



Astrodienst Ephemeris Tables for the year 1657

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 1657
geocentric

JANUARY 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	6 44 8	11°31'00"	18°29'	23°40'	8°22'	27°44'	27°8'	5°22'	13°26'	0°23'	16°40'	9°9'	8°59'	16°48'	17°4'	M 1
T 2	6 48 4	12°11'09"	20°52'	25°7'	9°17'	27°45'	27°8'	5°23'	13°30'	0°25'	16°43'	9°9'	8°56'	16°55'	17°11'	T 2
W 3	6 52 1	13°12'18"	17°23'	26°34'	10°31'	28°26'	27°1'	5°24'	13°33'	0°28'	16°38'	9°8'	8°53'	17°2'	17°18'	W 3
T 4	6 55 57	14°13'27"	17°56'	28°2'	11°46'	29°6'	26°57'	5°25'	13°37'	0°30'	16°37'	9°8'	8°50'	17°8'	17°24'	T 4
F 5	6 59 54	15°14'35"	16°27'	29°31'	13°0'	29°47'	26°54'	5°26'	13°40'	0°32'	16°36'	9°7'	8°47'	17°15'	17°31'	F 5
S 6	7 3 50	16°15'43"	0°49'	1°3'	14°14'	0°27'	26°51'	5°27'	13°44'	0°34'	16°35'	9°7'	8°43'	17°22'	17°37'	S 6
S 7	7 7 47	17°16'52"	15°1'	2°30'	15°29'	1°8'	26°48'	5°28'	13°48'	0°37'	16°34'	9°D 6'	8°40'	17°28'	17°43'	S 7
M 8	7 11 44	18°18'00"	28°59'	4°1'	16°43'	1°49'	26°46'	5°29'	13°51'	0°39'	16°33'	9°6'	8°37'	17°35'	17°50'	M 8
T 9	7 15 40	19°19'09"	12°43'	5°32'	17°57'	2°29'	26°43'	5°29'	13°55'	0°41'	16°32'	9°7'	8°34'	17°42'	17°56'	T 9
W10	7 19 37	20°20'17"	26°13'	7°3'	19°12'	3°10'	26°41'	5°30'	13°58'	0°43'	16°31'	9°8'	8°31'	17°49'	18°2'	W10
T 11	7 23 33	21°21'25"	9°29'	8°35'	20°26'	3°51'	26°39'	5°30'	14°2'	0°45'	16°30'	9°9'	8°28'	17°55'	18°9'	T 11
F 12	7 27 30	22°22'33"	22°32'	10°8'	21°40'	4°32'	26°37'	5°30'	14°5'	0°47'	16°29'	9°10'	8°24'	18°2'	18°15'	F 12
S 13	7 31 26	23°23'40"	5°32'	11°41'	22°54'	5°13'	26°35'	5°30'	14°9'	0°50'	16°28'	9°R11'	8°21'	18°9'	18°21'	S 13
S 14	7 35 23	24°24'47"	18°0'	13°15'	24°8'	5°53'	26°34'	5°30'	14°12'	0°52'	16°27'	9°10'	8°18'	18°15'	18°27'	S 14
M15	7 39 19	25°25'53"	0°27'	14°49'	25°23'	6°34'	26°33'	5°30'	14°16'	0°54'	16°26'	9°9'	8°15'	18°22'	18°33'	M15
T 16	7 43 16	26°26'58"	12°42'	16°23'	26°37'	7°15'	26°32'	5°30'	14°19'	0°56'	16°26'	9°7'	8°12'	18°29'	18°39'	T 16
W17	7 47 13	27°28'02"	24°49'	17°59'	27°51'	7°56'	26°31'	5°30'	14°23'	0°58'	16°25'	9°5'	8°9'	18°36'	18°45'	W17
T 18	7 51 9	28°29'06"	6°47'	19°35'	29°5'	8°37'	26°31'	5°29'	14°26'	1°0'	16°24'	9°1'	8°5'	18°42'	18°51'	T 18
F 19	7 55 6	29°30'09"	18°40'	21°11'	0°19'	9°18'	26°30'	5°29'	14°30'	1°2'	16°23'	8°58'	8°2'	18°49'	18°57'	F 19
S 20	7 59 2	0°31'10"	0°31'	22°48'	1°33'	9°59'	26°D30'	5°28'	14°33'	1°4'	16°22'	8°55'	7°59'	18°56'	19°3'	S 20
S 21	8 2 59	1°32'11"	12°24'	24°26'	2°46'	10°40'	26°30'	5°28'	14°37'	1°6'	16°21'	8°52'	7°56'	19°2'	19°8'	S 21
M22	8 6 55	2°33'10"	24°22'	26°4'	4°0'	11°21'	26°30'	5°27'	14°40'	1°8'	16°21'	8°51'	7°53'	19°9'	19°14'	M22
T 23	8 10 52	3°34'08"	6°30'	27°43'	5°14'	12°1'	26°31'	5°26'	14°44'	1°10'	16°20'	8°D51'	7°49'	19°16'	19°20'	T 23
W24	8 14 48	4°35'05"	18°53'	29°23'	6°28'	12°42'	26°31'	5°25'	14°47'	1°12'	16°19'	8°52'	7°46'	19°23'	19°25'	W24
T 25	8 18 45	5°36'01"	1°35'	1°3'	7°41'	13°23'	26°32'	5°24'	14°51'	1°14'	16°18'	8°53'	7°43'	19°29'	19°31'	T 25
F 26	8 22 42	6°36'55"	14°41'	2°44'	8°55'	14°5'	26°33'	5°22'	14°54'	1°16'	16°18'	8°55'	7°40'	19°36'	19°36'	F 26
S 27	8 26 38	7°37'49"	28°12'	4°26'	10°9'	14°46'	26°35'	5°21'	14°57'	1°18'	16°17'	8°56'	7°37'	19°43'	19°42'	S 27
S 28	8 30 35	8°38'41"	12°31'	6°8'	11°22'	15°27'	26°36'	5°20'	15°1'	1°20'	16°16'	8°R56'	7°34'	19°49'	19°47'	S 28
M29	8 34 31	9°39'31"	26°34'	7°52'	12°35'	16°8'	26°38'	5°18'	15°4'	1°22'	16°16'	8°55'	7°30'	19°56'	19°52'	M29
T 30	8 38 28	10°40'21"	11°18'	9°36'	13°49'	16°49'	26°40'	5°16'	15°7'	1°24'	16°15'	8°53'	7°27'	20°3'	19°58'	T 30
W31	8 42 24	11°41'09"	26°15'	11°20'	15°2'	17°30'	26°8'42'	5°15'	15°11'	1°26'	16°14'	8°Z49'	7°24'	20°10'	20°3'	W31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	23s 1	21n21	0s52	23s16	0n 4	19s56	1s42	19s11	0n22	18n45	0s49	0n 3	2n22	23s11	0s23	22s25
T 2	22 55	17 29	2 8	23 27	0s 4	19 36	1 42	19 21	0 21	18 45	0 49	0 2	2 23	23 11	0 23	22 25
W 3	22 50	12 32	3 17	23 37	0 11	19 16	1 42	19 31	0 21	18 44	0 49	0 2	2 23	23 10	0 23	22 25
T 4	22 43	6 52	4 13	23 46	0 18	18 56	1 42	19 40	0 20	18 43	0 49	0 2	2 23	23 10	0 23	22 25
F 5	22 37	0 52	4 53	23 54	0 25	18 34	1 42	19 49	0 20	18 43	0 48	0 2	2 23	23 10	0 23	22 25
S 6	22 30	5s 7	5 14	24 1	0 32	18 13	1 42	19 59	0 19	18 42	0 48	0 2	2 24	23 9	0 23	22 25
S 7	22 22	10 46	5 15	24 7	0 39	17 51	1 42	20 8	0 18	18 42	0 48	0 2	2 24	23 9	0 23	22 25
M 8	22 14	15 46	4 58	24 11	0 46	17 28	1 41	20 17	0 18	18 42	0 48	0 2	2 24	23 9	0 23	22 24
T 9	22 5	19 52	4 24	24 14	0 52	17 5	1 41	20 25	0 17	18 41	0 47	0 2	2 25	23 8	0 23	22 24
W10	21 56	22 50	3 36	24 16	0 58	16 41	1 40	20 34	0 16	18 41	0 47	0 2	2 25	23 8	0 23	22 24
T 11	21 47	24 30	2 37	24 16	1 4	16 17	1 40	20 42	0 16	18 41	0 47	0 2	2 25	23 7	0 23	22 24
F 12	21 37	24 47	1 31	24 15	1 10	15 53	1 39	20 50	0 15	18 41	0 47	0 2	2 25	23 7	0 23	22 24
S 13	21 27	23 44	0 21	24 13	1 15	15 28	1 39	20 59	0 14	18 41	0 46	0 2	2 26	23 7	0 23	22 24
S 14	21 17	21 28	0n49	24 9	1 20	15 2	1 38	21 6	0 14	18 41	0 46	0 2	2 26	23 6	0 23	22 24
M15	21 6	18 13	1 55	24 5	1 25	14 36	1 37	21 14	0 13	18 41	0 46	0 3	2 26	23 6	0 23	22 24
T 16	20 54	14 14	2 55	23 58	1 30	14 10	1 36	21 22	0 12	18 41	0 46	0 3	2 27	23 6	0 23	22 24
W17	20 42	9 44	3 46	23 50	1 35	13 44	1 35	21 29	0 11	18 41	0 45	0 3	2 27	23 5	0 23	22 24
T 18	20 30	4 55	4 26	23 41	1 39	13 17	1 34	21 36	0 11	18 41	0 45	0 4	2 27	23 5	0 23	22 24
F 19	20 18	0n 2	4 55	23 30	1 43	12 50	1 33	21 43	0 10	18 41	0 45	0 4	2 27	23 5	0 23	22 24
S 20	20 5	4 58	5 11	23 18	1 47	12 22	1 32	21 50	0 9	18 41	0 45	0 5	2 28	23 4	0 23	22 24
S 21	19 51	9 43	5 14	23 5	1 50	11 54	1 30	21 57	0 9	18 41	0 44	0 5	2 28	23 4	0 23	22 24
M22	19 38	14 9	5 3	22 49	1 53	11 26	1 29	22 3	0 8	18 42	0 44	0 6	2 28	23 3	0 23	22 24
T 23	19 24	18 5	4 39	22 33	1 56	10 58	1 27	22 9	0 7	18 42	0 44	0 7	2 29	23 3	0 23	22 24
W24	19 9	21 20	4 1	22 15	1 58	10 29	1 26	22 15	0 6	18 42	0 44	0 7	2 29	23 3	0 23	22 24
T 25	18 54	23 38	3 11	21 55	2 0	10 0	1 24	22 21	0 6	18 43	0 43	0 8	2 29	23 2	0 23	22 24
F 26	18 39	24 44	2 9	21 34	2 2	9 31	1 22	22 27	0 5	18 43	0 43	0 9	2 29	23 2	0 23	22 24
S 27	18 24	24 27	0 59	21 11	2 3	9 1	1 21	22 33	0 4	18 44	0 43	0 10	2 30	23 2	0 23	22 24
S 28	18 8	22 38	0s18	20 46	2 4	8 32	1 19	22 38	0 3	18 45	0 43	0 10	2 30	23 1	0 23	22 24
M29	17 52	19 20	1 35	20 20	2 4	8 2	1 17	22 43	0 3	18 45	0 42	0 11	2 30	23 1	0 23	22 24
T 30	17 36	14 44	2 48	19 53	2 5	7 32	1 15	22 48	0 2	18 46	0 42	0 12	2 30	23 1	0 23	22 24
W31	17s19	9n11	3s50	19s24	2s 4	7s 1	1s13	22s53	0n 1	18n47	0s42	0n13	2n31	23s 0	0s23	22s24

Julian Day Number = 2326267.5, Delta T = 38.44 sec
Ecliptic obliquity = 23°29'03", Nutation = 0°00'18", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°57'10", Lahiri = 19°04'10"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657

geocentric

FEBRUARY 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	8 46 21	12 ⁴⁴ 15'56	11 ¹⁷ 17	13 ³⁸ 6	16 ¹⁶ 15	18 ¹⁷ 11	26 ⁸ 44	5°R13	15 ³ 14	1 ³ 27	16°R14	8°R44	7 ³ 21	20 ¹⁶ 16	20 ¹⁷ 8	T 1
F 2	8 50 17	13°42'41	26°15	14°52	17°29	18°52	26°46	5 ¹¹	15°17	1°29	16 ¹¹ 13	8 ³ 38	7°18	20°23	20°13	F 2
S 3	8 54 14	14°43'26	11 ¹¹ 0	16°38	18°42	19°33	26°49	5°9	15°20	1°31	16°13	8°34	7°15	20°30	20°18	S 3
S 4	8 58 11	15°44'10	25°26	18°26	19°55	20°15	26°52	5°7	15°24	1°33	16°12	8°30	7°11	20°36	20°23	S 4
M 5	9 2 7	16°44'53	9 ¹¹ 30	20°14	21°8	20°56	26°55	5°4	15°27	1°34	16°12	8°29	7°8	20°43	20°28	M 5
T 6	9 6 4	17°45'35	23°11	22°3	22°21	21°37	26°58	5°2	15°30	1°36	16°11	8°D29	7°5	20°50	20°33	T 6
W 7	9 10 0	18°46'15	6 ¹⁷ 31	23°52	23°34	22°18	27°2	5°0	15°33	1°38	16°11	8°30	7°2	20°57	20°37	W 7
T 8	9 13 57	19°46'55	19°31	25°42	24°47	23°0	27°5	4°57	15°36	1°40	16°10	8°31	6°59	21°3	20°42	T 8
F 9	9 17 53	20°47'33	2 ³ 15	27°32	25°59	23°41	27°9	4°54	15°39	1°41	16°10	8°R32	6°55	21°10	20°46	F 9
S 10	9 21 50	21°48'10	14°46	29°23	27°12	24°22	27°13	4°52	15°42	1°43	16°9	8°32	6°52	21°17	20°51	S 10
S 11	9 25 47	22°48'46	27°6	1 ¹¹ 14	28°25	25°4	27°17	4°49	15°45	1°44	16°9	8°30	6°49	21°23	20°55	S 11
M12	9 29 43	23°49'20	9 ¹¹ 18	3°5	29°37	25°45	27°22	4°46	15°48	1°46	16°9	8°26	6°46	21°30	21°0	M12
T 13	9 33 40	24°49'53	21°22	4°55	0 ¹⁷ 50	26°26	27°26	4°43	15°51	1°48	16°8	8°20	6°43	21°37	21°4	T 13
W14	9 37 36	25°50'24	3 ¹¹ 21	6°45	2°2	27°8	27°31	4°40	15°54	1°49	16°8	8°11	6°40	21°44	21°8	W14
T 15	9 41 33	26°50'54	15°16	8°35	3°14	27°49	27°36	4°37	15°57	1°51	16°8	8°2	6°36	21°50	21°12	T 15
F 16	9 45 29	27°51'22	27°8	10°23	4°27	28°31	27°41	4°34	16°0	1°52	16°7	7°52	6°33	21°57	21°16	F 16
S 17	9 49 26	28°51'48	8 ¹⁷ 59	12°10	5°39	29°12	27°46	4°30	16°3	1°54	16°7	7°42	6°30	22°4	21°20	S 17
S 18	9 53 22	29°52'12	20°52	13°56	6°51	29°53	27°52	4°27	16°6	1°55	16°7	7°34	6°27	22°11	21°24	S 18
M19	9 57 19	0 ¹¹ 52'34	2 ³ 49	15°39	8°3	0 ¹⁷ 35	27°57	4°24	16°9	1°56	16°7	7°27	6°24	22°17	21°28	M19
T 20	10 1 15	1°52'55	14°55	17°19	9°15	1°16	28°3	4°20	16°11	1°58	16°7	7°24	6°20	22°24	21°32	T 20
W21	10 5 12	2°53'13	27°14	18°57	10°27	1°58	28°9	4°16	16°14	1°59	16°6	7°22	6°17	22°31	21°35	W21
T 22	10 9 9	3°53'30	9 ¹¹ 50	20°30	11°38	2°39	28°15	4°13	16°17	2°0	16°6	7°D22	6°14	22°37	21°39	T 22
F 23	10 13 5	4°53'44	22°48	22°0	12°50	3°21	28°21	4°9	16°19	2°2	16°6	7°23	6°11	22°44	21°42	F 23
S 24	10 17 2	5°53'56	6 ¹¹ 12	23°24	14°1	4°2	28°28	4°5	16°22	2°3	16°6	7°R23	6°8	22°51	21°46	S 24
S 25	10 20 58	6°54'07	20°4	24°43	15°13	4°44	28°34	4°1	16°25	2°4	16°6	7°23	6°5	22°58	21°49	S 25
M26	10 24 55	7°54'15	4 ¹¹ 26	25°56	16°24	5°25	28°41	3°57	16°27	2°5	16°6	7°20	6°1	23°4	21°52	M26
T 27	10 28 51	8°54'21	19°14	27°2	17°35	6°7	28°48	3°53	16°30	2°6	16°6	7°14	5°58	23°11	21°55	T 27
W28	10 32 48	9 ¹¹ 54'25	4 ¹¹ 23	28 ¹¹ 1	18 ¹⁷ 46	6 ¹³ 48	28 ¹⁸ 55	3 ¹¹ 49	16 ¹³ 32	2 ³ 8	16°D 6	7 ³ 7	5 ³ 55	23 ¹¹ 18	21 ¹⁷ 58	W28

