



Astrodienst Ephemeris Tables for the year 1654

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 1654
geocentric

JANUARY 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 43 2	10 ³ 53'16	11 ^{II} 53	29 ³ 58	23 ³ 15	8 ^{II} 6	18 ³ 40	25°R42	1 ³ 32	24 ³ 4	13°R35	5°R39	7 ^{II} 1	14 ^{II} 42	9 ^{II} 41	T 1
F 2	6 46 59	11°54'25	26°39	0 ³ 41	24°26	8°51	18°53	25 ^{II} 39	1°35	24° 6	13 ^{II} 34	5 ^{II} 30	6°58	14°49	9°47	F 2
S 3	6 50 56	12°55'34	11 ^{III} 15	1°15	25°36	9°37	19° 6	25°36	1°39	24° 8	13°33	5°22	6°55	14°55	9°52	S 3
S 4	6 54 52	13°56'43	25°36	1°40	26°47	10°22	19°19	25°33	1°43	24°10	13°32	5°14	6°52	15° 2	9°58	S 4
M 5	6 58 49	14°57'51	9 ^{II} 34	1°55	27°57	11° 7	19°32	25°30	1°46	24°12	13°31	5° 9	6°49	15° 9	10° 3	M 5
T 6	7 2 45	15°58'59	23° 8	1°R58	29° 7	11°52	19°45	25°27	1°50	24°14	13°30	5° 6	6°46	15°15	10° 8	T 6
W 7	7 6 42	17° 0'07	6 ^{II} 16	1°51	0 ^{II} 17	12°37	19°58	25°24	1°53	24°17	13°29	5°D 6	6°42	15°22	10°13	W 7
T 8	7 10 38	18° 1'15	19° 0	1°31	1°27	13°22	20°12	25°21	1°57	24°19	13°28	5° 6	6°39	15°29	10°18	T 8
F 9	7 14 35	19° 2'23	1 ^{II} 24	1° 0	2°37	14° 7	20°25	25°17	2° 0	24°21	13°27	5° 8	6°36	15°36	10°23	F 9
S 10	7 18 31	20° 3'30	13°31	0°17	3°46	14°52	20°38	25°14	2° 4	24°23	13°27	5° 9	6°33	15°42	10°28	S 10
S 11	7 22 28	21° 4'38	25°29	29 ³ 24	4°56	15°37	20°52	25°10	2° 7	24°25	13°26	5°R 9	6°30	15°49	10°33	S 11
M12	7 26 25	22° 5'45	7 ^{II} 20	28°22	6° 5	16°22	21° 5	25° 7	2°11	24°27	13°25	5° 8	6°26	15°56	10°38	M12
T 13	7 30 21	23° 6'51	19°11	27°13	7°14	17° 7	21°19	25° 3	2°14	24°29	13°24	5° 4	6°23	16° 2	10°42	T 13
W14	7 34 18	24° 7'58	1 ^{II} 6	25°59	8°24	17°52	21°33	24°59	2°17	24°31	13°23	4°59	6°20	16° 9	10°47	W14
T 15	7 38 14	25° 9'04	13° 9	24°42	9°32	18°37	21°46	24°55	2°21	24°33	13°22	4°52	6°17	16°16	10°51	T 15
F 16	7 42 11	26°10'09	25°22	23°24	10°41	19°22	22° 0	24°52	2°24	24°35	13°21	4°45	6°14	16°23	10°55	F 16
S 17	7 46 7	27°11'15	7 ^{II} 47	22° 9	11°50	20° 7	22°14	24°48	2°28	24°37	13°21	4°38	6°11	16°29	10°59	S 17
S 18	7 50 4	28°12'19	20°26	20°57	12°58	20°52	22°28	24°44	2°31	24°39	13°20	4°31	6° 7	16°36	11° 4	S 18
M19	7 54 0	29°13'23	3 ^{II} 19	19°51	14° 6	21°37	22°41	24°39	2°34	24°41	13°19	4°26	6° 4	16°43	11° 8	M19
T 20	7 57 57	0 ^{II} 14'25	16°25	18°52	15°14	22°22	22°55	24°35	2°38	24°43	13°18	4°23	6° 1	16°49	11°11	T 20
W21	8 1 54	1°15'27	29°44	18° 1	16°22	23° 6	23° 9	24°31	2°41	24°45	13°18	4°D21	5°58	16°56	11°15	W21
T 22	8 5 50	2°16'28	13 ^{II} 14	17°19	17°29	23°51	23°23	24°27	2°44	24°47	13°17	4°22	5°55	17° 3	11°19	T 22
F 23	8 9 47	3°17'27	26°54	16°46	18°37	24°36	23°37	24°22	2°47	24°49	13°16	4°23	5°52	17°10	11°22	F 23
S 24	8 13 43	4°18'26	10 ^{II} 43	16°22	19°44	25°21	23°51	24°18	2°51	24°51	13°15	4°24	5°48	17°16	11°26	S 24
S 25	8 17 40	5°19'23	24°42	16° 6	20°51	26° 5	24° 5	24°14	2°54	24°53	13°15	4°26	5°45	17°23	11°29	S 25
M26	8 21 36	6°20'18	8 ^{II} 49	15°D59	21°58	26°50	24°19	24° 9	2°57	24°54	13°14	4°R26	5°42	17°30	11°32	M26
T 27	8 25 33	7°21'13	23° 2	15°59	23° 4	27°35	24°34	24° 5	3° 0	24°56	13°13	4°25	5°39	17°36	11°36	T 27
W28	8 29 29	8°22'06	7 ^{II} 19	16° 7	24°10	28°19	24°48	24° 0	3° 3	24°58	13°13	4°23	5°36	17°43	11°39	W28
T 29	8 33 26	9°22'58	21°37	16°22	25°16	29° 4	25° 2	23°55	3° 6	25° 0	13°12	4°20	5°32	17°50	11°42	T 29
F 30	8 37 23	10°23'48	5 ^{II} 52	16°43	26°22	29°48	25°16	23°51	3° 9	25° 1	13°12	4°16	5°29	17°57	11°44	F 30
S 31	8 41 19	11 ^{II} 24'37	20 ^{II} 0	17 ^{II} 10	27 ^{II} 27	0 ^{II} 33	25 ^{II} 30	23 ^{II} 46	3 ^{II} 12	25 ^{II} 3	13 ^{II} 11	4 ^{II} 13	5 ^{II} 26	18 ^{II} 3	11 ^{II} 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	decl lat
T 1	23s 2	27n16	5n 3	20s46	0s35	15s23	1s41	9s20	0s51	16s 5	0s52	14n17	1n23	23s43	0s14	22s 8
F 2	22 57	28 11	4 45	20 23	0 21	14 57	1 38	9 2	0 50	16 1	0 52	14 18	1 23	23 43	0 14	22 8
S 3	22 51	27 7	4 8	20 1	0 6	14 31	1 36	8 44	0 49	15 57	0 52	14 19	1 24	23 43	0 14	22 8
S 4	22 45	24 16	3 16	19 39	0n11	14 4	1 33	8 26	0 48	15 53	0 52	14 21	1 24	23 43	0 14	22 8
M 5	22 39	20 1	2 13	19 19	0 28	13 38	1 31	8 8	0 47	15 49	0 52	14 22	1 24	23 43	0 14	22 8
T 6	22 32	14 51	1 4	19 1	0 46	13 11	1 28	7 50	0 46	15 44	0 52	14 23	1 24	23 43	0 14	22 8
W 7	22 24	9 8	0s 6	18 45	1 4	12 43	1 25	7 32	0 45	15 40	0 52	14 24	1 24	23 43	0 14	22 8
T 8	22 16	3 13	1 14	18 30	1 23	12 16	1 22	7 14	0 44	15 36	0 52	14 26	1 25	23 43	0 14	22 8
F 9	22 8	2s39	2 17	18 19	1 42	11 48	1 19	6 55	0 43	15 32	0 52	14 27	1 25	23 43	0 14	22 9
S 10	21 59	8 18	3 12	18 10	2 1	11 19	1 16	6 37	0 42	15 27	0 52	14 28	1 25	23 43	0 14	22 9
S 11	21 50	13 34	3 58	18 4	2 18	10 51	1 13	6 19	0 41	15 23	0 52	14 30	1 25	23 43	0 14	22 9
M12	21 40	18 18	4 34	18 0	2 35	10 22	1 9	6 0	0 40	15 19	0 52	14 31	1 25	23 42	0 14	22 9
T 13	21 30	22 19	4 58	17 59	2 50	9 53	1 6	5 42	0 39	15 14	0 52	14 32	1 26	23 42	0 14	22 9
W14	21 20	25 27	5 8	18 0	3 3	9 24	1 2	5 23	0 38	15 10	0 52	14 34	1 26	23 42	0 14	22 9
T 15	21 9	27 29	5 6	18 3	3 14	8 55	0 59	5 5	0 37	15 6	0 52	14 35	1 26	23 42	0 14	22 9
F 16	20 57	28 14	4 50	18 8	3 22	8 25	0 55	4 46	0 36	15 1	0 52	14 37	1 26	23 42	0 14	22 9
S 17	20 46	27 34	4 19	18 14	3 28	7 56	0 51	4 28	0 35	14 57	0 52	14 38	1 26	23 42	0 14	22 9
S 18	20 34	25 29	3 36	18 22	3 32	7 26	0 47	4 9	0 35	14 52	0 52	14 40	1 26	23 42	0 14	22 9
M19	20 21	22 4	2 41	18 31	3 32	6 56	0 43	3 51	0 34	14 48	0 52	14 41	1 27	23 42	0 14	22 9
T 20	20 8	17 29	1 36	18 40	3 31	6 26	0 39	3 32	0 33	14 43	0 52	14 43	1 27	23 42	0 14	22 9
W21	19 55	11 59	0 25	18 50	3 28	5 55	0 35	3 14	0 32	14 39	0 52	14 44	1 27	23 42	0 14	22 9
T 22	19 42	5 52	0n48	19 0	3 23	5 25	0 30	2 55	0 31	14 34	0 52	14 46	1 27	23 42	0 15	22 9
F 23	19 28	0n36	2 0	19 11	3 16	4 54	0 26	2 36	0 30	14 29	0 52	14 48	1 27	23 42	0 15	22 9
S 24	19 13	7 6	3 6	19 22	3 9	4 24	0 21	2 18	0 29	14 25	0 52	14 49	1 27	23 42	0 15	22 10
S 25	18 59	13 19	4 1	19 32	3 0	3 53	0 16	1 59	0 28	14 20	0 52	14 51	1 28	23 42	0 15	22 10
M26	18 44	18 55	4 43	19 43	2 50	3 22	0 12	1 40	0 27	14 15	0 52	14 53	1 28	23 42	0 15	22 10
T 27	18 28	23 31	5 7	19 53	2 40	2 52	0 7	1 22	0 26	14 11	0 52	14 54	1 28	23 42	0 15	22 10
W28	18 12	26 43	5 13	20 2	2 29	2 21	0 2	1 3	0 25	14 6	0 52	14 56	1 28	23 42	0 15	22 10
T 29	17 56	28 12	4 59	20 11	2 18	1 50	0n 3	0 45	0 24	14 1	0 52	14 58	1 28	23 42	0 15	22 10
F 30	17 40	27 48	4 27	20 20	2 7	1 19	0 8	0 26	0 23	13 56	0 52	14 59	1 28	23 42	0 15	22 10
S 31	17s23	25n36	3n39	20s28	1n56	0s49	0n13	0s 8	0s23	13s52	0s52	15n 1	1n28	23s41	0s15	22s10

Julian Day Number = 2325171.5, Delta T = 40.52 sec
Ecliptic obliquity = 23°29'11, Nutation = 0°00'07, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°54'39, Lahiri = 19°01'40Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1654

geocentric

MARCH 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 35 39	10♈38'13	13♏6	21♈13	26♈18	21♈48	2♈29	21°R28	4♈25	25♈41	13♏4	4♈9	3♈54	21♏18	12°R16	S 1
M 2	10 39 36	11°38'14	26°20	22°47	27°10	22°32	2°43	21♏24	4°27	25°42	13°4	4°10	3°51	21°25	12♏16	M 2
T 3	10 43 32	12°38'13	9♏20	24°22	28°1	23°15	2°57	21°19	4°29	25°43	13°5	4°R10	3°48	21°32	12°15	T 3
W 4	10 47 29	13°38'10	22°7	25°58	28°51	23°58	3°12	21°15	4°31	25°44	13°5	4°9	3°44	21°38	12°14	W 4
T 5	10 51 25	14°38'05	4♏39	27°36	29°40	24°41	3°26	21°11	4°33	25°45	13°5	4°8	3°41	21°45	12°13	T 5
F 6	10 55 22	15°37'59	16°59	29°14	0♏29	25°25	3°40	21°6	4°34	25°46	13°5	4°7	3°38	21°52	12°12	F 6
S 7	10 59 19	16°37'50	29°7	0♈54	1°16	26°8	3°55	21°2	4°36	25°46	13°5	4°5	3°35	21°59	12°10	S 7
S 8	11 3 15	17°37'40	11♏7	2°34	2°3	26°51	4°9	20°58	4°38	25°47	13°5	4°3	3°32	22°5	12°9	S 8
M 9	11 7 12	18°37'28	23°1	4°16	2°49	27°34	4°23	20°54	4°39	25°48	13°6	4°1	3°29	22°12	12°8	M 9
T 10	11 11 8	19°37'15	4♏54	5°59	3°34	28°17	4°38	20°50	4°41	25°48	13°6	4°0	3°25	22°19	12°6	T 10
W 11	11 15 5	20°37'00	16°49	7°44	4°17	29°0	4°52	20°46	4°42	25°49	13°6	3°D59	3°22	22°25	12°4	W 11
T 12	11 19 1	21°36'43	28°51	9°29	5°0	29°43	5°6	20°42	4°44	25°49	13°7	3°59	3°19	22°32	12°3	T 12
F 13	11 22 58	22°36'24	11♏5	11°16	5°42	0♏26	5°20	20°39	4°45	25°50	13°7	4°0	3°16	22°39	12°1	F 13
S 14	11 26 54	23°36'03	23°35	13°4	6°22	1°9	5°34	20°35	4°47	25°50	13°7	4°1	3°13	22°46	11°59	S 14
S 15	11 30 51	24°35'41	6♏26	14°53	7°2	1°52	5°48	20°31	4°48	25°51	13°8	4°3	3°10	22°52	11°57	S 15
M 16	11 34 48	25°35'17	19°39	16°44	7°40	2°34	6°3	20°28	4°49	25°51	13°8	4°4	3°6	22°59	11°54	M 16
T 17	11 38 44	26°34'50	3♈16	18°36	8°17	3°17	6°17	20°24	4°50	25°52	13°8	4°R5	3°3	23°6	11°52	T 17
W 18	11 42 41	27°34'22	17°17	20°29	8°52	4°0	6°31	20°21	4°52	25°52	13°9	4°4	3°0	23°12	11°50	W 18
T 19	11 46 37	28°33'52	1♈38	22°23	9°26	4°43	6°45	20°18	4°53	25°52	13°9	4°3	2°57	23°19	11°47	T 19
F 20	11 50 34	29°33'20	16°14	24°18	9°59	5°25	6°58	20°14	4°54	25°53	13°10	4°0	2°54	23°26	11°45	F 20
S 21	11 54 30	0♈32'46	0♏59	26°15	10°30	6°8	7°12	20°11	4°55	25°53	13°10	3°56	2°50	23°33	11°42	S 21
S 22	11 58 27	1°32'09	15°44	28°13	11°0	6°50	7°26	20°8	4°56	25°53	13°11	3°52	2°47	23°39	11°39	S 22
M 23	12 2 23	2°31'30	0♏23	0♈12	11°28	7°33	7°40	20°5	4°57	25°53	13°11	3°49	2°44	23°46	11°37	M 23
T 24	12 6 20	3°30'49	14°50	2°12	11°55	8°15	7°54	20°2	4°57	25°53	13°12	3°46	2°41	23°53	11°34	T 24
W 25	12 10 17	4°30'06	29°2	4°13	12°20	8°58	8°8	20°0	4°58	25°54	13°13	3°D45	2°38	24°0	11°31	W 25
T 26	12 14 13	5°29'20	12♏55	6°15	12°43	9°40	8°21	19°57	4°59	25°54	13°13	3°45	2°35	24°6	11°28	T 26
F 27	12 18 10	6°28'32	26°32	8°18	13°4	10°22	8°35	19°54	5°0	25°54	13°14	3°46	2°31	24°13	11°24	F 27
S 28	12 22 6	7°27'42	9♏51	10°22	13°23	11°5	8°49	19°52	5°0	25°R54	13°14	3°48	2°28	24°20	11°21	S 28
S 29	12 26 3	8°26'49	22°55	12°26	13°41	11°47	9°2	19°49	5°1	25°54	13°15	3°49	2°25	24°26	11°18	S 29
M 30	12 29 59	9°25'54	5♏46	14°30	13°56	12°29	9°16	19°47	5°1	25°54	13°16	3°R49	2°22	24°33	11°14	M 30
T 31	12 33 56	10°24'56	18♏25	16°34	14°8	13°811	9♈29	19°45	5♏2	25°54	13°17	3♈48	2♈19	24♏40	11♏11	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	7s36	18n44	1n54	16s20	1s59	13n11	3n14	8n32	0n1	11s27	0s54	15n48	1n31	23s40	0s15	22s10
M 2	7 13	13 26	0 43	15 52	2 2	13 36	3 20	8 49	0 2	11 22	0 54	15 50	1 31	23 40	0 15	22 10
T 3	6 50	7 38	0s29	15 23	2 5	14 1	3 27	9 6	0 3	11 17	0 54	15 51	1 31	23 40	0 15	22 10
W 4	6 27	1 38	1 38	14 53	2 7	14 25	3 34	9 22	0 4	11 11	0 54	15 53	1 31	23 40	0 15	22 10
T 5	6 4	4s19	2 41	14 21	2 9	14 49	3 41	9 39	0 4	11 6	0 54	15 54	1 31	23 40	0 15	22 10
F 6	5 41	10 0	3 35	13 48	2 11	15 13	3 48	9 56	0 5	11 1	0 54	15 55	1 31	23 40	0 15	22 10
S 7	5 17	15 13	4 19	13 14	2 12	15 36	3 55	10 12	0 6	10 56	0 54	15 57	1 31	23 40	0 15	22 10
S 8	4 54	19 48	4 51	12 38	2 12	15 59	4 2	10 28	0 7	10 51	0 54	15 58	1 31	23 40	0 15	22 10
M 9	4 31	23 33	5 10	12 1	2 13	16 22	4 9	10 45	0 7	10 46	0 54	15 59	1 31	23 40	0 15	22 10
T 10	4 7	26 19	5 16	11 23	2 13	16 44	4 16	11 1	0 8	10 41	0 54	16 1	1 31	23 40	0 15	22 10
W 11	3 44	27 56	5 8	10 44	2 12	17 5	4 22	11 17	0 9	10 35	0 55	16 2	1 31	23 40	0 15	22 10
T 12	3 20	28 15	4 47	10 3	2 11	17 26	4 29	11 33	0 10	10 30	0 55	16 3	1 31	23 40	0 15	22 10
F 13	2 56	27 13	4 12	9 21	2 9	17 47	4 36	11 48	0 10	10 25	0 55	16 4	1 31	23 39	0 15	22 10
S 14	2 33	24 47	3 25	8 37	2 7	18 7	4 43	12 4	0 11	10 20	0 55	16 6	1 31	23 39	0 15	22 10
S 15	2 9	21 4	2 26	7 53	2 5	18 26	4 50	12 20	0 12	10 15	0 55	16 7	1 31	23 39	0 15	22 10
M 16	1 45	16 12	1 19	7 7	2 2	18 45	4 56	12 35	0 12	10 10	0 55	16 8	1 31	23 39	0 16	22 10
T 17	1 22	10 24	0 4	6 20	1 58	19 4	5 3	12 50	0 13	10 5	0 55	16 9	1 31	23 39	0 16	22 10
W 18	0 58	3 56	1n12	5 32	1 54	19 21	5 9	13 5	0 14	10 0	0 55	16 10	1 31	23 39	0 16	22 10
T 19	0 34	2n53	2 26	4 42	1 49	19 39	5 16	13 20	0 14	9 55	0 55	16 11	1 31	23 39	0 16	22 10
F 20	0 11	9 39	3 31	3 52	1 44	19 55	5 22	13 35	0 15	9 50	0 55	16 12	1 31	23 39	0 16	22 10
S 21	0n13	15 56	4 23	3 0	1 39	20 11	5 28	13 50	0 16	9 44	0 56	16 13	1 31	23 39	0 16	22 10
S 22	0 37	21 19	4 57	2 7	1 32	20 27	5 34	14 5	0 16	9 39	0 56	16 14	1 31	23 39	0 16	22 10
M 23	1 0	25 21	5 12	1 14	1 26	20 41	5 40	14 19	0 17	9 34	0 56	16 15	1 31	23 39	0 16	22 10
T 24	1 24	27 42	5 7	0 19	1 18	20 55	5 46	14 34	0 18	9 29	0 56	16 16	1 31	23 39	0 16	22 10
W 25	1 48	28 12	4 43	0n36	1 11	21 8	5 52	14 48	0 18	9 24	0 56	16 17	1 31	23 39	0 16	22 10
T 26	2 11	26 53	4 3	1 32	1 2	21 21	5 57	15 2	0 19	9 19	0 56	16 17	1 31	23 39	0 16	22 10
F 27	2 35	23 59	3 10	2 29	0 54	21 32	6 2	15 16	0 20	9 14	0 56	16 18	1 31	23 39	0 16	22 10
S 28	2 58	19 51	2 7	3 26	0 44	21 43	6 8	15 30	0 20	9 9	0 56	16 19	1 30	23 39	0 16	22 10
S 29	3 21	14 50	0 59	4 23	0 35	21 53	6 12	15 44	0 21	9 4	0 57	16 20	1 30	23 39	0 16	22 10
M 30	3 45	9 15	0s11	5 21	0 25	22 2	6 17	15 57	0 21	8 59	0 57	16 20	1 30	23 39	0 16	22 10
T 31	4n 8	3n23	1s19	6n18	0s14	22n11	6n21	16n11	0n22	8s54	0s57	16n21	1n30	23s39	0s16	22s10

