



Astrodienst Ephemeris Tables for the year 1684

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 1684
geocentric

JANUARY 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	6 41 58	10°35'37	19°11'35	29°55'55	21°32' 2	23°55'51	22°11'34	3°R41	28°R16	27°54'48	17°R35	26°R 3	26°54'48	5°Y22	28°R50	S 1
S 2	6 45 55	11°36'46	2°52'52	1°38'28	22°18' 2	24°38' 2	22°35' 2	3°11'39	28°Y16	27°49' 2	17°53'34	26°54' 1	26°45' 2	5°29' 2	28°Y50	S 2
M 3	6 49 51	12°37'55	16°26' 3	3° 1' 23	23°33' 2	25°25' 2	22°36' 3	3°37' 2	28°16' 2	27°51' 2	17°33' 2	26° 0' 2	26°42' 2	5°35' 2	28°50' 2	M 3
T 4	6 53 48	13°39'03	0°16'16	4°35' 2	24°48' 2	26°11' 2	22°37' 3	3°35' 2	28°16' 2	27°53' 2	17°31' 2	26°D 0	26°38' 2	5°42' 2	28°49' 2	T 4
W 5	6 57 44	14°40'11	14°18' 6	6° 9' 26	26° 4' 26	26°58' 2	22°37' 3	3°33' 2	28°16' 2	27°54' 2	17°30' 2	26° 1' 2	26°35' 2	5°49' 2	28°49' 2	W 5
T 6	7 1 41	15°41'19	28°28' 7	7°43' 27	27°19' 2	27°45' 2	22°38' 3	3°30' 2	28°D16	27°56' 2	17°29' 2	26° 2' 2	26°32' 2	5°55' 2	28°49' 2	T 6
F 7	7 5 37	16°42'27	12°11'43	9°18' 28	28°34' 2	28°31' 2	22°R38	3°28' 2	28°16' 2	27°58' 2	17°27' 2	26° 3' 2	26°29' 2	6° 2' 2	28°49' 2	F 7
S 8	7 9 34	17°43'35	26°59' 10	10°53' 29	29°50' 2	29°18' 2	22°38' 3	3°25' 2	28°16' 2	28° 0' 2	17°26' 2	26° 3' 2	26°26' 2	6° 9' 2	28°D49	S 8
S 9	7 13 30	18°44'42	11°11'14	12°29' 1	1°55' 5	0°11' 5	22°37' 3	3°23' 2	28°16' 2	28° 2' 2	17°25' 2	26° 4' 2	26°23' 2	6°16' 2	28°49' 2	S 9
M10	7 17 27	19°45'50	25°24' 14	5° 2' 20	0°51' 2	0°51' 2	22°37' 3	3°20' 2	28°16' 2	28° 4' 2	17°24' 2	26°R 4	26°19' 2	6°22' 2	28°49' 2	M10
T 11	7 21 24	20°46'57	9°11'28	15°42' 3	3°35' 1	1°38' 2	22°36' 3	3°17' 2	28°16' 2	28° 6' 2	17°22' 2	26° 3' 2	26°16' 2	6°29' 2	28°49' 2	T 11
W12	7 25 20	21°48'05	23°23' 17	17°19' 4	4°51' 2	2°25' 2	22°35' 3	3°14' 2	28°16' 2	28° 7' 2	17°21' 2	26° 3' 2	26°13' 2	6°36' 2	28°49' 2	W12
T 13	7 29 17	22°49'12	7°11'10	18°57' 6	6° 6' 3	3°11' 2	22°34' 3	3°11' 2	28°17' 2	28° 9' 2	17°20' 2	26° 3' 2	26°10' 2	6°42' 2	28°50' 2	T 13
F 14	7 33 13	23°50'19	20°45' 20	20°35' 7	2°21' 3	3°58' 2	22°33' 3	3° 8' 2	28°17' 2	28°11' 2	17°18' 2	26° 2' 2	26° 7' 2	6°49' 2	28°50' 2	F 14
S 15	7 37 10	24°51'25	4°37' 7	22°14' 8	3°36' 4	4°45' 2	22°32' 3	3° 5' 2	28°18' 2	28°13' 2	17°17' 2	26° 2' 2	26° 3' 2	6°56' 2	28°50' 2	S 15
S 16	7 41 6	25°52'31	17°16' 23	23°54' 9	5°52' 5	5°31' 2	22°30' 3	3° 2' 2	28°18' 2	28°15' 2	17°16' 2	26°D 2	26° 0' 2	7° 3' 2	28°51' 2	S 16
M17	7 45 3	26°53'36	0°11'11	25°34' 11	11° 7' 6	6°18' 2	22°28' 2	2°58' 2	28°19' 2	28°17' 2	17°15' 2	26°R 2	25°57' 2	7° 9' 2	28°51' 2	M17
T 18	7 48 59	27°54'40	12°51' 27	17°14' 12	2°22' 7	7° 4' 2	22°26' 2	2°55' 2	28°19' 2	28°19' 2	17°13' 2	26° 2' 2	25°54' 2	7°16' 2	28°52' 2	T 18
W19	7 52 56	28°55'44	25°17' 28	5°55' 13	3°37' 7	5°51' 2	22°24' 2	2°51' 2	28°20' 2	28°21' 2	17°12' 2	26° 2' 2	25°51' 2	7°23' 2	28°52' 2	W19
T 20	7 56 53	29°56'46	7°11'30	0°37'14	5°52' 8	8°37' 2	22°22' 2	2°48' 2	28°21' 2	28°23' 2	17°11' 2	26° 1' 2	25°48' 2	7°29' 2	28°53' 2	T 20
F 21	8 0 49	0°57'48	19°34' 2	2°20' 16	7° 9' 9	9°24' 2	22°19' 2	2°44' 2	28°21' 2	28°25' 2	17° 9' 2	26° 1' 2	25°44' 2	7°36' 2	28°54' 2	F 21
S 22	8 4 46	1°58'48	1°17'29	4° 3' 17	2°22' 10	10°10' 2	22°16' 2	2°40' 2	28°22' 2	28°27' 2	17° 8' 2	26° 0' 2	25°41' 2	7°43' 2	28°55' 2	S 22
S 23	8 8 42	2°59'48	13°21' 5	5°46' 18	3°38' 10	5°57' 2	22°13' 2	2°37' 2	28°23' 2	28°30' 2	17° 7' 2	25°59' 2	25°38' 2	7°50' 2	28°56' 2	S 23
M24	8 12 39	4° 0'46	25°13' 7	7°30' 19	5°53' 11	4°43' 2	22°10' 2	2°33' 2	28°24' 2	28°32' 2	17° 6' 2	25°59' 2	25°35' 2	7°56' 2	28°57' 2	M24
T 25	8 16 35	5° 1'43	7°11'18	9°15' 21	8° 12	3°30' 2	22° 7' 2	2°29' 2	28°25' 2	28°34' 2	17° 5' 2	25°D59	25°32' 2	8° 3' 2	28°58' 2	T 25
W26	8 20 32	6° 2'39	19°18' 11	0° 22	2°23' 13	1°16' 2	22° 3' 2	2°25' 2	28°26' 2	28°36' 2	17° 3' 2	25°59' 2	25°29' 2	8°10' 2	28°59' 2	W26
T 27	8 24 28	7° 3'33	1°11'39	12°46' 23	3°38' 14	2° 22	22° 0' 2	2°21' 2	28°27' 2	28°38' 2	17° 2' 2	26° 0' 2	25°25' 2	8°16' 2	29° 0' 2	T 27
F 28	8 28 25	8° 4'27	14°19' 14	3°32' 24	5°53' 14	4°49' 2	21°56' 2	2°17' 2	28°28' 2	28°40' 2	17° 1' 2	26° 1' 2	25°22' 2	8°23' 2	29° 1' 2	F 28
S 29	8 32 22	9° 5'19	27°21' 16	16°19' 26	8° 15	5°35' 2	21°52' 2	2°12' 2	28°29' 2	28°42' 2	17° 0' 2	26° 2' 2	25°19' 2	8°30' 2	29° 2' 2	S 29
S 30	8 36 18	10° 6'09	10°54'6	18° 6' 27	2°23' 16	2°21' 2	21°48' 2	2° 8' 2	28°30' 2	28°45' 2	16°59' 2	26° 3' 2	25°16' 2	8°37' 2	29° 3' 2	S 30
M31	8 40 15	11° 6'59	24°35'6	19°53'28	3°38' 17	4° 7' 2	21°11'43	2°11' 4	28°Y32	28°47' 2	16°57' 2	26°R 3	25°13' 2	8°Y43	29°Y 5	M31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
S 1	23s 3	19n57	3s 8	24s22	0s53	22s58	1s 9	14s37	1s 5	4n 8	1n18	11n42	1n39	10n24	0s31	12s51
S 2	22 58	21 22	2 5	24 28	0 59	22 48	1 11	14 21	1 4	4 8	1 18	11 43	1 39	10 24	0 31	12 50
M 3	22 53	21 36	0 53	24 32	1 5	22 37	1 12	14 4	1 4	4 8	1 18	11 44	1 39	10 24	0 31	12 50
T 4	22 47	20 31	0n24	24 35	1 11	22 25	1 14	13 48	1 3	4 8	1 18	11 45	1 40	10 24	0 31	12 49
W 5	22 40	18 9	1 40	24 36	1 16	22 12	1 15	13 31	1 2	4 8	1 19	11 46	1 40	10 24	0 31	12 49
T 6	22 33	14 41	2 50	24 36	1 21	21 59	1 17	13 14	1 2	4 8	1 19	11 47	1 40	10 24	0 31	12 48
F 7	22 26	10 21	3 51	24 35	1 26	21 45	1 18	12 58	1 1	4 9	1 19	11 48	1 40	10 24	0 31	12 47
S 8	22 18	5 26	4 37	24 33	1 31	21 31	1 19	12 41	1 0	4 9	1 20	11 50	1 40	10 24	0 31	12 47
S 9	22 10	0 15	5 7	24 28	1 35	21 15	1 20	12 23	1 0	4 9	1 20	11 51	1 41	10 24	0 31	12 46
M10	22 1	4s55	5 17	24 23	1 39	21 0	1 22	12 6	0 59	4 10	1 20	11 52	1 41	10 24	0 31	12 45
T 11	21 52	9 47	5 8	24 16	1 43	20 43	1 23	11 49	0 58	4 10	1 20	11 53	1 41	10 24	0 31	12 45
W12	21 43	14 6	4 42	24 7	1 47	20 26	1 24	11 32	0 57	4 11	1 21	11 54	1 41	10 24	0 31	12 44
T 13	21 33	17 37	3 59	23 57	1 50	20 9	1 25	11 14	0 57	4 11	1 21	11 56	1 42	10 24	0 31	12 43
F 14	21 22	20 6	3 4	23 46	1 53	19 51	1 26	10 57	0 56	4 12	1 21	11 57	1 42	10 24	0 31	12 43
S 15	21 12	21 26	1 59	23 33	1 56	19 32	1 26	10 39	0 55	4 13	1 22	11 58	1 42	10 25	0 31	12 42
S 16	21 0	21 34	0 48	23 18	1 58	19 12	1 27	10 21	0 55	4 14	1 22	12 0	1 42	10 25	0 31	12 41
M17	20 49	20 31	0s23	23 2	2 0	18 53	1 28	10 3	0 54	4 15	1 22	12 1	1 42	10 25	0 31	12 41
T 18	20 37	18 27	1 32	22 44	2 2	18 32	1 29	9 45	0 53	4 16	1 22	12 3	1 43	10 25	0 31	12 40
W19	20 24	15 33	2 35	22 25	2 3	18 11	1 29	9 27	0 53	4 17	1 23	12 4	1 43	10 25	0 30	12 39
T 20	20 12	12 1	3 30	22 4	2 4	17 50	1 30	9 9	0 52	4 18	1 23	12 6	1 43	10 26	0 30	12 38
F 21	19 59	8 3	4 15	21 42	2 5	17 28	1 30	8 51	0 51	4 20	1 23	12 7	1 43	10 26	0 30	12 38
S 22	19 45	3 49	4 49	21 18	2 5	17 5	1 31	8 33	0 50	4 21	1 23	12 9	1 43	10 26	0 30	12 37
S 23	19 31	0n32	5 9	20 52	2 4	16 42	1 31	8 14	0 50	4 22	1 24	12 10	1 43	10 27	0 30	12 36
M24	19 17	4 51	5 17	20 25	2 3	16 19	1 31	7 56	0 49	4 24	1 24	12 12	1 44	10 27	0 30	12 36
T 25	19 2	9 2	5 11	19 56	2 2	15 55	1 31	7 38	0 48	4 25	1 24	12 13	1 44	10 27	0 30	12 35
W26	18 48	12 54	4 51	19 26	2 0	15 31	1 31	7 19	0 48	4 27	1 24	12 15	1 44	10 28	0 30	12 34
T 27	18 32	16 19	4 18	18 54	1 58	15 6	1 32	7 1	0 47	4 29	1 25	12 17	1 44	10 28	0 30	12 33
F 28	18 17	19 4	3 31	18 20	1 55	14 41	1 32	6 42	0 46	4 30	1 25	12 18	1 44	10 29	0 30	12 33
S 29	18 1	20 55	2 32	17 45	1 52	14 16	1 31	6 23	0 45	4 32	1 25	12 20	1 45	10 29	0 30	12 32
S 30	17 45	21 39	1 24	17 8	1 48	13 50	1 31	6 5	0 45	4 34	1 25	12 22	1 45	10 30	0 30	12 31
M31	17s28	21n 6	0s 8	16s30	1s43	13s24	1s31	5s46	0s44	4n36	1n26	12n23	1n45	10n30	0s30	12s30

Julian Day Number = 2336128.5, Delta T = 21.45 sec
Ecliptic obliquity = 23°28'45, Nutation = - 0°00'15, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°19'45, Lahiri = 19°26'46Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1684