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	17s 2	3n 5	4s37	18s53	2s 3	6s31	1s11	22s57	0n 0	18n47	0s42	0n14	2n31	23s 0	0s23	22s24	1n 5	14n21	8s28	23s12	23s17	0n40	18s 8	5n 0			
F 2	16 44	3s 9	5 4	18 21	2 2	6 0	1 8	23 2	0s 1	18 48	0 41	0 15	2 31	23 0	0 23	22 24	1 5	14 21	8 28	23 12	23 17	0 43	18 8	5 0			
S 3	16 27	9 7	5 11	17 47	2 0	5 29	1 6	23 6	0 1	18 49	0 41	0 16	2 31	22 59	0 23	22 24	1 5	14 21	8 27	23 12	23 17	0 46	18 8	5 1			
S 4	16 9	14 28	4 58	17 12	1 58	4 59	1 4	23 10	0 2	18 50	0 41	0 17	2 32	22 59	0 23	22 24	1 5	14 21	8 27	23 13	23 17	0 48	18 8	5 1			
M 5	15 51	18 54	4 27	16 35	1 55	4 28	1 1	23 14	0 3	18 51	0 41	0 18	2 32	22 58	0 23	22 24	1 5	14 22	8 27	23 13	23 17	0 51	18 7	5 2			
T 6	15 32	22 10	3 42	15 57	1 52	3 56	0 59	23 17	0 4	18 52	0 40	0 19	2 32	22 58	0 23	22 24	1 5	14 22	8 27	23 13	23 18	0 54	18 7	5 2			
W 7	15 14	24 9	2 45	15 17	1 48	3 25	0 56	23 20	0 5	18 53	0 40	0 21	2 32	22 58	0 23	22 24	1 5	14 22	8 27	23 13	23 18	0 57	18 7	5 3			
T 8	14 55	24 45	1 41	14 36	1 43	2 54	0 53	23 24	0 6	18 54	0 40	0 22	2 33	22 57	0 23	22 24	1 5	14 22	8 26	23 13	23 18	1 0	18 7	5 3			
F 9	14 35	24 2	0 34	13 53	1 38	2 22	0 51	23 26	0 7	18 55	0 40	0 23	2 33	22 57	0 23	22 24	1 5	14 22	8 26	23 13	23 18	1 3	18 6	5 4			
S 10	14 16	22 6	0n34	13 9	1 33	1 51	0 48	23 29	0 7	18 56	0 39	0 24	2 33	22 57	0 23	22 24	1 5	14 22	8 26	23 13	23 18	1 6	18 6	5 5			
S 11	13 56	19 10	1 39	12 24	1 26	1 19	0 45	23 32	0 8	18 57	0 39	0 26	2 33	22 56	0 23	22 24	1 5	14 23	8 26	23 13	23 18	1 8	18 6	5 5			
M12	13 36	15 25	2 38	11 38	1 19	0 48	0 42	23 34	0 9	18 59	0 39	0 27	2 34	22 56	0 23	22 23	1 5	14 23	8 26	23 13	23 19	1 11	18 6	5 6			
T 13	13 16	11 5	3 30	10 50	1 12	0 16	0 39	23 36	0 10	19 0	0 39	0 29	2 34	22 56	0 23	22 23	1 5	14 23	8 25	23 13	23 19	1 14	18 5	5 6			
W14	12 56	6 23	4 12	10 2	1 3	0n15	0 36	23 38	0 11	19 1	0 38	0 30	2 34	22 55	0 24	22 23	1 5	14 23	8 25	23 14	23 19	1 17	18 5	5 7			
T 15	12 35	1 29	4 43	9 12	0 54	0 47	0 33	23 40	0 12	19 2	0 38	0 31	2 34	22 55	0 24	22 23	1 5	14 23	8 25	23 14	23 19	1 20	18 5	5 7			
F 16	12 14	3n27	5 1	8 23	0 45	1 19	0 30	23 41	0 13	19 4	0 38	0 33	2 35	22 55	0 24	22 23	1 5	14 24	8 25	23 15	23 19	1 23	18 4	5 8			
S 17	11 53	8 15	5 6	7 32	0 34	1 50	0 27	23 43	0 14	19 5	0 38	0 34	2 35	22 54	0 24	22 23	1 5	14 24	8 24	23 16	23 19	1 25	18 4	5 9			
S 18	11 32	12 45	4 58	6 42	0 23	2 22	0 24	23 44	0 15	19 7	0 37	0 36	2 35	22 54	0 24	22 23	1 5	14 24	8 24	23 16	23 20	1 28	18 4	5 9			
M19	11 11	16 48	4 37	5 51	0 12	2 53	0 20	23 45	0 15	19 8	0 37	0 37	2 35	22 54	0 24	22 23	1 5	14 24	8 24	23 16	23 20	1 31	18 3	5 10			
T 20	10 49	20 13	4 3	5 1	0n 1	3 25	0 17	23 45	0 16	19 10	0 37	0 39	2 35	22 54	0 24	22 23	1 5	14 24	8 24	23 17	23 20	1 34	18 3	5 10			
W21	10 28	22 47	3 18	4 11	0 13	3 56	0 14	23 46	0 17	19 11	0 37	0 41	2 36	22 53	0 24	22 23	1 5	14 25	8 24	23 17	23 20	1 37	18 3	5 11			
T 22	10 6	24 18	2 22	3 22	0 26	4 27	0 10	23 46	0 18	19 13	0 37	0 42	2 36	22 53	0 24	22 23	1 5	14 25	8 23	23 17	23 20	1 40	18 2	5 11			
F 23	9 44	24 34	1 17	2 34	0 40	4 58	0 7	23 46	0 19	19 14	0 36	0 44	2 36	22 53	0 24	22 23	1 5	14 25	8 23	23 17	23 20	1 43	18 2	5 12			
S 24	9 22	23 27	0 6	1 48	0 54	5 30	0 3	23 46	0 20	19 16	0 36	0 46	2 36	22 52	0 24	22 23	1 5	14 25	8 23	23 17	23 21	1 45	18 2	5 13			
S 25	9 0	20 52	1s 7	1 4	1 8	6 0	0n 0	23 45	0 21	19 18	0 36	0 47	2 36	22 52	0 24	22 23	1 5	14 25	8 23	23 17	23 21	1 48	18 1	5 13			
M26	8 37	16 56	2 19	0 22	1 22	6 31	0 4	23 45	0 22	19 19	0 36	0 49	2 36	22 52	0 24	22 23	1 5	14 26	8 22	23 17	23 21	1 51	18 1	5 14			
T 27	8 15	11 51	3 24	0n18	1 37	7 2	0 8	23 44	0 23	19 21	0 36	0 51	2 37	22 51	0 24	22 23	1 5	14 26	8 22	23 17	23 21	1 54	18 0	5 15			
W28	7s52	5n57	4s15	0n54	1n51	7n33	0n11	23s43	0s24	19n23	0s35	0n52	2n37	22s51	0s24	22s23	1n 5	14n26	8s22	23s18	23s21	1n57	18s 0	5n15			

Julian Day Number = 2326298.5, Delta T = 38.39 sec

Ecliptic obliquity = 23°29'03, Nutation = 0°00'19, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 19°57'14, Lahiri = 19°04'14Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657
geocentric

MARCH 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	10 36 44	10 ^h 54'27	19 ^m 41	28 ^s 52	19 ^s 57	7 ^s 30	29 ^s 2	3 ^s R45	16 ^s 35	2 ^s 9	16 ^s II 6	6 ^s R57	5 ^s 52	23 ^s 24	22 ^s 7	T 1
F 2	10 40 41	11 ^h 54'28	4 ^m 59	29 ^s 35	21 ^s 8	8 ^s 12	29 ^s 9	3 ^s 41	16 ^s 37	2 ^s 10	16 ^s 6	6 ^s 47	5 ^s 49	23 ^s 31	22 ^s 4	F 2
S 3	10 44 38	12 ^h 54'26	20 ^m 5	0 ^s Y10	22 ^s 19	8 ^s 53	29 ^s 17	3 ^s 37	16 ^s 39	2 ^s 11	16 ^s 6	6 ^s 38	5 ^s 46	23 ^s 38	22 ^s 7	S 3
S 4	10 48 34	13 ^h 54'23	4 ^m 49	0 ^s 36	23 ^s 29	9 ^s 35	29 ^s 24	3 ^s 33	16 ^s 42	2 ^s 12	16 ^s 6	6 ^s 31	5 ^s 42	23 ^s 45	22 ^s 10	S 4
M 5	10 52 31	14 ^h 54'18	19 ^m 7	0 ^s 53	24 ^s 40	10 ^s 16	29 ^s 32	3 ^s 29	16 ^s 44	2 ^s 13	16 ^s 6	6 ^s 26	5 ^s 39	23 ^s 51	22 ^s 12	M 5
T 6	10 56 27	15 ^h 54'12	2 ^m 57	1 ^s R 1	25 ^s 50	10 ^s 58	29 ^s 40	3 ^s 24	16 ^s 46	2 ^s 14	16 ^s 6	6 ^s 23	5 ^s 36	23 ^s 58	22 ^s 15	T 6
W 7	11 0 24	16 ^h 54'04	16 ^m 18	1 ^s 1	27 ^s 1	11 ^s 40	29 ^s 48	3 ^s 20	16 ^s 48	2 ^s 15	16 ^s 6	6 ^s D22	5 ^s 33	24 ^s 5	22 ^s 17	W 7
T 8	11 4 20	17 ^h 53'54	29 ^m 16	0 ^s 51	28 ^s 11	12 ^s 21	29 ^s 56	3 ^s 15	16 ^s 51	2 ^s 16	16 ^s 7	6 ^s 23	5 ^s 30	24 ^s 11	22 ^s 20	T 8
F 9	11 8 17	18 ^h 53'43	11 ^m 53	0 ^s 34	29 ^s 21	13 ^s 3	0 ^s II 5	3 ^s 11	16 ^s 53	2 ^s 16	16 ^s 7	6 ^s R23	5 ^s 26	24 ^s 18	22 ^s 22	F 9
S 10	11 12 13	19 ^h 53'30	24 ^m 14	0 ^s 9	0 ^s 831	13 ^s 45	0 ^s 13	3 ^s 6	16 ^s 55	2 ^s 17	16 ^s 7	6 ^s 21	5 ^s 23	24 ^s 25	22 ^s 24	S 10
S 11	11 16 10	20 ^h 53'15	6 ^m 23	29 ^s 37	1 ^s 40	14 ^s 26	0 ^s 22	3 ^s 2	16 ^s 57	2 ^s 18	16 ^s 7	6 ^s 18	5 ^s 20	24 ^s 32	22 ^s 26	S 11
M12	11 20 7	21 ^h 52'58	18 ^m 24	28 ^s 58	2 ^s 50	15 ^s 8	0 ^s 30	2 ^s 57	16 ^s 59	2 ^s 19	16 ^s 8	6 ^s 11	5 ^s 17	24 ^s 38	22 ^s 28	M12
T 13	11 24 3	22 ^h 52'40	0 ^m 20	28 ^s 15	4 ^s 0	15 ^s 50	0 ^s 39	2 ^s 53	17 ^s 1	2 ^s 20	16 ^s 8	6 ^s 1	5 ^s 14	24 ^s 45	22 ^s 30	T 13
W14	11 28 0	23 ^h 52'19	12 ^m 13	27 ^s 27	5 ^s 9	16 ^s 32	0 ^s 48	2 ^s 48	17 ^s 3	2 ^s 20	16 ^s 8	5 ^s 49	5 ^s 11	24 ^s 52	22 ^s 32	W14
T 15	11 31 56	24 ^h 51'56	24 ^m 5	26 ^s 35	6 ^s 18	17 ^s 13	0 ^s 57	2 ^s 44	17 ^s 4	2 ^s 21	16 ^s 8	5 ^s 35	5 ^s 7	24 ^s 59	22 ^s 33	T 15
F 16	11 35 53	25 ^h 51'32	5 ^m Y57	25 ^s 42	7 ^s 27	17 ^s 55	1 ^s 6	2 ^s 39	17 ^s 6	2 ^s 22	16 ^s 9	5 ^s 21	5 ^s 4	25 ^s 5	22 ^s 35	F 16
S 17	11 39 49	26 ^h 51'05	17 ^m 51	24 ^s 48	8 ^s 36	18 ^s 37	1 ^s 16	2 ^s 34	17 ^s 8	2 ^s 22	16 ^s 9	5 ^s 7	5 ^s 1	25 ^s 12	22 ^s 36	S 17
S 18	11 43 46	27 ^h 50'36	29 ^m 47	23 ^s 54	9 ^s 45	19 ^s 19	1 ^s 25	2 ^s 30	17 ^s 10	2 ^s 23	16 ^s 10	4 ^s 54	4 ^s 58	25 ^s 19	22 ^s 38	S 18
M19	11 47 42	28 ^h 50'05	11 ^m 849	23 ^s 1	10 ^s 53	20 ^s 0	1 ^s 35	2 ^s 25	17 ^s 11	2 ^s 23	16 ^s 10	4 ^s 44	4 ^s 55	25 ^s 25	22 ^s 39	M19
T 20	11 51 39	29 ^h 49'32	23 ^s 58	22 ^s 11	12 ^s 2	20 ^s 42	1 ^s 45	2 ^s 20	17 ^s 13	2 ^s 24	16 ^s 10	4 ^s 37	4 ^s 52	25 ^s 32	22 ^s 40	T 20
W21	11 55 36	0 ^m Y48'57	6 ^m II 18	21 ^s 24	13 ^s 10	21 ^s 24	1 ^s 54	2 ^s 16	17 ^s 15	2 ^s 24	16 ^s 11	4 ^s 33	4 ^s 48	25 ^s 39	22 ^s 41	W21
T 22	11 59 32	1 ^h 48'19	18 ^s 52	20 ^s 40	14 ^s 18	22 ^s 6	2 ^s 4	2 ^s 11	17 ^s 16	2 ^s 25	16 ^s 11	4 ^s 32	4 ^s 45	25 ^s 46	22 ^s 42	T 22
F 23	12 3 29	2 ^h 47'39	1 ^s 546	20 ^s 2	15 ^s 26	22 ^s 47	2 ^s 14	2 ^s 6	17 ^s 18	2 ^s 25	16 ^s 12	4 ^s 31	4 ^s 42	25 ^s 52	22 ^s 43	F 23
S 24	12 7 25	3 ^h 46'57	15 ^m 2	19 ^s 28	16 ^s 34	23 ^s 29	2 ^s 24	2 ^s 2	17 ^s 19	2 ^s 25	16 ^s 12	4 ^s 31	4 ^s 39	25 ^s 59	22 ^s 44	S 24
S 25	12 11 22	4 ^h 46'12	28 ^m 44	19 ^s 0	17 ^s 42	24 ^s 11	2 ^s 35	1 ^s 57	17 ^s 21	2 ^s 26	16 ^s 13	4 ^s 30	4 ^s 36	26 ^s 6	22 ^s 45	S 25
M26	12 15 18	5 ^h 45'25	12 ^m 55	18 ^s 37	18 ^s 49	24 ^s 53	2 ^s 45	1 ^s 52	17 ^s 22	2 ^s 26	16 ^s 13	4 ^s 27	4 ^s 32	26 ^s 12	22 ^s 46	M26
T 27	12 19 15	6 ^h 44'35	27 ^s 33	18 ^s 20	19 ^s 56	25 ^s 34	2 ^s 55	1 ^s 48	17 ^s 23	2 ^s 26	16 ^s 14	4 ^s 21	4 ^s 29	26 ^s 19	22 ^s 46	T 27
W28	12 23 11	7 ^h 43'44	12 ^m 34	18 ^s 8	21 ^s 3	26 ^s 16	3 ^s 6	1 ^s 43	17 ^s 24	2 ^s 27	16 ^s 15	4 ^s 12	4 ^s 26	26 ^s 26	22 ^s 47	W28
T 29	12 27 8	8 ^h 42'50	27 ^s 50	18 ^s 2	22 ^s 10	26 ^s 58	3 ^s 17	1 ^s 38	17 ^s 26	2 ^s 27	16 ^s 15	4 ^s 2	4 ^s 23	26 ^s 33	22 ^s 47	T 29
F 30	12 31 4	9 ^h 41'53	13 ^m 50	18 ^s D 2	23 ^s 16	27 ^s 40	3 ^s 27	1 ^s 34	17 ^s 27	2 ^s 27	16 ^s 16	3 ^s 51	4 ^s 20	26 ^s 39	22 ^s 47	F 30
S 31	12 35 1	10 ^h Y40'55	28 ^m 23	18 ^s 7	24 ^s 823	28 ^s 21	3 ^s II38	1 ^s 29	17 ^s 28	2 ^s 27	16 ^s 16	3 ^s 40	4 ^s 17	26 ^s 46	22 ^s 47	S 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
T 1	7s29	0s21	4s49	1n27	2n 5	8n 3	0n15	23s41	0s25	19n25	0s35	0n54	2n37	22s51	0s24	22s23	1n 5	14n26	8s22	23s18	23s21	2n 0	17s59	5n16						
F 2	7 7	6 37	5 3	1 57	2 18	8 33	0 19	23 40	0 26	19 26	0 35	0 56	2 37	22 51	0 24	22 23	1 5	14 27	8 21	23 19	23 21	2 2	17 59	5 16						
S 3	6 44	12 24	4 55	2 22	2 31	9 3	0 23	23 38	0 27	19 28	0 35	0 58	2 37	22 50	0 24	22 23	1 5	14 27	8 21	23 19	23 22	2 5	17 58	5 17						
S 4	6 21	17 20	4 27	2 44	2 43	9 33	0 26	23 36	0 28	19 30	0 34	1 0	2 37	22 50	0 24	22 23	1 5	14 27	8 21	23 19	23 22	2 8	17 58	5 18						
M 5	5 57	21 7	3 43	3 1	2 55	10 2	0 30	23 34	0 29	19 32	0 34	1 1	2 38	22 50	0 24	22 23	1 5	14 27	8 21	23 20	23 22	2 11	17 57	5 18						
T 6	5 34	23 32	2 48	3 14	3 5	10 32	0 34	23 32	0 30	19 34	0 34	1 3	2 38	22 50	0 24	22 23	1 5	14 27	8 21	23 20	23 22	2 14	17 57	5 19						
W 7	5 11	24 31	1 45	3 22	3 14	11 1	0 38	23 30	0 31	19 36	0 34	1 5	2 38	22 49	0 24	22 23	1 5	14 28	8 20	23 20	23 22	2 16	17 56	5 20						
T 8	4 48	24 7	0 38	3 26	3 22	11 30	0 42	23 27	0 32	19 38	0 34	1 7	2 38	22 49	0 24	22 22	1 5	14 28	8 20	23 20	23 22	2 19	17 56	5 20						
F 9	4 24	22 28	0n29	3 24	3 28	11 58	0 46	23 24	0 34	19 40	0 33	1 9	2 38	22 49	0 24	22 22	1 5	14 28	8 20	23 20	23 22	2 22	17 55	5 21						
S 10	4 1	19 47	1 33	3 18	3 32	12 27	0 50	23 21	0 35	19 42	0 33	1 11	2 38	22 49	0 24	22 22	1 5	14 28	8 20	23 20	23 22	2 25	17 55	5 22						
S 11	3 37	16 16	2 32	3 8	3 35	12 55	0 54	23 17	0 36	19 44	0 33	1 13	2 38	22 48	0 24	22 22	1 6	14 29	8 19	23 20	23 23	2 28	17 54	5 22						
M12	3 14	12 7	3 23	2 54	3 36	13 23	0 57	23 14	0 37	19 46	0 33	1 15	2 38	22 48	0 24	22 22	1 6	14 29	8 19	23 20	23 23	2 31	17 54	5 23						
T 13	2 50	7 34	4 4	2 35	3 35	13 50	1 1	23 10	0 38	19 48	0 33	1 16	2 38	22 48	0 24	22 22	1 6	14 29	8 19	23 21	23 23	2 33	17 53	5 24						
W14	2 26	2 45	4 35	2 13	3 32	14 17	1 5	23 6	0 39	19 50	0 32	1 18	2 38	22 48	0 24	22 22	1 6	14 29	8 19	23 21	23 23	2 36	17 53	5 24						
T 15	2 3	2n 8	4 54	1 49	3 27	14 44	1 9	23 2	0 40	19 52	0 32	1 20	2 39	22 47	0 24	22 22	1 6	14 30	8 18	23 22	23 23	2 39	17 52	5 25						
F 16	1 39	6 57	5 0	1 21	3 20	15 11	1 13	22 58	0 41	19 54	0 32	1 22	2 39	22 47	0 24	22 22	1 6	14 30	8 18	23 23	23 23	2 42	17 52	5 26						
S 17	1 15	11 31	4 52	0 52	3 12	15 37	1 17	22 53	0 42	19 56	0 32	1 24	2 39	22 47	0 24	22 22	1 6	14 30	8 18	23 23	23 23	2 45	17 51	5 26						
S 18	0 52	15 40	4 32	0 21	3 2	16 3	1 21	22 49	0 44	19 58	0 32	1 26	2 39	22 47	0 24	22 22	1 6	14 31	8 18	23 24	23 23	2 47	17 50	5 27						
M19	0 28	19 13	4 0	0s10	2 51	16 28	1 25	22 44	0 45	20 0	0 32	1 28	2 39	22 47	0 24	22 22	1 6	14 31	8 18	23 24	23 24	2 50	17 50	5 28						
T 20	0 4	21 58	3 17	0 41	2 38	16 53	1 29	22 38	0 46	20 2	0 31	1 30	2 39	22 47	0 24	22 22	1 6	14 31	8 17	23 24	23 24	2 53	17 49	5 28						
W21	0n20	23 45	2 23	1 12	2 24	17 18	1 33	22 33	0 47	20 4	0 31	1 32	2 39	22 46	0 24	22 22	1 6	14 31	8 17	23 24	23 24	2 56	17 49	5 29						
T 22	0 43	24 22	1 22	1 43	2 10	17 42	1 37	22 28	0 48	20 6	0 31	1 34	2 39	22 46	0 24	22 22	1 6	14 32	8 17	23 24	23 24	2 59	17 48	5 30						
F 23	1 7	23 43	0 15	2 12	1 55	18 6	1 41	22 22	0 49	20 9	0 31	1 36	2 39	22 46	0 24	22 22	1 6	14 32	8 17	23 24	23 24	3 1	17 47	5 30						
S 24	1 30	21 43	0s55	2 39	1 39	18 30	1 45	22 16	0 51	20 11	0 31	1 37	2 39	22 46	0 24	22 22	1 6	14 32	8 16	23 24	23 24	3 4	17 47	5 31						
S 25	1 54	18 26	2 4	3 5	1 24	18 53	1 49	22 10	0 52	20 13	0 30	1 39	2 39	22 46	0 24	22 22	1 6	14 32	8 16	23 24	23 24	3 7	17 46	5 32						
M26	2 17	13 58	3 8	3 28	1 8	19 15	1 52	22 4	0 53	20 15	0 30	1 41	2 39	22 46	0 24	22 22	1 6	14 33	8 16	23 25	23 24	3 10	17 45	5 32						
T 27	2 41	8 34	4 1	3 49	0 52	19 37	1 56	21 57	0 54	20 17	0 30	1 43	2 39	22 45	0 25	22 22	1 6	14 33	8 16	23 25	23 24	3 12	17 45	5 33						
W28	3 4	2 33	4 39	4 8	0 37	19 59	2 0	21 51	0 55	20 20	0 30	1 45	2 39	22 45	0 25	22 22	1 6	14 33	8 16	23 25	23 25	3 15	17 44	5 34						
T 29	3 28	3s42	4 58	4 24	0 22	20 20	2 4	21 44	0 57	20 22	0 30	1 47	2 39	22 45	0 25	22 22	1 6	14 33	8 15	23 25	23 25	3 18	17 43	5 34						
F 30	3 51	9 45	4 56	4 38	0 7	20 41	2 7	21 37	0 58	20 22	0 30	1 49	2 39	22 45	0 25	22 22	1 6	14 34	8 15	23 26	23 25	3 21	17 43	5 35						
S 31	4n14	15s10	4s33	4s49	0s 7	21n 1	2n11	21s30	0s59	20n26	0s29	1n50	2n39	22s45	0s25	22s22	1n 6	14n34	8s15	23s26	23s25	3n24	17s42	5n36						

