



Astrodienst Ephemeris Tables for the year 1680

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 1680
geocentric

JANUARY 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
M 1	6 41 52	10 ³³ 49	29 ¹⁴ 14	29 ³ 9	28 ¹⁸ 59	20 ³ 47	0 ⁸ 52	4 ² R27	12 ¹ 9	19 ¹² 12	12 ² R30	14 ² R29	14 ¹⁰ 10	22 ¹ 39	12 ¹ 52	M 1
T 2	6 45 48	11 ³⁵ 21	12 ³ 18	0 ²⁴ 24	29 ³ 37	21 ³ 34	0 ⁵ 54	4 ² 22	12 ¹ 10	19 ¹ 14	12 ² 28	14 ¹⁵ 15	14 ⁷ 7	22 ² 46	12 ² 52	T 2
W 3	6 49 45	12 ³⁶ 32	25 ³ 38	1 ³ 36	0 ¹⁵ 15	22 ² 21	0 ⁵ 55	4 ¹ 17	12 ¹ 10	19 ¹ 15	12 ² 27	14 ¹ 1	14 ⁴ 4	22 ² 52	12 ² 53	W 3
T 4	6 53 41	13 ³⁷ 43	9 ¹⁰ 10	2 ⁴ 3	0 ⁵ 55	23 ⁸ 8	0 ⁵ 57	4 ¹ 12	12 ¹ 11	19 ¹ 17	12 ² 26	13 ⁴ 49	14 ¹ 1	22 ² 59	12 ² 54	T 4
F 5	6 57 38	14 ³⁸ 54	22 ⁵ 3	3 ⁴ 5	1 ³ 36	23 ⁵ 55	0 ⁵ 59	4 ⁸ 8	12 ¹ 12	19 ¹ 19	12 ² 25	13 ⁴ 40	13 ⁵ 58	23 ⁶ 6	12 ² 54	F 5
S 6	7 1 35	15 ⁴⁰ 04	6 ¹⁴ 43	4 ⁴ 40	2 ¹ 19	24 ⁴ 42	1 ¹ 1	4 ³ 3	12 ¹ 12	19 ¹ 21	12 ² 23	13 ³ 33	13 ⁵ 54	23 ¹ 12	12 ² 55	S 6
S 7	7 5 31	16 ⁴¹ 13	20 ³ 39	5 ² 27	3 ² 2	25 ² 29	1 ⁴ 4	3 ⁵ 58	12 ¹ 13	19 ¹ 23	12 ² 22	13 ³ 30	13 ⁵ 51	23 ¹ 19	12 ² 56	S 7
M 8	7 9 28	17 ⁴² 22	4 ¹ 39	6 ⁷ 7	3 ⁴ 46	26 ¹ 16	1 ⁶ 6	3 ⁵ 53	12 ¹ 14	19 ¹ 25	12 ² 21	13 ² 28	13 ⁴ 48	23 ² 26	12 ² 57	M 8
T 9	7 13 24	18 ⁴³ 30	18 ⁴ 1	6 ³ 38	4 ³ 42	27 ³ 3	1 ⁹ 9	3 ⁴ 48	12 ¹ 15	19 ¹ 27	12 ² 20	13 ² 28	13 ⁴ 45	23 ³ 32	12 ² 58	T 9
W10	7 17 21	19 ⁴⁴ 38	2 ⁴ 47	6 ⁵ 59	5 ¹ 18	27 ⁵ 50	1 ¹ 12	3 ⁴ 44	12 ¹ 16	19 ¹ 29	12 ² 18	13 ² 28	13 ⁴ 42	23 ³ 39	12 ² 59	W10
T 11	7 21 17	20 ⁴⁵ 45	16 ⁵ 4	7 ¹ R 9	6 ⁵ 5	28 ³ 37	1 ¹ 15	3 ³ 39	12 ¹ 17	19 ¹ 31	12 ² 17	13 ² 26	13 ³ 38	23 ⁴ 46	13 ⁰ 0	T 11
F 12	7 25 14	21 ⁴⁶ 51	1 ¹ 12	7 ⁸ 8	6 ⁵ 53	29 ² 24	1 ¹ 18	3 ³ 34	12 ¹ 18	19 ¹ 33	12 ² 16	13 ² 21	13 ³ 35	23 ⁵ 52	13 ¹ 1	F 12
S 13	7 29 10	22 ⁴⁷ 56	15 ⁸ 8	6 ⁵ 55	7 ⁴ 42	0 ¹ 11	1 ² 22	3 ³ 30	12 ¹ 19	19 ¹ 35	12 ² 15	13 ¹ 14	13 ³ 32	23 ⁵ 59	13 ² 2	S 13
S 14	7 33 7	23 ⁴⁹ 01	29 ⁸ 8	6 ³ 31	8 ³ 32	0 ⁵ 58	1 ² 26	3 ² 25	12 ² 21	19 ¹ 38	12 ² 13	13 ⁴ 4	13 ³ 29	24 ⁵ 5	13 ³ 3	S 14
M15	7 37 4	24 ⁵⁰ 04	12 ² 58	5 ⁵ 55	9 ² 23	1 ⁴ 45	1 ³ 30	3 ² 21	12 ² 22	19 ¹ 40	12 ² 12	12 ² 51	13 ² 26	24 ¹ 12	13 ⁴ 4	M15
T 16	7 41 0	25 ⁵¹ 08	26 ³ 35	5 ⁹ 9	10 ¹ 14	2 ³ 33	1 ³ 34	3 ¹ 17	12 ² 23	19 ¹ 42	12 ² 11	12 ² 39	13 ² 23	24 ¹ 19	13 ⁶ 6	T 16
W17	7 44 57	26 ⁵² 10	9 ¹ 55	4 ¹ 12	11 ⁶ 6	3 ² 30	1 ³ 38	3 ¹ 12	12 ² 24	19 ¹ 44	12 ² 10	12 ² 26	13 ¹ 19	24 ² 25	13 ⁷ 7	W17
T 18	7 48 53	27 ⁵³ 12	22 ⁵ 5	3 ⁸ 8	11 ⁵ 9	4 ⁷ 7	1 ⁴ 43	3 ⁸ 8	12 ² 26	19 ¹ 46	12 ² 8	12 ² 16	13 ¹ 16	24 ³ 32	13 ⁸ 8	T 18
F 19	7 52 50	28 ⁵⁴ 13	5 ¹ 36	1 ⁵ 58	12 ⁵ 52	4 ⁵ 54	1 ⁴ 47	3 ⁴ 4	12 ² 27	19 ¹ 48	12 ² 7	12 ² 8	13 ¹ 13	24 ³ 39	13 ¹⁰ 10	F 19
S 20	7 56 46	29 ⁵⁵ 13	17 ⁵ 8	0 ⁴ 43	13 ⁴ 47	5 ⁴ 42	1 ⁵ 52	3 ⁰ 0	12 ² 29	19 ¹ 50	12 ² 6	12 ² 2	13 ¹ 10	24 ⁴ 45	13 ¹¹ 11	S 20
S 21	8 0 43	0 ⁵ 56	13 ⁵ 13	0 ⁴ 5	29 ³ 27	14 ⁴ 41	6 ² 29	1 ⁵ 57	2 ⁵ 56	12 ² 30	19 ¹ 53	12 ² 5	12 ² 0	13 ⁷ 7	24 ⁵ 52	S 21
M22	8 4 40	1 ⁵ 57	12 ¹ 1	28 ¹ 11	15 ³ 37	7 ¹ 16	2 ³ 3	2 ⁵ 52	12 ² 32	19 ¹ 55	12 ² 4	11 ² D59	13 ⁴ 4	24 ⁵ 59	13 ¹⁴ 14	M22
T 23	8 8 36	2 ⁵ 58	10 ² 30	26 ⁵ 58	16 ³ 33	8 ³ 3	2 ⁸ 8	2 ⁴ 48	12 ² 34	19 ¹ 57	12 ² 2	11 ² 59	13 ³ 0	25 ⁵ 5	13 ¹⁶ 16	T 23
W24	8 12 33	3 ⁵ 59	0 ⁸ 38	5 ¹ 38	25 ⁴ 49	17 ² 29	8 ⁵ 51	2 ¹ 14	12 ² 35	19 ¹ 59	12 ² 1	12 ² R 0	12 ² 57	25 ¹ 12	13 ¹⁸ 18	W24
