



# Astrodienst Ephemeris Tables for the year 1670

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 1670  
geocentric

JANUARY 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
W 1	6 43 31	11°0'14	9°8'5	22°27'2	24°28'10	6°18'8	10°R24	22°28'25	3°23'23	27°28'51	0°R40	28°R34	27°Y33	5°17'56	5°32'32	W 1
T 2	6 47 27	12°1'24	22°22'22	23°26'25	25°21'6	44'10	10°28'16	22°31'31	3°25'27	27°53'08	28°Y31	27°30'27	6°3'3	5°35'5	T 2	
F 3	6 51 24	13°2'33	5°12'28	24°52'26	26°31'7	19'10	10°8'0	22°37'33	3°28'27	27°55'03	28°26'36	27°27'27	6°10'6	5°38'5	F 3	
S 4	6 55 21	14°3'42	18°24'26	26°18'27	27°40'7	55'10	10°0'0	22°44'33	3°30'27	27°58'03	28°18'27	27°24'24	6°17'6	5°40'5	S 4	
S 5	6 59 17	15°4'51	1°27'9	27°44'28	28°50'8	31'9	9°52'22	22°50'33	3°33'28	28°0'03	28°7'27	27°21'21	6°23'6	5°43'5	S 5	
M 6	7 3 14	16°5'59	13°43'29	29°12'29	29°59'9	6'9	9°44'22	22°56'33	3°36'28	28°2'03	27°54'27	27°17'17	6°30'6	5°46'5	M 6	
T 7	7 7 10	17°7'06	26°7'03	0°34'11	1°18'9	42'9	9°36'23	23°2'23	3°38'28	28°4'03	27°40'27	27°14'14	6°37'6	5°49'5	T 7	
W 8	7 11 7	18°8'14	8°20'2°	9'2°18	10°17'9	28'9	9°28'23	9'23°9	3°41'28	28°7'03	27°26'27	27°11'11	6°43'6	5°52'5	W 8	
T 9	7 15 3	19°9'21	20°24'3	38'3°28	10°53'9	20'9	9°20'23	15'23°15	3°43'28	28°9'03	27°13'27	27°8'8	6°50'6	5°54'5	T 9	
F 10	7 19 0	20°10'28	2°19'5	8'4°37	11°28'9	12'9	9°12'23	22'23°22	3°46'28	28°11'029	27°2'27	27°5'5	6°57'5	5°57'5	F 10	
S 11	7 22 57	21°11'34	14°9'6	38'5°45	12°4'9	4'9	9°4'23	28'23°28	3°49'28	28°13'26	26°54'27	27°2'27	7°3'6	6°0'0	S 11	
S 12	7 26 53	22°12'40	25°57'8	9'6°54	12°39'8	57'8	8°57'23	35'35°28	3°52'28	28°16'027	26°50'26	26°58'7	7°10'10	6°3'3	S 12	
M13	7 30 50	23°13'45	7°48'9	41'8°2	13°14'8	49'8	8°49'23	41'35°28	3°54'28	28°18'026	26°47'26	26°55'7	7°17'17	6°7'7	M13	
T 14	7 34 46	24°14'51	19°47'11	13'9°11	13°49'8	41'8	8°41'23	48'35°28	3°57'28	28°20'025	26°47'26	26°52'7	7°23'23	6°10'10	T 14	
W15	7 38 43	25°15'56	1°18'12	45'10°19	14°25'8	34'8	8°34'23	55'4°0	28°23'4	20'24'26	26°47'26	26°49'7	7°30'30	6°13'13	W15	
T 16	7 42 39	26°17'00	14°28'14	19'11°27	15°0'8	27'8	8°27'24	1'4°3	28°25'0	23'26°	26°46'26	26°46'7	7°37'37	6°16'16	T 16	
F 17	7 46 36	27°18'05	27°22'15	53'12°34	15°35'8	19'8	8°19'24	8'4°6	28°27'0	22'26°	26°43'26	26°43'7	7°44'44	6°19'19	F 17	
S 18	7 50 32	28°19'09	10°43'17	27'13°42	16°10'8	12'8	8°12'24	15'4°9	28°29'0	20'26°	26°39'26	26°39'7	7°50'50	6°22'22	S 18	
S 19	7 54 29	29°20'12	24°33'19	2'14°49	16°45'8	5'8	8°5'24	22°2	4°12'28	28°32'019	26°31'26	26°36'7	7°57'57	6°26'26	S 19	
M20	7 58 26	0°21'15	8°35'20	38'15°56	17°20'7	58'7	24°28'4	15'28°34	4°15'28	28°34'018	26°21'26	26°33'8	8°4'4	6°29'29	M20	
T 21	8 2 22	1°22'17	23°35'22	14'17°3	17°55'7	51'7	24°35'4	18'28°36	4°18'28	28°36'017	26°2'26	26°30'8	8°10'10	6°32'32	T 21	
W22	8 6 19	2°23'18	8°34'23	51'18°9	18°29'7	44'7	24°42'4	21'28°38	4°21'28	28°38'016	25°57'26	26°27'8	8°17'17	6°36'36	W22	
T 23	8 10 15	3°24'18	23°39'25	28'19°16	19°4'7	38'7	24°49'4	24'28°41	4°24'28	28°41'015	25°46'26	26°23'8	8°24'24	6°39'39	T 23	
F 24	8 14 12	4°25'17	8°41'27	6'20°22	19°39'7	31'7	24°56'4	27'28°43	4°27'28	28°43'014	25°37'26	26°20'8	8°30'30	6°42'42	F 24	
S 25	8 18 8	5°26'14	23°31'28	45'21°28	20°13'7	25'3	25°3'4	30'28°45	4°30'28	28°45'013	25°31'26	26°17'8	8°37'37	6°46'46	S 25	
S 26	8 22 5	6°27'11	8°Y'2	0°25'22	22°33'20	48'7	18'25°10	4°33'28	28°48'0	12'25°28	26°14'8	44'44'6	49'49'6	49'49	S 26	
M27	8 26 1	7°28'06	22°11'2	5'23°39	21°22'7	12'7	25°17'4	36'28°50	0°11'25	D27'26	26°11'8	50'50'6	53'53'6	53'53	M27	
T 28	8 29 58	8°29'00	5°57'3	46'24°44	21°57'7	6'7	25°24'4	39'28°52	0°11'25	R27'26	26°8'8	57'57'6	56'56'6	56'56	T 28	
W29	8 33 55	9°29'52	19°23'5	27'25°49	22°31'7	0'25	25°31'4	43'28°54	0°10'25	27'26°	26°4'9	4'4'7	0'0'W	0'0	W29	
T 30	8 37 51	10°30'43	2°11'31	7°10'26	23°5'2	5'6	25°38'4	46'28°57	0°9'25	25°25'26	26°1'9	9°11'7	7°4'4	7°4	T 30	
F 31	8 41 48	11°31'33	15°11'22	8°53'27	27°57'23	39'13	6°49'25	45'48°59	0°8'25	Y21'25	25°Y'58	17'17'9	7°7'7	7°7	F 31	

Day	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
W 1	23s 2	15n25	0n55	22s53	0n22	15s 2	1s38	12s29	1n10	23n10	0n 6	15s21	1s21	10s59
T 2	22 56	20 22	2 3	23 5	0 14	14 36	1 36	12 41	1 10	23 11	0 6	15 19	1 21	10 58
F 3	22 51	24 14	3 2	23 17	0 6	14 10	1 33	12 53	1 10	23 12	0 6	15 17	1 21	10 57
S 4	22 44	26 49	3 51	23 27	0s 1	13 43	1 31	13 5	1 10	23 13	0 6	15 15	1 21	10 56
S 5	22 38	27 57	4 28	23 37	0 9	13 16	1 28	13 16	1 9	23 13	0 6	15 12	1 21	10 55
M 6	22 31	27 36	4 51	23 45	0 16	12 49	1 25	13 28	1 9	23 14	0 7	15 10	1 21	10 54
T 7	22 23	25 52	5 0	23 52	0 23	12 21	1 22	13 40	1 9	23 15	0 7	15 8	1 21	10 53
W 8	22 15	22 57	4 54	23 58	0 30	11 53	1 18	13 51	1 8	23 16	0 7	15 6	1 21	10 52
T 9	22 7	19 5	4 36	24 3	0 37	11 25	1 15	14 2	1 8	23 16	0 7	15 4	1 21	10 51
F 10	21 58	14 29	4 6	24 7	0 44	10 57	1 12	14 14	1 8	23 17	0 7	15 2	1 21	10 50
S 11	21 49	9 24	3 25	24 9	0 50	10 28	1 8	14 25	1 8	23 18	0 7	15 0	1 21	10 49
S 12	21 39	3 59	2 35	24 10	0 56	10 0	1 5	14 36	1 7	23 18	0 7	14 58	1 21	10 48
M13	21 29	1s36	1 39	24 10	1 2	9 31	1 1	14 47	1 7	23 19	0 8	14 55	1 21	10 47
T 14	21 18	7 11	0 37	24 9	1 8	9 1	0 57	14 58	1 7	23 20	0 8	14 53	1 21	10 46
W15	21 7	12 37	0s27	24 6	1 14	8 32	0 53	15 8	1 6	23 20	0 8	14 51	1 21	10 45
T 16	20 56	17 41	1 32	24 2	1 19	8 2	0 49	15 19	1 6	23 21	0 8	14 49	1 21	10 44
F 17	20 44	22 6	2 34	23 56	1 24	7 33	0 45	15 29	1 6	23 21	0 8	14 46	1 21	10 43
S 18	20 32	25 33	3 30	23 49	1 29	7 3	0 41	15 40	1 5	23 22	0 8	14 44	1 21	10 42
S 19	20 20	27 37	4 15	23 41	1 34	6 33	0 36	15 50	1 5	23 23	0 8	14 42	1 21	10 41
M20	20 7	27 57	4 46	23 31	1 38	6 3	0 32	16 0	1 5	23 23	0 8	14 40	1 21	10 39
T 21	19 54	26 20	5 0	23 19	1 42	5 33	0 27	16 10	1 4	23 24	0 9	14 37	1 21	10 38
W22	19 40	22 52	4 53	23 7	1 46	5 2	0 23	16 20	1 4	23 24	0 9	14 35	1 21	10 37
T 23	19 26	17 50	4 26	22 53	1 49	4 32	0 18	16 30	1 3	23 25	0 9	14 33	1 21	10 36
F 24	19 11	11 44	3 40	22 37	1 52	4 1	0 13	16 40	1 3	23 25	0 9	14 30	1 21	10 35
S 25	18 57	5 2	2 40	22 20	1 55	3 31	0 8	16 50	1 3	23 26	0 9	14 28	1 21	10 34
S 26	18 42	1n48	1 31	22 1	1 58	3 0	0 3	16 59	1 2	23 26	0 9	14 26	1 21	10 33
M27	18 26	8 23	0 17	21 41	2 0	2 30	0n 2	17 9	1 2	23 27	0 9	14 23	1 21	10 31
T 28	18 11	14 24	0n55	21 19	2 1	1 59	0 7	17 18	1 1	23 27	0 9	14 21	1 21	10 30
W29	17 55	19 35	2 3	20 56	2 3	1 28	0 13	17 27	1 1	23 27	0 10	14 19	1 21	10 29
T 30	17 38	23 41	3 3	20 31	2 4	0 58	0 18	17 36	1 0	23 28	0 10	14 16	1 21	10 28
F 31	17s21	26n31	3n52	20s 4	2s 4	0s27	0n24	17s45	1n 0	23n28	0n10	14s14	1s21	10s27

Julian Day Number = 2331015.5, Delta T = 29.74 sec  
Ecliptic obliquity = 23°29'04", Nutation = - 0°00'07", out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°08'02", Lahiri = 19°15'03Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1670

## geocentric

FEBRUARY 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	8 45 44	12♌32'21	28♏1	10♌37	29♏1	24♏14	6°R44	25♌53	4♏52	29♌1	0°R 7	25°R13	25°V55	9♏24	7♏11	S 1
S 2	8 49 41	13°33'07	10♌29	12°21	0°V 5	24°48	6♌39	26° 0	4°55	29° 3	0♌6	25°V 3	25°52	9°31	7°14	S 2
M 3	8 53 37	14°33'53	22°47	14° 7	1° 8	25°21	6°34	26° 7	4°59	29° 5	0° 5	24°51	25°49	9°37	7°18	M 3
T 4	8 57 34	15°34'36	4♏257	15°53	2°10	25°55	6°29	26°14	5° 2	29° 8	0° 5	24°38	25°45	9°44	7°22	T 4
W 5	9 1 30	16°35'19	17° 0	17°40	3°13	26°29	6°24	26°21	5° 5	29°10	0° 4	24°24	25°42	9°51	7°25	W 5
T 6	9 5 27	17°36'00	28°57	19°27	4°15	27° 3	6°20	26°29	5° 9	29°12	0° 3	24°12	25°39	9°57	7°29	T 6
F 7	9 9 24	18°36'39	10♏49	21°16	5°17	27°36	6°15	26°36	5°12	29°14	0° 2	24° 2	25°36	10° 4	7°33	F 7
S 8	9 13 20	19°37'18	22°38	23° 5	6°18	28°10	6°11	26°43	5°15	29°16	0° 1	23°55	25°33	10°11	7°37	S 8
S 9	9 17 17	20°37'55	4♏26	24°54	7°19	28°43	6° 7	26°50	5°19	29°19	0° 1	23°50	25°29	10°17	7°40	S 9
M10	9 21 13	21°38'30	16°17	26°44	8°19	29°17	6° 3	26°57	5°22	29°21	0° 0	23°48	25°26	10°24	7°44	M10
T 11	9 25 10	22°39'05	28°16	28°35	9°19	29°50	6° 0	27° 5	5°25	29°23	29♏59	23°D48	25°23	10°31	7°48	T 11
W12	9 29 6	23°39'38	10♏26	0♏26	10°19	0♏23	5°56	27°12	5°29	29°25	29°59	23°49	25°20	10°37	7°52	W12
T 13	9 33 3	24°40'10	22°52	2°18	11°18	0°56	5°53	27°19	5°32	29°27	29°58	23°R49	25°17	10°44	7°56	T 13
F 14	9 36 59	25°40'40	5♏41	4° 9	12°16	1°30	5°50	27°27	5°36	29°29	29°57	23°49	25°14	10°51	7°59	F 14
S 15	9 40 56	26°41'10	18°55	6° 0	13°14	2° 2	5°47	27°34	5°39	29°31	29°57	23°46	25°10	10°57	8° 3	S 15
S 16	9 44 53	27°41'38	2♌39	7°52	14°12	2°35	5°44	27°41	5°42	29°33	29°56	23°42	25° 7	11° 4	8° 7	S 16
M17	9 48 49	28°42'05	16°52	9°42	15° 9	3° 8	5°42	27°48	5°46	29°35	29°56	23°35	25° 4	11°11	8°11	M17
T 18	9 52 46	29°42'30	1♌34	11°32	16° 6	3°41	5°40	27°56	5°49	29°37	29°55	23°27	25° 1	11°18	8°15	T 18
W19	9 56 42	0♏42'54	16°36	13°21	17° 2	4°13	5°37	28° 3	5°53	29°40	29°55	23°18	24°58	11°24	8°19	W19
T 20	10 0 39	1°43'16	1♏51	15° 9	17°57	4°45	5°36	28°10	5°56	29°42	29°54	23°10	24°55	11°31	8°22	T 20
F 21	10 4 35	2°43'36	17° 8	16°54	18°52	5°18	5°34	28°17	6° 0	29°44	29°54	23° 4	24°51	11°38	8°26	F 21
S 22	10 8 32	3°43'54	2°V15	18°37	19°46	5°50	5°32	28°25	6° 3	29°45	29°53	23° 0	24°48	11°44	8°30	S 22
S 23	10 12 28	4°44'11	17° 4	20°18	20°39	6°22	5°31	28°32	6° 7	29°47	29°53	22°D58	24°45	11°51	8°34	S 23
M24	10 16 25	5°44'25	1♌30	21°55	21°32	6°54	5°30	28°39	6°10	29°49	29°52	22°58	24°42	11°58	8°38	M24
T 25	10 20 22	6°44'37	15°29	23°28	22°24	7°26	5°29	28°46	6°13	29°51	29°52	22°59	24°39	12° 4	8°42	T 25
W26	10 24 18	7°44'48	29° 3	24°56	23°15	7°57	5°28	28°54	6°17	29°53	29°52	23° 1	24°35	12°11	8°46	W26
T 27	10 28 15	8°44'56	12♏13	26°20	24° 6	8°29	5°28	29° 1	6°20	29°55	29°51	23°R 1	24°32	12°18	8°50	T 27
F 28	10 32 11	9♏45'02	25♏1	27♏38	24°V56	9♏0	5♌28	29♌8	6♏24	29♌57	29♏51	23°V 0	24°V29	12♏24	8♏54	F 28