ASTRODIENST EPHEMERIS for the year 1657

geocentric

APRIL 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	12 38 58	11°39'55	13°17	18°18	25°29	29°3	3°14	1°24	17°29	2°27	16°17	3°R31	4°13	26°53	22°R47	S 1
M 2	12 42 54	12°38'53	27°46	18°34	26°35	29°45	4°0	1°20	17°30	2°27	16°18	3°R25	4°10	27°0	22°R47	M 2
T 3	12 46 51	13°37'50	11°46	18°54	27°40	0°27	4°11	1°15	17°31	2°27	16°19	3°21	4°7	27°6	22°47	T 3
W 4	12 50 47	14°36'45	25°16	19°19	28°46	1°8	4°22	1°11	17°32	2°R27	16°19	3°20	4°4	27°13	22°47	W 4
T 5	12 54 44	15°35'37	8°19	19°49	29°51	1°50	4°34	1°6	17°33	2°27	16°20	3°D20	4°1	27°20	22°47	T 5
F 6	12 58 40	16°34'29	20°58	20°22	0°156	2°32	4°45	1°2	17°33	2°27	16°21	3°R20	3°57	27°26	22°46	F 6
S 7	13 2 37	17°33'18	3°18	21°0	2°1	3°14	4°56	0°57	17°34	2°27	16°22	3°19	3°54	27°33	22°46	S 7
S 8	13 6 33	18°32'06	15°25	21°42	3°5	3°55	5°8	0°53	17°35	2°27	16°22	3°16	3°51	27°40	22°45	S 8
M 9	13 10 30	19°30'51	27°22	22°27	4°9	4°37	5°20	0°49	17°36	2°27	16°23	3°10	3°48	27°47	22°45	M 9
T 10	13 14 27	20°29'35	9°14	23°16	5°13	5°19	5°31	0°44	17°36	2°27	16°24	3°2	3°45	27°53	22°44	T 10
W 11	13 18 23	21°28'17	21°5	24°8	6°17	6°1	5°43	0°40	17°37	2°26	16°25	2°51	3°42	28°0	22°43	W 11
T 12	13 22 20	22°26'58	2°57	25°3	7°20	6°42	5°55	0°36	17°37	2°26	16°26	2°39	3°38	28°7	22°42	T 12
F 13	13 26 16	23°25'36	14°51	26°1	8°24	7°24	6°7	0°32	17°38	2°26	16°27	2°26	3°35	28°13	22°41	F 13
S 14	13 30 13	24°24'13	26°50	27°2	9°26	8°6	6°19	0°28	17°38	2°25	16°28	2°13	3°32	28°20	22°40	S 14
S 15	13 34 9	25°22'47	8°54	28°6	10°29	8°47	6°31	0°24	17°38	2°25	16°29	2°2	3°29	28°27	22°39	S 15
M 16	13 38 6	26°21'20	21°5	29°12	11°31	9°29	6°43	0°20	17°39	2°25	16°30	1°53	3°26	28°34	22°37	M 16
T 17	13 42 2	27°19'51	3°124	0°21	12°33	10°11	6°55	0°16	17°39	2°24	16°31	1°47	3°23	28°40	22°36	T 17
W 18	13 45 59	28°18'20	15°53	1°33	13°34	10°52	7°7	0°12	17°39	2°24	16°32	1°43	3°19	28°47	22°34	W 18
T 19	13 49 56	29°16'46	28°35	2°46	14°36	11°34	7°20	0°8	17°39	2°23	16°33	1°D42	3°16	28°54	22°33	T 19
F 20	13 53 52	0°15'11	11°33	4°2	15°36	12°15	7°32	0°4	17°39	2°23	16°34	1°42	3°13	29°1	22°31	F 20
S 21	13 57 49	1°13'33	24°48	5°20	16°37	12°57	7°44	0°1	17°R39	2°22	16°35	1°R43	3°10	29°7	22°29	S 21
S 22	14 1 45	2°11'53	8°25	6°41	17°37	13°38	7°57	29°57	17°39	2°22	16°36	1°43	3°7	29°14	22°27	S 22
M 23	14 5 42	3°10'11	22°26	8°3	18°37	14°20	8°9	29°54	17°39	2°21	16°37	1°41	3°3	29°21	22°26	M 23
T 24	14 9 38	4°8'27	6°48	9°28	19°36	15°1	8°22	29°50	17°39	2°20	16°38	1°37	3°0	29°27	22°24	T 24
W 25	14 13 35	5°6'41	21°32	10°54	20°35	15°43	8°35	29°47	17°39	2°20	16°39	1°31	2°57	29°34	22°22	W 25
T 26	14 17 31	6°4'53	6°30	12°23	21°33	16°24	8°47	29°43	17°39	2°19	16°40	1°24	2°54	29°41	22°19	T 26
F 27	14 21 28	7°3'03	21°34	13°53	22°31	17°6	9°0	29°40	17°39	2°18	16°41	1°16	2°51	29°48	22°17	F 27
S 28	14 25 25	8°1'11	6°36	15°25	23°28	17°47	9°13	29°37	17°38	2°18	16°42	1°8	2°48	29°54	22°15	S 28
S 29	14 29 21	8°59'17	21°25	17°0	24°25	18°28	9°26	29°34	17°38	2°17	16°43	1°1	2°44	0°1	22°12	S 29
M 30	14 33 18	9°57'22	5°53	18°36	25°122	19°10	9°39	29°31	17°38	2°16	16°44	0°57	2°41	0°1	22°10	M 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	4n37	19s32	3s52	4s58	0s21	21n21	2n15	21s22	1s0	20n28	0s29	1n52	2n39	22s45	0s25	22s22
M 2	5 0 22 33	2 56	5 4	0 34	21 40	2 18	21 15	1 2 20 31	0 29	1 54	2 39	22 45	0 25	22 22	1 6	14 35
T 3	5 23 24 5	1 51	5 7	0 47	21 59	2 22	21 7	1 3 20 33	0 29	1 56	2 39	22 45	0 25	22 22	1 6	14 35
W 4	5 46 24 6	0 43	5 9	0 59	22 17	2 25	20 59	1 4 20 35	0 29	1 58	2 39	22 45	0 25	22 21	1 6	14 35
T 5	6 9 22 47	0n26	5 8	1 11	22 35	2 29	20 51	1 5 20 37	0 29	1 59	2 39	22 44	0 25	22 21	1 6	14 35
F 6	6 32 20 20	1 32	5 4	1 21	22 52	2 32	20 43	1 7 20 40	0 29	2 1	2 39	22 44	0 25	22 21	1 6	14 36
S 7	6 54 17 0	2 32	4 59	1 32	23 9	2 36	20 34	1 8 20 42	0 28	2 3	2 39	22 44	0 25	22 21	1 6	14 36
S 8	7 17 13 1	3 23	4 51	1 41	23 25	2 39	20 26	1 9 20 44	0 28	2 4	2 39	22 44	0 25	22 21	1 6	14 36
M 9	7 39 8 34	4 5	4 41	1 50	23 40	2 42	20 17	1 11 20 46	0 28	2 6	2 39	22 44	0 25	22 21	1 6	14 37
T 10	8 1 3 51	4 36	4 29	1 58	23 55	2 45	20 8	1 12 20 48	0 28	2 8	2 39	22 44	0 25	22 21	1 6	14 37
W 11	8 23 0n59	4 55	4 16	2 6	24 10	2 48	19 59	1 13 20 51	0 28	2 9	2 39	22 44	0 25	22 21	1 6	14 37
T 12	8 45 5 46	5 1	4 0	2 13	24 23	2 51	19 50	1 15 20 53	0 28	2 11	2 39	22 44	0 25	22 21	1 6	14 37
F 13	9 7 10 23	4 54	3 43	2 19	24 37	2 54	19 41	1 16 20 55	0 27	2 13	2 38	22 44	0 25	22 21	1 6	14 38
S 14	9 29 14 37	4 34	3 23	2 25	24 49	2 57	19 31	1 17 20 57	0 27	2 14	2 38	22 44	0 25	22 21	1 6	14 38
S 15	9 50 18 18	4 2	3 3	2 30	25 1	3 0	19 22	1 19 20 59	0 27	2 16	2 38	22 44	0 25	22 21	1 6	14 38
M 16	10 11 21 15	3 18	2 40	2 34	25 13	3 2	19 12	1 20 21 2	0 27	2 17	2 38	22 44	0 25	22 21	1 7	14 38
T 17	10 33 23 14	2 25	2 16	2 38	25 24	3 5	19 2	1 21 21 4	0 27	2 19	2 38	22 44	0 25	22 21	1 7	14 39
W 18	10 54 24 7	1 23	1 51	2 41	25 34	3 7	18 52	1 23 21 6	0 27	2 20	2 38	22 44	0 25	22 21	1 7	14 39
T 19	11 14 23 45	0 17	1 24	2 44	25 44	3 10	18 42	1 24 21 8	0 27	2 22	2 38	22 44	0 25	22 21	1 7	14 39
F 20	11 35 22 7	0s52	0 56	2 46	25 53	3 12	18 31	1 25 21 10	0 26	2 23	2 38	22 44	0 25	22 21	1 7	14 40
S 21	11 55 19 14	2 0	0 26	2 47	26 2	3 14	18 21	1 27 21 13	0 26	2 24	2 38	22 44	0 25	22 21	1 7	14 40
S 22	12 16 15 15	3 3	0n 5	2 48	26 10	3 16	18 10	1 28 21 15	0 26	2 26	2 37	22 44	0 25	22 21	1 7	14 40
M 23	12 36 10 20	3 57	0 37	2 48	26 17	3 18	17 59	1 30 21 17	0 26	2 27	2 37	22 44	0 25	22 21	1 7	14 40
T 24	12 55 4 44	4 37	1 11	2 48	26 24	3 20	17 49	1 31 21 19	0 26	2 28	2 37	22 44	0 25	22 21	1 7	14 41
W 25	13 15 1s14	5 1	1 46	2 47	26 30	3 22	17 38	1 32 21 21	0 26	2 29	2 37	22 44	0 25	22 21	1 7	14 41
T 26	13 34 7 14	5 4	2 22	2 45	26 36	3 23	17 26	1 34 21 23	0 26	2 31	2 37	22 44	0 25	22 21	1 7	14 41
F 27	13 54 12 51	4 46	2 59	2 43	26 41	3 25	17 15	1 35 21 25	0 25	2 32	2 37	22 44	0 25	22 21	1 7	14 41
S 28	14 12 17 40	4 9	3 37	2 41	26 45	3 26	17 4	1 37 21 27	0 25	2 33	2 37	22 44	0 25	22 21	1 7	14 42
S 29	14 31 21 18	3 16	4 16	2 38	26 49	3 28	16 52	1 38 21 29	0 25	2 34	2 37	22 44	0 25	22 21	1 7	14 42
M 30	14n50	23s28	2s10	4n56	2s34	3n29	16s41	1s40	21n31	0s25	2n35	2n36	22s45	0s26	22s21	1n 7

Julian Day Number = 2326357.5, Delta T = 38.27 sec
 Ecliptic obliquity = 23°29'03, Nutation = 0°00'17, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°57'22, Lahiri = 19°04'23Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657
geocentric

MAY 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	14 37 14	10♌55'25	19♊56	20♈14	26♋18	19♌51	9♈52	29°R28	17°R37	2°R15	16♋46	0°R54	2♌38	0♈14	22°R 7	T 1
W 2	14 41 11	11°53'27	3♌31	21°55	27°13	20°32	10° 5	29♎25	17♌37	2♌14	16°47	0°D54	2°35	0°21	22♊ 5	W 2
T 3	14 45 7	12°51'28	16°39	23°37	28° 8	21°14	10°18	29°22	17°36	2°13	16°48	0♌54	2°32	0°28	22° 2	T 3
F 4	14 49 4	13°49'27	29°23	25°21	29° 2	21°55	10°31	29°20	17°36	2°13	16°49	0°56	2°29	0°35	21°59	F 4
S 5	14 53 0	14°47'24	11♌48	27° 7	29°56	22°36	10°44	29°17	17°35	2°12	16°50	0°R57	2°25	0°41	21°57	S 5
S 6	14 56 57	15°45'21	23°57	28°55	0♌49	23°17	10°57	29°15	17°34	2°11	16°52	0°56	2°22	0°48	21°54	S 6
M 7	15 0 54	16°43'16	5♈55	0♌45	1°42	23°58	11°10	29°12	17°33	2°10	16°53	0°54	2°19	0°55	21°51	M 7
T 8	15 4 50	17°41'09	17°48	2°37	2°34	24°39	11°24	29°10	17°33	2° 9	16°54	0°50	2°16	1° 2	21°48	T 8
W 9	15 8 47	18°39'02	29°39	4°30	3°25	25°20	11°37	29° 8	17°32	2° 8	16°55	0°45	2°13	1° 8	21°45	W 9
T 10	15 12 43	19°36'53	11♈33	6°26	4°15	26° 1	11°50	29° 5	17°31	2° 6	16°57	0°38	2° 9	1°15	21°42	T 10
F 11	15 16 40	20°34'43	23°31	8°24	5° 5	26°42	12° 4	29° 3	17°30	2° 5	16°58	0°31	2° 6	1°22	21°38	F 11
S 12	15 20 36	21°32'31	5♌36	10°23	5°54	27°23	12°17	29° 1	17°29	2° 4	16°59	0°23	2° 3	1°28	21°35	S 12
S 13	15 24 33	22°30'18	17°51	12°24	6°43	28° 4	12°30	29° 0	17°28	2° 3	17° 0	0°17	2° 0	1°35	21°32	S 13
M14	15 28 29	23°28'04	0♈15	14°27	7°30	28°44	12°44	28°58	17°27	2° 2	17° 2	0°12	1°57	1°42	21°28	M14
T 15	15 32 26	24°25'49	12°49	16°32	8°17	29°25	12°57	28°56	17°26	2° 1	17° 3	0° 9	1°54	1°49	21°25	T 15
W16	15 36 23	25°23'32	25°36	18°38	9° 3	0♈ 6	13°11	28°55	17°25	2° 0	17° 4	0°D 8	1°50	1°55	21°22	W16
T 17	15 40 19	26°21'14	8♌34	20°46	9°48	0°46	13°24	28°53	17°24	1°58	17° 6	0° 8	1°47	2° 2	21°18	T 17
F 18	15 44 16	27°18'54	21°46	22°55	10°32	1°27	13°38	28°52	17°22	1°57	17° 7	0° 9	1°44	2° 9	21°15	F 18
S 19	15 48 12	28°16'32	5♌13	25° 5	11°15	2° 7	13°51	28°50	17°21	1°56	17° 8	0°11	1°41	2°16	21°11	S 19
S 20	15 52 9	29°14'09	18°55	27°15	11°57	2°47	14° 5	28°49	17°20	1°55	17°10	0°12	1°38	2°22	21° 7	S 20
M21	15 56 5	0♈11'45	2♈52	29°27	12°38	3°28	14°19	28°48	17°18	1°53	17°11	0°R12	1°35	2°29	21° 4	M21
T 22	16 0 2	1° 9'19	17° 5	1♈39	13°18	4° 8	14°32	28°47	17°17	1°52	17°12	0°11	1°31	2°36	21° 0	T 22
W23	16 3 58	2° 6'51	1♌1	3°51	13°56	4°48	14°46	28°46	17°16	1°51	17°14	0° 9	1°28	2°42	20°56	W23
T 24	16 7 55	3° 4'23	16° 6	6° 2	14°34	5°28	15° 0	28°45	17°14	1°49	17°15	0° 6	1°25	2°49	20°52	T 24
F 25	16 11 52	4° 1'52	0♈46	8°14	15°10	6° 8	15°13	28°45	17°13	1°48	17°17	0° 2	1°22	2°56	20°48	F 25
S 26	16 15 48	4°59'21	15°23	10°24	15°46	6°48	15°27	28°44	17°11	1°47	17°18	29♊59	1°19	3° 3	20°45	S 26
S 27	16 19 45	5°56'48	29°51	12°34	16°19	7°28	15°41	28°44	17° 9	1°45	17°19	29°56	1°15	3° 9	20°41	S 27
M28	16 23 41	6°54'15	14♊ 4	14°42	16°52	8° 7	15°55	28°43	17° 8	1°44	17°21	29°54	1°12	3°16	20°37	M28
T 29	16 27 38	7°51'40	27°57	16°49	17°23	8°47	16° 8	28°43	17° 6	1°42	17°22	29°D54	1° 9	3°23	20°33	T 29
W30	16 31 34	8°49'05	11♌28	18°54	17°52	9°26	16°22	28°43	17° 4	1°41	17°23	29°54	1° 6	3°29	20°29	W30
T 31	16 35 31	9♈46'29	24♌36	20♈58	18♌20	10♈ 6	16♈36	28°D43	17♌ 3	1♌39	17♈25	29♊55	1♌ 3	3♈36	20♊25	T 31

