



Astrodienst Ephemeris Tables for the year 2098

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 2098

geocentric

JANUARY 2098

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	6 44 51	11°3'56"	23°36'	25°34'	15°19'	1°58'	21°37'	1°29'	9°50'	12°51'	0°27'	0°51'	29°35'	20°56'	2°59'	W 1
T 2	6 48 48	12° 6'46"	5°31'	27° 3'	16°34'	2°38'	21°32'	1°30'	9°51'	12°50'	0°26'	0°39'	29°32'	21° 3'	3° 4'	T 2
F 3	6 52 44	13° 7'56"	17°24'	28°33'	17°50'	3°18'	21°27'	1°30'	9°52'	12°50'	0°26'	0°25'	29°29'	21°10'	3° 9'	F 3
S 4	6 56 41	14° 9'07"	29°16'	0°32'	19° 5'	3°58'	21°22'	1°31'	9°53'	12°49'	0°26'	0°11'	29°26'	21°17'	3°14'	S 4
S 5	7 0 37	15°10'17"	11° 8'	1°33'	20°21'	4°38'	21°17'	1°32'	9°54'	12°48'	0°26'	29°57'	29°23'	21°23'	3°19'	S 5
M 6	7 4 34	16°11'27"	23° 3'	3° 3'	21°36'	5°18'	21°12'	1°32'	9°54'	12°48'	0°25'	29°44'	29°20'	21°30'	3°24'	M 6
T 7	7 8 30	17°12'37"	5° 1'	4°35'	22°52'	5°58'	21° 6'	1°33'	9°55'	12°47'	0°25'	29°35'	29°16'	21°37'	3°28'	T 7
W 8	7 12 27	18°13'46"	17° 7'	6° 6'	24° 7'	6°39'	21° 1'	1°33'	9°57'	12°46'	0°25'	29°28'	29°13'	21°43'	3°33'	W 8
T 9	7 16 24	19°14'55"	29°24'	7°38'	25°23'	7°19'	20°55'	1°33'	9°58'	12°45'	0°25'	29°24'	29°10'	21°50'	3°37'	T 9
F 10	7 20 20	20°16'04"	11°56'	9°11'	26°38'	7°59'	20°49'	1°33'	9°59'	12°44'	0°25'	29°23'	29° 7'	21°57'	3°41'	F 10
S 11	7 24 17	21°17'12"	24°47'	10°43'	27°53'	8°39'	20°43'	1°33'	10° 0'	12°44'	0°25'	29°23'	29° 4'	22° 4'	3°46'	S 11
S 12	7 28 13	22°18'20"	8° 2'	12°17'	29° 9'	9°19'	20°37'	1°33'	10° 1'	12°43'	0°25'	29°23'	29° 0'	22°10'	3°50'	S 12
M13	7 32 10	23°19'27"	21°45'	13°50'	0°24'	10° 0'	20°30'	1°33'	10° 2'	12°42'	0°25'	29°21'	28°57'	22°17'	3°54'	M13
T 14	7 36 6	24°20'34"	5°15'	15°24'	1°40'	10°40'	20°24'	1°32'	10° 4'	12°41'	0°25'	29°18'	28°54'	22°24'	3°58'	T 14
W15	7 40 3	25°21'40"	20°39'	16°59'	2°55'	11°20'	20°17'	1°32'	10° 5'	12°40'	0°25'	29°11'	28°51'	22°31'	4° 1'	W15
T 16	7 44 0	26°22'45"	5°43'	18°34'	4°10'	12° 0'	20°11'	1°31'	10° 7'	12°39'	0°25'	29° 2'	28°48'	22°37'	4° 5'	T 16
F 17	7 47 56	27°23'50"	21° 2'	20°10'	5°26'	12°41'	20° 4'	1°31'	10° 8'	12°38'	0°25'	28°51'	28°45'	22°44'	4° 9'	F 17
S 18	7 51 53	28°24'55"	6°25'	21°46'	6°41'	13°21'	19°57'	1°30'	10°10'	12°37'	0°25'	28°39'	28°41'	22°51'	4°12'	S 18
S 19	7 55 49	29°25'58"	21°40'	23°22'	7°57'	14° 1'	19°50'	1°29'	10°11'	12°36'	0°25'	28°28'	28°38'	22°57'	4°16'	S 19
M20	7 59 46	0°27'02"	6°35'	25° 0'	9°12'	14°42'	19°43'	1°28'	10°13'	12°34'	0°25'	28°19'	28°35'	23° 4'	4°19'	M20
T 21	8 3 42	1°28'05"	21° 4'	26°37'	10°27'	15°22'	19°36'	1°27'	10°14'	12°33'	0°25'	28°12'	28°32'	23°11'	4°22'	T 21
W22	8 7 39	2°29'07"	5° 4'	28°15'	11°43'	16° 2'	19°28'	1°25'	10°16'	12°32'	0°26'	28° 9'	28°29'	23°18'	4°25'	W22
T 23	8 11 35	3°30'10"	18°33'	29°54'	12°58'	16°43'	19°21'	1°24'	10°18'	12°31'	0°26'	28° 7'	28°26'	23°24'	4°28'	T 23
F 24	8 15 32	4°31'11"	1°35'	14°13'	17°23'	19°13'	1°23'	10°20'	12°30'	0°26'	28° 7'	28°22'	23°31'	4°31'	F 24	
S 25	8 19 29	5°32'13"	14°14'	3°14'	15°28'	18° 4'	19° 6'	1°21'	10°22'	12°28'	0°26'	28° 7'	28°19'	23°38'	4°33'	S 25
S 26	8 23 25	6°33'14"	26°34'	4°54'	16°44'	18°44'	18°58'	1°19'	10°23'	12°27'	0°27'	28° 5'	28°16'	23°45'	4°36'	S 26
M27	8 27 22	7°34'14"	8°41'	6°36'	17°59'	19°24'	18°51'	1°18'	10°25'	12°26'	0°27'	28° 2'	28°13'	23°51'	4°39'	M27
T 28	8 31 18	8°35'14"	20°39'	8°17'	19°14'	20° 5'	18°43'	1°16'	10°27'	12°25'	0°27'	27°55'	28°10'	23°58'	4°41'	T 28
W29	8 35 15	9°36'13"	2°32'	10° 0'	20°30'	20°45'	18°35'	1°14'	10°29'	12°23'	0°28'	27°46'	28° 7'	24° 5'	4°43'	W29
T 30	8 39 11	10°37'12"	14°23'	11°43'	21°45'	21°25'	18°27'	1°12'	10°31'	12°22'	0°28'	27°34'	28° 3'	24°11'	4°45'	T 30
F 31	8 43 8	11°38'10"	26°15'	13°27'	23° 0'	22° 6'	18°19'	1°10'	10°33'	12°21'	0°28'	27°20'	28° 0'	24°18'	4°47'	F 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
W 1	22s58	27s16	4s 0	23s22	0s 1	23s21	0s48	0n33	0s15	15n 5	0n50	1n27	2n13	3n16	0s41	7n31
T 2	22 53	27 51	4 32	23 32	0 9	23 14	0 50	0 51	0 13	15 7	0 50	1 27	2 14	3 16	0 41	7 31
F 3	22 47	27 8	4 53	23 41	0 16	23 6	0 52	1 8	0 12	15 9	0 51	1 27	2 14	3 17	0 41	7 32
S 4	22 41	25 11	5 0	23 48	0 23	22 58	0 54	1 25	0 11	15 10	0 51	1 27	2 14	3 17	0 41	7 32
S 5	22 34	22 8	4 54	23 55	0 30	22 48	0 56	1 42	0 9	15 12	0 51	1 27	2 15	3 18	0 41	7 32
M 6	22 27	18 10	4 36	24 0	0 36	22 39	0 58	1 59	0 8	15 14	0 51	1 27	2 15	3 18	0 41	7 33
T 7	22 19	13 28	4 5	24 4	0 43	22 28	0 59	2 16	0 7	15 16	0 51	1 27	2 15	3 18	0 41	7 33
W 8	22 11	8 12	3 23	24 7	0 49	22 17	1 1	2 33	0 5	15 18	0 52	1 27	2 15	3 19	0 41	7 33
T 9	22 3	2 33	2 31	24 8	0 55	22 5	1 3	2 50	0 4	15 20	0 52	1 27	2 16	3 19	0 41	7 34
F 10	21 54	3n19	1 31	24 8	1 1	21 53	1 5	3 7	0 3	15 22	0 52	1 28	2 16	3 20	0 41	7 34
S 11	21 45	9 13	0 24	24 7	1 7	21 39	1 6	3 24	0 2	15 24	0 52	1 28	2 16	3 20	0 41	7 34
S 12	21 35	14 54	0n46	24 4	1 13	21 26	1 8	3 41	0 1	15 27	0 52	1 28	2 17	3 21	0 40	7 35
M13	21 25	20 3	1 55	24 0	1 18	21 11	1 9	3 58	0n 1	15 29	0 53	1 29	2 17	3 21	0 40	7 35
T 14	21 14	24 15	3 0	23 55	1 23	20 56	1 11	4 15	0 2	15 31	0 53	1 29	2 17	3 22	0 40	7 35
W15	21 3	27 1	3 55	23 48	1 28	20 40	1 12	4 32	0 3	15 33	0 53	1 30	2 17	3 22	0 40	7 36
T 16	20 52	27 54	4 36	23 40	1 33	20 24	1 14	4 49	0 4	15 36	0 53	1 30	2 18	3 23	0 40	7 36
F 17	20 40	26 40	4 57	23 31	1 37	20 7	1 15	5 5	0 5	15 38	0 53	1 31	2 18	3 24	0 40	7 37
S 18	20 28	23 27	4 57	23 20	1 41	19 50	1 16	5 22	0 6	15 40	0 54	1 31	2 18	3 24	0 40	7 37
S 19	20 16	18 38	4 36	23 8	1 45	19 31	1 18	5 39	0 8	15 43	0 54	1 32	2 19	3 25	0 40	7 38
M20	20 3	12 45	3 56	22 54	1 48	19 13	1 19	5 55	0 9	15 45	0 54	1 32	2 19	3 26	0 40	7 38
T 21	19 49	6 19	3 2	22 39	1 52	18 54	1 20	6 12	0 10	15 47	0 54	1 33	2 19	3 26	0 40	7 38
W22	19 36	0s12	1 59	22 22	1 55	18 34	1 21	6 28	0 11	15 50	0 54	1 34	2 19	3 27	0 40	7 39
T 23	19 22	6 29	0 50	22 4	1 57	18 14	1 22	6 45	0 12	15 52	0 54	1 35	2 20	3 28	0 40	7 39
F 24	19 7	12 18	0s18	21 45	1 59	17 53	1 23	7 1	0 13	15 55	0 55	1 35	2 20	3 28	0 40	7 40
S 25	18 53	17 26	1 24	21 24	2 1	17 31	1 24	7 18	0 14	15 57	0 55	1 36	2 20	3 29	0 40	7 40
S 26	18 38	21 43	2 24	21 1	2 3	17 10	1 25	7 34	0 15	16 0	0 55	1 37	2 20	3 30	0 40	7 41
M27	18 22	24 59	3 17	20 37	2 4	16 47	1 25	7 50	0 16	16 2	0 55	1 38	2 21	3 31	0 40	7 41
T 28	18 6	27 5	4 0	20 12	2 5	16 25	1 26	8 6	0 17	16 5	0 55	1 39	2 21	3 32	0 40	7 42
W29	17 50	27 56	4 32	19 45	2 5	16 1	1 27	8 22	0 18	16 8	0 55	1 40	2 21	3 32	0 40	7 43
T 30	17 34	27 29	4 52	19 16	2 5	15 38	1 27	8 38	0 19	16 10	0 55	1 41	2 21	3 33	0 40	7 43
F 31	17s17	25s48	5s 0	18s46	2s 5	15s14	1s28	8n54	0n20	16n13	0n56	1n42	2n22	3n34	0s40	7n44

Julian Day Number = 2487339.5, Delta T = 92.27 sec

Ecliptic obliquity = 23°25'43", Nutation = - 0°00'08", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°06'34", Lahiri = 25°13'35"

ASTRODIENST EPHEMERIS for the year 2098

geocentric

FEBRUARY 2098

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	8 47 4	12 ³⁹ 06	8 ³⁸ 8	15 ³⁸ 11	24 ³⁸ 15	22 ³⁸ 46	18 ³⁸ 12	1 ³⁸ 7	10 ³⁸ 36	12 ³⁸ 19	0 ³⁸ 29	27 ³⁸ 5	27 ³⁸ 57	24 ³⁸ 25	4 ³⁸ 49	S 1
S 2	8 51 1	13 ⁴⁰ 02	20 ³⁸ 5	16 ³⁸ 56	25 ³⁸ 30	23 ³⁸ 27	18 ³⁸ 4	1 ³⁸ 5	10 ³⁸ 38	12 ³⁸ 18	0 ³⁸ 29	26 ³⁸ 51	27 ³⁸ 54	24 ³⁸ 32	4 ³⁸ 51	S 2
M 3	8 54 58	14 ⁴⁰ 57	2 ³⁸ 6	18 ³⁸ 42	26 ³⁸ 46	24 ³⁸ 7	17 ³⁸ 56	1 ³⁸ 3	10 ³⁸ 40	12 ³⁸ 16	0 ³⁸ 30	26 ³⁸ 39	27 ³⁸ 51	24 ³⁸ 38	4 ³⁸ 53	M 3
T 4	8 58 54	15 ⁴¹ 50	14 ³⁸ 13	20 ³⁸ 28	28 ³⁸ 1	24 ³⁸ 47	17 ³⁸ 48	1 ³⁸ 0	10 ³⁸ 42	12 ³⁸ 15	0 ³⁸ 30	26 ³⁸ 29	27 ³⁸ 47	24 ³⁸ 45	4 ³⁸ 54	T 4
W 5	9 2 51	16 ⁴² 43	26 ³⁸ 27	22 ³⁸ 15	29 ³⁸ 16	25 ³⁸ 28	17 ³⁸ 40	0 ³⁸ 57	10 ³⁸ 45	12 ³⁸ 13	0 ³⁸ 31	26 ³⁸ 22	27 ³⁸ 44	24 ³⁸ 52	4 ³⁸ 56	W 5
T 6	9 6 47	17 ⁴³ 34	8 ³⁸ 51	24 ³⁸ 2	0 ³⁸ 31	26 ³⁸ 8	17 ³⁸ 32	0 ³⁸ 55	10 ³⁸ 47	12 ³⁸ 12	0 ³⁸ 31	26 ³⁸ 18	27 ³⁸ 41	24 ³⁸ 58	4 ³⁸ 57	T 6
F 7	9 10 44	18 ⁴⁴ 23	21 ³⁸ 28	25 ³⁸ 49	1 ³⁸ 46	26 ³⁸ 49	17 ³⁸ 24	0 ³⁸ 52	10 ³⁸ 49	12 ³⁸ 10	0 ³⁸ 32	26 ³⁸ D16	27 ³⁸ 38	25 ³⁸ 5	4 ³⁸ 58	F 7
S 8	9 14 40	19 ⁴⁵ 11	4 ³⁸ 20	27 ³⁸ 37	3 ³⁸ 1	27 ³⁸ 29	17 ³⁸ 16	0 ³⁸ 49	10 ³⁸ 52	12 ³⁸ 9	0 ³⁸ 32	26 ³⁸ 17	27 ³⁸ 35	25 ³⁸ 12	4 ³⁸ 59	S 8
S 9	9 18 37	20 ⁴⁵ 58	17 ³⁸ 31	29 ³⁸ 25	4 ³⁸ 16	28 ³⁸ 9	17 ³⁸ 8	0 ³⁸ 46	10 ³⁸ 54	12 ³⁸ 7	0 ³⁸ 33	26 ³⁸ R17	27 ³⁸ 32	25 ³⁸ 19	5 ³⁸ 0	S 9
M10	9 22 33	21 ⁴⁶ 43	1 ³⁸ 5	1 ³⁸ 13	5 ³⁸ 31	28 ³⁸ 50	17 ³⁸ 0	0 ³⁸ 43	10 ³⁸ 57	12 ³⁸ 6	0 ³⁸ 33	26 ³⁸ 17	27 ³⁸ 28	25 ³⁸ 25	5 ³⁸ 1	M10
T 11	9 26 30	22 ⁴⁷ 27	15 ³⁸ 4	3 ³⁸ 1	6 ³⁸ 46	29 ³⁸ 30	16 ³⁸ 52	0 ³⁸ 40	10 ³⁸ 59	12 ³⁸ 4	0 ³⁸ 34	26 ³⁸ 15	27 ³⁸ 25	25 ³⁸ 32	5 ³⁸ 2	T 11
W12	9 30 27	23 ⁴⁸ 09	29 ³⁸ 27	4 ³⁸ 49	8 ³⁸ 1	0 ³⁸ 811	16 ³⁸ 44	0 ³⁸ 36	11 ³⁸ 2	12 ³⁸ 3	0 ³⁸ 35	26 ³⁸ 10	27 ³⁸ 22	25 ³⁸ 39	5 ³⁸ 2	W12
T 13	9 34 23	24 ⁴⁸ 49	14 ³⁸ 13	6 ³⁸ 36	9 ³⁸ 16	0 ³⁸ 51	16 ³⁸ 36	0 ³⁸ 33	11 ³⁸ 4	12 ³⁸ 1	0 ³⁸ 35	26 ³⁸ 3	27 ³⁸ 19	25 ³⁸ 46	5 ³⁸ 3	T 13
F 14	9 38 20	25 ⁴⁹ 28	29 ³⁸ 16	8 ³⁸ 22	10 ³⁸ 31	1 ³⁸ 31	16 ³⁸ 28	0 ³⁸ 30	11 ³⁸ 7	12 ³⁸ 0	0 ³⁸ 36	25 ³⁸ 54	27 ³⁸ 16	25 ³⁸ 52	5 ³⁸ 3	F 14
S 15	9 42 16	26 ⁵⁰ 06	14 ³⁸ 27	10 ³⁸ 8	11 ³⁸ 46	2 ³⁸ 12	16 ³⁸ 21	0 ³⁸ 26	11 ³⁸ 10	11 ³⁸ 58	0 ³⁸ 37	25 ³⁸ 45	27 ³⁸ 12	25 ³⁸ 59	5 ³⁸ 3	S 15
S 16	9 46 13	27 ⁵⁰ 41	29 ³⁸ 35	11 ³⁸ 51	13 ³⁸ 1	2 ³⁸ 52	16 ³⁸ 13	0 ³⁸ 23	11 ³⁸ 12	11 ³⁸ 56	0 ³⁸ 37	25 ³⁸ 36	27 ³⁸ 9	26 ³⁸ 6	5 ³⁸ 3	S 16
M17	9 50 9	28 ⁵¹ 16	14 ³⁸ 30	13 ³⁸ 33	14 ³⁸ 16	3 ³⁸ 32	16 ³⁸ 5	0 ³⁸ 19	11 ³⁸ 15	11 ³⁸ 55	0 ³⁸ 38	25 ³⁸ 29	27 ³⁸ 6	26 ³⁸ 12	5 ³⁸ R 3	M17
T 18	9 54 6	29 ⁵¹ 48	29 ³⁸ 4	15 ³⁸ 13	15 ³⁸ 31	4 ³⁸ 12	15 ³⁸ 58	0 ³⁸ 15	11 ³⁸ 18	11 ³⁸ 53	0 ³⁸ 39	25 ³⁸ 23	27 ³⁸ 3	26 ³⁸ 19	5 ³⁸ 3	T 18
W19	9 58 2	0 ³⁸ 5220	13 ³⁸ 11	16 ³⁸ 50	16 ³⁸ 46	4 ³⁸ 53	15 ³⁸ 50	0 ³⁸ 12	11 ³⁸ 20	11 ³⁸ 52	0 ³⁸ 40	25 ³⁸ 20	27 ³⁸ 0	26 ³⁸ 26	5 ³⁸ 3	W19
T 20	10 1 59	1 ³⁸ 5250	26 ³⁸ 49	18 ³⁸ 23	18 ³⁸ 1	5 ³⁸ 33	15 ³⁸ 43	0 ³⁸ 8	11 ³⁸ 23	11 ³⁸ 50	0 ³⁸ 40	25 ³⁸ D20	26 ³⁸ 57	26 ³⁸ 33	5 ³⁸ 3	T 20
F 21	10 5 56	2 ³⁸ 5319	9 ³⁸ 59	19 ³⁸ 53	19 ³⁸ 16	6 ³⁸ 13	15 ³⁸ 35	0 ³⁸ 4	11 ³⁸ 26	11 ³⁸ 48	0 ³⁸ 41	25 ³⁸ 21	26 ³⁸ 53	26 ³⁸ 39	5 ³⁸ 2	F 21
S 22	10 9 52	3 ³⁸ 5347	22 ³⁸ 45	21 ³⁸ 18	20 ³⁸ 30	6 ³⁸ 54	15 ³⁸ 28	29 ³⁸ 59	11 ³⁸ 29	11 ³⁸ 47	0 ³⁸ 42	25 ³⁸ 22	26 ³⁸ 50	26 ³⁸ 46	5 ³⁸ 2	S 22
S 23	10 13 49	4 ³⁸ 5413	5 ³⁸ 9	22 ³⁸ 37	21 ³⁸ 45	7 ³⁸ 34	15 ³⁸ 21	29 ³⁸ 56	11 ³⁸ 32	11 ³⁸ 45	0 ³⁸ 43	25 ³⁸ R22	26 ³⁸ 47	26 ³⁸ 53	5 ³⁸ 1	S 23
M24	10 17 45	5 ³⁸ 5438	17 ³⁸ 19	23 ³⁸ 51	23 ³⁸ 0	8 ³⁸ 14	15 ³⁸ 14	29 ³⁸ 52	11 ³⁸ 35	11 ³⁸ 43	0 ³⁸ 44	25 ³⁸ 21	26 ³⁸ 44	27 ³⁸ 0	5 ³⁸ 0	M24
T 25	10 21 42	6 ³⁸ 5502	29 ³⁸ 17	24 ³⁸ 59	24 ³⁸ 14	8 ³⁸ 54	15 ³⁸ 7	29 ³⁸ 48	11 ³⁸ 38	11 ³⁸ 42	0 ³⁸ 45	25 ³⁸ 19	26 ³⁸ 41	27 ³⁸ 6	4 ³⁸ 59	T 25
W26	10 25 38	7 ³⁸ 5524	11 ³⁸ 310	25 ³⁸ 59	25 ³⁸ 29	9 ³⁸ 34	15 ³⁸ 0	29 ³⁸ 44	11 ³⁸ 41	11 ³⁸ 40	0 ³⁸ 45	25 ³⁸ 14	26 ³⁸ 38	27 ³⁸ 13	4 ³⁸ 58	W26
T 27	10 29 35	8 ³⁸ 5545	23 ³⁸ 0	26 ³⁸ 51	26 ³⁸ 44	10 ³⁸ 15	14 ³⁸ 53	29 ³⁸ 39	11 ³⁸ 44	11 ³⁸ 38	0 ³⁸ 46	25 ³⁸ 7	26 ³⁸ 34	27 ³⁸ 20	4 ³⁸ 57	T 27
F 28	10 33 31	9 ³⁸ 5605	4 ³⁸ 52	27 ³⁸ 36	27 ³⁸ 58	10 ³⁸ 55	14 ³⁸ 47	29 ³⁸ 35	11 ³⁸ 47	11 ³⁸ 37	0 ³⁸ 47	24 ³⁸ 59	26 ³⁸ 31	27 ³⁸ 26	4 ³⁸ 56	F 28

