



Astrodienst Ephemeris Tables for the year 1413

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 D5EPX

ASTRODIENST EPHEMERIS for the year 1413

geocentric

JANUARY 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	7 16 5	19°34'35	25°23	0°13	6°44	7°11	9°32	3°R 5	11°42	4°R35	16°R58	16°R29	17°48	19°22	7°M48	S 1
M 2	7 20 1	20°35'43	10°3	1°38	7°26	7°59	9°40	3°II 2	11°45	4°33	16°II57	16°25	17°45	19°29	7°52	M 2
T 3	7 23 58	21°36'49	25°8	3°4	8°9	8°46	9°47	3°0	11°48	4°32	16°56	16°23	17°41	19°35	7°57	T 3
W 4	7 27 55	22°37'55	10°14	4°31	8°52	9°34	9°55	2°57	11°52	4°30	16°55	16°D22	17°38	19°42	8°1	W 4
T 5	7 31 51	23°39'00	25°15	5°59	9°37	10°21	10°3	2°55	11°55	4°28	16°54	16°22	17°35	19°48	8°5	T 5
F 6	7 35 48	24°40'04	10°5	7°27	10°23	11°9	10°10	2°53	11°58	4°27	16°53	16°23	17°32	19°55	8°9	F 6
S 7	7 39 44	25°41'07	24°37	8°56	11°10	11°56	10°17	2°51	12°2	4°25	16°52	16°24	17°29	20°2	8°13	S 7
S 8	7 43 41	26°42'09	8°48	10°26	11°57	12°44	10°24	2°49	12°5	4°24	16°51	16°25	17°26	20°8	8°17	S 8
M 9	7 47 37	27°43'09	22°37	11°56	12°46	13°31	10°31	2°47	12°8	4°22	16°51	16°R26	17°22	20°15	8°21	M 9
T 10	7 51 34	28°44'09	6°4	13°28	13°35	14°18	10°38	2°46	12°12	4°21	16°50	16°26	17°19	20°22	8°25	T 10
W11	7 55 30	29°45'07	19°10	14°59	14°25	15°6	10°45	2°44	12°15	4°19	16°49	16°25	17°16	20°28	8°28	W11
T 12	7 59 27	0°46'04	1°II59	16°32	15°16	15°53	10°51	2°43	12°19	4°18	16°48	16°24	17°13	20°35	8°32	T 12
F 13	8 3 24	1°47'00	14°32	18°5	16°8	16°41	10°58	2°41	12°22	4°16	16°47	16°21	17°10	20°42	8°35	F 13
S 14	8 7 20	2°47'54	26°52	19°39	17°0	17°28	11°4	2°40	12°26	4°15	16°47	16°19	17°7	20°48	8°38	S 14
S 15	8 11 17	3°48'48	9°2	21°14	17°53	18°16	11°10	2°39	12°29	4°13	16°46	16°17	17°3	20°55	8°41	S 15
M16	8 15 13	4°49'40	21°3	22°49	18°47	19°3	11°16	2°38	12°32	4°12	16°45	16°16	17°0	21°2	8°45	M16
T 17	8 19 10	5°50'30	2°58	24°25	19°41	19°50	11°22	2°37	12°36	4°10	16°44	16°15	16°57	21°8	8°47	T 17
W18	8 23 6	6°51'20	14°48	26°1	20°36	20°38	11°27	2°36	12°39	4°9	16°44	16°D14	16°54	21°15	8°50	W18
T 19	8 27 3	7°52'08	26°36	27°39	21°32	21°25	11°33	2°35	12°43	4°8	16°43	16°15	16°51	21°21	8°53	T 19
F 20	8 31 0	8°52'55	8°24	29°17	22°28	22°13	11°38	2°35	12°46	4°6	16°42	16°15	16°47	21°28	8°56	F 20
S 21	8 34 56	9°53'42	20°14	0°56	23°24	23°0	11°43	2°34	12°50	4°5	16°42	16°16	16°44	21°35	8°58	S 21
S 22	8 38 53	10°54'26	2°10	2°36	24°22	23°47	11°48	2°34	12°53	4°4	16°41	16°17	16°41	21°41	9°1	S 22
M23	8 42 49	11°55'10	14°15	4°16	25°19	24°35	11°53	2°34	12°57	4°2	16°40	16°17	16°38	21°48	9°3	M23
T 24	8 46 46	12°55'53	26°33	5°58	26°17	25°22	11°58	2°33	13°0	4°1	16°40	16°17	16°35	21°55	9°5	T 24
W25	8 50 42	13°56'34	9°8	7°40	27°16	26°10	12°2	2°D33	13°4	4°0	16°39	16°R18	16°32	22°1	9°7	W25
T 26	8 54 39	14°57'15	22°4	9°23	28°15	26°57	12°7	2°34	13°7	3°59	16°39	16°18	16°28	22°8	9°9	T 26
F 27	8 58 35	15°57'54	5°24	11°7	29°15	27°44	12°11	2°34	13°11	3°58	16°38	16°D18	16°25	22°15	9°11	F 27
S 28	9 2 32	16°58'33	19°11	12°52	0°14	28°32	12°15	2°34	13°14	3°56	16°37	16°18	16°22	22°21	9°13	S 28
S 29	9 6 29	17°59'10	3°25	14°37	1°15	29°19	12°18	2°35	13°18	3°55	16°37	16°18	16°19	22°28	9°14	S 29
M30	9 10 25	18°59'46	18°3	16°24	2°16	0°6	12°22	2°35	13°21	3°54	16°36	16°18	16°16	22°35	9°16	M30
T 31	9 14 22	20°0'20	3°2	18°11	3°17	0°53	12°25	2°II36	13°25	3°53	16°II36	16°18	16°13	22°41	9°M17	T 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	22s 5	27s31	4s 5	23s40	0s 9	16s51	4n44	19s37	1s 7	13s37	1n 9	19n 5	1s47	17s57	0s39	22n29	0s57	15n24	7s31	15s57	15s33	14n56	13s25	0n47			
M 2	21 56	26 13	3 6	23 47	0 16	16 58	4 43	19 24	1 7	13 39	1 9	19 5	1 47	17 57	0 39	22 29	0 57	15 24	7 31	15 58	15 34	14 53	13 26	0 47			
T 3	21 47	23 3	1 54	23 53	0 24	17 6	4 42	19 12	1 7	13 42	1 10	19 5	1 47	17 56	0 39	22 29	0 57	15 24	7 31	15 59	15 35	14 50	13 27	0 48			
W 4	21 37	18 17	0 34	23 57	0 31	17 13	4 41	18 59	1 7	13 44	1 10	19 5	1 46	17 55	0 39	22 30	0 57	15 24	7 30	15 59	15 36	14 47	13 28	0 48			
T 5	21 26	12 23	0n49	24 1	0 38	17 21	4 40	18 46	1 6	13 46	1 10	19 5	1 46	17 54	0 39	22 30	0 57	15 24	7 30	15 59	15 37	14 44	13 29	0 48			
F 6	21 16	5 51	2 7	24 3	0 45	17 29	4 38	18 33	1 6	13 48	1 10	19 4	1 46	17 53	0 39	22 30	0 57	15 24	7 30	15 59	15 38	14 41	13 30	0 49			
S 7	21 5	0n51	3 16	24 4	0 51	17 37	4 37	18 20	1 6	13 51	1 10	19 4	1 46	17 52	0 39	22 30	0 57	15 24	7 30	15 58	15 39	14 38	13 31	0 49			
S 8	20 53	7 20	4 11	24 4	0 58	17 45	4 35	18 6	1 6	13 53	1 10	19 4	1 45	17 51	0 39	22 30	0 57	15 24	7 30	15 58	15 40	14 35	13 32	0 50			
M 9	20 41	13 18	4 49	24 2	1 4	17 53	4 33	17 52	1 6	13 55	1 10	19 4	1 45	17 50	0 39	22 30	0 57	15 24	7 30	15 58	15 41	14 32	13 33	0 50			
T 10	20 29	18 28	5 11	23 59	1 10	18 2	4 31	17 38	1 6	13 57	1 11	19 4	1 45	17 49	0 39	22 30	0 57	15 24	7 29	15 58	15 42	14 29	13 34	0 50			
W11	20 16	22 38	5 16	23 55	1 15	18 10	4 28	17 24	1 5	13 59	1 11	19 4	1 45	17 48	0 39	22 30	0 57	15 24	7 29	15 58	15 43	14 26	13 34	0 51			
T 12	20 3	25 36	5 5	23 49	1 21	18 18	4 26	17 10	1 5	14 1	1 11	19 4	1 44	17 47	0 39	22 30	0 57	15 25	7 29	15 58	15 44	14 23	13 35	0 51			
F 13	19 50	27 14	4 39	23 42	1 26	18 26	4 23	16 55	1 5	14 2	1 11	19 4	1 44	17 46	0 39	22 30	0 57	15 25	7 29	15 59	15 45	14 20	13 36	0 52			
S 14	19 36	27 30	4 1	23 34	1 30	18 34	4 20	16 41	1 5	14 4	1 11	19 4	1 44	17 45	0 39	22 30	0 57	15 25	7 29	16 0	15 45	14 17	13 36	0 52			
S 15	19 22	26 24	3 12	23 24	1 35	18 42	4 17	16 26	1 5	14 6	1 11	19 4	1 44	17 44	0 39	22 30	0 57	15 25	7 29	16 0	15 46	14 15	13 37	0 52			
M16	19 7	24 5	2 15	23 13	1 39	18 49	4 14	16 11	1 4	14 8	1 12	19 4	1 43	17 43	0 39	22 30	0 57	15 25	7 28	16 1	15 47	14 12	13 38	0 53			
T 17	18 52	20 45	1 13	23 0	1 43	18 57	4 11	15 56	1 4	14 9	1 12	19 4	1 43	17 42	0 39	22 30	0 57	15 25	7 28	16 1	15 48	14 9	13 38	0 53			
W18	18 37	16 34	0 8	22 46	1 47	19 4	4 8	15 40	1 4	14 11	1 12	19 4	1 43	17 41	0 39	22 31	0 57	15 25	7 28	16 1	15 49	14 6	13 39	0 54			
T 19	18 22	11 48	0s57	22 30	1 50	19 11	4 4	15 25	1 4	14 12	1 12	19 4	1 42	17 40	0 39	22 31	0 57	15 25	7 28	16 1	15 50	14 3	13 39	0 54			
F 20	18 6	6 36	2 0	22 13	1 53	19 18	4 1	15 9	1 3	14 14	1 12	19 4	1 42	17 39	0 39	22 31	0 57	15 25	7 28	16 1	15 51	14 0	13 40	0 54			
S 21	17 50	1 9	2 58	21 54	1 56	19 25	3 57	14 53	1 3	14 15	1 12	19 5	1 42	17 38	0 39	22 31	0 57	15 26	7 28	16 1	15 52	13 57	13 40	0 55			
S 22	17 33	4s21	3 49	21 34	1 59	19 31	3 53	14 37	1 3	14 17	1 13	19 5	1 42	17 37	0 39	22 31	0 56	15 26	7 27	16 1	15 53	13 54	13 40	0 55			
M23	17 16	9 46	4 30	21 12	2 1	19 37	3 49	14 21	1 3	14 18	1 13	19 5	1 41	17 36	0 39	22 31	0 56	15 26	7 27	16 0	15 54	13 51	13 41	0 56			
T 24	16 59	14 55	4 59	20 49	2 2	19 43	3 45	14 5	1 2	14 19	1 13	19 5	1 41	17 35	0 39	22 31	0 56	15 26	7 27	16 0	15 55	13 48	13 41	0 56			
W25	16 42	19 34	5 16	20 24	2 3	19 48	3 41	13 49	1 2	14 20	1 13	19 5	1 41	17 34	0 39	22 31	0 56	15 26	7 27	16 0	15 56	13 45	13 41	0 56			
T 26	16 24	23 26	5 16	19 58	2 4	19 53	3 37	13 32	1 2	14 21	1 13	19 6	1 41	17 33	0 39	22 31	0 56	15 26	7 27	16 0	15 57	13 42	13 42	0 57			
F 27	16 6	26 12	5 1	19 29	2 5	19 58	3 33	13 16	1 1	14 23	1 13	19 6	1 40	17 32	0 39	22 31	0 56	15 26	7 26	16 0	15 58	13 39	13 42	0 57			
S 28	15 48	27 31	4 27	19 0	2 5	20 2	3 29	12 59	1 1	14 24	1 14	19 6	1 40	17 31	0 39	22 31	0 56	15 26	7 26	16 0	15 59	13 36	13 42	0 58			
S 29	15 29	27 5	3 37	18 29	2 4	20 6	3 24	12 42	1 1	14 25	1 14	19 7	1 40	17 30	0 39	22 31	0 56	15 27	7 26	16 0	16 0	13 33	13 42	0 58			
M30	15 11	24 47	2 31	17 56	2 3	20 10	3 20	12 25	1 1	14 26	1 14	19 7	1 40	17 29	0 39	22 31	0 56	15 27	7 26	16 0	16 1	13 30	13 42	0 59			
T 31	14s52	20s44	1s13	17s22	2s 2	20s13	3n16	12s 8	1s 0	14s26	1n14	19n 7	1s39	17s28	0s39	22n31	0s56	15n27	7s26	16s 0	16s 2	13n27	13s42	0n59			

ASTRODIENST EPHEMERIS for the year 1413

geocentric

FEBRUARY 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	9 18 18	21° 05'3	18° 13	20° 0	4° 18	1° 41	12° 29	2° 37	13° 28	3° 52	16° 36	16° 18	16° 9	22° 48	9° 18	W 1
T 2	9 22 15	22° 1'24	3° 26	21° 49	5° 20	2° 28	12° 32	2° 37	13° 32	3° 51	16° 35	16° 18	16° 6	22° 55	9° 20	T 2
F 3	9 26 11	23° 1'53	18° 33	23° 39	6° 22	3° 15	12° 35	2° 38	13° 35	3° 50	16° 35	16° 17	16° 3	23° 1	9° 21	F 3
S 4	9 30 8	24° 2'21	3° 24	25° 29	7° 22	4° 2	12° 37	2° 40	13° 38	3° 49	16° 34	16° 17	16° 0	23° 8	9° 22	S 4
S 5	9 34 4	25° 2'47	17° 53	27° 21	8° 27	4° 50	12° 40	2° 41	13° 42	3° 48	16° 34	16° 16	15° 57	23° 14	9° 22	S 5
M 6	9 38 1	26° 3'11	1° 56	29° 13	9° 30	5° 37	12° 42	2° 42	13° 45	3° 47	16° 34	16° 15	15° 53	23° 21	9° 23	M 6
T 7	9 41 58	27° 3'33	15° 31	1° 6	10° 33	6° 24	12° 45	2° 44	13° 49	3° 46	16° 33	16° 14	15° 50	23° 28	9° 24	T 7
W 8	9 45 54	28° 3'53	28° 40	3° 0	11° 37	7° 11	12° 47	2° 45	13° 52	3° 45	16° 33	16° 14	15° 47	23° 34	9° 24	W 8
T 9	9 49 51	29° 4'10	11° 27	4° 54	12° 40	7° 58	12° 48	2° 47	13° 56	3° 45	16° 33	16° 14	15° 44	23° 41	9° 25	T 9
F 10	9 53 47	0° 4'26	23° 53	6° 48	13° 44	8° 45	12° 50	2° 49	13° 59	3° 44	16° 33	16° 15	15° 41	23° 48	9° 25	F 10
S 11	9 57 44	1° 4'40	6° 5	8° 42	14° 49	9° 32	12° 51	2° 51	14° 2	3° 43	16° 32	16° 16	15° 38	23° 54	9° 25	S 11
S 12	10 1 40	2° 4'52	18° 5	10° 37	15° 53	10° 19	12° 53	2° 53	14° 6	3° 42	16° 32	16° 18	15° 34	24° 1	9° 25	S 12
M13	10 5 37	3° 5'02	29° 58	12° 31	16° 58	11° 6	12° 54	2° 55	14° 9	3° 42	16° 32	16° 19	15° 31	24° 8	9° 25	M13
T 14	10 9 33	4° 5'10	11° 46	14° 25	18° 3	11° 53	12° 55	2° 57	14° 12	3° 41	16° 32	16° 20	15° 28	24° 14	9° 25	T 14
W15	10 13 30	5° 5'15	23° 33	16° 18	19° 8	12° 40	12° 55	2° 59	14° 16	3° 40	16° 32	16° 19	15° 25	24° 21	9° 24	W15
T 16	10 17 27	6° 5'19	5° 22	18° 10	20° 14	13° 27	12° 56	3° 2	14° 19	3° 40	16° 32	16° 18	15° 22	24° 28	9° 24	T 16
F 17	10 21 23	7° 5'21	17° 14	20° 0	21° 19	14° 14	12° 56	3° 4	14° 22	3° 39	16° 32	16° 16	15° 19	24° 34	9° 23	F 17
S 18	10 25 20	8° 5'21	29° 11	21° 49	22° 25	15° 1	12° 56	3° 7	14° 26	3° 38	16° 32	16° 13	15° 15	24° 41	9° 23	S 18
S 19	10 29 16	9° 5'19	11° 15	23° 35	23° 31	15° 48	12° 56	3° 10	14° 29	3° 38	16° 31	16° 9	15° 12	24° 48	9° 22	S 19
M20	10 33 13	10° 5'16	23° 28	25° 19	24° 37	16° 34	12° 56	3° 13	14° 32	3° 37	16° 31	16° 5	15° 9	24° 54	9° 21	M20
T 21	10 37 9	11° 5'10	5° 53	26° 59	25° 44	17° 21	12° 56	3° 15	14° 35	3° 37	16° 31	16° 2	15° 6	25° 1	9° 20	T 21
W22	10 41 6	12° 5'03	18° 32	28° 35	26° 51	18° 8	12° 55	3° 19	14° 38	3° 37	16° 31	15° 59	15° 3	25° 7	9° 19	W22
T 23	10 45 2	13° 4'55	1° 28	0° 7	27° 57	18° 55	12° 54	3° 22	14° 42	3° 36	16° 32	15° 57	14° 59	25° 14	9° 18	T 23
F 24	10 48 59	14° 4'45	14° 42	1° 34	29° 4	19° 41	12° 53	3° 25	14° 45	3° 36	16° 32	15° 56	14° 56	25° 21	9° 17	F 24
S 25	10 52 55	15° 4'33	28° 18	2° 56	0° 11	20° 28	12° 52	3° 28	14° 48	3° 35	16° 32	15° 57	14° 53	25° 27	9° 15	S 25
S 26	10 56 52	16° 4'19	12° 17	4° 12	1° 19	21° 15	12° 51	3° 32	14° 51	3° 35	16° 32	15° 58	14° 50	25° 34	9° 14	S 26
M27	11 0 49	17° 4'04	26° 39	5° 22	2° 26	22° 1	12° 49	3° 35	14° 54	3° 35	16° 32	16° 0	14° 47	25° 41	9° 12	M27
T 28	11 4 45	18° 3'46	11° 22	6° 25	3° 34	22° 48	12° 47	3° 39	14° 57	3° 35	16° 32	16° 1	14° 44	25° 47	9° 11	T 28