Day	☉	☽		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	15n 8	24s 5	0s59	5n37	2s30	26n55	3n30	16s29	1s41	21n34	0s25	2n36	2n36	22s45	0s26	22s21	1n 7	14n42	8s 9	23s29	23s27	4n49	17s21	5n55									
W 2	15 26	23 12	0n14	6 19	2 25	26 58	3 30	16 17	1 43	21 36	0 25	2 37	2 36	22 45	0 26	22 21	1 7	14 43	8 9	23 29	23 28	4 51	17 20	5 55									
T 3	15 44	21 3	1 24	7 1	2 20	26 59	3 31	16 6	1 44	21 38	0 25	2 38	2 36	22 45	0 26	22 21	1 7	14 43	8 9	23 29	23 28	4 54	17 19	5 56									
F 4	16 1	17 55	2 28	7 45	2 14	27 0	3 32	15 54	1 45	21 40	0 25	2 39	2 36	22 45	0 26	22 21	1 7	14 43	8 9	23 29	23 28	4 57	17 19	5 56									
S 5	16 18	14 2	3 22	8 29	2 8	27 1	3 32	15 41	1 47	21 42	0 24	2 40	2 36	22 45	0 26	22 21	1 7	14 43	8 9	23 29	23 28	4 59	17 18	5 57									
S 6	16 35	9 41	4 7	9 13	2 1	27 1	3 32	15 29	1 48	21 44	0 24	2 41	2 35	22 45	0 26	22 21	1 7	14 44	8 9	23 29	23 28	5 2	17 17	5 57									
M 7	16 52	5 1	4 40	9 59	1 54	27 0	3 32	15 17	1 50	21 46	0 24	2 41	2 35	22 45	0 26	22 21	1 7	14 44	8 8	23 29	23 28	5 5	17 17	5 58									
T 8	17 8	0 13	5 1	10 45	1 46	26 59	3 32	15 5	1 51	21 47	0 24	2 42	2 35	22 45	0 26	22 21	1 7	14 44	8 8	23 29	23 28	5 8	17 16	5 58									
W 9	17 24	4n35	5 9	11 31	1 38	26 58	3 32	14 52	1 53	21 49	0 24	2 43	2 35	22 46	0 26	22 21	1 7	14 44	8 8	23 29	23 28	5 10	17 15	5 59									
T 10	17 40	9 13	5 3	12 17	1 29	26 56	3 31	14 40	1 54	21 51	0 24	2 44	2 35	22 46	0 26	22 21	1 7	14 45	8 8	23 29	23 28	5 13	17 15	5 59									
F 11	17 56	13 33	4 44	13 4	1 20	26 53	3 30	14 27	1 56	21 53	0 24	2 44	2 34	22 46	0 26	22 21	1 7	14 45	8 8	23 29	23 28	5 16	17 14	6 0									
S 12	18 11	17 23	4 13	13 50	1 11	26 50	3 29	14 15	1 57	21 55	0 24	2 45	2 34	22 46	0 26	22 21	1 7	14 45	8 8	23 29	23 28	5 18	17 13	6 0									
S 13	18 26	20 32	3 29	14 37	1 1	26 47	3 28	14 2	1 59	21 57	0 23	2 45	2 34	22 46	0 26	22 21	1 7	14 45	8 8	23 29	23 28	5 21	17 13	6 1									
M14	18 40	22 46	2 35	15 23	0 51	26 43	3 27	13 49	2 0	21 59	0 23	2 46	2 34	22 46	0 26	22 21	1 7	14 46	8 8	23 29	23 28	5 24	17 12	6 1									
T 15	18 55	23 55	1 33	16 9	0 41	26 38	3 25	13 36	2 2	22 1	0 23	2 46	2 34	22 46	0 26	22 21	1 7	14 46	8 7	23 29	23 28	5 26	17 12	6 2									
W16	19 9	23 49	0 25	16 54	0 31	26 34	3 24	13 23	2 4	22 2	0 23	2 47	2 33	22 47	0 26	22 21	1 7	14 46	8 7	23 29	23 28	5 29	17 11	6 2									
T 17	19 22	22 26	0s46	17 39	0 20	26 28	3 22	13 10	2 5	22 4	0 23	2 47	2 33	22 47	0 26	22 21	1 7	14 46	8 7	23 29	23 28	5 32	17 10	6 2									
F 18	19 36	19 49	1 55	18 23	0 10	26 23	3 20	12 57	2 7	22 6	0 23	2 48	2 33	22 47	0 26	22 21	1 7	14 47	8 7	23 29	23 28	5 34	17 10	6 3									
S 19	19 49	16 5	3 0	19 5	0n 1	26 17	3 17	12 44	2 8	22 8	0 23	2 48	2 33	22 47	0 26	22 21	1 7	14 47	8 7	23 29	23 28	5 37	17 9	6 3									
S 20	20 1	11 27	3 55	19 46	0 11	26 10	3 14	12 31	2 10	22 9	0 23	2 48	2 33	22 47	0 26	22 21	1 7	14 47	8 7	23 29	23 28	5 40	17 8	6 4									
M21	20 14	6 8	4 38	20 25	0 22	26 4	3 12	12 18	2 11	22 11	0 23	2 48	2 32	22 48	0 26	22 21	1 7	14 47	8 7	23 29	23 28	5 42	17 8	6 4									
T 22	20 26	0 26	5 5	21 3	0 32	25 57	3 8	12 4	2 13	22 13	0 22	2 49	2 32	22 48	0 26	22 21	1 7	14 47	8 7	23 29	23 29	5 45	17 7	6 4									
W23	20 37	5s23	5 13	21 39	0 42	25 49	3 5	11 51	2 14	22 14	0 22	2 49	2 32	22 48	0 26	22 21	1 7	14 48	8 7	23 29	23 29	5 48	17 7	6 5									
T 24	20 49	10 58	5 1	22 12	0 52	25 41	3 1	11 38	2 16	22 16	0 22	2 49	2 32	22 48	0 26	22 21	1 7	14 48	8 7	23 29	23 29	5 50	17 6	6 5									
F 25	21 0	15 58	4 29	22 43	1 1	25 33	2 57	11 25	2 18	22 18	0 22	2 49	2 31	22 48	0 26	22 21	1 7	14 48	8 6	23 29	23 29	5 53	17 5	6 5									
S 26	21 10	19 59	3 40	23 12	1 10	25 25	2 53	11 11	2 19	22 19	0 22	2 49	2 31	22 49	0 26	22 21	1 7	14 48	8 6	23 29	23 29	5 56	17 5	6 6									
S 27	21 20	22 43	2 38	23 38	1 18	25 16	2 48	10 58	2 21	22 21	0 22	2 49	2 31	22 49	0 26	22 21	1 7	14 48	8 6	23 29	23 29	5 58	17 4	6 6									
M28	21 30	23 57	1 26	24 1	1 26	25 7	2 44	10 44	2 22	22 22	0 22	2 49	2 31	22 49	0 26	22 21	1 7	14 49	8 6	23 29	23 29	6 1	17 4	6 6									
T 29	21 40	23 39	0 11	24 22	1 33	24 58	2 39	10 31	2 24	22 24	0 22	2 49	2 31	22 49	0 26	22 21	1 7	14 49	8 6	23 29	23 29	6 4	17 3	6 6									
W30	21 49	21 56	1n 3	24 40	1 39	24 48	2 33	10 17	2 25	22 26	0 22	2 49	2 30	22 50	0 26	22 21	1 7	14 49	8 6	23 29	23 29	6 6	17 3	6 7									
T 31	21n57	19s 5	2n12	24n55	1n45	24n39	2n27	10s 4	2s27	22n27	0s22	2n48	2n30	22s50	0s26	22s21	1n 7	14n49	8s 6	23s29	23s29	6n 9	17s 2	6n 7									

ASTRODIENST EPHEMERIS for the year 1657

geocentric

JUNE 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	16 39 27	10 ^{II} 43'52	7 [♂] 23	23 ^{II} 0	18 [♂] 47	10 [♂] 45	16 ^{II} 50	28 [♂] 43	17 [♂] R 1	1 [♂] R38	17 ^{II} 26	29 [♂] 57	1 [♂] 0	3 [♂] Y43	20 [♂] R21	F 1
S 2	16 43 24	11°41'15	19°50	24°59	19°11	11°25	17° 3	28°43	16 [♂] 59	1 [♂] 36	17°28	29°58	0°56	3°50	20 [♂] 17	S 2
S 3	16 47 21	12°38'36	2 [♂] 2	26°56	19°35	12° 4	17°17	28°43	16°57	1°35	17°29	29°59	0°53	3°56	20°13	S 3
M 4	16 51 17	13°35'58	14° 3	28°51	19°56	12°43	17°31	28°43	16°55	1°33	17°30	29°R59	0°50	4° 3	20° 9	M 4
T 5	16 55 14	14°33'18	25°58	0 [♂] 44	20°16	13°22	17°45	28°44	16°54	1°32	17°32	29°59	0°47	4°10	20° 5	T 5
W 6	16 59 10	15°30'38	7 [♂] Y51	2°34	20°33	14° 1	17°59	28°44	16°52	1°30	17°33	29°58	0°44	4°17	20° 0	W 6
T 7	17 3 7	16°27'58	19°46	4°22	20°49	14°39	18°12	28°45	16°50	1°29	17°35	29°56	0°41	4°23	19°56	T 7
F 8	17 7 3	17°25'17	1 [♂] 48	6° 7	21° 3	15°18	18°26	28°46	16°48	1°27	17°36	29°55	0°37	4°30	19°52	F 8
S 9	17 11 0	18°22'36	14° 0	7°50	21°15	15°56	18°40	28°47	16°46	1°26	17°38	29°53	0°34	4°37	19°48	S 9
S 10	17 14 56	19°19'55	26°23	9°31	21°24	16°35	18°54	28°47	16°44	1°24	17°39	29°51	0°31	4°43	19°44	S 10
M 11	17 18 53	20°17'13	9 ^{II} 1	11° 9	21°32	17°13	19° 8	28°49	16°42	1°23	17°40	29°50	0°28	4°50	19°40	M 11
T 12	17 22 50	21°14'30	21°54	12°44	21°37	17°51	19°22	28°50	16°40	1°21	17°42	29°50	0°25	4°57	19°36	T 12
W 13	17 26 46	22°11'47	5 [♂] 1	14°17	21°41	18°29	19°35	28°51	16°37	1°19	17°43	29°D50	0°21	5° 4	19°32	W 13
T 14	17 30 43	23° 9'04	18°23	15°47	21°R41	19° 7	19°49	28°52	16°35	1°18	17°45	29°50	0°18	5°10	19°28	T 14
F 15	17 34 39	24° 6'19	1 [♂] 58	17°15	21°40	19°44	20° 3	28°54	16°33	1°16	17°46	29°51	0°15	5°17	19°24	F 15
S 16	17 38 36	25° 3'34	15°46	18°40	21°36	20°22	20°17	28°55	16°31	1°15	17°47	29°51	0°12	5°24	19°19	S 16
S 17	17 42 32	26° 0'49	29°43	20° 3	21°30	20°59	20°30	28°57	16°29	1°13	17°49	29°52	0° 9	5°31	19°15	S 17
M 18	17 46 29	26°58'02	13 [♂] 49	21°22	21°21	21°36	20°44	28°59	16°27	1°11	17°50	29°52	0° 6	5°37	19°11	M 18
T 19	17 50 25	27°55'15	28° 1	22°39	21°10	22°13	20°58	29° 0	16°24	1°10	17°52	29°R52	0° 2	5°44	19° 7	T 19
W 20	17 54 22	28°52'28	12 [♂] 17	23°54	20°57	22°50	21°12	29° 2	16°22	1° 8	17°53	29°52	29 [♂] 59	5°51	19° 3	W 20
T 21	17 58 19	29°49'40	26°33	25° 5	20°41	23°27	21°25	29° 4	16°20	1° 6	17°54	29°D52	29°56	5°57	18°59	T 21
F 22	18 2 15	0 [♂] 46'51	10 [♂] 48	26°14	20°22	24° 3	21°39	29° 6	16°17	1° 5	17°56	29°52	29°53	6° 4	18°55	F 22
S 23	18 6 12	1°44'02	24°58	27°19	20° 2	24°40	21°53	29° 9	16°15	1° 3	17°57	29°52	29°50	6°11	18°51	S 23
S 24	18 10 8	2°41'12	8 [♂] 58	28°22	19°39	25°16	22° 7	29°11	16°13	1° 2	17°59	29°52	29°47	6°18	18°47	S 24
M 25	18 14 5	3°38'23	22°47	29°21	19°14	25°52	22°20	29°13	16°11	1° 0	18° 0	29°52	29°43	6°24	18°44	M 25
T 26	18 18 1	4°35'33	6 [♂] 21	0 [♂] 17	18°47	26°28	22°34	29°16	16° 8	0°58	18° 1	29°R52	29°40	6°31	18°40	T 26
W 27	18 21 58	5°32'43	19°38	1°10	18°19	27° 3	22°47	29°18	16° 6	0°57	18° 3	29°52	29°37	6°38	18°36	W 27
T 28	18 25 55	6°29'53	2 [♂] 37	1°59	17°48	27°38	23° 1	29°21	16° 3	0°55	18° 4	29°51	29°34	6°44	18°32	T 28
F 29	18 29 51	7°27'03	15°19	2°45	17°16	28°14	23°15	29°24	16° 1	0°54	18° 5	29°51	29°31	6°51	18°28	F 29
S 30	18 33 48	8 [♂] 24'14	27 [♂] 45	3 [♂] 27	16 [♂] 42	28 [♂] 49	23 ^{II} 28	29 [♂] 27	15 [♂] 59	0 [♂] 52	18 ^{II} 7	29 [♂] 50	29 [♂] 27	6 [♂] Y58	18 [♂] 25	S 30

Day	☉	☾		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
F 1	22n 6	15s22	3n12	25n 7	1n50	24n30	2n21	9s50	2s29	22n28	0s21	2n48	2n30	22s50	0s26	22s21	1n 7	14n49	8s 6	23s29	23s29	6n12	17s 2	6n 7				
S 2	22 14	11 4	4 2	25 17	1 54	24 20	2 15	9 37	2 30	22 30	0 21	2 48	2 30	22 50	0 26	22 21	1 7	14 50	8 6	23 29	23 29	6 14	17 1	6 7				
S 3	22 21	6 25	4 39	25 24	1 57	24 10	2 8	9 23	2 32	22 31	0 21	2 48	2 29	22 51	0 26	22 21	1 7	14 50	8 6	23 29	23 29	6 17	17 1	6 8				
M 4	22 28	1 37	5 4	25 29	2 0	23 59	2 1	9 10	2 33	22 33	0 21	2 47	2 29	22 51	0 26	22 21	1 7	14 50	8 6	23 29	23 29	6 20	17 0	6 8				
T 5	22 35	3n13	5 15	25 31	2 2	23 49	1 53	8 56	2 35	22 34	0 21	2 47	2 29	22 51	0 26	22 21	1 7	14 50	8 6	23 29	23 29	6 22	17 0	6 8				
W 6	22 42	7 54	5 13	25 31	2 3	23 39	1 45	8 42	2 37	22 35	0 21	2 47	2 29	22 51	0 26	22 21	1 7	14 50	8 6	23 29	23 29	6 25	16 59	6 8				
T 7	22 48	12 19	4 57	25 29	2 4	23 28	1 37	8 29	2 38	22 37	0 21	2 46	2 29	22 52	0 26	22 21	1 7	14 51	8 6	23 29	23 29	6 27	16 59	6 9				
F 8	22 53	16 19	4 28	25 24	2 4	23 17	1 28	8 15	2 40	22 38	0 21	2 46	2 28	22 52	0 26	22 21	1 7	14 51	8 6	23 29	23 29	6 30	16 58	6 9				
S 9	22 58	19 41	3 47	25 18	2 3	23 6	1 19	8 2	2 41	22 39	0 21	2 45	2 28	22 52	0 27	22 21	1 7	14 51	8 6	23 29	23 29	6 33	16 58	6 9				
S 10	23 3	22 13	2 55	25 9	2 1	22 56	1 10	7 48	2 43	22 41	0 21	2 44	2 28	22 52	0 27	22 21	1 7	14 51	8 5	23 29	23 29	6 35	16 57	6 9				
M11	23 8	23 42	1 53	24 59	1 59	22 45	1 0	7 35	2 45	22 42	0 20	2 44	2 28	22 53	0 27	22 21	1 7	14 51	8 5	23 29	23 29	6 38	16 57	6 9				
T 12	23 12	23 58	0 44	24 47	1 55	22 34	0 50	7 21	2 46	22 43	0 20	2 43	2 27	22 53	0 27	22 21	1 7	14 51	8 5	23 29	23 29	6 40	16 56	6 9				
W13	23 15	22 55	0s29	24 34	1 52	22 23	0 39	7 8	2 48	22 44	0 20	2 43	2 27	22 53	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 43	16 56	6 9				
T 14	23 18	20 33	1 41	24 19	1 47	22 12	0 28	6 55	2 49	22 45	0 20	2 42	2 27	22 53	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 46	16 55	6 10				
F 15	23 21	17 1	2 49	24 3	1 42	22 1	0 17	6 41	2 51	22 47	0 20	2 41	2 27	22 54	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 48	16 55	6 10				
S 16	23 23	12 31	3 48	23 46	1 36	21 50	0 5	6 28	2 53	22 48	0 20	2 40	2 26	22 54	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 51	16 55	6 10				
S 17	23 25	7 19	4 34	23 28	1 30	21 39	0s 7	6 15	2 54	22 49	0 20	2 39	2 26	22 54	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 54	16 54	6 10				
M18	23 27	1 41	5 5	23 8	1 23	21 28	0 19	6 1	2 56	22 50	0 20	2 38	2 26	22 55	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 56	16 54	6 10				
T 19	23 28	4s 3	5 17	22 48	1 15	21 17	0 32	5 48	2 57	22 51	0 20	2 37	2 26	22 55	0 27	22 21	1 7	14 52	8 5	23 29	23 29	6 59	16 54	6 10				
W20	23 29	9 36	5 9	22 28	1 7	21 7	0 45	5 35	2 59	22 52	0 20	2 37	2 26	22 55	0 27	22 21	1 7	14 52	8 5	23 29	23 29	7 1	16 53	6 10				
T 21	23 29	14 39	4 43	22 6	0 58	20 56	0 58	5 22	3 1	22 53	0 20	2 35	2 25	22 56	0 27	22 21	1 7	14 53	8 5	23 29	23 29	7 4	16 53	6 10				
F 22	23 29	18 53	4 0	21 44	0 48	20 45	1 12	5 9	3 2	22 54	0 19	2 34	2 25	22 56	0 27	22 21	1 7	14 53	8 5	23 29	23 29	7 6	16 53	6 10				
S 23	23 28	21 59	3 2	21 22	0 38	20 35	1 25	4 56	3 4	22 55	0 19	2 33	2 25	22 56	0 27	22 22	1 7	14 53	8 5	23 29	23 29	7 9	16 52	6 10				
S 24	23 27	23 42	1 53	20 59	0 28	20 24	1 39	4 43	3 5	22 56	0 19	2 32	2 25	22 56	0 27	22 22	1 7	14 53	8 5	23 29	23 29	7 12	16 52	6 10				
M25	23 26	23 56	0 39	20 36	0 17	20 14	1 54	4 30	3 7	22 56	0 19	2 31	2 24	22 57	0 27	22 22	1 7	14 53	8 5	23 29	23 29	7 14	16 52	6 10				
T 26	23 24	22 44	0n36	20 13	0 5	20 3	2 8	4 17	3 8	22 57	0 19	2 30	2 24	22 57	0 27	22 22	1 7	14 53	8 5	23 29	23 29	7 17	16 51	6 10				
W27	23 22	20 16	1 47	19 50	0s 7	19 53	2 22	4 5	3 10	22 58	0 19	2 29	2 24	22 57	0 27	22 22	1 7	14 53	8 5	23 29	23 29	7 19	16 51	6 10				
T 28	23 19	16 50	2 52	19 27	0 19	19 43	2 36	3 52	3 12	22 59	0 19	2 27	2 24	22 58	0 27	22 22	1 7	14 53	8 5	23 29	23 29	7 22	16 51	6 10				
F 29	23 16	12 40	3 46	19 4	0 32	19 33	2 50	3 40	3 13	23 0	0 19	2 26	2 24	22 58	0 27	22 22	1 7	14 54	8 5	23 29	23 29	7 25	16 51	6 10				
S 30	23n13	8s 5	4n28	18n41	0s45	19n23	3s 4	3s27	3s15	23n 1	0s19	2n25	2n23	22s58	0s27	22s22	1n 7	14n54	8s 5	23s29	23s29	7n27	16s50	6n10				