geocentric

MARCH 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	10 38 31	11♏21'01	1♏24	16°R14	5°Y53	9°Y59	18°R32	29°R43	29°Y30	29°≈54	16°R29	25°R11	23°≈37	12°Y 5	0°R10	W 1
T 2	10 42 28	12°21'02	16°24	15♏20	7° 7	10°44	18♏24	29°Ω38	29°33	29°57	16°≈28	25°≈6	23°34	12°12	0°13	T 2
F 3	10 46 24	13°21'00	1♏33	14°22	8°21	11°29	18°16	29°33	29°35	29°59	16°28	24°58	23°31	12°18	0°16	F 3
S 4	10 50 21	14°20'56	16°41	13°23	9°34	12°14	18° 9	29°29	29°38	0°K 1	16°27	24°51	23°28	12°25	0°19	S 4
S 5	10 54 17	15°20'51	1♏38	12°23	10°48	12°59	18° 1	29°24	29°41	0° 3	16°27	24°44	23°25	12°32	0°22	S 5
M 6	10 58 14	16°20'44	16°16	11°24	12° 2	13°44	17°53	29°20	29°43	0° 6	16°26	24°38	23°21	12°38	0°25	M 6
T 7	11 2 11	17°20'36	0♏31	10°27	13°16	14°29	17°45	29°15	29°46	0° 8	16°26	24°35	23°18	12°45	0°28	T 7
W 8	11 6 7	18°20'26	14°20	9°34	14°29	15°14	17°37	29°11	29°49	0°10	16°25	24°D33	23°15	12°52	0°31	W 8
T 9	11 10 4	19°20'14	27°45	8°45	15°43	15°59	17°30	29° 6	29°52	0°12	16°25	24°33	23°12	12°59	0°34	T 9
F 10	11 14 0	20°20'00	10♏48	8° 0	16°57	16°44	17°22	29° 2	29°54	0°14	16°24	24°34	23° 9	13° 5	0°37	F 10
S 11	11 17 57	21°19'45	23°32	7°21	18°10	17°28	17°14	28°58	29°57	0°17	16°24	24°R35	23° 6	13°12	0°41	S 11
S 12	11 21 53	22°19'28	6≈ 2	6°48	19°24	18°13	17° 6	28°53	0°R 0	0°19	16°23	24°34	23° 2	13°19	0°44	S 12
M13	11 25 50	23°19'09	18°20	6°20	20°37	18°58	16°59	28°49	0° 3	0°21	16°23	24°31	22°59	13°26	0°47	M13
T 14	11 29 46	24°18'49	0♏30	6° 0	21°51	19°42	16°51	28°45	0° 6	0°23	16°22	24°26	22°56	13°32	0°50	T 14
W15	11 33 43	25°18'26	12°32	5°45	23° 4	20°27	16°43	28°41	0° 9	0°25	16°22	24°18	22°53	13°39	0°54	W15
T 16	11 37 40	26°18'01	24°30	5°36	24°17	21°11	16°36	28°37	0°12	0°27	16°22	24° 7	22°50	13°46	0°57	T 16
F 17	11 41 36	27°17'35	6°Y25	5°D34	25°31	21°56	16°28	28°33	0°15	0°29	16°21	23°55	22°46	13°52	1° 1	F 17
S 18	11 45 33	28°17'06	18°17	5°37	26°44	22°40	16°20	28°29	0°18	0°31	16°21	23°43	22°43	13°59	1° 4	S 18
S 19	11 49 29	29°16'35	0°R 9	5°46	27°57	23°24	16°13	28°25	0°21	0°33	16°21	23°30	22°40	14° 6	1° 8	S 19
M20	11 53 26	0°Y16'02	12° 2	6° 0	29°10	24° 9	16° 5	28°22	0°24	0°35	16°21	23°20	22°37	14°13	1°11	M20
T 21	11 57 22	1°15'27	23°58	6°20	0°R23	24°53	15°58	28°18	0°27	0°37	16°20	23°11	22°34	14°19	1°15	T 21
W22	12 1 19	2°14'49	6°II 2	6°44	1°36	25°37	15°51	28°14	0°30	0°39	16°20	23° 6	22°31	14°26	1°18	W22
T 23	12 5 15	3°14'09	18°17	7°13	2°49	26°21	15°44	28°11	0°33	0°41	16°20	23° 2	22°27	14°33	1°22	T 23
F 24	12 9 12	4°13'27	0°≈47	7°46	4° 2	27° 5	15°37	28° 7	0°37	0°43	16°20	23°D 1	22°24	14°39	1°25	F 24
S 25	12 13 9	5°12'43	13°38	8°24	5°15	27°49	15°30	28° 4	0°40	0°45	16°20	23° 1	22°21	14°46	1°29	S 25
S 26	12 17 5	6°11'56	26°52	9° 5	6°28	28°34	15°23	28° 1	0°43	0°47	16°20	23°R 2	22°18	14°53	1°33	S 26
M27	12 21 2	7°11'07	10°Ω35	9°50	7°40	29°17	15°16	27°58	0°46	0°49	16°20	23° 1	22°15	15° 0	1°36	M27
T 28	12 24 58	8°10'16	24°47	10°39	8°53	0°R 1	15° 9	27°55	0°49	0°51	16°20	22°57	22°12	15° 6	1°40	T 28
W29	12 28 55	9° 9'22	9°II 27	11°30	10° 6	0°45	15° 2	27°52	0°53	0°55	16°D20	22°51	22° 8	15°13	1°44	W29
T 30	12 32 51	10° 8'26	24°31	12°25	11°18	1°29	14°56	27°49	0°56	0°58	16°20	22°43	22° 5	15°20	1°47	T 30
F 31	12 36 48	11°Y 7'28	9°≈48	13°K23	12°R30	2°R13	14°II50	27°Ω46	0°R59	0°K57	16°≈20	22°≈33	22°≈2	15°Y27	1°R51	F 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
W 1	7s19	13n50	3n 2	2s 2	3n41	1n31	0s54	3n37	0s22	5n56	1n31	13n16	1n48	10n52	0s29	12s 7
T 2	6 56	9 4	4 0	2 23	3 42	2 2	0 52	3 56	0 21	5 59	1 31	13 18	1 48	10 52	0 29	12 6
F 3	6 33	3 41	4 42	2 46	3 40	2 33	0 49	4 14	0 21	6 3	1 31	13 20	1 48	10 53	0 29	12 5
S 4	6 10	1s54	5 4	3 13	3 36	3 5	0 47	4 32	0 20	6 6	1 31	13 21	1 48	10 54	0 29	12 5
S 5	5 47	7 18	5 5	3 41	3 31	3 36	0 45	4 51	0 19	6 9	1 31	13 23	1 48	10 55	0 29	12 4
M 6	5 24	12 10	4 46	4 40	3 23	4 7	0 42	5 9	0 18	6 12	1 31	13 25	1 48	10 56	0 29	12 3
T 7	5 0	16 14	4 9	4 40	3 14	4 38	0 40	5 27	0 18	6 15	1 31	13 26	1 48	10 57	0 29	12 2
W 8	4 37	19 16	3 19	5 10	3 3	5 9	0 38	5 45	0 17	6 18	1 31	13 28	1 48	10 58	0 29	12 1
T 9	4 14	21 9	2 19	5 39	2 51	5 39	0 35	6 3	0 16	6 21	1 31	13 29	1 48	10 59	0 29	12 1
F 10	3 50	21 49	1 13	6 8	2 38	6 10	0 32	6 21	0 16	6 24	1 31	13 31	1 48	11 0	0 29	12 0
S 11	3 27	21 20	0 6	6 35	2 25	6 41	0 30	6 39	0 15	6 27	1 32	13 32	1 48	11 1	0 29	11 59
S 12	3 3	19 47	1s 1	7 1	2 10	7 11	0 27	6 56	0 14	6 30	1 32	13 34	1 48	11 2	0 29	11 58
M13	2 39	17 19	2 3	7 24	1 56	7 41	0 25	7 14	0 13	6 33	1 32	13 35	1 48	11 3	0 29	11 58
T 14	2 16	14 7	2 59	7 46	1 41	8 11	0 22	7 31	0 13	6 36	1 32	13 37	1 48	11 4	0 29	11 57
W15	1 52	10 21	3 47	8 5	1 26	8 41	0 19	7 49	0 12	6 39	1 32	13 38	1 48	11 6	0 29	11 56
T 16	1 28	6 13	4 23	8 22	1 11	9 11	0 16	8 6	0 11	6 42	1 32	13 40	1 48	11 7	0 29	11 56
F 17	1 5	1 52	4 48	8 37	0 56	9 40	0 13	8 24	0 11	6 45	1 32	13 41	1 48	11 8	0 29	11 55
S 18	0 41	2n33	5 1	8 49	0 42	10 10	0 11	8 41	0 10	6 48	1 32	13 42	1 48	11 9	0 29	11 54
S 19	0 17	6 51	5 0	8 59	0 27	10 39	0 8	8 58	0 9	6 51	1 32	13 44	1 48	11 10	0 29	11 53
M20	0n 6	10 55	4 47	9 7	0 14	11 7	0 5	9 15	0 8	6 54	1 31	13 45	1 48	11 11	0 29	11 53
T 21	0 30	14 35	4 20	9 12	0 0	11 36	0 2	9 32	0 8	6 57	1 31	13 46	1 48	11 12	0 29	11 52
W22	0 54	17 42	3 42	9 15	0s13	12 4	0n 1	9 49	0 7	7 0	1 31	13 47	1 48	11 13	0 29	11 51
T 23	1 17	20 5	2 53	9 16	0 25	12 32	0 4	10 5	0 6	7 2	1 31	13 49	1 48	11 14	0 29	11 51
F 24	1 41	21 34	1 55	9 14	0 37	13 0	0 7	10 22	0 6	7 5	1 31	13 50	1 48	11 15	0 29	11 50
S 25	2 4	21 57	0 50	9 11	0 48	13 27	0 10	10 38	0 5	7 8	1 31	13 51	1 48	11 17	0 29	11 49
S 26	2 28	21 9	0n20	9 5	0 59	13 54	0 13	10 55	0 4	7 10	1 31	13 52	1 48	11 18	0 29	11 49
M27	2 51	19 5	1 32	8 58	1 9	14 21	0 16	11 11	0 4	7 13	1 31	13 53	1 48	11 19	0 29	11 48
T 28	3 15	15 47	2 40	8 48	1 19	14 47	0 19	11 27	0 3	7 16	1 31	13 54	1 48	11 20	0 29	11 47
W29	3 38	11 25	3 39	8 37	1 28	15 13	0 22	11 43	0 2	7 18	1 31	13 55	1 47	11 21	0 29	11 47
T 30	4 1	6 15	4 25	8 24	1 37	15 39	0 25	11 59	0 2	7 20	1 31	13 56	1 47	11 22	0 29	11 46
F 31	4n25	0n36	4n53	8s 9	1s45	16n 4	0n28	12n15	0s 1	7n23	1n31	13n57	1n47	11n23	0s29	11s45

Julian Day Number = 2336188.5, Delta T = 21.36 sec
 Ecliptic obliquity = 23°28'46", Nutation = - 0°00'15", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 20°19'54", Lahiri = 19°26'54"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1684
geocentric

APRIL 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	12 40 44	12♈ 6'27	25♊10	14♈24	13♈43	2♈57	14°R43	27°R43	1♈ 3	0♈59	16♈20	22°R22	21♈59	15♈33	1♈55	S 1
S 2	12 44 41	13° 5'25	10♈23	15°27	14°55	3°40	14♈37	27♈40	1° 6	1° 1	16°20	22♈12	21°56	15°40	1°59	S 2
M 3	12 48 38	14° 4'21	25°17	16°33	16° 7	4°24	14°31	27°38	1° 9	1° 2	16°20	22° 3	21°52	15°47	2° 3	M 3
T 4	12 52 34	15° 3'15	9♈46	17°41	17°20	5° 7	14°25	27°35	1°13	1° 4	16°20	21°57	21°49	15°53	2° 6	T 4
W 5	12 56 31	16° 2'08	23°45	18°52	18°32	5°51	14°19	27°33	1°16	1° 6	16°20	21°54	21°46	16° 0	2°10	W 5
T 6	13 0 27	17° 0'59	7♈16	20° 4	19°44	6°34	14°14	27°31	1°19	1° 8	16°20	21°52	21°43	16° 7	2°14	T 6
F 7	13 4 24	17°59'48	20°21	21°20	20°56	7°18	14° 8	27°28	1°23	1° 9	16°21	21°52	21°40	16°14	2°18	F 7
S 8	13 8 20	18°58'35	3♈ 3	22°37	22° 8	8° 1	14° 3	27°26	1°26	1°11	16°21	21°52	21°37	16°20	2°22	S 8
S 9	13 12 17	19°57'20	15°27	23°56	23°19	8°44	13°58	27°24	1°29	1°13	16°21	21°50	21°33	16°27	2°26	S 9
M10	13 16 13	20°56'04	27°37	25°17	24°31	9°28	13°53	27°22	1°33	1°14	16°21	21°47	21°30	16°34	2°30	M10
T 11	13 20 10	21°54'46	9♈39	26°40	25°43	10°11	13°48	27°20	1°36	1°16	16°22	21°40	21°27	16°40	2°34	T 11
W12	13 24 7	22°53'26	21°34	28° 5	26°55	10°54	13°43	27°19	1°40	1°17	16°22	21°31	21°24	16°47	2°37	W12
T 13	13 28 3	23°52'04	3♈27	29°32	28° 6	11°37	13°38	27°17	1°43	1°19	16°22	21°19	21°21	16°54	2°41	T 13
F 14	13 32 0	24°50'41	15°18	1♈ 1	29°18	12°20	13°34	27°16	1°47	1°21	16°23	21° 5	21°17	17° 1	2°45	F 14
S 15	13 35 56	25°49'15	27°11	2°31	0♈29	13° 3	13°30	27°14	1°50	1°22	16°23	20°51	21°14	17° 7	2°49	S 15
S 16	13 39 53	26°47'48	9♈ 5	4° 3	1°40	13°46	13°26	27°13	1°53	1°24	16°23	20°37	21°11	17°14	2°53	S 16
M17	13 43 49	27°46'19	21° 2	5°37	2°52	14°29	13°22	27°12	1°57	1°25	16°24	20°24	21° 8	17°21	2°57	M17
T 18	13 47 46	28°44'48	3♈ 5	7°13	4° 3	15°12	13°18	27°11	2° 0	1°26	16°24	20°14	21° 5	17°28	3° 1	T 18
W19	13 51 42	29°43'14	15°14	8°50	5°14	15°55	13°14	27°10	2° 4	1°28	16°25	20° 7	21° 2	17°34	3° 5	W19
T 20	13 55 39	0♈41'39	27°34	10°30	6°25	16°38	13°11	27° 9	2° 7	1°29	16°25	20° 3	20°58	17°41	3° 9	T 20
F 21	13 59 35	1°40'02	10♈ 6	12°10	7°36	17°21	13° 8	27° 8	2°11	1°31	16°26	20° 1	20°55	17°48	3°13	F 21
S 22	14 3 32	2°38'22	22°56	13°53	8°47	18° 3	13° 4	27° 7	2°14	1°32	16°27	20°D 1	20°52	17°54	3°17	S 22
S 23	14 7 29	3°36'41	6♈ 6	15°38	9°57	18°46	13° 2	27° 7	2°18	1°33	16°27	20°R 1	20°49	18° 1	3°21	S 23
M24	14 11 25	4°34'57	19°41	17°24	11° 8	19°29	12°59	27° 6	2°21	1°35	16°28	20° 0	20°46	18° 8	3°25	M24
T 25	14 15 22	5°33'11	3♈42	19°12	12°19	20°11	12°56	27° 6	2°25	1°36	16°28	19°58	20°43	18°15	3°29	T 25
W26	14 19 18	6°31'23	18°10	21° 2	13°29	20°54	12°54	27° 6	2°28	1°37	16°29	19°53	20°39	18°21	3°33	W26
T 27	14 23 15	7°29'33	3♈ 1	22°53	14°39	21°36	12°52	27° 5	2°31	1°38	16°30	19°45	20°36	18°28	3°37	T 27
F 28	14 27 11	8°27'41	18°10	24°46	15°50	22°18	12°50	27°D 5	2°35	1°39	16°30	19°36	20°33	18°35	3°41	F 28
S 29	14 31 8	9°25'48	3♈26	26°41	17° 0	23° 1	12°48	27° 5	2°38	1°41	16°31	19°26	20°30	18°41	3°45	S 29
S 30	14 35 4	10♈23'52	18♈38	28♈38	18♈10	23♈43	12♈46	27♈ 6	2♈42	1♈42	16♈32	19♈16	20♈27	18♈48	3♈49	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	decl	lat	
S 1	4n48	5s 5	5n 0	7s53	1s52	16n29	0n31	12n31	0s 0	7n25	1n31	13n58	1n47	11n25	0s29	11s45	0s38	23n 0	0n31	21n37	21n41	1n25	11n28	0s44						
S 2	5 11	10 26	4 46	7 34	1 59	16 53	0 34	12 46	0n 0	7 27	1 31	13 59	1 47	11 26	0 29	11 44	0 38	23 0	0 31	21 39	21 41	1 27	11 29	0 45						
M 3	5 34	15 2	4 12	7 14	2 5	17 17	0 38	13 1	0 1	7 30	1 30	14 0	1 47	11 27	0 29	11 43	0 39	23 0	0 31	21 40	21 42	1 30	11 30	0 45						
T 4	5 56	18 36	3 23	6 53	2 11	17 41	0 41	13 17	0 2	7 32	1 30	14 0	1 47	11 28	0 29	11 43	0 39	23 0	0 31	21 41	21 42	1 32	11 32	0 45						
W 5	6 19	20 57	2 23	6 30	2 16	18 4	0 44	13 32	0 2	7 34	1 30	14 1	1 47	11 29	0 29	11 42	0 39	23 0	0 31	21 42	21 43	1 35	11 33	0 45						
T 6	6 42	22 0	1 16	6 6	2 21	18 27	0 47	13 47	0 3	7 36	1 30	14 2	1 47	11 30	0 29	11 42	0 39	23 0	0 31	21 42	21 43	1 37	11 34	0 45						
F 7	7 4	21 48	0 8	5 40	2 25	18 49	0 50	14 2	0 4	7 38	1 30	14 3	1 47	11 32	0 29	11 41	0 39	23 0	0 31	21 42	21 44	1 40	11 35	0 45						
S 8	7 27	20 28	0s59	5 12	2 28	19 11	0 53	14 16	0 4	7 40	1 30	14 3	1 47	11 33	0 29	11 40	0 39	23 0	0 31	21 42	21 44	1 42	11 37	0 45						
S 9	7 49	18 10	2 1	4 44	2 31	19 32	0 56	14 31	0 5	7 42	1 30	14 4	1 47	11 34	0 28	11 40	0 39	23 0	0 32	21 42	21 45	1 45	11 38	0 45						
M10	8 11	15 5	2 57	4 14	2 34	19 53	0 59	14 45	0 6	7 44	1 30	14 4	1 47	11 35	0 28	11 39	0 39	23 0	0 32	21 43	21 45	1 47	11 39	0 45						
T 11	8 33	11 25	3 44	3 42	2 36	20 13	1 2	15 0	0 6	7 45	1 29	14 5	1 46	11 36	0 28	11 39	0 39	23 0	0 32	21 44	21 46	1 50	11 40	0 45						
W12	8 55	7 20	4 20	3 10	2 37	20 33	1 5	15 14	0 7	7 47	1 29	14 5	1 46	11 38	0 28	11 38	0 39	23 0	0 32	21 45	21 46	1 52	11 42	0 45						
T 13	9 17	2 59	4 45	2 36	2 38	20 52	1 8	15 28	0 8	7 49	1 29	14 6	1 46	11 39	0 28	11 38	0 39	23 0	0 32	21 47	21 47	1 55	11 43	0 45						
F 14	9 38	1n27	4 58	2 1	2 38	21 11	1 11	15 42	0 8	7 50	1 29	14 6	1 46	11 40	0 28	11 37	0 39	23 0	0 32	21 49	21 47	1 57	11 44	0 45						
S 15	10 0	5 51	4 58	1 25	2 38	21 29	1 14	15 55	0 9	7 52	1 29	14 7	1 46	11 41	0 28	11 37	0 39	23 0	0 32	21 52	21 48	2 0	11 46	0 45						
S 16	10 21	10 3	4 44	0 47	2 37	21 47	1 17	16 9	0 9	7 53	1 29	14 7	1 46	11 42	0 28	11 36	0 39	23 0	0 32	21 54	21 48	2 2	11 47	0 46						
M17	10 42	13 53	4 18	0 9	2 36	22 4	1 19	16 22	0 10	7 55	1 28	14 7	1 46	11 44	0 28	11 36	0 39	23 0	0 32	21 56	21 49	2 5	11 48	0 46						
T 18	11 3	17 12	3 41	0n31	2 34	22 20	1 22	16 36	0 11	7 56	1 28	14 8	1 46	11 45	0 28	11 35	0 39	23 0	0 32	21 57	21 49	2 7	11 49	0 46						
W19	11 24	19 48	2 53	1 11	2 32	22 36	1 25	16 49	0 11	7 57	1 28	14 8	1 46	11 46	0 28	11 35	0 39	23 0	0 32	21 58	21 50	2 10	11 51	0 46						
T 20	11 44	21 32	1 56	1 53	2 29	22 51	1 28	17 2	0 12	7 58	1 28	14 8	1 46	11 47	0 28	11 34	0 39	23 0	0 32	21 59	21 50	2 12	11 52	0 46						
F 21	12 4	22 14	0 52	2 35	2 25	23 6	1 30	17 14	0 13	7 59	1 28	14 8	1 46	11 48	0 28	11 34	0 39	23 0	0 32	21 59	21 51	2 15	11 53	0 46						
S 22	12 25	21 47	0n15	3 19	2 21	23 20	1 33	17 27	0 13	8 0	1 28	14 8	1 45	11 50	0 28	11 33	0 39	23 0	0 32	21 59	21 51	2 17	11 54	0 46						
S 23	12 44	20 8	1 24	4 3	2 17	23 34	1 36	17 39	0 14	8 1	1 27	14 9	1 45	11 51	0 28	11 33	0 39	23 0	0 32	21 59	21 52	2 20	11 56	0 46						
M24	13 4	17 19	2 30	4 49	2 12	23 46	1 38	17 52	0 14	8 2	1 27	14 9	1 45	11 52	0 28	11 32	0 39	23 0	0 32	21 59	21 52	2 22	11 57	0 46						
T 25	13 24	13 25	3 29	5 35	2 6	23 58	1 41	18 4	0 15	8 3	1 27	14 9	1 45	11 53	0 28	11 32	0 39	23 0	0 32	22 0	21 53	2 25	11 58	0 46						
W26	13 43	8 38	4 17	6 21	2 0	24 10	1 43	18 16	0 16	8 4	1 27	14 9	1 45	11 54	0 28	11 32	0 39	23 0	0 32	22 0	21 53	2 27	12 0	0 46						
T 27	14 2	3 13	4 49	7 9	1 54	24 21	1 46	18 27	0 16	8 4	1 27	14 9	1 45	11 56	0 28	11 31	0 39	23 0	0 32	22 1	21 54	2 30	12 1	0 46						
F 28	14 21	2s29	5 2	7 57	1 47	24 31	1 48	18 39	0 17	8 5	1 26	14 8	1 45	11 57	0 28	11 31	0 39	23 0	0 32	22 3	21 54	2 32	12 2	0 47						
S 29	14 39	8 5	4 53	8 46	1 39	24 41	1 51	18 50	0 17	8 6	1 26	14 8	1 45	11 58	0 28	11 30	0 39	23 0	0 33	22 4	21 55	2 35	12 3	0 47						
S 30	14n58	13s10	4n24	9n35	1s32	24n49	1n53	19n 2	0n18	8n 6	1n26	14n 8	1n45	11n59	0s28	11s30	0s39	23n 0	0n33	22n 6	21n55	2n37	12n 5	0s47						

