



Astrodienst Ephemeris Tables for the year 1415

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 1415
geocentric

JANUARY 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	7 14 11	19°35'01	24°12'12	22°31'22	22°49'22	23°23'23	0°48'03	3°R26	19°16'19	9°R10	19°R 6	9°R27	9°R 9	10°M48	3°52'37	T 1
W 2	7 18 7	20° 6'07	6°28'24	24°13'24	24° 3'24	24°10'24	1° 1'33	3°21'33	19°19'19	9°9 9	19°II 5	9°R26	9° 5	10°55'10	3°57'35	W 2
T 3	7 22 4	21° 7'12	18°32'18	25°55'25	25°18'25	24°57'24	1°15'31	3°17'31	19°22'19	9° 7	19° 4	9°D26	9° 2	11° 2	4° 3	T 3
F 4	7 26 0	22° 8'17	0°M26	27°37'27	26°33'26	25°44'25	1°28'31	3°12'31	19°26'19	9° 5	19° 3	9°26	8°59	11° 8	4° 9	F 4
S 5	7 29 57	23° 9'22	12°17'12	29°20'29	27°47'27	26°31'26	1°42'31	3° 8	19°29'19	9° 4	19° 2	9°26	8°56	11°15	4°15	S 5
S 6	7 33 53	24°10'26	24° 9	1°48'29	29° 2	27°17'27	1°55'31	3° 3	19°32'19	9° 2	19° 1	9°28	8°53	11°22	4°20	S 6
M 7	7 37 50	25°11'30	6°28'24	0°R17	28° 4	2° 8	2°59'21	3°59'21	19°35'19	9° 1	19° 0	9°29	8°49	11°28	4°26	M 7
T 8	7 41 47	26°12'33	18°13'18	4°32'13	1°32'28	28°51'28	2°22'22	2°54'22	19°38'19	8°59	18°59	9°31	8°46	11°35	4°32	T 8
W 9	7 45 43	27°13'35	0°R33	6°16'24	2°46'29	29°38'29	2°35'25	2°50'25	19°42'19	8°57	18°58	9°32	8°43	11°42	4°37	W 9
T 10	7 49 40	28°14'36	13° 7	8° 0	4° 1	0°R25	2°48'24	2°46'24	19°45'19	8°56	18°57	9°R32	8°40	11°48	4°42	T 10
F 11	7 53 36	29°15'37	25°58'25	9°44'51	5°16'16	1°12'31	3° 1	2°42'24	19°48'19	8°54	18°56	9°31	8°37	11°55	4°48	F 11
S 12	7 57 33	0°16'37	9°48'5	11°28'11	6°31'6	1°59'25	3°14'31	2°37'27	19°52'19	8°53	18°55	9°29	8°34	12° 2	4°53	S 12
S 13	8 1 29	1°17'35	22°28'22	13°12'13	7°45'24	2°46'31	3°27'27	2°33'27	19°55'19	8°51	18°54	9°26	8°30	12° 9	4°58	S 13
M14	8 5 26	2°18'32	6°R5	14°55'9	9° 0	3°32'31	3°40'31	2°29'29	19°58'19	8°49	18°54	9°23	8°27	12°15	5° 3	M14
T 15	8 9 22	3°19'28	19°54'16	16°38'10	10°15'10	4°19'31	3°53'31	2°25'25	20° 2	8°48	18°53	9°19	8°24	12°22	5° 8	T 15
W16	8 13 19	4°20'23	3°R51	18°19'11	11°30'11	5° 6	4° 6	2°22'20	20° 5	8°46	18°52	9°16	8°21	12°29	5°13	W16
T 17	8 17 16	5°21'17	17°55'19	19°59'12	12°44'12	5°53'31	4°19'31	2°18'20	20° 8	8°45	18°51	9°14	8°18	12°35	5°18	T 17
F 18	8 21 12	6°22'08	2°R28	21°38'13	13°59'13	6°39'39	4°32'31	2°14'20	20°12'20	8°43	18°50	9°D13	8°15	12°42	5°23	F 18
S 19	8 25 9	7°22'59	16°12'23	23°14'15	15°14'15	7°26'26	4°45'31	2°11'20	20°15'20	8°42	18°50	9°13	8°11	12°49	5°28	S 19
S 20	8 29 5	8°23'48	0°R23	24°47'16	16°29'16	8°13'31	4°57'31	2° 7	20°19'20	8°41	18°49	9°14	8° 8	12°55	5°32	S 20
M21	8 33 2	9°24'35	14°31'26	17°43'17	8°59'17	8°59'17	5°10'31	2° 4	20°22'20	8°39	18°48	9°16	8° 5	13° 2	5°37	M21
T 22	8 36 58	10°25'21	28°36'27	18°58'18	9°46'27	5°23'31	5°23'31	2° 0	20°25'20	8°38	18°48	9°17	8° 2	13° 9	5°42	T 22
W23	8 40 55	11°26'06	12°26'29	20°13'20	10°33'31	5°35'31	1°57'20	2°29'29	20°29'20	8°36	18°47	9°R17	7°59	13°16	5°46	W23
T 24	8 44 51	12°26'48	26°25'0	21°28'11	11°19'11	5°48'31	1°54'20	2°32'32	20°32'20	8°35	18°46	9°16	7°55	13°22	5°50	T 24
F 25	8 48 48	13°27'30	10°R3	1°33'22	12° 6	6° 0	1°51'20	2°36'36	20°36'20	8°34	18°46	9°13	7°52	13°29	5°55	F 25
S 26	8 52 45	14°28'10	23°27'23	2°37'23	12°52'12	6°13'31	1°48'20	2°39'39	20°39'20	8°32	18°45	9° 8	7°49	13°36	5°59	S 26
S 27	8 56 41	15°28'48	6°R34	3°34'25	13°39'13	6°25'31	1°45'20	2°43'43	20°43'20	8°31	18°44	9° 2	7°46	13°42	6° 3	S 27
M28	9 0 38	16°29'25	19°24'19	4°23'26	14°25'14	6°37'31	1°42'20	2°46'46	20°46'20	8°30	18°44	8°56	7°43	13°49	6° 7	M28
T 29	9 4 34	17°30'01	1°R57	5° 3	27°41'15	1°11'20	6°49'39	2°50'50	20°50'20	8°29	18°43	8°49	7°40	13°56	6°11	T 29
W30	9 8 31	18°30'35	14°17'51	5°34'28	28°56'15	1°58'27	7° 1	1°37'37	20°53'20	8°27	18°43	8°43	7°36	14° 2	6°15	W30
T 31	9 12 27	19°31'08	26°R18	5°R55	0°11'16	16°R44	7°R13	1°R34	20°56'20	8°26	18°42	8°R38	7°R33	14°R 9	6°R18	T 31

Delta T = 07m29s

Julian Calendar 1 Jan. 1415 == Greg. Calendar 10 Jan. 1415

FEBRUARY 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	9 16 24	20°31'40	8°M14	6°R6	1°26'17	17°R30	7°R25	1°R32	21°00'21	8°R25	18°R42	8°R36	7°R30	14°M16	6°R22	F 1
S 2	9 20 20	21°32'10	20° 5	6°R7	2°40'18	18°17'17	7°37'27	1°29'29	21° 3	8°R24	18°II41	8°D35	7°27	14°23	6°26	S 2
S 3	9 24 17	22°32'40	1°R56	5°58'35	3°55'19	19° 3	7°49'27	1°27'27	21° 7	8°23	18°41	8°R35	7°24	14°29	6°29	S 3
M 4	9 28 14	23°33'07	13°53'13	5°38'10	5°10'19	19°49'19	8° 1	1°25'25	21°10'21	8°22	18°40	8°R36	7°20	14°36	6°33	M 4
T 5	9 32 10	24°33'34	26° 1	5° 9	6°25'20	20°35'31	8°12'31	1°23'23	21°14'21	8°20	18°40	8°R38	7°17	14°43	6°36	T 5
W 6	9 36 7	25°33'59	8°R24	4°31'7	7°39'21	21°22'21	8°24'24	1°21'21	21°17'21	8°19	18°40	8°R38	7°14	14°49	6°39	W 6
T 7	9 40 3	26°34'22	21° 7	3°46'8	8°54'22	22° 8	8°35'31	1°19'19	21°21'21	8°18	18°39	8°R38	7°11	14°56	6°42	T 7
F 8	9 44 0	27°34'44	4°R11	2°54'10	10° 9	22°54'22	8°47'27	1°18'18	21°24'21	8°17	18°39	8°R35	7° 8	15° 3	6°45	F 8
S 9	9 47 56	28°35'04	17°37'17	1°56'11	11°23'23	23°40'40	8°58'58	1°16'16	21°28'21	8°16	18°39	8°R29	7° 5	15° 9	6°48	S 9
S 10	9 51 53	29°35'23	1°R24	0°55'12	12°38'38	24°26'26	9° 9	1°15'15	21°31'21	8°15	18°38	8°R22	7° 1	15°16	6°51	S 10
M11	9 55 49	0°R35'39	15°30'29	13°53'13	25°12'12	25°12'12	9°20'20	1°13'13	21°35'21	8°15	18°38	8°R14	6°58	15°23	6°54	M11
T 12	9 59 46	1°35'54	29°47'28	15° 8	25°58'58	25°58'58	9°31'31	1°12'12	21°38'21	8°14	18°38	8° 5	6°55	15°29	6°56	T 12
W13	10 3 43	2°36'07	14°R12	27°45'16	16°22'22	26°44'44	9°42'42	1°11'11	21°41'21	8°13	18°37	7°56	6°52	15°36	6°59	W13
T 14	10 7 39	3°36'18	28°38'26	17°37'27	27°29'29	27°29'29	9°53'53	1°10'10	21°45'21	8°12	18°37	7°50	6°49	15°43	7° 1	T 14
F 15	10 11 36	4°36'26	12°R59	25°47'18	18°52'18	28°15'15	10° 4	1° 9	21°48'21	8°11	18°37	7°45	6°46	15°50	7° 4	F 15
S 16	10 15 32	5°36'33	27°13'24	24°55'20	20° 6	29° 1	10°14'14	1° 8	21°52'21	8°10	18°37	7°43	6°42	15°56	7° 6	S 16
S 17	10 19 29	6°36'37	11°R18	24° 8	21°21'21	29°47'47	10°25'25	1° 8	21°55'21	8°10	18°37	7°D43	6°39	16° 3	7° 8	S 17
M18	10 23 25	7°36'39	25°12'23	22°36'22	23°50'50	0°R37	10°35'35	1° 7	21°58'21	8° 9	18°37	7°44	6°36	16°10	7°10	M18
T 19	10 27 22	8°36'39	8°R56	22°52'23	23°50'50	1°18'18	10°46'46	1° 7	22° 2	8° 8	18°37	7°R44	6°33	16°16	7°12	T 19
W20	10 31 18	9°36'37	22°30'22	22°23'25	2° 4	10°56'56	1° 6	22° 5	22° 5	8° 8	18°36	7°43	6°30	16°23	7°14	W20
T 21	10 35 15	10°36'33	5°R54	22° 2	26°19'19	2°49'49	11° 6	1° 6	22° 8	8° 7	18°36	7°40	6°26	16°30	7°16	T 21
F 22	10 39 12	11°36'26	19° 7	21°47'27	27°34'34	3°35'35	11°16'16	1° 6	22°12'22	8° 6	18°36	7°34	6°23	16°36	7°18	F 22
S 23	10 43 8	12°36'17	2°R9	21°39'21	28°49'49	4°20'20	11°26'26	1°D 6	22°15'22	8° 6	18°D36	7°25	6°20	16°43	7°19	S 23
S 24	10 47 5	13°36'06	14°59'21	21°D37	0°R3	5° 6	11°36'36	1° 6	22°18'22	8° 5	18°36	7°14	6°17	16°50	7°21	S 24
M25	10 51 1	14°35'53	27°36'21	21°41'11	1°18'18	5°51'51	11°45'45	1° 6	22°22'22	8° 5	18°36	7° 2	6°14	16°56	7°22	M25
T 26	10 54 58	15°35'39	10°R1	21°51'21	2°32'32	6°36'36	11°55'55	1° 6	22°25'22	8° 4	18°37	6°49	6°11	17° 3	7°23	T 26
W27	10 58 54	16°35'22	22°13'22	22° 6	3°47'47	7°22'22	12° 5	1° 7	22°28'22	8° 4	18°37	6°38	6° 7	17°10	7°24	W27
T 28	11 2 51	17°R35'03	4°M15	22°27'22	5°R1	8°R7	12°R14	1°R7	22°31'22	8°R4	18°II37	6°R28	6°R4	17°M17	7°R26	T 28