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	
S 1	17s 4	27n57	4n28	19s36	2s 5	0n 3	0n29	17s54	0n59	23n29	0n10	14s11	1s21	10s26	0s44	20s 7
S 2	16 47	27 55	4 52	19 7	2 4	0 34	0 35	18 3	0 59	23 29	0 10	14 9	1 21	10 24	0 44	20 6
M 3	16 30	26 30	5 1	18 36	2 4	1 4	0 41	18 12	0 58	23 29	0 10	14 7	1 21	10 23	0 44	20 6
T 4	16 12	23 51	4 56	18 3	2 2	1 35	0 47	18 20	0 58	23 30	0 10	14 4	1 21	10 22	0 44	20 5
W 5	15 54	20 11	4 39	17 29	2 1	2 5	0 53	18 29	0 57	23 30	0 10	14 2	1 21	10 21	0 44	20 5
T 6	15 35	15 44	4 9	16 53	1 59	2 35	0 59	18 37	0 57	23 30	0 10	13 59	1 21	10 19	0 44	20 4
F 7	15 17	10 44	3 28	16 16	1 56	3 5	1 5	18 45	0 56	23 31	0 11	13 57	1 21	10 18	0 44	20 4
S 8	14 58	5 21	2 38	15 38	1 53	3 35	1 11	18 53	0 56	23 31	0 11	13 54	1 21	10 17	0 44	20 4
S 9	14 38	0s13	1 41	14 57	1 49	4 5	1 17	19 1	0 55	23 31	0 11	13 52	1 22	10 16	0 44	20 3
M10	14 19	5 48	0 40	14 16	1 45	4 35	1 24	19 9	0 55	23 32	0 11	13 50	1 22	10 15	0 44	20 3
T 11	13 59	11 15	0s24	13 33	1 40	5 5	1 30	19 17	0 54	23 32	0 11	13 47	1 22	10 13	0 44	20 2
W12	13 40	16 22	1 28	12 48	1 34	5 34	1 36	19 24	0 53	23 32	0 11	13 45	1 22	10 12	0 44	20 2
T 13	13 19	20 56	2 29	12 3	1 28	6 3	1 43	19 32	0 53	23 32	0 11	13 42	1 22	10 11	0 44	20 1
F 14	12 59	24 39	3 25	11 16	1 21	6 32	1 50	19 39	0 52	23 33	0 11	13 40	1 22	10 9	0 44	20 1
S 15	12 39	27 12	4 12	10 28	1 14	7 1	1 56	19 46	0 51	23 33	0 11	13 37	1 22	10 8	0 44	20 0
S 16	12 18	28 13	4 46	9 39	1 6	7 30	2 3	19 53	0 51	23 33	0 11	13 35	1 22	10 7	0 44	20 0
M17	11 57	27 26	5 4	8 49	0 57	7 58	2 10	20 0	0 50	23 33	0 12	13 32	1 22	10 6	0 44	20 0
T 18	11 36	24 46	5 3	7 59	0 48	8 27	2 17	20 7	0 49	23 33	0 12	13 30	1 22	10 4	0 44	19 59
W19	11 14	20 21	4 41	7 8	0 38	8 54	2 23	20 14	0 49	23 34	0 12	13 27	1 22	10 3	0 44	19 59
T 20	10 53	14 34	4 0	6 17	0 27	9 22	2 30	20 21	0 48	23 34	0 12	13 25	1 22	10 2	0 44	19 58
F 21	10 31	7 52	3 1	5 25	0 16	9 50	2 37	20 27	0 47	23 34	0 12	13 23	1 22	10 1	0 44	19 58
S 22	10 9	0 47	1 49	4 34	0 4	10 17	2 44	20 33	0 46	23 34	0 12	13 20	1 22	9 59	0 44	19 58
S 23	9 48	6n14	0 32	3 43	0n 9	10 44	2 52	20 40	0 46	23 34	0 12	13 18	1 22	9 58	0 44	19 57
M24	9 25	12 44	0n46	2 53	0 22	11 10	2 59	20 46	0 45	23 34	0 12	13 15	1 22	9 57	0 44	19 57
T 25	9 3	18 24	1 59	2 4	0 35	11 36	3 6	20 52	0 44	23 35	0 12	13 13	1 22	9 56	0 44	19 56
W26	8 41	22 57	3 2	1 16	0 49	12 2	3 13	20 58	0 43	23 35	0 12	13 10	1 23	9 54	0 44	19 56
T 27	8 18	26 10	3 55	0 30	1 3	12 28	3 20	21 4	0 42	23 35	0 13	13 8	1 23	9 53	0 44	19 56
F 28	7s56	27n57	4n33	0n14	1n17	12n53	3n28	21s 9	0n42	23n35	0n13	13s 5	1s23	9s52	0s44	19s55

Julian Day Number = 2331046.5, Delta T = 29.69 sec

Ecliptic obliquity = 23°29'04, Nutation = - 0°00'06, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 20°08'07, Lahiri = 19°15'07Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1670  
geocentric