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂	♂	♂	♂		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	lat		
S 1	17s 0	22s57	4s54	18s15	2s 4	14s49	1s28	9n10	0n21	16n15	0n56	1n43	2n22	3n35	0s40	7n44	0n52	4s10	16s49	10n26	10n44	26s17	13s21	0s15	
S 2	16 43	19 9	4 36	17 42	2 2	14 24	1 29	9 26	0 22	16 18	0 56	1 45	2 22	3 36	0 40	7 45	0 52	4 9	16 49	10 21	10 43	26 16	13 22	0 15	
M 3	16 25	14 32	4 5	17 7	2 0	13 59	1 29	9 42	0 22	16 20	0 56	1 46	2 22	3 37	0 40	7 45	0 52	4 9	16 49	10 16	10 42	26 14	13 22	0 14	
T 4	16 7	9 20	3 23	16 31	1 58	13 33	1 29	9 58	0 23	16 23	0 56	1 47	2 23	3 38	0 40	7 46	0 52	4 8	16 48	10 13	10 41	26 13	13 22	0 14	
W 5	15 49	3 43	2 31	15 54	1 55	13 7	1 29	10 13	0 24	16 26	0 56	1 48	2 23	3 39	0 40	7 46	0 52	4 8	16 48	10 10	10 40	26 12	13 22	0 14	
T 6	15 31	2n 7	1 31	15 15	1 51	12 41	1 30	10 29	0 25	16 28	0 56	1 50	2 23	3 39	0 40	7 47	0 52	4 7	16 48	10 9	10 39	26 11	13 22	0 13	
F 7	15 12	7 58	0 26	14 35	1 47	12 14	1 30	10 44	0 26	16 31	0 56	1 51	2 23	3 40	0 40	7 48	0 52	4 7	16 47	10 8	10 38	26 10	13 23	0 13	
S 8	14 53	13 38	0n43	13 54	1 43	11 47	1 30	10 59	0 27	16 33	0 57	1 52	2 24	3 41	0 40	7 48	0 52	4 6	16 47	10 8	10 36	26 8	13 23	0 13	
S 9	14 34	18 49	1 51	13 11	1 37	11 20	1 29	11 15	0 28	16 36	0 57	1 54	2 24	3 42	0 40	7 49	0 52	4 6	16 47	10 8	10 35	26 7	13 23	0 12	
M10	14 14	23 12	2 54	12 27	1 31	10 52	1 29	11 30	0 28	16 38	0 57	1 55	2 24	3 43	0 39	7 49	0 52	4 5	16 46	10 8	10 34	26 6	13 23	0 12	
T 11	13 55	26 23	3 49	11 43	1 25	10 24	1 29	11 45	0 29	16 41	0 57	1 57	2 24	3 44	0 39	7 50	0 52	4 5	16 46	10 8	10 33	26 5	13 23	0 12	
W12	13 35	27 57	4 32	10 57	1 17	9 56	1 29	12 0	0 30	16 43	0 57	1 58	2 25	3 45	0 39	7 51	0 52	4 4	16 46	10 6	10 32	26 3	13 22	0 11	
T 13	13 15	27 36	4 57	10 10	1 9	9 27	1 28	12 15	0 31	16 46	0 57	2 0	2 25	3 46	0 39	7 51	0 52	4 4	16 45	10 3	10 31	26 2	13 22	0 11	
F 14	12 54	25 14	5 3	9 22	1 1	8 59	1 28	12 29	0 32	16 48	0 57	2 1	2 25	3 48	0 39	7 52	0 52	4 3	16 45	10 0	10 30	26 1	13 22	0 11	
S 15	12 34	21 5	4 48	8 34	0 51	8 30	1 28	12 44	0 32	16 50	0 57	2 3	2 25	3 49	0 39	7 53	0 52	4 2	16 45	9 57	10 28	26 0	13 22	0 10	
S 16	12 13	15 33	4 13	7 45	0 41	8 0	1 27	12 59	0 33	16 53	0 57	2 4	2 25	3 50	0 39	7 53	0 52	4 2	16 44	9 54	10 27	25 58	13 22	0 10	
M17	11 52	9 11	3 20	6 56	0 31	7 31	1 26	13 13	0 34	16 55	0 57	2 6	2 26	3 51	0 39	7 54	0 52	4 1	16 44	9 51	10 26	25 57	13 21	0 10	
T 18	11 31	2 27	2 16	6 7	0 19	7 1	1 26	13 28	0 35	16 57	0 57	2 8	2 26	3 52	0 39	7 54	0 52	4 1	16 44	9 49	10 25	25 56	13 21	0 9	
W19	11 10	4s12	1 5	5 19	0 7	6 32	1 25	13 42	0 35	17 0	0 57	2 9	2 26	3 53	0 39	7 55	0 52	4 0	16 43	9 48	10 24	25 54	13 21	0 9	
T 20	10 48	10 27	0s 8	4 30	0n 6	6 2	1 24	13 56	0 36	17 2	0 57	2 11	2 26	3 54	0 39	7 56	0 52	4 0	16 43	9 48	10 23	25 53	13 20	0 9	
F 21	10 26	16 2	1 18	3 43	0 19	5 32	1 23	14 10	0 37	17 4	0 57	2 13	2 26	3 55	0 39	7 56	0 52	3 59	16 43	9 48	10 22	25 52	13 20	0 8	
S 22	10 5	20 44	2 22	2 57	0 33	5 1	1 22	14 24	0 37	17 6	0 58	2 14	2 26	3 56	0 39	7 57	0 52	3 59	16 42	9 48	10 20	25 50	13 19	0 8	
S 23	9 43	24 23	3 17	2 13	0 47	4 31	1 21	14 38	0 38	17 9	0 58	2 16	2 27	3 57	0 39	7 58	0 52	3 58	16 42	9 49	10 19	25 49	13 19	0 8	
M24	9 20	26 51	4 3	1 30	1 1	4 0	1 20	14 51	0 39	17 11	0 58	2 18	2 27	3 59	0 39	7 58	0 52	3 58	16 42	9 48	10 18	25 48	13 18	0 7	
T 25	8 58	28 2	4 36	0 50	1 16	3 30	1 19	15 5	0 39	17 13	0 58	2 20	2 27	4 0	0 39	7 59	0 52	3 57	16 42	9 47	10 17	25 46	13 17	0 7	
W26	8 36	27 55	4 58	0 12	1 31	2 59	1 18	15 18	0 40	17 15	0 58	2 22	2 27	4 1	0 39	8 0	0 52	3 56	16 41	9 45	10 16	25 45	13 17	0 7	
T 27	8 13	26 31	5 7	0	22	1 46	2 28	1 17	15 32	0 41	17 17	0 58	2 23	2 27	4 2	0 39	8 0	0 52	3 56	16 41	9 43	10 15	25 44	13 16	0 6
F 28	7s50	23s56	5s 3	0n53	2n 0	1s57	1s15	15n45	0n41	17n19	0n58	2n25	2n27	4n 3	0s39	8n 1	0n52	3s55	16s41	9n40	10n14	25s42	13s15	0s 6	

ASTRODIENST EPHEMERIS for the year 2098
geocentric

MARCH 2098

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 37 28	10♌56'22	16♋49	28♌11	29♌13	11♌35	14°R40	29°R31	11°V50	11°R35	0♌48	24°R50	26°V28	27♌33	4°R55	S 1
S 2	10 41 25	11°56'38	28°52	28°38	0°V28	12°15	14♌34	29°V26	11°53	11°V33	0°49	24°V41	26°25	27°40	4♌53	S 2
M 3	10 45 21	12°56'53	11♌2	28°55	1°42	12°55	14°27	29°22	11°56	11°32	0°50	24°34	26°22	27°47	4°52	M 3
T 4	10 49 18	13°57'05	23°22	29°R 2	2°57	13°35	14°21	29°17	11°59	11°30	0°51	24°28	26°18	27°53	4°50	T 4
W 5	10 53 14	14°57'16	5°V51	29° 0	4°11	14°15	14°15	29°13	12° 2	11°28	0°52	24°24	26°15	28° 0	4°48	W 5
T 6	10 57 11	15°57'25	18°31	28°49	5°26	14°56	14° 9	29° 8	12° 5	11°27	0°53	24°D22	26°12	28° 7	4°46	T 6
F 7	11 1 7	16°57'31	1♌23	28°29	6°40	15°36	14° 4	29° 4	12° 8	11°25	0°54	24°22	26° 9	28°13	4°44	F 7
S 8	11 5 4	17°57'36	14°27	28° 1	7°54	16°16	13°58	28°59	12°12	11°23	0°55	24°24	26° 6	28°20	4°42	S 8
S 9	11 9 0	18°57'39	27°47	27°25	9° 9	16°56	13°53	28°55	12°15	11°22	0°56	24°25	26° 3	28°27	4°40	S 9
M10	11 12 57	19°57'40	11♌23	26°42	10°23	17°36	13°47	28°50	12°18	11°20	0°57	24°26	25°59	28°34	4°37	M10
T 11	11 16 54	20°57'38	25°16	25°54	11°37	18°16	13°42	28°45	12°21	11°18	0°58	24°R27	25°56	28°40	4°35	T 11
W12	11 20 50	21°57'34	9♌27	25° 1	12°52	18°56	13°37	28°41	12°25	11°17	1° 0	24°25	25°53	28°47	4°32	W12
T 13	11 24 47	22°57'28	23°53	24° 5	14° 6	19°36	13°32	28°36	12°28	11°15	1° 1	24°23	25°50	28°54	4°30	T 13
F 14	11 28 43	23°57'20	8♌31	23° 7	15°20	20°16	13°28	28°31	12°31	11°13	1° 2	24°19	25°47	29° 1	4°27	F 14
S 15	11 32 40	24°57'10	23°16	22° 8	16°34	20°56	13°23	28°27	12°34	11°12	1° 3	24°15	25°44	29° 7	4°24	S 15
S 16	11 36 36	25°56'57	8♌0	21°11	17°48	21°35	13°19	28°22	12°38	11°10	1° 4	24°11	25°40	29°14	4°21	S 16
M17	11 40 33	26°56'43	22°36	20°15	19° 2	22°15	13°15	28°17	12°41	11° 9	1° 5	24° 7	25°37	29°21	4°19	M17
T 18	11 44 29	27°56'26	6♌58	19°23	20°16	22°55	13°11	28°12	12°44	11° 7	1° 6	24° 5	25°34	29°27	4°15	T 18
W19	11 48 26	28°56'07	20°59	18°34	21°30	23°35	13° 7	28° 8	12°48	11° 5	1° 8	24°D 4	25°31	29°34	4°12	W19
T 20	11 52 22	29°55'47	4♌36	17°50	22°44	24°15	13° 4	28° 3	12°51	11° 4	1° 9	24° 4	25°28	29°41	4° 9	T 20
F 21	11 56 19	0°V55'24	17°50	17°11	23°58	24°55	13° 0	27°58	12°54	11° 2	1°10	24° 5	25°24	29°48	4° 6	F 21
S 22	12 0 16	1°55'00	0♌40	16°37	25°12	25°34	12°57	27°54	12°58	11° 1	1°11	24° 7	25°21	29°54	4° 2	S 22
S 23	12 4 12	2°54'35	13°10	16°10	26°26	26°14	12°54	27°49	13° 1	10°59	1°13	24° 8	25°18	0♌1	3°59	S 23
M24	12 8 9	3°54'07	25°24	15°49	27°40	26°54	12°51	27°44	13° 5	10°58	1°14	24°10	25°15	0° 8	3°55	M24
T 25	12 12 5	4°53'38	7♌26	15°34	28°53	27°34	12°48	27°39	13° 8	10°56	1°15	24°R10	25°12	0°14	3°52	T 25
W26	12 16 2	5°53'07	19°20	15°25	0♌7	28°13	12°46	27°35	13°11	10°55	1°16	24° 9	25° 9	0°21	3°48	W26
T 27	12 19 58	6°52'34	1♌12	15°D21	1°21	28°53	12°44	27°30	13°15	10°53	1°18	24° 8	25° 5	0°28	3°44	T 27
F 28	12 23 55	7°52'00	13° 6	15°24	2°34	29°33	12°41	27°25	13°18	10°52	1°19	24° 6	25° 2	0°35	3°40	F 28
S 29	12 27 51	8°51'23	25° 6	15°32	3°48	0♌12	12°39	27°21	13°22	10°50	1°20	24° 3	24°59	0°41	3°37	S 29
S 30	12 31 48	9°50'45	7♌14	15°46	5° 1	0°52	12°38	27°16	13°25	10°49	1°21	24° 1	24°56	0°48	3°33	S 30
M31	12 35 45	10°V50'05	19♌34	16♌4	6♌15	1♌32	12♌36	27°V12	13°V28	10°V48	1♌23	23°V59	24°V53	0♌55	3♌29	M31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	7s28 20s19 4s45 1n20 2n15 1s26 1s14 15n58 0n42 17n21 0n58 2n27 2n28 4n 5 0s39 8n 1 0n52 3s55 16s40 9n37 10n12 25s41 13s14 0s 6															
S 2	7 5 15 51 4 15 1 43 2 28 0 55 1 12 16 11 0 43 17 23 0 58 2 29 2 28 4 6 0 39 8 2 0 52 3 54 16 40 9 34 10 11 25 40 13 14 0 5															
M 3	6 42 10 42 3 33 2 2 2 42 0 24 1 11 16 24 0 43 17 24 0 58 2 33 2 28 4 7 0 39 8 3 0 52 3 54 16 40 9 31 10 10 25 38 13 13 0 5															
T 4	6 19 5 5 2 40 2 16 2 54 0n 7 1 9 16 36 0 44 17 26 0 58 2 33 2 28 4 8 0 39 8 3 0 52 3 53 16 40 9 29 10 9 25 37 13 12 0 5															
W 5	5 55 0n49 1 39 2 26 3 5 0 38 1 8 16 49 0 44 17 28 0 58 2 35 2 28 4 9 0 39 8 4 0 53 3 52 16 39 9 27 10 8 25 35 13 11 0 4															
T 6	5 32 6 46 0 32 2 31 3 15 1 9 1 6 17 1 0 45 17 30 0 58 2 36 2 28 4 11 0 39 8 5 0 53 3 52 16 39 9 27 10 7 25 34 13 10 0 4															
F 7	5 9 12 33 0n38 2 30 3 23 1 40 1 4 17 14 0 46 17 31 0 58 2 38 2 28 4 12 0 39 8 5 0 53 3 51 16 39 9 27 10 6 25 32 13 9 0 4															
S 8	4 45 17 53 1 47 2 25 3 30 2 11 1 2 17 26 0 46 17 33 0 58 2 40 2 28 4 13 0 39 8 6 0 53 3 51 16 39 9 27 10 4 25 31 13 8 0 3															
S 9	4 22 22 27 2 52 2 15 3 35 2 42 1 1 17 38 0 47 17 35 0 58 2 42 2 29 4 15 0 39 8 7 0 53 3 50 16 38 9 28 10 3 25 30 13 7 0 3															
M10	3 58 25 54 3 48 2 1 3 38 3 13 0 59 17 50 0 47 17 36 0 58 2 44 2 29 4 16 0 39 8 7 0 53 3 50 16 38 9 28 10 2 25 28 13 6 0 2															
T 11	3 35 27 53 4 33 1 43 3 39 3 43 0 57 18 1 0 48 17 38 0 58 2 46 2 29 4 17 0 39 8 8 0 53 3 49 16 38 9 28 10 1 25 27 13 5 0 2															
W12	3 11 28 6 5 2 1 21 3 37 4 14 0 55 18 13 0 48 17 39 0 58 2 48 2 29 4 18 0 39 8 9 0 53 3 48 16 38 9 28 10 0 25 25 13 3 0 2															
T 13	2 48 26 26 5 12 0 56 3 34 4 45 0 53 18 24 0 49 17 40 0 58 2 50 2 29 4 20 0 39 8 9 0 53 3 48 16 37 9 27 9 59 25 24 13 2 0 1															
F 14	2 24 22 59 5 3 0 28 3 29 5 15 0 51 18 36 0 49 17 42 0 58 2 52 2 29 4 21 0 39 8 10 0 53 3 47 16 37 9 25 9 57 25 22 13 1 0 1															
S 15	2 0 18 3 4 33 0s 1 3 22 5 46 0 48 18 47 0 50 17 43 0 58 2 54 2 29 4 22 0 39 8 10 0 53 3 47 16 37 9 24 9 56 25 21 13 0 0 1															
S 16	1 37 12 3 3 46 0 32 3 13 6 16 0 46 18 58 0 50 17 44 0 57 2 56 2 29 4 24 0 39 8 11 0 53 3 46 16 37 9 22 9 55 25 19 12 58 0 0															
M17	1 13 5 27 2 44 1 3 3 6 46 0 44 19 9 0 51 17 45 0 57 2 58 2 29 4 25 0 39 8 12 0 53 3 45 16 37 9 21 9 54 25 18 12 57 0n 0															
T 18	0 49 1s21 1 32 1 34 2 52 7 17 0 42 19 19 0 51 17 46 0 57 3 0 2 29 4 26 0 39 8 12 0 53 3 45 16 36 9 20 9 53 25 16 12 56 0 0															
W19	0 25 7 55 0 17 2 5 2 39 7 46 0 39 19 30 0 52 17 47 0 57 3 2 2 29 4 27 0 39 8 13 0 53 3 44 16 36 9 20 9 52 25 15 12 54 0 1															
T 20	0 2 13 57 0s58 2 35 2 25 8 16 0 37 19 40 0 52 17 48 0 57 3 4 2 29 4 29 0 39 8 13 0 53 3 44 16 36 9 20 9 51 25 13 12 53 0 1															
F 21	0n22 19 10 2 7 3 3 2 11 8 46 0 34 19 50 0 53 17 49 0 57 3 5 2 29 4 30 0 39 8 14 0 53 3 43 16 36 9 20 9 49 25 12 12 51 0 2															
S 22	0 46 23 21 3 8 3 30 1 56 9 15 0 32 20 0 0 53 17 50 0 57 3 7 2 29 4 31 0 39 8 15 0 53 3 43 16 36 9 21 9 48 25 10 12 50 0 2															
S 23	1 9 26 18 3 58 3 54 1 41 9 44 0 30 20 10 0 54 17 51 0 57 3 9 2 29 4 33 0 39 8 15 0 53 3 42 16 35 9 22 9 47 25 9 12 48 0 2															
M24	1 33 27 57 4 36 4 17 1 25 10 13 0 27 20 20 0 54 17 52 0 57 3 11 2 29 4 34 0 39 8 16 0 53 3 41 16 35 9 22 9 46 25 7 12 47 0 3															
T 25	1 57 28 15 5 2 4 17 1 10 10 42 0 24 20 29 0 54 17 52 0 57 3 13 2 29 4 35 0 39 8 16 0 53 3 41 16 35 9 22 9 45 25 6 12 45 0 3															
W26	2 20 27 13 5 14 4 54 0 55 11 10 0 22 20 39 0 55 17 53 0 57 3 15 2 29 4 37 0 39 8 17 0 53 3 40 16 35 9 22 9 44 25 4 12 44 0 3															
T 27	2 44 24 58 5 13 5 9 0 40 11 38 0 19 20 48 0 55 17 54 0 57 3 17 2 29 4 38 0 39 8 17 0 53 3 40 16 35 9 21 9 42 25 2 12 42 0 4															
F 28	3 7 21 38 4 58 5 52 0 25 12 6 0 17 20 57 0 56 17 54 0 57 3 19 2 29 4 39 0 39 8 18 0 53 3 39 16 35 9 20 9 41 25 1 12 40 0 4															
S 29	3 31 17 23 4 30 5 22 0 11 12 34 0 14 21 6 0 56 17 55 0 57 3 20 2 29 4 41 0 39 8 19 0 53 3 39 16 34 9 20 9 40 24 59 12 39 0 4															
S 30	3 54 12 25 3 50 5 39 0s 3 13 1 0 11 21 15 0 56 17 55 0 57 3 22 2 29 4 42 0 39 8 19 0 53 3 38 16 34 9 19 9 39 24 58 12 37 0 5															
M31	4n17 6s52 2s59 5s44 0s16 13n28 0s 8 21n23 0n57 17n55 0n57 3n24 2n29 4n43 0s39 8n20 0n53 3s38 16s34 9n18 9n38 24s56 12s35 0n 5															

