



Astrodienst Ephemeris Tables for the year 2117

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 2117
geocentric

JANUARY 2117

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
F 1	6 42 29	10°38'19	16°45'50	18°45'54	27°49' 9	23°48'46	4°42'24	1°02'23	0°02'24	24°17'17	18°04'45	22°05'59	22°09' 9	14°41' 7	20°41'16	F 1
S 2	6 46 26	11°29'29	29°50	20° 7	28°25	23°50	4°35	1°02'23	0°02'22	24°18	18°04'44	22°04'47	22° 6	14°13	20°17	S 2
S 3	6 50 22	12°30'39	12°33'39	21°23	29°40	23°55	4°47	1°02'23	0°19	24°19	18°44	22°34	22° 2	14°20	20°19	S 3
M 4	6 54 19	13°31'50	25°15	22°40	0°35'55	24° 0	4°58	1°23	0°17	24°19	18°43	22°19	21°59	14°27	20°21	M 4
T 5	6 58 15	14°33'00	7°33'38	23°59	2°11	24° 7	5°10	1°23	0°14	24°20	18°43	22° 6	21°56	14°33	20°23	T 5
W 6	7 2 12	15°34'10	19°48	25°19	3°26	24°13	5°22	1°23	0°12	24°21	18°42	21°53	21°53	14°40	20°25	W 6
T 7	7 6 8	16°35'20	1°48'48	26°40	4°42	24°21	5°34	1°24	0° 9	24°21	18°41	21°44	21°50	14°47	20°27	T 7
F 8	7 10 5	17°36'30	13°40	28° 2	5°57	24°29	5°45	1°24	0° 7	24°22	18°41	21°37	21°47	14°53	20°29	F 8
S 9	7 14 1	18°37'39	25°28	29°25	7°12	24°38	5°57	1°25	0° 4	24°22	18°40	21°33	21°43	15° 0	20°31	S 9
S 10	7 17 58	19°38'48	7°16'16	0°34'49	8°28	24°48	6° 9	1°26	0° 2	24°23	18°40	21°31	21°40	15° 7	20°33	S 10
M 11	7 21 55	20°39'56	19°10	2°14	9°43	24°58	6°22	1°26	29°11'59	24°24	18°40	21°31	21°37	15°13	20°36	M 11
T 12	7 25 51	21°41'05	1°18'15	3°40	10°59	25° 9	6°34	1°27	29°57	24°24	18°39	21°31	21°34	15°20	20°38	T 12
W 13	7 29 48	22°42'12	13°37	5° 6	12°14	25°20	6°46	1°29	29°55	24°24	18°39	21°30	21°31	15°27	20°40	W 13
T 14	7 33 44	23°43'19	26°22	6°33	13°29	25°32	6°59	1°30	29°53	24°25	18°38	21°26	21°27	15°33	20°42	T 14
F 15	7 37 41	24°44'26	9°11'32	8° 1	14°45	25°45	7°11	1°31	29°50	24°25	18°38	21°21	21°24	15°40	20°45	F 15
S 16	7 41 37	25°45'32	23°10	9°30	16° 0	25°58	7°24	1°32	29°48	24°26	18°38	21°12	21°21	15°47	20°47	S 16
S 17	7 45 34	26°46'37	7°15'15	10°59	17°16	26°11	7°36	1°34	29°46	24°26	18°37	21° 1	21°18	15°54	20°50	S 17
M 18	7 49 31	27°47'42	21°44	12°28	18°31	26°25	7°49	1°36	29°44	24°26	18°37	20°49	21°15	16° 0	20°52	M 18
T 19	7 53 27	28°48'47	6°12'30	13°58	19°46	26°40	8° 2	1°37	29°42	24°26	18°37	20°37	21°12	16° 7	20°55	T 19
W 20	7 57 24	29°49'50	21°24	15°29	21° 2	26°55	8°15	1°39	29°39	24°27	18°36	20°27	21° 8	16°14	20°57	W 20
T 21	8 1 20	0°45'50'54	6°11'18	17° 1	22°17	27°11	8°27	1°41	29°37	24°27	18°36	20°18	21° 5	16°20	21° 0	T 21
F 22	8 5 17	1°51'57	21° 3	18°33	23°33	27°27	8°40	1°43	29°35	24°27	18°36	20°13	21° 2	16°27	21° 3	F 22
S 23	8 9 13	2°52'59	5°12'34	20° 5	24°48	27°44	8°53	1°45	29°33	24°27	18°36	20°10	20°59	16°34	21° 5	S 23
S 24	8 13 10	3°54'01	19°46	21°38	26° 3	28° 1	9° 7	1°48	29°31	24°27	18°35	20°D10	20°56	16°40	21° 8	S 24
M 25	8 17 6	4°55'03	3°11'40	23°12	27°19	28°19	9°20	1°50	29°29	24°27	18°35	20°R10	20°53	16°47	21°11	M 25
T 26	8 21 3	5°56'05	17°16	24°46	28°34	28°37	9°33	1°53	29°27	24°27	18°35	20° 9	20°49	16°54	21°14	T 26
W 27	8 25 0	6°57'06	0°47'35	26°21	29°49	28°55	9°46	1°55	29°25	24°27	18°35	20° 7	20°46	17° 0	21°17	W 27
T 28	8 28 56	7°58'06	13°39	27°56	1°48' 5	29°14	10° 0	1°58	29°24	24°27	18°35	20° 2	20°43	17° 7	21°19	T 28
F 29	8 32 53	8°59'06	26°31	29°33	2°20	29°33	10°13	2° 1	29°22	24°27	18°35	19°54	20°40	17°14	21°22	F 29
S 30	8 36 49	10° 0'06	9°31'12	1°48' 9	3°35	29°53	10°27	2° 3	29°20	24°27	18°35	19°44	20°37	17°20	21°25	S 30
S 31	8 40 46	11°41'04	21°34'41	2°44'47	4°44'51	0°11'13	10°44'40	2°08' 6	29°11'18	24°27	18°35	19°43'32	20°43'33	17°41'27	21°41'28	S 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	lat	
F 1	23s 1	26s48	4s 3	21s32	1n26	23s10	0n14	20n45	2n 7	10s51	1s 2	9n34	2s32	23n39	0n14	7s53	1n38	2n30	15s27	8n56	8n37	9s11	0s 3	4n 9
S 2	22 56	28 2	4 37	21 47	1 17	23 14	0 11	20 47	2 8	10 47	1 2	9 35	2 32	23 39	0 14	7 54	1 38	2 31	15 26	8 51	8 36	9 7	0 2	4 8
S 3	22 50	27 44	4 55	22 0	1 9	23 17	0 9	20 49	2 8	10 43	1 2	9 35	2 31	23 39	0 14	7 54	1 38	2 31	15 26	8 46	8 35	9 4	0 2	4 8
M 4	22 44	25 59	4 59	22 13	1 0	23 19	0 6	20 50	2 9	10 39	1 2	9 35	2 31	23 39	0 14	7 54	1 38	2 31	15 26	8 41	8 34	9 1	0 1	4 8
T 5	22 38	23 0	4 49	22 26	0 52	23 21	0 4	20 52	2 9	10 34	1 2	9 35	2 31	23 39	0 14	7 54	1 38	2 31	15 26	8 36	8 32	8 58	0 1	4 7
W 6	22 31	19 4	4 26	22 37	0 43	23 22	0 1	20 55	2 10	10 30	1 2	9 36	2 30	23 39	0 14	7 54	1 38	2 31	15 25	8 31	8 31	8 55	0 0	4 7
T 7	22 24	14 25	3 51	22 48	0 35	23 22	0s 1	20 57	2 10	10 25	1 2	9 36	2 30	23 39	0 14	7 55	1 38	2 31	15 25	8 28	8 30	8 51	0n 0	4 7
F 8	22 16	9 17	3 6	22 58	0 27	23 21	0 4	20 59	2 10	10 21	1 2	9 37	2 30	23 39	0 14	7 55	1 38	2 31	15 25	8 25	8 29	8 48	0 1	4 7
S 9	22 8	3 50	2 13	23 7	0 19	23 20	0 6	21 2	2 11	10 17	1 2	9 37	2 30	23 39	0 14	7 55	1 39	2 32	15 24	8 24	8 28	8 45	0 1	4 6
S 10	21 59	1n44	1 15	23 15	0 11	23 18	0 9	21 4	2 11	10 12	1 1	9 38	2 29	23 39	0 14	7 55	1 39	2 32	15 24	8 23	8 27	8 42	0 2	4 6
M 11	21 50	7 18	0 12	23 21	0 3	23 15	0 11	21 7	2 11	10 7	1 1	9 38	2 29	23 39	0 14	7 55	1 39	2 32	15 24	8 23	8 25	8 38	0 3	4 6
T 12	21 41	12 42	0n51	23 27	0s 5	23 12	0 13	21 10	2 12	10 3	1 1	9 39	2 29	23 39	0 14	7 55	1 39	2 32	15 23	8 23	8 24	8 35	0 3	4 6
W 13	21 31	17 44	1 54	23 32	0 12	23 8	0 16	21 13	2 12	9 58	1 1	9 40	2 28	23 39	0 14	7 55	1 39	2 32	15 23	8 23	8 23	8 32	0 4	4 5
T 14	21 21	22 8	2 53	23 35	0 20	23 3	0 18	21 16	2 12	9 54	1 1	9 40	2 28	23 39	0 14	7 56	1 39	2 32	15 23	8 21	8 22	8 29	0 5	4 5
F 15	21 10	25 34	3 45	23 38	0 27	22 57	0 21	21 19	2 12	9 49	1 1	9 41	2 28	23 39	0 14	7 56	1 39	2 33	15 23	8 19	8 21	8 25	0 5	4 5
S 16	20 59	27 40	4 26	23 39	0 34	22 51	0 23	21 23	2 12	9 44	1 1	9 42	2 28	23 39	0 14	7 56	1 39	2 33	15 22	8 16	8 19	8 22	0 6	4 5
S 17	20 47	28 5	4 52	23 39	0 41	22 44	0 25	21 26	2 12	9 39	1 1	9 43	2 27	23 39	0 14	7 56	1 39	2 33	15 22	8 12	8 18	8 19	0 7	4 4
M 18	20 35	26 37	5 0	23 37	0 47	22 36	0 28	21 29	2 12	9 35	1 1	9 43	2 27	23 39	0 14	7 56	1 39	2 33	15 22	8 7	8 17	8 16	0 8	4 4
T 19	20 23	23 18	4 49	23 35	0 54	22 28	0 30	21 33	2 13	9 30	1 1	9 44	2 27	23 39	0 14	7 56	1 39	2 34	15 21	8 3	8 16	8 12	0 8	4 4
W 20	20 11	18 26	4 18	23 31	1 0	22 19	0 32	21 37	2 13	9 25	1 1	9 45	2 26	23 39	0 14	7 56	1 39	2 34	15 21	7 59	8 15	8 9	0 9	4 4
T 21	19 57	12 26	3 30	23 26	1 6	22 9	0 34	21 40	2 13	9 20	1 1	9 46	2 26	23 39	0 14	7 56	1 39	2 34	15 21	7 56	8 13	8 6	0 10	4 3
F 22	19 44	5 48	2 27	23 19	1 11	21 58	0 36	21 44	2 13	9 15	1 1	9 47	2 26	23 39	0 14	7 56	1 39	2 34	15 20	7 54	8 12	8 2	0 11	4 3
S 23	19 30	1s 2	1 16	23 12	1 17	21 47	0 39	21 48	2 13	9 10	1 1	9 48	2 26	23 39	0 14	7 56	1 39	2 35	15 20	7 53	8 11	7 59	0 12	4 3
S 24	19 16	7 42	0 2	23 2	1 22	21 36	0 41	21 52	2 13	9 5	1 1	9 49	2 25	23 39	0 14	7 56	1 39	2 35	15 20	7 53	8 10	7 56	0 12	4 3
M 25	19 2	13 51	1s11	22 52	1 27	21 23	0 43	21 56	2 13	9 0	1 1	9 50	2 25	23 39	0 14	7 56	1 40	2 35	15 19	7 53	8 9	7 53	0 13	4 3
T 26	18 47	19 11	2 18	22 40	1 32	21 10	0 45	22 0	2 12	8 55	1 0	9 51	2 25	23 39	0 14	7 56	1 40	2 35	15 19	7 52	8 7	7 49	0 14	4 2
W 27	18 31	23 28	3 17	22 27	1 36	20 57	0 47	22 4	2 12	8 50	1 0	9 52	2 24	23 39	0 14	7 56	1 40	2 36	15 19	7 52	8 6	7 46	0 15	4 2
T 28	18 16	26 27	4 4	22 12	1 41	20 42	0 49	22 8	2 12	8 45	1 0	9 54	2 24	23 39	0 14	7 55	1 40	2 36	15 18	7 50	8 5	7 43	0 16	4 2
F 29	18 0	28 0	4 37	21 56	1 44	20 27	0 51	22 12	2 12	8 40	1 0	9 55	2 24	23 39	0 14	7 55	1 40	2 36	15 18	7 47	8 4	7 40	0 17	4 2
S 30	17 44	28 2	4 57	21 39	1 48	20 12	0 53	22 16	2 12	8 35	1 0	9 56	2 24	23 39	0 14	7 55	1 40	2 37	15 18	7 43	8 3	7 36	0 18	4 1
S 31	17s27	26s38	5s 1	21s20	1s51	19s56	0s55	22n20	2n12	8s30	1s 0	9n57	2s23	23n39	0n14	7s55	1n40	2n37	15s17	7n38	8n 2	7s33	0n19	4n 9