MARCH 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 36 8	10 <sup>h</sup> 45'06	7 <sup>h</sup> 33	28 <sup>h</sup> 49	25 <sup>h</sup> 45	9 <sup>h</sup> 31	5 <sup>h</sup> D27	29 <sup>h</sup> 15	6 <sup>h</sup> 27	29 <sup>h</sup> 59	29 <sup>h</sup> R51	22 <sup>h</sup> R56	24 <sup>h</sup> Y26	12 <sup>h</sup> 31	8 <sup>h</sup> 57	S 1
S 2	10 40 4	11 <sup>h</sup> 45'08	19 <sup>h</sup> 51	29 <sup>h</sup> 54	26 <sup>h</sup> 33	10 <sup>h</sup> 3	5 <sup>h</sup> 28	29 <sup>h</sup> 23	6 <sup>h</sup> 31	0 <sup>h</sup> 1	29 <sup>h</sup> II50	22 <sup>h</sup> Y51	24 <sup>h</sup> 23	12 <sup>h</sup> 38	9 <sup>h</sup> 1	S 2
M 3	10 44 1	12 <sup>h</sup> 45'08	1 <sup>h</sup> 59	0 <sup>h</sup> Y52	27 <sup>h</sup> 20	10 <sup>h</sup> 34	5 <sup>h</sup> 28	29 <sup>h</sup> 30	6 <sup>h</sup> 34	0 <sup>h</sup> 2	29 <sup>h</sup> 50	22 <sup>h</sup> 45	24 <sup>h</sup> 20	12 <sup>h</sup> 44	9 <sup>h</sup> 5	M 3
T 4	10 47 57	13 <sup>h</sup> 45'05	13 <sup>h</sup> 59	1 <sup>h</sup> 42	28 <sup>h</sup> 6	11 <sup>h</sup> 5	5 <sup>h</sup> 28	29 <sup>h</sup> 37	6 <sup>h</sup> 37	0 <sup>h</sup> 4	29 <sup>h</sup> 50	22 <sup>h</sup> 37	24 <sup>h</sup> 16	12 <sup>h</sup> 51	9 <sup>h</sup> 9	T 4
W 5	10 51 54	14 <sup>h</sup> 45'00	25 <sup>h</sup> 54	2 <sup>h</sup> 24	28 <sup>h</sup> 51	11 <sup>h</sup> 35	5 <sup>h</sup> 29	29 <sup>h</sup> 44	6 <sup>h</sup> 41	0 <sup>h</sup> 6	29 <sup>h</sup> 50	22 <sup>h</sup> 30	24 <sup>h</sup> 13	12 <sup>h</sup> 58	9 <sup>h</sup> 13	W 5
T 6	10 55 51	15 <sup>h</sup> 44'54	7 <sup>h</sup> 45	2 <sup>h</sup> 58	29 <sup>h</sup> 35	12 <sup>h</sup> 6	5 <sup>h</sup> 30	29 <sup>h</sup> 51	6 <sup>h</sup> 44	0 <sup>h</sup> 8	29 <sup>h</sup> 49	22 <sup>h</sup> 23	24 <sup>h</sup> 10	13 <sup>h</sup> 4	9 <sup>h</sup> 17	T 6
F 7	10 59 47	16 <sup>h</sup> 44'45	19 <sup>h</sup> 35	3 <sup>h</sup> 23	0 <sup>h</sup> 819	12 <sup>h</sup> 36	5 <sup>h</sup> 31	29 <sup>h</sup> 58	6 <sup>h</sup> 48	0 <sup>h</sup> 9	29 <sup>h</sup> 49	22 <sup>h</sup> 18	24 <sup>h</sup> 7	13 <sup>h</sup> 11	9 <sup>h</sup> 21	F 7
S 8	11 3 44	17 <sup>h</sup> 44'35	1 <sup>h</sup> 25	3 <sup>h</sup> 39	1 <sup>h</sup> 1	13 <sup>h</sup> 7	5 <sup>h</sup> 32	0 <sup>h</sup> 5	6 <sup>h</sup> 51	0 <sup>h</sup> 11	29 <sup>h</sup> 49	22 <sup>h</sup> 14	24 <sup>h</sup> 4	13 <sup>h</sup> 18	9 <sup>h</sup> 25	S 8
S 9	11 7 40	18 <sup>h</sup> 44'22	13 <sup>h</sup> 17	3 <sup>h</sup> R47	1 <sup>h</sup> 42	13 <sup>h</sup> 37	5 <sup>h</sup> 34	0 <sup>h</sup> 12	6 <sup>h</sup> 55	0 <sup>h</sup> 13	29 <sup>h</sup> 49	22 <sup>h</sup> 12	24 <sup>h</sup> 0	13 <sup>h</sup> 24	9 <sup>h</sup> 28	S 9
M10	11 11 37	19 <sup>h</sup> 44'08	25 <sup>h</sup> 14	3 <sup>h</sup> 46	2 <sup>h</sup> 21	14 <sup>h</sup> 7	5 <sup>h</sup> 35	0 <sup>h</sup> 19	6 <sup>h</sup> 58	0 <sup>h</sup> 14	29 <sup>h</sup> 49	22 <sup>h</sup> D11	23 <sup>h</sup> 57	13 <sup>h</sup> 31	9 <sup>h</sup> 32	M10
T 11	11 15 33	20 <sup>h</sup> 43'51	7 <sup>h</sup> 18	3 <sup>h</sup> 37	3 <sup>h</sup> 0	14 <sup>h</sup> 36	5 <sup>h</sup> 37	0 <sup>h</sup> 26	7 <sup>h</sup> 1	0 <sup>h</sup> 16	29 <sup>h</sup> 49	22 <sup>h</sup> 12	23 <sup>h</sup> 54	13 <sup>h</sup> 38	9 <sup>h</sup> 36	T 11
W12	11 19 30	21 <sup>h</sup> 43'33	19 <sup>h</sup> 33	3 <sup>h</sup> 20	3 <sup>h</sup> 37	15 <sup>h</sup> 6	5 <sup>h</sup> 39	0 <sup>h</sup> 33	7 <sup>h</sup> 5	0 <sup>h</sup> 18	29 <sup>h</sup> 49	22 <sup>h</sup> 14	23 <sup>h</sup> 51	13 <sup>h</sup> 44	9 <sup>h</sup> 40	W12
T 13	11 23 26	22 <sup>h</sup> 43'14	2 <sup>h</sup> 2	2 <sup>h</sup> 55	4 <sup>h</sup> 13	15 <sup>h</sup> 36	5 <sup>h</sup> 41	0 <sup>h</sup> 40	7 <sup>h</sup> 8	0 <sup>h</sup> 19	29 <sup>h</sup> 49	22 <sup>h</sup> 16	23 <sup>h</sup> 48	13 <sup>h</sup> 51	9 <sup>h</sup> 44	T 13
F 14	11 27 23	23 <sup>h</sup> 42'52	14 <sup>h</sup> 50	2 <sup>h</sup> 23	4 <sup>h</sup> 48	16 <sup>h</sup> 5	5 <sup>h</sup> 44	0 <sup>h</sup> 47	7 <sup>h</sup> 11	0 <sup>h</sup> 21	29 <sup>h</sup> D49	22 <sup>h</sup> 17	23 <sup>h</sup> 45	13 <sup>h</sup> 58	9 <sup>h</sup> 48	F 14
S 15	11 31 20	24 <sup>h</sup> 42'29	28 <sup>h</sup> 0	1 <sup>h</sup> 46	5 <sup>h</sup> 22	16 <sup>h</sup> 34	5 <sup>h</sup> 46	0 <sup>h</sup> 54	7 <sup>h</sup> 15	0 <sup>h</sup> 22	29 <sup>h</sup> 49	22 <sup>h</sup> R17	23 <sup>h</sup> 41	14 <sup>h</sup> 5	9 <sup>h</sup> 51	S 15
S 16	11 35 16	25 <sup>h</sup> 42'04	11 <sup>h</sup> 35	1 <sup>h</sup> 3	5 <sup>h</sup> 53	17 <sup>h</sup> 3	5 <sup>h</sup> 49	1 <sup>h</sup> 1	7 <sup>h</sup> 18	0 <sup>h</sup> 24	29 <sup>h</sup> 49	22 <sup>h</sup> 16	23 <sup>h</sup> 38	14 <sup>h</sup> 11	9 <sup>h</sup> 55	S 16
M17	11 39 13	26 <sup>h</sup> 41'38	25 <sup>h</sup> 36	0 <sup>h</sup> 16	6 <sup>h</sup> 24	17 <sup>h</sup> 32	5 <sup>h</sup> 52	1 <sup>h</sup> 8	7 <sup>h</sup> 21	0 <sup>h</sup> 25	29 <sup>h</sup> 49	22 <sup>h</sup> 14	23 <sup>h</sup> 35	14 <sup>h</sup> 18	9 <sup>h</sup> 59	M17
T 18	11 43 9	27 <sup>h</sup> 41'09	10 <sup>h</sup> 4	29 <sup>h</sup> 25	6 <sup>h</sup> 52	18 <sup>h</sup> 0	5 <sup>h</sup> 55	1 <sup>h</sup> 14	7 <sup>h</sup> 25	0 <sup>h</sup> 27	29 <sup>h</sup> 49	22 <sup>h</sup> 11	23 <sup>h</sup> 32	14 <sup>h</sup> 25	10 <sup>h</sup> 3	T 18
W19	11 47 6	28 <sup>h</sup> 40'39	24 <sup>h</sup> 53	28 <sup>h</sup> 33	7 <sup>h</sup> 20	18 <sup>h</sup> 29	5 <sup>h</sup> 58	1 <sup>h</sup> 21	7 <sup>h</sup> 28	0 <sup>h</sup> 28	29 <sup>h</sup> 49	22 <sup>h</sup> 8	23 <sup>h</sup> 29	14 <sup>h</sup> 31	10 <sup>h</sup> 6	W19
T 20	11 51 2	29 <sup>h</sup> 40'07	9 <sup>h</sup> 58	27 <sup>h</sup> 40	7 <sup>h</sup> 45	18 <sup>h</sup> 57	6 <sup>h</sup> 2	1 <sup>h</sup> 28	7 <sup>h</sup> 31	0 <sup>h</sup> 30	29 <sup>h</sup> 49	22 <sup>h</sup> 5	23 <sup>h</sup> 26	14 <sup>h</sup> 38	10 <sup>h</sup> 10	T 20
F 21	11 54 59	0 <sup>h</sup> Y39'33	25 <sup>h</sup> 10	26 <sup>h</sup> 47	8 <sup>h</sup> 9	19 <sup>h</sup> 25	6 <sup>h</sup> 5	1 <sup>h</sup> 35	7 <sup>h</sup> 34	0 <sup>h</sup> 31	29 <sup>h</sup> 49	22 <sup>h</sup> 2	23 <sup>h</sup> 22	14 <sup>h</sup> 45	10 <sup>h</sup> 14	F 21
S 22	11 58 55	1 <sup>h</sup> 38'56	10 <sup>h</sup> Y20	25 <sup>h</sup> 56	8 <sup>h</sup> 31	19 <sup>h</sup> 52	6 <sup>h</sup> 9	1 <sup>h</sup> 41	7 <sup>h</sup> 38	0 <sup>h</sup> 32	29 <sup>h</sup> 50	22 <sup>h</sup> 1	23 <sup>h</sup> 19	14 <sup>h</sup> 51	10 <sup>h</sup> 18	S 22
S 23	12 2 52	2 <sup>h</sup> 38'18	25 <sup>h</sup> 16	25 <sup>h</sup> 6	8 <sup>h</sup> 51	20 <sup>h</sup> 20	6 <sup>h</sup> 13	1 <sup>h</sup> 48	7 <sup>h</sup> 41	0 <sup>h</sup> 34	29 <sup>h</sup> 50	22 <sup>h</sup> D 1	23 <sup>h</sup> 16	14 <sup>h</sup> 58	10 <sup>h</sup> 21	S 23
M24	12 6 49	3 <sup>h</sup> 37'38	9 <sup>h</sup> 53	24 <sup>h</sup> 20	9 <sup>h</sup> 9	20 <sup>h</sup> 47	6 <sup>h</sup> 18	1 <sup>h</sup> 54	7 <sup>h</sup> 44	0 <sup>h</sup> 35	29 <sup>h</sup> 50	22 <sup>h</sup> 1	23 <sup>h</sup> 13	15 <sup>h</sup> 5	10 <sup>h</sup> 25	M24
T 25	12 10 45	4 <sup>h</sup> 36'55	24 <sup>h</sup> 4	23 <sup>h</sup> 38	9 <sup>h</sup> 25	21 <sup>h</sup> 14	6 <sup>h</sup> 22	2 <sup>h</sup> 1	7 <sup>h</sup> 47	0 <sup>h</sup> 36	29 <sup>h</sup> 50	22 <sup>h</sup> 2	23 <sup>h</sup> 10	15 <sup>h</sup> 11	10 <sup>h</sup> 28	T 25
W26	12 14 42	5 <sup>h</sup> 36'10	7 <sup>h</sup> II49	23 <sup>h</sup> 0	9 <sup>h</sup> 39	21 <sup>h</sup> 41	6 <sup>h</sup> 26	2 <sup>h</sup> 8	7 <sup>h</sup> 50	0 <sup>h</sup> 37	29 <sup>h</sup> 50	22 <sup>h</sup> 4	23 <sup>h</sup> 6	15 <sup>h</sup> 18	10 <sup>h</sup> 32	W26
T 27	12 18 38	6 <sup>h</sup> 35'23	21 <sup>h</sup> 7	22 <sup>h</sup> 26	9 <sup>h</sup> 51	22 <sup>h</sup> 7	6 <sup>h</sup> 31	2 <sup>h</sup> 14	7 <sup>h</sup> 53	0 <sup>h</sup> 38	29 <sup>h</sup> 51	22 <sup>h</sup> 5	23 <sup>h</sup> 3	15 <sup>h</sup> 25	10 <sup>h</sup> 36	T 27
F 28	12 22 35	7 <sup>h</sup> 34'33	4 <sup>h</sup> 5	21 <sup>h</sup> 58	10 <sup>h</sup> 1	22 <sup>h</sup> 34	6 <sup>h</sup> 36	2 <sup>h</sup> 20	7 <sup>h</sup> 57	0 <sup>h</sup> 40	29 <sup>h</sup> 51	22 <sup>h</sup> R 5	23 <sup>h</sup> 0	15 <sup>h</sup> 31	10 <sup>h</sup> 39	F 28
S 29	12 26 31	8 <sup>h</sup> 33'41	16 <sup>h</sup> 35	21 <sup>h</sup> 36	10 <sup>h</sup> 9	23 <sup>h</sup> 0	6 <sup>h</sup> 41	2 <sup>h</sup> 27	8 <sup>h</sup> 0	0 <sup>h</sup> 41	29 <sup>h</sup> 51	22 <sup>h</sup> 5	22 <sup>h</sup> 57	15 <sup>h</sup> 38	10 <sup>h</sup> 43	S 29
S 30	12 30 28	9 <sup>h</sup> 32'47	28 <sup>h</sup> 51	21 <sup>h</sup> 18	10 <sup>h</sup> 14	23 <sup>h</sup> 26	6 <sup>h</sup> 46	2 <sup>h</sup> 33	8 <sup>h</sup> 3	0 <sup>h</sup> 42	29 <sup>h</sup> 52	22 <sup>h</sup> 4	22 <sup>h</sup> 54	15 <sup>h</sup> 45	10 <sup>h</sup> 46	S 30
M31	12 34 24	10 <sup>h</sup> Y31'50	10 <sup>h</sup> 55	21 <sup>h</sup> 7	10 <sup>h</sup> 17	23 <sup>h</sup> 51	6 <sup>h</sup> 52	2 <sup>h</sup> 39	8 <sup>h</sup> 6	0 <sup>h</sup> 43	29 <sup>h</sup> II52	22 <sup>h</sup> Y 3	22 <sup>h</sup> Y51	15 <sup>h</sup> 51	10 <sup>h</sup> 50	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	7s33	28n14	4n58	0n55	1n31	13n18	3n35	21s15	0n41	23n35	0n13	13s 3	1s23	9s50	0s44	19s55	0n17	18n57	4s32	8n56	9n29	10n 3	3s41	4n54	
S 2	7 10	27 6	5 9	1 34	1 45	13 42	3 42	21 20	0 40	23 35	0 13	13 0	1 23	9 49	0 44	19 54	0 17	18 57	4 32	8 54	9 28	10 0	3 39	4 54	
M 3	6 47	24 43	5 5	2 10	1 59	14 6	3 49	21 26	0 39	23 35	0 13	12 58	1 23	9 48	0 44	19 54	0 17	18 57	4 32	8 52	9 27	9 57	3 38	4 54	
T 4	6 24	21 15	4 48	2 42	2 12	14 30	3 57	21 31	0 38	23 35	0 13	12 56	1 23	9 47	0 44	19 54	0 17	18 57	4 32	8 49	9 26	9 54	3 36	4 54	
W 5	6 1	16 58	4 19	3 10	2 25	14 53	4 4	21 36	0 37	23 35	0 13	12 53	1 23	9 45	0 44	19 53	0 17	18 57	4 32	8 46	9 25	9 50	3 35	4 54	
T 6	5 38	12 3	3 38	3 35	2 37	15 16	4 11	21 41	0 36	23 35	0 13	12 51	1 23	9 44	0 44	19 53	0 17	18 57	4 32	8 44	9 23	9 47	3 33	4 54	
F 7	5 15	6 43	2 48	3 56	2 49	15 38	4 19	21 46	0 35	23 35	0 13	12 48	1 23	9 43	0 44	19 53	0 17	18 58	4 32	8 42	9 22	9 44	3 32	4 54	
S 8	4 51	1 8	1 51	4 12	2 59	16 0	4 26	21 51	0 34	23 35	0 13	12 46	1 23	9 42	0 44	19 52	0 17	18 58	4 31	8 40	9 21	9 41	3 31	4 54	
S 9	4 28	4s30	0 49	4 24	3 9	16 21	4 33	21 56	0 33	23 35	0 13	12 43	1 24	9 40	0 44	19 52	0 17	18 58	4 31	8 39	9 20	9 38	3 29	4 54	
M10	4 4	10 2	0s17	4 31	3 17	16 42	4 40	22 0	0 32	23 35	0 13	12 41	1 24	9 39	0 44	19 51	0 17	18 58	4 31	8 39	9 19	9 35	3 28	4 54	
T 11	3 41	15 16	1 22	4 33	3 24	17 2	4 48	22 5	0 31	23 35	0 14	12 39	1 24	9 38	0 44	19 51	0 17	18 58	4 31	8 40	9 18	9 31	3 26	4 54	
W12	3 17	19 58	2 24	4 31	3 29	17 22	4 55	22 9	0 30	23 35	0 14	12 36	1 24	9 37	0 44	19 51	0 17	18 58	4 31	8 40	9 16	9 28	3 25	4 54	
T 13	2 54	23 54	3 21	4 24	3 32	17 41	5 2	22 14	0 29	23 35	0 14	12 34	1 24	9 35	0 44	19 50	0 17	18 59	4 31	8 41	9 15	9 25	3 23	4 54	
F 14	2 30	26 45	4 10	4 13	3 34	17 59	5 9	22 18	0 28	23 35	0 14	12 32	1 24	9 34	0 44	19 50	0 17	18 59	4 30	8 41	9 14	9 22	3 22	4 54	
S 15	2 6	28 15	4 47	3 58	3 34	18 17	5 16	22 22	0 27	23 35	0 14	12 29	1 24	9 33	0 44	19 50	0 17	18 59	4 30	8 41	9 13	9 18	3 21	4 54	
S 16	1 43	28 6	5 9	3 39	3 32	18 35	5 23	22 26	0 25	23 35	0 14	12 27	1 24	9 32	0 44	19 49	0 17	18 59	4 30	8 41	9 12	9 15	3 19	4 54	
M17	1 19	26 12	5 14	3 17	3 28	18 51	5 30	22 30	0 24	23 35	0 14	12 25	1 24	9 30	0 44	19 49	0 17	18 59	4 30	8 40	9 10	9 12	3 18	4 54	
T 18	0 55	22 33	4 59	2 52	3 22	19 7	5 36	22 34	0 23	23 35	0 14	12 22	1 25	9 29	0 44	19 49	0 17	18 59	4 30	8 39	9 9	9 9	3 16	4 54	
W19	0 32	17 24	4 25	2 24	3 15	19 23	5 43	22 37	0 22	23 35	0 14	12 20	1 25	9 28	0 44	19 49	0 17	18 59	4 30	8 38	9 8	9 6	3 15	4 54	
T 20	0 8	11 6	3 31	1 55	3 6	19 37	5 49	22 41	0 21	23 35	0 14	12 18	1 25	9 27	0 44	19 48	0 17	19 0	4 29	8 37	9 7	9 2	3 14	4 54	
F 21	0n16	4 6	2 23	1 24	2 55	19 51	5 56	22 45	0 19	23 35	0 14	12 15	1 25	9 26	0 44	19 48	0 17	19 0	4 29	8 36	9 6	8 59	3 12	4 54	
S 22	0 39	3n 7	1 4	0 52	2 43	20 4	6 2	22 48	0 18	23 35	0 14	12 13	1 25	9 24	0 44	19 48	0 17	19 0	4 29	8 35	9 5	8 56	3 11	4 54	
S 23	1 3	10 4	0n18	0 21	2 30	20 16	6 8	22 51	0 17	23 35	0 14	12 11	1 25	9 23	0 44	19 47	0 17	19 0	4 29	8 35	9 3	8 53	3 9	4 54	
M24	1 27	16 20	1 37	0s10	2 16	20 28	6 14	22 55	0 15	23 35	0 14	12 9	1 25	9 22	0 44	19 47	0 17	19 0	4 29	8 36	9 2	8 49	3 8	4 55	
T 25	1 50	21 32	2 48	0 41	2 1	20 39	6 19	22 58	0 14	23 34	0 15	12 6	1 25	9 21	0 44	19 47	0 17	19 0	4 29	8 36	9 1	8 46	3 6	4 55	
W26	2 14	25 23	3 47	1 10	1 46	20 48	6 25	23 1	0 12	23 34	0 15	12 4	1 26	9 20	0 44	19 47	0 17	19 1	4 29	8 37	9 0	8 43	3 5	4 55	
T 27	2 37	27 42	4 32	1 38	1 30	20 57	6 30	23 4	0 11	23 34	0 15	12 2	1 26	9 19	0 44	19 46	0 17	19 1	4 28	8 37	8 59	8 40	3 4	4 55	
F 28	3 1	28 26	5 1	2 3	1 14	21 5	6 35	23 7	0 9	23 34	0 15	12 0	1 26	9 17	0 44	19 46	0 17	19 1	4 28	8 37	8 58	8 36	3 2	4 55	
S 29	3 24	27 40	5 15	2 27	0 58	21 11	6 39	23 10	0 8	23 34	0 15	11 58	1 26	9 16	0 44	19 46	0 17	19 1	4 28	8 37	8 56	8 33	3 1	4 55	
S 30	3 47	25 33	5 14	2 48	0 43	21 17	6 43	23 13	0 6	23 34	0 15	11 55	1 26	9 15	0 44	19 46	0 17	19 1	4 28	8 37	8 55	8 30	2 59	4 55	
M31	4n11	22n19	5n 0	3s 7	0m27	21n22	6n47	23s16	0n 5	23n33	0n15	11s53	1s26	9s14	0s44	19s45	0n17	19n 1	4s28	8n36	8n54	8n27	2s58	4n55	



