



Astrodienst Ephemeris Tables for the year 1641

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 1641

geocentric

JANUARY 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 43 38	11°25'1	23°43	29°0	6°45	7°25	17°34	27°11	6°43	26°40	0°41	19°44	18°27	25°48	25°14	T 1
W 2	6 47 35	12°40'1	6°47	29°17	8°0	8°2	17°58	27°16	6°45	26°41	0°41	19°37	18°24	25°55	25°12	W 2
T 3	6 51 31	13°5'10	20°4	29°R23	9°15	8°39	18°12	27°22	6°47	26°43	0°40	19°32	18°21	26°1	25°10	T 3
F 4	6 55 28	14°6'20	3°34	29°18	10°29	9°16	18°26	27°28	6°49	26°45	0°39	19°30	18°18	26°8	25°8	F 4
S 5	6 59 24	15°7'29	17°19	29°1	11°44	9°53	18°40	27°34	6°51	26°47	0°38	19°D29	18°14	26°14	25°6	S 5
S 6	7 3 21	16°8'39	1°19	28°32	12°58	10°30	18°54	27°40	6°53	26°48	0°37	19°30	18°11	26°21	25°4	S 6
M 7	7 7 17	17°9'49	15°34	27°52	14°13	11°7	19°8	27°46	6°55	26°50	0°37	19°R31	18°8	26°28	25°2	M 7
T 8	7 11 14	18°10'58	0°3	27°1	15°27	11°45	19°23	27°52	6°57	26°51	0°36	19°30	18°5	26°34	25°1	T 8
W 9	7 15 10	19°12'08	14°42	26°0	16°42	12°22	19°37	27°59	6°58	26°53	0°35	19°28	18°2	26°41	24°59	W 9
T 10	7 19 7	20°13'17	29°26	24°52	17°56	12°59	19°51	28°5	7°0	26°54	0°35	19°23	17°59	26°48	24°58	T 10
F 11	7 23 4	21°14'26	14°3	23°38	19°10	13°37	20°5	28°11	7°2	26°56	0°34	19°15	17°55	26°54	24°56	F 11
S 12	7 27 0	22°15'34	28°41	22°21	20°25	14°14	20°19	28°17	7°3	26°57	0°33	19°5	17°52	27°1	24°55	S 12
S 13	7 30 57	23°16'42	12°57	21°3	21°39	14°52	20°33	28°24	7°5	26°59	0°33	18°54	17°49	27°8	24°53	S 13
M14	7 34 53	24°17'48	26°50	19°46	22°53	15°29	20°47	28°30	7°6	27°0	0°32	18°43	17°46	27°14	24°52	M14
T 15	7 38 50	25°18'55	10°17	18°33	24°8	16°7	21°1	28°37	7°8	27°2	0°31	18°34	17°43	27°21	24°51	T 15
W16	7 42 46	26°20'00	23°19	17°25	25°22	16°44	21°15	28°43	7°9	27°3	0°31	18°27	17°39	27°28	24°50	W16
T 17	7 46 43	27°21'04	5°56	16°24	26°36	17°22	21°29	28°50	7°11	27°4	0°30	18°22	17°36	27°34	24°49	T 17
F 18	7 50 39	28°22'07	18°13	15°32	27°50	18°0	21°43	28°56	7°12	27°6	0°30	18°20	17°33	27°41	24°48	F 18
S 19	7 54 36	29°23'09	0°15	14°48	29°4	18°38	21°58	29°3	7°13	27°7	0°29	18°D19	17°30	27°48	24°47	S 19
S 20	7 58 33	0°24'10	12°6	14°13	0°18	19°15	22°12	29°10	7°14	27°8	0°29	18°R19	17°27	27°54	24°46	S 20
M21	8 2 29	1°25'10	23°53	13°47	1°32	19°53	22°26	29°16	7°15	27°10	0°28	18°R19	17°24	28°1	24°45	M21
T 22	8 6 26	2°26'09	5°14	13°30	2°46	20°31	22°40	29°23	7°16	27°11	0°28	18°18	17°20	28°8	24°44	T 22
W23	8 10 22	3°27'06	17°35	13°21	4°0	21°9	22°54	29°30	7°17	27°12	0°27	18°14	17°17	28°14	24°44	W23
T 24	8 14 19	4°28'03	29°39	13°D21	5°14	21°47	23°8	29°37	7°18	27°13	0°27	18°8	17°14	28°21	24°43	T 24
F 25	8 18 15	5°28'58	11°55	13°28	6°28	22°25	23°22	29°44	7°19	27°14	0°26	17°59	17°11	28°27	24°42	F 25
S 26	8 22 12	6°29'52	24°26	13°42	7°42	23°3	23°36	29°51	7°20	27°15	0°26	17°47	17°8	28°34	24°42	S 26
S 27	8 26 8	7°30'45	7°12	14°3	8°55	23°41	23°49	29°57	7°21	27°16	0°26	17°34	17°5	28°41	24°42	S 27
M28	8 30 5	8°31'37	20°13	14°30	10°9	24°19	24°3	0°14	7°22	27°17	0°25	17°20	17°1	28°47	24°41	M28
T 29	8 34 2	9°32'28	3°18	15°2	11°23	24°57	24°17	0°11	7°22	27°18	0°25	17°7	16°58	28°54	24°41	T 29
W30	8 37 58	10°33'18	16°54	15°39	12°36	25°35	24°31	0°18	7°23	27°19	0°25	16°57	16°55	29°1	24°41	W30
T 31	8 41 55	11°34'06	0°30	16°21	13°50	26°13	24°35	0°14	7°24	27°20	0°24	16°49	16°52	29°7	24°41	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
T 1	23s 1	8n49	5s 6	20s24	0s 0	20s14	1s40	3n 1	0n 5	22s32	0s14	13s55	1s32	13s21	0n28	17s49
W 2	22 56	4 30	4 53	20 4	0n16	19 55	1 41	3 17	0 6	22 31	0 14	13 53	1 32	13 21	0 28	17 49
T 3	22 50	0s 7	4 25	19 46	0 34	19 36	1 41	3 33	0 7	22 29	0 14	13 51	1 32	13 22	0 28	17 49
F 4	22 44	4 48	3 41	19 29	0 53	19 16	1 41	3 49	0 9	22 27	0 14	13 49	1 32	13 22	0 28	17 50
S 5	22 37	9 20	2 44	19 14	1 11	18 55	1 41	4 5	0 10	22 25	0 15	13 47	1 32	13 23	0 28	17 50
S 6	22 30	13 27	1 36	19 1	1 31	18 34	1 41	4 20	0 11	22 23	0 15	13 44	1 32	13 24	0 28	17 50
M 7	22 23	16 52	0 21	18 50	1 49	18 12	1 41	4 36	0 12	22 21	0 15	13 42	1 32	13 24	0 28	17 51
T 8	22 15	19 17	0n56	18 42	2 8	17 50	1 41	4 52	0 14	22 20	0 15	13 40	1 32	13 25	0 28	17 51
W 9	22 6	20 27	2 11	18 37	2 25	17 28	1 40	5 7	0 15	22 18	0 15	13 38	1 32	13 25	0 28	17 51
T 10	21 58	20 12	3 17	18 33	2 41	17 4	1 40	5 23	0 16	22 16	0 15	13 36	1 32	13 26	0 28	17 52
F 11	21 48	18 36	4 9	18 32	2 55	16 41	1 40	5 39	0 17	22 14	0 15	13 34	1 32	13 27	0 28	17 52
S 12	21 38	15 49	4 45	18 33	3 7	16 17	1 39	5 54	0 18	22 12	0 15	13 31	1 32	13 27	0 28	17 52
S 13	21 28	12 8	5 2	18 36	3 17	15 52	1 39	6 10	0 19	22 10	0 15	13 29	1 32	13 28	0 28	17 53
M14	21 18	7 53	5 1	18 40	3 24	15 27	1 38	6 25	0 20	22 8	0 15	13 27	1 32	13 28	0 28	17 53
T 15	21 7	3 22	4 42	18 45	3 28	15 2	1 37	6 41	0 21	22 6	0 15	13 24	1 31	13 28	0 28	17 53
W16	20 55	1n10	4 10	18 52	3 31	14 36	1 37	6 56	0 22	22 3	0 16	13 22	1 31	13 29	0 28	17 53
T 17	20 44	5 31	3 26	19 0	3 30	14 10	1 36	7 12	0 23	22 1	0 16	13 20	1 31	13 29	0 28	17 54
F 18	20 32	9 31	2 33	19 8	3 28	13 44	1 35	7 27	0 24	21 59	0 16	13 18	1 31	13 30	0 28	17 54
S 19	20 19	13 4	1 35	19 17	3 24	13 17	1 34	7 42	0 25	21 57	0 16	13 15	1 31	13 30	0 28	17 54
S 20	20 6	16 1	0 33	19 26	3 18	12 50	1 33	7 58	0 26	21 55	0 16	13 13	1 31	13 30	0 28	17 54
M21	19 53	18 18	0s30	19 36	3 11	12 22	1 31	8 13	0 27	21 53	0 16	13 10	1 31	13 31	0 28	17 55
T 22	19 39	19 48	1 31	19 46	3 3	11 54	1 30	8 28	0 28	21 51	0 16	13 8	1 31	13 31	0 28	17 55
W23	19 25	20 26	2 29	19 56	2 54	11 26	1 29	8 43	0 29	21 48	0 16	13 6	1 31	13 31	0 28	17 55
T 24	19 11	20 8	3 21	20 5	2 44	10 58	1 27	8 58	0 30	21 46	0 16	13 3	1 31	13 32	0 28	17 55
F 25	18 56	18 54	4 4	20 15	2 34	10 29	1 26	9 13	0 31	21 44	0 17	13 1	1 31	13 32	0 28	17 56
S 26	18 41	16 44	4 36	20 24	2 23	10 0	1 24	9 28	0 32	21 42	0 17	12 58	1 31	13 32	0 28	17 56
S 27	18 26	13 44	4 56	20 33	2 12	9 31	1 23	9 43	0 33	21 39	0 17	12 56	1 31	13 33	0 28	17 56
M28	18 10	10 1	5 0	20 41	2 1	9 2	1 21	9 58	0 34	21 37	0 17	12 53	1 31	13 33	0 28	17 56
T 29	17 54	5 46	4 49	20 49	1 50	8 32	1 19	10 13	0 34	21 35	0 17	12 51	1 31	13 33	0 28	17 56
W30	17 37	1 11	4 21	20 55	1 39	8 2	1 17	10 27	0 35	21 32	0 17	12 49	1 31	13 33	0 28	17 56
T 31	17s21	3s32	3s38	21s 2	1n28	7s32	1s15	10n42	0n36	21s30	0s17	12s46	1s31	13s33	0n29	17s57

Julian Day Number = 2320423.5, Delta T = 49.66 sec
 Ecliptic obliquity = 23°29'03, Nutation = 0°00'14, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°43'46, Lahiri = 18°50'47Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1641

geocentric

FEBRUARY 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 45 51	12 ³⁴ 54	14 ¹³	17 ³	15 ³	26 ⁵¹	24 ⁵⁹	0 ³²	7 ²⁴	27 ²¹	0 ²⁴	16 ⁴⁴	16 ⁴⁹	29 ¹⁴	24 ^{D41}	F 1
S 2	8 49 48	13 ³⁵ 41	28° 4	17°56	16°17	27°30	25°12	0°40	7°25	27°22	0 ^{II} 24	16 ⁴²	16°45	29°21	24 ⁸⁴¹	S 2
S 3	8 53 44	14°36'27	12 ¹¹ 2	18°49	17°30	28° 8	25°26	0°47	7°25	27°23	0°24	16°41	16°42	29°27	24°41	S 3
M 4	8 57 41	15°37'11	26° 7	19°46	18°43	28°46	25°40	0°54	7°25	27°24	0°23	16°41	16°39	29°34	24°41	M 4
T 5	9 1 37	16°37'55	10 ¹⁷	20°45	19°57	29°24	25°54	1° 1	7°26	27°24	0°23	16°40	16°36	29°41	24°41	T 5
W 6	9 5 34	17°38'38	24°33	21°47	21°10	0 ⁸ 2	26° 7	1° 8	7°26	27°25	0°23	16°37	16°33	29°47	24°42	W 6
T 7	9 9 31	18°39'20	8 ³⁵ 0	22°51	22°23	0°41	26°21	1°15	7°26	27°26	0°23	16°31	16°30	29°54	24°42	T 7
F 8	9 13 27	19°40'00	23° 5	23°58	23°36	1°19	26°34	1°22	7°26	27°26	0°23	16°21	16°26	0 ^{II} 1	24°43	F 8
S 9	9 17 24	20°40'39	7 ¹³	25° 7	24°49	1°57	26°48	1°30	7°26	27°27	0°23	16°10	16°23	0° 7	24°43	S 9
S 10	9 21 20	21°41'17	21° 9	26°18	26° 2	2°35	27° 2	1°37	7°26	27°28	0°23	15°57	16°20	0°14	24°44	S 10
M 11	9 25 17	22°41'53	4 ⁴⁹	27°30	27°15	3°14	27°15	1°44	7°26	27°28	0°23	15°44	16°17	0°20	24°45	M 11
T 12	9 29 13	23°42'27	18° 8	28°45	28°28	3°52	27°28	1°51	7°26	27°29	0°23	15°33	16°14	0°27	24°45	T 12
W 13	9 33 10	24°43'00	1 ⁵	0 ¹	29°40	4°30	27°42	1°59	7°26	27°29	0°23	15°23	16°11	0°34	24°46	W 13
T 14	9 37 6	25°43'31	13°42	1°18	0 ⁵³	5° 9	27°55	2° 6	7°26	27°30	0°23	15°17	16° 7	0°40	24°47	T 14
F 15	9 41 3	26°44'00	25°59	2°37	2° 6	5°47	28° 8	2°13	7°26	27°30	0°23	15°13	16° 4	0°47	24°48	F 15
S 16	9 45 0	27°44'27	8 ⁸ 2	3°58	3°18	6°26	28°22	2°20	7°25	27°31	0°23	15°12	16° 1	0°54	24°49	S 16
S 17	9 48 56	28°44'53	19°55	5°20	4°31	7° 4	28°35	2°28	7°25	27°31	0°23	15°D12	15°58	1° 0	24°50	S 17
M 18	9 52 53	29°45'16	1 ⁴³	6°43	5°43	7°42	28°48	2°35	7°25	27°31	0°23	15°R12	15°55	1° 7	24°52	M 18
T 19	9 56 49	0 ⁴⁵ 38	13°32	8° 7	6°55	8°21	29° 1	2°42	7°24	27°32	0°23	15°11	15°51	1°14	24°53	T 19
W 20	10 0 46	1°45'58	25°27	9°33	8° 8	8°59	29°14	2°50	7°24	27°32	0°23	15° 8	15°48	1°20	24°54	W 20
T 21	10 4 42	2°46'15	7 ³⁴	10°59	9°20	9°38	29°27	2°57	7°23	27°32	0°23	15° 3	15°45	1°27	24°56	T 21
F 22	10 8 39	3°46'31	19°56	12°27	10°32	10°16	29°40	3° 4	7°22	27°32	0°24	14°56	15°42	1°34	24°57	F 22
S 23	10 12 35	4°46'45	2 ³⁷	13°56	11°44	10°54	29°53	3°12	7°22	27°32	0°24	14°46	15°39	1°40	24°59	S 23
S 24	10 16 32	5°46'56	15°37	15°27	12°55	11°33	0 ⁵	3°19	7°21	27°33	0°24	14°34	15°36	1°47	25° 0	S 24
M 25	10 20 29	6°47'06	28°57	16°58	14° 7	12°11	0°18	3°26	7°20	27°33	0°24	14°22	15°32	1°54	25° 2	M 25
T 26	10 24 25	7°47'14	12 ³⁴	18°30	15°19	12°50	0°31	3°33	7°19	27°33	0°25	14°11	15°29	2° 0	25° 4	T 26
W 27	10 28 22	8°47'20	26°26	20° 4	16°30	13°28	0°43	3°41	7°19	27°R33	0°25	14° 2	15°26	2° 7	25° 5	W 27
T 28	10 32 18	9 ⁴⁷ 24	10 ²⁸	21 ³⁸	17 ⁴²	14 ⁶	0 ⁵⁶	3 ⁴⁸	7 ¹⁸	27 ³³	0 ^{II} 25	13 ⁵⁵	15 ²³	2 ^{II} 14	25 ⁸ 7	T 28

