⁸ 45'07	25 ¹⁸ 41	22 ¹⁸ 22	6 ¹⁸ 4	2 ¹⁸ 46	1 ¹⁸ 59	6 ¹⁸ 8	9 ¹⁸ 43	5 ¹⁸ 46	17 ¹⁸ 48	19 ¹⁸ 26	20 ¹⁸ 8	14 ¹⁸ 29	3 ¹⁸ 13	F 18
S 19	4 26 33	5 ¹⁸ 46'03	8 ¹⁸ 39	22 ¹⁸ 15	5 ¹⁸ 28	3 ¹⁸ 32	2 ¹⁸ 11	6 ¹⁸ 3	9 ¹⁸ 45	5 ¹⁸ 45	17 ¹⁸ 46	19 ¹⁸ 12	20 ¹⁸ 4	14 ¹⁸ 36	3 ¹⁸ 21	S 19
S 20	4 30 29	6 ¹⁸ 47'00	21 ¹⁸ 22	21 ¹⁸ 56	4 ¹⁸ 51	4 ¹⁸ 18	2 ¹⁸ 23	5 ¹⁸ 58	9 ¹⁸ 47	5 ¹⁸ 43	17 ¹⁸ 45	19 ¹⁸ 0	20 ¹⁸ 1	14 ¹⁸ 43	3 ¹⁸ 28	S 20
M21	4 34 26	7 ¹⁸ 47'58	3 ¹⁸ 50	21 ¹⁸ 27	4 ¹⁸ 15	5 ¹⁸ 4	2 ¹⁸ 35	5 ¹⁸ 53	9 ¹⁸ 49	5 ¹⁸ 42	17 ¹⁸ 44	18 ¹⁸ 50	19 ¹⁸ 58	14 ¹⁸ 49	3 ¹⁸ 36	M21
T 22	4 38 23	8 ¹⁸ 48'57	16 ¹⁸ 3	20 ¹⁸ 45	3 ¹⁸ 40	5 ¹⁸ 51	2 ¹⁸ 46	5 ¹⁸ 48	9 ¹⁸ 51	5 ¹⁸ 41	17 ¹⁸ 43	18 ¹⁸ 43	19 ¹⁸ 55	14 ¹⁸ 56	3 ¹⁸ 43	T 22
W23	4 42 19	9 ¹⁸ 49'57	28 ¹⁸ 3	19 ¹⁸ 53	3 ¹⁸ 5	6 ¹⁸ 37	2 ¹⁸ 58	5 ¹⁸ 43	9 ¹⁸ 53	5 ¹⁸ 39	17 ¹⁸ 42	18 ¹⁸ 38	19 ¹⁸ 52	15 ¹⁸ 3	3 ¹⁸ 51	W23
T 24	4 46 16	10 ¹⁸ 50'58	9 ¹⁸ 52	18 ¹⁸ 51	2 ¹⁸ 31	7 ¹⁸ 24	3 ¹⁸ 10	5 ¹⁸ 38	9 ¹⁸ 55	5 ¹⁸ 38	17 ¹⁸ 41	18 ¹⁸ 36	19 ¹⁸ 49	15 ¹⁸ 9	3 ¹⁸ 58	T 24
F 25	4 50 12	11 ¹⁸ 52'01	21 ¹⁸ 42	17 ¹⁸ 40	1 ¹⁸ 58	8 ¹⁸ 10	3 ¹⁸ 22	5 ¹⁸ 33	9 ¹⁸ 57	5 ¹⁸ 36	17 ¹⁸ 39	18 ¹⁸ D36	19 ¹⁸ 45	15 ¹⁸ 16	4 ¹⁸ 5	F 25
S 26	4 54 9	12 ¹⁸ 53'04	3 ¹⁸ 30	16 ¹⁸ 23	1 ¹⁸ 27	8 ¹⁸ 57	3 ¹⁸ 33	5 ¹⁸ 28	10 ¹⁸ 0	5 ¹⁸ 34	17 ¹⁸ 38	18 ¹⁸ 36	19 ¹⁸ 42	15 ¹⁸ 23	4 ¹⁸ 12	S 26
S 27	4 58 5	13 ¹⁸ 54'08	15 ¹⁸ 23	15 ¹⁸ 1	0 ¹⁸ 58	9 ¹⁸ 43	3 ¹⁸ 45	5 ¹⁸ 23	10 ¹⁸ 2	5 ¹⁸ 33	17 ¹⁸ 37	18 ¹⁸ R36	19 ¹⁸ 39	15 ¹⁸ 29	4 ¹⁸ 20	S 27
M28	5 2 2	14 ¹⁸ 55'13	27 ¹⁸ 28	13 ¹⁸ 38	0 ¹⁸ 30	10 ¹⁸ 30	3 ¹⁸ 56	5 ¹⁸ 18	10 ¹⁸ 4	5 ¹⁸ 31	17 ¹⁸ 36	18 ¹⁸ 35	19 ¹⁸ 36	15 ¹⁸ 36	4 ¹⁸ 27	M28
T 29	5 5 58	15 ¹⁸ 56'19	9 ¹⁸ 49	12 ¹⁸ 17	0 ¹⁸ 5	11 ¹⁸ 17	4 ¹⁸ 7	5 ¹⁸ 14	10 ¹⁸ 6	5 ¹⁸ 30	17 ¹⁸ 35	18 ¹⁸ 33	19 ¹⁸ 33	15 ¹⁸ 43	4 ¹⁸ 34	T 29