ASTRODIENST EPHEMERIS for the year 1684
geocentric

MAY 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
M 1	14 39 1	11 ⁸ 21'55	3 [♈] 36	0 [♊] 37	19 [♋] 20	24 [♌] 25	12 [♍] R45	27 [♎] 6	2 [♏] 45	1 [♐] 43	16 [♑] 33	19 [♒] R 8	20 [♓] 23	18 [♈] Y55	3 [♉] 53	M 1
T 2	14 42 58	12 [°] 19'57	18 [°] 12	2 [°] 37	20 [°] 30	25 [°] 8	12 [♍] 43	27 [°] 6	2 [°] 49	1 [°] 44	16 [°] 33	19 [°] 3	20 [°] 20	19 [°] 2	3 [°] 57	T 2
W 3	14 46 54	13 [°] 17'57	2 [♊] 30	4 [°] 39	21 [°] 39	25 [°] 50	12 [°] 42	27 [°] 7	2 [°] 52	1 [°] 45	16 [°] 34	18 [°] 59	20 [°] 17	19 [°] 8	4 [°] 1	W 3
T 4	14 50 51	14 [°] 15'56	15 [°] 58	6 [°] 42	22 [°] 49	26 [°] 32	12 [°] 41	27 [°] 7	2 [°] 55	1 [°] 46	16 [°] 35	18 [°] D58	20 [°] 14	19 [°] 15	4 [°] 5	T 4
F 5	14 54 47	15 [°] 13'53	29 [°] 9	8 [°] 47	23 [°] 59	27 [°] 14	12 [°] 41	27 [°] 8	2 [°] 59	1 [°] 47	16 [°] 36	18 [°] 58	20 [°] 11	19 [°] 22	4 [°] 8	F 5
S 6	14 58 44	16 [°] 11'49	11 [♋] 55	10 [°] 54	25 [°] 8	27 [°] 56	12 [°] 40	27 [°] 9	3 [°] 2	1 [°] 48	16 [°] 37	18 [°] R59	20 [°] 8	19 [°] 29	4 [°] 12	S 6
S 7	15 2 40	17 [°] 9'44	24 [°] 21	13 [°] 1	26 [°] 17	28 [°] 38	12 [°] 40	27 [°] 10	3 [°] 6	1 [°] 49	16 [°] 38	18 [°] 59	20 [°] 4	19 [°] 35	4 [°] 16	S 7
M 8	15 6 37	18 [°] 7'37	6 [♌] 31	15 [°] 10	27 [°] 26	29 [°] 20	12 [°] 40	27 [°] 11	3 [°] 9	1 [°] 49	16 [°] 39	18 [°] 57	20 [°] 1	19 [°] 42	4 [°] 20	M 8
T 9	15 10 33	19 [°] 5'29	18 [°] 31	17 [°] 20	28 [°] 36	0 [♍] 2	12 [°] D40	27 [°] 12	3 [°] 12	1 [°] 50	16 [°] 40	18 [°] 53	19 [°] 58	19 [°] 49	4 [°] 24	T 9
W10	15 14 30	20 [°] 3'20	0 [♎] 24	19 [°] 30	29 [°] 45	0 [°] 44	12 [°] 40	27 [°] 13	3 [°] 16	1 [°] 51	16 [°] 41	18 [°] 47	19 [°] 55	19 [°] 55	4 [°] 28	W10
T 11	15 18 27	21 [°] 1'10	12 [°] 15	21 [°] 41	0 [♏] 53	1 [°] 25	12 [°] 40	27 [°] 14	3 [°] 19	1 [°] 52	16 [°] 41	18 [°] 38	19 [°] 52	20 [°] 2	4 [°] 32	T 11
F 12	15 22 23	21 [°] 58'58	24 [°] 7	23 [°] 53	2 [°] 2	2 [°] 7	12 [°] 41	27 [°] 16	3 [°] 22	1 [°] 53	16 [°] 42	18 [°] 28	19 [°] 49	20 [°] 9	4 [°] 36	F 12
S 13	15 26 20	22 [°] 56'45	6 [♐] 1	26 [°] 4	3 [°] 11	2 [°] 49	12 [°] 41	27 [°] 17	3 [°] 26	1 [°] 53	16 [°] 43	18 [°] 18	19 [°] 45	20 [°] 16	4 [°] 39	S 13
S 14	15 30 16	23 [°] 54'31	18 [°] 1	28 [°] 15	4 [°] 19	3 [°] 31	12 [°] 42	27 [°] 19	3 [°] 29	1 [°] 54	16 [°] 45	18 [°] 7	19 [°] 42	20 [°] 22	4 [°] 43	S 14
M15	15 34 13	24 [°] 52'15	0 [♑] 6	0 [♒] 25	5 [°] 28	4 [°] 12	12 [°] 43	27 [°] 21	3 [°] 32	1 [°] 55	16 [°] 46	17 [°] 58	19 [°] 39	20 [°] 29	4 [°] 47	M15
T 16	15 38 9	25 [°] 49'58	12 [°] 19	2 [°] 35	6 [°] 36	4 [°] 54	12 [°] 45	27 [°] 23	3 [°] 35	1 [°] 55	16 [°] 47	17 [°] 51	19 [°] 36	20 [°] 36	4 [°] 51	T 16
W17	15 42 6	26 [°] 47'40	24 [°] 40	4 [°] 43	7 [°] 44	5 [°] 35	12 [°] 46	27 [°] 25	3 [°] 39	1 [°] 56	16 [°] 48	17 [°] 46	19 [°] 33	20 [°] 43	4 [°] 55	W17
T 18	15 46 2	27 [°] 45'21	7 [♓] 12	6 [°] 50	8 [°] 52	6 [°] 17	12 [°] 48	27 [°] 27	3 [°] 42	1 [°] 56	16 [°] 49	17 [°] 44	19 [°] 29	20 [°] 49	4 [°] 58	T 18
F 19	15 49 59	28 [°] 43'00	19 [°] 55	8 [°] 56	10 [°] 0	6 [°] 58	12 [°] 49	27 [°] 29	3 [°] 45	1 [°] 57	16 [°] 50	17 [°] D43	19 [°] 26	20 [°] 56	5 [°] 2	F 19
S 20	15 53 56	29 [°] 40'37	2 [♈] 53	11 [°] 0	11 [°] 7	7 [°] 40	12 [°] 51	27 [°] 31	3 [°] 48	1 [°] 57	16 [°] 51	17 [°] 44	19 [°] 23	21 [°] 3	5 [°] 6	S 20
S 21	15 57 52	0 [♉] 38'13	16 [°] 8	13 [°] 1	12 [°] 15	8 [°] 21	12 [°] 53	27 [°] 33	3 [°] 52	1 [°] 58	16 [°] 52	17 [°] 45	19 [°] 20	21 [°] 9	5 [°] 10	S 21
M22	16 1 49	1 [°] 35'47	29 [°] 42	15 [°] 1	13 [°] 22	9 [°] 2	12 [°] 56	27 [°] 36	3 [°] 55	1 [°] 58	16 [°] 53	17 [°] R46	19 [°] 17	21 [°] 16	5 [°] 13	M22
T 23	16 5 45	2 [°] 33'20	13 [♊] 36	16 [°] 58	14 [°] 30	9 [°] 44	12 [°] 58	27 [°] 38	3 [°] 58	1 [°] 59	16 [°] 55	17 [°] 45	19 [°] 14	21 [°] 23	5 [°] 17	T 23
W24	16 9 42	3 [°] 30'52	2 [♋] 52	18 [°] 53	15 [°] 37	10 [°] 25	13 [°] 1	27 [°] 41	4 [°] 1	1 [°] 59	16 [°] 56	17 [°] 43	19 [°] 10	21 [°] 30	5 [°] 21	W24
T 25	16 13 38	4 [°] 28'22	12 [♌] 26	20 [°] 45	16 [°] 43	11 [°] 6	13 [°] 4	27 [°] 44	4 [°] 4	1 [°] 59	16 [°] 57	17 [°] 39	19 [°] 7	21 [°] 36	5 [°] 24	T 25
F 26	16 17 35	5 [°] 25'50	27 [°] 14	22 [°] 34	17 [°] 50	11 [°] 47	13 [°] 7	27 [°] 46	4 [°] 7	1 [°] 59	16 [°] 58	17 [°] 34	19 [°] 4	21 [°] 43	5 [°] 28	F 26
S 27	16 21 31	6 [°] 23'18	12 [♍] 10	24 [°] 21	18 [°] 57	12 [°] 28	13 [°] 10	27 [°] 49	4 [°] 10	2 [°] 0	17 [°] 0	17 [°] 27	19 [°] 1	21 [°] 50	5 [°] 31	S 27
S 28	16 25 28	7 [°] 20'44	27 [°] 5	26 [°] 6	20 [°] 3	13 [°] 9	13 [°] 13	27 [°] 52	4 [°] 13	2 [°] 0	17 [°] 1	17 [°] 22	18 [°] 58	21 [°] 56	5 [°] 35	S 28
M29	16 29 25	8 [°] 18'10	11 [♎] 51	27 [°] 47	21 [°] 9	13 [°] 50	13 [°] 17	27 [°] 55	4 [°] 16	2 [°] 0	17 [°] 2	17 [°] 17	18 [°] 55	22 [°] 3	5 [°] 38	M29
T 30	16 33 21	9 [°] 15'34	26 [°] 20	29 [°] 26	22 [°] 15	14 [°] 31	13 [°] 20	27 [°] 59	4 [°] 19	2 [°] 0	17 [°] 3	17 [°] 14	18 [°] 51	22 [°] 10	5 [°] 42	T 30
W31	16 37 18	10 [°] 12'58	10 [♏] 26	1 [♐] 2	23 [°] 21	15 [°] 12	13 [°] 24	28 [°] 2	4 [°] 22	2 [°] 0	17 [°] 5	17 [°] 22	18 [°] 48	22 [°] Y17	5 [°] 45	W31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	lat	lat
M 1	15n16	17s22	3n36	10n24	1s23	24n58	1n55	19n13	0n19	8n 6	1n26	14n 8	1n44	12n 0	0s28	11s30	0s39	23n 0	0n33	22n 7	21n56	2n40	12n 6	0s47
T 2	15 34	20 22	2 36	11 14	1 15	25 5	1 57	19 23	0 19	8 7	1 26	14 8	1 44	12 1	0 28	11 29	0 39	23 0	0 33	22 7	21 56	2 42	12 7	0 47
W 3	15 51	22 0	1 27	12 4	1 5	25 12	1 59	19 34	0 20	8 7	1 25	14 7	1 44	12 3	0 28	11 29	0 39	22 59	0 33	22 8	21 57	2 45	12 8	0 47
T 4	16 9	22 15	0 16	12 54	0 56	25 18	2 1	19 45	0 20	8 7	1 25	14 7	1 44	12 4	0 28	11 29	0 39	22 59	0 33	22 8	21 57	2 47	12 10	0 47
F 5	16 26	21 15	0s54	13 43	0 46	25 24	2 3	19 55	0 21	8 7	1 25	14 7	1 44	12 5	0 28	11 28	0 39	22 59	0 33	22 8	21 58	2 50	12 11	0 47
S 6	16 43	19 9	1 59	14 33	0 36	25 28	2 5	20 5	0 22	8 7	1 25	14 6	1 44	12 6	0 28	11 28	0 39	22 59	0 33	22 8	21 58	2 52	12 12	0 47
S 7	16 59	16 12	2 57	15 22	0 26	25 33	2 7	20 15	0 22	8 7	1 25	14 6	1 44	12 7	0 28	11 28	0 39	22 59	0 33	22 8	21 59	2 55	12 13	0 47
M 8	17 15	12 37	3 45	16 10	0 16	25 36	2 9	20 25	0 23	8 7	1 24	14 6	1 44	12 8	0 28	11 28	0 40	22 59	0 33	22 8	21 59	2 57	12 15	0 47
T 9	17 31	8 35	4 23	16 57	0 5	25 39	2 10	20 34	0 23	8 7	1 24	14 5	1 44	12 10	0 28	11 27	0 40	22 59	0 33	22 9	21 59	3 0	12 16	0 48
W10	17 47	4 15	4 49	17 44	0n 5	25 41	2 12	20 44	0 24	8 7	1 24	14 5	1 43	12 11	0 28	11 27	0 40	22 59	0 33	22 10	22 0	3 2	12 17	0 48
T 11	18 3	0n13	5 2	18 29	0 16	25 42	2 13	20 53	0 24	8 6	1 24	14 4	1 43	12 12	0 28	11 27	0 40	22 59	0 33	22 11	22 0	3 5	12 18	0 48
F 12	18 18	4 40	5 3	19 12	0 26	25 43	2 15	21 2	0 25	8 6	1 23	14 3	1 43	12 13	0 28	11 27	0 40	22 59	0 33	22 12	22 1	3 7	12 19	0 48
S 13	18 32	8 59	4 50	19 54	0 37	25 43	2 16	21 10	0 26	8 5	1 23	14 3	1 43	12 14	0 28	11 26	0 40	22 59	0 33	22 14	22 1	3 10	12 21	0 48
S 14	18 47	12 59	4 24	20 34	0 47	25 42	2 17	21 19	0 26	8 5	1 23	14 2	1 43	12 15	0 28	11 26	0 40	22 59	0 33	22 15	22 2	3 12	12 22	0 48
M15	19 1	16 31	3 47	21 12	0 56	25 40	2 19	21 27	0 27	8 4	1 23	14 1	1 43	12 16	0 28	11 26	0 40	22 59	0 33	22 16	22 2	3 15	12 23	0 48
T 16	19 15	19 22	2 58	21 47	1 6	25 38	2 20	21 36	0 27	8 4	1 23	14 1	1 43	12 17	0 28	11 26	0 40	22 59	0 33	22 17	22 3	3 17	12 24	0 48
W17	19 28	21 22	2 1	22 20	1 15	25 36	2 21	21 44	0 28	8 3	1 22	14 0	1 43	12 19	0 28	11 26	0 40	22 59	0 33	22 18	22 3	3 20	12 25	0 48
T 18	19 42	22 21	0 56	22 51	1 23	25 32	2 21	21 51	0 28	8 2	1 22	13 59	1 42	12 20	0 28	11 25	0 40	22 58	0 34	22 18	22 4	3 22	12 27	0 48
F 19	19 54	22 12	0n12	23 19	1 31	25 28	2 22	21 59	0 29	8 1	1 22	13 58	1 42	12 21	0 28	11 25	0 40	22 58	0 34	22 18	22 4	3 25	12 28	0 48
S 20	20 7	20 52	1 21	23 45	1 38	25 23	2 23	22 6	0 29	8 0	1 22	13 57	1 42	12 22	0 28	11 25	0 40	22 58	0 34	22 18	22 5	3 27	12 29	0 49
S 21	20 19	18 22	2 27	24 8	1 44	25 18	2 24	22 14	0 30	7 59	1 22	13 56	1 42	12 23	0 28	11 25	0 40	22 58	0 34	22 18	22 5	3 30	12 30	0 49
M22	20 31	14 49	3 27	24 28	1 50	25 12	2 24	22 21	0 30	7 58	1 21	13 55	1 42	12 24	0 28	11 25	0 40	22 58	0 34	22 18	22 5	3 32	12 31	0 49
T 23	20 42	10 24	4 16	24 45	1 55	25 5	2 24	22 27	0 31	7 57	1 21	13 54	1 42	12 25	0 28	11 25	0 40	22 58	0 34	22 18	22 6	3 35	12 32	0 49
W24	20 54	5 18	4 51	25 0	2 0	24 58	2 25	22 34	0 31	7 56	1 21	13 53	1 42	12 26	0 28	11 25	0 40	22 58	0 34	22 18	22 6	3 37	12 33	0 49
T 25	21 4	0s12	5 8	25 12	2 3	24 50	2 25	22 40	0 32	7 54	1 21	13 52	1 42	12 27	0 28	11 25	0 40	22 58	0 34	22 19	22 7	3 40	12 34	0 49
F 26	21 15	5 46	5 5	25 22	2 6	24 41	2 25	22 47	0 33	7 53	1 20	13 51	1 42	12 28	0 28	11 24	0 40	22 58	0 34	22 19	22 7	3 42	12 35	0 49
S 27	21 25	11 3	4 41	25 30	2 8	24 32	2 25	22 52	0 33	7 52	1 20	13 50	1 41	12 29	0 28	11 24	0 40	22 58	0 34	22 20	22 8	3 45	12 37	0 49
S 28	21 34	15 40	3 58	25 35	2 9	24 22	2 25	22 58	0 34	7 50	1 20	13 49	1 41	12 30	0 28	11 24	0 40	22 57	0 34	22 21	22 8	3 47	12 38	0 49
M29	21 44	14 16	3 0	25 37	2 10	24 11	2 24	23 4	0 34	7 49	1 20	13 48	1 41	12 31	0 28	11 24	0 40	22 57	0 34	22 22	22 9	3 50	12 39	0 50
T 30	21 53	21 35	1 51	25 38	2 10	24 0	2 24	23 9	0 35	7 47	1 20	13 47	1 41	12 32	0 28	11 24	0 40	22 57	0 34	22 22	22 9	3 53	12 40	0 50
W31	22n 1	22s27	0n37	25n37	2n 8	23n49	2n24	23n14	0n35	7n45	1n19	13n45	1n41	12n33	0s28	11s24	0s40	22n57	0n34	22n22	22n 9	3n55	12n41	0s50