Julian Day Number = 2325230.5, Delta T = 40.41 sec
 Ecliptic obliquity = 23°29'12, Nutation = 0°00'09, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°54'47, Lahiri = 19°01'48Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1654
geocentric

APRIL 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	12 37 52	11°23'56	0°53	18°38	14°20	13°53	9°42	19°43	5°2	25°53	13°17	3°46	2°15	24°47	11°R 7	W 1
T 2	12 41 49	12°22'55	13°12	20°41	14°29	14°35	9°56	19°41	5°3	25°53	13°18	3°41	2°12	24°53	11°M 4	T 2
F 3	12 45 45	13°21'51	25°22	22°44	14°36	15°17	10°9	19°39	5°3	25°53	13°19	3°34	2°9	25°0	11°0	F 3
S 4	12 49 42	14°20'45	7°12	24°45	14°40	15°59	10°22	19°37	5°3	25°53	13°20	3°27	2°6	25°7	10°56	S 4
S 5	12 53 39	15°19'38	19°22	26°45	14°42	16°41	10°35	19°35	5°3	25°53	13°20	3°19	2°3	25°13	10°52	S 5
M 6	12 57 35	16°18'28	1°15	28°43	14°42	17°23	10°49	19°34	5°4	25°52	13°21	3°12	2°0	25°20	10°49	M 6
T 7	13 1 32	17°17'17	13°7	0°39	14°39	18°5	11°2	19°32	5°4	25°52	13°22	3°5	1°56	25°27	10°45	T 7
W 8	13 5 28	18°16'04	25°1	2°32	14°34	18°47	11°15	19°31	5°4	25°52	13°23	3°0	1°53	25°34	10°41	W 8
T 9	13 9 25	19°14'49	7°3	4°23	14°26	19°29	11°28	19°30	5°R 4	25°51	13°24	2°58	1°50	25°40	10°37	T 9
F 10	13 13 21	20°13'32	19°12	6°10	14°16	20°10	11°40	19°28	5°4	25°51	13°25	2°D 57	1°47	25°47	10°33	F 10
S 11	13 17 18	21°12'14	1°39	7°53	14°3	20°52	11°53	19°27	5°4	25°51	13°26	2°57	1°44	25°54	10°28	S 11
S 12	13 21 14	22°10'54	14°25	9°33	13°48	21°34	12°6	19°26	5°4	25°50	13°26	2°58	1°41	26°1	10°24	S 12
M13	13 25 11	23°9'32	27°36	11°9	13°31	22°15	12°19	19°25	5°3	25°50	13°27	2°R 59	1°37	26°7	10°20	M13
T 14	13 29 8	24°8'09	11°14	12°41	13°11	22°57	12°31	19°25	5°3	25°49	13°28	2°59	1°34	26°14	10°16	T 14
W15	13 33 4	25°6'44	25°20	14°8	12°49	23°38	12°44	19°24	5°3	25°48	13°29	2°57	1°31	26°21	10°11	W15
T 16	13 37 1	26°5'17	9°52	15°30	12°24	24°20	12°56	19°23	5°3	25°48	13°30	2°53	1°28	26°27	10°7	T 16
F 17	13 40 57	27°3'48	24°45	16°48	11°58	25°1	13°9	19°23	5°2	25°47	13°31	2°46	1°25	26°34	10°3	F 17
S 18	13 44 54	28°2'17	9°51	18°1	11°30	25°43	13°21	19°23	5°2	25°47	13°32	2°38	1°21	26°41	9°58	S 18
S 19	13 48 50	29°0'45	25°0	19°9	10°59	26°24	13°33	19°22	5°1	25°46	13°33	2°30	1°18	26°48	9°54	S 19
M20	13 52 47	29°59'10	10°12	20°12	10°28	27°5	13°45	19°22	5°1	25°45	13°34	2°22	1°15	26°54	9°49	M20
T 21	13 56 43	0°57'34	24°48	21°10	9°54	27°47	13°57	19°D 22	5°0	25°44	13°35	2°15	1°12	27°1	9°45	T 21
W22	14 0 40	1°55'55	9°12	22°2	9°20	28°28	14°9	19°22	5°0	25°44	13°37	2°11	1°9	27°8	9°40	W22
T 23	14 4 37	2°54'14	23°11	22°49	8°44	29°9	14°21	19°22	4°59	25°43	13°38	2°9	1°6	27°14	9°36	T 23
F 24	14 8 33	3°52'31	6°16	23°31	8°7	29°50	14°33	19°23	4°58	25°42	13°39	2°D 8	1°2	27°21	9°31	F 24
S 25	14 12 30	4°50'46	19°58	24°8	7°30	0°13	14°45	19°23	4°57	25°41	13°40	2°9	0°59	27°28	9°26	S 25
S 26	14 16 26	5°48'59	2°15	24°39	6°52	1°13	14°56	19°24	4°57	25°40	13°41	2°R 9	0°56	27°35	9°22	S 26
M27	14 20 23	6°47'09	15°27	25°4	6°14	1°54	15°8	19°24	4°56	25°39	13°42	2°8	0°53	27°41	9°17	M27
T 28	14 24 19	7°45'18	27°50	25°24	5°36	2°35	15°19	19°25	4°55	25°39	13°43	2°6	0°50	27°48	9°13	T 28
W29	14 28 16	8°43'25	10°4	25°39	4°59	3°16	15°31	19°26	4°54	25°38	13°44	2°0	0°47	27°55	9°8	W29
T 30	14 32 12	9°41'30	22°11	25°48	4°22	3°15	15°42	19°27	4°53	25°37	13°46	1°52	0°43	28°1	9°4	T 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	4n31	2s31	2s22	7n16	0s 4	22n18	6n25	16n24	0n23	8s49	0s57	16n22	1n30	23s39	0s16	22s10	1n16	13n29	9s 1	10s 9	10s41	23s57	13s46	1n30	
T 2	4 54	8 15	3 17	8 12	0n 7	22 24	6 29	16 37	0 23	8 45	0 57	16 22	1 30	23 39	0 16	22 10	1 16	13 30	9 1	10 11	10 43	23 58	13 45	1 30	
F 3	5 17	13 36	4 3	9 9	0 19	22 29	6 33	16 50	0 24	8 40	0 57	16 23	1 30	23 39	0 16	22 10	1 16	13 30	9 0	10 13	10 44	24 0	13 43	1 31	
S 4	5 40	18 23	4 37	10 4	0 30	22 34	6 36	17 3	0 24	8 35	0 57	16 23	1 30	23 39	0 16	22 10	1 16	13 30	9 0	10 16	10 45	24 2	13 41	1 31	
S 5	6 3	22 24	4 59	10 59	0 41	22 37	6 38	17 15	0 25	8 30	0 57	16 24	1 30	23 39	0 16	22 10	1 16	13 31	9 0	10 19	10 46	24 4	13 40	1 32	
M 6	6 26	25 28	5 8	11 52	0 53	22 39	6 41	17 28	0 26	8 25	0 58	16 24	1 30	23 39	0 16	22 9	1 16	13 31	9 0	10 21	10 47	24 5	13 38	1 32	
T 7	6 48	27 26	5 4	12 43	1 4	22 40	6 42	17 40	0 26	8 20	0 58	16 25	1 30	23 39	0 16	22 9	1 16	13 31	9 0	10 24	10 48	24 7	13 37	1 33	
W 8	7 11	28 9	4 46	13 33	1 15	22 39	6 44	17 52	0 27	8 15	0 58	16 25	1 30	23 39	0 16	22 9	1 16	13 32	8 59	10 25	10 49	24 9	13 35	1 33	
T 9	7 33	27 33	4 16	14 21	1 26	22 38	6 45	18 4	0 27	8 11	0 58	16 25	1 30	23 39	0 16	22 9	1 16	13 32	8 59	10 26	10 51	24 11	13 33	1 33	
F 10	7 55	25 38	3 34	15 7	1 36	22 35	6 45	18 16	0 28	8 6	0 58	16 26	1 30	23 39	0 16	22 9	1 16	13 32	8 59	10 27	10 52	24 12	13 32	1 34	
S 11	8 17	22 27	2 41	15 50	1 46	22 31	6 44	18 28	0 29	8 1	0 58	16 26	1 30	23 39	0 16	22 9	1 16	13 32	8 59	10 26	10 53	24 14	13 30	1 34	
S 12	8 39	18 6	1 38	16 31	1 55	22 25	6 44	18 39	0 29	7 56	0 59	16 26	1 30	23 39	0 16	22 9	1 16	13 33	8 59	10 26	10 54	24 16	13 28	1 35	
M13	9 1	12 47	0 29	17 10	2 4	22 18	6 42	18 51	0 30	7 52	0 59	16 26	1 30	23 40	0 16	22 9	1 16	13 33	8 58	10 26	10 55	24 18	13 27	1 35	
T 14	9 23	6 41	0n44	17 46	2 12	22 10	6 40	19 2	0 30	7 47	0 59	16 27	1 29	23 40	0 16	22 9	1 16	13 33	8 58	10 26	10 56	24 19	13 25	1 35	
W15	9 44	0 4	1 57	18 20	2 20	22 0	6 37	19 13	0 31	7 42	0 59	16 27	1 29	23 40	0 16	22 9	1 16	13 34	8 58	10 27	10 57	24 21	13 23	1 36	
T 16	10 6	6n44	3 4	18 51	2 26	21 49	6 34	19 24	0 31	7 38	0 59	16 27	1 29	23 40	0 16	22 9	1 16	13 34	8 58	10 28	10 59	24 23	13 21	1 36	
F 17	10 27	13 20	4 1	19 19	2 32	21 37	6 29	19 34	0 32	7 33	0 59	16 27	1 29	23 40	0 16	22 9	1 16	13 34	8 58	10 30	11 0	24 24	13 20	1 37	
S 18	10 48	19 14	4 41	19 45	2 37	21 23	6 24	19 45	0 32	7 28	1 0	16 27	1 29	23 40	0 16	22 9	1 16	13 35	8 57	10 33	11 1	24 26	13 18	1 37	
S 19	11 9	23 56	5 2	20 8	2 41	21 8	6 19	19 55	0 33	7 24	1 0	16 27	1 29	23 40	0 16	22 9	1 16	13 35	8 57	10 36	11 2	24 28	13 16	1 37	
M20	11 29	26 59	5 2	20 28	2 44	20 52	6 12	20 5	0 33	7 19	1 0	16 27	1 29	23 40	0 16	22 9	1 16	13 35	8 57	10 39	11 3	24 29	13 14	1 38	
T 21	11 50	28 5	4 42	20 46	2 47	20 34	6 5	20 15	0 34	7 15	1 0	16 27	1 29	23 40	0 16	22 9	1 16	13 35	8 57	10 42	11 4	24 31	13 13	1 38	
W22	12 10	27 13	4 4	21 1	2 48	20 15	5 57	20 25	0 34	7 10	1 0	16 27	1 29	23 40	0 16	22 9	1 16	13 36	8 57	10 43	11 5	24 33	13 11	1 39	
T 23	12 30	24 39	3 12	21 13	2 48	19 55	5 48	20 35	0 35	7 6	1 0	16 27	1 29	23 40	0 16	22 9	1 16	13 36	8 57	10 44	11 6	24 34	13 9	1 39	
F 24	12 50	20 44	2 11	21 22	2 46	19 35	5 39	20 44	0 35	7 2	1 1	16 27	1 29	23 40	0 16	22 9	1 16	13 36	8 56	10 44	11 8	24 36	13 7	1 39	
S 25	13 10	15 53	1 5	21 30	2 44	19 13	5 29	20 53	0 36	6 57	1 1	16 26	1 29	23 40	0 16	22 9	1 16	13 37	8 56	10 44	11 9	24 38	13 5	1 40	
S 26	13 29	10 26	0s 4	21 34	2 41	18 50	5 18	21 2	0 36	6 53	1 1	16 26	1 29	23 40	0 16	22 9	1 16	13 37	8 56	10 44	11 10	24 39	13 4	1 40	
M27	13 48	4 40	1 10	21 36	2 36	18 26	5 7	21 11	0 37	6 49	1 1	16 26	1 28	23 40	0 16	22 8	1 16	13 37	8 56	10 44	11 11	24 41	13 2	1 40	
T 28	14 7	1s10	2 12	21 35	2 30	18 2	4 55	21 20	0 37	6 44	1 1	16 26	1 28	23 40	0 16	22 8	1 17	13 37	8 56	10 45	11 12	24 43	13 0	1 41	
W29	14 26	6 52	3 7	21 32	2 23	17 38	4 42	21 28	0 38	6 40	1 2	16 25	1 28	23 40	0 16	22 8	1 17	13 38	8 56	10 47	11 13	24 44	12 58	1 41	
T 30	14n45	12s15	3s53	21n26	2n15	17n13	4n29	21n36	0n38	6s36	1s 2	16n25	1n28	23s40	0s17	22s 8	1n17	13n38	8s55	10s50	11s14	24s46	12s57	1n41	