Delta T = 07m29s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1415

geocentric

MARCH 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	11 6 47	18 ³⁴ 43	16 ¹¹ 9	22 ⁵³ 53	6 ¹⁶ 16	8 ⁵² 52	12 ²³ 23	1 ⁸ 8	22 ³⁵ 35	8 ³ 3	18 ³⁷ 37	6 ²¹ 21	6 ¹ 1	17 ²³ 23	7 ²⁷ 27	F 1
S 2	11 10 44	19 ³⁴ 21	27 ⁵⁹	23 ²³	7 ³⁰	9 ³⁷	12 ³²	1 ⁹ 9	22 ³⁸	8 ³ 3	18 ³⁷	6 ¹⁷ 17	5 ⁵⁸	17 ³⁰	7 ²⁷	S 2
S 3	11 14 40	20 ³³ 57	9 ⁴⁹	23 ⁵⁸	8 ⁴⁵	10 ²²	12 ⁴¹	1 ¹⁰	22 ⁴¹	8 ³ 3	18 ³⁷	6 ¹⁴	5 ⁵⁵	17 ³⁷	7 ²⁸	S 3
M 4	11 18 37	21 ³³ 32	21 ⁴⁴	24 ³⁷	9 ⁵⁹	11 ⁷	12 ⁵⁰	1 ¹¹	22 ⁴⁴	8 ² 2	18 ³⁷	6 ¹⁴	5 ⁵²	17 ⁴³	7 ²⁹	M 4
T 5	11 22 34	22 ³³ 04	3 ⁵¹	25 ²⁰	11 ¹⁴	11 ⁵²	12 ⁵⁹	1 ¹²	22 ⁴⁷	8 ² 2	18 ³⁸	6 ¹⁴	5 ⁴⁸	17 ⁵⁰	7 ²⁹	T 5
W 6	11 26 30	23 ³² 35	16 ¹³	26 ⁶	12 ²⁸	12 ³⁷	13 ⁷	1 ¹³	22 ⁵⁰	8 ² 2	18 ³⁸	6 ¹⁴	5 ⁴⁵	17 ⁵⁷	7 ³⁰	W 6
T 7	11 30 27	24 ³² 04	28 ⁵⁶	26 ⁵⁶	13 ⁴³	13 ²²	13 ¹⁶	1 ¹⁴	22 ⁵³	8 ² 2	18 ³⁸	6 ¹²	5 ⁴²	18 ³	7 ³⁰	T 7
F 8	11 34 23	25 ³¹ 31	12 ⁴	27 ⁴⁹	14 ⁵⁷	14 ⁷	13 ²⁴	1 ¹⁶	22 ⁵⁶	8 ² 2	18 ³⁸	6 ⁸	5 ³⁹	18 ¹⁰	7 ³¹	F 8
S 9	11 38 20	26 ³⁰ 56	25 ⁴⁰	28 ⁴⁵	16 ¹²	14 ⁵²	13 ³³	1 ¹⁷	22 ⁵⁹	8 ² 2	18 ³⁹	6 ¹	5 ³⁶	18 ¹⁷	7 ³¹	S 9
S 10	11 42 16	27 ³⁰ 19	9 ⁴¹	29 ⁴⁴	17 ²⁶	15 ³⁷	13 ⁴¹	1 ¹⁹	23 ²	8 ² 2	18 ³⁹	5 ⁵¹	5 ³²	18 ²³	7 ³¹	S 10
M 11	11 46 13	28 ²⁹ 41	24 ⁷	0 ⁴⁶	18 ⁴¹	16 ²²	13 ⁴⁹	1 ²¹	23 ⁵	8 ² 2	18 ³⁹	5 ⁴⁰	5 ²⁹	18 ³⁰	7 ³¹	M 11
T 12	11 50 9	29 ²⁹ 00	8 ⁴⁹	1 ⁵⁰	19 ⁵⁵	17 ⁶	13 ⁵⁶	1 ²³	23 ⁸	8 ² 2	18 ⁴⁰	5 ²⁸	5 ²⁶	18 ³⁷	7 ³¹	T 12
W 13	11 54 6	0 ²⁸ 17	23 ⁴⁰	2 ⁵⁶	21 ¹⁰	17 ⁵¹	14 ⁴	1 ²⁵	23 ¹¹	8 ² 2	18 ⁴⁰	5 ¹⁷	5 ²³	18 ⁴³	7 ³⁰	W 13
T 14	11 58 3	1 ²⁷ 32	8 ³²	4 ⁵	22 ²⁴	18 ³⁶	14 ¹²	1 ²⁷	23 ¹⁴	8 ² 2	18 ⁴¹	5 ⁸	5 ²⁰	18 ⁵⁰	7 ³⁰	T 14
F 15	12 1 59	2 ²⁶ 44	23 ¹⁵	5 ¹⁷	23 ³⁸	19 ²⁰	14 ¹⁹	1 ²⁹	23 ¹⁷	8 ² 2	18 ⁴¹	5 ²	5 ¹⁷	18 ⁵⁷	7 ³⁰	F 15
S 16	12 5 56	3 ²⁵ 55	7 ⁴⁵	6 ³⁰	24 ⁵³	20 ⁵	14 ²⁶	1 ³¹	23 ²⁰	8 ² 2	18 ⁴¹	4 ⁵⁸	5 ¹³	19 ⁴	7 ²⁹	S 16
S 17	12 9 52	4 ²⁵ 03	21 ⁵⁸	7 ⁴⁵	26 ⁷	20 ⁴⁹	14 ³³	1 ³⁴	23 ²³	8 ² 2	18 ⁴²	4 ⁵⁶	5 ¹⁰	19 ¹⁰	7 ²⁸	S 17
M 18	12 13 49	5 ²⁴ 09	5 ⁵²	9 ³	27 ²²	21 ³³	14 ⁴⁰	1 ³⁶	23 ²⁶	8 ² 2	18 ⁴²	4 ⁵⁶	5 ⁷	19 ¹⁷	7 ²⁸	M 18
T 19	12 17 45	6 ²³ 12	19 ²⁸	10 ²²	28 ³⁶	22 ¹⁸	14 ⁴⁷	1 ³⁹	23 ²⁸	8 ³ 3	18 ⁴³	4 ⁵⁶	5 ⁴	19 ²⁴	7 ²⁷	T 19
W 20	12 21 42	7 ²² 13	2 ⁴⁸	11 ⁴³	29 ⁵⁰	23 ²	14 ⁵⁴	1 ⁴¹	23 ³¹	8 ³ 3	18 ⁴⁴	4 ⁵⁴	5 ¹	19 ³⁰	7 ²⁶	W 20
T 21	12 25 38	8 ²¹ 11	15 ⁵⁴	13 ⁶	1 ⁴	23 ⁴⁶	15 ⁰	1 ⁴⁴	23 ³⁴	8 ³ 3	18 ⁴⁴	4 ⁵⁰	4 ⁵⁸	19 ³⁷	7 ²⁵	T 21
F 22	12 29 35	9 ²⁰ 08	28 ⁴⁷	14 ³¹	2 ¹⁹	24 ³¹	15 ⁷	1 ⁴⁷	23 ³⁶	8 ⁴ 4	18 ⁴⁵	4 ⁴⁴	4 ⁵⁴	19 ⁴⁴	7 ²⁴	F 22
S 23	12 33 32	10 ¹⁹ 01	11 ²⁹	15 ⁵⁷	3 ³³	25 ¹⁵	15 ¹³	1 ⁵⁰	23 ³⁹	8 ⁴ 4	18 ⁴⁵	4 ³⁴	4 ⁵¹	19 ⁵⁰	7 ²³	S 23
S 24	12 37 28	11 ¹⁷ 53	24 ¹	17 ²⁵	4 ⁴⁷	25 ⁵⁹	15 ¹⁹	1 ⁵³	23 ⁴²	8 ⁴ 4	18 ⁴⁶	4 ²²	4 ⁴⁸	19 ⁵⁷	7 ²¹	S 24
M 25	12 41 25	12 ¹⁶ 43	6 ⁴³	18 ⁵⁵	6 ²	26 ⁴³	15 ²⁵	1 ⁵⁷	23 ⁴⁴	8 ⁵ 5	18 ⁴⁷	4 ⁸	4 ⁴⁵	20 ⁴	7 ²⁰	M 25
T 26	12 45 21	13 ¹⁵ 30	18 ³⁶	20 ²⁶	7 ¹⁶	27 ²⁷	15 ³¹	2 ⁰	23 ⁴⁷	8 ⁵ 5	18 ⁴⁷	3 ⁵⁵	4 ⁴²	20 ¹⁰	7 ¹⁹	T 26
W 27	12 49 18	14 ¹⁴ 16	0 ⁴⁰	21 ⁵⁹	8 ³⁰	28 ¹¹	15 ³⁶	2 ³	23 ⁴⁹	8 ⁶ 6	18 ⁴⁸	3 ⁴²	4 ³⁸	20 ¹⁷	7 ¹⁷	W 27
T 28	12 53 14	15 ¹³ 00	12 ³⁶	23 ³⁴	9 ⁴⁴	28 ⁵⁵	15 ⁴²	2 ⁷	23 ⁵²	8 ⁶ 6	18 ⁴⁹	3 ³¹	4 ³⁵	20 ²⁴	7 ¹⁵	T 28
F 29	12 57 11	16 ¹¹ 41	24 ²⁸	25 ¹⁰	10 ⁵⁸	29 ³⁹	15 ⁴⁷	2 ¹⁰	23 ⁵⁴	8 ⁷ 7	18 ⁴⁹	3 ²²	4 ³²	20 ³⁰	7 ¹⁴	F 29
S 30	13 1 7	17 ¹⁰ 22	6 ¹⁶	26 ⁴⁸	12 ¹³	0 ²²	15 ⁵²	2 ¹⁴	23 ⁵⁷	8 ⁸ 8	18 ⁵⁰	3 ¹⁷	4 ²⁹	20 ³⁷	7 ¹²	S 30
S 31	13 5 4	18 ⁹ 00	18 ⁴ 5	28 ⁴⁸	13 ²⁷	1 ⁶	15 ⁵⁷	2 ¹⁸	23 ⁵⁹	8 ⁸ 8	18 ⁵¹	3 ¹⁴	4 ²⁶	20 ⁴⁴	7 ¹⁰	S 31

