



Astrodienst Ephemeris Tables for the year 2139

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 2139

geocentric

JANUARY 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 41 13	10 ³ 7'57	10 ³ 19	11 ³ 28	25 ^m 41	2 ³ 34	17 ³ 31	5 ³ 15	15 ³ 43	10 ³ 58	9 ³ 51	15 ³ R11	16 ³ 40	9 ³ 3	1 ³ R36	T 1
F 2	6 45 9	11° 9'08	24° 47	13° 4	26° 50	3° 21	17° 45	5° 22	15° 44	11° 0	9 ³ 50	15 ³ 8	16° 37	9° 9	1 ³ 32	F 2
S 3	6 49 6	12° 10'18	9 ³ 23	14° 41	27° 59	4° 8	17° 59	5° 29	15° 45	11° 2	9° 49	15° D 6	16° 34	9° 16	1° 29	S 3
S 4	6 53 2	13° 11'29	24° 0	16° 18	29° 8	4° 55	18° 13	5° 36	15° 46	11° 4	9° 48	15° 6	16° 31	9° 23	1° 25	S 4
M 5	6 56 59	14° 12'39	8 ³ 32	17° 56	0 ³ 18	5° 42	18° 27	5° 42	15° 47	11° 6	9° 47	15° 7	16° 27	9° 29	1° 21	M 5
T 6	7 0 55	15° 13'49	22° 56	19° 34	1° 27	6° 29	18° 41	5° 49	15° 48	11° 8	9° 47	15° 9	16° 24	9° 36	1° 17	T 6
W 7	7 4 52	16° 14'59	7 ³ 8	21° 12	2° 37	7° 17	18° 55	5° 56	15° 49	11° 10	9° 46	15° 10	16° 21	9° 43	1° 13	W 7
T 8	7 8 48	17° 16'08	21° 7	22° 50	3° 47	8° 4	19° 9	6° 3	15° 50	11° 12	9° 45	15° R10	16° 18	9° 49	1° 10	T 8
F 9	7 12 45	18° 17'17	4 ³ 52	24° 29	4° 57	8° 51	19° 23	6° 10	15° 50	11° 14	9° 44	15° 9	16° 15	9° 56	1° 6	F 9
S 10	7 16 42	19° 18'26	18° 23	26° 8	6° 7	9° 38	19° 37	6° 17	15° 51	11° 16	9° 43	15° 7	16° 12	10° 3	1° 2	S 10
S 11	7 20 38	20° 19'34	1 ³ 40	27° 47	7° 17	10° 26	19° 51	6° 24	15° 51	11° 18	9° 42	15° 4	16° 8	10° 9	0° 59	S 11
M12	7 24 35	21° 20'42	14° 44	29° 27	8° 28	11° 13	20° 5	6° 31	15° 52	11° 19	9° 41	15° 0	16° 5	10° 16	0° 55	M12
T 13	7 28 31	22° 21'49	27° 34	1 ³ 7	9° 38	12° 0	20° 19	6° 38	15° 52	11° 21	9° 41	14° 56	16° 2	10° 23	0° 52	T 13
W14	7 32 28	23° 22'57	10 ³ 12	2° 47	10° 49	12° 47	20° 33	6° 45	15° 53	11° 23	9° 40	14° 53	15° 59	10° 29	0° 48	W14
T 15	7 36 24	24° 24'03	22° 37	4° 27	12° 0	13° 35	20° 47	6° 52	15° 53	11° 25	9° 39	14° 50	15° 56	10° 36	0° 45	T 15
F 16	7 40 21	25° 25'10	4 ³ 51	6° 7	13° 11	14° 22	21° 0	6° 59	15° 53	11° 27	9° 38	14° 49	15° 52	10° 43	0° 41	F 16
S 17	7 44 17	26° 26'16	16° 54	7° 47	14° 21	15° 9	21° 14	7° 6	15° 54	11° 28	9° 37	14° D48	15° 49	10° 49	0° 38	S 17
S 18	7 48 14	27° 27'21	28° 50	9° 27	15° 33	15° 57	21° 28	7° 13	15° 54	11° 30	9° 37	14° 49	15° 46	10° 56	0° 34	S 18
M19	7 52 11	28° 28'27	10 ³ 40	11° 7	16° 44	16° 44	21° 42	7° 20	15° 54	11° 32	9° 36	14° 50	15° 43	11° 3	0° 31	M19
T 20	7 56 7	29° 29'32	22° 28	12° 46	17° 55	17° 31	21° 56	7° 27	15° R54	11° 33	9° 35	14° 52	15° 40	11° 9	0° 28	T 20
W21	8 0 4	0 ³ 30'36	4 ³ 18	14° 24	19° 6	18° 19	22° 10	7° 34	15° 54	11° 35	9° 35	14° 53	15° 37	11° 16	0° 25	W21
T 22	8 4 0	1° 31'41	16° 13	16° 2	20° 18	19° 6	22° 24	7° 41	15° 54	11° 37	9° 34	14° 54	15° 33	11° 23	0° 21	T 22
F 23	8 7 57	2° 32'45	28° 19	17° 38	21° 29	19° 54	22° 38	7° 49	15° 54	11° 38	9° 33	14° R55	15° 30	11° 29	0° 18	F 23
S 24	8 11 53	3° 33'48	10 ³ 40	19° 13	22° 41	20° 41	22° 52	7° 56	15° 53	11° 40	9° 33	14° 55	15° 27	11° 36	0° 15	S 24
S 25	8 15 50	4° 34'52	23° 21	20° 47	23° 52	21° 28	23° 6	8° 3	15° 53	11° 41	9° 32	14° 54	15° 24	11° 42	0° 12	S 25
M26	8 19 46	5° 35'55	6 ³ 26	22° 18	25° 4	22° 16	23° 20	8° 10	15° 53	11° 43	9° 32	14° 53	15° 21	11° 49	0° 9	M26
T 27	8 23 43	6° 36'57	19° 56	23° 46	26° 16	23° 3	23° 34	8° 17	15° 53	11° 44	9° 31	14° 52	15° 18	11° 56	0° 6	T 27
W28	8 27 40	7° 37'59	3 ³ 53	25° 11	27° 28	23° 51	23° 47	8° 24	15° 52	11° 46	9° 30	14° 51	15° 14	12° 2	0° 4	W28
T 29	8 31 36	8° 39'01	18° 15	26° 32	28° 40	24° 38	24° 1	8° 31	15° 52	11° 47	9° 30	14° 50	15° 11	12° 9	0° 1	T 29
F 30	8 35 33	9° 40'01	2 ³ 57	27° 49	29° 52	25° 26	24° 15	8° 39	15° 51	11° 49	9° 29	14° 50	15° 8	12° 16	29 ³ 58	F 30
S 31	8 39 29	10 ³ 41'01	17 ³ 54	29 ³ 1	1 ³ 4	26 ³ 13	24 ³ 29	8 ³ 46	15 ³ 51	11 ³ 50	9 ³ 29	14° D50	15 ³ 5	12 ³ 22	29 ³ 56	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	23 s 2	25 s 59	2 s 58	24 s 44	1 s 48	16 s 33	2 n 41	20 s 41	1 s 9	22 s 25	0 s 8	19 s 26	0 s 30	5 s 33	0 n 41	20 s 34	1 n 32
F 2	22 57	22 56	1 49	24 38	1 52	16 50	2 40	20 30	1 8	22 23	0 8	19 24	0 30	5 34	0 41	20 34	1 32
S 3	22 52	18 24	0 31	24 31	1 55	17 7	2 39	20 19	1 8	22 21	0 8	19 23	0 30	5 34	0 41	20 34	1 32
S 4	22 46	12 45	0 n 49	24 23	1 58	17 23	2 38	20 8	1 8	22 19	0 8	19 21	0 31	5 34	0 41	20 34	1 32
M 5	22 40	6 26	2 5	24 13	2 0	17 38	2 37	19 56	1 8	22 18	0 8	19 20	0 31	5 35	0 41	20 35	1 32
T 6	22 33	0 n 9	3 13	24 1	2 2	17 54	2 36	19 44	1 8	22 16	0 8	19 18	0 31	5 35	0 41	20 35	1 32
W 7	22 26	6 37	4 8	23 48	2 4	18 9	2 34	19 32	1 8	22 14	0 9	19 16	0 31	5 35	0 41	20 35	1 32
T 8	22 19	12 40	4 47	23 33	2 6	18 24	2 33	19 20	1 8	22 12	0 9	19 15	0 31	5 35	0 41	20 35	1 32
F 9	22 10	17 59	5 9	23 17	2 7	18 38	2 31	19 7	1 8	22 10	0 9	19 13	0 31	5 36	0 41	20 36	1 32
S 10	22 2	22 18	5 13	23 0	2 7	18 52	2 29	18 55	1 8	22 8	0 9	19 11	0 31	5 36	0 41	20 36	1 32
S 11	21 53	25 24	5 1	22 41	2 8	19 5	2 28	18 42	1 8	22 6	0 9	19 10	0 31	5 36	0 41	20 36	1 32
M12	21 44	27 4	4 33	22 20	2 8	19 18	2 26	18 29	1 7	22 4	0 9	19 8	0 31	5 36	0 41	20 36	1 32
T 13	21 34	27 16	3 52	21 58	2 7	19 31	2 24	18 16	1 7	22 2	0 9	19 6	0 31	5 36	0 41	20 37	1 32
W14	21 24	26 1	2 59	21 34	2 6	19 43	2 22	18 2	1 7	22 0	0 9	19 5	0 31	5 37	0 41	20 37	1 32
T 15	21 13	23 30	2 0	21 9	2 4	19 54	2 20	17 48	1 7	21 58	0 9	19 3	0 31	5 37	0 41	20 37	1 32
F 16	21 2	19 56	0 55	20 42	2 2	20 5	2 18	17 35	1 7	21 56	0 9	19 1	0 31	5 37	0 41	20 37	1 32
S 17	20 51	15 34	0 s 12	20 14	1 59	20 16	2 15	17 21	1 7	21 54	0 9	18 59	0 31	5 37	0 41	20 37	1 32
S 18	20 39	10 40	1 17	19 44	1 56	20 26	2 13	17 6	1 7	21 52	0 10	18 58	0 31	5 37	0 41	20 38	1 32
M19	20 27	5 25	2 18	19 13	1 52	20 36	2 11	16 52	1 6	21 50	0 10	18 56	0 31	5 37	0 41	20 38	1 32
T 20	20 15	0 1	3 14	18 41	1 47	20 45	2 8	16 37	1 6	21 48	0 10	18 54	0 31	5 37	0 42	20 38	1 32
W21	20 2	5 s 24	4 1	18 7	1 42	20 53	2 6	16 23	1 6	21 46	0 10	18 52	0 32	5 37	0 42	20 38	1 32
T 22	19 48	10 39	4 38	17 32	1 36	21 1	2 3	16 8	1 6	21 44	0 10	18 51	0 32	5 37	0 42	20 38	1 32
F 23	19 35	15 36	5 4	16 57	1 29	21 9	2 0	15 53	1 6	21 41	0 10	18 49	0 32	5 37	0 42	20 39	1 32
S 24	19 21	20 1	5 16	16 20	1 21	21 16	1 58	15 37	1 5	21 39	0 10	18 47	0 32	5 36	0 42	20 39	1 32
S 25	19 6	23 39	5 14	15 43	1 13	21 22	1 55	15 22	1 5	21 37	0 10	18 45	0 32	5 36	0 42	20 39	1 32
M26	18 51	26 13	4 55	15 4	1 4	21 28	1 52	15 6	1 5	21 35	0 10	18 43	0 32	5 36	0 42	20 39	1 32
T 27	18 36	27 22	4 20	14 26	0 54	21 33	1 49	14 50	1 5	21 32	0 10	18 42	0 32	5 36	0 42	20 39	1 32
W28	18 21	26 50	3 28	13 47	0 43	21 38	1 46	14 35	1 4	21 30	0 11	18 40	0 32	5 36	0 42	20 39	1 32
T 29	18 5	24 32	2 22	13 9	0 31	21 42	1 43	14 19	1 4	21 28	0 11	18 38	0 32	5 36	0 42	20 40	1 32
F 30	17 49	20 33	1 6	12 30	0 18	21 45	1 40	14 2	1 4	21 26	0 11	18 36	0 32	5 35	0 42	20 40	1 32
S 31	17 s 33	15 s 11	0 n 17	11 s 53	0 s 5	21 s 48	1 n 37	13 s 46	1 s 4	21 s 23	0 s 11	18 s 34	0 s 32	5 s 35	0 n 42	20 s 40	1 n 32

Julian Day Number = 2502313.5, Delta T = 114.43 sec

Ecliptic obliquity = 23°25'22", Nutation = 0°00'12", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°40'57", Lahiri = 25°47'58"

