



Astrodienst Ephemeris Tables for the year 2077

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 2077
geocentric

JANUARY 2077

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 45 11	11°12'00	1°42	18°56	25°7 4	12°25	9°49	3°19	18°47	25°R35	8°59	16°R54	15°45	6°28	25°R18	F 1
S 2	6 49 7	12°13'10	15°44	19°42	26°19	13°12	9°58	3°26	18°51	25°33	8°59	16°D54	15°41	6°35	25°Y18	S 2
S 3	6 53 4	13°14'18	29°30	20°33	27°34	13°59	10° 7	3°33	18°54	25°31	9° 0	16°II55	15°38	6°42	25°17	S 3
M 4	6 57 1	14°15'27	13°8 0	21°28	28°50	14°46	10°16	3°40	18°58	25°30	9° 0	16°56	15°35	6°49	25°17	M 4
T 5	7 0 57	15°16'35	26°15	22°26	0°5 5	15°34	10°24	3°47	19° 1	25°28	9° 0	16°58	15°32	6°55	25°D17	T 5
W 6	7 4 54	16°17'44	9°116	23°28	1°20	16°21	10°33	3°54	19° 5	25°26	9° 0	16°59	15°29	7° 2	25°17	W 6
T 7	7 8 50	17°18'52	22° 5	24°33	2°36	17° 8	10°41	4° 1	19° 8	25°25	9° 1	16°R59	15°26	7° 9	25°17	T 7
F 8	7 12 47	18°19'59	4°343	25°40	3°51	17°55	10°50	4° 8	19°12	25°23	9° 1	16°58	15°22	7°16	25°18	F 8
S 9	7 16 43	19°21'07	17°10	26°50	5° 6	18°43	10°58	4°15	19°16	25°21	9° 2	16°55	15°19	7°22	25°18	S 9
S 10	7 20 40	20°22'14	29°27	28° 2	6°21	19°30	11° 6	4°22	19°19	25°20	9° 2	16°50	15°16	7°29	25°18	S 10
M11	7 24 37	21°23'21	11°135	29°16	7°37	20°17	11°14	4°29	19°23	25°18	9° 2	16°44	15°13	7°36	25°18	M11
T 12	7 28 33	22°24'28	23°36	0°31	8°52	21° 5	11°22	4°36	19°26	25°16	9° 3	16°37	15°10	7°42	25°19	T 12
W13	7 32 30	23°25'34	5°131	1°48	10° 7	21°52	11°30	4°43	19°30	25°14	9° 3	16°30	15° 6	7°49	25°19	W13
T 14	7 36 26	24°26'41	17°23	3° 7	11°23	22°39	11°37	4°49	19°33	25°13	9° 4	16°24	15° 3	7°56	25°20	T 14
F 15	7 40 23	25°27'47	29°15	4°26	12°38	23°27	11°45	4°56	19°37	25°11	9° 4	16°19	15° 0	8° 3	25°20	F 15
S 16	7 44 19	26°28'53	11°110	5°47	13°53	24°14	11°52	5° 3	19°40	25° 9	9° 5	16°15	14°57	8° 9	25°21	S 16
S 17	7 48 16	27°29'59	23°14	7° 9	15° 9	25° 1	11°59	5°10	19°44	25° 8	9° 6	16°D14	14°54	8°16	25°22	S 17
M18	7 52 12	28°31'04	5°130	8°32	16°24	25°48	12° 6	5°16	19°48	25° 6	9° 6	16°14	14°51	8°23	25°22	M18
T 19	7 56 9	29°32'10	18° 4	9°56	17°39	26°36	12°13	5°23	19°51	25° 4	9° 7	16°15	14°47	8°29	25°23	T 19
W20	8 0 6	0°33'15	1°1	11°21	18°55	27°23	12°20	5°30	19°55	25° 3	9° 7	16°17	14°44	8°36	25°24	W20
T 21	8 4 2	1°34'20	14°23	12°47	20°10	28°10	12°26	5°36	19°58	25° 1	9° 8	16°R18	14°41	8°43	25°25	T 21
F 22	8 7 59	2°35'24	28°13	14°13	21°25	28°58	12°33	5°43	20° 2	24°59	9° 9	16°17	14°38	8°50	25°26	F 22
S 23	8 11 55	3°36'28	12°31	15°40	22°41	29°45	12°39	5°50	20° 5	24°58	9° 9	16°14	14°35	8°56	25°27	S 23
S 24	8 15 52	4°37'32	27°13	17° 8	23°56	0°32	12°45	5°56	20° 9	24°56	9°10	16° 9	14°32	9° 3	25°28	S 24
M25	8 19 48	5°38'34	12°12	18°37	25°11	1°20	12°51	6° 3	20°12	24°54	9°11	16° 2	14°28	9°10	25°29	M25
T 26	8 23 45	6°39'36	27°20	20° 6	26°27	2° 7	12°57	6° 9	20°16	24°53	9°12	15°54	14°25	9°17	25°30	T 26
W27	8 27 41	7°40'37	12°25	21°36	27°42	2°54	13° 3	6°15	20°19	24°51	9°12	15°46	14°22	9°23	25°31	W27
T 28	8 31 38	8°41'37	27°18	23° 7	28°57	3°42	13° 8	6°22	20°23	24°49	9°13	15°39	14°19	9°30	25°33	T 28
F 29	8 35 35	9°42'35	11°53	24°39	0°13	4°29	13°13	6°28	20°26	24°48	9°14	15°33	14°16	9°37	25°34	F 29
S 30	8 39 31	10°43'33	26° 4	26°11	1°28	5°16	13°19	6°34	20°29	24°46	9°15	15°30	14°12	9°43	25°35	S 30
S 31	8 43 28	11°44'29	9°51	27°34	2°43	6°4	13°24	6°34	20°33	24°44	9°16	15°D29	14°11	9°50	25°Y37	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	3s58	5s 4	20s36	2n22	22s57	0n23	18s11	1s10	13s40	1n 8	22s33	0n50	22s32	0s25	20n29	0s33	11s54	16s50	22n47	22n40	13n51	10n 1	0n15			
S 2	22 52	1n57	4 36	20 48	2 14	23 2	0 20	17 58	1 10	13 43	1 9	22 33	0 50	22 31	0 25	20 29	0 33	11 54	16 49	22 47	22 40	13 48	10 1	0 15			
S 3	22 46	7 40	3 52	21 0	2 6	23 7	0 18	17 44	1 9	13 45	1 9	22 33	0 50	22 31	0 25	20 29	0 33	11 53	16 49	22 47	22 39	13 46	10 1	0 15			
M 4	22 40	12 56	2 56	21 12	1 57	23 10	0 15	17 30	1 9	13 48	1 9	22 33	0 50	22 30	0 25	20 30	0 33	11 53	16 49	22 47	22 39	13 44	10 1	0 15			
T 5	22 33	17 30	1 51	21 24	1 49	23 13	0 13	17 16	1 9	13 51	1 9	22 32	0 50	22 30	0 25	20 30	0 33	11 52	16 48	22 48	22 39	13 41	10 0	0 15			
W 6	22 26	21 8	0 42	21 37	1 40	23 15	0 10	17 1	1 8	13 53	1 9	22 32	0 50	22 29	0 25	20 30	0 33	11 52	16 48	22 48	22 38	13 39	10 0	0 15			
T 7	22 19	23 39	0n28	21 48	1 31	23 16	0 8	16 46	1 8	13 56	1 9	22 32	0 50	22 29	0 25	20 31	0 33	11 51	16 48	22 48	22 38	13 36	10 0	0 15			
F 8	22 11	24 56	1 35	22 0	1 22	23 17	0 5	16 32	1 8	13 58	1 9	22 32	0 50	22 28	0 25	20 31	0 33	11 51	16 47	22 47	22 38	13 34	10 0	0 14			
S 9	22 2	24 56	2 37	22 11	1 13	23 17	0 3	16 17	1 7	14 0	1 10	22 32	0 50	22 28	0 25	20 31	0 33	11 50	16 47	22 47	22 37	13 32	10 0	0 14			
S 10	21 53	23 42	3 31	22 21	1 4	23 16	0 0	16 2	1 7	14 3	1 10	22 32	0 50	22 27	0 25	20 32	0 33	11 50	16 46	22 47	22 37	13 29	10 0	0 14			
M11	21 44	21 22	4 14	22 31	0 55	23 15	0s 2	15 46	1 7	14 5	1 10	22 31	0 50	22 27	0 25	20 32	0 33	11 49	16 46	22 46	22 37	13 27	10 0	0 14			
T 12	21 34	18 8	4 46	22 39	0 46	23 13	0 5	15 31	1 6	14 7	1 10	22 31	0 50	22 26	0 25	20 32	0 33	11 49	16 46	22 45	22 36	13 24	10 0	0 14			
W13	21 24	14 12	5 4	22 47	0 38	23 10	0 7	15 15	1 6	14 10	1 10	22 31	0 50	22 26	0 25	20 32	0 33	11 48	16 45	22 45	22 36	13 22	10 1	0 14			
T 14	21 13	9 44	5 10	22 55	0 29	23 6	0 10	14 59	1 5	14 12	1 10	22 31	0 50	22 25	0 25	20 33	0 33	11 48	16 45	22 44	22 36	13 19	10 1	0 14			
F 15	21 2	4 55	5 2	23 1	0 21	23 2	0 12	14 43	1 5	14 14	1 11	22 31	0 50	22 25	0 25	20 33	0 33	11 47	16 45	22 44	22 35	13 17	10 1	0 14			
S 16	20 51	0s 6	4 41	23 6	0 12	22 57	0 15	14 27	1 5	14 16	1 11	22 30	0 50	22 24	0 25	20 33	0 33	11 47	16 44	22 43	22 35	13 15	10 1	0 14			
S 17	20 39	5 11	4 8	23 10	0 4	22 51	0 17	14 11	1 4	14 18	1 11	22 30	0 50	22 24	0 25	20 34	0 33	11 46	16 44	22 43	22 34	13 12	10 1	0 14			
M18	20 27	10 10	3 23	23 13	0s 4	22 45	0 19	13 55	1 4	14 20	1 11	22 30	0 50	22 23	0 25	20 34	0 33	11 46	16 44	22 43	22 34	13 10	10 1	0 14			
T 19	20 14	14 51	2 27	23 15	0 12	22 37	0 22	13 38	1 3	14 22	1 11	22 30	0 50	22 23	0 25	20 34	0 33	11 45	16 43	22 43	22 34	13 7	10 1	0 13			
W20	20 1	19 1	1 22	23 16	0 19	22 30	0 24	13 22	1 3	14 24	1 11	22 29	0 49	22 22	0 25	20 35	0 33	11 45	16 43	22 43	22 33	13 5	10 2	0 13			
T 21	19 48	22 21	0 10	23 15	0 27	22 21	0 26	13 5	1 3	14 26	1 12	22 29	0 49	22 22	0 25	20 35	0 33	11 44	16 43	22 43	22 33	13 2	10 2	0 13			
F 22	19 34	24 29	1s 4	23 14	0 34	22 12	0 29	12 48	1 2	14 27	1 12	22 29	0 49	22 21	0 25	20 35	0 33	11 44	16 42	22 43	22 33	13 0	10 2	0 13			
S 23	19 20	25 6	2 17	23 11	0 41	22 2	0 31	12 31	1 2	14 29	1 12	22 29	0 49	22 21	0 25	20 36	0 33	11 43	16 42	22 43	22 32	12 57	10 2	0 13			
S 24	19 6	24 1	3 22	23 7	0 48	21 51	0 33	12 14	1 1	14 31	1 12	22 29	0 49	22 20	0 25	20 36	0 33	11 42	16 42	22 43	22 32	12 55	10 3	0 13			
M25	18 51	21 12	4 15	23 2	0 54	21 40	0 36	11 57	1 1	14 33	1 12	22 28	0 49	22 20	0 25	20 36	0 33	11 42	16 41	22 42	22 32	12 52	10 3	0 13			
T 26	18 36	16 56	4 50	22 55	1 0	21 28	0 38	11 39	1 0	14 34	1 12	22 28	0 49	22 19	0 25	20 37	0 33	11 41	16 41	22 41	22 31	12 50	10 3	0 13			
W27	18 21	11 36	5 6	22 47	1 6	21 16	0 40	11 22	1 0	14 36	1 13	22 28	0 49	22 19	0 25	20 37	0 33	11 41	16 41	22 40	22 31	12 47	10 4	0 13			
T 28	18 5	5 39	5 0	22 38	1 12	21 3	0 42	11 4	0 59	14 37	1 13	22 27	0 49	22 18	0 25	20 37	0 33	11 40	16 40	22 39	22 31	12 45	10 4	0 13			
F 29	17 49	0n29	4 35	22 28	1 18	20 49	0 44	10 47	0 59	14 39	1 13	22 27	0 49	22 18	0 25	20 38	0 33	11 39	16 40	22 39	22 30	12 43	10 5	0 13			
S 30	17 32	6 26	3 53	22 16	1 23	20 34	0 46	10 29	0 59	14 40	1 13	22 27	0 49	22 17	0 25	20 38	0 33	11 39	16 40	22 39	22 30	12 40	10 5	0 13			
S 31	17s16	11n56	2s59	22s 3	1s28	20s19	0s48	10s11	0s58	14s41	1n13	22s27	0n49	22s17	0s25	20n38	0s33	11s38	16s40	22n38	22n29	12n38	10n 5	0n12			