T 25	8 16 29	5 ⁰ 05	17 ³ 30	24 ⁴ 47	18 ² 26	9 ³ 38	2 ¹ 19	2 ⁴ 40	12 ² 37	20 ¹ 1	12 ² 0	11 ² 59	12 ² 54	25 ¹ 19	13 ²⁰ 20	T 25
F 26	8 20 26	6 ¹ 02	29 ³ 32	23 ⁵ 52	19 ² 24	10 ² 26	2 ² 25	2 ³ 36	12 ² 39	20 ⁴ 4	11 ² 59	11 ² 56	12 ² 51	25 ² 25	13 ²¹ 21	F 26
S 27	8 24 22	7 ¹ 58	11 ¹ 49	23 ⁴ 4	20 ² 22	11 ¹ 13	2 ³ 31	2 ³ 32	12 ² 40	20 ⁶ 6	11 ² 58	11 ² 51	12 ² 48	25 ³ 32	13 ²³ 23	S 27
S 28	8 28 19	8 ² 52	24 ² 24	22 ² 26	21 ² 21	12 ² 0	2 ³ 38	2 ² 29	12 ² 42	20 ⁸ 8	11 ² 57	11 ² 43	12 ² 44	25 ³ 39	13 ²⁵ 25	S 28
M29	8 32 15	9 ³ 47	7 ² 31	21 ⁵ 56	22 ² 20	12 ² 48	2 ⁴ 44	2 ² 25	12 ² 44	20 ¹⁰ 10	11 ² 56	11 ² 33	12 ² 41	25 ⁴ 45	13 ²⁷ 27	M29
T 30	8 36 12	10 ⁴ 40	20 ² 39	21 ³ 34	23 ¹ 19	13 ³ 35	2 ⁵ 51	2 ² 22	12 ² 46	20 ¹³ 13	11 ² 54	11 ² 22	12 ² 38	25 ⁵ 52	13 ²⁹ 29	T 30
W31	8 40 9	11 ⁴ 32	4 ¹ 18	21 ³ 21	24 ¹ 19	14 ³ 35	2 ⁵ 58	2 ² 19	12 ² 48	20 ¹⁵ 15	11 ² 53	11 ² 11	12 ² 35	25 ⁵ 58	13 ³¹ 31	W31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat	decl	decl	decl	decl	lat	decl	decl	decl	lat
M 1	23s 3	18s39	4n50	21s45	1s26	15s46	4n18	22s54	1s 2	10n41	1s12	22n38	0s46	4n13	0s39	15s26	0s22	21n47	1s 7	5s43	5s36	8s 7	6n18	1n19									
T 2	22 58	17 56	5 0	21 20	1 16	15 52	4 20	22 47	1 3	10 42	1 11	22 39	0 46	4 13	0 39	15 26	0 22	21 47	1 7	5 38	5 35	8 9	6 18	1 19									
W 3	22 53	16 14	4 54	20 55	1 6	15 59	4 21	22 39	1 3	10 42	1 11	22 39	0 46	4 13	0 39	15 25	0 22	21 47	1 7	5 32	5 33	8 10	6 18	1 18									
T 4	22 47	13 37	4 32	20 29	0 55	16 6	4 22	22 32	1 3	10 43	1 11	22 39	0 45	4 13	0 39	15 25	0 22	21 47	1 7	5 28	5 32	8 12	6 18	1 18									
F 5	22 40	10 14	3 53	20 3	0 43	16 13	4 23	22 24	1 3	10 44	1 10	22 39	0 45	4 14	0 39	15 24	0 22	21 47	1 7	5 24	5 31	8 14	6 18	1 18									
S 6	22 33	6 15	3 1	19 37	0 30	16 20	4 24	22 15	1 3	10 45	1 10	22 40	0 45	4 14	0 39	15 23	0 22	21 47	1 7	5 21	5 30	8 15	6 18	1 18									
S 7	22 26	1 55	1 58	19 11	0 16	16 28	4 24	22 7	1 3	10 46	1 10	22 40	0 45	4 14	0 39	15 23	0 22	21 48	1 7	5 20	5 28	8 17	6 19	1 18									
M 8	22 18	2n34	0 47	18 47	0 1	16 36	4 25	21 58	1 4	10 48	1 9	22 40	0 45	4 15	0 39	15 22	0 22	21 48	1 7	5 20	5 27	8 19	6 19	1 18									
T 9	22 10	6 55	0s28	18 24	0n16	16 45	4 25	21 49	1 4	10 49	1 9	22 41	0 45	4 15	0 39	15 22	0 22	21 48	1 7	5 19	5 26	8 20	6 19	1 17									
W10	22 1	10 53	1 40	18 2	0 33	16 53	4 24	21 40	1 4	10 50	1 9	22 41	0 45	4 16	0 39	15 21	0 22	21 48	1 7	5 19	5 25	8 22	6 19	1 17									
T 11	21 52	14 15	2 47	17 42	0 50	17 2	4 24	21 31	1 4	10 52	1 8	22 41	0 45	4 16	0 39	15 20	0 22	21 48	1 7	5 19	5 23	8 24	6 19	1 17									
F 12	21 43	16 45	3 43	17 25	1 9	17 10	4 23	21 21	1 4	10 53	1 8	22 41	0 44	4 17	0 39	15 20	0 22	21 49	1 6	5 17	5 22	8 25	6 20	1 17									
S 13	21 33	18 14	4 26	17 10	1 27	17 19	4 22	21 11	1 4	10 55	1 8	22 42	0 44	4 17	0 39	15 19	0 22	21 49	1 6	5 14	5 21	8 27	6 20	1 17									
S 14	21 23	18 36	4 52	16 58	1 46	17 28	4 21	21 1	1 4	10 56	1 8	22 42	0 44	4 18	0 39	15 18	0 22	21 49	1 6	5 10	5 20	8 29	6 20	1 17									
M15	21 12	17 51	5 1	16 49	2 4	17 37	4 20	20 51	1 4	10 58	1 7	22 42	0 44	4 18	0 39	15 18	0 22	21 49	1 6	5 5	5 19	8 30	6 21	1 17									
T 16	21 1	16 5	4 52	16 43	2 22	17 46	4 18	20 40	1 4	10 59	1 7	22 42	0 44	4 19	0 39	15 17	0 22	21 49	1 6	5 0	5 17	8 32	6 21	1 16									