ASTRODIENST EPHEMERIS for the year 2117
geocentric

FEBRUARY 2117

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 44 42	12♈ 2'02	4♈ 1	4♈25	6♈ 6	0♈34	10♈54	2♈10	29°R16	24°R26	18°D35	19°R18	20°Y30	17°K34	21°K31	M 1
T 2	8 48 39	13° 2'59	16°12	6° 3	7°22	0°54	11° 7	2°13	29°R15	24°D26	18°D35	19°Y 5	20°27	17°40	21°34	T 2
W 3	8 52 35	14° 3'54	28°14	7°43	8°37	1°16	11°21	2°16	29°13	24°26	18°35	18°54	20°24	17°47	21°38	W 3
T 4	8 56 32	15° 4'49	10♈ 8	9°23	9°52	1°37	11°35	2°19	29°12	24°25	18°35	18°45	20°21	17°54	21°41	T 4
F 5	9 0 29	16° 5'42	21°58	11° 4	11° 7	1°59	11°48	2°23	29°10	24°25	18°35	18°38	20°18	18° 0	21°44	F 5
S 6	9 4 25	17° 6'34	3°Y44	12°45	12°23	2°21	12° 2	2°27	29° 9	24°25	18°35	18°35	20°14	18° 7	21°47	S 6
S 7	9 8 22	18° 7'25	15°32	14°28	13°38	2°44	12°16	2°30	29° 7	24°24	18°35	18°D33	20°11	18°14	21°50	S 7
M 8	9 12 18	19° 8'14	27°25	16°11	14°53	3° 7	12°30	2°34	29° 6	24°24	18°35	18°34	20° 8	18°20	21°53	M 8
T 9	9 16 15	20° 9'02	9♈28	17°55	16° 9	3°30	12°44	2°38	29° 4	24°23	18°35	18°35	20° 5	18°27	21°57	T 9
W10	9 20 11	21° 9'48	21°46	19°39	17°24	3°54	12°58	2°42	29° 3	24°23	18°36	18°R35	20° 2	18°34	22° 0	W10
T 11	9 24 8	22°10'33	4♈26	21°25	18°39	4°18	13°12	2°46	29° 2	24°22	18°36	18°34	19°59	18°40	22° 3	T 11
F 12	9 28 4	23°11'17	17°30	23°11	19°54	4°42	13°26	2°50	29° 1	24°22	18°36	18°31	19°55	18°47	22° 7	F 12
S 13	9 32 1	24°11'59	1♈ 4	24°58	21°10	5° 6	13°40	2°54	28°59	24°21	18°36	18°26	19°52	18°54	22°10	S 13
S 14	9 35 58	25°12'39	15° 7	26°45	22°25	5°31	13°54	2°59	28°58	24°21	18°36	18°19	19°49	19° 0	22°13	S 14
M15	9 39 54	26°13'18	29°39	28°34	23°40	5°56	14° 8	3° 3	28°57	24°20	18°37	18°11	19°46	19° 7	22°17	M15
T 16	9 43 51	27°13'55	14♈33	0♈23	24°55	6°21	14°23	3° 8	28°56	24°19	18°37	18° 3	19°43	19°14	22°20	T 16
W17	9 47 47	28°14'31	29°42	2°13	26°10	6°47	14°37	3°12	28°55	24°19	18°37	17°55	19°39	19°20	22°24	W17
T 18	9 51 44	29°15'05	14♈55	4° 3	27°26	7°12	14°51	3°17	28°54	24°18	18°38	17°49	19°36	19°27	22°27	T 18
F 19	9 55 40	0♈15'38	0♈ 2	5°54	28°41	7°38	15° 5	3°22	28°53	24°17	18°38	17°46	19°33	19°34	22°31	F 19
S 20	9 59 37	1°16'09	14°54	7°45	29°56	8° 4	15°20	3°26	28°53	24°16	18°39	17°D45	19°30	19°40	22°34	S 20
S 21	10 3 33	2°16'39	29°25	9°37	1♈11	8°31	15°34	3°31	28°52	24°15	18°39	17°45	19°27	19°47	22°38	S 21
M22	10 7 30	3°17'08	13♈33	11°28	2°26	8°57	15°48	3°36	28°51	24°14	18°39	17°46	19°24	19°54	22°41	M22
T 23	10 11 27	4°17'36	27°16	13°20	3°41	9°24	16° 3	3°41	28°50	24°14	18°40	17°47	19°20	20° 0	22°45	T 23
W24	10 15 23	5°18'02	10♈36	15°12	4°56	9°51	16°17	3°46	28°50	24°13	18°40	17°R47	19°17	20° 7	22°48	W24
T 25	10 19 20	6°18'28	23°35	17° 3	6°12	10°19	16°31	3°52	28°49	24°12	18°41	17°46	19°14	20°14	22°52	T 25
F 26	10 23 16	7°18'51	6♈17	18°53	7°27	10°46	16°46	3°57	28°49	24°11	18°41	17°42	19°11	20°20	22°55	F 26
S 27	10 27 13	8°19'14	18°45	20°43	8°42	11°14	17° 0	4° 2	28°48	24°10	18°42	17°37	19° 8	20°27	22°59	S 27
S 28	10 31 9	9♈19'35	1♈ 1	22♈31	9♈57	11♈42	17♈15	4♈ 8	28♈48	24♈ 9	18♈42	17°Y31	19°Y 5	20♈34	23♈ 3	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	decl lat	decl lat
M 1	17s11	23s58	4s52	21s 0	1s54	19s39	0s56	22n24	2n12	8s24	1s 0	9n59	2s23	23n39	0n14	7s55
T 2	16 53	20 15	4 29	20 38	1 57	19 22	0 58	22 29	2 12	8 19	1 0	10 0	2 23	23 39	0 14	7 55
W 3	16 36	15 45	3 55	20 15	1 59	19 4	1 0	22 33	2 11	8 14	1 0	10 1	2 22	23 39	0 14	7 55
T 4	16 18	10 41	3 10	19 51	2 1	18 45	1 2	22 37	2 11	8 9	1 0	10 3	2 22	23 39	0 14	7 55
F 5	16 0	5 17	2 17	19 25	2 3	18 26	1 3	22 41	2 11	8 3	1 0	10 4	2 22	23 39	0 14	7 54
S 6	15 42	0n17	1 18	18 57	2 4	18 7	1 5	22 46	2 11	7 58	1 0	10 6	2 22	23 39	0 14	7 54
S 7	15 23	5 52	0 16	18 28	2 5	17 47	1 6	22 50	2 11	7 53	1 0	10 7	2 21	23 39	0 14	7 54
M 8	15 5	11 17	0n47	17 58	2 5	17 27	1 8	22 54	2 11	7 47	1 0	10 9	2 21	23 39	0 14	7 54
T 9	14 46	16 22	1 50	17 26	2 5	17 6	1 9	22 58	2 10	7 42	1 0	10 10	2 21	23 39	0 14	7 54
W10	14 26	20 54	2 48	16 53	2 5	16 44	1 11	23 3	2 10	7 37	1 0	10 12	2 21	23 39	0 14	7 53
T 11	14 7	24 38	3 41	16 19	2 4	16 22	1 12	23 7	2 10	7 31	1 0	10 14	2 20	23 39	0 14	7 53
F 12	13 47	27 12	4 23	15 43	2 3	16 0	1 13	23 11	2 10	7 26	1 0	10 15	2 20	23 39	0 14	7 53
S 13	13 27	28 18	4 53	15 5	2 1	15 37	1 15	23 16	2 9	7 20	1 0	10 17	2 20	23 39	0 14	7 53
S 14	13 7	27 38	5 6	14 27	1 58	15 14	1 16	23 20	2 9	7 15	1 0	10 19	2 20	23 39	0 14	7 52
M15	12 46	25 6	5 0	13 46	1 56	14 50	1 17	23 24	2 9	7 10	1 0	10 20	2 19	23 39	0 14	7 52
T 16	12 26	20 50	4 35	13 5	1 52	14 26	1 18	23 28	2 9	7 4	1 0	10 22	2 19	23 39	0 14	7 52
W17	12 5	15 9	3 49	12 22	1 48	14 1	1 19	23 32	2 8	6 59	1 0	10 24	2 19	23 39	0 14	7 51
T 18	11 44	8 31	2 48	11 38	1 44	13 36	1 20	23 36	2 8	6 53	1 0	10 26	2 19	23 39	0 14	7 51
F 19	11 22	1 26	1 34	10 52	1 39	13 11	1 21	23 40	2 8	6 48	1 0	10 28	2 18	23 39	0 14	7 51
S 20	11 1	5s38	0 15	10 6	1 33	12 46	1 21	23 44	2 7	6 42	1 0	10 29	2 18	23 39	0 14	7 50
S 21	10 39	12 14	1s 3	9 18	1 27	12 20	1 22	23 48	2 7	6 37	1 0	10 31	2 18	23 39	0 14	7 50
M22	10 18	18 2	2 15	8 29	1 20	11 53	1 23	23 52	2 7	6 31	1 0	10 33	2 18	23 39	0 14	7 50
T 23	9 56	22 44	3 17	7 39	1 12	11 27	1 24	23 56	2 6	6 25	1 0	10 35	2 17	23 39	0 14	7 49
W24	9 34	26 6	4 7	6 49	1 4	11 0	1 24	24 0	2 6	6 20	1 0	10 37	2 17	23 39	0 14	7 49
T 25	9 12	27 59	4 43	5 58	0 55	10 33	1 25	24 3	2 6	6 14	1 0	10 39	2 17	23 39	0 14	7 48
F 26	8 49	28 20	5 4	5 6	0 46	10 5	1 25	24 7	2 5	6 9	1 0	10 41	2 17	23 39	0 14	7 48
S 27	8 27	27 14	5 10	4 13	0 36	9 37	1 25	24 11	2 5	6 3	1 0	10 43	2 16	23 39	0 14	7 48
S 28	8s 4	24s49	5s 1	3s21	0s25	9s 9	1s26	24n14	2n 5	5s57	1s 0	10n45	2s16	23n39	0n14	7s47

Julian Day Number = 2494309.5, Delta T = 101.69 sec

Ecliptic obliquity = 23°25'35", Nutation = - 0°00'04", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°22'34", Lahiri = 25°29'35"

ASTRODIENST EPHEMERIS for the year 2117

geocentric

MARCH 2117

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 35 6	10 ¹⁹ 54	13 ³⁸ 7	24 ¹⁷ 17	11 ¹¹ 12	12 ¹¹ 10	17 ¹⁷ 29	4 ¹³ 13	28 ¹⁷ 47	24 ¹⁷ 8	18 ¹⁸ 43	17 ¹⁷ R23	19 ¹⁷ 1	20 ¹⁷ 40	23 ¹⁷ 6	M 1
T 2	10 39 2	11 ²⁰ 11	25 ⁷ 7	26 ¹ 1	12 ²⁷	12 ³⁸	17 ⁴⁴	4 ¹⁹	28 ¹⁷ 47	24 ¹⁷ 7	18 ⁴⁴	17 ¹⁷ Y16	18 ⁵⁸	20 ⁴⁷	23 ¹⁰	T 2
W 3	10 42 59	12 ²⁰ 27	7 ¹¹ 0	27 ⁴²	13 ⁴²	13 ⁷	17 ⁵⁸	4 ²⁵	28 ⁴⁷	24 ⁵	18 ⁴⁴	17 ¹⁰	18 ⁵⁵	20 ⁵⁴	23 ¹⁴	W 3
T 4	10 46 56	13 ²⁰ 42	18 ⁵⁰	29 ²¹	14 ⁵⁷	13 ³⁵	18 ¹³	4 ³⁰	28 ⁴⁷	24 ⁴	18 ⁴⁵	17 ⁵	18 ⁵²	21 ⁰	23 ¹⁷	T 4
F 5	10 50 52	14 ²⁰ 54	0 ¹⁷ 38	0 ¹⁷ 55	16 ¹²	14 ⁴	18 ²⁷	4 ³⁶	28 ⁴⁷	24 ³	18 ⁴⁶	17 ²	18 ⁴⁹	21 ⁷	23 ²¹	F 5
S 6	10 54 49	15 ²¹ 04	12 ²⁶	2 ²⁵	17 ²⁷	14 ³³	18 ⁴²	4 ⁴²	28 ⁴⁶	24 ²	18 ⁴⁶	17 ¹⁷ D 1	18 ⁴⁵	21 ¹³	23 ²⁵	S 6
S 7	10 58 45	16 ²¹ 13	24 ¹⁶	3 ⁵⁰	18 ⁴²	15 ²	18 ⁵⁶	4 ⁴⁸	28 ¹⁷ D46	24 ¹	18 ⁴⁷	17 ¹	18 ⁴²	21 ²⁰	23 ²⁸	S 7
M 8	11 2 42	17 ²¹ 20	6 ¹³ 13	5 ¹⁰	19 ⁵⁷	15 ³¹	19 ¹¹	4 ⁵⁴	28 ⁴⁶	23 ⁵⁹	18 ⁴⁸	17 ²	18 ³⁹	21 ²⁷	23 ³²	M 8
T 9	11 6 38	18 ²¹ 24	18 ¹⁸	6 ²³	21 ¹²	16 ¹	19 ²⁵	5 ⁰	28 ⁴⁷	23 ⁵⁸	18 ⁴⁸	17 ⁴	18 ³⁶	21 ³³	23 ³⁶	T 9
W10	11 10 35	19 ²¹ 27	0 ¹¹ 38	7 ³⁰	22 ²⁷	16 ³¹	19 ⁴⁰	5 ⁶	28 ⁴⁷	23 ⁵⁷	18 ⁴⁹	17 ⁶	18 ³³	21 ⁴⁰	23 ³⁹	W10
T 11	11 14 31	20 ²¹ 27	13 ¹⁵	8 ³⁰	23 ⁴²	17 ⁰	19 ⁵⁴	5 ¹²	28 ⁴⁷	23 ⁵⁶	18 ⁵⁰	17 ⁷	18 ³⁰	21 ⁴⁷	23 ⁴³	T 11
F 12	11 18 28	21 ²¹ 25	26 ¹⁵	9 ²³	24 ⁵⁶	17 ³⁰	20 ⁹	5 ¹⁸	28 ⁴⁷	23 ⁵⁴	18 ⁵¹	17 ¹⁷ R 7	18 ²⁶	21 ⁵³	23 ⁴⁷	F 12
S 13	11 22 24	22 ²¹ 22	9 ³⁴ 40	10 ⁸	26 ¹¹	18 ⁰	20 ²³	5 ²⁵	28 ⁴⁷	23 ⁵³	18 ⁵²	17 ⁶	18 ²³	22 ⁰	23 ⁵¹	S 13
S 14	11 26 21	23 ²¹ 15	23 ³²	10 ⁴⁴	27 ²⁶	18 ³⁰	20 ³⁸	5 ³¹	28 ⁴⁸	23 ⁵²	18 ⁵²	17 ⁴	18 ²⁰	22 ⁷	23 ⁵⁴	S 14
M15	11 30 18	24 ²¹ 07	7 ¹² 53	11 ¹²	28 ⁴¹	19 ¹	20 ⁵²	5 ³⁷	28 ⁴⁸	23 ⁵⁰	18 ⁵³	17 ¹	18 ¹⁷	22 ¹³	23 ⁵⁸	M15
T 16	11 34 14	25 ²⁰ 57	22 ³⁷	11 ³¹	29 ⁵⁶	19 ³¹	21 ⁷	5 ⁴⁴	28 ⁴⁹	23 ⁴⁹	18 ⁵⁴	16 ⁵⁸	18 ¹⁴	22 ²⁰	24 ²	T 16
W17	11 38 11	26 ²⁰ 44	7 ¹¹ 41	11 ⁴²	1 ¹⁷ 10	20 ²	21 ²¹	5 ⁵⁰	28 ⁴⁹	23 ⁴⁸	18 ⁵⁵	16 ⁵⁵	18 ¹⁰	22 ²⁷	24 ⁵	W17
T 18	11 42 7	27 ²⁰ 29	22 ⁵⁵	11 ¹⁷ 44	2 ²⁵	20 ³³	21 ³⁶	5 ⁵⁷	28 ⁵⁰	23 ⁴⁶	18 ⁵⁶	16 ⁵³	18 ⁷	22 ³³	24 ⁹	T 18
F 19	11 46 4	28 ²⁰ 12	8 ¹² 9	11 ³⁸	3 ⁴⁰	21 ³	21 ⁵⁰	6 ³	28 ⁵⁰	23 ⁴⁵	18 ⁵⁷	16 ⁵²	18 ⁴	22 ⁴⁰	24 ¹³	F 19
S 20	11 50 0	29 ¹⁹ 53	23 ¹⁴	11 ²³	4 ⁵⁵	21 ³⁴	22 ⁴	6 ¹⁰	28 ⁵¹	23 ⁴³	18 ⁵⁸	16 ¹⁷ D52	18 ¹	22 ⁴⁷	24 ¹⁶	S 20
S 21	11 53 57	0 ¹⁷ 1933	8 ¹¹ 0	11 ¹	6 ⁹	22 ⁵	22 ¹⁹	6 ¹⁷	28 ⁵²	23 ⁴²	18 ⁵⁹	16 ⁵³	17 ⁵⁸	22 ⁵³	24 ²⁰	S 21
M22	11 57 53	1 ¹⁹ 10	22 ²³	10 ³²	7 ²⁴	22 ³⁷	22 ³³	6 ²⁴	28 ⁵²	23 ⁴⁰	19 ⁰	16 ⁵⁴	17 ⁵⁵	23 ⁰	24 ²⁴	M22
T 23	12 1 50	2 ¹⁸ 46	6 ¹² 20	9 ⁵⁷	8 ³⁹	23 ⁸	22 ⁴⁸	6 ³⁰	28 ⁵³	23 ³⁹	19 ⁰	16 ⁵⁵	17 ⁵¹	23 ⁷	24 ²⁸	T 23
W24	12 5 47	3 ¹⁸ 21	19 ⁴⁹	9 ¹⁶	9 ⁵³	23 ³⁹	23 ²	6 ³⁷	28 ⁵⁴	23 ³⁷	19 ¹	16 ⁵⁶	17 ⁴⁸	23 ¹³	24 ³¹	W24
T 25	12 9 43	4 ¹⁷ 53	2 ¹³ 54	8 ³¹	11 ⁸	24 ¹¹	23 ¹⁷	6 ⁴⁴	28 ⁵⁵	23 ³⁶	19 ²	16 ¹⁷ R56	17 ⁴⁵	23 ²⁰	24 ³⁵	T 25
F 26	12 13 40	5 ¹⁷ 24	15 ³⁶	7 ⁴²	12 ²²	24 ⁴²	23 ³¹	6 ⁵¹	28 ⁵⁶	23 ³⁴	19 ³	16 ⁵⁶	17 ⁴²	23 ²⁷	24 ³⁹	F 26
S 27	12 17 36	6 ¹⁶ 53	28 ⁰	6 ⁵¹	13 ³⁷	25 ¹⁴	23 ⁴⁵	6 ⁵⁸	28 ⁵⁷	23 ³³	19 ⁵	16 ⁵⁵	17 ³⁹	23 ³³	24 ⁴²	S 27
S 28	12 21 33	7 ¹⁶ 21	10 ³¹ 10	5 ⁵⁹	14 ⁵¹	25 ⁴⁶	24 ⁰	7 ⁵	28 ⁵⁸	23 ³¹	19 ⁶	16 ⁵⁴	17 ³⁶	23 ⁴⁰	24 ⁴⁶	S 28
M29	12 25 29	8 ¹⁵ 46	22 ⁹	5 ⁶	16 ⁶	26 ¹⁸	24 ¹⁴	7 ¹²	28 ⁵⁹	23 ³⁰	19 ⁷	16 ⁵³	17 ³²	23 ⁴⁷	24 ⁴⁹	M29
T 30	12 29 26	9 ¹⁵ 10	4 ¹¹ 2	4 ¹⁴	17 ²⁰	26 ⁵⁰	24 ²⁸	7 ¹⁹	29 ⁰	23 ²⁸	19 ⁸	16 ⁵²	17 ²⁹	23 ⁵³	24 ⁵³	T 30
W31	12 33 22	10 ¹⁷ 14'31	15 ¹¹ 50	3 ¹⁷ 25	18 ¹⁷ 35	27 ¹¹ 22	24 ¹¹ 42	7 ¹⁸ 26	29 ¹¹ 2	23 ¹¹ 26	19 ¹¹ 9	16 ¹⁷ Y51	17 ¹⁷ Y26	24 ¹¹ 0	24 ¹¹ 57	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
M 1	7s41	21s20	4s40	2s29	0s14	8s41	1s26	24n18	2n 4	5s52	1s 0	10n47	2s16	23n39	0n14	7s47	1n41	2n48	15s 8	6n49	7n27	5s57	0n53	3n57					
T 2	7 19	17 0	4 6	1 36	0 2	8 13	1 26	24 21	2 4	5 46	1 0	10 49	2 16	23 39	0 14	7 46	1 41	2 49	15 7	6 47	7 26	5 53	0 55	3 57					
W 3	6 56	12 3	3 21	0 45	0n11	7 44	1 26	24 24	2 4	5 41	1 0	10 51	2 16	23 39	0 14	7 46	1 42	2 49	15 7	6 44	7 24	5 50	0 56	3 57					
T 4	6 33	6 41	2 28	0n 6	0 24	7 15	1 26	24 28	2 3	5 35	1 0	10 53	2 15	23 39	0 14	7 45	1 42	2 50	15 7	6 43	7 23	5 47	0 57	3 56					
F 5	6 9	1 6	1 28	0 56	0 37	6 46	1 26	24 31	2 3	5 29	1 0	10 55	2 15	23 39	0 14	7 45	1 42	2 50	15 6	6 41	7 22	5 43	0 59	3 56					
S 6	5 46	4n31	0 25	1 44	0 50	6 17	1 26	24 34	2 3	5 24	1 0	10 58	2 15	23 39	0 14	7 45	1 42	2 51	15 6	6 41	7 21	5 40	1 0	3 56					
S 7	5 23	10 1	0n40	2 30	1 4	5 47	1 26	24 37	2 2	5 18	1 0	11 0	2 15	23 39	0 14	7 44	1 42	2 51	15 6	6 41	7 19	5 37	1 2	3 56					
M 8	5 0	15 13	1 43	3 15	1 18	5 18	1 26	24 40	2 2	5 12	1 0	11 2	2 15	23 39	0 14	7 44	1 42	2 52	15 5	6 41	7 18	5 33	1 3	3 56					
T 9	4 36	19 53	2 43	3 56	1 32	4 48	1 26	24 43	2 2	5 7	1 0	11 4	2 14	23 39	0 14	7 43	1 42	2 52	15 5	6 42	7 17	5 30	1 4	3 56					
W10	4 13	23 49	3 37	4 36	1 46	4 18	1 25	24 45	2 1	5 1	1 0	11 6	2 14	23 39	0 14	7 43	1 42	2 53	15 5	6 43	7 16	5 27	1 6	3 56					
T 11	3 49	26 42	4 22	5 12	1 59	3 48	1 25	24 48	2 1	4 55	1 0	11 8	2 14	23 39	0 14	7 42	1 42	2 53	15 5	6 43	7 15	5 23	1 7	3 56					
F 12	3 26	28 17	4 54	5 45	2 12	3 18	1 24	24 50	2 1	4 50	1 0	11 11	2 14	23 39	0 14	7 42	1 42	2 54	15 4	6 43	7 13	5 20	1 8	3 56					
S 13	3 2	28 16	5 12	6 14	2 25	2 48	1 24	24 53	2 0	4 44	1 0	11 13	2 14	23 39	0 14	7 41	1 42	2 54	15 4	6 43	7 12	5 17	1 10	3 56					
S 14	2 38	26 31	5 13	6 39	2 37	2 18	1 23	24 55	2 0	4 38	1 0	11 15	2 14	23 39	0 14	7 40	1 42	2 54	15 4	6 42	7 11	5 13	1 11	3 56					
M15	2 15	23 2	4 54	7 0	2 48	1 47	1 23	24 57	1 59	4 33	1 0	11 17	2 13	23 39	0 14	7 40	1 42	2 55	15 3	6 41	7 10	5 10	1 13	3 56					
T 16	1 51	18 0	4 16	7 17	2 58	1 17	1 22	24 59	1 59	4 27	1 0	11 20	2 13	23 39	0 14	7 39	1 42	2 55	15 3	6 40	7 9	5 7	1 14	3 56					
W17	1 27	11 46	3 20	7 30	3 7	0 46	1 21	25 1	1 59	4 21	1 0	11 22	2 13	23 39	0 14	7 39	1 42	2 56	15 3	6 39	7 7	5 3	1 16	3 56					
T 18	1 3	4 47	2 8	7 38	3 15	0 16	1 20	25 3	1 58	4 16	1 1	11 24	2 13	23 39	0 14	7 38	1 42	2 56	15 3	6 38	7 6	5 0	1 17	3 55					
F 19	0 40	2s30	0 48	7 41	3 21	0n14	1 19	25 5	1 58	4 10	1 1	11 27	2 13	23 39	0 14	7 38	1 42	2 57	15 2	6 37	7 5	4 56	1 18	3 55					
S 20	0 16	9 34	0s35	7 40	3 26	0 45	1 18	25 7	1 57	4 4	1 1	11 29	2 13	23 39	0 14	7 37	1 42	2 57	15 2	6 37	7 4	4 53	1 20	3 55					
S 21	0n 8	15 58	1 54	7 34	3 29	1 15	1 17	25 8	1 57	3 59	1 1	11 31	2 12	23 39	0 14	7 37	1 42	2 58	15 2	6 38	7 3	4 50	1 21	3 55					
M22	0 31	21 19	3 4	7 24	3 31	1 46	1 16	25 10	1 57	3 53	1 1	11 34	2 12	23 39	0 14	7 36	1 42	2 58	15 2	6 38	7 1	4 46	1 23	3 55					
T 23	0 55	25 18	4 1	7 10	3 30	2 16	1 15	25 11	1 56	3 47	1 1	11 36	2 12	23 39	0 14	7 35	1 42	2 59	15 1	6 39	7 0	4 43	1 24	3 55					
W24	1 19	27 44	4 42	6 52	3 28	2 47	1 14	25 12	1 56	3 42	1 1	11 38	2 12	23 39	0 14	7 35	1 42	2 59	15 1	6 39	6 59	4 40	1 25	3 55					
T 25	1 42	28 31	5 7	6 30	3 24	3 17	1 13	25 13	1 56	3 36	1 1	11 41	2 12	23 39	0 14	7 34	1 42	3 0	15 1	6 39	6 58	4 36	1 27	3 55					
F 26	2 6	27 45	5 17	6 5	3 18	3 47	1 12	25 14	1 55	3 30	1 1	11 43	2 12	23 39	0 14	7 34	1 42	3 0	15 1	6 39	6 57	4 33	1 28	3 55					
S 27	2 30	25 38	5 11	5 38	3 11	4 17	1 10	25 15	1 55	3 25	1 1	11 46	2 11	23 39	0 14	7 33	1 42	3 1	15 0	6 39	6 55	4 29	1 30	3 55					
S 28	2 53	22 21	4 51	5 9	3 1	4 48	1 9	25 16	1 54	3 19	1 1	11 48	2 11	23 39	0 14	7 33	1 42	3 1	15 0	6 38	6 54	4 26	1 31	3 55					
M29	3 17	18 12	4 19	4 38	2 50	5 18	1 7	25 16	1 54	3 14	1 1	11 50	2 11	23 39	0 14	7 32	1 42	3 2	15 0	6 38	6 53	4 23	1 33	3 55					
T 30	3 40	13 23	3 36	4 6	2 38	5 48	1 6	25 17	1 54	3 8	1 1	11 53	2 11	23 39	0 14	7 31	1 42	3 2	15 0	6 37	6 52	4 19	1 34	3 55					
W31	4n 3	8s 6	2s44	3n34	2n25	6n17	1s 4	25n17	1n53	3s 2	1s 1	11n55	2s11	23n39	0n14	7s31	1n42	3n 3	15s 0	6n37	6n50	4s16	1n35	3n55					