ASTRODIENST EPHEMERIS for the year 2139
geocentric

FEBRUARY 2139

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
S 1	8 43 26	11 ^h 42'00	2 ^h 56	0 ^h 6	2 ^h 16	27 ^h 1	24 ^h 43	8 ^h 53	15°R50	11 ^h 52	9°R28	14 ^h 50	15 ^h 2	12 ^h 29	29°R53	S 1
M 2	8 47 22	12°42'57	17°55	1° 5	3°28	27°48	24°56	9° 0	15 ^h 49	11°53	9 ^h 28	14°50	14°58	12°36	29 ^h 50	M 2
T 3	8 51 19	13°43'54	2 ^h 43	1°56	4°40	28°36	25°10	9° 7	15°49	11°54	9°28	14°50	14°55	12°42	29°48	T 3
W 4	8 55 15	14°44'49	17°15	2°39	5°52	29°23	25°24	9°14	15°48	11°55	9°27	14°R50	14°52	12°49	29°46	W 4
T 5	8 59 12	15°45'43	1 ^h 825	3°12	7° 5	0 ^h 11	25°37	9°21	15°47	11°57	9°27	14°50	14°49	12°56	29°43	T 5
F 6	9 3 9	16°46'35	15°13	3°36	8°17	0°58	25°51	9°29	15°46	11°58	9°26	14°D50	14°46	13° 2	29°41	F 6
S 7	9 7 5	17°47'26	28°39	3°49	9°29	1°46	26° 4	9°36	15°45	11°59	9°26	14°50	14°43	13° 9	29°39	S 7
S 8	9 11 2	18°48'16	11 ^h 45	3°R51	10°42	2°33	26°18	9°43	15°44	12° 0	9°26	14°51	14°39	13°16	29°37	S 8
M 9	9 14 58	19°49'04	24°33	3°43	11°54	3°20	26°31	9°50	15°43	12° 1	9°26	14°51	14°36	13°22	29°35	M 9
T 10	9 18 55	20°49'51	7 ^h 5	3°23	13° 7	4° 8	26°45	9°57	15°42	12° 2	9°25	14°52	14°33	13°29	29°33	T 10
W11	9 22 51	21°50'36	19°24	2°53	14°19	4°55	26°58	10° 4	15°41	12° 4	9°25	14°52	14°30	13°36	29°31	W11
T 12	9 26 48	22°51'20	1 ^h 233	2°13	15°32	5°43	27°11	10°11	15°40	12° 5	9°25	14°53	14°27	13°42	29°29	T 12
F 13	9 30 45	23°52'03	13°35	1°24	16°45	6°30	27°25	10°18	15°39	12° 6	9°25	14°R53	14°24	13°49	29°27	F 13
S 14	9 34 41	24°52'44	25°30	0°27	17°57	7°18	27°38	10°25	15°37	12° 7	9°24	14°53	14°20	13°56	29°26	S 14
S 15	9 38 38	25°53'24	7 ^h 21	29 ^h 25	19°10	8° 5	27°51	10°32	15°36	12° 7	9°24	14°52	14°17	14° 2	29°24	S 15
M16	9 42 34	26°54'02	19°10	28°18	20°23	8°52	28° 4	10°39	15°35	12° 8	9°24	14°51	14°14	14° 9	29°23	M16
T 17	9 46 31	27°54'39	0 ^h 59	27° 9	21°36	9°40	28°17	10°46	15°33	12° 9	9°24	14°49	14°11	14°16	29°21	T 17
W18	9 50 27	28°55'15	12°51	26° 0	22°49	10°27	28°31	10°53	15°32	12°10	9°24	14°47	14° 8	14°22	29°20	W18
T 19	9 54 24	29°55'49	24°49	24°51	24° 2	11°14	28°44	11° 0	15°30	12°11	9°24	14°44	14° 4	14°29	29°19	T 19
F 20	9 58 20	0 ^h 56'23	6 ^h 56	23°46	25°15	12° 2	28°57	11° 7	15°29	12°12	9°24	14°43	14° 1	14°36	29°18	F 20
S 21	10 2 17	1°56'55	19°15	22°45	26°28	12°49	29° 9	11°14	15°27	12°12	9°24	14°41	13°58	14°42	29°16	S 21
S 22	10 6 13	2°57'26	1 ^h 51	21°50	27°41	13°36	29°22	11°20	15°25	12°13	9°D24	14°D41	13°55	14°49	29°15	S 22
M23	10 10 10	3°57'55	14°48	21° 1	28°54	14°24	29°35	11°27	15°24	12°14	9°24	14°41	13°52	14°56	29°15	M23
T 24	10 14 7	4°58'24	28° 9	20°19	0 ^h 7	15°11	29°48	11°34	15°22	12°15	9°24	14°42	13°49	15° 2	29°14	T 24
W25	10 18 3	5°58'51	11 ^h 56	19°44	1°20	15°58	0 ^h 1	11°41	15°20	12°15	9°24	14°44	13°45	15° 9	29°13	W25
T 26	10 22 0	6°59'16	26°11	19°16	2°33	16°45	0°13	11°48	15°18	12°16	9°24	14°45	13°42	15°16	29°12	T 26
F 27	10 25 56	7°59'40	10 ^h 50	18°56	3°46	17°33	0°26	11°54	15°16	12°16	9°24	14°R46	13°39	15°22	29°12	F 27
S 28	10 29 53	9 ^h 0'03	25 ^h 50	18 ^h 44	4 ^h 59	18 ^h 20	0 ^h 38	12 ^h 1	15 ^h 15	12 ^h 17	9 ^h 24	14 ^h 45	13 ^h 36	15 ^h 29	29 ^h 11	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
S 1	17s16	8s53	1n39	11s17	0n10	21s50	1n34	13s30	1s 3	21s21	0s11	18s33	0s32	5s35	0n42	20s40	1n33	10n17	11s42	16s22	16s19	4n40	16n52	6s34	
M 2	16 59	2 6	2 54	10 42	0 25	21 52	1 31	13 13	1 3	21 19	0 11	18 31	0 32	5 35	0 42	20 40	1 33	10 17	11 41	16 22	16 20	4 37	16 52	6 33	
T 3	16 42	4n41	3 56	10 9	0 40	21 53	1 28	12 56	1 3	21 16	0 11	18 29	0 32	5 34	0 42	20 40	1 33	10 18	11 41	16 22	16 21	4 34	16 52	6 33	
W 4	16 24	11 6	4 42	9 39	0 57	21 53	1 25	12 39	1 3	21 14	0 11	18 27	0 33	5 34	0 42	20 40	1 33	10 18	11 41	16 22	16 22	4 31	16 53	6 33	
T 5	16 6	16 47	5 9	9 11	1 13	21 53	1 22	12 22	1 2	21 11	0 11	18 25	0 33	5 34	0 42	20 41	1 33	10 18	11 41	16 22	16 23	4 27	16 53	6 32	
F 6	15 48	21 27	5 18	8 47	1 30	21 52	1 18	12 5	1 2	21 9	0 12	18 24	0 33	5 33	0 42	20 41	1 33	10 18	11 40	16 22	16 24	4 24	16 53	6 32	
S 7	15 29	24 52	5 9	8 26	1 47	21 50	1 15	11 48	1 2	21 7	0 12	18 22	0 33	5 33	0 42	20 41	1 33	10 18	11 40	16 22	16 25	4 21	16 54	6 32	
S 8	15 11	26 52	4 44	8 9	2 4	21 48	1 12	11 31	1 1	21 4	0 12	18 20	0 33	5 33	0 42	20 41	1 33	10 19	11 40	16 22	16 26	4 18	16 54	6 31	
M 9	14 52	27 23	4 5	7 57	2 21	21 45	1 8	11 13	1 1	21 2	0 12	18 18	0 33	5 32	0 42	20 41	1 33	10 19	11 39	16 22	16 26	4 14	16 54	6 31	
T 10	14 32	26 29	3 15	7 50	2 36	21 42	1 5	10 56	1 1	20 59	0 12	18 16	0 33	5 32	0 42	20 41	1 33	10 19	11 39	16 22	16 27	4 11	16 55	6 31	
W11	14 13	24 17	2 17	7 47	2 51	21 38	1 2	10 38	1 0	20 57	0 12	18 14	0 33	5 31	0 42	20 41	1 33	10 19	11 39	16 22	16 28	4 8	16 55	6 30	
T 12	13 53	21 0	1 13	7 48	3 4	21 33	0 58	10 21	1 0	20 54	0 12	18 13	0 33	5 31	0 42	20 41	1 33	10 20	11 39	16 22	16 29	4 5	16 55	6 30	
F 13	13 33	16 51	0 7	7 55	3 16	21 28	0 55	10 3	1 0	20 52	0 12	18 11	0 33	5 30	0 42	20 41	1 33	10 20	11 38	16 21	16 30	4 1	16 56	6 29	
S 14	13 13	12 6	0s59	8 5	3 26	21 22	0 52	9 45	0 59	20 49	0 12	18 9	0 33	5 30	0 42	20 41	1 33	10 20	11 38	16 22	16 31	3 58	16 56	6 29	
S 15	12 53	6 56	2 1	8 20	3 34	21 15	0 48	9 27	0 59	20 47	0 12	18 7	0 33	5 29	0 42	20 42	1 33	10 20	11 38	16 22	16 32	3 55	16 57	6 29	
M16	12 32	1 32	2 59	8 38	3 39	21 8	0 45	9 9	0 59	20 44	0 13	18 5	0 33	5 29	0 42	20 42	1 33	10 21	11 38	16 22	16 33	3 51	16 57	6 28	
T 17	12 11	3s53	3 49	8 58	3 42	21 0	0 42	8 51	0 58	20 42	0 13	18 4	0 34	5 28	0 42	20 42	1 33	10 21	11 37	16 23	16 34	3 48	16 57	6 28	
W18	11 51	9 12	4 29	9 21	3 43	20 52	0 38	8 32	0 58	20 39	0 13	18 2	0 34	5 27	0 42	20 42	1 33	10 21	11 37	16 23	16 35	3 45	16 58	6 28	
T 19	11 29	14 13	4 57	9 45	3 41	20 43	0 35	8 14	0 58	20 37	0 13	18 0	0 34	5 27	0 42	20 42	1 33	10 21	11 37	16 24	16 36	3 42	16 58	6 27	
F 20	11 8	18 45	5 13	10 10	3 37	20 33	0 32	7 56	0 57	20 34	0 13	17 58	0 34	5 26	0 42	20 42	1 33	10 22	11 36	16 25	16 37	3 38	16 59	6 27	
S 21	10 46	22 34	5 15	10 35	3 31	20 23	0 28	7 37	0 57	20 32	0 13	17 56	0 34	5 26	0 42	20 42	1 33	10 22	11 36	16 25	16 37	3 35	16 59	6 26	
S 22	10 25	25 27	5 2	11 0	3 24	20 12	0 25	7 19	0 56	20 29	0 13	17 55	0 34	5 25	0 42	20 42	1 33	10 22	11 36	16 25	16 38	3 32	16 59	6 26	
M23	10 3	27 5	4 34	11 25	3 15	20 1	0 22	7 0	0 56	20 27	0 13	17 53	0 34	5 24	0 42	20 42	1 33	10 23	11 36	16 25	16 39	3 29	17 0	6 25	
T 24	9 41	27 14	3 50	11 48	3 4	19 49	0 18	6 41	0 56	20 24	0 14	17 51	0 34	5 24	0 43	20 42	1 34	10 23	11 35	16 25	16 40	3 25	17 0	6 25	
W25	9 19	25 44	2 51	12 9	2 53	19 36	0 15	6 23	0 55	20 21	0 14	17 49	0 34	5 23	0 43	20 42	1 34	10 23	11 35	16 24	16 41	3 22	17 1	6 25	
T 26	8 56	22 33	1 41	12 29	2 41	19 23	0 12	6 4	0 55	20 19	0 14	17 47	0 34	5 22	0 43	20 42	1 34	10 23	11 35	16 24	16 42	3 19	17 1	6 24	
F 27	8 34	17 51	0 22	12 48	2 28	19 9	0 9	5 45	0 54	20 16	0 14	17 46	0 34	5 21	0 43	20 42	1 34	10 24	11 34	16 24	16 43	3 16	17 1	6 24	
S 28	8s11	11s57	1n 1	13s 4	2n15	18s55	0n 5	5s26	0s54	20s14	0s14	17s44	0s35	5s21	0n43	20s42	1n34	10n24	11s34	16s24	16s44	3n12	17n 2	6s23	

Julian Day Number = 2502344.5, Delta T = 114.48 sec
Ecliptic obliquity = 23°25'23, Nutation = 0°00'14, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 26°41'01, Lahiri = 25°48'02

ASTRODIENST EPHEMERIS for the year 2139

geocentric

MARCH 2139

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
S 1	10 33 49	10°02'4	11°02'2	18°D38	6°12	19°07	0°51	12°07	15°R13	12°17	9°II24	14°R44	13°33	15°036	29°R11	S 1
M 2	10 37 46	11°04'3	26°17	18°39	7°26	19°54	1°3	12°14	15°11	12°18	9°24	14°41	13°30	15°42	29°II10	M 2
T 3	10 41 42	12°1'00	11°25	18°47	8°39	20°41	1°15	12°21	15°9	12°18	9°24	14°37	13°26	15°49	29°10	T 3
W 4	10 45 39	13°1'16	26°16	19°0	9°52	21°28	1°27	12°27	15°7	12°19	9°25	14°33	13°23	15°56	29°10	W 4
T 5	10 49 36	14°1'29	10°43	19°19	11°5	22°16	1°40	12°34	15°4	12°19	9°25	14°29	13°20	16°2	29°D10	T 5
F 6	10 53 32	15°1'41	24°43	19°44	12°19	23°3	1°52	12°40	15°2	12°19	9°25	14°26	13°17	16°9	29°10	F 6
S 7	10 57 29	16°1'50	8°II16	20°13	13°32	23°50	2°4	12°46	15°0	12°19	9°25	14°25	13°14	16°16	29°10	S 7
S 8	11 1 25	17°1'57	21°21	20°48	14°45	24°37	2°16	12°53	14°58	12°20	9°26	14°D25	13°10	16°22	29°10	S 8
M 9	11 5 22	18°2'02	4°4	21°26	15°58	25°24	2°27	12°59	14°56	12°20	9°26	14°26	13°7	16°29	29°10	M 9
T 10	11 9 18	19°2'06	16°28	22°9	17°12	26°11	2°39	13°5	14°54	12°20	9°26	14°27	13°4	16°36	29°11	T 10
W 11	11 13 15	20°2'06	28°38	22°55	18°25	26°58	2°51	13°12	14°51	12°20	9°27	14°29	13°1	16°42	29°11	W 11
T 12	11 17 11	21°2'05	10°II27	23°44	19°38	27°44	3°2	13°18	14°49	12°20	9°27	14°R30	12°58	16°49	29°12	T 12
F 13	11 21 8	22°2'02	22°29	24°37	20°52	28°31	3°14	13°24	14°47	12°20	9°27	14°30	12°55	16°56	29°12	F 13
S 14	11 25 5	23°1'56	4°II19	25°33	22°5	29°18	3°25	13°30	14°44	12°20	9°28	14°28	12°51	17°2	29°13	S 14
S 15	11 29 1	24°1'49	16°7	26°32	23°19	0°V5	3°37	13°36	14°42	12°R20	9°28	14°24	12°48	17°9	29°14	S 15
M 16	11 32 58	25°1'39	27°57	27°34	24°32	0°52	3°48	13°42	14°40	12°20	9°29	14°18	12°45	17°16	29°15	M 16
T 17	11 36 54	26°1'28	9°II50	28°38	25°45	1°38	3°59	13°48	14°37	12°20	9°29	14°10	12°42	17°22	29°16	T 17
W 18	11 40 51	27°1'15	21°49	29°44	26°59	2°25	4°10	13°54	14°35	12°20	9°30	14°2	12°39	17°29	29°17	W 18
T 19	11 44 47	28°1'00	3°II54	0°II53	28°12	3°12	4°21	14°0	14°33	12°20	9°30	13°54	12°35	17°36	29°18	T 19
F 20	11 48 44	29°0'43	16°7	2°3	29°26	3°58	4°32	14°5	14°30	12°20	9°31	13°46	12°32	17°42	29°19	F 20
S 21	11 52 40	0°V0'24	28°31	3°16	0°II39	4°45	4°43	14°11	14°28	12°20	9°31	13°40	12°29	17°49	29°20	S 21
S 22	11 56 37	1°0'04	11°II9	4°31	1°53	5°32	4°54	14°17	14°25	12°20	9°32	13°36	12°26	17°56	29°21	S 22
M 23	12 0 34	1°59'42	24°3	5°47	3°6	6°18	5°4	14°22	14°23	12°19	9°32	13°34	12°23	18°2	29°23	M 23
T 24	12 4 30	2°59'18	7°II17	7°6	4°20	7°5	5°15	14°28	14°20	12°19	9°33	13°D34	12°20	18°9	29°24	T 24
W 25	12 8 27	3°58'53	20°53	8°26	5°33	7°51	5°25	14°33	14°18	12°19	9°34	13°35	12°16	18°16	29°26	W 25
T 26	12 12 23	4°58'25	4°II53	9°48	6°47	8°38	5°35	14°39	14°15	12°18	9°34	13°36	12°13	18°22	29°28	T 26
F 27	12 16 20	5°57'56	19°18	11°11	8°0	9°24	5°46	14°44	14°12	12°18	9°35	13°R36	12°10	18°29	29°29	F 27
S 28	12 20 16	6°57'26	4°II5	12°36	9°14	10°10	5°56	14°49	14°10	12°18	9°36	13°34	12°7	18°36	29°31	S 28
S 29	12 24 13	7°56'53	19°9	14°3	10°27	10°57	6°6	14°55	14°7	12°17	9°36	13°30	12°4	18°42	29°33	S 29
M 30	12 28 9	8°56'18	4°V21	15°31	11°41	11°43	6°15	15°0	14°5	12°17	9°37	13°24	12°1	18°49	29°35	M 30
T 31	12 32 6	9°V55'41	19°V32	17°II0	12°II54	12°V29	6°II25	15°II5	14°II2	12°II16	9°II38	13°II15	11°II57	18°II56	29°II37	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
S 1	7s49	5s16	2n20	13s18	2n 1	18s40	0n 2	5s 7	0s54	20s11	0s14	17s42	0s35	5s20	0n43	20s42	1n34	10n24	11s34	16s24	16s45	3n 9	17n 2	6s23	
M 2	7 26	1n43	3 29	13 31	1 48	18 25	0s 1	4 49	0 53	20 9	0 14	17 40	0 35	5 19	0 43	20 42	1 34	10 25	11 34	16 25	16 46	3 6	17 3	6 22	
T 3	7 3	8 32	4 23	13 41	1 34	18 9	0 4	4 30	0 53	20 6	0 14	17 39	0 35	5 18	0 43	20 42	1 34	10 25	11 33	16 26	16 47	3 3	17 3	6 22	
W 4	6 40	14 45	4 58	13 50	1 21	17 53	0 7	4 11	0 52	20 3	0 14	17 37	0 35	5 17	0 43	20 42	1 34	10 25	11 33	16 27	16 48	2 59	17 4	6 22	
T 5	6 17	19 59	5 13	13 56	1 8	17 36	0 10	3 52	0 52	20 1	0 15	17 35	0 35	5 17	0 43	20 42	1 34	10 25	11 33	16 28	16 48	2 56	17 4	6 21	
F 6	5 54	23 55	5 8	14 1	0 55	17 19	0 13	3 33	0 51	19 58	0 15	17 33	0 35	5 16	0 43	20 42	1 34	10 26	11 32	16 29	16 49	2 53	17 5	6 21	
S 7	5 30	26 23	4 47	14 4	0 42	17 1	0 16	3 14	0 51	19 56	0 15	17 32	0 35	5 15	0 43	20 42	1 34	10 26	11 32	16 30	16 50	2 50	17 5	6 20	
S 8	5 7	27 19	4 11	14 5	0 30	16 42	0 19	2 55	0 50	19 53	0 15	17 30	0 35	5 14	0 43	20 42	1 34	10 26	11 32	16 30	16 51	2 46	17 5	6 20	
M 9	4 44	26 45	3 23	14 4	0 18	16 23	0 22	2 36	0 50	19 51	0 15	17 28	0 35	5 13	0 43	20 42	1 34	10 27	11 32	16 30	16 52	2 43	17 6	6 19	
T 10	4 20	24 51	2 27	14 1	0 6	16 4	0 25	2 16	0 49	19 48	0 15	17 27	0 36	5 12	0 43	20 42	1 34	10 27	11 31	16 29	16 53	2 40	17 6	6 19	
W 11	3 57	21 49	1 26	13 57	0s 5	15 44	0 28	1 57	0 49	19 46	0 15	17 25	0 36	5 12	0 43	20 42	1 34	10 27	11 31	16 29	16 54	2 37	17 7	6 18	
T 12	3 33	17 54	0 21	13 51	0 16	15 24	0 31	1 38	0 48	19 43	0 16	17 23	0 36	5 11	0 43	20 42	1 34	10 28	11 31	16 28	16 55	2 33	17 7	6 18	
F 13	3 9	13 19	0s43	13 43	0 26	15 4	0 33	1 19	0 48	19 40	0 16	17 22	0 36	5 10	0 43	20 42	1 34	10 28	11 31	16 28	16 56	2 30	17 8	6 18	
S 14	2 46	8 17	1 46	13 34	0 37	14 43	0 36	1 0	0 47	19 38	0 16	17 20	0 36	5 9	0 43	20 42	1 34	10 28	11 30	16 29	16 57	2 27	17 8	6 17	
S 15	2 22	2 58	2 43	13 23	0 46	14 21	0 39	0 41	0 47	19 35	0 16	17 18	0 36	5 8	0 43	20 42	1 34	10 29	11 30	16 30	16 57	2 23	17 9	6 17	
M 16	1 58	2s27	3 34	13 11	0 55	13 59	0 41	0 22	0 46	19 33	0 16	17 17	0 36	5 7	0 43	20 42	1 34	10 29	11 30	16 32	16 58	2 20	17 9	6 16	
T 17	1 35	7 48	4 15	12 57	1 4	13 37	0 44	0 3	0 46	19 30	0 16	17 15	0 36	5 6	0 43	20 42	1 35	10 29	11 29	16 34	16 59	2 17	17 10	6 16	
W 18	1 11	12 54	4 46	12 41	1 12	13 14	0 46	0n16	0 45	19 28	0 16	17 14	0 36	5 5	0 43	20 42	1 35	10 30	11 29	16 36	17 0	2 14	17 10	6 15	
T 19	0 47	17 34	5 4	12 24	1 20	12 51	0 49	0 35	0 45	19 25	0 16	17 12	0 36	5 4	0 43	20 42	1 35	10 30	11 29	16 39	17 1	2 10	17 10	6 15	
F 20	0 24	21 34	5 8	12 6	1 28	12 28	0 51	0 54	0 44	19 23	0 17	17 10	0 37	5 3	0 43	20 42	1 35	10 30	11 29	16 41	17 2	2 7	17 11	6 14	
S 21	0n 0	24 39	4 58	11 46	1 35	12 4	0 54	1 13	0 44	19 21	0 17	17 9	0 37	5 2	0 43	20 41	1 35	10 31	11 28	16 43	17 3	2 4	17 11	6 14	
S 22	0 24	26 37	4 34	11 25	1 41	11 40	0 56	1 32	0 43	19 18	0 17	17 7	0 37	5 1	0 43	20 41	1 35	10 31	11 28	16 44	17 4	2 1	17 12	6 13	
M 23	0 48	27 12	3 55	11 3	1 47	11 16	0 58	1 51	0 43	19 16	0 17	17 6	0 37	5 0	0 43	20 41	1 35	10 31	11 28	16 44	17 5	1 57	17 12	6 13	
T 24	1 11	26 16	3 3	10 39	1 53	10 51	1 0	2 10	0 42	19 13	0 17	17 4	0 37	4 59	0 43	20 41	1 35	10 32	11 28	16 44	17 5	1 54	17 13	6 13	
W 25	1 35	23 46	1 59	10 14	1 58	10 26	1 2	2 28	0 42	19 11	0 17	17 3	0 37	4 58	0 43	20 41	1 35	10 32	11 27	16 44	17 6	1 51	17 13	6 12	
T 26	1 59	19 47	0 47	9 47	2 3	10 1	1 4	2 47	0 41	19 9	0 17	17 1	0 37	4 57	0 43	20 41	1 35	10 32	11 27	16 44	17 7	1 48	17 14	6 12	
F 27	2 22	14 32	0n31	9 20	2 7	9 35	1 6	3 6	0 41	19 6	0 18	17 0	0 37	4 56	0 43	20 41	1 35	10 33	11 27	16 44	17 8	1 44	17 14	6 11	
S 28	2 46	8 20	1 48	8 51	2 11	9 10	1 8	3 25	0 40	19 4	0 18	16 58	0 38	4 55	0 43	20 41	1 35	10 33	11 27	16 44	17 9	1 41	17 15	6 11	
S 29	3 9	1 33	2 59	8 20	2 14	8 44	1 10	3 43	0 40	19 5	0 18	16 57	0 38	4 54	0 43	20 41	1 35	10 33	11 26	16 46	17 10	1 38	17 15	6 10	
M 30	3 32	5n22	3 58	7 49	2 17	8 17	1 12	4 2	0 39	18 59	0 18	16 56	0 38	4 53	0 43	20 41	1 35	10 34	11 26	16 47	17 11	1 35	17 15	6 10	
T 31	3n56	11n57	4n40	7s16	2s20	7s51	1s14	4n20	0s38	18s57	0s18	16s54	0s38	4s52	0n43	20s41	1n35	10n34	11s26	16s50	17s12	1n31	17n16	6s10	