ASTRODIENST EPHEMERIS for the year 1684

geocentric

JUNE 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 41 14	11II10'21	24☾ 6	25☾35	24☾27	15II53	13II28	28♂ 5	4825	2♂ 1	17☾ 6	17°D12	18☾45	22Υ23	5849	T 1
F 2	16 45 11	12° 7'43	7☾20	4° 5	25°32	16°34	13°32	28° 9	4°28	2° 1	17° 7	17☾13	18°42	22°30	5°52	F 2
S 3	16 49 7	13° 5'05	20°11	5°32	26°37	17°15	13°37	28°12	4°31	2°R 1	17° 9	17°15	18°39	22°37	5°55	S 3
S 4	16 53 4	14° 2'26	2♂41	6°57	27°42	17°55	13°41	28°16	4°34	2° 1	17°10	17°16	18°35	22°44	5°59	S 4
M 5	16 57 0	14°59'46	14°54	8°18	28°47	18°36	13°46	28°20	4°37	2° 1	17°11	17°R17	18°32	22°50	6° 2	M 5
T 6	17 0 57	15°57'06	26°56	9°37	29°52	19°17	13°51	28°23	4°39	2° 0	17°13	17°16	18°29	22°57	6° 5	T 6
W 7	17 4 54	16°54'26	8Υ51	10°52	0♂56	19°57	13°55	28°27	4°42	2° 0	17°14	17°14	18°26	23° 4	6° 9	W 7
T 8	17 8 50	17°51'45	20°43	12° 5	2° 0	20°38	14° 1	28°31	4°45	2° 0	17°16	17°11	18°23	23°10	6°12	T 8
F 9	17 12 47	18°49'03	2♂36	13°14	3° 4	21°18	14° 6	28°35	4°48	2° 0	17°17	17° 7	18°20	23°17	6°15	F 9
S 10	17 16 43	19°46'21	14°34	14°20	4° 8	21°59	14°11	28°40	4°50	2° 0	17°18	17° 2	18°16	23°24	6°18	S 10
S 11	17 20 40	20°43'39	26°39	15°23	5°11	22°39	14°17	28°44	4°53	2° 0	17°20	16°58	18°13	23°31	6°21	S 11
M12	17 24 36	21°40'57	8II54	16°22	6°14	23°20	14°22	28°48	4°56	1°59	17°21	16°54	18°10	23°37	6°24	M12
T 13	17 28 33	22°38'13	21°20	17°19	7°17	24° 0	14°28	28°52	4°58	1°59	17°23	16°51	18° 7	23°44	6°27	T 13
W14	17 32 29	23°35'30	3☾58	18°11	8°20	24°41	14°34	28°57	5° 1	1°59	17°24	16°49	18° 4	23°51	6°30	W14
T 15	17 36 26	24°32'46	16°48	19° 0	9°22	25°21	14°40	29° 1	5° 3	1°58	17°26	16°D48	18° 1	23°58	6°33	T 15
F 16	17 40 23	25°30'01	29°51	19°45	10°24	26° 1	14°47	29° 6	5° 6	1°58	17°27	16°49	17°57	24° 4	6°36	F 16
S 17	17 44 19	26°27'16	13♂ 7	20°27	11°26	26°42	14°53	29°11	5° 8	1°58	17°29	16°50	17°54	24°11	6°39	S 17
S 18	17 48 16	27°24'30	26°36	21° 4	12°27	27°22	14°59	29°16	5°11	1°57	17°30	16°51	17°51	24°18	6°42	S 18
M19	17 52 12	28°21'44	10II20	21°37	13°28	28° 2	15° 6	29°20	5°13	1°57	17°32	16°53	17°48	24°24	6°45	M19
T 20	17 56 9	29°18'56	24°17	22° 7	14°29	28°42	15°13	29°25	5°15	1°56	17°33	16°R53	17°45	24°31	6°48	T 20
W21	18 0 5	0☾16'09	8♂26	22°31	15°30	29°22	15°20	29°30	5°18	1°56	17°35	16°53	17°41	24°38	6°50	W21
T 22	18 4 2	1°13'20	22°46	22°52	16°30	0☾ 2	15°27	29°35	5°20	1°55	17°36	16°52	17°38	24°45	6°53	T 22
F 23	18 7 59	2°10'32	7II13	23° 8	17°30	0°42	15°34	29°41	5°22	1°54	17°38	16°51	17°35	24°51	6°56	F 23
S 24	18 11 55	3° 7'42	21°44	23°20	18°29	1°22	15°41	29°46	5°24	1°54	17°39	16°49	17°32	24°58	6°58	S 24
S 25	18 15 52	4° 4'53	6♂13	23°26	19°28	2° 2	15°49	29°51	5°27	1°53	17°41	16°48	17°29	25° 5	7° 1	S 25
M26	18 19 48	5° 2'03	20°35	23°R29	20°27	2°42	15°56	29°56	5°29	1°52	17°43	16°46	17°26	25°11	7° 3	M26
T 27	18 23 45	5°59'13	4♂43	23°26	21°25	3°22	16° 4	0II2	5°31	1°52	17°44	16°46	17°22	25°18	7° 6	T 27
W28	18 27 41	6°56'24	18°35	23°19	22°23	4° 2	16°12	0° 7	5°33	1°51	17°46	16°D46	17°19	25°25	7° 8	W28
T 29	18 31 38	7°53'34	2♂ 7	23° 8	23°20	4°42	16°20	0°13	5°35	1°50	17°47	16°46	17°16	25°32	7°11	T 29
F 30	18 35 34	8☾50'44	15♂18	22☾52	24♂17	5☾21	16II28	0II18	5♂37	1♂49	17☾49	16☾46	17☾13	25Υ38	7♂13	F 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	
T 1	22n 9	21s57	0s38	25n34	2n 7	23n37	2n23	23n19	0n36	7n44	1n19	13n44	1n41	12n34	0s28	11s24	T 1
F 2	22 17	20 12	1 48	25 29	2 4	23 24	2 22	23 24	0 36	7 42	1 19	13 43	1 41	12 35	0 28	11 24	F 2
S 3	22 17	20 12	2 50	25 22	2 1	23 11	2 21	23 28	0 37	7 40	1 19	13 42	1 41	12 36	0 28	11 24	S 3
S 4	22 31	14 0	3 43	25 14	1 57	22 57	2 20	23 33	0 37	7 38	1 19	13 40	1 41	12 37	0 28	11 24	S 4
M 5	22 38	10 1	4 24	25 5	1 52	22 42	2 19	23 37	0 38	7 36	1 18	13 39	1 41	12 38	0 28	11 24	M 5
T 6	22 44	5 42	4 53	24 54	1 46	22 28	2 18	23 41	0 38	7 34	1 18	13 37	1 40	12 39	0 28	11 24	T 6
W 7	22 50	1 13	5 9	24 41	1 40	22 12	2 17	23 44	0 39	7 32	1 18	13 36	1 40	12 40	0 28	11 25	W 7
T 8	22 55	3n17	5 12	24 28	1 33	21 56	2 15	23 48	0 39	7 30	1 18	13 34	1 40	12 41	0 28	11 25	T 8
F 9	23 0	7 41	5 1	24 14	1 25	21 40	2 13	23 51	0 39	7 28	1 18	13 33	1 40	12 42	0 28	11 25	F 9
S 10	23 5	11 49	4 37	23 59	1 17	21 23	2 12	23 54	0 40	7 25	1 17	13 31	1 40	12 43	0 28	11 25	S 10
S 11	23 9	15 32	4 1	23 43	1 8	21 6	2 10	23 57	0 40	7 23	1 17	13 30	1 40	12 43	0 28	11 25	S 11
M12	23 13	18 38	3 13	23 26	0 58	20 48	2 8	24 0	0 41	7 21	1 17	13 28	1 40	12 44	0 28	11 25	M12
T 13	23 16	20 57	2 15	23 8	0 47	20 30	2 5	24 2	0 41	7 18	1 17	13 27	1 40	12 45	0 28	11 25	T 13
W14	23 19	22 15	1 10	22 51	0 36	20 12	2 3	24 4	0 42	7 16	1 17	13 25	1 40	12 46	0 29	11 25	W14
T 15	23 22	22 25	0 0	22 32	0 25	19 53	2 1	24 6	0 42	7 13	1 16	13 23	1 40	12 47	0 29	11 25	T 15
F 16	23 24	21 23	1n11	22 14	0 13	19 33	1 58	24 8	0 43	7 11	1 16	13 22	1 40	12 48	0 29	11 26	F 16
S 17	23 26	19 9	2 20	21 55	0s 0	19 13	1 55	24 9	0 43	7 8	1 16	13 20	1 39	12 48	0 29	11 26	S 17
S 18	23 27	15 50	3 22	21 36	0 14	18 53	1 52	24 11	0 44	7 5	1 16	13 18	1 39	12 49	0 29	11 26	S 18
M19	23 28	11 37	4 14	21 17	0 27	18 33	1 49	24 12	0 44	7 2	1 16	13 16	1 39	12 50	0 29	11 26	M19
T 20	23 29	6 44	4 51	20 59	0 42	18 12	1 46	24 13	0 45	7 0	1 15	13 14	1 39	12 51	0 29	11 26	T 20
W21	23 29	1 26	5 12	20 40	0 56	17 51	1 43	24 14	0 45	6 57	1 15	13 13	1 39	12 52	0 29	11 27	W21
T 22	23 28	4s 1	5 14	20 22	1 11	17 30	1 39	24 14	0 45	6 54	1 15	13 11	1 39	12 52	0 29	11 27	T 22
F 23	23 28	9 17	4 56	20 4	1 27	17 8	1 35	24 15	0 46	6 51	1 15	13 9	1 39	12 53	0 29	11 27	F 23
S 24	23 27	14 3	4 19	19 47	1 42	16 46	1 32	24 15	0 46	6 48	1 15	13 7	1 39	12 54	0 29	11 27	S 24
S 25	23 25	18 0	3 26	19 30	1 58	16 24	1 28	24 15	0 47	6 45	1 15	13 5	1 39	12 55	0 29	11 28	S 25
M26	23 23	20 49	2 20	19 14	2 14	16 1	1 23	24 14	0 47	6 42	1 14	13 3	1 39	12 55	0 29	11 28	M26
T 27	23 21	22 18	1 6	18 59	2 29	15 38	1 19	24 14	0 48	6 39	1 14	13 1	1 39	12 56	0 29	11 28	T 27
W28	23 18	22 21	0s10	18 45	2 45	15 15	1 15	24 13	0 48	6 35	1 14	12 59	1 39	12 57	0 29	11 29	W28
T 29	23 15	21 5	1 24	18 32	3 0	14 52	1 10	24 12	0 48	6 32	1 14	12 57	1 39	12 57	0 29	11 29	T 29
F 30	23n11	18s41	2s32	18n20	3s15	14n28	1n 5	24n11	0n49	6n29	1n14	12n55	1n38	12n58	0s29	11s29	F 30

Julian Day Number = 2336280.5, Delta T = 21.22 sec

Ecliptic obliquity = 23°28'46, Nutation = - 0°00'17, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 20°20'06, Lahiri = 19°27'07Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1684
geocentric

JULY 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	18 39 31	9 ⁵⁴ 47'54	28 ⁸ 8	22°R32	25 ¹¹ 14	6 ¹ 1	16 ¹¹ 36	0 ¹¹ 24	5 ⁸ 39	1°R49	17 ⁵⁰ 50	16 ⁴⁷ 47	17 ¹⁰ 10	25 ¹⁴ 45	7 ⁸ 15	S 1
S 2	18 43 28	10°45'05	10 ¹¹ 39	22 ⁸ 8	26°10	6°41	16°44	0°30	5°41	1 ¹¹ 48	17°52	16°48	17° 7	25°52	7°18	S 2
M 3	18 47 24	11°42'16	22°55	21°40	27° 5	7°20	16°53	0°36	5°43	1°47	17°54	16°48	17° 3	25°59	7°20	M 3
T 4	18 51 21	12°39'27	4 ¹¹ 59	21° 9	28° 0	8° 0	17° 1	0°41	5°44	1°46	17°55	16°48	17° 0	26° 5	7°22	T 4
W 5	18 55 17	13°36'39	16°55	20°35	28°55	8°40	17°10	0°47	5°46	1°45	17°57	16°R49	16°57	26°12	7°24	W 5
T 6	18 59 14	14°33'51	28°48	19°59	29°49	9°19	17°18	0°53	5°48	1°44	17°58	16°48	16°54	26°19	7°26	T 6
F 7	19 3 10	15°31'04	10 ⁸ 43	19°21	0 ¹¹ 42	9°59	17°27	0°59	5°50	1°43	18° 0	16°48	16°51	26°25	7°28	F 7
S 8	19 7 7	16°28'17	22°43	18°42	1°35	10°38	17°36	1° 5	5°51	1°42	18° 2	16°D48	16°47	26°32	7°30	S 8
S 9	19 11 3	17°25'31	4 ¹¹ 54	18° 3	2°27	11°18	17°45	1°12	5°53	1°41	18° 3	16°48	16°44	26°39	7°32	S 9
M10	19 15 0	18°22'45	17°16	17°24	3°19	11°57	17°54	1°18	5°54	1°40	18° 5	16°48	16°41	26°46	7°34	M10
T 11	19 18 57	19°20'00	29°54	16°45	4°10	12°37	18° 4	1°24	5°56	1°39	18° 6	16°49	16°38	26°52	7°36	T 11
W12	19 22 53	20°17'16	12 ⁵⁴ 49	16° 9	5° 0	13°16	18°13	1°30	5°57	1°38	18° 8	16°R49	16°35	26°59	7°37	W12
T 13	19 26 50	21°14'32	26° 0	15°34	5°50	13°55	18°22	1°37	5°59	1°37	18°10	16°49	16°32	27° 6	7°39	T 13
F 14	19 30 46	22°11'48	9 ¹¹ 27	15° 2	6°39	14°35	18°32	1°43	6° 0	1°35	18°11	16°48	16°28	27°12	7°41	F 14
S 15	19 34 43	23° 9'05	23° 8	14°34	7°27	15°14	18°42	1°50	6° 1	1°34	18°13	16°48	16°25	27°19	7°42	S 15
S 16	19 38 39	24° 6'22	7 ¹¹ 2	14°10	8°15	15°53	18°51	1°56	6° 3	1°33	18°14	16°47	16°22	27°26	7°44	S 16
M17	19 42 36	25° 3'39	21° 5	13°51	9° 1	16°32	19° 1	2° 3	6° 4	1°32	18°16	16°46	16°19	27°33	7°45	M17
T 18	19 46 32	26° 0'57	5 ¹¹ 15	13°36	9°47	17°12	19°11	2° 9	6° 5	1°30	18°18	16°45	16°16	27°39	7°47	T 18
W19	19 50 29	26°58'15	19°28	13°26	10°32	17°51	19°21	2°16	6° 6	1°29	18°19	16°45	16°13	27°46	7°48	W19
T 20	19 54 26	27°55'33	3 ¹¹ 43	13°D22	11°16	18°30	19°31	2°22	6° 7	1°28	18°21	16°D45	16° 9	27°53	7°50	T 20
F 21	19 58 22	28°52'52	17°56	13°24	11°59	19° 9	19°41	2°29	6° 8	1°27	18°22	16°45	16° 6	28° 0	7°51	F 21
S 22	20 2 19	29°50'11	2 ¹¹ 5	13°32	12°42	19°48	19°51	2°36	6° 9	1°25	18°24	16°46	16° 3	28° 6	7°52	S 22
S 23	20 6 15	0 ¹¹ 47'31	16° 7	13°45	13°23	20°27	20° 2	2°43	6°10	1°24	18°25	16°47	16° 0	28°13	7°53	S 23
M24	20 10 12	1°44'51	0 ¹¹ 3	14° 5	14° 3	21° 6	20°12	2°50	6°11	1°23	18°27	16°48	15°57	28°20	7°54	M24
T 25	20 14 8	2°42'12	13°43	14°31	14°42	21°45	20°23	2°56	6°12	1°21	18°29	16°R49	15°53	28°26	7°55	T 25
W26	20 18 5	3°39'34	27°13	15° 3	15°20	22°24	20°33	3° 3	6°13	1°20	18°30	16°48	15°50	28°33	7°56	W26
T 27	20 22 1	4°36'57	10 ¹¹ 28	15°42	15°56	23° 3	20°44	3°10	6°14	1°18	18°32	16°47	15°47	28°40	7°57	T 27
F 28	20 25 58	5°34'20	23°26	16°27	16°32	23°42	20°55	3°17	6°14	1°17	18°33	16°45	15°44	28°47	7°58	F 28
S 29	20 29 55	6°31'45	6 ¹¹ 9	17°17	17° 6	24°21	21° 5	3°24	6°15	1°16	18°35	16°43	15°41	28°53	7°59	S 29
S 30	20 33 51	7°29'10	18°37	18°14	17°39	25° 0	21°16	3°31	6°16	1°14	18°36	16°40	15°38	29° 0	8° 0	S 30
M31	20 37 48	8 ¹¹ 26'37	0 ¹¹ 51	19°16	18 ¹¹ 11	25°38	21 ¹¹ 27	3 ¹¹ 38	6°16	1 ¹¹ 13	18°38	16°36	15°34	29 ¹¹ 7	8° 1	M31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
S 1	23n 7	15s25	3s30	18n 9	3s29	14n 5	1n 0	24n10	0n49	6n26	1n14	12n53	1n38	12n58	0s29	11s29
S 2	23 3	11 32	4 16	17 59	3 43	13 41	0 55	24 8	0 50	6 22	1 13	12 51	1 38	12 59	0 29	11 30
M 3	22 58	7 15	4 50	17 51	3 56	13 17	0 50	24 7	0 50	6 19	1 13	12 49	1 38	13 0	0 29	11 30
T 4	22 53	2 46	5 10	17 44	4 8	12 53	0 44	24 5	0 50	6 15	1 13	12 47	1 38	13 0	0 29	11 31
W 5	22 47	1n47	5 17	17 38	4 19	12 29	0 39	24 3	0 51	6 12	1 13	12 44	1 38	13 1	0 29	11 31
T 6	22 41	6 14	5 10	17 34	4 28	12 4	0 33	24 0	0 51	6 8	1 13	12 42	1 38	13 1	0 29	11 31
F 7	22 35	10 28	4 50	17 31	4 36	11 40	0 27	23 58	0 52	6 5	1 13	12 40	1 38	13 2	0 29	11 32
S 8	22 28	14 20	4 17	17 30	4 43	11 15	0 21	23 55	0 52	6 1	1 12	12 38	1 38	13 2	0 29	11 32
S 9	22 21	17 40	3 32	17 30	4 48	10 51	0 15	23 52	0 52	5 57	1 12	12 36	1 38	13 3	0 29	11 32
M10	22 13	20 16	2 37	17 31	4 52	10 26	0 8	23 49	0 53	5 54	1 12	12 33	1 38	13 4	0 29	11 33
T 11	22 5	21 56	1 32	17 34	4 54	10 1	0 1	23 46	0 53	5 50	1 12	12 31	1 38	13 4	0 29	11 33
W12	21 57	22 30	0 22	17 38	4 54	9 36	0s 6	23 42	0 54	5 46	1 12	12 29	1 38	13 4	0 29	11 34
T 13	21 48	21 49	0n51	17 44	4 52	9 12	0 13	23 39	0 54	5 42	1 12	12 26	1 38	13 5	0 29	11 34
F 14	21 39	19 53	2 2	17 50	4 49	8 47	0 20	23 35	0 54	5 38	1 12	12 24	1 38	13 5	0 29	11 35
S 15	21 29	16 47	3 8	17 58	4 45	8 22	0 27	23 31	0 55	5 35	1 11	12 22	1 38	13 6	0 29	11 35
S 16	21 20	12 43	4 4	18 7	4 38	7 57	0 35	23 27	0 55	5 31	1 11	12 19	1 38	13 6	0 29	11 35
M17	21 9	7 54	4 45	18 16	4 31	7 33	0 43	23 22	0 56	5 27	1 11	12 17	1 38	13 7	0 29	11 36
T 18	20 59	2 39	5 10	18 27	4 22	7 8	0 51	23 18	0 56	5 23	1 11	12 15	1 38	13 7	0 29	11 36
W19	20 48	2s45	5 16	18 38	4 11	6 43	0 59	23 13	0 56	5 19	1 11	12 12	1 38	13 7	0 29	11 37
T 20	20 37	8 2	5 3	18 49	4 0	6 19	1 7	23 8	0 57	5 14	1 11	12 10	1 38	13 8	0 29	11 37
F 21	20 25	12 52	4 31	19 1	3 48	5 55	1 16	23 3	0 57	5 10	1 11	12 7	1 38	13 8	0 29	11 38
S 22	20 13	16 58	3 43	19 14	3 35	5 31	1 24	22 58	0 57	5 6	1 10	12 5	1 37	13 8	0 29	11 38
S 23	20 1	20 5	2 42	19 26	3 21	5 7	1 33	22 52	0 58	5 2	1 10	12 2	1 37	13 9	0 29	11 39
M24	19 48	21 57	1 31	19 38	3 7	4 43	1 42	22 47	0 58	4 58	1 10	12 0	1 37	13 9	0 29	11 39
T 25	19 35	22 29	0 17	19 50	2 52	4 19	1 52	22 41	0 58	4 54	1 10	11 57	1 37	13 9	0 29	11 40
W26	19 22	21 41	0s57	20 2	2 37	3 56	2 1	22 35	0 59	4 49	1 10	11 55	1 37	13 9	0 29	11 40
T 27	19 8	19 41	2 7	20 13	2 21	3 33	2 11	22 29	0 59	4 45	1 10	11 52	1 37	13 10	0 29	11 41
F 28	18 55	16 41	3 8	20 23	2 6	3 10	2 21	22 22	0 59	4 41	1 10	11 50	1 37	13 10	0 29	11 41
S 29	18 40	12 58	3 59	20 32	1 50	2 47	2 31	22 16	1 0	4 36	1 10	11 47	1 37	13 10	0 29	11 42
S 30	18 26	8 46	4 38	20 41	1 34	2 25	2 41	22 9	1 0	4 32	1 10	11 45	1 37	13 10	0 29	11 42
M31	18n11	4s17	5s 2	20n47	1s19	2n 3	2s51	22n 2	1n 0	4n27	1n 9	11n42	1n37	13n10	0s29	11s43