Julian Day Number = 2487398.5, Delta T = 92.34 sec
Ecliptic obliquity = 23°25'44, Nutation = - 0°00'06, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 26°06'42, Lahiri = 25°13'43

ASTRODIENST EPHEMERIS for the year 2098

geocentric

APRIL 2098

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 39 41	11°49'23	2°49' 6	16°28' 28	7°28' 28	2°11' 11	12°R35	27°R 7	13°Y32	10°R46	1°24' 24	23°R58	24°Y49	1°28' 2	3°R24	T 1
W 2	12 43 38	12°48'38	14°53' 6	16°56' 42	8°42' 42	2°51' 51	12°Q34	27°M 3	13°35' 35	10°M45	1°25' 25	23°Y57	24°46' 46	1°8' 8	3°M20	W 2
T 3	12 47 34	13°47'52	27°54' 8	17°28' 28	9°55' 55	3°30' 30	12°33' 33	26°58' 58	13°39' 39	10°43' 43	1°27' 27	23°D57	24°43' 43	1°15' 15	3°16' 16	T 3
F 4	12 51 31	14°47'04	11°18' 9	18°5' 5	11°8' 8	4°10' 10	12°32' 32	26°54' 54	13°42' 42	10°42' 42	1°28' 28	23°57' 57	24°40' 40	1°22' 22	3°12' 12	F 4
S 5	12 55 27	15°46'14	24°37' 8	18°46' 46	12°22' 22	4°49' 49	12°31' 31	26°50' 50	13°46' 46	10°41' 41	1°29' 29	23°58' 58	24°37' 37	1°28' 28	3°8' 8	S 5
S 6	12 59 24	16°45'21	8°11' 17	19°30' 30	13°35' 35	5°29' 29	12°31' 31	26°45' 45	13°49' 49	10°39' 39	1°31' 31	23°59' 59	24°34' 34	1°35' 35	3°3' 3	S 6
M 7	13 3 20	17°44'26	22°8' 8	20°18' 18	14°48' 48	6°8' 8	12°31' 31	26°41' 41	13°52' 52	10°38' 38	1°32' 32	23°59' 59	24°30' 30	1°42' 42	2°59' 59	M 7
T 8	13 7 17	18°43'29	6°28' 8	21°9' 9	16°1' 1	6°48' 48	12°D31	26°37' 37	13°56' 56	10°37' 37	1°33' 33	24°0' 0	24°27' 27	1°49' 49	2°54' 54	T 8
W 9	13 11 14	19°42'30	20°17' 17	22°3' 3	17°14' 14	7°27' 27	12°31' 31	26°33' 33	13°59' 59	10°36' 36	1°35' 35	24°R 0	24°24' 24	1°55' 55	2°50' 50	W 9
T 10	13 15 10	20°41'28	4°23' 23	23°0' 0	18°27' 27	8°7' 7	12°31' 31	26°28' 28	14°3' 3	10°35' 35	1°36' 36	24°0' 0	24°21' 21	2°2' 2	2°46' 46	T 10
F 11	13 19 7	21°40'24	18°50' 50	24°0' 0	19°40' 40	8°46' 46	12°32' 32	26°24' 24	14°6' 6	10°33' 33	1°38' 38	23°59' 59	24°18' 18	2°9' 9	2°41' 41	F 11
S 12	13 23 3	22°39'17	3°M 8	25°3' 3	20°53' 53	9°26' 26	12°32' 32	26°20' 20	14°10' 10	10°32' 32	1°39' 39	23°59' 59	24°15' 15	2°15' 15	2°37' 37	S 12
S 13	13 27 0	23°38'09	17°23' 23	26°8' 8	22°6' 6	10°5' 5	12°33' 33	26°16' 16	14°13' 13	10°31' 31	1°40' 40	23°D59	24°11' 11	2°22' 22	2°32' 32	S 13
M14	13 30 56	24°36'58	1°23' 23	27°16' 16	23°19' 19	10°44' 44	12°34' 34	26°13' 13	14°16' 16	10°30' 30	1°42' 42	23°59' 59	24°8' 8	2°29' 29	2°27' 27	M14
T 15	13 34 53	25°35'45	15°27' 27	28°27' 27	24°31' 31	11°23' 23	12°36' 36	26°9' 9	14°20' 20	10°29' 29	1°43' 43	23°59' 59	24°5' 5	2°36' 36	2°23' 23	T 15
W16	13 38 49	26°34'29	29°9' 9	29°39' 39	25°44' 44	12°3' 3	12°37' 37	26°5' 5	14°23' 23	10°28' 28	1°44' 44	23°R59	24°2' 2	2°42' 42	2°18' 18	W16
T 17	13 42 46	27°33'12	12°M34	0°Y54	26°57' 57	12°42' 42	12°39' 39	26°1' 1	14°26' 26	10°27' 27	1°46' 46	23°59' 59	23°59' 59	2°49' 49	2°14' 14	T 17
F 18	13 46 43	28°31'54	25°40' 40	2°11' 11	28°9' 9	13°21' 21	12°41' 41	25°58' 58	14°30' 30	10°26' 26	1°47' 47	23°59' 59	23°55' 55	2°56' 56	2°9' 9	F 18
S 19	13 50 39	29°30'33	8°X28	3°30' 30	29°22' 22	14°0' 0	12°43' 43	25°54' 54	14°33' 33	10°25' 25	1°49' 49	23°58' 58	23°52' 52	3°3' 3	2°4' 4	S 19
S 20	13 54 36	0°29'11	20°59' 59	4°51' 51	0°11' 11	14°40' 40	12°45' 45	25°51' 51	14°36' 36	10°24' 24	1°50' 50	23°57' 57	23°49' 49	3°9' 9	2°0' 0	S 20
M21	13 58 32	1°27'47	3°Z14	6°14' 14	1°47' 47	15°19' 19	12°47' 47	25°47' 47	14°40' 40	10°23' 23	1°51' 51	23°56' 56	23°46' 46	3°16' 16	1°55' 55	M21
T 22	14 2 29	2°26'21	15°18' 18	7°39' 39	2°59' 59	15°58' 58	12°50' 50	25°44' 44	14°43' 43	10°22' 22	1°53' 53	23°56' 56	23°43' 43	3°23' 23	1°50' 50	T 22
W23	14 6 25	3°24'53	27°14' 14	9°5' 5	4°11' 11	16°37' 37	12°52' 52	25°41' 41	14°46' 46	10°21' 21	1°54' 54	23°55' 55	23°40' 40	3°29' 29	1°46' 46	W23
T 24	14 10 22	4°23'24	9°X 7	10°34' 34	5°23' 23	17°16' 16	12°55' 55	25°38' 38	14°50' 50	10°20' 20	1°56' 56	23°D55	23°36' 36	3°36' 36	1°41' 41	T 24
F 25	14 14 18	5°21'54	2°1' 2	12°4' 4	6°36' 36	17°55' 55	12°58' 58	25°34' 34	14°53' 53	10°20' 20	1°57' 57	23°56' 56	23°33' 33	3°43' 43	1°36' 36	F 25
S 26	14 18 15	6°20'21	3°X 3	13°37' 37	7°48' 48	18°34' 34	13°2' 2	25°31' 31	14°56' 56	10°19' 19	1°58' 58	23°56' 56	23°30' 30	3°50' 50	1°32' 32	S 26
S 27	14 22 12	7°18'47	15°14' 14	15°11' 11	9°0' 0	19°13' 13	13°5' 5	25°28' 28	14°59' 59	10°18' 18	2°0' 0	23°58' 58	23°27' 27	3°56' 56	1°27' 27	S 27
M28	14 26 8	8°17'11	27°39' 39	16°47' 47	10°12' 12	19°53' 53	13°9' 9	25°26' 26	15°3' 3	10°17' 17	2°1' 1	23°59' 59	23°24' 24	4°3' 3	1°22' 22	M28
T 29	14 30 5	9°15'34	10°Y21	18°25' 25	11°24' 24	20°32' 32	13°12' 12	25°23' 23	15°6' 6	10°17' 17	2°2' 2	24°0' 0	23°21' 21	4°10' 10	1°18' 18	T 29
W30	14 34 1	10°13'55	23°Y22	20°Y 4	12°11' 11	21°11' 11	13°Q16	25°M20	15°Y 9	10°M16	2°3' 3	24°R 0	23°Y17	4°16' 16	1°M13	W30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	4n40	0s58	1s58	5s47	0s29	13n55	0s6	21n32	0n57	17n56	0n57	3n26	2n29	4n45	0s39	8n20	0n53	3s37	16s34	9n18	9n37	24s55	12s33	0n6					
W 2	5 3	5n6	0 50	5 47	0 41	14 21	0 3	21 40	0 58	17 56	0 57	3 27	2 29	4 46	0 39	8 21	0 53	3 36	16 34	9 17	9 35	24 53	12 32	0 6					
T 3	5 26	11 4	0n22	5 45	0 53	14 47	0 0	21 48	0 58	17 56	0 56	3 29	2 29	4 47	0 39	8 21	0 53	3 36	16 34	9 17	9 34	24 51	12 30	0 6					
F 4	5 49	16 39	1 34	5 41	1 4	15 13	0n3	21 56	0 58	17 56	0 56	3 31	2 29	4 49	0 39	8 22	0 53	3 35	16 34	9 17	9 33	24 50	12 28	0 7					
S 5	6 12	21 32	2 42	5 35	1 14	15 38	0 6	22 3	0 59	17 57	0 56	3 33	2 29	4 50	0 39	8 22	0 53	3 35	16 34	9 18	9 32	24 48	12 26	0 7					
S 6	6 35	25 19	3 42	5 27	1 24	16 3	0 9	22 11	0 59	17 57	0 56	3 34	2 29	4 51	0 39	8 23	0 53	3 34	16 33	9 18	9 31	24 46	12 24	0 7					
M 7	6 58	27 40	4 29	5 16	1 33	16 27	0 11	22 18	0 59	17 57	0 56	3 36	2 29	4 53	0 39	8 23	0 53	3 34	16 33	9 18	9 30	24 45	12 23	0 8					
T 8	7 20	28 18	5 2	5 4	1 42	16 51	0 14	22 25	1 0	17 56	0 56	3 38	2 29	4 54	0 39	8 24	0 52	3 33	16 33	9 18	9 28	24 43	12 21	0 8					
W 9	7 42	27 6	5 16	4 50	1 50	17 15	0 17	22 32	1 0	17 56	0 56	3 39	2 29	4 55	0 39	8 24	0 52	3 33	16 33	9 18	9 27	24 41	12 19	0 9					
T 10	8 5	24 9	5 11	4 35	1 58	17 38	0 20	22 39	1 0	17 56	0 56	3 41	2 29	4 57	0 39	8 24	0 52	3 32	16 33	9 18	9 26	24 40	12 17	0 9					
F 11	8 27	19 44	4 48	4 17	2 5	18 1	0 23	22 45	1 1	17 56	0 56	3 42	2 29	4 58	0 39	8 25	0 52	3 32	16 33	9 18	9 25	24 38	12 15	0 9					
S 12	8 49	14 10	4 6	3 58	2 11	18 23	0 26	22 52	1 1	17 56	0 56	3 44	2 29	4 59	0 39	8 25	0 52	3 31	16 33	9 18	9 24	24 36	12 13	0 10					
S 13	9 10	7 53	3 9	3 37	2 17	18 45	0 29	22 58	1 1	17 55	0 56	3 45	2 29	5 1	0 39	8 26	0 52	3 31	16 33	9 18	9 23	24 35	12 11	0 10					
M14	9 32	1 15	2 1	3 15	2 22	19 6	0 32	23 4	1 2	17 55	0 56	3 47	2 29	5 2	0 39	8 26	0 52	3 30	16 33	9 18	9 21	24 33	12 9	0 11					
T 15	9 53	5s21	0 47	2 51	2 26	19 27	0 35	23 10	1 2	17 55	0 56	3 48	2 28	5 3	0 39	8 27	0 52	3 30	16 33	9 18	9 20	24 31	12 7	0 11					
W16	10 15	11 37	0s29	2 26	2 30	19 47	0 37	23 15	1 2	17 54	0 55	3 50	2 28	5 5	0 39	8 27	0 52	3 29	16 33	9 18	9 19	24 30	12 5	0 11					
T 17	10 36	17 12	1 41	2 0	2 34	20 7	0 40	23 21	1 3	17 53	0 55	3 51	2 28	5 6	0 39	8 27	0 52	3 29	16 33	9 18	9 18	24 28	12 4	0 12					
F 18	10 57	21 52	2 47	1 32	2 37	20 27	0 43	23 26	1 3	17 53	0 55	3 52	2 28	5 7	0 39	8 28	0 52	3 28	16 33	9 18	9 17	24 26	12 2	0 12					
S 19	11 18	25 22	3 42	1 3	2 39	20 45	0 46	23 31	1 3	17 52	0 55	3 54	2 28	5 8	0 39	8 28	0 52	3 28	16 33	9 18	9 16	24 25	12 0	0 12					
S 20	11 38	27 32	4 26	0 32	2 41	21 4	0 49	23 36	1 3	17 52	0 55	3 55	2 28	5 10	0 39	8 28	0 52	3 27	16 33	9 17	9 14	24 23	11 58	0 13					
M21	11 59	28 19	4 56	0 0	2 42	21 21	0 52	23 40	1 4	17 51	0 55	3 56	2 28	5 11	0 39	8 29	0 52	3 27	16 33	9 17	9 13	24 21	11 56	0 13					
T 22	12 19	27 44	5 13	0n32	2 43	21 38	0 55	23 45	1 4	17 50	0 55	3 57	2 28	5 12	0 39	8 29	0 52	3 26	16 33	9 17	9 12	24 19	11 54	0 14					
W23	12 39	25 52	5 16	1 6	2 43	21 55	0 57	23 49	1 4	17 49	0 55	3 58	2 28	5 14	0 39	8 29	0 52	3 26	16 33	9 17	9 11	24 18	11 52	0 14					
T 24	12 59	22 52	5 5	1 42	2 42	22 11	1 0	23 53	1 4	17 48	0 55	4 0	2 27	5 15	0 39	8 30	0 52	3 25	16 33	9 17	9 10	24 16	11 50	0 14					
F 25	13 18	18 56	4 42	2 18	2 41	22 26	1 3	23 57	1 5	17 47	0 55	4 1	2 27	5 16	0 39	8 30	0 52	3 25	16 33	9 17	9 9	24 14	11 48	0 15					
S 26	13 38	14 12	4 6	2 55	2 40	22 41	1 6	24 1	1 5	17 46	0 55	4 2	2 27	5 17	0 39	8 30	0 52	3 24	16 33	9 17	9 7	24 12	11 46	0 15					
S 27	13 57	8 52	3 18	3 33	2 38	22 55	1 8	24 4	1 5	17 45	0 55	4 3	2 27	5 19	0 39	8 31	0 52	3 24	16 33	9 18	9 6	24 10	11 44	0 15					
M28	14 16	3 5	2 21	4 12	2 35	23 8	1 11	24 8	1 5	17 44	0 54	4 4	2 27	5 20	0 39	8 31	0 52	3 24	16 33	9 18	9 5	24 9	11 42	0 16					
T 29	14 34	2n57	1 15	4 52	2 32	23 21	1 14	24 11	1 6	17 43	0 54	4 5	2 27	5 21	0 39	8 31	0 52	3 23	16 33	9 18	9 4	24 7	11 40	0 16					
W30	14n53	9n1	0s3	5n33	2s28	23n33	1n16	24n14	1n6	17n42	0n54	4n6	2n27	5n22	0s39	8n31	0n52	3s23	16s33	9n19	9n3	24s5	11s38	0n16					