W17	20 49	13 30	4 28	16 41	2 38	17 55	4 16	20 29	1 5	11 1	1 7	22 43	0 44	4 19	0 39	15 16	0 22	21 49	1 6	4 55	5 16	8 33	6 21	1 16									
T 18	20 37	10 17	3 49	16 41	2 53	18 3	4 15	20 18	1 5	11 3	1 6	22 43	0 44	4 20	0 38	15 16	0 22	21 50	1 6	4 51	5 15	8 35	6 22	1 16									
F 19	20 25	6 41	3 1	16 44	3 6	18 12	4 13	20 7	1 5	11 5	1 6	22 43	0 43	4 20	0 38	15 15	0 22	21 50	1 6	4 48	5 14	8 37	6 22	1 16									
S 20	20 12	2 52	2 4	16 50	3 17	18 21	4 11	19 55	1 5	11 7	1 6	22 43	0 43	4 21	0 38	15 14	0 22	21 50	1 6	4 46	5 12	8 38	6 23	1 16									
S 21	19 59	1s 0	1 3	16 57	3 25	18 29	4 8	19 44	1 5	11 9	1 5	22 44	0 43	4 22	0 38	15 14	0 22	21 50	1 6	4 45	5 11	8 40	6 23	1 16									
M22	19 45	4 45	0n 0	17 7	3 31	18 38	4 6	19 32	1 5	11 11	1 5	22 44	0 43	4 22	0 38	15 13	0 22	21 50	1 6	4 45	5 10	8 42	6 24	1 16									
T 23	19 32	8 17	1 3	17 17	3 35	18 46	4 3	19 20	1 5	11 13	1 5	22 44	0 43	4 23	0 38	15 12	0 22	21 51	1 6	4 45	5 9	8 43	6 24	1 15									
W24	19 17	11 29	2 3	17 29	3 36	18 54	4 1	19 7	1 5	11 15	1 5	22 44	0 43	4 24	0 38	15 12	0 22	21 51	1 6	4 45	5 7	8 45	6 25	1 15									
T 25	19 3	14 14	2 58	17 41	3 34	19 2	3 58	18 55	1 5	11 18	1 4	22 44	0 43	4 24	0 38	15 11	0 22	21 51	1 6	4 45	5 6	8 46	6 25	1 15									
F 26	18 48	16 25	3 45	17 54	3 31	19 9	3 55	18 42	1 5	11 20	1 4	22 45	0 42	4 25	0 38	15 10	0 22	21 51	1 5	4 43	5 5	8 48	6 26	1 15									
S 27	18 33	17 53	4 24	18 7	3 26	19 17	3 52	18 29	1 5	11 22	1 4	22 45	0 42	4 26	0 38	15 10	0 22	21 51	1 5	4 41	5 4	8 50	6 27	1 15									
S 28	18 17	18 31	4 50	18 20	3 19	19 24	3 49	18 16	1 5	11 25	1 3	22 45	0 42	4 27	0 38	15 9	0 22	21 51	1 5	4 38	5 2	8 51	6 27	1 15									
M29	18 1	18 14	5 3	18 33	3 11	19 30	3 45	18 2	1 5	11 27	1 3	22 45	0 42	4 27	0 38	15 8	0 22	21 52	1 5	4 35	5 1	8 53	6 28	1 15									
T 30	17 45	16 57	5 0	18 45	3 2	19 37	3 42	17 49	1 5	11 30	1 3	22 46	0 42	4 28	0 38	15 7	0 22	21 52	1 5	4 30	5 0	8 55	6 28	1 14									
W31	17s28	14s41	4n40	18s57	2n52	19s43	3n38	17s35	1s 5	11n32	1s 3	22n46	0s42	4n29	0s38	15s 7	0s22	21n52	1s 5	4s26	4s59	8s56	6n29	1n14									

ASTRODIENST EPHEMERIS for the year 1680 geocentric

FEBRUARY 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♈	♀	♊	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	Day
T 1	8 44 5	12 ²² 6'22	18 ²² 15	21°D16	25 ²⁷ 19	15 ²² 10	3 8 4	2°R15	12 ²⁷ 50	20 ²² 17	11°R52	11°R 2	12 ²² 32	26 ²⁶ 5	13 ²⁷ 33	T 1	
F 2	8 48 2	13° 7'12	2 ² 25	21 ²⁸ 18	26°20	15°57	3°12	2 ² 12	12°52	20°19	11 ² 51	10 ² 54	12°29	26°12	13°36	F 2	
S 3	8 51 58	14° 8'00	16°42	21°27	27°21	16°45	3°19	2° 9	12°54	20°22	11°50	10°49	12°25	26°18	13°38	S 3	
S 4	8 55 55	15° 8'47	1 ² 3	21°43	28°22	17°32	3°26	2° 6	12°56	20°24	11°49	10°46	12°22	26°25	13°40	S 4	
M 5	8 59 51	16° 9'32	15°22	22° 5	29°24	18°20	3°34	2° 3	12°59	20°26	11°48	10°D46	12°19	26°32	13°42	M 5	
T 6	9 3 48	17°10'15	29°37	22°33	0 ² 26	19° 7	3°41	2° 1	13° 1	20°28	11°47	10°47	12°16	26°38	13°45	T 6	
W 7	9 7 44	18°10'57	13 ² 45	23° 6	1°28	19°54	3°49	1°58	13° 3	20°31	11°46	10°R48	12°13	26°45	13°47	W 7	
T 8	9 11 41	19°11'38	27°47	23°44	2°31	20°42	3°57	1°55	13° 5	20°33	11°45	10°47	12°10	26°52	13°50	T 8	