Day	☉	☾		♀		♀		♂		♂		♂	♂		♂		♂		♂	♂	♂	♂	♂	♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	17s 4	8s 7	2s43	21s 7	1n17	7s 2	1s13	10n57	0n37	21s27	0s17	12s44	1s31	13s34	0n29	17s57	1n42	8n21	12s10	16s52	16s53	18n56	15n19	3s46	
S 2	16 46	12 19	1 37	21 11	1 6	6 31	1 11	11 11	0 38	21 25	0 17	12 41	1 31	13 34	0 29	17 57	1 42	8 22	12 10	16 51	16 53	18 57	15 20	3 46	
S 3	16 29	15 52	0 25	21 15	0 55	6 1	1 9	11 26	0 39	21 23	0 17	12 39	1 31	13 34	0 29	17 57	1 42	8 22	12 10	16 51	16 52	18 58	15 20	3 45	
M 4	16 11	18 31	0n50	21 17	0 45	5 30	1 7	11 40	0 39	21 20	0 18	12 36	1 31	13 34	0 29	17 57	1 42	8 22	12 9	16 51	16 51	18 58	15 20	3 45	
T 5	15 53	20 2	2 1	21 18	0 35	4 59	1 5	11 54	0 40	21 18	0 18	12 33	1 31	13 34	0 29	17 57	1 42	8 22	12 9	16 51	16 50	18 59	15 20	3 45	
W 6	15 34	20 17	3 6	21 19	0 25	4 28	1 2	12 9	0 41	21 15	0 18	12 31	1 31	13 34	0 29	17 57	1 42	8 23	12 9	16 50	16 49	18 59	15 21	3 45	
T 7	15 16	19 13	3 59	21 18	0 15	3 57	1 0	12 23	0 42	21 13	0 18	12 28	1 31	13 34	0 29	17 57	1 43	8 23	12 9	16 48	16 48	19 0	15 21	3 45	
F 8	14 57	16 58	4 36	21 16	0 5	3 25	0 57	12 37	0 42	21 10	0 18	12 26	1 31	13 34	0 29	17 58	1 43	8 23	12 8	16 46	16 47	19 0	15 21	3 44	
S 9	14 38	13 43	4 57	21 13	0s 4	2 54	0 55	12 51	0 43	21 8	0 18	12 23	1 32	13 34	0 29	17 58	1 43	8 23	12 8	16 42	16 46	19 1	15 21	3 44	
S 10	14 18	9 45	4 59	21 9	0 13	2 23	0 52	13 5	0 44	21 5	0 18	12 21	1 32	13 34	0 29	17 58	1 43	8 24	12 8	16 39	16 45	19 2	15 22	3 44	
M11	13 58	5 21	4 44	21 3	0 22	1 51	0 50	13 18	0 44	21 3	0 18	12 18	1 32	13 34	0 29	17 58	1 43	8 24	12 7	16 35	16 44	19 2	15 22	3 44	
T 12	13 39	0 48	4 14	20 57	0 30	1 20	0 47	13 32	0 45	21 0	0 19	12 16	1 32	13 34	0 29	17 58	1 43	8 24	12 7	16 32	16 43	19 3	15 22	3 44	
W13	13 18	3n40	3 31	20 49	0 39	0 48	0 44	13 46	0 46	20 58	0 19	12 13	1 32	13 34	0 29	17 58	1 43	8 25	12 7	16 29	16 43	19 3	15 23	3 44	
T 14	12 58	7 51	2 39	20 40	0 46	0 16	0 41	13 59	0 46	20 55	0 19	12 10	1 32	13 34	0 29	17 58	1 43	8 25	12 7	16 27	16 42	19 4	15 23	3 43	
F 15	12 38	11 37	1 40	20 29	0 54	0n15	0 38	14 13	0 47	20 53	0 19	12 8	1 32	13 34	0 29	17 58	1 43	8 25	12 6	16 26	16 41	19 4	15 23	3 43	
S 16	12 17	14 49	0 38	20 17	1 1	0 47	0 35	14 26	0 48	20 50	0 19	12 5	1 32	13 34	0 29	17 58	1 43	8 25	12 6	16 25	16 40	19 5	15 24	3 43	
S 17	11 56	17 21	0s25	20 4	1 8	1 18	0 32	14 39	0 48	20 48	0 19	12 3	1 32	13 34	0 29	17 58	1 43	8 26	12 6	16 25	16 39	19 5	15 24	3 43	
M18	11 35	19 8	1 27	19 50	1 15	1 50	0 29	14 52	0 49	20 45	0 19	12 0	1 32	13 33	0 29	17 58	1 43	8 26	12 5	16 25	16 38	19 6	15 25	3 43	
T 19	11 13	20 4	2 25	19 35	1 21	2 21	0 26	15 5	0 49	20 43	0 19	11 57	1 32	13 33	0 29	17 58	1 43	8 26	12 5	16 25	16 37	19 6	15 25	3 43	
W20	10 52	20 8	3 17	19 18	1 27	2 53	0 23	15 18	0 50	20 40	0 19	11 55	1 32	13 33	0 29	17 58	1 43	8 27	12 5	16 24	16 36	19 7	15 26	3 42	
T 21	10 30	19 16	4 1	18 59	1 33	3 24	0 19	15 31	0 50	20 37	0 20	11 52	1 32	13 33	0 29	17 58	1 43	8 27	12 4	16 23	16 35	19 7	15 26	3 42	
F 22	10 9	17 28	4 35	18 40	1 38	3 56	0 16	15 44	0 51	20 35	0 20	11 50	1 32	13 33	0 29	17 58	1 43	8 27	12 4	16 21	16 34	19 8	15 27	3 42	
S 23	9 47	14 49	4 56	18 19	1 43	4 27	0 13	15 57	0 52	20 32	0 20	11 47	1 32	13 32	0 29	17 58	1 43	8 28	12 4	16 18	16 33	19 8	15 27	3 42	
S 24	9 24	11 22	5 2	17 57	1 47	4 58	0 9	16 9	0 52	20 30	0 20	11 44	1 32	13 32	0 29	17 58	1 43	8 28	12 4	16 14	16 32	19 9	15 28	3 42	
M25	9 2	7 17	4 53	17 33	1 51	5 29	0 6	16 21	0 53	20 27	0 20	11 42	1 32	13 32	0 29	17 58	1 44	8 28	12 3	16 11	16 31	19 9	15 28	3 42	
T 26	8 40	2 45	4 27	17 8	1 55	6 0	0 3	16 34	0 53	20 24	0 20	11 39	1 32	13 32	0 29	17 58	1 44	8 29	12 3	16 8	16 31	19 10	15 29	3 42	
W27	8 17	2s 1	3 44	16 42	1 59	6 31	0n 1	16 46	0 54	20 22	0 20	11 37	1 32	13 31	0 29	17 58	1 44	8 29	12 3	16 5	16 30	19 10	15 29	3 41	
T 28	7s55	6s43	2s48	16s14	2s 2	7n 2	0n 5	16n58	0n54	20s19	0s21	11s34	1s32	13s31	0n29	17s58	1n44	8n29	12s 2	16s 3	16s29	19n11	15n30	3s41	

Julian Day Number = 2320454.5, Delta T = 49.60 sec

Ecliptic obliquity = 23°29'03, Nutation = 0°00'14, out-of-bounds declination in red

ASTRODIENST EPHEMERIS for the year 1641

geocentric

MARCH 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	10 36 15	10 ^h 47'26	24 ^h 36	23 ^h 34	18 ^h 53	14 ^h 45	1 ^h 8	3 ^h 55	7 ^h 17	27 ^h 33	0 ^h 26	13 ^h 51	15 ^h 20	2 ^h 20	25 ^h 9	F 1
S 2	10 40 11	11 ^h 47'27	8 ^h 47	24 ^h 51	20 ^h 4	15 ^h 23	1 ^h 21	4 ^h 3	7 ^h 16	27 ^h 33	0 ^h 26	13 ^h D50	15 ^h 16	2 ^h 27	25 ^h 11	S 2
S 3	10 44 8	12 ^h 47'26	22 ^h 58	26 ^h 29	21 ^h 16	16 ^h 2	1 ^h 33	4 ^h 10	7 ^h 15	27 ^h 32	0 ^h 26	13 ^h 50	15 ^h 13	2 ^h 33	25 ^h 13	S 3
M 4	10 48 4	13 ^h 47'24	7 ^h 7	28 ^h 8	22 ^h 27	16 ^h 40	1 ^h 45	4 ^h 17	7 ^h 13	27 ^h 32	0 ^h 27	13 ^h R50	15 ^h 10	2 ^h 40	25 ^h 16	M 4
T 5	10 52 1	14 ^h 47'20	21 ^h 13	29 ^h 48	23 ^h 38	17 ^h 18	1 ^h 58	4 ^h 24	7 ^h 12	27 ^h 32	0 ^h 27	13 ^h 50	15 ^h 7	2 ^h 47	25 ^h 18	T 5
W 6	10 55 58	15 ^h 47'15	5 ^h 14	1 ^h 30	24 ^h 48	17 ^h 57	2 ^h 10	4 ^h 31	7 ^h 11	27 ^h 32	0 ^h 28	13 ^h 49	15 ^h 4	2 ^h 53	25 ^h 20	W 6
T 7	10 59 54	16 ^h 47'07	19 ^h 11	3 ^h 12	25 ^h 59	18 ^h 35	2 ^h 22	4 ^h 39	7 ^h 10	27 ^h 32	0 ^h 28	13 ^h 45	15 ^h 1	3 ^h 0	25 ^h 22	T 7
F 8	11 3 51	17 ^h 46'58	3 ^h 0	4 ^h 56	27 ^h 10	19 ^h 14	2 ^h 34	4 ^h 46	7 ^h 8	27 ^h 31	0 ^h 29	13 ^h 38	14 ^h 57	3 ^h 7	25 ^h 25	F 8
S 9	11 7 47	18 ^h 46'48	16 ^h 41	6 ^h 41	28 ^h 20	19 ^h 52	2 ^h 46	4 ^h 53	7 ^h 7	27 ^h 31	0 ^h 29	13 ^h 30	14 ^h 54	3 ^h 13	25 ^h 27	S 9
S 10	11 11 44	19 ^h 46'35	0 ^h 10	8 ^h 27	29 ^h 31	20 ^h 31	2 ^h 57	5 ^h 0	7 ^h 6	27 ^h 31	0 ^h 30	13 ^h 20	14 ^h 51	3 ^h 20	25 ^h 30	S 10
M 11	11 15 40	20 ^h 46'20	13 ^h 26	10 ^h 14	0 ^h 41	21 ^h 9	3 ^h 9	5 ^h 7	7 ^h 4	27 ^h 30	0 ^h 30	13 ^h 11	14 ^h 48	3 ^h 27	25 ^h 32	M 11
T 12	11 19 37	21 ^h 46'04	26 ^h 26	12 ^h 3	1 ^h 51	21 ^h 47	3 ^h 21	5 ^h 14	7 ^h 3	27 ^h 30	0 ^h 31	13 ^h 2	14 ^h 45	3 ^h 33	25 ^h 35	T 12
W 13	11 23 33	22 ^h 45'45	9 ^h 10	13 ^h 52	3 ^h 1	22 ^h 26	3 ^h 32	5 ^h 22	7 ^h 1	27 ^h 30	0 ^h 31	12 ^h 55	14 ^h 42	3 ^h 40	25 ^h 38	W 13
T 14	11 27 30	23 ^h 45'24	21 ^h 38	15 ^h 43	4 ^h 11	23 ^h 4	3 ^h 44	5 ^h 29	7 ^h 0	27 ^h 29	0 ^h 32	12 ^h 51	14 ^h 38	3 ^h 47	25 ^h 40	T 14
F 15	11 31 26	24 ^h 45'01	3 ^h 51	17 ^h 36	5 ^h 21	23 ^h 43	3 ^h 55	5 ^h 36	6 ^h 58	27 ^h 29	0 ^h 33	12 ^h 48	14 ^h 35	3 ^h 53	25 ^h 43	F 15
S 16	11 35 23	25 ^h 44'36	15 ^h 52	19 ^h 29	6 ^h 30	24 ^h 21	4 ^h 7	5 ^h 43	6 ^h 56	27 ^h 28	0 ^h 33	12 ^h D48	14 ^h 32	4 ^h 0	25 ^h 46	S 16
S 17	11 39 20	26 ^h 44'09	27 ^h 44	21 ^h 24	7 ^h 40	25 ^h 0	4 ^h 18	5 ^h 50	6 ^h 55	27 ^h 27	0 ^h 34	12 ^h 49	14 ^h 29	4 ^h 7	25 ^h 49	S 17
M 18	11 43 16	27 ^h 43'39	9 ^h 33	23 ^h 20	8 ^h 49	25 ^h 38	4 ^h 29	5 ^h 57	6 ^h 53	27 ^h 27	0 ^h 35	12 ^h 50	14 ^h 26	4 ^h 13	25 ^h 52	M 18
T 19	11 47 13	28 ^h 43'07	21 ^h 22	25 ^h 17	9 ^h 58	26 ^h 16	4 ^h 40	6 ^h 4	6 ^h 51	27 ^h 26	0 ^h 35	12 ^h 52	14 ^h 22	4 ^h 20	25 ^h 55	T 19
W 20	11 51 9	29 ^h 42'33	3 ^h 51	27 ^h 15	11 ^h 7	26 ^h 55	4 ^h 51	6 ^h 11	6 ^h 49	27 ^h 26	0 ^h 36	12 ^h R52	14 ^h 19	4 ^h 27	25 ^h 58	W 20
T 21	11 55 6	0 ^h 41'57	15 ^h 24	29 ^h 14	12 ^h 16	27 ^h 33	5 ^h 2	6 ^h 17	6 ^h 47	27 ^h 25	0 ^h 37	12 ^h 51	14 ^h 16	4 ^h 33	26 ^h 1	T 21
F 22	11 59 2	1 ^h 41'18	27 ^h 47	1 ^h 14	13 ^h 25	28 ^h 11	5 ^h 12	6 ^h 24	6 ^h 46	27 ^h 24	0 ^h 38	12 ^h 48	14 ^h 13	4 ^h 40	26 ^h 4	F 22
S 23	12 2 59	2 ^h 40'37	10 ^h 30	3 ^h 15	14 ^h 34	28 ^h 50	5 ^h 23	6 ^h 31	6 ^h 44	27 ^h 23	0 ^h 38	12 ^h 43	14 ^h 10	4 ^h 47	26 ^h 7	S 23
S 24	12 6 55	3 ^h 39'53	23 ^h 35	5 ^h 17	15 ^h 42	29 ^h 28	5 ^h 33	6 ^h 38	6 ^h 42	27 ^h 23	0 ^h 39	12 ^h 37	14 ^h 7	4 ^h 53	26 ^h 11	S 24
M 25	12 10 52	4 ^h 39'07	7 ^h 10	7 ^h 20	16 ^h 50	0 ^h 11	5 ^h 44	6 ^h 45	6 ^h 40	27 ^h 22	0 ^h 40	12 ^h 31	14 ^h 3	5 ^h 0	26 ^h 14	M 25
T 26	12 14 49	5 ^h 38'19	20 ^h 57	9 ^h 23	17 ^h 58	0 ^h 45	5 ^h 54	6 ^h 51	6 ^h 38	27 ^h 21	0 ^h 41	12 ^h 25	14 ^h 0	5 ^h 6	26 ^h 17	T 26
W 27	12 18 45	6 ^h 37'29	5 ^h 9	11 ^h 27	19 ^h 6	1 ^h 23	6 ^h 4	6 ^h 58	6 ^h 36	27 ^h 20	0 ^h 42	12 ^h 20	13 ^h 57	5 ^h 13	26 ^h 21	W 27
T 28	12 22 42	7 ^h 36'37	19 ^h 35	13 ^h 31	20 ^h 14	2 ^h 2	6 ^h 14	7 ^h 5	6 ^h 33	27 ^h 19	0 ^h 43	12 ^h 16	13 ^h 54	5 ^h 20	26 ^h 24	T 28
F 29	12 26 38	8 ^h 35'43	4 ^h 10	15 ^h 34	21 ^h 21	2 ^h 40	6 ^h 24	7 ^h 11	6 ^h 31	27 ^h 18	0 ^h 43	12 ^h 14	13 ^h 51	5 ^h 26	26 ^h 28	F 29
S 30	12 30 35	9 ^h 34'47	18 ^h 48	17 ^h 37	22 ^h 29	3 ^h 18	6 ^h 34	7 ^h 18	6 ^h 29	27 ^h 17	0 ^h 44	12 ^h D14	13 ^h 47	5 ^h 33	26 ^h 31	S 30
S 31	12 34 31	10 ^h 33'49	3 ^h 22	19 ^h 40	23 ^h 36	3 ^h 56	6 ^h 44	7 ^h 24	6 ^h 27	27 ^h 16	0 ^h 45	12 ^h M15	13 ^h M44	5 ^h 40	26 ^h 35	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
F 1	7s32	11s 7	1s41	15s45	2s 4	7n32	0n 8	17n10	0n55	20s17	0s21	11s32	1s33	13s31	0n29	17s58	1n44	8n30	12s 2	16s 2	16s28	19n11	15n31	3s41			
S 2	7 9	14 53	0 27	15 15	2 7	8 3	0 12	17 22	0 55	20 14	0 21	11 29	1 33	13 30	0 29	17 58	1 44	8 30	12 2	16 1	16 27	19 12	15 31	3 41			
S 3	6 46	17 46	0n49	14 44	2 9	8 33	0 15	17 33	0 56	20 11	0 21	11 26	1 33	13 30	0 29	17 58	1 44	8 30	12 2	16 1	16 26	19 12	15 32	3 41			
M 4	6 23	19 33	2 1	14 11	2 10	9 3	0 19	17 45	0 56	20 9	0 21	11 24	1 33	13 30	0 29	17 58	1 44	8 31	12 1	16 1	16 25	19 13	15 33	3 41			
T 5	6 0	20 6	3 6	13 36	2 11	9 32	0 23	17 56	0 57	20 6	0 21	11 21	1 33	13 29	0 29	17 58	1 44	8 31	12 1	16 1	16 24	19 13	15 33	3 40			
W 6	5 37	19 24	4 0	13 1	2 12	10 2	0 26	18 8	0 57	20 4	0 21	11 19	1 33	13 29	0 29	17 57	1 44	8 31	12 1	16 1	16 23	19 14	15 34	3 40			
T 7	5 14	17 31	4 38	12 24	2 12	10 31	0 30	18 19	0 58	20 1	0 21	11 16	1 33	13 28	0 29	17 57	1 44	8 32	12 0	16 0	16 22	19 14	15 35	3 40			
F 8	4 50	14 39	5 0	11 46	2 12	11 1	0 34	18 30	0 58	19 59	0 22	11 13	1 33	13 28	0 29	17 57	1 44	8 32	12 0	15 58	16 21	19 15	15 35	3 40			
S 9	4 27	11 1	5 5	11 6	2 11	11 29	0 38	18 41	0 58	19 56	0 22	11 11	1 33	13 27	0 29	17 57	1 44	8 33	12 0	15 55	16 20	19 15	15 36	3 40			
S 10	4 3	6 52	4 53	10 25	2 10	11 58	0 42	18 51	0 59	19 53	0 22	11 8	1 33	13 27	0 29	17 57	1 44	8 33	12 0	15 52	16 19	19 15	15 37	3 40			
M 11	3 40	2 27	4 25	9 43	2 8	12 26	0 45	19 2	0 59	19 51	0 22	11 6	1 33	13 26	0 29	17 57	1 44	8 33	11 59	15 49	16 18	19 16	15 37	3 40			
T 12	3 16	2n 0	3 43	9 0	2 6	12 55	0 49	19 12	1 0	19 48	0 22	11 3	1 33	13 26	0 29	17 57	1 44	8 34	11 59	15 47	16 17	19 16	15 38	3 39			
W 13	2 53	6 16	2 51	8 15	2 3	13 22	0 53	19 23	1 0	19 46	0 22	11 1	1 34	13 25	0 29	17 57	1 44	8 34	11 59	15 45	16 17	19 17	15 39	3 39			
T 14	2 29	10 10	1 52	7 29	2 0	13 50	0 57	19 33	1 0	19 43	0 22	10 58	1 34	13 25	0 29	17 56	1 44	8 34	11 59	15 43	16 16	19 17	15 40	3 39			
F 15	2 5	13 35	0 48	6 42	1 56	14 17	1 1	19 43	1 1	19 41	0 23	10 56	1 34	13 24	0 29	17 56	1 45	8 35	11 58	15 43	16 15	19 18	15 41	3 39			
S 16	1 42	16 21	0s17	5 53	1 52	14 44	1 5	19 53	1 1	19 38	0 23	10 53	1 34	13 24	0 29	17 56	1 45	8 35	11 58	15 43	16 14	19 18	15 41	3 39			
S 17	1 18	18 24	1 20	5 4	1 47	15 10	1 9	20 3	1 2	19 36	0 23	10 51	1 34	13 23	0 29	17 56	1 45	8 36	11 58	15 43	16 13	19 18	15 42	3 39			
M 18	0 54	19 37	2 20	4 13	1 42	15 37	1 12	20 12	1 2	19 33	0 23	10 48	1 34	13 23	0 29	17 56	1 45	8 36	11 57	15 43	16 12	19 19	15 43	3 39			
T 19	0 31	19 59	3 14	3 21	1 36	16 2	1 16	20 22	1 2	19 31	0 23	10 46	1 34	13 22	0 29	17 55	1 45	8 36	11 57	15 44	16 11	19 19	15 44	3 39			
W 20	0 7	19 27	4 0	2 28	1 30	16 28	1 20	20 31	1 3	19 28	0 23	10 43	1 34	13 21	0 29	17 55	1 45	8 37	11 57	15 44	16 10	19 20	15 45	3 39			
T 21	0n17	18 1	4 36	1 35	1 23	16 53	1 24	20 40	1 3	19 26	0 24	10 41	1 34	13 21	0 29	17 55	1 45	8 37	11 57	15 43	16 9	19 20	15 45	3 38			
F 22	0 40	15 44	5 0	0 40	1 16	17 17	1 28	20 49	1 3	19 23	0 24	10 38	1 34	13 20	0 29	17 55	1 45	8 38	11 56	15 42	16 8	19 20	15 46	3 38			
S 23	1 4	12 39	5 10	0n15	1 8	17 42	1 32	20 58	1 4	19 21	0 24	10 36	1 35	13 20	0 29	17 55	1 45	8 38	11 56	15 41	16 7	19 21	15 47	3 38			
S 24	1 28	8 53	5 5	1 12	1 0	18 6	1 35	21 7	1 4	19 18	0 24	10 34	1 35	13 19	0 29	17 54	1 45	8 38	11 56	15 39	16 6	19 21	15 48	3 38			
M 25	1 51	4 33	4 43	2 8	0 51	18 29	1 39	21 16	1 4	19 16	0 24	10 31	1 35	13 18	0 29	17 54	1 45	8 39	11 56	15 37	16 5	19 21	15 49	3 38			
T 26	2 15	0s 8	4 4	3 6	0 41	18 52	1 43	21 24	1 5	19 13	0 24	10 29	1 35	13 18	0 29	17 54	1 45	8 39	11 55	15 35	16 4	19 22	15 50	3 38			
W 27	2 38	4 56	3 9	4 3	0 32	19 15	1 47	21 32	1 5	19 11	0 25	10 26	1 35	13 17	0 29	17 54	1 45	8 40	11 55	15 34	16 3	19 22	15 51	3 38			
T 28	3 2	9 32	2 1	5 1	0 21	19 37	1 51	21 40	1 5	19 9	0 25	10 24	1 35	13 16	0 29	17 54	1 45	8 40	11 55	15 33	16 2	19 23	15 51	3 38			
F 29	3 25	13 37	0 44	5 58	0 11	19 58	1 54	21 48	1 6	19 6	0 25	10 22	1 35	13 15	0 29	17 53	1 45	8 40	11 55	15 32	16 1	19 23	15 52	3 38			
S 30	3 48	16 52	0n36	6 56	0n 0	20 19	1 58	21 56	1 6	19 4	0 25	10 19	1 35	13 15	0 29	17 53	1 45	8 41	11 55	15 32	16 0	19 23	15 53	3 37			
S 31	4n11	19s 1	1n53	7n53	0n11	20n40	2n 1	22n 3	1n 6	19s 2	0s25	10s17	1s36	13s14	0n29	17s53	1n45	8n41	11s54	15s33	16s 0	19n24	15n54	3s37			