ASTRODIENST EPHEMERIS for the year 2098

geocentric

MAY 2098

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	14 37 58	11°12'14	6°43	21°45	13°47	21°50	13°20	25°R18	15°Y12	10°R15	2° 5	24°R 0	23°Y14	4°23	1°R 9	T 1	
F 2	14 41 54	12°10'32	20°22	23°29	14°59	22°29	13°25	25°M15	15°15	10°M15	2° 7	23°Y59	23°11	4°30	1°M 4	F 2	
S 3	14 45 51	13° 8'48	4°17	25°13	16°11	23° 7	13°29	25°13	15°19	10°14	2° 8	23°56	23° 8	4°37	1° 0	S 3	
S 4	14 49 47	14° 7'02	18°25	27° 0	17°22	23°46	13°34	25°10	15°22	10°13	2° 9	23°54	23° 5	4°43	0°55	S 4	
M 5	14 53 44	15° 5'14	2°41	28°49	18°34	24°25	13°39	25° 8	15°25	10°13	2°11	23°51	23° 1	4°50	0°51	M 5	
T 6	14 57 41	16° 3'25	17° 1	0°39	19°45	25° 4	13°43	25° 6	15°28	10°12	2°12	23°49	22°58	4°57	0°46	T 6	
W 7	15 1 37	17° 1'33	1°20	2°31	20°57	25°43	13°49	25° 4	15°31	10°12	2°13	23°47	22°55	5° 4	0°42	W 7	
T 8	15 5 34	17°59'39	15°35	4°25	22° 8	26°22	13°54	25° 2	15°34	10°12	2°15	23°D46	22°52	5°10	0°38	T 8	
F 9	15 9 30	18°57'43	29°44	6°21	23°19	27° 1	13°59	25° 0	15°37	10°11	2°16	23°46	22°49	5°17	0°33	F 9	
S 10	15 13 27	19°55'46	13°M44	8°18	24°31	27°40	14° 5	24°59	15°40	10°11	2°17	23°48	22°46	5°24	0°29	S 10	
S 11	15 17 23	20°53'46	27°35	10°18	25°42	28°18	14°10	24°57	15°43	10°10	2°19	23°49	22°42	5°30	0°25	S 11	
M12	15 21 20	21°51'44	11°A16	12°19	26°53	28°57	14°16	24°55	15°46	10°10	2°20	23°50	22°39	5°37	0°21	M12	
T 13	15 25 16	22°49'41	24°46	14°21	28° 4	29°36	14°22	24°54	15°49	10°10	2°21	23°R51	22°36	5°44	0°17	T 13	
W14	15 29 13	23°47'36	8°M 3	16°26	29°15	0°51	14°28	24°53	15°52	10°10	2°23	23°50	22°33	5°51	0°13	W14	
T 15	15 33 10	24°45'30	21° 7	18°32	0°53	0°53	14°35	24°51	15°54	10° 9	2°24	23°48	22°30	5°57	0° 9	T 15	
F 16	15 37 6	25°43'22	3°A58	20°39	1°36	1°32	14°41	24°50	15°57	10° 9	2°25	23°44	22°27	6° 4	0° 5	F 16	
S 17	15 41 3	26°41'12	16°36	22°47	2°47	2°11	14°48	24°49	16° 0	10° 9	2°27	23°39	22°23	6°11	0° 1	S 17	
S 18	15 44 59	27°39'02	29° 0	24°56	3°57	2°49	14°54	24°48	16° 3	10° 9	2°28	23°33	22°20	6°17	29°A57	S 18	
M19	15 48 56	28°36'49	11°B12	27° 7	5° 8	3°28	15° 1	24°47	16° 6	10° 9	2°29	23°27	22°17	6°24	29°54	M19	
T 20	15 52 52	29°34'36	23°15	29°18	6°18	4° 7	15° 8	24°47	16° 8	10° 9	2°30	23°22	22°14	6°31	29°50	T 20	
W21	15 56 49	0°11'32	22°22	5°A11	1°11	7°28	4°45	15°15	16°11	10°D 9	2°32	23°17	22°11	6°38	29°46	W21	
T 22	16 0 45	1°30'06	17° 3	3°41	8°38	5°24	15°22	24°45	16°14	10° 9	2°33	23°15	22° 7	6°44	29°43	T 22	
F 23	16 4 42	2°27'49	28°57	5°52	9°48	6° 3	15°30	24°45	16°16	10° 9	2°34	23°D13	22° 4	6°51	29°40	F 23	
S 24	16 8 39	3°25'31	10°A56	8° 3	10°58	6°41	15°37	24°45	16°19	10° 9	2°35	23°14	22° 1	6°58	29°36	S 24	
S 25	16 12 35	4°23'13	23° 7	10°14	12° 8	7°20	15°45	24°44	16°21	10° 9	2°37	23°15	21°58	7° 4	29°33	S 25	
M26	16 16 32	5°20'53	5°Y33	12°23	13°18	7°58	15°53	24°44	16°24	10° 9	2°38	23°16	21°55	7°11	29°30	M26	
T 27	16 20 28	6°18'32	18°19	14°31	14°28	8°37	16° 0	24°D44	16°26	10°10	2°39	23°R17	21°52	7°18	29°27	T 27	
W28	16 24 25	7°16'10	1°B27	16°38	15°38	9°15	16° 8	24°44	16°29	10°10	2°40	23°17	21°48	7°25	29°24	W28	
T 29	16 28 21	8°13'47	15° 1	18°43	16°47	9°54	16°17	24°44	16°31	10°10	2°41	23°15	21°45	7°31	29°21	T 29	
F 30	16 32 18	9°11'23	28°59	20°46	17°56	10°32	16°25	24°45	16°34	10°10	2°43	23°11	21°42	7°38	29°18	F 30	
S 31	16 36 14	10°11'58	13°B17	22°11	19°56	11°51	16°D33	24°M45	16°Y36	10°M11	2°44	23°Y 5	21°Y39	7°A45	29°A15	S 31	

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	15n11	14n51	1n10	6n15	2s24	23n45	1n19	24n16	1n 6	17n40	0n54	4n 7	2n26	5n23	0s39	8n32	0n52
F 2	15 29	20 5	2 20	6 57	2 19	23 56	1 21	24 19	1 6	17 39	0 54	4 7	2 26	5 25	0 39	8 32	0 52
S 3	15 47	24 20	3 24	7 40	2 14	24 6	1 24	24 21	1 6	17 38	0 54	4 8	2 26	5 26	0 39	8 32	0 52
S 4	16 4	27 11	4 16	8 24	2 9	24 16	1 26	24 23	1 7	17 36	0 54	4 9	2 26	5 27	0 39	8 32	0 52
M 5	16 21	28 17	4 53	9 8	2 2	24 25	1 29	24 25	1 7	17 35	0 54	4 10	2 26	5 28	0 39	8 32	0 52
T 6	16 38	27 30	5 12	9 53	1 56	24 33	1 31	24 27	1 7	17 33	0 54	4 10	2 26	5 29	0 39	8 33	0 52
W 7	16 55	24 55	5 11	10 39	1 49	24 41	1 34	24 29	1 7	17 32	0 54	4 11	2 25	5 31	0 39	8 33	0 52
T 8	17 11	20 48	4 52	11 24	1 41	24 47	1 36	24 30	1 7	17 30	0 54	4 12	2 25	5 32	0 39	8 33	0 52
F 9	17 27	15 32	4 15	12 10	1 33	24 54	1 38	24 31	1 7	17 29	0 54	4 12	2 25	5 33	0 39	8 33	0 52
S 10	17 43	9 30	3 22	12 56	1 24	24 59	1 40	24 32	1 8	17 27	0 53	4 13	2 25	5 34	0 39	8 33	0 52
S 11	17 58	3 5	2 19	13 42	1 16	25 4	1 42	24 33	1 8	17 25	0 53	4 13	2 25	5 35	0 39	8 33	0 52
M12	18 13	3s24	1 8	14 28	1 6	25 8	1 44	24 33	1 8	17 24	0 53	4 14	2 25	5 36	0 39	8 33	0 52
T 13	18 28	9 40	0s 5	15 14	0 57	25 11	1 46	24 34	1 8	17 22	0 53	4 14	2 24	5 37	0 39	8 33	0 52
W14	18 43	15 24	1 17	15 59	0 47	25 14	1 48	24 34	1 8	17 20	0 53	4 14	2 24	5 38	0 39	8 33	0 52
T 15	18 57	20 20	2 24	16 44	0 37	25 16	1 50	24 34	1 8	17 18	0 53	4 15	2 24	5 40	0 39	8 33	0 52
F 16	19 11	24 14	3 22	17 29	0 27	25 17	1 52	24 34	1 9	17 16	0 53	4 15	2 24	5 41	0 39	8 34	0 52
S 17	19 24	26 52	4 8	18 12	0 16	25 18	1 54	24 33	1 9	17 14	0 53	4 15	2 24	5 42	0 39	8 34	0 52
S 18	19 38	28 8	4 43	18 54	0 6	25 18	1 56	24 33	1 9	17 12	0 53	4 16	2 23	5 43	0 39	8 34	0 52
M19	19 51	28 0	5 4	19 35	0n 5	25 17	1 57	24 32	1 9	17 10	0 53	4 16	2 23	5 44	0 39	8 34	0 52
T 20	20 3	26 32	5 11	20 14	0 15	25 15	1 59	24 31	1 9	17 8	0 53	4 16	2 23	5 45	0 39	8 34	0 52
W21	20 15	23 52	5 4	20 52	0 26	25 13	2 0	24 30	1 9	17 6	0 53	4 16	2 23	5 46	0 39	8 34	0 52
T 22	20 27	20 14	4 44	21 28	0 36	25 10	2 2	24 28	1 9	17 3	0 53	4 16	2 23	5 47	0 39	8 34	0 52
F 23	20 39	15 46	4 12	22 2	0 46	25 7	2 3	24 27	1 9	17 1	0 53	4 16	2 22	5 48	0 39	8 34	0 52
S 24	20 50	10 41	3 29	22 33	0 56	25 2	2 4	24 25	1 10	16 59	0 52	4 16	2 22	5 49	0 39	8 33	0 52
S 25	21 1	5 7	2 36	23 2	1 5	24 57	2 5	24 23	1 10	16 57	0 52	4 16	2 22	5 50	0 39	8 33	0 52
M26	21 11	0n45	1 35	23 29	1 14	24 52	2 6	24 21	1 10	16 54	0 52	4 16	2 22	5 51	0 39	8 33	0 52
T 27	21 21	6 46	0 27	23 53	1 22	24 45	2 7	24 19	1 10	16 52	0 52	4 15	2 22	5 52	0 39	8 33	0 52
W28	21 31	12 40	0n44	24 14	1 29	24 38	2 8	24 16	1 10	16 49	0 52	4 15	2 21	5 53	0 39	8 33	0 52
T 29	21 40	18 10	1 55	24 33	1 36	24 31	2 9	24 13	1 10	16 47	0 52	4 15	2 21	5 53	0 39	8 33	0 52
F 30	21 49	22 51	3 0	24 49	1 43	24 22	2 10	24 11	1 10	16 44	0 52	4 15	2 21	5 54	0 39	8 33	0 52
S 31	21n58	26n18	3n56	25n 2	1n48	24n13	2n10	24n 8	1n10	16n42	0n52	4n14	2n21	5n55	0s39	8n33	0n52

Julian Day Number = 2487459.5, Delta T = 92.42 sec
 Ecliptic obliquity = 23°25'44, Nutation = - 0°00'08, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°06'51, Lahiri = 25°13'51

ASTRODIENST EPHEMERIS for the year 2098

geocentric

JUNE 2098

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 40 11	11 ^{II} 6'33	27 ^{II} 52	24 ^{II} 46	20 ^{II} 15	11 ^{II} 49	16 ^{II} 42	24 ^{II} 46	16 ^{II} 38	10 ^{II} 11	2 ^{II} 45	22°R58	21 ^{II} 36	7 ^{II} 52	29°R13	S 1
M 2	16 44 8	12° 4'05	12 ^{II} 35	26°43	21°24	12°28	16°50	24°46	16°41	10°11	2°46	22 ^{II} 51	21°33	7°58	29 ^{II} 10	M 2
T 3	16 48 4	13° 1'37	27°20	28°37	22°33	13° 6	16°59	24°47	16°43	10°12	2°47	22°44	21°29	8° 5	29° 8	T 3
W 4	16 52 1	13°59'08	11 ^{II} 58	0 ^{II} 29	23°42	13°45	17° 8	24°48	16°45	10°12	2°48	22°39	21°26	8°12	29° 5	W 4
T 5	16 55 57	14°56'37	26°24	2°18	24°51	14°23	17°17	24°49	16°47	10°13	2°49	22°35	21°23	8°18	29° 3	T 5
F 6	16 59 54	15°54'04	10 ^{II} 35	4° 5	25°59	15° 1	17°26	24°50	16°49	10°13	2°50	22°D34	21°20	8°25	29° 1	F 6
S 7	17 3 50	16°51'31	24°30	5°49	27° 8	15°40	17°35	24°51	16°52	10°14	2°51	22°34	21°17	8°32	28°59	S 7
S 8	17 7 47	17°48'56	8 ^{II} 7	7°30	28°16	16°18	17°44	24°52	16°54	10°14	2°52	22°35	21°13	8°39	28°57	S 8
M 9	17 11 44	18°46'20	21°30	9° 9	29°25	16°56	17°53	24°53	16°56	10°15	2°53	22°R35	21°10	8°45	28°55	M 9
T 10	17 15 40	19°43'43	4 ^{II} 38	10°45	0 ^{II} 33	17°35	18° 3	24°55	16°58	10°16	2°54	22°34	21° 7	8°52	28°53	T 10
W11	17 19 37	20°41'05	17°33	12°18	1°41	18°13	18°12	24°56	17° 0	10°16	2°55	22°32	21° 4	8°59	28°51	W11
T 12	17 23 33	21°38'27	0 ^{II} 17	13°48	2°49	18°51	18°22	24°58	17° 1	10°17	2°56	22°27	21° 1	9° 5	28°50	T 12
F 13	17 27 30	22°35'47	12°51	15°16	3°56	19°30	18°32	24°59	17° 3	10°18	2°57	22°19	20°58	9°12	28°48	F 13
S 14	17 31 26	23°33'07	25°14	16°40	5° 4	20° 8	18°41	25° 1	17° 5	10°19	2°58	22° 9	20°54	9°19	28°47	S 14
S 15	17 35 23	24°30'25	7 ^{II} 28	18° 2	6°11	20°46	18°51	25° 3	17° 7	10°19	2°59	21°58	20°51	9°26	28°46	S 15
M16	17 39 19	25°27'44	19°34	19°21	7°19	21°25	19° 1	25° 5	17° 9	10°20	3° 0	21°47	20°48	9°32	28°45	M16
T 17	17 43 16	26°25'02	1 ^{II} 33	20°37	8°26	22° 3	19°11	25° 7	17°10	10°21	3° 1	21°36	20°45	9°39	28°44	T 17
W18	17 47 13	27°22'19	13°26	21°50	9°33	22°41	19°22	25° 9	17°12	10°22	3° 2	21°27	20°42	9°46	28°43	W18
T 19	17 51 9	28°19'36	25°17	23° 0	10°40	23°19	19°32	25°12	17°14	10°23	3° 3	21°20	20°39	9°52	28°42	T 19
F 20	17 55 6	29°16'52	7 ^{II} 9	24° 7	11°46	23°58	19°42	25°14	17°15	10°24	3° 4	21°15	20°35	9°59	28°41	F 20
S 21	17 59 2	0 ^{II} 14'08	19° 7	25°10	12°53	24°36	19°53	25°16	17°17	10°25	3° 5	21°13	20°32	10° 6	28°40	S 21
S 22	18 2 59	1°11'24	1 ^{II} 15	26°11	13°59	25°14	20° 3	25°19	17°18	10°26	3° 5	21°D12	20°29	10°13	28°40	S 22
M23	18 6 55	2° 8'40	13°39	27° 8	15° 5	25°52	20°14	25°22	17°20	10°27	3° 6	21°12	20°26	10°19	28°39	M23
T 24	18 10 52	3° 5'56	26°23	28° 1	16°11	26°30	20°24	25°24	17°21	10°28	3° 7	21°R12	20°23	10°26	28°39	T 24
W25	18 14 48	4° 3'11	9 ^{II} 32	28°51	17°17	27° 9	20°35	25°27	17°22	10°29	3° 8	21°11	20°19	10°33	28°39	W25
T 26	18 18 45	5° 0'27	23° 8	29°38	18°23	27°47	20°46	25°30	17°24	10°30	3° 9	21° 8	20°16	10°39	28°D39	T 26
F 27	18 22 42	5°57'42	7 ^{II} 14	0 ^{II} 21	19°28	28°25	20°57	25°33	17°25	10°31	3° 9	21° 2	20°13	10°46	28°39	F 27
S 28	18 26 38	6°54'57	21°45	0°59	20°33	29° 3	21° 8	25°36	17°26	10°32	3°10	20°54	20°10	10°53	28°39	S 28
S 29	18 30 35	7°52'13	6 ^{II} 37	1°34	21°39	29°41	21°19	25°40	17°27	10°34	3°11	20°44	20° 7	11° 0	28°39	S 29
M30	18 34 31	8°54'28	21 ^{II} 42	2 ^{II} 5	22°43	0 ^{II} 19	21°43	25°43	17°Y28	10°35	3°Y11	20°Y33	20°Y 4	11° 6	28°40	M30

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	22n 6	28n 3	4n38	25n13	1n53	24n 4	2n11	24n 4	1n10	16n39	0n52	4n14	2n21	5n56	0s39	8n33	0n52	3s13	16s36	8n56	8n25	23s 4	10s46	0n28	
M 2	22 14	27 50	5 2	25 21	1 58	23 53	2 11	24 1	1 10	16 36	0 52	4 14	2 20	5 57	0 39	8 32	0 52	3 13	16 37	8 53	8 24	23 2	10 44	0 28	
T 3	22 21	25 41	5 6	25 26	2 1	23 43	2 12	23 57	1 10	16 34	0 52	4 13	2 20	5 58	0 39	8 32	0 52	3 13	16 37	8 50	8 23	23 0	10 43	0 28	
W 4	22 28	21 50	4 50	25 29	2 4	23 31	2 12	23 53	1 11	16 31	0 52	4 13	2 20	5 59	0 39	8 32	0 52	3 13	16 37	8 48	8 21	22 58	10 42	0 28	
T 5	22 35	16 42	4 15	25 30	2 6	23 19	2 12	23 49	1 11	16 28	0 52	4 12	2 20	5 59	0 39	8 32	0 52	3 12	16 37	8 47	8 20	22 56	10 41	0 29	
F 6	22 41	10 46	3 26	25 28	2 7	23 6	2 12	23 45	1 11	16 25	0 52	4 11	2 20	6 0	0 39	8 32	0 52	3 12	16 38	8 46	8 19	22 54	10 40	0 29	
S 7	22 47	4 24	2 25	25 25	2 7	22 53	2 12	23 41	1 11	16 23	0 52	4 11	2 19	6 1	0 39	8 31	0 52	3 12	16 38	8 47	8 18	22 52	10 39	0 29	
S 8	22 52	2s 3	1 17	25 19	2 6	22 39	2 12	23 36	1 11	16 20	0 52	4 10	2 19	6 2	0 39	8 31	0 52	3 12	16 38	8 47	8 17	22 50	10 38	0 30	
M 9	22 57	8 17	0 6	25 12	2 5	22 25	2 12	23 32	1 11	16 17	0 52	4 9	2 19	6 3	0 39	8 31	0 51	3 12	16 38	8 47	8 15	22 48	10 37	0 30	
T 10	23 2	14 4	1s 4	25 2	2 3	22 10	2 12	23 27	1 11	16 14	0 51	4 9	2 19	6 3	0 39	8 31	0 51	3 12	16 38	8 47	8 14	22 46	10 36	0 30	
W11	23 6	19 8	2 9	24 52	2 0	21 54	2 11	23 22	1 11	16 11	0 51	4 8	2 19	6 4	0 39	8 30	0 51	3 12	16 39	8 46	8 13	22 43	10 35	0 31	
T 12	23 10	23 15	3 7	24 39	1 57	21 38	2 11	23 16	1 11	16 8	0 51	4 7	2 18	6 5	0 39	8 30	0 51	3 12	16 39	8 44	8 12	22 41	10 34	0 31	
F 13	23 13	26 12	3 55	24 25	1 53	21 22	2 10	23 11	1 11	16 5	0 51	4 6	2 18	6 5	0 39	8 30	0 51	3 12	16 39	8 41	8 11	22 39	10 33	0 31	
S 14	23 16	27 51	4 30	24 10	1 48	21 5	2 9	23 5	1 11	16 2	0 51	4 5	2 18	6 6	0 39	8 30	0 51	3 12	16 39	8 37	8 9	22 37	10 33	0 32	
S 15	23 19	28 6	4 53	23 54	1 42	20 47	2 8	23 0	1 11	15 59	0 51	4 4	2 18	6 7	0 39	8 29	0 51	3 11	16 40	8 33	8 8	22 35	10 32	0 32	
M16	23 21	26 59	5 2	23 37	1 36	20 29	2 7	22 54	1 11	15 55	0 51	4 3	2 18	6 7	0 39	8 29	0 51	3 11	16 40	8 29	8 7	22 33	10 31	0 32	
T 17	23 23	24 39	4 58	23 19	1 29	20 11	2 6	22 48	1 11	15 52	0 51	4 2	2 17	6 8	0 40	8 29	0 51	3 11	16 40	8 25	8 6	22 31	10 31	0 32	
W18	23 24	21 16	4 41	23 0	1 21	19 52	2 5	22 41	1 11	15 49	0 51	4 1	2 17	6 9	0 40	8 28	0 51	3 11	16 40	8 21	8 5	22 29	10 30	0 33	
T 19	23 25	17 2	4 12	22 40	1 13	19 32	2 3	22 35	1 11	15 46	0 51	4 0	2 17	6 9	0 40	8 28	0 51	3 11	16 41	8 19	8 3	22 27	10 29	0 33	
F 20	23 26	12 9	3 32	22 20	1 4	19 12	2 2	22 28	1 11	15 43	0 51	3 59	2 17	6 10	0 40	8 27	0 51	3 11	16 41	8 17	8 2	22 25	10 29	0 33	
S 21	23 26	6 47	2 42	21 59	0 54	18 52	2 0	22 22	1 11	15 39	0 51	3 58	2 17	6 10	0 40	8 27	0 51	3 11	16 41	8 16	8 1	22 22	10 28	0 34	
S 22	23 25	1 6	1 44	21 37	0 44	18 31	1 59	22 15	1 11	15 36	0 51	3 57	2 16	6 11	0 40	8 27	0 51	3 11	16 41	8 16	8 0	22 20	10 28	0 34	
M23	23 25	4n46	0 40	21 16	0 33	18 10	1 57	22 8	1 11	15 32	0 51	3 56	2 16	6 11	0 40	8 26	0 51	3 11	16 42	8 16	7 59	22 18	10 28	0 34	
T 24	23 24	10 36	0n27	20 54	0 22	17 48	1 55	22 1	1 11	15 29	0 51	3 54	2 16	6 12	0 40	8 26	0 51	3 11	16 42	8 16	7 57	22 16	10 27	0 34	
W25	23 22	16 10	1 36	20 32	0 10	17 26	1 53	21 53	1 11	15 26	0 51	3 53	2 16	6 12	0 40	8 25	0 51	3 11	16 42	8 16	7 56	22 14	10 27	0 35	
T 26	23 20	21 8	2 41	20 10	0s 3	17 4	1 51	21 46	1 11	15 22	0 51	3 52	2 16	6 13	0 40	8 25	0 51	3 11	16 43	8 14	7 55	22 12	10 27	0 35	
F 27	23 18	25 5	3 38	19 49	0 16	16 41	1 48	21 38	1 11	15 19	0 51	3 50	2 15	6 13	0 40	8 25	0 51	3 11	16 43	8 12	7 54	22 9	10 26	0 35	
S 28	23 15	27 33	4 23	19 27	0 29	16 18	1 46	21 30	1 11	15 15	0 51	3 49	2 15	6 14	0 40	8 24	0 51	3 11	16 43	8 9	7 53	22 7	10 26	0 36	
S 29	23 12	28 7	4 52	19 6	0 43	15 55	1 43	21 22	1 11	15 11	0 51	3 47	2 15	6 14	0 40	8 24	0 51	3 11	16 44	8 5	7 52	22 5	10 26	0 36	
M30	23n 8	26n38	5n 1	18n45	0s58	15n31	1n41	21n14	1n11	15n 8	0n51	3n46	2n15	6n15	0s40	8n23	0n51	3s12	16s44	8n 1	7n50	22s 3	10s26	0n36	