Delta T = 07m29s

Julian Calendar 1 March 1415 == Greg. Calendar 10 March 1415

APRIL 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	13 9 1	19 ⁷ 36	29 ⁵⁹	0 ⁹	14 ⁴¹	1 ⁵⁰	16 ²	2 ²²	24 ¹	8 ⁹	18 ⁵²	3 ¹³	4 ²³	20 ⁵⁰	7 ⁸	M 1
T 2	13 12 57	20 ⁶ 11	12 ³ 4	1 ⁵²	15 ⁵⁵	2 ³⁴	16 ⁶	2 ²⁶	24 ⁴	8 ¹⁰	18 ⁵³	3 ¹³	4 ¹⁹	20 ⁵⁷	7 ⁶	T 2
W 3	13 16 54	21 ⁴ 44	24 ²⁴	3 ³⁶	17 ⁹	3 ¹⁷	16 ¹¹	2 ³⁰	24 ⁶	8 ¹⁰	18 ⁵³	3 ¹³	4 ¹⁶	21 ⁴	7 ³	W 3
T 4	13 20 50	22 ³ 16	7 ⁵	5 ²²	18 ²³	4 ¹	16 ¹⁵	2 ³⁴	24 ⁸	8 ¹¹	18 ⁵⁴	3 ¹²	4 ¹³	21 ¹¹	7 ¹	T 4
F 5	13 24 47	23 ¹ 46	20 ¹⁰	7 ¹⁰	19 ³⁸	4 ⁴⁴	16 ¹⁹	2 ³⁸	24 ¹⁰	8 ¹²	18 ⁵⁵	3 ⁹	4 ¹⁰	21 ¹⁷	6 ⁵⁹	F 5
S 6	13 28 43	24 ⁰ 14	3 ⁴⁵	8 ⁵⁹	20 ⁵²	5 ²⁸	16 ²³	2 ⁴²	24 ¹²	8 ¹³	18 ⁵⁶	3 ⁴	4 ⁷	21 ²⁴	6 ⁵⁶	S 6
S 7	13 32 40	24 ⁵⁸ 40	17 ⁴⁸	10 ⁵⁰	22 ⁶	6 ¹¹	16 ²⁷	2 ⁴⁷	24 ¹⁵	8 ¹⁴	18 ⁵⁷	2 ⁵⁶	4 ³	21 ³¹	6 ⁵⁴	S 7
M 8	13 36 36	25 ⁵⁷ 05	2 ⁴⁹	12 ⁴³	23 ²⁰	6 ⁵⁴	16 ³⁰	2 ⁵¹	24 ¹⁷	8 ¹⁵	18 ⁵⁸	2 ⁴⁷	4 ⁰	21 ³⁷	6 ⁵¹	M 8
T 9	13 40 33	26 ⁵⁵ 28	17 ¹²	14 ³⁸	24 ³⁴	7 ³⁸	16 ³⁴	2 ⁵⁶	24 ¹⁹	8 ¹⁵	18 ⁵⁹	2 ³⁷	3 ⁵⁷	21 ⁴⁴	6 ⁴⁹	T 9
W 10	13 44 29	27 ⁵³ 49	2 ¹⁹	16 ³⁴	25 ⁴⁸	8 ²¹	16 ³⁷	3 ⁰	24 ²¹	8 ¹⁶	19 ⁰	2 ²⁸	3 ⁵⁴	21 ⁵¹	6 ⁴⁶	W 10
T 11	13 48 26	28 ⁵² 08	17 ²⁹	18 ³¹	27 ²	9 ⁴	16 ⁴⁰	3 ⁵	24 ²³	8 ¹⁷	19 ¹	2 ²⁰	3 ⁵¹	21 ⁵⁷	6 ⁴³	T 11
F 12	13 52 23	29 ⁵⁰ 26	2 ³³	20 ³⁰	28 ¹⁶	9 ⁴⁷	16 ⁴³	3 ¹⁰	24 ²⁴	8 ¹⁸	19 ²	2 ¹⁴	3 ⁴⁸	22 ⁴	6 ⁴⁰	F 12
S 13	13 56 19	0 ⁴⁸ 42	17 ²²	22 ³¹	29 ³⁰	10 ³¹	16 ⁴⁵	3 ¹⁵	24 ²⁶	8 ²⁰	19 ³	2 ¹¹	3 ⁴⁴	22 ¹¹	6 ³⁷	S 13
S 14	14 0 16	1 ⁴⁶ 55	1 ⁴⁹	24 ³⁴	0 ⁴⁴	11 ¹⁴	16 ⁴⁸	3 ²⁰	24 ²⁸	8 ²¹	19 ⁴	2 ¹⁰	3 ⁴¹	22 ¹⁷	6 ³⁴	S 14
M 15	14 4 12	2 ⁴⁵ 07	15 ⁵³	26 ³⁸	1 ⁵⁸	11 ⁵⁷	16 ⁵⁰	3 ²⁵	24 ³⁰	8 ²²	19 ⁵	2 ¹¹	3 ³⁸	22 ²⁴	6 ³¹	M 15
T 16	14 8 9	3 ⁴³ 16	29 ³⁴	28 ⁴³	3 ¹²	12 ⁴⁰	16 ⁵²	3 ³⁰	24 ³²	8 ²³	19 ⁶	2 ¹¹	3 ³⁵	22 ³¹	6 ²⁸	T 16
W 17	14 12 5	4 ⁴¹ 24	12 ⁵²	0 ⁴⁹	4 ²⁶	13 ²²	16 ⁵⁴	3 ³⁵	24 ³³	8 ²⁴	19 ⁷	2 ¹¹	3 ³²	22 ³⁷	6 ²⁵	W 17
T 18	14 16 2	5 ³⁹ 29	25 ⁵²	2 ⁵⁷	5 ⁴⁰	14 ⁵	16 ⁵⁶	3 ⁴¹	24 ³⁵	8 ²⁵	19 ⁸	2 ⁹	3 ²⁹	22 ⁴⁴	6 ²²	T 18
F 19	14 19 59	6 ³⁷ 32	8 ³⁴	5 ⁵	6 ⁵⁴	14 ⁴⁸	16 ⁵⁷	3 ⁴⁶	24 ³⁷	8 ²⁶	19 ⁹	2 ⁵	3 ²⁵	22 ⁵¹	6 ¹⁸	F 19
S 20	14 23 55	7 ³⁵ 33	21 ³	7 ¹⁵	8 ⁸	15 ³¹	16 ⁵⁹	3 ⁵¹	24 ³⁸	8 ²⁸	19 ¹⁰	1 ⁵⁸	3 ²²	22 ⁵⁷	6 ¹⁵	S 20
S 21	14 27 52	8 ³³ 33	3 ⁴²	9 ²⁵	9 ²²	16 ¹⁴	17 ⁰	3 ⁵⁷	24 ⁴⁰	8 ²⁹	19 ¹¹	1 ⁵⁰	3 ¹⁹	23 ⁴	6 ¹¹	S 21
M 22	14 31 48	9 ³¹ 13	15 ³⁰	11 ³⁵	10 ³⁶	16 ⁵⁶	17 ¹	4 ²	24 ⁴¹	8 ³⁰	19 ¹²	1 ⁴¹	3 ¹⁶	23 ¹¹	6 ⁸	M 22
T 23	14 35 45	10 ²⁹ 27	27 ³²	13 ⁴⁶	11 ⁵⁰	17 ³⁹	17 ²	4 ⁸	24 ⁴²	8 ³²	19 ¹³	1 ³¹	3 ¹³	23 ¹⁷	6 ⁴	T 23
W 24	14 39 41	11 ²⁷ 21	9 ⁴²	15 ⁵⁶	13 ⁴	18 ²¹	17 ²	4 ¹⁴	24 ⁴⁴	8 ³³	19 ¹⁵	1 ²²	3 ⁹	23 ²⁴	6 ¹	W 24
T 25	14 43 38	12 ²⁵ 14	21 ¹⁹	18 ⁶	14 ¹⁸	19 ⁴	17 ³	4 ¹⁹	24 ⁴⁵	8 ³⁴	19 ¹⁶	1 ¹⁴	3 ⁶	23 ³¹	5 ⁵⁷	T 25
F 26	14 47 34	13 ²³ 06	3 ⁴⁷	20 ¹⁵	15 ³¹	19 ⁴⁶	17 ³	4 ²⁵	24 ⁴⁶	8 ³⁶	19 ¹⁷	1 ⁸	3 ³	23 ³⁷	5 ⁵³	F 26
S 27	14 51 31	14 ²⁰ 56	14 ⁵⁸	22 ²³	16 ⁴⁵	20 ²⁹	17 ³	4 ³¹	24 ⁴⁸	8 ³⁷	19 ¹⁸	1 ⁵	3 ⁰	23 ⁴⁴	5 ⁴⁹	S 27
S 28	14 55 27	15 ¹⁸ 44	26 ⁴⁹	24 ²⁹	17 ⁵⁹	21 ¹¹	17 ³	4 ³⁷	24 ⁴⁹	8 ³⁹	19 ¹⁹	1 ¹⁰	3 ²⁷	23 ⁵¹	5 ⁴⁶	S 28
M 29	14 59 24	16 ¹⁶ 32	8 ⁴⁶	26 ³⁵	19 ¹³	21 ⁵³	17 ²	4 ⁴³	24 ⁵⁰	8 ⁴⁰	19 ²¹	1 ³	2 ⁵⁴	23 ⁵⁷	5 ⁴²	M 29
T 30	15 3 21	17 ¹⁸ 14	20 ³⁵	28 ³⁸	20 ⁸	22 ³⁶	17 ²	4 ⁴⁹	24 ⁵¹	8 ⁴²	19 ²²	1 ³	2 ⁵⁰	24 ⁴	5 ⁴⁸	T 30