ASTRODIENST EPHEMERIS for the year 1670  
geocentric

MAY 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	14 36 38	10♌46'34	24♍56	18♍18	26♍50	4♌13	10♌48	5♌26	9♌26	1♌1	0♌15	21♍57	21♍12	19♍18	12♌23	T 1
F 2	14 40 34	11°44'36	6♌49	19°53	26♍22	4°26	10°58	5°30	9°28	1° 1	0°16	21°59	21° 9	19°25	12°25	F 2
S 3	14 44 31	12°42'36	18°48	21°30	25°57	4°38	11° 8	5°34	9°30	1°R 1	0°17	21°R59	21° 6	19°31	12°27	S 3
S 4	14 48 27	13°40'34	0♍57	23° 8	25°34	4°50	11°17	5°39	9°32	1° 1	0°18	21°59	21° 3	19°38	12°30	S 4
M 5	14 52 24	14°38'31	13°17	24°49	25°13	5° 1	11°27	5°43	9°33	1° 1	0°19	21°58	20°59	19°45	12°32	M 5
T 6	14 56 20	15°36'27	25°51	26°32	24°54	5°12	11°37	5°47	9°35	1° 0	0°20	21°55	20°56	19°51	12°34	T 6
W 7	15 0 17	16°34'21	8♌38	28°16	24°37	5°22	11°47	5°50	9°37	1° 0	0°21	21°52	20°53	19°58	12°36	W 7
T 8	15 4 13	17°32'13	21°39	0♌ 3	24°23	5°31	11°57	5°54	9°39	1° 0	0°22	21°48	20°50	20° 5	12°38	T 8
F 9	15 8 10	18°30'04	4♌54	1°51	24°12	5°40	12° 8	5°58	9°41	1° 0	0°23	21°44	20°47	20°11	12°40	F 9
S 10	15 12 7	19°27'54	18°22	3°42	24° 3	5°48	12°18	6° 2	9°42	1° 0	0°25	21°41	20°43	20°18	12°42	S 10
S 11	15 16 3	20°25'43	2♌ 4	5°34	23°56	5°56	12°29	6° 5	9°44	1° 0	0°26	21°38	20°40	20°25	12°44	S 11
M12	15 20 0	21°23'31	15°57	7°29	23°52	6° 3	12°39	6° 9	9°46	0°59	0°27	21°D37	20°37	20°31	12°46	M12
T 13	15 23 56	22°21'17	0♌ 2	9°25	23°D50	6° 9	12°50	6°12	9°47	0°59	0°28	21°37	20°34	20°38	12°48	T 13
W14	15 27 53	23°19'02	14°16	11°23	23°50	6°14	13° 0	6°15	9°49	0°59	0°29	21°38	20°31	20°45	12°50	W14
T 15	15 31 49	24°16'46	28°39	13°24	23°53	6°19	13°11	6°19	9°50	0°58	0°30	21°40	20°28	20°51	12°52	T 15
F 16	15 35 46	25°14'29	13♍ 6	15°26	23°58	6°23	13°22	6°22	9°52	0°58	0°32	21°41	20°24	20°58	12°53	F 16
S 17	15 39 42	26°12'11	27°35	17°29	24° 6	6°27	13°33	6°25	9°53	0°57	0°33	21°R41	20°21	21° 5	12°55	S 17
S 18	15 43 39	27° 9'52	12♌ 0	19°35	24°15	6°29	13°44	6°28	9°54	0°57	0°34	21°39	20°18	21°11	12°57	S 18
M19	15 47 36	28° 7'32	26°15	21°42	24°27	6°31	13°55	6°31	9°56	0°56	0°35	21°36	20°15	21°18	12°58	M19
T 20	15 51 32	29° 5'10	10♍17	23°50	24°41	6°32	14° 6	6°33	9°57	0°56	0°37	21°31	20°12	21°25	13° 0	T 20
W21	15 55 29	0♍ 2'48	24° 0	25°59	24°56	6°R33	14°18	6°36	9°58	0°55	0°38	21°26	20° 9	21°31	13° 1	W21
T 22	15 59 25	1° 0'24	7♌22	28°10	25°14	6°33	14°29	6°39	9°59	0°55	0°39	21°19	20° 5	21°38	13° 3	T 22
F 23	16 3 22	1°57'58	20°22	0♍21	25°33	6°32	14°40	6°41	10° 0	0°54	0°41	21°13	20° 2	21°45	13° 4	F 23
S 24	16 7 18	2°55'31	3♌ 1	2°33	25°54	6°30	14°52	6°44	10° 1	0°54	0°42	21° 8	19°59	21°51	13° 5	S 24
S 25	16 11 15	3°53'03	15°21	4°45	26°17	6°27	15° 3	6°46	10° 2	0°53	0°43	21° 4	19°56	21°58	13° 6	S 25
M26	16 15 12	4°50'34	27°26	6°56	26°42	6°24	15°15	6°48	10° 3	0°52	0°45	21° 3	19°53	22° 5	13° 8	M26
T 27	16 19 8	5°48'03	9♍22	9° 8	27° 8	6°20	15°27	6°50	10° 4	0°51	0°46	21°D 2	19°49	22°11	13° 9	T 27
W28	16 23 5	6°45'31	21°12	11°19	27°36	6°15	15°38	6°52	10° 5	0°51	0°47	21° 3	19°46	22°18	13°10	W28
T 29	16 27 1	7°42'57	3♌ 1	13°30	28° 5	6°10	15°50	6°54	10° 6	0°50	0°49	21° 5	19°43	22°25	13°11	T 29
F 30	16 30 58	8°40'23	14°56	15°39	28°36	6° 3	16° 2	6°56	10° 7	0°49	0°50	21°R 6	19°40	22°31	13°12	F 30
S 31	16 34 54	9♍37'47	27♌ 0	17♍47	29♍ 8	5♌56	16♌14	6♌58	10♌ 7	0♌48	0♌51	21♍ 6	19♍37	22♍38	13♌13	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	15n 5	4n13	2n24	4n43	2s41	13n53	3n47	24s28	1s 3	23n19	0n17	10s57	1s31	8s45	0s45	19s42
F 2	15 23	1s26	1 23	5 22	2 37	13 29	3 32	24 31	1 6	23 19	0 17	10 56	1 32	8 44	0 45	19 42
S 3	15 41	7 6	0 18	6 2	2 33	13 7	3 18	24 33	1 9	23 18	0 17	10 55	1 32	8 43	0 45	19 42
S 4	15 58	12 36	0s49	6 43	2 28	12 45	3 3	24 36	1 12	23 17	0 17	10 53	1 32	8 43	0 45	19 42
M 5	16 16	17 41	1 55	7 25	2 23	12 24	2 49	24 39	1 15	23 16	0 17	10 52	1 32	8 42	0 45	19 42
T 6	16 33	22 6	2 56	8 7	2 17	12 3	2 35	24 41	1 18	23 16	0 17	10 51	1 32	8 41	0 45	19 42
W 7	16 49	25 33	3 49	8 50	2 11	11 44	2 21	24 44	1 22	23 15	0 17	10 49	1 33	8 41	0 45	19 42
T 8	17 6	27 44	4 31	9 34	2 4	11 26	2 7	24 47	1 25	23 14	0 17	10 48	1 33	8 40	0 45	19 42
F 9	17 22	28 23	5 0	10 19	1 57	11 9	1 53	24 50	1 28	23 13	0 17	10 47	1 33	8 39	0 45	19 42
S 10	17 38	27 23	5 13	11 3	1 49	10 53	1 39	24 53	1 32	23 12	0 17	10 46	1 33	8 39	0 45	19 42
S 11	17 53	24 44	5 8	11 49	1 41	10 38	1 26	24 56	1 35	23 11	0 18	10 45	1 34	8 38	0 45	19 42
M12	18 9	20 37	4 46	12 34	1 33	10 24	1 13	24 59	1 38	23 10	0 18	10 44	1 34	8 38	0 45	19 42
T 13	18 24	15 19	4 6	13 20	1 24	10 12	1 0	25 2	1 42	23 9	0 18	10 42	1 34	8 37	0 45	19 42
W14	18 38	9 8	3 10	14 6	1 15	10 0	0 48	25 6	1 45	23 8	0 18	10 41	1 34	8 36	0 46	19 42
T 15	18 53	2 25	2 3	14 51	1 5	9 50	0 36	25 9	1 49	23 7	0 18	10 40	1 34	8 36	0 46	19 42
F 16	19 7	4n28	0 47	15 37	0 55	9 41	0 24	25 12	1 53	23 6	0 18	10 39	1 35	8 35	0 46	19 42
S 17	19 20	11 8	0n32	16 22	0 45	9 33	0 12	25 16	1 56	23 5	0 18	10 39	1 35	8 35	0 46	19 42
S 18	19 34	17 11	1 49	17 6	0 35	9 27	0 1	25 20	2 0	23 4	0 18	10 38	1 35	8 34	0 46	19 42
M19	19 47	22 13	2 57	17 50	0 24	9 21	0s 9	25 23	2 4	23 3	0 18	10 37	1 35	8 34	0 46	19 43
T 20	20 0	25 53	3 54	18 33	0 13	9 16	0 20	25 27	2 8	23 2	0 18	10 36	1 35	8 34	0 46	19 43
W21	20 12	27 56	4 36	19 15	0 3	9 13	0 30	25 31	2 12	23 1	0 18	10 35	1 36	8 33	0 46	19 43
T 22	20 24	28 17	5 1	19 55	0n 8	9 10	0 39	25 35	2 16	23 0	0 18	10 34	1 36	8 33	0 46	19 43
F 23	20 36	27 3	5 10	20 34	0 18	9 8	0 49	25 39	2 20	22 59	0 18	10 34	1 36	8 32	0 46	19 43
S 24	20 47	24 26	5 3	21 11	0 29	9 8	0 58	25 43	2 24	22 57	0 18	10 33	1 36	8 32	0 46	19 43
S 25	20 58	20 46	4 43	21 45	0 39	9 8	1 6	25 47	2 28	22 56	0 18	10 32	1 37	8 32	0 46	19 43
M26	21 9	16 17	4 10	22 18	0 48	9 9	1 15	25 51	2 32	22 55	0 18	10 32	1 37	8 31	0 46	19 43
T 27	21 19	11 16	3 27	22 49	0 58	9 11	1 23	25 56	2 36	22 54	0 19	10 31	1 37	8 31	0 46	19 44
W28	21 29	5 52	2 35	23 17	1 7	9 14	1 30	26 0	2 40	22 52	0 19	10 31	1 37	8 31	0 46	19 44
T 29	21 38	0 16	1 36	23 42	1 15	9 18	1 38	26 5	2 44	22 51	0 19	10 30	1 37	8 30	0 46	19 44
F 30	21 47	5s23	0 33	24 5	1 23	9 22	1 45	26 9	2 48	22 50	0 19	10 30	1 38	8 30	0 46	19 44
S 31	21n56	10s55	0s32	24n25	1n30	9n27	1s51	26s14	2s53	22n48	0n19	10s29	1s38	8s30	0s46	19s44

Julian Day Number = 2331135.5, Delta T = 29.53 sec  
Ecliptic obliquity = 23°29'04, Nutation = - 0°00'07, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°08'19, Lahiri = 19°15'19Greg. Calendar



# ASTRODIENST EPHEMERIS for the year 1670

## geocentric

JUNE 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 38 51	10 <sup>II</sup> 53'10	9 <sup>III</sup> 18	19 <sup>II</sup> 53	29 <sup>Y</sup> 41	5°R49	16 <sup>26</sup> 26	7 <sup>H</sup> 0	10 <sup>H</sup> 8	0°R47	0 <sup>26</sup> 53	21°R 4	19 <sup>Y</sup> 34	22 <sup>III</sup> 45	13 <sup>H</sup> 14	S 1
M 2	16 42 47	11°32'32	21°51	21°58	0 <sup>8</sup> 16	5 <sup>26</sup> 40	16°38	7° 1	10° 9	0 <sup>26</sup> 46	0°54	21 <sup>Y</sup> 0	19°30	22°51	13°14	M 2
T 3	16 46 44	12°29'53	4 <sup>27</sup> 42	24° 0	0°52	5°31	16°50	7° 3	10° 9	0°46	0°56	20°54	19°27	22°58	13°15	T 3
W 4	16 50 41	13°27'14	17°51	26° 1	1°29	5°21	17° 2	7° 4	10°10	0°45	0°57	20°47	19°24	23° 5	13°16	W 4
T 5	16 54 37	14°24'34	1 <sup>3</sup> 16	28° 0	2° 8	5°11	17°15	7° 5	10°10	0°44	0°59	20°38	19°21	23°11	13°17	T 5
F 6	16 58 34	15°21'53	14°56	29°57	2°47	4°59	17°27	7° 6	10°11	0°43	1° 0	20°29	19°18	23°18	13°17	F 6
S 7	17 2 30	16°19'11	28°47	1 <sup>3</sup> 51	3°28	4°48	17°39	7° 8	10°11	0°42	1° 1	20°21	19°15	23°25	13°18	S 7
S 8	17 6 27	17°16'29	12 <sup>27</sup> 47	3°43	4° 9	4°35	17°51	7° 9	10°11	0°41	1° 3	20°15	19°11	23°31	13°18	S 8
M 9	17 10 23	18°13'47	26°52	5°32	4°52	4°22	18° 4	7° 9	10°12	0°40	1° 4	20°11	19° 8	23°38	13°19	M 9
T 10	17 14 20	19°11'04	11 <sup>H</sup> 0	7°20	5°35	4° 8	18°16	7°10	10°12	0°38	1° 6	20° 9	19° 5	23°45	13°19	T 10
W11	17 18 16	20° 8'21	25° 9	9° 4	6°20	3°54	18°29	7°11	10°12	0°37	1° 7	20°D 9	19° 2	23°51	13°19	W11
T 12	17 22 13	21° 5'37	9 <sup>Y</sup> 17	10°47	7° 5	3°39	18°41	7°11	10°12	0°36	1° 9	20° 9	18°59	23°58	13°20	T 12
F 13	17 26 10	22° 2'53	23°25	12°27	7°51	3°24	18°54	7°12	10°12	0°35	1°10	20°R 9	18°55	24° 5	13°20	F 13
S 14	17 30 6	23° 0'09	7 <sup>8</sup> 29	14° 4	8°38	3° 8	19° 7	7°12	10°R12	0°34	1°12	20° 8	18°52	24°11	13°20	S 14
S 15	17 34 3	23°57'25	21°28	15°39	9°26	2°52	19°19	7°13	10°12	0°33	1°13	20° 5	18°49	24°18	13°20	S 15
M16	17 37 59	24°54'41	5 <sup>II</sup> 19	17°11	10°14	2°35	19°32	7°13	10°12	0°31	1°14	19°59	18°46	24°25	13°R20	M16
T 17	17 41 56	25°51'56	18°59	18°41	11° 4	2°18	19°45	7°R13	10°12	0°30	1°16	19°50	18°43	24°31	13°20	T 17
W18	17 45 52	26°49'11	2 <sup>26</sup> 52	20° 9	11°53	2° 1	19°57	7°13	10°12	0°29	1°17	19°40	18°40	24°38	13°20	W18
T 19	17 49 49	27°46'26	15°35	21°34	12°44	1°43	20°10	7°13	10°12	0°28	1°19	19°29	18°36	24°45	13°20	T 19
F 20	17 53 45	28°43'40	28°27	22°56	13°35	1°25	20°23	7°13	10°12	0°26	1°20	19°18	18°33	24°51	13°20	F 20
S 21	17 57 42	29°40'54	11 <sup>II</sup> 0	24°16	14°27	1° 7	20°36	7°12	10°11	0°25	1°22	19° 8	18°30	24°58	13°19	S 21
S 22	18 1 39	0 <sup>26</sup> 38'07	23°18	25°33	15°19	0°49	20°49	7°12	10°11	0°24	1°23	19° 0	18°27	25° 5	13°19	S 22
M23	18 5 35	1°35'20	5 <sup>III</sup> 22	26°47	16°12	0°31	21° 2	7°11	10°11	0°22	1°25	18°55	18°24	25°11	13°19	M23
T 24	18 9 32	2°32'32	17°16	27°59	17° 6	0°12	21°15	7°11	10°10	0°21	1°26	18°52	18°21	25°18	13°18	T 24
W25	18 13 28	3°29'44	29° 6	29° 7	18° 0	29 <sup>27</sup> 54	21°28	7°10	10°10	0°19	1°28	18°D51	18°17	25°24	13°18	W25
T 26	18 17 25	4°26'56	10 <sup>26</sup> 55	0 <sup>II</sup> 13	18°54	29°35	21°41	7° 9	10° 9	0°18	1°29	18°51	18°14	25°31	13°17	T 26
F 27	18 21 21	5°24'07	22°51	1°16	19°49	29°17	21°54	7° 8	10° 9	0°17	1°31	18°R51	18°11	25°38	13°17	F 27
S 28	18 25 18	6°21'18	4 <sup>III</sup> 57	2°15	20°45	28°59	22° 7	7° 7	10° 8	0°15	1°32	18°50	18° 8	25°44	13°16	S 28
S 29	18 29 14	7°18'28	17°20	3°12	21°41	28°41	22°20	7° 6	10° 7	0°14	1°34	18°47	18° 5	25°51	13°15	S 29
M30	18 33 11	8 <sup>26</sup> 15'39	0 <sup>27</sup> 2	4 <sup>II</sup> 5	22 <sup>8</sup> 37	28 <sup>27</sup> 23	22 <sup>26</sup> 33	7 <sup>H</sup> 5	10 <sup>H</sup> 7	0 <sup>26</sup> 12	1 <sup>26</sup> 35	18 <sup>Y</sup> 42	18 <sup>Y</sup> 1	25 <sup>III</sup> 58	13 <sup>H</sup> 14	M30