ASTRODIENST EPHEMERIS for the year 2098

geocentric

JULY 2098

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Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	18 38 28	9 ⁵⁶ 46'42	6 ⁰² 49	2 ⁰³ 31	23 ⁰² 48	0 ⁰² 58	21 ⁰² 41	25 ⁰⁰ 46	17 ⁰⁰ 29	10 ⁰⁰ 36	3 ⁰⁸ 12	20 ⁰⁰ R23	20 ⁰⁰ Y 0	11 ⁰⁰ 13	28 ⁰⁰ 40	T 1
W 2	18 42 24	10 ⁰⁴ 3'57	21 ⁰⁴ 47	2 ⁰⁵ 54	24 ⁰⁵ 52	1 ⁰³ 36	21 ⁰⁵ 53	25 ⁰⁵ 50	17 ⁰³ 30	10 ⁰³ 37	3 ⁰³ 13	20 ⁰⁰ Y15	19 ⁰⁵ 57	11 ⁰² 20	28 ⁰⁴ 41	W 2
T 3	18 46 21	11 ⁰⁴ 1'11	6 ⁰⁰ 30	3 ⁰¹ 11	25 ⁰⁵ 57	2 ⁰¹ 14	22 ⁰⁴ 22	25 ⁰⁵ 53	17 ⁰³ 31	10 ⁰³ 39	3 ⁰³ 13	20 ⁰⁰ 9	19 ⁰⁵ 54	11 ⁰² 26	28 ⁰⁴ 41	T 3
F 4	18 50 18	12 ⁰³ 8'24	20 ⁰⁵ 52	3 ⁰² 24	27 ⁰¹ 1	2 ⁰⁵ 52	22 ⁰⁵ 15	25 ⁰⁵ 57	17 ⁰³ 32	10 ⁰⁴ 40	3 ⁰¹ 14	20 ⁰⁰ 6	19 ⁰⁵ 51	11 ⁰³ 33	28 ⁰⁴ 42	F 4
S 5	18 54 14	13 ⁰³ 5'37	4 ⁰² 50	3 ⁰³ 33	28 ⁰⁴ 4	3 ⁰³ 30	22 ⁰² 27	26 ⁰¹ 1	17 ⁰³ 33	10 ⁰⁴ 41	3 ⁰¹ 15	20 ⁰⁰ 4	19 ⁰⁴ 48	11 ⁰⁴ 40	28 ⁰⁴ 43	S 5
S 6	18 58 11	14 ⁰³ 2'50	18 ⁰² 26	3 ⁰³ R37	29 ⁰⁸ 8	4 ⁰⁸ 8	22 ⁰³ 38	26 ⁰⁵ 5	17 ⁰³ 34	10 ⁰⁴ 43	3 ⁰¹ 15	20 ⁰⁰ 4	19 ⁰⁴ 45	11 ⁰⁴ 47	28 ⁰⁴ 44	S 6
M 7	19 2 7	15 ⁰³ 0'02	1 ⁰⁰ 40	3 ⁰³ 36	0 ⁰⁰ 11	4 ⁰⁴ 46	22 ⁰⁵ 50	26 ⁰⁸ 8	17 ⁰³ 35	10 ⁰⁴ 44	3 ⁰¹ 16	20 ⁰⁰ 4	19 ⁰⁴ 41	11 ⁰⁵ 53	28 ⁰⁴ 45	M 7
T 8	19 6 4	16 ⁰² 7'15	14 ⁰³ 36	3 ⁰³ 31	1 ⁰¹ 14	5 ⁰² 24	23 ⁰² 2	26 ⁰² 12	17 ⁰³ 35	10 ⁰⁴ 46	3 ⁰¹ 16	20 ⁰⁰ 2	19 ⁰³ 38	12 ⁰⁰ 0	28 ⁰⁴ 47	T 8
W 9	19 10 0	17 ⁰² 4'27	27 ⁰¹ 17	3 ⁰² 1	2 ⁰¹ 17	6 ⁰² 2	23 ⁰³ 13	26 ⁰¹ 16	17 ⁰³ 36	10 ⁰⁴ 47	3 ⁰¹ 17	19 ⁰⁵ 59	19 ⁰³ 35	12 ⁰⁰ 7	28 ⁰⁴ 48	W 9
T 10	19 13 57	18 ⁰² 1'39	9 ⁰² 46	3 ⁰⁶ 6	3 ⁰¹ 19	6 ⁰⁴ 1	23 ⁰² 25	26 ⁰² 21	17 ⁰³ 37	10 ⁰⁴ 49	3 ⁰¹ 17	19 ⁰⁵ 52	19 ⁰³ 32	12 ⁰⁰ 13	28 ⁰⁴ 49	T 10
F 11	19 17 53	19 ⁰¹ 8'51	22 ⁰⁵ 5	2 ⁰⁴ 7	4 ⁰² 22	7 ⁰¹ 19	23 ⁰³ 37	26 ⁰² 25	17 ⁰³ 37	10 ⁰⁵ 50	3 ⁰¹ 18	19 ⁰⁴ 43	19 ⁰² 29	12 ⁰⁰ 20	28 ⁰⁵ 51	F 11
S 12	19 21 50	20 ⁰¹ 6'03	4 ⁰³ 16	2 ⁰² 24	5 ⁰² 23	7 ⁰⁵ 7	23 ⁰⁴ 49	26 ⁰² 29	17 ⁰³ 38	10 ⁰⁵ 52	3 ⁰¹ 18	19 ⁰³ 31	19 ⁰² 25	12 ⁰⁰ 27	28 ⁰⁵ 53	S 12
S 13	19 25 47	21 ⁰¹ 3'15	16 ⁰² 20	1 ⁰⁵ 7	6 ⁰² 25	8 ⁰³ 35	24 ⁰¹ 1	26 ⁰³ 34	17 ⁰³ 38	10 ⁰⁵ 53	3 ⁰¹ 19	19 ⁰¹ 18	19 ⁰² 22	12 ⁰⁰ 34	28 ⁰⁵ 54	S 13
M14	19 29 43	22 ⁰¹ 0'28	28 ⁰¹ 19	1 ⁰² 7	7 ⁰² 26	9 ⁰³ 13	24 ⁰¹ 3	26 ⁰³ 38	17 ⁰³ 39	10 ⁰⁵ 55	3 ⁰¹ 19	19 ⁰¹ 4	19 ⁰¹ 19	12 ⁰⁰ 40	28 ⁰⁵ 56	M14
T 15	19 33 40	23 ⁰¹ 7'40	10 ⁰⁰ 13	0 ⁰⁵ 3	8 ⁰² 27	9 ⁰⁵ 1	24 ⁰² 25	26 ⁰⁴ 43	17 ⁰³ 39	10 ⁰⁵ 56	3 ⁰¹ 19	18 ⁰⁵ 1	19 ⁰¹ 16	12 ⁰⁰ 47	28 ⁰⁵ 58	T 15
W16	19 37 36	24 ⁰¹ 4'53	22 ⁰⁴ 4	0 ⁰¹ 17	9 ⁰² 28	10 ⁰² 29	24 ⁰³ 7	26 ⁰⁴ 47	17 ⁰⁴ 0	10 ⁰⁵ 58	3 ⁰² 20	18 ⁰³ 39	19 ⁰¹ 13	12 ⁰⁰ 54	29 ⁰⁰ 0	W16
T 17	19 41 33	25 ⁰² 0'06	3 ⁰⁰ 55	29 ⁰⁰ 39	10 ⁰² 28	11 ⁰⁷ 7	24 ⁰⁴ 9	26 ⁰⁵ 52	17 ⁰⁴ 0	11 ⁰⁰ 0	3 ⁰² 20	18 ⁰³ 31	19 ⁰¹ 10	13 ⁰⁰ 0	29 ⁰⁰ 3	T 17
F 18	19 45 29	25 ⁰⁵ 9'20	15 ⁰⁴ 47	28 ⁰⁵ 9	11 ⁰² 28	11 ⁰⁴ 5	25 ⁰¹ 1	26 ⁰⁵ 57	17 ⁰⁴ 0	11 ⁰¹ 1	3 ⁰² 20	18 ⁰² 24	19 ⁰¹ 6	13 ⁰⁰ 7	29 ⁰⁰ 5	F 18
S 19	19 49 26	26 ⁰⁵ 6'35	27 ⁰⁴ 5	28 ⁰¹ 19	12 ⁰² 28	12 ⁰² 3	25 ⁰¹ 13	27 ⁰¹ 1	17 ⁰⁴ 0	11 ⁰¹ 3	3 ⁰² 21	18 ⁰² 21	19 ⁰¹ 3	13 ⁰¹ 14	29 ⁰⁰ 7	S 19
S 20	19 53 22	27 ⁰⁵ 3'50	9 ⁰⁰ 53	27 ⁰³ 8	13 ⁰² 27	13 ⁰¹ 1	25 ⁰² 25	27 ⁰⁶ 6	17 ⁰⁴ 1	11 ⁰¹ 5	3 ⁰² 21	18 ⁰¹ 19	19 ⁰¹ 0	13 ⁰² 21	29 ⁰⁰ 10	S 20
M21	19 57 19	28 ⁰⁵ 1'05	22 ⁰² 15	26 ⁰⁵ 58	14 ⁰² 26	13 ⁰³ 39	25 ⁰³ 38	27 ⁰⁷ 11	17 ⁰⁴ 1	11 ⁰¹ 6	3 ⁰² 21	18 ⁰¹ 19	18 ⁰⁵ 7	13 ⁰² 27	29 ⁰⁰ 13	M21
T 22	20 1 16	29 ⁰⁴ 8'22	4 ⁰⁰ 56	26 ⁰² 20	15 ⁰² 24	14 ⁰¹ 17	25 ⁰⁵ 50	27 ⁰¹ 16	17 ⁰⁴ 1	11 ⁰¹ 8	3 ⁰² 22	18 ⁰¹ 19	18 ⁰⁵ 4	13 ⁰³ 34	29 ⁰⁰ 15	T 22
W23	20 5 12	0 ⁰⁰ 45'39	18 ⁰¹ 1	25 ⁰⁴ 3	16 ⁰² 22	14 ⁰⁵ 55	26 ⁰² 2	27 ⁰² 21	17 ⁰⁴ R41	11 ⁰¹ 10	3 ⁰² 22	18 ⁰¹ 18	18 ⁰⁵ 1	13 ⁰⁴ 41	29 ⁰⁰ 18	W23
T 24	20 9 9	1 ⁰⁴ 2'57	1 ⁰⁰ 34	25 ⁰¹ 10	17 ⁰² 20	15 ⁰³ 33	26 ⁰¹ 15	27 ⁰² 27	17 ⁰⁴ 1	11 ⁰¹ 12	3 ⁰² 22	18 ⁰¹ 15	18 ⁰⁴ 7	13 ⁰⁴ 47	29 ⁰⁰ 21	T 24
F 25	20 13 5	2 ⁰⁴ 0'17	15 ⁰³ 36	24 ⁰³ 39	18 ⁰¹ 17	16 ⁰¹ 11	26 ⁰² 27	27 ⁰³ 32	17 ⁰⁴ 1	11 ⁰¹ 14	3 ⁰² 22	18 ⁰¹ 10	18 ⁰⁴ 4	13 ⁰⁵ 54	29 ⁰⁰ 24	F 25
S 26	20 17 2	3 ⁰³ 7'37	0 ⁰⁰ 57	24 ⁰¹ 13	19 ⁰¹ 14	16 ⁰⁴ 49	26 ⁰⁴ 0	27 ⁰³ 37	17 ⁰⁴ 0	11 ⁰¹ 15	3 ⁰² 22	18 ⁰¹ 2	18 ⁰⁴ 1	14 ⁰¹ 1	29 ⁰⁰ 27	S 26
S 27	20 20 58	4 ⁰³ 4'57	15 ⁰² 2	23 ⁰⁵ 51	20 ⁰¹ 11	17 ⁰² 27	26 ⁰⁵ 2	27 ⁰⁴ 2	17 ⁰⁴ 0	11 ⁰¹ 17	3 ⁰² 22	17 ⁰⁵ 3	18 ⁰³ 8	14 ⁰¹ 8	29 ⁰⁰ 30	S 27
M28	20 24 55	5 ⁰³ 2'19	0 ⁰⁰ 14	23 ⁰³ 34	21 ⁰¹ 7	18 ⁰⁶ 6	27 ⁰⁵ 5	27 ⁰⁴ 8	17 ⁰⁴ 0	11 ⁰¹ 19	3 ⁰² 23	17 ⁰⁴ 3	18 ⁰³ 5	14 ⁰¹ 14	29 ⁰⁰ 34	M28
T 29	20 28 51	6 ⁰² 9'41	15 ⁰³ 32	23 ⁰² 22	22 ⁰² 2	18 ⁰⁴ 44	27 ⁰¹ 8	27 ⁰⁵ 3	17 ⁰⁴ 0	11 ⁰² 1	3 ⁰² 23	17 ⁰³ 3	18 ⁰³ 1	14 ⁰² 1	29 ⁰⁰ 37	T 29
W30	20 32 48	7 ⁰² 7'04	0 ⁰⁰ 44	23 ⁰¹ 16	22 ⁰⁵ 7	19 ⁰² 22	27 ⁰³ 30	27 ⁰⁵ 9	17 ⁰³ 9	11 ⁰² 3	3 ⁰² 23	17 ⁰² 5	18 ⁰² 8	14 ⁰² 8	29 ⁰⁰ 41	W30
T 31	20 36 45	8 ⁰² 4'27	15 ⁰⁰ 42	23 ⁰¹ D16	23 ⁰⁰ 51	20 ⁰⁰ 0	27 ⁰⁰ 43	28 ⁰⁰ 5	17 ⁰³ 9	11 ⁰⁰ 25	3 ⁰⁰ 23	17 ⁰³ 9	18 ⁰⁰ 25	14 ⁰⁰ 34	29 ⁰⁰ 44	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	decl	decl	lat
T 1	23n 4	23n13	4n49	18n25	1s12	15n 7	1n38	21n 6	1n11	15n 4	0n51	3n44	2n15	6n15	0s40	8n23	0n51	3s12	16s44	7n58	7n49	22s 1	10s26	0n36		
W 2	23 0	18 17	4 17	18 5	1 27	14 43	1 35	20 57	1 11	15 1	0 51	3 43	2 14	6 15	0 40	8 22	0 51	3 12	16 44	7 54	7 48	21 58	10 26	0 37		
T 3	22 55	12 21	3 28	17 46	1 42	14 18	1 32	20 49	1 11	14 57	0 51	3 41	2 14	6 16	0 40	8 22	0 51	3 12	16 45	7 52	7 47	21 56	10 26	0 37		
F 4	22 50	5 53	2 28	17 28	1 58	13 54	1 29	20 40	1 11	14 53	0 51	3 40	2 14	6 16	0 40	8 21	0 51	3 12	16 45	7 51	7 46	21 54	10 26	0 37		
S 5	22 44	0s42	1 20	17 11	2 13	13 28	1 25	20 31	1 11	14 49	0 51	3 38	2 14	6 16	0 40	8 21	0 51	3 12	16 45	7 51	7 44	21 52	10 26	0 37		
S 6	22 38	7 5	0 9	16 55	2 29	13 3	1 22	20 22	1 11	14 46	0 51	3 36	2 14	6 17	0 40	8 20	0 51	3 12	16 46	7 51	7 43	21 50	10 26	0 38		
M 7	22 32	13 0	1s 1	16 41	2 44	12 37	1 18	20 13	1 11	14 42	0 51	3 35	2 14	6 17	0 40	8 19	0 51	3 12	16 46	7 50	7 42	21 47	10 26	0 38		
T 8	22 25	18 13	2 6	16 27	2 59	12 12	1 15	20 3	1 11	14 38	0 51	3 33	2 13	6 17	0 40	8 19	0 51	3 12	16 46	7 50	7 41	21 45	10 26	0 38		
W 9	22 18	22 31	3 3	16 15	3 14	11 46	1 11	19 54	1 11	14 34	0 51	3 31	2 13	6 17	0 40	8 18	0 51	3 12	16 47	7 48	7 40	21 43	10 27	0 39		
T 10	22 10	25 42	3 50	16 4	3 28	11 19	1 7	19 44	1 11	14 30	0 51	3 29	2 13	6 17	0 40	8 18	0 51	3 13	16 47	7 46	7 38	21 41	10 27	0 39		
F 11	22 2	27 37	4 26	15 55	3 42	10 53	1 3	19 35	1 11	14 26	0 51	3 27	2 13	6 18	0 40	8 17	0 51	3 13	16 47	7 42	7 37	21 38	10 27	0 39		
S 12	21 54	28 11	4 49	15 48	3 55	10 26	0 59	19 25	1 11	14 22	0 51	3 26	2 13	6 18	0 40	8 17	0 51	3 13	16 48	7 38	7 36	21 36	10 27	0 39		
S 13	21 45	27 23	4 59	15 42	4 8	10 0	0 54	19 15	1 11	14 18	0 51	3 24	2 12	6 18	0 40	8 16	0 51	3 13	16 48	7 33	7 35	21 34	10 28	0 40		
M14	21 36	25 19	4 56	15 37	4 19	9 33	0 50	19 5	1 11	14 14	0 51	3 22	2 12	6 18	0 40	8 15	0 51	3 13	16 48	7 28	7 34	21 32	10 28	0 40		
T 15	21 27	22 9	4 39	15 35	4 29	9 6	0 45	18 54	1 11	14 10	0 51	3 20	2 12	6 18	0 40	8 15	0 51	3 13	16 49	7 23	7 32	21 29	10 29	0 40		
W16	21 17	18 6	4 11	15 34	4 38	8 38	0 40	18 44	1 11	14 6	0 51	3 18	2 12	6 18	0 40	8 14	0 51	3 14	16 49	7 18	7 31	21 27	10 29	0 40		
T 17	21 7	13 21	3 32	15 34	4 45	8 11	0 35	18 34	1 10	14 2	0 51	3 16	2 12	6 18	0 40	8 14	0 51	3 14	16 49	7 15	7 30	21 25	10 30	0 41		
F 18	20 56	8 6	2 43	15 37	4 51	7 44	0 30	18 23	1 10	13 58	0 51	3 14	2 12	6 19	0 40	8 13	0 51	3 14	16 50	7 13	7 29	21 22	10 30	0 41		
S 19	20 46	2 31	1 47	15 40	4 55	7 16	0 25	18 12	1 10	13 54	0 51	3 12	2 12	6 19	0 40	8 12	0 51	3 14	16 50	7 11	7 27	21 20	10 31	0 41		
S 20	20 34	3n14	0 45	15 46	4 57	6 49	0 20	18 1	1 10	13 50	0 51	3 10	2 11	6 19	0 40	8 12	0 51	3 14	16 50	7 11	7 26	21 18	10 32	0 41		
M21	20 23	8 59	0n21	15 52	4 58	6 21	0 14	17 50	1 10	13 46	0 51	3 7	2 11	6 19	0 40	8 11	0 51	3 15	16 51	7 11	7 25	21 16	10 32	0 42		
T 22	20 11	14 31	1 27	16 0	4 57	5 53	0 9	17 39	1 10	13 42	0 51	3 5	2 11	6 19	0 41	8 10	0 51	3 15	16 51	7 11	7 24	21 13	10 33	0 42		
W23	19 59	19 36	2 30	16 10	4 55	5 25	0 3	17 28	1 10	13 38	0 51	3 3	2 11	6 19	0 41	8 10	0 51	3 15	16 51	7 10	7 23	21 11	10 34	0 42		
T 24	19 46	23 51	3 28	16 20	4 50	4 58	0s 3	17 17	1 10	13 33	0 51	3 1	2 11	6 19	0 41	8 9	0 51	3 15	16 52	7 9	7 21	21 9	10 35	0 42		
F 25	19 33	26 52	4 15	16 31	4 45	4 30	0 9	17 5	1 10	13 29	0 51	2 59	2 11	6 19	0 41	8 8	0 51	3 16	16 52	7 7	7 20	21 6	10 36	0 43		
S 26	19 20	28 13	4 47	16 43	4 37	4 2	0 15	16 54	1 10	13 25	0 51	2 57	2 10	6 18	0 41	8 7	0 51	3 16	16 52	7 4	7 19	21 4	10 36	0 43		
S 27	19 7	27 34	5 1	16 55	4 28	3 34	0 21	16 42	1 10	13 21	0 51	2 54	2 10	6 18	0 41	8 7	0 51	3 16	16 53	7 1	7 18	21 2	10 37	0 43		
M28	18 53	24 53	4 55	17 8	4 18	3 6	0 27	16 30	1 10	13 16	0 51	2 52	2 10	6 18	0 41	8 6	0 51	3 17	16 53	6 57	7 17	20 59	10 38	0 43		
T 29	18 38	20 25	4 27	17 21	4 7	2 38	0 34	16 18	1 9	13 12	0 51	2 50	2 10	6 18	0 41	8 5	0 51	3 17	16 53	6 53	7 15	20 57	10 39	0 44		
W30	18 24	14 38	3 40	17 34	3 55	2 11	0 40	16 6	1 9	13 8	0 51	2 47	2 10	6 18	0 41	8 5	0 51	3 17	16 54	6 50	7 14	20 55	10 40	0 44		
T 31	18n 9	8n 5	2n39	17n47	3s41	1n43	0s47	15n54	1n 9	13n 3	0n51	2n45	2n10	6n18	0s41	8n 4	0n51	3s17	16s54	6n48	7n13	20s52	10s41	0n44		