ASTRODIENST EPHEMERIS for the year 2077

geocentric

FEBRUARY 2077

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 47 24	12 ⁴⁵ 24	23 ¹⁵ 15	29 ¹⁷ 17	3 ⁵⁹ 59	6 ⁵¹ 51	13 ²⁹ 29	6 ⁴⁷ 47	20 ³⁶ 36	24 ⁴³ 43	9 ¹⁷ 17	15 ³⁰ 30	14 ⁶ 6	9 ⁵⁷ 57	25 ³⁸ 38	M 1
T 2	8 51 21	13 ⁴⁶ 17	6 ¹⁸ 18	0 ⁵¹ 51	5 ¹⁴ 14	7 ³⁸ 38	13 ³³ 33	6 ⁵³ 53	20 ³⁹ 39	24 ⁴¹ 41	9 ¹⁸ 18	15 ³⁰ 30	14 ³ 3	10 ⁴ 4	25 ⁴⁰ 40	T 2
W 3	8 55 17	14 ⁴⁷ 09	19 ⁴ 4	2 ²⁶ 26	6 ²⁹ 29	8 ²⁵ 25	13 ³⁸ 38	6 ⁵⁹ 59	20 ⁴³ 43	24 ⁴⁰ 40	9 ¹⁹ 19	15 ³⁰ 30	14 ⁰ 0	10 ¹⁰ 10	25 ⁴¹ 41	W 3
T 4	8 59 14	15 ⁴⁸ 00	1 ³⁶ 36	4 ² 2	7 ⁴⁴ 44	9 ¹² 12	13 ⁴² 42	7 ⁵ 5	20 ⁴⁶ 46	24 ³⁸ 38	9 ¹⁹ 19	15 ²⁹ 29	13 ⁵⁷ 57	10 ¹⁷ 17	25 ⁴³ 43	T 4
F 5	9 3 10	16 ⁴⁸ 50	13 ⁵⁷ 57	5 ³⁸ 38	9 ⁰ 0	10 ⁰ 0	13 ⁴⁶ 46	7 ¹¹ 11	20 ⁴⁹ 49	24 ³⁷ 37	9 ²⁰ 20	15 ²⁵ 25	13 ⁵³ 53	10 ²⁴ 24	25 ⁴⁵ 45	F 5
S 6	9 7 7	17 ⁴⁹ 38	26 ⁹ 9	7 ¹⁵ 15	10 ¹⁵ 15	10 ⁴⁷ 47	13 ⁵⁰ 50	7 ¹⁷ 17	20 ⁵³ 53	24 ³⁵ 35	9 ²¹ 21	15 ¹⁹ 19	13 ⁵⁰ 50	10 ³¹ 31	25 ⁴⁷ 47	S 6
S 7	9 11 4	18 ⁵⁰ 26	8 ¹⁴ 14	8 ⁵³ 53	11 ³⁰ 30	11 ³⁴ 34	13 ⁵⁴ 54	7 ²³ 23	20 ⁵⁶ 56	24 ³³ 33	9 ²² 22	15 ⁹ 9	13 ⁴⁷ 47	10 ³⁷ 37	25 ⁴⁸ 48	S 7
M 8	9 15 0	19 ⁵¹ 11	20 ¹⁴ 14	10 ³² 32	12 ⁴⁵ 45	12 ²¹ 21	13 ⁵⁸ 58	7 ²⁹ 29	20 ⁵⁹ 59	24 ³² 32	9 ²³ 23	14 ⁵⁸ 58	13 ⁴⁴ 44	10 ⁴⁴ 44	25 ⁵⁰ 50	M 8
T 9	9 18 57	20 ⁵¹ 56	2 ¹⁰ 10	12 ¹¹ 11	14 ¹ 1	13 ⁸ 8	14 ¹ 1	7 ³⁵ 35	21 ² 2	24 ³⁰ 30	9 ²⁴ 24	14 ⁴⁵ 45	13 ⁴¹ 41	10 ⁵¹ 51	25 ⁵² 52	T 9
W10	9 22 53	21 ⁵² 39	14 ⁴ 4	13 ⁵¹ 51	15 ¹⁶ 16	13 ⁵⁵ 55	14 ⁵ 5	7 ⁴⁰ 40	21 ⁶ 6	24 ²⁹ 29	9 ²⁵ 25	14 ³² 32	13 ³⁸ 38	10 ⁵⁷ 57	25 ⁵⁴ 54	W10
T 11	9 26 50	22 ⁵³ 21	25 ⁵⁶ 56	15 ³² 32	16 ³¹ 31	14 ⁴² 42	14 ⁸ 8	7 ⁴⁶ 46	21 ⁹ 9	24 ²⁸ 28	9 ²⁷ 27	14 ¹⁹ 19	13 ³⁴ 34	11 ⁴ 4	25 ⁵⁶ 56	T 11
F 12	9 30 46	23 ⁵⁴ 02	7 ⁴⁸ 48	17 ¹⁴ 14	17 ⁴⁶ 46	15 ³⁰ 30	14 ¹¹ 11	7 ⁵² 52	21 ¹² 12	24 ²⁶ 26	9 ²⁸ 28	14 ⁸ 8	13 ³¹ 31	11 ¹¹ 11	25 ⁵⁸ 58	F 12
S 13	9 34 43	24 ⁵⁴ 42	19 ⁴⁴ 44	18 ⁵⁷ 57	19 ¹ 1	16 ¹⁷ 17	14 ¹⁴ 14	7 ⁵⁷ 57	21 ¹⁵ 15	24 ²⁵ 25	9 ²⁹ 29	14 ⁰ 0	13 ²⁸ 28	11 ¹⁸ 18	26 ⁰ 0	S 13
S 14	9 38 39	25 ⁵⁵ 20	1 ¹⁴ 14	20 ⁴⁰ 40	20 ¹⁷ 17	17 ⁴ 4	14 ¹⁶ 16	8 ³ 3	21 ¹⁸ 18	24 ²³ 23	9 ³⁰ 30	13 ⁵⁵ 55	13 ²⁵ 25	11 ²⁴ 24	26 ² 2	S 14
M15	9 42 36	26 ⁵⁵ 57	14 ⁰ 0	22 ²⁵ 25	21 ³² 32	17 ⁵¹ 51	14 ¹⁹ 19	8 ⁸ 8	21 ²¹ 21	24 ²² 22	9 ³¹ 31	13 ⁵² 52	13 ²² 22	11 ³¹ 31	26 ⁴ 4	M15
T 16	9 46 33	27 ⁵⁶ 34	26 ²⁹ 29	24 ¹⁰ 10	22 ⁴⁷ 47	18 ³⁸ 38	14 ²¹ 21	8 ¹⁴ 14	21 ²⁴ 24	24 ²⁰ 20	9 ³² 32	13 ⁵² 52	13 ¹⁸ 18	11 ³⁸ 38	26 ⁷ 7	T 16
W17	9 50 29	28 ⁵⁷ 09	9 ²¹ 21	25 ⁵⁶ 56	24 ² 2	19 ²⁵ 25	14 ²³ 23	8 ¹⁹ 19	21 ²⁷ 27	24 ¹⁹ 19	9 ³³ 33	13 ⁵² 52	13 ¹⁵ 15	11 ⁴⁴ 44	26 ⁹ 9	W17
T 18	9 54 26	29 ⁵⁷ 43	2 ³³ 33	27 ⁴³ 43	25 ¹⁷ 17	20 ¹² 12	14 ²⁵ 25	8 ²⁴ 24	21 ³⁰ 30	24 ¹⁸ 18	9 ³⁴ 34	13 ⁵² 52	13 ¹² 12	11 ⁵¹ 51	26 ¹¹ 11	T 18
F 19	9 58 22	0 ⁵⁸ 16	6 ³¹ 31	29 ³¹ 31	26 ³² 32	20 ⁵⁸ 58	14 ²⁷ 27	8 ³⁰ 30	21 ³³ 33	24 ¹⁷ 17	9 ³⁶ 36	13 ⁵⁰ 50	13 ⁹ 9	11 ⁵⁸ 58	26 ¹³ 13	F 19
S 20	10 2 19	1 ⁵⁸ 47	20 ²⁹ 29	1 ¹⁹ 19	27 ⁴⁸ 48	21 ⁴⁵ 45	14 ²⁸ 28	8 ³⁵ 35	21 ³⁶ 36	24 ¹⁵ 15	9 ³⁷ 37	13 ⁴⁶ 46	13 ⁶ 6	12 ⁵ 5	26 ¹⁶ 16	S 20
S 21	10 6 15	2 ⁵⁹ 17	5 ⁹ 9	3 ⁹ 9	29 ³ 3	22 ³² 32	14 ³⁰ 30	8 ⁴⁰ 40	21 ³⁹ 39	24 ¹⁴ 14	9 ³⁸ 38	13 ³⁹ 39	13 ³ 3	12 ¹¹ 11	26 ¹⁸ 18	S 21
M22	10 10 12	3 ⁵⁹ 46	20 ¹³ 13	4 ⁵⁹ 59	0 ¹⁸ 18	23 ¹⁹ 19	14 ³¹ 31	8 ⁴⁵ 45	21 ⁴² 42	24 ¹³ 13	9 ³⁹ 39	13 ²⁹ 29	12 ⁵⁹ 59	12 ¹⁸ 18	26 ²¹ 21	M22
T 23	10 14 8	5 ⁰ 13	5 ¹³ 13	6 ⁵⁰ 50	1 ³³ 33	24 ⁶ 6	14 ³² 32	8 ⁵⁰ 50	21 ⁴⁵ 45	24 ¹² 12	9 ⁴⁰ 40	13 ¹⁸ 18	12 ⁵⁶ 56	12 ²⁵ 25	26 ²³ 23	T 23
W24	10 18 5	6 ⁰ 38	20 ⁵² 52	8 ⁴² 42	2 ⁴⁸ 48	24 ⁵³ 53	14 ³² 32	8 ⁵⁵ 55	21 ⁴⁸ 48	24 ¹⁰ 10	9 ⁴² 42	13 ⁷ 7	12 ⁵³ 53	12 ³² 32	26 ²⁶ 26	W24
T 25	10 22 2	7 ¹ 02	6 ⁴ 4	10 ³⁵ 35	4 ³ 3	25 ³⁹ 39	14 ³³ 33	9 ⁰ 0	21 ⁵¹ 51	24 ⁹ 9	9 ⁴³ 43	12 ⁵⁶ 56	12 ⁵⁰ 50	12 ³⁸ 38	26 ²⁸ 28	T 25
F 26	10 25 58	8 ¹ 24	20 ⁵⁷ 57	12 ²⁸ 28	5 ¹⁸ 18	26 ²⁶ 26	14 ³³ 33	9 ⁴ 4	21 ⁵³ 53	24 ⁸ 8	9 ⁴⁴ 44	12 ⁴⁸ 48	12 ⁴⁷ 47	12 ⁴⁵ 45	26 ³¹ 31	F 26
S 27	10 29 55	9 ⁰ 144	5 ²⁴ 24	14 ²² 22	6 ³³ 33	27 ¹³ 13	14 ³⁴ 34	9 ⁹ 9	21 ⁵⁶ 56	24 ⁷ 7	9 ⁴⁵ 45	12 ⁴² 42	12 ⁴³ 43	12 ⁵² 52	26 ³⁴ 34	S 27
S 28	10 33 51	10 ¹ 16	19 ²² 22	16 ¹⁶ 16	7 ⁴⁸ 48	28 ¹ 1	14 ³⁴ 34	9 ¹⁴ 14	21 ⁵⁹ 59	24 ⁶ 6	9 ⁴⁷ 47	12 ³⁹ 39	12 ⁴⁰ 40	12 ⁵⁸ 58	26 ³⁶ 36	S 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	decl	lat
M 1	16s59	16n42	1s56	21s49	1s33	20s 4	0s50	9s53	0s58	14s43	1n13	22s26	0n49	22s16	0s26	20n38	0s33	11s38	16s39	22n38	22n29	12n35	10n 6	0n12	10n 6	0n12	
T 2	16 41	20 33	0 49	21 33	1 38	19 48	0 52	9 35	0 57	14 44	1 14	22 26	0 49	22 16	0 26	20 39	0 33	11 37	16 39	22 39	22 29	12 33	10 6	0 12	10 6	0 12	
W 3	16 24	23 18	0n19	21 16	1 42	19 31	0 54	9 17	0 57	14 45	1 14	22 26	0 49	22 15	0 26	20 39	0 33	11 36	16 39	22 39	22 28	12 30	10 7	0 12	10 7	0 12	
T 4	16 6	24 50	1 25	20 57	1 46	19 13	0 56	8 59	0 56	14 46	1 14	22 25	0 49	22 15	0 26	20 39	0 33	11 36	16 38	22 38	22 28	12 27	10 7	0 12	10 7	0 12	
F 5	15 47	25 7	2 26	20 37	1 49	18 56	0 58	8 41	0 56	14 47	1 14	22 25	0 49	22 14	0 26	20 40	0 32	11 35	16 38	22 38	22 28	12 25	10 8	0 12	10 8	0 12	
S 6	15 29	24 10	3 19	20 16	1 53	18 37	0 59	8 22	0 55	14 48	1 14	22 25	0 49	22 14	0 26	20 40	0 32	11 34	16 38	22 37	22 27	12 22	10 9	0 12	10 9	0 12	
S 7	15 10	22 6	4 2	19 53	1 55	18 18	1 1	8 4	0 55	14 49	1 15	22 25	0 49	22 13	0 26	20 40	0 32	11 34	16 37	22 36	22 27	12 20	10 9	0 12	10 9	0 12	
M 8	14 51	19 4	4 34	19 29	1 58	17 59	1 3	7 45	0 54	14 50	1 15	22 24	0 49	22 13	0 26	20 40	0 32	11 33	16 37	22 35	22 26	12 17	10 10	0 12	10 10	0 12	
T 9	14 32	15 16	4 54	19 4	2 0	17 39	1 4	7 27	0 54	14 51	1 15	22 24	0 49	22 12	0 26	20 41	0 32	11 33	16 37	22 33	22 26	12 15	10 10	0 12	10 10	0 12	
W10	14 13	10 54	5 1	18 37	2 2	17 18	1 6	7 8	0 53	14 52	1 15	22 24	0 49	22 12	0 26	20 41	0 32	11 32	16 37	22 32	22 26	12 12	10 11	0 12	10 11	0 12	
T 11	13 53	6 8	4 55	18 8	2 4	16 57	1 7	6 50	0 52	14 52	1 15	22 23	0 49	22 11	0 26	20 41	0 32	11 31	16 36	22 31	22 25	12 10	10 12	0 12	10 12	0 12	
F 12	13 33	1 9	4 37	17 39	2 5	16 36	1 9	6 31	0 52	14 53	1 16	22 23	0 49	22 11	0 26	20 42	0 32	11 31	16 36	22 29	22 25	12 7	10 12	0 11	10 12	0 11	
S 13	13 13	3s55	4 6	17 8	2 6	16 14	1 10	6 12	0 51	14 54	1 16	22 23	0 49	22 11	0 26	20 42	0 32	11 30	16 36	22 28	22 24	12 5	10 13	0 11	10 13	0 11	
S 14	12 52	8 54	3 23	16 35	2 6	15 51	1 12	5 53	0 51	14 54	1 16	22 22	0 49	22 10	0 26	20 42	0 32	11 29	16 36	22 28	22 24	12 2	10 14	0 11	10 14	0 11	
M15	12 32	13 38	2 31	16 1	2 6	15 28	1 13	5 35	0 50	14 55	1 16	22 22	0 49	22 10	0 26	20 42	0 32	11 29	16 35	22 27	22 24	12 0	10 14	0 11	10 14	0 11	
T 16	12 11	17 54	1 31	15 26	2 5	15 5	1 14	5 16	0 50	14 55	1 16	22 22	0 49	22 9	0 26	20 43	0 32	11 28	16 35	22 27	22 23	11 57	10 15	0 11	10 15	0 11	
W17	11 50	21 27	0 24	14 49	2 4	14 41	1 15	4 57	0 49	14 56	1 16	22 21	0 49	22 9	0 26	20 43	0 32	11 27	16 35	22 27	22 23	11 54	10 16	0 11	10 16	0 11	
T 18	11 29	23 59	0s46	14 11	2 3	14 17	1 16	4 38	0 49	14 56	1 17	22 21	0 49	22 8	0 26	20 43	0 32	11 27	16 35	22 27	22 22	11 52	10 17	0 11	10 17	0 11	
F 19	11 8	25 12	1 56	13 32	2 1	13 53	1 17	4 19	0 48	14 57	1 17	22 21	0 49	22 8	0 26	20 43	0 32	11 26	16 35	22 27	22 22	11 49	10 17	0 11	10 17	0 11	
S 20	10 46	24 51	3 1	12 51	1 58	13 28	1 18	4 0	0 48	14 57	1 17	22 20	0 49	22 7	0 26	20 44	0 32	11 25	16 34	22 27	22 22	11 47	10 18	0 11	10 18	0 11	
S 21	10 24	22 47	3 56	12 9	1 56	13 3	1 19	3 41	0 47	14 57	1 17	22 20	0 49	22 7	0 26	20 44	0 32	11 25	16 34	22 26	22 21	11 44	10 19	0 11	10 19	0 11	
M22	10 2	19 6	4 36	11 25	1 52	12 37	1 20	3 22	0 46	14 57	1 17	22 20	0 49	22 6	0 26	20 44	0 32	11 24	16 34	22 25	22 21	11 42	10 20	0 11	10 20	0 11	
T 23	9 40	14 5	4 57	10 40	1 48	12 11	1 21	3 3	0 46	14 57	1 18	22 19	0 49	22 6	0 26	20 44	0 32	11 23	16 34	22 23	22 20	11 39	10 21	0 11	10 21	0 11	
W24	9 18	8 10	4 57	9 54	1 44	11 45	1 22	2 44	0 45	14 57	1 18	22 19	0 49	22 6	0 26	20 45	0 32	11 23	16 33	22 22	22 20	11 36	10 21	0 11	10 21	0 11	
T 25	8 56	1 49	4 36	9 7	1 38	11 18	1 23	2 24	0 45	14 57	1 18	22 19	0 49	22 5	0 26	20 45	0 32	11 22	16 33	22 20	22 20	11 34	10 22	0 10	10 22	0 10	
F 26	8 33	4n31	3 57	8 18	1 33	10 51	1 23	2 5	0 44	14 57	1 18	22 18	0 49	22 5	0 26	20 45	0 32	11 21	16 33	22 19	22 19	11 31	10 23	0 10	10 23	0 10	
S 27	8 11	10 26	3 3	7 29	1 26	10 24	1 24	1 46	0 43	14 57	1 18	22 18	0 49	22 4	0 26	20 45	0 32	11 21	16 33	22 19	22 19	11 29	10 24	0 10	10 24	0 10	
S 28	7s48	15n39	2s 0	6s38	1s20	9s57	1s24	1s27	0s43	14s57	1n19	22s18	0n49	22s 4	0s26	20n45	0s32	11s20	16s33	22n18	22n18	11n26	10n25	0n10	10n25	0n10	

ASTRODIENST EPHEMERIS for the year 2077

geocentric

MARCH 2077

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 37 48	11° 2' 18"	2° 11' 51"	18° 11' 11"	9° 11' 3"	28° 11' 46"	14° 18' 33"	9° 18' 18"	22° 18' 1"	24° 18' 5"	9° 18' 48"	12° 18' 38"	12° 18' 37"	13° 18' 5"	26° 18' 39"	M 1
T 2	10 41 44	12° 2' 32"	15° 5' 55"	20° 5' 10"	10° 18' 29"	29° 3' 33"	14° 18' 33"	9° 23' 22"	22° 4' 24"	24° 4' 9"	9° 49' 12"	12° 18' 38"	12° 34' 13"	13° 12' 13"	26° 42' 26"	T 2
W 3	10 45 41	13° 2' 44"	28° 3' 7"	22° 0' 11"	11° 33' 0"	0° 19' 14"	14° 33' 9"	9° 27' 6"	22° 6' 24"	24° 3' 9"	9° 51' 12"	12° 38' 12"	12° 31' 13"	13° 19' 13"	26° 45' 26"	W 3
T 4	10 49 37	14° 2' 53"	11° 5' 2"	23° 54' 12"	12° 48' 1"	1° 6' 14"	14° 32' 9"	9° 31' 22"	22° 9' 24"	24° 2' 9"	9° 52' 12"	12° 36' 12"	12° 28' 13"	13° 25' 26"	26° 47' 26"	T 4
F 5	10 53 34	15° 3' 01"	23° 14' 25"	25° 47' 14"	14° 3' 15"	1° 52' 14"	14° 31' 9"	9° 35' 22"	22° 12' 24"	24° 1' 9"	9° 53' 12"	12° 31' 12"	12° 24' 13"	13° 32' 26"	26° 50' 26"	F 5
S 6	10 57 31	16° 3' 07"	5° 17' 28"	27° 40' 15"	15° 18' 2"	2° 39' 14"	14° 30' 9"	9° 40' 22"	22° 14' 24"	24° 0' 9"	9° 55' 12"	12° 24' 12"	12° 21' 13"	13° 39' 26"	26° 53' 26"	S 6
S 7	11 1 27	17° 3' 11"	17° 14' 29"	29° 31' 16"	16° 33' 3"	3° 25' 14"	14° 28' 9"	9° 44' 22"	22° 16' 23"	23° 59' 9"	9° 56' 12"	12° 13' 12"	12° 18' 13"	13° 46' 26"	26° 56' 26"	S 7
M 8	11 5 24	18° 3' 12"	29° 8' 1° 21"	17° 48' 4"	17° 48' 4"	4° 12' 14"	14° 27' 9"	9° 48' 22"	22° 19' 23"	23° 58' 9"	9° 57' 12"	12° 0' 12"	12° 15' 13"	13° 52' 26"	26° 59' 26"	M 8
T 9	11 9 20	19° 3' 12"	11° 11' 1° 3"	19° 3' 4"	19° 3' 4"	4° 58' 14"	14° 25' 9"	9° 52' 22"	22° 21' 23"	23° 57' 9"	9° 59' 11"	11° 46' 12"	12° 12' 13"	13° 59' 27"	27° 2' 27"	T 9
W10	11 13 17	20° 3' 10"	22° 54' 4"	4° 53' 20"	20° 18' 5"	5° 44' 14"	14° 23' 9"	9° 55' 22"	22° 23' 23"	23° 57' 10"	9° 0' 11"	11° 31' 12"	12° 9' 14"	14° 6' 27"	27° 5' 27"	W10
T 11	11 17 13	21° 3' 06"	4° 48' 6"	6° 35' 21"	21° 33' 6"	6° 31' 14"	14° 21' 9"	9° 59' 22"	22° 26' 23"	23° 56' 10"	10° 2' 11"	11° 18' 12"	12° 5' 14"	14° 12' 27"	27° 8' 27"	T 11
F 12	11 21 10	22° 3' 00"	16° 45' 8"	8° 14' 22"	22° 47' 7"	7° 17' 14"	14° 19' 10"	3° 22"	22° 28' 23"	23° 55' 10"	10° 3' 11"	11° 6' 12"	12° 2' 14"	14° 19' 27"	27° 11' 27"	F 12
S 13	11 25 6	23° 2' 52"	28° 46' 9"	9° 48' 24"	24° 2' 8"	8° 3' 14"	14° 17' 10"	6° 22"	22° 30' 23"	23° 54' 10"	4° 10"	10° 56' 11"	59' 14"	26' 27"	14' 27"	S 13
S 14	11 29 3	24° 2' 42"	10° 18' 11"	11° 18' 25"	17' 8° 49"	8° 49' 14"	14° 14' 10"	10° 10' 22"	32' 23"	54' 23"	6° 10"	10° 50' 11"	56' 14"	33' 27"	18' 27"	S 14
M15	11 32 59	25° 2' 31"	23° 11' 12"	43' 26"	32' 9° 35"	35' 9° 35"	14° 11' 10"	10° 13' 22"	34' 23"	53' 23"	7° 10"	10° 46' 11"	53' 14"	39' 27"	21' 27"	M15
T 16	11 36 56	26° 2' 18"	5° 42' 14"	2° 27"	47' 10° 21"	21° 14° 8"	10° 17' 10"	13' 22"	36' 23"	52' 23"	9° 10"	10° 45' 11"	49' 14"	46' 27"	24' 27"	T 16
W17	11 40 53	27° 2' 04"	18° 30' 15"	15' 29"	1° 11° 7"	7° 14° 5"	10° 20' 22"	38' 23"	52' 23"	10° 10' 10"	45' 10"	46' 11"	53' 14"	53' 27"	27' 27"	W17
T 18	11 44 49	28° 1' 47"	1° 38' 16"	22' 0° 16"	16' 11° 53"	53' 14° 2"	10° 23' 22"	40' 23"	51' 23"	10° 12' 10"	45' 10"	43' 11"	59' 14"	30' 27"	30' 27"	T 18
F 19	11 48 46	29° 1' 29"	15° 12' 17"	22' 1° 31"	39' 12° 39"	39' 10° 26"	22' 42' 23"	51' 23"	51' 10° 13"	10° 13' 10"	44' 10"	40' 11"	40' 15"	6' 27"	34' 27"	F 19
S 20	11 52 42	0° 1' 10"	29° 13' 18"	14' 2° 46"	13° 25' 13° 55"	55' 10° 29"	29' 22"	44' 23° 50"	50' 10° 14"	14' 10° 41"	37' 11° 37"	13' 15° 13"	20' 27° 40"	40' 27° 40"	40' 27° 40"	S 20
S 21	11 56 39	1° 0' 49"	13° 41' 19"	0' 4° 0"	0' 14° 11"	11' 13° 51"	32' 10° 32"	46' 22° 46"	50' 23° 50"	16' 10° 16"	36' 10° 36"	34' 11° 34"	20' 15° 20"	40' 27° 40"	40' 27° 40"	S 21
M22	12 0 35	2° 0' 25"	28° 33' 19"	37' 5° 15"	15' 14° 57"	47' 13° 47"	35' 10° 35"	48' 22° 48"	49' 23° 49"	17' 10° 17"	28' 10° 28"	30' 11° 30"	26' 15° 26"	44' 27° 44"	44' 27° 44"	M22
T 23	12 4 32	3° 0' 00"	13° 42' 20"	7' 6° 30"	30' 15° 43"	43' 10° 37"	37' 22° 50"	50' 23° 49"	49' 10° 19"	18' 10° 18"	27' 11° 27"	33' 15° 33"	33' 27° 47"	47' 27° 47"	47' 27° 47"	T 23
W24	12 8 28	3° 59' 33"	28° 59' 20"	29' 7° 44"	44' 16° 29"	29' 13° 39"	40' 10° 40"	40' 22° 51"	49' 23° 49"	20' 10° 20"	8' 10° 8"	24' 11° 24"	40' 15° 40"	50' 27° 50"	50' 27° 50"	W24
T 25	12 12 25	4° 59' 04"	14° 12' 20"	42' 8° 59"	59' 17° 14"	14' 13° 34"	43' 10° 43"	23' 22° 53"	48' 23° 48"	22' 10° 22"	59' 9° 9"	21' 11° 21"	47' 15° 47"	54' 27° 54"	54' 27° 54"	T 25
F 26	12 16 22	5° 58' 33"	29° 11' 20"	48' 10° 14"	18° 0' 13° 29"	29' 10° 45"	22° 55' 23° 48"	55' 23° 48"	23° 48' 10° 23"	23° 48' 10° 23"	51' 9° 51"	18' 11° 18"	53' 15° 53"	57' 27° 57"	57' 27° 57"	F 26
S 27	12 20 18	6° 58' 00"	13° 47' 20"	47' 11° 28"	46' 18° 46"	13° 25' 10° 47"	56' 22° 56"	48' 23° 48"	25' 10° 25"	25' 10° 25"	46' 9° 46"	15' 11° 15"	0' 16° 0"	1' 28° 0"	1' 28° 0"	S 27
S 28	12 24 15	7° 57' 25"	27° 55' 20"	37' 12° 43"	43' 19° 31"	20' 13° 20"	50' 10° 50"	58' 22° 58"	47' 23° 47"	26' 10° 26"	43' 9° 43"	11' 11° 11"	7' 16° 7"	4' 28° 4"	4' 28° 4"	S 28
M29	12 28 11	8° 56' 47"	11° 34' 20"	21' 13° 57"	57' 20° 21"	17' 13° 15"	52' 10° 52"	59' 22° 59"	47' 23° 47"	28' 10° 28"	43' 9° 43"	11° 8' 11° 8"	13' 16° 13"	7' 28° 7"	7' 28° 7"	M29
T 30	12 32 8	9° 56' 07"	24° 45' 19"	58' 19° 58"	58' 15° 12"	2° 21° 2"	9' 13° 9"	54' 10° 54"	1' 23° 1"	47' 23° 47"	29' 10° 29"	43' 9° 43"	5' 11° 5"	16° 20' 16° 20"	11' 28° 11"	T 30
W31	12 36 4	10° 55' 25"	7° 32' 19"	59' 19° 59"	59' 16° 26"	21° 16° 26"	48' 13° 13"	56' 10° 56"	2' 23° 2"	47' 23° 47"	31' 10° 31"	44' 9° 44"	2' 11° 2"	16° 28° 16"	14' 28° 14"	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
M 1	7s25	19n53	0s51	5s47	1s12	9s29	1s25	1s 8	0s42	14s57	1n19	22s18	0n49	22s 4	0s26	20n46	0s32	11s19	16s33	22n18	22n18	11n23	10n26	0n10			
T 2	7 3	22 58	0n17	4 54	1 4	9 1	1 25	0 49	0 42	14 56	1 19	22 17	0 49	22 3	0 26	20 46	0 32	11 19	16 32	22 18	22 18	11 21	10 27	0 10			
W 3	6 40	24 49	1 23	4 1	0 55	8 33	1 25	0 30	0 41	14 56	1 19	22 17	0 49	22 3	0 26	20 46	0 32	11 18	16 32	22 18	22 17	11 18	10 28	0 10			
T 4	6 16	25 22	2 24	3 8	0 46	8 4	1 26	0 11	0 40	14 56	1 19	22 17	0 49	22 2	0 26	20 46	0 32	11 18	16 32	22 18	22 17	11 16	10 29	0 10			
F 5	5 53	24 40	3 17	2 13	0 36	7 36	1 26	0n 8	0 40	14 55	1 19	22 16	0 49	22 2	0 26	20 46	0 32	11 17	16 32	22 17	22 16	11 13	10 30	0 10			
S 6	5 30	22 49	4 0	1 19	0 25	7 7	1 26	0 27	0 39	14 55	1 20	22 16	0 49	22 2	0 26	20 47	0 32	11 16	16 32	22 16	22 16	11 10	10 31	0 10			
S 7	5 7	19 58	4 32	0 25	0 14	6 38	1 26	0 46	0 39	14 54	1 20	22 16	0 49	22 1	0 26	20 47	0 32	11 16	16 32	22 15	22 16	11 8	10 32	0 10			
M 8	4 43	16 19	4 52	0n29	0 3	6 9	1 26	1 5	0 38	14 54	1 20	22 15	0 49	22 1	0 26	20 47	0 32	11 15	16 32	22 13	22 15	11 5	10 33	0 10			
T 9	4 20	12 2	4 59	1 23	0n 9	5 39	1 26	1 24	0 37	14 53	1 20	22 15	0 49	22 1	0 26	20 47	0 32	11 14	16 31	22 11	22 15	11 3	10 34	0 10			
W10	3 56	7 19	4 54	2 16	0 21	5 10	1 26	1 43	0 37	14 52	1 20	22 15	0 49	22 0	0 26	20 47	0 32	11 14	16 31	22 9	22 14	11 0	10 35	0 9			
T 11	3 33	2 18	4 35	3 8	0 34	4 40	1 26	2 2	0 36	14 51	1 21	22 15	0 49	22 0	0 26	20 47	0 32	11 13	16 31	22 7	22 14	10 57	10 36	0 9			
F 12	3 9	2s49	4 4	3 59	0 47	4 10	1 26	2 21	0 36	14 51	1 21	22 14	0 49	22 0	0 26	20 48	0 32	11 12	16 31	22 6	22 14	10 55	10 37	0 9			
S 13	2 46	7 53	3 22	4 48	1 0	3 40	1 25	2 39	0 35	14 50	1 21	22 14	0 49	21 59	0 26	20 48	0 32	11 12	16 31	22 5	22 13	10 52	10 38	0 9			
S 14	2 22	12 42	2 31	5 36	1 13	3 10	1 25	2 58	0 34	14 49	1 21	22 14	0 49	21 59	0 26	20 48	0 32	11 11	16 31	22 4	22 13	10 49	10 39	0 9			
M15	1 58	17 5	1 32	6 21	1 27	2 40	1 24	3 17	0 34	14 48	1 21	22 14	0 49	21 59	0 26	20 48	0 32	11 10	16 31	22 3	22 12	10 47	10 40	0 9			
T 16	1 34	20 48	0 27	7 4	1 40	2 10	1 24	3 36	0 33	14 47	1 21	22 13	0 49	21 58	0 26	20 48	0 32	11 10	16 31	22 3	22 12	10 44	10 41	0 9			
W17	1 11	23 37	0s41	7 44	1 52	1 40	1 23	3 54	0 32	14 46	1 21	22 13	0 49	21 58	0 26	20 48	0 32	11 9	16 31	22 3	22 11	10 41	10 42	0 9			
T 18	0 47	25 14	1 48	8 21	2 5	1 9	1 23	4 13	0 32	14 45	1 22	22 13	0 49	21 58	0 26	20 48	0 32	11 9	16 31	22 3	22 11	10 39	10 43	0 9			
F 19	0 23	25 25	2 52	8 55	2 17	0 39	1 22	4 31	0 31	14 44	1 22	22 13	0 49	21 57	0 27	20 49	0 32	11 8	16 30	22 3	22 11	10 36	10 44	0 9			
S 20	0n 0	24 1	3 47	9 26	2 28	0 9	1 21	4 50	0 31	14 42	1 22	22 12	0 49	21 57	0 27	20 49	0 31	11 7	16 30	22 2	22 10	10 33	10 45	0 9			
S 21	0 24	21 1	4 30	9 53	2 39	0n22	1 20	5 8	0 30	14 41	1 22	22 12	0 49	21 57	0 27	20 49	0 31	11 7	16 30	22 2	22 10	10 31	10 47	0 9			
M22	0 48	16 36	4 56	10 16	2 49	0 52	1 20	5 26	0 29	14 40	1 22	22 12	0 49	21 56	0 27	20 49	0 31	11 6	16 30	22 0	22 9	10 28	10 48	0 9			
T 23	1 12	11 3	5 2	10 36	2 57	1 22	1 19	5 45	0 29	14 38	1 22	22 12	0 49	21 56	0 27	20 49	0 31	11 6	16 30	21 59	22 9	10 25	10 49	0 8			
W24	1 35	4 47	4 46	10 51	3 5	1 53	1 18	6 3	0 28	14 37	1 23	22 11	0 49	21 56	0 27	20 49	0 31	11 5	16 30	21 58	22 8	10 23	10 50	0 8			
T 25	1 59	1n45	4 11	11 3	3 12	2 23	1 17	6 21	0 27	14 35	1 23	22 11	0 49	21 56	0 27	20 49	0 31	11 4	16 30	21 56	22 8	10 20	10 51	0 8			
F 26	2 22	8 5	3 18	11 10	3 17	2 53	1 16	6 39	0 27	14 34	1 23	22 11	0 49	21 55	0 27	20 49	0 31	11 4	16 30	21 55	22 8	10 17	10 52	0 8			
S 27	2 46	13 51	2 14	11 12	3 21	3 24	1 14	6 57	0 26	14 32	1 23	22 11	0 49	21 55	0 27	20 49	0 31	11 3	16 30	21 54	22 7	10 15	10 53	0 8			
S 28	3 9	18 40	1 2	11 11	3 23	3 54	1 13	7 15	0 25	14 31	1 23	22 11	0 49	21 55	0 27	20 49	0 31	11 3	16 30	21 54	22 7	10 12	10 55	0 8			
M29	3 33	22 20	0n10	11 5	3 23	4 24	1 12	7 32	0 25	14 29	1 23	22 10	0 49	21 55	0 27	20 49	0 31	11 2	16 30	21 54	22 6	10 9	10 56	0 8			
T 30	3 56	24 39	1 19	10 56	3 22	4 54	1 11	7 50	0 24	14 28	1 23	22 10	0 49	21 55	0 27	20 50	0 31	11 2	16 30	21 54	22 6	10 6	10 57	0 8			
W31	4n19	25n36	2n23	10n42	3n20	5n24	1s 9	8n 8	0s23	14s26	1n23	22s10	0n49	21s54	0s27	20n50	0s31	11s 1	16s30	21n54	22n 5	10n 4	10n58	0n			