ASTRODIENST EPHEMERIS for the year 1654

geocentric

MAY 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	14 36 9	10♂39'33	4♂11	25°R52	3°R46	4♂37	15♂53	19♂28	4°R52	25°R36	13♂47	1°R41	0♂40	28♂8	8°R59	F 1
S 2	14 40 6	11°37'35	16° 8	25♂51	3♂11	5°18	16° 4	19°29	4♂51	25♂35	13°48	1♂29	0°37	28°15	8♂54	S 2
S 3	14 44 2	12°35'35	28° 2	25°45	2°37	5°59	16°15	19°30	4°50	25°34	13°49	1°16	0°34	28°22	8°50	S 3
M 4	14 47 59	13°33'33	9♂47	25°34	2° 5	6°40	16°26	19°32	4°48	25°32	13°50	1° 3	0°31	28°28	8°45	M 4
T 5	14 51 55	14°31'30	21°47	25°19	1°34	7°21	16°37	19°33	4°47	25°31	13°52	0°52	0°27	28°35	8°41	T 5
W 6	14 55 52	15°29'26	3♂43	24°59	1° 5	8° 1	16°48	19°35	4°46	25°30	13°53	0°43	0°24	28°42	8°36	W 6
T 7	14 59 48	16°27'20	15°44	24°36	0°39	8°42	16°58	19°36	4°45	25°29	13°54	0°37	0°21	28°49	8°32	T 7
F 8	15 3 45	17°25'13	27°54	24° 9	0°14	9°22	17° 9	19°38	4°43	25°28	13°55	0°33	0°18	28°55	8°27	F 8
S 9	15 7 41	18°23'04	10♂19	23°40	29♂51	10° 3	17°19	19°40	4°42	25°27	13°57	0°32	0°15	29° 2	8°23	S 9
S 10	15 11 38	19°20'55	23° 1	23° 8	29°31	10°44	17°30	19°42	4°40	25°26	13°58	0°32	0°12	29° 9	8°18	S 10
M 11	15 15 35	20°18'44	6♂ 6	22°35	29°13	11°24	17°40	19°44	4°39	25°24	13°59	0°32	0° 8	29°16	8°14	M 11
T 12	15 19 31	21°16'32	19°38	22° 0	28°57	12° 5	17°50	19°46	4°37	25°23	14° 1	0°31	0° 5	29°22	8° 9	T 12
W 13	15 23 28	22°14'18	3♂39	21°25	28°44	12°45	18° 0	19°48	4°36	25°22	14° 2	0°28	0° 2	29°29	8° 5	W 13
T 14	15 27 24	23°12'04	18° 8	20°50	28°34	13°25	18°10	19°51	4°34	25°20	14° 3	0°22	29♂59	29°36	8° 1	T 14
F 15	15 31 21	24° 9'48	3♂ 3	20°16	28°25	14° 6	18°19	19°53	4°33	25°19	14° 4	0°14	29°56	29°42	7°56	F 15
S 16	15 35 17	25° 7'32	18°15	19°43	28°19	14°46	18°29	19°56	4°31	25°18	14° 6	0° 4	29°53	29°49	7°52	S 16
S 17	15 39 14	26° 5'14	3♂34	19°12	28°16	15°26	18°38	19°59	4°29	25°17	14° 7	29♂53	29°49	29°56	7°48	S 17
M 18	15 43 10	27° 2'55	18°50	18°43	28°D15	16° 7	18°48	20° 1	4°28	25°15	14° 8	29°42	29°46	0♂ 3	7°44	M 18
T 19	15 47 7	28° 0'34	3♂30	18°18	28°16	16°47	18°57	20° 4	4°26	25°14	14°10	29°34	29°43	0° 9	7°40	T 19
W 20	15 51 4	28°58'12	18°27	17°55	28°19	17°27	19° 6	20° 7	4°24	25°12	14°11	29°27	29°40	0°16	7°35	W 20
T 21	15 55 0	29°55'49	2♂37	17°36	28°25	18° 7	19°15	20°10	4°22	25°11	14°13	29°24	29°37	0°23	7°31	T 21
F 22	15 58 57	0♂53'23	16°18	17°20	28°33	18°48	19°24	20°13	4°20	25°10	14°14	29°22	29°33	0°29	7°27	F 22
S 23	16 2 53	1°50'57	29°32	17° 9	28°43	19°28	19°33	20°17	4°18	25° 8	14°15	29°22	29°30	0°36	7°24	S 23
S 24	16 6 50	2°48'29	12♂22	17° 2	28°55	20° 8	19°41	20°20	4°17	25° 7	14°17	29°22	29°27	0°43	7°20	S 24
M 25	16 10 46	3°45'59	24°54	16°D59	29° 9	20°48	19°50	20°23	4°15	25° 5	14°18	29°20	29°24	0°50	7°16	M 25
T 26	16 14 43	4°43'28	7♂11	17° 1	29°25	21°28	19°58	20°27	4°13	25° 4	14°19	29°17	29°21	0°56	7°12	T 26
W 27	16 18 39	5°40'56	19°17	17° 7	29°43	22° 8	20° 6	20°30	4°11	25° 2	14°21	29°11	29°18	1° 3	7° 9	W 27
T 28	16 22 36	6°38'23	1♂16	17°17	0♂ 3	22°48	20°14	20°34	4° 8	25° 1	14°22	29° 3	29°14	1°10	7° 5	T 28
F 29	16 26 33	7°35'49	13°11	17°32	0°25	23°28	20°22	20°38	4° 6	24°59	14°24	28°51	29°11	1°17	7° 1	F 29
S 30	16 30 29	8°33'13	25° 3	17°52	0°48	24° 7	20°30	20°42	4° 4	24°58	14°25	28°39	29° 8	1°23	6°58	S 30
S 31	16 34 26	9♂30'37	6♂56	18♂16	1♂13	24♂47	20♂38	20♂46	4♂ 2	24♂56	14♂26	28♂25	29♂ 5	1♂30	6♂55	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
F 1	15n 3	17s 8	4s28	21n18	2n 6	16n48	4n16	21n45	0n39	6s32	1 s 2	16n24	1n28	23s40	0s17	22s 8
S 2	15 21	21 20	4 50	21 8	1 55	16 24	4 3	21 52	0 39	6 27	1 2	16 24	1 28	23 40	0 17	22 8
S 3	15 39	24 38	5 0	20 55	1 44	15 59	3 49	22 0	0 40	6 23	1 2	16 23	1 28	23 40	0 17	22 8
M 4	15 56	26 53	4 57	20 40	1 31	15 34	3 35	22 8	0 40	6 19	1 3	16 23	1 28	23 41	0 17	22 8
T 5	16 14	27 55	4 41	20 23	1 17	15 10	3 20	22 15	0 41	6 15	1 3	16 22	1 28	23 41	0 17	22 8
W 6	16 31	27 39	4 13	20 4	1 3	14 47	3 6	22 22	0 41	6 11	1 3	16 22	1 28	23 41	0 17	22 8
T 7	16 47	26 5	3 33	19 43	0 47	14 24	2 52	22 29	0 42	6 7	1 3	16 21	1 28	23 41	0 17	22 8
F 8	17 4 23	17 2	4 43	19 21	0 31	14 2	2 37	22 36	0 42	6 3	1 3	16 21	1 28	23 41	0 17	22 8
S 9	17 20	19 12	1 45	18 58	0 15	13 40	2 23	22 42	0 43	6 0	1 4	16 20	1 28	23 41	0 17	22 8
S 10	17 36	14 30	0 40	18 33	0s 3	13 20	2 9	22 48	0 43	5 56	1 4	16 19	1 27	23 41	0 17	22 8
M 11	17 52	8 50	0n29	18 8	0 20	13 0	1 55	22 55	0 43	5 52	1 4	16 19	1 27	23 41	0 17	22 8
T 12	18 7	2 35	1 39	17 42	0 38	12 42	1 41	23 0	0 44	5 48	1 4	16 18	1 27	23 41	0 17	22 8
W 13	18 22	3n59	2 45	17 16	0 55	12 24	1 27	23 6	0 44	5 45	1 4	16 17	1 27	23 41	0 17	22 8
T 14	18 37	10 34	3 43	16 50	1 12	12 8	1 14	23 12	0 45	5 41	1 5	16 16	1 27	23 41	0 17	22 7
F 15	18 51	16 44	4 27	16 25	1 29	11 52	1 0	23 17	0 45	5 37	1 5	16 15	1 27	23 41	0 17	22 7
S 16	19 5	22 0	4 54	16 0	1 45	11 38	0 48	23 22	0 46	5 34	1 5	16 14	1 27	23 41	0 17	22 7
S 17	19 19	25 48	5 0	15 37	2 1	11 25	0 35	23 27	0 46	5 30	1 5	16 13	1 27	23 41	0 17	22 7
M 18	19 32	27 44	4 44	15 15	2 16	11 14	0 23	23 32	0 46	5 27	1 6	16 13	1 27	23 42	0 17	22 7
T 19	19 45	27 34	4 9	14 54	2 30	11 3	0 11	23 36	0 47	5 23	1 6	16 12	1 27	23 42	0 17	22 7
W 20	19 58	25 29	3 18	14 35	2 43	10 53	0s 1	23 41	0 47	5 20	1 6	16 11	1 27	23 42	0 17	22 7
T 21	20 11	21 50	2 16	14 18	2 55	10 45	0 12	23 45	0 48	5 17	1 6	16 9	1 27	23 42	0 17	22 7
F 22	20 23	17 4	1 8	14 4	3 6	10 38	0 23	23 48	0 48	5 13	1 7	16 8	1 27	23 42	0 17	22 7
S 23	20 34	11 39	0s 1	13 51	3 16	10 32	0 33	23 52	0 48	5 10	1 7	16 7	1 26	23 42	0 17	22 7
S 24	20 46	5 53	1 8	13 41	3 25	10 26	0 43	23 56	0 49	5 7	1 7	16 6	1 26	23 42	0 17	22 7
M 25	20 57	0 2	2 10	13 33	3 32	10 22	0 53	23 59	0 49	5 4	1 7	16 5	1 26	23 42	0 17	22 7
T 26	21 7	5s41	3 5	13 27	3 39	10 19	1 2	24 2	0 49	5 1	1 8	16 4	1 26	23 42	0 17	22 7
W 27	21 18	11 7	3 51	13 24	3 44	10 17	1 11	24 5	0 50	4 58	1 8	16 3	1 26	23 42	0 17	22 7
T 28	21 28	16 5	4 26	13 23	3 48	10 16	1 20	24 7	0 50	4 55	1 8	16 1	1 26	23 42	0 17	22 7
F 29	21 37	20 24	4 49	13 24	3 51	10 16	1 28	24 10	0 51	4 52	1 8	16 0	1 26	23 42	0 17	22 7
S 30	21 46	23 54	4 59	13 27	3 53	10 17	1 36	24 12	0 51	4 49	1 9	15 59	1 26	23 42	0 17	22 6
S 31	21n55	26s23	4s57	13n33	3s54	10n18	1s43	24n14	0n51	4s47	1s 9	15n57	1n26	23s43	0s17	22s 6

Julian Day Number = 2325291.5, Delta T = 40.30 sec
 Ecliptic obliquity = 23°29'11, Nutation = 0°00'07, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°54'56, Lahiri = 19°01'56Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1654
geocentric

JUNE 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	16 38 22	10 ^{II} 28'00	18 [♂] 50	18 [♂] 44	1 [♂] 40	25 ^{II} 27	20 [♂] 45	20 [♂] 50	4 ^R 0	24 ^R 55	14 ^{II} 28	28 ^R 12	29 [♂] 2	1 [♂] 37	6 ^R 51	M 1
T 2	16 42 19	11 [°] 25'22	0 [♂] 46	19 [°] 17	2 [°] 8	26 [°] 7	20 [°] 52	20 [°] 54	3 [♂] 58	24 [♂] 53	14 [°] 29	28 [♂] 0	28 [°] 59	1 [°] 43	6 [♂] 48	T 2
W 3	16 46 15	12 [°] 22'43	12 [°] 47	19 [°] 53	2 [°] 38	26 [°] 47	21 [°] 0	20 [°] 58	3 [°] 56	24 [°] 51	14 [°] 31	27 [°] 51	28 [°] 55	1 [°] 50	6 [°] 45	W 3
T 4	16 50 12	13 [°] 20'03	24 [°] 54	20 [°] 34	3 [°] 9	27 [°] 26	21 [°] 7	21 [°] 2	3 [°] 54	24 [°] 50	14 [°] 32	27 [°] 44	28 [°] 52	1 [°] 57	6 [°] 42	T 4
F 5	16 54 9	14 [°] 17'23	7 [♂] 10	21 [°] 19	3 [°] 41	28 [°] 6	21 [°] 14	21 [°] 7	3 [°] 51	24 [°] 48	14 [°] 33	27 [°] 40	28 [°] 49	2 [°] 4	6 [°] 39	F 5
S 6	16 58 5	15 [°] 14'42	19 [°] 38	22 [°] 7	4 [°] 15	28 [°] 46	21 [°] 20	21 [°] 11	3 [°] 49	24 [°] 47	14 [°] 35	27 [°] 38	28 [°] 46	2 [°] 10	6 [°] 36	S 6
S 7	17 2 2	16 [°] 12'01	2 [♂] 21	23 [°] 0	4 [°] 50	29 [°] 25	21 [°] 27	21 [°] 16	3 [°] 47	24 [°] 45	14 [°] 36	27 [°] D38	28 [°] 43	2 [°] 17	6 [°] 33	S 7
M 8	17 5 58	17 [°] 9'19	15 [°] 25	23 [°] 56	5 [°] 26	0 [♂] 5	21 [°] 33	21 [°] 20	3 [°] 45	24 [°] 44	14 [°] 38	27 [°] R38	28 [°] 39	2 [°] 24	6 [°] 31	M 8
T 9	17 9 55	18 [°] 6'37	28 [°] 51	24 [°] 56	6 [°] 4	0 [°] 44	21 [°] 40	21 [°] 25	3 [°] 42	24 [°] 42	14 [°] 39	27 [°] 38	28 [°] 36	2 [°] 31	6 [°] 28	T 9
W10	17 13 51	19 [°] 3'54	12 [♂] 44	25 [°] 59	6 [°] 43	1 [°] 24	21 [°] 46	21 [°] 30	3 [°] 40	24 [°] 40	14 [°] 40	27 [°] 36	28 [°] 33	2 [°] 37	6 [°] 25	W10
T 11	17 17 48	20 [°] 1'12	27 [°] 3	27 [°] 6	7 [°] 23	2 [°] 3	21 [°] 52	21 [°] 35	3 [°] 38	24 [°] 39	14 [°] 42	27 [°] 32	28 [°] 30	2 [°] 44	6 [°] 23	T 11
F 12	17 21 44	20 [°] 58'29	11 [♂] 46	28 [°] 16	8 [°] 3	2 [°] 43	21 [°] 58	21 [°] 40	3 [°] 35	24 [°] 37	14 [°] 43	27 [°] 25	28 [°] 27	2 [°] 51	6 [°] 20	F 12
S 13	17 25 41	21 [°] 55'45	26 [°] 49	29 [°] 30	8 [°] 45	3 [°] 22	22 [°] 3	21 [°] 44	3 [°] 33	24 [°] 35	14 [°] 44	27 [°] 16	28 [°] 24	2 [°] 57	6 [°] 18	S 13
S 14	17 29 38	22 [°] 53'02	12 ^{II} 1	0 ^{II} 47	9 [°] 28	4 [°] 2	22 [°] 9	21 [°] 50	3 [°] 30	24 [°] 34	14 [°] 46	27 [°] 7	28 [°] 20	3 [°] 4	6 [°] 16	S 14
M15	17 33 34	23 [°] 50'18	27 [°] 14	2 [°] 8	10 [°] 12	4 [°] 41	22 [°] 14	21 [°] 55	3 [°] 28	24 [°] 32	14 [°] 47	26 [°] 58	28 [°] 17	3 [°] 11	6 [°] 14	M15
T 16	17 37 31	24 [°] 47'34	12 [♂] 16	3 [°] 32	10 [°] 56	5 [°] 21	22 [°] 19	22 [°] 0	3 [°] 26	24 [°] 31	14 [°] 49	26 [°] 50	28 [°] 14	3 [°] 18	6 [°] 12	T 16
W17	17 41 27	25 [°] 44'49	26 [°] 58	4 [°] 59	11 [°] 42	6 [°] 0	22 [°] 24	22 [°] 5	3 [°] 23	24 [°] 29	14 [°] 50	26 [°] 45	28 [°] 11	3 [°] 24	6 [°] 10	W17
T 18	17 45 24	26 [°] 42'03	11 [♂] 14	6 [°] 29	12 [°] 28	6 [°] 39	22 [°] 29	22 [°] 10	3 [°] 21	24 [°] 27	14 [°] 51	26 [°] 42	28 [°] 8	3 [°] 31	6 [°] 8	T 18
F 19	17 49 20	27 [°] 39'17	25 [°] 2	8 [°] 3	13 [°] 15	7 [°] 19	22 [°] 33	22 [°] 16	3 [°] 19	24 [°] 26	14 [°] 53	26 [°] D41	28 [°] 5	3 [°] 38	6 [°] 6	F 19
S 20	17 53 17	28 [°] 36'30	8 [♂] 22	9 [°] 39	14 [°] 3	7 [°] 58	22 [°] 38	22 [°] 21	3 [°] 16	24 [°] 24	14 [°] 54	26 [°] 41	28 [°] 1	3 [°] 45	6 [°] 5	S 20
S 21	17 57 13	29 [°] 33'43	21 [°] 16	11 [°] 19	14 [°] 52	8 [°] 37	22 [°] 42	22 [°] 27	3 [°] 14	24 [°] 23	14 [°] 56	26 [°] 42	27 [°] 58	3 [°] 51	6 [°] 3	S 21
M22	18 1 10	0 [♂] 30'55	3 [♂] 50	13 [°] 2	15 [°] 41	9 [°] 16	22 [°] 46	22 [°] 33	3 [°] 11	24 [°] 21	14 [°] 57	26 [°] R42	27 [°] 55	3 [°] 58	6 [°] 2	M22
T 23	18 5 7	1 [°] 28'06	16 [°] 6	14 [°] 48	16 [°] 31	9 [°] 56	22 [°] 50	22 [°] 38	3 [°] 9	24 [°] 19	14 [°] 58	26 [°] 41	27 [°] 52	4 [°] 5	6 [°] 1	T 23
W24	18 9 3	2 [°] 25'17	28 [°] 10	16 [°] 37	17 [°] 22	10 [°] 35	22 [°] 54	22 [°] 44	3 [°] 6	24 [°] 18	15 [°] 0	26 [°] 38	27 [°] 49	4 [°] 11	5 [°] 59	W24
T 25	18 13 0	3 [°] 22'28	10 [♂] 7	18 [°] 28	18 [°] 13	11 [°] 14	22 [°] 57	22 [°] 50	3 [°] 4	24 [°] 16	15 [°] 1	26 [°] 32	27 [°] 45	4 [°] 18	5 [°] 58	T 25
F 26	18 16 56	4 [°] 19'38	22 [°] 0	20 [°] 23	19 [°] 5	11 [°] 53	23 [°] 1	22 [°] 56	3 [°] 2	24 [°] 14	15 [°] 2	26 [°] 25	27 [°] 42	4 [°] 25	5 [°] 57	F 26
S 27	18 20 53	5 [°] 16'49	3 [♂] 52	22 [°] 20	19 [°] 57	12 [°] 32	23 [°] 4	23 [°] 1	2 [°] 59	24 [°] 13	15 [°] 4	26 [°] 16	27 [°] 39	4 [°] 32	5 [°] 56	S 27
S 28	18 24 49	6 [°] 13'59	15 [°] 46	24 [°] 19	20 [°] 50	13 [°] 11	23 [°] 7	23 [°] 7	2 [°] 57	24 [°] 11	15 [°] 5	26 [°] 7	27 [°] 36	4 [°] 38	5 [°] 56	S 28
M29	18 28 46	7 [°] 11'09	27 [°] 44	26 [°] 20	21 [°] 44	13 [°] 50	23 [°] 10	23 [°] 13	2 [°] 54	24 [°] 10	15 [°] 6	25 [°] 58	27 [°] 33	4 [°] 45	5 [°] 55	M29
T 30	18 32 42	8 [♂] 8'19	9 [♂] 47	28 ^{II} 24	22 [♂] 38	14 [♂] 29	23 [♂] 12	23 [♂] 20	2 [♂] 52	24 [♂] 8	15 ^{II} 8	25 [♂] 50	27 [♂] 30	4 [♂] 52	5 [♂] 54	T 30