ASTRODIENST EPHEMERIS for the year 1415

geocentric

MAY 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	15 7 17	18°12'03	3°14	0°39	21°41	23°18	17°R 1	4°55	24°52	8°43	19°23	1°3 6	2°47	24°11	5°R34	W 1
T 2	15 11 14	19° 9'46	15°53	2°38	22°54	24° 0	17°3 0	5° 2	24°53	8°45	19°24	1°R 7	2°44	24°17	5°R30	T 2
F 3	15 15 10	20° 7'29	28°55	4°35	24° 8	24°42	16°59	5° 8	24°54	8°46	19°26	1° 6	2°41	24°24	5°26	F 3
S 4	15 19 7	21° 5'11	12°24	6°29	25°22	25°24	16°58	5°14	24°55	8°48	19°27	1° 5	2°38	24°31	5°22	S 4
S 5	15 23 3	22° 2'51	26°20	8°21	26°36	26° 6	16°56	5°21	24°56	8°50	19°28	1° 1	2°35	24°38	5°18	S 5
M 6	15 27 0	23° 0'30	10°Y44	10° 9	27°50	26°48	16°55	5°27	24°57	8°51	19°29	0°56	2°31	24°44	5°14	M 6
T 7	15 30 56	23°58'09	25°33	11°55	29° 3	27°30	16°53	5°34	24°57	8°53	19°31	0°51	2°28	24°51	5°10	T 7
W 8	15 34 53	24°55'46	10°39	13°38	0°117	28°12	16°51	5°40	24°58	8°55	19°32	0°46	2°25	24°58	5° 6	W 8
T 9	15 38 50	25°53'23	25°53	15°18	1°31	28°54	16°49	5°47	24°59	8°56	19°33	0°42	2°22	25° 4	5° 1	T 9
F 10	15 42 46	26°50'58	11°11 5	16°55	2°45	29°36	16°46	5°53	24°59	8°58	19°35	0°39	2°19	25°11	4°57	F 10
S 11	15 46 43	27°48'32	26° 5	18°29	3°58	0°118	16°44	6° 0	25° 0	9° 0	19°36	0°D38	2°15	25°18	4°53	S 11
S 12	15 50 39	28°46'04	10°46	20° 0	5°12	0°59	16°41	6° 7	25° 1	9° 2	19°37	0°38	2°12	25°24	4°49	S 12
M13	15 54 36	29°43'36	25° 3	21°27	6°26	1°41	16°38	6°14	25° 1	9° 3	19°39	0°39	2° 9	25°31	4°45	M13
T 14	15 58 32	0°114'05	8°153	22°52	7°40	2°22	16°35	6°20	25° 1	9° 5	19°40	0°40	2° 6	25°38	4°40	T 14
W15	16 2 29	1°38'34	22°18	24°13	8°53	3° 4	16°31	6°27	25° 2	9° 7	19°41	0°42	2° 3	25°44	4°36	W15
T 16	16 6 26	2°36'01	5°19	25°31	10° 7	3°46	16°28	6°34	25° 2	9° 9	19°43	0°R42	2° 0	25°51	4°32	T 16
F 17	16 10 22	3°33'27	17°59	26°46	11°21	4°27	16°24	6°41	25° 2	9°11	19°44	0°41	1°56	25°58	4°28	F 17
S 18	16 14 19	4°30'51	0°23	27°57	12°34	5° 8	16°20	6°48	25° 3	9°13	19°46	0°39	1°53	26° 4	4°23	S 18
S 19	16 18 15	5°28'15	12°34	29° 5	13°48	5°50	16°16	6°55	25° 3	9°15	19°47	0°36	1°50	26°11	4°19	S 19
M20	16 22 12	6°25'37	24°36	0°9 9	15° 2	6°31	16°12	7° 2	25° 3	9°17	19°48	0°32	1°47	26°18	4°15	M20
T 21	16 26 8	7°22'58	6°1130	1°10	16°15	7°12	16° 8	7° 9	25° 3	9°18	19°50	0°28	1°44	26°24	4°11	T 21
W22	16 30 5	8°20'19	18°21	2° 8	17°29	7°54	16° 4	7°17	25°R 3	9°20	19°51	0°25	1°40	26°31	4° 7	W22
T 23	16 34 1	9°17'38	0°11	3° 1	18°42	8°35	15°59	7°24	25° 3	9°22	19°53	0°22	1°37	26°38	4° 2	T 23
F 24	16 37 58	10°14'57	12° 0	3°51	19°56	9°16	15°54	7°31	25° 3	9°24	19°54	0°20	1°34	26°44	3°58	F 24
S 25	16 41 55	11°12'15	23°53	4°37	21°10	9°57	15°49	7°38	25° 3	9°26	19°55	0°19	1°31	26°51	3°54	S 25
S 26	16 45 51	12° 9'32	5°351	5°19	22°23	10°38	15°44	7°46	25° 3	9°28	19°57	0°D19	1°28	26°58	3°50	S 26
M27	16 49 48	13° 6'49	17°56	5°57	23°37	11°19	15°39	7°53	25° 2	9°30	19°58	0°19	1°25	27° 4	3°46	M27
T 28	16 53 44	14° 4'05	0°11	6°31	24°50	12° 0	15°33	8° 0	25° 2	9°32	20° 0	0°21	1°21	27°11	3°42	T 28
W29	16 57 41	15° 1'21	12°39	7° 0	26° 4	12°41	15°28	8° 8	25° 2	9°35	20° 1	0°22	1°18	27°18	3°37	W29
T 30	17 1 37	15°58'36	25°23	7°25	27°18	13°22	15°22	8°15	25° 2	9°37	20° 3	0°23	1°15	27°24	3°33	T 30
F 31	17 5 34	16°11'55'51	8°127	7°246	28°1131	14°11 3	15°116	8°223	25°11	9°39	20°11 4	0°24	1°12	27°1131	3°129	F 31

Delta T = 07m28s

Julian Calendar 1 May 1415 == Greg. Calendar 10 May 1415

JUNE 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	17 9 30	17°11'53'05	21°152	8°2 2	29°1145	14°1144	15°R10	8°30	25°R 1	9°41	20°11 5	0°R24	1°3 9	27°1138	3°R25	S 1
S 2	17 13 27	18°50'20	5°Y40	8°14	0°58	15°24	15°3 4	8°38	25°11 0	9°43	20° 7	0°23	1° 6	27°44	3°121	S 2
M 3	17 17 24	19°47'34	19°52	8°21	2°12	16° 5	14°58	8°45	25° 0	9°45	20° 8	0°23	1° 2	27°51	3°17	M 3
T 4	17 21 20	20°44'48	4°26	8°R24	3°25	16°46	14°52	8°53	24°59	9°47	20°10	0°21	0°59	27°58	3°13	T 4
W 5	17 25 17	21°42'02	19°18	8°22	4°39	17°26	14°45	9° 0	24°58	9°49	20°11	0°20	0°56	28° 4	3°10	W 5
T 6	17 29 13	22°39'16	4°1120	8°16	5°53	18° 7	14°39	9° 8	24°58	9°51	20°13	0°20	0°53	28°11	3° 6	T 6
F 7	17 33 10	23°36'30	19°25	8° 5	7° 6	18°47	14°32	9°15	24°57	9°54	20°14	0°19	0°50	28°18	3° 2	F 7
S 8	17 37 6	24°33'43	4°23	7°50	8°20	19°28	14°26	9°23	24°56	9°56	20°16	0°D19	0°46	28°24	2°58	S 8
S 9	17 41 3	25°30'56	19° 7	7°31	9°33	20° 8	14°19	9°31	24°55	9°58	20°17	0°19	0°43	28°31	2°54	S 9
M10	17 44 59	26°28'09	3°129	7° 9	10°47	20°49	14°12	9°38	24°55	10° 0	20°18	0°20	0°40	28°38	2°51	M10
T 11	17 48 56	27°25'21	17°27	6°43	12° 0	21°29	14° 5	9°46	24°54	10° 2	20°20	0°20	0°37	28°44	2°47	T 11
W12	17 52 53	28°22'33	0°1159	6°14	13°14	22°10	13°58	9°54	24°53	10° 4	20°21	0°20	0°34	28°51	2°44	W12
T 13	17 56 49	29°19'44	14° 6	5°42	14°27	22°50	13°50	10° 2	24°52	10° 7	20°23	0°20	0°31	28°58	2°40	T 13
F 14	18 0 46	0°16'55	26° 9	5° 8	15°41	23°30	13°43	10° 9	24°51	10° 9	20°24	0°20	0°27	29° 4	2°37	F 14
S 15	18 4 42	1°14'05	9°14	4°33	16°54	24°10	13°36	10°17	24°50	10°11	20°26	0°20	0°24	29°11	2°33	S 15
S 16	18 8 39	2°11'15	21°23	3°56	18° 8	24°51	13°28	10°25	24°48	10°13	20°27	0°21	0°21	29°18	2°30	S 16
M17	18 12 35	3° 8'25	3°1121	3°19	19°21	25°31	13°21	10°33	24°47	10°15	20°28	0°21	0°18	29°24	2°27	M17
T 18	18 16 32	4° 5'35	15°13	2°43	20°34	26°11	13°13	10°40	24°46	10°18	20°30	0°21	0°15	29°31	2°23	T 18
W19	18 20 28	5° 2'45	27° 2	2° 7	21°48	26°51	13° 6	10°48	24°45	10°20	20°31	0°22	0°12	29°38	2°20	W19
T 20	18 24 25	5°59'54	8°152	1°33	23° 1	27°31	12°58	10°56	24°43	10°22	20°33	0°22	0° 8	29°44	2°17	T 20
F 21	18 28 22	6°57'04	20°46	1° 1	24°15	28°11	12°51	11° 4	24°42	10°24	20°34	0°22	0° 5	29°51	2°14	F 21
S 22	18 32 18	7°54'13	2°345	0°32	25°28	28°51	12°43	11°12	24°41	10°27	20°35	0°R23	0° 2	29°58	2°11	S 22
S 23	18 36 15	8°51'23	14°54	0° 6	26°41	29°31	12°35	11°19	24°39	10°29	20°37	0°22	29°159	0°1 4	2° 8	S 23
M24	18 40 11	9°48'33	27°12	29°1143	27°55	0°11	12°28	11°27	24°38	10°31	20°38	0°22	29°56	0°11	2° 5	M24
T 25	18 44 8	10°45'43	9°43	29°25	29° 8	0°50	12°20	11°35	24°36	10°33	20°39	0°20	29°52	0°18	2° 3	T 25
W26	18 48 4	11°42'54	22°26	29°11	0°122	1°30	12°12	11°43	24°35	10°35	20°41	0°19	29°49	0°24	2° 0	W26
T 27	18 52 1	12°40'05	5°123	29° 2	1°35	2°10	12° 5	11°51	24°33	10°38	20°42	0°17	29°46	0°31	1°57	T 27
F 28	18 55 57	13°37'17	18°36	28°D58	2°48	2°50	11°57	11°58	24°32	10°40	20°43	0°16	29°43	0°38	1°55	F 28
S 29	18 59 54	14°34'29	2°Y 5	29° 0	4° 2	3°29	11°49	12° 6	24°30	10°42	20°45	0°15	29°40	0°44	1°53	S 29
S 30	19 3 51	15°31'42	15°Y51	29°11 6	5°115	4°2 9	11°341	12°14	24°28	10°44	20°1146	0°D15	29°137	0°151	1°150	S 30

Delta T = 07m28s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1415
geocentric