ASTRODIENST EPHEMERIS for the year 2139
geocentric

APRIL 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	12 36 3	10°55'03	4♂31	18♂31	14♂8	13♂16	6♂35	15♂10	14°R 0	12°R16	9♂39	13°R 6	11♂54	19♂2	29♂39	W 1
T 2	12 39 59	11°54'22	19° 8	20° 4	15°21	14° 2	6°44	15°15	13♂57	12♂15	9°40	12♂58	11°51	19° 9	29°42	T 2
F 3	12 43 56	12°53'39	3♂19	21°37	16°35	14°48	6°54	15°20	13°54	12°14	9°40	12°50	11°48	19°16	29°44	F 3
S 4	12 47 52	13°52'53	17° 0	23°13	17°49	15°34	7° 3	15°25	13°52	12°14	9°41	12°45	11°45	19°22	29°46	S 4
S 5	12 51 49	14°52'06	0♂12	24°50	19° 2	16°20	7°12	15°29	13°49	12°13	9°42	12°42	11°41	19°29	29°49	S 5
M 6	12 55 45	15°51'16	12°58	26°28	20°16	17° 6	7°21	15°34	13°47	12°12	9°43	12°D40	11°38	19°36	29°51	M 6
T 7	12 59 42	16°50'23	25°22	28° 7	21°29	17°52	7°30	15°39	13°44	12°12	9°44	12°41	11°35	19°43	29°54	T 7
W 8	13 3 38	17°49'29	7♂29	29°48	22°43	18°38	7°39	15°43	13°41	12°11	9°45	12°R41	11°32	19°49	29°57	W 8
T 9	13 7 35	18°48'32	19°25	1♂31	23°56	19°24	7°47	15°48	13°39	12°10	9°46	12°41	11°29	19°56	29°59	T 9
F 10	13 11 32	19°47'33	1♂14	3°15	25°10	20°10	7°56	15°52	13°36	12° 9	9°46	12°39	11°26	20° 3	0♂2	F 10
S 11	13 15 28	20°46'31	13° 2	5° 0	26°23	20°55	8° 4	15°57	13°34	12° 9	9°47	12°35	11°22	20° 9	0° 5	S 11
S 12	13 19 25	21°45'27	24°51	6°47	27°37	21°41	8°13	16° 1	13°31	12° 8	9°48	12°28	11°19	20°16	0° 8	S 12
M13	13 23 21	22°44'22	6♂44	8°36	28°50	22°27	8°21	16° 5	13°28	12° 7	9°49	12°19	11°16	20°23	0°11	M13
T 14	13 27 18	23°43'14	18°44	10°26	0♂4	23°12	8°29	16° 9	13°26	12° 6	9°50	12° 7	11°13	20°29	0°14	T 14
W15	13 31 14	24°42'04	0♂52	12°17	1°18	23°58	8°36	16°13	13°23	12° 5	9°51	11°54	11°10	20°36	0°17	W15
T 16	13 35 11	25°40'52	13° 9	14°10	2°31	24°44	8°44	16°17	13°21	12° 4	9°52	11°41	11° 6	20°43	0°21	T 16
F 17	13 39 7	26°39'38	25°35	16° 4	3°45	25°29	8°52	16°21	13°18	12° 3	9°53	11°29	11° 3	20°49	0°24	F 17
S 18	13 43 4	27°38'23	8♂12	18° 0	4°58	26°15	8°59	16°25	13°16	12° 2	9°54	11°19	11° 0	20°56	0°27	S 18
S 19	13 47 0	28°37'05	21° 0	19°58	6°12	27° 0	9° 6	16°28	13°13	12° 1	9°55	11°11	10°57	21° 3	0°31	S 19
M20	13 50 57	29°35'46	4♂3	21°57	7°25	27°45	9°14	16°32	13°11	12° 0	9°56	11° 7	10°54	21° 9	0°34	M20
T 21	13 54 54	0♂34'26	17°17	23°57	8°39	28°31	9°21	16°36	13° 8	11°59	9°58	11° 4	10°51	21°16	0°38	T 21
W22	13 58 50	1°33'03	0♂49	25°59	9°52	29°16	9°27	16°39	13° 6	11°58	9°59	11°D 4	10°47	21°23	0°41	W22
T 23	14 2 47	2°31'39	14°40	28° 2	11° 6	0♂1	9°34	16°42	13° 4	11°57	10° 0	11°R 4	10°44	21°29	0°45	T 23
F 24	14 6 43	3°30'14	28°50	0♂6	12°20	0°46	9°41	16°46	13° 1	11°55	10° 1	11° 3	10°41	21°36	0°49	F 24
S 25	14 10 40	4°28'46	13♂19	2°12	13°33	1°31	9°47	16°49	12°59	11°54	10° 2	11° 1	10°38	21°43	0°53	S 25
S 26	14 14 36	5°27'17	28° 3	4°18	14°47	2°17	9°53	16°52	12°57	11°53	10° 3	10°55	10°35	21°49	0°56	S 26
M27	14 18 33	6°25'47	12♂58	6°26	16° 0	3° 2	9°59	16°55	12°54	11°52	10° 4	10°47	10°32	21°56	1° 0	M27
T 28	14 22 29	7°24'14	27°53	8°34	17°14	3°47	10° 5	16°58	12°52	11°50	10° 6	10°37	10°28	22° 3	1° 4	T 28
W29	14 26 26	8°22'40	12♂42	10°42	18°27	4°32	10°11	17° 1	12°50	11°49	10° 7	10°25	10°25	22° 9	1° 8	W29
T 30	14 30 23	9♂21'04	27♂15	12♂51	19♂41	5♂16	10♂17	17♂3	12♂47	11♂48	10♂8	10♂14	10♂22	22♂16	1♂13	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
W 1	4n19	17n45	5n 2	6s43	2s22	7s24	1s15	4n39	0s38	18s55	0s18	16s53	0s38	4s51	0n43	20s40	1n35	10n35	11s26	16s52	17s13	1n28	17n16	6s 9	
T 2	4 42	22 21	5 3	6 8	2 23	6 57	1 17	4 57	0 37	18 52	0 18	16 52	0 38	4 50	0 43	20 40	1 35	10 35	11 25	16 55	17 13	1 25	17 17	6 9	
F 3	5 5	25 29	4 46	5 32	2 24	6 30	1 18	5 16	0 37	18 50	0 19	16 50	0 38	4 49	0 43	20 40	1 35	10 35	11 25	16 57	17 14	1 22	17 17	6 8	
S 4	5 28	26 59	4 13	4 55	2 25	6 2	1 20	5 34	0 36	18 48	0 19	16 49	0 38	4 48	0 43	20 40	1 35	10 36	11 25	16 58	17 15	1 18	17 18	6 8	
S 5	5 51	26 52	3 27	4 16	2 25	5 35	1 21	5 52	0 36	18 46	0 19	16 48	0 38	4 47	0 43	20 40	1 35	10 36	11 25	16 59	17 16	1 15	17 18	6 7	
M 6	6 14	25 19	2 32	3 37	2 25	5 7	1 23	6 10	0 35	18 44	0 19	16 46	0 39	4 46	0 43	20 40	1 35	10 36	11 24	17 0	17 17	1 12	17 18	6 7	
T 7	6 37	22 33	1 31	2 57	2 24	4 39	1 24	6 28	0 34	18 42	0 19	16 45	0 39	4 45	0 43	20 40	1 35	10 37	11 24	17 0	17 18	1 9	17 19	6 7	
W 8	6 59	18 50	0 28	2 15	2 22	4 12	1 25	6 46	0 34	18 40	0 19	16 44	0 39	4 44	0 43	20 40	1 36	10 37	11 24	16 59	17 19	1 5	17 19	6 6	
T 9	7 22	14 25	0s36	1 33	2 20	3 43	1 26	7 4	0 33	18 37	0 20	16 43	0 39	4 43	0 43	20 39	1 36	10 37	11 24	16 59	17 20	1 2	17 20	6 6	
F 10	7 44	9 31	1 37	0 49	2 18	3 15	1 27	7 22	0 33	18 35	0 20	16 41	0 39	4 42	0 43	20 39	1 36	10 38	11 23	17 0	17 20	0 59	17 20	6 5	
S 11	8 6	4 17	2 34	0 5	2 15	2 47	1 28	7 40	0 32	18 33	0 20	16 40	0 39	4 41	0 43	20 39	1 36	10 38	11 23	17 1	17 21	0 56	17 20	6 5	
S 12	8 28	1s 5	3 24	0n40	2 12	2 19	1 29	7 58	0 31	18 31	0 20	16 39	0 39	4 40	0 43	20 39	1 36	10 38	11 23	17 3	17 22	0 52	17 21	6 5	
M13	8 50	6 26	4 6	1 27	2 8	1 50	1 30	8 15	0 31	18 29	0 20	16 38	0 40	4 39	0 43	20 39	1 36	10 39	11 23	17 6	17 23	0 49	17 21	6 4	
T 14	9 12	11 36	4 37	2 14	2 4	1 22	1 31	8 33	0 30	18 28	0 20	16 37	0 40	4 38	0 43	20 39	1 36	10 39	11 23	17 9	17 24	0 46	17 22	6 4	
W15	9 34	16 23	4 55	3 2	1 59	0 53	1 31	8 50	0 30	18 26	0 21	16 36	0 40	4 37	0 43	20 39	1 36	10 39	11 22	17 13	17 25	0 43	17 22	6 3	
T 16	9 55	20 33	5 1	3 50	1 54	0 24	1 32	9 7	0 29	18 24	0 21	16 35	0 40	4 37	0 43	20 38	1 36	10 40	11 22	17 16	17 26	0 39	17 22	6 3	
F 17	10 16	23 52	4 52	4 40	1 48	0n 4	1 32	9 24	0 28	18 22	0 21	16 34	0 40	4 36	0 43	20 38	1 36	10 40	11 22	17 20	17 27	0 36	17 23	6 3	
S 18	10 38	26 5	4 29	5 30	1 41	0 33	1 33	9 41	0 28	18 20	0 21	16 33	0 40	4 35	0 43	20 38	1 36	10 40	11 22	17 22	17 27	0 33	17 23	6 2	
S 19	10 59	26 59	3 52	6 21	1 34	1 2	1 33	9 58	0 27	18 18	0 21	16 32	0 40	4 34	0 43	20 38	1 36	10 41	11 22	17 24	17 28	0 30	17 23	6 2	
M20	11 19	26 24	3 3	7 12	1 27	1 31	1 34	10 15	0 27	18 17	0 21	16 31	0 40	4 33	0 43	20 38	1 36	10 41	11 21	17 26	17 29	0 27	17 24	6 2	
T 21	11 40	24 20	2 2	8 3	1 19	1 59	1 34	10 32	0 26	18 15	0 22	16 30	0 41	4 32	0 43	20 37	1 36	10 41	11 21	17 26	17 30	0 23	17 24	6 1	
W22	12 0	20 50	0 54	8 55	1 11	2 28	1 34	10 49	0 25	18 13	0 22	16 29	0 41	4 31	0 43	20 37	1 36	10 42	11 21	17 26	17 31	0 20	17 24	6 1	
T 23	12 21	16 7	0n19	9 48	1 2	2 57	1 34	11 5	0 25	18 12	0 22	16 28	0 41	4 30	0 43	20 37	1 36	10 42	11 21	17 26	17 32	0 17	17 25	6 1	
F 24	12 41	10 25	1 33	10 40	0 53	3 25	1 34	11 21	0 24	18 10	0 22	16 27	0 41	4 29	0 43	20 37	1 36	10 42	11 21	17 27	17 33	0 14	17 25	6 0	
S 25	13 0	4 4	2 42	11 32	0 44	3 54	1 34	11 38	0 24	18 9	0 22	16 26	0 41	4 28	0 43	20 37	1 36	10 43	11 20	17 27	17 34	0 10	17 25	6 0	
S 26	13 20	2n37	3 41	12 25	0 34	4 22	1 34	11 54	0 23	18 7	0 22	16 26	0 41	4 27	0 43	20 37	1 36	10 43	11 20	17 29	17 34	0 7	17 26	6 0	
M27	13 39	9 12	4 26	13 16	0 24	4 51	1 34	12 10	0 22	18 6	0 23	16 25	0 41	4 26	0 43	20 36	1 36	10 43	11 20	17 31	17 35	0 4	17 26	5 59	
T 28	13 58	15 16	4 53	14 8	0 14	5 19	1 34	12 26	0 22	18 4	0 23	16 24	0 42	4 25	0 43	20 36	1 36	10 44	11 20	17 34	17 36	0 1	17 26	5 59	
W29	14 17	20 24	5 0	14 58	0 3	5 47	1 33	12 41	0 21	18 3	0 23	16 23	0 42	4 25	0 43	20 36	1 36	10 44	11 20	17 37	17 37	0s 3	17 27	5 59	
T 30	14n36	24n11	4n47	15n48	0n 7	6n16	1s33	12n57	0s20	18s 2	0s23	16s23	0s42	4s24	0n43	20s36	1n36	10n44	11s20	17s40	17s38	0s 6	17n27	5s58	