ASTRODIENST EPHEMERIS for the year 2077

geocentric

APRIL 2077

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 40 1	11°54'41	19°58'58	18°R55	17°Y41	22°Y33	12°R58	10°Z58	23°Z 3	23°R47	10°Y32	9°R44	10°II59	16°M34	28°Y18	T 1
F 2	12 43 57	12°53'54	20°10	18°Y16	18°55	23°19	12°M53	10°59	23° 5	23°Z47	10°33	9°II41	10°55	16°40	28°22	F 2
S 3	12 47 54	13°53'05	14°10	17°33	20°10	24° 4	12°47	11° 1	23° 6	23°D47	10°35	9°37	10°52	16°47	28°25	S 3
S 4	12 51 51	14°52'13	26° 5	16°48	21°24	24°49	12°41	11° 3	23° 7	23°47	10°36	9°30	10°49	16°54	28°29	S 4
M 5	12 55 47	15°51'19	7°M56	16° 0	22°39	25°34	12°35	11° 4	23° 8	23°47	10°38	9°22	10°46	17° 0	28°32	M 5
T 6	12 59 44	16°50'23	19°48	15°12	23°53	26°20	12°29	11° 5	23° 9	23°47	10°39	9°12	10°43	17° 7	28°36	T 6
W 7	13 3 40	17°49'25	1°A42	14°24	25° 7	27° 5	12°23	11° 7	23°10	23°47	10°41	9° 2	10°40	17°14	28°39	W 7
T 8	13 7 37	18°48'25	13°41	13°36	26°22	27°50	12°16	11° 8	23°11	23°47	10°42	8°52	10°36	17°21	28°43	T 8
F 9	13 11 33	19°47'23	25°46	12°51	27°36	28°35	12°10	11° 9	23°12	23°47	10°44	8°44	10°33	17°27	28°46	F 9
S 10	13 15 30	20°46'19	7°M57	12° 8	28°50	29°20	12° 3	11°10	23°13	23°47	10°45	8°38	10°30	17°34	28°50	S 10
S 11	13 19 26	21°45'13	20°16	11°28	0° 4	0° 5	11°56	11°11	23°14	23°48	10°47	8°34	10°27	17°41	28°54	S 11
M12	13 23 23	22°44'05	2°A46	10°53	1°19	0°50	11°50	11°12	23°15	23°48	10°48	8°D32	10°24	17°48	28°57	M12
T 13	13 27 20	23°42'55	15°28	10°21	2°33	1°34	11°43	11°12	23°15	23°48	10°49	8°32	10°20	17°54	29° 1	T 13
W14	13 31 16	24°41'44	28°23	9°54	3°47	2°19	11°36	11°13	23°16	23°49	10°51	8°33	10°17	18° 1	29° 5	W14
T 15	13 35 13	25°40'30	11°Z36	9°33	5° 1	3° 4	11°29	11°13	23°17	23°49	10°52	8°35	10°14	18° 8	29° 8	T 15
F 16	13 39 9	26°39'16	25° 8	9°16	6°15	3°49	11°22	11°14	23°17	23°49	10°54	8°R35	10°11	18°14	29°12	F 16
S 17	13 43 6	27°37'59	9°A 2	9° 4	7°30	4°33	11°14	11°14	23°18	23°50	10°55	8°35	10° 8	18°21	29°15	S 17
S 18	13 47 2	28°36'41	23°16	8°58	8°44	5°18	11° 7	11°14	23°18	23°50	10°57	8°33	10° 5	18°28	29°19	S 18
M19	13 50 59	29°35'21	7°H49	8°D57	9°58	6° 2	11° 0	11°14	23°19	23°51	10°58	8°29	10° 1	18°35	29°23	M19
T 20	13 54 55	0°Z33'59	22°38	9° 1	11°12	6°47	10°52	11°R14	23°19	23°51	10°59	8°24	9°58	18°41	29°26	T 20
W21	13 58 52	1°32'36	7°Y34	9°10	12°26	7°31	10°45	11°14	23°19	23°52	11° 1	8°18	9°55	18°48	29°30	W21
T 22	14 2 49	2°31'11	22°31	9°24	13°40	8°16	10°37	11°14	23°20	23°52	11° 2	8°13	9°52	18°55	29°34	T 22
F 23	14 6 45	3°29'44	7°B18	9°42	14°54	9° 0	10°30	11°14	23°20	23°53	11° 4	8° 9	9°49	19° 1	29°37	F 23
S 24	14 10 42	4°28'15	21°48	10° 6	16° 8	9°44	10°22	11°13	23°20	23°54	11° 5	8° 6	9°46	19° 8	29°41	S 24
S 25	14 14 38	5°26'44	5°II56	10°33	17°22	10°29	10°15	11°13	23°20	23°54	11° 6	8°D 5	9°42	19°15	29°45	S 25
M26	14 18 35	6°25'12	19°38	11° 5	18°36	11°13	10° 7	11°12	23°20	23°55	11° 8	8° 6	9°39	19°22	29°48	M26
T 27	14 22 31	7°23'37	2°Z55	11°41	19°50	11°57	10° 0	11°12	23°R20	23°56	11° 9	8° 7	9°36	19°28	29°52	T 27
W28	14 26 28	8°22'00	15°47	12°20	21° 4	12°41	9°52	11°11	23°20	23°57	11°10	8° 9	9°33	19°35	29°55	W28
T 29	14 30 24	9°20'21	28°18	13° 4	22°18	13°25	9°44	11°10	23°20	23°58	11°12	8°10	9°30	19°42	29°59	T 29
F 30	14 34 21	10°18'40	10°Z33	13°Y51	23°Z31	14°Z 9	9°M37	11°Z 9	23°Z20	23°Z58	11°Y13	8°R10	9°II26	19°M49	0°Z 3	F 30

Day	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
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ASTRODIENST EPHEMERIS for the year 2077

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MAY 2077

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 38 18	11°16'57	22°23'36	14°41'41	24°48'45	14°53'53	9°R29	11°R 8	23°R20	23°59'59	11°V14	8°R10	9°II23	19°55'55	0°8 6	S 1
S 2	14 42 14	12°15'12	4°11'31	15°35'25	25°59'15	15°37'09	9°M21	11°Z 7	23°Z20	24° 0'	11°16'	8°II 8	9°20'20	2° 2'0	0°10'	S 2
M 3	14 46 11	13°13'24	16°23'16	16°31'27	27°13'16	16°21'09	9°14'	11° 6'	23°19'	24° 1'	11°17'	8° 5'	9°17'20	2° 9'0	0°13'	M 3
T 4	14 50 7	14°11'35	28°20'16	17°31'28	28°27'17	17° 4'	9° 6'	11° 4'	23°19'	24° 2'	11°18'	8° 2'	9°14'20	2°15'0	0°17'	T 4
W 5	14 54 4	15° 9'44	10°21'13	18°34'29	29°40'17	18°34'08	8°58'	11° 3'	23°19'	24° 3'	11°19'	7°58'	9°11'20	2°22'0	0°21'	W 5
T 6	14 58 0	16° 7'51	22°17'19	19°39'00	31°54'18	18°32'08	8°51'	11° 1'	23°18'	24° 4'	11°21'	7°54'	9° 7'20	2°29'0	0°24'	T 6
F 7	15 1 57	17° 5'56	4°11'31	20°47'2	8° 8'19	19°15'08	8°43'	11° 0'	23°18'	24° 5'	11°22'	7°51'	9° 4'20	2°36'0	0°28'	F 7
S 8	15 5 53	18° 4'00	16°55'21	21°58'3	3°21'19	19°59'08	8°36'	10°58'	23°17'	24° 6'	11°23'	7°49'	9° 1'20	2°42'0	0°31'	S 8
S 9	15 9 50	19° 2'02	29°31'23	23°11'4	4°35'20	20°42'08	8°28'	10°56'	23°17'	24° 8'	11°24'	7°48'	8°58'20	2°49'0	0°35'	S 9
M10	15 13 46	20° 0'02	12°11'19	24°27'5	5°49'21	21°26'08	8°21'	10°54'	23°16'	24° 9'	11°25'	7°D48	8°55'20	2°56'0	0°38'	M10
T 11	15 17 43	20°58'01	25°20'25	25°45'7	2° 2'22	22° 9'08	8°14'	10°52'	23°15'	24°10'	11°27'	7°48'	8°52'21	2° 2'0	0°42'	T 11
W12	15 21 40	21°55'59	8°33'27	27° 6'8	8°16'22	22°53'08	8° 6'	10°50'	23°15'	24°11'	11°28'	7°49'	8°48'21	2° 9'0	0°45'	W12
T 13	15 25 36	22°53'55	22° 3'28	28°28'9	9°29'23	23°36'07	7°59'	10°48'	23°14'	24°12'	11°29'	7°51'	8°45'21	2°16'0	0°48'	T 13
F 14	15 29 33	23°51'50	5°44'29	29°53'10	4°31'24	24°19'07	7°52'	10°46'	23°13'	24°14'	11°30'	7°52'	8°42'21	2°23'0	0°52'	F 14
S 15	15 33 29	24°49'44	19°40'18	21°56'11	25° 2'25	25° 2'07	7°45'	10°43'	23°12'	24°15'	11°31'	7°R52	8°39'21	2°29'0	0°55'	S 15
S 16	15 37 26	25°47'36	3°48'2	2°50'13	13°10'25	25°46'07	7°38'	10°41'	23°11'	24°16'	11°32'	7°52'	8°36'21	2°36'0	0°59'	S 16
M17	15 41 22	26°45'28	18° 7'4	4°22'14	14°23'26	26°29'07	7°31'	10°39'	23°10'	24°18'	11°33'	7°51'	8°32'21	2°43'0	1° 2'	M17
T 18	15 45 19	27°43'18	2°43'5	5°56'15	15°37'27	27°12'07	7°24'	10°36'	23° 9'	24°19'	11°35'	7°51'	8°29'21	2°49'0	1° 5'	T 18
W19	15 49 16	28°41'06	17° 5'7	7°32'16	16°50'27	27°55'07	7°17'	10°33'	23° 8'	24°20'	11°36'	7°49'	8°26'21	2°56'0	1° 9'	W19
T 20	15 53 12	29°38'54	18°35'9	9°11'18	18° 3'28	28°38'07	7°11'	10°31'	23° 7'	24°22'	11°37'	7°48'	8°23'22	2° 3'0	1°12'	T 20
F 21	15 57 9	0°11'36	15°57'10	10°51'19	19°17'29	29°21'07	7° 4'	10°28'	23° 6'	24°23'	11°38'	7°48'	8°20'22	2°10'0	1°15'	F 21
S 22	16 1 5	1°34'26	0°11'8	12°34'20	20°30'0	30° 3'6	6°58'	10°25'	23° 5'	24°25'	11°39'	7°47'	8°17'22	2°16'0	1°19'	S 22
S 23	16 5 2	2°32'10	14° 2'14	14°18'21	21°43'0	46° 6'6	6°51'	10°22'	23° 4'	24°26'	11°40'	7°D47	8°13'22	2°23'0	1°22'	S 23
M24	16 8 58	3°29'53	27°36'16	5° 22'22	22°57'1	29° 6'6	6°45'	10°19'	23° 2'	24°28'	11°41'	7°48'	8°10'22	2°30'0	1°25'	M24
T 25	16 12 55	4°27'34	10°50'17	5°55'24	24°10'2	12° 2'6	6°39'	10°16'	23° 1'	24°29'	11°42'	7°48'	8° 7'22	2°37'0	1°28'	T 25
W26	16 16 51	5°25'14	23°42'19	4°46'25	25°23'2	54° 6'6	6°33'	10°13'	23° 0'	24°31'	11°43'	7°48'	8° 4'22	2°43'0	1°31'	W26
T 27	16 20 48	6°22'52	6°16'21	3°39'26	3°37'6	27° 6'6	6°27'	10°10'	22°58'	24°32'	11°44'	7°48'	8° 1'22	2°50'0	1°35'	T 27
F 28	16 24 45	7°20'29	18°33'23	3°35'27	5°41'9	49° 6'6	6°21'	10° 6'	22°57'	24°34'	11°45'	7°49'	7°58'22	2°57'0	1°38'	F 28
S 29	16 28 41	8°18'05	0°11'38	25°32'29	3° 5'2	2° 6'6	6°16'	10° 3'	22°56'	24°36'	11°45'	7°R49	7°54'23	2° 3'0	1°41'	S 29
S 30	16 32 38	9°15'39	12°34'27	3°32'0	5°16'1	44° 6'6	6°10'	9°59'	22°54'	24°37'	11°46'	7°D49	7°51'23	2°10'0	1°44'	S 30
M31	16 36 34	10°11'31	24°11'28	29°33'1	5°29'6	27° 6'6	6°11'	9°56'	22°53'	24°39'	11°47'	7°II49	7°II48	23°17'1	1°47'	M31