ASTRODIENST EPHEMERIS for the year 1641

geocentric

APRIL 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	12 38 28	11°32'49	17°48	21°41	24°43	4°35	6°54	7°31	6°R25	27°R15	0°46	12°17	13°M41	5°II46	26°39	M 1	
T 2	12 42 24	12°31'48	2°3	23°41	25°50	5°13	7°3	7°37	6°M23	27°M14	0°47	12°18	13°38	5°53	26°42	T 2	
W 3	12 46 21	13°30'44	16°5	25°39	26°56	5°51	7°13	7°44	6°20	27°13	0°48	12°R18	13°35	6°0	26°46	W 3	
T 4	12 50 18	14°29'40	29°53	27°36	28°3	6°30	7°22	7°50	6°18	27°12	0°49	12°18	13°32	6°6	26°50	T 4	
F 5	12 54 14	15°28'33	13°26	29°29	29°9	7°8	7°31	7°57	6°16	27°11	0°50	12°15	13°28	6°13	26°54	F 5	
S 6	12 58 11	16°27'24	26°46	1°20	0°11	7°46	7°40	8°3	6°13	27°10	0°51	12°12	13°25	6°20	26°57	S 6	
S 7	13 2 7	17°26'14	9°52	3°8	1°21	8°24	7°49	8°9	6°11	27°9	0°52	12°8	13°22	6°26	27°1	S 7	
M 8	13 6 4	18°25'02	22°43	4°52	2°26	9°3	7°58	8°15	6°9	27°8	0°53	12°5	13°19	6°33	27°5	M 8	
T 9	13 10 0	19°23'48	5°Y22	6°32	3°31	9°41	8°7	8°21	6°6	27°7	0°54	12°1	13°16	6°40	27°9	T 9	
W10	13 13 57	20°22'32	17°48	8°9	4°36	10°19	8°15	8°27	6°4	27°5	0°55	11°59	13°13	6°46	27°13	W10	
T 11	13 17 53	21°21'14	0°8	9°41	5°41	10°57	8°24	8°33	6°2	27°4	0°56	11°57	13°9	6°53	27°17	T 11	
F 12	13 21 50	22°19'54	12°7	11°9	6°46	11°35	8°32	8°39	5°59	27°3	0°57	11°D56	13°6	7°0	27°21	F 12	
S 13	13 25 46	23°18'32	24°2	12°32	7°50	12°14	8°40	8°45	5°57	27°2	0°58	11°57	13°3	7°6	27°25	S 13	
S 14	13 29 43	24°17'08	5°II53	13°50	8°54	12°52	8°48	8°51	5°54	27°0	1°0	11°58	13°0	7°13	27°30	S 14	
M15	13 33 40	25°15'42	17°41	15°3	9°58	13°30	8°56	8°57	5°52	26°59	1°1	11°59	12°57	7°20	27°34	M15	
T 16	13 37 36	26°14'14	29°30	16°12	11°1	14°8	9°4	9°3	5°49	26°58	1°2	12°1	12°53	7°26	27°38	T 16	
W17	13 41 33	27°12'43	11°26	17°15	12°5	14°46	9°11	9°8	5°47	26°57	1°3	12°2	12°50	7°33	27°42	W17	
T 18	13 45 29	28°11'11	23°31	18°12	13°7	15°25	9°19	9°14	5°44	26°55	1°4	12°R 3	12°47	7°40	27°46	T 18	
F 19	13 49 26	29°9'36	5°II52	19°5	14°10	16°3	9°26	9°20	5°42	26°54	1°5	12°3	12°44	7°46	27°51	F 19	
S 20	13 53 22	0°8	7°59	18°32	19°52	15°12	16°41	9°33	5°39	26°52	1°7	12°2	12°41	7°53	27°55	S 20	
S 21	13 57 19	1°6'20	1°II35	20°33	16°14	17°19	9°40	9°31	5°37	26°51	1°8	12°1	12°38	8°0	27°59	S 21	
M22	14 1 15	2°4'39	15°4	21°9	17°16	17°57	9°47	9°36	5°34	26°50	1°9	12°0	12°34	8°6	28°4	M22	
T 23	14 5 12	3°2'56	28°59	21°39	18°17	18°35	9°54	9°41	5°32	26°48	1°10	11°59	12°31	8°13	28°8	T 23	
W24	14 9 9	4°1'10	13°II18	22°4	19°18	19°13	10°0	9°47	5°29	26°47	1°11	11°58	12°28	8°20	28°13	W24	
T 25	14 13 5	4°59'23	27°58	22°23	20°19	19°51	10°7	9°52	5°27	26°45	1°13	11°57	12°25	8°26	28°17	T 25	
F 26	14 17 2	5°57'34	12°II52	22°36	21°19	20°30	10°13	9°57	5°24	26°44	1°14	11°D57	12°22	8°33	28°22	F 26	
S 27	14 20 58	6°55'44	27°53	22°44	22°19	21°8	10°19	10°2	5°21	26°42	1°15	11°57	12°19	8°39	28°26	S 27	
S 28	14 24 55	7°53'52	12°II51	22°R47	23°18	21°46	10°25	10°7	5°19	26°41	1°16	11°57	12°15	8°46	28°31	S 28	
M29	14 28 51	8°51'58	27°39	22°44	24°17	22°24	10°31	10°12	5°16	26°39	1°18	11°58	12°12	8°53	28°35	M29	
T 30	14 32 48	9°50'03	12°II52	22°II37	25°II15	23°II 2	10°36	10°17	5°14	26°38	1°19	11°M58	12°9	8°II59	28°II40	T 30	

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	4n35	19s54	3n 3	8n49	0n23	21n 0	2n 5	22n11	1n 6	19s 0	0s25	10s15	1s36	13s13	0n29	17s52	1n45
T 2	4 58	19 28	4 0	9 44	0 34	21 20	2 9	22 18	1 7	18 57	0 26	10 12	1 36	13 13	0 29	17 52	1 45
W 3	5 21	17 51	4 42	10 38	0 45	21 39	2 12	22 25	1 7	18 55	0 26	10 10	1 36	13 12	0 29	17 52	1 45
T 4	5 43	15 13	5 7	11 31	0 57	21 58	2 16	22 32	1 7	18 53	0 26	10 8	1 36	13 11	0 29	17 52	1 45
F 5	6 6	11 48	5 14	12 22	1 8	22 16	2 19	22 39	1 7	18 51	0 26	10 6	1 36	13 10	0 29	17 51	1 45
S 6	6 29	7 51	5 4	13 12	1 19	22 34	2 22	22 45	1 8	18 49	0 26	10 4	1 36	13 10	0 29	17 51	1 45
S 7	6 52	3 35	4 38	13 59	1 30	22 51	2 26	22 52	1 8	18 46	0 26	10 1	1 37	13 9	0 29	17 51	1 46
M 8	7 14	0n46	3 59	14 45	1 40	23 7	2 29	22 58	1 8	18 44	0 27	9 59	1 37	13 8	0 29	17 51	1 46
T 9	7 36	5 1	3 8	15 28	1 50	23 23	2 32	23 4	1 8	18 42	0 27	9 57	1 37	13 7	0 29	17 50	1 46
W10	7 59	8 59	2 9	16 8	2 0	23 39	2 35	23 10	1 9	18 40	0 27	9 55	1 37	13 6	0 29	17 50	1 46
T 11	8 21	12 32	1 5	16 46	2 8	23 53	2 38	23 16	1 9	18 38	0 27	9 53	1 37	13 6	0 29	17 50	1 46
F 12	8 43	15 29	0s 1	17 22	2 16	24 8	2 41	23 21	1 9	18 36	0 27	9 51	1 37	13 5	0 29	17 49	1 46
S 13	9 4	17 45	1 6	17 55	2 24	24 21	2 44	23 27	1 9	18 34	0 27	9 49	1 38	13 4	0 29	17 49	1 46
S 14	9 26	19 13	2 9	18 25	2 30	24 35	2 47	23 32	1 9	18 32	0 28	9 46	1 38	13 3	0 29	17 49	1 46
M15	9 47	19 50	3 5	18 52	2 36	24 47	2 50	23 37	1 10	18 30	0 28	9 44	1 38	13 2	0 29	17 48	1 46
T 16	10 9	19 35	3 54	19 17	2 41	24 59	2 53	23 42	1 10	18 29	0 28	9 42	1 38	13 2	0 29	17 48	1 46
W17	10 30	18 27	4 33	19 39	2 45	25 10	2 55	23 46	1 10	18 27	0 28	9 40	1 38	13 1	0 29	17 48	1 46
T 18	10 51	16 29	5 1	19 58	2 48	25 21	2 58	23 51	1 10	18 25	0 28	9 38	1 38	13 0	0 29	17 47	1 46
F 19	11 12	13 45	5 15	20 14	2 50	25 31	3 0	23 55	1 10	18 23	0 29	9 37	1 39	12 59	0 29	17 47	1 46
S 20	11 32	10 18	5 15	20 28	2 50	25 41	3 2	23 59	1 10	18 21	0 29	9 35	1 39	12 58	0 29	17 47	1 46
S 21	11 53	6 16	4 59	20 39	2 50	25 50	3 5	24 3	1 11	18 20	0 29	9 33	1 39	12 57	0 29	17 46	1 46
M22	12 13	1 48	4 26	20 47	2 48	25 58	3 7	24 7	1 11	18 18	0 29	9 31	1 39	12 57	0 29	17 46	1 46
T 23	12 33	2s54	3 37	20 53	2 46	26 6	3 9	24 10	1 11	18 16	0 29	9 29	1 39	12 56	0 29	17 46	1 46
W24	12 53	7 36	2 33	20 55	2 42	26 13	3 11	24 14	1 11	18 15	0 30	9 27	1 39	12 55	0 29	17 45	1 46
T 25	13 13	11 58	1 17	20 56	2 37	26 20	3 13	24 17	1 11	18 13	0 30	9 25	1 40	12 54	0 29	17 45	1 46
F 26	13 32	15 39	0n 5	20 53	2 31	26 26	3 14	24 20	1 11	18 12	0 30	9 24	1 40	12 53	0 29	17 44	1 46
S 27	13 51	18 18	1 27	20 48	2 23	26 31	3 16	24 23	1 11	18 10	0 30	9 22	1 40	12 52	0 29	17 44	1 46
S 28	14 10	19 41	2 44	20 40	2 14	26 36	3 17	24 25	1 12	18 9	0 30	9 20	1 40	12 52	0 29	17 44	1 46
M29	14 29	19 40	3 48	20 30	2 4	26 40	3 19	24 28	1 12	18 8	0 31	9 18	1 40	12 51	0 29	17 43	1 46
T 30	14n47	18s20	4n36	20n17	1n53	26n44	3n20	24n30	1n12	18s 6	0s31	9s17	1s41	12s50	0n29	17s43	1n46

Julian Day Number = 2320513.5, Delta T = 49.48 sec
 Ecliptic obliquity = 23°29'03, Nutation = 0°00'12, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°43'59, Lahiri = 18°50'59Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1641