Day	☉	☾		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	22n 5	16s 9	1s37	24n42	1n37	9n33	1s58	26s18	2s57	22n47	0n19	10s29	1s38	8s30	0s46	19s45	0n17	19n 9	4s20	8n14	7n40	5n 1	1s54	5n 6	
M 2	22 13	20 48	2 38	24 57	1 42	9 39	2 4	26 23	3 1	22 46	0 19	10 28	1 38	8 30	0 46	19 45	0 17	19 9	4 20	8 13	7 39	4 58	1 53	5 6	
T 3	22 20	24 36	3 32	25 8	1 47	9 46	2 9	26 27	3 5	22 44	0 19	10 28	1 39	8 29	0 46	19 45	0 17	19 9	4 20	8 10	7 38	4 55	1 53	5 6	
W 4	22 27	27 12	4 17	25 17	1 52	9 54	2 15	26 32	3 10	22 43	0 19	10 28	1 39	8 29	0 46	19 45	0 17	19 9	4 20	8 8	7 36	4 51	1 52	5 7	
T 5	22 34	28 17	4 48	25 24	1 56	10 2	2 20	26 37	3 14	22 41	0 19	10 27	1 39	8 29	0 46	19 45	0 17	19 9	4 19	8 4	7 35	4 48	1 52	5 7	
F 6	22 41	27 41	5 4	25 28	1 58	10 11	2 25	26 41	3 18	22 40	0 19	10 27	1 39	8 29	0 46	19 46	0 17	19 9	4 19	8 1	7 34	4 44	1 51	5 7	
S 7	22 47	25 22	5 2	25 29	2 1	10 21	2 30	26 46	3 22	22 38	0 19	10 27	1 40	8 29	0 46	19 46	0 17	19 9	4 19	7 58	7 33	4 41	1 51	5 7	
S 8	22 52	21 31	4 42	25 28	2 2	10 30	2 34	26 51	3 27	22 37	0 19	10 27	1 40	8 29	0 46	19 46	0 17	19 10	4 19	7 56	7 32	4 38	1 50	5 8	
M 9	22 58	16 25	4 5	25 25	2 3	10 41	2 38	26 55	3 31	22 35	0 19	10 27	1 40	8 29	0 47	19 46	0 17	19 10	4 19	7 54	7 30	4 34	1 50	5 8	
T 10	23 3	10 26	3 13	25 19	2 3	10 51	2 42	27 0	3 35	22 33	0 19	10 27	1 40	8 29	0 47	19 47	0 17	19 10	4 19	7 53	7 29	4 31	1 50	5 8	
W11	23 7	3 55	2 10	25 12	2 2	11 3	2 46	27 4	3 39	22 32	0 20	10 27	1 41	8 29	0 47	19 47	0 17	19 10	4 19	7 53	7 28	4 28	1 49	5 8	
T 12	23 11	2n48	0 58	25 3	2 0	11 14	2 49	27 9	3 43	22 30	0 20	10 27	1 41	8 29	0 47	19 47	0 17	19 10	4 19	7 53	7 27	4 24	1 49	5 9	
F 13	23 15	9 23	0n17	24 52	1 58	11 26	2 53	27 13	3 47	22 28	0 20	10 27	1 41	8 29	0 47	19 47	0 17	19 10	4 19	7 54	7 26	4 21	1 49	5 9	
S 14	23 18	15 28	1 31	24 39	1 55	11 38	2 56	27 18	3 51	22 27	0 20	10 27	1 41	8 29	0 47	19 48	0 17	19 10	4 19	7 53	7 24	4 17	1 48	5 9	
S 15	23 21	20 43	2 39	24 25	1 52	11 51	2 58	27 22	3 55	22 25	0 20	10 27	1 41	8 29	0 47	19 48	0 17	19 10	4 19	7 52	7 23	4 14	1 48	5 9	
M16	23 23	24 46	3 36	24 9	1 47	12 3	3 1	27 26	3 59	22 23	0 20	10 27	1 42	8 29	0 47	19 48	0 17	19 10	4 19	7 50	7 22	4 11	1 48	5 10	
T 17	23 25	27 21	4 20	23 52	1 42	12 16	3 3	27 30	4 2	22 21	0 20	10 27	1 42	8 29	0 47	19 48	0 17	19 10	4 19	7 46	7 21	4 7	1 48	5 10	
W18	23 27	28 17	4 49	23 34	1 37	12 29	3 5	27 34	4 6	22 20	0 20	10 27	1 42	8 29	0 47	19 49	0 17	19 10	4 19	7 42	7 20	4 4	1 47	5 10	
T 19	23 28	27 34	5 2	23 15	1 31	12 43	3 7	27 38	4 10	22 18	0 20	10 28	1 42	8 29	0 47	19 49	0 17	19 10	4 19	7 38	7 18	4 0	1 47	5 10	
F 20	23 29	25 23	4 59	22 54	1 24	12 56	3 9	27 42	4 13	22 16	0 20	10 28	1 43	8 29	0 47	19 49	0 17	19 10	4 18	7 34	7 17	3 57	1 47	5 10	
S 21	23 29	22 0	4 41	22 33	1 16	13 10	3 11	27 45	4 17	22 14	0 20	10 28	1 43	8 29	0 47	19 49	0 17	19 10	4 18	7 30	7 16	3 54	1 47	5 11	
S 22	23 29	17 43	4 11	22 11	1 8	13 24	3 12	27 49	4 20	22 12	0 20	10 29	1 43	8 29	0 47	19 50	0 17	19 10	4 18	7 27	7 15	3 50	1 47	5 11	
M23	23 28	12 48	3 29	21 49	1 0	13 38	3 13	27 52	4 23	22 10	0 20	10 29	1 43	8 30	0 47	19 50	0 17	19 10	4 18	7 25	7 13	3 47	1 47	5 11	
T 24	23 28	7 29	2 39	21 26	0 51	13 52	3 14	27 55	4 26	22 8	0 20	10 30	1 44	8 30	0 47	19 50	0 17	19 10	4 18	7 24	7 12	3 43	1 47	5 11	
W25	23 26	1 56	1 43	21 2	0 41	14 6	3 15	27 58	4 29	22 6	0 21	10 30	1 44	8 30	0 47	19 51	0 17	19 10	4 18	7 24	7 11	3 40	1 47	5 12	
T 26	23 25	3s41	0 42	20 39	0 31	14 20	3 16	28 1	4 32	22 4	0 21	10 31	1 44	8 30	0 47	19 51	0 17	19 10	4 18	7 24	7 10	3 37	1 47	5 12	
F 27	23 22	9 14	0s21	20 15	0 20	14 35	3 16	28 4	4 35	22 2	0 21	10 31	1 44	8 30	0 47	19 51	0 17	19 10	4 18	7 24	7 9	3 33	1 47	5 12	
S 28	23 20	14 31	1 24	19 50	0 9	14 49	3 16	28 7	4 38	22 0	0 21	10 32	1 44	8 31	0 47	19 52	0 17	19 11	4 18	7 23	7 7	3 30	1 47	5 12	
S 29	23 17	19 21	2 25	19 26	0s 3	15 3	3 17	28 9	4 40	21 58	0 21	10 32	1 45	8 31	0 47	19 52	0 17	19 11	4 18	7 22	7 6	3 26	1 47	5 13	
M30	23n14	23s27	3s20	19n 2	0s15	15n18	3s17	28s11	4s43	21n56	0n21	10s33	1s45	8s31	0s47	19s52	0n17	19n11	4s18	7n20	7n 5	3n23	1s47	5n13	

# ASTRODIENST EPHEMERIS for the year 1670

## geocentric

JULY 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 37 8	9 <sup>52</sup> 12'49	13 <sup>57</sup> 6	4 <sup>55</sup> 55	23 <sup>38</sup> 34	28°R 6	22 <sup>56</sup> 46	7°R 4	10°R 6	0°R11	1 <sup>53</sup> 37	18°R34	17°Y58	26 <sup>17</sup> 4	13°R14	T 1
W 2	18 41 4	10°10'00	26°32	5°41	24°32	27 <sup>57</sup> 49	22°59	7 <sup>57</sup> 2	10 <sup>57</sup> 5	0 <sup>58</sup> 9	1°38	18°Y24	17°55	26°11	13 <sup>57</sup> 13	W 2
T 3	18 45 1	11° 7'10	10 <sup>53</sup> 20	6°24	25°29	27°32	23°13	7° 1	10° 4	0° 8	1°40	18°13	17°52	26°18	13°12	T 3
F 4	18 48 57	12° 4'21	24°25	7° 2	26°27	27°16	23°26	6°59	10° 3	0° 6	1°41	18° 1	17°49	26°24	13°11	F 4
S 5	18 52 54	13° 1'31	8 <sup>53</sup> 42	7°37	27°26	27° 0	23°39	6°58	10° 2	0° 5	1°42	17°51	17°46	26°31	13°10	S 5
S 6	18 56 50	13°58'42	23° 7	8° 8	28°25	26°44	23°52	6°56	10° 1	0° 3	1°44	17°42	17°42	26°38	13° 9	S 6
M 7	19 0 47	14°55'54	7 <sup>57</sup> 32	8°35	29°24	26°29	24° 6	6°54	10° 0	0° 2	1°45	17°36	17°39	26°44	13° 8	M 7
T 8	19 4 44	15°53'06	21°53	8°57	0 <sup>57</sup> 24	26°15	24°19	6°52	9°59	0° 0	1°47	17°33	17°36	26°51	13° 7	T 8
W 9	19 8 40	16°50'18	6 <sup>57</sup> 8	9°15	1°24	26° 1	24°32	6°50	9°58	29 <sup>57</sup> 59	1°48	17°32	17°33	26°58	13° 5	W 9
T 10	19 12 37	17°47'31	20°14	9°28	2°24	25°48	24°45	6°48	9°57	29°57	1°50	17°32	17°30	27° 4	13° 4	T 10
F 11	19 16 33	18°44'45	4 <sup>57</sup> 11	9°37	3°25	25°35	24°59	6°46	9°56	29°55	1°51	17°31	17°27	27°11	13° 3	F 11
S 12	19 20 30	19°41'59	17°58	9°R40	4°26	25°23	25°12	6°44	9°55	29°54	1°53	17°30	17°23	27°18	13° 1	S 12
S 13	19 24 26	20°39'15	1 <sup>57</sup> 36	9°39	5°27	25°12	25°25	6°41	9°53	29°52	1°54	17°25	17°20	27°24	13° 0	S 13
M14	19 28 23	21°36'31	15° 4	9°33	6°29	25° 1	25°39	6°39	9°52	29°51	1°55	17°18	17°17	27°31	12°58	M14
T 15	19 32 19	22°33'47	28°20	9°23	7°31	24°51	25°52	6°36	9°51	29°49	1°57	17° 9	17°14	27°38	12°57	T 15
W16	19 36 16	23°31'05	11 <sup>57</sup> 25	9° 7	8°33	24°42	26° 5	6°34	9°49	29°47	1°58	16°57	17°11	27°44	12°55	W16
T 17	19 40 13	24°28'22	24°16	8°47	9°35	24°33	26°19	6°31	9°48	29°46	2° 0	16°44	17° 7	27°51	12°54	T 17
F 18	19 44 9	25°25'41	6 <sup>57</sup> 53	8°22	10°38	24°26	26°32	6°28	9°46	29°44	2° 1	16°31	17° 4	27°58	12°52	F 18
S 19	19 48 6	26°23'00	19°17	7°53	11°41	24°19	26°45	6°25	9°45	29°42	2° 2	16°20	17° 1	28° 4	12°50	S 19
S 20	19 52 2	27°20'19	1 <sup>57</sup> 27	7°20	12°44	24°13	26°59	6°22	9°43	29°41	2° 4	16°11	16°58	28°11	12°49	S 20
M21	19 55 59	28°17'39	13°27	6°44	13°47	24° 8	27°12	6°19	9°42	29°39	2° 5	16° 4	16°55	28°18	12°47	M21
T 22	19 59 55	29°15'00	25°18	6° 4	14°51	24° 4	27°25	6°16	9°40	29°38	2° 6	16° 0	16°52	28°24	12°45	T 22
W23	20 3 52	0 <sup>57</sup> 12'20	7 <sup>57</sup> 6	5°23	15°55	24° 0	27°39	6°13	9°38	29°36	2° 8	15°59	16°48	28°31	12°43	W23
T 24	20 7 48	1° 9'42	18°54	4°39	16°59	23°58	27°52	6°10	9°37	29°34	2° 9	15°D58	16°45	28°37	12°41	T 24
F 25	20 11 45	2° 7'04	0 <sup>57</sup> 49	3°55	18° 3	23°56	28° 5	6° 6	9°35	29°33	2°10	15°R58	16°42	28°44	12°39	F 25
S 26	20 15 42	3° 4'27	12°55	3°11	19° 8	23°55	28°19	6° 3	9°33	29°31	2°12	15°58	16°39	28°51	12°37	S 26
S 27	20 19 38	4° 1'50	25°17	2°27	20°12	23°D55	28°32	6° 0	9°31	29°29	2°13	15°56	16°36	28°57	12°35	S 27
M28	20 23 35	4°59'14	8 <sup>57</sup> 2	1°44	21°17	23°56	28°45	5°56	9°30	29°28	2°14	15°52	16°33	29° 4	12°33	M28
T 29	20 27 31	5°56'38	21°11	1° 4	22°22	23°57	28°58	5°52	9°28	29°26	2°15	15°46	16°29	29°11	12°31	T 29
W30	20 31 28	6°54'04	4 <sup>57</sup> 46	0°27	23°28	24° 0	29°12	5°49	9°26	29°25	2°17	15°37	16°26	29°17	12°29	W30
T 31	20 35 24	7 <sup>57</sup> 51'30	18 <sup>57</sup> 48	29 <sup>57</sup> 53	24 <sup>57</sup> 33	24 <sup>57</sup> 3	29 <sup>57</sup> 25	5 <sup>57</sup> 45	9 <sup>57</sup> 24	29 <sup>57</sup> 23	2 <sup>57</sup> 18	15 <sup>57</sup> Y27	16 <sup>57</sup> Y23	29 <sup>57</sup> 24	12 <sup>57</sup> 26	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	23n10	26s28	4s 6	18n38	0s27	15n32	3s16	28s13	4s45	21n54	0n21	10s34	1s45	8s32	0s47	19s53
W 2	23 6	28 6	4 39	18 14	0 40	15 46	3 16	28 15	4 47	21 52	0 21	10 34	1 45	8 32	0 47	19 53
T 3	23 1	28 2	4 58	17 51	0 53	16 0	3 16	28 17	4 49	21 50	0 21	10 35	1 46	8 32	0 47	19 53
F 4	22 56	26 10	4 59	17 28	1 7	16 14	3 15	28 18	4 51	21 48	0 21	10 36	1 46	8 33	0 47	19 54
S 5	22 51	22 38	4 41	17 6	1 21	16 28	3 15	28 20	4 53	21 46	0 21	10 37	1 46	8 33	0 47	19 54
S 6	22 45	17 42	4 6	16 45	1 35	16 42	3 14	28 21	4 54	21 43	0 21	10 38	1 46	8 34	0 48	19 54
M 7	22 39	11 46	3 14	16 24	1 49	16 55	3 13	28 22	4 56	21 41	0 21	10 39	1 47	8 34	0 48	19 55
T 8	22 32	5 14	2 11	16 4	2 3	17 9	3 12	28 23	4 57	21 39	0 22	10 39	1 47	8 34	0 48	19 55
W 9	22 25	1n31	1 0	15 46	2 18	17 22	3 10	28 24	4 58	21 37	0 22	10 40	1 47	8 35	0 48	19 55
T 10	22 18	8 9	0n14	15 28	2 32	17 35	3 9	28 24	4 59	21 34	0 22	10 41	1 47	8 35	0 48	19 56
F 11	22 10	14 18	1 27	15 12	2 47	17 48	3 8	28 25	5 0	21 32	0 22	10 42	1 47	8 36	0 48	19 56
S 12	22 2	19 40	2 33	14 57	3 1	18 1	3 6	28 25	5 1	21 30	0 22	10 43	1 48	8 36	0 48	19 56
S 13	21 54	23 57	3 30	14 44	3 15	18 14	3 5	28 25	5 2	21 27	0 22	10 45	1 48	8 37	0 48	19 57
M14	21 45	26 52	4 15	14 32	3 28	18 26	3 3	28 26	5 2	21 25	0 22	10 46	1 48	8 37	0 48	19 57
T 15	21 36	28 13	4 45	14 23	3 42	18 38	3 1	28 26	5 3	21 23	0 22	10 47	1 48	8 38	0 48	19 57
W16	21 26	27 57	4 59	14 15	3 54	18 49	2 59	28 26	5 3	21 20	0 22	10 48	1 48	8 38	0 48	19 58
T 17	21 16	26 11	4 58	14 9	4 6	19 1	2 57	28 25	5 3	21 18	0 22	10 49	1 49	8 39	0 48	19 58
F 18	21 6	23 8	4 42	14 4	4 17	19 12	2 55	28 25	5 3	21 15	0 22	10 50	1 49	8 40	0 48	19 58
S 19	20 55	19 4	4 13	14 2	4 26	19 23	2 53	28 25	5 3	21 13	0 22	10 52	1 49	8 40	0 48	19 59
S 20	20 44	14 17	3 33	14 2	4 35	19 33	2 50	28 25	5 3	21 10	0 23	10 53	1 49	8 41	0 48	19 59
M21	20 33	9 2	2 43	14 4	4 42	19 43	2 48	28 24	5 3	21 8	0 23	10 54	1 49	8 41	0 48	19 59
T 22	20 21	3 31	1 47	14 8	4 48	19 53	2 45	28 24	5 3	21 5	0 23	10 56	1 50	8 42	0 48	20 0
W23	20 9	2s 6	0 47	14 14	4 52	20 2	2 43	28 23	5 3	21 3	0 23	10 57	1 50	8 43	0 48	20 0
T 24	19 56	7 40	0s16	14 21	4 55	20 11	2 40	28 22	5 2	21 0	0 23	10 58	1 50	8 43	0 48	20 1
F 25	19 44	13 0	1 18	14 31	4 56	20 20	2 37	28 22	5 1	20 58	0 23	11 0	1 50	8 44	0 48	20 1
S 26	19 30	17 56	2 18	14 42	4 55	20 28	2 35	28 21	5 1	20 55	0 23	11 1	1 50	8 45	0 48	20 1
S 27	19 17	22 15	3 13	14 54	4 52	20 36	2 32	28 20	5 0	20 52	0 23	11 3	1 50	8 45	0 48	20 2
M28	19 3	25 38	4 0	15 8	4 48	20 43	2 29	28 20	4 59	20 50	0 23	11 4	1 51	8 46	0 48	20 2
T 29	18 49	27 47	4 36	15 23	4 42	20 50	2 26	28 19	4 58	20 47	0 23	11 5	1 51	8 47	0 48	20 2
W30	18 35	28 21	4 58	15 38	4 34	20 57	2 23	28 18	4 57	20 44	0 23	11 7	1 51	8 48	0 48	20 3
T 31	18n20	27s 9	5s 2	15n55	4s24	21n 3	2s20	28s17	4s56	20n42	0n24	11s 8	1s51	8s48	0s48	20s 3