Julian Day Number = 2336310.5, Delta T = 21.18 sec
Ecliptic obliquity = 23°28'46, Nutation = - 0°00'16, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°20'10, Lahiri = 19°27'11Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1684
geocentric

AUGUST 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 41 44	9♏24°04	12♍55	20♊25	18♏41	26♊17	21♏38	3♏46	6♏17	1♏11	18♊39	16♏R34	15♊31	29♍13	8♏1	T 1
W 2	20 45 41	10°21'33	24°51	21°38	19°9	26°56	21°49	3°53	6°17	1♏10	18°41	16♊32	15°28	29°20	8°2	W 2
T 3	20 49 37	11°19'04	6♏44	22°58	19°36	27°35	22°1	4°0	6°17	1°8	18°42	16°D31	15°25	29°27	8°2	T 3
F 4	20 53 34	12°16'36	18°38	24°22	20°2	28°13	22°12	4°7	6°18	1°7	18°44	16°31	15°22	29°34	8°3	F 4
S 5	20 57 30	13°14'09	0♏38	25°51	20°26	28°52	22°23	4°14	6°18	1°5	18°45	16°32	15°18	29°40	8°3	S 5
S 6	21 1 27	14°11'44	12°50	27°25	20°48	29°31	22°34	4°22	6°18	1°3	18°47	16°33	15°15	29°47	8°4	S 6
M 7	21 5 24	15°9'20	25°16	29°3	21°9	0♏9	22°46	4°29	6°19	1°2	18°48	16°35	15°12	29°54	8°4	M 7
T 8	21 9 20	16°6'57	8♊1	0♏45	21°28	0°48	22°57	4°36	6°19	1°0	18°50	16°36	15°9	0♏1	8°4	T 8
W 9	21 13 17	17°4'36	21°7	2°31	21°44	1°27	23°9	4°43	6°19	0°59	18°51	16°R36	15°6	0°7	8°4	W 9
T 10	21 17 13	18°2'17	4♏36	4°20	21°59	2°5	23°21	4°51	6°19	0°57	18°53	16°35	15°3	0°14	8°4	T 10
F 11	21 21 10	18°59'58	18°26	6°11	22°12	2°44	23°32	4°58	6°R19	0°56	18°54	16°32	14°59	0°21	8°4	F 11
S 12	21 25 6	19°57'41	2♏34	8°5	22°23	3°22	23°44	5°6	6°19	0°54	18°55	16°28	14°56	0°27	8°R4	S 12
S 13	21 29 3	20°55'25	16°56	10°1	22°32	4°1	23°56	5°13	6°19	0°52	18°57	16°23	14°53	0°34	8°4	S 13
M14	21 32 59	21°53'11	1♊25	11°59	22°39	4°39	24°8	5°20	6°19	0°51	18°58	16°18	14°50	0°41	8°4	M14
T 15	21 36 56	22°50'57	15°57	13°57	22°43	5°18	24°19	5°28	6°19	0°49	19°0	16°14	14°47	0°48	8°4	T 15
W16	21 40 53	23°48'45	0♏25	15°57	22°R46	5°56	24°31	5°35	6°18	0°47	19°1	16°10	14°44	0°54	8°4	W16
T 17	21 44 49	24°46'34	14°45	17°57	22°46	6°35	24°43	5°43	6°18	0°46	19°2	16°8	14°40	1°1	8°4	T 17
F 18	21 48 46	25°44'24	28°53	19°57	22°43	7°13	24°55	5°50	6°18	0°44	19°4	16°D 8	14°37	1°8	8°3	F 18
S 19	21 52 42	26°42'15	12♊49	21°57	22°38	7°51	25°7	5°58	6°17	0°43	19°5	16°9	14°34	1°14	8°3	S 19
S 20	21 56 39	27°40'08	26°32	23°57	22°31	8°30	25°20	6°5	6°17	0°41	19°6	16°10	14°31	1°21	8°2	S 20
M21	22 0 35	28°38'01	10♊2	25°57	22°22	9°8	25°32	6°13	6°16	0°39	19°8	16°R11	14°28	1°28	8°2	M21
T 22	22 4 32	29°35'57	23°20	27°56	22°10	9°46	25°44	6°20	6°16	0°38	19°9	16°11	14°24	1°35	8°1	T 22
W23	22 8 28	0♏33'53	6♊26	29°54	21°55	10°24	25°56	6°28	6°15	0°36	19°10	16°9	14°21	1°41	8°1	W23
T 24	22 12 25	1°31'51	19°20	1♏51	21°39	11°3	26°9	6°35	6°15	0°34	19°11	16°5	14°18	1°48	8°0	T 24
F 25	22 16 22	2°29'51	2♏2	3°47	21°20	11°41	26°21	6°43	6°14	0°33	19°13	15°59	14°15	1°55	7°59	F 25
S 26	22 20 18	3°27'52	14°33	5°42	20°58	12°19	26°33	6°51	6°13	0°31	19°14	15°51	14°12	2°1	7°58	S 26
S 27	22 24 15	4°25'54	26°52	7°36	20°35	12°57	26°46	6°58	6°13	0°29	19°15	15°42	14°9	2°8	7°57	S 27
M28	22 28 11	5°23'59	9♍1	9°29	20°9	13°35	26°58	7°6	6°12	0°28	19°16	15°33	14°5	2°15	7°56	M28
T 29	22 32 8	6°22'05	21°1	11°21	19°42	14°13	27°11	7°13	6°11	0°26	19°17	15°25	14°2	2°22	7°55	T 29
W30	22 36 4	7°20'13	2♏55	13°12	19°13	14°51	27°23	7°21	6°10	0°25	19°18	15°18	13°59	2°28	7°54	W30
T 31	22 40 1	8♏18'24	14♏46	15♏1	18♏42	15♏29	27♏36	7♏28	6♏9	0♏23	19♊20	15♊23	13♊56	2♏35	7♏53	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	17n56	0n18	5s13	20n53	1s 4	1n42	3s 2	21n55	1n 1	4n23	1n 9	11n39	1n37	13n11	0s29	11s44
W 2	17 40	4 49	5 11	20 56	0 49	1 21	3 13	21 48	1 1	4 19	1 9	11 37	1 37	13 11	0 29	11 44
T 3	17 25	9 8	4 55	20 58	0 34	1 0	3 23	21 41	1 1	4 14	1 9	11 34	1 37	13 11	0 29	11 45
F 4	17 9	13 8	4 26	20 57	0 20	0 40	3 35	21 34	1 2	4 9	1 9	11 32	1 37	13 11	0 29	11 45
S 5	16 52	16 38	3 46	20 55	0 6	0 20	3 46	21 26	1 2	4 5	1 9	11 29	1 37	13 11	0 29	11 46
S 6	16 36	19 29	2 55	20 50	0n 7	0 1	3 57	21 18	1 2	4 0	1 9	11 26	1 37	13 11	0 29	11 46
M 7	16 19	21 29	1 54	20 42	0 20	0s18	4 9	21 10	1 3	3 56	1 9	11 24	1 37	13 11	0 29	11 47
T 8	16 2	22 27	0 47	20 32	0 31	0 36	4 20	21 2	1 3	3 51	1 9	11 21	1 37	13 11	0 29	11 48
W 9	15 45	22 13	0n25	20 19	0 42	0 53	4 32	20 54	1 3	3 46	1 9	11 18	1 37	13 11	0 29	11 48
T 10	15 27	20 43	1 37	20 3	0 52	1 10	4 44	20 46	1 4	3 42	1 9	11 16	1 37	13 11	0 29	11 49
F 11	15 9	17 57	2 45	19 45	1 2	1 26	4 55	20 37	1 4	3 37	1 8	11 13	1 37	13 11	0 29	11 49
S 12	14 51	14 4	3 44	19 24	1 10	1 41	5 7	20 29	1 4	3 32	1 8	11 10	1 37	13 11	0 29	11 50
S 13	14 33	9 19	4 31	19 1	1 17	1 55	5 19	20 20	1 5	3 28	1 8	11 7	1 37	13 11	0 29	11 50
M14	14 14	4 1	5 0	18 34	1 24	2 9	5 31	20 11	1 5	3 23	1 8	11 5	1 37	13 11	0 29	11 51
T 15	13 55	1s30	5 11	18 6	1 30	2 22	5 43	20 2	1 5	3 18	1 8	11 2	1 37	13 11	0 29	11 52
W16	13 36	6 56	5 1	17 35	1 35	2 34	5 55	19 53	1 6	3 13	1 8	10 59	1 38	13 11	0 30	11 52
T 17	13 17	11 56	4 33	17 2	1 38	2 45	6 7	19 43	1 6	3 8	1 8	10 57	1 38	13 11	0 30	11 53
F 18	12 58	16 14	3 48	16 28	1 42	2 54	6 19	19 34	1 6	3 4	1 8	10 54	1 38	13 11	0 30	11 53
S 19	12 38	19 33	2 51	15 51	1 44	3 3	6 31	19 24	1 6	2 59	1 8	10 51	1 38	13 10	0 30	11 54
S 20	12 18	21 42	1 45	15 13	1 45	3 11	6 42	19 15	1 7	2 54	1 8	10 48	1 38	13 10	0 30	11 55
M21	11 58	22 33	0 33	14 33	1 46	3 18	6 53	19 5	1 7	2 49	1 8	10 46	1 38	13 10	0 30	11 55
T 22	11 38	22 6	0s39	13 52	1 46	3 23	7 4	18 55	1 7	2 44	1 8	10 43	1 38	13 10	0 30	11 56
W23	11 17	20 26	1 47	13 11	1 46	3 27	7 15	18 45	1 8	2 39	1 8	10 40	1 38	13 10	0 30	11 56
T 24	10 57	17 44	2 49	12 28	1 44	3 30	7 25	18 34	1 8	2 34	1 8	10 37	1 38	13 10	0 30	11 57
F 25	10 36	14 13	3 42	11 44	1 43	3 32	7 35	18 24	1 8	2 29	1 7	10 35	1 38	13 9	0 30	11 58
S 26	10 15	10 7	4 22	10 59	1 40	3 32	7 45	18 14	1 8	2 24	1 7	10 32	1 38	13 9	0 30	11 58
S 27	9 54	5 41	4 50	10 14	1 37	3 31	7 54	18 3	1 9	2 19	1 7	10 29	1 38	13 9	0 30	11 59
M28	9 33	1 5	5 4	9 29	1 34	3 29	8 2	17 52	1 9	2 14	1 7	10 26	1 38	13 8	0 30	11 59
T 29	9 11	3n30	5 5	8 43	1 30	3 25	8 10	17 42	1 9	2 9	1 7	10 23	1 38	13 8	0 30	12 0
W30	8 50	7 56	4 52	7 56	1 26	3 20	8 17	17 31	1 9	2 4	1 7	10 21	1 38	13 8	0 30	12 1
T 31	8n28	12n 3	4s27	7n10	1n22	3s14	8s23	17n20	1n10	1n59	1n 7	10n18	1n38	13n 8	0s30	12s 1