ASTRODIENST EPHEMERIS for the year 2139
geocentric

MAY 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	14 34 19	10♌19'26	11♊25	15♌0	20♊54	6♌1	10♌22	17♌6	12♌R45	11♌R47	10♊9	10♌R4	10♌19	22♊23	1♌17	F 1
S 2	14 38 16	11°17'47	25°8	17°9	22°8	6°46	10°27	17°9	12♌43	11♌45	10°10	9♌56	10°16	22°29	1°21	S 2
S 3	14 42 12	12°16'05	8♌23	19°17	23°22	7°31	10°32	17°11	12°41	11°44	10°12	9°51	10°12	22°36	1°25	S 3
M 4	14 46 9	13°14'21	21°13	21°24	24°35	8°16	10°37	17°14	12°39	11°43	10°13	9°48	10°9	22°43	1°29	M 4
T 5	14 50 5	14°12'35	3♌04	23°30	25°49	9°0	10°42	17°16	12°37	11°41	10°14	9°47	10°6	22°50	1°34	T 5
W 6	14 54 2	15°10'47	15°49	25°34	27°2	9°45	10°47	17°18	12°35	11°40	10°15	9°47	10°3	22°56	1°38	W 6
T 7	14 57 59	16°8'57	27°46	27°37	28°16	10°29	10°51	17°20	12°33	11°38	10°16	9°47	10°0	23°3	1°43	T 7
F 8	15 1 55	17°7'05	9♊37	29°37	29°29	11°14	10°55	17°22	12°31	11°37	10°18	9°45	9°57	23°10	1°47	F 8
S 9	15 5 52	18°5'11	21°25	1♊36	0♌43	11°58	11°0	17°24	12°29	11°36	10°19	9°41	9°53	23°16	1°52	S 9
S 10	15 9 48	19°3'16	3♌17	3°32	1°56	12°43	11°3	17°26	12°27	11°34	10°20	9°35	9°50	23°23	1°56	S 10
M 11	15 13 45	20°1'18	15°15	5°25	3°10	13°27	11°7	17°28	12°25	11°33	10°22	9°26	9°47	23°30	2°1	M 11
T 12	15 17 41	20°59'19	27°23	7°15	4°23	14°11	11°11	17°29	12°23	11°31	10°23	9°14	9°44	23°36	2°6	T 12
W 13	15 21 38	21°57'18	9♊41	9°2	5°37	14°55	11°14	17°31	12°21	11°30	10°24	9°2	9°41	23°43	2°11	W 13
T 14	15 25 34	22°55'15	22°12	10°46	6°50	15°39	11°17	17°32	12°19	11°28	10°26	8°49	9°38	23°50	2°15	T 14
F 15	15 29 31	23°53'11	4♌56	12°27	8°4	16°24	11°20	17°34	12°18	11°27	10°27	8°37	9°34	23°56	2°20	F 15
S 16	15 33 27	24°51'05	17°51	14°4	9°17	17°8	11°23	17°35	12°16	11°25	10°28	8°27	9°31	24°3	2°25	S 16
S 17	15 37 24	25°48'58	0♌58	15°38	10°31	17°52	11°26	17°36	12°14	11°24	10°29	8°19	9°28	24°10	2°30	S 17
M 18	15 41 21	26°46'50	14°16	17°8	11°44	18°36	11°28	17°37	12°13	11°22	10°31	8°15	9°25	24°16	2°35	M 18
T 19	15 45 17	27°44'40	27°44	18°35	12°58	19°19	11°31	17°38	12°11	11°20	10°32	8°12	9°22	24°23	2°40	T 19
W 20	15 49 14	28°42'29	11♌25	19°58	14°11	20°3	11°33	17°39	12°10	11°19	10°33	8°D12	9°18	24°30	2°45	W 20
T 21	15 53 10	29°40'17	25°16	21°17	15°25	20°47	11°35	17°40	12°8	11°17	10°35	8°R12	9°15	24°36	2°50	T 21
F 22	15 57 7	0♊38'04	9♌20	22°33	16°38	21°31	11°36	17°40	12°7	11°16	10°36	8°12	9°12	24°43	2°55	F 22
S 23	16 1 3	1°35'50	23°36	23°44	17°52	22°15	11°38	17°41	12°5	11°14	10°38	8°10	9°9	24°50	3°0	S 23
S 24	16 5 0	2°33'34	8♊0	24°52	19°5	22°58	11°39	17°41	12°4	11°13	10°39	8°6	9°6	24°56	3°6	S 24
M 25	16 8 57	3°31'18	22°31	25°56	20°19	23°42	11°40	17°42	12°3	11°11	10°40	8°0	9°3	25°3	3°11	M 25
T 26	16 12 53	4°29'01	7♌2	26°56	21°33	24°25	11°41	17°42	12°1	11°9	10°42	7°51	8°59	25°10	3°16	T 26
W 27	16 16 50	5°26'42	21°27	27°52	22°46	25°9	11°42	17°42	12°0	11°8	10°43	7°42	8°56	25°17	3°21	W 27
T 28	16 20 46	6°24'22	5♊41	28°44	24°0	25°52	11°43	17°R42	11°59	11°6	10°44	7°32	8°53	25°23	3°27	T 28
F 29	16 24 43	7°22'01	19°36	29°32	25°13	26°36	11°43	17°42	11°58	11°4	10°46	7°23	8°50	25°30	3°32	F 29
S 30	16 28 39	8°19'39	3♌10	0♌15	26°27	27°19	11°43	17°42	11°57	11°3	10°47	7°17	8°47	25°37	3°37	S 30
S 31	16 32 36	9♊17'16	16♌21	0♌54	27♌40	28♌2	11°R43	17♌42	11♌56	11♌1	10♊48	7♌13	8♌44	25♊43	3♌43	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	decl	lat
F 1	14n54	26n23	4n17	16n37	0n18	6n44	1s32	13n12	0s20	18s 0	0s23	16s22	0s42	4s23	0n42	20s36	1n36	10n45	11s19	17s43	17s39	0s 9	17n27	5s58
S 2	15 13	26 53	3 33	17 24	0 29	7 11	1 32	13 28	0 19	17 59	0 24	16 21	0 42	4 22	0 42	20 35	1 36	10 45	11 19	17 45	17 40	0 12	17 27	5 58
S 3	15 30	25 47	2 38	18 10	0 39	7 39	1 31	13 43	0 19	17 58	0 24	16 21	0 42	4 21	0 42	20 35	1 36	10 45	11 19	17 46	17 40	0 16	17 28	5 57
M 4	15 48	23 21	1 37	18 54	0 50	8 7	1 31	13 58	0 18	17 57	0 24	16 20	0 42	4 20	0 42	20 35	1 36	10 46	11 19	17 47	17 41	0 19	17 28	5 57
T 5	16 6	19 51	0 32	19 36	1 0	8 34	1 30	14 13	0 17	17 56	0 24	16 20	0 43	4 20	0 42	20 35	1 36	10 46	11 19	17 47	17 42	0 22	17 28	5 57
W 6	16 23	15 35	0s32	20 16	1 10	9 1	1 29	14 28	0 17	17 54	0 24	16 19	0 43	4 19	0 42	20 35	1 36	10 46	11 19	17 47	17 43	0 25	17 28	5 56
T 7	16 40	10 46	1 34	20 54	1 19	9 28	1 28	14 42	0 16	17 53	0 24	16 19	0 43	4 18	0 42	20 34	1 36	10 47	11 19	17 47	17 44	0 28	17 29	5 56
F 8	16 56	5 38	2 31	21 30	1 28	9 55	1 28	14 57	0 15	17 52	0 25	16 18	0 43	4 17	0 42	20 34	1 36	10 47	11 18	17 48	17 45	0 32	17 29	5 56
S 9	17 12	0 19	3 21	22 3	1 37	10 22	1 27	15 11	0 15	17 52	0 25	16 18	0 43	4 17	0 42	20 34	1 36	10 47	11 18	17 49	17 45	0 35	17 29	5 56
S 10	17 28	5s 1	4 3	22 34	1 45	10 48	1 26	15 25	0 14	17 51	0 25	16 17	0 43	4 16	0 42	20 34	1 36	10 47	11 18	17 50	17 46	0 38	17 29	5 55
M11	17 44	10 13	4 35	23 2	1 52	11 14	1 24	15 39	0 13	17 50	0 25	16 17	0 43	4 15	0 42	20 34	1 36	10 48	11 18	17 53	17 47	0 41	17 29	5 55
T 12	17 59	15 6	4 54	23 27	1 59	11 40	1 23	15 53	0 13	17 49	0 25	16 17	0 44	4 15	0 42	20 33	1 37	10 48	11 18	17 56	17 48	0 45	17 30	5 55
W13	18 15	19 27	5 1	23 50	2 5	12 6	1 22	16 7	0 12	17 48	0 26	16 16	0 44	4 14	0 42	20 33	1 37	10 48	11 18	17 59	17 49	0 48	17 30	5 55
T 14	18 29	23 1	4 53	24 11	2 10	12 31	1 21	16 20	0 11	17 48	0 26	16 16	0 44	4 13	0 42	20 33	1 37	10 49	11 18	18 3	17 50	0 51	17 30	5 54
F 15	18 44	25 32	4 30	24 29	2 14	12 56	1 20	16 33	0 11	17 47	0 26	16 16	0 44	4 13	0 42	20 33	1 37	10 49	11 18	18 6	17 51	0 54	17 30	5 54
S 16	18 58	26 44	3 53	24 45	2 18	13 21	1 18	16 46	0 10	17 46	0 26	16 15	0 44	4 12	0 42	20 32	1 37	10 49	11 18	18 8	17 51	0 57	17 30	5 54
S 17	19 12	26 29	3 4	24 58	2 20	13 45	1 17	16 59	0 10	17 46	0 26	16 15	0 44	4 11	0 42	20 32	1 37	10 49	11 17	18 10	17 52	1 1	17 30	5 54
M18	19 25	24 42	2 3	25 9	2 22	14 9	1 15	17 12	0 9	17 45	0 27	16 15	0 45	4 11	0 42	20 32	1 37	10 50	11 17	18 12	17 53	1 4	17 30	5 54
T 19	19 39	21 30	0 55	25 18	2 23	14 33	1 14	17 25	0 8	17 45	0 27	16 15	0 45	4 10	0 42	20 32	1 37	10 50	11 17	18 12	17 54	1 7	17 30	5 53
W20	19 51	17 4	0n17	25 25	2 23	14 56	1 12	17 37	0 8	17 45	0 27	16 15	0 45	4 10	0 42	20 32	1 37	10 50	11 17	18 12	17 55	1 10	17 31	5 53
T 21	20 4	11 41	1 29	25 30	2 22	15 19	1 11	17 50	0 7	17 44	0 27	16 15	0 45	4 9	0 42	20 31	1 37	10 50	11 17	18 12	17 56	1 14	17 31	5 53
F 22	20 16	5 38	2 38	25 33	2 20	15 42	1 9	18 2	0 6	17 44	0 27	16 15	0 45	4 8	0 42	20 31	1 37	10 51	11 17	18 12	17 56	1 17	17 31	5 53
S 23	20 28	0n47	3 37	25 34	2 18	16 4	1 7	18 14	0 6	17 44	0 28	16 15	0 45	4 8	0 42	20 31	1 37	10 51	11 17	18 13	17 57	1 20	17 31	5 53
S 24	20 39	7 12	4 23	25 34	2 14	16 26	1 6	18 25	0 5	17 43	0 28	16 15	0 45	4 7	0 42	20 31	1 37	10 51	11 17	18 14	17 58	1 23	17 31	5 52
M25	20 51	13 17	4 52	25 31	2 10	16 47	1 4	18 37	0 4	17 43	0 28	16 15	0 46	4 7	0 42	20 30	1 37	10 51	11 17	18 15	17 59	1 26	17 31	5 52
T 26	21 1	18 37	5 3	25 28	2 4	17 8	1 2	18 48	0 4	17 43	0 28	16 15	0 46	4 6	0 42	20 30	1 37	10 52	11 17	18 18	18 0	1 30	17 31	5 52
W27	21 12	22 51	4 55	25 23	1 58	17 29	1 0	18 59	0 3	17 43	0 29	16 15	0 46	4 6	0 42	20 30	1 37	10 52	11 17	18 20	18 1	1 33	17 31	5 52
T 28	21 22	25 38	4 28	25 16	1 51	17 49	0 58	19 10	0 2	17 43	0 29	16 15	0 46	4 6	0 42	20 30	1 37	10 52	11 17	18 22	18 1	1 36	17 31	5 52
F 29	21 31	26 46	3 46	25 8	1 43	18 9	0 56	19 21	0 2	17 43	0 29	16 15	0 46	4 5	0 42	20 30	1 37	10 52	11 17	18 25	18 2	1 39	17 31	5 52
S 30	21 41	26 14	2 51	24 59	1 34	18 28	0 54	19 32	0 1	17 44	0 29	16 15	0 46	4 5	0 42	20 29	1 37	10 53	11 17	18 26	18 3	1 42	17 31	5 51
S 31	21n50	24n14	1n49	24n49	1n24	18n47	0s52	19n42	0s 0	17s44	0s29	16s15	0s47	4s 4	0n42	20s29	1n37	10n53	11s16	18s27	18s 4	1s46	17n31	5s51