Day	☉	☾		♀		♀		♂		♂		♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	14s32	15s15	0n11	16s46	2s 0	20s16	3n11	11s51	1 s 0	14s27	1n14	19n 8	1s39	17s27	0s39	22n32	0s56	15n27	7s25	16s 0	16s 3	13n24	13s42	0n59	
T 2	14 13	8 49	1 34	16 8	1 58	20 18	3 7	11 33	1 0	14 28	1 14	19 8	1 39	17 26	0 39	22 32	0 56	15 27	7 25	16 0	16 4	13 21	13 42	1 0	
F 3	13 53	1 56	2 50	15 29	1 55	20 20	3 2	11 16	0 59	14 29	1 15	19 9	1 39	17 25	0 39	22 32	0 56	15 27	7 25	16 0	16 5	13 18	13 42	1 0	
S 4	13 33	4n55	3 53	14 49	1 52	20 22	2 57	10 58	0 59	14 29	1 15	19 9	1 38	17 24	0 39	22 32	0 56	15 28	7 25	16 1	16 6	13 15	13 42	1 1	
S 5	13 13	11 20	4 40	14 7	1 48	20 23	2 53	10 41	0 59	14 30	1 15	19 10	1 38	17 23	0 39	22 32	0 56	15 28	7 25	16 1	16 7	13 12	13 42	1 1	
M 6	12 52	16 59	5 8	13 23	1 43	20 23	2 48	10 23	0 58	14 31	1 15	19 10	1 38	17 22	0 39	22 32	0 56	15 28	7 24	16 1	16 7	13 9	13 42	1 2	
T 7	12 32	21 36	5 17	12 39	1 38	20 23	2 43	10 5	0 58	14 31	1 15	19 11	1 37	17 21	0 39	22 32	0 56	15 28	7 24	16 1	16 8	13 6	13 41	1 2	
W 8	12 11	24 58	5 10	11 52	1 32	20 23	2 38	9 47	0 57	14 31	1 15	19 11	1 37	17 20	0 39	22 32	0 56	15 28	7 24	16 1	16 9	13 3	13 41	1 2	
T 9	11 50	26 58	4 47	11 5	1 26	20 22	2 34	9 29	0 57	14 32	1 16	19 12	1 37	17 19	0 39	22 32	0 56	15 28	7 24	16 1	16 10	13 0	13 41	1 3	
F 10	11 29	27 34	4 12	10 16	1 19	20 20	2 29	9 11	0 57	14 32	1 16	19 13	1 37	17 18	0 39	22 32	0 56	15 29	7 24	16 1	16 11	12 57	13 41	1 3	
S 11	11 8	26 48	3 25	9 26	1 12	20 18	2 24	8 53	0 56	14 32	1 16	19 13	1 36	17 17	0 39	22 32	0 56	15 29	7 23	16 1	16 12	12 54	13 40	1 4	
S 12	10 46	24 46	2 30	8 35	1 3	20 16	2 19	8 35	0 56	14 33	1 16	19 14	1 36	17 17	0 39	22 32	0 56	15 29	7 23	16 0	16 13	12 51	13 40	1 4	
M13	10 24	21 41	1 29	7 43	0 55	20 13	2 14	8 17	0 56	14 33	1 16	19 14	1 36	17 16	0 39	22 32	0 56	15 29	7 23	16 0	16 14	12 48	13 39	1 5	
T 14	10 3	17 43	0 25	6 51	0 45	20 10	2 9	7 59	0 55	14 33	1 17	19 15	1 36	17 15	0 39	22 32	0 56	15 29	7 23	16 0	16 15	12 45	13 39	1 5	
W15	9 41	13 5	0s40	5 58	0 35	20 6	2 4	7 40	0 55	14 33	1 17	19 16	1 35	17 14	0 39	22 32	0 56	15 30	7 23	16 0	16 16	12 42	13 38	1 5	
T 16	9 18	7 58	1 43	5 4	0 25	20 1	2 0	7 22	0 54	14 33	1 17	19 17	1 35	17 13	0 39	22 32	0 56	15 30	7 22	16 0	16 17	12 39	13 38	1 6	
F 17	8 56	2 34	2 42	4 11	0 13	19 56	1 55	7 3	0 54	14 33	1 17	19 17	1 35	17 12	0 39	22 32	0 56	15 30	7 22	16 1	16 18	12 36	13 37	1 6	
S 18	8 34	2s57	3 35	3 17	0 2	19 50	1 50	6 45	0 54	14 33	1 17	19 18	1 35	17 11	0 39	22 33	0 56	15 30	7 22	16 2	16 19	12 32	13 37	1 7	
S 19	8 11	8 25	4 18	2 24	0n10	19 44	1 45	6 26	0 53	14 33	1 17	19 19	1 34	17 10	0 39	22 33	0 55	15 30	7 22	16 3	16 20	12 29	13 36	1 7	
M20	7 49	13 38	4 50	1 31	0 23	19 38	1 40	6 7	0 53	14 32	1 18	19 20	1 34	17 9	0 39	22 33	0 55	15 31	7 22	16 4	16 21	12 26	13 35	1 8	
T 21	7 26	18 23	5 9	0 40	0 36	19 31	1 35	5 49	0 52	14 32	1 18	19 20	1 34	17 8	0 39	22 33	0 55	15 31	7 21	16 5	16 22	12 23	13 35	1 8	
W22	7 3	22 25	5 14	0n11	0 49	19 23	1 30	5 30	0 52	14 32	1 18	19 21	1 34	17 7	0 39	22 33	0 55	15 31	7 21	16 6	16 23	12 20	13 34	1 8	
T 23	6 40	25 27	5 3	1 0	1 2	19 15	1 25	5 11	0 51	14 31	1 18	19 22	1 33	17 6	0 39	22 33	0 55	15 31	7 21	16 7	16 23	12 17	13 33	1 9	
F 24	6 17	27 12	4 36	1 47	1 16	19 6	1 21	4 53	0 51	14 31	1 18	19 23	1 33	17 5	0 39	22 33	0 55	15 31	7 21	16 7	16 24	12 14	13 32	1 9	
S 25	5 54	27 23	3 52	2 32	1 29	18 56	1 16	4 34	0 50	14 30	1 18	19 24	1 33	17 4	0 39	22 33	0 55	15 32	7 20	16 7	16 25	12 11	13 31	1 10	
S 26	5 31	25 51	2 54	3 14	1 42	18 47	1 11	4 15	0 50	14 30	1 19	19 25	1 33	17 3	0 39	22 33	0 55	15 32	7 20	16 6	16 26	12 8	13 30	1 10	
M27	5 7	22 36	1 44	3 54	1 55	18 36	1 6	3 56	0 50	14 29	1 19	19 26	1 32	17 3	0 39	22 33	0 55	15 32	7 20	16 6	16 27	12 5	13 30	1 11	
T 28	4s44	17s50	0s25	4n31	2n 8	18s25	1n 2	3s37	0s49	14s28	1n19	19n26	1s32	17s 2	0s39	22n33	0s55	15n32	7s20	16s 5	16s28	12n 2	13s29	1n11	

Julian Day Number = 2237187.5, Delta T = 07m32s

ASTRODIENST EPHEMERIS for the year 1413

geocentric

MARCH 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	11 8 42	19°3'27	26°20	7°21	4°41	23°34	12°R45	3°43	15°0	3°R35	16°32	16°R 0	14°40	25°54	9°R 9	W 1	
T 2	11 12 38	20° 3'06	11°27	8° 9	5°49	24°21	12°M43	3°47	15° 3	3°D34	16°33	15°58	14°37	26° 1	9°M 7	T 2	
F 3	11 16 35	21° 2'43	26°33	8°50	6°57	25° 7	12°41	3°50	15° 6	3°34	16°33	15°55	14°34	26° 7	9° 5	F 3	
S 4	11 20 31	22° 2'18	11°30	9°24	8° 5	25°54	12°39	3°54	15° 9	3°34	16°33	15°50	14°31	26°14	9° 3	S 4	
S 5	11 24 28	23° 1'51	26° 8	9°49	9°13	26°40	12°36	3°59	15°12	3°34	16°33	15°44	14°28	26°21	9° 0	S 5	
M 6	11 28 24	24° 1'21	10°21	10° 6	10°21	27°26	12°33	4° 3	15°15	3°D34	16°34	15°38	14°24	26°27	8°58	M 6	
T 7	11 32 21	25° 0'49	24° 6	10°16	11°30	28°13	12°30	4° 7	15°18	3°34	16°34	15°33	14°21	26°34	8°56	T 7	
W 8	11 36 18	26° 0'15	7°23	10°R18	12°38	28°59	12°27	4°11	15°21	3°34	16°34	15°30	14°18	26°41	8°53	W 8	
T 9	11 40 14	26°59'39	20°13	10°12	13°47	29°45	12°23	4°16	15°24	3°34	16°35	15°28	14°15	26°47	8°51	T 9	
F 10	11 44 11	27°59'00	2°41	9°58	14°56	0°31	12°20	4°21	15°26	3°34	16°35	15°D28	14°12	26°54	8°48	F 10	
S 11	11 48 7	28°58'19	14°51	9°38	16° 5	1°17	12°16	4°25	15°29	3°35	16°35	15°29	14° 9	27° 0	8°45	S 11	
S 12	11 52 4	29°57'36	26°49	9°12	17°13	2° 3	12°12	4°30	15°32	3°35	16°36	15°31	14° 5	27° 7	8°42	S 12	
M13	11 56 0	0°56'50	8°38	8°40	18°22	2°49	12° 8	4°35	15°34	3°35	16°36	15°32	14° 2	27°14	8°39	M13	
T 14	11 59 57	1°56'02	20°24	8° 2	19°32	3°35	12° 4	4°40	15°37	3°35	16°37	15°R32	13°59	27°20	8°36	T 14	
W15	12 3 53	2°55'12	2°12	7°21	20°41	4°21	12° 0	4°45	15°40	3°35	16°37	15°30	13°56	27°27	8°33	W15	
T 16	12 7 50	3°54'19	14° 3	6°37	21°50	5° 7	11°55	4°50	15°42	3°36	16°38	15°26	13°53	27°34	8°30	T 16	
F 17	12 11 47	4°53'25	26° 2	5°50	22°59	5°53	11°50	4°55	15°45	3°36	16°38	15°20	13°50	27°40	8°27	F 17	
S 18	12 15 43	5°52'28	8°09	5° 2	24° 9	6°39	11°46	5° 0	15°47	3°36	16°39	15°12	13°46	27°47	8°24	S 18	
S 19	12 19 40	6°51'29	20°27	4°13	25°18	7°25	11°41	5° 5	15°50	3°37	16°39	15° 3	13°43	27°54	8°20	S 19	
M20	12 23 36	7°50'28	2°55	3°25	26°28	8°10	11°36	5°11	15°52	3°37	16°40	14°53	13°40	28° 0	8°17	M20	
T 21	12 27 33	8°49'25	15°35	2°38	27°38	8°56	11°30	5°16	15°55	3°38	16°41	14°44	13°37	28° 7	8°13	T 21	
W22	12 31 29	9°48'21	28°27	1°54	28°47	9°42	11°25	5°22	15°57	3°38	16°41	14°36	13°34	28°14	8°10	W22	
T 23	12 35 26	10°47'14	11°23	1°13	29°57	10°27	11°19	5°27	16° 0	3°39	16°42	14°30	13°30	28°20	8° 6	T 23	
F 24	12 39 22	11°46'06	24°50	0°35	1°18	11°13	11°14	5°33	16° 2	3°40	16°43	14°26	13°27	28°27	8° 2	F 24	
S 25	12 43 19	12°44'56	8°24	0° 2	2°17	11°58	11° 8	5°38	16° 4	3°40	16°43	14°D25	13°24	28°34	7°58	S 25	
S 26	12 47 16	13°43'45	22°14	29°33	3°27	12°44	11° 2	5°44	16° 6	3°41	16°44	14°25	13°21	28°40	7°55	S 26	
M27	12 51 12	14°42'32	6°21	29° 9	4°37	13°29	10°56	5°50	16° 9	3°41	16°45	14°26	13°18	28°47	7°51	M27	
T 28	12 55 9	15°41'17	20°44	28°50	5°48	14°15	10°50	5°56	16°11	3°42	16°46	14°R26	13°15	28°53	7°47	T 28	
W29	12 59 5	16°40'00	5°21	28°36	6°58	15° 0	10°43	6° 2	16°13	3°43	16°46	14°24	13°11	29° 0	7°43	W29	
T 30	13 3 2	17°38'41	20° 8	28°27	8° 8	15°45	10°37	6° 8	16°15	3°44	16°47	14°20	13° 8	29° 7	7°39	T 30	
F 31	13 6 58	18°37'21	4°57	28°D24	9°19	16°31	10°M30	6°14	16°17	3°45	16°48	14°13	13° 5	29°13	7°M34	F 31	

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	4s21	11s54	0n56	5n 4	2n20	18s14	0n57	3s18	0s49	14s28	1n19	19n27	1s32	17s 1	0s39	22n33	0s55	15n33	7s20	16s 5	16s29	11n59	13s28	1n12			
T 2	3 57	5 13	2 15	5 34	2 32	18 2	0 52	2 59	0 48	14 27	1 19	19 28	1 32	17 0	0 39	22 33	0 55	15 33	7 19	16 6	16 30	11 56	13 27	1 12			
F 3	3 34	1n44	3 23	6 0	2 42	17 50	0 48	2 40	0 48	14 26	1 19	19 29	1 32	16 59	0 39	22 33	0 55	15 33	7 19	16 7	16 31	11 53	13 26	1 12			
S 4	3 10	8 30	4 17	6 22	2 52	17 37	0 43	2 22	0 47	14 25	1 20	19 30	1 31	16 58	0 39	22 33	0 55	15 33	7 19	16 9	16 32	11 50	13 24	1 13			
S 5	2 47	14 40	4 53	6 41	3 1	17 23	0 39	2 3	0 47	14 24	1 20	19 31	1 31	16 57	0 39	22 33	0 55	15 34	7 19	16 10	16 33	11 47	13 23	1 13			
M 6	2 23	19 52	5 10	6 55	3 9	17 9	0 34	1 44	0 46	14 23	1 20	19 32	1 31	16 57	0 39	22 33	0 55	15 34	7 19	16 12	16 34	11 44	13 22	1 14			
T 7	1 59	23 49	5 8	7 5	3 16	16 55	0 30	1 25	0 46	14 22	1 20	19 33	1 31	16 56	0 39	22 33	0 55	15 34	7 18	16 13	16 35	11 41	13 21	1 14			
W 8	1 36	26 22	4 49	7 10	3 21	16 40	0 25	1 6	0 45	14 21	1 20	19 34	1 30	16 55	0 39	22 33	0 55	15 34	7 18	16 14	16 36	11 37	13 20	1 15			
T 9	1 12	27 25	4 16	7 11	3 25	16 25	0 21	0 47	0 45	14 20	1 20	19 35	1 30	16 54	0 39	22 33	0 55	15 34	7 18	16 15	16 37	11 34	13 19	1 15			
F 10	0 48	27 1	3 32	7 8	3 27	16 9	0 17	0 28	0 44	14 19	1 20	19 36	1 30	16 53	0 40	22 33	0 55	15 35	7 18	16 15	16 37	11 31	13 17	1 15			
S 11	0 25	25 19	2 39	7 1	3 28	15 52	0 12	0 9	0 44	14 17	1 21	19 38	1 30	16 53	0 40	22 33	0 55	15 35	7 18	16 15	16 38	11 28	13 16	1 16			
S 12	0 1	22 30	1 40	6 49	3 27	15 36	0 8	0n10	0 43	14 16	1 21	19 39	1 29	16 52	0 40	22 34	0 55	15 35	7 17	16 14	16 39	11 25	13 15	1 16			
M13	0n23	18 46	0 37	6 34	3 24	15 18	0 4	0 29	0 43	14 15	1 21	19 40	1 29	16 51	0 40	22 34	0 55	15 35	7 17	16 14	16 40	11 22	13 13	1 17			
T 14	0 46	14 19	0s26	6 15	3 19	15 1	0s 0	0 47	0 42	14 13	1 21	19 41	1 29	16 50	0 40	22 34	0 55	15 36	7 17	16 14	16 41	11 19	13 12	1 17			
W15	1 10	9 21	1 29	5 53	3 13	14 43	0 4	1 6	0 42	14 12	1 21	19 42	1 29	16 49	0 40	22 34	0 55	15 36	7 17	16 14	16 42	11 16	13 11	1 18			
T 16	1 33	4 1	2 28	5 28	3 5	14 24	0 8	1 25	0 41	14 10	1 21	19 43	1 29	16 49	0 40	22 34	0 54	15 36	7 16	16 16	16 43	11 13	13 9	1 18			
F 17	1 57	1s29	3 21	5 1	2 56	14 5	0 12	1 44	0 40	14 9	1 21	19 44	1 28	16 48	0 40	22 34	0 54	15 36	7 16	16 17	16 44	11 10	13 8	1 18			
S 18	2 20	7 0	4 5	4 31	2 45	13 46	0 16	2 2	0 40	14 7	1 21	19 45	1 28	16 47	0 40	22 34	0 54	15 37	7 16	16 20	16 45	11 7	13 6	1 19			
S 19	2 44	12 18	4 38	4 1	2 33	13 26	0 20	2 21	0 39	14 6	1 21	19 46	1 28	16 46	0 40	22 34	0 54	15 37	7 16	16 22	16 46	11 4	13 5	1 19			
M20	3 7	17 12	4 59	3 29	2 19	13 6	0 23	2 39	0 39	14 4	1 22	19 48	1 28	16 46	0 40	22 34	0 54	15 37	7 16	16 25	16 47	11 0	13 3	1 20			
T 21	3 31	21 26	5 6	2 58	2 5	12 45	0 27	2 58	0 38	14 2	1 22	19 49	1 28	16 45	0 40	22 34	0 54	15 37	7 15	16 28	16 48	10 57	13 2	1 20			
W22	3 54	24 42	4 57	2 26	1 50	12 25	0 30	3 17	0 38	14 1	1 22	19 50	1 27	16 44	0 40	22 34	0 54	15 38	7 15	16 30	16 48	10 54	13 0	1 20			
T 23	4 17	26 44	4 33	1 55	1 34	12 3	0 34	3 35	0 37	13 59	1 22	19 51	1 27	16 44	0 40	22 34	0 54	15 38	7 15	16 32	16 49	10 51	12 59	1 21			
F 24	4 40	27 18	3 53	1 26	1 18	11 42	0 37	3 53	0 37	13 57	1 22	19 52	1 27	16 43	0 40	22 34	0 54	15 38	7 15	16 33	16 50	10 48	12 57	1 21			
S 25	5 3	26 15	3 0	0 57	1 2	11 20	0 41	4 12	0 36	13 55	1 22	19 53	1 27	16 42	0 40	22 34	0 54	15 39	7 15	16 34	16 51	10 45	12 55	1 22			
S 26	5 26	23 35	1 56	0 31	0 45	10 57	0 44	4 30	0 36	13 53	1 22	19 55	1 27	16 42	0 40	22 34	0 54	15 39	7 15	16 34	16 52	10 42	12 54	1 22			
M27	5 49	19 26	0 43	0 6	0 29	10 35	0 47	4 48	0 35	13 51	1 22	19 56	1 26	16 41	0 40	22 34	0 54	15 39	7 14	16 33	16 53	10 39	12 52	1 22			
T 28	6 12	14 6	0n34	0s16	0 13	10 12	0 50	5 6	0 34	13 49	1 22	19 57	1 26	16 41	0 40	22 34	0 54	15 39	7 14	16 33	16 54	10 36	12 51	1 23			
W29	6 34	7 53	1 49	0 36	0s 3	9 49	0 53	5 25	0 34	13 47	1 22	19 58	1 26	16 40	0 40	22 34	0 54	15 40	7 14	16 34	16 55	10 32	12 49	1 23			
T 30	6 57	1 11	2 58	0 0	0 3	18 9	0 56	5 43	0 33	13 45	1 22	20 0	1 26	16 39	0 40	22 34	0 54	15 40	7 14	16 35	16 56	10 29	12 47	1 24			
F 31	7n19	5n34	3n55	1s 8	0s32	9s 1	0s59	6n 1	0s33	13s43	1n22	20n 1	1s26	16s39	0s40	22n34	0s54	15n40	7s14	16s37	16s57	10n26	12s45	1n24			