F 9	9 15 37	20°12'16	11 ² 40	24°26	3°34	21°29	4° 5	1°53	13° 8	20°35	11°44	10°45	12° 6	26°58	13°52	F 9	
S 10	9 19 34	21°12'53	25°24	25°12	4°37	22°17	4°14	1°51	13°10	20°37	11°43	10°41	12° 3	27° 5	13°55	S 10	
S 11	9 23 31	22°13'28	8 ² 58	26° 1	5°41	23° 4	4°22	1°48	13°13	20°40	11°42	10°35	12° 0	27°12	13°57	S 11	
M 12	9 27 27	23°14'01	22°22	26°54	6°45	23°52	4°31	1°46	13°15	20°42	11°41	10°27	11°57	27°18	14° 0	M 12	
T 13	9 31 24	24°14'33	5 ² 33	27°50	7°49	24°39	4°40	1°44	13°18	20°44	11°40	10°18	11°54	27°25	14° 2	T 13	
W 14	9 35 20	25°15'03	18°30	28°49	8°53	25°26	4°48	1°42	13°20	20°47	11°40	10°10	11°50	27°32	14° 5	W 14	
T 15	9 39 17	26°15'32	1 ² 13	29°51	9°58	26°14	4°57	1°40	13°23	20°49	11°39	10° 3	11°47	27°38	14° 8	T 15	
F 16	9 43 13	27°15'58	13°41	0 ² 55	11° 3	27° 1	5° 6	1°39	13°25	20°51	11°38	9°58	11°44	27°45	14°10	F 16	
S 17	9 47 10	28°16'23	25°56	2° 2	12° 8	27°49	5°16	1°37	13°28	20°53	11°37	9°55	11°41	27°52	14°13	S 17	
S 18	9 51 6	29°16'47	7 ² 59	3°10	13°14	28°36	5°25	1°35	13°31	20°56	11°36	9°D53	11°38	27°58	14°16	S 18	
M 19	9 55 3	0 ² 17'09	19°53	4°21	14°19	29°23	5°34	1°34	13°33	20°58	11°35	9°54	11°35	28° 5	14°19	M 19	
T 20	9 59 0	1°17'30	1 ² 42	5°34	15°25	0 ² 11	5°44	1°33	13°36	21° 0	11°35	9°55	11°31	28°11	14°22	T 20	
W 21	10 2 56	2°17'49	13°30	6°48	16°31	0°58	5°54	1°32	13°39	21° 2	11°34	9°57	11°28	28°18	14°25	W 21	
T 22	10 6 53	3°18'07	25°22	8° 4	17°37	1°45	6° 4	1°30	13°41	21° 5	11°33	9°59	11°25	28°25	14°28	T 22	
F 23	10 10 49	4°18'24	7 ² 24	9°22	18°43	2°33	6°14	1°29	13°44	21° 7	11°33	9°R59	11°22	28°31	14°31	F 23	
S 24	10 14 46	5°18'38	19°40	10°41	19°50	3°20	6°24	1°29	13°47	21° 9	11°32	9°58	11°19	28°38	14°34	S 24	
S 25	10 18 42	6°18'52	2 ² 14	12° 1	20°57	4° 8	6°34	1°28	13°50	21°11	11°31	9°55	11°15	28°45	14°37	S 25	
M 26	10 22 39	7°19'04	15°11	13°24	22° 4	4°55	6°44	1°27	13°53	21°14	11°31	9°51	11°12	28°51	14°40	M 26	
T 27	10 26 35	8°19'14	28°33	14°47	23°11	5°42	6°55	1°27	13°56	21°16	11°30	9°46	11° 9	28°58	14°43	T 27	
W 28	10 30 32	9°19'23	12 ² 21	16°12	24°18	6°29	7° 5	1°26	13°59	21°18	11°29	9°41	11° 6	29° 5	14°46	W 28	
T 29	10 34 29	10 ² 19'29	26 ² 31	17 ² 38	25 ² 26	7 ² 17	7 8 16	1 ² 26	14 ² 19	21 ² 20	11 ² 29	9 ² 37	11 ² 3	29 ² 11	14 ² 49	T 29	

Day	☉	♊			♀			♂			♈			♏			♐			♑			♒	♓	♋	♌	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	lat	
T 1	17s12	11s32	4n 3	19s 8	2n42	19s49	3n35	17s21	1 s 5	11n35	1 s 2	22n46	0s42	4n30	0s38	15s 6	0s22	21n52	1 s 5	4s22	4s57	8s58	6n30	1n14			
F 2	16 54	7 40	3 10	19 19	2 31	19 55	3 31	17 7	1 5	11 37	1 2	22 46	0 41	4 31	0 38	15 5	0 22	21 52	1 5	4 19	4 56	8 59	6 31	1 14			
S 3	16 37	3 20	2 5	19 28	2 19	20 0	3 27	16 52	1 5	11 40	1 2	22 46	0 41	4 31	0 38	15 5	0 22	21 52	1 5	4 17	4 55	9 1	6 31	1 14			
S 4	16 19	1n13	0 52	19 37	2 8	20 4	3 24	16 38	1 5	11 43	1 2	22 47	0 41	4 32	0 38	15 4	0 22	21 53	1 5	4 16	4 54	9 3	6 32	1 14			
M 5	16 1	5 41	0s25	19 45	1 56	20 9	3 20	16 23	1 5	11 46	1 1	22 47	0 41	4 33	0 38	15 3	0 22	21 53	1 5	4 16	4 53	9 4	6 33	1 14			
T 6	15 43	9 48	1 40	19 53	1 44	20 13	3 16	16 8	1 5	11 49	1 1	22 47	0 41	4 34	0 38	15 2	0 22	21 53	1 5	4 16	4 51	9 6	6 34	1 14			
W 7	15 24	13 19	2 48	19 59	1 32	20 16	3 12	15 53	1 5	11 52	1 1	22 47	0 41	4 35	0 38	15 2	0 22	21 53	1 5	4 17	4 50	9 7	6 34	1 13			