W30	5 9 55	16 ¹⁸ 57'26	22 ¹⁸ 32	10 ¹⁸ 59	29 ¹⁸ M41	12 ¹⁸ 3	4 ¹⁸ M19	5 ¹⁸ II 9	10 ¹⁸ 9	5 ¹⁸ 28	17 ¹⁸ II34	18 ¹⁸ 27	19 ¹⁸ 29	15 ¹⁸ 49	4 ¹⁸ M41	W30

Delta T = 07m32s

Julian Calendar 1 Nov. 1412 == Greg. Calendar 10 Nov. 1412

DECEMBER 1412 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	5 13 52	17♂58'34	5♂♂39	9°R48	29°R20	12♂50	4♂♂30	5°R 4	10♂♂11	5°R27	17°R32	18°R20	19♂♂26	15♂♂56	4♂♂48	T 1
F 2	5 17 48	18°59'42	19°12	8♂45	29♂♂ 1	13°37	4°41	4♂♂59	10°14	5♂♂25	17♂♂31	18♂♂10	19°23	16° 2	4°55	F 2
S 3	5 21 45	20° 0'52	3♂10	7°52	28°45	14°23	4°52	4°55	10°16	5°23	17°30	18° 0	19°20	16° 9	5° 2	S 3
S 4	5 25 41	21° 2'02	17°29	7°10	28°31	15°10	5° 3	4°50	10°19	5°22	17°29	17°50	19°17	16°16	5° 8	S 4
M 5	5 29 38	22° 3'12	2♂ 3	6°38	28°19	15°57	5°14	4°45	10°21	5°20	17°28	17°42	19°14	16°22	5°15	M 5
T 6	5 33 34	23° 4'23	16°45	6°17	28°10	16°44	5°25	4°41	10°24	5°18	17°26	17°36	19°10	16°29	5°22	T 6
W 7	5 37 31	24° 5'34	1♂28	6° 7	28° 3	17°31	5°36	4°36	10°27	5°17	17°25	17°32	19° 7	16°36	5°28	W 7
T 8	5 41 28	25° 6'45	16° 5	6°D 6	27°59	18°18	5°46	4°32	10°29	5°15	17°24	17°D31	19° 4	16°42	5°35	T 8
F 9	5 45 24	26° 7'56	0♂31	6°15	27°D57	19° 5	5°57	4°27	10°32	5°13	17°23	17°32	19° 1	16°49	5°41	F 9
S 10	5 49 21	27° 9'07	14°43	6°32	27°58	19°52	6° 7	4°23	10°35	5°12	17°22	17°33	18°58	16°56	5°48	S 10
S 11	5 53 17	28°10'18	28°41	6°57	28° 1	20°39	6°18	4°18	10°37	5°10	17°21	17°R33	18°55	17° 2	5°54	S 11
M12	5 57 14	29°11'28	12°23	7°29	28° 6	21°26	6°28	4°14	10°40	5° 8	17°19	17°32	18°51	17° 9	6° 0	M12
T 13	6 1 10	0♂12'39	25°52	8° 7	28°14	22°13	6°38	4°10	10°43	5° 7	17°18	17°29	18°48	17°16	6° 6	T 13
W14	6 5 7	1°13'49	9♂ 6	8°50	28°24	23° 0	6°48	4° 6	10°46	5° 5	17°17	17°24	18°45	17°22	6°12	W14