ASTRODIENST EPHEMERIS for the year 1413

geocentric

APRIL 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	13 10 55	19°35'58	19°41	28°25	10°29	17°16	10°R24	6°120	16°19	3°45	16°49	14°R 4	13°2	29°20	7°R30	S 1
S 2	13 14 51	20°34'34	4°13	28°32	11°39	18° 1	10°17	6°27	16°21	3°46	16°50	13°54	12°59	29°27	7°M26	S 2
M 3	13 18 48	21°33'08	18°24	28°44	12°50	18°46	10°10	6°33	16°23	3°47	16°51	13°44	12°56	29°33	7°22	M 3
T 4	13 22 45	22°31'39	2°10	29° 0	14° 1	19°31	10° 3	6°39	16°25	3°48	16°51	13°34	12°52	29°40	7°17	T 4
W 5	13 26 41	23°30'09	15°30	29°22	15°11	20°16	9°56	6°46	16°27	3°49	16°52	13°27	12°49	29°47	7°13	W 5
T 6	13 30 38	24°28'37	28°24	29°47	16°22	21° 1	9°49	6°52	16°28	3°50	16°53	13°21	12°46	29°53	7° 9	T 6
F 7	13 34 34	25°27'02	10°55	0°17	17°33	21°46	9°42	6°59	16°30	3°51	16°54	13°19	12°43	29°59	7° 4	F 7
S 8	13 38 31	26°25'25	23° 6	0°51	18°43	22°31	9°35	7° 5	16°32	3°52	16°55	13°D18	12°40	0°7	7° 0	S 8
S 9	13 42 27	27°23'46	5° 5	1°29	19°54	23°15	9°27	7°12	16°34	3°53	16°56	13°18	12°36	0°13	6°55	S 9
M10	13 46 24	28°22'05	16°55	2°11	21° 5	24° 0	9°20	7°18	16°35	3°54	16°57	13°R18	12°33	0°20	6°51	M10
T 11	13 50 20	29°20'22	28°42	2°56	22°16	24°45	9°13	7°25	16°37	3°55	16°58	13°17	12°30	0°27	6°47	T 11
W12	13 54 17	0°18'37	10°32	3°45	23°27	25°30	9° 5	7°32	16°38	3°57	16°59	13°14	12°27	0°33	6°42	W12
T 13	13 58 13	1°16'49	22°28	4°37	24°38	26°14	8°58	7°39	16°40	3°58	17° 0	13° 8	12°24	0°40	6°38	T 13
F 14	14 2 10	2°15'00	4°34	5°33	25°49	26°59	8°50	7°46	16°41	3°59	17° 1	13° 0	12°21	0°47	6°33	F 14
S 15	14 6 7	3°13'09	16°52	6°31	27° 0	27°43	8°43	7°53	16°43	4° 0	17° 2	12°50	12°17	0°53	6°28	S 15
S 16	14 10 3	4°11'16	29°24	7°32	28°11	28°27	8°35	8° 0	16°44	4° 2	17° 3	12°37	12°14	1° 0	6°24	S 16
M17	14 14 0	5° 9'22	12°11	8°37	29°22	29°12	8°28	8° 7	16°45	4° 3	17° 4	12°24	12°11	1° 7	6°19	M17
T 18	14 17 56	6° 7'25	25°10	9°43	0°33	29°56	8°20	8°14	16°47	4° 4	17° 6	12°12	12° 8	1°13	6°15	T 18
W19	14 21 53	7° 5'28	8°23	10°53	1°44	0°40	8°12	8°21	16°48	4° 6	17° 7	12° 1	12° 5	1°20	6°10	W19
T 20	14 25 49	8° 3'28	21°46	12° 5	2°56	1°25	8° 5	8°28	16°49	4° 7	17° 8	11°52	12° 1	1°26	6° 6	T 20
F 21	14 29 46	9° 1'28	5°20	13°20	4° 7	2° 9	7°57	8°35	16°50	4° 8	17° 9	11°47	11°58	1°33	6° 1	F 21
S 22	14 33 43	9°59'26	19° 3	14°37	5°18	2°53	7°49	8°42	16°51	4°10	17°10	11°44	11°55	1°40	5°57	S 22
S 23	14 37 39	10°57'22	2°56	15°56	6°30	3°37	7°42	8°49	16°52	4°11	17°11	11°43	11°52	1°46	5°52	S 23
M24	14 41 36	11°55'18	16°58	17°18	7°41	4°21	7°34	8°57	16°53	4°13	17°12	11°43	11°49	1°53	5°48	M24
T 25	14 45 32	12°53'12	1° 8	18°42	8°52	5° 5	7°26	9° 4	16°54	4°14	17°14	11°43	11°46	2° 0	5°43	T 25
W26	14 49 29	13°51'04	15°26	20° 9	10° 4	5°49	7°19	9°11	16°55	4°16	17°15	11°40	11°42	2° 6	5°39	W26
T 27	14 53 25	14°48'56	29°50	21°37	11°15	6°33	7°11	9°19	16°56	4°17	17°16	11°36	11°39	2°13	5°34	T 27
F 28	14 57 22	15°46'46	14°14	23° 8	12°27	7°17	7° 4	9°26	16°56	4°19	17°17	11°28	11°36	2°20	5°30	F 28
S 29	15 1 18	16°44'35	28°34	24°41	13°38	8° 0	6°56	9°34	16°57	4°21	17°19	11°18	11°33	2°26	5°25	S 29
S 30	15 5 15	17°42'22	12°45	26°16	14°50	8°44	6°149	9°141	16°58	4°22	17°20	11°11	11°30	2°33	5°121	S 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	7n42	11n59	4n36	1s20	0s47	8s37	1 s 2	6n18	0s32	13s41	1n22	20n 2	1s25	16s38	0s40	22n34	0s54	15n40	7s13	16s40	16s58	10n23	12s44	1n24					
S 2	8 4	17 39	4 59	1 30	1 0	8 13	1 5	6 36	0 31	13 39	1 22	20 3	1 25	16 38	0 40	22 34	0 54	15 41	7 13	16 43	16 58	10 20	12 42	1 25					
M 3	8 26	22 11	5 2	1 37	1 13	7 48	1 8	6 54	0 31	13 37	1 22	20 4	1 25	16 37	0 40	22 34	0 54	15 41	7 13	16 46	16 59	10 17	12 40	1 25					
T 4	8 48	25 21	4 47	1 42	1 25	7 23	1 10	7 12	0 30	13 34	1 22	20 6	1 25	16 37	0 40	22 34	0 54	15 41	7 13	16 48	17 0	10 14	12 39	1 26					
W 5	9 9	26 59	4 17	1 44	1 36	6 58	1 13	7 29	0 30	13 32	1 22	20 7	1 25	16 36	0 40	22 34	0 54	15 41	7 13	16 50	17 1	10 11	12 37	1 26					
T 6	9 31	27 5	3 35	1 43	1 47	6 33	1 15	7 47	0 29	13 30	1 22	20 8	1 25	16 35	0 40	22 34	0 54	15 42	7 12	16 52	17 2	10 8	12 35	1 26					
F 7	9 52	25 47	2 43	1 40	1 57	6 7	1 17	8 4	0 29	13 28	1 22	20 9	1 24	16 35	0 40	22 34	0 54	15 42	7 12	16 53	17 3	10 4	12 33	1 27					
S 8	10 14	23 16	1 45	1 35	2 6	5 42	1 20	8 21	0 28	13 25	1 23	20 11	1 24	16 34	0 40	22 34	0 54	15 42	7 12	16 53	17 4	10 1	12 31	1 27					
S 9	10 35	19 46	0 44	1 28	2 14	5 16	1 22	8 39	0 27	13 23	1 22	20 12	1 24	16 34	0 40	22 34	0 54	15 42	7 12	16 53	17 5	9 58	12 30	1 27					
M10	10 56	15 31	0s19	1 18	2 22	4 50	1 24	8 56	0 27	13 21	1 22	20 13	1 24	16 34	0 40	22 34	0 53	15 43	7 12	16 53	17 6	9 55	12 28	1 28					
T 11	11 16	10 42	1 21	1 6	2 29	4 24	1 26	9 13	0 26	13 19	1 22	20 15	1 24	16 33	0 41	22 34	0 53	15 43	7 12	16 53	17 7	9 52	12 26	1 28					
W12	11 37	5 30	2 19	0 52	2 35	3 57	1 28	9 30	0 26	13 16	1 22	20 16	1 24	16 33	0 41	22 34	0 53	15 43	7 11	16 54	17 7	9 49	12 24	1 29					
T 13	11 57	0 4	3 12	0 37	2 41	3 31	1 30	9 46	0 25	13 14	1 22	20 17	1 23	16 32	0 41	22 34	0 53	15 43	7 11	16 56	17 8	9 46	12 22	1 29					
F 14	12 18	5s26	3 56	0 19	2 45	3 4	1 31	10 3	0 24	13 11	1 22	20 18	1 23	16 32	0 41	22 34	0 53	15 44	7 11	16 58	17 9	9 43	12 21	1 29					
S 15	12 38	10 49	4 31	0n 0	2 49	2 37	1 33	10 20	0 24	13 9	1 22	20 20	1 23	16 32	0 41	22 34	0 53	15 44	7 11	17 1	17 10	9 39	12 19	1 30					
S 16	12 57	15 51	4 53	0 21	2 53	2 10	1 35	10 36	0 23	13 7	1 22	20 21	1 23	16 31	0 41	22 34	0 53	15 44	7 11	17 5	17 11	9 36	12 17	1 30					
M17	13 17	20 18	5 0	0 44	2 55	1 43	1 36	10 52	0 22	13 4	1 22	20 22	1 23	16 31	0 41	22 34	0 53	15 44	7 11	17 8	17 12	9 33	12 15	1 30					
T 18	13 36	23 51	4 53	1 9	2 57	1 16	1 37	11 9	0 22	13 2	1 22	20 23	1 23	16 30	0 41	22 34	0 53	15 45	7 11	17 12	17 13	9 30	12 13	1 31					
W19	13 55	26 13	4 30	1 35	2 59	0 49	1 39	11 25	0 21	12 59	1 22	20 25	1 23	16 30	0 41	22 34	0 53	15 45	7 10	17 15	17 14	9 27	12 11	1 31					
T 20	14 14	27 7	3 51	2 2	2 59	0 22	1 40	11 41	0 21	12 57	1 22	20 26	1 22	16 30	0 41	22 34	0 53	15 45	7 10	17 17	17 15	9 24	12 10	1 31					
F 21	14 33	26 24	3 0	2 31	2 59	0n 6	1 41	11 57	0 20	12 55	1 22	20 27	1 22	16 29	0 41	22 34	0 53	15 45	7 10	17 19	17 15	9 21	12 8	1 32					
S 22	14 52	24 5	1 57	3 2	2 59	0 33	1 42	12 12	0 19	12 52	1 22	20 28	1 22	16 29	0 41	22 34	0 53	15 46	7 10	17 19	17 16	9 17	12 6	1 32					
S 23	15 10	20 19	0 46	3 33	2 58	1 1	1 43	12 28	0 19	12 50	1 22	20 30	1 22	16 29	0 41	22 34	0 53	15 46	7 10	17 20	17 17	9 14	12 4	1 32					
M24	15 28	15 22	0n28	4 6	2 56	1 28	1 44	12 44	0 18	12 47	1 22	20 31	1 22	16 29	0 41	22 34	0 53	15 46	7 10	17 20	17 18	9 11	12 2	1 32					
T 25	15 45	9 32	1 41	4 41	2 54	1 55	1 45	12 59	0 17	12 45	1 22	20 32	1 22	16 28	0 41	22 34	0 53	15 46	7 10	17 20	17 19	9 8	12 1	1 33					
W26	16 3	3 10	2 48	5 16	2 51	2 23	1 45	13 14	0 17	12 43	1 22	20 33	1 22	16 28	0 41	22 34	0 53	15 47	7 9	17 20	17 20	9 5	11 59	1 33					
T 27	16 20	3n22	3 45	5 52	2 47	2 50	1 46	13 29	0 16	12 40	1 21	20 35	1 21	16 28	0 41	22 34	0 53	15 47	7 9	17 22	17 21	9 2	11 57	1 33					
F 28	16 37	9 44	4 28	6 30	2 43	3 18	1 47	13 44	0 16	12 38	1 21	20 36	1 21	16 28	0 41	22 34	0 53	15 47	7 9	17 24	17 22	8 59	11 55	1 34					
S 29	16 54	15 34	4 53	7 8	2 38	3 45	1 47	13 59	0 15	12 36	1 21	20 37	1 21	16 28	0 41	22 34	0 53	15 47	7 9	17 27	17 23	8 55	11 54	1 34					
S 30	17n10	20n29	5n 0	7n48	2s33	4n13	1s47	14n14	0s14	12s33	1n21	20n38	1s21	16s27	0s41	22n34	0s53	15n48	7s 9	17s30	17s23	8n52	11s52	1n34					

ASTRODIENST EPHEMERIS for the year 1413

geocentric

MAY 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	15 9 11	18°40'09	26°40	27°53	16°2	9°828	6°R42	9°II49	16°559	4°224	17°II21	10°R55	11°27	2°40	5°R17	M 1
T 2	15 13 8	19°37'54	10°II16	29°33	17°13	10°11	6°II34	9°56	16°59	4°26	17°22	10°44	11°23	2°46	5°II12	T 2
W 3	15 17 5	20°35'37	23°29	1°14	18°25	10°55	6°27	10° 4	17° 0	4°27	17°24	10°35	11°20	2°53	5° 8	W 3
T 4	15 21 1	21°33'19	6°20	2°58	19°37	11°38	6°20	10°11	17° 0	4°29	17°25	10°28	11°17	3° 0	5° 4	T 4
F 5	15 24 58	22°30'59	18°50	4°44	20°48	12°22	6°13	10°19	17° 1	4°31	17°26	10°24	11°14	3° 6	4°59	F 5
S 6	15 28 54	23°28'38	1°12	6°32	22° 0	13° 5	6° 6	10°26	17° 1	4°33	17°28	10°22	11°11	3°13	4°55	S 6
S 7	15 32 51	24°26'15	13° 1	8°23	23°12	13°48	5°59	10°34	17° 1	4°34	17°29	10°D22	11° 7	3°20	4°51	S 7
M 8	15 36 47	25°23'51	24°53	10°15	24°24	14°32	5°52	10°42	17° 2	4°36	17°30	10°R22	11° 4	3°26	4°47	M 8
T 9	15 40 44	26°21'25	6°42	12° 9	25°35	15°15	5°45	10°49	17° 2	4°38	17°32	10°22	11° 1	3°33	4°43	T 9
W10	15 44 41	27°18'58	18°33	14° 6	26°47	15°58	5°38	10°57	17° 2	4°40	17°33	10°20	10°58	3°40	4°39	W10
T 11	15 48 37	28°16'30	0°33	16° 4	27°59	16°41	5°32	11° 5	17° 2	4°42	17°34	10°16	10°55	3°46	4°35	T 11
F 12	15 52 34	29°14'00	12°44	18° 5	29°11	17°24	5°25	11°13	17° 2	4°44	17°36	10° 9	10°52	3°53	4°31	F 12
S 13	15 56 30	0°II11'28	25°11	20° 7	0°823	18° 7	5°19	11°20	17°R 2	4°45	17°37	10° 0	10°48	4° 0	4°28	S 13
S 14	16 0 27	1° 8'56	7°II56	22°12	1°35	18°50	5°12	11°28	17° 2	4°47	17°38	9°49	10°45	4° 6	4°24	S 14
M15	16 4 23	2° 6'22	20°59	24°18	2°47	19°33	5° 6	11°36	17° 2	4°49	17°40	9°38	10°42	4°13	4°20	M15
T 16	16 8 20	3° 3'48	4°19	26°25	3°59	20°16	5° 0	11°44	17° 2	4°51	17°41	9°27	10°39	4°20	4°17	T 16
W17	16 12 16	4° 1'12	17°54	28°34	5°11	20°58	4°54	11°51	17° 2	4°53	17°42	9°18	10°36	4°26	4°13	W17
T 18	16 16 13	4°58'36	1°34	0°II44	6°23	21°41	4°49	11°59	17° 2	4°55	17°44	9°11	10°33	4°33	4°10	T 18
F 19	16 20 10	5°55'59	15°39	2°55	7°35	22°24	4°43	12° 7	17° 1	4°57	17°45	9° 6	10°29	4°39	4° 6	F 19
S 20	16 24 6	6°53'21	29°42	5° 6	8°47	23° 6	4°37	12°15	17° 1	4°59	17°47	9° 4	10°26	4°46	4° 3	S 20
S 21	16 28 3	7°50'42	13°48	7°18	9°59	23°49	4°32	12°23	17° 1	5° 1	17°48	9°D 4	10°23	4°53	4° 0	S 21
M22	16 31 59	8°48'03	27°57	9°30	11°11	24°32	4°27	12°31	17° 0	5° 3	17°49	9° 5	10°20	4°59	3°56	M22
T 23	16 35 56	9°45'23	12°16	11°42	12°23	25°14	4°21	12°38	17° 0	5° 5	17°51	9°R 5	10°17	5° 6	3°53	T 23
W24	16 39 52	10°42'43	26°14	13°53	13°35	25°56	4°16	12°46	17° 0	5° 7	17°52	9° 4	10°13	5°13	3°50	W24
T 25	16 43 49	11°40'02	10°12	16° 4	14°47	26°39	4°12	12°54	16°59	5° 9	17°54	9° 1	10°10	5°19	3°47	T 25
F 26	16 47 45	12°37'21	24°22	18°14	16° 0	27°21	4° 7	13° 2	16°58	5°11	17°55	8°55	10° 7	5°26	3°45	F 26
S 27	16 51 42	13°34'40	8°16	20°23	17°12	28° 3	4° 2	13°10	16°58	5°14	17°57	8°48	10° 4	5°33	3°42	S 27
S 28	16 55 39	14°31'58	22° 1	22°30	18°24	28°45	3°58	13°18	16°57	5°16	17°58	8°40	10° 1	5°39	3°39	S 28
M29	16 59 35	15°29'15	5°II32	24°36	19°37	29°28	3°54	13°26	16°56	5°18	17°59	8°31	9°58	5°46	3°36	M29
T 30	17 3 32	16°26'32	18°47	26°40	20°49	0°II10	3°50	13°33	16°56	5°20	18° 1	8°22	9°54	5°53	3°34	T 30
W31	17 7 28	17°II23'49	1°34	28°II43	22°8	0°II52	3°II46	13°II41	16°55	5°22	18°II 2	8°516	9°51	5°59	3°II31	W31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	17n26	24n10	4n49	8n28	2s27	4n40	1s48	14n28	0s14	12s31	1n21	20n40	1s21	16s27	0s41	22n34
T 2	17 42	26 23	4 22	9 9	2 21	5 7	1 48	14 43	0 13	12 29	1 21	20 41	1 21	16 27	0 41	22 34
W 3	17 57	27 2	3 41	9 51	2 14	5 35	1 48	14 57	0 12	12 27	1 21	20 42	1 21	16 27	0 41	22 34
T 4	18 13	26 12	2 50	10 33	2 7	6 2	1 48	15 11	0 12	12 24	1 21	20 43	1 21	16 27	0 41	22 34
F 5	18 28	24 2	1 52	11 16	1 59	6 29	1 48	15 25	0 11	12 22	1 20	20 44	1 20	16 27	0 41	22 34
S 6	18 42	20 48	0 49	11 59	1 51	6 56	1 48	15 39	0 11	12 20	1 20	20 46	1 20	16 27	0 41	22 34
S 7	18 56	16 44	0s14	12 43	1 43	7 22	1 48	15 53	0 10	12 18	1 20	20 47	1 20	16 27	0 42	22 34
M 8	19 10	12 4	1 16	13 27	1 34	7 49	1 47	16 6	0 9	12 16	1 20	20 48	1 20	16 27	0 42	22 34
T 9	19 24	7 0	2 15	14 12	1 24	8 16	1 47	16 19	0 9	12 14	1 20	20 49	1 20	16 27	0 42	22 34
W10	19 37	1 39	3 8	14 56	1 15	8 42	1 47	16 33	0 8	12 12	1 20	20 50	1 20	16 27	0 42	22 34
T 11	19 50	3s47	3 54	15 40	1 5	9 8	1 46	16 46	0 7	12 9	1 19	20 52	1 20	16 27	0 42	22 34
F 12	20 3	9 10	4 29	16 24	0 55	9 34	1 46	16 58	0 7	12 8	1 19	20 53	1 20	16 27	0 42	22 34
S 13	20 15	14 19	4 53	17 7	0 44	10 0	1 45	17 11	0 6	12 6	1 19	20 54	1 20	16 27	0 42	22 33
S 14	20 27	18 57	5 2	17 50	0 33	10 26	1 44	17 24	0 5	12 4	1 19	20 55	1 20	16 27	0 42	22 33
M15	20 39	22 49	4 57	18 32	0 23	10 51	1 43	17 36	0 5	12 2	1 19	20 56	1 19	16 27	0 42	22 33
T 16	20 50	25 34	4 35	19 13	0 12	11 17	1 43	17 48	0 4	12 0	1 19	20 57	1 19	16 27	0 42	22 33
W17	21 1	26 54	3 57	19 53	0 1	11 42	1 42	18 0	0 3	11 58	1 18	20 58	1 19	16 27	0 42	22 33
T 18	21 12	26 36	3 5	20 31	0n 9	12 6	1 41	18 12	0 3	11 56	1 18	21 0	1 19	16 27	0 42	22 33
F 19	21 22	24 37	2 2	21 8	0 20	12 31	1 40	18 24	0 2	11 55	1 18	21 1	1 19	16 27	0 42	22 33
S 20	21 32	21 6	0 50	21 43	0 30	12 55	1 38	18 35	0 2	11 53	1 18	21 2	1 19	16 27	0 42	22 33
S 21	21 41	16 20	0n25	22 15	0 40	13 19	1 37	18 46	0 1	11 51	1 17	21 3	1 19	16 27	0 42	22 33
M22	21 50	10 40	1 39	22 46	0 50	13 43	1 36	18 58	0 0	11 50	1 17	21 4	1 19	16 27	0 42	22 33
T 23	21 59	4 28	2 47	23 14	0 59	14 6	1 35	19 8	0n 0	11 48	1 17	21 5	1 19	16 28	0 42	22 33
W24	22 7	1n56	3 45	23 39	1 7	14 29	1 33	19 19	0 1	11 47	1 17	21 6	1 19	16 28	0 42	22 33
T 25	22 15	8 13	4 28	24 2	1 15	14 52	1 32	19 30	0 2	11 45	1 17	21 7	1 19	16 28	0 42	22 33
F 26	22 23	14 3	4 56	24 22	1 23	15 14	1 30	19 40	0 2	11 44	1 16	21 8	1 18	16 28	0 42	22 33
S 27	22 30	19 7	5 5	24 40	1 30	15 36	1 29	19 50	0 3	11 43	1 16	21 9	1 18	16 28	0 42	22 33
S 28	22 37	23 7	4 57	24 54	1 36	15 58	1 27	20 0	0 4	11 42	1 16	21 10	1 18	16 29	0 42	22 33
M29	22 43	25 46	4 33	25 6	1 41	16 19	1 25	20 10	0 4	11 40	1 16	21 11	1 18	16 29	0 42	22 33
T 30	22 49	26 55	3 54	25 15	1 46	16 40	1 24	20 20	0 5	11 39	1 15	21 12	1 18	16 29	0 42	22 33
W31	22n55	26n33	3n 3	25n21	1n50	17n 1	1s22	20n29	0n 6	11s38	1n15	21n13	1s18	16s29	0s42	22n32