ASTRODIENST EPHEMERIS for the year 2139
geocentric

JUNE 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	16 36 32	10 ^{II} 14'51	29 [☾] 8	19 [☾] 29	28 [♂] 54	28 [♂] 45	11°R43	17°R42	11°R55	11°R 0	10 ^{II} 50	7°R11	8 [♂] 40	25 [♂] 50	3 [☾] 48	M 1
T 2	16 40 29	11°12'25	11 [♂] 36	1°59	0 ^{II} 7	29°29	11 [♂] 43	17 [♂] 41	11 [♂] 54	10 [♂] 58	10°51	7°D10	8°37	25°57	3°54	T 2
W 3	16 44 26	12° 9'57	23°47	2°25	1°21	0 ^{II} 12	11°42	17°41	11°53	10°56	10°53	7 [♂] 11	8°34	26° 3	3°59	W 3
T 4	16 48 22	13° 7'29	5 [♂] 46	2°46	2°34	0°55	11°42	17°40	11°52	10°55	10°54	7°12	8°31	26°10	4° 5	T 4
F 5	16 52 19	14° 4'58	17°39	3° 2	3°48	1°38	11°41	17°39	11°51	10°53	10°55	7°R12	8°28	26°17	4°10	F 5
S 6	16 56 15	15° 2'27	29°29	3°14	5° 1	2°21	11°39	17°39	11°50	10°51	10°57	7°11	8°24	26°23	4°16	S 6
S 7	17 0 12	15°59'54	11 [♂] 23	3°21	6°15	3° 3	11°38	17°38	11°50	10°50	10°58	7° 8	8°21	26°30	4°21	S 7
M 8	17 4 8	16°57'20	23°25	3°R24	7°28	3°46	11°37	17°37	11°49	10°48	10°59	7° 3	8°18	26°37	4°27	M 8
T 9	17 8 5	17°54'45	5 [♂] 39	3°22	8°42	4°29	11°35	17°36	11°49	10°47	11° 1	6°56	8°15	26°43	4°33	T 9
W10	17 12 1	18°52'09	18° 6	3°15	9°56	5°12	11°33	17°34	11°48	10°45	11° 2	6°48	8°12	26°50	4°38	W10
T 11	17 15 58	19°49'32	0 [♂] 50	3° 4	11° 9	5°54	11°31	17°33	11°48	10°43	11° 3	6°39	8° 9	26°57	4°44	T 11
F 12	17 19 55	20°46'54	13°50	2°50	12°23	6°37	11°29	17°32	11°47	10°42	11° 5	6°32	8° 5	27° 4	4°50	F 12
S 13	17 23 51	21°44'15	27° 5	2°31	13°36	7°20	11°26	17°30	11°47	10°40	11° 6	6°25	8° 2	27°10	4°55	S 13
S 14	17 27 48	22°41'36	10 [♂] 34	2° 9	14°50	8° 2	11°24	17°29	11°46	10°39	11° 7	6°21	7°59	27°17	5° 1	S 14
M15	17 31 44	23°38'56	24°16	1°44	16° 3	8°45	11°21	17°27	11°46	10°37	11° 9	6°18	7°56	27°24	5° 7	M15
T 16	17 35 41	24°36'15	8 [♂] 7	1°16	17°17	9°27	11°18	17°25	11°46	10°36	11°10	6°D18	7°53	27°30	5°12	T 16
W17	17 39 37	25°33'34	22° 6	0°45	18°30	10° 9	11°15	17°24	11°46	10°34	11°12	6°18	7°50	27°37	5°18	W17
T 18	17 43 34	26°30'52	6 [♂] 11	0°13	19°44	10°52	11°11	17°22	11°46	10°32	11°13	6°20	7°46	27°44	5°24	T 18
F 19	17 47 30	27°28'10	20°20	29 ^{II} 40	20°58	11°34	11° 8	17°20	11°46	10°31	11°14	6°21	7°43	27°50	5°30	F 19
S 20	17 51 27	28°25'28	4 [♂] 32	29° 6	22°11	12°16	11° 4	17°18	11°D46	10°29	11°15	6°R21	7°40	27°57	5°36	S 20
S 21	17 55 24	29°22'45	18°44	28°32	23°25	12°58	11° 0	17°15	11°46	10°28	11°17	6°19	7°37	28° 4	5°41	S 21
M22	17 59 20	0 [☾] 20'02	2 [♂] 55	27°58	24°38	13°40	10°56	17°13	11°46	10°26	11°18	6°16	7°34	28°10	5°47	M22
T 23	18 3 17	1°17'19	17° 1	27°26	25°52	14°22	10°52	17°11	11°46	10°25	11°19	6°12	7°30	28°17	5°53	T 23
W24	18 7 13	2°14'36	0 ^{II} 59	26°55	27° 6	15° 4	10°48	17° 8	11°46	10°23	11°21	6° 7	7°27	28°24	5°59	W24
T 25	18 11 10	3°11'53	14°45	26°26	28°19	15°46	10°43	17° 6	11°46	10°22	11°22	6° 2	7°24	28°31	6° 5	T 25
F 26	18 15 6	4° 9'09	28°17	26° 0	29°33	16°28	10°39	17° 3	11°47	10°20	11°23	5°57	7°21	28°37	6°11	F 26
S 27	18 19 3	5° 6'25	11 [☾] 32	25°37	0 [☾] 47	17°10	10°34	17° 1	11°47	10°19	11°25	5°54	7°18	28°44	6°16	S 27
S 28	18 23 0	6° 3'40	24°29	25°17	2° 0	17°52	10°29	16°58	11°47	10°18	11°26	5°52	7°15	28°51	6°22	S 28
M29	18 26 56	7° 0'55	7 [♂] 9	25° 1	3°14	18°33	10°24	16°55	11°48	10°16	11°27	5°D52	7°11	28°57	6°28	M29
T 30	18 30 53	7 [☾] 58'10	19 [♂] 32	24 ^{II} 49	4 [☾] 28	19 ^{II} 15	10 [♂] 18	16 [♂] 52	11 [♂] 48	10 [♂] 15	11 ^{II} 28	5 [♂] 52	7 [♂] 8	29 [♂] 4	6 [☾] 34	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	21n58	21n 1	0n43	24n38	1n13	19n 5	0s50	19n52	0n 0	17s44	0s30	16s16	0s47	4s 4	0n42	20s29	1n37	10n53	11s16	18s28	18s 5	1s49	17n31	5s51	
T 2	22 6	16 55	0s24	24 26	1 2	19 23	0 48	20 2	0 1	17 44	0 30	16 16	0 47	4 4	0 41	20 29	1 37	10 53	11 16	18 28	18 6	1 52	17 31	5 51	
W 3	22 14	12 12	1 28	24 13	0 49	19 40	0 46	20 12	0 2	17 45	0 30	16 16	0 47	4 3	0 41	20 28	1 37	10 54	11 16	18 28	18 6	1 55	17 31	5 51	
T 4	22 21	7 6	2 27	24 0	0 36	19 57	0 44	20 22	0 2	17 45	0 30	16 17	0 47	4 3	0 41	20 28	1 37	10 54	11 16	18 28	18 7	1 58	17 31	5 51	
F 5	22 28	1 49	3 20	23 46	0 22	20 13	0 42	20 31	0 3	17 46	0 30	16 17	0 47	4 3	0 41	20 28	1 37	10 54	11 16	18 28	18 8	2 2	17 31	5 51	
S 6	22 35	3s31	4 4	23 31	0 8	20 28	0 39	20 40	0 4	17 46	0 31	16 17	0 47	4 3	0 41	20 28	1 37	10 54	11 16	18 28	18 9	2 5	17 31	5 51	
S 7	22 41	8 45	4 37	23 15	0s 8	20 44	0 37	20 49	0 4	17 47	0 31	16 18	0 48	4 2	0 41	20 28	1 37	10 54	11 16	18 29	18 10	2 8	17 31	5 51	
M 8	22 47	13 43	4 59	22 59	0 23	20 58	0 35	20 58	0 5	17 47	0 31	16 18	0 48	4 2	0 41	20 27	1 37	10 55	11 16	18 30	18 11	2 11	17 31	5 51	
T 9	22 52	18 13	5 7	22 43	0 40	21 12	0 33	21 7	0 5	17 48	0 31	16 19	0 48	4 2	0 41	20 27	1 37	10 55	11 16	18 32	18 11	2 14	17 30	5 50	
W10	22 57	22 2	5 1	22 27	0 56	21 25	0 30	21 15	0 6	17 49	0 31	16 19	0 48	4 2	0 41	20 27	1 37	10 55	11 16	18 34	18 12	2 18	17 30	5 50	
T 11	23 2	24 53	4 41	22 10	1 13	21 38	0 28	21 23	0 7	17 49	0 32	16 20	0 48	4 2	0 41	20 27	1 37	10 55	11 16	18 36	18 13	2 21	17 30	5 50	
F 12	23 6	26 30	4 5	21 53	1 31	21 50	0 26	21 31	0 7	17 50	0 32	16 20	0 48	4 2	0 41	20 27	1 37	10 55	11 16	18 38	18 14	2 24	17 30	5 50	
S 13	23 10	26 39	3 16	21 36	1 48	22 2	0 23	21 39	0 8	17 51	0 32	16 21	0 49	4 1	0 41	20 26	1 37	10 55	11 16	18 39	18 15	2 27	17 30	5 50	
S 14	23 13	25 14	2 15	21 19	2 5	22 13	0 21	21 47	0 9	17 52	0 32	16 21	0 49	4 1	0 41	20 26	1 36	10 56	11 16	18 40	18 16	2 30	17 30	5 50	
M15	23 16	22 19	1 5	21 3	2 22	22 23	0 19	21 54	0 9	17 53	0 33	16 22	0 49	4 1	0 41	20 26	1 36	10 56	11 16	18 41	18 16	2 33	17 30	5 50	
T 16	23 19	18 4	0n10	20 47	2 38	22 33	0 16	22 1	0 10	17 54	0 33	16 23	0 49	4 1	0 41	20 26	1 36	10 56	11 16	18 41	18 17	2 37	17 29	5 50	
W17	23 21	12 48	1 25	20 31	2 54	22 42	0 14	22 8	0 11	17 55	0 33	16 23	0 49	4 1	0 41	20 25	1 36	10 56	11 16	18 41	18 18	2 40	17 29	5 50	
T 18	23 23	6 50	2 35	20 16	3 9	22 50	0 12	22 15	0 11	17 56	0 33	16 24	0 49	4 1	0 41	20 25	1 36	10 56	11 16	18 41	18 19	2 43	17 29	5 50	
F 19	23 24	0 31	3 36	20 2	3 23	22 58	0 9	22 21	0 12	17 57	0 33	16 25	0 49	4 1	0 41	20 25	1 36	10 56	11 16	18 40	18 20	2 46	17 29	5 50	
S 20	23 25	5n51	4 24	19 48	3 37	23 5	0 7	22 27	0 13	17 59	0 34	16 26	0 50	4 1	0 41	20 25	1 36	10 56	11 16	18 40	18 20	2 49	17 28	5 50	
S 21	23 25	11 54	4 57	19 36	3 49	23 11	0 4	22 33	0 13	18 0	0 34	16 27	0 50	4 1	0 41	20 25	1 36	10 57	11 16	18 41	18 21	2 52	17 28	5 50	
M22	23 25	17 20	5 10	19 24	4 0	23 17	0 2	22 39	0 14	18 1	0 34	16 27	0 50	4 1	0 41	20 25	1 36	10 57	11 16	18 41	18 22	2 56	17 28	5 50	
T 23	23 25	21 47	5 5	19 14	4 10	23 22	0n 0	22 45	0 15	18 3	0 34	16 28	0 50	4 2	0 41	20 24	1 36	10 57	11 16	18 43	18 23	2 59	17 28	5 50	
W24	23 24	24 57	4 42	19 5	4 18	23 26	0 3	22 50	0 15	18 4	0 34	16 29	0 50	4 2	0 41	20 24	1 36	10 57	11 17	18 44	18 24	3 2	17 27	5 50	
T 25	23 23	26 35	4 3	18 58	4 25	23 30	0 5	22 56	0 16	18 5	0 35	16 30	0 50	4 2	0 41	20 24	1 36	10 57	11 17	18 45	18 24	3 5	17 27	5 50	
F 26	23 21	26 36	3 11	18 52	4 30	23 33	0 8	23 1	0 16	18 7	0 35	16 31	0 50	4 2	0 40	20 24	1 36	10 57	11 17	18 46	18 25	3 8	17 27	5 50	
S 27	23 19	25 4	2 9	18 47	4 34	23 35	0 10	23 5	0 17	18 8	0 35	16 32	0 51	4 2	0 40	20 24	1 36	10 57	11 17	18 47	18 26	3 11	17 27	5 50	
S 28	23 17	22 13	1 2	18 44	4 37	23 37	0 12	23 10	0 18	18 10	0 35	16 33	0 51	4 2	0 40	20 23	1 36	10 57	11 17	18 47	18 27	3 15	17 26	5 50	
M29	23 14	18 22	0s 7	18 42	4 38	23 38	0 15	23 14	0 18	18 12	0 35	16 34	0 51	4 3	0 40	20 23	1 36	10 57	11 17	18 48	18 28	3 18	17 26	5 50	
T 30	23n11	13n47	1s14	18n42	4s37	23n38	0n17	23n18	0n19	18s13	0s36	16s35	0s51	4s 3	0n40	20s23	1n36	10n58	11s17	18s47	18s28	3s21	17n26	5s50	

ASTRODIENST EPHEMERIS for the year 2139
geocentric

JULY 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	18 34 49	8♂55'24	1♂41	24°R42	5♂41	19♂57	10°R13	16°R49	11♂49	10°R13	11♂30	5♂54	7♂5	29♂11	6♂40	W 1
T 2	18 38 46	9°52'38	13°40	24°D39	6°55	20°38	10♂7	16♂46	11°50	10♂12	11°31	5°55	7°2	29°17	6°46	T 2
F 3	18 42 42	10°49'51	25°33	24♂41	8°9	21°20	10°1	16°43	11°50	10°11	11°32	5°57	6°59	29°24	6°51	F 3
S 4	18 46 39	11°47'04	7♂25	24°48	9°23	22°1	9°56	16°40	11°51	10°9	11°33	5°R58	6°56	29°31	6°57	S 4
S 5	18 50 35	12°44'16	19°20	25°0	10°36	22°42	9°50	16°37	11°52	10°8	11°34	5°58	6°52	29°38	7°3	S 5
M 6	18 54 32	13°41'29	1♂23	25°17	11°50	23°24	9°43	16°33	11°53	10°7	11°36	5°56	6°49	29°44	7°9	M 6
T 7	18 58 29	14°38'40	13°38	25°38	13°4	24°5	9°37	16°30	11°54	10°5	11°37	5°54	6°46	29°51	7°15	T 7
W 8	19 2 25	15°35'52	26°10	26°5	14°17	24°46	9°31	16°27	11°55	10°4	11°38	5°52	6°43	29°58	7°21	W 8
T 9	19 6 22	16°33'04	9♂0	26°37	15°31	25°27	9°24	16°23	11°56	10°3	11°39	5°49	6°40	0♂4	7°26	T 9
F 10	19 10 18	17°30'15	22°11	27°13	16°45	26°9	9°18	16°19	11°57	10°2	11°40	5°46	6°36	0°11	7°32	F 10
S 11	19 14 15	18°27'26	5♂43	27°55	17°59	26°50	9°11	16°16	11°58	10°1	11°41	5°44	6°33	0°18	7°38	S 11
S 12	19 18 11	19°24'38	19°33	28°41	19°12	27°31	9°4	16°12	11°59	9°59	11°43	5°43	6°30	0°24	7°44	S 12
M13	19 22 8	20°21'49	3♂39	29°32	20°26	28°12	8°57	16°8	12°0	9°58	11°44	5°D43	6°27	0°31	7°50	M13
T 14	19 26 4	21°19'01	17°57	0♂28	21°40	28°52	8°50	16°5	12°1	9°57	11°45	5°43	6°24	0°38	7°55	T 14
W15	19 30 1	22°16'13	2♂22	1°28	22°54	29°33	8°43	16°1	12°3	9°56	11°46	5°44	6°21	0°44	8°1	W15
T 16	19 33 58	23°13'25	16°49	2°33	24°8	0♂14	8°36	15°57	12°4	9°55	11°47	5°44	6°17	0°51	8°7	T 16
F 17	19 37 54	24°10'38	1♂14	3°43	25°21	0°55	8°29	15°53	12°5	9°54	11°48	5°45	6°14	0°58	8°12	F 17
S 18	19 41 51	25°7'52	15°33	4°57	26°35	1°36	8°22	15°49	12°7	9°53	11°49	5°46	6°11	1°5	8°18	S 18
S 19	19 45 47	26°5'06	29°43	6°16	27°49	2°16	8°14	15°45	12°8	9°52	11°50	5°R46	6°8	1°11	8°24	S 19
M20	19 49 44	27°2'21	13♂43	7°38	29°3	2°57	8°7	15°41	12°10	9°51	11°51	5°46	6°5	1°18	8°30	M20
T 21	19 53 40	27°59'36	27°31	9°6	0♂17	3°37	7°59	15°37	12°11	9°50	11°52	5°45	6°2	1°25	8°35	T 21
W22	19 57 37	28°56'53	11♂5	10°37	1°31	4°18	7°52	15°33	12°13	9°49	11°53	5°44	5°58	1°31	8°41	W22
T 23	20 1 33	29°54'10	24°26	12°12	2°45	4°58	7°44	15°28	12°15	9°48	11°54	5°44	5°55	1°38	8°46	T 23
F 24	20 5 30	0♂51'27	7♂33	13°51	3°59	5°39	7°36	15°24	12°16	9°47	11°55	5°43	5°52	1°45	8°52	F 24
S 25	20 9 27	1°48'46	20°26	15°34	5°12	6°19	7°29	15°20	12°18	9°46	11°56	5°43	5°49	1°51	8°58	S 25
S 26	20 13 23	2°46'05	3♂5	17°20	6°26	7°0	7°21	15°16	12°20	9°46	11°57	5°D42	5°46	1°58	9°3	S 26
M27	20 17 20	3°43'24	15°31	19°10	7°40	7°40	7°13	15°11	12°22	9°45	11°58	5°42	5°42	2°5	9°9	M27
T 28	20 21 16	4°40'44	27°45	21°3	8°54	8°20	7°5	15°7	12°24	9°44	11°59	5°43	5°39	2°12	9°14	T 28
W29	20 25 13	5°38'04	9♂49	22°58	10°8	9°0	6°58	15°3	12°26	9°43	12°0	5°R43	5°36	2°18	9°20	W29
T 30	20 29 9	6°35'25	21°45	24°56	11°22	9°40	6°50	14°58	12°28	9°43	12°1	5°43	5°33	2°25	9°25	T 30
F 31	20 33 6	7♂32'47	3♂37	26♂55	12♂36	10♂20	6♂42	14♂54	12♂30	9♂42	12♂1	5♂42	5♂30	2♂32	9♂31	F 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	23n 7	8n44	2s17	18n44	4s36	23n37	0n19	23n22	0n20	18s15	0s36	16s36	0s51	4s 3	0n40	20s23	1n36	10n58	11s17	18s47	18s29	3s24	17n25	5s51			
T 2	23 3	3 27	3 13	18 47	4 33	23 36	0 22	23 26	0 20	18 17	0 36	16 37	0 51	4 3	0 40	20 23	1 36	10 58	11 17	18 47	18 30	3 27	17 25	5 51			
F 3	22 59	1s54	4 0	18 51	4 28	23 34	0 24	23 29	0 21	18 18	0 36	16 38	0 51	4 4	0 40	20 23	1 36	10 58	11 17	18 46	18 31	3 30	17 24	5 51			
S 4	22 54	7 10	4 37	18 56	4 23	23 32	0 26	23 32	0 22	18 20	0 36	16 39	0 52	4 4	0 40	20 22	1 36	10 58	11 17	18 46	18 32	3 34	17 24	5 51			
S 5	22 49	12 12	5 2	19 3	4 17	23 28	0 28	23 36	0 22	18 22	0 37	16 40	0 52	4 4	0 40	20 22	1 36	10 58	11 17	18 46	18 33	3 37	17 24	5 51			
M 6	22 43	16 50	5 14	19 11	4 9	23 24	0 31	23 38	0 23	18 24	0 37	16 41	0 52	4 5	0 40	20 22	1 36	10 58	11 17	18 46	18 33	3 40	17 23	5 51			
T 7	22 37	20 52	5 12	19 20	4 1	23 20	0 33	23 41	0 24	18 26	0 37	16 42	0 52	4 5	0 40	20 22	1 36	10 58	11 17	18 47	18 34	3 43	17 23	5 51			
W 8	22 31	24 4	4 55	19 30	3 52	23 14	0 35	23 43	0 24	18 27	0 37	16 44	0 52	4 5	0 40	20 22	1 36	10 58	11 18	18 48	18 35	3 46	17 22	5 51			
T 9	22 24	26 8	4 24	19 41	3 42	23 8	0 37	23 45	0 25	18 29	0 37	16 45	0 52	4 6	0 40	20 22	1 36	10 58	11 18	18 48	18 36	3 49	17 22	5 51			
F 10	22 17	26 49	3 38	19 52	3 31	23 1	0 39	23 47	0 25	18 31	0 38	16 46	0 52	4 6	0 40	20 22	1 36	10 58	11 18	18 49	18 36	3 52	17 22	5 51			
S 11	22 9	25 56	2 38	20 4	3 20	22 54	0 41	23 49	0 26	18 33	0 38	16 47	0 53	4 7	0 40	20 21	1 36	10 58	11 18	18 49	18 37	3 56	17 21	5 52			
S 12	22 1	23 27	1 28	20 17	3 8	22 46	0 43	23 51	0 27	18 35	0 38	16 48	0 53	4 7	0 40	20 21	1 36	10 58	11 18	18 50	18 38	3 59	17 21	5 52			
M13	21 53	19 30	0 11	20 29	2 56	22 37	0 46	23 52	0 27	18 37	0 38	16 50	0 53	4 8	0 40	20 21	1 36	10 58	11 18	18 50	18 39	4 2	17 20	5 52			
T 14	21 44	14 23	1n 7	20 42	2 43	22 28	0 48	23 53	0 28	18 39	0 38	16 51	0 53	4 8	0 40	20 21	1 36	10 58	11 18	18 50	18 40	4 5	17 20	5 52			
W15	21 35	8 25	2 22	20 54	2 30	22 18	0 49	23 54	0 29	18 41	0 38	16 52	0 53	4 9	0 40	20 21	1 36	10 58	11 18	18 50	18 40	4 8	17 19	5 52			
T 16	21 26	2 0	3 28	21 7	2 17	22 7	0 51	23 55	0 29	18 43	0 39	16 53	0 53	4 9	0 40	20 21	1 36	10 58	11 18	18 49	18 41	4 11	17 19	5 52			
F 17	21 16	4n29	4 21	21 19	2 4	21 55	0 53	23 55	0 30	18 45	0 39	16 55	0 53	4 10	0 40	20 21	1 35	10 58	11 18	18 49	18 42	4 14	17 18	5 53			
S 18	21 6	10 41	4 57	21 30	1 50	21 43	0 55	23 55	0 30	18 47	0 39	16 56	0 53	4 11	0 40	20 21	1 35	10 58	11 19	18 49	18 43	4 18	17 18	5 53			
S 19	20 55	16 16	5 15	21 40	1 36	21 31	0 57	23 55	0 31	18 49	0 39	16 57	0 54	4 11	0 40	20 20	1 35	10 58	11 19	18 49	18 44	4 21	17 17	5 53			
M20	20 44	20 56	5 14	21 50	1 23	21 17	0 59	23 55	0 32	18 52	0 39	16 59	0 54	4 12	0 39	20 20	1 35	10 58	11 19	18 49	18 44	4 24	17 17	5 53			
T 21	20 33	24 22	4 54	21 58	1 9	21 4	1 0	23 55	0 32	18 54	0 39	17 0	0 54	4 13	0 39	20 20	1 35	10 58	11 19	18 49	18 45	4 27	17 16	5 53			
W22	20 21	26 21	4 18	22 5	0 55	20 49	1 2	23 54	0 33	18 56	0 40	17 1	0 54	4 13	0 39	20 20	1 35	10 58	11 19	18 49	18 46	4 30	17 15	5 54			
T 23	20 9	26 47	3 29	22 10	0 42	20 34	1 4	23 53	0 34	18 58	0 40	17 3	0 54	4 14	0 39	20 20	1 35	10 58	11 19	18 50	18 47	4 33	17 15	5 54			
F 24	19 57	25 42	2 30	22 14	0 29	20 18	1 5	23 52	0 34	19 0	0 40	17 4	0 54	4 15	0 39	20 20	1 35	10 58	11 19	18 50	18 48	4 36	17 14	5 54			
S 25	19 45	23 15	1 24	22 15	0 16	20 2	1 7	23 51	0 35	19 2	0 40	17 5	0 54	4 15	0 39	20 20	1 35	10 58	11 20	18 50	18 48	4 39	17 14	5 54			
S 26	19 32	19 42	0 15	22 15	0 3	19 45	1 8	23 50	0 35	19 4	0 40	17 7	0 54	4 16	0 39	20 20	1 35	10 58	11 20	18 50	18 49	4 43	17 13	5 55			
M27	19 18	15 19	0s54	22 12	0n 9	19 28	1 10	23 48	0 36	19 6	0 40	17 8	0 54	4 17	0 39	20 20	1 35	10 58	11 20	18 50	18 50	4 46	17 12	5 55			
T 28	19 5	10 23	1 59	22 7	0 20	19 10	1 11	23 46	0 37	19 8	0 41	17 10	0 54	4 18	0 39	20 20	1 35	10 58	11 20	18 50	18 51	4 49	17 12	5 55			
W29	18 51	5 8	2 58	21 59	0 31	18 51	1 12	23 44	0 37	19 11	0 41	17 11	0 55	4 18	0 39	20 20	1 35	10 58	11 20	18 50	18 51	4 52	17 11	5 55			
T 30	18 37	0s14	3 49	21 49	0 42	18 32	1 14	23 42	0 38	19 13	0 41	17 12	0 55	4 19	0 39	20 20	1 35	10 58	11 20	18 50	18 52	4 55	17 11	5 56			
F 31	18n22	5s33	4s29	21n36	0n51	18n13	1n15	23n40	0n38	19s15	0s41	17s14	0s55	4s20	0n39	20s20	1n35	10n58	11s20	18s50	18s53	4s58	17n10	5s56			