Julian Day Number = 2331196.5, Delta T = 29.42 sec  
 Ecliptic obliquity = 23°29'04, Nutation = - 0°00'05, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°08'27, Lahiri = 19°15'28Greg. Calendar



# ASTRODIENST EPHEMERIS for the year 1670

## geocentric

AUGUST 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	20 39 21	8♂48'57	3♂11	29°R24	25♂39	24♂7	29♂38	5°R41	9°R22	29°R21	2♂19	15°R17	16°Y20	29♂31	12°R24	F 1
S 2	20 43 17	9°46'25	17°51	29♂0	26°45	24°12	29°51	5♂37	9♂20	29♂20	2°20	15°Y8	16°17	29°37	12♂22	S 2
S 3	20 47 14	10°43'54	2♂40	28°42	27°51	24°18	0♂5	5°34	9°18	29°18	2°22	15°0	16°13	29°44	12°20	S 3
M 4	20 51 11	11°41'24	17°28	28°29	28°57	24°24	0°18	5°30	9°16	29°17	2°23	14°55	16°10	29°51	12°17	M 4
T 5	20 55 7	12°38'56	2°Y10	28°D23	0♂4	24°32	0°31	5°26	9°14	29°15	2°24	14°53	16°7	29°57	12°15	T 5
W 6	20 59 4	13°36'29	16°40	28°24	1°10	24°40	0°44	5°22	9°12	29°13	2°25	14°D52	16°4	0♂4	12°12	W 6
T 7	21 3 0	14°34'03	0♂55	28°32	2°17	24°49	0°57	5°18	9°10	29°12	2°26	14°53	16°1	0°11	12°10	T 7
F 8	21 6 57	15°31'39	14°52	28°46	3°24	24°58	1°10	5°13	9°8	29°10	2°28	14°R53	15°58	0°17	12°8	F 8
S 9	21 10 53	16°29'17	28°34	29°8	4°31	25°9	1°23	5°9	9°6	29°9	2°29	14°52	15°54	0°24	12°5	S 9
S 10	21 14 50	17°26'56	11♂59	29°37	5°39	25°20	1°36	5°5	9°3	29°7	2°30	14°50	15°51	0°31	12°3	S 10
M 11	21 18 46	18°24'36	25°10	0♂13	6°46	25°32	1°49	5°1	9°1	29°6	2°31	14°45	15°48	0°37	12°0	M 11
T 12	21 22 43	19°22'19	8♂7	0°57	7°54	25°44	2°2	4°57	8°59	29°4	2°32	14°38	15°45	0°44	11°57	T 12
W 13	21 26 40	20°20'02	20°51	1°47	9°1	25°57	2°15	4°52	8°57	29°3	2°33	14°29	15°42	0°51	11°55	W 13
T 14	21 30 36	21°17'47	3♂24	2°44	10°9	26°11	2°28	4°48	8°55	29°1	2°34	14°19	15°39	0°57	11°52	T 14
F 15	21 34 33	22°15'34	15°45	3°47	11°17	26°26	2°41	4°43	8°52	29°0	2°35	14°10	15°35	1°4	11°49	F 15
S 16	21 38 29	23°13'22	27°56	4°57	12°26	26°41	2°54	4°39	8°50	28°58	2°36	14°1	15°32	1°10	11°47	S 16
S 17	21 42 26	24°11'11	9♂57	6°12	13°34	26°58	3°7	4°35	8°48	28°57	2°37	13°54	15°29	1°17	11°44	S 17
M 18	21 46 22	25°9'02	21°51	7°34	14°42	27°14	3°20	4°30	8°45	28°55	2°38	13°50	15°26	1°24	11°41	M 18
T 19	21 50 19	26°6'54	3♂39	9°0	15°51	27°32	3°33	4°26	8°43	28°54	2°39	13°47	15°23	1°30	11°39	T 19
W 20	21 54 15	27°4'47	15°25	10°32	17°0	27°50	3°45	4°21	8°41	28°53	2°40	13°D46	15°19	1°37	11°36	W 20
T 21	21 58 12	28°2'42	27°13	12°8	18°9	28°8	3°58	4°17	8°38	28°51	2°41	13°47	15°16	1°44	11°33	T 21
F 22	22 2 9	29°0'38	9♂7	13°48	19°18	28°27	4°11	4°12	8°36	28°50	2°42	13°49	15°13	1°50	11°30	F 22
S 23	22 6 5	29°58'35	21°11	15°32	20°27	28°47	4°23	4°8	8°34	28°49	2°43	13°50	15°10	1°57	11°28	S 23
S 24	22 10 2	0♂56'34	3♂32	17°18	21°36	29°8	4°36	4°3	8°31	28°47	2°44	13°R50	15°7	2°4	11°25	S 24
M 25	22 13 58	1°54'34	16°14	19°7	22°45	29°29	4°49	3°58	8°29	28°46	2°44	13°49	15°4	2°10	11°22	M 25
T 26	22 17 55	2°52'36	29°20	20°59	23°55	29°50	5°1	3°54	8°27	28°45	2°45	13°46	15°0	2°17	11°19	T 26
W 27	22 21 51	3°50'39	12♂55	22°52	25°4	0♂12	5°13	3°49	8°24	28°43	2°46	13°42	14°57	2°24	11°16	W 27
T 28	22 25 48	4°48'43	26°58	24°46	26°14	0°35	5°26	3°45	8°22	28°42	2°47	13°37	14°54	2°30	11°13	T 28
F 29	22 29 44	5°46'49	11♂27	26°42	27°24	0°58	5°38	3°40	8°19	28°41	2°48	13°31	14°51	2°37	11°11	F 29
S 30	22 33 41	6°44'56	26°17	28°38	28°34	1°22	5°51	3°36	8°17	28°40	2°49	13°25	14°48	2°44	11°8	S 30
S 31	22 37 38	7♂43'05	11♂20	0♂34	29♂44	1♂46	6♂3	3♂31	8♂15	28♂39	2♂49	13°Y21	14°Y45	2♂50	11♂5	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
F 1	18n 5	24s 9	4s48	16n11	4s13	21n 8	2s17	28s16	4s55	20n39	0n24	11s10	1s51	8s49	0s48	20s 3
S 2	17 50	19 33	4 15	16 28	4 1	21 13	2 13	28 15	4 54	20 36	0 24	11 12	1 51	8 50	0 48	20 4
S 3	17 35	13 44	3 25	16 45	3 48	21 18	2 10	28 14	4 53	20 34	0 24	11 13	1 52	8 51	0 48	20 4
M 4	17 19	7 7	2 21	17 1	3 33	21 22	2 7	28 13	4 52	20 31	0 24	11 15	1 52	8 51	0 48	20 4
T 5	17 3	0 10	1 7	17 17	3 18	21 26	2 3	28 12	4 50	20 28	0 24	11 16	1 52	8 52	0 48	20 5
W 6	16 46	6n43	0n10	17 33	3 2	21 29	2 0	28 11	4 49	20 25	0 24	11 18	1 52	8 53	0 48	20 5
T 7	16 30	13 8	1 25	17 47	2 46	21 31	1 57	28 10	4 48	20 23	0 24	11 20	1 52	8 54	0 48	20 5
F 8	16 13	18 46	2 33	18 1	2 29	21 33	1 53	28 9	4 46	20 20	0 24	11 21	1 52	8 55	0 48	20 6
S 9	15 55	23 19	3 32	18 13	2 12	21 35	1 50	28 8	4 45	20 17	0 24	11 23	1 53	8 55	0 48	20 6
S 10	15 38	26 31	4 17	18 24	1 55	21 36	1 46	28 7	4 43	20 14	0 25	11 25	1 53	8 56	0 48	20 6
M 11	15 20	28 12	4 48	18 33	1 38	21 36	1 43	28 6	4 42	20 12	0 25	11 26	1 53	8 57	0 48	20 7
T 12	15 2	28 17	5 4	18 40	1 21	21 36	1 39	28 5	4 40	20 9	0 25	11 28	1 53	8 58	0 48	20 7
W 13	14 44	26 52	5 4	18 45	1 5	21 35	1 35	28 4	4 38	20 6	0 25	11 30	1 53	8 59	0 48	20 7
T 14	14 26	24 7	4 49	18 48	0 48	21 34	1 32	28 2	4 37	20 3	0 25	11 31	1 53	9 0	0 49	20 8
F 15	14 7	20 18	4 21	18 49	0 33	21 32	1 28	28 1	4 35	20 0	0 25	11 33	1 53	9 0	0 49	20 8
S 16	13 48	15 40	3 41	18 47	0 18	21 30	1 24	28 0	4 33	19 57	0 25	11 35	1 53	9 1	0 49	20 8
S 17	13 29	10 30	2 52	18 42	0 3	21 27	1 21	27 59	4 32	19 55	0 25	11 37	1 53	9 2	0 49	20 9
M 18	13 10	5 1	1 56	18 35	0n10	21 24	1 17	27 57	4 30	19 52	0 25	11 38	1 54	9 3	0 49	20 9
T 19	12 50	0s37	0 55	18 25	0 23	21 20	1 13	27 56	4 28	19 49	0 26	11 40	1 54	9 4	0 49	20 9
W 20	12 30	6 13	0s 9	18 12	0 35	21 15	1 10	27 54	4 26	19 46	0 26	11 42	1 54	9 5	0 49	20 10
T 21	12 11	11 37	1 12	17 56	0 47	21 10	1 6	27 53	4 25	19 43	0 26	11 44	1 54	9 6	0 49	20 10
F 22	11 50	16 40	2 13	17 37	0 57	21 4	1 2	27 51	4 23	19 40	0 26	11 45	1 54	9 7	0 49	20 10
S 23	11 30	21 8	3 9	17 16	1 6	20 58	0 59	27 50	4 21	19 37	0 26	11 47	1 54	9 8	0 49	20 10
S 24	11 10	24 47	3 57	16 51	1 14	20 51	0 55	27 48	4 19	19 34	0 26	11 49	1 54	9 8	0 49	20 11
M 25	10 49	27 20	4 36	16 25	1 22	20 43	0 51	27 46	4 17	19 31	0 26	11 51	1 54	9 9	0 49	20 11
T 26	10 28	28 30	5 1	15 55	1 28	20 35	0 47	27 44	4 15	19 29	0 26	11 52	1 54	9 10	0 49	20 11
W 27	10 7	28 1	5 11	15 23	1 33	20 26	0 44	27 42	4 13	19 26	0 27	11 54	1 54	9 11	0 49	20 12
T 28	9 46	25 45	5 2	14 50	1 38	20 17	0 40	27 40	4 11	19 23	0 27	11 56	1 54	9 12	0 49	20 12
F 29	9 25	21 47	4 35	14 14	1 41	20 7	0 36	27 38	4 9	19 20	0 27	11 57	1 54	9 13	0 49	20 12
S 30	9 3	16 22	3 48	13 36	1 44	19 57	0 33	27 36	4 7	19 17	0 27	11 59	1 55	9 14	0 49	20 12
S 31	8n41	9s53	2s46	12n57	1n46	19n46	0s29	27s34	4s 5	19n14	0n27	12s 1	1s55	9s15	0s49	20s13

Julian Day Number = 2331227.5, Delta T = 29.37 sec  
 Ecliptic obliquity = 23°29'04, Nutation = -0°00'03, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°08'32, Lahiri = 19°15'32Greg. Calendar



# ASTRODIENST EPHEMERIS for the year 1670

## geocentric

OCTOBER 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	0 39 51	8♌ 1'59	4♌58	24♌29	6♍45	17♍29	11♌49	1°R26	7°R 5	28°R15	3♌ 2	12°Y58	13°Y 6	6♌16	9°R40	W 1	
T 2	0 43 47	9° 1'10	19°44	25°59	7°58	18° 4	11°59	1♌23	7♌ 3	28♌15	3° 2	12°58	13° 3	6°23	9♌37	T 2	
F 3	0 47 44	10° 0'24	4♌ 7	27°28	9°12	18°40	12° 9	1°20	7° 1	28°15	3°R 2	12°59	13° 0	6°30	9°35	F 3	
S 4	0 51 40	10°59'40	18° 4	28°57	10°25	19°16	12°18	1°17	6°59	28°14	3° 2	12°59	12°56	6°36	9°33	S 4	
S 5	0 55 37	11°58'58	1♌34	0♌24	11°38	19°52	12°28	1°14	6°57	28°14	3° 2	12°59	12°53	6°43	9°30	S 5	
M 6	0 59 34	12°58'19	14°38	1°51	12°51	20°28	12°37	1°11	6°56	28°14	3° 2	12°59	12°50	6°49	9°28	M 6	
T 7	1 3 30	13°57'42	27°21	3°17	14° 5	21° 4	12°46	1° 8	6°54	28°14	3° 2	12°59	12°47	6°56	9°26	T 7	
W 8	1 7 27	14°57'07	9♌45	4°42	15°18	21°41	12°55	1° 6	6°52	28°14	3° 1	12°59	12°44	7° 3	9°24	W 8	
T 9	1 11 23	15°56'35	21°55	6° 6	16°32	22°18	13° 5	1° 3	6°50	28°14	3° 1	12°59	12°41	7° 9	9°21	T 9	
F 10	1 15 20	16°56'04	3♌54	7°29	17°45	22°55	13°13	1° 1	6°49	28°D14	3° 1	13° 0	12°37	7°16	9°19	F 10	
S 11	1 19 16	17°55'36	15°46	8°52	18°59	23°32	13°22	0°58	6°47	28°14	3° 1	13° 0	12°34	7°23	9°17	S 11	
S 12	1 23 13	18°55'10	27°34	10°13	20°12	24° 9	13°31	0°56	6°45	28°14	3° 1	13° 1	12°31	7°29	9°15	S 12	
M13	1 27 9	19°54'46	9♌21	11°33	21°26	24°47	13°40	0°54	6°44	28°14	3° 1	13°R 1	12°28	7°36	9°13	M13	
T 14	1 31 6	20°54'24	21° 9	12°52	22°40	25°25	13°48	0°51	6°42	28°14	3° 0	13° 1	12°25	7°43	9°11	T 14	
W15	1 35 2	21°54'05	3♌ 1	14°10	23°54	26° 3	13°56	0°49	6°41	28°14	3° 0	13° 0	12°22	7°49	9° 9	W15	
T 16	1 38 59	22°53'47	14°58	15°27	25° 8	26°41	14° 5	0°48	6°39	28°14	3° 0	12°59	12°18	7°56	9° 8	T 16	
F 17	1 42 56	23°53'31	27° 3	16°42	26°22	27°19	14°13	0°46	6°38	28°14	2°59	12°58	12°15	8° 3	9° 6	F 17	
S 18	1 46 52	24°53'17	9♌18	17°56	27°36	27°58	14°21	0°44	6°37	28°15	2°59	12°56	12°12	8° 9	9° 4	S 18	
S 19	1 50 49	25°53'05	21°46	19° 8	28°50	28°36	14°29	0°42	6°35	28°15	2°59	12°55	12° 9	8°16	9° 2	S 19	
M20	1 54 45	26°52'55	4♌28	20°18	0♌ 4	29°15	14°36	0°41	6°34	28°15	2°58	12°53	12° 6	8°22	9° 1	M20	
T 21	1 58 42	27°52'47	17°28	21°26	1°18	29°54	14°44	0°39	6°33	28°16	2°58	12°52	12° 2	8°29	8°59	T 21	
W22	2 2 38	28°52'40	0♌48	22°32	2°32	0♌33	14°51	0°38	6°32	28°16	2°58	12°D52	11°59	8°36	8°57	W22	
T 23	2 6 35	29°52'34	14°30	23°36	3°46	1°12	14°58	0°37	6°31	28°17	2°57	12°52	11°56	8°42	8°56	T 23	
F 24	2 10 31	0♌52'31	28°36	24°38	5° 1	1°52	15° 6	0°35	6°29	28°17	2°57	12°53	11°53	8°49	8°54	F 24	
S 25	2 14 28	1°52'29	13♌ 3	25°36	6°15	2°31	15°13	0°34	6°28	28°17	2°56	12°55	11°50	8°56	8°53	S 25	
S 26	2 18 25	2°52'28	27°49	26°31	7°29	3°11	15°19	0°33	6°27	28°18	2°56	12°56	11°47	9° 2	8°51	S 26	
M27	2 22 21	3°52'29	12°Y49	27°22	8°44	3°50	15°26	0°33	6°26	28°19	2°55	12°R56	11°43	9° 9	8°50	M27	
T 28	2 26 18	4°52'32	27°56	28°10	9°58	4°30	15°33	0°32	6°25	28°19	2°55	12°56	11°40	9°16	8°49	T 28	
W29	2 30 14	5°52'37	12♌59	28°52	11°13	5°10	15°39	0°31	6°25	28°20	2°54	12°54	11°37	9°22	8°48	W29	
T 30	2 34 11	6°52'44	27°51	29°30	12°27	5°50	15°45	0°31	6°24	28°20	2°53	12°51	11°34	9°29	8°46	T 30	
F 31	2 38 7	7♌52'53	12♌22	0♌ 3	13♌42	6♌30	15♌51	0♌30	6♌23	28♌21	2♌53	12°Y48	11°Y31	9♌36	8♌45	F 31	