Julian Day Number = 2336341.5, Delta T = 21.14 sec
Ecliptic obliquity = 23°28'47, Nutation = - 0°00'15, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°20'15, Lahiri = 19°27'15Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1684

geocentric

SEPTEMBER 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	22 43 57	9 ¹⁷ 16'36	26 ⁸ 39	16 ¹⁷ 49	18°R 9	16 ¹⁸ 7	27 ¹⁷ 48	7 ¹⁷ 36	6°R 8	0°R21	19 ²² 21	15°R10	13 ²² 53	2 ¹⁸ 42	7°R52	F 1
S 2	22 47 54	10°14'50	8 ¹¹ 37	18°36	17 ¹⁷ 36	16°45	28° 1	7°44	6° 7	0°K20	19°22	15°D 9	13°50	2°48	7°51	S 2
S 3	22 51 51	11°13'07	20°45	20°22	17° 1	17°23	28°13	7°51	6° 6	0°18	19°23	15° 9	13°46	2°55	7°50	S 3
M 4	22 55 47	12°11'25	3 ²³ 10	22° 7	16°25	18° 1	28°26	7°59	6° 5	0°16	19°24	15°10	13°43	3° 2	7°48	M 4
T 5	22 59 44	13° 9'46	15°56	23°50	15°49	18°39	28°39	8° 6	6° 4	0°15	19°25	15°R11	13°40	3° 9	7°47	T 5
W 6	23 3 40	14° 8'08	29° 6	25°33	15°12	19°17	28°52	8°14	6° 2	0°13	19°26	15°10	13°37	3°15	7°45	W 6
T 7	23 7 37	15° 6'33	12 ²² 43	27°14	14°35	19°55	29° 4	8°21	6° 1	0°12	19°27	15° 7	13°34	3°22	7°44	T 7
F 8	23 11 33	16° 5'00	26°46	28°54	13°58	20°33	29°17	8°29	6° 0	0°10	19°28	15° 1	13°30	3°29	7°42	F 8
S 9	23 15 30	17° 3'28	11 ¹⁷ 14	0 ²² 33	13°21	21°11	29°30	8°36	5°58	0° 9	19°29	14°53	13°27	3°35	7°41	S 9
S 10	23 19 26	18° 1'59	26° 0	2°11	12°45	21°49	29°43	8°44	5°57	0° 7	19°30	14°44	13°24	3°42	7°39	S 10
M11	23 23 23	19° 0'31	10 ²² 56	3°48	12°10	22°27	29°56	8°51	5°56	0° 5	19°31	14°34	13°21	3°49	7°38	M11
T 12	23 27 19	19°59'06	25°53	5°24	11°35	23° 5	0 ²² 8	8°59	5°54	0° 4	19°32	14°25	13°18	3°56	7°36	T 12
W13	23 31 16	20°57'42	10 ¹⁷ 42	6°59	11° 2	23°42	0°21	9° 6	5°53	0° 2	19°33	14°18	13°15	4° 2	7°34	W13
T 14	23 35 13	21°56'19	25°16	8°33	10°30	24°20	0°34	9°14	5°51	0° 1	19°34	14°13	13°11	4° 9	7°32	T 14
F 15	23 39 9	22°54'59	9 ²² 31	10° 6	10° 0	24°58	0°47	9°21	5°49	29°59	19°34	14°10	13° 8	4°16	7°30	F 15
S 16	23 43 6	23°53'40	23°26	11°38	9°31	25°36	1° 0	9°29	5°48	29°58	19°35	14°D10	13° 5	4°22	7°28	S 16
S 17	23 47 2	24°52'23	7 ²³ 1	13° 8	9° 4	26°13	1°13	9°36	5°46	29°56	19°36	14°R10	13° 2	4°29	7°26	S 17
M18	23 50 59	25°51'07	20°17	14°38	8°39	26°51	1°26	9°43	5°44	29°55	19°37	14°10	12°59	4°36	7°24	M18
T 19	23 54 55	26°49'53	3 ²² 17	16° 7	8°17	27°29	1°39	9°51	5°43	29°54	19°38	14° 8	12°55	4°43	7°22	T 19
W20	23 58 52	27°48'41	16° 4	17°35	7°56	28° 6	1°52	9°58	5°41	29°52	19°38	14° 5	12°52	4°49	7°20	W20
T 21	0 2 48	28°47'31	28°40	19° 2	7°38	28°44	2° 5	10° 6	5°39	29°51	19°39	13°58	12°49	4°56	7°18	T 21
F 22	0 6 45	29°46'23	11 ¹⁸ 5	20°28	7°22	29°21	2°18	10°13	5°37	29°49	19°40	13°48	12°46	5° 3	7°16	F 22
S 23	0 10 42	0 ²² 45'16	23°22	21°52	7° 9	29°59	2°31	10°20	5°35	29°48	19°40	13°37	12°43	5° 9	7°13	S 23
S 24	0 14 38	1°44'11	5 ¹⁷ 31	23°16	6°58	0 ¹⁷ 37	2°44	10°27	5°33	29°47	19°41	13°23	12°40	5°16	7°11	S 24
M25	0 18 35	2°43'09	17°33	24°39	6°49	1°14	2°57	10°35	5°32	29°45	19°42	13° 9	12°36	5°23	7° 9	M25
T 26	0 22 31	3°42'09	29°29	26° 0	6°43	1°52	3°10	10°42	5°30	29°44	19°42	12°56	12°33	5°30	7° 6	T 26
W27	0 26 28	4°41'10	11 ¹⁸ 20	27°20	6°39	2°29	3°23	10°49	5°28	29°43	19°43	12°45	12°30	5°36	7° 4	W27
T 28	0 30 24	5°40'14	23°10	28°39	6°D38	3° 7	3°36	10°56	5°26	29°41	19°43	12°36	12°27	5°43	7° 2	T 28
F 29	0 34 21	6°39'21	5 ¹¹ 1	29°57	6°39	3°44	3°49	11° 3	5°23	29°40	19°44	12°30	12°24	5°50	6°59	F 29
S 30	0 38 17	7 ²² 38'29	16 ¹¹ 57	1 ¹¹ 13	6 ¹⁷ 43	4 ¹⁷ 21	4 ²² 2	11 ¹⁷ 10	5°21	29°39	19°44	12°26	12°21	5°56	6°57	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	8n 6	15n42	3s50	6n23	1n17	3s 7	8s29	17n 9	1n10	1n54	1n 7	10n15	1n38	13n 7	0s30	12s 2	0s42	22n45	0n40	22n37	22n45	7n51	13n10	1s 2			
S 2	7 44	18 46	3 3	5 37	1 12	2 58	8 33	16 57	1 10	1 49	1 7	10 12	1 38	13 7	0 30	12 2	0 42	22 45	0 40	22 37	22 46	7 53	13 10	1 3			
S 3	7 22	21 3	2 7	4 50	1 6	2 48	8 37	16 46	1 11	1 44	1 7	10 10	1 38	13 6	0 30	12 3	0 42	22 45	0 40	22 37	22 46	7 56	13 9	1 3			
M 4	7 0	22 23	1 4	4 3	1 0	2 37	8 40	16 35	1 11	1 39	1 7	10 7	1 38	13 6	0 30	12 3	0 42	22 44	0 40	22 37	22 46	7 58	13 9	1 3			
T 5	6 38	22 36	0n 4	3 17	0 54	2 25	8 42	16 23	1 11	1 34	1 7	10 4	1 39	13 6	0 30	12 4	0 42	22 44	0 41	22 37	22 47	8 1	13 8	1 3			
W 6	6 15	21 35	1 14	2 30	0 48	2 12	8 43	16 11	1 11	1 29	1 7	10 1	1 39	13 5	0 30	12 5	0 42	22 44	0 41	22 37	22 47	8 4	13 8	1 3			
T 7	5 53	19 17	2 21	1 44	0 42	1 58	8 43	16 0	1 12	1 24	1 7	9 59	1 39	13 5	0 30	12 5	0 42	22 44	0 41	22 37	22 47	8 6	13 7	1 3			
F 8	5 30	15 47	3 23	0 58	0 35	1 44	8 43	15 48	1 12	1 18	1 7	9 56	1 39	13 4	0 30	12 6	0 42	22 44	0 41	22 38	22 48	8 9	13 6	1 3			
S 9	5 7	11 15	4 13	0 13	0 28	1 28	8 41	15 36	1 12	1 13	1 7	9 53	1 39	13 4	0 30	12 6	0 42	22 44	0 41	22 39	22 48	8 11	13 6	1 4			
S 10	4 44	5 59	4 47	0s33	0 21	1 12	8 38	15 24	1 12	1 8	1 7	9 50	1 39	13 3	0 30	12 7	0 42	22 44	0 41	22 40	22 48	8 14	13 5	1 4			
M11	4 21	0 18	5 2	1 18	0 14	0 56	8 35	15 12	1 13	1 3	1 7	9 48	1 39	13 3	0 30	12 7	0 42	22 44	0 41	22 41	22 49	8 16	13 4	1 4			
T 12	3 58	5s24	4 57	2 3	0 7	0 39	8 30	15 0	1 13	0 58	1 7	9 45	1 39	13 2	0 30	12 8	0 42	22 44	0 41	22 42	22 49	8 19	13 4	1 4			
W13	3 35	10 45	4 32	2 47	0s 0	0 21	8 25	14 47	1 13	0 53	1 7	9 42	1 39	13 2	0 30	12 8	0 43	22 44	0 41	22 43	22 49	8 21	13 3	1 4			
T 14	3 12	15 24	3 49	3 31	0 8	0 4	8 19	14 35	1 13	0 48	1 7	9 39	1 39	13 1	0 30	12 9	0 43	22 44	0 41	22 43	22 49	8 24	13 2	1 4			
F 15	2 49	19 4	2 53	4 14	0 15	0n14	8 12	14 23	1 13	0 42	1 7	9 37	1 39	13 1	0 30	12 9	0 43	22 44	0 41	22 43	22 50	8 26	13 1	1 4			
S 16	2 26	21 31	1 48	4 57	0 23	0 31	8 5	14 10	1 14	0 37	1 7	9 34	1 39	13 0	0 30	12 10	0 43	22 44	0 41	22 44	22 50	8 29	13 1	1 5			
S 17	2 2	22 40	0 38	5 40	0 30	0 49	7 57	13 57	1 14	0 32	1 7	9 31	1 40	13 0	0 30	12 10	0 43	22 44	0 41	22 44	22 50	8 31	13 0	1 5			
M18	1 39	22 29	0s32	6 21	0 38	1 6	7 48	13 45	1 14	0 27	1 7	9 28	1 40	12 59	0 30	12 11	0 43	22 44	0 42	22 44	22 51	8 34	12 59	1 5			
T 19	1 16	21 4	1 40	7 3	0 45	1 23	7 38	13 32	1 14	0 22	1 7	9 26	1 40	12 59	0 30	12 12	0 43	22 44	0 42	22 44	22 51	8 36	12 58	1 5			
W20	0 52	18 36	2 40	7 43	0 53	1 40	7 29	13 19	1 15	0 17	1 7	9 23	1 40	12 58	0 30	12 12	0 43	22 44	0 42	22 44	22 51	8 39	12 57	1 5			
T 21	0 29	15 16	3 32	8 24	1 0	1 56	7 18	13 6	1 15	0 11	1 7	9 20	1 40	12 57	0 30	12 12	0 43	22 44	0 42	22 45	22 52	8 41	12 57	1 5			
F 22	0 5	11 19	4 13	9 3	1 8	2 12	7 7	12 53	1 15	0 6	1 7	9 18	1 40	12 57	0 30	12 13	0 42	22 44	0 42	22 46	22 52	8 44	12 56	1 5			
S 23	0s18	6 57	4 42	9 42	1 15	2 27	6 56	12 40	1 15	0 1	1 7	9 15	1 40	12 56	0 30	12 13	0 42	22 44	0 42	22 47	22 52	8 47	12 55	1 5			
S 24	0 42	2 21	4 57	10 20	1 23	2 42	6 45	12 27	1 15	0s 4	1 7	9 12	1 40	12 56	0 30	12 14	0 42	22 44	0 42	22 48	22 53	8 49	12 54	1 6			
M25	1 5	2n17	4 59	10 57	1 30	2 56	6 33	12 14	1 16	0 9	1 7	9 10	1 40	12 55	0 30	12 14	0 42	22 44	0 42	22 50	22 53	8 52	12 53	1 6			
T 26	1 28	6 49	4 48	11 34	1 37	3 9	6 21	12 1	1 16	0 14	1 7	9 7	1 41	12 54	0 30	12 15	0 42	22 44	0 42	22 51	22 53	8 54	12 52	1 6			
W27	1 52	11 4	4 24	12 10	1 44	3 22	6 9	11 47	1 16	0 19	1 7	9 5	1 41	12 54	0 30	12 15	0 42	22 44	0 42	22 52	22 53	8 57	12 51	1 6			
T 28	2 15	14 54	3 49	12 45	1 51	3 33	5 57	11 34	1 16	0 25	1 7	9 2	1 41	12 53	0 30	12 16	0 42	22 44	0 42	22 53	22 54	8 59	12 50	1 6			
F 29	2 39	18 9	3 4	13 19	1 58	3 44	5 45	11 21	1 17	0 30	1 7	8 59	1 41	12 52	0 30	12 16	0 42	22 44	0 42	22 54	22 54	9 2	12 49	1 6			
S 30	3s 2	20n41	2s10	13s52	2s 5	3n55	5s33	11n 7	1n17	0s35	1n 7	8n57	1n41	12n51	0s30	12s17	0s42	22n44	0n42	22n54	22n54	9n 4	12n49	1s 6			

ASTRODIENST EPHEMERIS for the year 1684

geocentric

OCTOBER 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	0 42 14	8♂3740	29♂ 3	2♂28	6♂49	4♂59	4♂15	11♂17	5°R19	29°R38	19♂45	12°R25	12♂17	6♂ 3	6°R54	S 1	
M 2	0 46 11	9°36'54	11♂24	3°42	6°57	5°36	4°28	11°24	5♂17	29♂37	19°45	12♂25	12°14	6°10	6♂51	M 2	
T 3	0 50 7	10°36'09	24° 5	4°54	7° 7	6°14	4°41	11°31	5°15	29°36	19°46	12°25	12°11	6°17	6°49	T 3	
W 4	0 54 4	11°35'27	7♂11	6° 4	7°19	6°51	4°53	11°38	5°13	29°34	19°46	12°23	12° 8	6°23	6°46	W 4	
T 5	0 58 0	12°34'48	20°45	7°12	7°34	7°28	5° 6	11°45	5°11	29°33	19°47	12°20	12° 5	6°30	6°43	T 5	
F 6	1 1 57	13°34'10	4♂50	8°18	7°51	8° 6	5°19	11°52	5° 8	29°32	19°47	12°13	12° 1	6°37	6°41	F 6	
S 7	1 5 53	14°33'35	19°23	9°22	8° 9	8°43	5°32	11°59	5° 6	29°31	19°47	12° 4	11°58	6°43	6°38	S 7	
S 8	1 9 50	15°33'02	4♂20	10°24	8°30	9°20	5°45	12° 5	5° 4	29°30	19°48	11°54	11°55	6°50	6°35	S 8	
M 9	1 13 46	16°32'31	19°32	11°23	8°52	9°57	5°58	12°12	5° 1	29°29	19°48	11°42	11°52	6°57	6°32	M 9	
T 10	1 17 43	17°32'02	4♂48	12°19	9°16	10°35	6°11	12°19	4°59	29°28	19°48	11°31	11°49	7° 3	6°30	T 10	
W11	1 21 40	18°31'35	19°57	13°12	9°42	11°12	6°24	12°25	4°57	29°27	19°48	11°22	11°46	7°10	6°27	W11	
T 12	1 25 36	19°31'10	4♂49	14° 2	10°10	11°49	6°37	12°32	4°54	29°26	19°49	11°16	11°42	7°17	6°24	T 12	
F 13	1 29 33	20°30'47	19°19	14°48	10°39	12°26	6°49	12°39	4°52	29°25	19°49	11°12	11°39	7°24	6°21	F 13	
S 14	1 33 29	21°30'26	3♂23	15°29	11° 9	13° 3	7° 2	12°45	4°50	29°25	19°49	11°11	11°36	7°30	6°18	S 14	
S 15	1 37 26	22°30'06	17° 0	16° 6	11°41	13°40	7°15	12°51	4°47	29°24	19°49	11°11	11°33	7°37	6°15	S 15	
M16	1 41 22	23°29'48	0♂14	16°38	12°15	14°17	7°28	12°58	4°45	29°23	19°49	11°11	11°30	7°44	6°12	M16	
T 17	1 45 19	24°29'32	13° 8	17° 4	12°50	14°54	7°41	13° 4	4°42	29°22	19°49	11° 9	11°27	7°50	6° 9	T 17	
W18	1 49 15	25°29'18	25°44	17°24	13°26	15°32	7°53	13°10	4°40	29°21	19°49	11° 6	11°23	7°57	6° 6	W18	
T 19	1 53 12	26°29'05	8♂ 8	17°38	14° 4	16° 9	8° 6	13°17	4°38	29°21	19°49	10°59	11°20	8° 4	6° 3	T 19	
F 20	1 57 9	27°28'54	20°21	17°R44	14°43	16°45	8°19	13°23	4°35	29°20	19°R49	10°50	11°17	8°11	6° 0	F 20	
S 21	2 1 5	28°28'44	2♂27	17°42	15°23	17°22	8°31	13°29	4°33	29°19	19°49	10°39	11°14	8°17	5°57	S 21	
S 22	2 5 2	29°28'37	14°27	17°32	16° 4	17°59	8°44	13°35	4°30	29°19	19°49	10°26	11°11	8°24	5°54	S 22	
M23	2 8 58	0♂28'31	26°22	17°13	16°47	18°36	8°56	13°41	4°28	29°18	19°49	10°12	11° 7	8°31	5°51	M23	
T 24	2 12 55	1°28'28	8♂15	16°44	17°30	19°13	9° 9	13°47	4°25	29°17	19°49	9°59	11° 4	8°37	5°48	T 24	
W25	2 16 51	2°28'26	20° 6	16° 6	18°15	19°50	9°21	13°53	4°23	29°17	19°49	9°48	11° 1	8°44	5°45	W25	
T 26	2 20 48	3°28'26	1♂57	15°19	19° 0	20°27	9°34	13°59	4°20	29°16	19°49	9°39	10°58	8°51	5°42	T 26	
F 27	2 24 44	4°28'29	13°50	14°24	19°47	21° 4	9°46	14° 4	4°18	29°16	19°49	9°33	10°55	8°58	5°39	F 27	
S 28	2 28 41	5°28'33	25°48	13°20	20°34	21°40	9°58	14°10	4°15	29°16	19°49	9°30	10°52	9° 4	5°36	S 28	
S 29	2 32 37	6°28'40	7♂56	12° 9	21°23	22°17	10°11	14°16	4°13	29°15	19°48	9°D29	10°48	9°11	5°33	S 29	
M30	2 36 34	7°28'48	20°16	10°54	22°12	22°54	10°23	14°21	4°10	29°15	19°48	9°29	10°45	9°18	5°30	M30	
T 31	2 40 31	8♂28'59	2♂54	9♂36	23♂ 2	23♂31	10♂35	14♂27	4♂ 8	29♂14	19♂48	9°R30	10♂42	9♂24	5♂27	T 31	