ASTRODIENST EPHEMERIS for the year 2117

geocentric

APRIL 2117

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 37 19	11°13'51	27°38'38	2°R37	19°Y49	27°II54	24°H57	7°B33	29°II 3	23°R25	19°B10	16°R50	17°Y23	24°H 7	25°H 0	T 1
F 2	12 41 16	12°13'08	9°Y27	1°Y54	21° 4	28°26	25°11	7°41	29° 4	23°B23	19°11	16°Y50	17°20	24°13	25° 4	F 2
S 3	12 45 12	13°12'24	21°19	1°14	22°18	28°59	25°25	7°48	29° 6	23°22	19°12	16°D50	17°16	24°20	25° 7	S 3
S 4	12 49 9	14°11'38	3°B17	0°39	23°33	29°31	25°39	7°55	29° 7	23°20	19°13	16°50	17°13	24°27	25°11	S 4
M 5	12 53 5	15°10'49	15°23	0°10	24°47	0°B 4	25°53	8° 2	29° 8	23°18	19°14	16°50	17°10	24°33	25°14	M 5
T 6	12 57 2	16° 9'59	27°39	29°H45	26° 1	0°36	26° 7	8°10	29°10	23°17	19°16	16°50	17° 7	24°40	25°18	T 6
W 7	13 0 58	17° 9'06	10°II 7	29°26	27°16	1° 9	26°21	8°17	29°12	23°15	19°17	16°R50	17° 4	24°47	25°22	W 7
T 8	13 4 55	18° 8'11	22°50	29°13	28°30	1°42	26°35	8°24	29°13	23°13	19°18	16°50	17° 1	24°53	25°25	T 8
F 9	13 8 51	19° 7'14	5°B52	29° 5	29°44	2°15	26°49	8°32	29°15	23°12	19°19	16°50	16°57	25° 0	25°28	F 9
S 10	13 12 48	20° 6'14	19°13	29°D 2	0°B59	2°48	27° 3	8°39	29°17	23°10	19°20	16°D50	16°54	25° 7	25°32	S 10
S 11	13 16 45	21° 5'12	2°B56	29° 5	2°13	3°21	27°17	8°47	29°18	23° 9	19°21	16°50	16°51	25°13	25°35	S 11
M12	13 20 41	22° 4'08	17° 2	29°13	3°27	3°54	27°31	8°54	29°20	23° 7	19°23	16°50	16°48	25°20	25°39	M12
T 13	13 24 38	23° 3'01	1°B29	29°27	4°41	4°27	27°45	9° 2	29°22	23° 5	19°24	16°51	16°45	25°26	25°42	T 13
W14	13 28 34	24° 1'53	16°14	29°45	5°55	5° 0	27°59	9° 9	29°24	23° 4	19°25	16°51	16°42	25°33	25°46	W14
T 15	13 32 31	25° 0'41	1°B12	0°Y 8	7° 9	5°34	28°12	9°17	29°26	23° 2	19°26	16°52	16°38	25°40	25°49	T 15
F 16	13 36 27	25°59'28	16°15	0°35	8°24	6° 7	28°26	9°24	29°28	23° 0	19°28	16°R52	16°35	25°46	25°52	F 16
S 17	13 40 24	26°58'13	1°B15	1° 7	9°38	6°40	28°40	9°32	29°30	22°59	19°29	16°52	16°32	25°53	25°55	S 17
S 18	13 44 20	27°56'56	16° 3	1°43	10°52	7°14	28°53	9°39	29°32	22°57	19°30	16°51	16°29	26° 0	25°59	S 18
M19	13 48 17	28°55'37	0°B32	2°22	12° 6	7°47	29° 7	9°47	29°34	22°55	19°31	16°50	16°26	26° 6	26° 2	M19
T 20	13 52 14	29°54'16	14°37	3° 6	13°20	8°21	29°20	9°54	29°36	22°54	19°33	16°48	16°22	26°13	26° 5	T 20
W21	13 56 10	0°B52'54	28°15	3°53	14°34	8°55	29°34	10° 2	29°38	22°52	19°34	16°47	16°19	26°20	26° 8	W21
T 22	14 0 7	1°51'30	11°B27	4°43	15°48	9°28	29°47	10°10	29°41	22°50	19°35	16°45	16°16	26°26	26°12	T 22
F 23	14 4 3	2°50'04	24°15	5°37	17° 1	10° 2	0°Y 1	10°17	29°43	22°49	19°37	16°44	16°13	26°33	26°15	F 23
S 24	14 8 0	3°48'37	6°B41	6°34	18°15	10°36	0°14	10°25	29°45	22°47	19°38	16°D44	16°10	26°40	26°18	S 24
S 25	14 11 56	4°47'07	18°51	7°33	19°29	11°10	0°27	10°33	29°48	22°46	19°39	16°45	16° 7	26°46	26°21	S 25
M26	14 15 53	5°45'37	0°B49	8°36	20°43	11°44	0°40	10°40	29°50	22°44	19°41	16°46	16° 3	26°53	26°24	M26
T 27	14 19 49	6°44'04	12°39	9°41	21°57	12°18	0°53	10°48	29°52	22°42	19°42	16°47	16° 0	27° 0	26°27	T 27
W28	14 23 46	7°42'30	24°26	10°48	23°11	12°52	1° 6	10°56	29°55	22°41	19°43	16°49	15°57	27° 6	26°30	W28
T 29	14 27 43	8°40'54	6°Y14	11°59	24°24	13°26	1°19	11° 3	29°57	22°39	19°45	16°50	15°54	27°13	26°33	T 29
F 30	14 31 39	9°B39'17	18°Y 6	13°Y11	25°B38	14°B 0	1°Y32	11°B11	29°II59	22°B38	19°B46	16°R50	15°Y51	27°H20	26°H36	F 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
T 1	4n26	2s33	1s45	3n 2	2n11	6n47	1s 3	25n17	1n53	2s57	1s 1	11n58	2s11	23n39	0n14	T 1
F 2	4 50	3n 7	0 41	2 31	1 56	7 16	1 1	25 17	1 52	2 51	1 2	12 0	2 11	23 39	0 14	F 2
S 3	5 13	8 42	0n25	2 1	1 40	7 46	0 59	25 17	1 52	2 46	1 2	12 3	2 11	23 39	0 14	S 3
S 4	5 36	14 1	1 30	1 33	1 24	8 15	0 57	25 17	1 52	2 40	1 2	12 5	2 10	23 39	0 14	S 4
M 5	5 59	18 52	2 32	1 6	1 8	8 44	0 56	25 17	1 51	2 35	1 2	12 7	2 10	23 39	0 14	M 5
T 6	6 21	23 0	3 28	0 42	0 52	9 13	0 54	25 16	1 51	2 29	1 2	12 10	2 10	23 39	0 14	T 6
W 7	6 44	26 9	4 15	0 20	0 36	9 41	0 52	25 16	1 50	2 24	1 2	12 12	2 10	23 39	0 14	W 7
T 8	7 7	28 4	4 50	0 0	0 21	10 9	0 50	25 15	1 50	2 18	1 2	12 15	2 10	23 39	0 14	T 8
F 9	7 29	28 29	5 12	0s17	0 5	10 38	0 48	25 14	1 49	2 13	1 2	12 17	2 10	23 39	0 14	F 9
S 10	7 51	27 17	5 17	0 32	0s10	11 5	0 46	25 13	1 49	2 7	1 2	12 20	2 10	23 39	0 14	S 10
S 11	8 13	24 26	5 5	0 44	0 24	11 33	0 44	25 12	1 49	2 2	1 2	12 22	2 10	23 39	0 14	S 11
M12	8 35	20 5	4 35	0 53	0 38	12 0	0 42	25 10	1 48	1 56	1 2	12 25	2 10	23 39	0 14	M12
T 13	8 57	14 28	3 46	1 0	0 51	12 27	0 40	25 9	1 48	1 51	1 3	12 27	2 10	23 39	0 14	T 13
W14	9 19	7 55	2 42	1 4	1 3	12 54	0 37	25 7	1 47	1 46	1 3	12 29	2 10	23 39	0 14	W14
T 15	9 41	0 50	1 26	1 6	1 15	13 20	0 35	25 6	1 47	1 40	1 3	12 32	2 9	23 39	0 14	T 15
F 16	10 2	6s20	0 3	1 5	1 26	13 46	0 33	25 4	1 47	1 35	1 3	12 34	2 9	23 39	0 14	F 16
S 17	10 23	13 8	1s19	1 2	1 37	14 12	0 31	25 2	1 46	1 30	1 3	12 37	2 9	23 39	0 14	S 17
S 18	10 44	19 6	2 35	0 57	1 47	14 37	0 28	24 59	1 46	1 24	1 3	12 39	2 9	23 39	0 14	S 18
M19	11 5	23 49	3 39	0 50	1 56	15 3	0 26	24 57	1 45	1 19	1 3	12 42	2 9	23 39	0 14	M19
T 20	11 26	26 59	4 28	0 40	2 4	15 27	0 24	24 55	1 45	1 14	1 3	12 44	2 9	23 39	0 14	T 20
W21	11 46	28 25	5 0	0 29	2 12	15 51	0 21	24 52	1 45	1 9	1 3	12 47	2 9	23 39	0 14	W21
T 22	12 7	28 10	5 15	0 15	2 19	16 15	0 19	24 49	1 44	1 3	1 4	12 49	2 9	23 39	0 14	T 22
F 23	12 27	26 24	5 14	0n 0	2 25	16 39	0 17	24 46	1 44	0 58	1 4	12 51	2 9	23 39	0 14	F 23
S 24	12 47	23 23	4 58	0 17	2 31	17 2	0 14	24 43	1 43	0 53	1 4	12 54	2 9	23 39	0 14	S 24
S 25	13 7	19 25	4 28	0 36	2 36	17 24	0 12	24 40	1 43	0 48	1 4	12 56	2 9	23 39	0 14	S 25
M26	13 26	14 44	3 48	0 57	2 41	17 46	0 9	24 37	1 42	0 43	1 4	12 59	2 9	23 39	0 14	M26
T 27	13 45	9 33	2 58	1 19	2 44	18 8	0 7	24 33	1 42	0 38	1 4	13 1	2 9	23 39	0 14	T 27
W28	14 4	4 3	2 1	1 42	2 48	18 29	0 4	24 29	1 42	0 33	1 4	13 4	2 9	23 39	0 14	W28
T 29	14 23	1n35	0 58	2 7	2 50	18 50	0 2	24 26	1 41	0 28	1 4	13 6	2 9	23 39	0 14	T 29
F 30	14n42	7n12	0n 7	2n34	2s52	19n10	0n 1	24n22	1n41	0s23	1s 5	13n 8	2s 9	23n39	0n14	F 30