ASTRODIENST EPHEMERIS for the year 1657

geocentric

JULY 1657 GC

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	18 37 44	9°21'24"	9°57'	4°06'	16°R 8	29°23'	23°14'	29°30'	15°R56	0°R50	18°11'	29°R48	29°24'	7°11'	18°R21	S 1
M 2	18 41 41	10°18'35"	21°59'	4°40'	15°32'	29°58'	23°55'	29°33'	15°35'	0°49'	18°9'	29°R48	29°21'	7°11'	18°R17	M 2
T 3	18 45 37	11°15'46"	3°15'	5°10'	14°55'	0°13'	24°9'	29°36'	15°52'	0°47'	18°11'	29°47'	29°18'	7°18'	18°14'	T 3
W 4	18 49 34	12°12'57"	15°48'	5°36'	14°18'	1°6'	24°22'	29°39'	15°49'	0°46'	18°12'	29°D47	29°15'	7°25'	18°10'	W 4
T 5	18 53 30	13°10'09"	27°44'	5°58'	13°41'	1°40'	24°35'	29°42'	15°47'	0°44'	18°13'	29°47'	29°12'	7°32'	18°7'	T 5
F 6	18 57 27	14°7'22"	9°47'	6°15'	13°3'	2°13'	24°49'	29°46'	15°44'	0°42'	18°15'	29°48'	29°8'	7°38'	18°3'	F 6
S 7	19 1 24	15°4'35"	22°1'	6°28'	12°26'	2°47'	25°2'	29°49'	15°42'	0°41'	18°16'	29°49'	29°5'	7°45'	18°0'	S 7
S 8	19 5 20	16°1'48"	4°11'31"	6°36'	11°49'	3°20'	25°15'	29°53'	15°39'	0°39'	18°17'	29°51'	29°2'	7°52'	17°57'	S 8
M 9	19 9 17	16°59'02"	17°19'	6°R39	11°13'	3°52'	25°29'	29°56'	15°37'	0°38'	18°18'	29°52'	28°59'	7°58'	17°53'	M 9
T 10	19 13 13	17°56'17"	0°26'	6°38'	10°38'	4°25'	25°42'	0°0'	15°35'	0°36'	18°20'	29°R52	28°56'	8°5'	17°50'	T 10
W11	19 17 10	18°53'32"	13°53'	6°31'	10°3'	4°57'	25°55'	0°4'	15°32'	0°35'	18°21'	29°52'	28°53'	8°12'	17°47'	W11
T 12	19 21 6	19°50'47"	27°40'	6°20'	9°30'	5°29'	26°8'	0°8'	15°30'	0°33'	18°22'	29°50'	28°49'	8°19'	17°44'	T 12
F 13	19 25 3	20°48'03"	11°42'	6°4'	8°58'	6°0'	26°22'	0°12'	15°27'	0°32'	18°23'	29°48'	28°46'	8°25'	17°41'	F 13
S 14	19 28 59	21°45'19"	25°57'	5°44'	8°28'	6°31'	26°35'	0°16'	15°25'	0°30'	18°25'	29°45'	28°43'	8°32'	17°38'	S 14
S 15	19 32 56	22°42'35"	10°19'	5°19'	8°0'	7°2'	26°48'	0°20'	15°23'	0°29'	18°26'	29°42'	28°40'	8°39'	17°35'	S 15
M16	19 36 53	23°39'52"	24°43'	4°50'	7°34'	7°33'	27°1'	0°24'	15°20'	0°27'	18°27'	29°39'	28°37'	8°46'	17°32'	M16
T 17	19 40 49	24°37'09"	9°4'	4°17'	7°9'	8°3'	27°14'	0°28'	15°18'	0°26'	18°28'	29°38'	28°33'	8°52'	17°29'	T 17
W18	19 44 46	25°34'26"	23°20'	3°41'	6°47'	8°33'	27°27'	0°33'	15°15'	0°24'	18°29'	29°D37	28°30'	8°59'	17°26'	W18
T 19	19 48 42	26°31'43"	7°12'28"	3°2'	6°27'	9°2'	27°39'	0°37'	15°13'	0°23'	18°30'	29°37'	28°27'	9°6'	17°24'	T 19
F 20	19 52 39	27°29'01"	21°25'	2°21'	6°9'	9°31'	27°52'	0°42'	15°11'	0°22'	18°32'	29°38'	28°24'	9°12'	17°21'	F 20
S 21	19 56 35	28°26'20"	5°11'	1°38'	5°54'	10°0'	28°5'	0°46'	15°8'	0°20'	18°33'	29°40'	28°21'	9°19'	17°19'	S 21
S 22	20 0 32	29°23'39"	18°46'	0°55'	5°41'	10°29'	28°18'	0°51'	15°6'	0°19'	18°34'	29°41'	28°18'	9°26'	17°16'	S 22
M23	20 4 28	0°20'58"	2°3'	0°11'	5°30'	10°57'	28°30'	0°56'	15°4'	0°17'	18°35'	29°R41	28°14'	9°33'	17°14'	M23
T 24	20 8 25	1°18'18"	15°19'	29°28'	5°22'	11°24'	28°43'	1°1'	15°2'	0°16'	18°36'	29°40'	28°11'	9°39'	17°11'	T 24
W25	20 12 22	2°15'39"	28°17'	28°47'	5°16'	11°52'	28°56'	1°5'	14°59'	0°15'	18°37'	29°38'	28°8'	9°46'	17°9'	W25
T 26	20 16 18	3°13'00"	11°1'	28°8'	5°12'	12°18'	29°8'	1°10'	14°57'	0°13'	18°38'	29°34'	28°5'	9°53'	17°7'	T 26
F 27	20 20 15	4°10'23"	23°33'	27°32'	5°D11	12°45'	29°20'	1°15'	14°55'	0°12'	18°39'	29°28'	28°2'	9°59'	17°5'	F 27
S 28	20 24 11	5°7'46"	5°52'	27°0'	5°12'	13°11'	29°33'	1°21'	14°53'	0°11'	18°40'	29°22'	27°58'	10°6'	17°3'	S 28
S 29	20 28 8	6°5'10"	18°1'	26°32'	5°16'	13°36'	29°45'	1°26'	14°50'	0°10'	18°41'	29°16'	27°55'	10°13'	17°1'	S 29
M30	20 32 4	7°2'36"	0°1'	26°9'	5°22'	14°1'	29°57'	1°31'	14°48'	0°8'	18°42'	29°11'	27°52'	10°20'	16°59'	M30
T 31	20 36 1	8°0'02"	11°1'55"	25°51'	5°29'	14°1'26"	0°10'	1°36'	14°46'	0°7'	18°43'	29°1'	27°49'	10°1'26"	16°57'	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	23n 9	3s15	4n58	18n19	0s59	19n14	3s18	3s15	3s16	23n 1	0s19	2n23	2n23	22s58	0s27	22s22
M 2	23 5	1n37	5 13	17 57	1 13	19 4	3 32	3 2	3 18	23 2	0 19	2 22	2 23	22 59	0 27	22 22
T 3	23 0	6 23	5 15	17 36	1 27	18 55	3 45	2 50	3 19	23 3	0 19	2 21	2 23	22 59	0 27	22 22
W 4	22 55	10 54	5 4	17 16	1 41	18 46	3 58	2 38	3 21	23 3	0 18	2 19	2 22	22 59	0 27	22 22
T 5	22 50	15 2	4 39	16 57	1 56	18 37	4 11	2 26	3 23	23 4	0 18	2 18	2 22	23 0	0 27	22 22
F 6	22 44	18 36	4 3	16 38	2 11	18 29	4 23	2 14	3 24	23 5	0 18	2 16	2 22	23 0	0 27	22 22
S 7	22 38	21 26	3 14	16 21	2 25	18 20	4 35	2 2	3 26	23 5	0 18	2 14	2 22	23 0	0 27	22 22
S 8	22 31	23 18	2 15	16 5	2 40	18 13	4 46	1 51	3 27	23 6	0 18	2 13	2 22	23 1	0 27	22 22
M 9	22 24	24 1	1 9	15 50	2 54	18 5	4 56	1 39	3 29	23 6	0 18	2 11	2 21	23 1	0 27	22 22
T 10	22 17	23 26	0s 3	15 36	3 9	17 58	5 6	1 28	3 30	23 7	0 18	2 10	2 21	23 1	0 27	22 22
W11	22 9	21 29	1 17	15 24	3 23	17 51	5 16	1 16	3 32	23 7	0 18	2 8	2 21	23 1	0 27	22 22
T 12	22 1	18 16	2 27	15 14	3 36	17 45	5 24	1 5	3 33	23 8	0 18	2 6	2 21	23 2	0 27	22 22
F 13	21 52	13 56	3 30	15 5	3 49	17 39	5 32	0 54	3 35	23 8	0 18	2 4	2 21	23 2	0 27	22 22
S 14	21 43	8 48	4 21	14 58	4 1	17 34	5 40	0 43	3 36	23 9	0 18	2 3	2 20	23 2	0 27	22 22
S 15	21 34	3 9	4 56	14 53	4 13	17 29	5 46	0 32	3 38	23 9	0 18	2 1	2 20	23 3	0 27	22 22
M16	21 24	2s41	5 13	14 50	4 23	17 24	5 52	0 21	3 39	23 9	0 18	1 59	2 20	23 3	0 27	22 22
T 17	21 14	8 20	5 10	14 49	4 32	17 20	5 58	0 11	3 41	23 10	0 17	1 57	2 20	23 3	0 27	22 22
W18	21 4	13 32	4 47	14 50	4 40	17 17	6 2	0 1	3 42	23 10	0 17	1 55	2 20	23 3	0 27	22 22
T 19	20 53	17 56	4 8	14 52	4 46	17 14	6 6	0n10	3 44	23 10	0 17	1 53	2 20	23 4	0 27	22 22
F 20	20 42	21 17	3 14	14 56	4 51	17 11	6 9	0 20	3 45	23 11	0 17	1 51	2 19	23 4	0 27	22 22
S 21	20 31	23 20	2 10	15 3	4 54	17 9	6 12	0 30	3 47	23 11	0 17	1 49	2 19	23 4	0 27	22 22
S 22	20 19	24 0	0 59	15 10	4 56	17 8	6 14	0 40	3 48	23 11	0 17	1 47	2 19	23 4	0 27	22 22
M23	20 7	23 15	0n13	15 20	4 56	17 7	6 16	0 49	3 49	23 12	0 17	1 45	2 19	23 5	0 27	22 22
T 24	19 54	21 12	1 24	15 31	4 54	17 6	6 17	0 59	3 51	23 12	0 17	1 43	2 19	23 5	0 27	22 22
W25	19 42	18 6	2 30	15 43	4 50	17 6	6 17	1 8	3 52	23 12	0 17	1 41	2 18	23 5	0 27	22 22
T 26	19 28	14 11	3 26	15 56	4 44	17 6	6 17	1 17	3 54	23 12	0 17	1 39	2 18	23 5	0 27	22 22
F 27	19 15	9 44	4 12	16 10	4 37	17 6	6 17	1 26	3 55	23 12	0 17	1 37	2 18	23 6	0 27	22 22
S 28	19 1	4 58	4 45	16 24	4 28	17 7	6 16	1 35	3 56	23 12	0 17	1 34	2 18	23 6	0 27	22 22
S 29	18 47	0 5	5 4	16 40	4 18	17 8	6 15	1 44	3 58	23 12	0 17	1 32	2 18	23 6	0 27	22 23
M30	18 33	4n45	5 10	16 55	4 7	17 10	6 13	1 52	3 59	23 13	0 16	1 30	2 18	23 6	0 27	22 23
T 31	18n18	9n21	5n 2	17n11	3s54	17n11	6s11	2n 1	4s 0	23n13	0s16	1n28	2n17	23s 7	0s27	22s23

Julian Day Number = 2326448.5, Delta T = 38.10 sec
 Ecliptic obliquity = 23°29'01", Nutation = 0°00'18", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°57'35", Lahiri = 19°04'35"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657
geocentric