geocentric

MAY 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	14 36 44	10 ⁸ 48'07	26 ³ 25	22 ⁹ R25	26 ^{II} 13	23 ^{II} 40	10 [∞] 42	10 [∞] 22	5 [°] R11	26 [°] R36	1 ^{II} 20	11 ^{II} 58	12 ^{II} 6	9 ^{II} 6	28 ⁸ 44	W 1
T 2	14 40 41	11 [°] 46'09	10 [∞] 16	22 ⁸ 8	27 [°] 11	24 [°] 18	10 [°] 47	10 [°] 26	5 ^{II} 9	26 ^{II} 35	1 [°] 22	11 [°] 58	12 [°] 3	9 [°] 13	28 [°] 49	T 2
F 3	14 44 38	12 [°] 44'09	23 [°] 45	21 [°] 47	28 [°] 8	24 [°] 56	10 [°] 52	10 [°] 31	5 [°] 6	26 [°] 33	1 [°] 23	11 [°] 58	11 [°] 59	9 [°] 19	28 [°] 53	F 3
S 4	14 48 34	13 [°] 42'09	6 ^{II} 54	21 [°] 22	29 [°] 5	25 [°] 34	10 [°] 57	10 [°] 36	5 [°] 4	26 [°] 31	1 [°] 24	11 [°] 58	11 [°] 56	9 [°] 26	28 [°] 58	S 4
S 5	14 52 31	14 [°] 40'07	19 [°] 45	20 [°] 54	0 [°] 5	26 [°] 12	11 [°] 2	10 [°] 40	5 [°] 1	26 [°] 30	1 [°] 25	11 [°] 58	11 [°] 53	9 [°] 33	29 [°] 3	S 5
M 6	14 56 27	15 [°] 38'03	2 ^{II} 19	20 [°] 24	0 [°] 57	26 [°] 50	11 [°] 7	10 [°] 44	4 [°] 59	26 [°] 28	1 [°] 27	11 [°] 59	11 [°] 50	9 [°] 39	29 [°] 7	M 6
T 7	15 0 24	16 [°] 35'58	14 [°] 40	19 [°] 51	1 [°] 52	27 [°] 28	11 [°] 11	10 [°] 49	4 [°] 56	26 [°] 27	1 [°] 28	11 [°] 59	11 [°] 47	9 [°] 46	29 [°] 12	T 7
W 8	15 4 20	17 [°] 33'52	26 [°] 51	19 [°] 17	2 [°] 47	28 [°] 6	11 [°] 15	10 [°] 53	4 [°] 54	26 [°] 25	1 [°] 29	12 [°] 0	11 [°] 44	9 [°] 53	29 [°] 17	W 8
T 9	15 8 17	18 [°] 31'45	8 ^{II} 52	18 [°] 42	3 [°] 41	28 [°] 44	11 [°] 20	10 [°] 57	4 [°] 51	26 [°] 23	1 [°] 31	12 [°] R 0	11 [°] 40	9 [°] 59	29 [°] 21	T 9
F 10	15 12 13	19 [°] 29'36	20 [°] 47	18 [°] 6	4 [°] 34	29 [°] 22	11 [°] 23	11 [°] 1	4 [°] 49	26 [°] 22	1 [°] 32	12 [°] 0	11 [°] 37	10 [°] 6	29 [°] 26	F 10
S 11	15 16 10	20 [°] 27'25	2 ^{II} 38	17 [°] 31	5 [°] 27	29 [°] 59	11 [°] 27	11 [°] 5	4 [°] 47	26 [°] 20	1 [°] 33	11 [°] 59	11 [°] 34	10 [°] 13	29 [°] 31	S 11
S 12	15 20 7	21 [°] 25'14	14 [°] 26	16 [°] 56	6 [°] 20	0 [°] 38	11 [°] 31	11 [°] 9	4 [°] 44	26 [°] 19	1 [°] 35	11 [°] 58	11 [°] 31	10 [°] 19	29 [°] 36	S 12
M13	15 24 3	22 [°] 23'00	26 [°] 15	16 [°] 24	7 [°] 11	1 [°] 16	11 [°] 34	11 [°] 13	4 [°] 42	26 [°] 17	1 [°] 36	11 [°] 57	11 [°] 28	10 [°] 26	29 [°] 40	M13
T 14	15 28 0	23 [°] 20'45	8 ^{II} 6	15 [°] 53	8 [°] 2	1 [°] 54	11 [°] 37	11 [°] 17	4 [°] 39	26 [°] 15	1 [°] 37	11 [°] 55	11 [°] 25	10 [°] 33	29 [°] 45	T 14
W15	15 31 56	24 [°] 18'29	20 [°] 4	15 [°] 24	8 [°] 52	2 [°] 32	11 [°] 40	11 [°] 21	4 [°] 37	26 [°] 14	1 [°] 39	11 [°] 54	11 [°] 21	10 [°] 39	29 [°] 50	W15
T 16	15 35 53	25 [°] 16'11	2 ^{II} 10	14 [°] 59	9 [°] 42	3 [°] 10	11 [°] 43	11 [°] 24	4 [°] 35	26 [°] 12	1 [°] 40	11 [°] 52	11 [°] 18	10 [°] 46	29 [°] 55	T 16
F 17	15 39 49	26 [°] 13'51	14 [°] 30	14 [°] 37	10 [°] 31	3 [°] 48	11 [°] 46	11 [°] 28	4 [°] 32	26 [°] 11	1 [°] 41	11 [°] 51	11 [°] 15	10 [°] 53	29 [°] 59	F 17
S 18	15 43 46	27 [°] 11'30	27 [°] 7	14 [°] 19	11 [°] 19	4 [°] 25	11 [°] 48	11 [°] 31	4 [°] 30	26 [°] 9	1 [°] 43	11 [°] D51	11 [°] 12	10 [°] 59	0 ^{II} 4	S 18
S 19	15 47 42	28 [°] 9'07	10 ^{II} 5	14 [°] 4	12 [°] 6	5 [°] 3	11 [°] 51	11 [°] 35	4 [°] 28	26 [°] 7	1 [°] 44	11 [°] 51	11 [°] 9	11 [°] 6	0 [°] 9	S 19
M20	15 51 39	29 [°] 6'43	23 [°] 27	13 [°] 54	12 [°] 52	5 [°] 41	11 [°] 53	11 [°] 38	4 [°] 26	26 [°] 6	1 [°] 46	11 [°] 52	11 [°] 5	11 [°] 13	0 [°] 14	M20
T 21	15 55 36	0 ^{II} 4'17	7 ^{II} 15	13 [°] 48	13 [°] 37	6 [°] 19	11 [°] 55	11 [°] 41	4 [°] 23	26 [°] 4	1 [°] 47	11 [°] 53	11 [°] 2	11 [°] 19	0 [°] 19	T 21
W22	15 59 32	1 [°] 1'50	21 [°] 30	13 [°] D46	14 [°] 22	6 [°] 57	11 [°] 57	11 [°] 44	4 [°] 21	26 [°] 2	1 [°] 48	11 [°] 55	10 [°] 59	11 [°] 26	0 [°] 23	W22
T 23	16 3 29	1 [°] 59'21	6 ^{II} 9	13 [°] 49	15 [°] 5	7 [°] 35	11 [°] 58	11 [°] 47	4 [°] 19	26 [°] 1	1 [°] 50	11 [°] R55	10 [°] 56	11 [°] 33	0 [°] 28	T 23
F 24	16 7 25	2 [°] 56'51	21 [°] 8	13 [°] 56	15 [°] 48	8 [°] 13	11 [°] 59	11 [°] 50	4 [°] 17	25 [°] 59	1 [°] 51	11 [°] 55	10 [°] 53	11 [°] 39	0 [°] 33	F 24
S 25	16 11 22	3 [°] 54'20	6 ^{II} 18	14 [°] 8	16 [°] 30	8 [°] 51	12 [°] 1	11 [°] 53	4 [°] 15	25 [°] 58	1 [°] 52	11 [°] 54	10 [°] 50	11 [°] 46	0 [°] 38	S 25
S 26	16 15 18	4 [°] 51'49	21 [°] 32	14 [°] 24	17 [°] 10	9 [°] 28	12 [°] 2	11 [°] 56	4 [°] 13	25 [°] 56	1 [°] 54	11 [°] 52	10 [°] 46	11 [°] 53	0 [°] 42	S 26
M27	16 19 15	5 [°] 49'16	6 ^{II} 38	14 [°] 45	17 [°] 49	10 [°] 6	12 [°] 2	11 [°] 59	4 [°] 11	25 [°] 54	1 [°] 55	11 [°] 49	10 [°] 43	11 [°] 59	0 [°] 47	M27
T 28	16 23 11	6 [°] 46'42	21 [°] 28	15 [°] 10	18 [°] 28	10 [°] 44	12 [°] 3	12 [°] 1	4 [°] 9	25 [°] 53	1 [°] 56	11 [°] 46	10 [°] 40	12 [°] 6	0 [°] 52	T 28
W29	16 27 8	7 [°] 44'07	5 ^{II} 55	15 [°] 40	19 [°] 5	11 [°] 22	12 [°] 3	12 [°] 4	4 [°] 7	25 [°] 51	1 [°] 58	11 [°] 43	10 [°] 37	12 [°] 13	0 [°] 57	W29
T 30	16 31 5	8 [°] 41'32	19 [°] 55	16 [°] 13	19 [°] 40	12 [°] 0	12 [°] 4	12 [°] 6	4 [°] 5	25 [°] 50	1 [°] 59	11 [°] 40	10 [°] 34	12 [°] 19	1 [°] 2	T 30
F 31	16 35 1	9 ^{II} 38'56	3 ^{II} 29	16 [°] 51	20 [°] 15	12 [°] 38	12 [°] R 4	12 [°] 8	4 ^{II} 3	25 ^{II} 48	2 ^{II} 1	11 ^{II} 39	10 ^{II} 30	12 ^{II} 26	1 ^{II} 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	decl	lat
W 1	15n 6	15s54	5n 6	20n 2	1n41	26n47	3n21	24n32	1n12	18s 5	0s31	9s15	1s41	12s49	0n29	17s43	1n46	8n53	11s49	15s27	15s30	19n33	16n24	3s36					
T 2	15 24	12 36	5 18	19 45	1 28	26 49	3 22	24 34	1 12	18 4	0 31	9 13	1 41	12 48	0 29	17 42	1 46	8 54	11 49	15 27	15 29	19 33	16 25	3 36					
F 3	15 41	8 44	5 11	19 26	1 14	26 51	3 23	24 35	1 12	18 2	0 31	9 12	1 41	12 47	0 29	17 42	1 46	8 54	11 49	15 27	15 28	19 33	16 26	3 36					
S 4	15 59	4 32	4 48	19 5	0 58	26 52	3 24	24 37	1 12	18 1	0 32	9 10	1 41	12 47	0 29	17 42	1 46	8 54	11 48	15 27	15 27	19 33	16 27	3 36					
S 5	16 16	0 13	4 12	18 42	0 43	26 53	3 24	24 38	1 12	18 0	0 32	9 9	1 42	12 46	0 29	17 41	1 46	8 55	11 48	15 27	15 26	19 33	16 28	3 36					
M 6	16 33	4n 2	3 23	18 18	0 26	26 53	3 24	24 39	1 13	17 59	0 32	9 7	1 42	12 45	0 29	17 41	1 46	8 55	11 48	15 28	15 25	19 34	16 29	3 36					
T 7	16 50	8 2	2 26	17 53	0 9	26 53	3 25	24 40	1 13	17 58	0 32	9 6	1 42	12 44	0 29	17 40	1 46	8 55	11 48	15 28	15 24	19 34	16 30	3 36					
W 8	17 6	11 40	1 23	17 27	0s 8	26 52	3 25	24 41	1 13	17 57	0 33	9 4	1 42	12 43	0 29	17 40	1 46	8 56	11 48	15 28	15 23	19 34	16 31	3 36					
T 9	17 22	14 45	0 17	17 0	0 26	26 50	3 25	24 41	1 13	17 56	0 33	9 3	1 42	12 42	0 29	17 40	1 46	8 56	11 48	15 28	15 22	19 34	16 32	3 36					
F 10	17 38	17 12	0s49	16 34	0 43	26 48	3 24	24 42	1 13	17 55	0 33	9 2	1 43	12 42	0 29	17 39	1 46	8 56	11 48	15 28	15 21	19 34	16 33	3 37					
S 11	17 54	18 54	1 52	16 7	1 1	26 46	3 24	24 42	1 13	17 55	0 33	9 0	1 43	12 41	0 29	17 39	1 46	8 57	11 48	15 28	15 20	19 35	16 33	3 37					
S 12	18 9	19 45	2 51	15 41	1 18	26 43	3 23	24 42	1 13	17 54	0 33	8 59	1 43	12 40	0 29	17 39	1 46	8 57	11 48	15 27	15 19	19 35	16 34	3 37					
M13	18 24	19 44	3 42	15 16	1 34	26 39	3 22	24 42	1 13	17 53	0 34	8 58	1 43	12 39	0 29	17 38	1 46	8 57	11 48	15 27	15 18	19 35	16 35	3 37					
T 14	18 39	18 51	4 23	14 52	1 50	26 35	3 21	24 41	1 13	17 52	0 34	8 56	1 44	12 38	0 29	17 38	1 46	8 58	11 48	15 26	15 17	19 35	16 36	3 37					
W15	18 53	17 8	4 54	14 29	2 5	26 31	3 20	24 41	1 13	17 52	0 34	8 55	1 44	12 38	0 29	17 37	1 46	8 58	11 47	15 26	15 16	19 35	16 37	3 37					
T 16	19 7	14 38	5 12	14 8	2 20	26 26	3 19	24 40	1 13	17 51	0 34	8 54	1 44	12 37	0 29	17 37	1 46	8 58	11 47	15 26	15 15	19 35	16 38	3 37					
F 17	19 21	11 28	5 16	13 49	2 33	26 21	3 17	24 39	1 13	17 51	0 35	8 53	1 44	12 36	0 29	17 37	1 46	8 59	11 47	15 25	15 14	19 36	16 39	3 37					
S 18	19 34	7 42	5 5	13 32	2 45	26 15	3 16	24 38	1 13	17 50	0 35	8 52	1 44	12 35	0 29	17 36	1 46	8 59	11 47	15 25	15 13	19 36	16 40	3 37					
S 19	19 47	3 30	4 39	13 17	2 57	26 9	3 14	24 37	1 13	17 50	0 35	8 51	1 45	12 35	0 29	17 36	1 46	8 59	11 47	15 25	15 12	19 36	16 41	3 37					
M20	20 0	1s 1	3 57	13 4	3 7	26 2	3 11	24 35	1 13	17 49	0 35	8 50	1 45	12 34	0 29	17 36	1 46	9 0	11 47	15 25	15 11	19 36	16 42	3 37					
T 21	20 12	5 38	3 0	12 53	3 16	25 55	3 9	24 33	1 14	17 49	0 35	8 49	1 45	12 33	0 29	17 35	1 46	9 0	11 47	15 26	15 10	19 36	16 43	3 37					
W22	20 24	10 6	1 51	12 45	3 24	25 48	3 6	24 32	1 14	17 49	0 36	8 48	1 45	12 33	0 29	17 35	1 46	9 0	11 47	15 26	15 9	19 36	16 44	3 37					
T 23	20 36	14 6	0 32	12 39	3 31	25 40	3 3	24 29	1 14	17 49	0 36	8 47	1 46	12 32	0 29	17 34	1 46	9 0	11 47	15 26	15 8	19 36	16 44	3 37					
F 24	20 47	17 16	0n51	12 36	3 37	25 32	3 0	24 27	1 14	17 48	0 36	8 46	1 46	12 31	0 29	17 34	1 46	9 1	11 47	15 26	15 7	19 37	16 45	3 38					
S 25	20 58	19 15	2 11	12 35	3 42	25 23	2 57	24 25	1 14	17 48	0 36	8 45	1 46	12 30	0 29	17 34	1 46	9 1	11 47	15 26	15 6	19 37	16 46	3 38					
S 26	21 9	19 52	3 21	12 36	3 45	25 15	2 53	24 22	1 14	17 48	0 37	8 44	1 46	12 30	0 29	17 33	1 46	9 1	11 47	15 25	15 5	19 37	16 47	3 38					
M27	21 19	19 2	4 17	12 40	3 48	25 5	2 49	24 19	1 14	17 48	0 37	8 43	1 46	12 29	0 29	17 33	1 46	9 2	11 47	15 24	15 4	19 37	16 48	3 38					
T 28	21 29	16 55	4 55	12 45	3 49	24 56	2 45	24 16	1 14	17 48	0 37	8 43	1 47	12 28	0 29	17 33	1 46	9 2	11 47	15 23	15 3	19 37	16 49	3 38					
W29	21 38	13 46	5 13	12 53	3 50	24 46	2 41	24 13	1 14	17 48	0 37	8 42	1 47	12 28	0 29	17 32	1 46	9 2	11 47	15 23	15 2	19 37	16 50	3 38					
T 30	21 48	9 56	5 11	13 3	3 50	24 37	2 36	24 10	1 14	17 49	0 38	8 41	1 47	12 27	0 29	17 32	1 46	9 2	11 47	15 22	15 1	19 37	16 50	3 38					
F 31	21n56	5s43	4n52	13n15	3s49	24n26	2n31	24n 6	1n14	17s49	0s38	8s40	1s47	12s27	0n29	17s32	1n46	9n 3	11s47	15s22	15s 0	19n37	16n51	3s38					

ASTRODIENST EPHEMERIS for the year 1641

geocentric

JUNE 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 38 58	10II36'20	16H36	17B32	20B48	13B16	12°R 4	12H11	4°R 1	25°R46	2II 2	11°D39	10M27	12II33	1II11	S 1
S 2	16 42 54	11°33'42	29°21	18°18	21°20	13°53	12≈ 3	12°13	3M59	25M45	2° 3	11M40	10°24	12°39	1°16	S 2
M 3	16 46 51	12°31'05	11Y47	19° 7	21°51	14°31	12° 3	12°15	3°57	25°43	2° 5	11°42	10°21	12°46	1°21	M 3
T 4	16 50 47	13°28'26	23°58	20° 0	22°20	15° 9	12° 2	12°17	3°56	25°42	2° 6	11°43	10°18	12°53	1°25	T 4
W 5	16 54 44	14°25'47	5B58	20°57	22°47	15°47	12° 1	12°18	3°54	25°40	2° 7	11°R45	10°15	12°59	1°30	W 5
T 6	16 58 40	15°23'08	17°51	21°58	23°13	16°25	12° 0	12°20	3°52	25°39	2° 9	11°45	10°11	13° 6	1°35	T 6
F 7	17 2 37	16°20'28	29°40	23° 1	23°37	17° 2	11°59	12°22	3°50	25°37	2°10	11°43	10° 8	13°13	1°39	F 7
S 8	17 6 34	17°17'47	11II28	24° 9	24° 0	17°40	11°57	12°23	3°49	25°36	2°11	11°40	10° 5	13°19	1°44	S 8
S 9	17 10 30	18°15'06	23°17	25°19	24°20	18°18	11°55	12°25	3°47	25°34	2°13	11°35	10° 2	13°26	1°49	S 9
M10	17 14 27	19°12'24	5B 9	26°33	24°39	18°56	11°54	12°26	3°46	25°33	2°14	11°29	9°59	13°33	1°53	M10
T 11	17 18 23	20° 9'42	17° 6	27°50	24°56	19°34	11°51	12°27	3°44	25°31	2°15	11°22	9°56	13°39	1°58	T 11
W12	17 22 20	21° 6'58	29° 9	29°11	25°12	20°12	11°49	12°28	3°43	25°30	2°17	11°15	9°52	13°46	2° 3	W12
T 13	17 26 16	22° 4'14	11B22	0II35	25°25	20°49	11°47	12°30	3°41	25°29	2°18	11° 8	9°49	13°53	2° 7	T 13
F 14	17 30 13	23° 1'30	23°46	2° 2	25°36	21°27	11°44	12°30	3°40	25°27	2°19	11° 3	9°46	13°59	2°12	F 14
S 15	17 34 9	23°58'44	6II24	3°32	25°45	22° 5	11°41	12°31	3°39	25°26	2°20	11° 0	9°43	14° 6	2°16	S 15
S 16	17 38 6	24°55'58	19°19	5° 5	25°52	22°43	11°38	12°32	3°37	25°24	2°22	10°D58	9°40	14°13	2°21	S 16
M17	17 42 3	25°53'11	2B35	6°41	25°56	23°21	11°35	12°33	3°36	25°23	2°23	10°58	9°36	14°19	2°25	M17
T 18	17 45 59	26°50'24	16°14	8°20	25°R58	23°58	11°32	12°33	3°35	25°22	2°24	10°59	9°33	14°26	2°30	T 18
W19	17 49 56	27°47'36	0M17	10° 3	25°58	24°36	11°28	12°34	3°34	25°20	2°26	11° 1	9°30	14°33	2°34	W19
T 20	17 53 52	28°44'47	14°45	11°48	25°56	25°14	11°25	12°34	3°33	25°19	2°27	11°R 1	9°27	14°39	2°39	T 20
F 21	17 57 49	29°41'58	29°35	13°36	25°51	25°52	11°21	12°34	3°32	25°18	2°28	11° 0	9°24	14°46	2°43	F 21
S 22	18 1 45	0B39'09	14B40	15°27	25°44	26°29	11°17	12°34	3°31	25°17	2°29	10°56	9°21	14°53	2°48	S 22
S 23	18 5 42	1°36'19	29°53	17°21	25°34	27° 7	11°13	12°R35	3°30	25°15	2°30	10°51	9°17	14°59	2°52	S 23
M24	18 9 38	2°33'29	15B 4	19°17	25°22	27°45	11° 8	12°34	3°29	25°14	2°32	10°44	9°14	15° 6	2°56	M24
T 25	18 13 35	3°30'39	0≈ 1	21°16	25° 8	28°23	11° 4	12°34	3°28	25°13	2°33	10°36	9°11	15°13	3° 1	T 25
W26	18 17 32	4°27'49	14°37	23°17	24°51	29° 1	10°59	12°34	3°27	25°12	2°34	10°28	9° 8	15°19	3° 5	W26
T 27	18 21 28	5°24'59	28°47	25°20	24°32	29°38	10°54	12°34	3°26	25°11	2°35	10°22	9° 5	15°26	3° 9	T 27
F 28	18 25 25	6°22'09	12B27	27°25	24°11	0B16	10°49	12°33	3°26	25°10	2°36	10°17	9° 2	15°33	3°14	F 28
S 29	18 29 21	7°19'20	25°38	29°31	23°47	0°54	10°44	12°33	3°25	25° 8	2°38	10°15	8°58	15°39	3°18	S 29
S 30	18 33 18	8B16'30	8Y23	1B39	23B21	1B32	10≈39	12H32	3M24	25M 7	2II39	10°D14	8M55	15II46	3II22	S 30