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	3s12	15n 5	1n59	10s12	0s45	10n 3	1n 5	25s22	3s 4	17n47	0n31	12s46	1s54	9s40	0s48	20s18	0n15
T 2	3 35	20 46	3 11	10 52	0 52	9 38	1 7	25 16	3 2	17 44	0 32	12 47	1 54	9 41	0 48	20 18	0 15
F 3	3 58	25 4	4 8	11 31	0 59	9 12	1 9	25 9	3 0	17 42	0 32	12 48	1 54	9 42	0 48	20 18	0 15
S 4	4 22	27 44	4 48	12 9	1 6	8 46	1 11	25 2	2 58	17 39	0 32	12 49	1 54	9 43	0 48	20 18	0 15
S 5	4 45	28 40	5 12	12 46	1 13	8 20	1 13	24 54	2 56	17 37	0 32	12 50	1 54	9 43	0 48	20 18	0 15
M 6	5 8	27 57	5 18	13 23	1 20	7 54	1 15	24 47	2 54	17 34	0 32	12 51	1 54	9 44	0 48	20 18	0 15
T 7	5 31	25 46	5 8	13 59	1 27	7 27	1 17	24 39	2 52	17 32	0 32	12 52	1 54	9 44	0 48	20 18	0 15
W 8	5 54	22 24	4 44	14 35	1 33	7 1	1 18	24 32	2 50	17 29	0 33	12 53	1 54	9 45	0 48	20 18	0 15
T 9	6 17	18 8	4 8	15 9	1 40	6 33	1 20	24 24	2 48	17 27	0 33	12 53	1 54	9 46	0 48	20 18	0 15
F 10	6 40	13 13	3 21	15 43	1 46	6 6	1 22	24 16	2 46	17 24	0 33	12 54	1 54	9 46	0 48	20 18	0 15
S 11	7 3	7 52	2 26	16 15	1 53	5 39	1 23	24 7	2 44	17 22	0 33	12 55	1 53	9 47	0 48	20 18	0 15
S 12	7 25	2 16	1 25	16 47	1 59	5 11	1 25	23 59	2 42	17 20	0 33	12 56	1 53	9 47	0 48	20 18	0 15
M13	7 48	3s24	0 20	17 18	2 5	4 43	1 26	23 50	2 40	17 17	0 34	12 57	1 53	9 48	0 48	20 18	0 15
T 14	8 11	8 58	0s45	17 48	2 11	4 15	1 27	23 41	2 38	17 15	0 34	12 57	1 53	9 49	0 48	20 18	0 15
W15	8 33	14 14	1 49	18 17	2 16	3 47	1 28	23 32	2 36	17 13	0 34	12 58	1 53	9 49	0 48	20 18	0 15
T 16	8 55	19 2	2 48	18 45	2 21	3 19	1 30	23 23	2 34	17 11	0 34	12 58	1 53	9 50	0 48	20 18	0 15
F 17	9 17	23 7	3 41	19 12	2 26	2 50	1 31	23 14	2 33	17 9	0 34	12 59	1 53	9 50	0 48	20 18	0 15
S 18	9 39	26 14	4 24	19 37	2 31	2 22	1 32	23 4	2 31	17 6	0 34	12 59	1 53	9 51	0 48	20 18	0 15
S 19	10 1	28 8	4 55	20 2	2 35	1 53	1 33	22 54	2 29	17 4	0 35	13 0	1 53	9 51	0 48	20 18	0 15
M20	10 23	28 38	5 13	20 25	2 39	1 24	1 33	22 44	2 27	17 2	0 35	13 0	1 53	9 51	0 48	20 18	0 15
T 21	10 44	27 33	5 16	20 47	2 43	0 55	1 34	22 34	2 25	17 0	0 35	13 1	1 52	9 52	0 48	20 18	0 15
W22	11 6	24 55	5 1 21	7	2 46	0 26	1 35	22 24	2 23	16 58	0 35	13 1	1 52	9 52	0 48	20 18	0 15
T 23	11 27	20 48	4 30	21 26	2 49	0s 3	1 35	22 14	2 21	16 56	0 35	13 2	1 52	9 53	0 48	20 18	0 15
F 24	11 48	15 26	3 41	21 44	2 51	0 32	1 36	22 3	2 19	16 54	0 36	13 2	1 52	9 53	0 48	20 18	0 15
S 25	12 9	9 6	2 38	22 0	2 53	1 1	1 36	21 52	2 18	16 53	0 36	13 2	1 52	9 53	0 48	20 18	0 15
S 26	12 30	2 8	1 23	22 14	2 54	1 30	1 37	21 41	2 16	16 51	0 36	13 2	1 52	9 54	0 48	20 18	0 15
M27	12 50	5n 4	0 1	22 26	2 55	1 59	1 37	21 30	2 14	16 49	0 36	13 3	1 52	9 54	0 48	20 18	0 15
T 28	13 10	12 2	1n22	22 37	2 54	2 28	1 37	21 19	2 12	16 47	0 36	13 3	1 52	9 54	0 47	20 18	0 15
W29	13 30	18 17	2 38	22 46	2 53	2 57	1 37	21 7	2 10	16 45	0 37	13 3	1 52	9 55	0 47	20 17	0 15
T 30	13 50	23 20	3 43	22 52	2 51	3 26	1 37	20 55	2 9	16 44	0 37	13 3	1 51	9 55	0 47	20 17	0 15
F 31	14s10	26n48	4n31	22s56	2s48	3s55	1n37	20s44	2s 7	16n42	0n37	13s 3	1s51	9s55	0s47	20s17	0n15

Julian Day Number = 2331288.5, Delta T = 29.26 sec  
 Ecliptic obliquity = 23°29'05, Nutation = - 0°00'05, out-of-bounds declination in red  
 Ayanamsha: Fagan/Bradley = 20°08'40, Lahiri = 19°15'40Greg. Calendar

# ASTRODIENST EPHEMERIS for the year 1670

## geocentric

NOVEMBER 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 42 4	8♍53'03	26♏29	0♋29	14♌56	7♊11	15♏57	0°R30	6°R22	28♌22	2°R52	12°R44	11°Y28	9♎42	8°R44	S 1
S 2	2 46 0	9°53'16	10♏8	0°48	16°11	7°51	16° 3	0♋30	6♋22	28°23	2♏52	12°Y40	11°24	9°49	8♋43	S 2
M 3	2 49 57	10°53'31	23°20	1° 0	17°26	8°31	16° 9	0°30	6°21	28°23	2°51	12°38	11°21	9°56	8°42	M 3
T 4	2 53 54	11°53'48	6♏6	1°R 3	18°40	9°12	16°14	0°D30	6°20	28°24	2°50	12°37	11°18	10° 2	8°41	T 4
W 5	2 57 50	12°54'07	18°31	0°58	19°55	9°53	16°20	0°30	6°20	28°25	2°49	12°D37	11°15	10° 9	8°41	W 5
T 6	3 1 147	13°54'28	0♏39	0°43	21°10	10°33	16°25	0°30	6°19	28°26	2°49	12°38	11°12	10°15	8°40	T 6
F 7	3 5 43	14°54'50	12°34	0°19	22°25	11°14	16°30	0°30	6°19	28°27	2°48	12°39	11° 8	10°22	8°39	F 7
S 8	3 9 40	15°55'15	24°23	29♍44	23°40	11°55	16°35	0°30	6°18	28°28	2°47	12°41	11° 5	10°29	8°38	S 8
S 9	3 13 36	16°55'41	6♌9	28°59	24°54	12°36	16°39	0°31	6°18	28°29	2°46	12°42	11° 2	10°35	8°38	S 9
M10	3 17 33	17°56'10	17°57	28° 4	26° 9	13°17	16°44	0°32	6°18	28°30	2°46	12°R43	10°59	10°42	8°37	M10
T 11	3 21 29	18°56'40	29°50	27° 1	27°24	13°58	16°48	0°32	6°18	28°31	2°45	12°41	10°56	10°49	8°37	T 11
W12	3 25 26	19°57'11	11♍49	25°50	28°39	14°40	16°52	0°33	6°17	28°32	2°44	12°37	10°53	10°55	8°36	W12
T 13	3 29 23	20°57'45	23°58	24°33	29°54	15°21	16°56	0°34	6°17	28°33	2°43	12°32	10°49	11° 2	8°36	T 13
F 14	3 33 19	21°58'20	6♋18	23°12	1♍9	16° 3	17° 0	0°35	6°17	28°34	2°42	12°25	10°46	11° 9	8°36	F 14
S 15	3 37 16	22°58'56	18°49	21°51	2°24	16°44	17° 3	0°36	6°D17	28°35	2°41	12°18	10°43	11°15	8°35	S 15
S 16	3 41 12	23°59'34	1♌32	20°31	3°39	17°26	17° 7	0°37	6°17	28°37	2°41	12°10	10°40	11°22	8°35	S 16
M17	3 45 9	25° 0'13	14°28	19°16	4°55	18° 7	17°10	0°39	6°17	28°38	2°40	12° 3	10°37	11°29	8°35	M17
T 18	3 49 5	26° 0'53	27°36	18° 8	6°10	18°49	17°13	0°40	6°17	28°39	2°39	11°58	10°34	11°35	8°35	T 18
W19	3 53 2	27° 1'35	10♋59	17° 8	7°25	19°31	17°16	0°42	6°17	28°40	2°38	11°55	10°30	11°42	8°D35	W19
T 20	3 56 59	28° 2'17	24°37	16°19	8°40	20°13	17°19	0°43	6°18	28°42	2°37	11°D53	10°27	11°48	8°35	T 20
F 21	4 0 55	29° 3'01	8♋30	15°40	9°55	20°55	17°21	0°45	6°18	28°43	2°36	11°54	10°24	11°55	8°35	F 21
S 22	4 4 52	0♋34	22°39	15°14	11°10	21°37	17°23	0°47	6°18	28°44	2°35	11°55	10°21	12° 2	8°35	S 22
S 23	4 8 48	1° 4'31	7♋3	14°58	12°25	22°19	17°25	0°49	6°19	28°46	2°34	11°R56	10°18	12° 8	8°35	S 23
M24	4 12 45	2° 5'17	21°39	14°D54	13°41	23° 1	17°27	0°51	6°19	28°47	2°33	11°55	10°14	12°15	8°36	M24
T 25	4 16 41	3° 6'05	6♌23	15° 1	14°56	23°43	17°29	0°53	6°20	28°49	2°32	11°53	10°11	12°22	8°36	T 25
W26	4 20 38	4° 6'53	21° 9	15°18	16°11	24°25	17°31	0°55	6°20	28°50	2°31	11°48	10° 8	12°28	8°36	W26
T 27	4 24 34	5° 7'43	5♏49	15°43	17°26	25° 7	17°32	0°58	6°21	28°52	2°30	11°41	10° 5	12°35	8°37	T 27
F 28	4 28 31	6° 8'34	20°16	16°17	18°42	25°49	17°33	1° 0	6°21	28°53	2°29	11°32	10° 2	12°42	8°37	F 28
S 29	4 32 28	7° 9'26	4♏22	16°58	19°57	26°32	17°34	1° 3	6°22	28°55	2°27	11°23	9°59	12°48	8°38	S 29
S 30	4 36 24	8♋10'20	18♏4	17♍46	21♍12	27♊14	17♏35	1♋6	6♋23	28♌56	2♏26	11°Y14	9°Y55	12♎55	8♋39	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
S 1	14s29	28n28	5n 2	22s57	2s44	4s24	1n37	20s32	2s 5	16n41	0n37	13s 3	1s51	9s55	0s47	20s17	0n15	19n 7	4s21	5n 2	4n32	3s42	3s34	5n 7			
S 2	14 48	28 19	5 14	22 56	2 38	4 53	1 37	20 19	2 3	16 39	0 37	13 3	1 51	9 56	0 47	20 17	0 15	19 7	4 21	5 1	4 31	3 46	3 35	5 7			
M 3	15 7	26 32	5 9	22 52	2 32	5 22	1 37	20 7	2 1	16 38	0 38	13 3	1 51	9 56	0 47	20 17	0 15	19 7	4 21	5 0	4 30	3 49	3 35	5 6			
T 4	15 26	23 26	4 48	22 45	2 24	5 50	1 37	19 55	2 0	16 36	0 38	13 3	1 51	9 56	0 47	20 17	0 15	19 6	4 21	4 59	4 29	3 53	3 36	5 6			
W 5	15 44	19 20	4 15	22 35	2 14	6 19	1 36	19 42	1 58	16 35	0 38	13 3	1 51	9 56	0 47	20 17	0 15	19 6	4 21	4 59	4 27	3 56	3 36	5 6			
T 6	16 3	14 33	3 30	22 21	2 3	6 48	1 36	19 29	1 56	16 33	0 38	13 2	1 51	9 56	0 47	20 16	0 15	19 6	4 21	5 0	4 26	4 0	3 37	5 5			
F 7	16 20	9 17	2 38	22 3	1 51	7 16	1 35	19 16	1 54	16 32	0 39	13 2	1 50	9 57	0 47	20 16	0 15	19 6	4 21	5 1	4 25	4 3	3 38	5 5			
S 8	16 38	3 45	1 39	21 42	1 36	7 44	1 35	19 3	1 53	16 31	0 39	13 2	1 50	9 57	0 47	20 16	0 15	19 6	4 21	5 1	4 24	4 6	3 38	5 5			
S 9	16 55	1s54	0 36	21 17	1 20	8 12	1 34	18 50	1 51	16 30	0 39	13 2	1 50	9 57	0 47	20 16	0 15	19 6	4 21	5 2	4 22	4 10	3 39	5 4			
M10	17 13	7 30	0s29	20 48	1 3	8 40	1 33	18 36	1 49	16 28	0 39	13 1	1 50	9 57	0 47	20 16	0 15	19 6	4 21	5 2	4 21	4 13	3 39	5 4			
T 11	17 29	12 52	1 32	20 15	0 44	9 8	1 32	18 23	1 48	16 27	0 39	13 1	1 50	9 57	0 47	20 15	0 15	19 6	4 21	5 1	4 20	4 17	3 40	5 3			
W12	17 46	17 49	2 32	19 39	0 25	9 35	1 32	18 9	1 46	16 26	0 40	13 0	1 50	9 57	0 47	20 15	0 15	19 6	4 21	5 0	4 19	4 20	3 40	5 3			
T 13	18 2	22 7	3 26	19 1	0 4	10 3	1 31	17 55	1 44	16 25	0 40	13 0	1 50	9 57	0 47	20 15	0 15	19 6	4 21	4 58	4 17	4 23	3 41	5 3			
F 14	18 18	25 31	4 10	18 21	0n16	10 30	1 30	17 41	1 42	16 24	0 40	13 0	1 49	9 57	0 47	20 15	0 15	19 6	4 21	4 55	4 16	4 27	3 41	5 2			
S 15	18 33	27 44	4 44	17 40	0 37	10 57	1 29	17 27	1 41	16 24	0 40	12 59	1 49	9 57	0 47	20 15	0 15	19 6	4 21	4 52	4 15	4 30	3 42	5 2			
S 16	18 48	28 32	5 4	17 0	0 57	11 23	1 28	17 13	1 39	16 23	0 40	12 58	1 49	9 57	0 47	20 14	0 15	19 6	4 21	4 49	4 14	4 34	3 42	5 2			
M17	19 3	27 49	5 9	16 22	1 15	11 50	1 26	16 58	1 37	16 22	0 41	12 58	1 49	9 57	0 47	20 14	0 15	19 6	4 21	4 46	4 12	4 37	3 42	5 1			
T 18	19 18	25 32	4 58	15 47	1 32	12 16	1 25	16 44	1 36	16 21	0 41	12 57	1 49	9 57	0 47	20 14	0 15	19 6	4 21	4 44	4 11	4 41	3 43	5 1			
W19	19 32	21 50	4 30	15 16	1 47	12 41	1 24	16 29	1 34	16 21	0 41	12 57	1 49	9 57	0 47	20 14	0 15	19 6	4 21	4 43	4 10	4 44	3 43	5 1			
T 20	19 46	16 55	3 48	14 50	2 0	13 7	1 22	16 14	1 33	16 20	0 41	12 56	1 49	9 56	0 47	20 13	0 14	19 7	4 21	4 43	4 9	4 47	3 43	5 0			
F 21	19 59	11 2	2 51	14 29	2 11	13 32	1 21	15 59	1 31	16 19	0 42	12 55	1 49	9 56	0 47	20 13	0 14	19 7	4 21	4 43	4 8	4 51	3 44	5 0			
S 22	20 12	4 29	1 42	14 12	2 20	13 57	1 20	15 44	1 29	16 19	0 42	12 54	1 48	9 56	0 47	20 13	0 14	19 7	4 21	4 43	4 6	4 54	3 44	5 0			
S 23	20 25	2n24	0 26	14 1	2 26	14 21	1 18	15 29	1 28	16 19	0 42	12 53	1 48	9 56	0 46	20 13	0 14	19 7	4 21	4 43	4 5	4 58	3 44	4 59			
M24	20 37	9 16	0n52	13 56	2 31	14 45	1 16	15 14	1 26	16 18	0 42	12 53	1 48	9 56	0 46	20 12	0 14	19 7	4 21	4 43	4 4	5 1	3 44	4 59			
T 25	20 49	15 41	2 8	13 55	2 34	15 9	1 15	14 58	1 25	16 18	0 43	12 52	1 48	9 56	0 46	20 12	0 14	19 7	4 21	4 42	4 3	5 4	3 45	4 59			
W26	21 1	21 13	3 15	13 58	2 36	15 33	1 13	14 43	1 23	16 18	0 43	12 51	1 48	9 55	0 46	20 12	0 14	19 7	4 21	4 41	4 1	5 8	3 45	4 58			
T 27	21 12	25 23	4 8	14 5	2 36	15 56	1 11	14 27	1 21	16 17	0 43	12 50	1 48	9 55	0 46	20 12	0 14	19 7	4 21	4 38	4 0	5 11	3 45	4 58			
F 28	21 22	27 52	4 45	14 16	2 35	16 18	1 10	14 11	1 20	16 17	0 43	12 49	1 48	9 55	0 46	20 11	0 14	19 7	4 21	4 34	3 59	5 15	3 45	4 58			
S 29	21 33	28 28	5 3	14 30	2 33	16 40	1 8	13 55	1 18	16 17	0 44	12 48	1 48	9 55	0 46	20 11	0 14	19 7	4 21	4 31	3 58	5 18	3 45	4 57			
S 30	21s43	27n16	5n 3	14s46	2n30	17s 2	1n 6	13s39	1s17	16n17	0n44	12s47	1s47	9s54	0s46	20s11	0n14	19n 7	4s21	4n27	3n56	5s21	3s45	4n57			