ASTRODIENST EPHEMERIS for the year 2139

geocentric

AUGUST 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 37 2	8♌30°09	15♊28	28♊57	13♌50	11♊0	6°R34	14°R49	12♊32	9°R41	12♊2	5°R42	5♊27	2♊38	9♊36	S 1
S 2	20 40 59	9°27'31	27°22	1♌0	15°4	11°40	6♊27	14♊45	12°34	9♊41	12°3	5♊42	5°23	2°45	9°41	S 2
M 3	20 44 56	10°24'54	9♌24	3°4	16°18	12°20	6°19	14°40	12°36	9°40	12°4	5°D42	5°20	2°52	9°47	M 3
T 4	20 48 52	11°22'18	21°38	5°9	17°32	13°0	6°11	14°36	12°39	9°39	12°5	5°42	5°17	2°58	9°52	T 4
W 5	20 52 49	12°19'42	4♌9	7°14	18°46	13°40	6°3	14°32	12°41	9°39	12°5	5°42	5°14	3°5	9°57	W 5
T 6	20 56 45	13°17'07	16°59	9°20	20°0	14°20	5°56	14°27	12°43	9°38	12°6	5°43	5°11	3°12	10°3	T 6
F 7	21 0 42	14°14'33	0♌13	11°25	21°14	14°59	5°48	14°23	12°46	9°38	12°7	5°44	5°8	3°19	10°8	F 7
S 8	21 4 38	15°11'59	13°52	13°30	22°28	15°39	5°40	14°18	12°48	9°37	12°8	5°44	5°4	3°25	10°13	S 8
S 9	21 8 35	16°9'26	27°54	15°35	23°42	16°18	5°33	14°14	12°50	9°37	12°8	5°45	5°1	3°32	10°18	S 9
M10	21 12 31	17°6'54	12♊19	17°38	24°56	16°58	5°25	14°9	12°53	9°37	12°9	5°R45	4°58	3°39	10°23	M10
T 11	21 16 28	18°4'23	26°59	19°41	26°10	17°37	5°18	14°5	12°55	9°36	12°10	5°44	4°55	3°45	10°28	T 11
W12	21 20 25	19°1'53	11♊50	21°43	27°24	18°17	5°11	14°0	12°58	9°36	12°10	5°43	4°52	3°52	10°33	W12
T 13	21 24 21	19°59'25	26°43	23°43	28°38	18°56	5°3	13°56	13°1	9°36	12°11	5°42	4°48	3°59	10°38	T 13
F 14	21 28 18	20°56'57	11♊30	25°42	29°52	19°36	4°56	13°52	13°3	9°35	12°12	5°40	4°45	4°5	10°43	F 14
S 15	21 32 14	21°54'31	26°6	27°40	1♌6	20°15	4°49	13°47	13°6	9°35	12°12	5°38	4°42	4°12	10°48	S 15
S 16	21 36 11	22°52'06	10♊24	29°37	2°20	20°54	4°42	13°43	13°9	9°35	12°13	5°37	4°39	4°19	10°53	S 16
M17	21 40 7	23°49'43	24°24	1♌32	3°34	21°33	4°35	13°38	13°11	9°35	12°13	5°D37	4°36	4°26	10°58	M17
T 18	21 44 4	24°47'22	8♊3	3°26	4°48	22°12	4°28	13°34	13°14	9°35	12°14	5°37	4°33	4°32	11°3	T 18
W19	21 48 0	25°45'02	21°23	5°18	6°3	22°52	4°21	13°30	13°17	9°34	12°14	5°38	4°29	4°39	11°7	W19
T 20	21 51 57	26°42'44	4♌25	7°9	7°17	23°31	4°15	13°25	13°20	9°34	12°15	5°40	4°26	4°46	11°12	T 20
F 21	21 55 54	27°40'27	17°11	8°58	8°31	24°10	4°8	13°21	13°23	9°34	12°15	5°41	4°23	4°52	11°17	F 21
S 22	21 59 50	28°38'11	29°44	10°46	9°45	24°49	4°2	13°17	13°26	9°D34	12°16	5°R42	4°20	4°59	11°21	S 22
S 23	22 3 47	29°35'57	12♌6	12°33	10°59	25°27	3°55	13°13	13°29	9°34	12°16	5°42	4°17	5°6	11°26	S 23
M24	22 7 43	0♌33'45	24°17	14°18	12°13	26°6	3°49	13°8	13°32	9°34	12°17	5°41	4°14	5°13	11°30	M24
T 25	22 11 40	1°31'33	6♌21	16°2	13°27	26°45	3°43	13°4	13°35	9°35	12°17	5°38	4°10	5°19	11°35	T 25
W26	22 15 36	2°29'24	18°19	17°44	14°41	27°24	3°37	13°0	13°38	9°35	12°17	5°35	4°7	5°26	11°39	W26
T 27	22 19 33	3°27'15	0♌12	19°26	15°55	28°3	3°31	12°56	13°41	9°35	12°18	5°30	4°4	5°33	11°43	T 27
F 28	22 23 29	4°25'08	12°3	21°5	17°10	28°41	3°25	12°52	13°44	9°35	12°18	5°25	4°1	5°39	11°48	F 28
S 29	22 27 26	5°23'02	23°53	22°44	18°24	29°20	3°20	12°48	13°47	9°35	12°18	5°20	3°58	5°46	11°52	S 29
S 30	22 31 23	6°20'58	5♌47	24°21	19°38	29°58	3°15	12°44	13°50	9°35	12°19	5°16	3°54	5°53	11°56	S 30
M31	22 35 19	7♌18'55	17♌48	25♌56	20♌52	0♌37	3♌9	12♌40	13♌53	9♌36	12♌19	5♌13	3♌51	5♌59	12♌0	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	18n 7	10s39	4s58	21n20	1n 0	17n53	1n16	23n37	0n39	19s17	0s41	17s15	0s55	4s21	0n39	20s20	1n35	10n58	11s21	18s50	18s54	5s 1	17n 9	5s56	
S 2	17 52	15 24	5 14	21 2	1 8	17 32	1 17	23 34	0 40	19 19	0 41	17 16	0 55	4 22	0 39	20 19	1 35	10 58	11 21	18 50	18 55	5 4	17 9	5 56	
M 3	17 37	19 36	5 16	20 41	1 16	17 11	1 18	23 31	0 40	19 21	0 41	17 18	0 55	4 23	0 39	20 19	1 35	10 58	11 21	18 50	18 55	5 7	17 8	5 57	
T 4	17 21	23 4	5 5	20 18	1 22	16 49	1 19	23 28	0 41	19 23	0 41	17 19	0 55	4 24	0 39	20 19	1 35	10 58	11 21	18 50	18 56	5 11	17 7	5 57	
W 5	17 5	25 31	4 39	19 52	1 28	16 27	1 20	23 25	0 42	19 25	0 42	17 21	0 55	4 25	0 39	20 19	1 35	10 58	11 21	18 50	18 57	5 14	17 7	5 57	
T 6	16 49	26 45	3 58	19 24	1 33	16 5	1 21	23 21	0 42	19 27	0 42	17 22	0 55	4 25	0 39	20 19	1 35	10 58	11 21	18 50	18 58	5 17	17 6	5 58	
F 7	16 33	26 30	3 4	18 54	1 37	15 42	1 22	23 17	0 43	19 29	0 42	17 23	0 55	4 26	0 39	20 19	1 34	10 58	11 22	18 50	18 58	5 20	17 5	5 58	
S 8	16 16	24 40	1 58	18 22	1 40	15 19	1 22	23 13	0 43	19 31	0 42	17 25	0 56	4 27	0 39	20 19	1 34	10 58	11 22	18 49	18 59	5 23	17 4	5 58	
S 9	15 59	21 16	0 43	17 47	1 43	14 55	1 23	23 9	0 44	19 33	0 42	17 26	0 56	4 28	0 39	20 19	1 34	10 57	11 22	18 49	19 0	5 26	17 4	5 59	
M10	15 42	16 31	0n36	17 12	1 44	14 31	1 24	23 5	0 45	19 35	0 42	17 28	0 56	4 29	0 39	20 19	1 34	10 57	11 22	18 49	19 1	5 29	17 3	5 59	
T 11	15 24	10 42	1 55	16 34	1 46	14 7	1 24	23 1	0 45	19 37	0 42	17 29	0 56	4 30	0 39	20 19	1 34	10 57	11 22	18 49	19 1	5 32	17 2	5 59	
W12	15 6	4 15	3 7	15 56	1 46	13 42	1 25	22 56	0 46	19 39	0 42	17 30	0 56	4 31	0 39	20 19	1 34	10 57	11 23	18 50	19 2	5 35	17 2	6 0	
T 13	14 48	2n27	4 6	15 16	1 45	13 16	1 25	22 51	0 46	19 40	0 42	17 32	0 56	4 32	0 39	20 19	1 34	10 57	11 23	18 50	19 3	5 38	17 1	6 0	
F 14	14 30	8 58	4 48	14 35	1 44	12 51	1 26	22 46	0 47	19 42	0 42	17 33	0 56	4 34	0 39	20 19	1 34	10 57	11 23	18 51	19 4	5 41	17 0	6 0	
S 15	14 12	14 54	5 11	13 53	1 43	12 25	1 26	22 41	0 48	19 44	0 43	17 34	0 56	4 35	0 39	20 19	1 34	10 57	11 23	18 51	19 4	5 44	16 59	6 1	
S 16	13 53	19 54	5 15	13 10	1 41	11 59	1 26	22 36	0 48	19 46	0 43	17 36	0 56	4 36	0 39	20 19	1 34	10 57	11 23	18 51	19 5	5 48	16 59	6 1	
M17	13 34	23 41	4 59	12 27	1 38	11 32	1 26	22 30	0 49	19 48	0 43	17 37	0 56	4 37	0 38	20 19	1 34	10 57	11 23	18 51	19 6	5 51	16 58	6 2	
T 18	13 15	26 1	4 27	11 43	1 35	11 5	1 26	22 24	0 49	19 49	0 43	17 38	0 56	4 38	0 38	20 19	1 34	10 56	11 24	18 51	19 7	5 54	16 57	6 2	
W19	12 56	26 49	3 41	10 58	1 31	10 38	1 27	22 18	0 50	19 51	0 43	17 40	0 56	4 39	0 38	20 20	1 34	10 56	11 24	18 51	19 8	5 57	16 56	6 2	
T 20	12 36	26 5	2 44	10 13	1 27	10 10	1 26	22 12	0 51	19 53	0 43	17 41	0 56	4 40	0 38	20 20	1 34	10 56	11 24	18 51	19 8	6 0	16 56	6 3	
F 21	12 16	23 59	1 40	9 28	1 22	9 42	1 26	22 6	0 51	19 54	0 43	17 42	0 56	4 41	0 38	20 20	1 34	10 56	11 24	18 50	19 9	6 3	16 55	6 3	
S 22	11 56	20 44	0 33	8 43	1 17	9 14	1 26	22 0	0 52	19 56	0 43	17 43	0 56	4 42	0 38	20 20	1 34	10 56	11 24	18 50	19 10	6 6	16 54	6 4	
S 23	11 36	16 36	0s35	7 57	1 12	8 46	1 26	21 53	0 52	19 57	0 43	17 45	0 57	4 44	0 38	20 20	1 34	10 56	11 25	18 50	19 11	6 9	16 53	6 4	
M24	11 16	11 50	1 40	7 12	1 6	8 18	1 26	21 47	0 53	19 59	0 43	17 46	0 57	4 45	0 38	20 20	1 34	10 56	11 25	18 50	19 11	6 12	16 52	6 4	
T 25	10 55	6 41	2 40	6 26	1 0	7 49	1 25	21 40	0 53	20 0	0 43	17 47	0 57	4 46	0 38	20 20	1 33	10 55	11 25	18 51	19 12	6 15	16 52	6 5	
W26	10 35	1 21	3 33	5 40	0 54	7 20	1 25	21 33	0 54	20 2	0 43	17 48	0 57	4 47	0 38	20 20	1 33	10 55	11 25	18 52	19 13	6 18	16 51	6 5	
T 27	10 14	3s59	4 15	4 55	0 47	6 51	1 24	21 26	0 55	20 3	0 43	17 50	0 57	4 48	0 38	20 20	1 33	10 55	11 25	18 53	19 14	6 21	16 50	6 6	
F 28	9 53	9 9	4 47	4 9	0 41	6 21	1 24	21 19	0 55	20 5	0 43	17 51	0 57	4 50	0 38	20 20	1 33	10 55	11 26	18 54	19 14	6 24	16 49	6 6	
S 29	9 32	14 0	5 6	3 24	0 34	5 52	1 23	21 11	0 56	20 6	0 43	17 52	0 57	4 51	0 38	20 20	1 33	10 55	11 26	18 55	19 15	6 27	16 48	6 7	
S 30	9 11	18 21	5 12	2 39	0 26	5 22	1 23	21 4	0 56	20 7	0 43	17 53	0 57	4 52	0 38	20 20	1 33	10 55	11 26	18 56	19 16	6 30	16 48	6 7	
M31	8n49	22s 0	5s 5	1n54	0n19	4n52	1n22	20n56	0n57	20s 9	0s43	17s54	0s57	4s53	0n38	20s20	1n33	10n54	11s26	18s57	19s17	6s33	16n47	6s 8	