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	3s26	22n19	1s10	14s25	2s12	4n 4	5s20	10n54	1n17	0s40	1n 7	8n54	1n41	12n51	0s30	12s17	0s42
M 2	3 49	22 54	0 5	14 56	2 18	4 12	5 8	10 40	1 17	0 45	1 7	8 52	1 41	12 50	0 30	12 17	0 42
T 3	4 12	22 20	1n 1	15 26	2 24	4 20	4 56	10 26	1 17	0 50	1 7	8 49	1 42	12 49	0 30	12 18	0 42
W 4	4 35	20 33	2 7	15 55	2 30	4 27	4 43	10 13	1 18	0 55	1 7	8 47	1 42	12 49	0 30	12 18	0 42
T 5	4 59	17 34	3 8	16 23	2 36	4 33	4 31	9 59	1 18	1 1	1 7	8 44	1 42	12 48	0 30	12 19	0 42
F 6	5 22	13 28	3 59	16 50	2 41	4 38	4 19	9 45	1 18	1 6	1 7	8 42	1 42	12 47	0 30	12 19	0 42
S 7	5 45	8 27	4 37	17 16	2 46	4 42	4 7	9 31	1 18	1 11	1 7	8 39	1 42	12 46	0 30	12 19	0 42
S 8	6 8	2 50	4 58	17 40	2 51	4 46	3 55	9 17	1 18	1 16	1 7	8 37	1 42	12 46	0 30	12 20	0 42
M 9	6 31	3s 4	4 57	18 3	2 55	4 48	3 44	9 4	1 18	1 21	1 7	8 34	1 42	12 45	0 30	12 20	0 42
T 10	6 54	8 48	4 36	18 24	2 59	4 50	3 32	8 50	1 19	1 26	1 7	8 32	1 43	12 44	0 30	12 20	0 42
W11	7 16	13 58	3 56	18 43	3 2	4 51	3 21	8 36	1 19	1 31	1 7	8 29	1 43	12 43	0 30	12 21	0 42
T 12	7 39	18 12	2 59	19 1	3 5	4 51	3 9	8 22	1 19	1 36	1 7	8 27	1 43	12 42	0 30	12 21	0 42
F 13	8 2	21 10	1 53	19 17	3 7	4 50	2 58	8 7	1 19	1 41	1 7	8 25	1 43	12 42	0 30	12 21	0 42
S 14	8 24	22 45	0 41	19 31	3 9	4 49	2 47	7 53	1 19	1 46	1 7	8 22	1 43	12 41	0 30	12 22	0 42
S 15	8 46	22 54	0s31	19 42	3 10	4 47	2 36	7 39	1 20	1 51	1 7	8 20	1 43	12 40	0 30	12 22	0 42
M16	9 8	21 45	1 39	19 52	3 9	4 44	2 26	7 25	1 20	1 56	1 7	8 18	1 44	12 39	0 30	12 22	0 42
T 17	9 30	19 28	2 40	19 58	3 8	4 40	2 15	7 11	1 20	2 1	1 7	8 15	1 44	12 38	0 30	12 22	0 42
W18	9 52	16 18	3 33	20 2	3 6	4 36	2 5	6 57	1 20	2 6	1 8	8 13	1 44	12 38	0 30	12 23	0 42
T 19	10 14	12 27	4 14	20 3	3 3	4 30	1 55	6 42	1 20	2 11	1 8	8 11	1 44	12 37	0 30	12 23	0 42
F 20	10 36	8 9	4 42	20 1	2 59	4 25	1 45	6 28	1 20	2 16	1 8	8 9	1 44	12 36	0 30	12 23	0 42
S 21	10 57	3 35	4 58	19 55	2 53	4 18	1 36	6 14	1 20	2 21	1 8	8 7	1 44	12 35	0 30	12 23	0 42
S 22	11 18	1n 5	5 0	19 45	2 46	4 11	1 26	6 0	1 21	2 26	1 8	8 4	1 45	12 34	0 30	12 24	0 42
M23	11 39	5 42	4 49	19 31	2 37	4 3	1 17	5 45	1 21	2 31	1 8	8 2	1 45	12 33	0 30	12 24	0 42
T 24	12 0	10 5	4 26	19 13	2 27	3 54	1 8	5 31	1 21	2 35	1 8	8 0	1 45	12 33	0 30	12 24	0 42
W25	12 12	14 5	3 51	18 50	2 15	3 45	0 59	5 17	1 21	2 40	1 8	7 58	1 45	12 32	0 30	12 24	0 42
T 26	12 42	17 33	3 6	18 23	2 1	3 35	0 50	5 2	1 21	2 45	1 8	7 56	1 45	12 31	0 30	12 24	0 42
F 27	13 2	20 19	2 12	17 51	1 45	3 25	0 42	4 48	1 21	2 50	1 8	7 54	1 46	12 30	0 30	12 24	0 42
S 28	13 22	22 13	1 12	17 16	1 28	3 14	0 34	4 33	1 22	2 55	1 8	7 52	1 46	12 29	0 30	12 25	0 42
S 29	13 42	23 6	0 8	16 37	1 9	3 2	0 26	4 19	1 22	2 59	1 8	7 50	1 46	12 29	0 30	12 25	0 42
M30	14 2	22 54	0n57	15 54	0 50	2 50	0 18	4 5	1 22	3 4	1 8	7 48	1 46	12 28	0 30	12 25	0 42
T 31	14s21	12n31	2n 2	15s10	0s29	2n37	0s10	3n50	1n22	3s 9	1n 8	7n46	1n46	12n27	0s30	12s25	0s42

Julian Day Number = 2336402.5, Delta T = 21.05 sec
 Ecliptic obliquity = 23°28'48", Nutation = - 0°00'18", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 20°20'23", Lahiri = 19°27'24"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1684
geocentric

NOVEMBER 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	2 44 27	9♉29°12	15♊54	8♈17	23♏53	24♏7	10♏47	14♏32	4♈6	29♈14	19♈48	9♈30	10♏39	9♏31	5♈24	W 1
T 2	2 48 24	10°29'27	29°20	7♉0	24°44	24°44	11°0	14°37	4♈3	29°14	19°47	9°28	10°36	9°38	5♈21	T 2
F 3	2 52 20	11°29'44	13°15	5°48	25°37	25°21	11°12	14°43	4°1	29°14	19°47	9°24	10°32	9°44	5°18	F 3
S 4	2 56 17	12°30'02	27°39	4°42	26°30	25°57	11°24	14°48	3°58	29°13	19°47	9°18	10°29	9°51	5°15	S 4
S 5	3 0 13	13°30'23	12♊29	3°45	27°23	26°34	11°36	14°53	3°56	29°13	19°46	9°10	10°26	9°58	5°12	S 5
M 6	3 4 10	14°30'46	27°38	2°59	28°18	27°10	11°48	14°58	3°53	29°13	19°46	9°2	10°23	10°5	5°9	M 6
T 7	3 8 6	15°31'11	12♉57	2°23	29°13	27°47	11°59	15°3	3°51	29°13	19°45	8°53	10°20	10°11	5°6	T 7
W 8	3 12 3	16°31'37	28°14	1°59	0♏9	28°23	12°11	15°8	3°48	29°13	19°45	8°46	10°17	10°18	5°3	W 8
T 9	3 16 0	17°32'05	13♏18	1°47	1°5	29°0	12°23	15°13	3°46	29°13	19°44	8°41	10°13	10°25	5°0	T 9
F 10	3 19 56	18°32'34	28°1	1°D46	2°2	29°36	12°35	15°17	3°44	29°D13	19°44	8°39	10°10	10°31	4°57	F 10
S 11	3 23 53	19°33'05	12♊18	1°57	2°59	0♏13	12°46	15°22	3°41	29°13	19°43	8°D38	10°7	10°38	4°54	S 11
S 12	3 27 49	20°33'37	26°6	2°17	3°57	0°49	12°58	15°27	3°39	29°13	19°43	8°39	10°4	10°45	4°51	S 12
M13	3 31 46	21°34'11	9♏27	2°46	4°55	1°25	13°9	15°31	3°37	29°13	19°42	8°41	10°1	10°52	4°48	M13
T 14	3 35 42	22°34'45	22°24	3°24	5°54	2°2	13°21	15°35	3°34	29°13	19°42	8°R41	9°58	10°58	4°45	T 14
W15	3 39 39	23°35'21	5♏0	4°9	6°54	2°38	13°32	15°40	3°32	29°13	19°41	8°40	9°54	11°5	4°42	W15
T 16	3 43 35	24°35'58	17°20	5°1	7°54	3°14	13°43	15°44	3°30	29°13	19°40	8°38	9°51	11°12	4°39	T 16
F 17	3 47 32	25°36'36	29°27	5°59	8°54	3°50	13°55	15°48	3°28	29°14	19°40	8°33	9°48	11°18	4°36	F 17
S 18	3 51 29	26°37'15	11♏26	7°2	9°55	4°26	14°6	15°52	3°25	29°14	19°39	8°26	9°45	11°25	4°34	S 18
S 19	3 55 25	27°37'56	23°21	8°9	10°56	5°3	14°17	15°56	3°23	29°14	19°38	8°19	9°42	11°32	4°31	S 19
M20	3 59 22	28°38'38	5♏12	9°21	11°58	5°39	14°28	16°0	3°21	29°15	19°38	8°11	9°38	11°38	4°28	M20
T 21	4 3 18	29°39'21	17°4	10°35	13°0	6°15	14°39	16°4	3°19	29°15	19°37	8°3	9°35	11°45	4°25	T 21
W22	4 7 15	0♏40'05	28°56	11°52	14°2	6°51	14°50	16°7	3°17	29°15	19°36	7°57	9°32	11°52	4°23	W22
T 23	4 11 11	1°40'51	10♏52	13°12	15°5	7°27	15°0	16°11	3°15	29°16	19°35	7°52	9°29	11°59	4°20	T 23
F 24	4 15 8	2°41'38	22°53	14°33	16°8	8°3	15°11	16°15	3°12	29°16	19°35	7°49	9°26	12°5	4°18	F 24
S 25	4 19 4	3°42'26	5♏1	15°56	17°11	8°39	15°22	16°18	3°10	29°17	19°34	7°D48	9°23	12°12	4°15	S 25
S 26	4 23 1	4°43'16	17°17	17°21	18°15	9°14	15°32	16°21	3°8	29°17	19°33	7°48	9°19	12°19	4°12	S 26
M27	4 26 58	5°44'07	29°45	18°47	19°19	9°50	15°43	16°24	3°6	29°18	19°32	7°49	9°16	12°25	4°10	M27
T 28	4 30 54	6°44'59	12♏28	20°14	20°24	10°26	15°53	16°28	3°4	29°19	19°31	7°51	9°13	12°32	4°7	T 28
W29	4 34 51	7°45'53	25°29	21°42	21°29	11°2	16°3	16°31	3°3	29°19	19°30	7°53	9°10	12°39	4°5	W29
T 30	4 38 47	8°46'48	8♏50	23♉11	22♏34	11♏38	16♏13	16♏33	3♏1	29°20	19°29	7°R53	9°7	12°45	4♏3	T 30

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	14s41	18n59	3n 2	14s26	0s 9	2n24	0s 2	3n36	1n22	3s14	1n 9	7n44	1n47	12n26	0s30	12s25	0s42	22n46	0n45	23n 8	23n 3	10n24	12n15	1s10	
T 2	15 0	15 23	3 54	13 41	0n12	2 10	0n 5	3 21	1 22	3 18	1 9	7 42	1 47	12 25	0 30	12 25	0 42	22 46	0 45	23 8	23 3	10 27	12 14	1 10	
F 3	15 18	10 49	4 35	12 58	0 32	1 56	0 12	3 7	1 22	3 23	1 9	7 40	1 47	12 24	0 30	12 25	0 42	22 46	0 45	23 9	23 4	10 29	12 12	1 10	
S 4	15 37	5 31	4 59	12 19	0 51	1 41	0 19	2 52	1 23	3 28	1 9	7 39	1 47	12 24	0 30	12 25	0 42	22 46	0 45	23 9	23 4	10 32	12 11	1 10	
S 5	15 55	0s16	5 5	11 43	1 8	1 26	0 26	2 38	1 23	3 32	1 9	7 37	1 47	12 23	0 30	12 25	0 42	22 46	0 45	23 10	23 4	10 34	12 10	1 10	
M 6	16 13	6 8	4 50	11 12	1 24	1 10	0 32	2 23	1 23	3 37	1 9	7 35	1 48	12 22	0 30	12 25	0 42	22 46	0 46	23 10	23 4	10 37	12 9	1 10	
T 7	16 31	11 43	4 14	10 47	1 38	0 54	0 38	2 9	1 23	3 41	1 9	7 33	1 48	12 21	0 30	12 25	0 42	22 47	0 46	23 11	23 5	10 39	12 8	1 10	
W 8	16 48	16 33	3 20	10 28	1 50	0 38	0 45	1 55	1 23	3 46	1 9	7 32	1 48	12 20	0 30	12 25	0 42	22 47	0 46	23 11	23 5	10 42	12 7	1 10	
T 9	17 6	20 15	2 12	10 14	2 0	0 21	0 51	1 40	1 23	3 50	1 9	7 30	1 48	12 20	0 30	12 25	0 42	22 47	0 46	23 12	23 5	10 44	12 6	1 11	
F 10	17 22	22 31	0 57	10 6	2 9	0 3	0 56	1 26	1 23	3 55	1 9	7 28	1 48	12 19	0 30	12 25	0 42	22 47	0 46	23 12	23 5	10 47	12 5	1 11	
S 11	17 39	23 14	0s20	10 3	2 15	0s14	1 2	1 11	1 23	3 59	1 10	7 27	1 49	12 18	0 30	12 25	0 42	22 47	0 46	23 12	23 6	10 49	12 4	1 11	
S 12	17 55	22 29	1 33	10 6	2 20	0 32	1 7	0 57	1 23	4 4	1 10	7 25	1 49	12 17	0 30	12 25	0 42	22 47	0 46	23 12	23 6	10 52	12 3	1 11	
M13	18 11	20 28	2 39	10 13	2 23	0 51	1 13	0 43	1 24	4 8	1 10	7 24	1 49	12 16	0 30	12 25	0 42	22 47	0 46	23 12	23 6	10 54	12 2	1 11	
T 14	18 27	17 26	3 34	10 24	2 25	1 10	1 18	0 28	1 24	4 12	1 10	7 22	1 49	12 16	0 30	12 25	0 42	22 48	0 46	23 12	23 6	10 57	12 1	1 11	
W15	18 42	13 41	4 18	10 39	2 25	1 29	1 23	0 14	1 24	4 17	1 10	7 21	1 50	12 15	0 30	12 25	0 42	22 48	0 46	23 12	23 7	10 59	12 0	1 11	
T 16	18 57	9 26	4 48	10 57	2 24	1 48	1 27	0s 0	1 24	4 21	1 10	7 19	1 50	12 14	0 30	12 25	0 42	22 48	0 46	23 12	23 7	11 2	11 59	1 11	
F 17	19 12	4 53	5 5	11 18	2 23	2 7	1 32	0 15	1 24	4 25	1 10	7 18	1 50	12 13	0 30	12 25	0 42	22 48	0 46	23 12	23 7	11 4	11 58	1 11	
S 18	19 26	0 12	5 8	11 41	2 20	2 27	1 36	0 29	1 24	4 29	1 10	7 17	1 50	12 13	0 30	12 25	0 42	22 48	0 47	23 13	23 7	11 7	11 57	1 11	
S 19	19 40	4n27	4 58	12 6	2 17	2 47	1 41	0 43	1 24	4 33	1 10	7 15	1 51	12 12	0 30	12 25	0 42	22 48	0 47	23 13	23 7	11 9	11 56	1 11	
M20	19 53	8 57	4 36	12 32	2 13	3 8	1 45	0 57	1 24	4 38	1 11	7 14	1 51	12 11	0 30	12 25	0 42	22 49	0 47	23 14	23 8	11 12	11 55	1 11	
T 21	20 7	13 6	4 1	13 0	2 8	3 28	1 49	1 12	1 24	4 42	1 11	7 13	1 51	12 10	0 30	12 24	0 42	22 49	0 47	23 14	23 8	11 14	11 54	1 11	
W22	20 20	16 46	3 16	13 28	2 3	3 49	1 52	1 26	1 24	4 46	1 11	7 12	1 51	12 10	0 30	12 24	0 42	22 49	0 47	23 14	23 8	11 17	11 53	1 11	
T 23	20 32	19 47	2 21	13 57	1 58	4 10	1 56	1 40	1 24	4 50	1 11	7 10	1 52	12 9	0 30	12 24	0 42	22 49	0 47	23 15	23 8	11 19	11 52	1 11	
F 24	20 44	21 57	1 20	14 27	1 52	4 31	1 59	1 54	1 25	4 54	1 11	7 9	1 52	12 8	0 30	12 24	0 42	22 49	0 47	23 15	23 9	11 22	11 51	1 12	
S 25	20 56	23 8	0 15	14 57	1 46	4 53	2 2	2 8	1 25	4 58	1 11	7 8	1 52	12 8	0 30	12 24	0 42	22 50	0 47	23 15	23 9	11 24	11 50	1 12	
S 26	21 7	23 13	0n52	15 27	1 39	5 14	2 5	2 22	1 25	5 2	1 11	7 7	1 52	12 7	0 30	12 24	0 42	22 50	0 47	23 15	23 9	11 26	11 49	1 12	
M27	21 18	22 9	1 57	15 58	1 32	5 36	2 8	2 36	1 25	5 6	1 12	7 6	1 53	12 6	0 30	12 23	0 42	22 50	0 47	23 15	23 9	11 29	11 48	1 12	
T 28	21 28	19 57	2 59	16 28	1 26	5 57	2 11	2 50	1 25	5 9	1 12	7 5	1 53	12 6	0 30	12 23	0 42	22 50	0 47	23 15	23 10	11 31	11 47	1 12	
W29	21 38	16 41	3 52	16 57	1 19	6 19	2 14	3 4	1 25	5 13	1 12	7 4	1 53	12 5	0 30	12 23	0 42	22 50	0 47	23 15	23 10	11 34	11 47	1 12	
T 30	21s48	12n30	4n35	17s27	1n12	6s41	2n16	3s18	1n25	5s17	1n12	7n 3	1n53	12n 4	0s29	12s23	0s42	22n51	0n47	23n15	23n10	11n36	11n46	1s12	