Day	☉	☽		♂	♀		♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
S 1	15n13	18n44	5n 2	3n14	2s46	18n52	0s 6	16n15	0s 3	13s19	1n24	22s 9	0n49	21s52	0s28	20n48	0s30	10s47	16s33	21n40	21n51	8n38	11n36	0n 6
S 2	15 30	14 42	5 13	3 30	2 51	19 12	0 3	16 28	0 3	13 17	1 24	22 9	0 49	21 52	0 28	20 48	0 30	10 47	16 33	21 39	21 51	8 36	11 37	0 6
M 3	15 48	10 8	5 10	3 48	2 55	19 31	0 1	16 41	0 2	13 14	1 24	22 9	0 49	21 52	0 28	20 48	0 30	10 46	16 33	21 39	21 50	8 33	11 38	0 6
T 4	16 6	5 11	4 54	4 8	2 58	19 50	0n 2	16 54	0 1	13 12	1 24	22 9	0 49	21 53	0 28	20 48	0 30	10 46	16 34	21 38	21 50	8 30	11 39	0 6
W 5	16 23	0 2	4 25	4 29	3 0	20 9	0 4	17 7	0 1	13 10	1 24	22 9	0 49	21 53	0 28	20 48	0 30	10 46	16 34	21 38	21 49	8 27	11 40	0 5
T 6	16 40	5s12	3 45	4 52	3 2	20 27	0 7	17 20	0n 0	13 7	1 24	22 10	0 49	21 53	0 28	20 48	0 30	10 45	16 34	21 37	21 49	8 24	11 42	0 5
F 7	16 56	10 18	2 53	5 17	3 3	20 44	0 9	17 33	0 1	13 5	1 24	22 10	0 49	21 53	0 28	20 47	0 30	10 45	16 34	21 37	21 48	8 22	11 43	0 5
S 8	17 12	15 5	1 53	5 43	3 4	21 1	0 12	17 45	0 1	13 3	1 23	22 10	0 49	21 53	0 28	20 47	0 30	10 45	16 34	21 36	21 48	8 19	11 44	0 5
S 9	17 28	19 18	0 46	6 10	3 4	21 17	0 14	17 57	0 2	13 0	1 23	22 10	0 49	21 53	0 28	20 47	0 30	10 45	16 35	21 36	21 47	8 16	11 45	0 5
M10	17 44	22 40	0s25	6 38	3 3	21 33	0 17	18 9	0 3	12 58	1 23	22 10	0 49	21 53	0 28	20 47	0 30	10 44	16 35	21 36	21 47	8 13	11 46	0 5
T 11	17 59	24 56	1 35	7 8	3 2	21 48	0 19	18 21	0 3	12 56	1 23	22 10	0 49	21 53	0 28	20 47	0 30	10 44	16 35	21 36	21 46	8 10	11 47	0 5
W12	18 15	25 51	2 42	7 38	3 0	22 2	0 22	18 33	0 4	12 54	1 23	22 11	0 49	21 54	0 28	20 47	0 30	10 44	16 35	21 36	21 46	8 7	11 48	0 5
T 13	18 29	25 15	3 41	8 10	2 57	22 16	0 24	18 44	0 5	12 51	1 23	22 11	0 49	21 54	0 28	20 46	0 30	10 44	16 35	21 37	21 45	8 5	11 50	0 5
F 14	18 44	23 9	4 28	8 43	2 54	22 29	0 27	18 56	0 5	12 49	1 23	22 11	0 49	21 54	0 28	20 46	0 30	10 43	16 36	21 37	21 45	8 2	11 51	0 5
S 15	18 58	19 40	5 0	9 17	2 50	22 42	0 29	19 7	0 6	12 47	1 23	22 11	0 49	21 54	0 28	20 46	0 30	10 43	16 36	21 37	21 44	7 59	11 52	0 5
S 16	19 12	15 0	5 15	9 51	2 46	22 54	0 32	19 18	0 6	12 45	1 22	22 11	0 49	21 54	0 28	20 46	0 30	10 43	16 36	21 37	21 44	7 56	11 53	0 5
M17	19 25	9 28	5 11	10 27	2 41	23 5	0 34	19 28	0 7	12 43	1 22	22 12	0 49	21 54	0 28	20 46	0 30	10 43	16 36	21 37	21 43	7 53	11 54	0 5
T 18	19 39	3 22	4 47	11 3	2 36	23 16	0 37	19 39	0 8	12 41	1 22	22 12	0 49	21 55	0 28	20 45	0 30	10 43	16 37	21 37	21 43	7 50	11 55	0 5
W19	19 52	2n56	4 5	11 39	2 30	23 26	0 39	19 49	0 8	12 39	1 22	22 12	0 49	21 55	0 28	20 45	0 30	10 42	16 37	21 36	21 42	7 48	11 56	0 4
T 20	20 4	9 5	3 7	12 17	2 23	23 35	0 42	19 59	0 9	12 37	1 22	22 12	0 49	21 55	0 28	20 45	0 30	10 42	16 37	21 36	21 42	7 45	11 57	0 4
F 21	20 16	14 43	1 58	12 55	2 16	23 44	0 44	20 9	0 10	12 35	1 22	22 12	0 49	21 55	0 28	20 45	0 30	10 42	16 38	21 36	21 41	7 42	11 58	0 4
S 22	20 28	19 29	0 42	13 33	2 9	23 52	0 46	20 19	0 10	12 33	1 22	22 13	0 49	21 55	0 28	20 44	0 30	10 42	16 38	21 36	21 41	7 39	12 0	0 4
S 23	20 40	23 3	0n35	14 12	2 1	23 59	0 49	20 29	0 11	12 31	1 21	22 13	0 49	21 56	0 28	20 44	0 30	10 42	16 38	21 36	21 40	7 36	12 1	0 4
M24	20 51	25 12	1 48	14 51	1 53	24 5	0 51	20 38	0 11	12 29	1 21	22 13	0 49	21 56	0 29	20 44	0 30	10 42	16 38	21 36	21 40	7 33	12 2	0 4
T 25	21 1	25 52	2 53	15 29	1 44	24 11	0 53	20 47	0 12	12 27	1 21	22 13	0 49	21 56	0 29	20 44	0 30	10 42	16 39	21 36	21 39	7 30	12 3	0 4
W26	21 12	25 5	3 48	16 8	1 35	24 16	0 55	20 56	0 13	12 26	1 21	22 14	0 49	21 56	0 29	20 43	0 30	10 42	16 39	21 36	21 39	7 28	12 4	0 4
T 27	21 22	23 4	4 30	16 47	1 26	24 21	0 58	21 5	0 13	12 24	1 21	22 14	0 49	21 57	0 29	20 43	0 30	10 41	16 39	21 36	21 38	7 25	12 5	0 4
F 28	21 32	20 0	4 59	17 26	1 16	24 25	1 0	21 14	0 14	12 22	1 20	22 14	0 49	21 57	0 29	20 43	0 30	10 41	16 39	21 36	21 38	7 22	12 6	0 4
S 29	21 41	16 8	5 14	18 4	1 6	24 28	1 2	21 22	0 15	12 21	1 20	22 15	0 49	21 57	0 29	20 43	0 30	10 41	16 40	21 36	21 37	7 19	12 7	0 4
S 30	21 50	11 42	5 16	18 42	0 56	24 30	1 4	21 30	0 15	12 19	1 20	22 15	0 48	21 57	0 29	20 42	0 30	10 41	16 40	21 36	21 37	7 16	12 8	0 4
M31	21n58	6n51	5n 4	19n19	0s45	24n32	1n 6	21n38	0n16	12s17	1n20	22s15	0n48	21s58	0s29	20n42	0s30	10s41	16s40	21n36	21n36	7n13	12n 9	0n 4

ASTRODIENST EPHEMERIS for the year 2077

geocentric

JUNE 2077

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 40 31	11 ^{II} 10'42	6 [♂] 22	1 ^{II} 37	2 [♂] 42	7 ^{II} 9	6 ^R 0	9 ^R 52	22 ^R 51	24 [♂] 41	11 ^Y 48	7 ^{II} 49	7 ^{II} 45	23 [♂] 24	1 [♂] 50	T 1
W 2	16 44 27	12° 8'12	18°21	3°42	3°55	7°51	5 [♂] 55	9 [♂] 49	22 [♂] 49	24°42	11°49	7°49	7°42	23°30	1°53	W 2
T 3	16 48 24	13° 5'41	0 [♂] 30	5°49	5° 8	8°33	5°50	9°45	22°48	24°44	11°50	7°50	7°38	23°37	1°56	T 3
F 4	16 52 20	14° 3'09	12°51	7°57	6°21	9°16	5°45	9°41	22°46	24°46	11°51	7°50	7°35	23°44	1°59	F 4
S 5	16 56 17	15° 0'35	25°27	10° 6	7°34	9°58	5°41	9°38	22°44	24°48	11°51	7°51	7°32	23°50	2° 2	S 5
S 6	17 0 14	15°58'01	8 [♂] 19	12°17	8°47	10°40	5°36	9°34	22°43	24°50	11°52	7°R51	7°29	23°57	2° 4	S 6
M 7	17 4 10	16°55'25	21°28	14°28	10° 0	11°22	5°32	9°30	22°41	24°51	11°53	7°51	7°26	24° 4	2° 7	M 7
T 8	17 8 7	17°52'49	4 [♂] 53	16°40	11°13	12° 4	5°28	9°26	22°39	24°53	11°54	7°50	7°23	24°11	2°10	T 8
W 9	17 12 3	18°50'12	18°33	18°52	12°26	12°46	5°24	9°22	22°37	24°55	11°54	7°49	7°19	24°17	2°13	W 9
T 10	17 16 0	19°47'34	2 [♂] 26	21° 4	13°39	13°28	5°20	9°18	22°35	24°57	11°55	7°47	7°16	24°24	2°16	T 10
F 11	17 19 56	20°44'56	16°28	23°16	14°51	14° 9	5°16	9°14	22°33	24°59	11°56	7°46	7°13	24°31	2°18	F 11
S 12	17 23 53	21°42'17	0 [♂] 37	25°27	16° 4	14°51	5°13	9°10	22°32	25° 1	11°56	7°45	7°10	24°37	2°21	S 12
S 13	17 27 49	22°39'37	14°50	27°37	17°17	15°33	5°10	9° 6	22°30	25° 3	11°57	7°44	7° 7	24°44	2°23	S 13
M14	17 31 46	23°36'57	29° 4	29°47	18°30	16°15	5° 6	9° 2	22°28	25° 5	11°57	7°D44	7° 4	24°51	2°26	M14
T 15	17 35 43	24°34'17	13 ^Y 17	1 [♂] 55	19°42	16°56	5° 4	8°58	22°26	25° 7	11°58	7°45	7° 0	24°58	2°29	T 15
W16	17 39 39	25°31'36	27°26	4° 2	20°55	17°38	5° 1	8°53	22°23	25° 9	11°59	7°46	6°57	25° 4	2°31	W16
T 17	17 43 36	26°28'55	11 [♂] 29	6° 7	22° 8	18°19	4°58	8°49	22°21	25°11	11°59	7°47	6°54	25°11	2°34	T 17
F 18	17 47 32	27°26'14	25°24	8°11	23°20	19° 1	4°56	8°45	22°19	25°13	12° 0	7°48	6°51	25°18	2°36	F 18
S 19	17 51 29	28°23'32	9 ^{II} 9	10°12	24°33	19°42	4°53	8°41	22°17	25°15	12° 0	7°R48	6°48	25°24	2°38	S 19
S 20	17 55 25	29°20'50	22°40	12°12	25°45	20°24	4°51	8°36	22°15	25°17	12° 1	7°48	6°44	25°31	2°41	S 20
M21	17 59 22	0 [♂] 18'08	5 [♂] 58	14° 9	26°58	21° 5	4°49	8°32	22°13	25°19	12° 1	7°46	6°41	25°38	2°43	M21
T 22	18 3 18	1°15'25	18°59	16° 5	28°10	21°46	4°48	8°28	22°11	25°21	12° 2	7°43	6°38	25°45	2°45	T 22
W23	18 7 15	2°12'41	1 [♂] 44	17°58	29°23	22°28	4°46	8°23	22° 8	25°23	12° 2	7°40	6°35	25°51	2°47	W23
T 24	18 11 12	3° 9'57	14°14	19°49	0 [♂] 35	23° 9	4°45	8°19	22° 6	25°25	12° 2	7°36	6°32	25°58	2°50	T 24
F 25	18 15 8	4° 7'13	26°29	21°38	1°48	23°50	4°44	8°14	22° 4	25°27	12° 3	7°32	6°29	26° 5	2°52	F 25
S 26	18 19 5	5° 4'27	8 [♂] 34	23°25	3° 0	24°31	4°43	8°10	22° 2	25°29	12° 3	7°28	6°25	26°12	2°54	S 26
S 27	18 23 1	6° 1'41	20°30	25° 9	4°12	25°12	4°42	8° 6	21°59	25°31	12° 3	7°26	6°22	26°18	2°56	S 27
M28	18 26 58	6°58'55	2 [♂] 23	26°51	5°25	25°53	4°41	8° 1	21°57	25°33	12° 4	7°D25	6°19	26°25	2°58	M28
T 29	18 30 54	7°56'08	14°17	28°31	6°37	26°34	4°41	7°57	21°55	25°35	12° 4	7°25	6°16	26°32	3° 0	T 29
W30	18 34 51	8 [♂] 53'21	26 [♂] 16	0 [♂] 9	7 [♂] 49	27 ^{II} 15	4 [♂] 40	7 [♂] 52	21 [♂] 53	25 [♂] 38	12 ^Y 4	7 ^{II} 26	6 ^{II} 13	26 [♂] 38	3 [♂] 2	W30

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
T 1	22n 7	1n44	4n39	19n55	0s35	24n32	1n 8	21n46	0n16	12s16	1n20	22s15	0n48	21s58	0s29	20n42	0s30	10s41	16s41	21n36	21n36	7n10	12n10	0n 4			
W 2	22 14	3s28	4 1	20 30	0 24	24 33	1 10	21 53	0 17	12 14	1 19	22 16	0 48	21 58	0 29	20 41	0 30	10 41	16 41	21 36	21 35	7 7	12 11	0 4			
T 3	22 22	8 38	3 12	21 3	0 13	24 32	1 12	22 1	0 18	12 13	1 19	22 16	0 48	21 59	0 29	20 41	0 30	10 41	16 41	21 36	21 35	7 5	12 12	0 3			
F 4	22 29	13 33	2 14	21 35	0 2	24 31	1 14	22 8	0 18	12 12	1 19	22 16	0 48	21 59	0 29	20 41	0 29	10 41	16 42	21 36	21 34	7 2	12 13	0 3			
S 5	22 35	18 1	1 8	22 6	0n 8	24 29	1 16	22 15	0 19	12 10	1 19	22 17	0 48	21 59	0 29	20 41	0 29	10 41	16 42	21 37	21 34	6 59	12 13	0 3			
S 6	22 41	21 44	0s 3	22 34	0 19	24 26	1 18	22 21	0 19	12 9	1 18	22 17	0 48	22 0	0 29	20 40	0 29	10 41	16 42	21 37	21 33	6 56	12 14	0 3			
M 7	22 47	24 24	1 15	23 0	0 29	24 22	1 20	22 28	0 20	12 8	1 18	22 17	0 48	22 0	0 29	20 40	0 29	10 41	16 43	21 37	21 32	6 53	12 15	0 3			
T 8	22 53	25 44	2 24	23 25	0 39	24 18	1 21	22 34	0 21	12 7	1 18	22 18	0 48	22 0	0 29	20 40	0 29	10 41	16 43	21 36	21 32	6 50	12 16	0 3			
W 9	22 58	25 33	3 26	23 46	0 49	24 13	1 23	22 40	0 21	12 6	1 18	22 18	0 48	22 0	0 29	20 39	0 29	10 41	16 43	21 36	21 31	6 47	12 17	0 3			
T 10	23 2	23 48	4 18	24 5	0 58	24 8	1 24	22 46	0 22	12 5	1 17	22 18	0 48	22 1	0 29	20 39	0 29	10 41	16 44	21 36	21 31	6 44	12 18	0 3			
F 11	23 6	20 34	4 54	24 22	1 6	24 2	1 26	22 52	0 22	12 4	1 17	22 19	0 48	22 1	0 29	20 39	0 29	10 41	16 44	21 36	21 30	6 41	12 19	0 3			
S 12	23 10	16 8	5 13	24 36	1 14	23 55	1 28	22 57	0 23	12 3	1 17	22 19	0 48	22 2	0 29	20 38	0 29	10 41	16 44	21 36	21 30	6 38	12 20	0 3			
S 13	23 14	10 47	5 13	24 46	1 22	23 47	1 29	23 2	0 24	12 2	1 17	22 19	0 48	22 2	0 29	20 38	0 29	10 41	16 45	21 35	21 29	6 36	12 21	0 3			
M14	23 17	4 52	4 54	24 55	1 29	23 39	1 30	23 7	0 24	12 1	1 16	22 20	0 48	22 2	0 29	20 38	0 29	10 42	16 45	21 35	21 29	6 33	12 21	0 3			
T 15	23 19	1n17	4 17	25 0	1 35	23 30	1 32	23 12	0 25	12 0	1 16	22 20	0 48	22 3	0 29	20 37	0 29	10 42	16 45	21 36	21 28	6 30	12 22	0 3			
W16	23 21	7 22	3 25	25 2	1 40	23 20	1 33	23 17	0 25	12 0	1 16	22 20	0 48	22 3	0 29	20 37	0 29	10 42	16 46	21 36	21 28	6 27	12 23	0 3			
T 17	23 23	13 3	2 20	25 2	1 45	23 10	1 34	23 21	0 26	11 59	1 16	22 21	0 48	22 3	0 29	20 37	0 29	10 42	16 46	21 36	21 27	6 24	12 24	0 2			
F 18	23 24	18 0	1 8	25 0	1 49	22 59	1 35	23 25	0 27	11 58	1 15	22 21	0 48	22 4	0 29	20 36	0 29	10 42	16 46	21 36	21 27	6 21	12 24	0 2			
S 19	23 25	21 56	0n 7	24 54	1 52	22 47	1 36	23 29	0 27	11 58	1 15	22 21	0 47	22 4	0 29	20 36	0 29	10 42	16 47	21 36	21 26	6 18	12 25	0 2			
S 20	23 26	24 34	1 21	24 46	1 55	22 35	1 37	23 33	0 28	11 57	1 15	22 22	0 47	22 4	0 29	20 36	0 29	10 42	16 47	21 36	21 26	6 15	12 26	0 2			
M21	23 26	25 46	2 29	24 36	1 56	22 22	1 38	23 36	0 28	11 57	1 15	22 22	0 47	22 5	0 29	20 35	0 29	10 42	16 47	21 36	21 25	6 12	12 27	0 2			
T 22	23 25	25 30	3 27	24 24	1 57	22 8	1 39	23 39	0 29	11 57	1 14	22 22	0 47	22 5	0 29	20 35	0 29	10 43	16 48	21 35	21 25	6 9	12 27	0 2			
W23	23 25	23 53	4 14	24 10	1 58	21 54	1 40	23 42	0 29	11 57	1 14	22 23	0 47	22 5	0 29	20 35	0 29	10 43	16 48	21 35	21 24	6 6	12 28	0 2			
T 24	23 24	21 8	4 48	23 54	1 57	21 39	1 41	23 45	0 30	11 56	1 14	22 23	0 47	22 6	0 29	20 34	0 29	10 43	16 49	21 34	21 23	6 3	12 29	0 2			
F 25	23 22	17 29	5 7	23 36	1 56	21 24	1 41	23 48	0 31	11 56	1 14	22 24	0 47	22 6	0 29	20 34	0 29	10 43	16 49	21 33	21 23	6 0	12 29	0 2			
S 26	23 20	13 11	5 13	23 17	1 54	21 8	1 42	23 50	0 31	11 56	1 13	22 24	0 47	22 7	0 29	20 34	0 29	10 43	16 49	21 33	21 22	5 57	12 30	0 2			
S 27	23 18	8 26	5 5	22 56	1 52	20 51	1 42	23 52	0 32	11 56	1 13	22 24	0 47	22 7	0 29	20 33	0 29	10 44	16 50	21 33	21 22	5 55	12 31	0 2			
M28	23 15	3 24	4 44	22 33	1 48	20 34	1 43	23 54	0 32	11 56	1 13	22 25	0 47	22 7	0 29	20 33	0 29	10 44	16 50	21 32	21 21	5 52	12 31	0 2			
T 29	23 12	1s46	4 11	22 9	1 45	20 17	1 43	23 56	0 33	11 56	1 13	22 25	0 47	22 8	0 29	20 32	0 29	10 44	16 50	21 32	21 21	5 49	12 32	0 2			
W30	23n 8	6s56	3n26	21n45	1n40	19n58	1n43	23n57	0n33	11s56	1n12	22s25	0n47	22s 8	0s29	20n32	0s29	10s44	16s51	21n33	21n20	5n46	12n33	0n 4			