JULY 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	19 7 47	16°28'56	29°53	29°19	6°28	4°49	11°R34	12°22	24°R27	10°47	20°47	0°15	29°33	0°58	1°R48	M 1
T 2	19 11 44	17°26'10	14°11	29°36	7°42	5°28	11°26	12°30	24°25	10°49	20°49	0°16	29°30	1° 4	1°46	T 2
W 3	19 15 40	18°23'26	28°43	29°59	8°55	6° 8	11°18	12°37	24°23	10°51	20°50	0°17	29°27	1°11	1°43	W 3
T 4	19 19 37	19°20'42	13°12	0°29	10° 8	6°47	11°11	12°45	24°21	10°53	20°51	0°18	29°24	1°18	1°41	T 4
F 5	19 23 33	20°17'59	28° 8	1° 4	11°21	7°27	11° 3	12°53	24°20	10°55	20°53	0°R19	29°21	1°24	1°39	F 5
S 6	19 27 30	21°15'17	12°50	1°44	12°35	8° 6	10°56	13° 1	24°18	10°58	20°54	0°18	29°18	1°31	1°38	S 6
S 7	19 31 27	22°12'35	27°23	2°30	13°48	8°46	10°48	13° 9	24°16	11° 0	20°55	0°17	29°14	1°38	1°36	S 7
M 8	19 35 23	23° 9'54	11°40	3°21	15° 1	9°25	10°41	13°16	24°14	11° 2	20°56	0°15	29°11	1°44	1°34	M 8
T 9	19 39 20	24° 7'13	25°37	4°18	16°14	10° 4	10°33	13°24	24°12	11° 4	20°58	0°11	29° 8	1°51	1°32	T 9
W10	19 43 16	25° 4'33	9°11	5°20	17°28	10°44	10°26	13°32	24°10	11° 6	20°59	0° 8	29° 5	1°58	1°31	W10
T 11	19 47 13	26° 1'54	22°20	6°28	18°41	11°23	10°19	13°40	24° 8	11° 9	21° 0	0° 4	29° 2	2° 4	1°29	T 11
F 12	19 51 9	26°59'15	5°47	7°40	19°54	12° 2	10°12	13°47	24° 6	11°11	21° 1	0° 2	28°58	2°11	1°28	F 12
S 13	19 55 6	27°56'36	17°33	8°58	21° 7	12°41	10° 5	13°55	24° 4	11°13	21° 2	0° 0	28°55	2°18	1°27	S 13
S 14	19 59 2	28°53'58	29°43	10°21	22°20	13°21	9°58	14° 3	24° 2	11°15	21° 4	29°D59	28°52	2°24	1°26	S 14
M15	20 2 59	29°51'21	11°41	11°48	23°34	14° 0	9°51	14°10	24° 0	11°17	21° 5	0° 0	28°49	2°31	1°25	M15
T 16	20 6 56	0°48'45	23°32	13°20	24°47	14°39	9°44	14°18	23°58	11°19	21° 6	0° 2	28°46	2°38	1°24	T 16
W17	20 10 52	1°46'09	5°12	14°56	26° 0	15°18	9°38	14°25	23°56	11°22	21° 7	0° 3	28°43	2°44	1°23	W17
T 18	20 14 49	2°43'34	17°13	16°36	27°13	15°57	9°31	14°33	23°53	11°24	21° 8	0° 5	28°39	2°51	1°22	T 18
F 19	20 18 45	3°41'00	29°11	18°20	28°26	16°36	9°25	14°41	23°51	11°26	21° 9	0°R 6	28°36	2°58	1°21	F 19
S 20	20 22 42	4°38'26	11°19	20° 7	29°39	17°15	9°18	14°48	23°49	11°28	21°10	0° 5	28°33	3° 4	1°20	S 20
S 21	20 26 38	5°35'54	23°40	21°58	0°52	17°54	9°12	14°56	23°47	11°30	21°12	0° 3	28°30	3°11	1°20	S 21
M22	20 30 35	6°33'22	6°15	23°51	2° 5	18°33	9° 6	15° 3	23°45	11°32	21°13	29°59	28°27	3°18	1°19	M22
T 23	20 34 31	7°30'52	19° 5	25°47	3°18	19°11	9° 0	15°10	23°42	11°34	21°14	29°54	28°24	3°24	1°19	T 23
W24	20 38 28	8°28'22	2°10	27°44	4°31	19°50	8°54	15°18	23°40	11°36	21°15	29°47	28°20	3°31	1°19	W24
T 25	20 42 25	9°25'54	15°29	29°44	5°44	20°29	8°48	15°25	23°38	11°38	21°16	29°41	28°17	3°38	1°19	T 25
F 26	20 46 21	10°23'28	29° 0	1°44	6°57	21° 8	8°43	15°33	23°35	11°40	21°17	29°35	28°14	3°44	1°D19	F 26
S 27	20 50 18	11°21'02	12°43	3°46	8°10	21°47	8°37	15°40	23°33	11°42	21°18	29°31	28°11	3°51	1°19	S 27
S 28	20 54 14	12°18'39	26°35	5°48	9°23	22°25	8°32	15°47	23°31	11°44	21°19	29°28	28° 8	3°58	1°19	S 28
M29	20 58 11	13°16'16	10°13	7°50	10°35	23° 4	8°27	15°55	23°28	11°46	21°20	29°D27	28° 4	4° 4	1°19	M29
T 30	21 2 7	14°13'56	24°45	9°53	11°48	23°43	8°22	16° 2	23°26	11°48	21°21	29°27	28° 1	4°11	1°19	T 30
W31	21 6 4	15°11'37	8°15	11°55	13°1	24°21	8°17	16° 9	23°24	11°50	21°22	29°28	27°58	4°17	1°20	W31

Delta T = 07m28s Julian Calendar 1 July 1415 == Greg. Calendar 10 July 1415

AUGUST 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	21 10 0	16°19'20	23°17	13°57	14°14	25° 0	8°R12	16°16	23°R21	11°52	21°23	29°R29	27°55	4°24	1°20	T 1
F 2	21 13 57	17° 7'05	7°57	15°58	15°27	25°38	8° 8	16°23	23°19	11°54	21°23	29°29	27°52	4°31	1°21	F 2
S 3	21 17 54	18° 4'51	21°55	17°59	16°40	26°17	8° 4	16°30	23°17	11°56	21°24	29°27	27°49	4°37	1°21	S 3
S 4	21 21 50	19° 2'38	6° 6	19°58	17°52	26°55	7°59	16°37	23°14	11°58	21°25	29°23	27°45	4°44	1°22	S 4
M 5	21 25 47	20° 0'27	20° 6	21°57	19° 5	27°34	7°55	16°44	23°12	11°59	21°26	29°16	27°42	4°51	1°23	M 5
T 6	21 29 43	20°58'18	3°10	23°54	20°18	28°12	7°51	16°51	23° 9	12° 1	21°27	29° 8	27°39	4°57	1°24	T 6
W 7	21 33 40	21°56'09	17°16	25°50	21°31	28°51	7°48	16°58	23° 7	12° 3	21°28	28°59	27°36	5° 4	1°25	W 7
T 8	21 37 36	22°54'03	0°12	27°45	22°43	29°29	7°44	17° 5	23° 5	12° 5	21°28	28°50	27°33	5°11	1°26	T 8
F 9	21 41 33	23°51'57	13° 7	29°39	23°56	0°17	7°41	17°12	23° 2	12° 7	21°29	28°43	27°30	5°17	1°28	F 9
S 10	21 45 29	24°49'53	25°32	1°10	25° 8	0°46	7°38	17°19	23° 0	12° 8	21°30	28°37	27°26	5°24	1°29	S 10
S 11	21 49 26	25°47'50	7°42	3°23	26°21	1°24	7°35	17°25	22°57	12°10	21°31	28°33	27°23	5°31	1°30	S 11
M12	21 53 22	26°45'49	19°40	5°12	27°34	2° 2	7°32	17°32	22°55	12°12	21°31	28°31	27°20	5°37	1°32	M12
T 13	21 57 19	27°43'49	1°31	7° 1	28°46	2°41	7°30	17°39	22°53	12°13	21°32	28°D31	27°17	5°44	1°34	T 13
W14	22 1 16	28°41'51	13°20	8°48	29°59	3°19	7°27	17°45	22°50	12°15	21°33	28°31	27°14	5°51	1°35	W14
T 15	22 5 12	29°39'53	25°13	10°34	1°11	3°57	7°25	17°52	22°48	12°17	21°33	28°R32	27°10	5°57	1°37	T 15
F 16	22 9 9	0°13'58	7°14	12°19	2°24	4°35	7°23	17°58	22°46	12°18	21°34	28°32	27° 7	6° 4	1°39	F 16
S 17	22 13 5	1°36'04	19°28	14° 3	3°36	5°13	7°21	18° 5	22°43	12°20	21°35	28°30	27° 4	6°11	1°41	S 17
S 18	22 17 2	2°34'11	2° 0	15°45	4°48	5°51	7°19	18°11	22°41	12°22	21°35	28°25	27° 1	6°17	1°43	S 18
M19	22 20 58	3°32'20	14°50	17°26	6° 1	6°29	7°18	18°17	22°39	12°23	21°36	28°18	26°58	6°24	1°45	M19
T 20	22 24 55	4°30'30	27°59	19° 6	7°13	7° 7	7°17	18°24	22°36	12°25	21°36	28° 9	26°55	6°31	1°47	T 20
W21	22 28 51	5°28'43	11°28	20°45	8°25	7°45	7°16	18°30	22°34	12°26	21°37	27°58	26°51	6°37	1°50	W21
T 22	22 32 48	6°26'57	25°12	22°22	9°38	8°23	7°15	18°36	22°32	12°28	21°37	27°47	26°48	6°44	1°52	T 22
F 23	22 36 45	7°25'13	9°19	23°59	10°50	9° 1	7°14	18°42	22°29	12°29	21°38	27°37	26°45	6°51	1°55	F 23
S 24	22 40 41	8°23'30	23°15	25°34	12° 2	9°39	7°13	18°48	22°27	12°31	21°38	27°29	26°42	6°57	1°57	S 24
S 25	22 44 38	9°21'51	7°24	27° 8	13°14	10°17	7°13	18°54	22°25	12°32	21°39	27°23	26°39	7° 4	2° 0	S 25
M26	22 48 34	10°20'13	21°35	28°41	14°26	10°55	7°D13	19° 0	22°22	12°33	21°39	27°19	26°36	7°11	2° 3	M26
T 27	22 52 31	11°18'37	5°14	0°13	15°38	11°33	7°13	19° 6	22°20	12°35	21°40	27°18	26°32	7°17	2° 6	T 27
W28	22 56 27	12°17'04	19°51	1°43	16°50	12°10	7°13	19°11	22°18	12°36	21°40	27°18	26°29	7°24	2° 9	W28
T 29	23 0 24	13°15'33	3°54	3°13	18° 2	12°48	7°14	19°17	22°16	12°37	21°40	27°18	26°26	7°30	2°12	T 29
F 30	23 4 20	14°14'04	17°52	4°41	19°14	13°26	7°14	19°23	22°14	12°39	21°41	27°17	26°23	7°37	2°15	F 30
S 31	23 8 17	15°12'37	1°45	6° 9	20°26	14°14	7°15	19°28	22°12	12°40	21°41	27°13	26°20	7°44	2°18	S 31