T 15	6 9 3	2°15'00	22° 8	9°39	28°36	23°47	6°58	4° 2	10°49	5° 3	17°16	17°17	18°42	17°29	6°18	T 15
F 16	6 13 0	3°16'10	4♂57	10°32	28°51	24°35	7° 8	3°58	10°52	5° 2	17°15	17° 9	18°39	17°36	6°24	F 16
S 17	6 16 57	4°17'20	17°35	11°29	29° 7	25°22	7°18	3°54	10°55	5° 0	17°14	17° 1	18°35	17°42	6°30	S 17
S 18	6 20 53	5°18'30	0♂ 0	12°29	29°26	26° 9	7°28	3°50	10°58	4°58	17°13	16°53	18°32	17°49	6°36	S 18
M19	6 24 50	6°19'40	12°14	13°33	29°46	26°56	7°37	3°46	11° 1	4°57	17°12	16°47	18°29	17°55	6°42	M19
T 20	6 28 46	7°20'49	24°19	14°39	0♂♂ 9	27°43	7°47	3°42	11° 4	4°55	17°10	16°42	18°26	18° 2	6°47	T 20
W21	6 32 43	8°21'59	6♂14	15°48	0°33	28°31	7°56	3°39	11° 7	4°53	17° 9	16°40	18°23	18° 9	6°53	W21
T 22	6 36 39	9°23'08	18° 4	16°59	0°59	29°18	8° 5	3°35	11°10	4°51	17° 8	16°D39	18°20	18°15	6°58	T 22
F 23	6 40 36	10°24'18	29°50	18°12	1°27	0♂♂ 5	8°15	3°32	11°13	4°50	17° 7	16°40	18°16	18°22	7° 4	F 23
S 24	6 44 32	11°25'27	11♂♂38	19°27	1°56	0°53	8°24	3°28	11°16	4°48	17° 6	16°41	18°13	18°29	7° 9	S 24
S 25	6 48 29	12°26'36	23°30	20°43	2°27	1°40	8°33	3°25	11°19	4°46	17° 5	16°43	18°10	18°35	7°14	S 25
M26	6 52 26	13°27'45	5♂33	22° 1	3° 0	2°27	8°41	3°22	11°22	4°45	17° 4	16°45	18° 7	18°42	7°19	M26
T 27	6 56 22	14°28'54	17°51	23°20	3°34	3°14	8°50	3°19	11°25	4°43	17° 3	16°R45	18° 4	18°49	7°24	T 27
W28	7 0 19	15°30'03	0♂♂30	24°41	4° 9	4° 2	8°59	3°16	11°29	4°41	17° 2	16°44	18° 1	18°55	7°29	W28
T 29	7 4 15	16°31'11	13°32	26° 2	4°46	4°49	9° 7	3°13	11°32	4°40	17° 1	16°41	17°57	19° 2	7°34	T 29
F 30	7 8 12	17°32'19	27° 2	27°25	5°24	5°37	9°15	3°10	11°35	4°38	17° 0	16°38	17°54	19° 9	7°39	F 30
S 31	7 12 8	18♂♂33'28	11♂♂ 0	28♂♂48	6♂♂ 3	6♂♂24	9♂♂24	3♂♂ 7	11♂♂38	4♂♂36	16♂♂59	16♂♂33	17♂♂51	19♂♂15	7♂♂43	S 31