ASTRODIENST EPHEMERIS for the year 2077
geocentric

JULY 2077

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 38 47	9 ⁵⁰ 50'33	8 ¹¹ 26	1 ⁰ 44	9 ⁰ 1	27 ¹¹ 56	4 ⁰ D40	7 ⁰ R48	21 ⁰ R50	25 ⁰ 40	12 ⁰ Y 5	7 ¹¹ 28	6 ¹¹ 10	26 ¹¹ 45	3 ⁰ 8 4	T 1
F 2	18 42 44	10 ⁰ 47'45	20 ⁰ 50	3 ⁰ 17	10 ⁰ 13	28 ⁰ 37	4 ¹¹ 40	7 ⁰ 344	21 ⁰ 348	25 ⁰ 42	12 ⁰ 5	7 ⁰ 29	6 ⁰ 6	26 ⁰ 52	3 ⁰ 5	F 2
S 3	18 46 41	11 ⁰ 44'56	3 ⁰ 33	4 ⁰ 48	11 ⁰ 26	29 ⁰ 18	4 ⁰ 40	7 ⁰ 39	21 ⁰ 46	25 ⁰ 44	12 ⁰ 5	7 ⁰ R30	6 ⁰ 3	26 ⁰ 59	3 ⁰ 7	S 3
S 4	18 50 37	12 ⁰ 42'08	16 ⁰ 37	6 ⁰ 16	12 ⁰ 38	29 ⁰ 58	4 ⁰ 41	7 ⁰ 35	21 ⁰ 43	25 ⁰ 46	12 ⁰ 5	7 ⁰ 30	6 ⁰ 0	27 ⁰ 5	3 ⁰ 9	S 4
M 5	18 54 34	13 ⁰ 39'19	0 ⁰ 3	7 ⁰ 42	13 ⁰ 50	0 ⁰ 39	4 ⁰ 42	7 ⁰ 30	21 ⁰ 41	25 ⁰ 48	12 ⁰ 5	7 ⁰ 28	5 ⁰ 57	27 ⁰ 12	3 ⁰ 11	M 5
T 6	18 58 30	14 ⁰ 36'30	13 ⁰ 52	9 ⁰ 6	15 ⁰ 2	1 ⁰ 20	4 ⁰ 42	7 ⁰ 26	21 ⁰ 38	25 ⁰ 51	12 ⁰ 5	7 ⁰ 24	5 ⁰ 54	27 ⁰ 19	3 ⁰ 12	T 6
W 7	19 2 27	15 ⁰ 33'41	27 ⁰ 58	10 ⁰ 28	16 ⁰ 14	2 ⁰ 0	4 ⁰ 43	7 ⁰ 22	21 ⁰ 36	25 ⁰ 53	12 ⁰ 6	7 ⁰ 20	5 ⁰ 50	27 ⁰ 25	3 ⁰ 14	W 7
T 8	19 6 23	16 ⁰ 30'53	12 ⁰ 39	11 ⁰ 46	17 ⁰ 25	2 ⁰ 41	4 ⁰ 44	7 ⁰ 17	21 ⁰ 34	25 ⁰ 55	12 ⁰ 6	7 ⁰ 14	5 ⁰ 47	27 ⁰ 32	3 ⁰ 15	T 8
F 9	19 10 20	17 ⁰ 28'04	26 ⁰ 47	13 ⁰ 3	18 ⁰ 37	3 ⁰ 21	4 ⁰ 46	7 ⁰ 13	21 ⁰ 31	25 ⁰ 57	12 ⁰ 6	7 ⁰ 8	5 ⁰ 44	27 ⁰ 39	3 ⁰ 17	F 9
S 10	19 14 17	18 ⁰ 25'16	11 ⁰ 18	14 ⁰ 17	19 ⁰ 49	4 ⁰ 2	4 ⁰ 47	7 ⁰ 9	21 ⁰ 29	25 ⁰ 59	12 ⁰ 6	7 ⁰ 3	5 ⁰ 41	27 ⁰ 46	3 ⁰ 18	S 10
S 11	19 18 13	19 ⁰ 22'28	25 ⁰ 46	15 ⁰ 28	21 ⁰ 1	4 ⁰ 42	4 ⁰ 49	7 ⁰ 4	21 ⁰ 26	26 ⁰ 2	12 ⁰ 6	6 ⁰ 59	5 ⁰ 38	27 ⁰ 52	3 ⁰ 20	S 11
M 12	19 22 10	20 ⁰ 19'40	10 ⁰ Y 6	16 ⁰ 37	22 ⁰ 13	5 ⁰ 22	4 ⁰ 51	7 ⁰ 0	21 ⁰ 24	26 ⁰ 4	12 ⁰ R 6	6 ⁰ 57	5 ⁰ 35	27 ⁰ 59	3 ⁰ 21	M 12
T 13	19 26 6	21 ⁰ 16'53	24 ⁰ 15	17 ⁰ 43	23 ⁰ 24	6 ⁰ 3	4 ⁰ 53	6 ⁰ 56	21 ⁰ 22	26 ⁰ 6	12 ⁰ 6	6 ⁰ D57	5 ⁰ 31	28 ⁰ 6	3 ⁰ 22	T 13
W 14	19 30 3	22 ⁰ 14'07	8 ⁰ 12	18 ⁰ 46	24 ⁰ 36	6 ⁰ 43	4 ⁰ 55	6 ⁰ 52	21 ⁰ 19	26 ⁰ 8	12 ⁰ 6	6 ⁰ 57	5 ⁰ 28	28 ⁰ 12	3 ⁰ 24	W 14
T 15	19 33 59	23 ⁰ 11'21	21 ⁰ 56	19 ⁰ 46	25 ⁰ 47	7 ⁰ 23	4 ⁰ 57	6 ⁰ 48	21 ⁰ 17	26 ⁰ 11	12 ⁰ 6	6 ⁰ 59	5 ⁰ 25	28 ⁰ 19	3 ⁰ 25	T 15
F 16	19 37 56	24 ⁰ 8'35	5 ⁰ 11	20 ⁰ 43	26 ⁰ 59	8 ⁰ 4	5 ⁰ 0	6 ⁰ 43	21 ⁰ 14	26 ⁰ 13	12 ⁰ 6	6 ⁰ R59	5 ⁰ 22	28 ⁰ 26	3 ⁰ 26	F 16
S 17	19 41 52	25 ⁰ 5'51	18 ⁰ 49	21 ⁰ 37	28 ⁰ 11	8 ⁰ 44	5 ⁰ 3	6 ⁰ 39	21 ⁰ 12	26 ⁰ 15	12 ⁰ 5	6 ⁰ 59	5 ⁰ 19	28 ⁰ 32	3 ⁰ 27	S 17
S 18	19 45 49	26 ⁰ 3'07	1 ⁰ 57	22 ⁰ 28	29 ⁰ 22	9 ⁰ 24	5 ⁰ 6	6 ⁰ 35	21 ⁰ 9	26 ⁰ 17	12 ⁰ 5	6 ⁰ 56	5 ⁰ 16	28 ⁰ 39	3 ⁰ 28	S 18
M 19	19 49 46	27 ⁰ 0'23	14 ⁰ 53	23 ⁰ 15	0 ⁰ 11	10 ⁰ 4	5 ⁰ 9	6 ⁰ 31	21 ⁰ 7	26 ⁰ 19	12 ⁰ 5	6 ⁰ 51	5 ⁰ 12	28 ⁰ 46	3 ⁰ 29	M 19
T 20	19 53 42	27 ⁰ 57'40	27 ⁰ 37	23 ⁰ 59	1 ⁰ 45	10 ⁰ 44	5 ⁰ 12	6 ⁰ 27	21 ⁰ 5	26 ⁰ 22	12 ⁰ 5	6 ⁰ 44	5 ⁰ 9	28 ⁰ 53	3 ⁰ 30	T 20
W 21	19 57 39	28 ⁰ 54'58	10 ⁰ 10	24 ⁰ 40	2 ⁰ 56	11 ⁰ 24	5 ⁰ 15	6 ⁰ 23	21 ⁰ 2	26 ⁰ 24	12 ⁰ 5	6 ⁰ 35	5 ⁰ 6	28 ⁰ 59	3 ⁰ 31	W 21
T 22	20 1 35	29 ⁰ 52'15	22 ⁰ 30	25 ⁰ 16	4 ⁰ 7	12 ⁰ 4	5 ⁰ 19	6 ⁰ 20	21 ⁰ 0	26 ⁰ 26	12 ⁰ 5	6 ⁰ 26	5 ⁰ 3	29 ⁰ 6	3 ⁰ 32	T 22
F 23	20 5 32	0 ⁰ 49'33	4 ⁰ 11	25 ⁰ 48	5 ⁰ 19	12 ⁰ 44	5 ⁰ 23	6 ⁰ 16	20 ⁰ 58	26 ⁰ 28	12 ⁰ 4	6 ⁰ 16	5 ⁰ 0	29 ⁰ 13	3 ⁰ 33	F 23
S 24	20 9 28	1 ⁰ 46'52	16 ⁰ 41	26 ⁰ 17	6 ⁰ 30	13 ⁰ 24	5 ⁰ 26	6 ⁰ 12	20 ⁰ 55	26 ⁰ 31	12 ⁰ 4	6 ⁰ 7	4 ⁰ 56	29 ⁰ 19	3 ⁰ 33	S 24
S 25	20 13 25	2 ⁰ 44'11	28 ⁰ 35	26 ⁰ 41	7 ⁰ 41	14 ⁰ 3	5 ⁰ 30	6 ⁰ 8	20 ⁰ 53	26 ⁰ 33	12 ⁰ 4	6 ⁰ 0	4 ⁰ 53	29 ⁰ 26	3 ⁰ 34	S 25
M 26	20 17 21	3 ⁰ 41'30	10 ⁰ 26	27 ⁰ 0	8 ⁰ 52	14 ⁰ 43	5 ⁰ 35	6 ⁰ 5	20 ⁰ 50	26 ⁰ 35	12 ⁰ 4	5 ⁰ 55	4 ⁰ 50	29 ⁰ 33	3 ⁰ 35	M 26
T 27	20 21 18	4 ⁰ 38'50	22 ⁰ 18	27 ⁰ 15	10 ⁰ 3	15 ⁰ 23	5 ⁰ 39	6 ⁰ 1	20 ⁰ 48	26 ⁰ 37	12 ⁰ 3	5 ⁰ 52	4 ⁰ 47	29 ⁰ 40	3 ⁰ 35	T 27
W 28	20 25 15	5 ⁰ 36'10	4 ⁰ 15	27 ⁰ 25	11 ⁰ 14	16 ⁰ 3	5 ⁰ 44	5 ⁰ 57	20 ⁰ 46	26 ⁰ 39	12 ⁰ 3	5 ⁰ D51	4 ⁰ 44	29 ⁰ 46	3 ⁰ 36	W 28
T 29	20 29 11	6 ⁰ 33'30	16 ⁰ 23	27 ⁰ 30	12 ⁰ 25	16 ⁰ 42	5 ⁰ 48	5 ⁰ 54	20 ⁰ 44	26 ⁰ 42	12 ⁰ 2	5 ⁰ 52	4 ⁰ 41	29 ⁰ 53	3 ⁰ 36	T 29
F 30	20 33 8	7 ⁰ 30'52	28 ⁰ 46	27 ⁰ R31	13 ⁰ 36	17 ⁰ 22	5 ⁰ 53	5 ⁰ 50	20 ⁰ 41	26 ⁰ 44	12 ⁰ 2	5 ⁰ 52	4 ⁰ 37	29 ⁰ 59	3 ⁰ 37	F 30
S 31	20 37 4	8 ⁰ 28'13	11 ⁰ 30	27 ⁰ 26	14 ⁰ 46	18 ⁰ 1	5 ⁰ 58	5 ⁰ 47	20 ⁰ 39	26 ⁰ 46	12 ⁰ Y 2	5 ⁰ R52	4 ⁰ 11	0 ⁰ 6	3 ⁰ 37	S 31

Day	☉	☾	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	23n 4	11s54	2n32	21n19	1n35	19n40	1n44	23n59	0n34	11s57	1n12	22s26	0n47	22s 9	0s29	20n32	0s29	10s45	16s51	21n33
F 2	22 59	16 31	1 30	20 52	1 30	19 20	1 44	24 0	0 34	11 57	1 12	22 26	0 46	22 9	0 29	20 31	0 29	10 45	16 51	21 33
S 3	22 55	20 30	0 22	20 24	1 23	19 1	1 44	24 1	0 35	11 57	1 11	22 26	0 46	22 9	0 29	20 31	0 29	10 45	16 52	21 33
S 4	22 49	23 35	0s50	19 56	1 17	18 40	1 44	24 1	0 36	11 58	1 11	22 27	0 46	22 10	0 29	20 30	0 29	10 45	16 52	21 33
M 5	22 44	25 26	2 0	19 27	1 9	18 19	1 44	24 2	0 36	11 58	1 11	22 27	0 46	22 10	0 29	20 30	0 29	10 46	16 53	21 33
T 6	22 38	25 46	3 5	18 58	1 2	17 58	1 43	24 2	0 37	11 59	1 11	22 27	0 46	22 10	0 29	20 30	0 29	10 46	16 53	21 32
W 7	22 31	24 28	4 0	18 28	0 53	17 36	1 43	24 2	0 37	11 59	1 10	22 28	0 46	22 11	0 29	20 29	0 29	10 46	16 53	21 31
T 8	22 25	21 35	4 41	17 58	0 44	17 14	1 43	24 2	0 38	12 0	1 10	22 28	0 46	22 11	0 29	20 29	0 29	10 46	16 54	21 31
F 9	22 17	17 20	5 4	17 27	0 35	16 52	1 42	24 2	0 38	12 0	1 10	22 28	0 46	22 12	0 29	20 29	0 29	10 47	16 54	21 30
S 10	22 10	12 4	5 8	16 57	0 26	16 29	1 42	24 1	0 39	12 1	1 10	22 29	0 46	22 12	0 29	20 28	0 29	10 47	16 54	21 29
S 11	22 2	6 10	4 53	16 26	0 15	16 5	1 41	24 0	0 39	12 2	1 9	22 29	0 46	22 12	0 29	20 28	0 29	10 47	16 55	21 28
M 12	21 54	0n 1	4 19	15 56	0 5	15 41	1 41	23 59	0 40	12 3	1 9	22 29	0 45	22 13	0 29	20 27	0 29	10 48	16 55	21 28
T 13	21 45	6 8	3 30	15 25	0s 6	15 17	1 40	23 58	0 40	12 4	1 9	22 30	0 45	22 13	0 29	20 27	0 29	10 48	16 56	21 28
W 14	21 36	11 53	2 29	14 55	0 17	14 52	1 39	23 56	0 41	12 5	1 8	22 30	0 45	22 14	0 29	20 27	0 29	10 48	16 56	21 28
T 15	21 26	16 57	1 20	14 26	0 29	14 27	1 38	23 55	0 41	12 6	1 8	22 30	0 45	22 14	0 29	20 26	0 29	10 49	16 56	21 28
F 16	21 17	21 4	0 8	13 56	0 41	14 2	1 37	23 53	0 42	12 7	1 8	22 31	0 45	22 14	0 29	20 26	0 29	10 49	16 57	21 28
S 17	21 6	24 1	1n 3	13 27	0 53	13 36	1 36	23 51	0 43	12 8	1 8	22 31	0 45	22 15	0 29	20 25	0 29	10 50	16 57	21 28
S 18	20 56	25 35	2 10	12 59	1 5	13 10	1 35	23 49	0 43	12 9	1 7	22 31	0 45	22 15	0 29	20 25	0 29	10 50	16 57	21 28
M 19	20 45	25 44	3 9	12 32	1 18	12 44	1 33	23 46	0 44	12 11	1 7	22 31	0 45	22 15	0 29	20 24	0 29	10 50	16 58	21 27
T 20	20 34	24 31	3 58	12 5	1 31	12 17	1 32	23 44	0 44	12 12	1 7	22 32	0 45	22 16	0 29	20 24	0 29	10 51	16 58	21 26
W 21	20 22	22 5	4 34	11 39	1 44	11 50	1 31	23 41	0 45	12 13	1 7	22 32	0 45	22 16	0 29	20 24	0 29	10 51	16 58	21 24
T 22	20 10	18 40	4 56	11 15	1 58	11 23	1 29	23 38	0 45	12 15	1 6	22 32	0 44	22 17	0 29	20 23	0 29	10 52	16 59	21 22
F 23	19 58	14 31	5 5	10 51	2 11	10 55	1 27	23 35	0 46	12 16	1 6	22 33	0 44	22 17	0 29	20 23	0 29	10 52	16 59	21 21
S 24	19 45	9 51	5 0	10 29	2 24	10 27	1 26	23 31	0 46	12 18	1 6	22 33	0 44	22 17	0 29	20 22	0 29	10 52	17 0	21 19
S 25	19 32	4 52	4 42	10 9	2 38	9 59	1 24	23 28	0 47	12 19	1 6	22 33	0 44	22 18	0 29	20 22	0 29	10 53	17 0	21 18
M 26	19 19	0s16	4 12	9 49	2 51	9 31	1 22	23 24	0 47	12 21	1 5	22 34	0 44	22 18	0 29	20 22	0 29	10 53	17 0	21 17
T 27	19 6	5 25	3 31	9 32	3 4	9 2	1 20	23 20	0 48	12 23	1 5	22 34	0 44	22 18	0 29	20 21	0 29	10 54	17 1	21 17
W 28	18 52	10 25	2 41	9 16	3 17	8 33	1 18	23 16	0 48	12 24	1 5	22 34	0 44	22 19	0 29	20 21	0 29	10 54	17 1	21 17
T 29	18 38	15 6	1 42	9 3	3 30	8 4	1 16	23 11	0 49	12 26	1 5	22 34	0 44	22 19	0 29	20 20	0 29	10 55	17 1	21 17
F 30	18 23	19 16	0 38	8 51	3 42	7 35	1 14	23 7	0 49	12 28	1 4	22 35	0 43	22 19	0 29	20 20	0 29	10 55	17 2	21 17
S 31	18n 8	22s39	0s30	8n42	3s54	7n 6	1n12	23n 2	0n50	12s30	1n 4	22s35	0n43	22s20	0s29	20n20	0s29	10s56	17s 2	21n17