Delta T = 07m28s Julian Calendar

ASTRODIENST EPHEMERIS for the year 1415

geocentric

SEPTEMBER 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	23 12 14	16 ^h 11'13"	15 ^h 02'30"	7 ^h 43'35"	21 ^h 43'38"	14 ^h 02'41"	7 ^h 16'16"	19 ^h 03'34"	22 ^h R 9	12 ^h 02'41"	21 ^h 11'41"	27 ^h R 6	26 ^h 16'16"	7 ^h 47'50"	2 ^h 21'21"	S 1
M 2	23 16 10	17 ^h 9'50"	29 ^h 7'	9 ^h 0'	22 ^h 50'	15 ^h 19'	7 ^h 18'	19 ^h 39'	22 ^h ≈ 7	12 ^h 42'	21 ^h 42'	26 ^h 15'57"	26 ^h 10'13"	7 ^h 57'	2 ^h 25'	M 2
T 3	23 20 7	18 ^h 8'30"	12 ^h 03'41"	10 ^h 24'	24 ^h 2'	15 ^h 57'	7 ^h 19'	19 ^h 44'	22 ^h 5'	12 ^h 43'	21 ^h 42'	26 ^h 46'	26 ^h 10'	8 ^h 4'	2 ^h 28'	T 3
W 4	23 24 3	19 ^h 7'11"	25 ^h 40'	11 ^h 46'	25 ^h 14'	16 ^h 34'	7 ^h 21'	19 ^h 50'	22 ^h 3'	12 ^h 44'	21 ^h 42'	26 ^h 33'	26 ^h 7'	8 ^h 10'	2 ^h 32'	W 4
T 5	23 28 0	20 ^h 5'54"	8 ^h 43'34"	13 ^h 8'	26 ^h 26'	17 ^h 12'	7 ^h 22'	19 ^h 55'	22 ^h 1'	12 ^h 46'	21 ^h 42'	26 ^h 20'	26 ^h 4'	8 ^h 17'	2 ^h 35'	T 5
F 6	23 31 56	21 ^h 4'40"	21 ^h 10'	14 ^h 28'	27 ^h 38'	17 ^h 49'	7 ^h 24'	20 ^h 0'	21 ^h 59'	12 ^h 47'	21 ^h 42'	26 ^h 8'	26 ^h 1'	8 ^h 24'	2 ^h 39'	F 6
S 7	23 35 53	22 ^h 3'27"	3 ^h 03'31"	15 ^h 47'	28 ^h 49'	18 ^h 27'	7 ^h 27'	20 ^h 5'	21 ^h 57'	12 ^h 48'	21 ^h 43'	25 ^h 58'	25 ^h 57'	8 ^h 30'	2 ^h 43'	S 7
S 8	23 39 49	23 ^h 2'16"	15 ^h 38'	17 ^h 4'	0 ^h 01' 1"	19 ^h 4'	7 ^h 29'	20 ^h 10'	21 ^h 55'	12 ^h 49'	21 ^h 43'	25 ^h 51'	25 ^h 54'	8 ^h 37'	2 ^h 47'	S 8
M 9	23 43 46	24 ^h 1'07"	27 ^h 33'	18 ^h 20'	1 ^h 13'	19 ^h 42'	7 ^h 31'	20 ^h 15'	21 ^h 53'	12 ^h 50'	21 ^h 43'	25 ^h 47'	25 ^h 51'	8 ^h 44'	2 ^h 51'	M 9
T 10	23 47 43	25 ^h 0'00"	9 ^h 47'23"	19 ^h 34'	2 ^h 24'	20 ^h 19'	7 ^h 34'	20 ^h 19'	21 ^h 51'	12 ^h 51'	21 ^h 43'	25 ^h 45'	25 ^h 48'	8 ^h 50'	2 ^h 55'	T 10
W 11	23 51 39	25 ^h 58'54"	21 ^h 11'	20 ^h 47'	3 ^h 36'	20 ^h 57'	7 ^h 37'	20 ^h 24'	21 ^h 50'	12 ^h 52'	21 ^h 43'	25 ^h 44'	25 ^h 45'	8 ^h 57'	2 ^h 59'	W 11
T 12	23 55 36	26 ^h 57'51"	3 ^h 33' 2"	21 ^h 58'	4 ^h 47'	21 ^h 34'	7 ^h 40'	20 ^h 29'	21 ^h 48'	12 ^h 52'	21 ^h 43'	25 ^h 44'	25 ^h 41'	9 ^h 4'	3 ^h 3'	T 12
F 13	23 59 32	27 ^h 56'49"	15 ^h 4'	23 ^h 8'	5 ^h 59'	22 ^h 11'	7 ^h 44'	20 ^h 33'	21 ^h 46'	12 ^h 53'	21 ^h 43'	25 ^h 43'	25 ^h 38'	9 ^h 10'	3 ^h 7'	F 13
S 14	0 3 29	28 ^h 55'49"	27 ^h 20'	24 ^h 15'	7 ^h 10'	22 ^h 49'	7 ^h 47'	20 ^h 38'	21 ^h 44'	12 ^h 54'	21 ^h R43	25 ^h 41'	25 ^h 35'	9 ^h 17'	3 ^h 12'	S 14
S 15	0 7 25	29 ^h 54'50"	9 ^h ≈55'	25 ^h 20'	8 ^h 21'	23 ^h 26'	7 ^h 51'	20 ^h 42'	21 ^h 42'	12 ^h 55'	21 ^h 43'	25 ^h 36'	25 ^h 32'	9 ^h 24'	3 ^h 16'	S 15
M 16	0 11 22	0 ^h 45'35"	22 ^h 54'	26 ^h 23'	9 ^h 33'	24 ^h 3'	7 ^h 55'	20 ^h 46'	21 ^h 41'	12 ^h 56'	21 ^h 43'	25 ^h 29'	25 ^h 29'	9 ^h 30'	3 ^h 20'	M 16
T 17	0 15 18	1 ^h 52'59"	6 ^h 16'	27 ^h 24'	10 ^h 44'	24 ^h 40'	7 ^h 59'	20 ^h 50'	21 ^h 39'	12 ^h 56'	21 ^h 43'	25 ^h 19'	25 ^h 26'	9 ^h 37'	3 ^h 25'	T 17
W 18	0 19 15	2 ^h 52'06"	20 ^h 3'	28 ^h 22'	11 ^h 55'	25 ^h 17'	8 ^h 3'	20 ^h 54'	21 ^h 37'	12 ^h 57'	21 ^h 43'	25 ^h 7'	25 ^h 22'	9 ^h 43'	3 ^h 30'	W 18
T 19	0 23 12	3 ^h 51'16"	4 ^h Y11	29 ^h 17'	13 ^h 6'	25 ^h 55'	8 ^h 7'	20 ^h 58'	21 ^h 36'	12 ^h 58'	21 ^h 43'	24 ^h 55'	25 ^h 19'	9 ^h 50'	3 ^h 34'	T 19
F 20	0 27 8	4 ^h 50'27"	18 ^h 34'	0 ^h 01' 9"	14 ^h 17'	26 ^h 32'	8 ^h 12'	21 ^h 2'	21 ^h 34'	12 ^h 58'	21 ^h 43'	24 ^h 44'	25 ^h 16'	9 ^h 57'	3 ^h 39'	F 20
S 21	0 31 5	5 ^h 49'40"	3 ^h 8' 6"	0 ^h 58'	15 ^h 28'	27 ^h 9'	8 ^h 16'	21 ^h 6'	21 ^h 33'	12 ^h 59'	21 ^h 42'	24 ^h 35'	25 ^h 13'	10 ^h 3'	3 ^h 44'	S 21
S 22	0 35 1	6 ^h 48'56"	17 ^h 41'	1 ^h 43'	16 ^h 39'	27 ^h 46'	8 ^h 21'	21 ^h 10'	21 ^h 31'	12 ^h 59'	21 ^h 42'	24 ^h 28'	25 ^h 10'	10 ^h 10'	3 ^h 49'	S 22
M 23	0 38 58	7 ^h 48'14"	2 ^h 11'11"	2 ^h 24'	17 ^h 50'	28 ^h 23'	8 ^h 26'	21 ^h 13'	21 ^h 30'	13 ^h 0'	21 ^h 42'	24 ^h 24'	25 ^h 7'	10 ^h 17'	3 ^h 54'	M 23
T 24	0 42 54	8 ^h 47'35"	16 ^h 34'	3 ^h 1'	19 ^h 1'	29 ^h 0'	8 ^h 32'	21 ^h 17'	21 ^h 29'	13 ^h 1'	21 ^h 42'	24 ^h 22'	25 ^h 3'	10 ^h 23'	3 ^h 59'	T 24
W 25	0 46 51	9 ^h 46'58"	0 ^h 45'	3 ^h 33'	20 ^h 12'	29 ^h 37'	8 ^h 37'	21 ^h 20'	21 ^h 27'	13 ^h 1'	21 ^h 42'	24 ^h D22	25 ^h 0'	10 ^h 30'	4 ^h 4'	W 25
T 26	0 50 47	10 ^h 46'23"	14 ^h 45'	4 ^h 0'	21 ^h 22'	0 ^h 01'14"	8 ^h 43'	21 ^h 24'	21 ^h 26'	13 ^h 1'	21 ^h 41'	24 ^h R22	24 ^h 57'	10 ^h 37'	4 ^h 9'	T 26
F 27	0 54 44	11 ^h 45'51"	28 ^h 32'	4 ^h 21'	22 ^h 33'	0 ^h 51'	8 ^h 48'	21 ^h 27'	21 ^h 25'	13 ^h 2'	21 ^h 41'	24 ^h 21'	24 ^h 54'	10 ^h 43'	4 ^h 14'	F 27
S 28	0 58 41	12 ^h 45'21"	12 ^h 08'	4 ^h 35'	23 ^h 44'	1 ^h 28'	8 ^h 54'	21 ^h 30'	21 ^h 23'	13 ^h 2'	21 ^h 41'	24 ^h 18'	24 ^h 51'	10 ^h 50'	4 ^h 19'	S 28
S 29	1 2 37	13 ^h 44'53"	25 ^h 32'	4 ^h 43'	24 ^h 54'	2 ^h 4'	9 ^h 0'	21 ^h 33'	21 ^h 22'	13 ^h 3'	21 ^h 40'	24 ^h 12'	24 ^h 47'	10 ^h 57'	4 ^h 24'	S 29
M 30	1 6 34	14 ^h 44'27"	8 ^h 04'44"	4 ^h R44	26 ^h 01' 5"	2 ^h 04'41"	9 ^h 37' 7"	21 ^h 36'	21 ^h ≈21	13 ^h 3'	21 ^h 40'	24 ^h 14'	24 ^h 44'	11 ^h ≈3	4 ^h 30'	M 30