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	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	22n 5	1s20	4n18	13n28	3s46	24n16	2n26	24n 3	1n14	17s49	0s38	8s40	1s48	12s26	0n29	17s31	1n46	9n 3	11s47	15s21	14s59	19n38	16n52	3s38					
S 2	22 13	2n59	3 32	13 44	3 44	24 5	2 20	23 59	1 14	17 49	0 38	8 39	1 48	12 25	0 29	17 31	1 46	9 3	11 47	15 22	14 58	19 38	16 53	3 39					
M 3	22 20	7 4	2 37	14 1	3 40	23 55	2 14	23 55	1 14	17 50	0 38	8 39	1 48	12 25	0 29	17 31	1 46	9 3	11 47	15 22	14 57	19 38	16 54	3 39					
T 4	22 28	10 48	1 36	14 19	3 35	23 44	2 8	23 51	1 14	17 50	0 39	8 38	1 48	12 24	0 29	17 30	1 46	9 4	11 47	15 23	14 56	19 38	16 55	3 39					
W 5	22 34	14 2	0 32	14 39	3 30	23 33	2 1	23 46	1 14	17 51	0 39	8 38	1 49	12 24	0 29	17 30	1 46	9 4	11 47	15 23	14 55	19 38	16 55	3 39					
T 6	22 41	16 39	0s33	15 0	3 24	23 21	1 54	23 42	1 14	17 51	0 39	8 37	1 49	12 23	0 29	17 29	1 46	9 4	11 47	15 23	14 54	19 38	16 56	3 39					
F 7	22 47	18 33	1 36	15 22	3 18	23 10	1 47	23 37	1 14	17 52	0 39	8 37	1 49	12 22	0 28	17 29	1 46	9 4	11 47	15 23	14 53	19 38	16 57	3 39					
S 8	22 53	19 38	2 35	15 46	3 11	22 59	1 39	23 32	1 14	17 52	0 40	8 36	1 49	12 22	0 28	17 29	1 46	9 5	11 47	15 22	14 52	19 38	16 58	3 39					
S 9	22 58	19 52	3 27	16 10	3 3	22 47	1 31	23 27	1 14	17 53	0 40	8 36	1 50	12 21	0 28	17 29	1 46	9 5	11 47	15 20	14 51	19 38	16 58	3 40					
M10	23 3	19 13	4 10	16 35	2 55	22 36	1 23	23 22	1 14	17 54	0 40	8 36	1 50	12 21	0 28	17 28	1 46	9 5	11 47	15 18	14 50	19 38	16 59	3 40					
T 11	23 7	17 43	4 43	17 1	2 46	22 24	1 14	23 16	1 14	17 55	0 40	8 36	1 50	12 20	0 28	17 28	1 46	9 5	11 47	15 16	14 49	19 38	17 0	3 40					
W12	23 11	15 25	5 3	17 28	2 37	22 12	1 5	23 10	1 14	17 56	0 41	8 35	1 50	12 20	0 28	17 28	1 46	9 5	11 47	15 14	14 48	19 38	17 1	3 40					
T 13	23 15	12 26	5 10	17 55	2 27	22 1	0 56	23 5	1 14	17 56	0 41	8 35	1 51	12 20	0 28	17 27	1 46	9 6	11 47	15 12	14 47	19 39	17 1	3 40					
F 14	23 18	8 52	5 2	18 22	2 17	21 49	0 46	22 59	1 13	17 57	0 41	8 35	1 51	12 19	0 28	17 27	1 46	9 6	11 47	15 10	14 46	19 39	17 2	3 40					
S 15	23 21	4 50	4 40	18 50	2 6	21 37	0 36	22 53	1 13	17 58	0 41	8 35	1 51	12 19	0 28	17 27	1 46	9 6	11 47	15 9	14 45	19 39	17 3	3 41					
S 16	23 23	0 30	4 3	19 17	1 56	21 26	0 25	22 46	1 13	17 59	0 42	8 35	1 51	12 18	0 28	17 26	1 46	9 6	11 47	15 9	14 44	19 39	17 4	3 41					
M17	23 25	3s59	3 13	19 45	1 44	21 14	0 14	22 40	1 13	18 1	0 42	8 35	1 52	12 18	0 28	17 26	1 46	9 6	11 47	15 9	14 43	19 39	17 4	3 41					
T 18	23 27	8 24	2 10	20 12	1 33	21 3	0 3	22 33	1 13	18 2	0 42	8 35	1 52	12 17	0 28	17 26	1 46	9 6	11 47	15 9	14 42	19 39	17 5	3 41					
W19	23 28	12 30	0 58	20 39	1 22	20 51	0s 8	22 27	1 13	18 3	0 42	8 35	1 52	12 17	0 28	17 26	1 46	9 7	11 48	15 9	14 41	19 39	17 6	3 41					
T 20	23 29	15 58	0n20	21 5	1 10	20 40	0 20	22 20	1 13	18 4	0 42	8 35	1 52	12 17	0 28	17 25	1 46	9 7	11 48	15 10	14 40	19 39	17 6	3 42					
F 21	23 29	18 30	1 39	21 31	0 58	20 29	0 33	22 13	1 13	18 5	0 43	8 35	1 53	12 16	0 28	17 25	1 45	9 7	11 48	15 9	14 39	19 39	17 7	3 42					
S 22	23 29	19 46	2 51	21 55	0 46	20 18	0 45	22 5	1 13	18 7	0 43	8 35	1 53	12 16	0 28	17 25	1 45	9 7	11 48	15 8	14 38	19 39	17 8	3 42					
S 23	23 28	19 37	3 52	22 19	0 34	20 7	0 58	21 58	1 13	18 8	0 43	8 36	1 53	12 16	0 28	17 24	1 45	9 7	11 48	15 6	14 37	19 39	17 8	3 42					
M24	23 28	18 3	4 37	22 41	0 23	19 56	1 11	21 50	1 13	18 10	0 43	8 36	1 53	12 16	0 28	17 24	1 45	9 7	11 48	15 4	14 36	19 39	17 9	3 42					
T 25	23 26	15 16	5 1	23 1	0 11	19 45	1 25	21 43	1 13	18 11	0 44	8 36	1 54	12 15	0 28	17 24	1 45	9 7	11 48	15 2	14 35	19 39	17 9	3 43					
W26	23 25	11 36	5 6	23 19	0n 0	19 35	1 39	21 35	1 13	18 13	0 44	8 36	1 54	12 15	0 28	17 24	1 45	9 8	11 48	14 59	14 34	19 39	17 10	3 43					
T 27	23 22	7 22	4 51	23 36	0 12	19 25	1 52	21 27	1 13	18 14	0 44	8 37	1 54	12 15	0 28	17 23	1 45	9 8	11 48	14 57	14 33	19 39	17 11	3 43					
F 28	23 20	2 54	4 20	23 50	0 22	19 14	2 7	21 19	1 13	18 16	0 44	8 37	1 54	12 15	0 28	17 23	1 45	9 8	11 48	14 56	14 32	19 39	17 11	3 43					
S 29	23 17	1n34	3 36	24 2	0 33	19 5	2 21	21 10	1 13	18 17	0 45	8 38	1 55	12 14	0 28	17 23	1 45	9 8	11 48	14 55	14 31	19 39	17 12	3 44					
S 30	23n14	5n49	2n42	24n11	0n42	18n55	2s35	21n 2	1n12	18s19	0s45	8s38	1s55	12s14	0n28	17s23	1n45	9n 8	11s49	14s55	14s30	19n39	17n12	3s44					

ASTRODIENST EPHEMERIS for the year 1641

geocentric

JULY 1641 GC

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	18 37 14	9 ⁵⁵ 13'41	20 ⁴⁷ 47	3 ⁵⁴ 47	22 ⁵⁴ 54	2 ⁰ 9	10 ⁰ R33	12 ⁰ R31	3 ⁰ R24	25 ⁰ R 6	2 ⁰ II40	10 ⁰ M15	8 ⁰ M52	15 ⁰ II53	3 ⁰ II26	M 1
T 2	18 41 11	10 ⁰ 10'53	2 ⁰ 55	5 ⁰ 57	22 ⁰ 25	2 ⁰ 47	10 ⁰ 28	12 ⁰ 31	3 ⁰ M23	25 ⁰ M 5	2 ⁰ 41	10 ⁰ 15	8 ⁰ 49	16 ⁰ 0	3 ⁰ 30	T 2
W 3	18 45 7	11 ⁰ 8'05	14 ⁰ 51	8 ⁰ 6	21 ⁰ 54	3 ⁰ 25	10 ⁰ 22	12 ⁰ 30	3 ⁰ 23	25 ⁰ 4	2 ⁰ 42	10 ⁰ R16	8 ⁰ 46	16 ⁰ 6	3 ⁰ 34	W 3
T 4	18 49 4	12 ⁰ 5'17	26 ⁰ 41	10 ⁰ 16	21 ⁰ 21	4 ⁰ 3	10 ⁰ 16	12 ⁰ 29	3 ⁰ 22	25 ⁰ 3	2 ⁰ 43	10 ⁰ 14	8 ⁰ 42	16 ⁰ 13	3 ⁰ 38	T 4
F 5	18 53 1	13 ⁰ 2'29	8 ⁰ II28	12 ⁰ 26	20 ⁰ 47	4 ⁰ 41	10 ⁰ 10	12 ⁰ 27	3 ⁰ 22	25 ⁰ 2	2 ⁰ 44	10 ⁰ 10	8 ⁰ 39	16 ⁰ 20	3 ⁰ 42	F 5
S 6	18 56 57	13 ⁰ 59'42	20 ⁰ 17	14 ⁰ 35	20 ⁰ 12	5 ⁰ 18	10 ⁰ 4	12 ⁰ 26	3 ⁰ 22	25 ⁰ 1	2 ⁰ 45	10 ⁰ 4	8 ⁰ 36	16 ⁰ 26	3 ⁰ 46	S 6
S 7	19 0 54	14 ⁰ 56'56	2 ⁰ 9	16 ⁰ 44	19 ⁰ 36	5 ⁰ 56	9 ⁰ 57	12 ⁰ 25	3 ⁰ 21	25 ⁰ 0	2 ⁰ 46	9 ⁰ 56	8 ⁰ 33	16 ⁰ 33	3 ⁰ 50	S 7
M 8	19 4 50	15 ⁰ 54'09	14 ⁰ 8	18 ⁰ 52	19 ⁰ 0	6 ⁰ 34	9 ⁰ 51	12 ⁰ 23	3 ⁰ 21	25 ⁰ 0	2 ⁰ 48	9 ⁰ 45	8 ⁰ 30	16 ⁰ 40	3 ⁰ 54	M 8
T 9	19 8 47	16 ⁰ 51'23	26 ⁰ 13	20 ⁰ 58	18 ⁰ 23	7 ⁰ 12	9 ⁰ 45	12 ⁰ 22	3 ⁰ 21	24 ⁰ 59	2 ⁰ 49	9 ⁰ 33	8 ⁰ 27	16 ⁰ 46	3 ⁰ 58	T 9
W10	19 12 43	17 ⁰ 48'38	8 ⁰ II28	23 ⁰ 4	17 ⁰ 45	7 ⁰ 50	9 ⁰ 38	12 ⁰ 20	3 ⁰ 21	24 ⁰ 58	2 ⁰ 50	9 ⁰ 21	8 ⁰ 23	16 ⁰ 53	4 ⁰ 2	W10
T 11	19 16 40	18 ⁰ 45'52	20 ⁰ 52	25 ⁰ 8	17 ⁰ 8	8 ⁰ 28	9 ⁰ 31	12 ⁰ 19	3 ⁰ 21	24 ⁰ 57	2 ⁰ 51	9 ⁰ 10	8 ⁰ 20	17 ⁰ 0	4 ⁰ 6	T 11
F 12	19 20 36	19 ⁰ 43'07	3 ⁰ II27	27 ⁰ 11	16 ⁰ 31	9 ⁰ 5	9 ⁰ 24	12 ⁰ 17	3 ⁰ D21	24 ⁰ 56	2 ⁰ 52	9 ⁰ 0	8 ⁰ 17	17 ⁰ 6	4 ⁰ 10	F 12
S 13	19 24 33	20 ⁰ 40'22	16 ⁰ 14	29 ⁰ 12	15 ⁰ 54	9 ⁰ 43	9 ⁰ 17	12 ⁰ 15	3 ⁰ 21	24 ⁰ 55	2 ⁰ 53	8 ⁰ 53	8 ⁰ 14	17 ⁰ 13	4 ⁰ 13	S 13
S 14	19 28 30	21 ⁰ 37'37	29 ⁰ 14	1 ⁰ II11	15 ⁰ 18	10 ⁰ 21	9 ⁰ 10	12 ⁰ 13	3 ⁰ 21	24 ⁰ 55	2 ⁰ 54	8 ⁰ 49	8 ⁰ 11	17 ⁰ 20	4 ⁰ 17	S 14
M15	19 32 26	22 ⁰ 34'52	12 ⁰ 30	3 ⁰ 9	14 ⁰ 43	10 ⁰ 59	9 ⁰ 3	12 ⁰ 11	3 ⁰ 21	24 ⁰ 54	2 ⁰ 54	8 ⁰ 47	8 ⁰ 8	17 ⁰ 26	4 ⁰ 21	M15
T 16	19 36 23	23 ⁰ 32'08	26 ⁰ 4	5 ⁰ 6	14 ⁰ 9	11 ⁰ 37	8 ⁰ 56	12 ⁰ 9	3 ⁰ 21	24 ⁰ 53	2 ⁰ 55	8 ⁰ D47	8 ⁰ 4	17 ⁰ 33	4 ⁰ 24	T 16
W17	19 40 19	24 ⁰ 29'24	9 ⁰ M58	7 ⁰ 0	13 ⁰ 36	12 ⁰ 15	8 ⁰ 49	12 ⁰ 6	3 ⁰ 22	24 ⁰ 53	2 ⁰ 56	8 ⁰ R47	8 ⁰ 1	17 ⁰ 40	4 ⁰ 28	W17
T 18	19 44 16	25 ⁰ 26'40	24 ⁰ 12	8 ⁰ 53	13 ⁰ 5	12 ⁰ 53	8 ⁰ 41	12 ⁰ 4	3 ⁰ 22	24 ⁰ 52	2 ⁰ 57	8 ⁰ 47	7 ⁰ 58	17 ⁰ 46	4 ⁰ 31	T 18
F 19	19 48 12	26 ⁰ 23'57	8 ⁰ 45	10 ⁰ 44	12 ⁰ 35	13 ⁰ 30	8 ⁰ 34	12 ⁰ 2	3 ⁰ 22	24 ⁰ 52	2 ⁰ 58	8 ⁰ 44	7 ⁰ 55	17 ⁰ 53	4 ⁰ 35	F 19
S 20	19 52 9	27 ⁰ 21'14	23 ⁰ 33	12 ⁰ 33	12 ⁰ 8	14 ⁰ 8	8 ⁰ 27	11 ⁰ 59	3 ⁰ 23	24 ⁰ 51	2 ⁰ 59	8 ⁰ 39	7 ⁰ 52	18 ⁰ 0	4 ⁰ 38	S 20
S 21	19 56 6	28 ⁰ 18'32	8 ⁰ 31	14 ⁰ 21	11 ⁰ 42	14 ⁰ 46	8 ⁰ 19	11 ⁰ 57	3 ⁰ 23	24 ⁰ 51	3 ⁰ 0	8 ⁰ 31	7 ⁰ 48	18 ⁰ 6	4 ⁰ 41	S 21
M22	20 0 2	29 ⁰ 15'50	23 ⁰ 30	16 ⁰ 7	11 ⁰ 18	15 ⁰ 24	8 ⁰ 11	11 ⁰ 54	3 ⁰ 24	24 ⁰ 50	3 ⁰ 1	8 ⁰ 22	7 ⁰ 45	18 ⁰ 13	4 ⁰ 45	M22
T 23	20 3 59	0 ⁰ II13'09	8 ⁰ 21	17 ⁰ 51	10 ⁰ 57	16 ⁰ 2	8 ⁰ 4	11 ⁰ 51	3 ⁰ 24	24 ⁰ 50	3 ⁰ 2	8 ⁰ 11	7 ⁰ 42	18 ⁰ 20	4 ⁰ 48	T 23
W24	20 7 55	1 ⁰ 10'29	22 ⁰ 54	19 ⁰ 33	10 ⁰ 38	16 ⁰ 40	7 ⁰ 56	11 ⁰ 48	3 ⁰ 25	24 ⁰ 49	3 ⁰ 2	8 ⁰ 0	7 ⁰ 39	18 ⁰ 26	4 ⁰ 51	W24
T 25	20 11 52	2 ⁰ 7'49	7 ⁰ 4	21 ⁰ 14	10 ⁰ 21	17 ⁰ 18	7 ⁰ 48	11 ⁰ 46	3 ⁰ 25	24 ⁰ 49	3 ⁰ 3	7 ⁰ 50	7 ⁰ 36	18 ⁰ 33	4 ⁰ 54	T 25
F 26	20 15 48	3 ⁰ 5'11	20 ⁰ 46	22 ⁰ 53	10 ⁰ 6	17 ⁰ 56	7 ⁰ 41	11 ⁰ 43	3 ⁰ 26	24 ⁰ 48	3 ⁰ 4	7 ⁰ 43	7 ⁰ 33	18 ⁰ 40	4 ⁰ 58	F 26
S 27	20 19 45	4 ⁰ 2'34	4 ⁰ 0	24 ⁰ 30	9 ⁰ 54	18 ⁰ 34	7 ⁰ 33	11 ⁰ 39	3 ⁰ 27	24 ⁰ 48	3 ⁰ 5	7 ⁰ 38	7 ⁰ 29	18 ⁰ 46	5 ⁰ 1	S 27
S 28	20 23 41	4 ⁰ 59'57	16 ⁰ 48	26 ⁰ 6	9 ⁰ 44	19 ⁰ 12	7 ⁰ 25	11 ⁰ 36	3 ⁰ 28	24 ⁰ 48	3 ⁰ 5	7 ⁰ 36	7 ⁰ 26	18 ⁰ 53	5 ⁰ 4	S 28
M29	20 27 38	5 ⁰ 57'23	29 ⁰ 14	27 ⁰ 40	9 ⁰ 37	19 ⁰ 49	7 ⁰ 17	11 ⁰ 33	3 ⁰ 29	24 ⁰ 47	3 ⁰ 6	7 ⁰ 35	7 ⁰ 23	19 ⁰ 0	5 ⁰ 7	M29
T 30	20 31 34	6 ⁰ 54'49	11 ⁰ 23	29 ⁰ 12	9 ⁰ 32	20 ⁰ 27	7 ⁰ 9	11 ⁰ 30	3 ⁰ 30	24 ⁰ 47	3 ⁰ 7	7 ⁰ 35	7 ⁰ 20	19 ⁰ 6	5 ⁰ 10	T 30
W31	20 35 31	7 ⁰ II52'16	23 ⁰ 19	0 ⁰ II43	9 ⁰ 29	21 ⁰ 9	7 ⁰ 22	11 ⁰ 27	3 ⁰ M31	24 ⁰ M47	3 ⁰ II 7	7 ⁰ M34	7 ⁰ M17	19 ⁰ II13	5 ⁰ II12	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	decl	lat	decl	lat
M 1	23n10	9n43	1n43	24n18	0n52	18n45	2s49	20n53	1n12	18s21	0s45	8s39	1s55	12s14	0n28	17s23	1n45	9n 8	11s49	14s55	14s29	19n39	17n13	3s44											
T 2	23 6	13 7	0 39	24 21	1 0	18 36	3 3	20 45	1 12	18 22	0 45	8 39	1 55	12 14	0 28	17 22	1 45	9 8	11 49	14 55	14 28	19 39	17 13	3 44											
W 3	23 1	15 56	0s25	24 23	1 9	18 27	3 17	20 36	1 12	18 24	0 45	8 40	1 56	12 14	0 28	17 22	1 45	9 8	11 49	14 55	14 27	19 39	17 14	3 45											
T 4	22 56	18 3	1 27	24 21	1 16	18 18	3 31	20 27	1 12	18 26	0 46	8 40	1 56	12 14	0 28	17 22	1 45	9 8	11 49	14 55	14 26	19 39	17 14	3 45											
F 5	22 51	19 22	2 25	24 16	1 23	18 10	3 45	20 18	1 12	18 28	0 46	8 41	1 56	12 14	0 28	17 22	1 45	9 8	11 49	14 54	14 25	19 39	17 15	3 45											
S 6	22 45	19 52	3 17	24 9	1 29	18 2	3 59	20 8	1 12	18 30	0 46	8 42	1 56	12 13	0 28	17 22	1 45	9 9	11 49	14 52	14 24	19 39	17 15	3 45											
S 7	22 39	19 28	4 0	23 59	1 34	17 54	4 12	19 59	1 12	18 32	0 46	8 42	1 57	12 13	0 28	17 21	1 45	9 9	11 49	14 49	14 23	19 39	17 16	3 46											
M 8	22 32	18 12	4 33	23 46	1 38	17 46	4 25	19 49	1 12	18 34	0 46	8 43	1 57	12 13	0 28	17 21	1 45	9 9	11 49	14 46	14 22	19 39	17 16	3 46											
T 9	22 25	16 8	4 54	23 31	1 42	17 39	4 37	19 40	1 12	18 35	0 47	8 44	1 57	12 13	0 28	17 21	1 45	9 9	11 50	14 42	14 21	19 39	17 17	3 46											
W10	22 18	13 19	5 2	23 14	1 45	17 32	4 49	19 30	1 11	18 37	0 47	8 45	1 57	12 13	0 28	17 21	1 45	9 9	11 50	14 38	14 20	19 39	17 17	3 46											
T 11	22 10	9 53	4 56	22 54	1 47	17 25	5 0	19 20	1 11	18 39	0 47	8 46	1 57	12 13	0 27	17 21	1 45	9 9	11 50	14 35	14 19	19 39	17 18	3 47											
F 12	22 2	5 59	4 36	22 32	1 48	17 19	5 11	19 10	1 11	18 41	0 47	8 47	1 58	12 13	0 27	17 21	1 45	9 9	11 50	14 32	14 18	19 38	17 18	3 47											
S 13	21 53	1 44	4 1	22 8	1 49	17 13	5 21	18 59	1 11	18 43	0 47	8 48	1 58	12 13	0 27	17 21	1 44	9 9	11 50	14 29	14 17	19 38	17 18	3 47											
S 14	21 45	2s39	3 14	21 42	1 49	17 7	5 31	18 49	1 11	18 46	0 48	8 49	1 58	12 14	0 27	17 20	1 44	9 9	11 50	14 28	14 16	19 38	17 19	3 47											
M15	21 35	7 1	2 15	21 15	1 49	17 2	5 40	18 39	1 11	18 48	0 48	8 50	1 58	12 14	0 27	17 20	1 44	9 9	11 50	14 27	14 15	19 38	17 19	3 48											
T 16	21 26	11 7	1 7	20 46	1 47	16 58	5 48	18 28	1 11	18 50	0 48	8 51	1 59	12 14	0 27	17 20	1 44	9 9	11 51	14 27	14 14	19 38	17 20	3 48											
W17	21 16	14 44	0n 6	20 15	1 46	16 53	5 56	18 17	1 11	18 52	0 48	8 52	1 59	12 14	0 27	17 20	1 44	9 9	11 51	14 27	14 12	19 38	17 20	3 48											
T 18	21 5	17 33	1 21	19 44	1 43	16 50	6 2	18 6	1 11	18 54	0 48	8 53	1 59	12 14	0 27	17 20	1 44	9 9	11 51	14 27	14 11	19 38	17 20	3 49											
F 19	20 55	19 18	2 32	19 11	1 40	16 46	6 9	17 55	1 10	18 56	0 48	8 54	1 59	12 14	0 27	17 20	1 44	9 9	11 51	14 26	14 10	19 38	17 21	3 49											
S 20	20 44	19 46	3 33	18 37	1 37	16 43	6 14	17 44	1 10	18 58	0 49	8 55	1 59	12 14	0 27	17 20	1 44	9 9	11 51	14 25	14 9	19 38	17 21	3 49											
S 21	20 32	18 52	4 21	18 2	1 33	16 41	6 19	17 33	1 10	19 0	0 49	8 56	2 0	12 14	0 27	17 20	1 44	9 9	11 51	14 22	14 8	19 38	17 21	3 50											
M22	20 21	16 39	4 51	17 26	1 28	16 39	6 23	17 22	1 10	19 2	0 49	8 57	2 0	12 15	0 27	17 20	1 44	9 9	11 52	14 19	14 7	19 38	17 21	3 50											
T 23	20 8	13 22	5 1	16 50	1 23	16 37	6 26	17 10	1 10	19 5	0 49	8 59	2 0	12 15	0 27	17 20	1 44	9 9	11 52	14 16	14 6	19 38	17 22	3 50											
W24	19 56	9 19	4 51	16 13	1 18	16 36	6 29	16 59	1 10	19 7	0 49	9 0	2 0	12 15	0 27	17 20	1 44	9 9	11 52	14 12	14 5	19 38	17 22	3 50											
T 25	19 43	4 51	4 23	15 35	1 12	16 35	6 31	16 47	1 10	19 9	0 49	9 1	2 0	12 15	0 27	17 20	1 44	9 9	11 52	14 9	14 4	19 37	17 22	3 51											
F 26	19 30	0 17	3 41	14 57	1 6	16 35	6 32	16 35	1 9	19 11	0 50	9 3	2 1	12 16	0 27	17 20	1 44	9 9	11 52	14 7	14 3	19 37	17 22	3 51											
S 27	19 17	4n10	2 48	14 18	0 59	16 35	6 33	16 23	1 9	19 13	0 50	9 4	2 1	12 16	0 27	17 20	1 44	9 9	11 53	14 5	14 2	19 37	17 23	3 51											
S 28	19 3	8 16	1 48	13 40	0 52	16 35	6 33	16 11	1 9	19 15	0 50	9 5	2 1	12 16	0 27	17 20	1 44	9 9	11 53	14 4	14 1	19 37	17 23	3 52											
M29	18 49	11 55	0 44	13 1	0 45	16 36	6 33	15 59	1 9	19 17	0 50	9 7	2 1	12 17	0 27	17 20	1 44	9 9	11 53	14 4	14 0	19 37	17 23	3 52											
T 30	18 35	14 57	0s20	12 21	0 37	16 37	6 33	15 47	1 9	19 19	0 50	9 8	2 1	12 17	0 27	17 20	1 44	9 9	11 53	14 4	13 59	19 37	17 23	3 52											
W31	18n20	17n19	1s22	11n42	0n30	16n38	6s31	15n35	1n 9	19s22	0s50	9s10	2s 2	12s17	0n27	17s20	1n43	9n 9	11s53	14s 4	13s58	19n37	17n23	3s53											