ASTRODIENST EPHEMERIS for the year 1684
geocentric

DECEMBER 1684 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	4 42 44	9 ⁴⁷ 47'44	22 ¹¹ 35	24 ¹¹ 40	23 ¹¹ 39	12 ¹¹ 13	16 ¹¹ 24	16 ¹¹ 36	2 ¹¹ R59	29 ¹¹ 21	19 ¹¹ R28	7 ¹¹ R52	9 ¹¹ 5 4	12 ¹¹ 52	4 ¹¹ R 0	F 1
S 2	4 46 40	10 ⁴⁸ 41	6 ¹¹ 44	26 ¹⁰ 10	24 ⁴ 45	12 ⁴ 49	16 ⁴ 33	16 ⁴ 39	2 ⁴ R57	29 ⁴ 21	19 ⁴ 27	7 ⁴ 51	9 ⁴ 0	12 ⁴ 59	3 ⁴ R58	S 2
S 3	4 50 37	11 ⁴⁹ 40	21 ¹⁵	27 ⁴⁰	25 ⁵ 51	13 ²⁵	16 ⁴³	16 ⁴²	2 ⁵ 55	29 ²²	19 ²⁶	7 ⁴⁸	8 ⁵⁷	13 ⁶	3 ⁵⁶	S 3
M 4	4 54 33	12 ⁵⁰ 40	6 ¹¹ 5	29 ¹¹	26 ⁵ 57	14 ⁰	16 ⁵³	16 ⁴⁴	2 ⁵³	29 ²³	19 ²⁵	7 ⁴⁴	8 ⁵⁴	13 ¹²	3 ⁵³	M 4
T 5	4 58 30	13 ⁵¹ 41	21 ⁰	0 ⁴²	28 ³	14 ³⁶	17 ³	16 ⁴⁷	2 ⁵²	29 ²⁴	19 ²⁴	7 ⁴⁰	8 ⁵¹	13 ¹⁹	3 ⁵¹	T 5
W 6	5 2 27	14 ⁵² 44	6 ¹¹ 13	2 ¹³	29 ¹⁰	15 ¹¹	17 ¹²	16 ⁴⁹	2 ⁵⁰	29 ²⁵	19 ²³	7 ³⁸	8 ⁴⁸	13 ²⁶	3 ⁴⁹	W 6
T 7	5 6 23	15 ⁵³ 47	21 ¹²	3 ⁴⁵	0 ¹¹ 17	15 ⁴⁷	17 ²²	16 ⁵¹	2 ⁴⁸	29 ²⁶	19 ²²	7 ³⁶	8 ⁴⁴	13 ³²	3 ⁴⁷	T 7
F 8	5 10 20	16 ⁵⁴ 51	5 ¹¹ 35	5 ¹⁷	1 ²⁴	16 ²²	17 ³¹	16 ⁵³	2 ⁴⁷	29 ²⁷	19 ²¹	7 ³³	8 ⁴¹	13 ³⁹	3 ⁴⁵	F 8
S 9	5 14 16	17 ⁵⁵ 55	20 ¹⁹	6 ⁴⁹	2 ³¹	16 ⁵⁷	17 ⁴⁰	16 ⁵⁵	2 ⁴⁵	29 ²⁸	19 ²⁰	7 ³⁵	8 ³⁸	13 ⁴⁶	3 ⁴³	S 9
S 10	5 18 13	18 ⁵⁷ 00	4 ¹¹ 17	8 ²¹	3 ³⁹	17 ³³	17 ⁵⁰	16 ⁵⁷	2 ⁴⁴	29 ²⁹	19 ¹⁹	7 ³⁷	8 ³⁵	13 ⁵²	3 ⁴¹	S 10
M 11	5 22 9	19 ⁵⁸ 06	17 ⁴⁷	9 ⁵³	4 ⁴⁷	18 ⁸	17 ⁵⁹	16 ⁵⁹	2 ⁴²	29 ³⁰	19 ¹⁸	7 ³⁸	8 ³²	13 ⁵⁹	3 ³⁹	M 11
T 12	5 26 6	20 ⁵⁹ 12	0 ¹¹ 52	11 ²⁶	5 ⁵⁵	18 ⁴³	18 ⁷	17 ¹	2 ⁴¹	29 ³¹	19 ¹⁷	7 ³⁹	8 ²⁹	14 ⁶	3 ³⁷	T 12
W 13	5 30 3	22 ⁰ 18	13 ³⁴	12 ⁵⁹	7 ³	19 ¹⁸	18 ¹⁶	17 ²	2 ⁴⁰	29 ³²	19 ¹⁶	7 ⁴⁰	8 ²⁵	14 ¹³	3 ³⁶	W 13
T 14	5 33 59	23 ¹ 24	25 ⁵⁶	14 ³¹	8 ¹¹	19 ⁵³	18 ²⁵	17 ⁴	2 ³⁸	29 ³³	19 ¹⁵	7 ⁴⁰	8 ²²	14 ¹⁹	3 ³⁴	T 14
F 15	5 37 56	24 ² 31	8 ¹¹ 4	16 ⁴	9 ²⁰	20 ²⁸	18 ³³	17 ⁵	2 ³⁷	29 ³⁴	19 ¹⁴	7 ⁴⁰	8 ¹⁹	14 ²⁶	3 ³²	F 15
S 16	5 41 52	25 ³ 38	20 ²	17 ³⁸	10 ²⁸	21 ³	18 ⁴²	17 ⁶	2 ³⁶	29 ³⁵	19 ¹²	7 ³⁹	8 ¹⁶	14 ³³	3 ³¹	S 16
S 17	5 45 49	26 ⁴ 45	1 ¹¹ 54	19 ¹¹	11 ³⁷	21 ³⁸	18 ⁵⁰	17 ⁷	2 ³⁵	29 ³⁶	19 ¹¹	7 ³⁷	8 ¹³	14 ³⁹	3 ²⁹	S 17
M 18	5 49 45	27 ⁵ 52	13 ⁴⁴	20 ⁴⁵	12 ⁴⁶	22 ¹³	18 ⁵⁸	17 ⁸	2 ³³	29 ³⁸	19 ¹⁰	7 ³⁵	8 ¹⁰	14 ⁴⁶	3 ²⁷	M 18
T 19	5 53 42	28 ⁷ 00	25 ³⁶	22 ¹⁹	13 ⁵⁵	22 ⁴⁸	19 ⁶	17 ⁹	2 ³²	29 ³⁹	19 ⁹	7 ³⁴	8 ⁶	14 ⁵³	3 ²⁶	T 19
W 20	5 57 38	29 ⁸ 08	7 ¹¹ 33	23 ⁵³	15 ⁵	23 ²²	19 ¹⁴	17 ¹⁰	2 ³¹	29 ⁴⁰	19 ⁸	7 ³³	8 ³	14 ⁵⁹	3 ²⁵	W 20
T 21	6 1 35	0 ¹¹ 35	9 ¹⁶	19 ³⁶	25 ²⁷	16 ¹⁴	23 ⁵⁷	19 ²²	2 ³⁰	29 ⁴²	19 ⁶	7 ³²	8 ⁰	15 ⁶	3 ²³	T 21
F 22	6 5 32	1 ¹⁰ 24	1 ¹¹ 48	27 ¹	17 ²⁴	24 ³²	19 ³⁰	17 ¹¹	2 ²⁹	29 ⁴³	19 ⁵	7 ³¹	7 ⁵⁷	15 ¹³	3 ²²	F 22
S 23	6 9 28	2 ¹¹ 33	14 ¹⁰	28 ³⁶	18 ³⁴	25 ⁶	19 ³⁷	17 ¹²	2 ²⁸	29 ⁴⁴	19 ⁴	7 ³¹	7 ⁵⁴	15 ¹⁹	3 ²¹	S 23
S 24	6 13 25	3 ¹² 42	26 ⁴⁴	0 ¹¹ 31	19 ⁴⁴	25 ⁴¹	19 ⁴⁵	17 ¹²	2 ²⁷	29 ⁴⁶	19 ³	7 ³²	7 ⁵⁰	15 ²⁶	3 ²⁰	S 24
M 25	6 17 21	4 ¹³ 51	9 ¹¹ 30	1 ⁴⁷	20 ⁵⁴	26 ¹⁵	19 ⁵²	17 ¹²	2 ²⁷	29 ⁴⁷	19 ²	7 ³²	7 ⁴⁷	15 ³³	3 ¹⁸	M 25
T 26	6 21 18	5 ¹⁵ 00	22 ²⁹	3 ²²	22 ⁴	26 ⁵⁰	19 ⁵⁹	17 ¹²	2 ²⁶	29 ⁴⁹	19 ⁰	7 ³²	7 ⁴⁴	15 ⁴⁰	3 ¹⁷	T 26
W 27	6 25 14	6 ¹⁶ 10	5 ¹¹ 42	4 ⁵⁸	23 ¹⁴	27 ²⁴	20 ⁶	17 ¹²	2 ²⁵	29 ⁵⁰	18 ⁵⁹	7 ³³	7 ⁴¹	15 ⁴⁶	3 ¹⁶	W 27
T 28	6 29 11	7 ¹⁷ 20	19 ¹⁰	6 ³⁵	24 ²⁵	27 ⁵⁸	20 ¹³	17 ¹²	2 ²⁴	29 ⁵²	18 ⁵⁸	7 ³³	7 ³⁸	15 ⁵³	3 ¹⁵	T 28
F 29	6 33 7	8 ¹⁸ 30	2 ¹¹ 54	8 ¹¹	25 ³⁵	28 ³²	20 ²⁰	17 ¹²	2 ²⁴	29 ⁵³	18 ⁵⁷	7 ³³	7 ³⁵	16 ⁰	3 ¹⁵	F 29
S 30	6 37 4	9 ¹⁹ 40	16 ⁵³	9 ⁴⁸	26 ⁴⁶	29 ⁷	20 ²⁶	17 ¹²	2 ²³	29 ⁵⁵	18 ⁵⁵	7 ³³	7 ³¹	16 ⁶	3 ¹⁴	S 30
S 31	6 41 1	10 ²⁰ 51	1 ¹¹ 7	11 ³ 26	27 ¹¹ 57	29 ¹¹ 41	20 ¹¹ 33	17 ¹¹ 11	2 ¹¹ 23	29 ¹¹ 57	18 ¹¹ 54	7 ¹¹ 33	7 ¹¹ 28	16 ¹¹ 13	3 ¹¹ 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
F 1	21s57	7n35	5n 3	17s56	1n 4	7s 3	2n18	3s32	1n25	5s21	1n12	7n 2	1n54	12n 4	0s29	12s22	0s42	22n51	0n48	23n15	23n10	11n39	11n45	1s12					
S 2	22 6	2 8	5 14	18 24	0 57	7 25	2 21	3 46	1 25	5 24	1 12	7 2	1 54	12 3	0 29	12 22	0 42	22 51	0 48	23 15	23 10	11 41	11 44	1 12					
S 3	22 15	3s35	5 5	18 52	0 50	7 47	2 23	4 0	1 25	5 28	1 13	7 1	1 54	12 3	0 29	12 22	0 42	22 51	0 48	23 15	23 11	11 44	11 43	1 12					
M 4	22 23	9 13	4 37	19 19	0 43	8 9	2 24	4 13	1 25	5 32	1 13	7 0	1 54	12 2	0 29	12 22	0 42	22 52	0 48	23 15	23 11	11 46	11 42	1 12					
T 5	22 30	14 24	3 48	19 45	0 35	8 32	2 26	4 27	1 25	5 35	1 13	6 59	1 55	12 2	0 29	12 21	0 42	22 52	0 48	23 15	23 11	11 49	11 42	1 12					
W 6	22 37	18 41	2 44	20 11	0 28	8 54	2 28	4 41	1 25	5 39	1 13	6 59	1 55	12 1	0 29	12 21	0 42	22 52	0 48	23 16	23 11	11 51	11 41	1 12					
T 7	22 44	21 42	1 29	20 36	0 21	9 16	2 29	4 54	1 25	5 42	1 13	6 58	1 55	12 0	0 29	12 21	0 42	22 52	0 48	23 16	23 11	11 54	11 40	1 12					
F 8	22 50	23 12	0 9	21 0	0 14	9 38	2 30	5 8	1 25	5 46	1 13	6 57	1 55	12 0	0 29	12 20	0 42	22 52	0 48	23 16	23 12	11 56	11 39	1 12					
S 9	22 56	23 5	1s10	21 23	0 7	10 0	2 31	5 21	1 25	5 49	1 14	6 57	1 56	11 59	0 29	12 20	0 42	22 53	0 48	23 16	23 12	11 58	11 39	1 12					
S 10	23 1	21 31	2 22	21 45	0s 1	10 22	2 32	5 35	1 25	5 52	1 14	6 56	1 56	11 59	0 29	12 20	0 42	22 53	0 48	23 16	23 12	12 1	11 38	1 12					
M 11	23 6	18 46	3 24	22 6	0 7	10 44	2 33	5 48	1 25	5 56	1 14	6 56	1 56	11 58	0 29	12 19	0 42	22 53	0 48	23 16	23 12	12 3	11 37	1 12					
T 12	23 10	15 8	4 14	22 26	0 14	11 6	2 34	6 2	1 25	5 59	1 14	6 56	1 57	11 58	0 29	12 19	0 42	22 53	0 48	23 15	23 12	12 6	11 37	1 12					
W 13	23 14	10 55	4 49	22 45	0 21	11 27	2 34	6 15	1 25	6 2	1 14	6 55	1 57	11 58	0 29	12 18	0 42	22 54	0 48	23 15	23 13	12 8	11 36	1 12					
T 14	23 18	6 21	5 10	23 2	0 28	11 49	2 35	6 28	1 25	6 5	1 14	6 55	1 57	11 57	0 29	12 18	0 42	22 54	0 49	23 15	23 13	12 11	11 35	1 12					
F 15	23 21	1 38	5 16	23 19	0 34	12 10	2 35	6 41	1 26	6 8	1 15	6 55	1 57	11 57	0 29	12 18	0 42	22 54	0 49	23 15	23 13	12 13	11 35	1 12					
S 16	23 23	3n 4	5 9	23 35	0 41	12 32	2 35	6 54	1 26	6 11	1 15	6 54	1 58	11 56	0 29	12 17	0 42	22 54	0 49	23 16	23 13	12 16	11 34	1 12					
S 17	23 25	7 38	4 49	23 49	0 47	12 53	2 36	7 7	1 26	6 14	1 15	6 54	1 58	11 56	0 29	12 17	0 42	22 55	0 49	23 16	23 13	12 18	11 34	1 12					
M 18	23 27	11 55	4 16	24 2	0 53	13 14	2 36	7 20	1 26	6 17	1 15	6 54	1 58	11 56	0 29	12 16	0 42	22 55	0 49	23 16	23 14	12 20	11 33	1 13					
T 19	23 28	15 46	3 32	24 14	0 59	13 34	2 35	7 33	1 26	6 20	1 15	6 54	1 58	11 55	0 29	12 16	0 42	22 55	0 49	23 16	23 14	12 23	11 33	1 13					
W 20	23 29	19 0	2 39	24 25	1 5	13 55	2 35	7 46	1 26	6 23	1 16	6 54	1 59	11 55	0 29	12 15	0 42	22 55	0 49	23 16	23 14	12 25	11 32	1 13					
T 21	23 29	21 27	1 38	24 34	1 10	14 15	2 35	7 59	1 25	6 25	1 16	6 54	1 59	11 55	0 29	12 15	0 42	22 56	0 49	23 16	23 14	12 28	11 32	1 13					
F 22	23 28	22 56	0 32	24 42	1 15	14 35	2 34	8 12	1 25	6 28	1 16	6 54	1 59	11 54	0 29	12 14	0 42	22 56	0 49	23 16	23 14	12 30	11 31	1 13					
S 23	23 28	23 20	0n37	24 49	1 21	14 55	2 34	8 24	1 25	6 31	1 16	6 54	2 0	11 54	0 29	12 14	0 42	22 56	0 49	23 16	23 15	12 33	11 31	1 13					
S 24	23 26	22 33	1 45	24 54	1 26	15 15	2 33	8 37	1 25	6 33	1 16	6 54	2 0	11 54	0 29	12 13	0 42	22 56	0 49	23 16	23 15	12 35	11 30	1 13					
M 25	23 25	20 37	2 48	24 58	1 30	15 34	2 32	8 49	1 25	6 36	1 17	6 54	2 0	11 53	0 29	12 13	0 41	22 56	0 49	23 16	23 15	12 37	11 30	1 13					
T 26	23 23	17 35	3 45	25 1	1 35	15 53	2 31	9 2	1 25	6 39	1 17	6 55	2 0	11 53	0 29	12 12	0 41	22 57	0 49	23 16	23 15	12 40	11 30	1 13					
W 27	23 20	13 37	4 30	25 2	1 39	16 12	2 30	9 14	1 25	6 41	1 17	6 55	2 1	11 53	0 29	12 12	0 41	22 57	0 50	23 16	23 15	12 42	11 29	1 13					
T 28	23 17	8 55	5 1	25 2	1 43	16 30	2 29	9 27	1 25	6 43	1 17	6 55	2 1	11 53	0 29	12 11	0 41	22 57	0 50	23 16	23 16	12 45	11 29	1 13					
F 29	23 13	3 41	5 16	25 0	1 47	16 48	2 28	9 39	1 25	6 46	1 17	6 55	2 1	11 53	0 29	12 11	0 41	22 57	0 50	23 16	23 16	12 47	11 29	1 13					
S 30	23 9	1s49	5 13	24 57	1 50	17 6	2 26	9 51	1 25	6 48	1 18	6 56	2 1	11 52	0 29	12 10	0 41	22 58	0 50	23 16	23 16	12 50	11 28	1 13					
S 31	23s 5	7s20	4n51	24s52	1s53	17s23	2n25	10s 3	1n25	6s50	1n18	6n56	2n 2	11n52	0s29	12s 9	0s41	22n58	0n50	23n16	23n16	12n52	11n28	1s13					