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐	♑	♒	♓	♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	lat
M 1	22n 4	27s41	4s41	13n41	3s54	10n21	1s51	24n16	0n52	4s44	1s 9	15n56	1n26	23s43	0s17	22s 6	1n17	13n46	8s52	12s 7	11s50
T 2	22 12	27 42	4 13	13 50	3 53	10 24	1 57	24 18	0 52	4 41	1 9	15 55	1 26	23 43	0 17	22 6	1 17	13 46	8 52	12 11	11 51
W 3	22 19	26 25	3 34	14 2	3 51	10 28	2 4	24 19	0 52	4 39	1 10	15 53	1 26	23 43	0 17	22 6	1 17	13 46	8 52	12 15	11 52
T 4	22 27	23 53	2 44	14 15	3 49	10 33	2 10	24 20	0 53	4 36	1 10	15 52	1 26	23 43	0 17	22 6	1 17	13 47	8 52	12 17	11 53
F 5	22 34	20 14	1 46	14 30	3 45	10 38	2 16	24 21	0 53	4 34	1 10	15 50	1 26	23 43	0 17	22 6	1 17	13 48	8 52	12 18	11 55
S 6	22 40	15 38	0 42	14 47	3 41	10 44	2 22	24 22	0 53	4 31	1 10	15 49	1 26	23 43	0 17	22 6	1 17	13 47	8 52	12 19	11 56
S 7	22 46	10 16	0n25	15 5	3 36	10 51	2 27	24 23	0 54	4 29	1 11	15 47	1 25	23 43	0 17	22 6	1 17	13 47	8 52	12 19	11 57
M 8	22 52	4 20	1 33	15 24	3 30	10 58	2 32	24 23	0 54	4 26	1 11	15 46	1 25	23 43	0 17	22 6	1 17	13 47	8 52	12 19	11 58
T 9	22 57	1n57	2 38	15 45	3 23	11 6	2 37	24 23	0 54	4 24	1 11	15 44	1 25	23 43	0 17	22 6	1 17	13 48	8 52	12 19	11 59
W10	23 2	8 20	3 35	16 7	3 16	11 14	2 41	24 23	0 55	4 22	1 12	15 43	1 25	23 43	0 17	22 6	1 17	13 48	8 52	12 20	12 0
T 11	23 7	14 30	4 21	16 29	3 8	11 23	2 46	24 23	0 55	4 20	1 12	15 41	1 25	23 43	0 17	22 6	1 17	13 48	8 52	12 21	12 1
F 12	23 11	20 1	4 52	16 53	3 0	11 33	2 50	24 23	0 55	4 18	1 12	15 39	1 25	23 44	0 17	22 6	1 17	13 48	8 52	12 24	12 2
S 13	23 14	24 23	5 3	17 18	2 51	11 43	2 53	24 22	0 56	4 16	1 12	15 38	1 25	23 44	0 17	22 6	1 17	13 48	8 52	12 27	12 3
S 14	23 18	27 7	4 53	17 43	2 42	11 53	2 57	24 21	0 56	4 14	1 13	15 36	1 25	23 44	0 17	22 6	1 17	13 48	8 52	12 30	12 4
M15	23 21	27 49	4 22	18 8	2 32	12 3	3 0	24 20	0 56	4 12	1 13	15 34	1 25	23 44	0 17	22 5	1 17	13 49	8 52	12 33	12 6
T 16	23 23	26 28	3 34	18 34	2 22	12 14	3 3	24 19	0 56	4 10	1 13	15 33	1 25	23 44	0 17	22 5	1 17	13 49	8 52	12 35	12 7
W17	23 25	23 17	2 32	19 1	2 12	12 26	3 6	24 18	0 57	4 9	1 14	15 31	1 25	23 44	0 17	22 5	1 17	13 49	8 52	12 37	12 8
T 18	23 27	18 45	1 22	19 27	2 1	12 37	3 8	24 16	0 57	4 7	1 14	15 29	1 25	23 44	0 17	22 5	1 17	13 49	8 52	12 38	12 9
F 19	23 28	13 20	0 9	19 54	1 49	12 49	3 11	24 14	0 57	4 6	1 14	15 27	1 25	23 44	0 17	22 5	1 17	13 49	8 52	12 39	12 10
S 20	23 29	7 29	1s 2	20 20	1 38	13 1	3 13	24 12	0 58	4 4	1 14	15 25	1 25	23 44	0 17	22 5	1 17	13 49	8 52	12 39	12 11
S 21	23 29	1 31	2 8	20 45	1 26	13 14	3 15	24 10	0 58	4 3	1 15	15 24	1 25	23 44	0 17	22 5	1 17	13 50	8 52	12 38	12 12
M22	23 29	4s21	3 5	21 11	1 14	13 26	3 16	24 8	0 58	4 1	1 15	15 22	1 25	23 44	0 17	22 5	1 17	13 50	8 52	12 38	12 13
T 23	23 29	9 55	3 53	21 35	1 3	13 39	3 18	24 5	0 58	4 0	1 15	15 20	1 25	23 44	0 17	22 5	1 17	13 50	8 52	12 39	12 14
W24	23 28	15 2	4 29	21 58	0 51	13 52	3 19	24 2	0 59	3 59	1 16	15 18	1 25	23 44	0 17	22 5	1 17	13 50	8 52	12 40	12 15
T 25	23 27	19 31	4 53	22 21	0 39	14 5	3 20	23 59	0 59	3 58	1 16	15 16	1 25	23 44	0 17	22 5	1 17	13 50	8 52	12 42	12 17
F 26	23 25	23 12	5 5	22 42	0 27	14 18	3 21	23 56	0 59	3 57	1 16	15 14	1 25	23 44	0 17	22 5	1 17	13 50	8 52	12 44	12 18
S 27	23 23	25 55	5 3	23 1	0 15	14 31	3 22	23 53	1 0	3 56	1 17	15 12	1 25	23 45	0 17	22 5	1 17	13 50	8 52	12 47	12 19
S 28	23 20	27 30	4 48	23 18	0 3	14 45	3 22	23 49	1 0	3 55	1 17	15 10	1 24	23 45	0 17	22 5	1 17	13 50	8 52	12 50	12 20
M29	23 17	27 49	4 21	23 34	0n 8	14 58	3 23	23 46	1 0	3 54	1 17	15 8	1 24	23 45	0 17	22 5	1 17	13 51	8 52	12 53	12 21
T 30	23n14	26s48	3s41	23n47	0n19	15n12	3s23	23n42	1n 0	3s53	1s17	15n 6	1n24	23s45	0s17	22s 5	1n17	13n51	8s52	12s56	12s22