Delta T = 07m28s

Julian Calendar 1 Sept. 1415 == Greg. Calendar 10 Sept. 1415

OCTOBER 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	1 10 30	15 ^h 44'40"	21 ^h 04'45"	4 ^h R36	27 ^h 01'15"	3 ^h 01'18"	9 ^h 31'13"	21 ^h 03'39"	21 ^h R20	13 ^h 03' 3"	21 ^h R40	23 ^h R53	24 ^h 14'41"	11 ^h 17'10"	4 ^h 35'35"	T 1
W 2	1 14 27	16 ^h 43'43"	4 ^h 43'34"	4 ^h 01'21"	28 ^h 25'	3 ^h 55'	9 ^h 20'	21 ^h 42'	21 ^h ≈19	13 ^h 3'	21 ^h 39	23 ^h 14'41"	24 ^h 38'	11 ^h 17'	4 ^h 41'	W 2
T 3	1 18 23	17 ^h 43'24"	17 ^h 11'	3 ^h 57'	29 ^h 36'	4 ^h 31'	9 ^h 26'	21 ^h 44'	21 ^h 18	13 ^h 3'	21 ^h 39	23 ^h 28'	24 ^h 35'	11 ^h 23'	4 ^h 46'	T 3
F 4	1 22 20	18 ^h 43'06"	29 ^h 34'	3 ^h 24'	0 ^h 47'46"	5 ^h 8'	9 ^h 33'	21 ^h 47'	21 ^h 17	13 ^h 4'	21 ^h 38	23 ^h 17'	24 ^h 32'	11 ^h 30'	4 ^h 52'	F 4
S 5	1 26 16	19 ^h 42'51"	11 ^h 04'46"	2 ^h 43'	1 ^h 56'	5 ^h 45'	9 ^h 40'	21 ^h 49'	21 ^h 16	13 ^h 4'	21 ^h 38	23 ^h 8'	24 ^h 28'	11 ^h 37'	4 ^h 57'	S 5
S 6	1 30 13	20 ^h 42'38"	23 ^h 46'	1 ^h 53'	3 ^h 6'	6 ^h 21'	9 ^h 47'	21 ^h 51'	21 ^h 15	13 ^h 4'	21 ^h 38	23 ^h 1'	24 ^h 25'	11 ^h 43'	5 ^h 3'	S 6
M 7	1 34 9	21 ^h 42'27"	5 ^h 47'39"	0 ^h 55'	4 ^h 16'	6 ^h 58'	9 ^h 55'	21 ^h 54'	21 ^h 14	13 ^h 4'	21 ^h 37	22 ^h 57'	24 ^h 22'	11 ^h 50'	5 ^h 9'	M 7
T 8	1 38 6	22 ^h 42'18"	17 ^h 26'	29 ^h 44'49"	5 ^h 26'	7 ^h 35'	10 ^h 2'	21 ^h 56'	21 ^h 14	13 ^h R 4	21 ^h 36	22 ^h D55	24 ^h 19'	11 ^h 56'	5 ^h 15'	T 8
W 9	1 42 3	23 ^h 42'10"	29 ^h 12'	28 ^h 39'	6 ^h 36'	8 ^h 11'	10 ^h 10'	21 ^h 58'	21 ^h 13	13 ^h 4'	21 ^h 36	22 ^h 55'	24 ^h 16'	12 ^h 3'	5 ^h 20'	W 9
T 10	1 45 59	24 ^h 42'04"	11 ^h 33' 2"	27 ^h 24'	7 ^h 46'	8 ^h 48'	10 ^h 18'	22 ^h 0'	21 ^h 12	13 ^h 4'	21 ^h 35	22 ^h 56'	24 ^h 12'	12 ^h 10'	5 ^h 26'	T 10
F 11	1 49 56	25 ^h 42'00"	23 ^h 1'	26 ^h 7'	8 ^h 55'	9 ^h 24'	10 ^h 25'	22 ^h 1'	21 ^h 11	13 ^h 4'	21 ^h 35	22 ^h R57	24 ^h 9'	12 ^h 16'	5 ^h 32'	F 11
S 12	1 53 52	26 ^h 41'58"	5 ^h ≈15'	24 ^h 51'	10 ^h 5'	10 ^h 0'	10 ^h 33'	22 ^h 3'	21 ^h 11	13 ^h 4'	21 ^h 34	22 ^h 56'	24 ^h 6'	12 ^h 23'	5 ^h 38'	S 12
S 13	1 57 49	27 ^h 41'57"	17 ^h 48'	23 ^h 38'	11 ^h 14'	10 ^h 37'	10 ^h 42'	22 ^h 5'	21 ^h 10	13 ^h 4'	21 ^h 34	22 ^h 54'	24 ^h 3'	12 ^h 30'	5 ^h 44'	S 13
M 14	2 1 45	28 ^h 41'58"	0 ^h 46'	22 ^h 29'	12 ^h 24'	11 ^h 13'	10 ^h 50'	22 ^h 6'	21 ^h 10	13 ^h 3'	21 ^h 33	22 ^h 50'	24 ^h 0'	12 ^h 36'	5 ^h 50'	M 14
T 15	2 5 42	29 ^h 42'00"	14 ^h 11'	21 ^h 28'	13 ^h 33'	11 ^h 49'	10 ^h 58'	22 ^h 7'	21 ^h 9	13 ^h 3'	21 ^h 32	22 ^h 44'	23 ^h 57'	12 ^h 43'	5 ^h 57'	T 15
W 16	2 9 38	0 ^h 01'42'04"	28 ^h 3'	20 ^h 35'	14 ^h 42'	12 ^h 26'	11 ^h 7'	22 ^h 9'	21 ^h 9	13 ^h 3'	21 ^h 32	22 ^h 36'	23 ^h 53'	12 ^h 50'	6 ^h 3'	W 16
T 17	2 13 35	1 ^h 42'10"	12 ^h Y22	19 ^h 53'	15 ^h 51'	13 ^h 2'	11 ^h 16'	22 ^h 10'	21 ^h 9	13 ^h 3'	21 ^h 31	22 ^h 27'	23 ^h 50'	12 ^h 56'	6 ^h 9'	T 17
F 18	2 17 32	2 ^h 42'17"	27 ^h 2'	19 ^h 22'	17 ^h 0'	13 ^h 38'	11 ^h 25'	22 ^h 11'	21 ^h 8	13 ^h 2'	21 ^h 30	22 ^h 19'	23 ^h 47'	13 ^h 3'	6 ^h 15'	F 18
S 19	2 21 28	3 ^h 42'27"	11 ^h 856	19 ^h 3'	18 ^h 9'	14 ^h 14'	11 ^h 34'	22 ^h 12'	21 ^h 8	13 ^h 2'	21 ^h 29	22 ^h 12'	23 ^h 44'	13 ^h 10'	6 ^h 21'	S 19
S 20	2 25 25	4 ^h 42'38"	26 ^h 55'	18 ^h D55	19 ^h 17'	14 ^h 50'	11 ^h 43'	22 ^h 12'	21 ^h 8	13 ^h 2'	21 ^h 29	22 ^h 8'	23 ^h 41'	13 ^h 16'	6 ^h 28'	S 20
M 21	2 29 21	5 ^h 42'51"	11 ^h U50	18 ^h 59'	20 ^h 26'	15 ^h 26'	11 ^h 52'	22 ^h 13'	21 ^h 8	13 ^h 1'	21 ^h 28	22 ^h 6'	23 ^h 38'	13 ^h 23'	6 ^h 34'	M 21
T 22	2 33 18	6 ^h 43'07"	26 ^h 35'	19 ^h 13'	21 ^h 34'	16 ^h 2'	12 ^h 1'	22 ^h 14'	21 ^h 8	13 ^h 1'	21 ^h 27	22 ^h D 5	23 ^h 34'	13 ^h 30'	6 ^h 40'	T 22
W 23	2 37 14	7 ^h 43'24"	11 ^h 33	19 ^h 37'	22 ^h 42'	16 ^h 38'	12 ^h 11'	22 ^h 14'	21 ^h D 8	13 ^h 0'	21 ^h 26	22 ^h 6'	23 ^h 31'	13 ^h 36'	6 ^h 47'	W 23
T 24	2 41 11	8 ^h 43'43"	25 ^h 12'	20 ^h 11'	23 ^h 51'	17 ^h 14'	12 ^h 20'	22 ^h 14'	21 ^h 8	13 ^h 0'	21 ^h 26	22 ^h 7'	23 ^h 28'	13 ^h 43'	6 ^h 53'	T 24
F 25	2 45 7	9 ^h 44'05"	9 ^h U1	20 ^h 53'	24 ^h 59'	17 ^h 50'	12 ^h 30'	22 ^h 15'	21 ^h 8	12 ^h 59	21 ^h 25	22 ^h R 8	23 ^h 25'	13 ^h 49'	7 ^h 0'	F 25
S 26	2 49 4	10 ^h 44'28"	22 ^h 32'	21 ^h 42'	26 ^h 6'	18 ^h 26'	12 ^h 40'	22 ^h R15	21 ^h 8	12 ^h 59	21 ^h 24	22 ^h 7'	23 ^h 22'	13 ^h 56'	7 ^h 6'	S 26
S 27	2 53 1	11 ^h 44'53"	5 ^h 0044	22 ^h 39'	27 ^h 14'	19 ^h 2'	12 ^h 50'	22 ^h 15'	21 ^h 8	12 ^h 58	21 ^h 23	22 ^h 5'	23 ^h 18'	14 ^h 3'	7 ^h 13'	S 27
M 28	2 56 57	12 ^h 45'21"	18 ^h 41'	23 ^h 40'	28 ^h 22'	19 ^h 37'	13 ^h 0'	22 ^h 15'	21 ^h 8	12 ^h 57	21 ^h 22	22 ^h 0'	23 ^h 15'	14 ^h 9'	7 ^h 20'	M 28
T 29	3 0 54	13 ^h 45'50"	1 ^h 23	24 ^h 47'	29 ^h 29'	20 ^h 13'	13 ^h 10'	22 ^h 14'	21 ^h 9	12 ^h 57	21 ^h 21	21 ^h 55'	23 ^h 12'	14 ^h 16'	7 ^h 26'	T 29
W 30	3 4 50	14 ^h 46'20"	13 ^h 53'	25 ^h 58'	0 ^h 36	20 ^h 49'	13 ^h 21'	22 ^h 14'	21 ^h 9	12 ^h 56	21 ^h 20	21 ^h 48'	23 ^h 9'	14 ^h 23'	7 ^h 33'	W 30
T 31	3 8 47	15 ^h 04'53"	26 ^h 12	27 ^h 13	1 ^h 343	21 ^h 024	13 ^h 31	22 ^h 14	21 ^h ≈ 9	12 ^h 55	21 ^h 19	21 ^h 141	23 ^h 16	14 ^h 29	7 ^h 39	T 31