T 8	15 5	16 2	3 45	20 4	1 21	20 20	3 8	15 38	1 5	11 54	1 1	22 47	0 40	4 36	0 38	15 1	0 22	21 53	1 4	4 17	4 49	9 9	6 35	1 13			
F 9	14 46	17 46	4 29	20 8	1 9	20 22	3 3	15 23	1 5	11 57	1 0	22 48	0 40	4 37	0 38	15 0	0 22	21 53	1 4	4 16	4 48	9 11	6 36	1 13			
S 10	14 27	18 27	4 57	20 11	0 58	20 25	2 59	15 7	1 4	12 0	1 0	22 48	0 40	4 38	0 38	15 0	0 22	21 54	1 4	4 14	4 46	9 12	6 37	1 13			
S 11	14 8	18 4	5 7	20 12	0 47	20 27	2 55	14 52	1 4	12 4	1 0	22 48	0 40	4 39	0 38	14 59	0 22	21 54	1 4	4 12	4 45	9 14	6 38	1 13			
M 12	13 48	16 40	5 1	20 13	0 36	20 28	2 51	14 36	1 4	12 7	1 0	22 48	0 40	4 40	0 38	14 58	0 22	21 54	1 4	4 8	4 44	9 15	6 39	1 13			
T 13	13 28	14 24	4 39	20 13	0 26	20 29	2 46	14 20	1 4	12 10	0 59	22 48	0 40	4 41	0 38	14 57	0 22	21 54	1 4	4 5	4 43	9 17	6 40	1 13			
W 14	13 8	11 28	4 2	20 11	0 15	20 29	2 42	14 4	1 4	12 13	0 59	22 49	0 39	4 42	0 38	14 57	0 22	21 54	1 4	4 2	4 41	9 18	6 41	1 13			
T 15	12 47	8 2	3 14	20 8	0 5	20 29	2 37	13 48	1 4	12 16	0 59	22 49	0 39	4 43	0 38	14 56	0 22	21 54	1 4	4 3	4 39	9 20	6 42	1 12			
F 16	12 26	4 19	2 17	20 3	0s 4	20 29	2 33	13 31	1 4	12 19	0 59	22 49	0 39	4 44	0 38	14 55	0 22	21 54	1 4	3 57	4 39	9 22	6 42	1 12			
S 17	12 6	0 28	1 15	19 58	0 14	20 28	2 29	13 15	1 4	12 23	0 58	22 49	0 39	4 45	0 37	14 55	0 22	21 55	1 4	3 56	4 38	9 23	6 43	1 12			
S 18	11 45	3s20	0 10	19 51	0 23	20 26	2 24	12 58	1 4	12 26	0 58	22 49	0 39	4 46	0 37	14 54	0 22	21 55	1 4	3 55	4 36	9 25	6 44	1 12			
M 19	11 23	6 57	0n54	19 43	0 32	20 24	2 19	12 42	1 3	12 29	0 58	22 50	0 39	4 47	0 37	14 53	0 22	21 55	1 4	3 56	4 35	9 26	6 45	1 12			
T 20	11 2	10 16	1 56	19 34	0 40	20 21	2 15	12 25	1 3	12 33	0 58	22 50	0 38	4 48	0 37	14 52	0 22	21 55	1 4	3 56	4 34	9 28	6 46	1 12			
W 21	10 40	13 10	2 53	19 23	0 48	20 18	2 10	12 8	1 3	12 36	0 57	22 50	0 38	4 49	0 37	14 52	0 22	21 55	1 3	3 57	4 33	9 30	6 47	1 12			
T 22	10 19	15 32	3 43	19 11	0 56	20 14	2 6	11 51	1 3	12 40	0 57	22 50	0 38	4 50	0 37	14 51	0 22	21 55	1 3	3 57	4 31	9 31	6 49	1 12			
F 23	9 57	17 15	4 24	18 58	1 4	20 10	2 1	11 34	1 3	12 43	0 57	22 50	0 38	4 51	0 37	14 50	0 23	21 56	1 3	3 58	4 30	9 33	6 50	1 11			
S 24	9 35	18 12	4 53	18 43	1 11	20 5	1 56	11 16	1 3	12 47	0 57	22 50	0 38	4 52	0 37	14 50	0 23	21 56	1 3	3 57	4 29	9 34	6 51	1 11			
S 25	9 13	18 18	5 10	18 27	1 18	20 0	1 52	10 59	1 2	12 50	0 57	22 51	0 38	4 54	0 37	14 49	0 23	21 56	1 3	3 56	4 28	9 36	6 52	1 11			
M 26	8 50	17 27	5 11	18 10	1 24	19 54	1 47	10 41	1 2	12 54	0 56	22 51	0 37	4 55	0 37	14 48	0 23	21 56	1 3	3 55	4 26	9 37	6 53	1 11			
T 27	8 28	15 39	4 56	17 52	1 30	19 48	1 42	10 24	1 2	12 58	0 56	22 51	0 37	4 56	0 37	14 48	0 23	21 56	1 3	3 53	4 25	9 39	6 54	1 11			
W 28	8 5	12 54	4 24	17 32	1 36	19 41	1 38	10 6	1 2	13 1	0 56	22 51	0 37	4 57	0 37	14 47	0 23	21 56	1 3	3 51	4 24	9 41	6 55	1 11			
T 29	7s43	9s20	3n34	17s11	1s41	19s34	1n33	9s48	1s 2	13n 5	0s56	22n51	0s37	4n58	0s37	14s46	0s23	21n56	1s 3	3s49	4s23	9s42	6n56	1n11			

Julian Day Number = 2334698.5. Delta T = 23.61 sec

Ecliptic obliquity = $23^{\circ}28'42''$, Nutation = $0^{\circ}00'05''$, out-of-bounds declination in red

Avanamsha: Fagan/Bradley = 20°16'29. Lahiri = 19°23'29Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1680