ASTRODIENST EPHEMERIS for the year 2098

geocentric

AUGUST 2098

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	20 40 41	9♌21'51	0♌16	23♌22	24♌45	20♌38	27♌56	28♌10	17♌39	11♌27	3♌23	17♌16	18♌22	14♌44	29♌48	F 1
S 2	20 44 38	10°19'16	14°24	23°34	25°39	21°16	28° 8	28°16	17°38	11°29	3°23	17°D15	18°19	14°48	29°52	S 2
S 3	20 48 34	11°16'41	28° 5	23°52	26°31	21°54	28°21	28°22	17°38	11°31	3°23	17°Y15	18°16	14°55	29°56	S 3
M 4	20 52 31	12°14'07	11♌21	24°17	27°24	22°32	28°34	28°28	17°37	11°33	3°23	17°R16	18°12	15° 1	29°59	M 4
T 5	20 56 27	13°11'33	24°15	24°48	28°15	23°10	28°47	28°34	17°36	11°35	3°23	17°15	18° 9	15° 8	0♌ 4	T 5
W 6	21 0 24	14° 9'00	6♌50	25°26	29° 6	23°48	28°59	28°40	17°36	11°37	3°23	17°13	18° 6	15°15	0° 8	W 6
T 7	21 4 20	15° 6'28	19°11	26°10	29°56	24°26	29°12	28°46	17°35	11°39	3°23	17° 8	18° 3	15°21	0°13	T 7
F 8	21 8 17	16° 3'56	1♌22	27° 0	0♌46	25° 4	29°25	28°52	17°34	11°41	3°23	17° 1	18° 0	15°28	0°17	F 8
S 9	21 12 14	17° 1'26	13°24	27°56	1°35	25°42	29°38	28°58	17°33	11°43	3°22	16°52	17°57	15°35	0°21	S 9
S 10	21 16 10	17°58'56	25°21	28°59	2°23	26°20	29°51	29° 4	17°33	11°45	3°22	16°41	17°53	15°41	0°26	S 10
M 11	21 20 7	18°56'27	7♌14	0♌ 7	3°10	26°58	0♌ 4	29°10	17°32	11°47	3°22	16°30	17°50	15°48	0°31	M 11
T 12	21 24 3	19°53'59	19° 6	1°21	3°56	27°36	0°17	29°16	17°31	11°49	3°22	16°20	17°47	15°55	0°35	T 12
W 13	21 28 0	20°51'33	0♌58	2°40	4°42	28°15	0°30	29°23	17°30	11°51	3°22	16°11	17°44	16° 2	0°40	W 13
T 14	21 31 56	21°49'07	12°51	4° 5	5°27	28°53	0°43	29°29	17°29	11°53	3°21	16° 4	17°41	16° 8	0°45	T 14
F 15	21 35 53	22°46'43	24°48	5°35	6°11	29°31	0°56	29°36	17°28	11°55	3°21	15°59	17°37	16°15	0°50	F 15
S 16	21 39 49	23°44'20	6♌51	7° 9	6°54	0♌ 9	1° 9	29°42	17°27	11°57	3°21	15°57	17°34	16°22	0°55	S 16
S 17	21 43 46	24°41'58	19° 3	8°47	7°36	0°47	1°22	29°49	17°25	12° 0	3°21	15°D56	17°31	16°28	1° 0	S 17
M 18	21 47 43	25°39'38	1♌28	10°30	8°17	1°25	1°35	29°55	17°24	12° 2	3°20	15°57	17°28	16°35	1° 6	M 18
T 19	21 51 39	26°37'20	14°10	12°15	8°57	2° 3	1°48	0♌ 2	17°23	12° 4	3°20	15°58	17°25	16°42	1°11	T 19
W 20	21 55 36	27°35'03	27°13	14° 4	9°35	2°41	2° 1	0° 8	17°22	12° 6	3°20	15°R59	17°22	16°49	1°16	W 20
T 21	21 59 32	28°32'48	10♌40	15°56	10°13	3°19	2°14	0°15	17°20	12° 8	3°19	15°58	17°18	16°55	1°22	T 21
F 22	22 3 29	29°30'34	24°34	17°50	10°50	3°57	2°27	0°22	17°19	12°10	3°19	15°56	17°15	17° 2	1°28	F 22
S 23	22 7 25	0♌28'23	8♌55	19°46	11°25	4°36	2°40	0°28	17°18	12°13	3°18	15°51	17°12	17° 9	1°33	S 23
S 24	22 11 22	1°26'12	23°40	21°43	11°59	5°14	2°53	0°35	17°16	12°15	3°18	15°46	17° 9	17°15	1°39	S 24
M 25	22 15 18	2°24'04	8♌43	23°41	12°32	5°52	3° 6	0°42	17°15	12°17	3°18	15°39	17° 6	17°22	1°45	M 25
T 26	22 19 15	3°21'57	23°55	25°40	13° 3	6°30	3°19	0°49	17°13	12°19	3°17	15°33	17° 3	17°29	1°51	T 26
W 27	22 23 12	4°19'51	9♌ 7	27°39	13°33	7° 8	3°33	0°56	17°12	12°21	3°17	15°28	16°59	17°35	1°57	W 27
T 28	22 27 8	5°17'47	24° 8	29°39	14° 2	7°46	3°46	1° 3	17°10	12°24	3°16	15°24	16°56	17°42	2° 3	T 28
F 29	22 31 5	6°15'45	8♌50	1♌38	14°29	8°25	3°59	1°10	17° 8	12°26	3°16	15°D23	16°53	17°49	2° 9	F 29
S 30	22 35 1	7°13'43	23° 6	3°37	14°54	9° 3	4°12	1°17	17° 7	12°28	3°15	15°23	16°50	17°56	2°15	S 30
S 31	22 38 58	8♌11'43	6♌56	5♌36	15♌18	9♌41	4♌25	1♌24	17°Y 5	12♌30	3♌14	15°Y24	16°Y47	18♌ 2	2♌21	S 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
F 1	17n54	1n15	1n29	18n 0	3s27	1n15	0s54	15n42	1n 9	12n59	0n51	2n43	2n10	6n18	0s41	8n 3
S 2	17 39	5s27	0 15	18 13	3 13	0 48	1 1	15 30	1 9	12 54	0 51	2 40	2 10	6 17	0 41	8 2
S 3	17 23	11 41	0s57	18 25	2 57	0 20	1 8	15 17	1 9	12 50	0 51	2 38	2 9	6 17	0 41	8 2
M 4	17 7	17 12	2 5	18 36	2 42	0s 7	1 16	15 5	1 9	12 46	0 51	2 35	2 9	6 17	0 41	8 1
T 5	16 51	21 47	3 4	18 46	2 26	0 35	1 23	14 52	1 9	12 41	0 51	2 33	2 9	6 17	0 41	8 0
W 6	16 35	25 15	3 52	18 55	2 10	1 2	1 31	14 40	1 9	12 37	0 51	2 30	2 9	6 16	0 41	7 59
T 7	16 18	27 18	4 29	19 3	1 54	1 29	1 38	14 27	1 8	12 32	0 51	2 28	2 9	6 16	0 41	7 59
F 8	16 1	28 18	4 53	19 9	1 38	1 56	1 46	14 14	1 8	12 28	0 51	2 25	2 9	6 16	0 41	7 58
S 9	15 44	27 47	5 3	19 14	1 22	2 22	1 54	14 1	1 8	12 23	0 51	2 23	2 9	6 15	0 41	7 57
S 10	15 26	25 59	5 0	19 17	1 6	2 49	2 2	13 48	1 8	12 19	0 51	2 20	2 9	6 15	0 41	7 56
M 11	15 8	23 2	4 44	19 18	0 50	3 15	2 10	13 35	1 8	12 14	0 51	2 18	2 9	6 15	0 41	7 55
T 12	14 50	19 9	4 16	19 16	0 35	3 41	2 19	13 22	1 8	12 10	0 51	2 15	2 8	6 14	0 41	7 55
W 13	14 32	14 30	3 37	19 13	0 21	4 7	2 27	13 8	1 8	12 5	0 51	2 13	2 8	6 14	0 41	7 54
T 14	14 14	9 19	2 48	19 7	0 7	4 33	2 36	12 55	1 8	12 1	0 51	2 10	2 8	6 14	0 41	7 53
F 15	13 55	3 46	1 51	18 58	0n 6	4 58	2 44	12 41	1 7	11 56	0 51	2 7	2 8	6 13	0 41	7 52
S 16	13 36	1n58	0 49	18 47	0 19	5 23	2 53	12 28	1 7	11 51	0 51	2 5	2 8	6 13	0 41	7 51
S 17	13 17	7 43	0n17	18 33	0 31	5 48	3 2	12 14	1 7	11 47	0 51	2 2	2 8	6 12	0 41	7 51
M 18	12 58	13 16	1 23	18 17	0 42	6 13	3 11	12 1	1 7	11 42	0 51	1 59	2 8	6 12	0 41	7 50
T 19	12 38	18 25	2 26	17 57	0 52	6 37	3 20	11 47	1 7	11 38	0 51	1 57	2 8	6 11	0 41	7 49
W 20	12 18	22 50	3 24	17 35	1 2	7 0	3 30	11 33	1 7	11 33	0 51	1 54	2 8	6 11	0 41	7 48
T 21	11 58	26 12	4 12	17 10	1 10	7 24	3 39	11 19	1 7	11 28	0 51	1 51	2 8	6 10	0 41	7 47
F 22	11 38	28 6	4 48	16 43	1 18	7 47	3 48	11 5	1 6	11 24	0 51	1 48	2 8	6 10	0 41	7 46
S 23	11 18	28 13	5 6	16 13	1 24	8 10	3 58	10 51	1 6	11 19	0 51	1 46	2 8	6 9	0 41	7 46
S 24	10 58	26 22	5 6	15 41	1 30	8 32	4 7	10 37	1 6	11 14	0 51	1 43	2 7	6 9	0 41	7 45
M 25	10 37	22 38	4 44	15 7	1 35	8 54	4 17	10 23	1 6	11 10	0 52	1 40	2 7	6 8	0 41	7 44
T 26	10 16	17 21	4 3	14 31	1 39	9 15	4 27	10 8	1 6	11 5	0 52	1 37	2 7	6 7	0 41	7 43
W 27	9 55	10 59	3 4	13 53	1 42	9 36	4 37	9 54	1 6	11 0	0 52	1 35	2 7	6 7	0 41	7 42
T 28	9 34	4 3	1 53	13 13	1 44	9 56	4 47	9 40	1 5	10 56	0 52	1 32	2 7	6 6	0 41	7 41
F 29	9 13	2s57	0 36	12 32	1 46	10 16	4 57	9 25	1 5	10 51	0 52	1 29	2 7	6 5	0 41	7 41
S 30	8 51	9 38	0s42	11 50	1 46	10 35	5 7	9 11	1 5	10 46	0 52	1 26	2 7	6 5	0 41	7 40
S 31	8n30	15s38	1s55	11n 6	1n46	10s53	5s17	8n56	1n 5	10n42	0n52	1n23	2n 7	6n 4	0s41	7n39

Julian Day Number = 2487551.5, Delta T = 92.53 sec
 Ecliptic obliquity = 23°25'44, Nutation = - 0°00'04, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°07'04, Lahiri = 25°14'04

ASTRODIENST EPHEMERIS for the year 2098

geocentric

SEPTEMBER 2098

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	22 42 54	9 ^h 9'45"	20 ^m 18	7 ^h 34	15 ^m 40	10 ^h 19	4 ^m 38	1 ^m 31	17°R 3	12 ^m 32	3°R14	15°Y26	16°Y43	18 ^m 9	2 ^m 27	M 1
T 2	22 46 51	10° 7'48"	3 ^m 16	9°31	16° 1	10°57	4°51	1°38	17°Y 1	12°35	3°R13	15°27	16°40	18°16	2°34	T 2
W 3	22 50 47	11° 5'52"	15°52	11°27	16°19	11°36	5° 4	1°45	17° 0	12°37	3°13	15°R27	16°37	18°22	2°40	W 3
T 4	22 54 44	12° 3'57"	28°12	13°22	16°36	12°14	5°17	1°52	16°58	12°39	3°12	15°25	16°34	18°29	2°47	T 4
F 5	22 58 41	13° 2'04"	10 ^m 19	15°16	16°50	12°52	5°30	1°59	16°56	12°41	3°11	15°23	16°31	18°36	2°53	F 5
S 6	23 2 37	14° 0'13"	22°18	17° 9	17° 3	13°30	5°43	2° 6	16°54	12°44	3°11	15°19	16°28	18°42	3° 0	S 6
S 7	23 6 34	14°58'23"	4 ^m 11	19° 1	17°13	14° 9	5°56	2°14	16°52	12°46	3°10	15°14	16°24	18°49	3° 7	S 7
M 8	23 10 30	15°56'34"	16° 2	20°52	17°22	14°47	6° 9	2°21	16°50	12°48	3° 9	15° 8	16°21	18°56	3°13	M 8
T 9	23 14 27	16°54'47"	27°54	22°41	17°28	15°25	6°22	2°28	16°48	12°50	3° 9	15° 3	16°18	19° 3	3°20	T 9
W10	23 18 23	17°53'01"	9 ^m 49	24°30	17°32	16° 4	6°35	2°35	16°46	12°52	3° 8	14°59	16°15	19° 9	3°27	W10
T 11	23 22 20	18°51'18"	21°49	26°17	17°R34	16°42	6°48	2°43	16°44	12°55	3° 7	14°56	16°12	19°16	3°34	T 11
F 12	23 26 16	19°49'36"	3°Y55	28° 3	17°33	17°20	7° 1	2°50	16°42	12°57	3° 6	14°54	16° 8	19°23	3°41	F 12
S 13	23 30 13	20°47'56"	16° 9	29°48	17°30	17°58	7°14	2°57	16°40	12°59	3° 5	14°D54	16° 5	19°29	3°48	S 13
S 14	23 34 10	21°46'18"	28°34	1 ^m 32	17°25	18°37	7°26	3° 5	16°38	13° 1	3° 5	14°54	16° 2	19°36	3°55	S 14
M15	23 38 6	22°44'42"	11 ^m 10	3°15	17°17	19°15	7°39	3°12	16°36	13° 4	3° 4	14°56	15°59	19°43	4° 2	M15
T 16	23 42 3	23°43'08"	24° 1	4°56	17° 7	19°54	7°52	3°19	16°34	13° 6	3° 3	14°57	15°56	19°49	4° 9	T 16
W17	23 45 59	24°41'36"	7 ^m 9	6°37	16°54	20°32	8° 5	3°27	16°31	13° 8	3° 2	14°59	15°53	19°56	4°17	W17
T 18	23 49 56	25°40'06"	20°36	8°17	16°40	21°10	8°18	3°34	16°29	13°10	3° 1	14°R59	15°49	20° 3	4°24	T 18
F 19	23 53 52	26°38'39"	4 ^m 23	9°55	16°22	21°49	8°30	3°41	16°27	13°12	3° 0	14°59	15°46	20°10	4°31	F 19
S 20	23 57 49	27°37'14"	18°32	11°33	16° 3	22°27	8°43	3°49	16°25	13°14	3° 0	14°58	15°43	20°16	4°39	S 20
S 21	0 1 45	28°35'51"	2 ^m 59	13° 9	15°41	23° 6	8°56	3°56	16°22	13°17	2°59	14°57	15°40	20°23	4°46	S 21
M22	0 5 42	29°34'30"	17°42	14°44	15°18	23°44	9° 9	4° 4	16°20	13°19	2°58	14°55	15°37	20°30	4°54	M22
T 23	0 9 39	0 ^m 33'11"	2 ^m 35	16°19	14°52	24°22	9°21	4°11	16°18	13°21	2°57	14°53	15°34	20°36	5° 1	T 23
W24	0 13 35	1°31'55"	17°31	17°52	14°24	25° 1	9°34	4°18	16°15	13°23	2°56	14°52	15°30	20°43	5° 9	W24
T 25	0 17 32	2°30'40	2 ^m 20	19°25	13°55	25°39	9°46	4°26	16°13	13°25	2°55	14°51	15°27	20°50	5°16	T 25
F 26	0 21 28	3°29'27"	16°56	20°57	13°24	26°18	9°59	4°33	16°11	13°27	2°54	14°D50	15°24	20°56	5°24	F 26
S 27	0 25 25	4°28'17"	1 ^m 12	22°27	12°51	26°56	10°11	4°41	16° 8	13°29	2°53	14°51	15°21	21° 3	5°32	S 27
S 28	0 29 21	5°27'08"	15° 5	23°57	12°17	27°35	10°24	4°48	16° 6	13°32	2°52	14°52	15°18	21°10	5°40	S 28
M29	0 33 18	6°26'01"	28°33	25°25	11°42	28°14	10°36	4°56	16° 4	13°34	2°51	14°52	15°14	21°17	5°47	M29
T 30	0 37 14	7 ^m 24'55"	11 ^m 36	26 ^m 53	11 ^m 7	28 ^m 52	10 ^m 48	5 ^m 3	16°Y 1	13 ^m 36	2°D50	14°Y53	15°Y11	21 ^m 23	5 ^m 55	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	8n 8	20s41	2s59	10n22	1n45	11s11	5s27	8n42	1n 5	10n37	0n52	1n20	2n 7	6n 3	0s42	7n38	0n51	3s30	17s 4	6n 4	6n34	19s34	11s31	0n51	
T 2	7 46	24 35	3 51	9 37	1 44	11 28	5 37	8 27	1 4	10 32	0 52	1 18	2 7	6 3	0 42	7 37	0 51	3 30	17 4	6 5	6 33	19 31	11 33	0 52	
W 3	7 24	27 11	4 32	8 51	1 42	11 44	5 47	8 12	1 4	10 27	0 52	1 15	2 7	6 2	0 42	7 36	0 51	3 31	17 5	6 5	6 32	19 29	11 35	0 52	
T 4	7 2	28 23	4 58	8 4	1 40	12 0	5 57	7 57	1 4	10 23	0 52	1 12	2 7	6 1	0 42	7 36	0 51	3 31	17 5	6 4	6 31	19 26	11 37	0 52	
F 5	6 40	28 11	5 11	7 18	1 37	12 15	6 6	7 43	1 4	10 18	0 52	1 9	2 7	6 1	0 42	7 35	0 51	3 32	17 5	6 3	6 29	19 23	11 39	0 52	
S 6	6 17	26 40	5 10	6 30	1 33	12 29	6 16	7 28	1 4	10 13	0 52	1 6	2 7	6 0	0 42	7 34	0 51	3 32	17 5	6 2	6 28	19 21	11 41	0 53	
S 7	5 55	23 59	4 55	5 43	1 30	12 42	6 26	7 13	1 3	10 9	0 52	1 3	2 7	5 59	0 42	7 33	0 51	3 33	17 6	6 0	6 27	19 18	11 43	0 53	
M 8	5 33	20 17	4 28	4 56	1 25	12 54	6 36	6 58	1 3	10 4	0 52	1 0	2 7	5 58	0 42	7 32	0 51	3 33	17 6	5 58	6 26	19 16	11 45	0 53	
T 9	5 10	15 47	3 49	4 8	1 21	13 5	6 45	6 43	1 3	9 59	0 53	0 57	2 7	5 58	0 42	7 31	0 51	3 33	17 6	5 56	6 24	19 13	11 47	0 53	
W10	4 47	10 40	3 1	3 21	1 16	13 15	6 54	6 28	1 3	9 54	0 53	0 55	2 7	5 57	0 42	7 30	0 51	3 34	17 6	5 54	6 23	19 11	11 49	0 53	
T 11	4 24	5 8	2 3	2 33	1 10	13 24	7 3	6 13	1 3	9 50	0 53	0 52	2 7	5 56	0 42	7 30	0 51	3 34	17 7	5 53	6 22	19 8	11 51	0 54	
F 12	4 2	0n38	1 0	1 46	1 5	13 32	7 12	5 58	1 2	9 45	0 53	0 49	2 7	5 55	0 42	7 29	0 51	3 35	17 7	5 52	6 21	19 5	11 54	0 54	
S 13	3 39	6 27	0n 7	0 59	0 59	13 39	7 21	5 42	1 2	9 40	0 53	0 46	2 7	5 54	0 42	7 28	0 51	3 35	17 7	5 52	6 20	19 3	11 56	0 54	
S 14	3 16	12 7	1 15	0 12	0 53	13 44	7 29	5 27	1 2	9 36	0 53	0 43	2 7	5 54	0 42	7 27	0 51	3 36	17 7	5 52	6 18	19 0	11 58	0 54	
M15	2 53	17 23	2 20	0s35	0 46	13 48	7 37	5 12	1 2	9 31	0 53	0 40	2 7	5 53	0 42	7 26	0 51	3 36	17 8	5 53	6 17	18 58	12 0	0 55	
T 16	2 30	21 59	3 19	1 21	0 40	13 51	7 44	4 57	1 2	9 26	0 53	0 37	2 7	5 52	0 42	7 25	0 51	3 37	17 8	5 53	6 16	18 55	12 2	0 55	
W17	2 6	25 36	4 10	2 7	0 33	13 53	7 51	4 41	1 1	9 22	0 53	0 34	2 7	5 51	0 42	7 25	0 51	3 37	17 8	5 54	6 15	18 52	12 5	0 55	
T 18	1 43	27 53	4 48	2 52	0 27	13 53	7 58	4 26	1 1	9 17	0 53	0 31	2 7	5 50	0 42	7 24	0 51	3 38	17 8	5 54	6 13	18 50	12 7	0 55	
F 19	1 20	28 31	5 10	3 38	0 20	13 52	8 4	4 11	1 1	9 12	0 53	0 28	2 7	5 49	0 42	7 23	0 51	3 38	17 8	5 54	6 12	18 47	12 9	0 56	
S 20	0 57	27 21	5 15	4 22	0 13	13 49	8 9	3 55	1 1	9 7	0 54	0 25	2 7	5 48	0 42	7 22	0 51	3 39	17 9	5 54	6 11	18 45	12 11	0 56	
S 21	0 33	24 21	5 0	5 6	0 5	13 45	8 14	3 40	1 0	9 3	0 54	0 22	2 7	5 48	0 42	7 21	0 51	3 39	17 9	5 53	6 10	18 42	12 14	0 56	
M22	0 10	19 44	4 26	5 50	0s 2	13 40	8 18	3 24	1 0	8 58	0 54	0 20	2 7	5 47	0 42	7 21	0 51	3 40	17 9	5 52	6 9	18 39	12 16	0 56	
T 23	0s13	13 51	3 33	6 33	0 9	13 33	8 21	3 9	1 0	8 53	0 54	0 17	2 7	5 46	0 42	7 20	0 51	3 40	17 9	5 52	6 7	18 37	12 18	0 56	
W24	0 37	7 10	2 26	7 16	0 17	13 24	8 24	2 54	1 0	8 49	0 54	0 14	2 7	5 45	0 42	7 19	0 51	3 40	17 9	5 51	6 6	18 34	12 20	0 57	
T 25	1 0	0 7	1 9	7 58	0 24	13 15	8 26	2 38	0 59	8 44	0 54	0 11	2 7	5 44	0 42	7 18	0 51	3 41	17 9	5 51	6 5	18 31	12 23	0 57	
F 26	1 23	6s50	0s12	8 39	0 31	13 3	8 27	2 23	0 59	8 40	0 54	0 8	2 7	5 43	0 42	7 17	0 51	3 41	17 10	5 51	6 4	18 29	12 25	0 57	
S 27	1 47	13 17	1 29	9 20	0 39	12 51	8 27	2 7	0 59	8 35	0 54	0 5	2 7	5 42	0 42	7 17	0 51	3 42	17 10	5 51	6 2	18 26	12 27	0 57	
S 28	2 10	18 54	2 40	10 0	0 46	12 37	8 26	1 51	0 59	8 30	0 54	0 2	2 7	5 41	0 42	7 16	0 51	3 42	17 10	5 51	6 1	18 23	12 30	0 58	
M29	2 33	23 23	3 39	10 40	0 54	12 21	8 25	1 36	0 58	8 26	0 54	0s 1	2 7	5 40	0 42	7 15	0 51	3 43	17 10	5 51	6 0	18 21	12 32	0 58	
T 30	2s56	26s33	4s25	11s19	1s 1	12s 5	8s22	1n20	0n58	8n21	0n55	0s 4	2n 7	5n39	0s42	7n14	0n51	3s43	17s10	5n52	5n59	18s18	12s34	0n58	