AUGUST 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	20 39 57	8♂57°30	23♂47	25°R40	5♂39	14♂50	0♂22	1♂42	14°R44	0°R 6	18♂44	29°R 3	27♂46	10♂33	16°R56	W 1
T 2	20 43 54	9°55'00	5♂42	25°D34	5°52	15°14	0°34	1°47	14♂42	0♂ 5	18°45	29°D 2	27°43	10°40	16♂54	T 2
F 3	20 47 51	10°52'30	17°43	25♂35	6° 6	15°37	0°46	1°52	14°40	0° 4	18°46	29♂ 2	27°39	10°46	16°53	F 3
S 4	20 51 47	11°50'02	29°56	25°43	6°22	15°59	0°58	1°58	14°38	0° 3	18°47	29° 3	27°36	10°53	16°51	S 4
S 5	20 55 44	12°47'36	12♂26	25°58	6°40	16°21	1°10	2° 4	14°36	0° 2	18°48	29° 4	27°33	11° 0	16°50	S 5
M 6	20 59 40	13°45'10	25°17	26°20	7° 0	16°43	1°22	2° 9	14°34	0° 0	18°49	29°R 5	27°30	11° 7	16°48	M 6
T 7	21 3 37	14°42'47	8♂32	26°49	7°22	17° 4	1°33	2°15	14°32	29♂59	18°50	29° 5	27°27	11°13	16°47	T 7
W 8	21 7 33	15°40'24	22°13	27°25	7°45	17°24	1°45	2°21	14°30	29°58	18°51	29° 3	27°24	11°20	16°46	W 8
T 9	21 11 30	16°38'03	6♂17	28° 7	8°10	17°44	1°56	2°27	14°28	29°57	18°51	28°59	27°20	11°27	16°45	T 9
F 10	21 15 26	17°35'44	20°43	28°57	8°37	18° 3	2° 8	2°32	14°26	29°56	18°52	28°52	27°17	11°34	16°44	F 10
S 11	21 19 23	18°33'25	5♂25	29°53	9° 5	18°22	2°19	2°38	14°24	29°56	18°53	28°45	27°14	11°40	16°43	S 11
S 12	21 23 20	19°31'08	20°13	0♂55	9°35	18°40	2°31	2°44	14°22	29°55	18°54	28°37	27°11	11°47	16°43	S 12
M13	21 27 16	20°28'51	5♂ 1	2° 4	10° 6	18°57	2°42	2°50	14°20	29°54	18°55	28°30	27° 8	11°54	16°42	M13
T 14	21 31 13	21°26'36	19°41	3°19	10°39	19°13	2°53	2°57	14°18	29°53	18°55	28°25	27° 4	12° 0	16°41	T 14
W15	21 35 9	22°24'22	4♂ 7	4°39	11°12	19°29	3° 4	3° 3	14°17	29°52	18°56	28°21	27° 1	12° 7	16°41	W15
T 16	21 39 6	23°22'10	18°16	6° 5	11°48	19°45	3°15	3° 9	14°15	29°51	18°57	28°D20	26°58	12°14	16°41	T 16
F 17	21 43 2	24°19'58	2♂ 6	7°36	12°24	19°59	3°26	3°15	14°13	29°50	18°58	28°20	26°55	12°21	16°40	F 17
S 18	21 46 59	25°17'48	15°39	9°11	13° 2	20°13	3°37	3°21	14°12	29°50	18°58	28°21	26°52	12°27	16°40	S 18
S 19	21 50 55	26°15'38	28°56	10°50	13°41	20°26	3°48	3°28	14°10	29°49	18°59	28°R21	26°49	12°34	16°40	S 19
M20	21 54 52	27°13'31	11♂58	12°33	14°20	20°39	3°58	3°34	14° 9	29°48	19° 0	28°20	26°45	12°41	16°D40	M20
T 21	21 58 49	28°11'24	24°48	14°20	15° 1	20°51	4° 9	3°41	14° 7	29°48	19° 0	28°17	26°42	12°47	16°40	T 21
W22	22 2 45	29° 9'19	7♂26	16° 9	15°43	21° 2	4°19	3°47	14° 6	29°47	19° 1	28°12	26°39	12°54	16°40	W22
T 23	22 6 42	0♂ 7'15	19°54	18° 0	16°26	21°12	4°30	3°54	14° 4	29°46	19° 1	28° 4	26°36	13° 1	16°40	T 23
F 24	22 10 38	1° 5'12	2♂13	19°53	17°10	21°22	4°40	4° 0	14° 3	29°46	19° 2	27°53	26°33	13° 8	16°41	F 24
S 25	22 14 35	2° 3'12	14°23	21°48	17°55	21°30	4°50	4° 7	14° 1	29°45	19° 2	27°42	26°30	13°14	16°41	S 25
S 26	22 18 31	3° 1'13	26°26	23°44	18°41	21°38	5° 0	4°13	14° 0	29°45	19° 3	27°30	26°26	13°21	16°42	S 26
M27	22 22 28	3°59'15	8♂22	25°40	19°28	21°45	5°10	4°20	13°59	29°44	19° 3	27°18	26°23	13°28	16°42	M27
T 28	22 26 24	4°57'20	20°14	27°37	20°15	21°52	5°20	4°27	13°57	29°44	19° 4	27° 9	26°20	13°34	16°43	T 28
W29	22 30 21	5°55'26	2♂ 4	29°34	21° 4	21°57	5°30	4°34	13°56	29°43	19° 4	27° 1	26°17	13°41	16°44	W29
T 30	22 34 18	6°53'35	13°57	1♂31	21°53	22° 2	5°39	4°40	13°55	29°43	19° 5	26°57	26°14	13°48	16°45	T 30
F 31	22 38 14	7♂51'45	25♂56	3♂28	22♂43	22♂ 6	5♂49	4♂47	13♂54	29♂43	19♂ 5	26♂54	26♂10	13♂55	16♂46	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	decl lat	decl lat
W 1	18n 3	13n37	4n42	17n27	3s40	17n13	6s 9	2n 9	4s 1	23n13	0s16	1n25	2n17	23s 7	0s27	22s23
T 2	17 48	17 21	4 9	17 42	3 26	17 15	6 6	2 17	4 3	23 13	0 16	1 23	2 17	23 7	0 27	22 23
F 3	17 32	20 26	3 25	17 57	3 10	17 18	6 3	2 24	4 4	23 13	0 16	1 21	2 17	23 7	0 27	22 23
S 4	17 16	22 38	2 31	18 11	2 54	17 20	6 0	2 32	4 5	23 13	0 16	1 19	2 17	23 8	0 27	22 23
S 5	17 0	23 48	1 29	18 24	2 38	17 23	5 56	2 39	4 6	23 13	0 16	1 16	2 17	23 8	0 27	22 23
M 6	16 44	23 45	0 21	18 37	2 21	17 26	5 53	2 46	4 8	23 13	0 16	1 14	2 17	23 8	0 27	22 23
T 7	16 27	22 22	0s51	18 48	2 5	17 29	5 49	2 53	4 9	23 13	0 16	1 11	2 16	23 8	0 27	22 23
W 8	16 10	19 39	2 1	18 57	1 48	17 31	5 45	3 0	4 10	23 12	0 16	1 9	2 16	23 8	0 27	22 23
T 9	15 53	15 43	3 7	19 5	1 31	17 34	5 40	3 6	4 11	23 12	0 16	1 7	2 16	23 9	0 27	22 23
F 10	15 35	10 47	4 2	19 12	1 15	17 37	5 36	3 12	4 12	23 12	0 16	1 4	2 16	23 9	0 27	22 23
S 11	15 18	5 11	4 42	19 16	0 58	17 40	5 31	3 19	4 13	23 12	0 16	1 2	2 16	23 9	0 27	22 23
S 12	15 0	0s46	5 3	19 18	0 43	17 43	5 26	3 24	4 14	23 12	0 16	0 59	2 16	23 9	0 27	22 23
M13	14 41	6 39	5 4	19 18	0 27	17 46	5 21	3 30	4 15	23 12	0 15	0 57	2 16	23 9	0 27	22 23
T 14	14 23	12 7	4 46	19 15	0 13	17 49	5 16	3 35	4 16	23 12	0 15	0 54	2 16	23 10	0 27	22 23
W15	14 4	16 49	4 9	19 9	0n 1	17 51	5 11	3 40	4 17	23 12	0 15	0 51	2 15	23 10	0 27	22 23
T 16	13 45	20 28	3 18	19 1	0 15	17 54	5 5	3 45	4 18	23 11	0 15	0 49	2 15	23 10	0 27	22 23
F 17	13 26	22 50	2 16	18 51	0 27	17 56	5 0	3 50	4 19	23 11	0 15	0 46	2 15	23 10	0 27	22 23
S 18	13 7	23 50	1 8	18 37	0 39	17 58	4 54	3 55	4 20	23 11	0 15	0 44	2 15	23 10	0 27	22 23
S 19	12 47	23 26	0n 3	18 21	0 50	18 0	4 48	3 59	4 20	23 11	0 15	0 41	2 15	23 10	0 27	22 23
M20	12 27	21 45	1 12	18 1	1 0	18 2	4 43	4 3	4 21	23 10	0 15	0 38	2 15	23 11	0 27	22 23
T 21	12 8	18 58	2 16	17 39	1 8	18 3	4 37	4 6	4 22	23 10	0 15	0 36	2 15	23 11	0 27	22 23
W22	11 47	15 21	3 13	17 15	1 16	18 4	4 31	4 10	4 22	23 10	0 15	0 33	2 15	23 11	0 27	22 23
T 23	11 27	11 6	3 59	16 47	1 23	18 5	4 25	4 13	4 23	23 10	0 15	0 30	2 15	23 11	0 27	22 23
F 24	11 7	6 27	4 33	16 17	1 29	18 6	4 19	4 16	4 23	23 9	0 15	0 28	2 14	23 11	0 27	22 23
S 25	10 46	1 38	4 54	15 45	1 35	18 6	4 13	4 19	4 24	23 9	0 15	0 25	2 14	23 11	0 27	22 24
S 26	10 25	3n12	5 2	15 11	1 39	18 6	4 7	4 22	4 24	23 9	0 15	0 22	2 14	23 11	0 27	22 24
M27	10 4	7 52	4 57	14 35	1 42	18 6	4 1	4 24	4 25	23 8	0 14	0 20	2 14	23 12	0 27	22 24
T 28	9 43	12 13	4 38	13 57	1 44	18 5	3 55	4 26	4 25	23 8	0 14	0 17	2 14	23 12	0 27	22 24
W29	9 21	16 6	4 8	13 18	1 46	18 4	3 48	4 28	4 25	23 8	0 14	0 14	2 14	23 12	0 27	22 24
T 30	9 0	19 21	3 27	12 37	1 47	18 3	3 42	4 29	4 25	23 8	0 14	0 11	2 14	23 12	0 27	22 24
F 31	8n38	21n48	2n37	11n55	1n47	18n 1	3s36	4n31	4s26	23n 7	0s14	0n 9	2n14	23s12	0s27	22s24

Julian Day Number = 2326479.5, Delta T = 38.04 sec
Ecliptic obliquity = 23°29'01, Nutation = 0°00'18, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°57'39, Lahiri = 19°04'39Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657

geocentric

SEPTEMBER 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 42 11	8 ^h 49'58	8 ^h 11' 6	5 ^h 25' 25	23 ^h 33' 33	22 ^h 0' 8	5 ^h 58' 58	4 ^h 54' 54	13 ^h R53	29 ^h R42	19 ^h II 6	26 ^h D53	26 ^h 7' 7	14 ^h Y 1	16 ^h 7'47	S 1
S 2	22 46 7	9°48'12	20°33	7°20	24°25	22°10	6° 8	5° 1	13 ^h 352	29 ^h 7'42	19° 6	26°R54	26° 4	14° 8	16°48	S 2
M 3	22 50 4	10°46'29	3 ^h 21	9°15	25°17	22°12	6°17	5° 8	13°51	29°42	19° 6	26°7'54	26° 1	14°15	16°49	M 3
T 4	22 54 0	11°44'47	16°34	11°10	26° 9	22°R12	6°26	5°15	13°50	29°41	19° 7	26°52	25°58	14°21	16°50	T 4
W 5	22 57 57	12°43'08	0 ^h 17	13° 3	27° 3	22°11	6°35	5°22	13°49	29°41	19° 7	26°49	25°55	14°28	16°52	W 5
T 6	23 1 53	13°41'31	14°28	14°55	27°57	22°10	6°44	5°29	13°48	29°41	19° 7	26°42	25°51	14°35	16°53	T 6
F 7	23 5 50	14°39'55	29° 6	16°47	28°51	22° 7	6°52	5°36	13°48	29°41	19° 7	26°34	25°48	14°42	16°55	F 7
S 8	23 9 47	15°38'22	14 ^h 11' 5	18°37	29°46	22° 4	7° 1	5°43	13°47	29°41	19° 8	26°23	25°45	14°48	16°57	S 8
S 9	23 13 43	16°36'51	29°14	20°26	0 ^h 42	22° 0	7° 9	5°50	13°46	29°41	19° 8	26°12	25°42	14°55	16°58	S 9
M10	23 17 40	17°35'21	14 ^h 24	22°14	1°38	21°55	7°18	5°57	13°45	29°41	19° 8	26° 2	25°39	15° 2	17° 0	M10
T 11	23 21 36	18°33'53	29°24	24° 2	2°34	21°49	7°26	6° 4	13°45	29°D41	19° 8	25°53	25°36	15° 8	17° 2	T 11
W12	23 25 33	19°32'27	14 ^h 11' 7	25°48	3°32	21°42	7°34	6°11	13°44	29°41	19° 8	25°48	25°32	15°15	17° 4	W12
T 13	23 29 29	20°31'02	28°26	27°33	4°29	21°35	7°42	6°19	13°44	29°41	19° 9	25°44	25°29	15°22	17° 6	T 13
F 14	23 33 26	21°29'40	12 ^h 7' 1	29°17	5°27	21°26	7°50	6°26	13°43	29°41	19° 9	25°43	25°26	15°29	17° 9	F 14
S 15	23 37 22	22°28'19	25°51	1 ^h 0	6°26	21°17	7°57	6°33	13°43	29°41	19° 9	25°43	25°23	15°35	17°11	S 15
S 16	23 41 19	23°26'59	9 ^h 3 1	2°42	7°25	21° 7	8° 5	6°40	13°43	29°41	19° 9	25°43	25°20	15°42	17°13	S 16
M17	23 45 16	24°25'41	21°51	4°23	8°24	20°56	8°12	6°47	13°42	29°41	19° 9	25°41	25°16	15°49	17°16	M17
T 18	23 49 12	25°24'25	4 ^h 27	6° 3	9°24	20°45	8°19	6°55	13°42	29°42	19°R 9	25°37	25°13	15°55	17°18	T 18
W19	23 53 9	26°23'11	16°51	7°42	10°24	20°32	8°27	7° 2	13°42	29°42	19° 9	25°30	25°10	16° 2	17°21	W19
T 20	23 57 5	27°21'59	29° 6	9°20	11°25	20°19	8°33	7° 9	13°42	29°42	19° 9	25°20	25° 7	16° 9	17°24	T 20
F 21	0 1 2	28°20'48	11 ^h 13	10°57	12°26	20° 6	8°40	7°17	13°42	29°42	19° 9	25° 8	25° 4	16°16	17°26	F 21
S 22	0 4 58	29°19'39	23°14	12°33	13°27	19°51	8°47	7°24	13°41	29°43	19° 9	24°54	25° 1	16°22	17°29	S 22
S 23	0 8 55	0 ^h 18'32	5 ^h Y10	14° 9	14°29	19°37	8°53	7°31	13°D41	29°43	19° 9	24°40	24°57	16°29	17°32	S 23
M24	0 12 51	1°17'28	17° 3	15°43	15°31	19°21	9° 0	7°39	13°42	29°44	19° 9	24°26	24°54	16°36	17°35	M24
T 25	0 16 48	2°16'25	28°54	17°17	16°33	19° 5	9° 6	7°46	13°42	29°44	19° 8	24°14	24°51	16°42	17°38	T 25
W26	0 20 44	3°15'25	10 ^h 8'45	18°50	17°36	18°48	9°12	7°53	13°42	29°44	19° 8	24° 5	24°48	16°49	17°42	W26
T 27	0 24 41	4°14'27	22°39	20°21	18°39	18°31	9°18	8° 1	13°42	29°45	19° 8	23°58	24°45	16°56	17°45	T 27
F 28	0 28 38	5°13'31	4 ^h II38	21°52	19°43	18°14	9°23	8° 8	13°42	29°46	19° 8	23°55	24°41	17° 3	17°48	F 28
S 29	0 32 34	6°12'37	16°47	23°23	20°47	17°56	9°29	8°15	13°43	29°46	19° 8	23°53	24°38	17° 9	17°52	S 29
S 30	0 36 31	7 ^h 11'46	29 ^h II11	24 ^h 52	21 ^h 15	17 ^h Y38	9 ^h 34	8 ^h 23	13 ^h 343	29 ^h 7'47	19 ^h II 8	23°D53	24 ^h 7'35	17 ^h Y16	17 ^h 7'55	S 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	
S 1	8n16	23n19 1n38	11n12 1n47	17n59 3s30	4n32 4s26	23n 7 0s14	0n 6 2n14	23s12 0s27	22s24 1n 5	14n53 8s11	23s27 23s26	10n 3 17s 1	5n50			
S 2	7 54	23 42 0 34	10 28 1 46	17 56 3 23	4 32 4 26	23 6 0 14	0 3 2 14	23 12 0 27	22 24 1 5	14 53 8 11	23 27 23 26	10 5 17 2	5 50			
M 3	7 32	22 52 0s34	9 43 1 44	17 53 3 17	4 33 4 26	23 6 0 14	0 0 2 14	23 12 0 27	22 24 1 5	14 53 8 11	23 27 23 25	10 8 17 2	5 49			
T 4	7 10	20 46 1 42	8 57 1 41	17 50 3 11	4 33 4 25	23 6 0 14	0s 3 2 14	23 12 0 27	22 24 1 5	14 53 8 11	23 27 23 25	10 10 17 3	5 49			
W 5	6 48	17 25 2 47	8 11 1 39	17 46 3 5	4 33 4 25	23 5 0 14	0 5 2 14	23 12 0 27	22 24 1 5	14 53 8 11	23 27 23 25	10 12 17 3	5 49			
T 6	6 25	12 57 3 43	7 25 1 35	17 42 2 58	4 33 4 25	23 5 0 14	0 8 2 13	23 13 0 27	22 24 1 5	14 52 8 11	23 27 23 25	10 15 17 4	5 48			
F 7	6 3	7 38 4 27	6 38 1 32	17 37 2 52	4 32 4 24	23 5 0 14	0 11 2 13	23 13 0 27	22 24 1 5	14 52 8 11	23 26 23 25	10 17 17 4	5 48			
S 8	5 40	1 45 4 54	5 51 1 28	17 32 2 46	4 32 4 24	23 4 0 14	0 14 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 26 23 25	10 20 17 5	5 47			
S 9	5 18	4s17 5 0	5 4 1 23	17 26 2 40	4 31 4 23	23 4 0 14	0 17 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 26 23 25	10 22 17 5	5 47			
M10	4 55	10 4 4 45	4 17 1 18	17 20 2 34	4 30 4 23	23 3 0 13	0 20 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 25 23 25	10 24 17 6	5 46			
T 11	4 32	15 12 4 11	3 30 1 13	17 14 2 28	4 28 4 22	23 3 0 13	0 23 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 25 23 25	10 27 17 7	5 46			
W12	4 9	19 18 3 21	2 43 1 8	17 7 2 21	4 26 4 21	23 3 0 13	0 25 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 25 23 25	10 29 17 7	5 46			
T 13	3 46	22 6 2 19	1 56 1 2	16 59 2 15	4 25 4 20	23 2 0 13	0 28 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 25 23 24	10 31 17 8	5 45			
F 14	3 23	23 28 1 10	1 9 0 56	16 51 2 9	4 23 4 19	23 2 0 13	0 31 2 13	23 13 0 27	22 24 1 5	14 52 8 12	23 25 23 24	10 34 17 8	5 45			
S 15	3 0	23 24 0n 1	0 22 0 50	16 43 2 3	4 20 4 17	23 2 0 13	0 34 2 13	23 13 0 27	22 24 1 5	14 51 8 13	23 25 23 24	10 36 17 9	5 44			
S 16	2 36	22 1 1 10	0s24 0 44	16 34 1 57	4 18 4 16	23 1 0 13	0 37 2 13	23 13 0 27	22 24 1 5	14 51 8 13	23 25 23 24	10 38 17 10	5 44			
M17	2 13	19 31 2 13	1 10 0 37	16 24 1 51	4 15 4 15	23 1 0 13	0 40 2 13	23 13 0 27	22 25 1 4	14 51 8 13	23 25 23 24	10 41 17 10	5 44			
T 18	1 50	16 7 3 9	1 56 0 31	16 15 1 45	4 12 4 13	23 0 0 13	0 43 2 13	23 13 0 27	22 25 1 4	14 51 8 13	23 25 23 24	10 43 17 11	5 43			
W19	1 26	12 5 3 55	2 42 0 24	16 4 1 39	4 9 4 11	23 0 0 13	0 46 2 13	23 13 0 26	22 25 1 4	14 51 8 13	23 24 23 24	10 45 17 12	5 43			
T 20	1 3	7 36 4 29	3 27 0 17	15 53 1 33	4 6 4 9	23 0 0 13	0 49 2 13	23 13 0 26	22 25 1 4	14 51 8 13	23 24 23 24	10 48 17 12	5 42			
F 21	0 40	2 53 4 51	4 11 0 10	15 42 1 28	4 3 4 8	22 59 0 13	0 51 2 13	23 13 0 26	22 25 1 4	14 51 8 13	23 24 23 23	10 50 17 13	5 42			
S 22	0 16	1n53 4 59	4 55 0 3	15 30 1 22	3 59 4 5	22 59 0 13	0 54 2 13	23 13 0 26	22 25 1 4	14 50 8 13	23 23 23 23	10 52 17 13	5 42			
S 23	0s 7	6 34 4 55	5 39 0s 4	15 18 1 16	3 56 4 3	22 59 0 12	0 57 2 13	23 13 0 26	22 25 1 4	14 50 8 14	23 23 23 23	10 54 17 14	5 41			
M24	0 31	10 58 4 37	6 22 0 11	15 5 1 11	3 52 4 1	22 58 0 12	1 0 2 13	23 13 0 26	22 25 1 4	14 50 8 14	23 22 23 23	10 57 17 15	5 41			
T 25	0 54	14 57 4 7	7 5 0 18	14 52 1 5	3 48 3 59	22 58 0 12	1 3 2 13	23 13 0 26	22 25 1 4	14 50 8 14	23 21 23 23	10 59 17 15	5 40			
W26	1 18	18 21 3 27	7 47 0 16	14 39 0 59	3 44 3 56	22 58 0 12	1 6 2 13	23 13 0 26	22 25 1 4	14 50 8 14	23 21 23 23	11 1 17 16	5 40			
T 27	1 41	21 0 2 37	8 29 0 33	14 24 0 54	3 40 3 53	22 57 0 12	1 9 2 13	23 13 0 26	22 25 1 4	14 50 8 14	23 21 23 23	11 4 17 17	5 40			
F 28	2 5	22 45 1 40	9 10 0 40	14 10 0 49	3 36 3 51	22 57 0 12	1 12 2 13	23 13 0 26	22 25 1 4	14 50 8 14	23 21 23 23	11 6 17 17	5 39			
S 29	2 28	23 27 0 38	9 50 0 47	13 55 0 43	3 32 3 48	22 57 0 12	1 15 2 13	23 13 0 26	22 25 1 4	14 49 8 14	23 21 23 22	11 8 17 18	5 39			
S 30	2s52	23n 1 0s28	10s30 0s55	13n39 0s38	3n28 3s45	22n56 0s12	1s18 2n13	23s13 0s26	22s25 1n 4	14n49 8s15	23s21 23s22	11n11 17s19	5n39			