Julian Day Number = 2494368.5, Delta T = 101.78 sec

Ecliptic obliquity = 23°25'36, Nutation = - 0°00'05, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°22'43, Lahiri = 25°29'43

ASTRODIENST EPHEMERIS for the year 2117

geocentric

JUNE 2117

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 37 49	10 ^{II} 32'37	16 ^{II} 22	9 ^{II} 50	4 ^{II} 43	2 ^{II} 37	7 ^{II} 44	15 ^{II} 13	1 ^{II} 37	21 ^{II} 56	20 ^{II} 29	15 ^{II} R28	14 ^{II} Y 9	0 ^{II} Y52	27 ^{II} X49	T 1
W 2	16 41 45	11°30'11	29°30	12° 2	5°56	3°13	7°54	15°20	1°41	21°55	20°30	15°Y18	14° 6	0°59	27°50	W 2
T 3	16 45 42	12°27'44	12 ^{II} 51	14°14	7° 9	3°49	8° 4	15°27	1°44	21°54	20°31	15° 9	14° 3	1° 6	27°52	T 3
F 4	16 49 39	13°25'15	26°25	16°26	8°22	4°24	8°14	15°34	1°48	21°53	20°33	15° 1	13°59	1°12	27°53	F 4
S 5	16 53 35	14°22'45	10 ^{II} 9	18°38	9°35	5° 0	8°24	15°41	1°51	21°53	20°34	14°54	13°56	1°19	27°55	S 5
S 6	16 57 32	15°20'14	24° 1	20°48	10°47	5°35	8°33	15°48	1°54	21°52	20°35	14°50	13°53	1°26	27°56	S 6
M 7	17 1 28	16°17'42	8 ^{II} 1	22°58	12° 0	6°11	8°43	15°55	1°58	21°51	20°36	14°48	13°50	1°32	27°57	M 7
T 8	17 5 25	17°15'08	22° 7	25° 6	13°13	6°47	8°52	16° 2	2° 1	21°50	20°38	14°D48	13°47	1°39	27°59	T 8
W 9	17 9 21	18°12'33	6 ^{II} 18	27°13	14°25	7°23	9° 1	16° 9	2° 5	21°49	20°39	14°48	13°44	1°46	28° 0	W 9
T 10	17 13 18	19° 9'57	20°32	29°18	15°38	7°58	9°10	16°16	2° 8	21°49	20°40	14°R49	13°40	1°52	28° 1	T 10
F 11	17 17 14	20° 7'20	4 ^{II} 48	1 ^{II} 21	16°50	8°34	9°19	16°23	2°12	21°48	20°41	14°47	13°37	1°59	28° 2	F 11
S 12	17 21 11	21° 4'42	19° 3	3°23	18° 3	9°10	9°28	16°30	2°16	21°47	20°42	14°43	13°34	2° 6	28° 3	S 12
S 13	17 25 8	22° 2'03	3 ^{II} 12	5°22	19°15	9°46	9°37	16°37	2°19	21°47	20°44	14°37	13°31	2°12	28° 4	S 13
M14	17 29 4	22°59'23	17°12	7°19	20°27	10°22	9°45	16°43	2°23	21°46	20°45	14°28	13°28	2°19	28° 5	M14
T 15	17 33 1	23°56'42	0 ^{II} 57	9°14	21°40	10°58	9°54	16°50	2°26	21°45	20°46	14°17	13°25	2°26	28° 6	T 15
W16	17 36 57	24°54'01	14°25	11° 7	22°52	11°34	10° 2	16°57	2°30	21°45	20°47	14° 6	13°21	2°32	28° 7	W16
T 17	17 40 54	25°51'19	27°33	12°57	24° 4	12°10	10°10	17° 3	2°33	21°44	20°48	13°56	13°18	2°39	28° 8	T 17
F 18	17 44 50	26°48'37	10 ^{II} 8	14°45	25°17	12°46	10°18	17°10	2°37	21°44	20°49	13°46	13°15	2°45	28° 8	F 18
S 19	17 48 47	27°45'54	22°48	16°30	26°29	13°22	10°26	17°16	2°40	21°43	20°51	13°39	13°12	2°52	28° 9	S 19
S 20	17 52 44	28°43'11	4 ^{II} 59	18°13	27°41	13°58	10°34	17°23	2°44	21°43	20°52	13°35	13° 9	2°59	28°10	S 20
M21	17 56 40	29°40'27	16°57	19°54	28°53	14°34	10°41	17°29	2°48	21°43	20°53	13°32	13° 5	3° 5	28°10	M21
T 22	18 0 37	0 ^{II} 37'44	28°48	21°32	0 ^{II} 5	15°10	10°49	17°36	2°51	21°42	20°54	13°D32	13° 2	3°12	28°11	T 22
W23	18 4 33	1°35'00	10°Y37	23° 8	1°17	15°47	10°56	17°42	2°55	21°42	20°55	13°R32	12°59	3°19	28°11	W23
T 24	18 8 30	2°32'15	22°28	24°41	2°29	16°23	11° 3	17°48	2°58	21°42	20°56	13°32	12°56	3°25	28°12	T 24
F 25	18 12 26	3°29'31	4 ^{II} 28	26°12	3°41	16°59	11°10	17°54	3° 2	21°41	20°57	13°30	12°53	3°32	28°12	F 25
S 26	18 16 23	4°26'46	16°41	27°40	4°53	17°35	11°17	18° 0	3° 6	21°41	20°58	13°26	12°50	3°39	28°12	S 26
S 27	18 20 19	5°24'02	29°11	29° 6	6° 5	18°12	11°24	18° 6	3° 9	21°41	20°59	13°20	12°46	3°45	28°13	S 27
M28	18 24 16	6°21'17	12 ^{II} 0	0 ^{II} 29	7°17	18°48	11°31	18°12	3°13	21°41	21° 0	13°11	12°43	3°52	28°13	M28
T 29	18 28 13	7°18'32	25°10	1°50	8°29	19°24	11°37	18°18	3°16	21°40	21° 1	13° 1	12°40	3°59	28°13	T 29
W30	18 32 9	8°15'47	8 ^{II} 38	3 ^{II} 8	9 ^{II} 41	20°1	11°Y43	18°24	3°20	21°40	21° 2	12°Y49	12°Y37	4°Y 5	28°X13	W30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
T 1	22n 1	27n 9	4n27	22n25	0n30	24n37	1n17	20n59	1n27	2n 0	1s10	14n20	2s 9	23n39	0n14	T 1
W 2	22 9	28 19	4 54	22 53	0 40	24 36	1 19	20 50	1 27	2 3	1 10	14 22	2 9	23 39	0 14	W 2
T 3	22 17	27 52	5 5	23 19	0 50	24 34	1 20	20 41	1 26	2 7	1 10	14 24	2 9	23 39	0 14	T 3
F 4	22 24	25 45	4 59	23 43	0 59	24 32	1 22	20 32	1 26	2 11	1 11	14 26	2 9	23 39	0 14	F 4
S 5	22 31	22 7	4 36	24 4	1 8	24 29	1 24	20 23	1 25	2 14	1 11	14 28	2 9	23 39	0 14	S 5
S 6	22 37	17 14	3 57	24 22	1 16	24 25	1 26	20 14	1 25	2 18	1 11	14 30	2 9	23 39	0 14	S 6
M 7	22 43	11 23	3 3	24 38	1 24	24 20	1 27	20 5	1 24	2 22	1 11	14 32	2 9	23 39	0 14	M 7
T 8	22 49	4 56	1 58	24 51	1 31	24 15	1 29	19 55	1 24	2 25	1 12	14 34	2 10	23 38	0 14	T 8
W 9	22 54	1s48	0 45	25 1	1 37	24 9	1 30	19 46	1 24	2 28	1 12	14 36	2 10	23 38	0 14	W 9
T 10	22 59	8 29	0s31	25 8	1 43	24 2	1 32	19 36	1 23	2 32	1 12	14 37	2 10	23 38	0 14	T 10
F 11	23 4	14 45	1 44	25 13	1 48	23 55	1 33	19 26	1 23	2 35	1 12	14 39	2 10	23 38	0 14	F 11
S 12	23 8	20 13	2 52	25 15	1 52	23 46	1 35	19 16	1 22	2 38	1 12	14 41	2 10	23 38	0 14	S 12
S 13	23 11	24 30	3 48	25 14	1 55	23 38	1 36	19 6	1 22	2 42	1 13	14 43	2 10	23 38	0 14	S 13
M14	23 14	27 17	4 29	25 11	1 58	23 28	1 37	18 56	1 21	2 45	1 13	14 45	2 10	23 38	0 14	M14
T 15	23 17	28 20	4 54	25 6	2 0	23 18	1 38	18 46	1 21	2 48	1 13	14 47	2 10	23 38	0 14	T 15
W16	23 20	27 39	5 2	24 58	2 1	23 7	1 39	18 36	1 21	2 51	1 13	14 48	2 10	23 38	0 14	W16
T 17	23 22	25 26	4 54	24 48	2 1	22 56	1 40	18 25	1 20	2 54	1 14	14 50	2 10	23 38	0 14	T 17
F 18	23 23	21 59	4 31	24 37	2 1	22 44	1 41	18 15	1 20	2 57	1 14	14 52	2 10	23 38	0 14	F 18
S 19	23 24	17 37	3 55	24 23	2 0	22 31	1 42	18 4	1 19	3 0	1 14	14 53	2 11	23 38	0 14	S 19
S 20	23 25	12 37	3 10	24 8	1 58	22 18	1 43	17 53	1 19	3 2	1 14	14 55	2 11	23 38	0 14	S 20
M21	23 26	7 14	2 16	23 51	1 55	22 4	1 44	17 42	1 18	3 5	1 15	14 57	2 11	23 38	0 14	M21
T 22	23 25	1 40	1 17	23 33	1 52	21 49	1 44	17 31	1 18	3 8	1 15	14 59	2 11	23 38	0 14	T 22
W23	23 25	3n58	0 16	23 14	1 48	21 34	1 45	17 20	1 17	3 10	1 15	15 0	2 11	23 38	0 14	W23
T 24	23 24	9 28	0n47	22 53	1 44	21 18	1 45	17 9	1 17	3 13	1 15	15 2	2 11	23 38	0 14	T 24
F 25	23 23	14 43	1 49	22 31	1 39	21 2	1 46	16 57	1 17	3 16	1 16	15 3	2 11	23 37	0 14	F 25
S 26	23 21	19 28	2 46	22 8	1 33	20 45	1 46	16 46	1 16	3 18	1 16	15 5	2 11	23 37	0 14	S 26
S 27	23 19	23 29	3 37	21 44	1 27	20 28	1 47	16 34	1 16	3 20	1 16	15 6	2 12	23 37	0 14	S 27
M28	23 16	26 28	4 18	21 20	1 20	20 10	1 47	16 22	1 15	3 23	1 16	15 8	2 12	23 37	0 14	M28
T 29	23 13	28 6	4 46	20 55	1 12	19 51	1 47	16 11	1 15	3 25	1 17	15 9	2 12	23 37	0 14	T 29
W30	23n10	28n 8	5n 0	20n29	1n 4	19n32	1n47	15n59	1n14	3n27	1s17	15n11	2s12	23n37	0n14	W30

Julian Day Number = 2494429.5, Delta T = 101.87 sec

Ecliptic obliquity = 23°25'35, Nutation = - 0°00'05, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°22'51, Lahiri = 25°29'51