ASTRODIENST EPHEMERIS for the year 2077
geocentric

AUGUST 2077

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 41 1	9♌25°36	24♊39	27°R15	15♍57	18♌41	6♍ 3	5°R44	20°R37	26♌48	12°R 1	5°R51	4♐31	0♌13	3♌37	S 1
M 2	20 44 57	10°22'58	8♌14	27♌ 0	17° 8	19°20	6° 9	5♌41	20♌35	26°50	12°R 1	5♐47	4°28	0°20	3°38	M 2
T 3	20 48 54	11°20'22	22°16	26°40	18°18	20° 0	6°14	5°37	20°32	26°53	12° 0	5°41	4°25	0°27	3°38	T 3
W 4	20 52 50	12°17'46	6♌42	26°15	19°29	20°39	6°20	5°34	20°30	26°55	12° 0	5°33	4°22	0°33	3°38	W 4
T 5	20 56 47	13°15'12	21°27	25°45	20°39	21°18	6°25	5°31	20°28	26°57	11°59	5°23	4°18	0°40	3°38	T 5
F 6	21 0 44	14°12'38	6♌21	25°10	21°50	21°58	6°31	5°28	20°26	26°59	11°59	5°13	4°15	0°47	3°R38	F 6
S 7	21 4 40	15°10'05	21°17	24°32	23° 0	22°37	6°37	5°25	20°24	27° 1	11°58	5° 4	4°12	0°53	3°38	S 7
S 8	21 8 37	16° 7'33	6♍ 5	23°50	24°10	23°16	6°44	5°23	20°22	27° 3	11°58	4°57	4° 9	1° 0	3°38	S 8
M 9	21 12 33	17° 5'03	20°39	23° 6	25°20	23°55	6°50	5°20	20°20	27° 5	11°57	4°52	4° 6	1° 7	3°38	M 9
T 10	21 16 30	18° 2'34	4♌55	22°19	26°30	24°35	6°56	5°17	20°17	27° 8	11°57	4°50	4° 2	1°14	3°38	T 10
W11	21 20 26	19° 0'06	18°51	21°31	27°40	25°14	7° 3	5°15	20°15	27°10	11°56	4°D49	3°59	1°20	3°37	W11
T 12	21 24 23	19°57'40	2♐27	20°42	28°50	25°53	7°10	5°12	20°13	27°12	11°55	4°R50	3°56	1°27	3°37	T 12
F 13	21 28 19	20°55'16	15°46	19°54	0♌ 0	26°32	7°17	5°10	20°11	27°14	11°55	4°49	3°53	1°34	3°37	F 13
S 14	21 32 16	21°52'53	28°49	19° 7	1°10	27°11	7°24	5° 7	20°10	27°16	11°54	4°47	3°50	1°40	3°36	S 14
S 15	21 36 13	22°50'31	11♌38	18°22	2°20	27°50	7°31	5° 5	20° 8	27°18	11°53	4°43	3°47	1°47	3°36	S 15
M16	21 40 9	23°48'11	24°16	17°41	3°29	28°29	7°38	5° 3	20° 6	27°20	11°53	4°36	3°43	1°54	3°35	M16
T 17	21 44 6	24°45'52	6♌44	17° 3	4°39	29° 8	7°46	5° 1	20° 4	27°22	11°52	4°25	3°40	2° 0	3°35	T 17
W18	21 48 2	25°43'34	19° 2	16°31	5°48	29°46	7°53	4°59	20° 2	27°24	11°51	4°13	3°37	2° 7	3°34	W18
T 19	21 51 59	26°41'18	1♐12	16° 4	6°58	0♌25	8° 1	4°57	20° 0	27°26	11°50	4° 0	3°34	2°14	3°34	T 19
F 20	21 55 55	27°39'03	13°14	15°43	8° 7	1° 4	8° 9	4°55	19°59	27°28	11°50	3°46	3°31	2°21	3°33	F 20
S 21	21 59 52	28°36'49	25°10	15°29	9°16	1°43	8°16	4°53	19°57	27°30	11°49	3°33	3°28	2°27	3°32	S 21
S 22	22 3 48	29°34'36	7♌ 1	15°D22	10°26	2°21	8°25	4°52	19°55	27°32	11°48	3°22	3°24	2°34	3°31	S 22
M23	22 7 45	0♐32'25	18°50	15°23	11°35	3° 0	8°33	4°50	19°53	27°34	11°47	3°14	3°21	2°41	3°30	M23
T 24	22 11 42	1°30'15	0♌40	15°31	12°44	3°39	8°41	4°49	19°52	27°36	11°46	3° 9	3°18	2°47	3°29	T 24
W25	22 15 38	2°28'06	12°35	15°47	13°52	4°17	8°49	4°47	19°50	27°38	11°45	3° 6	3°15	2°54	3°28	W25
T 26	22 19 35	3°25'58	24°41	16°11	15° 1	4°56	8°58	4°46	19°49	27°40	11°45	3° 5	3°12	3° 1	3°27	T 26
F 27	22 23 31	4°23'52	7♌ 1	16°43	16°10	5°34	9° 7	4°45	19°47	27°42	11°44	3° 5	3° 8	3° 8	3°26	F 27
S 28	22 27 28	5°21'47	19°42	17°23	17°18	6°13	9°15	4°44	19°46	27°43	11°43	3° 5	3° 5	3°14	3°25	S 28
S 29	22 31 24	6°19'43	2♌48	18°10	18°27	6°51	9°24	4°43	19°44	27°45	11°42	3° 3	3° 2	3°21	3°24	S 29
M30	22 35 21	7°17'41	16°22	19° 4	19°35	7°29	9°33	4°42	19°43	27°47	11°41	2°59	2°59	3°28	3°23	M30
T 31	22 39 17	8♐15'40	0♌26	20♌ 6	20♌43	8♌ 8	9♌42	4♌41	19♌42	27♌49	11♐40	2♐53	2♐56	3♌34	3♌21	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	17n53	24s58	1s38	8n35	4s 5	6n36	1n 9	22n57	0n50	12s32	1n 4	22s35	0n43	22s20	0s29	20n19
M 2	17 38	25 53	2 43	8 30	4 15	6 6	1 7	22 52	0 51	12 34	1 4	22 35	0 43	22 20	0 29	20 19
T 3	17 22	25 13	3 40	8 28	4 25	5 37	1 4	22 47	0 51	12 36	1 3	22 36	0 43	22 21	0 29	20 18
W 4	17 6	22 52	4 25	8 29	4 33	5 7	1 2	22 42	0 52	12 38	1 3	22 36	0 43	22 21	0 29	20 18
T 5	16 50	18 58	4 53	8 32	4 40	4 36	0 59	22 36	0 52	12 40	1 3	22 36	0 43	22 21	0 29	20 17
F 6	16 34	13 51	5 2	8 38	4 46	4 6	0 56	22 30	0 53	12 42	1 3	22 37	0 43	22 22	0 29	20 17
S 7	16 17	7 54	4 50	8 46	4 50	3 36	0 54	22 24	0 53	12 44	1 2	22 37	0 42	22 22	0 29	20 17
S 8	16 0	1 33	4 19	8 57	4 53	3 5	0 51	22 18	0 54	12 47	1 2	22 37	0 42	22 22	0 29	20 16
M 9	15 43	4n48	3 31	9 11	4 54	2 35	0 48	22 12	0 54	12 49	1 2	22 37	0 42	22 23	0 29	20 16
T 10	15 25	10 47	2 31	9 27	4 53	2 4	0 45	22 6	0 55	12 51	1 2	22 37	0 42	22 23	0 29	20 15
W11	15 7	7 16	5 1	24 9	4 51	1 34	0 42	21 59	0 55	12 54	1 1	22 38	0 42	22 23	0 29	20 15
T 12	14 49	20 26	0 13	10 4	4 46	1 3	0 38	21 52	0 55	12 56	1 1	22 38	0 42	22 24	0 29	20 15
F 13	14 31	23 38	0n58	10 25	4 40	0 32	0 35	21 45	0 56	12 58	1 1	22 38	0 42	22 24	0 29	20 14
S 14	14 13	25 29	2 3	10 47	4 32	0 1	0 32	21 38	0 56	13 1	1 1	22 38	0 42	22 24	0 29	20 14
S 15	13 54	25 56	3 1	11 10	4 22	0s29	0 28	21 31	0 57	13 3	1 1	22 39	0 41	22 24	0 29	20 13
M16	13 35	25 1	3 50	11 33	4 10	1 0	0 25	21 24	0 57	13 6	1 0	22 39	0 41	22 25	0 29	20 13
T 17	13 16	22 52	4 26	11 56	3 58	1 31	0 22	21 16	0 58	13 9	1 0	22 39	0 41	22 25	0 29	20 13
W18	12 56	19 41	4 49	12 20	3 43	2 2	0 18	21 8	0 58	13 11	1 0	22 39	0 41	22 25	0 29	20 12
T 19	12 37	15 42	4 59	12 42	3 28	2 33	0 14	21 1	0 59	13 14	1 0	22 39	0 41	22 26	0 29	20 12
F 20	12 17	11 8	4 56	13 4	3 12	3 3	0 11	20 53	0 59	13 17	0 59	22 40	0 41	22 26	0 29	20 12
S 21	11 57	6 11	4 39	13 24	2 55	3 34	0 7	20 44	1 0	13 19	0 59	22 40	0 41	22 26	0 29	20 11
S 22	11 37	1 3	4 10	13 43	2 37	4 5	0 3	20 36	1 0	13 22	0 59	22 40	0 40	22 26	0 29	20 11
M23	11 17	4s 7	3 31	14 0	2 19	4 35	0s 1	20 28	1 1	13 25	0 59	22 40	0 40	22 26	0 29	20 10
T 24	10 56	9 10	2 42	14 15	2 1	5 6	0 5	20 19	1 1	13 28	0 59	22 40	0 40	22 27	0 29	20 10
W25	10 35	13 55	1 46	14 27	1 43	5 36	0 9	20 11	1 2	13 31	0 58	22 41	0 40	22 27	0 29	20 10
T 26	10 15	18 13	0 44	14 37	1 25	6 7	0 13	20 2	1 2	13 34	0 58	22 41	0 40	22 27	0 29	20 9
F 27	9 54	21 49	0s21	14 45	1 8	6 37	0 17	19 53	1 2	13 37	0 58	22 41	0 40	22 27	0 29	20 9
S 28	9 32	24 28	1 27	14 49	0 51	7 7	0 21	19 44	1 3	13 40	0 58	22 41	0 40	22 28	0 29	20 9
S 29	9 11	25 54	2 30	14 51	0 34	7 37	0 25	19 35	1 3	13 43	0 58	22 41	0 39	22 28	0 29	20 8
M30	8 50	25 51	3 27	14 49	0 18	8 7	0 29	19 25	1 4	13 46	0 57	22 42	0 39	22 28	0 29	20 8
T 31	8n28	24s11	4s14	14n44	0s 3	8s36	0s33	19n16	1n 4	13s49	0n57	22s42	0n39	22s28	0s29	20n 7

Julian Day Number = 2479881.5, Delta T = 83.78 sec
Ecliptic obliquity = 23°25'49, Nutation = - 0°00'14, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 25°49'27, Lahiri = 24°56'28

ASTRODIENST EPHEMERIS for the year 2077

geocentric

SEPTEMBER 2077

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 43 14	9 ^h 13'40	14 ^h 59	21 ^h 14	21 ^h 52	8 ^h 46	9 ^h 51	4 ^h R40	19 ^h R40	27 ^h 51	11 ^h R39	2 ^h R44	2 ^h 53	3 ^h 41	3 ^h R20	W 1
T 2	22 47 11	10 ^h 11'42	29 ^h 55	22 ^h 28	23 ^h 0	9 ^h 24	10 ^h 1	4 ^h 340	19 ^h 339	27 ^h 52	11 ^h Y38	2 ^h 33	2 ^h 49	3 ^h 48	3 ^h 19	T 2
F 3	22 51 7	11 ^h 9'45	15 ^h 5	23 ^h 49	24 ^h 7	10 ^h 2	10 ^h 10	4 ^h 39	19 ^h 38	27 ^h 54	11 ^h 37	2 ^h 22	2 ^h 46	3 ^h 54	3 ^h 17	F 3
S 4	22 55 4	12 ^h 7'50	0 ^h Y19	25 ^h 15	25 ^h 15	10 ^h 40	10 ^h 20	4 ^h 39	19 ^h 37	27 ^h 56	11 ^h 36	2 ^h 12	2 ^h 43	4 ^h 1	3 ^h 16	S 4
S 5	22 59 0	13 ^h 5'57	15 ^h 27	26 ^h 45	26 ^h 23	11 ^h 19	10 ^h 29	4 ^h 38	19 ^h 36	27 ^h 58	11 ^h 35	2 ^h 4	2 ^h 40	4 ^h 8	3 ^h 14	S 5
M 6	23 2 57	14 ^h 4'05	0 ^h 19	28 ^h 20	27 ^h 30	11 ^h 57	10 ^h 39	4 ^h 38	19 ^h 35	27 ^h 59	11 ^h 34	1 ^h 59	2 ^h 37	4 ^h 15	3 ^h 13	M 6
T 7	23 6 53	15 ^h 2'16	14 ^h 48	29 ^h 59	28 ^h 38	12 ^h 35	10 ^h 49	4 ^h 38	19 ^h 33	28 ^h 1	11 ^h 33	1 ^h 56	2 ^h 33	4 ^h 21	3 ^h 11	T 7
W 8	23 10 50	16 ^h 0'28	28 ^h 53	1 ^h 42	29 ^h 45	13 ^h 13	10 ^h 59	4 ^h D38	19 ^h 32	28 ^h 3	11 ^h 32	1 ^h D55	2 ^h 30	4 ^h 28	3 ^h 9	W 8
T 9	23 14 46	16 ^h 58'43	12 ^h 32	3 ^h 27	0 ^h 52	13 ^h 51	11 ^h 9	4 ^h 38	19 ^h 32	28 ^h 4	11 ^h 31	1 ^h R55	2 ^h 27	4 ^h 35	3 ^h 8	T 9
F 10	23 18 43	17 ^h 57'00	25 ^h 48	5 ^h 15	1 ^h 59	14 ^h 29	11 ^h 19	4 ^h 38	19 ^h 31	28 ^h 6	11 ^h 30	1 ^h 55	2 ^h 24	4 ^h 41	3 ^h 6	F 10
S 11	23 22 40	18 ^h 55'19	8 ^h 43	7 ^h 4	3 ^h 6	15 ^h 7	11 ^h 29	4 ^h 38	19 ^h 30	28 ^h 7	11 ^h 29	1 ^h 53	2 ^h 21	4 ^h 48	3 ^h 4	S 11
S 12	23 26 36	19 ^h 53'40	21 ^h 22	8 ^h 55	4 ^h 13	15 ^h 44	11 ^h 39	4 ^h 39	19 ^h 29	28 ^h 9	11 ^h 28	1 ^h 49	2 ^h 18	4 ^h 55	3 ^h 2	S 12
M13	23 30 33	20 ^h 52'03	3 ^h 48	10 ^h 47	5 ^h 19	16 ^h 22	11 ^h 49	4 ^h 39	19 ^h 28	28 ^h 10	11 ^h 27	1 ^h 43	2 ^h 14	5 ^h 1	3 ^h 1	M13
T14	23 34 29	21 ^h 50'28	16 ^h 3	12 ^h 40	6 ^h 25	17 ^h 0	12 ^h 0	4 ^h 40	19 ^h 27	28 ^h 12	11 ^h 26	1 ^h 34	2 ^h 11	5 ^h 8	2 ^h 59	T14
W15	23 38 26	22 ^h 48'55	28 ^h 9	14 ^h 33	7 ^h 32	17 ^h 38	12 ^h 10	4 ^h 40	19 ^h 27	28 ^h 13	11 ^h 25	1 ^h 22	2 ^h 8	5 ^h 15	2 ^h 57	W15
T16	23 42 22	23 ^h 47'24	10 ^h 10	16 ^h 27	8 ^h 38	18 ^h 15	12 ^h 21	4 ^h 41	19 ^h 26	28 ^h 15	11 ^h 24	1 ^h 10	2 ^h 5	5 ^h 22	2 ^h 55	T16
F17	23 46 19	24 ^h 45'55	22 ^h 5	18 ^h 20	9 ^h 44	18 ^h 53	12 ^h 32	4 ^h 42	19 ^h 26	28 ^h 16	11 ^h 22	0 ^h 57	2 ^h 2	5 ^h 28	2 ^h 53	F17
S18	23 50 15	25 ^h 44'27	3 ^h 57	20 ^h 14	10 ^h 50	19 ^h 31	12 ^h 43	4 ^h 43	19 ^h 25	28 ^h 18	11 ^h 21	0 ^h 45	1 ^h 59	5 ^h 35	2 ^h 51	S18
S19	23 54 12	26 ^h 43'02	15 ^h 47	22 ^h 7	11 ^h 55	20 ^h 8	12 ^h 53	4 ^h 44	19 ^h 25	28 ^h 19	11 ^h 20	0 ^h 35	1 ^h 55	5 ^h 42	2 ^h 48	S19
M20	23 58 8	27 ^h 41'38	27 ^h 36	23 ^h 59	13 ^h 1	20 ^h 46	13 ^h 4	4 ^h 45	19 ^h 24	28 ^h 20	11 ^h 19	0 ^h 28	1 ^h 52	5 ^h 48	2 ^h 46	M20
T21	0 2 5	28 ^h 40'17	9 ^h 48	25 ^h 51	14 ^h 6	21 ^h 23	13 ^h 15	4 ^h 46	19 ^h 24	28 ^h 22	11 ^h 18	0 ^h 23	1 ^h 49	5 ^h 55	2 ^h 44	T21
W22	0 6 2	29 ^h 38'57	21 ^h 25	27 ^h 42	15 ^h 11	22 ^h 1	13 ^h 27	4 ^h 48	19 ^h 23	28 ^h 23	11 ^h 17	0 ^h 21	1 ^h 46	6 ^h 2	2 ^h 42	W22
T23	0 9 58	0 ^h 37'38	3 ^h 31	29 ^h 32	16 ^h 16	22 ^h 38	13 ^h 38	4 ^h 49	19 ^h 23	28 ^h 24	11 ^h 16	0 ^h D20	1 ^h 43	6 ^h 8	2 ^h 40	T23
F24	0 13 55	1 ^h 36'22	15 ^h 51	1 ^h 21	17 ^h 20	23 ^h 16	13 ^h 49	4 ^h 51	19 ^h 23	28 ^h 25	11 ^h 14	0 ^h 21	1 ^h 39	6 ^h 15	2 ^h 37	F24
S25	0 17 51	2 ^h 35'07	28 ^h 29	3 ^h 10	18 ^h 25	23 ^h 53	14 ^h 0	4 ^h 52	19 ^h 23	28 ^h 26	11 ^h 13	0 ^h R22	1 ^h 36	6 ^h 22	2 ^h 35	S25
S26	0 21 48	3 ^h 33'54	11 ^h 30	4 ^h 58	19 ^h 29	24 ^h 30	14 ^h 12	4 ^h 54	19 ^h 23	28 ^h 28	11 ^h 12	0 ^h 22	1 ^h 33	6 ^h 29	2 ^h 33	S26
M27	0 25 44	4 ^h 32'43	24 ^h 57	6 ^h 45	20 ^h 33	25 ^h 7	14 ^h 23	4 ^h 56	19 ^h 23	28 ^h 29	11 ^h 11	0 ^h 20	1 ^h 30	6 ^h 35	2 ^h 30	M27
T28	0 29 41	5 ^h 31'33	8 ^h 54	8 ^h 30	21 ^h 37	25 ^h 45	14 ^h 35	4 ^h 58	19 ^h D23	28 ^h 30	11 ^h 10	0 ^h 16	1 ^h 27	6 ^h 42	2 ^h 28	T28
W29	0 33 37	6 ^h 30'26	23 ^h 19	10 ^h 15	22 ^h 40	26 ^h 22	14 ^h 46	5 ^h 0	19 ^h 23	28 ^h 31	11 ^h 9	0 ^h 10	1 ^h 24	6 ^h 49	2 ^h 25	W29
T30	0 37 34	7 ^h 29'19	8 ^h 10	11 ^h 59	23 ^h 44	26 ^h 59	14 ^h 58	5 ^h 2	19 ^h 23	28 ^h 32	11 ^h Y 7	0 ^h II 2	1 ^h II20	6 ^h 55	2 ^h 23	T30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
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ASTRODIENST EPHEMERIS for the year 2077
geocentric