ASTRODIENST EPHEMERIS for the year 1654
geocentric

JULY 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	18 36 39	9 ⁵² 5'29	21 ³⁵ 57	0 ⁵² 29	23 ⁸ 33	15 ⁵⁵ 8	23 ¹⁵ 15	23 ²⁶ 26	2 ⁴⁹ 49	24 ¹⁵ 7	15 ¹¹ 9	25 ¹⁵ 44	27 ²⁶ 26	4 ⁵⁸ 58	5 ¹⁵ 54	W 1
T 2	18 40 36	10 ⁵ 2'39	4 ⁵⁵ 15	2 ³⁶ 24	24 ²⁸ 28	15 ⁴⁷ 15	23 ¹⁷ 17	23 ³² 32	2 ⁴⁷ 47	24 ⁵ 5	15 ¹⁰ 10	25 ³⁹ 39	27 ²³ 23	5 ⁵ 5	5 ¹⁵ 53	T 2
F 3	18 44 32	10 ⁵⁹ 49	16 ⁴³ 43	4 ⁴³ 25	25 ²⁴ 24	16 ²⁶ 16	23 ¹⁹ 19	23 ³⁸ 38	2 ⁴⁵ 24	24 ⁴ 4	15 ¹¹ 11	25 ³⁷ 37	27 ²⁰ 20	5 ¹² 5	5 ⁵³ 5	F 3
S 4	18 48 29	11 ⁵⁷ 00	29 ²³ 23	6 ⁵² 26	26 ²⁰ 20	17 ⁵ 5	23 ²¹ 21	23 ⁴⁴ 44	2 ⁴² 24	24 ² 2	15 ¹³ 13	25 ³⁷ 37	27 ¹⁷ 17	5 ¹⁹ 5	5 ⁵³ 5	S 4
S 5	18 52 25	12 ⁵⁴ 11	12 ¹⁶ 16	9 ¹ 27	27 ¹⁶ 16	17 ⁴⁴ 17	23 ²³ 23	23 ⁵¹ 51	2 ⁴⁰ 24	24 ¹ 1	15 ¹⁴ 15	25 ³⁸ 38	27 ¹⁴ 14	5 ²⁵ 5	5 ⁵³ 5	S 5
M 6	18 56 22	13 ⁵¹ 22	25 ²⁶ 26	11 ¹¹ 28	28 ¹⁴ 14	18 ²³ 18	23 ²⁴ 24	23 ⁵⁷ 57	2 ³⁷ 23	23 ⁵⁹ 15	15 ¹⁵ 15	25 ³⁹ 39	27 ¹¹ 11	5 ³² 5	5 ⁵³ 5	M 6
T 7	19 0 18	14 ⁴⁸ 34	8 ⁵⁴ 54	13 ²⁰ 29	29 ¹¹ 11	19 ² 2	23 ²⁶ 26	24 ⁴ 4	2 ³⁵ 23	23 ⁵⁸ 15	15 ¹⁶ 15	25 ⁴⁰ 40	27 ⁷ 7	5 ³⁹ 5	5 ⁵³ 5	T 7
W 8	19 4 15	15 ⁴⁵ 46	22 ⁴² 42	15 ²⁹ 0	0 ¹¹ 9	19 ⁴¹ 19	23 ²⁷ 27	24 ¹⁰ 10	2 ³³ 23	23 ⁵⁶ 15	15 ¹⁸ 15	25 ⁴⁰ 40	27 ⁴ 4	5 ⁴⁶ 5	5 ⁵³ 5	W 8
T 9	19 8 11	16 ⁴² 59	6 ⁵¹ 51	17 ³⁸ 1	1 ⁷ 7	20 ²⁰ 20	23 ²⁸ 28	24 ¹⁷ 17	2 ³⁰ 23	23 ⁵⁵ 15	15 ¹⁹ 15	25 ³⁹ 39	27 ¹ 1	5 ⁵² 5	5 ⁵⁴ 5	T 9
F 10	19 12 8	17 ⁴⁰ 13	21 ¹⁹ 19	19 ⁴⁶ 2	2 ⁶ 6	20 ⁵⁸ 20	23 ²⁸ 28	24 ²³ 23	2 ²⁸ 23	23 ⁵³ 15	15 ²⁰ 15	25 ³⁵ 35	26 ⁵⁸ 26	5 ⁵⁹ 5	5 ⁵⁴ 5	F 10
S 11	19 16 5	18 ³⁷ 27	6 ¹¹ 11	21 ⁵³ 3	3 ⁵ 5	21 ³⁷ 21	23 ²⁹ 29	24 ³⁰ 30	2 ²⁶ 23	23 ⁵² 15	15 ²¹ 15	25 ³¹ 31	26 ⁵⁵ 26	6 ⁶ 5	5 ⁵⁵ 5	S 11
S 12	19 20 1	19 ³⁴ 43	20 ⁵⁶ 23	23 ⁵⁹ 4	4 ⁴ 4	22 ¹⁶ 22	23 ²⁹ 29	24 ³⁷ 37	2 ²³ 23	23 ⁵⁰ 15	15 ²³ 15	25 ²⁶ 26	26 ⁵¹ 26	6 ¹² 5	5 ⁵⁵ 5	S 12
M13	19 23 58	20 ³¹ 58	5 ⁵¹ 51	26 ⁴ 5	5 ⁴ 4	22 ⁵⁵ 23	23 ²⁹ 29	24 ⁴³ 43	2 ²¹ 23	23 ⁴⁹ 15	15 ²⁴ 15	25 ²¹ 21	26 ⁴⁸ 26	6 ¹⁹ 5	5 ⁵⁶ 5	M13
T 14	19 27 54	21 ²⁹ 15	20 ³⁹ 28	7 ⁶ 6	6 ⁴ 4	23 ³³ 23	23 ²⁹ 29	24 ⁵⁰ 50	2 ¹⁹ 23	23 ⁴⁷ 15	15 ²⁵ 15	25 ¹⁷ 17	26 ⁴⁵ 26	6 ²⁶ 5	5 ⁵⁷ 5	T 14
W15	19 31 51	22 ²⁶ 31	5 ¹² 12	0 ⁹ 9	7 ⁵ 5	24 ¹² 24	23 ²⁹ 29	24 ⁵⁷ 57	2 ¹⁷ 23	23 ⁴⁶ 15	15 ²⁶ 15	25 ¹⁴ 14	26 ⁴² 26	6 ³³ 5	5 ⁵⁸ 5	W15
T 16	19 35 47	23 ²³ 48	19 ²⁵ 2	2 ⁹ 8	5 ⁸ 5	24 ⁵¹ 24	23 ²⁸ 28	25 ⁴ 4	2 ¹⁵ 23	23 ⁴⁵ 15	15 ²⁷ 15	25 ¹² 12	26 ³⁹ 26	6 ³⁹ 5	5 ⁵⁹ 5	T 16
F 17	19 39 44	24 ²¹ 06	3 ¹³ 13	4 ⁸ 9	6 ⁹ 6	25 ³⁰ 25	23 ²⁸ 28	25 ¹¹ 11	2 ¹² 23	23 ⁴³ 15	15 ²⁸ 15	25 ¹³ 13	26 ³⁶ 26	6 ⁴⁶ 6	6 ⁰ 6	F 17
S 18	19 43 41	25 ¹⁸ 24	16 ³⁶ 6	5 ¹⁰ 10	8 ¹⁰ 8	26 ⁸ 26	23 ²⁷ 23	25 ¹⁸ 18	2 ¹⁰ 23	23 ⁴² 15	15 ²⁹ 15	25 ¹⁴ 14	26 ³² 26	6 ⁵³ 6	6 ² 6	S 18
S 19	19 47 37	26 ¹⁵ 42	29 ³⁴ 8	0 ¹¹ 11	9 ¹¹ 9	26 ⁴⁷ 26	23 ²⁶ 23	25 ²⁵ 25	2 ⁸ 23	23 ⁴¹ 15	15 ³¹ 15	25 ¹⁵ 15	26 ²⁹ 26	6 ⁵⁹ 6	6 ³ 6	S 19
M20	19 51 34	27 ¹³ 00	12 ¹¹ 11	9 ⁵⁴ 12	12 ¹¹ 12	27 ²⁶ 27	23 ²⁵ 23	25 ³² 25	2 ⁶ 23	23 ³⁹ 15	15 ³² 15	25 ¹⁷ 17	26 ²⁶ 26	7 ⁶ 6	6 ⁵ 6	M20
T 21	19 55 30	28 ¹⁰ 19	24 ³⁰ 11	11 ⁴⁶ 13	13 ¹⁴ 13	28 ⁴ 28	23 ²⁵ 23	25 ³⁹ 25	2 ⁴ 23	23 ³⁸ 15	15 ³³ 15	25 ¹⁷ 17	26 ²³ 26	7 ¹³ 6	6 ⁶ 6	T 21
W22	19 59 27	29 ⁷ 39	6 ¹³ 36	13 ³⁶ 14	14 ¹⁶ 14	28 ⁴³ 28	23 ²² 23	25 ⁴⁶ 25	2 ² 23	23 ³⁷ 15	15 ³⁴ 15	25 ¹⁷ 17	26 ²⁰ 26	7 ²⁰ 6	6 ⁸ 6	W22
T 23	20 3 23	0 ¹ 45	18 ³⁴ 15	15 ²⁵ 15	15 ¹⁹ 15	29 ²¹ 29	23 ²⁰ 23	25 ⁵³ 25	2 ⁰ 23	23 ³⁶ 15	15 ³⁵ 15	25 ¹⁶ 16	26 ¹⁷ 26	7 ²⁶ 6	6 ¹⁰ 6	T 23
F 24	20 7 20	1 ² 19	0 ¹ 27	17 ¹² 16	16 ²² 16	29 ⁵⁹ 29	23 ¹⁸ 23	26 ⁰ 26	1 ⁵⁸ 23	23 ³⁴ 15	15 ³⁶ 15	25 ¹⁴ 14	26 ¹³ 26	7 ³³ 6	6 ¹² 6	F 24
S 25	20 11 16	1 ⁵⁹ 41	12 ²⁰ 18	18 ⁵⁷ 17	25 ⁰ 17	0 ¹ 38	23 ¹⁵ 23	26 ⁷ 26	1 ⁵⁶ 23	23 ³³ 15	15 ³⁷ 15	25 ¹⁰ 10	26 ¹⁰ 26	7 ⁴⁰ 6	6 ¹⁴ 6	S 25
S 26	20 15 13	2 ⁵⁷ 02	24 ¹⁶ 20	20 ⁴⁰ 18	28 ¹⁸ 18	1 ¹⁷ 1	23 ¹³ 23	26 ¹⁴ 26	1 ⁵⁴ 23	23 ³² 15	15 ³⁸ 15	25 ⁷ 7	26 ⁷ 26	7 ⁴⁷ 6	6 ¹⁶ 6	S 26
M27	20 19 10	3 ⁵⁴ 25	6 ¹⁹ 22	22 ²² 19	32 ¹⁹ 19	1 ⁵⁶ 1	23 ¹⁰ 23	26 ²¹ 26	1 ⁵² 23	23 ³¹ 15	15 ³⁹ 15	25 ³ 3	26 ⁴ 26	7 ⁵³ 6	6 ¹⁸ 6	M27
T 28	20 23 6	4 ⁵¹ 48	18 ³¹ 24	24 ² 20	20 ³⁶ 23	2 ³⁴ 2	23 ⁸ 23	26 ²⁹ 26	1 ⁵⁰ 23	23 ³⁰ 15	15 ⁴⁰ 15	25 ⁰ 0	26 ¹ 26	8 ⁰ 6	6 ²¹ 6	T 28
W29	20 27 3	5 ⁴⁹ 12	0 ¹ 33	25 ⁴¹ 21	21 ⁴⁰ 21	3 ¹² 3	23 ⁵ 23	26 ³⁶ 26	1 ⁴⁸ 23	23 ²⁹ 15	15 ⁴¹ 15	24 ⁵⁸ 24	25 ⁵⁷ 25	8 ⁷ 6	6 ²³ 6	W29
T 30	20 30 59	6 ⁴⁶ 37	13 ²⁷ 27	27 ¹⁷ 22	22 ⁴⁵ 3	3 ⁵¹ 3	23 ² 23	26 ⁴³ 26	1 ⁴⁶ 23	23 ²⁸ 15	15 ⁴² 15	24 ⁵⁷ 24	25 ⁵⁴ 25	8 ¹³ 6	6 ²⁶ 6	T 30
F 31	20 34 56	7 ⁴⁴ 03	26 ¹³ 28	28 ⁵³ 28	49 ²³ 23	4 ¹ 29	22 ¹ 22	26 ⁵¹ 26	1 ⁴⁴ 23	23 ²⁷ 15	15 ⁴³ 15	24 ⁵⁷ 24	25 ⁵¹ 25	8 ²⁰ 6	6 ²⁸ 6	F 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	23n10	24s31	2s51	23n58	0n29	15n25	3s23	23n38	1n1	1	3s52	1s18	15n4	1n24	23s45	0s17	22s5	1n17	13n51	8s52	12s58	12s23	26s11	11s42	1n55		
T 2	23 6	21 3	1 53	24 7	0 39	15 38	3 23	23 33	1 1	1	3 52	1 18	15 2	1 24	23 45	0 17	22 5	1 17	13 51	8 52	13 0	12 24	26 12	11 42	1 55		
F 3	23 2	16 37	0 48	24 13	0 49	15 52	3 23	23 29	1 1	1	3 51	1 18	15 0	1 24	23 45	0 17	22 5	1 17	13 51	8 52	13 0	12 25	26 13	11 42	1 55		
S 4	22 57	11 24	0n20	24 16	0 58	16 5	3 22	23 24	1 1	1	3 51	1 19	14 58	1 24	23 45	0 17	22 4	1 17	13 51	8 52	13 0	12 26	26 14	11 42	1 55		
S 5	22 52	5 36	1 29	24 17	1 6	16 19	3 22	23 20	1 2	2	3 50	1 19	14 55	1 24	23 45	0 17	22 4	1 17	13 51	8 52	13 0	12 27	26 15	11 42	1 55		
M 6	22 46	0n33	2 34	24 14	1 14	16 32	3 21	23 15	1 2	3	3 50	1 19	14 53	1 24	23 45	0 17	22 4	1 17	13 51	8 52	13 0	12 29	26 17	11 42	1 55		
T 7	22 40	6 48	3 33	24 9	1 20	16 45	3 20	23 9	1 2	3	3 50	1 20	14 51	1 24	23 45	0 17	22 4	1 17	13 51	8 52	12 59	12 30	26 18	11 42	1 55		
W 8	22 33	12 52	4 21	24 1	1 27	16 58	3 19	23 4	1 2	3	3 50	1 20	14 49	1 24	23 45	0 17	22 4	1 17	13 51	8 52	12 59	12 31	26 19	11 42	1 56		
T 9	22 26	18 27	4 54	23 50	1 32	17 11	3 18	22 58	1 2	3	3 50	1 20	14 47	1 24	23 45	0 18	22 4	1 17	13 51	8 52	13 0	12 32	26 20	11 42	1 56		
F 10	22 19	23 6	5 10	23 37	1 37	17 24	3 17	22 53	1 3	3	3 50	1 21	14 44	1 24	23 45	0 18	22 4	1 17	13 51	8 52	13 1	12 33	26 21	11 42	1 56		
S 11	22 11	26 22	5 5	23 21	1 41	17 37	3 16	22 47	1 3	3	3 50	1 21	14 42	1 24	23 45	0 18	22 4	1 17	13 52	8 52	13 2	12 34	26 22	11 42	1 56		
S 12	22 3	27 50	4 40	23 3	1 44	17 49	3 14	22 41	1 3	3	3 50	1 21	14 40	1 24	23 45	0 18	22 4	1 16	13 52	8 52	13 4	12 35	26 23	11 42	1 56		
M13	21 55	27 18	3 57	22 43	1 46	18 1	3 13	22 35	1 3	3	3 50	1 21	14 38	1 24	23 45	0 18	22 4	1 16	13 52	8 52	13 6	12 36	26 24	11 42	1 56		
T 14	21 46	24 49	2 57	22 20	1 48	18 13	3 11	22 28	1 4	3	3 50	1 22	14 35	1 24	23 45	0 18	22 4	1 16	13 52	8 52	13 7	12 37	26 25	11 42	1 56		
W15	21 37	20 44	1 47	21 56	1 49	18 25	3 9	22 22	1 4	3	3 51	1 22	14 33	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 8	12 38	26 26	11 43	1 56		
T 16	21 27	15 32	0 32	21 29	1 49	18 37	3 8	22 15	1 4	3	3 51	1 22	14 31	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 9	12 39	26 27	11 43	1 56		
F 17	21 17	9 40	0s44	21 1	1 48	18 48	3 6	22 8	1 4	3	3 52	1 23	14 29	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 9	12 41	26 28	11 43	1 56		
S 18	21 7	3 33	1 54	20 31	1 47	18 59	3 4	22 1	1 4	3	3 53	1 23	14 26	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 8	12 42	26 29	11 44	1 56		
S 19	20 56	2s32	2 57	20 0	1 46	19 10	3 1	21 54	1 5	3	3 53	1 23	14 24	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 8	12 43	26 30	11 44	1 57		
M20	20 45	8 20	3 49	19 28	1 43	19 20	2 59	21 46	1 5	3	3 54	1 24	14 21	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 7	12 44	26 31	11 44	1 57		
T 21	20 34	13 41	4 30	18 54	1 41	19 30	2 57	21 39	1 5	3	3 55	1 24	14 19	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 7	12 45	26 32	11 45	1 57		
W22	20 22	18 25	4 57	18 20	1 37	19 40	2 54	21 31	1 5	3	3 56	1 24	14 17	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 7	12 46	26 33	11 45	1 57		
T 23	20 10	22 22	5 11	17 44	1 33	19 50	2 52	21 23	1 5	3	3 57	1 24	14 14	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 7	12 47	26 34	11 46	1 57		
F 24	19 58	25 22	5 12	17 8	1 29	19 59	2 49	21 15	1 5	3	3 58	1 25	14 12	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 8	12 48	26 35	11 46	1 57		
S 25	19 45	27 16	5 0	16 30	1 24	20 8	2 46	21 7	1 6	3	3 59	1 25	14 9	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 9	12 49	26 36	11 47	1 57		
S 26	19 32	27 56	4 34	15 53	1 19	20 16	2 44	20 59	1 6	4	4 0	1 25	14 7	1 24	23 46	0 18	22 4	1 16	13 52	8 53	13 11	12 50	26 37	11 48	1 57		
M27	19 19	27 16	3 56	15 14	1 13	20 24	2 41	20 51	1 6	4	4 2	1 26	14 4	1 24	23 46	0 18	22 4	1 16	13 52	8 54	13 12	12 51	26 38	11 48	1 57		
T 28	19 5	25 18	3 7	14 36	1 7	20 32	2 38	20 42	1 6	4	4 3	1 26	14 2	1 24	23 46	0 18	22 4	1 16	13 52	8 54	13 13	12 52	26 39	11 49	1 57		
W29	18 51	22 6	2 9	13 56	1 1	20 39	2 35	20 33	1 6	4	4 4	1 26	14 0	1 24	23 46	0 18	22 4	1 16	13 52	8 54	13 13	12 53	26 40	11 50	1 57		
T 30	18 37	17 50	1 3	13 17	0 54	20 46	2 32	20 24	1 7	4	4 6	1 27	13 57	1 24	23 46	0 18	22 4	1 16	13 52	8 54	13 14	12 55	26 41	11 50	1 57		
F 31	18n22	12s42	0n7	12n37	0n47	20n52	2s29	20n15	1n7	7	4s7	1s27	13n55	1n24	23s46	0s18	22s4	1n16	13n52	8s54	13s14	12s56	26s42	11s51	1n57		