ASTRODIENST EPHEMERIS for the year 2098

geocentric

OCTOBER 2098

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	0 41 11	8♂23'52	24♂17	28♂20	10°R30	29♂31	11♂1	5♂10	15°R59	13♂38	2°R49	14°Y54	15°Y 8	21≈30	6♂ 3	W 1
T 2	0 45 7	9°22'50	6♂39	29°46	9♂53	0♂ 9	11°13	5°18	15°Y56	13°40	2♂48	14°R54	15° 5	21°37	6°11	T 2
F 3	0 49 4	10°21'50	18°47	1♂11	9°17	0°48	11°25	5°25	15°54	13°42	2°47	14°54	15° 2	21°43	6°19	F 3
S 4	0 53 1	11°20'52	0≈45	2°34	8°40	1°27	11°37	5°33	15°52	13°44	2°46	14°54	14°59	21°50	6°27	S 4
S 5	0 56 57	12°19'55	12°37	3°57	8° 3	2° 5	11°49	5°40	15°49	13°46	2°45	14°53	14°55	21°57	6°35	S 5
M 6	1 0 54	13°19'01	24°28	5°18	7°27	2°44	12° 2	5°48	15°47	13°48	2°44	14°53	14°52	22° 3	6°43	M 6
T 7	1 4 50	14°18'08	6♂22	6°39	6°52	3°22	12°14	5°55	15°44	13°50	2°43	14°53	14°49	22°10	6°51	T 7
W 8	1 8 47	15°17'17	18°21	7°58	6°18	4° 1	12°25	6° 2	15°42	13°52	2°42	14°D53	14°46	22°17	6°59	W 8
T 9	1 12 43	16°16'27	0°Y29	9°16	5°45	4°40	12°37	6°10	15°40	13°54	2°41	14°53	14°43	22°23	7° 7	T 9
F 10	1 16 40	17°15'40	12°48	10°33	5°14	5°19	12°49	6°17	15°37	13°56	2°40	14°R53	14°40	22°30	7°15	F 10
S 11	1 20 36	18°14'55	25°18	11°48	4°44	5°57	13° 1	6°24	15°35	13°58	2°38	14°53	14°36	22°37	7°24	S 11
S 12	1 24 33	19°14'12	8♂ 1	13° 2	4°17	6°36	13°13	6°32	15°32	14° 0	2°37	14°53	14°33	22°44	7°32	S 12
M13	1 28 30	20°13'31	20°58	14°14	3°51	7°15	13°24	6°39	15°30	14° 1	2°36	14°52	14°30	22°50	7°40	M13
T 14	1 32 26	21°12'52	4♂ 8	15°25	3°27	7°54	13°36	6°46	15°27	14° 3	2°35	14°51	14°27	22°57	7°48	T 14
W15	1 36 23	22°12'16	17°32	16°33	3° 5	8°32	13°48	6°53	15°25	14° 5	2°34	14°51	14°24	23° 4	7°56	W15
T 16	1 40 19	23°11'42	1♂ 9	17°40	2°46	9°11	13°59	7° 1	15°23	14° 7	2°33	14°50	14°20	23°10	8° 5	T 16
F 17	1 44 16	24°11'10	14°59	18°45	2°29	9°50	14°10	7° 8	15°20	14° 9	2°32	14°49	14°17	23°17	8°13	F 17
S 18	1 48 12	25°10'40	29° 1	19°47	2°15	10°29	14°22	7°15	15°18	14°11	2°31	14°D49	14°14	23°24	8°21	S 18
S 19	1 52 9	26°10'13	13♂14	20°46	2° 3	11° 8	14°33	7°22	15°15	14°12	2°30	14°50	14°11	23°30	8°30	S 19
M20	1 56 5	27° 9'48	27°35	21°43	1°53	11°47	14°44	7°30	15°13	14°14	2°28	14°50	14° 8	23°37	8°38	M20
T 21	2 0 2	28° 9'25	12♂ 3	22°37	1°46	12°26	14°55	7°37	15°11	14°16	2°27	14°51	14° 5	23°44	8°46	T 21
W22	2 3 59	29° 9'05	26°31	23°27	1°41	13° 4	15° 6	7°44	15° 8	14°18	2°26	14°52	14° 1	23°50	8°55	W22
T 23	2 7 55	0♂ 8'46	10♂56	24°13	1°D39	13°43	15°17	7°51	15° 6	14°19	2°25	14°R53	13°58	23°57	9° 3	T 23
F 24	2 11 52	1° 8'30	25°13	24°55	1°39	14°22	15°28	7°58	15° 4	14°21	2°24	14°53	13°55	24° 4	9°12	F 24
S 25	2 15 48	2° 8'16	9♂16	25°32	1°41	15° 1	15°39	8° 5	15° 1	14°23	2°23	14°52	13°52	24°11	9°20	S 25
S 26	2 19 45	3° 8'04	23° 1	26° 4	1°46	15°40	15°50	8°12	14°59	14°24	2°22	14°50	13°49	24°17	9°28	S 26
M27	2 23 41	4° 7'53	6♂26	26°31	1°53	16°19	16° 0	8°19	14°57	14°26	2°20	14°47	13°45	24°24	9°37	M27
T 28	2 27 38	5° 7'45	19°30	26°51	2° 3	16°58	16°11	8°26	14°55	14°27	2°19	14°44	13°42	24°31	9°45	T 28
W29	2 31 34	6° 7'38	2♂13	27° 4	2°14	17°38	16°21	8°33	14°52	14°29	2°18	14°41	13°39	24°37	9°54	W29
T 30	2 35 31	7° 7'33	14°38	27°R10	2°28	18°17	16°32	8°40	14°50	14°30	2°17	14°38	13°36	24°44	10° 2	T 30
F 31	2 39 28	8♂ 7'30	26♂47	27♂ 8	2♂44	18♂56	16♂42	8♂46	14°Y48	14♂32	2♂16	14°Y37	13°Y33	24≈51	10♂11	F 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	3s20	28s15	4s57	11s57	1s 9	11s47	8s18	1n 5	0n58	8n17	0n55	0s 7	2n 7	5n39	0s42	7n13	0n51
T 2	3 43	28 29	5 14	12 34	1 16	11 29	8 14	0 49	0 58	8 12	0 55	0 10	2 7	5 38	0 42	7 13	0 51
F 3	4 6	27 20	5 16	13 11	1 23	11 9	8 9	0 34	0 57	8 8	0 55	0 13	2 7	5 37	0 42	7 12	0 51
S 4	4 29	24 57	5 5	13 46	1 30	10 49	8 2	0 18	0 57	8 3	0 55	0 15	2 7	5 36	0 42	7 11	0 51
S 5	4 52	21 30	4 41	14 21	1 37	10 28	7 55	0 2	0 57	7 59	0 55	0 18	2 7	5 35	0 42	7 10	0 51
M 6	5 15	17 12	4 5	14 55	1 44	10 6	7 47	0s13	0 57	7 54	0 55	0 21	2 7	5 34	0 42	7 10	0 51
T 7	5 38	12 14	3 18	15 29	1 51	9 44	7 39	0 29	0 56	7 50	0 55	0 24	2 7	5 33	0 42	7 9	0 51
W 8	6 1	6 47	2 22	16 1	1 58	9 22	7 29	0 44	0 56	7 45	0 56	0 27	2 7	5 32	0 42	7 8	0 51
T 9	6 24	1 1	1 19	16 32	2 4	9 0	7 19	1 0	0 56	7 41	0 56	0 30	2 7	5 31	0 42	7 7	0 51
F 10	6 47	4n52	0 12	17 3	2 11	8 37	7 8	1 16	0 55	7 36	0 56	0 33	2 7	5 30	0 42	7 7	0 51
S 11	7 9	10 40	0n57	17 32	2 17	8 15	6 57	1 31	0 55	7 32	0 56	0 35	2 8	5 29	0 42	7 6	0 51
S 12	7 32	16 9	2 5	18 1	2 23	7 53	6 45	1 47	0 55	7 28	0 56	0 38	2 8	5 28	0 42	7 5	0 52
M13	7 54	21 0	3 7	18 28	2 28	7 31	6 32	2 2	0 55	7 23	0 56	0 41	2 8	5 27	0 42	7 5	0 52
T 14	8 16	24 54	4 0	18 54	2 34	7 10	6 19	2 18	0 54	7 19	0 56	0 44	2 8	5 26	0 42	7 4	0 52
W15	8 39	27 31	4 42	19 19	2 39	6 50	6 6	2 34	0 54	7 15	0 57	0 47	2 8	5 26	0 42	7 3	0 52
T 16	9 1	28 33	5 8	19 43	2 44	6 30	5 53	2 49	0 54	7 10	0 57	0 49	2 8	5 25	0 42	7 2	0 52
F 17	9 23	27 50	5 17	20 5	2 48	6 10	5 39	3 5	0 53	7 6	0 57	0 52	2 8	5 24	0 42	7 2	0 52
S 18	9 44	25 21	5 7	20 26	2 52	5 52	5 25	3 20	0 53	7 2	0 57	0 55	2 8	5 23	0 42	7 1	0 52
S 19	10 6	21 17	4 39	20 46	2 56	5 34	5 11	3 36	0 53	6 58	0 57	0 58	2 8	5 22	0 42	7 0	0 52
M20	10 27	15 57	3 53	21 4	2 59	5 17	4 57	3 51	0 52	6 53	0 57	1 0	2 8	5 21	0 42	7 0	0 52
T 21	10 49	9 41	2 52	21 20	3 2	5 2	4 43	4 7	0 52	6 49	0 57	1 3	2 8	5 20	0 42	6 59	0 52
W22	11 10	2 55	1 40	21 35	3 4	4 47	4 29	4 22	0 52	6 45	0 58	1 6	2 8	5 19	0 42	6 59	0 52
T 23	11 31	4s 0	0 22	21 48	3 5	4 33	4 15	4 37	0 51	6 41	0 58	1 9	2 9	5 18	0 42	6 58	0 52
F 24	11 52	10 38	0s57	21 59	3 6	4 21	4 1	4 53	0 51	6 37	0 58	1 11	2 9	5 17	0 42	6 57	0 52
S 25	12 13	16 38	2 11	22 8	3 5	4 9	3 47	5 8	0 51	6 33	0 58	1 14	2 9	5 17	0 42	6 57	0 52
S 26	12 33	21 40	3 15	22 15	3 4	3 58	3 34	5 23	0 50	6 29	0 58	1 17	2 9	5 16	0 42	6 56	0 52
M27	12 53	25 26	4 7	22 19	3 2	3 49	3 20	5 39	0 50	6 25	0 58	1 19	2 9	5 15	0 42	6 56	0 52
T 28	13 14	27 45	4 45	22 21	2 59	3 40	3 7	5 54	0 50	6 21	0 59	1 22	2 9	5 14	0 42	6 55	0 52
W29	13 33	28 32	5 7	22 20	2 55	3 33	2 54	6 9	0 49	6 17	0 59	1 24	2 9	5 13	0 42	6 54	0 52
T 30	13 53	27 50	5 15	22 16	2 50	3 26	2 41	6 24	0 49	6 13	0 59	1 27	2 9	5 12	0 41	6 54	0 52
F 31	14s13	25s49	5s 8	22s 9	2s43	3s21	2s28	6s40	0n49	6n 9	0n59	1s30	2n10	5n12	0s41	6n53	0n52

Julian Day Number = 2487612.5, Delta T = 92.61 sec

Ecliptic obliquity = 23°25'44", Nutation = - 0°00'05", out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 26°07'12", Lahiri = 25°14'12"