ASTRODIENST EPHEMERIS for the year 1415
geocentric

NOVEMBER 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	3 12 43	16♏47'27	8♏22	28♏31	2♏50	22♏0	13♏42	22°R13	21♏10	12°R54	21°R18	21°R34	23♏3	14♏36	7♏46	F 1
S 2	3 16 40	17°48'03	20°23	29°52	3°57	22°36	13°52	22♏12	21°10	12♏54	21°17	21♏29	22°59	14°43	7°53	S 2
S 3	3 20 36	18°48'41	2♏16	1♏15	5° 4	23°11	14° 3	22°11	21°11	12°53	21°16	21°26	22°56	14°49	8° 0	S 3
M 4	3 24 33	19°49'20	14° 5	2°40	6°10	23°47	14°14	22°11	21°11	12°52	21°16	21°24	22°53	14°56	8° 6	M 4
T 5	3 28 30	20°50'00	25°51	4° 7	7°16	24°22	14°25	22°10	21°12	12°51	21°15	21°D24	22°50	15° 3	8°13	T 5
W 6	3 32 26	21°50'42	7♏38	5°35	8°22	24°57	14°36	22° 8	21°13	12°50	21°14	21°25	22°47	15° 9	8°20	W 6
T 7	3 36 23	22°51'25	19°28	7° 4	9°28	25°33	14°47	22° 7	21°13	12°49	21°12	21°27	22°44	15°16	8°27	T 7
F 8	3 40 19	23°52'09	1♏27	8°33	10°33	26° 8	14°58	22° 6	21°14	12°48	21°11	21°29	22°40	15°23	8°34	F 8
S 9	3 44 16	24°52'54	13°39	10° 4	11°39	26°43	15°10	22° 4	21°15	12°47	21°10	21°30	22°37	15°29	8°40	S 9
S 10	3 48 12	25°53'40	26° 8	11°35	12°44	27°18	15°21	22° 3	21°16	12°46	21° 9	21°R30	22°34	15°36	8°47	S 10
M 11	3 52 9	26°54'27	8♏59	13° 7	13°48	27°53	15°32	22° 1	21°17	12°45	21° 8	21°30	22°31	15°42	8°54	M 11
T 12	3 56 5	27°55'15	22°17	14°39	14°53	28°28	15°44	21°59	21°18	12°44	21° 7	21°28	22°28	15°49	9° 1	T 12
W 13	4 0 2	28°56'04	6♏2	16°11	15°57	29° 3	15°56	21°57	21°19	12°43	21° 6	21°25	22°24	15°56	9° 8	W 13
T 14	4 3 59	29°56'54	20°16	17°44	17° 1	29°38	16° 8	21°55	21°20	12°42	21° 5	21°22	22°21	16° 2	9°15	T 14
F 15	4 7 55	0♏57'45	4♏56	19°17	18° 5	0♏13	16°19	21°53	21°21	12°41	21° 4	21°19	22°18	16° 9	9°22	F 15
S 16	4 11 52	1°58'37	19°55	20°50	19° 8	0°48	16°31	21°51	21°22	12°39	21° 3	21°17	22°15	16°16	9°29	S 16
S 17	4 15 48	2°59'30	5♏6	22°23	20°11	1°22	16°43	21°49	21°24	12°38	21° 2	21°15	22°12	16°22	9°36	S 17
M 18	4 19 45	4° 0'24	20°19	23°56	21°14	1°57	16°56	21°46	21°25	12°37	21° 1	21°D15	22° 9	16°29	9°43	M 18
T 19	4 23 41	5° 1'20	5♏25	25°30	22°16	2°32	17° 8	21°44	21°26	12°36	20°59	21°15	22° 5	16°36	9°50	T 19
W 20	4 27 38	6° 2'17	20°14	27° 3	23°18	3° 6	17°20	21°41	21°28	12°35	20°58	21°16	22° 2	16°42	9°57	W 20
T 21	4 31 34	7° 3'14	4♏41	28°36	24°20	3°41	17°32	21°38	21°29	12°33	20°57	21°17	21°59	16°49	10° 4	T 21
F 22	4 35 31	8° 4'13	18°44	0♏10	25°21	4°15	17°45	21°36	21°30	12°32	20°56	21°19	21°56	16°56	10°11	F 22
S 23	4 39 28	9° 5'13	2♏21	1°43	26°22	4°50	17°57	21°33	21°32	12°31	20°55	21°19	21°53	17° 2	10°18	S 23
S 24	4 43 24	10° 6'15	15°33	3°17	27°23	5°24	18°10	21°30	21°34	12°29	20°54	21°R19	21°50	17° 9	10°25	S 24
M 25	4 47 21	11° 7'17	28°25	4°51	28°23	5°58	18°22	21°27	21°35	12°28	20°52	21°19	21°46	17°16	10°32	M 25
T 26	4 51 17	12° 8'20	10♏58	6°24	29°23	6°32	18°35	21°23	21°37	12°26	20°51	21°18	21°43	17°22	10°38	T 26
W 27	4 55 14	13° 9'25	23°16	7°58	0♏22	7° 6	18°48	21°20	21°39	12°25	20°50	21°17	21°40	17°29	10°45	W 27
T 28	4 59 10	14°10'30	5♏23	9°32	1°21	7°40	19° 1	21°17	21°40	12°24	20°49	21°15	21°37	17°35	10°52	T 28
F 29	5 3 7	15°11'37	17°21	11° 6	2°19	8°14	19°14	21°13	21°42	12°22	20°48	21°15	21°34	17°42	10°59	F 29
S 30	5 7 3	16♏12'44	29♏13	12♏40	3♏17	8♏48	19♏27	21♏10	21♏44	12♏21	20♏47	21♏14	21♏30	17♏49	11♏6	S 30

Delta T = 07m28s

Julian Calendar 1 Nov. 1415 == Greg. Calendar 10 Nov. 1415

DECEMBER 1415 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	5 11 0	17♏13'52	11♏1	14♏15	4♏14	9♏22	19♏40	21°R 6	21♏46	12°R19	20°R45	21°R14	21♏27	17♏55	11♏13	S 1
M 2	5 14 57	18°15'00	22°48	15°49	5°11	9°56	19°53	21♏2	21°48	12♏18	20°14	21°D13	21°24	18° 2	11°20	M 2
T 3	5 18 53	19°16'09	4♏36	17°23	6° 7	10°29	20° 6	20°59	21°50	12°16	20°43	21♏14	21°21	18° 9	11°27	T 3
W 4	5 22 50	20°17'19	16°27	18°58	7° 3	11° 3	20°19	20°55	21°52	12°15	20°42	21°14	21°18	18°15	11°34	W 4
T 5	5 26 46	21°18'29	28°23	20°33	7°58	11°37	20°32	20°51	21°54	12°13	20°41	21°R14	21°15	18°22	11°41	T 5
F 6	5 30 43	22°19'39	10♏27	22° 8	8°53	12°10	20°46	20°47	21°56	12°11	20°39	21°14	21°11	18°29	11°48	F 6
S 7	5 34 39	23°20'49	22°43	23°43	9°47	12°43	20°59	20°43	21°58	12°10	20°38	21°13	21° 8	18°35	11°55	S 7
S 8	5 38 36	24°22'00	5♏12	25°19	10°40	13°17	21°12	20°39	22° 0	12° 8	20°37	21°13	21° 5	18°42	12° 1	S 8
M 9	5 42 32	25°23'10	18° 0	26°55	11°32	13°50	21°26	20°35	22° 2	12° 7	20°36	21°13	21° 2	18°49	12° 8	M 9
T 10	5 46 29	26°24'20	1♏10	28°31	12°24	14°23	21°39	20°30	22° 5	12° 5	20°35	21°D13	20°59	18°55	12°15	T 10
W 11	5 50 26	27°25'31	14°43	0♏7	13°15	14°56	21°53	20°26	22° 7	12° 3	20°33	21°13	20°56	19° 2	12°22	W 11
T 12	5 54 22	28°26'41	28°42	1°44	14° 5	15°29	22° 6	20°22	22° 9	12° 2	20°32	21°14	20°52	19° 8	12°29	T 12
F 13	5 58 19	29°27'51	13♏7	3°20	14°54	16° 1	22°20	20°17	22°12	12° 0	20°31	21°14	20°49	19°15	12°35	F 13
S 14	6 2 15	0♏29'01	27°53	4°58	15°42	16°34	22°34	20°13	22°14	11°58	20°30	21°15	20°46	19°22	12°42	S 14
S 15	6 6 12	1°30'11	12♏57	6°35	16°30	17° 7	22°47	20° 8	22°17	11°57	20°29	21°16	20°43	19°28	12°49	S 15
M 16	6 10 8	2°31'22	28° 9	8°13	17°16	17°39	23° 1	20° 4	22°19	11°55	20°28	21°R16	20°40	19°35	12°56	M 16
T 17	6 14 5	3°32'32	13♏21	9°51	18° 2	18°11	23°15	19°59	22°22	11°53	20°26	21°15	20°36	19°42	13° 2	T 17
W 18	6 18 2	4°33'42	28°22	11°29	18°46	18°44	23°29	19°54	22°24	11°52	20°25	21°14	20°33	19°48	13° 9	W 18
T 19	6 21 58	5°34'52	13♏5	13° 7	19°30	19°16	23°43	19°50	22°27	11°50	20°24	21°12	20°30	19°55	13°15	T 19
F 20	6 25 55	6°36'02	27°22	14°46	20°12	19°48	23°56	19°45	22°29	11°48	20°23	21°10	20°27	20° 2	13°22	F 20
S 21	6 29 51	7°37'12	11♏12	16°25	20°53	20°20	24°10	19°40	22°32	11°47	20°22	21° 8	20°24	20° 8	13°28	S 21
S 22	6 33 48	8°38'23	24°34	18° 4	21°33	20°52	24°24	19°35	22°35	11°45	20°21	21° 7	20°21	20°15	13°35	S 22
M 23	6 37 44	9°39'33	7♏29	19°44	22°12	21°24	24°38	19°31	22°37	11°43	20°20	21°D 6	20°17	20°22	13°41	M 23
T 24	6 41 41	10°40'43	20° 2	21°23	22°49	21°55	24°52	19°26	22°40	11°42	20°18	21° 6	20°14	20°28	13°48	T 24
W 25	6 45 37	11°41'54	2♏17	23° 2	23°26	22°27	25° 6	19°21	22°43	11°40	20°17	21° 8	20°11	20°35	13°54	W 25
T 26	6 49 34	12°43'04	14°18	24°41	24° 0	22°58	25°20	19°16	22°46	11°38	20°16	21° 9	20° 8	20°42	14° 1	T 26
F 27	6 53 31	13°44'14	26°10	26°20	24°34	23°30	25°34	19°11	22°49	11°37	20°15	21°11	20° 5	20°48	14° 7	F 27
S 28	6 57 27	14°45'24	7♏58	27°59	25° 5	24° 1	25°48	19° 6	22°52	11°35	20°14	21°12	20° 2	20°55	14°13	S 28
S 29	7 1 24	15°46'34	19°44	29°37	25°36	24°32	26° 3	19° 1	22°54	11°33	20°13	21°R13	19°58	21° 1	14°20	S 29
M 30	7 5 20	16°47'43	1♏32	1♏14	26° 4	25° 3	26°17	18°56	22°57	11°31	20°12	21°13	19°55	21° 8	14°26	M 30
T 31	7 9 17	17♏48'52	13♏24	2♏50	26♏31	25♏34	26♏31	18♏51	23♏0	11♏30	20♏11	21♏11	19♏52	21♏15	14♏32	T 31

Delta T = 07m27s

Julian Calendar