OCTOBER 2077

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 41 31	8♂28'15	23♂20	13♂43	24♂47	27♂36	15♂10	5♂4	19♂23	28♂33	11♂R 6	29♂R54	1♂117	7♂2	2♂R20	F 1
S 2	0 45 27	9°27'12	8♂39	15°25	25°49	28°13	15°22	5°6	19°23	28°34	11♂5	29♂47	1°14	7°9	2♂18	S 2
S 3	0 49 24	10°26'12	23°55	17°6	26°52	28°50	15°33	5°9	19°23	28°35	11°4	29°41	1°11	7°15	2°15	S 3
M 4	0 53 20	11°25'14	8♂58	18°47	27°54	29°27	15°45	5°11	19°23	28°36	11°3	29°37	1°8	7°22	2°13	M 4
T 5	0 57 17	12°24'18	23°41	20°27	28°56	0♂4	15°57	5°14	19°24	28°37	11°2	29°D35	1°4	7°29	2°10	T 5
W 6	1 1 13	13°23'24	7♂57	22°5	29°58	0°41	16°9	5°16	19°24	28°38	11°0	29°35	1°1	7°36	2°7	W 6
T 7	1 5 10	14°22'32	21°46	23°43	0♂59	1°18	16°21	5°19	19°25	28°38	10°59	29°37	0°58	7°42	2°5	T 7
F 8	1 9 6	15°21'43	5♂8	25°21	2°0	1°54	16°34	5°22	19°25	28°39	10°58	29°38	0°55	7°49	2°2	F 8
S 9	1 13 3	16°20'57	18°6	26°57	3°1	2°31	16°46	5°25	19°26	28°40	10°57	29°R38	0°52	7°56	2°0	S 9
S 10	1 17 0	17°20'12	0♂43	28°33	4°1	3°8	16°58	5°28	19°26	28°41	10°56	29°37	0°49	8°2	1°57	S 10
M 11	1 20 56	18°19'30	13°4	0♂8	5°1	3°45	17°10	5°31	19°27	28°41	10°55	29°34	0°45	8°9	1°54	M 11
T 12	1 24 53	19°18'50	25°13	1°42	6°1	4°21	17°23	5°34	19°28	28°42	10°53	29°30	0°42	8°16	1°51	T 12
W 13	1 28 49	20°18'12	7♂13	3°16	7°0	4°58	17°35	5°37	19°28	28°43	10°52	29°23	0°39	8°22	1°49	W 13
T 14	1 32 46	21°17'37	19°7	4°49	7°59	5°34	17°48	5°41	19°29	28°43	10°51	29°16	0°36	8°29	1°46	T 14
F 15	1 36 42	22°17'03	0♂58	6°21	8°58	6°11	18°0	5°44	19°30	28°44	10°50	29°9	0°33	8°36	1°43	F 15
S 16	1 40 39	23°16'32	12°48	7°52	9°56	6°47	18°13	5°48	19°31	28°44	10°49	29°2	0°30	8°42	1°40	S 16
S 17	1 44 35	24°16'03	24°40	9°23	10°53	7°24	18°25	5°51	19°32	28°45	10°48	28°57	0°26	8°49	1°37	S 17
M 18	1 48 32	25°15'36	6♂34	10°53	11°51	8°0	18°38	5°55	19°33	28°45	10°47	28°53	0°23	8°56	1°35	M 18
T 19	1 52 29	26°15'10	18°32	12°23	12°47	8°36	18°50	5°59	19°34	28°46	10°45	28°51	0°20	9°3	1°32	T 19
W 20	1 56 25	27°14'47	0♂37	13°51	13°44	9°12	19°3	6°3	19°35	28°46	10°44	28°D50	0°17	9°9	1°29	W 20
T 21	2 0 22	28°14'26	12°52	15°19	14°40	9°49	19°16	6°7	19°36	28°47	10°43	28°51	0°14	9°16	1°26	T 21
F 22	2 4 18	29°14'07	25°18	16°47	15°35	10°25	19°29	6°11	19°37	28°47	10°42	28°53	0°10	9°23	1°23	F 22
S 23	2 8 15	0♂13'49	8♂3	18°13	16°30	11°1	19°42	6°15	19°38	28°47	10°41	28°54	0°7	9°29	1°21	S 23
S 24	2 12 11	1°13'33	21°0	19°39	17°24	11°37	19°54	6°19	19°40	28°48	10°40	28°56	0°4	9°36	1°18	S 24
M 25	2 16 8	2°13'19	4♂23	21°5	18°17	12°13	20°7	6°23	19°41	28°48	10°39	28°R56	0°1	9°43	1°15	M 25
T 26	2 20 4	3°13'06	18°9	22°29	19°10	12°49	20°20	6°27	19°42	28°48	10°38	28°55	29♂58	9°49	1°12	T 26
W 27	2 24 1	4°12'55	2♂20	23°53	20°3	13°25	20°33	6°32	19°44	28°48	10°37	28°53	29°55	9°56	1°9	W 27
T 28	2 27 58	5°12'46	16°54	25°15	20°54	14°1	20°46	6°36	19°45	28°48	10°36	28°50	29°51	10°3	1°6	T 28
F 29	2 31 54	6°12'38	1♂47	26°37	21°45	14°36	20°59	6°41	19°47	28°48	10°35	28°47	29°48	10°9	1°4	F 29
S 30	2 35 51	7°12'32	16°52	27°58	22°36	15°12	21°12	6°45	19°48	28°48	10°33	28°44	29°45	10°16	1°1	S 30
S 31	2 39 47	8♂12'28	1♂59	29♂18	23♂25	15♂48	21♂25	6♂50	19♂50	28°R49	10♂32	28♂42	29♂42	10♂23	0♂58	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
F 1	3s21	6s57	4s41	4s39	0n50	21s44	2s52	13n31	1n17	15s33	0n52	22s45	0n35	22s30	0s29	19n59	0s29	11s28	17s14	20n7	20n25	1n3	12n12	0s6	0s6
S 2	3 45	0 14	3 59	5 24	0 43	22 4	2 57	13 18	1 18	15 36	0 52	22 45	0 35	22 30	0 29	19 58	0 29	11 28	17 14	20 6	20 24	1 0	12 11	0 6	0 6
S 3	4 8	6n29	3 0	6 9	0 37	22 23	3 1	13 6	1 18	15 40	0 52	22 45	0 35	22 30	0 29	19 58	0 29	11 29	17 14	20 4	20 23	0 57	12 10	0 6	0 6
M 4	4 31	12 46	1 49	6 53	0 30	22 41	3 5	12 53	1 19	15 44	0 52	22 45	0 34	22 30	0 29	19 58	0 29	11 29	17 14	20 4	20 23	0 54	12 9	0 6	0 6
T 5	4 54	18 10	0 32	7 37	0 24	22 59	3 9	12 41	1 19	15 47	0 52	22 45	0 34	22 30	0 29	19 58	0 29	11 30	17 14	20 3	20 22	0 51	12 8	0 6	0 6
W 6	5 17	22 22	0n45	8 20	0 17	23 17	3 13	12 28	1 19	15 51	0 51	22 45	0 34	22 30	0 29	19 58	0 29	11 30	17 14	20 3	20 21	0 47	12 7	0 6	0 6
T 7	5 40	25 7	1 57	9 3	0 10	23 34	3 17	12 15	1 20	15 54	0 51	22 45	0 34	22 30	0 29	19 57	0 29	11 31	17 14	20 4	20 21	0 44	12 6	0 6	0 6
F 8	6 3	26 20	3 0	9 45	0 3	23 50	3 21	12 2	1 20	15 58	0 51	22 45	0 34	22 30	0 29	19 57	0 29	11 31	17 14	20 4	20 20	0 41	12 5	0 6	0 6
S 9	6 26	26 3	3 52	10 27	0s4	24 6	3 25	11 49	1 20	16 1	0 51	22 45	0 34	22 30	0 29	19 57	0 29	11 32	17 14	20 4	20 19	0 38	12 4	0 6	0 6
S 10	6 48	24 24	4 31	11 7	0 11	24 21	3 29	11 37	1 21	16 5	0 51	22 45	0 34	22 30	0 29	19 57	0 29	11 32	17 14	20 4	20 19	0 35	12 3	0 6	0 6
M 11	7 11	21 38	4 57	11 48	0 18	24 36	3 32	11 24	1 21	16 9	0 51	22 45	0 34	22 30	0 29	19 57	0 29	11 32	17 14	20 3	20 18	0 32	12 2	0 6	0 6
T 12	7 33	17 57	5 9	12 27	0 25	24 51	3 36	11 11	1 22	16 12	0 51	22 45	0 33	22 29	0 29	19 57	0 29	11 33	17 14	20 2	20 17	0 29	12 1	0 6	0 6
W 13	7 56	13 36	5 7	13 6	0 32	25 4	3 39	10 58	1 22	16 16	0 51	22 45	0 33	22 29	0 29	19 57	0 29	11 33	17 14	20 1	20 17	0 26	12 0	0 7	0 7
T 14	8 18	8 46	4 52	13 44	0 39	25 18	3 43	10 45	1 22	16 19	0 50	22 45	0 33	22 29	0 29	19 56	0 29	11 34	17 14	19 59	20 16	0 22	11 59	0 7	0 7
F 15	8 40	3 39	4 24	14 21	0 46	25 30	3 46	10 31	1 23	16 23	0 50	22 45	0 33	22 29	0 29	19 56	0 29	11 34	17 14	19 58	20 15	0 19	11 58	0 7	0 7
S 16	9 2	1s36	3 45	14 58	0 53	25 43	3 49	10 18	1 23	16 26	0 50	22 45	0 33	22 29	0 29	19 56	0 29	11 34	17 14	19 56	20 15	0 16	11 57	0 7	0 7
S 17	9 24	6 50	2 56	15 33	0 59	25 54	3 53	10 5	1 24	16 30	0 50	22 45	0 33	22 29	0 29	19 56	0 29	11 35	17 14	19 55	20 14	0 13	11 56	0 7	0 7
M 18	9 46	11 50	1 59	16 8	1 6	26 5	3 56	9 52	1 24	16 34	0 50	22 45	0 33	22 29	0 28	19 56	0 29	11 35	17 14	19 54	20 13	0 10	11 55	0 7	0 7
T 19	10 8	16 26	0 56	16 42	1 13	26 16	3 58	9 39	1 24	16 37	0 50	22 45	0 33	22 28	0 28	19 56	0 29	11 35	17 14	19 54	20 13	0 7	11 54	0 7	0 7
W 20	10 29	20 26	0s10	17 15	1 19	26 26	4 1	9 25	1 25	16 41	0 50	22 45	0 32	22 28	0 28	19 56	0 29	11 36	17 14	19 54	20 12	0 4	11 52	0 7	0 7
T 21	10 51	23 35	1 16	17 48	1 26	26 35	4 4	9 12	1 25	16 44	0 50	22 45	0 32	22 28	0 28	19 56	0 29	11 36	17 14	19 54	20 11	0 1	11 51	0 7	0 7
F 22	11 12	25 41	2 20	18 19	1 32	26 44	4 6	8 59	1 26	16 48	0 50	22 45	0 32	22 28	0 28	19 56	0 29	11 36	17 13	19 54	20 11	0s3	11 50	0 7	0 7
S 23	11 33	26 30	3 19	18 50	1 38	26 52	4 9	8 45	1 26	16 51	0 49	22 45	0 32	22 28	0 28	19 56	0 29	11 37	17 13	19 54	20 10	0 6	11 49	0 7	0 7
S 24	11 54	25 53	4 8	19 19	1 44	27 0	4 11	8 32	1 26	16 55	0 49	22 45	0 32	22 28	0 28	19 55	0 29	11 37	17 13	19 55	20 9	0 9	11 48	0 7	0 7
M 25	12 14	23 47	4 46	19 48	1 50	27 7	4 13	8 19	1 27	16 59	0 49	22 45	0 32	22 27	0 28	19 55	0 29	11 37	17 13	19 55	20 9	0 12	11 47	0 8	0 8
T 26	12 35	20 17	5 9	20 15	1 56	27 14	4 15	8 5	1 27	17 2	0 49	22 45	0 32	22 27	0 28	19 55	0 29	11 37	17 13	19 55	20 8	0 15	11 46	0 8	0 8
W 27	12 55	15 31	5 14	20 42	2 2	27 20	4 17	7 52	1 27	17 6	0 49	22 45	0 32	22 27	0 28	19 55	0 29	11 38	17 13	19 54	20 7	0 18	11 45	0 8	0 8
T 28	13 15	9 45	4 59	21 7	2 7	27 25	4 19	7 38	1 28	17 9	0 49	22 45	0 31	22 27	0 28	19 55	0 29	11 38	17 13	19 54	20 7	0 21	11 44	0 8	0 8
F 29	13 35	3 20	4 24	21 32	2 12	27 30	4 20	7 25	1 28	17 13	0 49	22 44	0 31	22 26	0 28	19 55	0 29	11 38	17 12	19 53	20 6	0 25	11 43	0 8	0 8
S 30	13 55	3n23	3 30	21 55	2 17	27 35	4 22	7 11	1 29	17 16	0 49	22 44	0 31	22 26	0 28	19 55	0 29	11 39	17 12	19 52	20 5	0 28	11 42	0 8	0 8
S 31	14s14	9n56	2s22	22s17	2s21	27s38	4s23	6n58	1n29	17s20	0n49	22s44	0n31	22s26	0s28	19n55	0s29	11s39	17s12	19n52	20n5	0s31	11n41	0s8	0s8

ASTRODIENST EPHEMERIS for the year 2077

geocentric

NOVEMBER 2077

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 43 44	9♍12'25	17♋0	0♈36	24♈14	16♏23	21♍38	6♊55	19♊52	28°R49	10°R31	28°R41	29♋39	10♊30	0°R55	M 1
T 2	2 47 40	10°12'25	1♏45	1°54	25° 2	16°59	21°51	7° 0	19°53	28°48	10°Y30	28°D40	29°36	10°36	0♊52	T 2
W 3	2 51 37	11°12'27	16° 9	3°10	25°49	17°34	22° 5	7° 5	19°55	28°48	10°29	28♋41	29°32	10°43	0°50	W 3
T 4	2 55 33	12°12'31	0♏7	4°24	26°35	18°10	22°18	7°10	19°57	28°48	10°28	28°42	29°29	10°50	0°47	T 4
F 5	2 59 30	13°12'37	13°38	5°37	27°20	18°45	22°31	7°15	19°59	28°48	10°28	28°43	29°26	10°56	0°44	F 5
S 6	3 3 27	14°12'45	26°43	6°48	28° 5	19°21	22°44	7°20	20° 1	28°48	10°27	28°44	29°23	11° 3	0°41	S 6
S 7	3 7 23	15°12'55	9♏25	7°57	28°48	19°56	22°57	7°25	20° 3	28°48	10°26	28°45	29°20	11°10	0°39	S 7
M 8	3 11 20	16°13'07	21°48	9° 4	29°31	20°31	23°10	7°30	20° 5	28°48	10°25	28°R45	29°16	11°16	0°36	M 8
T 9	3 15 16	17°13'21	3♏56	10° 8	0♊12	21° 6	23°24	7°35	20° 7	28°47	10°24	28°45	29°13	11°23	0°33	T 9
W10	3 19 13	18°13'37	15°54	11°10	0°52	21°41	23°37	7°41	20° 9	28°47	10°23	28°43	29°10	11°30	0°31	W10
T 11	3 23 9	19°13'55	27°45	12° 8	1°31	22°17	23°50	7°46	20°11	28°47	10°22	28°42	29° 7	11°36	0°28	T 11
F 12	3 27 6	20°14'14	9♊35	13° 2	2° 9	22°52	24° 3	7°52	20°13	28°46	10°21	28°41	29° 4	11°43	0°25	F 12
S 13	3 31 2	21°14'36	21°26	13°53	2°46	23°26	24°17	7°57	20°15	28°46	10°20	28°40	29° 1	11°50	0°23	S 13
S 14	3 34 59	22°15'00	3♍21	14°39	3°21	24° 1	24°30	8° 3	20°18	28°45	10°19	28°39	28°57	11°56	0°20	S 14
M15	3 38 56	23°15'25	15°22	15°20	3°55	24°36	24°43	8° 8	20°20	28°45	10°19	28°38	28°54	12° 3	0°18	M15
T 16	3 42 52	24°15'52	27°31	15°55	4°27	25°11	24°57	8°14	20°22	28°44	10°18	28°D38	28°51	12°10	0°15	T 16
W17	3 46 49	25°16'21	9♈51	16°24	4°58	25°46	25°10	8°20	20°24	28°44	10°17	28°38	28°48	12°17	0°13	W17
T 18	3 50 45	26°16'51	22°21	16°46	5°28	26°20	25°23	8°26	20°27	28°43	10°16	28°38	28°45	12°23	0°10	T 18
F 19	3 54 42	27°17'23	5♊4	17° 0	5°56	26°55	25°36	8°32	20°29	28°43	10°16	28°39	28°42	12°30	0° 8	F 19
S 20	3 58 38	28°17'56	18° 0	17°R 6	6°22	27°29	25°50	8°37	20°32	28°42	10°15	28°R39	28°38	12°37	0° 5	S 20
S 21	4 2 35	29°18'30	1♋11	17° 2	6°47	28° 3	26° 3	8°43	20°34	28°41	10°14	28°39	28°35	12°43	0° 3	S 21
M22	4 6 31	0♈19'06	14°38	16°48	7° 9	28°38	26°16	8°49	20°37	28°41	10°13	28°39	28°32	12°50	0° 0	M22
T 23	4 10 28	1°19'43	28°21	16°24	7°30	29°12	26°30	8°56	20°39	28°40	10°13	28°D39	28°29	12°57	29°Y58	T 23
W24	4 14 25	2°20'20	12♋21	15°49	7°49	29°46	26°43	9° 2	20°42	28°39	10°12	28°39	28°26	13° 3	29°56	W24
T 25	4 18 21	3°20'59	26°37	15° 3	8° 6	0♊20	26°56	9° 8	20°45	28°38	10°11	28°39	28°22	13°10	29°54	T 25
F 26	4 22 18	4°21'39	11°Y 6	14° 7	8°21	0°54	27° 9	9°14	20°47	28°38	10°11	28°39	28°19	13°17	29°51	F 26
S 27	4 26 14	5°22'20	25°45	13° 2	8°34	1°28	27°23	9°20	20°50	28°37	10°10	28°40	28°16	13°23	29°49	S 27
S 28	4 30 11	6°23'02	10♋28	11°50	8°45	2° 2	27°36	9°27	20°53	28°36	10°10	28°40	28°13	13°30	29°47	S 28
M29	4 34 7	7°23'45	25° 9	10°31	8°53	2°36	27°49	9°33	20°56	28°35	10° 9	28°R41	28°10	13°37	29°45	M29
T 30	4 38 4	8♈24'30	9♏41	9♈9	8♊59	3♊9	28♍2	9♊39	20♊59	28♋34	10°Y 9	28♋41	28♋7	13♊43	29°Y43	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
M 1	14s33	15n53	1 s 4	22s38	2s25	27s42	4s24	6n44	1n29	17s23	0n49	22s44	0n31	22s26	0s28	19n55	0s29	11s39	17s12	19n51	20n 4	0s34	11n40	0s 8	8
T 2	14 52	20 47	0n17	22 58	2 29	27 45	4 25	6 31	1 30	17 26	0 49	22 44	0 31	22 25	0 28	19 55	0 29	11 39	17 12	19 51	20 3	0 37	11 39	0 8	8
W 3	15 11	24 17	1 35	23 17	2 33	27 47	4 25	6 17	1 30	17 30	0 49	22 44	0 31	22 25	0 28	19 55	0 29	11 39	17 12	19 52	20 3	0 40	11 38	0 8	8
T 4	15 30	26 11	2 45	23 34	2 36	27 49	4 25	6 4	1 30	17 33	0 48	22 44	0 31	22 25	0 28	19 55	0 29	11 40	17 11	19 52	20 2	0 43	11 37	0 8	8
F 5	15 48	26 27	3 44	23 50	2 39	27 50	4 26	5 50	1 31	17 37	0 48	22 43	0 31	22 25	0 28	19 55	0 29	11 40	17 11	19 52	20 1	0 47	11 36	0 8	8
S 6	16 6	25 12	4 29	24 5	2 41	27 50	4 26	5 37	1 31	17 40	0 48	22 43	0 30	22 24	0 28	19 55	0 29	11 40	17 11	19 52	20 1	0 50	11 35	0 8	8
S 7	16 24	22 41	4 59	24 18	2 43	27 51	4 25	5 23	1 32	17 44	0 48	22 43	0 30	22 24	0 28	19 55	0 29	11 40	17 11	19 52	20 0	0 53	11 34	0 9	9
M 8	16 41	19 11	5 14	24 30	2 44	27 50	4 25	5 10	1 32	17 47	0 48	22 43	0 30	22 24	0 28	19 55	0 29	11 40	17 11	19 52	19 59	0 56	11 33	0 9	9
T 9	16 58	14 57	5 15	24 41	2 45	27 50	4 24	4 56	1 32	17 50	0 48	22 43	0 30	22 23	0 28	19 55	0 29	11 40	17 10	19 52	19 59	0 59	11 32	0 9	9
W10	17 15	10 12	5 3	24 50	2 45	27 48	4 23	4 43	1 33	17 54	0 48	22 43	0 30	22 23	0 28	19 56	0 29	11 41	17 10	19 52	19 58	1 2	11 31	0 9	9
T 11	17 32	5 8	4 37	24 57	2 44	27 47	4 21	4 29	1 33	17 57	0 48	22 42	0 30	22 23	0 28	19 56	0 29	11 41	17 10	19 52	19 57	1 5	11 30	0 9	9
F 12	17 48	0s 7	4 0	25 3	2 43	27 45	4 20	4 16	1 33	18 0	0 48	22 42	0 30	22 22	0 28	19 56	0 29	11 41	17 10	19 51	19 57	1 9	11 29	0 9	9
S 13	18 4	5 23	3 12	25 7	2 41	27 42	4 18	4 2	1 34	18 4	0 48	22 42	0 30	22 22	0 28	19 56	0 29	11 41	17 9	19 51	19 56	1 12	11 28	0 9	9
S 14	18 19	10 30	2 16	25 9	2 38	27 39	4 16	3 49	1 34	18 7	0 48	22 42	0 30	22 22	0 28	19 56	0 29	11 41	17 9	19 51	19 55	1 15	11 27	0 9	9
M15	18 35	15 16	1 13	25 10	2 34	27 35	4 13	3 35	1 35	18 10	0 48	22 41	0 29	22 21	0 28	19 56	0 29	11 41	17 9	19 51	19 54	1 18	11 26	0 9	9
T 16	18 50	19 30	0 6	25 9	2 28	27 32	4 10	3 22	1 35	18 14	0 48	22 41	0 29	22 21	0 28	19 56	0 29	11 41	17 9	19 51	19 54	1 21	11 25	0 9	9
W17	19 4	22 56	1s 2	25 6	2 22	27 27	4 7	3 9	1 35	18 17	0 48	22 41	0 29	22 21	0 28	19 56	0 29	11 41	17 8	19 51	19 53	1 24	11 24	0 9	9
T 18	19 19	25 20	2 8	25 0	2 15	27 22	4 4	2 55	1 36	18 20	0 47	22 41	0 29	22 20	0 28	19 56	0 29	11 41	17 8	19 51	19 52	1 28	11 23	0 9	9
F 19	19 33	26 29	3 9	24 53	2 6	27 17	4 0	2 42	1 36	18 23	0 47	22 40	0 29	22 20	0 28	19 56	0 29	11 41	17 8	19 51	19 52	1 31	11 22	0 9	9
S 20	19 46	26 12	4 1	24 43	1 56	27 12	3 56	2 28	1 36	18 26	0 47	22 40	0 29	22 19	0 28	19 56	0 29	11 41	17 8	19 51	19 51	1 34	11 21	0 10	10
S 21	20 0	24 28	4 42	24 31	1 44	27 6	3 51	2 15	1 37	18 30	0 47	22 40	0 29	22 19	0 28	19 57	0 29	11 41	17 7	19 51	19 50	1 37	11 20	0 10	10
M22	20 13	21 21	5 8	24 17	1 31	27 0	3 46	2 2	1 37	18 33	0 47	22 40	0 29	22 19	0 28	19 57	0 29	11 41	17 7	19 51	19 50	1 40	11 19	0 10	10
T 23	20 25	17 0	5 17	24 0	1 16	26 53	3 40	1 49	1 37	18 36	0 47	22 39	0 29	22 18	0 28	19 57	0 29	11 41	17 7	19 51	19 49	1 43	11 18	0 10	10
W24	20 37	11 40	5 8	23 40	0 59	26 46	3 35	1 35	1 38	18 39	0 47	22 39	0 29	22 18	0 28	19 57	0 29	11 41	17 6	19 51	19 48	1 46	11 17	0 10	10
T 25	20 49	5 38	4 41	23 17	0 42	26 39	3 28	1 22	1 38	18 42	0 47	22 39	0 28	22 17	0 28	19 57	0 29	11 41	17 6	19 51	19 47	1 50	11 17	0 10	10
F 26	21 0	0n48	3 55	22 52	0 23	26 31	3 22	1 9	1 39	18 45	0 47	22 38	0 28	22 17	0 28	19 57	0 29	11 41	17 6	19 51	19 47	1 53	11 16	0 10	10
S 27	21 11	7 16	2 53	22 24	0 3	26 23	3 14	0 56	1 39	18 48	0 47	22 38	0 28	22 17	0 28	19 58	0 29	11 41	17 5	19 51	19 46	1 56	11 15	0 10	10
S 28	21 22	13 23	1 39	21 55	0n17	26 15	3 7	0 43	1 39	18 51	0 47	22 38	0 28	22 16	0 28	19 58	0 29	11 41	17 5	19 51	19 45	1 59	11 14	0 10	10
M29	21 32	18 44	0 20	21 24	0 38	26 6	2 59	0 30	1 40	18 54	0 47	22 37	0 28	22 16	0 28	19 58	0 29	11 41	17 5	19 51	19 45	2 2	11 13	0 10	10
T 30	21s42	22n54	1n 1	20s52	0n58	25s57	2s50	0n17	1n40	18s57	0n47	22s37	0n28	22s15	0s28	19n58	0s29	11s41	17s 5	19n51	19n44	2s 5	11n12	0s10	10