ASTRODIENST EPHEMERIS for the year 2117

geocentric

JULY 2117

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 36 6	9 ⁵⁵ 13'02	22 ⁵⁶ 24	4 ²³ 23	10 ⁵² 52	20 ³⁷ 37	11 ⁴⁹ 49	18 ³⁰ 30	3 ²⁴ 24	21 ⁴⁰ 40	21 ⁸ 3	12 ³⁷ 37	12 ³⁴ 34	4 ¹² 12	28 ¹³ 13	T 1	
F 2	18 40 2	10 ¹⁰ 16	6 ²³ 23	5 ³⁶ 36	12 ⁴ 4	21 ¹⁴ 14	11 ⁵⁵ 55	18 ³⁶ 36	3 ²⁷ 27	21 ⁴⁰ 40	21 ⁴ 4	12 ³⁷ 26	12 ³¹ 31	4 ¹⁹ 19	28 ¹³ 13	F 2	
S 3	18 43 59	11 ⁷ 31	20 ³¹ 31	6 ⁴⁶ 46	13 ¹⁶ 16	21 ⁵⁰ 50	12 ¹ 1	18 ⁴² 42	3 ³¹ 31	21 ⁴⁰ 40	21 ⁵ 5	12 ¹⁷ 17	12 ²⁷ 27	4 ²⁵ 25	28 ¹³ 13	S 3	
S 4	18 47 55	12 ⁴ 44	4 ⁴³ 43	7 ⁵³ 53	14 ²⁷ 27	22 ²⁷ 27	12 ⁷ 7	18 ⁴⁷ 47	3 ³⁴ 34	21 ⁴⁰ 40	21 ⁶ 6	12 ¹² 12	12 ²⁴ 24	4 ³² 32	28 ¹³ 13	S 4	
M 5	18 51 52	13 ¹ 58	18 ⁵⁶ 56	8 ⁵⁷ 57	15 ³⁹ 39	23 ³ 3	12 ¹² 12	18 ⁵³ 53	3 ³⁸ 38	21 ⁴⁰ 40	21 ⁷ 7	12 ⁹ 9	12 ²¹ 21	4 ³⁸ 38	28 ¹³ 13	M 5	
T 6	18 55 48	13 ⁵⁹ 11	3 ⁴ 7	9 ⁵⁸ 58	16 ⁵⁰ 50	23 ⁴⁰ 40	12 ¹⁷ 17	18 ⁵⁸ 58	3 ⁴¹ 41	21 ⁴⁰ 40	21 ⁸ 8	12 ⁸ 8	12 ¹⁸ 18	4 ⁴⁵ 45	28 ¹² 12	T 6	
W 7	18 59 45	14 ⁵⁶ 23	17 ¹⁵ 15	10 ⁵⁵ 55	18 ² 2	24 ¹⁷ 17	12 ²² 22	19 ⁴ 4	3 ⁴⁵ 45	21 ⁴⁰ 40	21 ⁹ 9	12 ⁸ 8	12 ¹⁵ 15	4 ⁵² 52	28 ¹² 12	W 7	
T 8	19 3 42	15 ⁵³ 36	1 ¹⁶ 19	11 ⁵⁰ 50	19 ¹³ 13	24 ⁵³ 53	12 ²⁷ 27	19 ⁹ 9	3 ⁴⁸ 48	21 ⁴¹ 41	21 ⁹ 9	12 ⁷ 7	12 ¹¹ 11	4 ⁵⁸ 58	28 ¹² 12	T 8	
F 9	19 7 38	16 ⁵⁰ 48	15 ¹⁷ 17	12 ⁴¹ 41	20 ²⁴ 24	25 ³⁰ 30	12 ³² 32	19 ¹⁴ 14	3 ⁵² 52	21 ⁴¹ 41	21 ¹⁰ 10	12 ⁵ 5	12 ⁸ 8	5 ⁵ 5	28 ¹¹ 11	F 9	
S 10	19 11 35	17 ⁴⁸ 00	29 ⁹ 9	13 ²⁹ 29	21 ³⁶ 36	26 ⁷ 7	12 ³⁷ 37	19 ²⁰ 20	3 ⁵⁶ 56	21 ⁴¹ 41	21 ¹¹ 11	12 ¹ 1	12 ⁵ 5	5 ¹² 12	28 ¹¹ 11	S 10	
S 11	19 15 31	18 ⁴⁵ 11	12 ⁵⁴ 54	14 ¹³ 13	22 ⁴⁷ 47	26 ⁴³ 43	12 ⁴¹ 41	19 ²⁵ 25	3 ⁵⁹ 59	21 ⁴¹ 41	21 ¹² 12	11 ⁵³ 53	12 ² 2	5 ¹⁸ 18	28 ¹⁰ 10	S 11	
M 12	19 19 28	19 ⁴² 23	26 ²⁹ 29	14 ⁵⁴ 54	23 ⁵⁸ 58	27 ²⁰ 20	12 ⁴⁵ 45	19 ³⁰ 30	4 ³ 3	21 ⁴¹ 41	21 ¹³ 13	11 ⁴⁴ 44	11 ⁵⁹ 59	5 ²⁵ 25	28 ¹⁰ 10	M 12	
T 13	19 23 24	20 ³⁹ 35	9 ⁵² 52	15 ³⁰ 30	25 ⁹ 9	27 ⁵⁷ 57	12 ⁴⁹ 49	19 ³⁵ 35	4 ⁶ 6	21 ⁴² 42	21 ¹⁴ 14	11 ³² 32	11 ⁵⁶ 56	5 ³² 32	28 ⁹ 9	T 13	
W 14	19 27 21	21 ³⁶ 47	23 ⁰ 0	16 ³ 3	26 ²⁰ 20	28 ³⁴ 34	12 ⁵³ 53	19 ⁴⁰ 40	4 ¹⁰ 10	21 ⁴² 42	21 ¹⁴ 14	11 ²⁰ 20	11 ⁵² 52	5 ³⁸ 38	28 ⁹ 9	W 14	
T 15	19 31 18	22 ³⁴ 00	5 ⁵³ 53	16 ³¹ 31	27 ³¹ 31	29 ¹¹ 11	12 ⁵⁷ 57	19 ⁴⁵ 45	4 ¹³ 13	21 ⁴² 42	21 ¹⁵ 15	11 ⁸ 8	11 ⁴⁹ 49	5 ⁴⁵ 45	28 ⁸ 8	T 15	
F 16	19 35 14	23 ³¹ 12	18 ³⁰ 30	16 ⁵⁶ 56	28 ⁴² 42	29 ⁴⁸ 48	13 ⁰ 0	19 ⁵⁰ 50	4 ¹⁶ 16	21 ⁴³ 43	21 ¹⁶ 16	10 ⁵⁸ 58	11 ⁴⁶ 46	5 ⁵² 52	28 ⁷ 7	F 16	
S 17	19 39 11	24 ²⁸ 25	0 ⁵¹ 51	17 ¹⁵ 15	29 ⁵³ 53	0 ²⁴ 24	13 ⁴ 4	19 ⁵⁴ 54	4 ²⁰ 20	21 ⁴³ 43	21 ¹⁷ 17	10 ⁵⁰ 50	11 ⁴³ 43	5 ⁵⁸ 58	28 ⁶ 6	S 17	
S 18	19 43 7	25 ²⁵ 38	12 ⁵⁸ 58	17 ³¹ 31	1 ⁴ 4	1 ¹ 1	13 ⁷ 7	19 ⁵⁹ 59	4 ²³ 23	21 ⁴⁴ 44	21 ¹⁷ 17	10 ⁴⁴ 44	11 ⁴⁰ 40	6 ⁵ 5	28 ⁵ 5	S 18	
M 19	19 47 4	26 ²² 52	24 ⁵⁴ 54	17 ⁴¹ 41	2 ¹⁴ 14	1 ³⁸ 38	13 ¹⁰ 10	20 ³ 3	4 ²⁷ 27	21 ⁴⁴ 44	21 ¹⁸ 18	10 ⁴¹ 41	11 ³⁷ 37	6 ¹² 12	28 ⁴ 4	M 19	
T 20	19 51 0	27 ²⁰ 06	6 ⁴⁴ 44	17 ⁴⁷ 47	3 ²⁵ 25	2 ¹⁵ 15	13 ¹³ 13	20 ⁸ 8	4 ³⁰ 30	21 ⁴⁵ 45	21 ¹⁹ 19	10 ⁴⁰ 40	11 ³³ 33	6 ¹⁸ 18	28 ³ 3	T 20	
W 21	19 54 57	28 ¹⁷ 21	18 ³² 32	17 ⁴⁸ 48	4 ³⁶ 36	2 ⁵² 52	13 ¹⁵ 15	20 ¹² 12	4 ³³ 33	21 ⁴⁵ 45	21 ¹⁹ 19	10 ⁴⁰ 40	11 ³⁰ 30	6 ²⁵ 25	28 ² 2	W 21	
T 22	19 58 53	29 ¹⁴ 37	0 ²³ 23	17 ⁴⁴ 44	5 ⁴⁶ 46	3 ³⁰ 30	13 ¹⁸ 18	20 ¹⁷ 17	4 ³⁷ 37	21 ⁴⁶ 46	21 ²⁰ 20	10 ⁴⁰ 40	11 ²⁷ 27	6 ³¹ 31	28 ¹ 1	T 22	
F 23	20 2 50	0 ¹¹ 54	12 ²⁴ 24	17 ³⁵ 35	6 ⁵⁷ 57	4 ⁷ 7	13 ²⁰ 20	20 ²¹ 21	4 ⁴⁰ 40	21 ⁴⁷ 47	21 ²⁰ 20	10 ⁴⁰ 40	11 ²⁴ 24	6 ³⁸ 38	28 ⁰ 0	F 23	
S 24	20 6 46	1 ⁹ 11	24 ³⁹ 39	17 ²² 22	8 ⁷ 7	4 ⁴⁴ 44	13 ²² 22	20 ²⁵ 25	4 ⁴³ 43	21 ⁴⁷ 47	21 ²¹ 21	10 ³⁷ 37	11 ²¹ 21	6 ⁴⁵ 45	27 ⁵⁹ 59	S 24	
S 25	20 10 43	2 ⁶ 29	7 ¹² 12	17 ³ 3	9 ¹⁷ 17	5 ²¹ 21	13 ²⁴ 24	20 ²⁹ 29	4 ⁴⁷ 47	21 ⁴⁸ 48	21 ²² 22	10 ³³ 33	11 ¹⁷ 17	6 ⁵¹ 51	27 ⁵⁸ 58	S 25	
M 26	20 14 40	3 ³ 49	20 ⁸ 8	16 ⁴⁰ 40	10 ²⁸ 28	5 ⁵⁸ 58	13 ²⁵ 25	20 ³³ 33	4 ⁵⁰ 50	21 ⁴⁹ 49	21 ²² 22	10 ²⁶ 26	11 ¹⁴ 14	6 ⁵⁸ 58	27 ⁵⁷ 57	M 26	
T 27	20 18 36	4 ¹ 08	3 ²⁸ 28	16 ¹³ 13	11 ³⁸ 38	6 ³⁵ 35	13 ²⁷ 27	20 ³⁷ 37	4 ⁵³ 53	21 ⁴⁹ 49	21 ²³ 23	10 ¹⁷ 17	11 ¹¹ 11	7 ⁵ 5	27 ⁵⁵ 55	T 27	
W 28	20 22 33	4 ⁵⁸ 29	17 ¹² 12	15 ⁴¹ 41	12 ⁴⁸ 48	7 ¹³ 13	13 ²⁸ 28	20 ⁴¹ 41	4 ⁵⁷ 57	21 ⁵⁰ 50	21 ²³ 23	10 ⁷ 7	11 ⁸ 8	7 ¹¹ 11	27 ⁵⁴ 54	W 28	
T 29	20 26 29	5 ⁵⁵ 51	1 ¹⁸ 18	15 ⁶ 6	13 ⁵⁸ 58	7 ⁵⁰ 50	13 ²⁹ 29	20 ⁴⁴ 44	5 ⁰ 0	21 ⁵¹ 51	21 ²⁴ 24	9 ⁵⁶ 56	11 ⁵ 5	7 ¹⁸ 18	27 ⁵² 52	T 29	
F 30	20 30 26	6 ⁵³ 13	15 ⁴⁰ 40	14 ²⁸ 28	15 ⁸ 8	8 ²⁷ 27	13 ³⁰ 30	20 ⁴⁸ 48	5 ³ 3	21 ⁵² 52	21 ²⁴ 24	9 ⁴⁷ 47	11 ² 2	7 ²⁵ 25	27 ⁵¹ 51	F 30	
S 31	20 34 22	7 ⁵⁰ 36	0 ¹³ 13	13 ⁴⁷ 47	16 ¹⁸ 18	9 ²⁴ 24	13 ³⁰ 30	20 ⁵² 52	5 ⁶ 6	21 ⁵³ 53	21 ²⁵ 25	9 ⁴⁰ 40	10 ⁵⁸ 58	7 ³¹ 31	27 ⁵⁰ 50	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	decl	lat
T 1	23n 6	26n26	4n56	20n 3	0n55	19n12	1n47	15n47	1n14	3n29	1s17	15n12	2s12	23n37	0n14	6s54	1n40	3n31	14s59	4n59	4n58	0n59	3n 2	4n 5	5n 6	6n 7	7n 8	8n 9	9n 0
F 2	23 2	23 6	4 35	19 36	0 46	18 52	1 47	15 34	1 13	3 31	1 17	15 14	2 12	23 37	0 14	6 54	1 40	3 31	14 59	4 55	4 56	1 2	3 2	4 3	5 4	6 5	7 6	8 7	9 8
S 3	22 58	18 23	3 57	19 9	0 36	18 32	1 46	15 22	1 13	3 33	1 18	15 15	2 12	23 37	0 14	6 54	1 40	3 31	15 0	4 51	4 55	1 6	3 3	4 4	5 5	6 6	7 7	8 8	9 9
S 4	22 53	12 38	3 4	18 42	0 26	18 11	1 46	15 10	1 13	3 35	1 18	15 17	2 13	23 37	0 14	6 54	1 40	3 31	15 0	4 49	4 54	1 9	3 3	4 4	5 5	6 6	7 7	8 8	9 9
M 5	22 47	6 12	1 59	18 15	0 15	17 49	1 46	14 58	1 12	3 37	1 18	15 18	2 13	23 37	0 14	6 54	1 40	3 31	15 0	4 48	4 53	1 12	3 3	4 4	5 5	6 6	7 7	8 8	9 9
T 6	22 42	0s31	0 47	17 48	0 4	17 27	1 45	14 45	1 12	3 39	1 18	15 19	2 13	23 37	0 14	6 54	1 40	3 31	15 0	4 47	4 51	1 16	3 3	4 4	5 5	6 6	7 7	8 8	9 9
W 7	22 35	7 11	0s27	17 21	0s 8	17 5	1 45	14 32	1 11	3 41	1 19	15 21	2 13	23 36	0 14	6 54	1 40	3 31	15 1	4 47	4 50	1 19	3 3	4 4	5 5	6 6	7 7	8 8	9 9
T 8	22 29	13 29	1 40	16 55	0 20	16 42	1 44	14 20	1 11	3 42	1 19	15 22	2 13	23 36	0 14	6 54	1 40	3 31	15 1	4 47	4 49	1 23	3 3	4 4	5 5	6 6	7 7	8 8	9 9
F 9	22 22	19 3	2 46	16 28	0 32	16 19	1 43	14 7	1 10	3 44	1 19	15 23	2 13	23 36	0 14	6 54	1 40	3 31	15 1	4 46	4 48	1 26	3 3	4 4	5 5	6 6	7 7	8 8	9 9
S 10	22 15	23 33	3 41	16 3	0 45	15 55	1 43	13 54	1 10	3 45	1 20	15 25	2 13	23 36	0 14	6 54	1 40	3 31	15 1	4 45	4 46	1 30	3 3	4 4	5 5	6 6	7 7	8 8	9 9
S 11	22 7	26 41	4 24	15 37	0 59	15 31	1 42	13 41	1 9	3 47	1 20	15 26	2 14	23 36	0 14	6 54	1 40	3 31	15 1	4 42	4 45	1 33	3 3	4 4	5 5	6 6	7 7	8 8	9 9
M 12	21 59	28 13	4 50	15 13	1 12	15 6	1 41	13 28	1 9	3 48	1 20	15 27	2 14	23 36	0 14	6 54	1 40	3 31	15 2	4 38	4 44	1 37	3 3	4 4	5 5	6 6	7 7	8 8	9 9
T 13	21 50	28 3	5 1	14 49	1 26	14 42	1 40	13 15	1 8	3 50	1 20	15 28	2 14	23 36	0 14	6 55	1 40	3 31	15 2	4 34	4 43	1 40	3 3	4 4	5 5	6 6	7 7	8 8	9 9
W 14	21 42	26 18	4 55	14 26	1 40	14 16	1 38	13 2	1 8	3 51	1 21	15 29	2 14	23 36	0 14	6 55	1 40	3 31	15 2	4 29	4 42	1 43	3 2	4 3	5 4	6 5	7 6	8 7	9 8
T 15	21 32	23 12	4 34	14 4	1 54	13 51	1 37	12 48	1 7	3 52	1 21	15 30	2 14	23 36	0 14	6 55	1 40	3 31	15 2	4 24	4 40	1 47	3 2	4 3	5 4	6 5	7 6	8 7	9 8
F 16	21 23	19 4	3 59	13 43	2 8	13 25	1 36	12 35	1 7	3 53	1 21	15 32	2 14	23 36	0 14	6 55	1 39	3 31	15 3	4 20	4 39	1 50	3 2	4 3	5 4	6 5	7 6	8 7	9 8
S 17	21 13	14 12	3 15	13 23	2 22	12 59	1 34	12 22	1 7	3 54	1 22	15 33	2 15	23 35	0 14	6 55	1 39	3 31	15 3	4 17	4 38	1 54	3 2	4 3	5 4	6 5	7 6	8 7	9 8
S 18	21 3	8 52	2 21	13 5	2 37	12 32	1 33	12 8	1 6	3 55	1 22	15 34	2 15	23 35	0 14	6 56	1 39	3 31	15 3	4 15	4 37	1 57	3 2	4 3	5 4	6 5	7 6	8 7	9 8
M 19	20 52	3 18	1 23	12 48	2 51	12 6	1 31	11 54	1 6	3 56	1 22	15 35	2 15	23 35	0 14	6 56	1 39	3 31	15 3	4 14	4 35	2 1	3 1	4 2	5 3	6 4	7 5	8 6	9 7
T 20	20 41	2n21	0 21	12 33	3 5	11 38	1 30	11 41	1 5	3 57	1 22	15 36	2 15	23 35	0 14	6 56	1 39	3 31	15 4	4 13	4 34	2 4	3 1	4 2	5 3	6 4	7 5	8 6	9 7
W 21	20 30	7 54	0n42	12 20	3 19	11 11	1 28	11 27	1 5	3 58	1 23	15 37	2 15	23 35	0 14	6 56	1 39	3 30	15 4	4 13	4 33	2 7	3 1	4 2	5 3	6 4	7 5	8 6	9 7
T 22	20 18	13 13	1 43	12 8	3 32	10 43	1 26	11 13	1 4	3 58	1 23	15 38	2 16	23 35	0 14	6 57	1 39	3 30	15 4	4 13	4 32	2 11	3 1	4 2	5 3	6 4	7 5	8 6	9 7
F 23	20 6	18 6	2 40	11 59	3 45	10 16	1 24	10 59	1 4	3 59	1 23	15 39	2 16	23 35	0 14	6 57	1 39	3 30	15 4	4 13	4 30	2 14	3 0	4 1	5 2	6 3	7 4	8 5	9 6
S 24	19 53	22 20	3 32	11 51	3 58	9 47	1 22	10 45	1 3	3 59	1 24	15 40	2 16	23 35	0 14	6 57	1 39	3 30	15 5	4 12	4 29	2 18	3 0	4 1	5 2	6 3	7 4	8 5	9 6
S 25	19 41	25 40	4 14	11 45	4 9	9 19	1 20	10 31	1 3	4 0	1 24	15 40	2 16	23 35	0 14	6 57	1 39	3 30	15 5	4 10	4 28	2 21	3 0	4 1	5 2	6 3	7 4	8 5	9 6
M 26	19 28	27 48	4 45	11 42	4 20	8 50	1 18	10 17	1 2	4 0	1 24	15 41	2 16	23 35	0 14	6 58	1 39	3 30	15 5	4 8	4 27	2 25	2 59	4 0	5 1	6 2	7 3	8 4	9 5
T 27	19 14	28 24	5 1	11 41	4 29	8 22	1 15	10 3	1 2	4 0	1 24	15 42	2 16	23 34	0 14	6 58	1 39	3 30	15 6	4 4	4 25	2 28	2 59	4 0	5 1	6 2	7 3	8 4	9 5
W 28	19 1	27 18	5 1	11 42	4 38	7 53	1 13	9 49	1 1	4 1	1 25	15 43	2 17	23 34	0 14	6 58	1 39	3 30	15 6	4 0	4 24	2 32	2 58	4 0	5 1	6 2	7 3	8 4	9 5
T 29	18 47	24 27	4 43	11 45	4 45	7 23	1 11	9 34	1 1	4 1	1 25	15 44	2 17	23 34	0 14	6 59	1 39	3 29	15 6	3 56	4 23	2 35	2 58	4 0	5 1	6 2	7 3	8 4	9 5
F 30	18 32	20 3	4 7	11 51	4 51	6 54	1 8	9 20	1 1	4 1	1 25	15 44	2 17	23 34	0 14	6 59	1 39	3 29	15 6	3 53	4 22	2 38	2 57	4 0	5 1	6 2	7 3	8 4	9 5
S 31	18n18	14n25	3n14	11n58	4s55	6n24	1n 5	9n 5	1n 0	4n 1	1s26	15n45	2s17	23n34	0n14	7s 0	1n39	3n29	15s 7	3n50	4n20	2n42	2n57	4n 0	5n 1	6n 2	7n 3	8n 4	9n 5