ASTRODIENST EPHEMERIS for the year 1654
geocentric

AUGUST 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 38 52	8♌41'30	9♋12	0♊26	24♏54	5♏ 8	22°R55	26♏58	1°R42	23°R26	15♏44	24♏57	25♏48	8♌27	6♏31	S 1
S 2	20 42 49	9°38'59	22°24	1°58	25°59	5°46	22♋51	27° 5	1♌41	23♌25	15°45	24°58	25°45	8°34	6°34	S 2
M 3	20 46 45	10°36'28	5♏50	3°28	27° 5	6°25	22°47	27°13	1°39	23°24	15°46	24°59	25°42	8°40	6°37	M 3
T 4	20 50 42	11°33'59	19°29	4°56	28°10	7° 3	22°43	27°20	1°37	23°23	15°46	25° 0	25°38	8°47	6°40	T 4
W 5	20 54 39	12°31'31	3♌22	6°23	29°16	7°41	22°39	27°28	1°36	23°22	15°47	25° 1	25°35	8°54	6°43	W 5
T 6	20 58 35	13°29'05	17°27	7°48	0♌22	8°20	22°34	27°35	1°34	23°21	15°48	25°R 1	25°32	9° 0	6°46	T 6
F 7	21 2 32	14°26'40	1♏43	9°11	1°28	8°58	22°30	27°43	1°32	23°20	15°49	25° 0	25°29	9° 7	6°50	F 7
S 8	21 6 28	15°24'17	16° 7	10°33	2°34	9°37	22°25	27°50	1°31	23°19	15°50	25° 0	25°26	9°14	6°53	S 8
S 9	21 10 25	16°21'55	0♌37	11°53	3°40	10°15	22°20	27°58	1°29	23°18	15°50	24°59	25°23	9°21	6°57	S 9
M10	21 14 21	17°19'35	15° 6	13°11	4°47	10°53	22°15	28° 5	1°28	23°18	15°51	24°58	25°19	9°27	7° 0	M10
T 11	21 18 18	18°17'17	29°29	14°27	5°54	11°32	22°10	28°13	1°27	23°17	15°52	24°57	25°16	9°34	7° 4	T 11
W12	21 22 14	19°14'59	13♏42	15°41	7° 1	12°10	22° 4	28°20	1°25	23°16	15°53	24°57	25°13	9°41	7° 8	W12
T 13	21 26 11	20°12'43	27°39	16°53	8° 8	12°48	21°59	28°28	1°24	23°15	15°53	24°D57	25°10	9°48	7°12	T 13
F 14	21 30 8	21°10'28	11♏18	18° 3	9°15	13°27	21°53	28°35	1°23	23°15	15°54	24°57	25° 7	9°54	7°16	F 14
S 15	21 34 4	22° 8'15	24°36	19°10	10°22	14° 5	21°47	28°43	1°21	23°14	15°55	24°57	25° 3	10° 1	7°20	S 15
S 16	21 38 1	23° 6'03	7♌33	20°16	11°30	14°43	21°41	28°51	1°20	23°13	15°55	24°57	25° 0	10° 8	7°24	S 16
M17	21 41 57	24° 3'52	20°10	21°19	12°38	15°21	21°35	28°58	1°19	23°13	15°56	24°57	25°07	10°14	7°28	M17
T 18	21 45 54	25° 1'42	2♏31	22°19	13°46	16° 0	21°29	29° 6	1°18	23°12	15°57	24°R57	24°54	10°21	7°33	T 18
W19	21 49 50	25°59'33	14°39	23°17	14°54	16°38	21°22	29°13	1°17	23°12	15°57	24°57	24°51	10°28	7°37	W19
T 20	21 53 47	26°57'26	26°37	24°12	16° 2	17°16	21°16	29°21	1°16	23°11	15°58	24°D57	24°48	10°35	7°42	T 20
F 21	21 57 43	27°55'20	8♌31	25° 4	17°10	17°54	21° 9	29°29	1°15	23°11	15°58	24°57	24°44	10°41	7°46	F 21
S 22	22 1 40	28°53'16	20°24	25°53	18°19	18°33	21° 2	29°36	1°14	23°10	15°59	24°58	24°41	10°48	7°51	S 22
S 23	22 5 37	29°51'12	2♌22	26°39	19°27	19°11	20°55	29°44	1°13	23°10	15°59	24°58	24°38	10°55	7°56	S 23
M24	22 9 33	0♊49'10	14°29	27°21	20°36	19°49	20°48	29°51	1°12	23° 9	16° 0	24°59	24°35	11° 1	8° 1	M24
T 25	22 13 30	1°47'10	26°47	28° 0	21°45	20°27	20°41	29°59	1°11	23° 9	16° 0	24°59	24°32	11° 8	8° 5	T 25
W26	22 17 26	2°45'11	9♌20	28°34	22°54	21° 5	20°34	0♊ 7	1°10	23° 9	16° 1	25° 0	24°28	11°15	8°10	W26
T 27	22 21 23	3°43'13	22° 9	29° 4	24° 3	21°43	20°27	0°14	1°10	23° 9	16° 1	25°R 0	24°25	11°22	8°16	T 27
F 28	22 25 19	4°41'17	5♋15	29°30	25°12	22°22	20°20	0°22	1° 9	23° 8	16° 2	25° 0	24°22	11°28	8°21	F 28
S 29	22 29 16	5°39'23	18°38	29°51	26°22	23° 0	20°12	0°29	1° 8	23° 8	16° 2	24°59	24°19	11°35	8°26	S 29
S 30	22 33 12	6°37'30	2♏16	0♌ 7	27°31	23°38	20° 5	0°37	1° 8	23° 8	16° 2	24°58	24°16	11°42	8°31	S 30
M31	22 37 9	7♏35'40	16° 7	0♌17	28°54	24°16	19♋57	0♊45	1° 8	23° 8	16° 2	24°57	24°13	11°48	8♏37	M31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
S 1	18n 7	6s56	1n18	11n57	0n40	20n58	2s26	20n 6	1n 7	4s 9	1s27	13n52	1n24	23s46	0s18	22s 4
S 2	17 52	0 47	2 26	11 18	0 32	21 3	2 22	19 57	1 7	4 11	1 27	13 50	1 24	23 46	0 18	22 4
M 3	17 37	5n29	3 27	10 38	0 24	21 8	2 19	19 47	1 7	4 13	1 28	13 47	1 24	23 46	0 18	22 4
T 4	17 21	11 36	4 18	9 58	0 16	21 13	2 16	19 38	1 7	4 14	1 28	13 44	1 24	23 46	0 18	22 4
W 5	17 5	17 16	4 54	9 18	0 7	21 17	2 12	19 28	1 7	4 16	1 28	13 42	1 24	23 46	0 18	22 4
T 6	16 48	22 5	5 13	8 38	0s 2	21 20	2 9	19 18	1 8	4 18	1 28	13 39	1 24	23 46	0 18	22 4
F 7	16 32	25 40	5 14	7 59	0 10	21 23	2 6	19 8	1 8	4 20	1 29	13 37	1 25	23 46	0 18	22 4
S 8	16 15	27 39	4 55	7 19	0 20	21 26	2 2	18 58	1 8	4 23	1 29	13 34	1 25	23 46	0 18	22 4
S 9	15 58	27 46	4 17	6 41	0 29	21 28	1 59	18 48	1 8	4 25	1 29	13 32	1 25	23 46	0 18	22 4
M10	15 40	26 0	3 23	6 2	0 38	21 29	1 55	18 38	1 8	4 27	1 29	13 29	1 25	23 46	0 18	22 4
T 11	15 23	22 31	2 16	5 24	0 48	21 30	1 51	18 27	1 8	4 29	1 30	13 27	1 25	23 46	0 18	22 4
W12	15 5	17 44	1 2	4 46	0 58	21 30	1 48	18 16	1 8	4 32	1 30	13 24	1 25	23 46	0 18	22 4
T 13	14 47	12 5	0s15	4 9	1 7	21 30	1 44	18 6	1 9	4 34	1 30	13 21	1 25	23 46	0 18	22 4
F 14	14 28	5 58	1 29	3 33	1 17	21 30	1 40	17 55	1 9	4 37	1 30	13 19	1 25	23 46	0 18	22 4
S 15	14 10	0s15	2 37	2 57	1 27	21 28	1 37	17 44	1 9	4 39	1 31	13 16	1 25	23 46	0 18	22 4
S 16	13 51	6 17	3 35	2 23	1 37	21 27	1 33	17 33	1 9	4 42	1 31	13 14	1 25	23 46	0 18	22 4
M17	13 32	11 55	4 20	1 48	1 47	21 24	1 29	17 22	1 9	4 44	1 31	13 11	1 25	23 46	0 18	22 4
T 18	13 12	16 57	4 53	1 15	1 57	21 21	1 26	17 10	1 9	4 47	1 31	13 8	1 25	23 46	0 18	22 4
W19	12 53	21 13	5 12	0 43	2 7	21 18	1 22	16 59	1 9	4 50	1 31	13 6	1 25	23 46	0 18	22 4
T 20	12 33	24 34	5 17	0 12	2 17	21 14	1 18	16 47	1 9	4 52	1 32	13 3	1 25	23 46	0 18	22 4
F 21	12 13	26 50	5 8	0s18	2 27	21 9	1 14	16 36	1 9	4 55	1 32	13 0	1 25	23 46	0 18	22 4
S 22	11 53	27 54	4 46	0 46	2 37	21 4	1 10	16 24	1 10	4 58	1 32	12 58	1 25	23 46	0 17	22 4
S 23	11 33	27 40	4 12	1 13	2 47	20 58	1 7	16 12	1 10	5 1	1 32	12 55	1 25	23 46	0 17	22 4
M24	11 12	26 7	3 26	1 39	2 56	20 52	1 3	16 0	1 10	5 4	1 32	12 53	1 25	23 46	0 17	22 4
T 25	10 52	23 18	2 30	2 2	3 6	20 45	0 59	15 48	1 10	5 7	1 33	12 50	1 25	23 46	0 17	22 4
W26	10 31	19 20	1 26	2 24	3 15	20 38	0 55	15 36	1 10	5 10	1 33	12 47	1 26	23 46	0 17	22 4
T 27	10 10	14 24	0 16	2 44	3 23	20 30	0 51	15 24	1 10	5 13	1 33	12 45	1 26	23 46	0 17	22 4
F 28	9 49	8 44	0n56	3 2	3 31	20 21	0 48	15 11	1 10	5 16	1 33	12 42	1 26	23 46	0 17	22 4
S 29	9 27	2 33	2 7	3 38	3 39	20 12	0 44	14 59	1 10	5 19	1 33	12 39	1 26	23 46	0 17	22 4
S 30	9 6	3n50	3 12	3 30	3 47	20 3	0 40	14 46	1 10	5 22	1 33	12 37	1 26	23 46	0 17	22 4
M31	8n44	10n 8	4n 6	3s41	3s53	19n52	0s36	14n34	1n10	5s25	1s33	12n34	1n26	23s46	0s17	22s 4

Julian Day Number = 2325383.5, Delta T = 40.12 sec
Ecliptic obliquity = 23°29'11, Nutation = 0°00'11, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°55'08, Lahiri = 19°02'09Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1654
geocentric

SEPTEMBER 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	22 41 6	8 ^m 33'51	0 ^h 8 8	0°R22	29 ^h 50	24 ^h 54	19°R49	0 ^m 52	1°R 7	23°R 8	16 ^h II 3	24°R55	24 ^h 8 9	11 ^h 755	8 ^m 42	T 1
W 2	22 45 2	9°32'04	14°16	0 ^h 21	1 ^h 0 0	25°32	19°R42	1° 0	1 ^h 3 6	23°R 7	16° 3	24 ^h 854	24° 6	12° 2	8°48	W 2
T 3	22 48 59	10°30'20	28°28	0°13	2°10	26°10	19°34	1° 7	1° 6	23° 7	16° 4	24°53	24° 3	12° 9	8°53	T 3
F 4	22 52 55	11°28'37	12 ^h II 42	29 ^h 59	3°21	26°48	19°26	1°15	1° 6	23°D 7	16° 4	24°D52	24° 0	12°15	8°59	F 4
S 5	22 56 52	12°26'57	26°54	29°39	4°31	27°26	19°18	1°22	1° 6	23° 7	16° 4	24°53	23°57	12°22	9° 5	S 5
S 6	23 0 48	13°25'19	11 ^h 5 3	29°12	5°41	28° 5	19°10	1°30	1° 5	23° 7	16° 4	24°54	23°54	12°29	9°11	S 6
M 7	23 4 45	14°23'43	25° 6	28°38	6°52	28°43	19° 2	1°37	1° 5	23° 7	16° 5	24°55	23°50	12°35	9°17	M 7
T 8	23 8 41	15°22'09	9 ^h II 1	27°58	8° 2	29°21	18°54	1°45	1° 5	23° 8	16° 5	24°56	23°47	12°42	9°23	T 8
W 9	23 12 38	16°20'37	22°47	27°12	9°13	29°59	18°46	1°52	1° 5	23° 8	16° 5	24°R57	23°44	12°49	9°29	W 9
T 10	23 16 35	17°19'07	6 ^h II 21	26°21	10°24	0 ^m 37	18°38	2° 0	1°D 5	23° 8	16° 5	24°56	23°41	12°56	9°35	T 10
F 11	23 20 31	18°17'39	19°41	25°25	11°35	1°15	18°30	2° 7	1° 5	23° 8	16° 5	24°55	23°38	13° 2	9°41	F 11
S 12	23 24 28	19°16'13	2 ^h 46	24°25	12°46	1°53	18°22	2°15	1° 5	23° 8	16° 5	24°52	23°34	13° 9	9°47	S 12
S 13	23 28 24	20°14'49	15°35	23°22	13°57	2°31	18°14	2°22	1° 5	23° 9	16° 5	24°48	23°31	13°16	9°53	S 13
M14	23 32 21	21°13'26	28° 8	22°18	15° 8	3° 9	18° 6	2°29	1° 5	23° 9	16° 5	24°44	23°28	13°22	10° 0	M14
T 15	23 36 17	22°12'06	10 ^h II 27	21°15	16°19	3°47	17°58	2°37	1° 6	23° 9	16° 5	24°40	23°25	13°29	10° 6	T 15
W16	23 40 14	23°10'47	22°33	20°13	17°31	4°25	17°50	2°44	1° 6	23°10	16°R 5	24°36	23°22	13°36	10°13	W16
T 17	23 44 10	24° 9'30	4 ^h 7 31	19°14	18°42	5° 3	17°43	2°51	1° 6	23°10	16° 5	24°33	23°19	13°43	10°19	T 17
F 18	23 48 7	25° 8'15	16°24	18°21	19°54	5°41	17°35	2°59	1° 7	23°10	16° 5	24°31	23°15	13°49	10°26	F 18
S 19	23 52 3	26° 7'01	28°16	17°33	21° 6	6°19	17°27	3° 6	1° 7	23°11	16° 5	24°D31	23°12	13°56	10°33	S 19
S 20	23 56 0	27° 5'49	10 ^h 3 13	16°53	22°17	6°57	17°19	3°13	1° 8	23°11	16° 5	24°32	23° 9	14° 3	10°39	S 20
M21	23 59 57	28° 4'39	22°19	16°22	23°29	7°35	17°11	3°20	1° 8	23°12	16° 5	24°33	23° 6	14° 9	10°46	M21
T 22	0 3 53	29° 3'31	4 ^h 40	16° 0	24°41	8°13	17° 4	3°27	1° 9	23°12	16° 5	24°35	23° 3	14°16	10°53	T 22
W23	0 7 50	0 ^h 22'25	17°18	15°49	25°53	8°51	16°56	3°35	1° 9	23°13	16° 5	24°36	23° 0	14°23	11° 0	W23
T 24	0 11 46	1° 1'20	0 ^h 17	15°D47	27° 5	9°29	16°48	3°42	1°10	23°14	16° 5	24°R36	22°56	14°30	11° 7	T 24
F 25	0 15 43	2° 0'17	13°39	15°55	28°18	10° 7	16°41	3°49	1°11	23°14	16° 5	24°34	22°53	14°36	11°14	F 25
S 26	0 19 39	2°59'16	27°23	16°14	29°30	10°45	16°34	3°56	1°12	23°15	16° 4	24°31	22°50	14°43	11°21	S 26
S 27	0 23 36	3°58'17	11 ^h 7 28	16°43	0 ^m 42	11°23	16°26	4° 3	1°13	23°16	16° 4	24°26	22°47	14°50	11°28	S 27
M28	0 27 32	4°57'20	25°47	17°20	1°55	12° 1	16°19	4°10	1°13	23°17	16° 4	24°20	22°44	14°56	11°35	M28
T 29	0 31 29	5°56'25	10 ^h 8 17	18° 7	3° 7	12°39	16°12	4°16	1°14	23°17	16° 4	24°14	22°40	15° 3	11°42	T 29
W30	0 35 26	6 ^h 55'33	24 ^h 8 49	19 ^h 2	4 ^m 20	13 ^h 17	16 ^h 5	4 ^m 23	1 ^h 15	23 ^h 18	16 ^h II 3	24 ^h 8	22 ^h 37	15 ^h 10	11 ^h 49	W30

Day	☉	☽		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	8n22	16n 0	4n47	3s48	3s59	19n41	0s33	14n21	1n10	5s28	1s34	12n32	1n26	23s46	0s17	22s 4	1n14	13n50	8s58	13s14	13s30	27s 7	12s32	2n 0			
W 2	8 1	21 5	5 10	3 52	4 4	19 30	0 29	14 8	1 10	5 31	1 34	12 29	1 26	23 46	0 17	22 4	1 14	13 50	8 58	13 15	13 31	27 8	12 34	2 0			
T 3	7 39	24 58	5 15	3 53	4 8	19 18	0 25	13 55	1 11	5 35	1 34	12 26	1 26	23 46	0 17	22 4	1 14	13 49	8 59	13 15	13 32	27 8	12 35	2 0			
F 4	7 16	27 20	5 0	3 50	4 11	19 6	0 22	13 42	1 11	5 38	1 34	12 24	1 26	23 46	0 17	22 4	1 14	13 49	8 59	13 15	13 33	27 9	12 37	2 0			
S 5	6 54	27 55	4 28	3 43	4 13	18 53	0 18	13 29	1 11	5 41	1 34	12 21	1 26	23 46	0 17	22 4	1 14	13 49	8 59	13 15	13 34	27 10	12 39	2 0			
S 6	6 32	26 40	3 39	3 33	4 13	18 39	0 14	13 16	1 11	5 44	1 34	12 19	1 26	23 46	0 17	22 4	1 14	13 49	8 59	13 15	13 35	27 10	12 41	2 1			
M 7	6 9	23 44	2 37	3 18	4 12	18 25	0 11	13 3	1 11	5 47	1 34	12 16	1 27	23 46	0 17	22 4	1 14	13 49	8 59	13 14	13 36	27 11	12 42	2 1			
T 8	5 47	19 26	1 27	3 0	4 9	18 11	0 7	12 50	1 11	5 50	1 34	12 13	1 27	23 46	0 17	22 4	1 14	13 49	8 59	13 14	13 37	27 12	12 44	2 1			
W 9	5 24	14 8	0 12	2 37	4 4	17 55	0 4	12 36	1 11	5 54	1 34	12 11	1 27	23 46	0 17	22 5	1 14	13 49	9 0	13 14	13 38	27 12	12 46	2 1			
T 10	5 1	8 14	1s 2	2 11	3 58	17 40	0 0	12 23	1 11	5 57	1 34	12 8	1 27	23 46	0 17	22 5	1 14	13 49	9 0	13 14	13 39	27 13	12 48	2 1			
F 11	4 38	2 4	2 12	1 41	3 49	17 24	0n 3	12 9	1 11	6 0	1 34	12 6	1 27	23 46	0 17	22 5	1 14	13 48	9 0	13 15	13 40	27 13	12 50	2 1			
S 12	4 15	4s 3	3 13	1 8	3 39	17 7	0 6	11 56	1 11	6 3	1 34	12 3	1 27	23 46	0 17	22 5	1 14	13 48	9 0	13 15	13 41	27 14	12 52	2 1			
S 13	3 52	9 52	4 3	0 32	3 27	16 50	0 10	11 42	1 11	6 6	1 34	12 0	1 27	23 46	0 17	22 5	1 14	13 48	9 0	13 17	13 42	27 14	12 53	2 1			
M14	3 29	15 11	4 40	0n 7	3 13	16 32	0 13	11 28	1 11	6 10	1 34	11 58	1 27	23 46	0 17	22 5	1 14	13 48	9 0	13 18	13 43	27 15	12 55	2 1			
T 15	3 6	19 46	5 3	0 46	2 57	16 14	0 16	11 15	1 11	6 13	1 34	11 55	1 27	23 46	0 17	22 5	1 14	13 48	9 0	13 20	13 44	27 16	12 57	2 2			
W16	2 43	23 28	5 12	1 26	2 40	15 56	0 20	11 1	1 11	6 16	1 34	11 53	1 28	23 46	0 17	22 5	1 14	13 48	9 1	13 21	13 45	27 16	12 59	2 2			
T 17	2 19	26 8	5 8	2 6	2 21	15 37	0 23	10 47	1 11	6 19	1 34	11 50	1 28	23 46	0 17	22 5	1 14	13 48	9 1	13 22	13 47	27 17	13 1	2 2			
F 18	1 56	27 36	4 50	2 45	2 2	15 17	0 26	10 33	1 11	6 22	1 34	11 48	1 28	23 46	0 17	22 5	1 14	13 47	9 1	13 22	13 48	27 17	13 3	2 2			
S 19	1 33	27 49	4 20	3 22	1 42	14 57	0 29	10 19	1 11	6 25	1 34	11 45	1 28	23 46	0 17	22 5	1 14	13 47	9 1	13 23	13 49	27 18	13 5	2 2			
S 20	1 9	26 44	3 39	3 56	1 22	14 37	0 32	10 5	1 11	6 28	1 34	11 43	1 28	23 46	0 17	22 5	1 13	13 47	9 1	13 22	13 50	27 18	13 7	2 2			
M21	0 46	24 23	2 47	4 26	1 2	14 16	0 35	9 50	1 11	6 31	1 34	11 40	1 28	23 46	0 17	22 5	1 13	13 47	9 1	13 22	13 51	27 19	13 9	2 2			
T 22	0 23	20 52	1 47	4 53	0 42	13 55	0 38	9 36	1 11	6 34	1 34	11 38	1 28	23 46	0 17	22 5	1 13	13 47	9 2	13 21	13 52	27 19	13 11	2 2			
W23	0s 1	16 19	0 40	5 15	0 23	13 33	0 41	9 22	1 11	6 37	1 34	11 35	1 28	23 46	0 17	22 5	1 13	13 47	9 2	13 21	13 53	27 20	13 13	2 3			
T 24	0 24	10 55	0n31	5 33	0 5	13 11	0 44	9 8	1 11	6 40	1 34	11 33	1 29	23 46	0 17	22 6	1 13	13 46	9 2	13 21	13 54	27 20	13 15	2 3			
F 25	0 48	4 53	1 42	5 45	0n13	12 49	0 46	8 53	1 11	6 43	1 34	11 30	1 29	23 46	0 17	22 6	1 13	13 46	9 2	13 21	13 55	27 21	13 17	2 3			
S 26	1 11	1n32	2 49	5 53	0 29	12 26	0 49	8 39	1 11	6 46	1 34	11 28	1 29	23 46	0 17	22 6	1 13	13 46	9 2	13 22	13 56	27 21	13 19	2 3			
S 27	1 35	8 1	3 47	5 55	0 43	12 3	0 52	8 24	1 11	6 48	1 34	11 26	1 29	23 46	0 17	22 6	1 13	13 46	9 2	13 24	13 57	27 22	13 21	2 3			
M28	1 58	14 12	4 32	5 53	0 57	11 40	0 54	8 10	1 11	6 51	1 34	11 23	1 29	23 46	0 17	22 6	1 13	13 46	9 2	13 26	13 58	27 22	13 23	2 3			
T 29	2 22	19 40	5 0	5 46	1 9	11 16	0 57	7 55	1 11	6 54	1 34	11 21	1 29	23 46	0 17	22 6	1 13	13 46	9 3	13 28	13 59	27 23	13 25	2 3			
W30	2s45	24n 0	5n 9	5n34	1n19	10n52	0n59	7n41	1n11	6s56	1s34	11n18	1n29	23s46	0s17	22s 6	1n13	13n45	9s 3	13s30	14s 0	27s23	13s27	2n 3			