ASTRODIENST EPHEMERIS for the year 2077

geocentric

DECEMBER 2077

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	4 42 0	9 ²⁵ 16	23 ¹¹ 58	7 ⁴⁷ 47	9 ³ 3	3 ⁴³ 43	28 ¹¹ 15	9 ³ 46	21 ³ 1	28 ¹⁰ 33	10 ¹⁰ 8	28 ¹⁰ 40	28 ³ 3	13 ⁴⁵ 50	29 ¹⁰ 41	W 1
T 2	4 45 57	10 ²⁶ 03	7 ⁵⁵ 55	6 ²⁶ 26	9 ⁴ 4	4 ¹⁶ 16	28 ²⁹ 29	9 ⁵² 52	21 ⁴ 4	28 ³² 32	10 ⁸ 8	28 ³⁹ 39	28 ⁰ 0	13 ⁵⁷ 57	29 ¹⁰ 39	T 2
F 3	4 49 54	11 ²⁶ 52	21 ²⁹ 29	5 ¹¹ 11	9 ³ 3	4 ⁵⁰ 50	28 ⁴² 42	9 ⁵⁹ 59	21 ⁷ 7	28 ³¹ 31	10 ⁷ 7	28 ³⁷ 37	27 ⁵⁷ 57	14 ⁴ 4	29 ³⁷ 37	F 3
S 4	4 53 50	12 ²⁷ 42	4 ⁴⁰ 40	4 ³ 3	9 ⁰ 0	5 ²³ 23	28 ⁵⁵ 55	10 ⁵ 5	21 ¹⁰ 10	28 ³⁰ 30	10 ⁷ 7	28 ³⁵ 35	27 ⁵⁴ 54	14 ¹⁰ 10	29 ³⁵ 35	S 4
S 5	4 57 47	13 ²⁸ 33	17 ²⁷ 27	3 ³ 3	8 ⁵⁴ 54	5 ⁵⁷ 57	29 ⁸ 8	10 ¹² 12	21 ¹³ 13	28 ²⁹ 29	10 ⁶ 6	28 ³³ 33	27 ⁵¹ 51	14 ¹⁷ 17	29 ³³ 33	S 5
M 6	5 1 43	14 ²⁹ 25	29 ⁵⁴ 54	2 ¹⁴ 14	8 ⁴⁵ 45	6 ³⁰ 30	29 ²¹ 21	10 ¹⁸ 18	21 ¹⁶ 16	28 ²⁸ 28	10 ⁶ 6	28 ³² 32	27 ⁴⁸ 48	14 ²⁴ 24	29 ³¹ 31	M 6
T 7	5 5 40	15 ³⁰ 19	12 ¹⁰ 10	1 ³⁷ 37	8 ³⁴ 34	7 ³ 3	29 ³⁴ 34	10 ²⁵ 25	21 ¹⁹ 19	28 ²⁷ 27	10 ⁵ 5	28 ³¹ 31	27 ⁴⁴ 44	14 ³⁰ 30	29 ³⁰ 30	T 7
W 8	5 9 36	16 ³¹ 14	24 ⁴ 4	1 ¹⁰ 10	8 ²¹ 21	7 ³⁶ 36	29 ⁴⁷ 47	10 ³² 32	21 ²² 22	28 ²⁶ 26	10 ⁵ 5	28 ³¹ 31	27 ⁴¹ 41	14 ³⁷ 37	29 ²⁸ 28	W 8
T 9	5 13 33	17 ³² 10	5 ⁵⁶ 56	0 ⁵⁵ 55	8 ⁵ 5	8 ⁹ 9	0 ⁷ 7	10 ³⁸ 38	21 ²⁵ 25	28 ²⁴ 24	10 ⁵ 5	28 ³² 32	27 ³⁸ 38	14 ⁴⁴ 44	29 ²⁶ 26	T 9
F 10	5 17 29	18 ³³ 07	17 ⁴⁵ 45	0 ⁵¹ 51	7 ⁴⁷ 47	8 ⁴¹ 41	0 ¹³ 13	10 ⁴⁵ 45	21 ²⁸ 28	28 ²³ 23	10 ⁴ 4	28 ³⁴ 34	27 ³⁵ 35	14 ⁵⁰ 50	29 ²⁴ 24	F 10
S 11	5 21 26	19 ³⁴ 06	29 ³⁷ 37	0 ⁵⁷ 57	7 ²⁶ 26	9 ¹⁴ 14	0 ²⁶ 26	10 ⁵² 52	21 ³¹ 31	28 ²² 22	10 ⁴ 4	28 ³⁶ 36	27 ³² 32	14 ⁵⁷ 57	29 ²³ 23	S 11
S 12	5 25 23	20 ³⁵ 05	11 ¹¹ 11	1 ¹³ 13	7 ⁴ 4	9 ⁴⁷ 47	0 ³⁹ 39	10 ⁵⁹ 59	21 ³⁵ 35	28 ²¹ 21	10 ⁴ 4	28 ³⁷ 37	27 ²⁸ 28	15 ⁴ 4	29 ²¹ 21	S 12
M13	5 29 19	21 ³⁶ 06	23 ⁴⁴ 44	1 ³⁷ 37	6 ³⁹ 39	10 ¹⁹ 19	0 ⁵² 52	11 ⁵ 5	21 ³⁸ 38	28 ¹⁹ 19	10 ³ 3	28 ³⁸ 38	27 ²⁵ 25	15 ¹⁰ 10	29 ²⁰ 20	M13
T14	5 33 16	22 ³⁷ 08	6 ⁵ 5	2 ⁹ 9	6 ¹² 12	10 ⁵² 52	1 ⁵ 5	11 ¹² 12	21 ⁴¹ 41	28 ¹⁸ 18	10 ³ 3	28 ³⁸ 38	27 ²² 22	15 ¹⁷ 17	29 ¹⁸ 18	T14
W15	5 37 12	23 ³⁸ 11	18 ⁴¹ 41	2 ⁴⁸ 48	5 ⁴³ 43	11 ²⁴ 24	1 ¹⁸ 18	11 ¹⁹ 19	21 ⁴⁴ 44	28 ¹⁷ 17	10 ³ 3	28 ³⁷ 37	27 ¹⁹ 19	15 ²⁴ 24	29 ¹⁷ 17	W15
T16	5 41 9	24 ³⁹ 14	1 ³² 32	3 ³³ 33	5 ¹³ 13	11 ⁵⁶ 56	1 ³¹ 31	11 ²⁶ 26	21 ⁴⁸ 48	28 ¹⁶ 16	10 ³ 3	28 ³⁴ 34	27 ¹⁶ 16	15 ³⁰ 30	29 ¹⁶ 16	T16
F17	5 45 5	25 ⁴⁰ 18	14 ³⁸ 38	4 ²⁴ 24	4 ⁴¹ 41	12 ²⁸ 28	1 ⁴³ 43	11 ³³ 33	21 ⁵¹ 51	28 ¹⁴ 14	10 ³ 3	28 ³⁰ 30	27 ¹³ 13	15 ³⁷ 37	29 ¹⁴ 14	F17
S18	5 49 2	26 ⁴¹ 23	27 ⁵⁹ 59	5 ²⁰ 20	4 ⁸ 8	13 ⁰ 0	1 ⁵⁶ 56	11 ⁴⁰ 40	21 ⁵⁴ 54	28 ¹³ 13	10 ² 2	28 ²⁵ 25	27 ⁹ 9	15 ⁴⁴ 44	29 ¹³ 13	S18
S19	5 52 59	27 ⁴² 28	11 ³² 32	6 ¹⁹ 19	3 ³³ 33	13 ³² 32	2 ⁹ 9	11 ⁴⁷ 47	21 ⁵⁷ 57	28 ¹¹ 11	10 ² 2	28 ²¹ 21	27 ⁶ 6	15 ⁵⁰ 50	29 ¹² 12	S19
M20	5 56 55	28 ⁴³ 34	25 ¹⁶ 16	7 ²³ 23	2 ⁵⁸ 58	14 ⁴ 4	2 ²¹ 21	11 ⁵⁴ 54	22 ¹ 1	28 ¹⁰ 10	10 ² 2	28 ¹⁶ 16	27 ³ 3	15 ⁵⁷ 57	29 ¹¹ 11	M20
T21	6 0 52	29 ⁴⁴ 39	9 ¹⁰ 10	8 ²⁹ 29	2 ²² 22	14 ³⁵ 35	2 ³⁴ 34	12 ¹ 1	22 ⁴ 4	28 ⁹ 9	10 ² 2	28 ¹³ 13	27 ⁰ 0	16 ⁴ 4	29 ¹⁰ 10	T21
W22	6 4 48	0 ³ 45	23 ¹⁰ 10	9 ³⁹ 39	1 ⁴⁶ 46	15 ⁷ 7	2 ⁴⁶ 46	12 ⁸ 8	22 ⁷ 7	28 ⁷ 7	10 ² 2	28 ¹² 12	26 ⁵⁷ 57	16 ¹⁰ 10	29 ⁹ 9	W22
T23	6 8 45	1 ⁴⁶ 51	7 ¹⁶ 16	10 ⁵¹ 51	1 ⁹ 9	15 ³⁸ 38	2 ⁵⁹ 59	12 ¹⁵ 15	22 ¹¹ 11	28 ⁶ 6	10 ² 2	28 ¹² 12	26 ⁵⁴ 54	16 ¹⁷ 17	29 ⁸ 8	T23
F24	6 12 41	2 ⁴⁷ 08	21 ²⁸ 28	12 ⁵ 5	0 ³² 32	16 ⁹ 9	3 ¹¹ 11	12 ²² 22	22 ¹⁴ 14	28 ⁴ 4	10 ² 2	28 ¹³ 13	26 ⁵⁰ 50	16 ²⁴ 24	29 ⁷ 7	F24
S25	6 16 38	3 ⁴⁹ 54	5 ⁴¹ 41	13 ²² 22	29 ⁵⁶ 56	16 ⁴⁰ 40	3 ²⁴ 24	12 ²⁹ 29	22 ¹⁸ 18	28 ³ 3	10 ² 2	28 ¹⁴ 14	26 ⁴⁷ 47	16 ³⁰ 30	29 ⁶ 6	S25
S26	6 20 34	4 ⁵⁰ 11	19 ⁵⁶ 56	14 ³⁹ 39	29 ²¹ 21	17 ¹¹ 11	3 ³⁶ 36	12 ³⁶ 36	22 ²¹ 21	28 ¹ 1	10 ² 2	28 ¹⁵ 15	26 ⁴⁴ 44	16 ³⁷ 37	29 ⁵ 5	S26
M27	6 24 31	5 ⁵¹ 17	4 ¹¹ 11	15 ⁵⁹ 59	28 ⁴⁶ 46	17 ⁴² 42	3 ⁴⁸ 48	12 ⁴³ 43	22 ²⁵ 25	28 ⁰ 0	10 ² 2	28 ¹⁵ 15	26 ⁴¹ 41	16 ⁴⁴ 44	29 ⁴ 4	M27
T28	6 28 28	6 ⁵² 24	18 ¹⁴ 14	17 ²⁰ 20	28 ¹² 12	18 ¹³ 13	4 ¹ 1	12 ⁵⁰ 50	22 ²⁸ 28	27 ⁵⁸ 58	10 ² 2	28 ¹⁴ 14	26 ³⁸ 38	16 ⁵¹ 51	29 ⁴ 4	T28
W29	6 32 24	7 ⁵³ 32	2 ⁵⁰ 50	18 ⁴¹ 41	27 ⁴⁰ 40	18 ⁴³ 43	4 ¹³ 13	12 ⁵⁷ 57	22 ³¹ 31	27 ⁵⁷ 57	10 ² 2	28 ¹⁰ 10	26 ³⁴ 34	16 ⁵⁷ 57	29 ³ 3	W29
T30	6 36 21	8 ⁵⁴ 39	15 ⁵² 52	20 ⁴ 4	27 ⁹ 9	19 ¹⁴ 14	4 ²⁵ 25	13 ⁴ 4	22 ³⁵ 35	27 ⁵⁵ 55	10 ³ 3	28 ⁵ 5	26 ³¹ 31	17 ⁴ 4	29 ³ 3	T30
F31	6 40 17	9 ⁵⁵ 46	29 ⁵⁸ 58	21 ²⁸ 28	26 ⁴⁰ 40	19 ⁴⁴ 44	4 ³⁷ 37	13 ¹¹ 11	22 ³⁸ 38	27 ⁵³ 53	10 ³ 3	27 ⁵⁷ 57	26 ²⁸ 28	17 ¹¹ 11	29 ² 2	F31

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
W 1	21s51	25n33	2n16	20s20	1n17	25s48	2s41	0n 4	1n40	19s 0	0n47	22s36	0n28	22s15	0s28	19n58	0s29	11s41	17s 4	19n51	19n43	2s 9	11n12	0s10	11s 0	17s 0	19s 0	19s 0	19s 0
T 2	22 0	26 32	3 21	19 49	1 35	25 38	2 31	0s 9	1 41	19 3	0 47	22 36	0 28	22 14	0 28	19 58	0 29	11 41	17 4	19 51	19 42	2 12	11 11	0 10	11 11	17 4	19 51	19 42	2 12
F 3	22 9	25 52	4 12	19 20	1 51	25 28	2 21	0 22	1 41	19 6	0 47	22 36	0 28	22 14	0 28	19 59	0 29	11 41	17 4	19 51	19 42	2 15	11 10	0 10	11 10	17 4	19 51	19 42	2 15
S 4	22 17	23 46	4 49	18 54	2 6	25 18	2 11	0 35	1 41	19 9	0 47	22 35	0 28	22 13	0 28	19 59	0 29	11 41	17 3	19 50	19 41	2 18	11 9	0 11	11 9	17 3	19 50	19 41	2 18
S 5	22 25	20 31	5 10	18 31	2 18	25 7	1 59	0 48	1 42	19 12	0 47	22 35	0 28	22 13	0 28	19 59	0 29	11 40	17 3	19 50	19 40	2 21	11 9	0 11	11 9	17 3	19 50	19 40	2 21
M 6	22 32	16 26	5 16	18 12	2 27	24 56	1 48	1 1	1 42	19 15	0 47	22 34	0 27	22 12	0 28	19 59	0 29	11 40	17 3	19 50	19 40	2 24	11 8	0 11	11 8	17 3	19 50	19 40	2 24
T 7	22 39	11 45	5 7	17 57	2 35	24 45	1 36	1 14	1 43	19 18	0 47	22 34	0 27	22 12	0 28	20 0	0 29	11 40	17 2	19 49	19 39	2 28	11 7	0 11	11 7	17 2	19 49	19 39	2 28
W 8	22 45	6 43	4 45	17 46	2 40	24 33	1 23	1 26	1 43	19 20	0 47	22 34	0 27	22 12	0 28	20 0	0 29	11 40	17 2	19 49	19 38	2 31	11 7	0 11	11 7	17 2	19 49	19 38	2 31
T 9	22 51	1 30	4 11	17 40	2 44	24 21	1 10	1 39	1 43	19 23	0 47	22 33	0 27	22 11	0 28	20 0	0 29	11 40	17 2	19 50	19 37	2 34	11 6	0 11	11 6	17 2	19 50	19 37	2 34
F 10	22 56	3s46	3 27	17 37	2 45	24 9	0 57	1 51	1 44	19 26	0 47	22 33	0 27	22 11	0 28	20 0	0 29	11 40	17 1	19 50	19 37	2 37	11 5	0 11	11 5	17 1	19 50	19 37	2 37
S 11	23 1	8 56	2 33	17 38	2 46	23 56	0 43	2 4	1 44	19 29	0 46	22 32	0 27	22 10	0 28	20 0	0 29	11 39	17 1	19 50	19 36	2 40	11 5	0 11	11 5	17 1	19 50	19 36	2 40
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T14	23 13	21 59	0s41	18 0	2 38	23 16	0n 1	2 41	1 45	19 37	0 46	22 31	0 27	22 9	0 28	20 1	0 29	11 39	17 0	19 51	19 34	2 50	11 3	0 11	11 3	17 0	19 51	19 34	2 50
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T16	23 19	26 16	2 51	18 26	2 28	22 48	0 32	3 6	1 46	19 42	0 46	22 30	0 27	22 7	0 28	20 2	0 29	11 38	16 59	19 50	19 32	2 56	11 2	0 11	11 2	16 59	19 50	19 32	2 56
F17	23 22	26 22	3 46	18 41	2 22	22 34	0 47	3 18	1 46	19 44	0 46	22 29	0 27	22 7	0 28	20 2	0 29	11 38	16 59	19 49	19 32	2 59	11 1	0 11	11 1	16 59	19 49	19 32	2 59
S18	23 23	24 58	4 30	18 57	2 16	22 19	1 3	3 30	1 46	19 47	0 46	22 29	0 26	22 6	0 28	20 2	0 29	11 38	16 58	19 48	19 31	3 2	11 1	0 11	11 1	16 58	19 48	19 31	3 2
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W22	23 26	7 3	4 43	20 8	1 47	21 20	2 5	4 18	1 48	19 57	0 46	22 27	0 26	22 4	0 28	20 3	0 29	11 37	16 57	19 45	19 28	3 15	10 59	0 12	10 59	16 57	19 45	19 28	3 15
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F24	23 24	5n28	3 7	20 44	1 31	20 51	2 35	4 41	1 49	20 2	0 46	22 26	0 26	22 3	0 28	20 4	0 29	11 36	16 56	19 45	19 27	3 21	10 58	0 12	10 58	16 56	19 45	19 27	3 21
S25	23 23	11 32	2 0	21 1	1 23	20 36	2 50	4 52	1 49	20 4	0 46	22 25	0 26	22 3	0 28	20 4	0 29	11 35	16 56	19 46	19 26	3 25	10 58	0 12	10 58	16 56	19 46	19 26	3 25
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M27	23 18	21 29	0n32	21 35	1 7	20 8	3 18	5 15	1 50	20 9	0 46	22 24	0 26	22 1	0 28	20 5	0 29	11 35	16 55	19 46	19 24	3 31	10 57	0 12	10 57	16 55	19 46	19 24	3 31
T28	23 15	24 41	1 46	21 51	0 58	19 54	3 31	5 27	1 50	20 11	0 46	22 23	0 26	22 1	0 28	20 5	0 29	11 34	16 55	19 46	19 24	3 34	10 57	0 12	10 57	16 55	19 46	19 24	3 34
W29	23 12	26 18	2 54	22 7	0 50	19 41	3 43	5 38	1 50	20 13	0 46	22 23	0 26	22 0	0 28	20 6	0 29	11 34	16 54	19 45	19 23	3 37	10 57	0 12	10 57	16 54	19 45	19 23	3 37
T30	23 8	26 17	3 49	22 21	0 42	19 29	3 55	5 49	1 51	20 16	0 46	22 22	0 26	22 0	0 28	20 6	0 29	11 34	16 54	19 43	19 22	3 40	10 56	0 12	10 56	16 54	19 43	19 22	3 40
F31	23 s 4	24n43	4n31	22s35	0n34	19s17	4n 7	6s 0	1n51	20s18	0n46	22s21	0n25	21s59	0s28	20n 6	0s29	11s33	16s54	19n42	19n21	3s44	10n56	0s12	11s 0	17s 0	19s 0	19s 0	19s 0