ASTRODIENST EPHEMERIS for the year 2117
geocentric

AUGUST 2117

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Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
S 1	20 38 19	8♌47°59	14♍49	13°R 3	17♎28	9♏42	13♐31	20♑55	5♒9	21♓54	21♓25	9°R35	10♐55	7♐38	27°R48	S 1
M 2	20 42 16	9°45'23	29°23	12♌19	18°38	10°19	13°31	20°58	5°12	21°54	21°25	9°Y33	10°52	7°45	27°K46	M 2
T 3	20 46 12	10°42'47	13♌50	11°34	19°47	10°57	13°R31	21°0	5°15	21°55	21°26	9°D33	10°49	7°51	27°45	T 3
W 4	20 50 9	11°40'12	28°6	10°49	20°57	11°34	13°31	21°0	5°19	21°56	21°26	9°34	10°46	7°58	27°43	W 4
T 5	20 54 5	12°37'38	12♌10	10°6	22°7	12°12	13°31	21°8	5°22	21°57	21°26	9°R34	10°43	8°4	27°41	T 5
F 6	20 58 2	13°35'04	26°1	9°24	23°16	12°50	13°30	21°11	5°25	21°58	21°27	9°33	10°39	8°11	27°40	F 6
S 7	21 1 58	14°32'31	9♌40	8°45	24°25	13°27	13°29	21°14	5°28	22°0	21°27	9°31	10°36	8°18	27°38	S 7
S 8	21 5 55	15°29'59	23°5	8°10	25°35	14°5	13°28	21°17	5°31	22°1	21°27	9°26	10°33	8°24	27°36	S 8
M 9	21 9 51	16°27'27	6♌18	7°38	26°44	14°42	13°27	21°19	5°33	22°2	21°28	9°19	10°30	8°31	27°34	M 9
T 10	21 13 48	17°24'57	19°18	7°12	27°53	15°20	13°26	21°22	5°36	22°3	21°28	9°11	10°27	8°38	27°32	T 10
W 11	21 17 45	18°22'27	2♌6	6°51	29°2	15°58	13°24	21°24	5°39	22°4	21°28	9°2	10°23	8°44	27°30	W 11
T 12	21 21 41	19°19'58	14°41	6°36	0♌11	16°36	13°23	21°27	5°42	22°5	21°28	8°53	10°20	8°51	27°28	T 12
F 13	21 25 38	20°17'30	27°3	6°27	1°19	17°13	13°21	21°29	5°45	22°7	21°29	8°45	10°17	8°58	27°26	F 13
S 14	21 29 34	21°15'03	9♌13	6°D25	2°28	17°51	13°19	21°31	5°48	22°8	21°29	8°40	10°14	9°4	27°24	S 14
S 15	21 33 31	22°12'38	21°13	6°30	3°37	18°29	13°16	21°33	5°50	22°9	21°29	8°36	10°11	9°11	27°22	S 15
M 16	21 37 27	23°10'14	3♐5	6°42	4°45	19°7	13°14	21°35	5°53	22°10	21°29	8°D34	10°8	9°18	27°20	M 16
T 17	21 41 24	24°7'51	14°53	7°1	5°53	19°45	13°11	21°37	5°56	22°12	21°29	8°34	10°4	9°24	27°18	T 17
W 18	21 45 20	25°5'29	26°40	7°27	7°2	20°23	13°8	21°39	5°58	22°13	21°29	8°35	10°1	9°31	27°15	W 18
T 19	21 49 17	26°3'09	8♌32	8°1	8°10	21°1	13°5	21°41	6°1	22°15	21°29	8°37	9°58	9°38	27°13	T 19
F 20	21 53 14	27°0'51	20°31	8°42	9°18	21°39	13°2	21°42	6°4	22°16	21°29	8°38	9°55	9°44	27°11	F 20
S 21	21 57 10	27°58'35	2♐45	9°29	10°26	22°17	12°59	21°44	6°6	22°17	21°R29	8°R38	9°52	9°51	27°8	S 21
S 22	22 1 7	28°56'20	15°18	10°24	11°33	22°55	12°55	21°45	6°9	22°19	21°29	8°37	9°49	9°57	27°6	S 22
M 23	22 5 3	29°54'06	28°13	11°25	12°41	23°33	12°51	21°46	6°11	22°20	21°29	8°34	9°45	10°4	27°4	M 23
T 24	22 9 0	0♐51'55	11♓35	12°33	13°48	24°11	12°47	21°48	6°14	22°22	21°29	8°29	9°42	10°11	27°1	T 24
W 25	22 12 56	1°49'45	25°23	13°47	14°56	24°49	12°43	21°49	6°16	22°24	21°29	8°24	9°39	10°17	26°59	W 25
T 26	22 16 53	2°47'36	9♌37	15°7	16°3	25°28	12°39	21°50	6°18	22°25	21°29	8°18	9°36	10°24	26°56	T 26
F 27	22 20 49	3°45'29	24°13	16°32	17°10	26°6	12°34	21°51	6°21	22°27	21°29	8°14	9°33	10°31	26°54	F 27
S 28	22 24 46	4°43'24	9♐4	18°2	18°17	26°44	12°29	21°51	6°23	22°28	21°29	8°10	9°29	10°37	26°51	S 28
S 29	22 28 43	5°41'20	24°2	19°37	19°24	27°23	12°25	21°52	6°25	22°30	21°29	8°8	9°26	10°44	26°49	S 29
M 30	22 32 39	6°39'17	8♌58	21°15	20°31	28°1	12°20	21°52	6°27	22°32	21°28	8°D7	9°23	10°51	26°46	M 30
T 31	22 36 36	7♐37'16	23♌46	22♌58	21♌38	28♐39	12♐14	21♓53	6♒29	22♓33	21♓28	8°Y7	9°Y20	10°Y57	26°K44	T 31

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	decl	lat
S 1	18n 3	7n57	2n 8	12n 8	4s57	5n55	1n 3	8n51	1n 0	4n 1	1s26	15n46	2s17	23n34	0n14	7s 0	1n39	3n29	15s 7	3n48	4n19	2n45	2n57	4n10		
M 2	17 48	1 4	0 54	12 19	4 58	5 25	1 0	8 36	0 59	4 0	1 26	15 47	2 18	23 34	0 14	7 0	1 39	3 29	15 7	3 47	4 18	2 49	2 56	4 10		
T 3	17 32	5s48	0s23	12 32	4 57	4 55	0 57	8 22	0 59	4 0	1 26	15 47	2 18	23 34	0 14	7 1	1 39	3 29	15 7	3 47	4 17	2 52	2 55	4 10		
W 4	17 17	12 19	1 38	12 47	4 54	4 25	0 54	8 7	0 58	4 0	1 27	15 48	2 18	23 34	0 14	7 1	1 39	3 28	15 8	3 47	4 15	2 56	2 55	4 10		
T 5	17 1	18 6	2 46	13 3	4 50	3 55	0 51	7 52	0 58	4 0	1 27	15 48	2 18	23 34	0 14	7 2	1 38	3 28	15 8	3 47	4 14	2 59	2 54	4 10		
F 6	16 44	22 51	3 43	13 20	4 43	3 24	0 48	7 37	0 57	3 59	1 27	15 49	2 19	23 33	0 14	7 2	1 38	3 28	15 8	3 47	4 13	3 2	2 54	4 10		
S 7	16 28	26 16	4 26	13 38	4 35	2 54	0 45	7 23	0 57	3 59	1 28	15 50	2 19	23 33	0 14	7 2	1 38	3 28	15 9	3 46	4 12	3 6	2 53	4 10		
S 8	16 11	28 8	4 54	13 56	4 26	2 24	0 42	7 8	0 56	3 58	1 28	15 50	2 19	23 33	0 15	7 3	1 38	3 28	15 9	3 44	4 10	3 9	2 52	4 10		
M 9	15 54	28 22	5 6	14 15	4 14	1 53	0 38	6 53	0 56	3 57	1 28	15 51	2 19	23 33	0 15	7 3	1 38	3 27	15 9	3 41	4 9	3 13	2 52	4 10		
T 10	15 36	27 1	5 2	14 34	4 2	1 22	0 35	6 38	0 55	3 56	1 28	15 51	2 19	23 33	0 15	7 4	1 38	3 27	15 9	3 38	4 8	3 16	2 51	4 10		
W 11	15 19	24 16	4 42	14 52	3 48	0 52	0 31	6 23	0 55	3 56	1 29	15 51	2 20	23 33	0 15	7 4	1 38	3 27	15 10	3 35	4 7	3 20	2 50	4 11		
T 12	15 1	20 23	4 9	15 10	3 34	0 21	0 28	6 7	0 54	3 55	1 29	15 52	2 20	23 33	0 15	7 5	1 38	3 27	15 10	3 31	4 5	3 23	2 50	4 11		
F 13	14 43	15 42	3 25	15 27	3 18	0s 9	0 24	5 52	0 54	3 54	1 29	15 52	2 20	23 33	0 15	7 5	1 38	3 27	15 10	3 28	4 4	3 26	2 49	4 11		
S 14	14 25	10 27	2 32	15 43	3 2	0 40	0 20	5 37	0 53	3 53	1 30	15 53	2 20	23 33	0 15	7 6	1 38	3 26	15 11	3 26	4 3	3 30	2 48	4 11		
S 15	14 6	4 54	1 33	15 58	2 45	1 11	0 17	5 22	0 53	3 51	1 30	15 53	2 20	23 32	0 15	7 6	1 38	3 26	15 11	3 24	4 2	3 33	2 47	4 11		
M 16	13 47	0n46	0 30	16 12	2 28	1 41	0 13	5 7	0 52	3 50	1 30	15 53	2 21	23 32	0 15	7 7	1 38	3 26	15 11	3 24	4 1	3 37	2 47	4 11		
T 17	13 28	6 23	0n34	16 24	2 11	2 12	0 9	4 51	0 52	3 49	1 30	15 53	2 21	23 32	0 15	7 7	1 38	3 26	15 11	3 24	3 59	3 40	2 46	4 11		
W 18	13 9	11 47	1 37	16 34	1 54	2 43	0 5	4 36	0 51	3 48	1 31	15 54	2 21	23 32	0 15	7 8	1 38	3 25	15 12	3 24	3 58	3 44	2 45	4 11		
T 19	12 50	16 47	2 36	16 42	1 37	3 13	0 1	4 21	0 51	3 46	1 31	15 54	2 21	23 32	0 15	7 8	1 38	3 25	15 12	3 25	3 57	3 47	2 44	4 11		
F 20	12 30	21 13	3 28	16 48	1 19	3 44	0s 3	4 5	0 50	3 45	1 31	15 54	2 22	23 32	0 15	7 9	1 38	3 25	15 12	3 25	3 56	3 50	2 43	4 11		
S 21	12 10	24 49	4 13	16 52	1 3	4 14	0 7	3 50	0 50	3 43	1 31	15 54	2 22	23 32	0 15	7 10	1 38	3 25	15 13	3 25	3 54	3 54	2 42	4 11		
S 22	11 50	27 21	4 46	16 53	0 46	4 45	0 12	3 34	0 50	3 41	1 32	15 54	2 22	23 32	0 15	7 10	1 38	3 24	15 13	3 25	3 53	3 57	2 42	4 11		
M 23	11 30	28 31	5 6	16 51	0 31	5 15	0 16	3 19	0 49	3 40	1 32	15 55	2 22	23 32	0 15	7 11	1 38	3 24	15 13	3 24	3 52	4 1	2 41	4 11		
T 24	11 10	28 5	5 11	16 47	0 16	5 45	0 20	3 3	0 49	3 38	1 32	15 55	2 22	23 32	0 15	7 11	1 38	3 24	15 13	3 22	3 51	4 4	2 40	4 11		
W 25	10 49	25 56	4 58	16 40	0 1	6 15	0 25	2 47	0 48	3 36	1 32	15 55	2 23	23 31	0 15	7 12	1 38	3 23	15 14	3 20	3 49	4 8	2 39	4 11		
T 26	10 28	22 6	4 26	16 30	0n13	6 45	0 29	2 32	0 48	3 34	1 33	15 55	2 23	23 31	0 15	7 13	1 38	3 23	15 14	3 18	3 48	4 11	2 38	4 11		
F 27	10 7	16 51	3 37	16 17	0 26	7 15	0 33	2 16	0 47	3 32	1 33	15 55	2 23	23 31	0 15	7 13	1 38	3 23	15 14	3 16	3 47	4 14	2 37	4 12		
S 28	9 46	10 31	2 32	16 1	0 38	7 45	0 38	2 1	0 47	3 30	1 33	15 55	2 23	23 31	0 15	7 14	1 38	3 22	15 15	3 14	3 46	4 18	2 36	4 12		
S 29	9 25	3 32	1 16	15 42	0 49	8 15	0 43	1 45	0 46	3 28	1 33	15 55	2 24	23 31	0 15	7 15	1 37	3 22	15 15	3 13	3 44	4 21	2 35	4 12		
M 30	9 4	3s37	0s 5	15 20	0 59	8 44	0 47	1 29	0 46	3 26	1 34	15 55	2 24	23 31	0 15	7 15	1 37	3 22	15 15	3 13	3 43	4 25	2 34	4 12		
T 31	8n42	10s32	1s25	14n55	1n 8	9s14	0s52	1n13	0n45	3n24	1s34	15n54	2s24	23n31	0n15	7s16	1n37	3n22	15s15	3n13	3n42	4n28	2n33	4n12		