ASTRODIENST EPHEMERIS for the year 1670  
geocentric

DECEMBER 1670 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	4 40 21	9♂11'14	1♂20	18♂39	22♂27	27♂56	17♂36	1♂8	6♂23	28♂58	2♂R25	11♂R 6	9♂Y52	13♂2	8♂39	M 1
T 2	4 44 17	10°12'10	14°11	19°37	23°43	28°39	17°36	1°11	6°24	28°59	2♂24	11♂Y 0	9°49	13° 8	8°40	T 2
W 3	4 48 14	11°13'07	26°39	20°39	24°58	29°21	17°R36	1°14	6°25	29° 1	2°23	10°57	9°46	13°15	8°41	W 3
T 4	4 52 10	12°14'05	8♂49	21°46	26°13	0♂3	17°36	1°17	6°26	29° 3	2°22	10°D55	9°43	13°22	8°42	T 4
F 5	4 56 7	13°15'04	20°45	22°55	27°29	0°46	17°36	1°20	6°27	29° 5	2°21	10°56	9°40	13°28	8°43	F 5
S 6	5 0 3	14°16'05	2♂34	24° 8	28°44	1°28	17°35	1°23	6°28	29° 6	2°20	10°56	9°36	13°35	8°43	S 6
S 7	5 4 0	15°17'06	14°21	25°23	29°59	2°11	17°35	1°27	6°29	29° 8	2°19	10°R56	9°33	13°41	8°45	S 7
M 8	5 7 57	16°18'09	26°10	26°40	1♂15	2°54	17°34	1°30	6°30	29°10	2°17	10°55	9°30	13°48	8°46	M 8
T 9	5 11 53	17°19'12	8♂7	27°59	2°30	3°36	17°33	1°34	6°31	29°12	2°16	10°51	9°27	13°55	8°47	T 9
W10	5 15 50	18°20'17	20°15	29°19	3°46	4°19	17°32	1°37	6°33	29°13	2°15	10°45	9°24	14° 1	8°48	W10
T 11	5 19 46	19°21'22	2♂36	0♂41	5° 1	5° 1	17°30	1°41	6°34	29°15	2°14	10°36	9°20	14° 8	8°49	T 11
F 12	5 23 43	20°22'29	15°12	2° 4	6°17	5°44	17°29	1°45	6°35	29°17	2°13	10°25	9°17	14°15	8°51	F 12
S 13	5 27 39	21°23'36	28° 3	3°29	7°32	6°27	17°27	1°49	6°37	29°19	2°11	10°12	9°14	14°21	8°52	S 13
S 14	5 31 36	22°24'43	11♂8	4°54	8°47	7° 9	17°25	1°53	6°38	29°21	2°10	9°59	9°11	14°28	8°53	S 14
M15	5 35 32	23°25'51	24°26	6°20	10° 3	7°52	17°23	1°57	6°40	29°23	2° 9	9°47	9° 8	14°35	8°55	M15
T 16	5 39 29	24°26'59	7♂55	7°47	11°18	8°35	17°21	2° 1	6°41	29°25	2° 8	9°37	9° 5	14°41	8°56	T 16
W17	5 43 26	25°28'08	21°33	9°14	12°34	9°18	17°18	2° 5	6°43	29°27	2° 7	9°30	9° 1	14°48	8°58	W17
T 18	5 47 22	26°29'16	5♂19	10°42	13°49	10° 1	17°15	2° 9	6°44	29°29	2° 5	9°26	8°58	14°55	9° 0	T 18
F 19	5 51 19	27°30'25	19°13	12°11	15° 5	10°43	17°12	2°14	6°46	29°31	2° 4	9°25	8°55	15° 1	9° 1	F 19
S 20	5 55 15	28°31'34	3♂Y14	13°40	16°20	11°26	17° 9	2°18	6°48	29°33	2° 3	9°25	8°52	15° 8	9° 3	S 20
S 21	5 59 12	29°32'42	17°21	15° 9	17°35	12° 9	17° 6	2°23	6°49	29°35	2° 2	9°25	8°49	15°15	9° 5	S 21
M22	6 3 8	0♂33'51	1♂35	16°39	18°51	12°52	17° 2	2°27	6°51	29°37	2° 1	9°23	8°46	15°21	9° 7	M22
T 23	6 7 5	1°35'00	15°53	18° 9	20° 6	13°35	16°59	2°32	6°53	29°39	1°59	9°19	8°42	15°28	9° 9	T 23
W24	6 11 1	2°36'09	0♂11	19°40	21°22	14°17	16°55	2°37	6°55	29°41	1°58	9°12	8°39	15°34	9°11	W24
T 25	6 14 58	3°37'17	14°26	21°11	22°37	15° 0	16°51	2°41	6°57	29°43	1°57	9° 3	8°36	15°41	9°13	T 25
F 26	6 18 55	4°38'26	28°32	22°42	23°53	15°43	16°46	2°46	6°59	29°45	1°56	8°51	8°33	15°48	9°15	F 26
S 27	6 22 51	5°39'35	12♂23	24°14	25° 8	16°26	16°42	2°51	7° 1	29°47	1°54	8°38	8°30	15°54	9°17	S 27
S 28	6 26 48	6°40'44	25°55	25°46	26°24	17° 9	16°38	2°56	7° 3	29°49	1°53	8°25	8°26	16° 1	9°19	S 28
M29	6 30 44	7°41'54	9♂7	27°18	27°39	17°52	16°33	3° 2	7° 5	29°51	1°52	8°13	8°23	16° 8	9°21	M29
T 30	6 34 41	8°43'03	21°56	28°51	28°54	18°34	16°28	3° 7	7° 7	29°54	1°51	8° 4	8°20	16°14	9°23	T 30
W31	6 38 37	9♂44'12	4♂24	0♂24	0♂10	19♂17	16♂23	3♂12	7♂9	29♂56	1♂50	7♂Y58	8♂Y17	16♂21	9♂26	W31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	21s52	24n34	4n47	15s 4	2n26	17s23	1n 4	13s23	1s15	16n17	0n44	12s46	1s47	9s54	0s46	20s10
T 2	22 1	20 41	4 16	15 25	2 21	17 44	1 2	13 7	1 14	16 17	0 44	12 45	1 47	9 54	0 46	20 10
W 3	22 10	16 0	3 34	15 46	2 16	18 4	1 0	12 51	1 12	16 18	0 44	12 43	1 47	9 53	0 46	20 10
T 4	22 18	10 48	2 43	16 9	2 10	18 24	0 58	12 35	1 11	16 18	0 45	12 42	1 47	9 53	0 46	20 9
F 5	22 26	5 18	1 46	16 33	2 4	18 44	0 56	12 18	1 9	16 18	0 45	12 41	1 47	9 52	0 46	20 9
S 6	22 33	0s20	0 45	16 57	1 57	19 2	0 54	12 2	1 8	16 18	0 45	12 40	1 47	9 52	0 46	20 9
S 7	22 40	5 57	0s18	17 22	1 50	19 21	0 52	11 45	1 6	16 19	0 45	12 38	1 47	9 52	0 46	20 8
M 8	22 47	11 22	1 20	17 46	1 43	19 38	0 50	11 28	1 5	16 19	0 46	12 37	1 46	9 51	0 46	20 8
T 9	22 53	16 26	2 19	18 11	1 36	19 56	0 47	11 11	1 3	16 20	0 46	12 36	1 46	9 51	0 46	20 8
W10	22 58	20 56	3 13	18 36	1 29	20 12	0 45	10 55	1 2	16 20	0 46	12 34	1 46	9 50	0 46	20 7
T 11	23 3	24 37	3 58	19 1	1 21	20 28	0 43	10 38	1 1	16 21	0 46	12 33	1 46	9 50	0 46	20 7
F 12	23 8	27 11	4 33	19 25	1 13	20 44	0 41	10 21	0 59	16 22	0 47	12 31	1 46	9 49	0 46	20 7
S 13	23 12	28 23	4 55	19 49	1 6	20 59	0 38	10 3	0 58	16 23	0 47	12 30	1 46	9 49	0 46	20 6
S 14	23 16	28 1	5 1	20 12	0 58	21 13	0 36	9 46	0 56	16 23	0 47	12 28	1 46	9 48	0 46	20 6
M15	23 19	26 3	4 52	20 35	0 50	21 27	0 34	9 29	0 55	16 24	0 47	12 27	1 46	9 47	0 46	20 5
T 16	23 22	22 36	4 46	20 57	0 43	21 40	0 31	9 12	0 54	16 25	0 48	12 25	1 46	9 47	0 46	20 5
W17	23 22	17 53	3 45	21 18	0 35	21 52	0 29	8 54	0 52	16 26	0 48	12 24	1 45	9 46	0 46	20 5
T 18	23 26	12 13	2 50	21 38	0 28	22 4	0 26	8 37	0 51	16 27	0 48	12 22	1 45	9 46	0 46	20 4
F 19	23 28	5 53	1 45	21 58	0 20	22 15	0 24	8 19	0 50	16 28	0 48	12 20	1 45	9 45	0 46	20 4
S 20	23 29	0n47	0 33	22 16	0 13	22 25	0 22	8 2	0 48	16 30	0 49	12 19	1 45	9 44	0 45	20 3
S 21	23 29	7 28	0n42	22 34	0 5	22 35	0 19	7 44	0 47	16 31	0 49	12 17	1 45	9 44	0 45	20 3
M22	23 29	13 50	1 54	22 51	0s 2	22 44	0 17	7 27	0 46	16 32	0 49	12 15	1 45	9 43	0 45	20 3
T 23	23 28	19 29	3 0	23 6	0 9	22 53	0 14	7 9	0 44	16 34	0 49	12 13	1 45	9 42	0 45	20 2
W24	23 28	24 2	3 54	23 21	0 16	23 0	0 12	6 51	0 43	16 35	0 49	12 11	1 45	9 41	0 45	20 2
T 25	23 26	27 6	4 33	23 34	0 23	23 7	0 9	6 33	0 42	16 36	0 50	12 10	1 45	9 41	0 45	20 1
F 26	23 24	28 24	4 55	23 47	0 30	23 14	0 7	6 16	0 40	16 38	0 50	12 8	1 45	9 40	0 45	20 1
S 27	23 22	27 52	4 59	23 58	0 36	23 19	0 4	5 58	0 39	16 39	0 50	12 6	1 44	9 39	0 45	20 0
S 28	23 19	25 41	4 46	24 8	0 43	23 24	0 2	5 40	0 38	16 41	0 50	12 4	1 44	9 38	0 45	20 0
M29	23 16	22 10	4 18	24 17	0 49	23 28	0s 0	5 22	0 37	16 43	0 51	12 2	1 44	9 38	0 45	20 0
T 30	23 12	17 39	3 38	24 24	0 55	23 32	0 3	5 4	0 35	16 44	0 51	12 0	1 44	9 37	0 45	19 59
W31	23s 8	12n30	2n47	24s30	1s 1	23s34	0s 5	4s46	0s34	16n46	0n51	11s58	1s44	9s36	0s45	19s59

Julian Day Number = 2331349.5, Delta T = 29.16 sec  
Ecliptic obliquity = 23°29'04, Nutation = - 0°00'03, out-of-bounds declination in red  
Ayanamsha: Fagan/Bradley = 20°08'48, Lahiri = 19°15'49Greg. Calendar