ASTRODIENST EPHEMERIS for the year 1654
geocentric

OCTOBER 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 39 22	7♌54'43	9♏19	20♏4	5♏33	13♏55	15°R58	4♏30	1♏16	23♏19	16°R 3	24°R 3	22♏34	15♏17	11♏56	T 1
F 2	0 43 19	8°53'56	23°42	21°13	6°45	14°33	15°K51	4°37	1°18	23°20	16°II 3	24°K 0	22°31	15°23	12° 4	F 2
S 3	0 47 15	9°53'10	7♌53	22°27	7°58	15°11	15°45	4°44	1°19	23°21	16° 2	23°D59	22°28	15°30	12°11	S 3
S 4	0 51 12	10°52'27	21°52	23°47	9°11	15°49	15°38	4°50	1°20	23°22	16° 2	23°59	22°25	15°37	12°18	S 4
M 5	0 55 8	11°51'47	5♏37	25°11	10°24	16°27	15°32	4°57	1°21	23°23	16° 1	24° 0	22°21	15°43	12°26	M 5
T 6	0 59 5	12°51'09	19°11	26°40	11°37	17° 5	15°26	5° 3	1°22	23°24	16° 1	24°R 1	22°18	15°50	12°33	T 6
W 7	1 3 1	13°50'32	2♏32	28°11	12°51	17°43	15°19	5°10	1°24	23°25	16° 1	24° 1	22°15	15°57	12°41	W 7
T 8	1 6 55	14°49'59	15°41	29°45	14° 4	18°21	15°13	5°16	1°25	23°26	16° 0	23°59	22°12	16° 4	12°48	T 8
F 9	1 10 55	15°49'27	28°39	1♏21	15°17	18°59	15° 8	5°23	1°27	23°27	16° 0	23°54	22° 9	16°10	12°56	F 9
S 10	1 14 51	16°48'57	11♏25	2°59	16°30	19°37	15° 2	5°29	1°28	23°28	15°59	23°47	22° 5	16°17	13° 3	S 10
S 11	1 18 48	17°48'30	24° 0	4°39	17°44	20°15	14°56	5°36	1°30	23°29	15°59	23°38	22° 2	16°24	13°11	S 11
M12	1 22 44	18°48'05	6♏24	6°19	18°57	20°53	14°51	5°42	1°31	23°30	15°58	23°28	21°59	16°30	13°19	M12
T 13	1 26 41	19°47'41	18°36	8° 0	20°11	21°31	14°46	5°48	1°33	23°32	15°57	23°17	21°56	16°37	13°26	T 13
W14	1 30 37	20°47'20	0♏39	9°42	21°25	22° 9	14°41	5°54	1°35	23°33	15°57	23° 6	21°53	16°44	13°34	W14
T 15	1 34 34	21°47'00	12°34	11°24	22°38	22°47	14°36	6° 0	1°36	23°34	15°56	22°58	21°50	16°51	13°42	T 15
F 16	1 38 30	22°46'42	24°25	13° 6	23°52	23°25	14°31	6° 6	1°38	23°35	15°56	22°51	21°46	16°57	13°50	F 16
S 17	1 42 27	23°46'26	6♏15	14°49	25° 6	24° 2	14°27	6°12	1°40	23°37	15°55	22°47	21°43	17° 4	13°58	S 17
S 18	1 46 24	24°46'12	18° 9	16°31	26°20	24°40	14°22	6°18	1°42	23°38	15°54	22°46	21°40	17°11	14° 5	S 18
M19	1 50 20	25°45'59	0♏12	18°13	27°34	25°18	14°18	6°24	1°44	23°40	15°54	22°D45	21°37	17°17	14°13	M19
T 20	1 54 17	26°45'49	12°29	19°55	28°47	25°56	14°14	6°30	1°46	23°41	15°53	22°46	21°34	17°24	14°21	T 20
W21	1 58 13	27°45'39	25° 5	21°36	0♏ 1	26°34	14°10	6°36	1°48	23°42	15°52	22°R46	21°31	17°31	14°29	W21
T 22	2 2 10	28°45'32	8♏ 6	23°17	1°15	27°12	14° 7	6°41	1°50	23°44	15°52	22°45	21°27	17°37	14°37	T 22
F 23	2 6 6	29°45'26	21°33	24°58	2°30	27°50	14° 3	6°47	1°52	23°45	15°51	22°42	21°24	17°44	14°45	F 23
S 24	2 10 3	0♏45'22	5♏28	26°38	3°44	28°28	14° 0	6°52	1°54	23°47	15°50	22°36	21°21	17°51	14°53	S 24
S 25	2 13 59	1°45'19	19°50	28°18	4°58	29° 6	13°57	6°58	1°56	23°48	15°49	22°28	21°18	17°58	15° 1	S 25
M26	2 17 56	2°45'19	4♏32	29°58	6°12	29°44	13°54	7° 3	1°58	23°50	15°48	22°18	21°15	18° 4	15° 9	M26
T 27	2 21 53	3°45'20	19°28	1♏37	7°26	0♏21	13°51	7° 8	2° 1	23°52	15°48	22° 7	21°11	18°11	15°17	T 27
W28	2 25 49	4°45'24	4♏28	3°15	8°41	0°59	13°49	7°14	2° 3	23°53	15°47	21°56	21° 8	18°18	15°25	W28
T 29	2 29 46	5°45'29	19°22	4°53	9°55	1°37	13°47	7°19	2° 5	23°55	15°46	21°48	21° 5	18°24	15°33	T 29
F 30	2 33 42	6°45'37	4♏ 4	6°31	11°10	2°15	13°45	7°24	2° 8	23°56	15°45	21°42	21° 2	18°31	15°41	F 30
S 31	2 37 39	7♏45'47	18♏26	8♏ 8	12♏24	2♏53	13°K43	7♏29	2♏10	23°K58	15°II44	21°K38	20°K59	18°K38	15♏49	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	decl lat
T 1	3s 9	26n48	4n58	5n18	1n28	10n27	1n 2	7n26	1n11	6s59	1s34	11n16	1n30	23s46	0s17	22s 6
F 2	3 32	27 48	4 28	4 58	1 36	10 2	1 4	7 11	1 11	7 2	1 34	11 14	1 30	23 46	0 17	22 6
S 3	3 55	26 58	3 43	4 35	1 43	9 37	1 6	6 57	1 11	7 4	1 34	11 11	1 30	23 46	0 17	22 6
S 4	4 19	24 25	2 45	4 8	1 48	9 12	1 8	6 42	1 11	7 7	1 33	11 9	1 30	23 46	0 17	22 6
M 5	4 42	20 29	1 38	3 38	1 52	8 46	1 10	6 27	1 11	7 9	1 33	11 7	1 30	23 46	0 17	22 7
T 6	5 5	15 31	0 26	3 6	1 55	8 20	1 12	6 12	1 11	7 11	1 33	11 5	1 30	23 46	0 17	22 7
W 7	5 28	9 53	0s46	2 31	1 57	7 54	1 14	5 57	1 11	7 13	1 33	11 2	1 30	23 46	0 17	22 7
T 8	5 51	3 55	1 54	1 55	1 59	7 27	1 16	5 43	1 11	7 16	1 33	11 0	1 31	23 46	0 17	22 7
F 9	6 14	2s 8	2 55	1 17	1 59	7 0	1 18	5 28	1 11	7 18	1 33	10 58	1 31	23 46	0 17	22 7
S 10	6 37	7 59	3 46	0 37	1 58	6 33	1 20	5 13	1 11	7 20	1 33	10 56	1 31	23 46	0 17	22 7
S 11	7 0	13 26	4 25	0s 4	1 57	6 6	1 21	4 58	1 11	7 22	1 33	10 53	1 31	23 46	0 17	22 7
M12	7 23	18 15	4 51	0 45	1 55	5 39	1 23	4 43	1 11	7 24	1 32	10 51	1 31	23 46	0 17	22 7
T 13	7 45	22 15	5 3	1 28	1 52	5 11	1 24	4 28	1 11	7 26	1 32	10 49	1 31	23 46	0 17	22 7
W14	8 8	25 14	5 2	2 11	1 49	4 44	1 26	4 13	1 11	7 28	1 32	10 47	1 32	23 46	0 17	22 7
T 15	8 30	27 5	4 47	2 54	1 45	4 16	1 27	3 58	1 11	7 29	1 32	10 45	1 32	23 46	0 17	22 8
F 16	8 53	27 42	4 20	3 38	1 41	3 48	1 28	3 42	1 11	7 31	1 32	10 43	1 32	23 46	0 17	22 8
S 17	9 15	27 2	3 42	4 21	1 37	3 19	1 30	3 27	1 11	7 33	1 31	10 41	1 32	23 46	0 17	22 8
S 18	9 37	25 7	2 54	5 5	1 32	2 51	1 31	3 12	1 11	7 34	1 31	10 39	1 32	23 46	0 17	22 8
M19	9 59	22 4	1 57	5 49	1 27	2 23	1 32	2 57	1 11	7 35	1 31	10 37	1 33	23 46	0 17	22 8
T 20	10 20	17 58	0 55	6 33	1 22	1 54	1 33	2 42	1 11	7 37	1 31	10 35	1 33	23 46	0 17	22 8
W21	10 42	12 59	0n12	7 16	1 16	1 25	1 34	2 27	1 11	7 38	1 31	10 33	1 33	23 46	0 17	22 8
T 22	11 3	7 18	1 21	7 59	1 10	0 57	1 35	2 12	1 11	7 39	1 31	10 31	1 33	23 46	0 17	22 8
F 23	11 24	1 7	2 27	8 41	1 4	0 28	1 35	1 57	1 11	7 40	1 30	10 29	1 33	23 46	0 17	22 8
S 24	11 46	5n20	3 26	9 24	0 58	0s 1	1 36	1 41	1 10	7 42	1 30	10 27	1 33	23 45	0 17	22 9
S 25	12 6	11 42	4 14	10 5	0 52	0 30	1 36	1 26	1 10	7 43	1 30	10 25	1 34	23 45	0 17	22 9
M26	12 27	17 34	4 47	10 47	0 45	0 59	1 37	1 11	1 10	7 43	1 30	10 23	1 34	23 45	0 17	22 9
T 27	12 48	22 27	5 1	11 27	0 39	1 28	1 37	0 56	1 10	7 44	1 29	10 22	1 34	23 45	0 17	22 9
W28	13 8	25 54	4 54	12 7	0 32	1 57	1 38	0 41	1 10	7 45	1 29	10 20	1 34	23 45	0 17	22 9
T 29	13 28	27 30	4 28	12 47	0 25	2 26	1 38	0 25	1 10	7 46	1 29	10 18	1 34	23 45	0 17	22 9
F 30	13 48	27 9	3 43	13 25	0 19	2 55	1 38	0 10	1 10	7 46	1 29	10 16	1 35	23 45	0 17	22 9
S 31	14s 8	24n57	2n46	14s 3	0n12	3s24	1n38	0s 5	1n10	7s47	1s29	10n15	1n35	23s45	0s17	22s 9

Julian Day Number = 2325444.5, Delta T = 40.01 sec
Ecliptic obliquity = 23°29'11, Nutation = 0°00'10, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°55'17, Lahiri = 19°02'17Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1654