Julian Day Number = 2326510.5, Delta T = 37.99 sec
 Ecliptic obliquity = 23°29'01, Nutation = 0°00'18, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°57'43, Lahiri = 19°04'44Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657

geocentric

OCTOBER 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	0 40 27	8♌10'57	11♍55	26♌20	22♌55	17°R19	9♍40	8♌30	13♎43	29♌47	19°R 7	23°R53	24♌32	17♌23	17♌59	M 1
T 2	0 44 24	9°10'11	25° 3	27°48	24° 0	17°Y 0	9°45	8°37	13°44	29°48	19°II 7	23°♌52	24°29	17°29	18° 2	T 2
W 3	0 48 20	10° 9'27	8♌38	29°15	25° 5	16°41	9°49	8°45	13°44	29°49	19° 7	23°49	24°26	17°36	18° 6	W 3
T 4	0 52 17	11° 8'45	22°44	0♌41	26°10	16°22	9°54	8°52	13°45	29°50	19° 6	23°44	24°22	17°43	18°10	T 4
F 5	0 56 13	12° 8'05	7♌19	2° 6	27°15	16° 3	9°59	8°59	13°45	29°50	19° 6	23°36	24°19	17°50	18°14	F 5
S 6	1 0 10	13° 7'28	22°18	3°30	28°21	15°44	10° 3	9° 7	13°46	29°51	19° 6	23°27	24°16	17°56	18°18	S 6
S 7	1 4 7	14° 6'53	7♌33	4°53	29°27	15°24	10° 7	9°14	13°47	29°52	19° 5	23°16	24°13	18° 3	18°22	S 7
M 8	1 8 3	15° 6'19	22°53	6°15	0♌33	15° 5	10°11	9°22	13°48	29°53	19° 5	23° 6	24°10	18°10	18°26	M 8
T 9	1 12 0	16° 5'48	8♌6	7°36	1°40	14°46	10°15	9°29	13°48	29°54	19° 4	22°58	24° 7	18°16	18°30	T 9
W10	1 15 56	17° 5'19	23° 3	8°56	2°46	14°27	10°19	9°36	13°49	29°55	19° 4	22°52	24° 3	18°23	18°34	W10
T 11	1 19 53	18° 4'52	7♌37	10°15	3°53	14° 8	10°22	9°44	13°50	29°56	19° 3	22°49	24° 0	18°30	18°38	T 11
F 12	1 23 49	19° 4'27	21°42	11°33	5° 0	13°50	10°25	9°51	13°51	29°57	19° 3	22°D48	23°57	18°37	18°43	F 12
S 13	1 27 46	20° 4'03	5♎20	12°50	6° 8	13°32	10°28	9°58	13°52	29°58	19° 2	22°49	23°54	18°43	18°47	S 13
S 14	1 31 42	21° 3'41	18°32	14° 5	7°15	13°14	10°31	10° 5	13°53	29°59	19° 2	22°R49	23°51	18°50	18°52	S 14
M15	1 35 39	22° 3'21	1♌22	15°18	8°23	12°57	10°34	10°13	13°54	29°59	19° 1	22°49	23°47	18°57	18°56	M15
T 16	1 39 36	23° 3'03	13°53	16°30	9°31	12°40	10°37	10°20	13°55	0♎1	19° 1	22°46	23°44	19° 3	19° 1	T 16
W17	1 43 32	24° 2'46	26°10	17°40	10°39	12°23	10°39	10°27	13°57	0° 2	19° 0	22°42	23°41	19°10	19° 5	W17
T 18	1 47 29	25° 2'31	8♌16	18°48	11°47	12° 7	10°41	10°34	13°58	0° 3	19° 0	22°35	23°38	19°17	19°10	T 18
F 19	1 51 25	26° 2'18	20°16	19°54	12°56	11°52	10°43	10°42	13°59	0° 4	18°59	22°25	23°35	19°24	19°15	F 19
S 20	1 55 22	27° 2'06	2°Y10	20°58	14° 4	11°37	10°45	10°49	14° 1	0° 6	18°58	22°15	23°32	19°30	19°20	S 20
S 21	1 59 18	28° 1'57	14° 3	21°59	15°13	11°23	10°46	10°56	14° 2	0° 7	18°58	22° 4	23°28	19°37	19°25	S 21
M22	2 3 15	29° 1'49	25°55	22°57	16°22	11° 9	10°48	11° 3	14° 3	0° 8	18°57	21°54	23°25	19°44	19°30	M22
T 23	2 7 11	0♌14'3	7♌47	23°52	17°31	10°56	10°49	11°10	14° 5	0°10	18°56	21°44	23°22	19°50	19°35	T 23
W24	2 11 8	1° 1'40	19°42	24°43	18°41	10°44	10°50	11°17	14° 7	0°11	18°56	21°38	23°19	19°57	19°40	W24
T 25	2 15 4	2° 1'38	1♌42	25°31	19°50	10°33	10°50	11°24	14° 8	0°12	18°55	21°33	23°16	20° 4	19°45	T 25
F 26	2 19 1	3° 1'39	13°47	26°14	21° 0	10°22	10°51	11°31	14°10	0°14	18°54	21°31	23°12	20°10	19°50	F 26
S 27	2 22 58	4° 1'41	26° 2	26°52	22°10	10°12	10°51	11°39	14°11	0°15	18°53	21°D31	23° 9	20°17	19°55	S 27
S 28	2 26 54	5° 1'46	8♎30	27°25	23°20	10° 3	10°R52	11°46	14°13	0°17	18°53	21°32	23° 6	20°24	20° 1	S 28
M29	2 30 51	6° 1'52	21°14	27°52	24°30	9°54	10°52	11°52	14°15	0°18	18°52	21°33	23° 3	20°31	20° 6	M29
T 30	2 34 47	7° 2'01	4♌19	28°12	25°40	9°47	10°51	11°59	14°17	0°20	18°51	21°R34	23° 0	20°37	20°11	T 30
W31	2 38 44	8♌2'12	17♌47	28♌25	26♌51	9°Y40	10♎51	12♌6	14♎19	0♎21	18°II50	21♌33	22♌57	20°Y44	20♌17	W31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
M 1	3s15	21n23	1s34	11s 9	1s 2	13n23	0s33	3n24	3s42	22n56	0s12	1s20	2n13	23s13	0s26	M 1
T 2	3 38	18 35	2 37	11 47	1 9	13 7	0 28	3 20	3 39	22 56	0 12	1 23	2 13	23 13	0 26	T 2
W 3	4 2	14 42	3 34	12 25	1 16	12 50	0 22	3 15	3 35	22 55	0 12	1 26	2 13	23 13	0 26	W 3
T 4	4 25	9 52	4 19	13 1	1 23	12 33	0 17	3 11	3 32	22 55	0 12	1 29	2 13	23 12	0 26	T 4
F 5	4 48	4 21	4 50	13 38	1 30	12 15	0 12	3 7	3 29	22 55	0 12	1 32	2 13	23 12	0 26	F 5
S 6	5 11	1s34	5 2	14 13	1 36	11 57	0 8	3 3	3 25	22 55	0 11	1 35	2 13	23 12	0 26	S 6
S 7	5 35	7 29	4 53	14 47	1 43	11 39	0 3	2 59	3 21	22 54	0 11	1 38	2 13	23 12	0 26	S 7
M 8	5 58	12 58	4 23	15 21	1 50	11 20	0n 2	2 55	3 18	22 54	0 11	1 40	2 13	23 12	0 26	M 8
T 9	6 21	17 37	3 34	15 54	1 56	11 0	0 7	2 51	3 14	22 54	0 11	1 43	2 13	23 12	0 26	T 9
W10	6 43	21 1	2 31	16 26	2 2	10 41	0 11	2 47	3 10	22 54	0 11	1 46	2 13	23 12	0 26	W10
T 11	7 6	22 56	1 20	16 57	2 8	10 21	0 16	2 44	3 6	22 54	0 11	1 49	2 13	23 12	0 26	T 11
F 12	7 29	23 19	0 6	17 27	2 14	10 0	0 20	2 40	3 2	22 54	0 11	1 52	2 13	23 12	0 26	F 12
S 13	7 52	22 16	1n 6	17 56	2 19	9 39	0 24	2 37	2 58	22 53	0 11	1 55	2 13	23 12	0 26	S 13
S 14	8 14	20 0	2 13	18 24	2 25	9 18	0 28	2 34	2 54	22 53	0 11	1 57	2 14	23 11	0 26	S 14
M15	8 36	16 48	3 11	18 50	2 30	8 57	0 33	2 31	2 49	22 53	0 11	2 0	2 14	23 11	0 26	M15
T 16	8 59	12 54	3 58	19 16	2 34	8 35	0 37	2 28	2 45	22 53	0 11	2 3	2 14	23 11	0 26	T 16
W17	9 21	8 32	4 33	19 40	2 39	8 13	0 41	2 26	2 41	22 53	0 10	2 6	2 14	23 11	0 26	W17
T 18	9 43	3 55	4 55	20 3	2 43	7 50	0 44	2 24	2 37	22 53	0 10	2 9	2 14	23 11	0 26	T 18
F 19	10 4	0n48	5 4	20 25	2 46	7 28	0 48	2 22	2 33	22 53	0 10	2 11	2 14	23 11	0 26	F 19
S 20	10 26	5 27	5 0	20 45	2 50	7 5	0 52	2 20	2 28	22 53	0 10	2 14	2 14	23 11	0 26	S 20
S 21	10 48	9 54	4 43	21 4	2 52	6 41	0 55	2 18	2 24	22 53	0 10	2 17	2 14	23 10	0 26	S 21
M22	11 9	13 57	4 13	21 21	2 54	6 18	0 59	2 17	2 20	22 53	0 10	2 20	2 14	23 10	0 26	M22
T 23	11 30	17 29	3 33	21 37	2 56	5 54	1 2	2 16	2 15	22 53	0 10	2 22	2 14	23 10	0 26	T 23
W24	11 51	20 18	2 43	21 50	2 57	5 29	1 6	2 15	2 11	22 53	0 10	2 25	2 14	23 10	0 26	W24
T 25	12 12	22 15	1 45	22 2	2 57	5 5	1 9	2 14	2 7	22 53	0 10	2 28	2 14	23 10	0 26	T 25
F 26	12 33	23 11	0 42	22 12	2 56	4 40	1 12	2 14	2 3	22 53	0 10	2 30	2 14	23 10	0 26	F 26
S 27	12 53	23 1	0s24	22 20	2 55	4 16	1 15	2 14	1 59	22 53	0 10	2 33	2 15	23 9	0 26	S 27
S 28	13 13	21 42	1 31	22 25	2 53	3 50	1 18	2 14	1 54	22 53	0 9	2 36	2 15	23 9	0 26	S 28
M29	13 33	19 16	2 34	22 28	2 49	3 25	1 21	2 15	1 50	22 53	0 9	2 38	2 15	23 9	0 26	M29
T 30	13 53	15 48	3 31	22 28	2 45	3 0	1 23	2 15	1 46	22 53	0 9	2 41	2 15	23 9	0 26	T 30
W31	14s13	11n26	4s18	22s25	2s39	2n34	1n26	2n16	1s42	22n53	0s 9	2s43	2n15	23s 9	0s26	W31

Julian Day Number = 2326540.5, Delta T = 37.93 sec
 Ecliptic obliquity = 23°29'01", Nutation = 0°00'17", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°57'47", Lahiri = 19°04'48"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657

geocentric

NOVEMBER 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	2 42 40	9♉ 2'25	1♏41	28°R30	28♏ 2	9°R33	10°R50	12♊13	14♈21	0♈23	18°R49	21°R31	22♏53	20♏51	20♏22	T 1
F 2	2 46 37	10° 2'40	16° 2	28♏.26	29°12	9♏28	10♊49	12°20	14°23	0°24	18♏48	21♏27	22°50	20°57	20°28	F 2
S 3	2 50 33	11° 2'57	0♊46	28°13	0♊23	9°24	10°48	12°27	14°25	0°26	18°47	21°22	22°47	21° 4	20°33	S 3
S 4	2 54 30	12° 3'16	15°48	27°50	1°34	9°20	10°47	12°34	14°27	0°28	18°47	21°16	22°44	21°11	20°39	S 4
M 5	2 58 27	13° 3'37	0♏59	27°18	2°45	9°17	10°46	12°40	14°29	0°29	18°46	21°10	22°41	21°18	20°45	M 5
T 6	3 2 23	14° 4'00	16°10	26°35	3°57	9°15	10°44	12°47	14°31	0°31	18°45	21° 5	22°38	21°24	20°50	T 6
W 7	3 6 20	15° 4'25	1♏10	25°43	5° 8	9°14	10°42	12°54	14°33	0°33	18°44	21° 2	22°34	21°31	20°56	W 7
T 8	3 10 16	16° 4'51	15°50	24°42	6°19	9°D13	10°40	13° 0	14°35	0°34	18°43	21°D 0	22°31	21°38	21° 2	T 8
F 9	3 14 13	17° 5'19	0♈ 5	23°33	7°31	9°14	10°38	13° 7	14°37	0°36	18°42	21° 0	22°28	21°44	21° 8	F 9
S 10	3 18 9	18° 5'48	13°53	22°17	8°43	9°15	10°36	13°13	14°40	0°38	18°41	21° 2	22°25	21°51	21°14	S 10
S 11	3 22 6	19° 6'18	27°14	20°58	9°54	9°17	10°33	13°20	14°42	0°40	18°40	21° 3	22°22	21°58	21°20	S 11
M12	3 26 3	20° 6'50	10♏ 9	19°37	11° 6	9°19	10°30	13°26	14°44	0°41	18°39	21° 5	22°18	22° 4	21°26	M12
T 13	3 29 59	21° 7'23	22°43	18°17	12°18	9°23	10°27	13°32	14°47	0°43	18°38	21°R 5	22°15	22°11	21°32	T 13
W14	3 33 56	22° 7'57	5♏ 0	17° 0	13°30	9°27	10°24	13°39	14°49	0°45	18°37	21° 4	22°12	22°18	21°38	W14
T 15	3 37 52	23° 8'33	17° 4	15°50	14°42	9°32	10°20	13°45	14°52	0°47	18°36	21° 2	22° 9	22°25	21°44	T 15
F 16	3 41 49	24° 9'09	29° 1	14°49	15°55	9°38	10°17	13°51	14°54	0°49	18°35	20°59	22° 6	22°31	21°50	F 16
S 17	3 45 45	25° 9'47	10♏53	13°57	17° 7	9°45	10°13	13°57	14°57	0°51	18°34	20°54	22° 3	22°38	21°56	S 17
S 18	3 49 42	26°10'26	22°44	13°16	18°19	9°52	10° 9	14° 4	15° 0	0°53	18°33	20°50	21°59	22°45	22° 2	S 18
M19	3 53 38	27°11'07	4♏37	12°46	19°32	10° 0	10° 5	14°10	15° 2	0°55	18°32	20°46	21°56	22°51	22° 8	M19
T 20	3 57 35	28°11'48	16°33	12°29	20°45	10° 8	10° 1	14°16	15° 5	0°57	18°30	20°42	21°53	22°58	22°14	T 20
W21	4 1 31	29°12'31	28°36	12°D22	21°57	10°18	9°56	14°22	15° 8	0°59	18°29	20°39	21°50	23° 5	22°21	W21
T 22	4 5 28	0♏13'16	10♏46	12°27	23°10	10°28	9°52	14°27	15°10	1° 1	18°28	20°38	21°47	23°12	22°27	T 22
F 23	4 9 25	1°14'01	23° 5	12°41	24°23	10°38	9°47	14°33	15°13	1° 3	18°27	20°D38	21°44	23°18	22°33	F 23
S 24	4 13 21	2°14'49	5♏35	13° 5	25°36	10°50	9°42	14°39	15°16	1° 5	18°26	20°38	21°40	23°25	22°39	S 24
S 25	4 17 18	3°15'37	18°17	13°38	26°49	11° 2	9°37	14°45	15°19	1° 7	18°25	20°39	21°37	23°32	22°46	S 25
M26	4 21 14	4°16'27	1♏12	14°18	28° 2	11°14	9°31	14°50	15°22	1° 9	18°24	20°41	21°34	23°38	22°52	M26
T 27	4 25 11	5°17'18	14°23	15° 4	29°15	11°27	9°26	14°56	15°24	1°11	18°23	20°42	21°31	23°45	22°59	T 27
W28	4 29 7	6°18'11	27°52	15°57	0♏28	11°41	9°20	15° 2	15°27	1°13	18°22	20°43	21°28	23°52	23° 5	W28
T 29	4 33 4	7°19'05	11♏39	16°55	1°42	11°55	9°14	15° 7	15°30	1°15	18°20	20°R43	21°24	23°58	23°11	T 29
F 30	4 37 1	8♏20'00	25♏45	17♏57	2♏55	12♏10	9♏ 8	15♏12	15♏33	1♏17	18♏19	20♏42	21♏21	24♏ 5	23♏18	F 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	14s32	6n21	4s52	22s19	2s31	2n 8	1n28	2n18	1s38	22n53	0s 9	2s46	2n15	23s 8	0s26	22s26	1n 3	14n44	8s18	23s13	23s18	12n22	17s39	5n29					
F 2	14 51	0 47	5 9	22 10	2 23	1 42	1 31	2 19	1 34	22 54	0 9	2 48	2 15	23 8	0 26	22 26	1 3	14 44	8 18	23 12	23 17	12 24	17 40	5 29					
S 3	15 10	4s59	5 6	21 57	2 13	1 16	1 33	2 21	1 30	22 54	0 9	2 51	2 15	23 8	0 26	22 26	1 2	14 44	8 18	23 12	23 17	12 26	17 41	5 29					
S 4	15 29	10 34	4 42	21 41	2 1	0 50	1 35	2 23	1 26	22 54	0 9	2 54	2 15	23 8	0 26	22 27	1 2	14 44	8 18	23 12	23 17	12 28	17 41	5 29					
M 5	15 47	15 34	3 59	21 20	1 47	0 24	1 37	2 26	1 22	22 54	0 9	2 56	2 16	23 7	0 26	22 27	1 2	14 44	8 18	23 11	23 17	12 30	17 42	5 29					
T 6	16 5	19 33	2 58	20 55	1 32	0s 3	1 39	2 28	1 18	22 54	0 9	2 59	2 16	23 7	0 26	22 27	1 2	14 44	8 18	23 11	23 17	12 32	17 42	5 29					
W 7	16 23	22 10	1 46	20 27	1 15	0 30	1 41	2 31	1 15	22 55	0 8	3 1	2 16	23 7	0 26	22 27	1 2	14 44	8 18	23 11	23 16	12 35	17 43	5 28					
T 8	16 41	23 12	0 28	19 54	0 57	0 56	1 43	2 34	1 11	22 55	0 8	3 3	2 16	23 7	0 26	22 27	1 2	14 43	8 18	23 11	23 16	12 37	17 43	5 28					
F 9	16 58	22 40	0n49	19 18	0 38	1 23	1 45	2 38	1 7	22 55	0 8	3 6	2 16	23 6	0 26	22 27	1 2	14 43	8 18	23 11	23 16	12 39	17 44	5 28					
S 10	17 15	20 44	2 2	18 40	0 18	1 50	1 46	2 42	1 4	22 56	0 8	3 8	2 16	23 6	0 26	22 27	1 2	14 43	8 19	23 11	23 16	12 41	17 44	5 28					
S 11	17 32	17 43	3 5	17 59	0n 3	2 17	1 48	2 46	1 0	22 56	0 8	3 11	2 16	23 6	0 26	22 27	1 2	14 43	8 19	23 11	23 16	12 43	17 45	5 28					
M12	17 48	13 56	3 57	17 18	0 23	2 43	1 49	2 50	0 57	22 56	0 8	3 13	2 17	23 6	0 26	22 27	1 2	14 43	8 19	23 11	23 16	12 45	17 45	5 28					
T 13	18 4	9 37	4 36	16 36	0 43	3 10	1 51	2 54	0 53	22 57	0 8	3 15	2 17	23 5	0 26	22 27	1 2	14 43	8 19	23 11	23 15	12 47	17 46	5 27					
W14	18 20	5 1	5 1	15 57	1 3	3 37	1 52	2 59	0 50	22 57	0 8	3 18	2 17	23 5	0 26	22 27	1 2	14 43	8 19	23 11	23 15	12 50	17 46	5 27					
T 15	18 36	0 19	5 13	15 20	1 20	4 4	1 53	3 4	0 47	22 57	0 8	3 20	2 17	23 5	0 26	22 27	1 2	14 43	8 19	23 11	23 15	12 52	17 47	5 27					
F 16	18 51	4n21	5 10	14 46	1 36	4 31	1 54	3 9	0 44	22 58	0 7	3 22	2 17	23 4	0 26	22 27	1 2	14 42	8 19	23 11	23 15	12 54	17 47	5 27					
S 17	19 5	8 50	4 55	14 18	1 50	4 58	1 55	3 15	0 40	22 58	0 7	3 24	2 17	23 4	0 26	22 27	1 2	14 42	8 19	23 10	23 15	12 56	17 48	5 27					
S 18	19 20	12 59	4 26	13 54	2 3	5 25	1 56	3 21	0 37	22 59	0 7	3 27	2 17	23 4	0 26	22 27	1 2	14 42	8 19	23 10	23 14	12 58	17 48	5 27					
M19	19 34	16 38	3 47	13 36	2 12	5 52	1 56	3 26	0 34	22 59	0 7	3 29	2 18	23 4	0 26	22 27	1 2	14 42	8 19	23 10	23 14	13 0	17 49	5 27					
T 20	19 48	19 38	2 57	13 23	2 20	6 18	1 57	3 33	0 31	22 59	0 7	3 31	2 18	23 3	0 26	22 27	1 2	14 42	8 19	23 9	23 14	13 2	17 49	5 27					
W21	20 1	21 49	1 58	13 15	2 26	6 45	1 57	3 39	0 28	23 0	0 7	3 33	2 18	23 3	0 26	22 27	1 2	14 42	8 19	23 9	23 14	13 4	17 50	5 27					
T 22	20 14	23 0	0 54	13 13	2 30	7 12	1 58	3 45	0 26	23 0	0 7	3 35	2 18	23 3	0 26	22 27	1 2	14 42	8 19	23 9	23 14	13 6	17 50	5 26					
F 23	20 27	23 5	0s14	13 15	2 33	7 38	1 58	3 52	0 23	23 1	0 7	3 37	2 18	23 2	0 26	22 27	1 2	14 42	8 19	23 9	23 13	13 8	17 50	5 26					
S 24	20 39	22 0	1 22	13 21	2 34	8 5	1 58	3 59	0 20	23 1	0 6	3 39	2 19	23 2	0 26	22 27	1 2	14 42	8 19	23 9	23 13	13 10	17 51	5 26					
S 25	20 51	19 48	2 27	13 31	2 34	8 31	1 59	4 6	0 17	23 2	0 6	3 41	2 19	23 2	0 26	22 27	1 2	14 41	8 19	23 9	23 13	13 17	17 51	5 26					
M26	21 2	16 35	3 26	13 44	2 32	8 57	1 59	4 14	0 15	23 2	0 6	3 43	2 19	23 1	0 26	22 27	1 2	14 41	8 19	23 9	23 13	13 15	17 52	5 26					
T 27	21 13	12 28	4 15	14 0	2 30	9 23	1 59	4 21	0 12	23 3	0 6	3 45	2 19	23 1	0 26	22 27	1 2	14 41	8 19	23 9	23 13	13 17	17 52	5 26					
W28	21 24	7 40	4 52	14 18	2 26	9 49	1 58	4 29	0 10	23 3	0 6	3 47	2 19	23 1	0 26	22 27	1 2	14 41	8 19	23 9	23 12	13 19	17 52	5 26					
T 29	21 34	2 23	5 13	14 39	2 22	10 14	1 58	4 37	0 7	23 4	0 6	3 49	2 19	23 0	0 26	22 27	1 2	14 41	8 19	23 9	23 12	13 21	17 53	5 26					
F 30	21s44	3s 8	5s15	15s 1	2n17	10s40	1n58	4n45	0s 5	23n 4	0s 6	3s51	2n20	23s 0	0s26	22s27	1n 2	14n41	8s19	23s 9	23s12	13n23	17s53	5n26					