MARCH 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
F 1	10 38 25	11°19'34	11°18' 0	19°55' 5	26°33' 3	8°14' 4	7°26' 6	1°26' 2	14°15' 5	21°22' 2	11°28' 8	9°33' 3	11°00' 0	29°18' 1	14°53' 3	F 1
S 2	10 42 22	12°19'38	25°42'	20°34'	27°41'	8°51'	7°37'	1°26' 6	14° 8'	21°25'	11°28' 8	9°31'	10°56'	29°25'	14°56'	S 2
S 3	10 46 18	13°19'39	10°17'29	22° 4'	28°49'	9°38'	7°48'	1°26' 6	14°11'	21°27'	11°27'	9°31'	10°53'	29°31'	14°59'	S 3
M 4	10 50 15	14°19'38	25°15'	23°35'	29°57'	10°26'	7°59'	1°26'	14°14'	21°29'	11°27'	9°31'	10°50'	29°38'	15° 2'	M 4
T 5	10 54 11	15°19'35	9°53'	25° 7'	1°55' 5	11°13'	8°10'	1°26'	14°17'	21°31'	11°26'	9°33'	10°47'	29°45'	15° 6'	T 5
W 6	10 58 8	16°19'29	24°18'	26°40'	2°13'	12° 0'	8°22'	1°27'	14°20'	21°33'	11°26'	9°34'	10°44'	29°51'	15° 9'	W 6
T 7	11 2 4	17°19'22	8°12'27	28°15'	3°21'	12°47'	8°33'	1°27'	14°23'	21°35'	11°25'	9°35'	10°41'	29°58'	15°12'	T 7
F 8	11 6 1	18°19'12	22°19'	29°51'	4°30'	13°34'	8°44'	1°28'	14°26'	21°37'	11°25'	9°35'	10°37'	0°15' 5	15°16'	F 8
S 9	11 9 58	19°19'00	5°55'	1°18'28	5°38'	14°21'	8°56'	1°28'	14°30'	21°39'	11°25'	9°34'	10°34'	0°11'	15°19'	S 9
S 10	11 13 54	20°18'46	19°14'	3° 6'	6°47'	15° 8'	9° 8'	1°29'	14°33'	21°41'	11°24'	9°33'	10°31'	0°18'	15°23'	S 10
M11	11 17 51	21°18'30	2°11'47	4°45'	7°56'	15°56'	9°19'	1°30'	14°36'	21°43'	11°24'	9°30'	10°28'	0°24'	15°26'	M11
T 12	11 21 47	22°18'11	15° 6'	6°26'	9° 5'	16°43'	9°31'	1°31'	14°39'	21°45'	11°24'	9°28'	10°25'	0°31'	15°30'	T 12
W13	11 25 44	23°17'50	27°42'	8° 8'	10°14'	17°30'	9°43'	1°32'	14°42'	21°48'	11°23'	9°25'	10°21'	0°38'	15°33'	W13
T 14	11 29 40	24°17'27	10°17'5	9°51'	11°23'	18°17'	9°55'	1°34'	14°46'	21°50'	11°23'	9°23'	10°18'	0°44'	15°37'	T 14
F 15	11 33 37	25°17'02	22°18'	11°35'	12°32'	19° 3'	10° 7'	1°35'	14°49'	21°52'	11°23'	9°22'	10°15'	0°51'	15°40'	F 15
S 16	11 37 33	26°16'34	4°42'22	13°21'	13°41'	19°50'	10°19'	1°36'	14°52'	21°53'	11°23'	9°21'	10°12'	0°58'	15°44'	S 16
S 17	11 41 30	27°16'05	16°18'	15° 8'	14°51'	20°37'	10°31'	1°38'	14°56'	21°55'	11°22'	9°21'	10° 9'	1° 4'	15°47'	S 17
M18	11 45 26	28°15'34	28°10'	16°56'	16° 0'	21°24'	10°43'	1°40'	14°59'	21°57'	11°22'	9°22'	10° 6'	1°11'	15°51'	M18
T 19	11 49 23	29°15'01	9°15'58	18°45'	17°10'	22°11'	10°55'	1°42'	15° 2'	21°59'	11°22'	9°23'	10° 2'	1°18'	15°54'	T 19
W20	11 53 20	0°14'26	21°47'	20°36'	18°19'	22°58'	11° 8'	1°43'	15° 6'	22° 1'	11°22'	9°24'	9°59'	1°24'	15°58'	W20
T 21	11 57 16	1°13'49	3°14'40	22°28'	19°29'	23°45'	11°20'	1°45'	15° 9'	22° 3'	11°22'	9°24'	9°56'	1°31'	16° 2'	T 21
F 22	12 1 13	2°13'11	15°41'	24°22'	20°39'	24°31'	11°33'	1°48'	15°12'	22° 5'	11°22'	9°25'	9°53'	1°38'	16° 5'	F 22
S 23	12 5 9	3°12'30	27°55'	26°16'	21°49'	25°18'	11°45'	1°50'	15°16'	22° 7'	11°22'	9°25'	9°50'	1°44'	16° 9'	S 23
S 24	12 9 6	4°11'48	10°32'27	28°12'	22°59'	26° 5'	11°58'	1°52'	15°19'	22° 9'	11°22'22	9°25'	9°47'	1°51'	16°13'	S 24
M25	12 13 2	5°11'04	23°19'	0°19' 9	24° 9'	26°51'	12°11'	1°55'	15°22'	22°10'	11°22'	9°25'	9°43'	1°58'	16°16'	M25
T 26	12 16 59	6°10'19	6°36'36	2° 8'	25°19'	27°38'	12°23'	1°57'	15°26'	22°12'	11°22'	9°25'	9°40'	2° 4'	16°20'	T 26