geocentric

NOVEMBER 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 41 35	8♌45°59	2♈28	9♍45	13♊39	3♈31	13°R41	7♎34	2♈12	24♌0	15°R43	21°R37	20♌56	18♌45	15♌57	S 1
M 2	2 45 32	9°46'13	16° 9	11°22	14°53	4° 9	13°K40	7°39	2°15	24° 2	15°II42	21°K37	20°52	18°51	16° 5	M 2
T 3	2 49 28	10°46'29	29°31	12°58	16° 8	4°47	13°38	7°44	2°17	24° 3	15°42	21°37	20°49	18°58	16°13	T 3
W 4	2 53 25	11°46'46	12♎36	14°33	17°22	5°25	13°37	7°48	2°20	24° 5	15°41	21°35	20°46	19° 5	16°21	W 4
T 5	2 57 22	12°47'06	25°27	16° 9	18°37	6° 2	13°37	7°53	2°23	24° 7	15°40	21°31	20°43	19°11	16°29	T 5
F 6	3 1 18	13°47'28	8♊6	17°44	19°52	6°40	13°36	7°57	2°25	24° 9	15°39	21°24	20°40	19°18	16°37	F 6
S 7	3 5 15	14°47'52	20°35	19°18	21° 6	7°18	13°35	8° 2	2°28	24°11	15°38	21°15	20°37	19°25	16°45	S 7
S 8	3 9 11	15°48'17	2♍54	20°53	22°21	7°56	13°35	8° 6	2°31	24°12	15°37	21° 2	20°33	19°32	16°53	S 8
M 9	3 13 8	16°48'44	15° 6	22°27	23°36	8°34	13°D35	8°10	2°33	24°14	15°36	20°48	20°30	19°38	17° 2	M 9
T 10	3 17 4	17°49'13	27°10	24° 0	24°51	9°12	13°35	8°15	2°36	24°16	15°35	20°33	20°27	19°45	17°10	T 10
W11	3 21 1	18°49'44	9♌7	25°34	26° 6	9°50	13°36	8°19	2°39	24°18	15°34	20°18	20°24	19°52	17°18	W11
T 12	3 24 57	19°50'16	20°59	27° 7	27°21	10°28	13°36	8°23	2°42	24°20	15°33	20° 6	20°21	19°58	17°26	T 12
F 13	3 28 54	20°50'49	2♈58	28°40	28°36	11° 5	13°37	8°27	2°45	24°22	15°32	19°56	20°17	20° 5	17°34	F 13
S 14	3 32 51	21°51'24	14°37	0♌13	29°50	11°43	13°38	8°30	2°48	24°24	15°31	19°49	20°14	20°12	17°42	S 14
S 15	3 36 47	22°52'00	26°29	1°46	1♌5	12°21	13°40	8°34	2°51	24°26	15°30	19°45	20°11	20°18	17°50	S 15
M16	3 40 44	23°52'38	8♌29	3°18	2°20	12°59	13°41	8°38	2°53	24°28	15°29	19°44	20° 8	20°25	17°58	M16
T 17	3 44 40	24°53'16	20°42	4°50	3°35	13°37	13°43	8°41	2°56	24°30	15°27	19°43	20° 5	20°32	18° 6	T 17
W18	3 48 37	25°53'56	3♌13	6°22	4°50	14°15	13°45	8°45	3° 0	24°32	15°26	19°43	20° 2	20°39	18°14	W18
T 19	3 52 33	26°54'36	16° 7	7°54	6° 6	14°52	13°47	8°48	3° 3	24°34	15°25	19°42	19°58	20°45	18°22	T 19
F 20	3 56 30	27°55'18	29°30	9°26	7°21	15°30	13°49	8°51	3° 6	24°36	15°24	19°39	19°55	20°52	18°30	F 20
S 21	4 0 26	28°56'01	13°V22	10°57	8°36	16° 8	13°51	8°55	3° 9	24°38	15°23	19°33	19°52	20°59	18°38	S 21
S 22	4 4 23	29°56'45	27°45	12°28	9°51	16°46	13°54	8°58	3°12	24°40	15°22	19°25	19°49	21° 5	18°46	S 22
M23	4 8 20	0♌57°30	12♈35	13°59	11° 6	17°23	13°57	9° 1	3°15	24°42	15°21	19°14	19°46	21°12	18°54	M23
T 24	4 12 16	1°58'16	27°43	15°30	12°21	18° 1	14° 0	9° 3	3°18	24°45	15°20	19° 3	19°43	21°19	19° 2	T 24
W25	4 16 13	2°59'04	13♊1	17° 0	13°36	18°39	14° 3	9° 6	3°21	24°47	15°19	18°52	19°39	21°25	19°10	W25
T 26	4 20 9	3°59'53	28°16	18°30	14°51	19°17	14° 7	9° 9	3°25	24°49	15°17	18°42	19°36	21°32	19°18	T 26
F 27	4 24 6	5° 0'43	13♊18	20° 0	16° 7	19°55	14°10	9°11	3°28	24°51	15°16	18°36	19°33	21°39	19°26	F 27
S 28	4 28 2	6° 1'34	27°59	21°30	17°22	20°32	14°14	9°14	3°31	24°53	15°15	18°32	19°30	21°46	19°34	S 28
S 29	4 31 59	7° 2'27	12♌14	22°58	18°37	21°10	14°18	9°16	3°34	24°55	15°14	18°30	19°27	21°52	19°41	S 29
M30	4 35 55	8♌3'21	26♌3	24♌27	19♌52	21♌48	14♌22	9♎19	3♈38	24♌58	15°II13	18°D30	19°K23	21♌59	19♌49	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	14s27	21n16	1n39	14s41	0n 5	3s53	1n38	0s20	1n10	7s47	1s28	10n13	1n35	23s45	0s17	22s 9	1n12	13n40	9s 6	14s20	14s33	27s33	14s35	2n 9	14s37
M 2	14 46	16 29	0 29	15 17	0s 1	4 22	1 38	0 35	1 10	7 48	1 28	10 12	1 35	23 45	0 17	22 10	1 12	13 40	9 7	14 20	14 34	27 33	14 37	2 10	14 39
T 3	15 5	11 1	0s42	15 53	0 8	4 51	1 38	0 50	1 10	7 48	1 28	10 10	1 36	23 45	0 17	22 10	1 12	13 39	9 7	14 20	14 35	27 33	14 39	2 10	14 41
W 4	15 24	5 10	1 49	16 28	0 15	5 19	1 38	1 5	1 9	7 48	1 28	10 8	1 36	23 45	0 17	22 10	1 12	13 39	9 7	14 20	14 36	27 33	14 41	2 10	14 43
T 5	15 42	0s46	2 48	17 2	0 21	5 48	1 38	1 21	1 9	7 48	1 27	10 7	1 36	23 45	0 17	22 10	1 11	13 39	9 7	14 21	14 37	27 33	14 43	2 10	14 45
F 6	16 1	6 34	3 39	17 36	0 28	6 17	1 37	1 36	1 9	7 48	1 27	10 5	1 36	23 45	0 17	22 10	1 11	13 39	9 7	14 24	14 38	27 33	14 45	2 10	14 47
S 7	16 18	12 2	4 18	18 8	0 34	6 45	1 37	1 51	1 9	7 48	1 27	10 4	1 36	23 45	0 17	22 10	1 11	13 39	9 7	14 27	14 39	27 34	14 47	2 11	14 49
S 8	16 36	16 57	4 45	18 40	0 41	7 13	1 37	2 6	1 9	7 48	1 27	10 2	1 37	23 45	0 17	22 10	1 11	13 39	9 7	14 31	14 40	27 34	14 49	2 11	14 51
M 9	16 54	21 8	4 58	19 11	0 47	7 42	1 36	2 21	1 9	7 48	1 26	10 1	1 37	23 45	0 17	22 10	1 11	13 38	9 7	14 35	14 41	27 34	14 51	2 11	14 53
T 10	17 11	24 23	4 57	19 40	0 53	8 10	1 35	2 36	1 9	7 47	1 26	10 0	1 37	23 45	0 17	22 10	1 11	13 38	9 7	14 40	14 42	27 34	14 53	2 11	14 55
W11	17 27	26 32	4 44	20 9	1 0	8 38	1 35	2 51	1 9	7 47	1 26	9 58	1 37	23 45	0 17	22 11	1 11	13 38	9 7	14 45	14 43	27 34	14 55	2 12	14 57
T 12	17 44	27 28	4 18	20 37	1 6	9 5	1 34	3 6	1 8	7 47	1 26	9 57	1 38	23 45	0 17	22 11	1 11	13 38	9 7	14 49	14 44	27 34	14 57	2 12	14 59
F 13	18 0	27 8	3 41	21 4	1 12	9 33	1 33	3 21	1 8	7 46	1 25	9 56	1 38	23 45	0 17	22 11	1 11	13 38	9 7	14 52	14 45	27 34	14 59	2 12	15 1
S 14	18 16	25 34	2 54	21 30	1 17	10 0	1 32	3 36	1 8	7 45	1 25	9 55	1 38	23 44	0 17	22 11	1 11	13 38	9 7	14 54	14 46	27 34	15 1	2 13	15 3
S 15	18 32	22 51	2 0	21 54	1 23	10 27	1 31	3 51	1 8	7 45	1 25	9 53	1 38	23 44	0 17	22 11	1 11	13 37	9 7	14 55	14 47	27 34	15 3	2 13	15 5
M16	18 47	19 8	0 59	22 18	1 28	10 54	1 30	4 6	1 8	7 44	1 25	9 52	1 38	23 44	0 17	22 11	1 11	13 37	9 7	14 56	14 48	27 34	15 5	2 13	15 7
T 17	19 2	14 32	0n 5	22 41	1 34	11 20	1 29	4 20	1 8	7 43	1 24	9 51	1 39	23 44	0 17	22 11	1 11	13 37	9 7	14 56	14 49	27 34	15 7	2 13	15 9
W18	19 16	9 15	1 11	23 2	1 39	11 47	1 28	4 35	1 8	7 42	1 24	9 50	1 39	23 44	0 17	22 11	1 11	13 37	9 7	14 56	14 50	27 34	15 9	2 14	15 11
T 19	19 30	3 25	2 15	23 22	1 43	12 13	1 27	4 50	1 7	7 41	1 24	9 49	1 39	23 44	0 17	22 11	1 11	13 37	9 7	14 56	14 51	27 35	15 11	2 14	15 13
F 20	19 44	2n46	3 14	23 41	1 48	12 39	1 25	5 5	1 7	7 40	1 24	9 48	1 39	23 44	0 17	22 12	1 11	13 37	9 7	14 57	14 52	27 35	15 13	2 14	15 15
S 21	19 58	9 1	4 3	23 59	1 52	13 4	1 24	5 20	1 7	7 39	1 23	9 47	1 40	23 44	0 17	22 12	1 11	13 37	9 7	14 59	14 53	27 35	15 15	2 14	15 17
S 22	20 11	15 3	4 40	24 16	1 57	13 29	1 23	5 34	1 7	7 37	1 23	9 46	1 40	23 44	0 17	22 12	1 11	13 37	9 7	15 2	14 54	27 35	15 17	2 15	15 19
M23	20 23	20 23	4 59	24 31	2 1	13 54	1 21	5 49	1 7	7 36	1 23	9 45	1 40	23 44	0 17	22 12	1 11	13 36	9 7	15 5	14 55	27 35	15 19	2 15	15 21
T 24	20 36	24 31	4 57	24 45	2 4	14 18	1 20	6 3	1 7	7 35	1 23	9 44	1 40	23 44	0 17	22 12	1 11	13 36	9 7	15 9	14 56	27 35	15 21	2 15	15 23
W25	20 48	26 57	4 35	24 58	2 7	14 42	1 18	6 18	1 6	7 33	1 22	9 44	1 41	23 44	0 17	22 12	1 11	13 36	9 7	15 12	14 57	27 35	15 22	2 16	15 25
T 26	20 59	27 21	3 53	25 9	2 10	15 6	1 17	6 32	1 6	7 32	1 22	9 43	1 41	23 44	0 17	22 12	1 11	13 36	9 7	15 15	14 58	27 35	15 24	2 16	15 27
F 27	21 11	25 43	2 55	25 19	2 13	15 30	1 15	6 47	1 6	7 30	1 22	9 42	1 41	23 43	0 17	22 12	1 11	13 36	9 7	15 17	14 59	27 35	15 26	2 16	15 29
S 28	21 21	22 21	1 47	25 28	2 15	15 53	1 13	7 1	1 6	7 28	1 22	9 41	1 41	23 43	0 17	22 12	1 11	13 36	9 7	15 18	15 0	27 34	15 28	2 17	15 31
S 29	21 32	17 41	0 33	25 35	2 17	16 15	1 12	7 16	1 6	7 27	1 21	9 41	1 42	23 43	0 17	22 13	1 11	13 36	9 7	15 19	15 1	27 34	15 30	2 17	15 33
M30	21s42	12n14	0s40	25s41	2s19	16s37	1n10	7s30	1n 5	7s25	1s21	9n40	1n42	23s43	0s17	22s13	1n11	13n36	9s 7	15s19	15s 2	27s34	15s31	2n17	15s33

ASTRODIENST EPHEMERIS for the year 1654
geocentric

DECEMBER 1654 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	4 39 52	9♂ 4'17	9♂27	25♂55	21♂ 8	22♂26	14♂27	9♂21	3♂41	25♂ 0	15°R12	18°R31	19♂20	22♂ 6	19♂57	T 1
W 2	4 43 49	10° 5'13	22°29	27°21	22°23	23° 3	14°31	9°23	3°44	25° 2	15°II11	18°♂30	19°17	22°12	20° 5	W 2
T 3	4 47 45	11° 6'11	5♂12	28°48	23°38	23°41	14°36	9°25	3°48	25° 4	15° 9	18°27	19°14	22°19	20°13	T 3
F 4	4 51 42	12° 7'10	17°40	0♂13	24°53	24°19	14°41	9°26	3°51	25° 6	15° 8	18°22	19°11	22°26	20°20	F 4
S 5	4 55 38	13° 8'11	29°56	1°37	26° 9	24°57	14°46	9°28	3°55	25° 9	15° 7	18°14	19° 8	22°32	20°28	S 5
S 6	4 59 35	14° 9'12	12♂ 4	2°59	27°24	25°34	14°51	9°30	3°58	25°11	15° 6	18° 3	19° 4	22°39	20°36	S 6
M 7	5 3 31	15°10'14	24° 5	4°20	28°39	26°12	14°57	9°31	4° 2	25°13	15° 5	17°51	19° 1	22°46	20°43	M 7
T 8	5 7 28	16°11'18	6♂ 1	5°39	29°55	26°50	15° 3	9°33	4° 5	25°15	15° 4	17°38	18°58	22°53	20°51	T 8
W 9	5 11 25	17°12'22	17°54	6°56	1♂10	27°27	15° 9	9°34	4° 8	25°18	15° 2	17°26	18°55	22°59	20°58	W 9
T 10	5 15 21	18°13'27	29°44	8°10	2°26	28° 5	15°15	9°35	4°12	25°20	15° 1	17°15	18°52	23° 6	21° 6	T 10
F 11	5 19 18	19°14'32	11♂34	9°21	3°41	28°43	15°21	9°36	4°15	25°22	15° 0	17° 7	18°49	23°13	21°13	F 11
S 12	5 23 14	20°15'39	23°25	10°28	4°56	29°20	15°27	9°37	4°19	25°24	14°59	17° 1	18°45	23°19	21°21	S 12
S 13	5 27 11	21°16'45	5♂20	11°31	6°12	29°58	15°34	9°38	4°22	25°27	14°58	16°58	18°42	23°26	21°28	S 13
M14	5 31 7	22°17'52	17°22	12°30	7°27	0♂36	15°40	9°39	4°26	25°29	14°57	16°D57	18°39	23°33	21°35	M14
T 15	5 35 4	23°18'59	29°36	13°23	8°43	1°13	15°47	9°39	4°30	25°31	14°55	16°58	18°36	23°40	21°43	T 15
W16	5 39 0	24°20'07	12♂ 5	14°10	9°58	1°51	15°54	9°40	4°33	25°33	14°54	16°59	18°33	23°46	21°50	W16
T 17	5 42 57	25°21'14	24°54	14°50	11°13	2°28	16° 2	9°40	4°37	25°36	14°53	16°R59	18°29	23°53	21°57	T 17
F 18	5 46 54	26°22'22	8♂ 8	15°22	12°29	3° 6	16° 9	9°40	4°40	25°38	14°52	16°59	18°26	24° 0	22° 4	F 18
S 19	5 50 50	27°23'30	21°50	15°45	13°44	3°44	16°17	9°41	4°44	25°40	14°51	16°56	18°23	24° 6	22°11	S 19
S 20	5 54 47	28°24'38	6♂ 1	15°58	15° 0	4°21	16°24	9°R41	4°47	25°43	14°50	16°51	18°20	24°13	22°18	S 20
M21	5 58 43	29°25'46	20°39	16°R 1	16°15	4°59	16°32	9°41	4°51	25°45	14°49	16°45	18°17	24°20	22°26	M21
T 22	6 2 40	0♂26'54	5♂41	15°52	17°30	5°36	16°40	9°40	4°55	25°47	14°48	16°37	18°14	24°26	22°32	T 22
W23	6 6 36	1°28'02	20°57	15°32	18°46	6°14	16°48	9°40	4°58	25°49	14°46	16°30	18°10	24°33	22°39	W23
T 24	6 10 33	2°29'11	6♂16	14°59	20° 1	6°51	16°56	9°40	5° 2	25°52	14°45	16°24	18° 7	24°40	22°46	T 24
F 25	6 14 29	3°30'20	21°28	14°16	21°17	7°29	17° 5	9°39	5° 5	25°54	14°44	16°20	18° 4	24°46	22°53	F 25
S 26	6 18 26	4°31'29	6♂22	13°21	22°32	8° 6	17°13	9°39	5° 9	25°56	14°43	16°17	18° 1	24°53	23° 0	S 26
S 27	6 22 23	5°32'38	20°53	12°17	23°47	8°44	17°22	9°38	5°12	25°58	14°42	16°D17	17°58	25° 0	23° 6	S 27
M28	6 26 19	6°33'47	4♂56	11° 5	25° 3	9°21	17°31	9°37	5°16	26° 1	14°41	16°18	17°55	25° 7	23°13	M28
T 29	6 30 16	7°34'57	18°31	9°47	26°18	9°58	17°40	9°36	5°20	26° 3	14°40	16°20	17°51	25°13	23°20	T 29
W30	6 34 12	8°36'06	1♂39	8°27	27°34	10°36	17°49	9°35	5°23	26° 5	14°39	16°21	17°48	25°20	23°26	W30
T 31	6 38 9	9♂37'17	14♂25	7♂ 6	28♂49	11♂13	17♂58	9♂34	5♂27	26♂ 7	14°II38	16°R21	17♂45	25♂27	23♂33	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
T 1	21s51	6n22	1s49	25s45	2s20	16s59	1n 8	7s44	1n 5	7s23	1s21	9n40	1n42	23s43	0s17	22s13	1n11	13n36	9s 7	15s19	15s 3	27s34	15s33	2n18			
W 2	22 0	0 23	2 50	25 48	2 21	17 20	1 6	7 58	1 5	7 21	1 21	9 39	1 42	23 43	0 17	22 13	1 11	13 35	9 7	15 19	15 4	27 34	15 35	2 18			
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S 13	23 12	19 59	1 2	24 43	1 45	20 41	0 43	10 31	1 2	6 54	1 18	9 36	1 45	23 42	0 17	22 14	1 11	13 35	9 7	15 47	15 15	27 33	15 53	2 22			
M14	23 16	15 37	0n 2	24 30	1 36	20 56	0 40	10 44	1 2	6 51	1 18	9 36	1 46	23 42	0 17	22 14	1 11	13 35	9 7	15 47	15 16	27 33	15 55	2 22			
T 15	23 19	10 35	1 7	24 15	1 27	21 10	0 38	10 57	1 2	6 48	1 18	9 36	1 46	23 42	0 17	22 14	1 11	13 34	9 7	15 47	15 17	27 33	15 56	2 22			
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T 17	23 24	0n52	3 10	23 43	1 4	21 37	0 33	11 24	1 1	6 42	1 17	9 36	1 46	23 41	0 17	22 14	1 11	13 34	9 7	15 46	15 19	27 32	15 59	2 23			
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S 20	23 29	18 18	5 2	22 52	0 21	22 12	0 26	12 3	1 0	6 33	1 17	9 37	1 47	23 41	0 17	22 14	1 11	13 34	9 6	15 49	15 22	27 32	16 3	2 24			
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T 22	23 29	26 4	4 51	22 19	0n14	22 33	0 21	12 29	1 0	6 27	1 16	9 37	1 48	23 41	0 17	22 15	1 11	13 34	9 6	15 53	15 24	27 31	16 6	2 25			
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S 26	23 24	19 35	0 54	21 18	1 31	23 5	0 11	13 19	0 58	6 13	1 15	9 39	1 49	23 40	0 17	22 15	1 11	13 34	9 6	15 59	15 28	27 30	16 11	2 27			
S 27	23 22	14 10	0s25	21 5	1 50	23 11	0 9	13 31	0 58	6 9	1 15	9 39	1 49	23 40	0 17	22 15	1 11	13 34	9 6	15 59	15 29	27 30	16 13	2 27			
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T 29	23 16	2 0	2 46	20 43	2 25	23 22	0 4	13 56	0 57	6 2	1 15	9 40	1 49	23 40	0 17	22 15	1 11	13 34	9 5	15 58	15 31	27 29	16 15	2 28			
W30	23 12	4s 3	3 42	20 33	2 40	23 26	0 2	14 8	0 57	6 5	1 15	9 41	1 50	23 40	0 17	22 15	1 11	13 34	9 5	15 58	15 32	27 29	16 16	2 28			
T 31	23s 8	9s45	4s25	20s25	2n53	23s30	0s 1	14s20	0n57	5s54	1s14	9n42	1n50	23s40	0s17	22s15	1n11	13n34	9s 5	15s58	15s33	27s29	16s17	2n29			