Julian Day Number = 2326571.5, Delta T = 37.87 sec

Ecliptic obliquity = 23°29'01, Nutation = 0°00'16, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 19°57'52, Lahiri = 19°04'52Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1657

geocentric

DECEMBER 1657 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 40 57	9♂20'57	10♂ 9	19♂ 3	4♂ 8	12♂25	9♂R 2	15♂18	15♂36	1♂19	18♂R18	20♂R41	21♂18	24♂12	23♂24	S 1
S 2	4 44 54	10°21'55	24°47	20°13	5°22	12°41	8♂56	15°23	15°39	1°22	18♂17	20♂40	21°15	24°19	23°31	S 2
M 3	4 48 50	11°22'54	9♂34	21°26	6°35	12°58	8°50	15°28	15°42	1°24	18°16	20°39	21°12	24°25	23°37	M 3
T 4	4 52 47	12°23'54	24°24	22°41	7°49	13°15	8°43	15°33	15°46	1°26	18°15	20°38	21° 9	24°32	23°44	T 4
W 5	4 56 43	13°24'56	9♂ 8	23°58	9° 3	13°32	8°36	15°38	15°49	1°28	18°13	20°37	21° 5	24°39	23°50	W 5
T 6	5 0 40	14°25'58	23°40	25°17	10°16	13°50	8°30	15°43	15°52	1°30	18°12	20°D37	21° 2	24°45	23°57	T 6
F 7	5 4 36	15°27'01	7♂54	26°38	11°30	14° 9	8°23	15°48	15°55	1°32	18°11	20°38	20°59	24°52	24° 3	F 7
S 8	5 8 33	16°28'05	21°45	28° 0	12°44	14°28	8°16	15°53	15°58	1°35	18°10	20°38	20°56	24°59	24°10	S 8
S 9	5 12 30	17°29'09	5♂11	29°24	13°58	14°47	8° 9	15°58	16° 1	1°37	18° 9	20°38	20°53	25° 5	24°16	S 9
M10	5 16 26	18°30'14	18°13	0♂49	15°11	15° 7	8° 1	16° 2	16° 5	1°39	18° 8	20°39	20°50	25°12	24°23	M10
T 11	5 20 23	19°31'19	0♂53	2°14	16°25	15°27	7°54	16° 7	16° 8	1°41	18° 6	20°39	20°46	25°19	24°29	T 11
W12	5 24 19	20°32'25	13°14	3°41	17°39	15°48	7°47	16°11	16°11	1°44	18° 5	20°39	20°43	25°26	24°36	W12
T 13	5 28 16	21°33'31	25°20	5° 8	18°53	16° 9	7°39	16°16	16°14	1°46	18° 4	20°39	20°40	25°32	24°42	T 13
F 14	5 32 12	22°34'37	7♂17	6°35	20° 7	16°31	7°31	16°20	16°18	1°48	18° 3	20°39	20°37	25°39	24°49	F 14
S 15	5 36 9	23°35'44	19° 8	8° 4	21°21	16°53	7°24	16°24	16°21	1°50	18° 2	20°39	20°34	25°46	24°56	S 15
S 16	5 40 5	24°36'50	0♂59	9°32	22°35	17°15	7°16	16°28	16°24	1°53	18° 1	20°40	20°30	25°52	25° 2	S 16
M17	5 44 2	25°37'57	12°53	11° 2	23°50	17°38	7° 8	16°33	16°28	1°55	17°59	20°40	20°27	25°59	25° 9	M17
T 18	5 47 59	26°39'05	24°55	12°31	25° 4	18° 1	7° 0	16°37	16°31	1°57	17°58	20°41	20°24	26° 6	25°15	T 18
W19	5 51 55	27°40'12	7♂ 6	14° 1	26°18	18°25	6°52	16°40	16°35	1°59	17°57	20°41	20°21	26°12	25°22	W19
T 20	5 55 52	28°41'20	19°29	15°32	27°32	18°49	6°45	16°44	16°38	2° 2	17°56	20°R41	20°18	26°19	25°28	T 20
F 21	5 59 48	29°42'28	2♂ 5	17° 3	28°46	19°13	6°37	16°48	16°42	2° 4	17°55	20°41	20°15	26°26	25°35	F 21
S 22	6 3 45	0♂43'37	14°55	18°34	0♂ 1	19°37	6°28	16°52	16°45	2° 6	17°54	20°41	20°11	26°33	25°41	S 22
S 23	6 7 41	1°44'46	28° 0	20° 5	1°15	20° 2	6°20	16°55	16°48	2° 8	17°53	20°39	20° 8	26°39	25°48	S 23
M24	6 11 38	2°45'55	11♂17	21°37	2°29	20°27	6°12	16°59	16°52	2°11	17°51	20°38	20° 5	26°46	25°54	M24
T25	6 15 34	3°47'04	24°48	23° 9	3°44	20°53	6° 4	17° 2	16°55	2°13	17°50	20°36	20° 2	26°53	26° 1	T25
W26	6 19 31	4°48'14	8♂30	24°41	4°58	21°18	5°56	17° 5	16°59	2°15	17°49	20°34	19°59	26°59	26° 7	W26
T 27	6 23 28	5°49'24	22°23	26°14	6°13	21°44	5°48	17° 8	17° 2	2°17	17°48	20°33	19°56	27° 6	26°14	T 27
F 28	6 27 24	6°50'34	6♂25	27°47	7°27	22°11	5°40	17°12	17° 6	2°20	17°47	20°D33	19°52	27°13	26°20	F 28
S 29	6 31 21	7°51'45	20°36	29°21	8°42	22°37	5°32	17°15	17° 9	2°22	17°46	20°33	19°49	27°19	26°27	S 29
S 30	6 35 17	8°52'56	4♂52	0♂54	9°56	23° 4	5°24	17°17	17°13	2°24	17°45	20°34	19°46	27°26	26°33	S 30
M31	6 39 14	9♂54'07	19♂12	2♂28	11♂11	23♂31	5♂16	17♂20	17♂16	2♂27	17♂44	20♂36	19♂43	27♂33	26♂40	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	21s54	8s36	4s59	15s24	2n12	11s 5	1n57	4n53	0s 2	23n 5	0s 6	3s53	2n20	23s 0	0s26	22s27	1n 2	14n41	8s19	23s 9	23s12	13n25	17s53	5n26	
S 2	22 3	13 41	4 22	15 48	2 6	11 30	1 57	5 1	0 0	23 6	0 5	3 55	2 20	22 59	0 26	22 27	1 2	14 41	8 19	23 9	23 12	13 27	17 54	5 26	
M 3	22 11	18 0	3 29	16 13	2 0	11 54	1 56	5 10	0n 2	23 6	0 5	3 57	2 20	22 59	0 26	22 27	1 2	14 41	8 19	23 9	23 11	13 29	17 54	5 26	
T 4	22 19	21 10	2 20	16 39	1 54	12 19	1 56	5 18	0 4	23 7	0 5	3 58	2 21	22 58	0 26	22 27	1 2	14 41	8 19	23 9	23 11	13 31	17 54	5 26	
W 5	22 27	22 54	1 3	17 4	1 47	12 43	1 55	5 27	0 7	23 7	0 5	4 0	2 21	22 58	0 26	22 27	1 2	14 41	8 19	23 9	23 11	13 33	17 55	5 26	
T 6	22 34	23 3	0n17	17 30	1 40	13 7	1 54	5 36	0 9	23 8	0 5	4 2	2 21	22 58	0 26	22 27	1 2	14 41	8 19	23 9	23 11	13 35	17 55	5 26	
F 7	22 41	21 41	1 34	17 56	1 33	13 31	1 53	5 45	0 11	23 8	0 5	4 3	2 21	22 57	0 26	22 27	1 2	14 41	8 19	23 9	23 11	13 37	17 55	5 26	
S 8	22 48	19 1	2 44	18 22	1 25	13 54	1 52	5 54	0 13	23 9	0 5	4 5	2 21	22 57	0 26	22 27	1 2	14 40	8 19	23 9	23 10	13 39	17 55	5 26	
S 9	22 54	15 24	3 43	18 48	1 18	14 17	1 51	6 4	0 15	23 9	0 4	4 7	2 22	22 57	0 26	22 27	1 2	14 40	8 19	23 9	23 10	13 41	17 56	5 26	
M10	22 59	11 9	4 28	19 13	1 10	14 40	1 50	6 13	0 17	23 10	0 4	4 8	2 22	22 56	0 26	22 27	1 2	14 40	8 19	23 9	23 10	13 43	17 56	5 26	
T 11	23 4	6 31	4 59	19 37	1 3	15 2	1 49	6 23	0 18	23 11	0 4	4 10	2 22	22 56	0 26	22 27	1 2	14 40	8 19	23 9	23 10	13 45	17 56	5 26	
W12	23 9	1 45	5 15	20 1	0 55	15 24	1 48	6 33	0 20	23 11	0 4	4 11	2 22	22 55	0 26	22 27	1 1	14 40	8 19	23 9	23 9	13 47	17 56	5 27	
T 13	23 13	2n59	5 16	20 25	0 48	15 46	1 46	6 42	0 22	23 12	0 4	4 13	2 23	22 55	0 26	22 27	1 1	14 40	8 18	23 9	23 9	13 49	17 56	5 27	
F 14	23 16	7 33	5 4	20 48	0 40	16 7	1 45	6 52	0 24	23 12	0 4	4 14	2 23	22 55	0 26	22 27	1 1	14 40	8 18	23 9	23 9	13 51	17 56	5 27	
S 15	23 20	11 49	4 39	21 10	0 32	16 28	1 43	7 2	0 26	23 13	0 4	4 16	2 23	22 54	0 26	22 27	1 1	14 40	8 18	23 9	23 9	13 53	17 57	5 27	
S 16	23 22	15 37	4 2	21 31	0 25	16 49	1 42	7 12	0 27	23 13	0 4	4 17	2 23	22 54	0 26	22 27	1 1	14 40	8 18	23 9	23 9	13 55	17 57	5 27	
M17	23 25	18 50	3 15	21 51	0 17	17 9	1 40	7 23	0 29	23 14	0 3	4 18	2 23	22 53	0 26	22 27	1 1	14 40	8 18	23 9	23 8	13 57	17 57	5 27	
T 18	23 26	21 16	2 18	22 10	0 10	17 28	1 38	7 33	0 30	23 15	0 3	4 20	2 24	22 53	0 26	22 27	1 1	14 40	8 18	23 9	23 8	13 59	17 57	5 27	
W19	23 28	22 46	1 15	22 29	0 3	17 48	1 37	7 43	0 32	23 15	0 3	4 21	2 24	22 52	0 26	22 27	1 1	14 40	8 18	23 9	23 8	14 1	17 57	5 27	
T 20	23 29	23 11	0 7	22 46	0s 4	18 6	1 35	7 54	0 33	23 16	0 3	4 22	2 24	22 52	0 26	22 27	1 1	14 40	8 18	23 9	23 8	14 3	17 57	5 27	
F 21	23 29	22 25	1s 3	23 2	0 11	18 25	1 33	8 4	0 35	23 16	0 3	4 23	2 24	22 52	0 26	22 27	1 1	14 40	8 18	23 9	23 7	14 5	17 57	5 27	
S 22	23 29	20 29	2 10	23 18	0 18	18 42	1 31	8 15	0 36	23 17	0 3	4 25	2 25	22 51	0 26	22 27	1 1	14 40	8 18	23 9	23 7	14 7	17 57	5 28	
S 23	23 28	17 28	3 12	23 32	0 25	19 0	1 29	8 26	0 38	23 17	0 3	4 26	2 25	22 51	0 26	22 27	1 1	14 40	8 18	23 9	23 7	14 9	17 57	5 28	
M24	23 27	13 30	4 5	23 45	0 32	19 16	1 27	8 37	0 39	23 18	0 2	4 27	2 25	22 50	0 26	22 27	1 1	14 40	8 18	23 9	23 7	14 11	17 57	5 28	
T25	23 26	8 48	4 45	23 57	0 38	19 33	1 25	8 47	0 41	23 18	0 2	4 28	2 25	22 50	0 26	22 27	1 1	14 40	8 18	23 9	23 6	14 13	17 57	5 28	
W26	23 24	3 37	5 9	24 7	0 45	19 48	1 23	8 58	0 42	23 19	0 2	4 29	2 26	22 49	0 26	22 27	1 1	14 40	8 17	23 9	23 6	14 15	17 58	5 28	
T 27	23 21	1s49	5 16	24 17	0 51	20 4	1 21	9 9	0 43	23 19	0 2	4 30	2 26	22 49	0 26	22 26	1 1	14 40	8 17	23 9	23 6	14 17	17 58	5 28	
F 28	23 18	7 12	5 4	24 25	0 57	20 18	1 19	9 20	0 44	23 20	0 2	4 31	2 26	22 49	0 26	22 26	1 1	14 40	8 17	23 9	23 6	14 19	17 58	5 28	
S 29	23 15	12 17	4 34	24 32	1 3	20 32	1 16	9 31	0 46	23 20	0 2	4 32	2 27	22 48	0 26	22 26	1 1	14 40	8 17	23 9	23 6	14 21	17 58	5 29	
S 30	23 11	16 43	3 47	24 37	1 8	20 46	1 14	9 42	0 47	23 21	0 2	4 32	2 27	22 48	0 26	22 26	1 1	14 40	8 17	23 9	23 5	14 23	17 57	5 29	
M31	23s 7	20s12	2s45	24s41	1s14	20s59	1n12	9n53	0n48	23n21	0s 1	4s33	2n27	22s47	0s26	22s26	1n 1	14n40	8s17	23s 9	23s 5	14n25	17s57	5n29	