ASTRODIENST EPHEMERIS for the year 2117

geocentric

SEPTEMBER 2117

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 40 32	8 ^h 35'16"	8 ^h 18'	24 ^h 44'	22 ^h 44'	29 ^h 18'	12°R 9	21 ^h 53'	6 ^h 32'	22 ^h 35'	21°R28	8°Y 9	9°Y17	11°Y 4	26°R41	W 1
T 2	22 44 29	9°33'18"	22°33'	26°32'	23°50'	29°56'	12°Y 3	21°53'	6°34'	22°37'	21°R28	8°10'	9°14'	11°11'	26°R39	T 2
F 3	22 48 25	10°31'20"	6 ^h 28'	28°23'	24°56'	0 ^h 35'	11°58'	21°R53'	6°36'	22°39'	21°28'	8°R11	9°10'	11°17'	26°36'	F 3
S 4	22 52 22	11°29'25"	20° 2'	0 ^h 15'	26° 2'	1°13'	11°52'	21°53'	6°38'	22°40'	21°27'	8°11'	9° 7'	11°24'	26°33'	S 4
S 5	22 56 18	12°27'30"	3 ^h 38'	2° 9'	27° 8'	1°52'	11°46'	21°53'	6°40'	22°42'	21°27'	8° 9'	9° 4'	11°30'	26°31'	S 5
M 6	23 0 15	13°25'37"	16°17'	4° 4'	28°14'	2°31'	11°40'	21°53'	6°41'	22°44'	21°27'	8° 7'	9° 1'	11°37'	26°28'	M 6
T 7	23 4 12	14°23'46"	29° 0'	6° 0'	29°19'	3° 9'	11°34'	21°53'	6°43'	22°46'	21°26'	8° 4'	8°58'	11°44'	26°25'	T 7
W 8	23 8 8	15°21'56"	11 ^h 30'	7°56'	0 ^h 24'	3°48'	11°27'	21°52'	6°45'	22°48'	21°26'	8° 0'	8°55'	11°50'	26°23'	W 8
T 9	23 12 5	16°20'07"	23°48'	9°52'	1°29'	4°27'	11°21'	21°52'	6°47'	22°49'	21°26'	7°56'	8°51'	11°57'	26°20'	T 9
F 10	23 16 1	17°18'20"	5 ^h 55'	11°48'	2°34'	5° 6'	11°14'	21°51'	6°49'	22°51'	21°25'	7°53'	8°48'	12° 4'	26°17'	F 10
S 11	23 19 58	18°16'35"	17°55'	13°44'	3°39'	5°44'	11° 7'	21°50'	6°50'	22°53'	21°25'	7°51'	8°45'	12°10'	26°14'	S 11
S 12	23 23 54	19°14'51"	29°48'	15°39'	4°43'	6°23'	11° 1'	21°50'	6°52'	22°55'	21°24'	7°50'	8°42'	12°17'	26°12'	S 12
M13	23 27 51	20°13'10"	11°Y37'	17°34'	5°47'	7° 2'	10°54'	21°49'	6°53'	22°57'	21°24'	7°D50	8°39'	12°24'	26° 9'	M13
T14	23 31 47	21°11'30"	23°24'	19°28'	6°51'	7°41'	10°47'	21°48'	6°55'	22°59'	21°24'	7°51'	8°35'	12°30'	26° 6'	T14
W15	23 35 44	22° 9'52"	5 ^h 12'	21°21'	7°55'	8°20'	10°39'	21°46'	6°56'	23° 1'	21°23'	7°52'	8°32'	12°37'	26° 3'	W15
T16	23 39 40	23° 8'16"	17° 5'	23°13'	8°59'	8°59'	10°32'	21°45'	6°58'	23° 3'	21°23'	7°53'	8°29'	12°44'	26° 0'	T16
F17	23 43 37	24° 6'43"	29° 6'	25° 5'	10° 2'	9°38'	10°25'	21°44'	6°59'	23° 5'	21°22'	7°54'	8°26'	12°50'	25°58'	F17
S18	23 47 34	25° 5'11"	11°II19	26°55'	11° 5'	10°17'	10°17'	21°42'	7° 1'	23° 7'	21°21'	7°55'	8°23'	12°57'	25°55'	S18
S19	23 51 30	26° 3'42"	23°49'	28°44'	12° 8'	10°56'	10°10'	21°41'	7° 2'	23° 9'	21°21'	7°R56	8°20'	13° 3'	25°52'	S19
M20	23 55 27	27° 2'15"	6 ^h 40'	0 ^h 33'	13°11'	11°36'	10° 2'	21°39'	7° 3'	23°11'	21°20'	7°56'	8°16'	13°10'	25°49'	M20
T21	23 59 23	28° 0'50"	19°56'	2°20'	14°13'	12°15'	9°54'	21°37'	7° 4'	23°13'	21°20'	7°55'	8°13'	13°17'	25°47'	T21
W22	0 3 20	28°59'27"	3 ^h 39'	4° 7'	15°15'	12°54'	9°47'	21°35'	7° 5'	23°15'	21°19'	7°54'	8°10'	13°23'	25°44'	W22
T23	0 7 16	29°58'07"	17°48'	5°52'	16°17'	13°33'	9°39'	21°33'	7° 6'	23°17'	21°19'	7°53'	8° 7'	13°30'	25°41'	T23
F24	0 11 13	0 ^h 56'48"	2 ^h 23'	7°36'	17°18'	14°13'	9°31'	21°31'	7° 7'	23°19'	21°18'	7°52'	8° 4'	13°37'	25°38'	F24
S25	0 15 9	1°55'32"	17°17'	9°20'	18°19'	14°52'	9°23'	21°29'	7° 8'	23°21'	21°17'	7°52'	8° 0'	13°43'	25°35'	S25
S26	0 19 6	2°54'17"	2 ^h 25'	11° 2'	19°20'	15°32'	9°15'	21°27'	7° 9'	23°24'	21°17'	7°D51	7°57'	13°50'	25°33'	S26
M27	0 23 3	3°53'05"	17°36'	12°44'	20°21'	16°11'	9° 7'	21°24'	7°10'	23°26'	21°16'	7°51'	7°54'	13°57'	25°30'	M27
T28	0 26 59	4°51'54"	2 ^h 42'	14°24'	21°21'	16°51'	8°59'	21°22'	7°11'	23°28'	21°15'	7°52'	7°51'	14° 3'	25°27'	T28
W29	0 30 56	5°50'46"	17°33'	16° 4'	22°21'	17°30'	8°51'	21°19'	7°12'	23°30'	21°14'	7°52'	7°48'	14°10'	25°25'	W29
T30	0 34 52	6 ^h 49'39"	2 ^h 3	17 ^h 42'	23 ^h 20'	18 ^h 10'	8°Y43	21 ^h 17'	7°13'	23 ^h 32'	21 ^h 14'	7°Y52	7°Y45	14°Y17	25°R22	T30

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
W 1	8n21	16s46	2s38	14n28	1n16	9s43	0s56	0n58	0n45	3n21	1s34	15n54	2s24	23n31	0n15	7s16	1n37	3n21	15s16	3n14	3n41	4n31	2n32	4n12
T 2	7 59	21 57	3 40	13 58	1 23	10 12	1 1	0 42	0 44	3 19	1 34	15 54	2 24	23 31	0 15	7 17	1 37	3 21	15 16	3 14	3 39	4 35	2 31	4 12
F 3	7 37	25 46	4 28	13 26	1 29	10 40	1 6	0 26	0 44	3 17	1 34	15 54	2 25	23 31	0 15	7 18	1 37	3 21	15 16	3 15	3 38	4 38	2 30	4 12
S 4	7 15	28 1	4 59	12 51	1 35	11 9	1 11	0 10	0 43	3 14	1 35	15 54	2 25	23 31	0 15	7 19	1 37	3 20	15 17	3 15	3 37	4 42	2 29	4 12
S 5	6 53	28 36	5 13	12 15	1 39	11 37	1 16	0s 6	0 43	3 12	1 35	15 54	2 25	23 31	0 15	7 19	1 37	3 20	15 17	3 14	3 36	4 45	2 28	4 12
M 6	6 31	27 35	5 11	11 36	1 42	12 5	1 20	0 21	0 42	3 9	1 35	15 53	2 25	23 30	0 15	7 20	1 37	3 20	15 17	3 13	3 34	4 48	2 27	4 12
T 7	6 8	25 8	4 54	10 56	1 45	12 33	1 25	0 37	0 42	3 7	1 35	15 53	2 26	23 30	0 15	7 21	1 37	3 19	15 17	3 12	3 33	4 52	2 26	4 12
W 8	5 46	21 32	4 22	10 14	1 46	13 1	1 30	0 53	0 41	3 4	1 35	15 53	2 26	23 30	0 15	7 21	1 37	3 19	15 18	3 10	3 32	4 55	2 24	4 12
T 9	5 23	17 2	3 40	9 31	1 47	13 28	1 35	1 9	0 41	3 1	1 35	15 52	2 26	23 30	0 15	7 22	1 37	3 19	15 18	3 9	3 31	4 59	2 23	4 12
F 10	5 1	11 55	2 47	8 47	1 47	13 55	1 40	1 25	0 40	2 59	1 36	15 52	2 26	23 30	0 15	7 23	1 37	3 18	15 18	3 8	3 29	5 2	2 22	4 12
S 11	4 38	6 26	1 48	8 2	1 47	14 22	1 45	1 40	0 40	2 56	1 36	15 52	2 26	23 30	0 15	7 23	1 37	3 18	15 18	3 7	3 28	5 6	2 21	4 11
S 12	4 15	0 45	0 44	7 17	1 46	14 49	1 50	1 56	0 39	2 53	1 36	15 51	2 27	23 30	0 15	7 24	1 37	3 17	15 19	3 6	3 27	5 9	2 20	4 11
M13	3 52	4n55	0n21	6 30	1 44	15 15	1 55	2 12	0 38	2 50	1 36	15 51	2 27	23 30	0 15	7 25	1 37	3 17	15 19	3 6	3 26	5 12	2 19	4 11
T14	3 29	10 24	1 25	5 44	1 42	15 41	2 0	2 28	0 38	2 47	1 36	15 50	2 27	23 30	0 15	7 26	1 37	3 17	15 19	3 7	3 24	5 16	2 18	4 11
W15	3 6	15 32	2 26	4 56	1 39	16 7	2 5	2 44	0 37	2 44	1 36	15 50	2 27	23 30	0 15	7 26	1 37	3 16	15 19	3 7	3 23	5 19	2 17	4 11
T16	2 43	20 8	3 21	4 9	1 35	16 32	2 10	3 0	0 37	2 41	1 36	15 49	2 27	23 30	0 15	7 27	1 37	3 16	15 20	3 8	3 22	5 23	2 15	4 11
F17	2 20	23 58	4 7	3 21	1 31	16 57	2 15	3 15	0 36	2 38	1 37	15 49	2 28	23 30	0 15	7 28	1 37	3 16	15 20	3 8	3 21	5 26	2 14	4 11
S18	1 57	26 49	4 44	2 34	1 27	17 22	2 20	3 31	0 36	2 35	1 37	15 48	2 28	23 30	0 15	7 29	1 37	3 15	15 20	3 8	3 19	5 29	2 13	4 11
S19	1 34	28 24	5 8	1 46	1 23	17 46	2 25	3 47	0 35	2 32	1 37	15 47	2 28	23 30	0 15	7 29	1 37	3 15	15 20	3 9	3 18	5 33	2 12	4 11
M20	1 11	28 32	5 17	0 58	1 18	18 10	2 30	4 3	0 35	2 29	1 37	15 47	2 28	23 30	0 15	7 30	1 37	3 15	15 21	3 9	3 17	5 36	2 11	4 11
T21	0 47	27 4	5 10	0 11	1 13	18 34	2 35	4 19	0 34	2 26	1 37	15 46	2 28	23 30	0 15	7 31	1 37	3 14	15 21	3 8	3 16	5 40	2 10	4 11
W22	0 24	23 58	4 46	0s36	1 7	18 57	2 40	4 34	0 34	2 23	1 37	15 46	2 29	23 30	0 15	7 32	1 37	3 14	15 21	3 8	3 14	5 43	2 9	4 11
T23	0 1	19 21	4 4	1 23	1 1	19 20	2 45	4 50	0 33	2 20	1 37	15 45	2 29	23 30	0 15	7 33	1 37	3 13	15 21	3 8	3 13	5 46	2 7	4 11
F24	0s23	13 30	3 5	2 10	0 55	19 42	2 50	5 6	0 33	2 17	1 37	15 44	2 29	23 30	0 15	7 33	1 37	3 13	15 22	3 7	3 12	5 50	2 6	4 11
S25	0 46	6 44	1 52	2 56	0 49	20 4	2 54	5 22	0 32	2 14	1 37	15 43	2 29	23 30	0 15	7 34	1 37	3 13	15 22	3 7	3 11	5 53	2 5	4 11
S26	1 9	0s30	0 30	3 42	0 43	20 26	2 59	5 37	0 32	2 10	1 37	15 43	2 29	23 29	0 15	7 35	1 37	3 12	15 22	3 7	3 9	5 56	2 4	4 10
M27	1 33	7 44	0s54	4 28	0 36	20 47	3 4	5 53	0 31	2 7	1 37	15 42	2 29	23 29	0 16	7 36	1 37	3 12	15 22	3 7	3 8	6 0	2 3	4 10
T28	1 56	14 30	2 14	5 13	0 30	21 8	3 9	6 9	0 31	2 4	1 37	15 41	2 30	23 29	0 16	7 37	1 37	3 12	15 22	3 7	3 7	6 3	2 1	4 10
W29	2 19	20 18	3 23	5 58	0 23	21 28	3 14	6 24	0 30	2 1	1 37	15 40	2 30	23 29	0 16	7 37	1 37	3 11	15 23	3 7	3 5	6 7	2 0	4 10
T30	2s43	24s46	4s18	6s42	0n16	21s48	3s18	6s40	0n30	1n58	1s37	15n39	2s30	23n29	0n16	7s38	1n37	3n11	15s23	3n7	3n4	6n10	1n59	4n10