Julian Day Number = 2237276.5, Delta T = 07m32s

Ecliptic obliquity = 23°31'02, Nutation = 0°00'11, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 16°33'22, Lahiri = 15°40'23 Julian Calendar 1 May 1413 == Greg. Calendar 10 May 1413

ASTRODIENST EPHEMERIS for the year 1413
geocentric

JUNE 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	17 11 25	18 ^{II} 21'05	14 [☾] 25	0 [☿] 43	23 [♂] 14	1 [♂] 34	3°R42	13 ^{II} 49	16°R54	5 [☾] 24	18 ^{II} 4	8°R11	9 [☾] 48	6 [♂] 6	3°R29	T 1
F 2	17 15 21	19°18'20	26°48	2°41	24°26	2°16	3 ^{III} 39	13°57	16 [☾] 53	5°26	18° 5	8 [☾] 8	9°45	6°13	3 ^{III} 27	F 2
S 3	17 19 18	20°15'35	8 [♂] 57	4°38	25°38	2°58	3°35	14° 5	16°52	5°28	18° 7	8°D 7	9°42	6°19	3°25	S 3
S 4	17 23 14	21°12'49	20°55	6°32	26°51	3°39	3°32	14°13	16°51	5°31	18° 8	8° 8	9°39	6°26	3°23	S 4
M 5	17 27 11	22°10'02	2 ^{III} 47	8°24	28° 3	4°21	3°29	14°20	16°50	5°33	18° 9	8° 9	9°35	6°33	3°21	M 5
T 6	17 31 8	23° 7'14	14°36	10°14	29°16	5° 3	3°26	14°28	16°49	5°35	18°11	8°11	9°32	6°39	3°19	T 6
W 7	17 35 4	24° 4'26	26°28	12° 1	0 ^{II} 28	5°44	3°23	14°36	16°48	5°37	18°12	8°R11	9°29	6°46	3°17	W 7
T 8	17 39 1	25° 1'38	8 [♂] 29	13°47	1°41	6°26	3°21	14°44	16°47	5°39	18°14	8°10	9°26	6°53	3°15	T 8
F 9	17 42 57	25°58'49	20°43	15°30	2°53	7° 8	3°18	14°52	16°46	5°42	18°15	8° 7	9°23	6°59	3°14	F 9
S 10	17 46 54	26°55'59	3 ^{III} 13	17°11	4° 6	7°49	3°16	14°59	16°44	5°44	18°16	8° 3	9°19	7° 6	3°12	S 10
S 11	17 50 50	27°53'09	16° 4	18°49	5°19	8°31	3°14	15° 7	16°43	5°46	18°18	7°57	9°16	7°13	3°11	S 11
M12	17 54 47	28°50'19	29°17	20°26	6°31	9°12	3°12	15°15	16°42	5°48	18°19	7°51	9°13	7°19	3°10	M12
T 13	17 58 43	29°47'28	12 [♂] 52	22° 0	7°44	9°53	3°11	15°22	16°40	5°50	18°21	7°45	9°10	7°26	3° 8	T 13
W14	18 2 40	0 [☾] 44'38	26°46	23°32	8°57	10°35	3° 9	15°30	16°39	5°53	18°22	7°40	9° 7	7°33	3° 7	W14
T 15	18 6 37	1°41'47	10 [☾] 57	25° 1	10° 9	11°16	3° 8	15°38	16°37	5°55	18°24	7°36	9° 4	7°39	3° 6	T 15
F 16	18 10 33	2°38'56	25°19	26°28	11°22	11°57	3° 7	15°45	16°36	5°57	18°25	7°34	9° 0	7°46	3° 5	F 16
S 17	18 14 30	3°36'06	9 [☾] 48	27°53	12°35	12°38	3° 6	15°53	16°34	5°59	18°26	7°D33	8°57	7°53	3° 5	S 17
S 18	18 18 26	4°33'15	24°17	29°15	13°48	13°19	3° 5	16° 1	16°33	6° 2	18°28	7°34	8°54	7°59	3° 4	S 18
M19	18 22 23	5°30'25	8 [♂] 43	0 [♂] 35	15° 0	14° 0	3° 4	16° 8	16°31	6° 4	18°29	7°35	8°51	8° 6	3° 3	M19
T 20	18 26 19	6°27'35	23° 2	1°53	16°13	14°41	3° 4	16°16	16°30	6° 6	18°30	7°36	8°48	8°13	3° 3	T 20
W21	18 30 16	7°24'45	7°P12	3° 8	17°26	15°22	3° 4	16°23	16°28	6° 8	18°32	7°R37	8°45	8°19	3° 2	W21
T 22	18 34 13	8°21'56	21°10	4°20	18°39	16° 3	3°D 4	16°31	16°26	6°11	18°33	7°36	8°41	8°26	3° 2	T 22
F 23	18 38 9	9°19'08	4 [♂] 57	5°30	19°52	16°44	3° 4	16°38	16°25	6°13	18°34	7°35	8°38	8°33	3° 2	F 23
S 24	18 42 6	10°16'20	18°31	6°37	21° 5	17°25	3° 4	16°46	16°23	6°15	18°36	7°32	8°35	8°39	3°D 2	S 24
S 25	18 46 2	11°13'32	1 ^{II} 51	7°42	22°18	18° 5	3° 5	16°53	16°21	6°17	18°37	7°28	8°32	8°46	3° 2	S 25
M26	18 49 59	12°10'45	14°57	8°43	23°31	18°46	3° 5	17° 1	16°19	6°19	18°38	7°24	8°29	8°53	3° 2	M26
T 27	18 53 55	13° 7'59	27°50	9°41	24°44	19°27	3° 6	17° 8	16°17	6°22	18°40	7°20	8°25	8°59	3° 2	T 27
W28	18 57 52	14° 5'13	10 [☾] 28	10°37	25°57	20° 7	3° 7	17°15	16°16	6°24	18°41	7°17	8°22	9° 6	3° 3	W28
T 29	19 1 48	15° 2'27	22°54	11°29	27°10	20°48	3° 9	17°23	16°14	6°26	18°42	7°16	8°19	9°13	3° 3	T 29
F 30	19 5 45	15 [☾] 59'41	5 [♂] 6	12 [♂] 18	28 ^{II} 23	21 ^{II} 28	3 ^{III} 10	17 ^{II} 30	16 [☾] 12	6 [☾] 28	18 ^{II} 44	7°D15	8 [☾] 16	9 [♂] 19	3 ^{III} 4	F 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	23n 0	24n48	2n 4	25n24	1n53	17n21	1s20	20n39	0n 6	11s37	1n15	21n14	1s18	16s30	0s42	22n32	0s52	15n54	7s 6	18s17	17s51	7n11	11s 7	1n42	
F 2	23 5	21 51	1 1	25 25	1 56	17 41	1 18	20 48	0 7	11 36	1 15	21 15	1 18	16 30	0 42	22 32	0 52	15 54	7 6	18 17	17 52	7 8	11 7	1 42	
S 3	23 9	18 0	0s 5	25 24	1 58	18 0	1 16	20 56	0 8	11 35	1 14	21 16	1 18	16 30	0 43	22 32	0 52	15 55	7 6	18 18	17 53	7 4	11 6	1 42	
S 4	23 13	13 29	1 9	25 20	1 59	18 19	1 14	21 5	0 8	11 34	1 14	21 17	1 18	16 31	0 43	22 32	0 52	15 55	7 6	18 17	17 54	7 1	11 5	1 42	
M 5	23 17	8 30	2 9	25 14	1 59	18 37	1 12	21 14	0 9	11 34	1 14	21 18	1 18	16 31	0 43	22 32	0 52	15 55	7 6	18 17	17 55	6 58	11 4	1 42	
T 6	23 20	3 15	3 5	25 6	1 59	18 55	1 10	21 22	0 9	11 33	1 14	21 19	1 18	16 31	0 43	22 32	0 52	15 55	7 6	18 17	17 55	6 55	11 3	1 42	
W 7	23 23	2s 8	3 52	24 56	1 58	19 12	1 8	21 30	0 10	11 32	1 13	21 20	1 18	16 32	0 43	22 32	0 52	15 55	7 6	18 17	17 56	6 52	11 2	1 43	
T 8	23 25	7 30	4 30	24 44	1 56	19 29	1 6	21 38	0 11	11 32	1 13	21 21	1 18	16 32	0 43	22 32	0 52	15 55	7 6	18 17	17 57	6 48	11 2	1 43	
F 9	23 27	12 40	4 56	24 30	1 54	19 46	1 4	21 45	0 11	11 31	1 13	21 22	1 18	16 33	0 43	22 32	0 52	15 55	7 6	18 18	17 58	6 45	11 1	1 43	
S 10	23 29	17 28	5 9	24 14	1 51	20 1	1 2	21 53	0 12	11 30	1 13	21 23	1 18	16 33	0 43	22 32	0 52	15 56	7 6	18 19	17 59	6 42	11 0	1 43	
S 11	23 30	21 36	5 7	23 57	1 47	20 17	1 0	22 0	0 13	11 30	1 12	21 24	1 18	16 33	0 43	22 32	0 52	15 56	7 6	18 20	18 0	6 39	11 0	1 43	
M12	23 31	24 45	4 49	23 39	1 43	20 32	0 57	22 7	0 13	11 30	1 12	21 25	1 17	16 34	0 43	22 32	0 52	15 56	7 6	18 22	18 0	6 36	10 59	1 43	
T 13	23 31	26 37	4 14	23 19	1 38	20 46	0 55	22 14	0 14	11 29	1 12	21 26	1 17	16 34	0 43	22 31	0 52	15 56	7 6	18 24	18 1	6 32	10 59	1 44	
W14	23 31	26 52	3 24	22 59	1 32	21 0	0 53	22 21	0 15	11 29	1 11	21 27	1 17	16 35	0 43	22 31	0 52	15 56	7 6	18 25	18 2	6 29	10 58	1 44	
T 15	23 30	25 23	2 20	22 37	1 26	21 13	0 50	22 27	0 15	11 29	1 11	21 27	1 17	16 35	0 43	22 31	0 52	15 56	7 6	18 26	18 3	6 26	10 58	1 44	
F 16	23 29	22 14	1 6	22 14	1 20	21 25	0 48	22 33	0 16	11 29	1 11	21 28	1 17	16 36	0 43	22 31	0 52	15 56	7 6	18 26	18 4	6 23	10 57	1 44	
S 17	23 28	17 39	0n12	21 50	1 12	21 38	0 46	22 40	0 17	11 29	1 11	21 29	1 17	16 36	0 43	22 31	0 52	15 57	7 6	18 27	18 5	6 20	10 57	1 44	
S 18	23 26	12 3	1 30	21 26	1 5	21 49	0 43	22 45	0 17	11 29	1 10	21 30	1 17	16 37	0 43	22 31	0 52	15 57	7 6	18 26	18 5	6 17	10 57	1 44	
M19	23 24	5 49	2 42	21 1	0 57	22 0	0 41	22 51	0 18	11 29	1 10	21 31	1 17	16 37	0 43	22 31	0 52	15 57	7 6	18 26	18 6	6 13	10 56	1 44	
T 20	23 22	0n39	3 43	20 35	0 48	22 10	0 38	22 56	0 18	11 29	1 10	21 32	1 17	16 38	0 43	22 31	0 52	15 57	7 6	18 26	18 7	6 10	10 56	1 44	
W21	23 19	7 0	4 30	20 9	0 39	22 20	0 36	23 2	0 19	11 29	1 10	21 32	1 17	16 38	0 43	22 31	0 52	15 57	7 6	18 26	18 8	6 7	10 56	1 45	
T 22	23 15	12 55	5 1	19 43	0 29	22 29	0 33	23 7	0 20	11 29	1 9	21 33	1 17	16 39	0 43	22 31	0 52	15 57	7 6	18 26	18 9	6 4	10 55	1 45	
F 23	23 11	18 7	5 13	19 16	0 19	22 37	0 31	23 11	0 20	11 30	1 9	21 34	1 17	16 39	0 43	22 31	0 52	15 57	7 6	18 26	18 10	6 1	10 55	1 45	
S 24	23 7	22 19	5 8	18 49	0 9	22 45	0 28	23 16	0 21	11 30	1 9	21 35	1 17	16 40	0 43	22 30	0 52	15 57	7 6	18 27	18 10	5 57	10 55	1 45	
S 25	23 2	25 15	4 46	18 22	0s 2	22 52	0 26	23 20	0 22	11 30	1 8	21 35	1 17	16 40	0 43	22 30	0 52	15 57	7 6	18 28	18 11	5 54	10 55	1 45	
M26	22 57	26 47	4 9	17 55	0 13	22 58	0 23	23 25	0 22	11 31	1 8	21 36	1 17	16 41	0 43	22 30	0 52	15 58	7 6	18 29	18 12	5 51	10 55	1 45	
T 27	22 52	26 50	3 20	17 29	0 25	23 4	0 21	23 29	0 23	11 31	1 8	21 37	1 17	16 42	0 43	22 30	0 52	15 58	7 6	18 30	18 13	5 48	10 55	1 45	
W28	22 46	25 28	2 22	17 2	0 37	23 9	0 18	23 32	0 24	11 32	1 8	21 38	1 17	16 42	0 43	22 30	0 52	15 58	7 6	18 31	18 14	5 45	10 55	1 45	
T 29	22 40	22 51	1 18	16 36	0 49	23 14	0 16	23 36	0 24	11 33	1 7	21 38	1 17	16 43	0 43	22 30	0 52	15 58	7 6	18 31	18 15	5 41	10 55	1 45	
F 30	22n33	19n15	0n12	16n11	1s 2	23n17	0s13	23n39	0n25	11s34	1n 7	21n39	1s17	16s43	0s43	22n30	0s52	15n58	7s 6	18s31	18s15	5n38	10s55	1n46	

ASTRODIENST EPHEMERIS for the year 1413

JULY 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♈	♀	♊	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	Day
S 1	19 9 42	16°56'56	17°09	13°03	29°37	22°11	9	3°12	17°37	16°R10	6°31	18°45	7°15	8°13	9°26	3°05	S 1
S 2	19 13 38	17°54'12	29°03	13°45	0°50	22°49	3°13	17°44	16°≈8	6°33	18°46	7°16	8°10	9°33	3°05	S 2	
M 3	19 17 35	18°51'27	10°53	14°23	2°03	23°29	3°15	17°51	16°06	6°35	18°48	7°18	8°06	9°39	3°06	M 3	
T 4	19 21 31	19°48'43	22°42	14°57	3°16	24°10	3°17	17°58	16°04	6°37	18°49	7°19	8°03	9°46	3°07	T 4	
W 5	19 25 28	20°45'59	4°34	15°27	4°30	24°50	3°20	18°05	16°02	6°39	18°50	7°20	8°00	9°53	3°08	W 5	
T 6	19 29 24	21°43'16	16°34	15°53	5°43	25°30	3°22	18°12	15°59	6°41	18°51	7°R21	7°57	9°59	3°09	T 6	
F 7	19 33 21	22°40'33	28°46	16°14	6°56	26°10	3°25	18°19	15°57	6°44	18°53	7°21	7°54	10°06	3°11	F 7	
S 8	19 37 17	23°37'50	11°16	16°31	8°09	26°50	3°28	18°26	15°55	6°46	18°54	7°20	7°51	10°13	3°12	S 8	
S 9	19 41 14	24°35'08	24°07	16°43	9°23	27°30	3°31	18°33	15°53	6°48	18°55	7°19	7°47	10°19	3°14	S 9	
M10	19 45 11	25°32'26	7°21	16°50	10°36	28°10	3°34	18°40	15°51	6°50	18°56	7°18	7°44	10°26	3°15	M10	
T 11	19 49 07	26°29'45	21°00	16°R53	11°50	28°50	3°37	18°47	15°49	6°52	18°57	7°16	7°41	10°33	3°17	T 11	
W12	19 53 04	27°27'05	5°05	16°50	13°03	29°30	3°41	18°54	15°46	6°54	18°58	7°15	7°38	10°39	3°19	W12	
T 13	19 57 00	28°24'25	19°30	16°42	14°17	0°51	3°44	19°00	15°44	6°56	19°00	7°14	7°35	10°46	3°21	T 13	
F 14	20 00 57	29°21'46	4°12	16°29	15°30	0°49	3°48	19°07	15°42	6°59	19°01	7°D14	7°31	10°53	3°23	F 14	
S 15	20 04 53	0°19'08	19°04	16°11	16°44	1°29	3°52	19°14	15°40	7°01	19°02	7°14	7°28	10°59	3°25	S 15	
S 16	20 08 50	1°16'31	3°58	15°47	17°57	2°09	3°56	19°20	15°37	7°03	19°03	7°15	7°25	11°06	3°27	S 16	
M17	20 12 46	2°13'55	18°47	15°19	19°11	2°48	4°01	19°27	15°35	7°05	19°04	7°15	7°22	11°13	3°30	M17	
T 18	20 16 43	3°11'20	3°24	14°47	20°25	3°28	4°05	19°33	15°33	7°07	19°05	7°15	7°19	11°19	3°32	T 18	
W19	20 20 40	4°08'46	17°44	14°10	21°38	4°07	4°10	19°39	15°30	7°09	19°06	7°16	7°16	11°26	3°35	W19	
T 20	20 24 36	5°06'14	1°46	13°30	22°52	4°47	4°15	19°46	15°28	7°11	19°07	7°R16	7°12	11°33	3°37	T 20	
F 21	20 28 33	6°03'43	15°28	12°46	24°06	5°26	4°19	19°52	15°26	7°13	19°08	7°16	7°09	11°39	3°40	F 21	
S 22	20 32 29	7°01'14	28°50	12°01	25°19	6°06	4°25	19°58	15°23	7°15	19°09	7°D16	7°06	11°46	3°43	S 22	
S 23	20 36 26	7°58'46	11°54	11°13	26°33	6°45	4°30	20°04	15°21	7°17	19°10	7°16	7°03	11°53	3°46	S 23	
M24	20 40 22	8°56'19	24°41	10°25	27°47	7°24	4°35	20°11	15°19	7°19	19°11	7°16	7°00	11°59	3°49	M24	
T 25	20 44 19	9°53'54	7°14	9°36	29°01	8°03	4°41	20°17	15°16	7°21	19°12	7°16	6°57	12°06	3°52	T 25	
W26	20 48 15	10°51'30	19°35	8°49	0°15	8°43	4°47	20°23	15°14	7°23	19°13	7°16	6°53	12°13	3°55	W26	
T 27	20 52 12	11°49'07	1°45	8°03	1°29	9°22	4°52	20°28	15°12	7°25	19°14	7°R17	6°50	12°19	3°58	T 27	
F 28	20 56 09	12°46'46	13°47	7°20	2°43	10°01	4°58	20°34	15°09	7°27	19°15	7°17	6°47	12°26	4°02	F 28	
S 29	21 00 05	13°44'26	25°42	6°41	3°57	10°40	5°05	20°40	15°07	7°28	19°16	7°16	6°44	12°33	4°05	S 29	
S 30	21 04 02	14°42'07	7°33	6°07	5°11	11°19	5°11	20°46	15°04	7°30	19°17	7°16	6°41	12°39	4°09	S 30	
M31	21 07 58	15°03'49	19°21	5°03	6°05	11°58	5°17	20°51	15°≈2	7°32	19°18	7°≈15	6°≈37	12°46	4°13	M31	