ASTRODIENST EPHEMERIS for the year 2098

geocentric

NOVEMBER 2098

00:00 UT

Day	Sid.t	☉	☾	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 43 24	9♈ 7'28	8♏45	26°R57	3♊ 2	19♊35	16♈52	8♏53	14°R46	14♈33	2°R15	14°D36	13♈30	24♏57	10♈19	S 1
S 2	2 47 21	10° 7'28	20°38	26♈37	3°22	20°14	17° 2	9° 0	14°Y44	14°35	2♊14	14°Y37	13°26	25° 4	10°27	S 2
M 3	2 51 17	11° 7'29	21°28	26° 8	3°43	20°53	17°12	9° 7	14°42	14°36	2°13	14°38	13°23	25°11	10°36	M 3
T 4	2 55 14	12° 7'32	14°23	25°29	4° 7	21°32	17°22	9°13	14°40	14°38	2°11	14°40	13°20	25°17	10°44	T 4
W 5	2 59 10	13° 7'37	26°25	24°41	4°32	22°11	17°32	9°20	14°37	14°39	2°10	14°41	13°17	25°24	10°53	W 5
T 6	3 3 7	14° 7'43	8°Y40	23°43	4°59	22°51	17°42	9°26	14°35	14°40	2° 9	14°R43	13°14	25°31	11° 1	T 6
F 7	3 7 3	15° 7'51	21° 9	22°38	5°28	23°30	17°52	9°33	14°33	14°42	2° 8	14°42	13°11	25°38	11°10	F 7
S 8	3 11 0	16° 8'00	3♊56	21°26	5°58	24° 9	18° 1	9°39	14°31	14°43	2° 7	14°41	13° 7	25°44	11°18	S 8
S 9	3 14 57	17° 8'12	17° 0	20°10	6°30	24°48	18°10	9°46	14°30	14°44	2° 6	14°38	13° 4	25°51	11°26	S 9
M10	3 18 53	18° 8'25	0♈11	18°50	7° 3	25°28	18°20	9°52	14°28	14°45	2° 5	14°33	13° 1	25°58	11°35	M10
T 11	3 22 50	19° 8'40	13°58	17°31	7°38	26° 7	18°29	9°59	14°26	14°47	2° 4	14°28	12°58	26° 4	11°43	T 11
W12	3 26 46	20° 8'57	27°48	16°14	8°14	26°46	18°38	10° 5	14°24	14°48	2° 3	14°22	12°55	26°11	11°52	W12
T 13	3 30 43	21° 9'15	11♊46	15° 2	8°51	27°26	18°47	10°11	14°22	14°49	2° 2	14°17	12°51	26°18	12° 0	T 13
F 14	3 34 39	22° 9'36	25°52	13°58	9°30	28° 5	18°56	10°17	14°20	14°50	2° 1	14°12	12°48	26°24	12° 8	F 14
S 15	3 38 36	23° 9'59	10♈0	13° 2	10°10	28°44	19° 5	10°23	14°19	14°51	2° 0	14°10	12°45	26°31	12°17	S 15
S 16	3 42 32	24°10'23	24° 9	12°17	10°51	29°24	19°13	10°29	14°17	14°52	1°58	14°D 9	12°42	26°38	12°25	S 16
M17	3 46 29	25°10'50	8♈17	11°43	11°34	0♈ 3	19°22	10°36	14°15	14°53	1°57	14°10	12°39	26°44	12°33	M17
T 18	3 50 26	26°11'18	22°23	11°20	12°17	0°43	19°30	10°41	14°14	14°54	1°56	14°11	12°36	26°51	12°42	T 18
W19	3 54 22	27°11'48	6♊25	11°D10	13° 2	1°22	19°38	10°47	14°12	14°55	1°55	14°12	12°32	26°58	12°50	W19
T 20	3 58 19	28°12'20	20°22	11°11	13°47	2° 2	19°46	10°53	14°10	14°56	1°54	14°R12	12°29	27° 4	12°58	T 20
F 21	4 2 15	29°12'54	4♈11	11°22	14°34	2°41	19°54	10°59	14° 9	14°57	1°53	14°10	12°26	27°11	13° 6	F 21
S 22	4 6 12	0♈13'29	17°51	11°43	15°21	3°21	20° 2	11° 5	14° 7	14°58	1°52	14° 6	12°23	27°18	13°15	S 22
S 23	4 10 8	1°14'06	1♈18	12°14	16° 9	4° 1	20°10	11°10	14° 6	14°59	1°51	14° 0	12°20	27°25	13°23	S 23
M24	4 14 5	2°14'44	14°30	12°52	16°59	4°40	20°18	11°16	14° 5	14°59	1°50	13°52	12°17	27°31	13°31	M24
T 25	4 18 1	3°15'24	27°26	13°38	17°49	5°20	20°25	11°21	14° 3	15° 0	1°50	13°42	12°13	27°38	13°39	T 25
W26	4 21 58	4°16'05	10♊5	14°30	18°40	5°59	20°33	11°27	14° 2	15° 1	1°49	13°33	12°10	27°45	13°47	W26
T 27	4 25 55	5°16'48	22°28	15°28	19°31	6°39	20°40	11°32	14° 1	15° 2	1°48	13°25	12° 7	27°51	13°55	T 27
F 28	4 29 51	6°17'31	4♏36	16°31	20°24	7°19	20°47	11°38	13°59	15° 2	1°47	13°18	12° 4	27°58	14° 3	F 28
S 29	4 33 48	7°18'15	16°34	17°38	21°17	7°58	20°54	11°43	13°58	15° 3	1°46	13°13	12° 1	28° 5	14°11	S 29
S 30	4 37 44	8♈19'01	28♏25	18♈49	22♊10	8♈38	21♈0	11♊48	13°Y57	15♈3	1♊45	13°Y10	11°Y57	28♏11	14♈19	S 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂	♂	♂	♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat
S 1	14s32	22s41	4s47	21s58	2s34	3s17	2s15	6s55	0n48	6n 6	0n59	1s32	2n10	5n11	0s41	6n53	0n52	3s56	17s12	5n45	5n19	16s50	13s51	1n 6
S 2	14 51	18 38	4 15	21 44	2 24	3 13	2 3	7 10	0 48	6 2	1 0	1 35	2 10	5 10	0 41	6 52	0 52	3 56	17 12	5 45	5 18	16 47	13 54	1 7
M 3	15 10	13 52	3 31	21 26	2 13	3 11	1 51	7 25	0 48	5 58	1 0	1 37	2 10	5 9	0 41	6 52	0 52	3 57	17 12	5 46	5 17	16 44	13 56	1 7
T 4	15 28	8 35	2 39	21 3	1 59	3 9	1 40	7 40	0 47	5 54	1 0	1 40	2 10	5 8	0 41	6 51	0 52	3 57	17 12	5 47	5 16	16 41	13 58	1 7
W 5	15 46	2 56	1 39	20 37	1 44	3 9	1 28	7 55	0 47	5 51	1 0	1 42	2 10	5 8	0 41	6 51	0 52	3 57	17 11	5 47	5 14	16 39	14 1	1 8
T 6	16 4	2n56	0 33	20 7	1 28	3 9	1 17	8 10	0 46	5 47	1 0	1 44	2 10	5 7	0 41	6 50	0 52	3 57	17 11	5 48	5 13	16 36	14 3	1 8
F 7	16 22	8 48	0n35	19 33	1 10	3 11	1 6	8 24	0 46	5 43	1 0	1 47	2 11	5 6	0 41	6 50	0 52	3 58	17 11	5 48	5 12	16 33	14 5	1 8
S 8	16 39	14 26	1 43	18 56	0 51	3 13	0 55	8 39	0 46	5 40	1 1	1 49	2 11	5 5	0 41	6 49	0 52	3 58	17 11	5 47	5 11	16 30	14 8	1 8
S 9	16 57	19 34	2 47	18 16	0 30	3 16	0 45	8 54	0 45	5 36	1 1	1 52	2 11	5 5	0 41	6 49	0 52	3 58	17 11	5 46	5 10	16 27	14 10	1 9
M10	17 14	23 51	3 43	17 35	0 10	3 20	0 35	9 9	0 45	5 33	1 1	1 54	2 11	5 4	0 41	6 48	0 52	3 58	17 11	5 44	5 8	16 24	14 12	1 9
T 11	17 30	26 54	4 28	16 53	0n11	3 25	0 25	9 23	0 45	5 30	1 1	1 56	2 11	5 3	0 41	6 48	0 52	3 59	17 11	5 42	5 7	16 21	14 15	1 9
W12	17 46	28 22	4 58	16 12	0 31	3 30	0 15	9 38	0 44	5 26	1 1	1 59	2 11	5 2	0 41	6 48	0 52	3 59	17 11	5 40	5 6	16 19	14 17	1 10
T 13	18 2	28 3	5 10	15 32	0 50	3 36	0 6	9 52	0 44	5 23	1 2	2 1	2 11	5 2	0 41	6 47	0 53	3 59	17 11	5 38	5 5	16 16	14 19	1 10
F 14	18 18	25 57	5 4	14 56	1 8	3 43	0n 3	10 7	0 43	5 20	1 2	2 3	2 12	5 1	0 41	6 47	0 53	3 59	17 10	5 36	5 3	16 13	14 21	1 10
S 15	18 33	22 13	4 40	14 24	1 25	3 51	0 11	10 21	0 43	5 16	1 2	2 5	2 12	5 0	0 41	6 46	0 53	4 0	17 10	5 35	5 2	16 10	14 24	1 11
S 16	18 48	17 12	3 58	13 56	1 39	3 59	0 20	10 35	0 43	5 13	1 2	2 8	2 12	5 0	0 41	6 46	0 53	4 0	17 10	5 35	5 1	16 7	14 26	1 11
M17	19 3	11 17	3 2	12 34	1 52	4 8	0 28	10 50	0 42	5 10	1 2	2 10	2 12	4 59	0 41	6 46	0 53	4 0	17 10	5 35	5 0	16 4	14 28	1 11
T 18	19 17	4 47	1 56	13 17	2 2	4 18	0 36	11 4	0 42	5 7	1 3	2 12	2 12	4 59	0 41	6 45	0 53	4 0	17 10	5 35	4 58	16 1	14 30	1 11
W19	19 31	1s54	0 42	13 6	2 11	4 28	0 44	11 18	0 41	5 4	1 3	2 14	2 13	4 58	0 41	6 45	0 53	4 0	17 10	5 36	4 57	15 58	14 33	1 12
T 20	19 45	8 28	0s33	13 0	2 18	4 39	0 51	11 32	0 41	5 1	1 3	2 16	2 13	4 57	0 41	6 45	0 53	4 0	17 10	5 36	4 56	15 56	14 35	1 12
F 21	19 58	14 34	1 46	12 58	2 22	4 50	0 58	11 46	0 41	4 58	1 3	2 18	2 13	4 57	0 41	6 44	0 53	4 1	17 9	5 35	4 55	15 53	14 37	1 12
S 22	20 11	19 53	2 51	13 2	2 26	5 2	1 5	12 0	0 40	4 55	1 4	2 20	2 13	4 56	0 41	6 44	0 53	4 1	17 9	5 34	4 53	15 50	14 39	1 13
S 23	20 24	24 6	3 46	13 9	2 28	5 15	1 12	12 14	0 40	4 52	1 4	2 22	2 13	4 56	0 41	6 44	0 53	4 1	17 9	5 31	4 52	15 47	14 41	1 13
M24	20 36	26 57	4 28	13 21	2 28	5 28	1 18	12 27	0 39	4 49	1 4	2 24	2 14	4 55	0 41	6 43	0 53	4 1	17 9	5 28	4 51	15 44	14 43	1 13
T 25	20 48	28 18	4 54	13 35	2 27	5 41	1 25	12 41	0 39	4 47	1 4	2 26	2 14	4 55	0 41	6 43	0 53	4 1	17 9	5 24	4 50	15 41	14 45	1 14
W26	20 59	28 8	5 6	13 52	2 25	5 55	1 31	12 55	0 38	4 44	1 4	2 28	2 14	4 54	0 41	6 43	0 53	4 1	17 8	5 21	4 48	15 38	14 48	1 14
T 27	21 10	26 32	5 3	14 11	2 23	6 9	1 36	13 8	0 38	4 41	1 5	2 30	2 14	4 54	0 41	6 43	0 53	4 1	17 8	5 17	4 47	15 35	14 50	1 14
F 28	21 21	23 43	4 46	14 33	2 19	6 24	1 42	13 21	0 37	4 39	1 5	2 32	2 14	4 53	0 41	6 43	0 53	4 1	17 8	5 15	4 46	15 32	14 52	1 15
S 29	21 31	19 56	4 16	14 55	2 15	6 38	1 47	13 35	0 37	4 36	1 5	2 34	2 15	4 53	0 41	6 42	0 53	4 2	17 8	5 13	4 45	15 29	14 54	1 15
S 30	21s41	15s24	3s36	15s19	2n10	6s54	1n52	13s48	0n37	4n34	1n 5	2s36	2n15	4n53	0s41	6n42	0n53	4s 2	17s 8	5n12	4n44	15s26	14s56	1n1

ASTRODIENST EPHEMERIS for the year 2098

geocentric

DECEMBER 2098

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	4 41 41	9♌19'47	10♋15	20♍3	23♎5	9♍18	21♎7	11♎53	13♏R56	15♎4	1♏R44	13♏D10	11♏Y54	28♏18	14♍27	M 1	
T 2	4 45 37	10°20'35	22° 8	21°19	24° 0	9°58	21°14	11°58	13♏Y55	15° 4	1♏R43	13♏Y10	11°51	28°25	14°35	T 2	
W 3	4 49 34	11°21'23	4♏Y10	22°38	24°55	10°37	21°20	12° 3	13°54	15° 5	1°42	13°11	11°48	28°31	14°43	W 3	
T 4	4 53 31	12°22'12	16°25	23°59	25°52	11°17	21°26	12° 8	13°53	15° 5	1°42	13°R11	11°45	28°38	14°51	T 4	
F 5	4 57 27	13°23'02	29° 0	25°21	26°49	11°57	21°32	12°13	13°52	15° 6	1°41	13°10	11°42	28°45	14°59	F 5	
S 6	5 1 24	14°23'53	11♌56	26°45	27°46	12°37	21°38	12°18	13°51	15° 6	1°40	13° 6	11°38	28°51	15° 6	S 6	
S 7	5 5 20	15°24'45	25°16	28°11	28°44	13°17	21°44	12°22	13°50	15° 7	1°39	13° 0	11°35	28°58	15°14	S 7	
M 8	5 9 17	16°25'38	8♏58	29°37	29°42	13°57	21°49	12°27	13°50	15° 7	1°38	12°52	11°32	29° 5	15°22	M 8	
T 9	5 13 13	17°26'32	23° 2	1♌4	0♍41	14°36	21°55	12°31	13°49	15° 7	1°38	12°41	11°29	29°11	15°30	T 9	
W10	5 17 10	18°27'27	7♌20	2°32	1°41	15°16	22° 0	12°36	13°48	15° 7	1°37	12°30	11°26	29°18	15°37	W10	
T 11	5 21 6	19°28'23	21°49	4° 1	2°41	15°56	22° 5	12°40	13°48	15° 8	1°36	12°20	11°23	29°25	15°45	T 11	
F 12	5 25 3	20°29'20	6♏19	5°30	3°41	16°36	22°10	12°44	13°47	15° 8	1°35	12°11	11°19	29°31	15°52	F 12	
S 13	5 29 0	21°30'19	20°47	7° 0	4°42	17°16	22°15	12°48	13°47	15° 8	1°35	12° 5	11°16	29°38	16° 0	S 13	
S 14	5 32 56	22°31'18	5♎6	8°30	5°43	17°56	22°19	12°52	13°46	15° 8	1°34	12° 2	11°13	29°45	16° 7	S 14	
M15	5 36 53	23°32'18	19°15	10° 0	6°45	18°36	22°24	12°56	13°46	15° 8	1°33	12°D 1	11°10	29°52	16°14	M15	
T 16	5 40 49	24°33'19	3♎13	11°31	7°47	19°17	22°28	13° 0	13°45	15° 8	1°33	12° 1	11° 7	29°58	16°22	T 16	
W17	5 44 46	25°34'22	16°59	13° 2	8°49	19°57	22°32	13° 4	13°45	15°R 8	1°32	12°R 1	11° 3	0♋5	16°29	W17	
T 18	5 48 42	26°35'25	0♍34	14°34	9°52	20°37	22°36	13° 8	13°45	15° 8	1°32	11°59	11° 0	0°12	16°36	T 18	
F 19	5 52 39	27°36'30	13°58	16° 5	10°55	21°17	22°40	13°11	13°45	15° 8	1°31	11°56	10°57	0°18	16°43	F 19	
S 20	5 56 35	28°37'35	27°13	17°37	11°59	21°57	22°43	13°15	13°44	15° 8	1°31	11°49	10°54	0°25	16°50	S 20	
S 21	6 0 32	29°38'41	10♌16	19° 9	13° 3	22°37	22°46	13°18	13°44	15° 8	1°30	11°39	10°51	0°32	16°57	S 21	
M22	6 4 29	0♌39'48	23° 9	20°42	14° 7	23°17	22°50	13°22	13°D44	15° 8	1°29	11°27	10°48	0°38	17° 4	M22	
T 23	6 8 25	1°40'55	5♌49	22°14	15°11	23°58	22°53	13°25	13°44	15° 8	1°29	11°13	10°44	0°45	17°11	T 23	
W24	6 12 22	2°42'03	18°17	23°47	16°16	24°38	22°55	13°28	13°44	15° 7	1°29	10°58	10°41	0°52	17°18	W24	
T 25	6 16 18	3°43'11	0♌33	25°20	17°21	25°18	22°58	13°31	13°44	15° 7	1°28	10°45	10°38	0°58	17°25	T 25	
F 26	6 20 15	4°44'19	12°37	26°53	18°27	25°58	23° 0	13°34	13°45	15° 7	1°28	10°34	10°35	1° 5	17°31	F 26	
S 27	6 24 11	5°45'28	24°32	28°26	19°32	26°39	23° 3	13°37	13°45	15° 7	1°27	10°25	10°32	1°12	17°38	S 27	
S 28	6 28 8	6°46'36	6♋22	29°59	20°38	27°19	23° 5	13°40	13°45	15° 6	1°27	10°19	10°29	1°18	17°45	S 28	
M29	6 32 5	7°47'45	18° 9	1♌34	21°44	27°59	23° 7	13°42	13°45	15° 6	1°26	10°16	10°25	1°25	17°51	M29	
T 30	6 36 1	8°48'53	29°59	3° 8	22°50	28°40	23° 8	13°45	13°46	15° 5	1°26	10°15	10°22	1°32	17°58	T 30	
W31	6 39 58	9♌50'02	11♏58	4♌42	23♍57	29♍20	23♎10	13♎47	13♏Y46	15♎5	1♏R26	10♏Y15	10♏Y19	1♋38	18♍4	W31	

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	21s50	10s18	2s47	15s44	2n 5	7s 9	1n57	14s 1	0n36	4n32	1n 6	2s38	2n15	4n52	0s41	6n42	0n53
T 2	21 59	4 49	1 50	16 10	1 59	7 25	2 2	14 14	0 36	4 29	1 6	2 39	2 15	4 52	0 41	6 42	0 53
W 3	22 8	0n55	0 48	16 36	1 53	7 41	2 6	14 27	0 35	4 27	1 6	2 41	2 15	4 51	0 41	6 42	0 53
T 4	22 16	6 43	0n17	17 2	1 46	7 58	2 10	14 40	0 35	4 25	1 6	2 43	2 16	4 51	0 40	6 41	0 53
F 5	22 24	12 25	1 23	17 29	1 40	8 15	2 14	14 52	0 34	4 23	1 7	2 44	2 16	4 51	0 40	6 41	0 53
S 6	22 31	17 44	2 27	17 55	1 33	8 32	2 18	15 5	0 34	4 20	1 7	2 46	2 16	4 51	0 40	6 41	0 53
S 7	22 38	22 23	3 25	18 21	1 26	8 49	2 22	15 17	0 33	4 18	1 7	2 48	2 16	4 50	0 40	6 41	0 53
M 8	22 44	25 56	4 12	18 47	1 19	9 6	2 25	15 30	0 33	4 16	1 7	2 49	2 17	4 50	0 40	6 41	0 54
T 9	22 50	27 59	4 45	19 12	1 11	9 24	2 28	15 42	0 32	4 15	1 8	2 51	2 17	4 50	0 40	6 41	0 54
W10	22 56	28 14	5 1	19 37	1 4	9 41	2 31	15 54	0 32	4 13	1 8	2 52	2 17	4 50	0 40	6 41	0 54
T 11	23 1	26 34	4 58	20 1	0 57	9 59	2 34	16 6	0 31	4 11	1 8	2 54	2 17	4 49	0 40	6 41	0 54
F 12	23 5	23 8	4 36	20 24	0 49	10 17	2 37	16 18	0 31	4 9	1 8	2 55	2 18	4 49	0 40	6 41	0 54
S 13	23 9	18 18	3 57	20 47	0 42	10 35	2 39	16 30	0 30	4 8	1 9	2 56	2 18	4 49	0 40	6 41	0 54
S 14	23 13	12 28	3 2	21 9	0 34	10 53	2 41	16 42	0 30	4 6	1 9	2 58	2 18	4 49	0 40	6 41	0 54
M15	23 16	6 3	1 58	21 30	0 27	11 11	2 43	16 53	0 29	4 5	1 9	2 59	2 18	4 49	0 40	6 41	0 54
T 16	23 19	0s34	0 47	21 50	0 20	11 30	2 45	17 5	0 29	4 3	1 9	3 0	2 18	4 49	0 40	6 41	0 54
W17	23 21	7 4	0s26	22 9	0 12	11 48	2 47	17 16	0 28	4 2	1 10	3 2	2 19	4 49	0 40	6 41	0 54
T 18	23 23	13 10	1 37	22 27	0 5	12 6	2 49	17 27	0 28	4 0	1 10	3 3	2 19	4 48	0 40	6 41	0 54
F 19	23 24	18 35	2 40	22 44	0s 2	12 24	2 50	17 38	0 27	3 59	1 10	3 4	2 19	4 48	0 40	6 41	0 54
S 20	23 25	23 1	3 35	23 0	0 9	12 42	2 51	17 49	0 27	3 58	1 11	3 5	2 20	4 48	0 40	6 41	0 54
S 21	23 26	26 13	4 17	23 15	0 16	13 0	2 52	18 0	0 26	3 57	1 11	3 6	2 20	4 48	0 40	6 41	0 54
M22	23 26	28 0	4 45	23 29	0 23	13 19	2 53	18 11	0 25	3 56	1 11	3 7	2 20	4 48	0 40	6 41	0 54
T 23	23 25	28 16	4 58	23 41	0 29	13 37	2 54	18 21	0 25	3 55	1 11	3 8	2 20	4 48	0 40	6 41	0 54
W24	23 24	27 5	4 57	23 53	0 36	13 54	2 55	18 32	0 24	3 54	1 12	3 9	2 21	4 48	0 40	6 41	0 54
T 25	23 23	24 37	4 42	24 3	0 42	14 12	2 55	18 42	0 24	3 53	1 12	3 10	2 21	4 49	0 40	6 42	0 54
F 26	23 21	21 5	4 15	24 12	0 49	14 30	2 56	18 52	0 23	3 53	1 12	3 11	2 21	4 49	0 40	6 42	0 54
S 27	23 18	16 44	3 36	24 20	0 55	14 47	2 56	19 2	0 23	3 52	1 12	3 12	2 21	4 49	0 40	6 42	0 54
S 28	23 15	11 47	2 49	24 26	1 1	15 5	2 56	19 12	0 22	3 52	1 13	3 13	2 22	4 49	0 40	6 42	0 54
M29	23 12	6 26	1 54	24 31	1 6	15 22	2 56	19 21	0 21	3 51	1 13	3 14	2 22	4 49	0 40	6 42	0 54
T 30	23 8	0 50	0 54	24 35	1 12	15 39	2 55	19 31	0 21	3 51	1 13	3 14	2 22	4 49	0 40	6 42	0 54
W31	23s 4	4n52	0n 9	24s38	1s17	15s55	2n55	19s40	0n20	3n50	1n14	3s15	2n22	4n49	0s39	6n43	0n54

Julian Day Number = 2487673.5, Delta T = 92.68 sec
 Ecliptic obliquity = 23°25'44", Nutation = - 0°00'04", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 26°07'20", Lahiri = 25°14'21"