W27	12 20 55	7° 9'31	20°20'	4° 8'	26°29'	28°25'	12°36'	2° 0'	15°29'	22°14'	11°22'	9°25'	9°37'	2°11'	16°24'	W27
T 28	12 24 52	8° 8'42	4°30'30	6° 8'	27°40'	29°11'	12°49'	2° 3'	15°33'	22°16'	11°22'	9°24'	9°34'	2°18'	16°27'	T 28
F 29	12 28 49	9° 7'50	19° 4'	8°10'	28°50'	29°58'	13° 2'	2° 5'	15°36'	22°17'	11°22'	9°24'24	9°31'	2°24'	16°31'	F 29
S 30	12 32 45	10° 6'57	3°19'57	10°13'	0°18' 0	0°19'44	13°15'	2° 8'	15°39'	22°19'	11°22'	9°24'24	9°27'	2°31'	16°35'	S 30
S 31	12 36 42	11°19' 6'02	19°19' 1	12°19'17	1°18'11	1°19'31	13°18'28	2°20'11	15°19'43	22°22'21	11°22'22	9°24'24	9°24'24	2°18'38	16°19'38	S 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	7s20	5 s 8	2n30	16s48	1 s46	19s26	1n29	9s30	1 s 1	13n 9	0 s56	22n51	0s37	4n59	0s37	14s45	0s23	21n56	1 s 3	3 s47	4s21	9s44	6n57	1n11			
S 2	6 57	0 34	1 15	16 24	1 51	19 17	1 24	9 12	1 1	13 12	0 55	22 52	0 37	5 1	0 37	14 45	0 23	21 57	1 3	3 47	4 20	9 45	6 59	1 11			
S 3	6 34	4n 5	0s 5	15 59	1 55	19 8	1 19	8 54	1 1	13 16	0 55	22 52	0 36	5 2	0 37	14 44	0 23	21 57	1 3	3 46	4 19	9 47	7 0	1 10			
M 4	6 11	8 27	1 26	15 33	1 59	18 59	1 15	8 36	1 1	13 20	0 55	22 52	0 36	5 3	0 37	14 43	0 23	21 57	1 2	3 47	4 18	9 48	7 1	1 10			
T 5	5 48	12 16	2 40	15 5	2 2	18 49	1 10	8 18	1 0	13 24	0 55	22 52	0 36	5 4	0 37	14 43	0 23	21 57	1 2	3 47	4 16	9 50	7 2	1 10			
W 6	5 24	15 17	3 42	14 36	2 5	18 38	1 6	8 0	1 0	13 27	0 55	22 52	0 36	5 5	0 37	14 42	0 23	21 57	1 2	3 48	4 15	9 51	7 3	1 10			
T 7	5 1	17 18	4 30	14 6	2 8	18 27	1 1	7 42	1 0	13 31	0 54	22 52	0 36	5 7	0 37	14 41	0 23	21 57	1 2	3 48	4 14	9 53	7 4	1 10			
F 8	4 38	18 14	5 2	13 34	2 10	18 15	0 57	7 23	1 0	13 35	0 54	22 53	0 36	5 8	0 37	14 41	0 23	21 57	1 2	3 48	4 13	9 55	7 6	1 10			
S 9	4 14	18 6	5 15	13 1	2 12	18 3	0 52	7 5	0 59	13 39	0 54	22 53	0 35	5 9	0 37	14 40	0 23	21 57	1 2	3 48	4 11	9 56	7 7	1 10			
S 10	3 51	16 58	5 11	12 27	2 13	17 50	0 48	6 46	0 59	13 43	0 54	22 53	0 35	5 10	0 37	14 39	0 23	21 58	1 2	3 47	4 10	9 58	7 8	1 10			
M11	3 27	14 57	4 51	11 52	2 14	17 37	0 43	6 28	0 59	13 47	0 54	22 53	0 35	5 12	0 37	14 39	0 23	21 58	1 2	3 46	4 9	9 59	7 9	1 10			
T 12	3 4	12 14	4 17	11 15	2 14	17 24	0 39	6 9	0 59	13 50	0 53	22 53	0 35	5 13	0 37	14 38	0 23	21 58	1 2	3 45	4 8	10 1	7 11	1 9			
W13	2 40	9 0	3 31	10 37	2 14	17 9	0 34	5 51	0 58	13 54	0 53	22 53	0 35	5 14	0 37	14 38	0 23	21 58	1 2	3 44	4 6	10 2	7 12	1 9			
T 14	2 16	5 24	2 35	9 57	2 14	16 55	0 30	5 32	0 58	13 58	0 53	22 54	0 35	5 16	0 37	14 37	0 23	21 58	1 2	3 43	4 5	10 4	7 13	1 9			
F 15	1 53	1 38	1 33	9 17	2 13	16 40	0 26	5 13	0 58	14 2	0 53	22 54	0 34	5 17	0 37	14 36	0 23	21 58	1 1	3 43	4 4	10 5	7 14	1 9			
S 16	1 29	2s10	0 28	8 35	2 12	16 24	0 22	4 54	0 57	14 6	0 53	22 54	0 34	5 18	0 37	14 36	0 23	21 58	1 1	3 43	4 3	10 7	7 16	1 9			
S 17	1 5	5 50	0n39	7 52	2 10	16 8	0 17	4 36	0 57	14 10	0 52	22 54	0 34	5 19	0 37	14 35	0 23	21 58	1 1	3 43	4 1	10 8	7 17	1 9			
M18	0 42	9 14	1 43	7 7	2 8	15 51	0 13	4 17	0 57	14 14	0 52	22 54	0 34	5 21	0 37	14 34	0 23	21 58	1 1	3 43	4 0	10 10	7 18	1 9			
T 19	0 18	12 16	2 42	6 22	2 5	15 34	0 9	5 38	0 56	14 18	0 52	22 54	0 34	5 22	0 37	14 34	0 23	21 59	1 1	3 43	3 59	10 11	7 20	1 9			
W20	0n 6	14 47	3 35	5 35	2 1	15 17	0 5	5 39	0 56	14 22	0 52	22 54	0 34	5 23	0 37	14 33	0 23	21 59	1 1	3 44	3 58	10 13	7 21	1 9			