Day	☉	☾			♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	22n26	14n53	0s54	15n46	1s15	23n21	0s10	23n42	0n26	11s34	1n 7	21n40	1s17	16s44	0s43	22n30	0s52	15n58	7s 6	18s31	18s16	5n35	10s55	1n46							
S 2	22 19	10 0	1 58	15 21	1 28	23 23	0 8	23 45	0 26	11 35	1 7	21 40	1 17	16 45	0 43	22 30	0 52	15 58	7 6	18 31	18 17	5 32	10 55	1 46							
M 3	22 11	4 48	2 55	14 58	1 41	23 25	0 5	23 48	0 27	11 36	1 6	21 41	1 17	16 45	0 43	22 30	0 52	15 58	7 6	18 30	18 18	5 29	10 56	1 46							
T 4	22 3	0s33	3 46	14 35	1 54	23 26	0 3	23 51	0 27	11 37	1 6	21 42	1 17	16 46	0 43	22 29	0 52	15 58	7 6	18 30	18 19	5 25	10 56	1 46							
W 5	21 54	5 53	4 26	14 13	2 8	23 26	0 0	23 53	0 28	11 38	1 6	21 42	1 17	16 47	0 43	22 29	0 52	15 58	7 6	18 30	18 20	5 22	10 56	1 46							
T 6	21 45	11 5	4 56	13 53	2 21	23 26	0n 2	23 55	0 29	11 39	1 5	21 43	1 17	16 47	0 43	22 29	0 52	15 58	7 6	18 30	18 20	5 19	10 57	1 46							
F 7	21 36	15 56	5 13	13 33	2 35	23 25	0 5	23 57	0 29	11 40	1 5	21 44	1 17	16 48	0 43	22 29	0 52	15 58	7 6	18 30	18 21	5 16	10 57	1 46							
S 8	21 27	20 15	5 16	13 16	2 48	23 23	0 7	23 59	0 30	11 42	1 5	21 44	1 17	16 48	0 43	22 29	0 52	15 58	7 6	18 30	18 22	5 13	10 57	1 46							
S 9	21 16	23 45	5 3	12 59	3 2	23 21	0 10	24 0	0 31	11 43	1 5	21 45	1 17	16 49	0 44	22 29	0 52	15 58	7 6	18 30	18 23	5 9	10 58	1 47							
M10	21 6	26 7	4 34	12 45	3 15	23 18	0 12	24 2	0 31	11 44	1 4	21 45	1 17	16 50	0 44	22 29	0 52	15 58	7 6	18 30	18 24	5 6	10 58	1 47							
T11	20 55	27 1	3 49	12 32	3 28	23 14	0 15	24 3	0 32	11 46	1 4	21 46	1 17	16 50	0 44	22 29	0 52	15 59	7 6	18 31	18 24	5 3	10 59	1 47							
W12	20 44	26 14	2 49	12 21	3 40	23 9	0 17	24 3	0 33	11 47	1 4	21 46	1 17	16 51	0 44	22 29	0 52	15 59	7 6	18 31	18 25	5 0	10 59	1 47							
T 13	20 33	23 41	1 37	12 12	3 52	23 4	0 19	24 4	0 33	11 48	1 4	21 47	1 17	16 52	0 44	22 29	0 52	15 59	7 6	18 31	18 26	4 56	11 0	1 47							
F 14	20 21	19 32	0 17	12 5	4 3	22 58	0 22	24 5	0 34	11 50	1 3	21 47	1 17	16 53	0 44	22 28	0 52	15 59	7 6	18 31	18 27	4 53	11 0	1 47							
S 15	20 9	14 7	1n 5	12 1	4 13	22 52	0 24	24 5	0 34	11 52	1 3	21 48	1 17	16 53	0 44	22 28	0 52	15 59	7 6	18 31	18 28	4 50	11 1	1 47							
S 16	19 56	7 52	2 23	11 59	4 22	22 45	0 26	24 5	0 35	11 53	1 3	21 49	1 17	16 54	0 44	22 28	0 52	15 59	7 6	18 31	18 29	4 47	11 2	1 47							
M17	19 44	1 13	3 31	11 59	4 31	22 37	0 29	24 5	0 36	11 55	1 3	21 49	1 17	16 55	0 44	22 28	0 52	15 59	7 7	18 31	18 29	4 44	11 2	1 47							
T 18	19 30	5n23	4 24	12 1	4 38	22 28	0 31	24 5	0 36	11 57	1 2	21 50	1 17	16 55	0 44	22 28	0 52	15 59	7 7	18 31	18 30	4 40	11 3	1 47							
W19	19 17	11 35	4 59	12 6	4 43	22 19	0 33	24 4	0 37	11 58	1 2	21 50	1 17	16 56	0 44	22 28	0 52	15 59	7 7	18 31	18 31	4 37	11 4	1 47							
T 20	19 3	17 4	5 16	12 14	4 48	22 9	0 36	24 3	0 38	12 0	1 2	21 50	1 17	16 57	0 44	22 28	0 52	15 59	7 7	18 31	18 32	4 34	11 5	1 48							
F 21	18 49	21 32	5 14	12 23	4 50	21 59	0 38	24 2	0 38	12 2	1 2	21 51	1 17	16 57	0 44	22 28	0 52	15 59	7 7	18 31	18 33	4 31	11 5	1 48							
S 22	18 35	24 46	4 55	12 35	4 51	21 48	0 40	24 1	0 39	12 4	1 1	21 51	1 17	16 58	0 44	22 27	0 52	15 59	7 7	18 31	18 33	4 28	11 6	1 48							
S 23	18 20	26 36	4 21	12 49	4 50	21 36	0 42	24 0	0 39	12 6	1 1	21 52	1 17	16 59	0 44	22 27	0 52	15 59	7 7	18 31	18 34	4 24	11 7	1 48							
M24	18 5	27 0	3 35	13 4	4 47	21 24	0 44	23 59	0 40	12 8	1 1	21 52	1 17	17 0	0 44	22 27	0 52	15 59	7 7	18 31	18 35	4 21	11 8	1 48							
T 25	17 50	25 58	2 39	13 22	4 43	21 10	0 46	23 57	0 41	12 10	1 1	21 53	1 17	17 0	0 44	22 27	0 52	15 59	7 7	18 31	18 36	4 18	11 9	1 48							
W26	17 34	23 41	1 37	13 40	4 36	20 57	0 48	23 55	0 41	12 13	1 0	21 53	1 17	17 1	0 44	22 27	0 52	15 59	7 7	18 31	18 37	4 15	11 10	1 48							
T 27	17 18	20 20	0 31	14 0	4 28	20 43	0 50	23 53	0 42	12 15	1 0	21 53	1 17	17 2	0 44	22 27	0 52	15 59	7 7	18 31	18 37	4 12	11 11	1 48							
F 28	17 2	16 10	0s36	14 20	4 18	20 28	0 52	23 51	0 43	12 17	1 0	21 54	1 17	17 2	0 44	22 27	0 52	15 59	7 7	18 31	18 38	4 8	11 12	1 48							
S 29	16 45	11 25	1 40	14 41	4 6	20 12	0 54	23 48	0 43	12 19	1 0	21 54	1 17	17 3	0 44	22 27	0 52	15 59	7 7	18 31	18 39	4 5	11 13	1 48							
S 30	16 29	6 17	2 40	15 2	3 53	19 56	0 56	23 46	0 44	12 22	0 59	21 55	1 17	17 4	0 44	22 27	0 52	15 59	7 7	18 31	18 40	4 2	11 14	1 48							
M31	16n12	0n58	3s33	15n23	3s39	19n39	0n57	23n43	0n45	12s24	0n59	21n55	1s17	17s 5	0s44	22n26	0s52	15n59	7s 8	18s31	18s41	3n59	11s16	1n49							

Julian Day Number = 2237337.5, Delta T = 07m31s

Ecliptic obliquity = 23°31'01". Nutation = 0°00'14". out-of-bounds declination in red

Avanamsha: Fagan/Bradley = 16°33'31, Lahiri = 15°40'31 Julian Calendar 1 July 1413 == Greg. Calendar 10 July 1413

ASTRODIENST EPHEMERIS for the year 1413

geocentric

AUGUST 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	21 11 55	16♌37°33	1♌10	5°R14	7♌39	12♌37	5♌24	20♌57	15°R 0	7♌34	19♌19	7°R13	6♌34	12♌53	4♌16	T 1
W 2	21 15 51	17°35'17	13° 3	4♌57	8°53	13°15	5°31	21° 2	14♌57	7°36	19°20	7♌12	6°31	12°59	4°20	W 2
T 3	21 19 48	18°33'03	25° 3	4°47	10° 7	13°54	5°37	21° 8	14°55	7°38	19°20	7°11	6°28	13° 6	4°24	T 3
F 4	21 23 44	19°30'50	7♌14	4°D44	11°21	14°33	5°45	21°13	14°52	7°39	19°21	7°10	6°25	13°13	4°28	F 4
S 5	21 27 41	20°28'39	19°41	4°49	12°35	15°11	5°52	21°19	14°50	7°41	19°22	7°D 9	6°22	13°19	4°32	S 5
S 6	21 31 38	21°26'28	2♌27	5° 2	13°49	15°50	5°59	21°24	14°48	7°43	19°23	7°10	6°18	13°26	4°37	S 6
M 7	21 35 34	22°24'19	15°36	5°23	15° 3	16°29	6° 6	21°29	14°45	7°45	19°23	7°11	6°15	13°33	4°41	M 7
T 8	21 39 31	23°22'11	29°11	5°51	16°18	17° 7	6°14	21°34	14°43	7°46	19°24	7°12	6°12	13°39	4°45	T 8
W 9	21 43 27	24°20'05	13♌12	6°27	17°32	17°46	6°22	21°39	14°41	7°48	19°25	7°13	6° 9	13°46	4°50	W 9
T 10	21 47 24	25°18'00	27°40	7°11	18°46	18°24	6°29	21°44	14°38	7°50	19°26	7°14	6° 6	13°53	4°54	T 10
F 11	21 51 20	26°15'56	12♌29	8° 2	20° 0	19° 2	6°37	21°49	14°36	7°51	19°26	7°R14	6° 3	13°59	4°59	F 11
S 12	21 55 17	27°13'53	27°34	9° 1	21°15	19°41	6°45	21°53	14°34	7°53	19°27	7°13	5°59	14° 6	5° 4	S 12
S 13	21 59 13	28°11'53	12♌46	10° 6	22°29	20°19	6°53	21°58	14°31	7°54	19°28	7°11	5°56	14°13	5° 8	S 13
M14	22 3 10	29° 9'53	27°55	11°18	23°43	20°57	7° 2	22° 3	14°29	7°56	19°28	7° 9	5°53	14°20	5°13	M14
T 15	22 7 7	0♌7°56	12♌51	12°36	24°58	21°35	7°10	22° 7	14°27	7°57	19°29	7° 6	5°50	14°26	5°18	T 15
W16	22 11 3	1° 6'01	27°28	13°59	26°12	22°13	7°19	22°11	14°24	7°59	19°29	7° 3	5°47	14°33	5°23	W16
T 17	22 15 0	2° 4'08	11♌40	15°28	27°27	22°51	7°27	22°16	14°22	8° 0	19°30	7° 1	5°43	14°40	5°28	T 17
F 18	22 18 56	3° 2'16	25°26	17° 1	28°41	23°29	7°36	22°20	14°20	8° 2	19°30	6°59	5°40	14°46	5°34	F 18
S 19	22 22 53	4° 0'27	8♌46	18°38	29°56	24° 7	7°45	22°24	14°18	8° 3	19°31	6°D59	5°37	14°53	5°39	S 19
S 20	22 26 49	4°58'40	21°43	20°19	1♌10	24°45	7°54	22°28	14°15	8° 5	19°31	7° 0	5°34	15° 0	5°44	S 20
M21	22 30 46	5°56'55	4♌20	22° 3	2°25	25°23	8° 3	22°32	14°13	8° 6	19°32	7° 2	5°31	15° 6	5°50	M21
T 22	22 34 42	6°55'13	16°40	23°50	3°39	26° 1	8°12	22°36	14°11	8° 7	19°32	7° 3	5°28	15°13	5°55	T 22
W23	22 38 39	7°53'32	28°48	25°39	4°54	26°39	8°22	22°40	14° 9	8° 9	19°33	7° 4	5°24	15°20	6° 1	W23
T 24	22 42 36	8°51'53	10♌47	27°29	6° 8	27°16	8°31	22°44	14° 7	8°10	19°33	7°R 5	5°21	15°26	6° 6	T 24
F 25	22 46 32	9°50'16	22°41	29°21	7°23	27°54	8°40	22°47	14° 5	8°11	19°34	7° 4	5°18	15°33	6°12	F 25
S 26	22 50 29	10°48'41	4♌31	1♌13	8°38	28°32	8°50	22°51	14° 3	8°13	19°34	7° 1	5°15	15°40	6°18	S 26
S 27	22 54 25	11°47'07	16°19	3° 7	9°52	29° 9	9° 0	22°54	14° 1	8°14	19°34	6°56	5°12	15°46	6°24	S 27
M28	22 58 22	12°45'36	28° 9	5° 0	11° 7	29°47	9°10	22°57	13°59	8°15	19°35	6°50	5° 8	15°53	6°30	M28
T 29	23 2 18	13°44'06	10♌1	6°54	12°22	0♌24	9°20	23° 1	13°57	8°16	19°35	6°43	5° 5	16° 0	6°36	T 29
W30	23 6 15	14°42'39	21°59	8°47	13°36	1° 1	9°30	23° 4	13°55	8°17	19°35	6°36	5° 2	16° 6	6°42	W30
T 31	23 10 11	15♌41'13	4♌3	10♌41	14♌51	1♌39	9♌40	23♌7	13♌53	8♌18	19♌35	6♌30	4♌59	16♌13	6♌48	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	15n54	4s23	4s16	15n43	3s24	19n22	0n59	23n40	0n45	12s26	0n59	21n55	1s17	17s 5	0s44	22n26
W 2	15 37	9 36	4 49	16 3	3 8	19 5	1 1	23 37	0 46	12 29	0 59	21 56	1 17	17 6	0 44	22 26
T 3	15 19	14 31	5 10	16 22	2 51	18 46	1 2	23 33	0 46	12 31	0 58	21 56	1 17	17 7	0 44	22 26
F 4	15 1	18 57	5 17	16 39	2 33	18 27	1 4	23 30	0 47	12 34	0 58	21 56	1 17	17 7	0 44	22 26
S 5	14 43	22 40	5 9	16 55	2 16	18 8	1 6	23 26	0 48	12 36	0 58	21 57	1 17	17 8	0 44	22 26
S 6	14 24	25 24	4 46	17 10	1 58	17 48	1 7	23 22	0 48	12 39	0 58	21 57	1 17	17 9	0 44	22 26
M 7	14 5	26 51	4 8	17 22	1 40	17 28	1 9	23 18	0 49	12 42	0 57	21 57	1 18	17 9	0 44	22 26
T 8	13 46	26 46	3 15	17 32	1 23	17 7	1 10	23 14	0 50	12 44	0 57	21 57	1 18	17 10	0 44	22 26
W 9	13 27	25 0	2 9	17 40	1 5	16 46	1 11	23 10	0 50	12 47	0 57	21 58	1 18	17 11	0 44	22 25
T 10	13 8	21 33	0 53	17 45	0 48	16 24	1 12	23 5	0 51	12 50	0 57	21 58	1 18	17 12	0 44	22 25
F 11	12 48	16 39	0n29	17 48	0 32	16 1	1 14	23 0	0 51	12 53	0 57	21 58	1 18	17 12	0 44	22 25
S 12	12 28	10 38	1 50	17 48	0 16	15 39	1 15	22 56	0 52	12 56	0 56	21 59	1 18	17 13	0 44	22 25
S 13	12 8	3 58	3 4	17 45	0 1	15 15	1 16	22 51	0 53	12 58	0 56	21 59	1 18	17 14	0 44	22 25
M14	11 48	2n54	4 4	17 39	0n13	14 52	1 17	22 45	0 53	13 1	0 56	21 59	1 18	17 14	0 44	22 25
T 15	11 28	9 30	4 47	17 30	0 26	14 28	1 18	22 40	0 54	13 4	0 56	21 59	1 18	17 15	0 44	22 25
W16	11 7	15 25	5 10	17 18	0 38	14 3	1 19	22 34	0 55	13 7	0 56	21 59	1 18	17 16	0 44	22 25
T 17	10 46	20 21	5 13	17 3	0 50	13 39	1 20	22 29	0 55	13 10	0 55	22 0	1 18	17 16	0 44	22 25
F 18	10 25	24 0	4 58	16 44	1 0	13 13	1 20	22 23	0 56	13 13	0 55	22 0	1 18	17 17	0 44	22 25
S 19	10 4	26 14	4 28	16 23	1 9	12 48	1 21	22 17	0 56	13 16	0 55	22 0	1 18	17 17	0 44	22 24
S 20	9 43	26 59	3 44	15 59	1 18	12 22	1 22	22 11	0 57	13 20	0 55	22 0	1 18	17 18	0 44	22 24
M21	9 22	26 17	2 50	15 32	1 25	11 56	1 22	22 5	0 58	13 23	0 55	22 0	1 18	17 19	0 44	22 24
T 22	9 0	24 17	1 50	15 3	1 31	11 29	1 23	21 58	0 58	13 26	0 54	22 1	1 18	17 19	0 44	22 24
W23	8 38	21 12	0 45	14 31	1 36	11 2	1 23	21 51	0 59	13 29	0 54	22 1	1 18	17 20	0 44	22 24
T 24	8 16	17 15	0s20	13 57	1 40	10 35	1 24	21 45	1 0	13 32	0 54	22 1	1 18	17 21	0 44	22 24
F 25	7 54	12 40	1 24	13 21	1 44	10 8	1 24	21 38	1 0	13 35	0 54	22 1	1 18	17 21	0 44	22 24
S 26	7 32	7 39	2 24	12 44	1 46	9 40	1 24	21 31	1 1	13 39	0 54	22 1	1 18	17 22	0 44	22 24
S 27	7 10	2 23	3 18	12 4	1 48	9 12	1 25	21 24	1 1	13 42	0 53	22 1	1 18	17 22	0 44	22 24
M28	6 47	2s58	4 3	11 24	1 49	8 44	1 25	21 16	1 2	13 45	0 53	22 1	1 19	17 23	0 44	22 24
T 29	6 25	8 14	4 37	10 41	1 49	8 15	1 25	21 9	1 3	13 49	0 53	22 1	1 19	17 23	0 44	22 24
W30	6 2	13 13	5 0	9 58	1 48	7 46	1 25	21 1	1 3	13 52	0 53	22 2	1 19	17 24	0 44	22 23
T 31	5n40	17s45	5s10	9n14	1n47	7n17	1n25	20n54	1n 4	13s55	0n53	22n 2	1s19	17s25	0s44	22n23