ASTRODIENST EPHEMERIS for the year 1641

geocentric

AUGUST 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 39 28	8♌49'45	5♊ 9	2♉12	9°D29	21♌43	6°R54	11°R23	3♌32	24°R47	3♊ 8	7°R33	7♌14	19♊20	5♊15	T 1
F 2	20 43 24	9°47'16	16°58	3°39	9♌31	22°21	6°46	11°20	3°33	24♌47	3° 9	7♌28	7°10	19°27	5°18	F 2
S 3	20 47 21	10°44'47	28°49	5° 4	9°35	22°59	6°38	11°16	3°34	24°47	3° 9	7°22	7° 7	19°33	5°21	S 3
S 4	20 51 17	11°42'20	10♌46	6°28	9°42	23°37	6°30	11°12	3°35	24°46	3°10	7°12	7° 4	19°40	5°23	S 4
M 5	20 55 14	12°39'54	22°53	7°49	9°51	24°15	6°23	11° 9	3°36	24°46	3°11	7° 0	7° 1	19°47	5°26	M 5
T 6	20 59 10	13°37'29	5♌10	9° 9	10° 2	24°53	6°15	11° 5	3°38	24°D46	3°11	6°47	6°58	19°53	5°28	T 6
W 7	21 3 7	14°35'05	17°39	10°27	10°15	25°31	6° 7	11° 1	3°39	24°46	3°12	6°34	6°54	20° 0	5°31	W 7
T 8	21 7 3	15°32'43	0♉20	11°44	10°29	26°10	6° 0	10°57	3°40	24°46	3°12	6°22	6°51	20° 7	5°33	T 8
F 9	21 11 0	16°30'22	13°12	12°58	10°46	26°48	5°52	10°53	3°42	24°47	3°13	6°11	6°48	20°13	5°36	F 9
S 10	21 14 57	17°28'02	26°15	14°10	11° 5	27°26	5°45	10°49	3°43	24°47	3°13	6° 3	6°45	20°20	5°38	S 10
S 11	21 18 53	18°25'43	9♌30	15°20	11°26	28° 4	5°37	10°45	3°45	24°47	3°14	5°59	6°42	20°27	5°40	S 11
M12	21 22 50	19°23'25	22°56	16°28	11°48	28°42	5°30	10°41	3°46	24°47	3°14	5°56	6°39	20°33	5°42	M12
T 13	21 26 46	20°21'08	6♌35	17°33	12°12	29°20	5°22	10°37	3°48	24°47	3°15	5°D56	6°35	20°40	5°44	T 13
W14	21 30 43	21°18'52	20°27	18°36	12°38	29°58	5°15	10°33	3°50	24°47	3°15	5°R56	6°32	20°47	5°46	W14
T 15	21 34 39	22°16'38	4♌32	19°36	13° 5	0♉36	5° 8	10°29	3°51	24°48	3°15	5°56	6°29	20°53	5°48	T 15
F 16	21 38 36	23°14'24	18°50	20°34	13°34	1°14	5° 1	10°25	3°53	24°48	3°16	5°53	6°26	21° 0	5°50	F 16
S 17	21 42 32	24°12'12	3♌18	21°29	14° 4	1°53	4°54	10°20	3°55	24°48	3°16	5°49	6°23	21° 7	5°52	S 17
S 18	21 46 29	25°10'01	17°53	22°21	14°35	2°31	4°47	10°16	3°57	24°49	3°17	5°42	6°20	21°13	5°54	S 18
M19	21 50 26	26° 7'51	2♌29	23°10	15° 9	3° 9	4°40	10°12	3°59	24°49	3°17	5°33	6°16	21°20	5°56	M19
T 20	21 54 22	27° 5'43	16°59	23°56	15°43	3°47	4°34	10° 7	4° 1	24°50	3°17	5°22	6°13	21°27	5°57	T 20
W21	21 58 19	28° 3'36	1♌16	24°38	16°19	4°25	4°27	10° 3	4° 3	24°50	3°17	5°12	6°10	21°33	5°59	W21
T 22	22 2 15	29° 1'30	15°14	25°16	16°56	5° 4	4°21	9°59	4° 5	24°50	3°18	5° 3	6° 7	21°40	6° 0	T 22
F 23	22 6 12	29°59'26	28°49	25°50	17°34	5°42	4°14	9°54	4° 7	24°51	3°18	4°56	6° 4	21°47	6° 2	F 23
S 24	22 10 8	0♉57'24	12°Y 0	26°21	18°13	6°20	4° 8	9°50	4° 9	24°52	3°18	4°51	6° 0	21°54	6° 3	S 24
S 25	22 14 5	1°55'24	24°48	26°46	18°53	6°58	4° 2	9°45	4°11	24°52	3°18	4°49	5°57	22° 0	6° 5	S 25
M26	22 18 1	2°53'26	7♌14	27° 7	19°35	7°37	3°56	9°41	4°13	24°53	3°18	4°D48	5°54	22° 7	6° 6	M26
T 27	22 21 58	3°51'29	19°24	27°23	20°17	8°15	3°50	9°36	4°16	24°53	3°19	4°49	5°51	22°14	6° 7	T 27
W28	22 25 55	4°49'35	1♌23	27°33	21° 1	8°53	3°44	9°31	4°18	24°54	3°19	4°R50	5°48	22°20	6° 8	W28
T 29	22 29 51	5°47'42	13°14	27°R38	21°45	9°32	3°39	9°27	4°20	24°55	3°19	4°49	5°45	22°27	6° 9	T 29
F 30	22 33 48	6°45'52	25° 4	27°37	22°31	10°10	3°34	9°22	4°23	24°56	3°19	4°48	5°41	22°34	6°10	F 30
S 31	22 37 44	7♉44'03	6♌58	27♉30	23♌17	10♉48	3°28	9°18	4♌25	24♌56	3♊19	4♌43	5♌38	22♊40	6♊11	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	18n 5	18n54	2s20	11n 3	0n21	16n40	6s30	15n22	1n 8	19s24	0s50	9s11	2s 2	12s18	0n27	17s20
F 2	17 50	19 39	3 12	10 23	0 13	16 42	6 28	15 10	1 8	19 26	0 50	9 13	2 2	12 18	0 27	17 20
S 3	17 34	19 33	3 56	9 44	0 4	16 44	6 25	14 57	1 8	19 28	0 51	9 14	2 2	12 19	0 27	17 20
S 4	17 18	18 34	4 29	9 5	0s 5	16 46	6 23	14 44	1 8	19 30	0 51	9 16	2 2	12 19	0 27	17 20
M 5	17 2	16 45	4 51	8 26	0 14	16 48	6 20	14 31	1 8	19 32	0 51	9 17	2 3	12 19	0 27	17 20
T 6	16 46	14 9	5 0	7 48	0 23	16 51	6 16	14 19	1 8	19 34	0 51	9 19	2 3	12 20	0 27	17 20
W 7	16 29	10 53	4 55	7 10	0 32	16 54	6 13	14 6	1 7	19 36	0 51	9 20	2 3	12 20	0 27	17 20
T 8	16 12	7 5	4 35	6 32	0 42	16 57	6 9	13 52	1 7	19 38	0 51	9 22	2 3	12 21	0 27	17 20
F 9	15 55	2 54	4 1	5 54	0 52	17 0	6 4	13 39	1 7	19 40	0 51	9 24	2 3	12 21	0 27	17 20
S 10	15 38	1s28	3 14	5 18	1 2	17 3	6 0	13 26	1 7	19 42	0 51	9 25	2 3	12 22	0 27	17 20
S 11	15 20	5 50	2 15	4 41	1 12	17 5	5 55	13 13	1 7	19 44	0 51	9 27	2 4	12 22	0 26	17 20
M12	15 2	10 0	1 8	4 6	1 22	17 8	5 50	12 59	1 6	19 46	0 51	9 29	2 4	12 23	0 26	17 20
T 13	14 44	13 41	0n 3	3 31	1 32	17 11	5 45	12 46	1 6	19 48	0 52	9 30	2 4	12 24	0 26	17 20
W14	14 25	16 40	1 16	2 57	1 42	17 14	5 40	12 32	1 6	19 50	0 52	9 32	2 4	12 24	0 26	17 20
T 15	14 7	18 42	2 26	2 24	1 52	17 17	5 35	12 18	1 6	19 51	0 52	9 34	2 4	12 25	0 26	17 21
F 16	13 48	19 35	3 27	1 52	2 3	17 20	5 29	12 5	1 6	19 53	0 52	9 36	2 4	12 25	0 26	17 21
S 17	13 29	19 11	4 16	1 21	2 13	17 22	5 24	11 51	1 5	19 55	0 52	9 37	2 4	12 26	0 26	17 21
S 18	13 9	17 32	4 48	0 51	2 23	17 25	5 18	11 37	1 5	19 57	0 52	9 39	2 4	12 27	0 26	17 21
M19	12 50	14 44	5 2	0 22	2 33	17 27	5 12	11 23	1 5	19 58	0 52	9 41	2 5	12 27	0 26	17 21
T 20	12 30	11 4	4 56	0s 5	2 43	17 29	5 6	11 9	1 5	20 0	0 52	9 43	2 5	12 28	0 26	17 21
W21	12 10	6 48	4 32	0 31	2 53	17 31	5 0	10 55	1 5	20 2	0 52	9 44	2 5	12 29	0 26	17 22
T 22	11 50	2 16	3 52	0 55	3 3	17 33	4 54	10 40	1 4	20 3	0 52	9 46	2 5	12 30	0 26	17 22
F 23	11 30	2n16	2 59	1 17	3 12	17 34	4 48	10 26	1 4	20 5	0 52	9 48	2 5	12 30	0 26	17 22
S 24	11 9	6 34	1 59	1 37	3 21	17 36	4 41	10 12	1 4	20 6	0 52	9 50	2 5	12 31	0 26	17 22
S 25	10 49	10 27	0 53	1 55	3 30	17 36	4 35	9 57	1 4	20 8	0 52	9 52	2 5	12 32	0 26	17 22
M26	10 28	13 45	0s13	2 11	3 38	17 37	4 29	9 43	1 3	20 9	0 52	9 53	2 5	12 33	0 26	17 22
T 27	10 7	16 22	1 17	2 24	3 46	17 37	4 22	9 28	1 3	20 11	0 52	9 55	2 5	12 33	0 26	17 23
W28	9 46	18 14	2 17	2 35	3 53	17 37	4 16	9 14	1 3	20 12	0 52	9 57	2 5	12 34	0 26	17 23
T 29	9 24	19 17	3 11	2 43	3 59	17 37	4 9	8 59	1 3	20 13	0 52	9 59	2 6	12 35	0 26	17 23
F 30	9 3	19 28	3 56	2 48	4 5	17 36	4 3	8 44	1 3	20 15	0 52	10 1	2 6	12 36	0 26	17 23
S 31	8n41	18n47	4s31	2s49	4s 9	17n35	3s56	8n29	1n 2	20s16	0s52	10s 2	2s 6	12s37	0n26	17s24