ASTRODIENST EPHEMERIS for the year 2117

geocentric

OCTOBER 2117

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 38 49	7♂48'34	16♂ 9	19♂20	24♂20	18♂49	8♂R35	21♂R14	7♂13	23♂34	21♂R13	7♂R52	7♂Y41	14♂Y23	25♂R19	F 1
S 2	0 42 45	8♂47'30	29♂50	20♂57	25♂18	19♂29	8♂Y27	21♂11	7♂14	23♂36	21♂12	7♂Y52	7♂38	14♂30	25♂K16	S 2
S 3	0 46 42	9♂46'29	13♂ 5	22♂33	26♂17	20♂ 9	8♂19	21♂ 8	7♂14	23♂39	21♂11	7♂D52	7♂35	14♂37	25♂14	S 3
M 4	0 50 38	10♂45'29	25♂59	24♂ 8	27♂15	20♂49	8♂11	21♂ 5	7♂15	23♂41	21♂10	7♂52	7♂32	14♂43	25♂11	M 4
T 5	0 54 35	11♂44'31	8♂33	25♂42	28♂12	21♂28	8♂ 3	21♂ 2	7♂15	23♂43	21♂10	7♂52	7♂29	14♂50	25♂ 8	T 5
W 6	0 58 32	12♂43'34	20♂51	27♂16	29♂ 9	22♂ 8	7♂55	20♂59	7♂16	23♂45	21♂ 9	7♂53	7♂26	14♂56	25♂ 6	W 6
T 7	1 2 28	13♂42'40	2♂57	28♂48	0♂ 6	22♂48	7♂47	20♂55	7♂16	23♂47	21♂ 8	7♂53	7♂22	15♂ 3	25♂ 3	T 7
F 8	1 6 25	14♂41'47	14♂55	0♂20	1♂ 2	23♂28	7♂39	20♂52	7♂17	23♂50	21♂ 7	7♂54	7♂19	15♂10	25♂ 1	F 8
S 9	1 10 21	15♂40'56	26♂47	1♂51	1♂58	24♂ 8	7♂31	20♂49	7♂17	23♂52	21♂ 6	7♂55	7♂16	15♂16	24♂58	S 9
S 10	1 14 18	16♂40'07	8♂Y35	3♂21	2♂53	24♂48	7♂23	20♂45	7♂17	23♂54	21♂ 5	7♂R55	7♂13	15♂23	24♂56	S 10
M 11	1 18 14	17♂39'20	20♂23	4♂51	3♂47	25♂28	7♂15	20♂42	7♂17	23♂56	21♂ 4	7♂54	7♂10	15♂30	24♂53	M 11
T 12	1 22 11	18♂38'35	2♂12	6♂19	4♂41	26♂ 8	7♂ 8	20♂38	7♂17	23♂59	21♂ 4	7♂54	7♂ 6	15♂36	24♂51	T 12
W 13	1 26 7	19♂37'52	14♂ 5	7♂47	5♂35	26♂48	7♂ 0	20♂34	7♂R17	24♂ 1	21♂ 3	7♂52	7♂ 3	15♂43	24♂48	W 13
T 14	1 30 4	20♂37'11	26♂ 3	9♂14	6♂28	27♂28	6♂52	20♂30	7♂17	24♂ 3	21♂ 2	7♂50	7♂ 0	15♂50	24♂46	T 14
F 15	1 34 1	21♂36'33	8♂10	10♂40	7♂20	28♂ 9	6♂45	20♂26	7♂17	24♂ 5	21♂ 1	7♂48	6♂57	15♂56	24♂43	F 15
S 16	1 37 57	22♂35'57	20♂28	12♂ 6	8♂11	28♂49	6♂37	20♂23	7♂17	24♂ 7	21♂ 0	7♂46	6♂54	16♂ 3	24♂41	S 16
S 17	1 41 54	23♂35'23	3♂ 0	13♂30	9♂ 2	29♂29	6♂30	20♂18	7♂17	24♂10	20♂59	7♂45	6♂51	16♂10	24♂39	S 17
M 18	1 45 50	24♂34'51	15♂49	14♂54	9♂53	0♂10	6♂23	20♂14	7♂17	24♂12	20♂58	7♂44	6♂47	16♂16	24♂36	M 18
T 19	1 49 47	25♂34'22	28♂59	16♂16	10♂42	0♂50	6♂16	20♂10	7♂16	24♂14	20♂57	7♂D44	6♂44	16♂23	24♂34	T 19
W 20	1 53 43	26♂33'55	12♂21	17♂38	11♂31	1♂31	6♂ 9	20♂ 6	7♂16	24♂16	20♂56	7♂44	6♂41	16♂29	24♂32	W 20
T 21	1 57 40	27♂33'30	26♂28	18♂58	12♂19	2♂11	6♂ 2	20♂ 2	7♂16	24♂19	20♂55	7♂45	6♂38	16♂36	24♂29	T 21
F 22	2 1 36	28♂33'08	10♂49	20♂18	13♂ 6	2♂52	5♂55	19♂58	7♂15	24♂21	20♂54	7♂47	6♂35	16♂43	24♂27	F 22
S 23	2 5 33	29♂32'47	25♂32	21♂36	13♂52	3♂32	5♂48	19♂53	7♂15	24♂23	20♂53	7♂48	6♂32	16♂49	24♂25	S 23
S 24	2 9 30	0♂32'29	10♂32	22♂53	14♂38	4♂13	5♂41	19♂49	7♂14	24♂25	20♂52	7♂R48	6♂28	16♂56	24♂23	S 24
M 25	2 13 26	1♂32'13	25♂42	24♂ 9	15♂22	4♂53	5♂35	19♂44	7♂14	24♂28	20♂51	7♂47	6♂25	17♂ 3	24♂21	M 25
T 26	2 17 23	2♂31'59	10♂52	25♂24	16♂ 6	5♂34	5♂29	19♂40	7♂13	24♂30	20♂50	7♂45	6♂22	17♂ 9	24♂19	T 26
W 27	2 21 19	3♂31'47	25♂53	26♂36	16♂49	6♂15	5♂22	19♂35	7♂12	24♂32	20♂49	7♂42	6♂19	17♂16	24♂17	W 27
T 28	2 25 16	4♂31'37	10♂36	27♂47	17♂30	6♂56	5♂16	19♂31	7♂11	24♂34	20♂47	7♂38	6♂16	17♂23	24♂15	T 28
F 29	2 29 12	5♂31'28	24♂54	28♂57	18♂11	7♂37	5♂10	19♂26	7♂11	24♂36	20♂46	7♂34	6♂12	17♂29	24♂13	F 29
S 30	2 33 9	6♂31'22	8♂44	0♂ 4	18♂50	8♂18	5♂ 5	19♂21	7♂10	24♂39	20♂45	7♂31	6♂ 9	17♂36	24♂11	S 30
S 31	2 37 5	7♂31'17	22♂ 7	1♂ 9	19♂28	8♂59	4♂Y59	19♂17	7♂ 9	24♂41	20♂44	7♂Y29	6♂Y 6	17♂Y43	24♂ 9	S 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	3s 6	27s36	4s55	7s25	0n 9	22s 7	3s23	6s55	0n29	1n55	1s37	15n39	2s30	23n29	0n16	7s39	1n37
S 2	3 29	28 40	5 15	8 8	0 2	22 26	3 28	7 11	0 29	1 51	1 37	15 38	2 30	23 29	0 16	7 40	1 37
S 3	3 32	28 2	5 17	8 51	0s 5	22 45	3 32	7 26	0 28	1 48	1 37	15 37	2 30	23 29	0 16	7 41	1 37
M 4	4 15	25 53	5 2	9 33	0 12	23 3	3 37	7 42	0 27	1 45	1 37	15 36	2 31	23 29	0 16	7 41	1 37
T 5	4 38	22 31	4 34	10 14	0 19	23 20	3 41	7 57	0 27	1 42	1 37	15 35	2 31	23 29	0 16	7 42	1 37
W 6	5 1	18 13	3 53	10 54	0 26	23 37	3 45	8 12	0 26	1 39	1 37	15 34	2 31	23 29	0 16	7 43	1 37
T 7	5 24	13 15	3 2	11 34	0 34	23 54	3 50	8 28	0 26	1 36	1 37	15 33	2 31	23 29	0 16	7 44	1 37
F 8	5 47	7 51	2 4	12 13	0 41	24 10	3 54	8 43	0 25	1 33	1 37	15 32	2 31	23 29	0 16	7 45	1 37
S 9	6 10	2 13	1 1	12 52	0 48	24 26	3 58	8 58	0 25	1 30	1 37	15 31	2 31	23 29	0 16	7 45	1 37
S 10	6 33	3n28	0n 4	13 29	0 55	24 41	4 2	9 13	0 24	1 27	1 37	15 30	2 31	23 29	0 16	7 46	1 37
M 11	6 56	9 1	1 9	14 6	1 2	24 55	4 6	9 29	0 24	1 24	1 37	15 29	2 32	23 29	0 16	7 47	1 37
T 12	7 18	14 17	2 11	14 42	1 9	25 9	4 10	9 44	0 23	1 21	1 37	15 28	2 32	23 29	0 16	7 48	1 37
W 13	7 41	19 2	3 7	15 18	1 16	25 23	4 14	9 59	0 23	1 18	1 37	15 27	2 32	23 29	0 16	7 49	1 37
T 14	8 3	23 5	3 56	15 52	1 23	25 36	4 17	10 14	0 22	1 15	1 37	15 25	2 32	23 29	0 16	7 50	1 37
F 15	8 25	26 11	4 35	16 26	1 29	25 49	4 21	10 28	0 21	1 12	1 37	15 24	2 32	23 29	0 16	7 50	1 37
S 16	8 47	28 6	5 2	16 59	1 36	26 0	4 24	10 43	0 21	1 9	1 37	15 23	2 32	23 30	0 16	7 51	1 37
S 17	9 9	28 39	5 15	17 31	1 42	26 12	4 28	10 58	0 20	1 6	1 37	15 22	2 32	23 30	0 16	7 52	1 37
M 18	9 31	27 40	5 13	18 2	1 49	26 23	4 31	11 13	0 20	1 3	1 36	15 21	2 32	23 30	0 16	7 53	1 37
T 19	9 53	25 10	4 55	18 32	1 55	26 33	4 34	11 27	0 19	1 1	1 36	15 20	2 32	23 30	0 16	7 54	1 37
W 20	10 14	21 12	4 20	19 1	2 1	26 43	4 37	11 42	0 19	0 58	1 36	15 19	2 32	23 30	0 16	7 54	1 37
T 21	10 36	15 58	3 29	19 29	2 7	26 52	4 39	11 56	0 18	0 55	1 36	15 17	2 33	23 30	0 16	7 55	1 37
F 22	10 57	9 43	2 24	19 56	2 12	27 1	4 42	12 11	0 18	0 53	1 36	15 16	2 33	23 30	0 16	7 56	1 37
S 23	11 18	2 48	1 7	20 22	2 18	27 10	4 44	12 25	0 17	0 50	1 36	15 15	2 33	23 30	0 16	7 57	1 37
S 24	11 39	4s24	0s15	20 47	2 23	27 17	4 47	12 40	0 16	0 48	1 36	15 14	2 33	23 30	0 16	7 58	1 37
M 25	12 0	11 26	1 37	21 11	2 27	27 25	4 49	12 54	0 16	0 45	1 35	15 12	2 33	23 30	0 16	7 58	1 37
T 26	12 21	17 48	2 52	21 33	2 32	27 31	4 51	13 8	0 15	0 43	1 35	15 11	2 33	23 30	0 16	7 59	1 37
W 27	12 41	23 1	3 54	21 55	2 36	27 37	4 52	13 22	0 15	0 41	1 35	15 10	2 33	23 30	0 16	8 0	1 37
T 28	13 1	26 38	4 40	22 15	2 40	27 43	4 54	13 36	0 14	0 38	1 35	15 9	2 33	23 30	0 16	8 1	1 37
F 29	13 21	28 26	5 6	22 34	2 43	27 48	4 55	13 50	0 14	0 36	1 35	15 7	2 33	23 30	0 16	8 2	1 37
S 30	13 41	28 21	5 14	22 52	2 46	27 53	4 56	14 3	0 13	0 34	1 35	15 6	2 33	23 30	0 16	8 2	1 37
S 31	14s 1	26s36	5s 4	23s 8	2s49	27s57	4s57	14s17	0n13	0n32	1s34	15n 5	2s33	23n30	0n16	8s 3	1n37

Julian Day Number = 2494551.5, Delta T = 102.04 sec
 Ecliptic obliquity = 23°25'36", Nutation = - 0°00'03", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°23'08", Lahiri = 25°30'08"

ASTRODIENST EPHEMERIS for the year 2117

geocentric

NOVEMBER 2117

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 41 2	8♈31'13	5♈2	2♈11	20♈5	9♈40	4♈53	19♈12	7♈8	24♈43	20♈43	7♈28	6♈3	17♈49	24♈8	M 1
T 2	2 44 59	9♈31'12	17°35	3°10	20°41	10°21	4♈48	19♈7	7♈7	24°45	20♈42	7♈28	6°0	17°56	24♈6	T 2
W 3	2 48 55	10°31'11	29°50	4°7	21°15	11°2	4°43	19°2	7°6	24°47	20°41	7°29	5°57	18°3	24°4	W 3
T 4	2 52 52	11°31'13	11♈51	4°59	21°48	11°43	4°38	18°58	7°5	24°50	20°40	7°31	5°53	18°9	24°2	T 4
F 5	2 56 48	12°31'15	23°43	5°48	22°20	12°24	4°33	18°53	7°4	24°52	20°39	7°33	5°50	18°16	24°1	F 5
S 6	3 0 45	13°31'20	5♈31	6°33	22°50	13°5	4°29	18°48	7°2	24°54	20°38	7°R33	5°47	18°22	23°59	S 6
S 7	3 4 41	14°31'26	17°18	7°13	23°18	13°46	4°24	18°43	7°1	24°56	20°37	7°33	5°44	18°29	23°58	S 7
M 8	3 8 38	15°31'34	29°7	7°47	23°45	14°28	4°20	18°38	7°0	24°58	20°35	7°31	5°41	18°36	23°56	M 8
T 9	3 12 34	16°31'44	11♈2	8°15	24°10	15°9	4°16	18°34	6°59	25°0	20°34	7°26	5°38	18°42	23°55	T 9
W10	3 16 31	17°31'55	23°3	8°37	24°34	15°50	4°12	18°29	6°57	25°2	20°33	7°20	5°34	18°49	23°53	W10
T 11	3 20 28	18°32'08	5♈13	8°51	24°55	16°32	4°8	18°24	6°56	25°4	20°32	7°13	5°31	18°56	23°52	T 11
F 12	3 24 24	19°32'23	17°33	8°R57	25°15	17°13	4°5	18°19	6°54	25°7	20°31	7°5	5°28	19°2	23°51	F 12
S 13	3 28 21	20°32'40	0♈3	8°54	25°33	17°55	4°1	18°14	6°53	25°9	20°30	6°57	5°25	19°9	23°50	S 13
S 14	3 32 17	21°32'59	12°45	8°43	25°49	18°36	3°58	18°9	6°51	25°11	20°29	6°50	5°22	19°16	23°49	S 14
M15	3 36 14	22°33'20	25°40	8°21	26°2	19°18	3°55	18°4	6°50	25°13	20°28	6°45	5°18	19°22	23°47	M15
T 16	3 40 10	23°33'43	8♈51	7°49	26°14	20°0	3°53	18°0	6°48	25°15	20°26	6°42	5°15	19°29	23°46	T 16
W17	3 44 7	24°34'07	22°18	7°7	26°24	20°41	3°50	17°55	6°46	25°17	20°25	6°D40	5°12	19°36	23°45	W17
T 18	3 48 3	25°34'34	6♈3	6°15	26°31	21°23	3°48	17°50	6°45	25°19	20°24	6°41	5°9	19°42	23°44	T 18
F 19	3 52 0	26°35'02	20°8	5°14	26°36	22°5	3°46	17°45	6°43	25°21	20°23	6°42	5°6	19°49	23°43	F 19
S 20	3 55 57	27°35'32	4♈31	4°4	26°38	22°47	3°44	17°40	6°41	25°23	20°22	6°R43	5°3	19°56	23°43	S 20
S 21	3 59 53	28°36'04	19°11	2°49	26°R39	23°29	3°42	17°36	6°39	25°25	20°21	6°42	4°59	20°2	23°42	S 21
M22	4 3 50	29°36'37	4♈3	1°29	26°36	24°11	3°40	17°31	6°37	25°27	20°20	6°39	4°56	20°9	23°41	M22
T 23	4 7 46	0♈37'13	19°0	0°7	26°32	24°53	3°39	17°26	6°35	25°29	20°19	6°34	4°53	20°16	23°40	T 23
W24	4 11 43	1°37'50	3♈54	28♈47	26°25	25°35	3°38	17°22	6°33	25°30	20°18	6°26	4°50	20°22	23°40	W24
T 25	4 15 39	2°38'28	18°35	27°30	26°15	26°17	3°37	17°17	6°32	25°32	20°16	6°17	4°47	20°29	23°39	T 25
F 26	4 19 36	3°39'08	2♈56	26°19	26°4	26°59	3°36	17°12	6°29	25°34	20°15	6°8	4°44	20°35	23°39	F 26
S 27	4 23 32	4°39'49	16°52	25°17	25°49	27°41	3°36	17°8	6°27	25°36	20°14	5°59	4°40	20°42	23°38	S 27
S 28	4 27 29	5°40'31	0♈20	24°25	25°33	28°24	3°36	17°3	6°25	25°38	20°13	5°51	4°37	20°49	23°38	S 28
M29	4 31 26	6°41'14	13°21	23°43	25°13	29°6	3°D36	16°59	6°23	25°40	20°12	5°46	4°34	20°55	23°37	M29
T 30	4 35 22	7♈41'59	25♈58	23♈13	24♈52	29♈48	3♈36	16♈55	6°21	25°41	20♈11	5♈44	4♈31	21♈2	23♈37	T 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	14s20	23s30	4s38	23s23	2s51	28s0	4s58	14s31	0n12	0n30	1s34	15n4	2s33	23n30	0n16	8s4
T 2	14 39	19 22	4 0	23 36	2 52	28 3	4 58	14 44	0 11	0 28	1 34	15 2	2 33	23 30	0 16	8 5
W 3	14 58	14 31	3 12	23 47	2 53	28 6	4 58	14 57	0 11	0 26	1 34	15 1	2 33	23 31	0 16	8 6
T 4	15 17	9 13	2 16	23 57	2 53	28 8	4 58	15 11	0 10	0 25	1 34	15 0	2 33	23 31	0 16	8 6
F 5	15 35	3 39	1 15	24 6	2 53	28 9	4 57	15 24	0 10	0 23	1 33	14 58	2 33	23 31	0 16	8 7
S 6	15 53	2n 1	0 11	24 12	2 51	28 10	4 57	15 37	0 9	0 21	1 33	14 57	2 33	23 31	0 16	8 8
S 7	16 11	7 36	0n53	24 17	2 49	28 11	4 56	15 50	0 8	0 20	1 33	14 56	2 33	23 31	0 16	8 9
M 8	16 29	12 57	1 55	24 19	2 46	28 11	4 54	16 3	0 8	0 18	1 33	14 55	2 33	23 31	0 16	8 9
T 9	16 46	17 51	2 52	24 19	2 41	28 10	4 52	16 15	0 7	0 17	1 32	14 53	2 33	23 31	0 17	8 10
W10	17 3	22 6	3 42	24 17	2 36	28 9	4 50	16 28	0 7	0 16	1 32	14 52	2 33	23 31	0 17	8 11
T 11	17 20	25 27	4 22	24 13	2 29	28 7	4 48	16 40	0 6	0 14	1 32	14 51	2 33	23 31	0 17	8 12
F 12	17 36	27 40	4 51	24 6	2 21	28 5	4 45	16 53	0 6	0 13	1 32	14 49	2 33	23 31	0 17	8 12
S 13	17 53	28 32	5 6	23 56	2 11	28 2	4 41	17 5	0 5	0 12	1 31	14 48	2 33	23 31	0 17	8 13
S 14	18 8	27 54	5 7	23 43	2 0	27 59	4 38	17 17	0 4	0 11	1 31	14 47	2 33	23 32	0 17	8 14
M15	18 24	25 47	4 52	23 27	1 47	27 55	4 34	17 29	0 4	0 10	1 31	14 46	2 33	23 32	0 17	8 15
T 16	18 39	22 14	4 22	23 8	1 33	27 51	4 29	17 41	0 3	0 9	1 31	14 44	2 32	23 32	0 17	8 15
W17	18 54	17 29	3 36	22 45	1 17	27 46	4 24	17 52	0 3	0 8	1 30	14 43	2 32	23 32	0 17	8 16
T 18	19 9	11 44	2 38	22 19	1 0	27 41	4 18	18 4	0 2	0 8	1 30	14 42	2 32	23 32	0 17	8 17
F 19	19 23	5 16	1 28	21 50	0 41	27 35	4 12	18 15	0 1	0 7	1 30	14 41	2 32	23 32	0 17	8 17
S 20	19 37	1s37	0 12	21 18	0 21	27 29	4 6	18 27	0 1	0 7	1 30	14 39	2 32	23 32	0 17	8 18
S 21	19 50	8 32	1s7	20 43	0 1	27 21	3 58	18 38	0 0	0 6	1 29	14 38	2 32	23 32	0 17	8 19
M22	20 3	15 5	2 21	20 7	0n20	27 14	3 51	18 49	0s0	0 6	1 29	14 37	2 32	23 32	0 17	8 19
T 23	20 16	20 47	3 27	19 31	0 40	27 5	3 43	19 0	0 1	0 6	1 29	14 36	2 32	23 33	0 17	8 20
W24	20 29	25 8	4 18	18 54	1 0	26 56	3 34	19 10	0 2	0 5	1 28	14 35	2 32	23 33	0 17	8 21
T 25	20 41	27 46	4 51	18 19	1 18	26 47	3 25	19 21	0 2	0 5	1 28	14 34	2 32	23 33	0 17	8 21
F 26	20 52	28 28	5 5	17 47	1 35	26 37	3 15	19 31	0 3	0 5	1 28	14 32	2 31	23 33	0 17	8 22
S 27	21 4	27 19	5 0	17 18	1 50	26 26	3 4	19 41	0 3	0 5	1 28	14 31	2 31	23 33	0 17	8 23
S 28	21 14	24 35	4 38	16 53	2 3	26 14	2 53	19 51	0 4	0 6	1 27	14 30	2 31	23 33	0 17	8 23
M29	21 25	20 40	4 2	16 32	2 14	26 2	2 42	20 1	0 5	0 6	1 27	14 29	2 31	23 33	0 17	8 24
T 30	21s35	15s56	3s16	16s16	2n22	25s49	2s29	20s11	0s5	0n6	1s27	14n28	2s31	23n33	0n17	8s24

Julian Day Number = 2494582.5, Delta T = 102.09 sec
 Ecliptic obliquity = 23°25'35", Nutation = - 0°00'03", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°23'12", Lahiri = 25°30'13"