Julian Day Number = 2237368.5, Delta T = 07m31s

Ecliptic obliquity = 23°31'01", Nutation = 0°00'15", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 16°33'35", Lahiri = 15°40'35" Julian Calendar 1 Aug. 1413 == Greg. Calendar 10 Aug. 1413

ASTRODIENST EPHEMERIS for the year 1413

geocentric

SEPTEMBER 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	23 14 8	16 ¹¹ 39'49	16 ¹¹ 16	12 ¹¹ 33	16 ¹¹ 6	2 ¹¹ 16	9 ¹¹ 50	23 ¹¹ 10	13 ¹¹ R51	8 ¹¹ 19	19 ¹¹ 36	6 ¹¹ R25	4 ¹¹ 56	16 ¹¹ 20	6 ¹¹ 54	F 1
S 2	23 18 5	17 ¹¹ 38'27	28 ¹¹ 43	14 ¹¹ 25	17 ¹¹ 21	2 ¹¹ 53	10 ¹¹ 0	23 ¹¹ 12	13 ¹¹ 49	8 ¹¹ 20	19 ¹¹ 36	6 ¹¹ 21	4 ¹¹ 53	16 ¹¹ 26	7 ¹¹ 0	S 2
S 3	23 22 1	18 ¹¹ 37'06	11 ¹¹ 25	16 ¹¹ 17	18 ¹¹ 35	3 ¹¹ 30	10 ¹¹ 11	23 ¹¹ 15	13 ¹¹ 47	8 ¹¹ 21	19 ¹¹ 36	6 ¹¹ 19	4 ¹¹ 49	16 ¹¹ 33	7 ¹¹ 6	S 3
M 4	23 25 58	19 ¹¹ 35'47	24 ¹¹ 28	18 ¹¹ 8	19 ¹¹ 50	4 ¹¹ 7	10 ¹¹ 21	23 ¹¹ 18	13 ¹¹ 45	8 ¹¹ 22	19 ¹¹ 36	6 ¹¹ D19	4 ¹¹ 46	16 ¹¹ 40	7 ¹¹ 13	M 4
T 5	23 29 54	20 ¹¹ 34'30	7 ¹¹ 53	19 ¹¹ 58	21 ¹¹ 5	4 ¹¹ 44	10 ¹¹ 32	23 ¹¹ 20	13 ¹¹ 44	8 ¹¹ 23	19 ¹¹ 36	6 ¹¹ 20	4 ¹¹ 43	16 ¹¹ 46	7 ¹¹ 19	T 5
W 6	23 33 51	21 ¹¹ 33'15	21 ¹¹ 44	21 ¹¹ 47	22 ¹¹ 20	5 ¹¹ 21	10 ¹¹ 42	23 ¹¹ 23	13 ¹¹ 42	8 ¹¹ 24	19 ¹¹ 37	6 ¹¹ 21	4 ¹¹ 40	16 ¹¹ 53	7 ¹¹ 26	W 6
T 7	23 37 47	22 ¹¹ 32'01	6 ¹¹ 1	23 ¹¹ 35	23 ¹¹ 34	5 ¹¹ 58	10 ¹¹ 53	23 ¹¹ 25	13 ¹¹ 40	8 ¹¹ 25	19 ¹¹ 37	6 ¹¹ R22	4 ¹¹ 37	17 ¹¹ 0	7 ¹¹ 32	T 7
F 8	23 41 44	23 ¹¹ 30'49	20 ¹¹ 43	25 ¹¹ 22	24 ¹¹ 49	6 ¹¹ 35	11 ¹¹ 4	23 ¹¹ 27	13 ¹¹ 39	8 ¹¹ 26	19 ¹¹ 37	6 ¹¹ 21	4 ¹¹ 34	17 ¹¹ 6	7 ¹¹ 39	F 8
S 9	23 45 40	24 ¹¹ 29'39	5 ¹¹ 46	27 ¹¹ 9	26 ¹¹ 4	7 ¹¹ 12	11 ¹¹ 15	23 ¹¹ 29	13 ¹¹ 37	8 ¹¹ 27	19 ¹¹ 37	6 ¹¹ 18	4 ¹¹ 30	17 ¹¹ 13	7 ¹¹ 45	S 9
S 10	23 49 37	25 ¹¹ 28'31	21 ¹¹ 0	28 ¹¹ 54	27 ¹¹ 19	7 ¹¹ 49	11 ¹¹ 26	23 ¹¹ 31	13 ¹¹ 35	8 ¹¹ 28	19 ¹¹ 37	6 ¹¹ 13	4 ¹¹ 27	17 ¹¹ 20	7 ¹¹ 52	S 10
M 11	23 53 34	26 ¹¹ 27'24	6 ¹¹ Y17	0 ¹¹ 39	28 ¹¹ 34	8 ¹¹ 25	11 ¹¹ 37	23 ¹¹ 33	13 ¹¹ 34	8 ¹¹ 28	19 ¹¹ R37	6 ¹¹ 6	4 ¹¹ 24	17 ¹¹ 26	7 ¹¹ 59	M 11
T 12	23 57 30	27 ¹¹ 26'20	21 ¹¹ 25	2 ¹¹ 23	29 ¹¹ 49	9 ¹¹ 2	11 ¹¹ 48	23 ¹¹ 35	13 ¹¹ 32	8 ¹¹ 29	19 ¹¹ 37	5 ¹¹ 59	4 ¹¹ 21	17 ¹¹ 33	8 ¹¹ 6	T 12
W 13	0 1 27	28 ¹¹ 25'18	6 ¹¹ Y15	4 ¹¹ 5	1 ¹¹ 3	9 ¹¹ 38	12 ¹¹ 0	23 ¹¹ 37	13 ¹¹ 31	8 ¹¹ 30	19 ¹¹ 37	5 ¹¹ 51	4 ¹¹ 18	17 ¹¹ 40	8 ¹¹ 12	W 13
T 14	0 5 23	29 ¹¹ 24'19	20 ¹¹ 39	5 ¹¹ 47	2 ¹¹ 18	10 ¹¹ 15	12 ¹¹ 11	23 ¹¹ 38	13 ¹¹ 29	8 ¹¹ 31	19 ¹¹ 37	5 ¹¹ 44	4 ¹¹ 14	17 ¹¹ 47	8 ¹¹ 19	T 14
F 15	0 9 20	0 ¹¹ 23'22	4 ¹¹ Y34	7 ¹¹ 28	3 ¹¹ 33	10 ¹¹ 51	12 ¹¹ 22	23 ¹¹ 40	13 ¹¹ 28	8 ¹¹ 31	19 ¹¹ 37	5 ¹¹ 39	4 ¹¹ 11	17 ¹¹ 53	8 ¹¹ 26	F 15
S 16	0 13 16	1 ¹¹ 22'27	17 ¹¹ 59	9 ¹¹ 9	4 ¹¹ 48	11 ¹¹ 28	12 ¹¹ 34	23 ¹¹ 41	13 ¹¹ 27	8 ¹¹ 32	19 ¹¹ 37	5 ¹¹ 36	4 ¹¹ 8	18 ¹¹ 0	8 ¹¹ 33	S 16
S 17	0 17 13	2 ¹¹ 21'34	0 ¹¹ 57	10 ¹¹ 48	6 ¹¹ 3	12 ¹¹ 4	12 ¹¹ 45	23 ¹¹ 42	13 ¹¹ 25	8 ¹¹ 32	19 ¹¹ 36	5 ¹¹ D35	4 ¹¹ 5	18 ¹¹ 7	8 ¹¹ 40	S 17
M 18	0 21 9	3 ¹¹ 20'44	13 ¹¹ 31	12 ¹¹ 26	7 ¹¹ 18	12 ¹¹ 40	12 ¹¹ 57	23 ¹¹ 43	13 ¹¹ 24	8 ¹¹ 33	19 ¹¹ 36	5 ¹¹ 35	4 ¹¹ 2	18 ¹¹ 13	8 ¹¹ 47	M 18
T 19	0 25 6	4 ¹¹ 19'56	25 ¹¹ 47	14 ¹¹ 4	8 ¹¹ 33	13 ¹¹ 17	13 ¹¹ 9	23 ¹¹ 44	13 ¹¹ 23	8 ¹¹ 33	19 ¹¹ 36	5 ¹¹ 36	3 ¹¹ 59	18 ¹¹ 20	8 ¹¹ 55	T 19
W 20	0 29 3	5 ¹¹ 19'11	7 ¹¹ Y50	15 ¹¹ 41	9 ¹¹ 48	13 ¹¹ 53	13 ¹¹ 20	23 ¹¹ 45	13 ¹¹ 21	8 ¹¹ 34	19 ¹¹ 36	5 ¹¹ R37	3 ¹¹ 55	18 ¹¹ 27	9 ¹¹ 2	W 20
T 21	0 32 59	6 ¹¹ 18'27	19 ¹¹ 43	17 ¹¹ 17	11 ¹¹ 3	14 ¹¹ 29	13 ¹¹ 32	23 ¹¹ 46	13 ¹¹ 20	8 ¹¹ 34	19 ¹¹ 36	5 ¹¹ 36	3 ¹¹ 52	18 ¹¹ 33	9 ¹¹ 9	T 21
F 22	0 36 56	7 ¹¹ 17'46	1 ¹¹ Y32	18 ¹¹ 53	12 ¹¹ 18	15 ¹¹ 5	13 ¹¹ 44	23 ¹¹ 47	13 ¹¹ 19	8 ¹¹ 35	19 ¹¹ 35	5 ¹¹ 32	3 ¹¹ 49	18 ¹¹ 40	9 ¹¹ 16	F 22
S 23	0 40 52	8 ¹¹ 17'07	13 ¹¹ 20	20 ¹¹ 27	13 ¹¹ 33	15 ¹¹ 41	13 ¹¹ 56	23 ¹¹ 47	13 ¹¹ 18	8 ¹¹ 35	19 ¹¹ 35	5 ¹¹ 26	3 ¹¹ 46	18 ¹¹ 47	9 ¹¹ 23	S 23
S 24	0 44 49	9 ¹¹ 16'31	25 ¹¹ 10	22 ¹¹ 1	14 ¹¹ 48	16 ¹¹ 17	14 ¹¹ 8	23 ¹¹ 48	13 ¹¹ 17	8 ¹¹ 35	19 ¹¹ 35	5 ¹¹ 17	3 ¹¹ 43	18 ¹¹ 53	9 ¹¹ 31	S 24
M 25	0 48 45	10 ¹¹ 15'56	7 ¹¹ Y 3	23 ¹¹ 34	16 ¹¹ 3	16 ¹¹ 52	14 ¹¹ 20	23 ¹¹ 48	13 ¹¹ 16	8 ¹¹ 36	19 ¹¹ 35	5 ¹¹ 6	3 ¹¹ 40	19 ¹¹ 0	9 ¹¹ 38	M 25
T 26	0 52 42	11 ¹¹ 15'24	19 ¹¹ 3	25 ¹¹ 7	17 ¹¹ 18	17 ¹¹ 28	14 ¹¹ 32	23 ¹¹ 48	13 ¹¹ 15	8 ¹¹ 36	19 ¹¹ 34	4 ¹¹ 54	3 ¹¹ 36	19 ¹¹ 7	9 ¹¹ 46	T 26
W 27	0 56 38	12 ¹¹ 14'53	1 ¹¹ Y 9	26 ¹¹ 39	18 ¹¹ 33	18 ¹¹ 4	14 ¹¹ 44	23 ¹¹ 48	13 ¹¹ 14	8 ¹¹ 36	19 ¹¹ 34	4 ¹¹ 41	3 ¹¹ 33	19 ¹¹ 13	9 ¹¹ 53	W 27
T 28	1 0 35	13 ¹¹ 14'25	13 ¹¹ 23	28 ¹¹ 10	19 ¹¹ 48	18 ¹¹ 39	14 ¹¹ 57	23 ¹¹ R48	13 ¹¹ 13	8 ¹¹ 36	19 ¹¹ 34	4 ¹¹ 29	3 ¹¹ 30	19 ¹¹ 20	10 ¹¹ 0	T 28
F 29	1 4 31	14 ¹¹ 13'59	25 ¹¹ 46	29 ¹¹ 40	21 ¹¹ 3	19 ¹¹ 15	15 ¹¹ 9	23 ¹¹ 48	13 ¹¹ 13	8 ¹¹ 36	19 ¹¹ 33	4 ¹¹ 18	3 ¹¹ 27	19 ¹¹ 27	10 ¹¹ 8	F 29
S 30	1 8 28	15 ¹¹ 13'34	8 ¹¹ Y19	1 ¹¹ Y10	22 ¹¹ 18	19 ¹¹ Y50	15 ¹¹ Y21	23 ¹¹ Y48	13 ¹¹ Y12	8 ¹¹ Y37	19 ¹¹ Y33	4 ¹¹ Y10	3 ¹¹ Y24	19 ¹¹ Y33	10 ¹¹ Y15	S 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
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ASTRODIENST EPHEMERIS for the year 1413

geocentric

OCTOBER 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	1 12 25	16♌13'12	21♌6	2♌39	23♌33	20♌26	15♌34	23°R48	13°R11	8♌37	19°R32	4°R 5	3♌20	19♌40	10♌23	S 1
M 2	1 16 21	17°12'51	4♌7	4° 8	24°48	21° 1	15°46	23♌47	13♌11	8°37	19♌32	4♌3	3°17	19°47	10°31	M 2
T 3	1 20 18	18°12'32	17°27	5°35	26° 3	21°36	15°59	23°47	13°10	8°R37	19°31	4°D 2	3°14	19°54	10°38	T 3
W 4	1 24 14	19°12'14	1♌7	7° 2	27°18	22°12	16°11	23°46	13° 9	8°37	19°31	4°R 2	3°11	20° 0	10°46	W 4
T 5	1 28 11	20°11'59	15°10	8°29	28°33	22°47	16°24	23°45	13° 9	8°37	19°30	4° 2	3° 8	20° 7	10°54	T 5
F 6	1 32 7	21°11'45	29°35	9°54	29°48	23°22	16°36	23°44	13° 8	8°37	19°30	4° 0	3° 5	20°14	11° 1	F 6
S 7	1 36 4	22°11'32	14♌21	11°19	1♌3	23°57	16°49	23°43	13° 8	8°36	19°29	3°55	3° 1	20°20	11° 9	S 7
S 8	1 40 0	23°11'22	29°21	12°43	2°18	24°32	17° 2	23°42	13° 8	8°36	19°29	3°48	2°58	20°27	11°17	S 8
M 9	1 43 57	24°11'13	14♌28	14° 6	3°33	25° 6	17°15	23°41	13° 7	8°36	19°28	3°38	2°55	20°34	11°25	M 9
T 10	1 47 54	25°11'06	29°32	15°28	4°48	25°41	17°27	23°40	13° 7	8°36	19°28	3°27	2°52	20°40	11°32	T 10
W 11	1 51 50	26°11'01	14♌22	16°49	6° 3	26°16	17°40	23°38	13° 7	8°36	19°27	3°15	2°49	20°47	11°40	W 11
T 12	1 55 47	27°10'59	28°50	18°10	7°19	26°50	17°53	23°37	13° 7	8°35	19°26	3° 5	2°45	20°54	11°48	T 12
F 13	1 59 43	28°10'58	12♌51	19°29	8°34	27°25	18° 6	23°35	13° 7	8°35	19°26	2°56	2°42	21° 0	11°56	F 13
S 14	2 3 40	29°11'00	26°22	20°47	9°49	27°59	18°19	23°33	13° 7	8°35	19°25	2°51	2°39	21° 7	12° 4	S 14
S 15	2 7 36	0♌11'04	9♌25	22° 3	11° 4	28°33	18°32	23°32	13°D 7	8°34	19°24	2°48	2°36	21°14	12°12	S 15
M 16	2 11 33	1°11'10	22° 3	23°19	12°19	29° 8	18°45	23°30	13° 7	8°34	19°24	2°47	2°33	21°20	12°20	M 16
T 17	2 15 29	2°11'18	4♌20	24°32	13°34	29°42	18°58	23°28	13° 7	8°34	19°23	2°46	2°30	21°27	12°27	T 17
W 18	2 19 26	3°11'28	16°23	25°44	14°49	0♌16	19°11	23°25	13° 7	8°33	19°22	2°46	2°26	21°34	12°35	W 18
T 19	2 23 23	4°11'40	28°15	26°54	16° 4	0°50	19°24	23°23	13° 7	8°33	19°21	2°45	2°23	21°41	12°43	T 19
F 20	2 27 19	5°11'54	10♌4	28° 2	17°19	1°24	19°37	23°21	13° 7	8°32	19°20	2°41	2°20	21°47	12°51	F 20
S 21	2 31 16	6°12'11	21°53	29° 7	18°34	1°57	19°51	23°18	13° 8	8°31	19°20	2°34	2°17	21°54	12°59	S 21
S 22	2 35 12	7°12'29	3♌45	0♌10	19°49	2°31	20° 4	23°16	13° 8	8°31	19°19	2°24	2°14	22° 1	13° 7	S 22
M 23	2 39 9	8°12'49	15°45	1°10	21° 4	3° 5	20°17	23°13	13° 8	8°30	19°18	2°12	2°11	22° 7	13°15	M 23
T 24	2 43 5	9°13'11	27°53	2° 6	22°19	3°38	20°30	23°10	13° 9	8°29	19°17	1°58	2° 7	22°14	13°23	T 24
W 25	2 47 2	10°13'35	10♌12	2°58	23°34	4°12	20°44	23° 7	13° 9	8°29	19°16	1°44	2° 4	22°21	13°31	W 25
T 26	2 50 58	11°14'00	22°40	3°46	24°50	4°45	20°57	23° 4	13°10	8°28	19°15	1°30	2° 1	22°27	13°39	T 26
F 27	2 54 55	12°14'27	5♌20	4°30	26° 5	5°18	21°10	23° 1	13°11	8°27	19°14	1°18	1°58	22°34	13°47	F 27
S 28	2 58 52	13°14'56	18°10	5° 8	27°20	5°51	21°23	22°58	13°11	8°27	19°14	1° 9	1°55	22°41	13°55	S 28
S 29	3 2 48	14°15'27	1♌10	5°40	28°35	6°24	21°37	22°55	13°12	8°26	19°13	1° 3	1°51	22°47	14° 3	S 29
M 30	3 6 45	15°15'58	14°22	6° 5	29°50	6°57	21°50	22°51	13°13	8°25	19°12	0°59	1°48	22°54	14°11	M 30
T 31	3 10 41	16♌16'31	27♌47	6♌22	1♌5	7♌30	22♌3	22♌48	13♌14	8♌24	19♌11	0°D58	1♌45	23♌1	14♌19	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
S 1	6s24	26s39	3s27	13s32	1s11	8s21	0n53	16n 3	1n24	15s47	0n48	22n 2	1s21	17s36	0s43	22n22
M 2	6 47	25 59	2 31	14 9	1 17	8 51	0 51	15 52	1 24	15 51	0 48	22 2	1 21	17 36	0 43	22 22
T 3	7 10	23 48	1 27	14 45	1 24	9 20	0 49	15 41	1 25	15 55	0 48	22 2	1 21	17 36	0 43	22 22
W 4	7 33	20 13	0 15	15 20	1 30	9 49	0 47	15 30	1 26	15 59	0 47	22 2	1 21	17 36	0 43	22 22
T 5	7 55	15 24	0n59	15 54	1 37	10 17	0 45	15 20	1 26	16 2	0 47	22 1	1 21	17 36	0 43	22 22
F 6	8 18	9 37	2 11	16 27	1 43	10 46	0 43	15 9	1 27	16 6	0 47	22 1	1 21	17 36	0 43	22 21
S 7	8 40	3 10	3 16	17 0	1 49	11 14	0 41	14 58	1 28	16 10	0 47	22 1	1 21	17 37	0 43	22 21
S 8	9 2	3n32	4 8	17 31	1 54	11 42	0 39	14 47	1 28	16 13	0 47	22 1	1 21	17 37	0 43	22 21
M 9	9 25	10 5	4 44	18 2	2 0	12 10	0 37	14 35	1 29	16 17	0 47	22 1	1 21	17 37	0 43	22 21
T 10	9 47	16 0	5 0	18 32	2 5	12 37	0 35	14 24	1 30	16 21	0 47	22 1	1 21	17 37	0 42	22 21
W 11	10 8	20 53	4 55	19 0	2 11	13 4	0 33	14 13	1 30	16 25	0 47	22 1	1 21	17 37	0 42	22 21
T 12	10 30	24 22	4 31	19 28	2 16	13 31	0 30	14 2	1 31	16 28	0 47	22 1	1 21	17 37	0 42	22 21
F 13	10 52	26 14	3 51	19 54	2 20	13 58	0 28	13 51	1 32	16 32	0 46	22 1	1 21	17 37	0 42	22 21
S 14	11 13	26 28	3 0	20 20	2 25	14 24	0 26	13 39	1 32	16 36	0 46	22 1	1 21	17 37	0 42	22 21
S 15	11 34	25 11	2 0	20 44	2 29	14 49	0 23	13 28	1 33	16 39	0 46	22 0	1 21	17 37	0 42	22 21
M 16	11 55	22 38	0 56	21 7	2 32	15 15	0 21	13 17	1 34	16 43	0 46	22 0	1 21	17 37	0 42	22 21
T 17	12 16	19 6	0s 8	21 29	2 36	15 40	0 19	13 5	1 34	16 47	0 46	22 0	1 21	17 37	0 42	22 21
W 18	12 37	14 51	1 11	21 49	2 39	16 4	0 16	12 54	1 35	16 50	0 46	22 0	1 21	17 37	0 42	22 21
T 19	12 58	10 5	2 10	22 8	2 41	16 29	0 14	12 42	1 36	16 54	0 46	22 0	1 21	17 36	0 42	22 22
F 20	13 18	4 59	3 3	22 26	2 43	16 52	0 11	12 31	1 36	16 58	0 46	22 0	1 21	17 36	0 42	22 22
S 21	13 38	0s16	3 48	22 42	2 45	17 16	0 9	12 19	1 37	17 1	0 46	22 0	1 21	17 36	0 42	22 22
S 22	13 58	5 32	4 24	22 57	2 45	17 39	0 7	12 8	1 38	17 5	0 46	21 59	1 21	17 36	0 42	22 22
M 23	14 17	10 38	4 48	23 9	2 46	18 1	0 4	11 56	1 38	17 9	0 45	21 59	1 21	17 36	0 42	22 22
T 24	14 37	15 24	4 59	23 21	2 45	18 23	0 2	11 45	1 39	17 12	0 45	21 59	1 21	17 36	0 42	22 22
W 25	14 56	19 36	4 56	23 30	2 44	18 44	0s 1	11 33	1 40	17 16	0 45	21 59	1 21	17 36	0 42	22 22
T 26	15 15	23 0	4 40	23 37	2 42	19 5	0 3	11 22	1 41	17 19	0 45	21 59	1 21	17 35	0 42	22 22
F 27	15 34	25 21	4 9	23 42	2 39	19 26	0 6	11 10	1 41	17 23	0 45	21 59	1 22	17 35	0 42	22 22
S 28	15 52	26 24	3 26	23 45	2 35	19 46	0 8	10 58	1 42	17 27	0 45	21 58	1 22	17 35	0 42	22 22
S 29	16 10	26 1	2 31	23 46	2 29	20 5	0 11	10 47	1 43	17 30	0 45	21 58	1 22	17 35	0 42	22 22
M 30	16 28	24 11	1 27	23 44	2 23	20 24	0 13	10 35	1 43	17 34	0 45	21 58	1 22	17 34	0 42	22 22
T 31	16s46	20s57	0s17	23s40	2s15	20s42	0s16	10n24	1n44	17s37	0n45	21n58	1s22	17s34	0s42	22n22