Julian Day Number = 2320635.5, Delta T = 49.24 sec
 Ecliptic obliquity = 23°29'02, Nutation = 0°00'12, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°44'16, Lahiri = 18°51'16Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1641

geocentric

OCTOBER 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 39 57	8♌ 3'23	21♏42	20♍56	22♏22	0♌47	2♌14	7°R 6	5♌57	25♌35	3°R10	3°R 7	4♌0	26♏8	6°R 4	T 1
W 2	0 43 54	9° 2'37	4♍33	22°20	23°26	1°26	2°15	7°H 2	6° 1	25°37	3♏10	3♏ 4	3°56	26°14	6♏3	W 2
T 3	0 47 50	10° 1'54	17°44	23°48	24°30	2° 5	2°16	6°59	6° 4	25°39	3° 9	3° 0	3°53	26°21	6° 2	T 3
F 4	0 51 47	11° 1'13	1♌14	25°19	25°34	2°44	2°17	6°55	6° 8	25°40	3° 9	2°57	3°50	26°28	6° 0	F 4
S 5	0 55 44	12° 0'34	15° 3	26°53	26°38	3°23	2°18	6°52	6°11	25°42	3° 8	2°55	3°47	26°34	5°59	S 5
S 6	0 59 40	12°59'57	29° 7	28°29	27°43	4° 3	2°19	6°49	6°15	25°44	3° 7	2°D54	3°44	26°41	5°57	S 6
M 7	1 3 37	13°59'22	13♌21	0♌ 8	28°47	4°42	2°21	6°46	6°18	25°45	3° 7	2°54	3°41	26°48	5°55	M 7
T 8	1 7 33	14°58'48	27°41	1°48	29°53	5°21	2°23	6°42	6°22	25°47	3° 6	2°55	3°37	26°55	5°54	T 8
W 9	1 11 30	15°58'17	12♌4	3°29	0♍58	6° 0	2°25	6°39	6°25	25°49	3° 5	2°57	3°34	27° 1	5°52	W 9
T 10	1 15 26	16°57'48	26°25	5°10	2° 4	6°39	2°27	6°37	6°29	25°51	3° 4	2°58	3°31	27° 8	5°50	T 10
F 11	1 19 23	17°57'20	10♌40	6°53	3°10	7°19	2°30	6°34	6°32	25°53	3° 4	2°58	3°28	27°15	5°48	F 11
S 12	1 23 19	18°56'54	24°48	8°36	4°16	7°58	2°33	6°31	6°36	25°55	3° 3	2°R58	3°25	27°21	5°46	S 12
S 13	1 27 16	19°56'30	8♌47	10°19	5°22	8°37	2°35	6°28	6°40	25°57	3° 2	2°58	3°22	27°28	5°44	S 13
M14	1 31 13	20°56'07	22°35	12° 2	6°29	9°16	2°38	6°26	6°43	25°59	3° 1	2°57	3°18	27°35	5°42	M14
T 15	1 35 9	21°55'47	6♌12	13°45	7°36	9°56	2°42	6°23	6°47	26° 0	3° 1	2°55	3°15	27°41	5°40	T 15
W16	1 39 6	22°55'27	19°36	15°27	8°43	10°35	2°45	6°21	6°51	26° 2	3° 0	2°54	3°12	27°48	5°37	W16
T 17	1 43 2	23°55'10	2°V46	17°10	9°50	11°14	2°49	6°18	6°54	26° 4	2°59	2°53	3° 9	27°55	5°35	T 17
F 18	1 46 59	24°54'55	15°42	18°52	10°58	11°54	2°52	6°16	6°58	26° 6	2°58	2°52	3° 6	28° 2	5°33	F 18
S 19	1 50 55	25°54'41	28°24	20°34	12° 5	12°33	2°56	6°14	7° 2	26° 8	2°57	2°D52	3° 2	28° 8	5°30	S 19
S 20	1 54 52	26°54'30	10♌53	22°15	13°13	13°13	3° 1	6°12	7° 5	26°10	2°56	2°52	2°59	28°15	5°28	S 20
M21	1 58 48	27°54'21	23° 9	23°56	14°21	13°52	3° 5	6°10	7° 9	26°12	2°55	2°52	2°56	28°22	5°25	M21
T 22	2 2 45	28°54'14	5♏14	25°37	15°30	14°32	3° 9	6° 8	7°13	26°14	2°54	2°52	2°53	28°28	5°23	T 22
W23	2 6 41	29°54'09	17°11	27°17	16°38	15°11	3°14	6° 6	7°16	26°16	2°54	2°53	2°50	28°35	5°20	W23
T 24	2 10 38	0♌54'06	29° 3	28°56	17°47	15°51	3°19	6° 4	7°20	26°19	2°53	2°53	2°47	28°42	5°18	T 24
F 25	2 14 35	1°54'05	10♌53	0♌35	18°56	16°30	3°24	6° 3	7°24	26°21	2°52	2°53	2°43	28°48	5°15	F 25
S 26	2 18 31	2°54'06	22°47	2°14	20° 5	17°10	3°29	6° 1	7°28	26°23	2°51	2°R53	2°40	28°55	5°12	S 26
S 27	2 22 28	3°54'10	4♏48	3°52	21°14	17°50	3°35	6° 0	7°31	26°25	2°50	2°D53	2°37	29° 2	5° 9	S 27
M28	2 26 24	4°54'16	17° 1	5°30	22°24	18°29	3°40	5°59	7°35	26°27	2°49	2°53	2°34	29° 9	5° 7	M28
T 29	2 30 21	5°54'23	29°31	7° 7	23°33	19° 9	3°46	5°58	7°39	26°29	2°48	2°53	2°31	29°15	5° 4	T 29
W30	2 34 17	6°54'33	12♍21	8°44	24°43	19°49	3°52	5°56	7°43	26°31	2°47	2°54	2°28	29°22	5° 1	W30
T 31	2 38 14	7♌54'45	25♍35	10♌20	25♍53	20♌28	3♌58	5°H55	7♌46	26♌33	2°H46	2♌54	2♌24	29♏29	4♏58	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
T 1	3s12	9n36	4s58	5n11	1n44	13n24	0s43	0n30	0n54	20s32	0s52	10s52	2s 6	13s 8	0n25	17s34
W 2	3 35	5 42	4 28	4 43	1 49	13 8	0 38	0 14	0 53	20 32	0 51	10 53	2 6	13 9	0 25	17 35
T 3	3 59	1 26	3 44	4 11	1 52	12 52	0 33	0s 1	0 53	20 32	0 51	10 54	2 6	13 10	0 25	17 35
F 4	4 22	3s 2	2 46	3 38	1 55	12 36	0 27	0 17	0 53	20 31	0 51	10 56	2 5	13 12	0 25	17 36
S 5	4 45	7 26	1 37	3 2	1 57	12 19	0 22	0 33	0 52	20 31	0 51	10 57	2 5	13 13	0 25	17 36
S 6	5 9	11 30	0 21	2 24	1 58	12 2	0 17	0 49	0 52	20 31	0 51	10 58	2 5	13 14	0 25	17 37
M 7	5 32	14 58	0n57	1 45	1 58	11 44	0 12	1 5	0 52	20 30	0 51	10 59	2 5	13 15	0 25	17 37
T 8	5 55	17 32	2 13	1 4	1 57	11 26	0 7	1 21	0 51	20 30	0 51	11 0	2 5	13 16	0 25	17 38
W 9	6 18	18 59	3 20	0 23	1 55	11 7	0 2	1 37	0 51	20 29	0 51	11 1	2 5	13 17	0 25	17 38
T 10	6 41	19 12	4 14	0s20	1 53	10 48	0n 3	1 52	0 51	20 29	0 51	11 2	2 5	13 19	0 25	17 38
F 11	7 3	18 11	4 53	1 3	1 51	10 29	0 8	2 8	0 50	20 28	0 51	11 3	2 5	13 20	0 25	17 39
S 12	7 26	16 4	5 13	1 46	1 47	10 9	0 12	2 24	0 50	20 27	0 51	11 4	2 5	13 21	0 25	17 39
S 13	7 49	13 2	5 15	2 30	1 44	9 49	0 17	2 40	0 49	20 27	0 51	11 5	2 5	13 22	0 25	17 40
M14	8 11	9 18	4 58	3 14	1 40	9 29	0 21	2 56	0 49	20 26	0 51	11 6	2 5	13 23	0 25	17 40
T 15	8 34	5 9	4 25	3 58	1 35	9 8	0 26	3 12	0 49	20 25	0 51	11 7	2 4	13 25	0 25	17 41
W16	8 56	0 48	3 38	4 43	1 30	8 47	0 30	3 27	0 48	20 24	0 51	11 7	2 4	13 26	0 25	17 41
T 17	9 18	3n32	2 39	5 23	1 25	8 25	0 34	3 43	0 48	20 23	0 51	11 8	2 4	13 27	0 25	17 42
F 18	9 40	7 38	1 34	6 11	1 20	8 3	0 38	3 59	0 48	20 22	0 51	11 9	2 4	13 28	0 25	17 42
S 19	10 2	11 19	0 25	6 54	1 14	7 41	0 42	4 15	0 47	20 21	0 50	11 10	2 4	13 30	0 25	17 43
S 20	10 23	14 25	0s44	7 38	1 8	7 19	0 46	4 30	0 47	20 20	0 50	11 10	2 4	13 31	0 25	17 43
M21	10 45	16 49	1 50	8 21	1 2	6 56	0 50	4 46	0 47	20 19	0 50	11 11	2 4	13 32	0 25	17 44
T 22	11 6	18 25	2 50	9 3	0 56	6 33	0 54	5 2	0 46	20 18	0 50	11 12	2 4	13 33	0 25	17 44
W23	11 28	19 11	3 42	9 45	0 49	6 10	0 57	5 17	0 46	20 17	0 50	11 12	2 3	13 34	0 25	17 45
T 24	11 49	19 5	4 24	10 27	0 43	5 46	1 1	5 33	0 45	20 16	0 50	11 13	2 3	13 36	0 25	17 45
F 25	12 9	18 9	4 55	11 8	0 36	5 22	1 4	5 48	0 45	20 15	0 50	11 13	2 3	13 37	0 25	17 46
S 26	12 30	16 25	5 13	11 48	0 30	4 58	1 8	6 4	0 45	20 13	0 50	11 13	2 3	13 38	0 25	17 46
S 27	12 51	13 58	5 17	12 28	0 23	4 34	1 11	6 20	0 44	20 12	0 50	11 14	2 3	13 39	0 25	17 47
M28	13 11	10 52	5 8	13 7	0 17	4 9	1 14	6 35	0 44	20 11	0 50	11 14	2 3	13 41	0 25	17 47
T 29	13 31	7 13	4 44	13 46	0 10	3 44	1 17	6 50	0 43	20 9	0 50	11 15	2 3	13 42	0 25	17 48
W30	13 51	3 9	4 5	14 23	0 3	3 19	1 20	7 6	0 43	20 8	0 50	11 15	2 3	13 43	0 25	17 48
T 31	14s10	1s11	3s13	15s 0	0s 4	2n54	1n23	7s21	0n43	20s 6	0s50	11s15	2s 2	13s44	0n25	17s49

Julian Day Number = 2320696.5, Delta T = 49.12 sec
 Ecliptic obliquity = 23°29'02, Nutation = 0°00'09, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°44'24, Lahiri = 18°51'24Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1641