ASTRODIENST EPHEMERIS for the year 2139
geocentric

SEPTEMBER 2139

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	22 39 16	8♂16'53	29♂59	27♂31	22♂6	1♂15	3°R 4	12°R37	13♂57	9♂36	12♂19	5°R11	3♂48	6♂6	12♂4	T 1
W 2	22 43 12	9°14'53	12♂26	29° 4	23°20	1°54	2♂59	12♂33	14° 0	9°36	12°19	5°D11	3°45	6°13	12° 8	W 2
T 3	22 47 9	10°12'54	25°12	0♂36	24°34	2°32	2°55	12°29	14° 3	9°37	12°20	5♂12	3°42	6°20	12°12	T 3
F 4	22 51 5	11°10'56	8♂21	2° 6	25°48	3°10	2°50	12°26	14° 6	9°37	12°20	5°13	3°39	6°26	12°16	F 4
S 5	22 55 2	12° 8'59	21°56	3°35	27° 2	3°48	2°45	12°22	14°10	9°38	12°20	5°14	3°35	6°33	12°20	S 5
S 6	22 58 58	13° 7'05	5♂59	5° 3	28°17	4°26	2°41	12°18	14°13	9°38	12°20	5°R15	3°32	6°40	12°24	S 6
M 7	23 2 55	14° 5'11	20°29	6°30	29°31	5° 5	2°37	12°15	14°17	9°39	12°20	5°14	3°29	6°46	12°27	M 7
T 8	23 6 52	15° 3'19	5♂21	7°55	0♂45	5°43	2°33	12°12	14°20	9°39	12°20	5°11	3°26	6°53	12°31	T 8
W 9	23 10 48	16° 1'29	20°29	9°18	1°59	6°21	2°29	12° 8	14°23	9°40	12°20	5° 7	3°23	7° 0	12°35	W 9
T 10	23 14 45	16°59'40	5°Y43	10°41	3°13	6°59	2°26	12° 5	14°27	9°40	12°20	5° 1	3°19	7° 7	12°38	T 10
F 11	23 18 41	17°57'53	20°51	12° 2	4°27	7°37	2°22	12° 2	14°30	9°41	12°20	4°55	3°16	7°13	12°42	F 11
S 12	23 22 38	18°56'08	5♂46	13°21	5°41	8°14	2°19	11°59	14°34	9°42	12°R20	4°49	3°13	7°20	12°45	S 12
S 13	23 26 34	19°54'25	20°19	14°39	6°55	8°52	2°16	11°56	14°37	9°42	12°20	4°44	3°10	7°27	12°48	S 13
M14	23 30 31	20°52'45	4♂26	15°56	8° 9	9°30	2°13	11°53	14°41	9°43	12°20	4°41	3° 7	7°33	12°52	M14
T 15	23 34 27	21°51'06	18° 7	17°10	9°23	10° 8	2°11	11°50	14°44	9°44	12°20	4°D40	3° 4	7°40	12°55	T 15
W16	23 38 24	22°49'30	1♂23	18°24	10°38	10°45	2° 8	11°47	14°48	9°45	12°20	4°40	3° 0	7°47	12°58	W16
T 17	23 42 21	23°47'56	14°16	19°35	11°52	11°23	2° 6	11°44	14°52	9°45	12°20	4°41	2°57	7°54	13° 1	T 17
F 18	23 46 17	24°46'24	26°50	20°44	13° 6	12° 0	2° 4	11°42	14°55	9°46	12°20	4°42	2°54	8° 0	13° 4	F 18
S 19	23 50 14	25°44'54	9♂10	21°52	14°20	12°38	2° 2	11°39	14°59	9°47	12°20	4°R42	2°51	8° 7	13° 7	S 19
S 20	23 54 10	26°43'26	21°18	22°57	15°34	13°15	2° 0	11°37	15° 2	9°48	12°20	4°41	2°48	8°14	13°10	S 20
M21	23 58 7	27°42'00	3♂19	24° 0	16°48	13°53	1°58	11°34	15° 6	9°49	12°20	4°37	2°45	8°20	13°13	M21
T 22	0 2 3	28°40'36	15°15	25° 1	18° 2	14°30	1°57	11°32	15°10	9°50	12°19	4°31	2°41	8°27	13°15	T 22
W23	0 6 0	29°39'13	27° 7	26° 0	19°16	15° 7	1°56	11°30	15°13	9°51	12°19	4°22	2°38	8°34	13°18	W23
T 24	0 9 56	0♂37'53	8♂59	26°55	20°30	15°45	1°55	11°27	15°17	9°52	12°19	4°12	2°35	8°40	13°20	T 24
F 25	0 13 53	1°36'35	20°50	27°48	21°44	16°22	1°54	11°25	15°21	9°53	12°19	4° 0	2°32	8°47	13°23	F 25
S 26	0 17 49	2°35'19	2♂43	28°37	22°58	16°59	1°54	11°23	15°24	9°54	12°18	3°49	2°29	8°54	13°25	S 26
S 27	0 21 46	3°34'04	14°40	29°24	24°12	17°36	1°53	11°21	15°28	9°55	12°18	3°39	2°25	9° 1	13°28	S 27
M28	0 25 43	4°32'52	26°43	0♂6	25°26	18°13	1°D53	11°20	15°32	9°57	12°18	3°31	2°22	9° 7	13°30	M28
T 29	0 29 39	5°31'41	8♂54	0°44	26°41	18°50	1°53	11°18	15°36	9°58	12°17	3°25	2°19	9°14	13°32	T 29
W30	0 33 36	6♂30'32	21♂19	1♂19	27♂55	19♂27	1♂53	11♂16	15♂39	9♂59	12♂17	3♂22	2♂16	9♂21	13♂34	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
T 1	8n28	24s45	4s43	1n10	0n11	4n22	1n21	20n48	0n58	20s10	0s43	17s55	0s57	4s55	0n38	20s20	1n33	10n54	11s27	18s58	19s17	6s36	16n46	6s 8	
W 2	8 6	26 23	4 9	0 26	0 4	3 52	1 20	20 40	0 58	20 11	0 44	17 56	0 57	4 56	0 38	20 21	1 33	10 54	11 27	18 58	19 18	6 39	16 45	6 9	
T 3	7 44	26 41	3 21	0s18	0s 4	3 22	1 19	20 32	0 59	20 12	0 44	17 57	0 57	4 57	0 38	20 21	1 33	10 54	11 27	18 57	19 19	6 42	16 44	6 9	
F 4	7 22	25 31	2 21	1 1	0 12	2 52	1 18	20 24	0 59	20 13	0 44	17 58	0 57	4 59	0 38	20 21	1 33	10 54	11 27	18 57	19 20	6 46	16 43	6 10	
S 5	7 0	22 49	1 12	1 44	0 20	2 21	1 17	20 15	1 0	20 14	0 44	18 0	0 57	5 0	0 38	20 21	1 33	10 54	11 27	18 57	19 20	6 49	16 43	6 10	
S 6	6 38	18 42	0n 4	2 26	0 28	1 51	1 16	20 7	1 1	20 15	0 44	18 1	0 57	5 1	0 38	20 21	1 33	10 53	11 28	18 57	19 21	6 52	16 42	6 11	
M 7	6 15	13 21	1 22	3 8	0 37	1 20	1 15	19 58	1 1	20 16	0 44	18 2	0 57	5 3	0 38	20 21	1 33	10 53	11 28	18 57	19 22	6 55	16 41	6 11	
T 8	5 53	7 7	2 36	3 50	0 45	0 50	1 14	19 50	1 2	20 17	0 44	18 3	0 57	5 4	0 38	20 21	1 33	10 53	11 28	18 57	19 22	6 58	16 40	6 12	
W 9	5 31	0 23	3 40	4 30	0 53	0 19	1 12	19 41	1 2	20 18	0 44	18 3	0 57	5 5	0 38	20 21	1 33	10 53	11 28	18 59	19 23	7 1	16 39	6 12	
T 10	5 8	6n23	4 30	5 10	1 2	0s12	1 11	19 32	1 3	20 19	0 44	18 4	0 57	5 7	0 38	20 22	1 33	10 53	11 28	19 0	19 24	7 4	16 38	6 13	
F 11	4 45	12 46	5 0	5 50	1 10	0 42	1 9	19 23	1 3	20 20	0 44	18 5	0 57	5 8	0 38	20 22	1 32	10 52	11 29	19 1	19 25	7 7	16 38	6 13	
S 12	4 23	18 17	5 9	6 28	1 19	1 13	1 8	19 13	1 4	20 20	0 44	18 6	0 57	5 9	0 38	20 22	1 32	10 52	11 29	19 3	19 25	7 10	16 37	6 14	
S 13	4 0	22 35	4 57	7 6	1 27	1 44	1 6	19 4	1 5	20 21	0 44	18 7	0 57	5 11	0 38	20 22	1 32	10 52	11 29	19 4	19 26	7 13	16 36	6 14	
M14	3 37	25 25	4 28	7 44	1 35	2 15	1 5	18 55	1 5	20 22	0 44	18 8	0 57	5 12	0 38	20 22	1 32	10 52	11 29	19 5	19 27	7 16	16 35	6 15	
T 15	3 14	26 37	3 45	8 20	1 44	2 45	1 3	18 45	1 6	20 22	0 44	18 9	0 57	5 13	0 38	20 22	1 32	10 52	11 29	19 5	19 28	7 19	16 34	6 15	
W16	2 51	26 15	2 50	8 56	1 52	3 16	1 1	18 35	1 6	20 23	0 44	18 10	0 57	5 15	0 38	20 23	1 32	10 51	11 30	19 5	19 28	7 22	16 33	6 16	
T 17	2 28	24 27	1 48	9 30	2 0	3 46	1 0	18 26	1 7	20 23	0 44	18 10	0 57	5 16	0 38	20 23	1 32	10 51	11 30	19 5	19 29	7 25	16 33	6 16	
F 18	2 5	21 28	0 42	10 4	2 8	4 17	0 58	18 16	1 7	20 24	0 44	18 11	0 57	5 18	0 38	20 23	1 32	10 51	11 30	19 5	19 30	7 28	16 32	6 17	
S 19	1 41	17 34	0s24	10 37	2 16	4 47	0 56	18 6	1 8	20 24	0 44	18 12	0 57	5 19	0 38	20 23	1 32	10 51	11 30	19 4	19 31	7 31	16 31	6 17	
S 20	1 18	13 0	1 28	11 9	2 24	5 18	0 54	17 55	1 9	20 25	0 44	18 13	0 57	5 20	0 38	20 23	1 32	10 50	11 30	19 5	19 31	7 34	16 30	6 18	
M21	0 55	7 59	2 27	11 39	2 32	5 48	0 52	17 45	1 9	20 25	0 44	18 13	0 57	5 22	0 38	20 23	1 32	10 50	11 31	19 6	19 32	7 37	16 29	6 19	
T 22	0 32	2 44	3 20	12 9	2 39	6 18	0 50	17 35	1 10	20 25	0 44	18 14	0 57	5 23	0 38	20 24	1 32	10 50	11 31	19 7	19 33	7 40	16 28	6 19	
W23	0 8	2s34	4 3	12 37	2 46	6 48	0 48	17 25	1 10	20 25	0 44	18 14	0 57	5 25	0 38	20 24	1 32	10 50	11 31	19 9	19 33	7 43	16 28	6 20	
T 24	0s15	7 46	4 35	13 3	2 53	7 18	0 46	17 14	1 11	20 26	0 44	18 15	0 57	5 26	0 38	20 24	1 32	10 50	11 31	19 12	19 34	7 46	16 27	6 20	
F 25	0 38	12 42	4 56	13 29	3 0	7 48	0 43	17 4	1 12	20 26	0 44	18 16	0 57	5 28	0 38	20 24	1 32	10 49	11 31	19 14	19 35	7 49	16 26	6 21	
S 26	1 2	17 9	5 4	13 52	3 6	8 17	0 41	16 53	1 12	20 26	0 44	18 16	0 57	5 29	0 38	20 25	1 32	10 49	11 32	19 17	19 36	7 52	16 25	6 22	
S 27	1 25	20 58	4 58	14 14	3 12	8 47	0 39	16 42	1 13	20 26	0 44	18 17	0 57	5 30	0 38	20 25	1 32	10 49	11 32	19 19	19 36	7 55	16 24	6 22	
M28	1 48	23 56	4 40	14 35	3 17	9 16	0 37	16 31	1 13	20 26	0 44	18 17	0 57	5 32	0 38	20 25	1 32	10 49	11 32	19 21	19 37	7 58	16 23	6 23	
T 29	2 12	25 51	4 8	14 53	3 22	9 45	0 34	16 20	1 14	20 26	0 44	18 18	0 57	5 33	0 38	20 25	1 32	10 48	11 32	19 23	19 38	8 1	16 23	6 23	
W30	2s35	26s32	3s24	15s 9	3s27	10s14	0n32	16n 9	1n14	20s26	0s44	18s18	0s57	5s35	0n38	20s25	1n31	10n48	11s32	19s23	19s38	8s 3	16m22	6s24	