Julian Day Number = 2237429.5, Delta T = 07m31s

Ecliptic obliquity = 23°31'01", Nutation = 0°00'13", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 16°33'43", Lahiri = 15°40'44" Julian Calendar 1 Oct. 1413 == Greg. Calendar 10 Oct. 1413

ASTRODIENST EPHEMERIS for the year 1413
geocentric

NOVEMBER 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	3 14 38	17 ¹¹ 17'05	11 ²² 26	6 ²⁷ 32	2 ²⁷ 20	8 ¹⁷ 2	22 ¹¹ 17	22 ¹¹ R45	13 ²² 14	8 ¹⁹ R23	19 ¹⁹ R10	0 ¹⁹ R58	1 ²² 42	23 ¹⁷ 8	14 ¹¹ 27	W 1
T 2	3 18 34	18 ¹⁷ 17'41	25 ²⁰ 20	6 ¹⁹ R32	3 ³⁵ 35	8 ³⁵ 35	22 ³⁰ 30	22 ¹¹ 41	13 ¹⁵ 15	8 ²² 22	19 ¹¹ 9	0 ²² 58	1 ³⁹ 39	23 ¹⁴ 14	14 ³⁵ 35	T 2
F 3	3 22 31	19 ¹⁸ 18'17	9 ²³ 30	6 ²³ 30	4 ⁵⁰ 50	9 ⁷ 7	22 ⁴⁴ 44	22 ³⁷ 37	13 ¹⁶ 16	8 ²¹ 21	19 ⁸ 8	0 ⁵⁷ 57	1 ³⁶ 36	23 ²¹ 21	14 ⁴³ 43	F 3
S 4	3 26 27	20 ¹⁸ 18'55	23 ⁵⁵ 55	6 ⁴ 4	6 ⁵ 5	9 ⁴⁰ 40	22 ⁵⁷ 57	22 ³⁴ 34	13 ¹⁷ 17	8 ²⁰ 20	19 ⁷ 7	0 ⁵³ 53	1 ³² 32	23 ²⁸ 28	14 ⁵¹ 51	S 4
S 5	3 30 24	21 ¹⁹ 19'34	8 ²⁷ 31	5 ³⁴ 34	7 ²⁰ 20	10 ¹² 12	23 ¹⁰ 10	22 ³⁰ 30	13 ¹⁸ 18	8 ¹⁹ 19	19 ⁶ 6	0 ⁴⁶ 46	1 ²⁹ 29	23 ³⁴ 34	14 ⁵⁹ 59	S 5
M 6	3 34 21	22 ²⁰ 20'14	23 ¹⁴ 14	4 ⁵³ 53	8 ³⁵ 35	10 ⁴⁴ 44	23 ²⁴ 24	22 ²⁶ 26	13 ¹⁹ 19	8 ¹⁸ 18	19 ⁵ 5	0 ³⁷ 37	1 ²⁶ 26	23 ⁴¹ 41	15 ⁷ 7	M 6
T 7	3 38 17	23 ²⁰ 20'55	7 ²⁸ 56	4 ² 2	9 ⁵⁰ 50	11 ¹⁶ 16	23 ³⁷ 37	22 ²² 22	13 ²¹ 21	8 ¹⁷ 17	19 ⁴ 4	0 ²⁷ 27	1 ²³ 23	23 ⁴⁸ 48	15 ¹⁵ 15	T 7
W 8	3 42 14	24 ²¹ 21'38	22 ²⁹ 29	3 ¹ 1	11 ⁵ 5	11 ⁴⁸ 48	23 ⁵¹ 51	22 ¹⁸ 18	13 ²² 22	8 ¹⁶ 16	19 ³ 3	0 ¹⁶ 16	1 ²⁰ 20	23 ⁵⁴ 54	15 ²³ 23	W 8
T 9	3 46 10	25 ²² 22'22	6 ¹¹ 46	1 ⁵¹ 51	12 ²⁰ 20	12 ¹⁹ 19	24 ⁴ 4	22 ¹⁴ 14	13 ²³ 23	8 ¹⁵ 15	19 ² 2	0 ⁶ 6	1 ¹⁷ 17	24 ¹ 1	15 ³⁰ 30	T 9
F 10	3 50 7	26 ²³ 23'08	20 ⁴¹ 41	0 ³⁵ 35	13 ³⁵ 35	12 ⁵¹ 51	24 ¹⁸ 18	22 ¹⁰ 10	13 ²⁴ 24	8 ¹⁴ 14	19 ⁰ 0	29 ²⁵ 58	1 ¹³ 13	24 ⁸ 8	15 ³⁸ 38	F 10
S 11	3 54 3	27 ²³ 23'55	4 ²⁸ 12	29 ¹¹ 15	14 ⁵⁰ 50	13 ²² 22	24 ³¹ 31	22 ⁵ 5	13 ²⁶ 26	8 ¹² 12	18 ⁵⁹ 59	29 ⁵³ 53	1 ¹⁰ 10	24 ¹⁵ 15	15 ⁴⁶ 46	S 11
S 12	3 58 0	28 ²⁴ 24'43	17 ¹⁷ 17	27 ⁵² 52	16 ⁵ 5	13 ⁵⁴ 54	24 ⁴⁴ 44	22 ¹ 1	13 ²⁷ 27	8 ¹¹ 11	18 ⁵⁸ 58	29 ⁵⁰ 50	1 ⁷ 7	24 ²¹ 21	15 ⁵⁴ 54	S 12
M13	4 1 56	29 ²⁵ 25'33	29 ⁵⁸ 58	26 ³¹ 31	17 ²⁰ 20	14 ²⁵ 25	24 ⁵⁸ 58	21 ⁵⁷ 57	13 ²⁹ 29	8 ¹⁰ 10	18 ⁵⁷ 57	29 ^{D49} D49	1 ⁴ 4	24 ²⁸ 28	16 ² 2	M13
T 14	4 5 53	0 ²⁶ 26'24	12 ²¹ 19	25 ¹³ 13	18 ³⁵ 35	14 ⁵⁶ 56	25 ¹¹ 11	21 ⁵² 52	13 ³⁰ 30	8 ⁹ 9	18 ⁵⁶ 56	29 ⁴⁹ 49	1 ¹ 1	24 ³⁵ 35	16 ¹⁰ 10	T 14
W15	4 9 50	1 ²⁷ 17	24 ²⁴ 24	24 ¹ 1	19 ⁵⁰ 50	15 ²⁷ 27	25 ²⁵ 25	21 ⁴⁸ 48	13 ³² 32	8 ⁷ 7	18 ⁵⁵ 55	29 ⁵⁰ 50	0 ⁵⁷ 57	24 ⁴¹ 41	16 ¹⁷ 17	W15
T 16	4 13 46	2 ²⁸ 11	6 ¹⁷ 19	22 ⁵⁷ 57	21 ⁵ 5	15 ⁵⁸ 58	25 ³⁸ 38	21 ⁴³ 43	13 ³³ 33	8 ⁶ 6	18 ⁵⁴ 54	29 ^{R50} R50	0 ⁵⁴ 54	24 ⁴⁸ 48	16 ²⁵ 25	T 16
F 17	4 17 43	3 ²⁹ 06	18 ⁹ 9	22 ³ 3	22 ²⁰ 20	16 ²⁸ 28	25 ⁵¹ 51	21 ³⁹ 39	13 ³⁵ 35	8 ⁵ 5	18 ⁵³ 53	29 ⁴⁹ 49	0 ⁵¹ 51	24 ⁵⁵ 55	16 ³³ 33	F 17
S 18	4 21 39	4 ³⁰ 02	29 ⁵⁹ 59	21 ²⁰ 20	23 ³⁵ 35	16 ⁵⁹ 59	26 ⁵ 5	21 ³⁴ 34	13 ³⁷ 37	8 ⁴ 4	18 ⁵² 52	29 ⁴⁵ 45	0 ⁴⁸ 48	25 ¹ 1	16 ⁴¹ 41	S 18
S 19	4 25 36	5 ³¹ 00	11 ²⁵ 55	20 ⁴⁹ 49	24 ⁵⁰ 50	17 ²⁹ 29	26 ¹⁸ 18	21 ²⁹ 29	13 ³⁸ 38	8 ² 2	18 ⁵⁰ 50	29 ⁴⁰ 40	0 ⁴⁵ 45	25 ⁸ 8	16 ⁴⁸ 48	S 19
M20	4 29 32	6 ³¹ 59	23 ⁵⁹ 59	20 ²⁹ 29	26 ⁵ 5	17 ⁵⁹ 59	26 ³¹ 31	21 ²⁵ 25	13 ⁴⁰ 40	8 ¹ 1	18 ⁴⁹ 49	29 ³² 32	0 ⁴² 42	25 ¹⁵ 15	16 ⁵⁶ 56	M20
T 21	4 33 29	7 ³³ 00	6 ¹¹ 15	20 ^{D20} D20	27 ²⁰ 20	18 ²⁹ 29	26 ⁴⁵ 45	21 ²⁰ 20	13 ⁴² 42	7 ⁵⁹ 59	18 ⁴⁸ 48	29 ²² 22	0 ³⁸ 38	25 ²¹ 21	17 ⁴ 4	T 21
W22	4 37 25	8 ³⁴ 01	18 ⁴⁵ 45	20 ²¹ 21	28 ³⁵ 35	18 ⁵⁹ 59	26 ⁵⁸ 58	21 ¹⁵ 15	13 ⁴⁴ 44	7 ⁵⁸ 58	18 ⁴⁷ 47	29 ¹² 12	0 ³⁵ 35	25 ²⁸ 28	17 ¹¹ 11	W22
T 23	4 41 22	9 ³⁵ 03	1 ²⁷ 29	20 ³³ 33	29 ⁵⁰ 50	19 ²⁹ 29	27 ¹¹ 11	21 ¹⁰ 10	13 ⁴⁶ 46	7 ⁵⁶ 56	18 ⁴⁶ 46	29 ² 2	0 ³² 32	25 ³⁵ 35	17 ¹⁹ 19	T 23
F 24	4 45 19	10 ³⁶ 07	14 ²⁸ 28	20 ⁵³ 53	1 ³⁵ 5	19 ⁵⁸ 58	27 ²⁵ 25	21 ⁶ 6	13 ⁴⁸ 48	7 ⁵⁵ 55	18 ⁴⁵ 45	28 ⁵⁴ 54	0 ²⁹ 29	25 ⁴² 42	17 ²⁶ 26	F 24
S 25	4 49 15	11 ³⁷ 11	27 ⁴⁰ 40	21 ²² 22	2 ²⁰ 20	20 ²⁸ 28	27 ³⁸ 38	21 ¹ 1	13 ⁵⁰ 50	7 ⁵⁴ 54	18 ⁴³ 43	28 ⁴⁸ 48	0 ²⁶ 26	25 ⁴⁸ 48	17 ³⁴ 34	S 25
S 26	4 53 12	12 ³⁸ 16	11 ³⁵ 3	21 ⁵⁸ 58	3 ³⁵ 35	20 ⁵⁷ 57	27 ⁵¹ 51	20 ⁵⁶ 56	13 ⁵² 52	7 ⁵² 52	18 ⁴² 42	28 ⁴⁴ 44	0 ²³ 23	25 ⁵⁵ 55	17 ⁴¹ 41	S 26
M27	4 57 8	13 ³⁹ 21	24 ³⁸ 38	22 ⁴¹ 41	4 ⁵⁰ 50	21 ²⁶ 26	28 ⁴ 4	20 ⁵¹ 51	13 ⁵⁴ 54	7 ⁵¹ 51	18 ⁴¹ 41	28 ^{D43} D43	0 ¹⁹ 19	26 ² 2	17 ⁴⁹ 49	M27
T 28	5 1 5	14 ⁴⁰ 27	8 ²² 21	23 ²⁹ 29	6 ⁵ 5	21 ⁵⁵ 55	28 ¹⁸ 18	20 ⁴⁶ 46	13 ⁵⁶ 56	7 ⁴⁹ 49	18 ⁴⁰ 40	28 ⁴³ 43	0 ¹⁶ 16	26 ⁸ 8	17 ⁵⁶ 56	T 28
W29	5 5 1	15 ⁴¹ 34	22 ¹³ 13	24 ²² 22	7 ²⁰ 20	22 ²³ 23	28 ³¹ 31	20 ⁴¹ 41	13 ⁵⁸ 58	7 ⁴⁸ 48	18 ³⁹ 39	28 ⁴⁴ 44	0 ¹³ 13	26 ¹⁵ 15	18 ⁴ 4	W29
T 30	5 8 58	16 ⁴² 40	6 ¹² 12	25 ¹¹ 20	8 ³⁵ 35	22 ¹⁷ 52	28 ¹¹ 44	20 ¹¹ 36	14 ²² 0	7 ²⁸ 46	18 ¹¹ 38	28 ²⁸ 45	0 ²² 10	26 ¹⁷ 22	18 ¹¹ 11	T 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	17s 3	16s31	0n55	23s33	2s 6	21s 0	0s18	10n12	1n45	17s41	0n45	21n58	1s22	17s34	0s42	22n22	0s53	15n49	7s16	20s 0	19s51	0s58	14s16	2n 3			
T 2	17 20	11 9	2 5	23 22	1 56	21 17	0 21	10 1	1 46	17 44	0 45	21 57	1 22	17 34	0 42	22 22	0 53	15 49	7 17	20 0	19 51	1 1	14 18	2 3			
F 3	17 37	5 7	3 9	23 9	1 44	21 33	0 23	9 49	1 46	17 48	0 45	21 57	1 22	17 33	0 42	22 22	0 53	15 49	7 17	20 1	19 52	1 4	14 21	2 3			
S 4	17 53	1n17	4 2	22 52	1 30	21 49	0 26	9 37	1 47	17 51	0 44	21 57	1 22	17 33	0 42	22 22	0 53	15 49	7 17	20 2	19 53	1 7	14 23	2 3			
S 5	18 9	7 40	4 40	22 32	1 15	22 4	0 28	9 26	1 48	17 55	0 44	21 57	1 22	17 33	0 42	22 22	0 53	15 49	7 17	20 3	19 54	1 10	14 25	2 4			
M 6	18 25	13 41	5 0	22 8	0 58	22 19	0 30	9 14	1 49	17 58	0 44	21 57	1 22	17 32	0 42	22 22	0 53	15 49	7 17	20 5	19 54	1 13	14 27	2 4			
T 7	18 40	18 55	5 0	21 41	0 40	22 32	0 33	9 3	1 49	18 1	0 44	21 56	1 21	17 32	0 42	22 22	0 53	15 49	7 17	20 7	19 55	1 16	14 29	2 4			
W 8	18 55	22 58	4 40	21 10	0 21	22 46	0 35	8 51	1 50	18 5	0 44	21 56	1 21	17 32	0 42	22 22	0 53	15 49	7 17	20 10	19 56	1 20	14 31	2 5			
T 9	19 10	25 30	4 3	20 37	0 1	22 58	0 38	8 40	1 51	18 8	0 44	21 56	1 21	17 31	0 42	22 22	0 53	15 48	7 17	20 12	19 56	1 23	14 33	2 5			
F 10	19 24	26 23	3 13	20 1	0n19	23 10	0 40	8 28	1 52	18 12	0 44	21 56	1 21	17 31	0 41	22 22	0 53	15 48	7 17	20 13	19 57	1 26	14 35	2 5			
S 11	19 39	25 39	2 12	19 24	0 40	23 21	0 42	8 17	1 52	18 15	0 44	21 56	1 21	17 30	0 41	22 22	0 53	15 48	7 17	20 15	19 58	1 29	14 37	2 5			
S 12	19 52	23 30	1 6	18 47	1 0	23 32	0 45	8 6	1 53	18 18	0 44	21 55	1 21	17 30	0 41	22 22	0 53	15 48	7 17	20 15	19 58	1 32	14 39	2 6			
M13	20 6	20 13	0s 1	18 9	1 19	23 42	0 47	7 54	1 54	18 22	0 44	21 55	1 21	17 29	0 41	22 23	0 53	15 48	7 17	20 15	19 59	1 35	14 41	2 6			
T 14	20 19	16 6	1 6	17 34	1 36	23 51	0 49	7 43	1 55	18 25	0 44	21 55	1 21	17 29	0 41	22 23	0 53	15 48	7 17	20 15	20 0	1 38	14 43	2 6			
W15	20 31	11 25	2 8	17 1	1 52	23 59	0 52	7 32	1 55	18 28	0 44	21 55	1 21	17 29	0 41	22 23	0 53	15 48	7 17	20 15	20 1	1 42	14 45	2 7			
T 16	20 43	6 24	3 3	16 32	2 6	24 7	0 54	7 20	1 56	18 31	0 44	21 54	1 21	17 28	0 41	22 23	0 53	15 48	7 17	20 15	20 1	1 45	14 47	2 7			
F 17	20 55	1 11	3 49	16 7	2 18	24 14	0 56	7 9	1 57	18 35	0 44	21 54	1 21	17 28	0 41	22 23	0 53	15 48	7 17	20 15	20 2	1 48	14 48	2 7			
S 18	21 7	4s 4	4 26	15 47	2 27	24 20	0 58	6 58	1 58	18 38	0 44	21 54	1 21	17 27	0 41	22 23	0 53	15 48	7 17	20 16	20 3	1 51	14 50	2 7			
S 19	21 18	9 12	4 51	15 32	2 34	24 25	1 0	6 47	1 58	18 41	0 44	21 54	1 21	17 27	0 41	22 23	0 53	15 47	7 17	20 17	20 3	1 54	14 52	2 8			
M20	21 28	14 3	5 4	15 22	2 39	24 30	1 2	6 36	1 59	18 44	0 43	21 53	1 21	17 26	0 41	22 23	0 53	15 47	7 17	20 19	20 4	1 57	14 54	2 8			
T 21	21 38	18 25	5 4	15 16	2 43	24 34	1 4	6 24	2 0	18 47	0 43	21 53	1 21	17 25	0 41	22 23	0 53	15 47	7 17	20 21	20 5	2 0	14 56	2 8			
W22	21 48	22 4	4 48	15 15	2 44	24 37	1 6	6 13	2 1	18 50	0 43	21 53	1 21	17 25	0 41	22 23	0 53	15 47	7 17	20 23	20 5	2 4	14 58	2 9			
T 23	21 58	24 45	4 19	15 18	2 44	24 39	1 8	6 3	2 2	18 54	0 43	21 53	1 21	17 24	0 41	22 23	0 53	15 47	7 17	20 25	20 6	2 7	15 0	2 9			
F 24	22 7	26 10	3 35	15 25	2 43	24 41	1 10	5 52	2 2	18 57	0 43	21 52	1 21	17 24	0 41	22 23	0 53	15 47	7 17	20 27	20 7	2 10	15 1	2 9			
S 25	22 15	26 9	2 39	15 35	2 40	24 42	1 12	5 41	2 3	19 0	0 43	21 52	1 21	17 23	0 41	22 23	0 53	15 47	7 17	20 28	20 7	2 13	15 3	2 10			
S 26	22 23	24 37	1 34	15 47	2 37	24 42	1 14	5 30	2 4	19 3	0 43	21 52	1 21	17 22	0 41	22 24	0 53	15 47	7 17	20 29	20 8	2 16	15 5	2 10			
M27	22 31	21 38	0 22	16 2	2 33	24 41	1 16	5 19	2 5	19 6	0 43	21 52	1 21	17 22	0 41	22 24	0 53	15 47	7 17	20 29	20 9	2 19	15 7	2 10			
T 28	22 38	17 24	0n52	16 19	2 27	24 40	1 18	5 9	2 6	19 9	0 43	21 51	1 21	17 21	0 41	22 24	0 53	15 47	7 17	20 29	20 9	2 22	15 8	2 11			
W29	22 45	12 12	2 4	16 38	2 22	24 48	1 19	4 58	2 7	19 12	0 43	21 51	1 20	17 21	0 41	22 24	0 53	15 47	7 17	20 29	20 10	2 25	15 10	2 11			
T 30	22s51	6s20	3n 9	16s58	2n16	24s35	1s21	4n48	2n 7	19s15	0n43	21n51	1s20	17s20	0s41	22n24	0s53	15n47	7s16	20s29	20s11	2s28	15s12	2n11			