geocentric

NOVEMBER 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 42 10	8♉54°59	9♊13	11♉56	27♉3	21♉8	4♊4	5°R55	7♉50	26♉36	2°R45	2♉55	2♉21	29♉35	4°R55	F 1
S 2	2 46 7	9°55'15	23°16	13°32	28°13	21°48	4°11	5♊54	7°54	26°38	2♉44	2°55	2°18	29°42	4♉52	S 2
S 3	2 50 4	10°55'33	7♉39	15°7	29°24	22°28	4°17	5°53	7°58	26°40	2°43	2°R55	2°15	29°49	4°48	S 3
M 4	2 54 0	11°55'52	22°19	16°42	0♊34	23°8	4°24	5°53	8°1	26°42	2°42	2°55	2°12	29°55	4°45	M 4
T 5	2 57 57	12°56'13	7♉8	18°16	1°45	23°48	4°31	5°52	8°5	26°44	2°41	2°54	2°8	0♊2	4°42	T 5
W 6	3 1 53	13°56'36	21°58	19°51	2°56	24°28	4°38	5°52	8°9	26°47	2°40	2°53	2°5	0°9	4°39	W 6
T 7	3 5 50	14°57'01	6♊43	21°24	4°6	25°7	4°45	5°51	8°13	26°49	2°38	2°51	2°2	0°16	4°36	T 7
F 8	3 9 46	15°57'27	21°15	22°58	5°17	25°47	4°53	5°51	8°16	26°51	2°37	2°50	1°59	0°22	4°32	F 8
S 9	3 13 43	16°57'54	5♊32	24°31	6°29	26°27	5°0	5°D51	8°20	26°53	2°36	2°49	1°56	0°29	4°29	S 9
S 10	3 17 39	17°58'22	19°29	26°4	7°40	27°7	5°8	5°51	8°24	26°55	2°35	2°D49	1°53	0°36	4°26	S 10
M11	3 21 36	18°58'52	3♊7	27°37	8°51	27°48	5°16	5°51	8°27	26°58	2°34	2°49	1°49	0°42	4°22	M11
T 12	3 25 33	19°59'23	16°27	29°10	10°3	28°28	5°24	5°52	8°31	27°0	2°33	2°50	1°46	0°49	4°19	T 12
W13	3 29 29	20°59'55	29°30	0♊42	11°14	29°8	5°32	5°52	8°35	27°2	2°32	2°52	1°43	0°56	4°16	W13
T 14	3 33 26	22°0'29	12♉18	2°14	12°26	29°48	5°40	5°53	8°39	27°4	2°31	2°53	1°40	1°2	4°12	T 14
F 15	3 37 22	23°1'04	24°53	3°46	13°38	0♉28	5°48	5°53	8°42	27°7	2°30	2°54	1°37	1°9	4°9	F 15
S 16	3 41 19	24°1'40	7♊16	5°17	14°49	1°8	5°57	5°54	8°46	27°9	2°29	2°R54	1°33	1°16	4°5	S 16
S 17	3 45 15	25°2'18	19°30	6°49	16°1	1°48	6°6	5°55	8°50	27°11	2°27	2°53	1°30	1°23	4°2	S 17
M18	3 49 12	26°2'57	1♉36	8°20	17°14	2°29	6°15	5°56	8°53	27°13	2°26	2°51	1°27	1°29	3°58	M18
T 19	3 53 8	27°3'37	13°35	9°51	18°26	3°9	6°24	5°57	8°57	27°16	2°25	2°48	1°24	1°36	3°55	T 19
W20	3 57 5	28°4'19	25°29	11°21	19°38	3°49	6°33	5°58	9°0	27°18	2°24	2°43	1°21	1°43	3°51	W20
T 21	4 1 2	29°5'03	7♊21	12°51	20°50	4°30	6°42	5°59	9°4	27°20	2°23	2°39	1°18	1°49	3°48	T 21
F 22	4 4 58	0♊5'48	19°11	14°22	22°3	5°10	6°51	6°0	9°8	27°22	2°22	2°34	1°14	1°56	3°44	F 22
S 23	4 8 55	1°6'34	1♉5	15°51	23°15	5°50	7°1	6°2	9°11	27°25	2°21	2°30	1°11	2°3	3°41	S 23
S 24	4 12 51	2°7'22	13°4	17°21	24°28	6°31	7°10	6°3	9°15	27°27	2°19	2°27	1°8	2°9	3°37	S 24
M25	4 16 48	3°8'11	25°14	18°49	25°41	7°11	7°20	6°5	9°18	27°29	2°18	2°25	1°5	2°16	3°34	M25
T 26	4 20 44	4°9'02	7♉38	20°18	26°54	7°52	7°30	6°7	9°22	27°31	2°17	2°D25	1°2	2°23	3°30	T 26
W27	4 24 41	5°9'54	20°22	21°46	28°6	8°32	7°40	6°8	9°25	27°34	2°16	2°26	0°59	2°30	3°27	W27
T 28	4 28 37	6°10'48	3♊29	23°13	29°19	9°13	7°50	6°10	9°29	27°36	2°15	2°27	0°55	2°36	3°23	T 28
F 29	4 32 34	7°11'43	17°2	24°40	0♉32	9°53	8°0	6°12	9°32	27°38	2°14	2°29	0°52	2°43	3°20	F 29
S 30	4 36 31	8♉12'39	1♉4	26♉5	1♉45	10♉34	8♉10	6♉14	9♉35	27♉40	2♉13	2°R30	0♉49	2♉50	3♉16	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
F 1	14s30	5s37	2s 8	15s36	0s10	2n29	1n26	7s37	0n42	20s 5	0s50	11s15	2s 2	13s45	0n25	17s49	1n39	8n48	12s10	12s30	12s19	19n 9	16n47	4s27			
S 2	14 49	9 53	0 53	16 12	0 17	2 3	1 28	7 52	0 42	20 3	0 50	11 15	2 2	13 47	0 25	17 50	1 39	8 48	12 10	12 30	12 18	19 9	16 46	4 27			
S 3	15 8	13 41		0n26	16 47	0 24	1 38	1 31	8 7	0 41	20 1	0 50	11 16	2 2	13 48	0 25	17 51	1 39	8 47	12 10	12 30	12 17	19 8	16 45	4 27		
M 4	15 27	16 41	1 46	17 20	0 30	1 12	1 33	8 22	0 41	20 0	0 49	11 16	2 2	13 49	0 25	17 51	1 39	8 47	12 10	12 30	12 15	19 8	16 45	4 27			
T 5	15 45	18 36	2 59	17 53	0 37	0 46	1 35	8 37	0 40	19 58	0 49	11 16	2 2	13 50	0 25	17 52	1 39	8 47	12 10	12 30	12 14	19 7	16 44	4 28			
W 6	16 3	19 15	4 0	18 25	0 43	0 20	1 38	8 53	0 40	19 56	0 49	11 16	2 2	13 52	0 25	17 52	1 39	8 47	12 10	12 30	12 13	19 7	16 43	4 28			
T 7	16 21	18 35	4 44	18 56	0 49	0s 7	1 40	9 8	0 40	19 55	0 49	11 16	2 1	13 53	0 25	17 53	1 39	8 46	12 10	12 29	12 12	19 6	16 42	4 28			
F 8	16 39	16 42	5 10	19 27	0 56	0 33	1 42	9 23	0 39	19 53	0 49	11 16	2 1	13 54	0 25	17 53	1 39	8 46	12 10	12 29	12 11	19 6	16 41	4 28			
S 9	16 56	13 49	5 16	19 56	1 2	0 59	1 44	9 37	0 39	19 51	0 49	11 15	2 1	13 55	0 25	17 54	1 39	8 46	12 10	12 28	12 10	19 5	16 41	4 28			
S 10	17 13	10 12	5 3	20 24	1 8	1 26	1 45	9 52	0 38	19 49	0 49	11 15	2 1	13 56	0 25	17 54	1 39	8 46	12 11	12 28	12 9	19 5	16 40	4 29			
M11	17 30	6 7	4 33	20 52	1 14	1 52	1 47	10 7	0 38	19 47	0 49	11 15	2 1	13 58	0 25	17 55	1 39	8 46	12 11	12 28	12 8	19 4	16 39	4 29			
T 12	17 46	1 50	3 49	21 18	1 19	2 19	1 49	10 22	0 37	19 45	0 49	11 15	2 1	13 59	0 25	17 55	1 39	8 45	12 11	12 29	12 7	19 4	16 38	4 29			
W13	18 2	2n28	2 54	21 43	1 25	2 46	1 50	10 37	0 37	19 43	0 49	11 14	2 0	14 0	0 25	17 56	1 39	8 45	12 11	12 29	12 6	19 3	16 37	4 29			
T 14	18 18	6 35	1 51	22 7	1 30	3 12	1 52	10 51	0 37	19 41	0 49	11 14	2 0	14 1	0 25	17 56	1 39	8 45	12 11	12 30	12 4	19 3	16 37	4 29			
F 15	18 34	10 20	0 44	22 30	1 36	3 39	1 53	11 6	0 36	19 39	0 49	11 14	2 0	14 2	0 25	17 57	1 39	8 45	12 11	12 30	12 3	19 2	16 36	4 30			
S 16	18 49	13 35	0s24	22 52	1 41	4 6	1 54	11 20	0 36	19 36	0 49	11 13	2 0	14 3	0 25	17 57	1 39	8 44	12 11	12 30	12 2	19 2	16 35	4 30			
S 17	19 4	16 12	1 30	23 13	1 45	4 33	1 55	11 34	0 35	19 34	0 49	11 13	2 0	14 5	0 25	17 58	1 39	8 44	12 11	12 30	12 1	19 1	16 34	4 30			
M18	19 18	18 3	2 31	23 33	1 50	4 59	1 56	11 49	0 35	19 32	0 49	11 12	2 0	14 6	0 25	17 58	1 39	8 44	12 11	12 29	12 0	19 1	16 33	4 30			
T 19	19 32	19 5	3 25	23 51	1 54	5 26	1 57	12 3	0 34	19 30	0 49	11 12	2 0	14 7	0 25	17 59	1 39	8 44	12 11	12 28	11 59	19 0	16 33	4 30			
W20	19 46	19 15	4 10	24 8	1 59	5 53	1 58	12 17	0 34	19 27	0 49	11 11	1 59	14 8	0 25	17 59	1 39	8 44	12 11	12 26	11 58	19 0	16 32	4 30			
T 21	19 59	18 34	4 43	24 24	2 2	6 19	1 58	12 31	0 33	19 25	0 49	11 11	1 59	14 9	0 25	18 0	1 39	8 43	12 11	12 25	11 57	18 59	16 31	4 31			
F 22	20 13	17 5	5 5	24 39	2 6	6 46	1 59	12 45	0 33	19 23	0 49	11 10	1 59	14 10	0 25	18 0	1 39	8 43	12 11	12 23	11 56	18 59	16 30	4 31			
S 23	20 25	14 52	5 13	24 52	2 9	7 12	2 0	12 59	0 32	19 20	0 48	11 10	1 59	14 12	0 25	18 1	1 39	8 43	12 11	12 22	11 55	18 58	16 30	4 31			
S 24	20 37	12 0	5 8	25 4	2 12	7 38	2 0	13 13	0 32	19 18	0 48	11 9	1 59	14 13	0 25	18 1	1 39	8 43	12 11	12 21	11 53	18 58	16 29	4 31			
M25	20 49	8 36	4 49	25 15	2 15	8 5	2 0	13 27	0 31	19 15	0 48	11 8	1 59	14 14	0 25	18 2	1 39	8 43	12 10	12 20	11 52	18 57	16 28	4 31			
T 26	21 1	4 46	4 16	25 24	2 17	8 31	2 0	13 40	0 31	19 13	0 48	11 7	1 58	14 15	0 25	18 2	1 39	8 43	12 10	12 20	11 51	18 57	16 27	4 31			
W27	21 12	0 36	3 30	25 32	2 19	8 57	2 1	13 54	0 30	19 10	0 48	11 6	1 58	14 16	0 25	18 3	1 39	8 42	12 10	12 20	11 50	18 56	16 26	4 31			
T 28	21 23	3s42	2 32	25 39	2 20	9 22	2 1	14 7	0 30	19 7	0 48	11 6	1 58	14 17	0 25	18 3	1 39	8 42	12 10	12 21	11 49	18 56	16 26	4 31			
F 29	21 33	7 59	1 23	25 44	2 21	9 48	2 0	14 21	0 29	19 5	0 48	11 5	1 58	14 18	0 25	18 4	1 39	8 42	12 10	12 21	11 48	18 55	16 25	4 31			
S 30	21s43	11s59	0s 8	25s47	2s22	10s14	2n 0	14s34	0n29	19s 2	0s48	11s 4	1s58	14s19	0n25	18s 4	1n39	8n42	12s10	12s22	11s47	18n54	16m24	4s32			

ASTRODIENST EPHEMERIS for the year 1641

geocentric

DECEMBER 1641 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 40 27	9♂13'37	15♂33	27♂30	2♂59	11♂15	8♂21	6♂17	9♂39	27♂43	2°R11	2°R29	0♂46	2♂56	3°R12	S 1
M 2	4 44 24	10°14'36	0♂24	28°53	4°12	11°55	8°31	6°19	9°42	27°45	2°H10	2°M26	0°43	3° 3	3°H 9	M 2
T 3	4 48 20	11°15'36	15°32	0♂15	5°25	12°36	8°42	6°22	9°46	27°47	2° 9	2°22	0°39	3°10	3° 5	T 3
W 4	4 52 17	12°16'37	0♂45	1°36	6°39	13°17	8°53	6°24	9°49	27°49	2° 8	2°16	0°36	3°17	3° 2	W 4
T 5	4 56 13	13°17'38	15°54	2°54	7°52	13°57	9° 4	6°27	9°52	27°52	2° 7	2°10	0°33	3°23	2°58	T 5
F 6	5 0 10	14°18'40	0♂49	4°11	9° 5	14°38	9°15	6°29	9°56	27°54	2° 6	2° 4	0°30	3°30	2°55	F 6
S 7	5 4 6	15°19'43	15°23	5°25	10°19	15°19	9°26	6°32	9°59	27°56	2° 5	1°59	0°27	3°37	2°51	S 7
S 8	5 8 3	16°20'46	29°31	6°36	11°32	16° 0	9°37	6°35	10° 2	27°58	2° 4	1°55	0°24	3°43	2°48	S 8
M 9	5 12 0	17°21'50	13♂12	7°43	12°46	16°41	9°48	6°38	10° 5	28° 0	2° 3	1°D54	0°20	3°50	2°45	M 9
T 10	5 15 56	18°22'54	26°28	8°47	14° 0	17°22	10° 0	6°41	10° 8	28° 2	2° 1	1°54	0°17	3°57	2°41	T 10
W11	5 19 53	19°23'59	9°V21	9°46	15°13	18° 2	10°11	6°45	10°11	28° 5	2° 0	1°55	0°14	4° 4	2°38	W11
T 12	5 23 49	20°25'03	21°56	10°40	16°27	18°43	10°23	6°48	10°15	28° 7	1°59	1°57	0°11	4°10	2°35	T 12
F 13	5 27 46	21°26'09	4♂17	11°27	17°41	19°24	10°35	6°51	10°18	28° 9	1°58	1°R57	0° 8	4°17	2°31	F 13
S 14	5 31 42	22°27'14	16°26	12° 8	18°55	20° 5	10°46	6°55	10°21	28°11	1°57	1°56	0° 5	4°24	2°28	S 14
S 15	5 35 39	23°28'20	28°28	12°42	20° 9	20°46	10°58	6°58	10°24	28°13	1°56	1°52	0° 1	4°30	2°25	S 15
M16	5 39 35	24°29'27	10°H25	13° 6	21°22	21°27	11°10	7° 2	10°27	28°15	1°55	1°46	29♂58	4°37	2°21	M16
T 17	5 43 32	25°30'34	22°18	13°22	22°36	22° 9	11°22	7° 6	10°30	28°17	1°54	1°37	29°55	4°44	2°18	T 17
W18	5 47 29	26°31'41	4♂10	13°R27	23°50	22°50	11°34	7°10	10°32	28°19	1°53	1°27	29°52	4°50	2°15	W18
T 19	5 51 25	27°32'49	16° 2	13°20	25° 4	23°31	11°47	7°14	10°35	28°21	1°52	1°15	29°49	4°57	2°12	T 19
F 20	5 55 22	28°33'57	27°56	13° 3	26°19	24°12	11°59	7°18	10°38	28°23	1°51	1° 4	29°45	5° 4	2° 9	F 20
S 21	5 59 18	29°35'06	9♂52	12°33	27°33	24°53	12°11	7°22	10°41	28°25	1°50	0°53	29°42	5°11	2° 6	S 21
S 22	6 3 15	0♂36'15	21°54	11°52	28°47	25°34	12°24	7°26	10°44	28°27	1°49	0°44	29°39	5°17	2° 3	S 22
M23	6 7 11	1°37'24	4♂ 4	11° 0	0♂ 1	26°16	12°36	7°30	10°46	28°29	1°48	0°38	29°36	5°24	2° 0	M23
T 24	6 11 8	2°38'34	16°27	9°57	1°15	26°57	12°49	7°35	10°49	28°31	1°47	0°34	29°33	5°31	1°57	T 24
W25	6 15 4	3°39'44	29° 5	8°47	2°29	27°38	13° 1	7°39	10°52	28°33	1°46	0°D33	29°30	5°37	1°54	W25
T 26	6 19 1	4°40'55	12♂ 3	7°30	3°44	28°20	13°14	7°44	10°54	28°35	1°45	0°33	29°26	5°44	1°51	T 26
F 27	6 22 58	5°42'06	25°26	6°10	4°58	29° 1	13°27	7°48	10°57	28°37	1°44	0°R33	29°23	5°51	1°48	F 27
S 28	6 26 54	6°43'17	9♂16	4°48	6°12	29°43	13°40	7°53	10°59	28°39	1°43	0°33	29°20	5°58	1°46	S 28
S 29	6 30 51	7°44'29	23°35	3°28	7°27	0♂24	13°53	7°58	11° 2	28°41	1°42	0°31	29°17	6° 4	1°43	S 29
M30	6 34 47	8°45'41	8♂20	2°12	8°41	1° 6	14° 6	8° 3	11° 4	28°43	1°42	0°26	29°14	6°11	1°40	M30
T 31	6 38 44	9♂46'53	23♂27	1♂ 3	9♂55	1♂47	14♂19	8♂ 8	11♂ 7	28♂44	1°H41	0♂19	29♂11	6♂18	1°H38	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
S 1	21s52	15s24	1n11	25s49	2s22	10s39	2n 0	14s47	0n28	18s59	0s48	11s 3	1s58	14s20	0n25	18s 5
M 2	22 2	17 54	2 26	25 50	2 21	11 4	2 0	15 0	0 28	18 56	0 48	11 2	1 58	14 21	0 25	18 5
T 3	22 10	19 10	3 33	25 49	2 20	11 29	1 59	15 13	0 27	18 54	0 48	11 1	1 57	14 22	0 25	18 6
W 4	22 18	19 5	4 24	25 47	2 18	11 53	1 59	15 26	0 27	18 51	0 48	11 0	1 57	14 23	0 25	18 6
T 5	22 26	17 37	4 57	25 43	2 16	12 18	1 58	15 39	0 26	18 48	0 48	10 58	1 57	14 25	0 25	18 7
F 6	22 34	14 58	5 9	25 37	2 13	12 42	1 57	15 51	0 26	18 45	0 48	10 57	1 57	14 26	0 25	18 7
S 7	22 40	11 27	5 1	25 31	2 8	13 6	1 57	16 4	0 25	18 42	0 48	10 56	1 57	14 27	0 25	18 8
S 8	22 47	7 22	4 35	25 23	2 4	13 29	1 56	16 16	0 24	18 39	0 48	10 55	1 57	14 28	0 25	18 8
M 9	22 53	3 2	3 53	25 13	1 58	13 53	1 55	16 28	0 24	18 36	0 48	10 54	1 56	14 29	0 25	18 9
T 10	22 58	1n21	3 0	25 2	1 51	14 16	1 54	16 40	0 23	18 33	0 48	10 52	1 56	14 30	0 25	18 9
W11	23 4	5 32	1 59	24 50	1 43	14 38	1 53	16 52	0 23	18 29	0 48	10 51	1 56	14 31	0 25	18 10
T 12	23 8	9 24	0 54	24 37	1 34	15 0	1 51	17 4	0 22	18 26	0 48	10 50	1 56	14 32	0 25	18 10
F 13	23 12	12 46	0s13	24 23	1 24	15 22	1 50	17 16	0 22	18 23	0 48	10 48	1 56	14 32	0 25	18 11
S 14	23 16	15 33	1 17	24 8	1 13	15 44	1 49	17 28	0 21	18 20	0 48	10 47	1 56	14 33	0 25	18 11
S 15	23 19	17 37	2 18	23 53	1 1	16 5	1 47	17 39	0 20	18 17	0 48	10 45	1 56	14 34	0 25	18 11
M16	23 22	18 54	3 11	23 37	0 47	16 26	1 46	17 50	0 20	18 13	0 48	10 44	1 55	14 35	0 25	18 12
T 17	23 24	19 20	3 56	23 20	0 32	16 46	1 44	18 2	0 19	18 10	0 48	10 42	1 55	14 36	0 25	18 12
W18	23 26	18 54	4 31	23 4	0 16	17 6	1 43	18 13	0 19	18 7	0 48	10 41	1 55	14 37	0 25	18 13
T 19	23 28	17 39	4 54	22 47	0n 2	17 26	1 41	18 24	0 18	18 3	0 48	10 39	1 55	14 38	0 25	18 13
F 20	23 29	15 39	5 4	22 30	0 20	17 45	1 39	18 34	0 18	18 0	0 48	10 38	1 55	14 39	0 25	18 14
S 21	23 29	12 59	5 0	22 14	0 39	18 4	1 38	18 45	0 17	17 56	0 48	10 36	1 55	14 40	0 25	18 14
S 22	23 29	9 45	4 44	21 58	0 59	18 22	1 36	18 56	0 16	17 53	0 48	10 34	1 55	14 41	0 25	18 14
M23	23 28	6 5	4 14	21 43	1 19	18 40	1 34	19 6	0 16	17 49	0 48	10 32	1 55	14 41	0 25	18 15
T 24	23 27	2 6	3 33	21 29	1 38	18 57	1 32	19 16	0 15	17 46	0 48	10 31	1 54	14 42	0 25	18 15
W25	23 26	2s 4	2 40	21 15	1 57	19 14	1 30	19 26	0 14	17 42	0 48	10 29	1 54	14 43	0 25	18 16
T 26	23 24	6 16	1 37	21 2	2 15	19 30	1 28	19 36	0 14	17 38	0 48	10 27	1 54	14 44	0 25	18 16
F 27	23 22	10 17	0 27	20 50	2 30	19 46	1 26	19 46	0 13	17 35	0 48	10 25	1 54	14 45	0 25	18 16
S 28	23 19	13 53	0n46	20 40	2 44	20 1	1 24	19 55	0 13	17 31	0 48	10 23	1 54	14 45	0 25	18 17
S 29	23 15	16 47	1 59	20 31	2 56	20 15	1 21	20 5	0 12	17 27	0 48	10 21	1 54	14 46	0 25	18 17
M30	23 12	18 40	3 6	20 23	3 5	20 29	1 19	20 14	0 11	17 23	0 48	10 20	1 54	14 47	0 25	18 18
T 31	23s 7	19s17	4n 2	20s17	3n11	20s43	1n17	20s23	0n11	17s20	0s48	10s18	1s54	14s48	0n25	18s18

Julian Day Number = 2320757.5, Delta T = 49.00 sec
 Ecliptic obliquity = 23°29'01, Nutation = 0°00'08, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 19°44'32, Lahiri = 18°51'33Greg. Calendar