ASTRODIENST EPHEMERIS for the year 2139
geocentric

OCTOBER 2139

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 37 32	7♏29°25	4♌0	1♏48	29♏9	20♏3	1♏54	11°R15	15♏43	10♏0	12°R17	3°D21	2♏13	9♏27	13♏36	T 1
F 2	0 41 29	8°28'19	17° 2	2°12	0♏23	20°40	1°54	11♏13	15°47	10° 2	12♏16	3♏21	2°10	9°34	13°38	F 2
S 3	0 45 25	9°27'15	0♏29	2°31	1°37	21°17	1°55	11°12	15°51	10° 3	12°16	3°R21	2° 6	9°41	13°40	S 3
S 4	0 49 22	10°26'13	14°23	2°44	2°51	21°53	1°56	11°11	15°54	10° 4	12°15	3°21	2° 3	9°48	13°42	S 4
M 5	0 53 18	11°25'13	28°45	2°R51	4° 5	22°30	1°57	11°10	15°58	10° 5	12°15	3°18	2° 0	9°54	13°43	M 5
T 6	0 57 15	12°24'14	13♏33	2°51	5°19	23° 6	1°59	11° 9	16° 2	10° 7	12°14	3°14	1°57	10° 1	13°45	T 6
W 7	1 1 12	13°23'17	28°41	2°43	6°33	23°43	2° 0	11° 8	16° 6	10° 8	12°14	3° 6	1°54	10° 8	13°46	W 7
T 8	1 5 8	14°22'22	14♏9	2°28	7°47	24°19	2° 2	11° 7	16°10	10°10	12°13	2°57	1°51	10°14	13°48	T 8
F 9	1 9 5	15°21'29	29°20	2° 6	9° 1	24°55	2° 4	11° 6	16°13	10°11	12°13	2°46	1°47	10°21	13°49	F 9
S 10	1 13 1	16°20'39	14♏28	1°35	10°15	25°32	2° 6	11° 6	16°17	10°13	12°12	2°36	1°44	10°28	13°50	S 10
S 11	1 16 58	17°19'50	29°14	0°56	11°28	26° 8	2° 9	11° 5	16°21	10°14	12°12	2°27	1°41	10°35	13°52	S 11
M12	1 20 54	18°19'04	13♏33	0°10	12°42	26°44	2°11	11° 5	16°25	10°16	12°11	2°21	1°38	10°41	13°53	M12
T 13	1 24 51	19°18'20	27°22	29♏16	13°56	27°20	2°14	11° 4	16°29	10°17	12°10	2°17	1°35	10°48	13°54	T 13
W14	1 28 47	20°17'39	10♏42	28°16	15°10	27°56	2°17	11° 4	16°32	10°19	12°10	2°15	1°31	10°55	13°55	W14
T 15	1 32 44	21°17'00	23°35	27°10	16°24	28°32	2°20	11° 4	16°36	10°20	12° 9	2°D15	1°28	11° 1	13°56	T 15
F 16	1 36 41	22°16'23	6♏6	26° 0	17°38	29° 8	2°23	11°D 4	16°40	10°22	12° 9	2°R15	1°25	11° 8	13°56	F 16
S 17	1 40 37	23°15'48	18°21	24°48	18°52	29°44	2°27	11° 4	16°44	10°24	12° 8	2°14	1°22	11°15	13°57	S 17
S 18	1 44 34	24°15'16	0♏23	23°35	20° 6	0♏19	2°31	11° 4	16°47	10°25	12° 7	2°11	1°19	11°22	13°58	S 18
M19	1 48 30	25°14'45	12°18	22°24	21°20	0°55	2°34	11° 4	16°51	10°27	12° 6	2° 6	1°16	11°28	13°58	M19
T 20	1 52 27	26°14'17	24°10	21°17	22°34	1°31	2°39	11° 5	16°55	10°29	12° 6	1°57	1°12	11°35	13°58	T 20
W21	1 56 23	27°13'51	6♏0	20°15	23°48	2° 6	2°43	11° 5	16°59	10°31	12° 5	1°46	1° 9	11°42	13°59	W21
T 22	2 0 20	28°13'28	17°52	19°21	25° 1	2°42	2°47	11° 6	17° 2	10°32	12° 4	1°33	1° 6	11°48	13°59	T 22
F 23	2 4 16	29°13'06	29°46	18°35	26°15	3°17	2°52	11° 6	17° 6	10°34	12° 3	1°18	1° 3	11°55	13°59	F 23
S 24	2 8 13	0♏12'46	11♏45	18° 0	27°29	3°52	2°57	11° 7	17°10	10°36	12° 3	1° 3	1° 0	12° 2	13°R59	S 24
S 25	2 12 10	1°12'29	23°49	17°36	28°43	4°28	3° 1	11° 8	17°14	10°38	12° 2	0°50	0°56	12° 9	13°59	S 25
M26	2 16 6	2°12'13	6♏0	17°23	29°57	5° 3	3° 7	11° 9	17°17	10°40	12° 1	0°39	0°53	12°15	13°59	M26
T 27	2 20 3	3°11'59	18°20	17°D22	1♏11	5°38	3°12	11°10	17°21	10°42	12° 0	0°30	0°50	12°22	13°59	T 27
W28	2 23 59	4°11'47	0♏49	17°31	2°25	6°13	3°17	11°11	17°25	10°43	11°59	0°25	0°47	12°29	13°59	W28
T 29	2 27 56	5°11'37	13°33	17°51	3°38	6°48	3°23	11°12	17°28	10°45	11°58	0°22	0°44	12°35	13°58	T 29
F 30	2 31 52	6°11'28	26°33	18°21	4°52	7°23	3°29	11°14	17°32	10°47	11°57	0°22	0°41	12°42	13°58	F 30
S 31	2 35 49	7♏11'21	9♏53	19♏0	6♏6	7♏57	3♏35	11♏15	17♏36	10♏49	11♏57	0♏22	0♏37	12♏49	13♏57	S 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	2s58	25s51	2s30	15s23	3s31	10s42	0n30	15n58	1n15	20s26	0s43	18s19	0s57	5s36	0n38	20s26
F 2	3 21	23 45	1 26	15 34	3 34	11 10	0 27	15 47	1 16	20 26	0 43	18 19	0 57	5 38	0 38	20 26
S 3	3 45	20 17	0 15	15 43	3 36	11 38	0 25	15 36	1 16	20 25	0 43	18 19	0 57	5 39	0 38	20 26
S 4	4 8	15 35	0n58	15 49	3 37	12 6	0 22	15 25	1 17	20 25	0 43	18 20	0 57	5 41	0 38	20 26
M 5	4 31	9 52	2 11	15 52	3 38	12 34	0 20	15 13	1 17	20 25	0 43	18 20	0 57	5 42	0 38	20 27
T 6	4 54	3 27	3 16	15 51	3 37	13 1	0 17	15 2	1 18	20 25	0 43	18 20	0 57	5 44	0 38	20 27
W 7	5 17	3n18	4 9	15 46	3 35	13 28	0 14	14 50	1 18	20 24	0 43	18 20	0 57	5 45	0 38	20 27
T 8	5 40	9 54	4 45	15 38	3 32	13 54	0 12	14 39	1 19	20 24	0 43	18 21	0 57	5 46	0 38	20 27
F 9	6 3	15 55	5 1	15 26	3 27	14 21	0 9	14 27	1 20	20 23	0 43	18 21	0 57	5 48	0 38	20 28
S 10	6 25	20 52	4 55	15 9	3 21	14 47	0 6	14 16	1 20	20 23	0 43	18 21	0 57	5 49	0 38	20 28
S 11	6 48	24 21	4 30	14 48	3 12	15 12	0 4	14 4	1 21	20 22	0 43	18 21	0 57	5 51	0 38	20 28
M12	7 11	26 11	3 48	14 22	3 2	15 37	0 1	13 52	1 21	20 22	0 43	18 21	0 57	5 52	0 38	20 28
T 13	7 33	26 17	2 53	13 52	2 51	16 2	0s 2	13 40	1 22	20 21	0 43	18 21	0 57	5 54	0 37	20 29
W14	7 55	24 51	1 52	13 18	2 37	16 27	0 4	13 28	1 22	20 20	0 43	18 21	0 57	5 55	0 37	20 29
T 15	8 18	22 7	0 46	12 39	2 22	16 51	0 7	13 16	1 23	20 19	0 43	18 21	0 57	5 57	0 37	20 29
F 16	8 40	18 24	0s20	11 58	2 4	17 14	0 10	13 4	1 24	20 19	0 43	18 21	0 57	5 58	0 37	20 29
S 17	9 2	13 59	1 24	11 14	1 46	17 38	0 13	12 52	1 24	20 18	0 43	18 21	0 57	6 0	0 37	20 30
S 18	9 24	9 6	2 23	10 29	1 26	18 0	0 16	12 40	1 25	20 17	0 43	18 21	0 57	6 1	0 37	20 30
M19	9 46	3 56	3 15	9 44	1 6	18 23	0 18	12 28	1 25	20 16	0 43	18 21	0 57	6 2	0 37	20 30
T 20	10 7	1s19	3 58	9 0	0 45	18 44	0 21	12 16	1 26	20 15	0 43	18 21	0 57	6 4	0 37	20 31
W21	10 29	6 31	4 30	8 17	0 25	19 6	0 24	12 4	1 27	20 14	0 43	18 21	0 57	6 5	0 37	20 31
T 22	10 50	11 29	4 51	7 38	0 5	19 26	0 27	11 52	1 27	20 13	0 43	18 21	0 57	6 7	0 37	20 31
F 23	11 11	16 3	4 59	7 3	0n15	19 47	0 29	11 39	1 28	20 12	0 43	18 21	0 57	6 8	0 37	20 31
S 24	11 32	20 0	4 54	6 33	0 33	20 7	0 32	11 27	1 28	20 11	0 43	18 20	0 57	6 10	0 37	20 32
S 25	11 53	23 10	4 36	6 8	0 50	20 26	0 35	11 15	1 29	20 10	0 43	18 20	0 57	6 11	0 37	20 32
M26	12 14	25 19	4 5	5 49	1 5	20 44	0 38	11 3	1 30	20 8	0 43	18 20	0 57	6 12	0 38	20 32
T 27	12 34	26 16	3 22	5 36	1 19	21 3	0 41	10 50	1 30	20 7	0 43	18 19	0 57	6 14	0 38	20 33
W28	12 55	25 54	2 29	5 29	1 31	21 20	0 43	10 38	1 31	20 6	0 43	18 19	0 57	6 15	0 38	20 33
T 29	13 15	24 11	1 28	5 27	1 41	21 37	0 46	10 25	1 31	20 5	0 43	18 19	0 57	6 17	0 38	20 33
F 30	13 35	21 10	0 20	5 30	1 49	21 54	0 49	10 13	1 32	20 3	0 43	18 18	0 57	6 18	0 38	20 34
S 31	13s54	16s57	0n50	5s38	1n56	22s 9	0s52	10n 1	1n32	20s 2	0s43	18s18	0s57	6s19	0n38	20s34

Julian Day Number = 2502586.5, Delta T = 114.90 sec
Ecliptic obliquity = 23°25'21", Nutation = 0°00'14", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 26°41'35", Lahiri = 25°48'35"

ASTRODIENST EPHEMERIS for the year 2139

geocentric

DECEMBER 2139

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	4 38 2	8°22'14	2°2' 2	4°7' 0	14°3' 4	25°11' 9	7°55' 4	12°55' 8	19°15' 17	11°57' 56	11°R24	27°R41	28°35' 9	16°17' 17	13°R 0	T 1
W 2	4 41 59	9°22'59	16°33	5°34	15°17	25°40	8° 4	12°52	19°20	11°58	11°II23	27°36	28°56	16°24	12°57	W 2
T 3	4 45 55	10°23'45	18°16	7° 9	16°30	26°12	8°15	12°57	19°22	12° 0	11°22	27°30	28°53	16°31	12°54	T 3
F 4	4 49 52	11°24'32	16° 3	8°43	17°43	26°43	8°25	13° 1	19°25	12° 2	11°20	27°23	28°49	16°37	12°51	F 4
S 5	4 53 48	12°25'20	0°II48	10°18	18°56	27°14	8°36	13° 6	19°28	12° 5	11°19	27°15	28°46	16°44	12°47	S 5
S 6	4 57 45	13°26'09	15°22	11°52	20° 9	27°45	8°47	13°10	19°30	12° 7	11°18	27° 9	28°43	16°51	12°44	S 6
M 7	5 1 41	14°26'59	29°38	13°26	21°22	28°16	8°58	13°15	19°33	12° 9	11°17	27° 4	28°40	16°57	12°41	M 7
T 8	5 5 38	15°27'50	13°31	15° 0	22°35	28°46	9° 9	13°20	19°36	12°12	11°16	27° 1	28°37	17° 4	12°38	T 8
W 9	5 9 35	16°28'43	26°59	16°35	23°48	29°17	9°20	13°25	19°38	12°14	11°15	27°D 0	28°34	17°11	12°34	W 9
T 10	5 13 31	17°29'37	10°12	18° 9	25° 1	29°47	9°31	13°30	19°40	12°16	11°14	27° 1	28°30	17°18	12°31	T 10
F 11	5 17 28	18°30'32	22°42	19°43	26°14	0°18	9°43	13°35	19°43	12°18	11°13	27° 2	28°27	17°24	12°27	F 11
S 12	5 21 24	19°31'28	5°11	21°17	27°26	0°48	9°54	13°40	19°45	12°21	11°11	27° 4	28°24	17°31	12°24	S 12
S 13	5 25 21	20°32'25	17° 9	22°52	28°39	1°18	10° 6	13°45	19°48	12°23	11°10	27°R 5	28°21	17°38	12°20	S 13
M14	5 29 17	21°33'24	29° 5	24°26	29°51	1°47	10°18	13°50	19°50	12°25	11° 9	27° 5	28°18	17°45	12°16	M14
T 15	5 33 14	22°34'23	10°15	26° 0	1°44	2°17	10°29	13°56	19°52	12°27	11° 8	27° 3	28°14	17°51	12°13	T 15
W16	5 37 11	23°35'24	22°49	27°35	2°16	2°46	10°41	14° 1	19°54	12°29	11° 7	27° 0	28°11	17°58	12° 9	W16
T 17	5 41 7	24°36'26	4°14	29° 9	3°29	3°16	10°53	14° 6	19°56	12°32	11° 6	26°55	28° 8	18° 5	12° 5	T 17
F 18	5 45 4	25°37'28	16°49	0°34	4°41	3°45	11° 5	14°12	19°58	12°34	11° 5	26°49	28° 5	18°11	12° 1	F 18
S 19	5 49 0	26°38'32	29° 4	2°19	5°54	4°14	11°17	14°18	20° 0	12°36	11° 4	26°44	28° 2	18°18	11°58	S 19
S 20	5 52 57	27°39'37	11°31	3°54	7° 6	4°42	11°29	14°23	20° 2	12°38	11° 3	26°38	27°59	18°25	11°54	S 20
M21	5 56 53	28°40'42	24°11	5°29	8°18	5°11	11°41	14°29	20° 4	12°41	11° 1	26°34	27°55	18°32	11°50	M21
T 22	6 0 50	29°41'48	7°3	7° 4	9°30	5°39	11°54	14°35	20° 6	12°43	11° 0	26°31	27°52	18°38	11°46	T 22
W23	6 4 46	0°32'45	20°12	8°40	10°42	6° 7	12° 6	14°40	20° 8	12°45	10°59	26°D30	27°49	18°45	11°42	W23
T 24	6 8 43	1°44'01	3°31	10°15	11°54	6°35	12°19	14°46	20°10	12°47	10°58	26°30	27°46	18°52	11°38	T 24
F 25	6 12 40	2°45'08	17° 2	11°51	13° 6	7° 3	12°31	14°52	20°12	12°49	10°57	26°31	27°43	18°58	11°34	F 25
S 26	6 16 36	3°46'16	0°43	13°26	14°18	7°31	12°44	14°58	20°13	12°51	10°56	26°32	27°40	19° 5	11°30	S 26
S 27	6 20 33	4°47'23	14°35	15° 2	15°30	7°58	12°57	15° 4	20°15	12°54	10°55	26°34	27°36	19°12	11°26	S 27
M28	6 24 29	5°48'31	28°36	16°37	16°42	8°25	13° 9	15°10	20°17	12°56	10°54	26°35	27°33	19°19	11°22	M28
T 29	6 28 26	6°49'39	12°44	18°13	17°53	8°52	13°22	15°16	20°18	12°58	10°53	26°R35	27°30	19°25	11°18	T 29
W30	6 32 22	7°50'46	26°59	19°49	19° 5	9°19	13°35	15°23	20°20	13° 0	10°52	26°34	27°27	19°32	11°14	W30
T 31	6 36 19	8°51'54	11°18	21°34	20°16	9°45	13°48	15°29	20°21	13° 2	10°II51	26°32	27°24	19°39	11°10	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	21s41	5n 3	4n37	21s 6	0s11	24s37	1s57	3n38	1n52	18s57	0s42	17s51	0s56	6s57	0n38	20s43	1n30
W 2	21 51	11 8	5 2	21 30	0 17	24 30	1 58	3 26	1 52	18 55	0 42	17 50	0 56	6 58	0 38	20 44	1 30
T 3	21 59	16 42	5 7	21 53	0 24	24 22	1 59	3 14	1 53	18 52	0 42	17 49	0 56	6 59	0 38	20 44	1 30
F 4	22 8	21 17	4 51	22 14	0 30	24 14	2 0	3 3	1 54	18 49	0 42	17 48	0 56	7 0	0 38	20 44	1 30
S 5	22 16	24 29	4 17	22 35	0 37	24 5	2 1	2 51	1 54	18 46	0 42	17 46	0 56	7 1	0 38	20 45	1 30
S 6	22 24	26 2	3 26	22 54	0 43	23 55	2 2	2 39	1 55	18 43	0 42	17 45	0 56	7 2	0 38	20 45	1 30
M 7	22 31	25 48	2 23	23 13	0 49	23 45	2 2	2 28	1 56	18 40	0 42	17 44	0 56	7 3	0 38	20 45	1 30
T 8	22 38	23 56	1 12	23 30	0 55	23 33	2 3	2 16	1 56	18 37	0 42	17 42	0 56	7 4	0 38	20 46	1 30
W 9	22 44	20 45	0 0	23 46	1 1	23 22	2 4	2 4	1 57	18 34	0 42	17 41	0 56	7 5	0 38	20 46	1 30
T 10	22 50	16 36	1s10	24 0	1 7	23 9	2 4	1 53	1 58	18 31	0 42	17 39	0 56	7 6	0 38	20 46	1 30
F 11	22 56	11 49	2 15	24 14	1 12	22 56	2 5	1 42	1 58	18 28	0 42	17 38	0 56	7 7	0 38	20 46	1 30
S 12	23 1	6 40	3 12	24 26	1 18	22 42	2 5	1 30	1 59	18 25	0 42	17 36	0 56	7 8	0 38	20 47	1 30
S 13	23 5	1 24	3 59	24 37	1 23	22 28	2 5	1 19	2 0	18 22	0 42	17 35	0 56	7 9	0 38	20 47	1 30
M14	23 9	3s51	4 35	24 46	1 28	22 12	2 5	1 8	2 0	18 19	0 42	17 33	0 56	7 10	0 38	20 47	1 30
T 15	23 13	8 55	4 59	24 55	1 33	21 57	2 5	0 57	2 1	18 16	0 42	17 32	0 56	7 10	0 38	20 48	1 30
W16	23 16	13 40	5 11	25 2	1 38	21 40	2 5	0 46	2 2	18 13	0 42	17 30	0 56	7 11	0 38	20 48	1 30
T 17	23 19	17 56	5 9	25 7	1 42	21 24	2 5	0 35	2 2	18 9	0 42	17 29	0 56	7 12	0 38	20 48	1 30
F 18	23 21	21 32	4 53	25 11	1 46	21 6	2 5	0 24	2 3	18 6	0 42	17 27	0 56	7 13	0 38	20 48	1 30
S 19	23 23	24 13	4 24	25 14	1 50	20 48	2 5	0 13	2 4	18 3	0 42	17 26	0 56	7 13	0 38	20 49	1 30
S 20	23 24	25 48	3 42	25 15	1 54	20 29	2 4	0 2	2 5	17 59	0 42	17 24	0 56	7 14	0 38	20 49	1 30
M21	23 25	26 5	2 48	25 15	1 57	20 10	2 4	0s 8	2 5	17 56	0 42	17 22	0 56	7 15	0 38	20 49	1 30
T 22	23 25	24 58	1 45	25 14	2 0	19 50	2 3	0 19	2 6	17 53	0 42	17 21	0 56	7 16	0 38	20 49	1 30
W23	23 25	22 28	0 35	25 11	2 3	19 30	2 2	0 30	2 7	17 49	0 42	17 19	0 56	7 16	0 38	20 50	1 30
T 24	23 25	18 44	0n39	25 6	2 5	19 9	2 1	0 40	2 7	17 46	0 42	17 17	0 56	7 17	0 39	20 50	1 30
F 25	23 24	13 58	1 51	25 0	2 7	18 48	2 1	0 50	2 8	17 42	0 42	17 15	0 56	7 18	0 39	20 50	1 30
S 26	23 22	8 27	2 57	24 53	2 9	18 26	2 0	1 0	2 9	17 39	0 42	17 14	0 56	7 18	0 39	20 51	1 30
S 27	23 20	2 27	3 55	24 44	2 10	18 4	1 58	1 10	2 10	17 35	0 42	17 12	0 56	7 19	0 39	20 51	1 30
M28	23 18	3n42	4 39	24 33	2 11	17 41	1 57	1 20	2 10	17 31	0 42	17 10	0 56	7 19	0 39	20 51	1 30
T 29	23 15	9 43	5 6	24 21	2 11	17 18	1 56	1 30	2 11	17 28	0 42	17 8	0 56	7 20	0 39	20 51	1 30
W30	23 11	15 17	5 15	24 8	2 11	16 54	1 54	1 40	2 12	17 24	0 42	17 7	0 56	7 20	0 39	20 52	1 30
T 31	23s 8	20n 2	5n 5	23s53	2s11	16s30	1s53	1s50	2n12	17s20	0s42	17s 5	0s56	7s21	0n39	20s52	1n30

Julian Day Number = 2502647.5, Delta T = 115.01 sec

Ecliptic obliquity = 23°25'20", Nutation = 0°00'14", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°41'43", Lahiri = 25°48'44"