ASTRODIENST EPHEMERIS for the year 1413

geocentric

DECEMBER 1413 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	5 12 55	17°43'47	20°18'18	26°22'22	9°50'50	23°20'20	28°57'57	20°R31	14°33'33	7°R44	18°R36	28°R46	0°33'33	26°28'28	18°18'18	F 1
S 2	5 16 51	18°44'54	4°V29	27°28'28	11°5'5	23°48'48	29°10'10	20°II26	14°5'5	7°G43	18°II35	28°G45	0°3'3	26°35'35	18°26'26	S 2
S 3	5 20 48	19°46'02	18°44'44	28°36'36	12°20'20	24°16'16	29°23'23	20°21'21	14°7'7	7°41'41	18°34'34	28°42'42	0°0'0	26°42'42	18°33'33	S 3
M 4	5 24 44	20°47'09	2°S59	29°47'47	13°34'34	24°44'44	29°36'36	20°16'16	14°10'10	7°40'40	18°33'33	28°37'37	29°S57	26°49'49	18°40'40	M 4
T 5	5 28 41	21°48'17	17°12'12	1°X0	14°49'49	25°11'11	29°49'49	20°11'11	14°12'12	7°38'38	18°32'32	28°31'31	29°S4	26°55'55	18°47'47	T 5
W 6	5 32 37	22°49'25	1°II16	2°16'16	16°4'4	25°38'38	0°X2	20°6'6	14°14'14	7°36'36	18°30'30	28°25'25	29°S1	27°2'2	18°54'54	W 6
T 7	5 36 34	23°50'34	15°9'9	3°33'33	17°19'19	26°5'5	0°15'15	20°1'1	14°17'17	7°35'35	18°29'29	28°20'20	29°48'48	27°9'9	19°1'1	T 7
F 8	5 40 30	24°51'43	28°45'45	4°52'52	18°34'34	26°32'32	0°28'28	19°56'56	14°19'19	7°33'33	18°28'28	28°15'15	29°44'44	27°15'15	19°8'8	F 8
S 9	5 44 27	25°52'52	12°G3	6°12'12	19°48'48	26°59'59	0°41'41	19°51'51	14°22'22	7°31'31	18°27'27	28°12'12	29°41'41	27°22'22	19°15'15	S 9
S 10	5 48 24	26°54'01	25°1'1	7°34'34	21°3'3	27°25'25	0°53'53	19°46'46	14°25'25	7°30'30	18°26'26	28°D11	29°38'38	27°29'29	19°22'22	S 10
M 11	5 52 20	27°55'11	7°G39	8°56'56	22°18'18	27°51'51	1°6'6	19°42'42	14°27'27	7°28'28	18°25'25	28°12'12	29°35'35	27°35'35	19°29'29	M 11
T 12	5 56 17	28°56'21	20°1'1	10°20'20	23°33'33	28°17'17	1°19'19	19°37'37	14°30'30	7°26'26	18°23'23	28°13'13	29°32'32	27°42'42	19°36'36	T 12
W 13	6 0 13	29°57'32	2°II8	11°44'44	24°47'47	28°43'43	1°31'31	19°32'32	14°33'33	7°25'25	18°22'22	28°15'15	29°29'29	27°49'49	19°42'42	W 13
T 14	6 4 10	0°S58'42	14°5'5	13°10'10	26°2'2	29°8'8	1°44'44	19°27'27	14°35'35	7°23'23	18°21'21	28°17'17	29°25'25	27°56'56	19°49'49	T 14
F 15	6 8 6	1°59'53	25°57'57	14°36'36	27°17'17	29°33'33	1°57'57	19°22'22	14°38'38	7°21'21	18°20'20	28°18'18	29°22'22	28°2'2	19°56'56	F 15
S 16	6 12 3	3°1'05	7°G48	16°2'2	28°31'31	29°58'58	2°9'9	19°17'17	14°41'41	7°20'20	18°19'19	28°R18	29°19'19	28°9'9	20°2'2	S 16
S 17	6 15 59	4°2'16	19°44'44	17°30'30	29°46'46	0°G23	2°22'22	19°13'13	14°44'44	7°18'18	18°18'18	28°17'17	29°16'16	28°16'16	20°9'9	S 17
M 18	6 19 56	5°3'28	1°II50	18°58'58	1°X1	0°47'47	2°34'34	19°8'8	14°46'46	7°16'16	18°16'16	28°14'14	29°13'13	28°22'22	20°15'15	M 18
T 19	6 23 53	6°4'40	14°8'8	20°26'26	2°15'15	1°11'11	2°46'46	19°3'3	14°49'49	7°15'15	18°15'15	28°11'11	29°9'9	28°29'29	20°22'22	T 19
W 20	6 27 49	7°5'52	26°43'43	21°55'55	3°30'30	1°35'35	2°59'59	18°59'59	14°52'52	7°13'13	18°14'14	28°8'8	29°6'6	28°36'36	20°28'28	W 20
T 21	6 31 46	8°7'05	9°X37	23°25'25	4°44'44	1°59'59	3°11'11	18°54'54	14°55'55	7°11'11	18°13'13	28°5'5	29°3'3	28°43'43	20°34'34	T 21
F 22	6 35 42	9°8'17	22°51'51	24°55'55	5°59'59	2°22'22	3°23'23	18°50'50	14°58'58	7°9'9	18°12'12	28°2'2	29°0'0	28°49'49	20°40'40	F 22
S 23	6 39 39	10°9'29	6°S23	26°26'26	7°13'13	2°45'45	3°35'35	18°45'45	15°1'1	7°8'8	18°11'11	28°0'0	28°57'57	28°56'56	20°46'46	S 23
S 24	6 43 35	11°10'41	20°12'12	27°57'57	8°28'28	3°8'8	3°47'47	18°41'41	15°4'4	7°6'6	18°10'10	27°59'59	28°54'54	29°3'3	20°52'52	S 24
M 25	6 47 32	12°11'52	4°X14	29°28'28	9°42'42	3°30'30	3°59'59	18°36'36	15°7'7	7°4'4	18°9'9	27°D59	28°50'50	29°9'9	20°58'58	M 25
T 26	6 51 28	13°13'03	18°26'26	1°S0	10°57'57	3°52'52	4°11'11	18°32'32	15°10'10	7°3'3	18°8'8	27°59'59	28°47'47	29°16'16	21°4'4	T 26
W 27	6 55 25	14°14'13	2°X43	2°33'33	12°11'11	4°13'13	4°23'23	18°28'28	15°13'13	7°1'1	18°7'7	28°0'0	28°44'44	29°23'23	21°10'10	W 27
T 28	6 59 22	15°15'23	17°2'2	4°6'6	13°25'25	4°35'35	4°35'35	18°24'24	15°16'16	6°59'59	18°6'6	28°2'2	28°41'41	29°29'29	21°16'16	T 28
F 29	7 3 18	16°16'32	1°V19	5°39'39	14°40'40	4°56'56	4°46'46	18°20'20	15°19'19	6°58'58	18°5'5	28°2'2	28°38'38	29°36'36	21°22'22	F 29
S 30	7 7 15	17°17'40	15°31'31	7°13'13	15°54'54	5°16'16	4°58'58	18°15'15	15°23'23	6°56'56	18°4'4	28°R3	28°35'35	29°43'43	21°27'27	S 30
S 31	7 11 11	18°18'47	29°V36	8°S47	17°X8	5°G36	5°X9	18°II12	15°X26	6°G54	18°II3	28°S3	28°S31	29°II50	21°II33	S 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	22s57	0s 8	4n 3	17s19	2n 9	24s31	1s23	4n37	2n 8	19s17	0n43	21n51	1s20	17s19	0s41	22n24	0s53	15n47	7s16	20s28	20s12	2s32	15s13	2n12			
S 2	23 2	6n 7	4 43	17 40	2 2	24 27	1 24	4 27	2 9	19 20	0 43	21 50	1 20	17 19	0 41	22 24	0 53	15 47	7 16	20 29	20 12	2 35	15 15	2 12			
S 3	23 7	12 4	5 6	18 3	1 55	24 22	1 26	4 16	2 10	19 23	0 43	21 50	1 20	17 18	0 41	22 24	0 53	15 47	7 16	20 29	20 13	2 38	15 17	2 12			
M 4	23 12	17 23	5 9	18 25	1 47	24 16	1 27	4 6	2 11	19 26	0 43	21 50	1 20	17 17	0 41	22 24	0 53	15 47	7 16	20 30	20 14	2 41	15 18	2 13			
T 5	23 16	21 43	4 54	18 48	1 40	24 9	1 28	3 56	2 12	19 29	0 43	21 49	1 20	17 16	0 41	22 24	0 53	15 46	7 16	20 31	20 14	2 44	15 20	2 13			
W 6	23 19	24 44	4 21	19 11	1 32	24 2	1 30	3 46	2 13	19 32	0 43	21 49	1 20	17 16	0 41	22 24	0 53	15 46	7 16	20 33	20 15	2 47	15 21	2 14			
T 7	23 22	26 13	3 33	19 33	1 24	23 54	1 31	3 36	2 13	19 34	0 43	21 49	1 20	17 15	0 41	22 25	0 53	15 46	7 16	20 34	20 16	2 50	15 23	2 14			
F 8	23 25	26 4	2 34	19 56	1 16	23 45	1 32	3 26	2 14	19 37	0 43	21 49	1 20	17 14	0 41	22 25	0 53	15 46	7 16	20 35	20 16	2 53	15 25	2 14			
S 9	23 27	24 25	1 27	20 18	1 8	23 35	1 33	3 16	2 15	19 40	0 43	21 48	1 19	17 13	0 41	22 25	0 53	15 46	7 16	20 35	20 17	2 56	15 26	2 15			
S 10	23 29	21 29	0 17	20 39	1 0	23 25	1 34	3 7	2 16	19 42	0 43	21 48	1 19	17 13	0 41	22 25	0 53	15 46	7 16	20 35	20 18	3 0	15 28	2 15			
M11	23 30	17 35	0s52	21 0	0 52	23 14	1 35	2 57	2 17	19 45	0 43	21 48	1 19	17 12	0 41	22 25	0 53	15 46	7 16	20 35	20 18	3 3	15 29	2 15			
T 12	23 31	13 1	1 57	21 20	0 44	23 2	1 36	2 48	2 18	19 48	0 43	21 48	1 19	17 11	0 41	22 25	0 53	15 46	7 16	20 35	20 19	3 6	15 30	2 16			
W13	23 31	8 1	2 55	21 40	0 36	22 50	1 37	2 38	2 19	19 50	0 43	21 47	1 19	17 10	0 41	22 25	0 53	15 46	7 16	20 35	20 20	3 9	15 32	2 16			
T 14	23 31	2 49	3 46	21 59	0 28	22 37	1 38	2 29	2 20	19 53	0 43	21 47	1 19	17 9	0 41	22 25	0 53	15 46	7 16	20 34	20 20	3 12	15 33	2 17			
F 15	23 30	2s27	4 26	22 17	0 21	22 23	1 39	2 20	2 21	19 55	0 43	21 47	1 19	17 9	0 41	22 25	0 53	15 46	7 16	20 34	20 21	3 15	15 35	2 17			
S 16	23 29	7 37	4 55	22 34	0 13	22 9	1 39	2 10	2 22	19 58	0 43	21 47	1 19	17 8	0 41	22 25	0 53	15 46	7 15	20 34	20 22	3 18	15 36	2 17			
S 17	23 27	12 32	5 11	22 50	0 6	21 54	1 40	2 2	2 23	20 0	0 43	21 46	1 18	17 7	0 41	22 26	0 53	15 46	7 15	20 34	20 22	3 21	15 37	2 18			
M18	23 25	17 3	5 14	23 5	0s 2	21 38	1 40	1 53	2 23	20 3	0 43	21 46	1 18	17 6	0 41	22 26	0 53	15 46	7 15	20 35	20 23	3 24	15 39	2 18			
T 19	23 23	20 56	5 2	23 19	0 9	21 21	1 41	1 44	2 24	20 5	0 43	21 46	1 18	17 5	0 41	22 26	0 53	15 46	7 15	20 35	20 24	3 27	15 40	2 19			
W20	23 20	23 58	4 36	23 32	0 16	21 5	1 41	1 35	2 25	20 8	0 42	21 46	1 18	17 4	0 40	22 26	0 53	15 46	7 15	20 36	20 24	3 30	15 41	2 19			
T 21	23 16	25 51	3 56	23 44	0 23	20 47	1 41	1 27	2 26	20 10	0 42	21 46	1 18	17 3	0 40	22 26	0 53	15 46	7 15	20 37	20 25	3 34	15 43	2 19			
F 22	23 12	26 21	3 2	23 55	0 30	20 29	1 42	1 18	2 27	20 12	0 42	21 45	1 18	17 3	0 40	22 26	0 53	15 46	7 15	20 37	20 26	3 37	15 44	2 20			
S 23	23 8	25 18	1 56	24 5	0 37	20 10	1 42	1 10	2 28	20 15	0 42	21 45	1 18	17 2	0 40	22 26	0 53	15 46	7 15	20 38	20 26	3 40	15 45	2 20			
S 24	23 3	22 42	0 43	24 13	0 43	19 51	1 42	1 2	2 29	20 17	0 42	21 45	1 17	17 1	0 40	22 26	0 53	15 46	7 15	20 38	20 27	3 43	15 46	2 21			
M25	22 57	18 42	0n35	24 21	0 50	19 31	1 42	0 54	2 30	20 19	0 42	21 45	1 17	17 0	0 40	22 26	0 53	15 46	7 14	20 38	20 27	3 46	15 47	2 21			
T 26	22 51	13 36	1 51	24 27	0 56	19 10	1 42	0 46	2 31	20 21	0 42	21 44	1 17	16 59	0 40	22 26	0 53	15 46	7 14	20 38	20 28	3 49	15 48	2 22			
W27	22 45	7 44	3 1	24 31	1 2	18 49	1 42	0 39	2 32	20 24	0 42	21 44	1 17	16 58	0 40	22 27	0 53	15 46	7 14	20 38	20 29	3 52	15 49	2 22			
T 28	22 38	1 28	3 59	24 35	1 8	18 28	1 41	0 31	2 33	20 26	0 42	21 44	1 17	16 57	0 40	22 27	0 53	15 46	7 14	20 37	20 29	3 55	15 51	2 22			
F 29	22 31	4n51	4 43	24 37	1 13	18 6	1 41	0 24	2 34	20 28	0 42	21 44	1 17	16 56	0 40	22 27	0 53	15 46	7 14	20 37	20 30	3 58	15 52	2 23			
S 30	22 24	10 53	5 9	24 37	1 18	17 43	1 41	0 16	2 35	20 30	0 42	21 44	1 16	16 55	0 40	22 27	0 53	15 46	7 14	20 37	20 31	4 1	15 53	2 23			
S 31	22s16	16n18	5n17	24s37	1s23	17s20	1s40	0n 9	2n36	20s32	0n42	21n44	1s16	16s54	0s40	22n27	0s53	15n47	7s14	20s37	20s31	4s 4	15s54	2n24			