T 21	0 29	16 41	4 18	4 47	1 57	14 59	0 1	3 20	0 56	14 26	0 52	22 55	0 33	5 25	0 37	14 33	0 23	21 59	1 1	3 44	3 56	10 14	7 22	1 9			
F 22	0 53	17 53	4 51	3 58	1 53	14 40	0s 3	3 1	0 55	14 30	0 52	22 55	0 33	5 26	0 37	14 32	0 23	21 59	1 1	3 44	3 55	10 16	7 24	1 9			
S 23	1 17	18 16	5 12	3 8	1 48	14 22	0 7	2 43	0 55	14 34	0 51	22 55	0 33	5 27	0 37	14 31	0 23	21 59	1 1	3 44	3 54	10 18	7 25	1 8			
S 24	1 40	17 47	5 18	2 17	1 43	14 3	0 10	2 24	0 55	14 38	0 51	22 55	0 33	5 29	0 37	14 31	0 23	21 59	1 1	3 44	3 53	10 19	7 26	1 8			
M25	2 4	16 23	5 9	1 25	1 37	13 43	0 14	2 5	0 54	14 42	0 51	22 55	0 33	5 30	0 37	14 30	0 23	21 59	1 1	3 44	3 51	10 21	7 28	1 8			
T 26	2 27	14 5	4 43	0 32	1 30	13 23	0 18	1 46	0 54	14 46	0 51	22 55	0 33	5 31	0 37	14 30	0 23	21 59	1 1	3 44	3 50	10 22	7 29	1 8			
W27	2 51	10 56	4 1	0n22	1 23	13 3	0 21	1 27	0 53	14 50	0 51	22 55	0 33	5 32	0 37	14 29	0 23	21 59	1 0	3 44	3 49	10 24	7 30	1 8			
T 28	3 14	7 3	3 2	1 17	1 16	12 42	0 25	1 8	0 53	14 54	0 51	22 55	0 32	5 34	0 37	14 29	0 23	21 59	1 0	3 44	3 48	10 25	7 32	1 8			
F 29	3 37	2 38	1 51	2 12	1 8	12 21	0 29	0 49	0 53	14 58	0 51	22 55	0 32	5 35	0 37	14 28	0 23	21 59	1 0	3 44	3 46	10 27	7 33	1 8			
S 30	4 1	2n 2	0 30	3 8	1 0	11 59	0 32	0 30	0 52	15 2	0 50	22 56	0 32	5 36	0 37	14 28	0 23	21 59	1 0	3 44	3 45	10 28	7 34	1 8			
S 31	4n24	6n38	0s53	4n 5	0s51	11s37	0s35	0s11	0s52	15n 7	0s50	22n56	0s32	5n38	0s37	14s27	0s23	22n 0	1s 0	3s44	3s44	10s30	7n36	1n 8			

Julian Day Number = 2334727.5, Delta T = 23.57 sec

Ecliptic obliquity = 23°28'43, Nutation = 0°00'04, out-of-bounds declination in red

Avanamsha: Fagan/Bradley = 20°16'33", Lahiri = 19°23'33"Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1680
geocentric

APRIL 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
M 1	12 40 38	12°5'05	4♌ 8	14°21	2°21	2°17	13°8	2°15	15°46	22°22	11°22	9°R24	9°21	2°44	16°42	M 1
T 2	12 44 35	13° 4'05	19° 8	16°26	3°32	3° 4	13°54	2°18	15°50	22°24	11°23	9°24	9°18	2°51	16°46	T 2
W 3	12 48 31	14° 3'04	3♊54	18°31	4°43	3°50	14° 8	2°21	15°53	22°26	11°23	9°23	9°15	2°58	16°50	W 3
T 4	12 52 28	15° 2'00	18°20	20°37	5°53	4°36	14°21	2°25	15°57	22°27	11°23	9°23	9°12	3° 4	16°53	T 4
F 5	12 56 24	16° 0'54	2°22	22°42	7° 4	5°22	14°34	2°28	16° 0	22°29	11°23	9°22	9° 8	3°11	16°57	F 5
S 6	13 0 21	16°59'45	16° 1	24°46	8°15	6° 9	14°48	2°32	16° 4	22°30	11°24	9°D22	9° 5	3°18	17° 1	S 6
S 7	13 4 18	17°58'34	29°15	26°50	9°25	6°55	15° 1	2°36	16° 7	22°32	11°24	9°22	9° 2	3°24	17° 4	S 7
M 8	13 8 14	18°57'21	12°9	28°53	10°36	7°41	15°14	2°39	16°10	22°33	11°24	9°23	8°59	3°31	17° 8	M 8
T 9	13 12 11	19°56'06	24°45	0♌54	11°47	8°27	15°28	2°43	16°14	22°35	11°25	9°24	8°56	3°37	17°12	T 9
W10	13 16 7	20°54'48	7°6	2°54	12°58	9°13	15°41	2°47	16°17	22°36	11°25	9°25	8°52	3°44	17°16	W10
T11	13 20 4	21°53'28	19°15	4°52	14° 9	9°59	15°55	2°51	16°21	22°37	11°25	9°26	8°49	3°51	17°19	T11
F12	13 24 0	22°52'06	1°16	6°47	15°20	10°45	16° 9	2°56	16°24	22°39	11°26	9°27	8°46	3°57	17°23	F12
S13	13 27 57	23°50'42	13°10	8°39	16°31	11°31	16°22	3° 0	16°28	22°40	11°26	9°R27	8°43	4° 4	17°27	S13
S14	13 31 53	24°49'16	25° 0	10°28	17°42	12°17	16°36	3° 4	16°31	22°41	11°27	9°26	8°40	4°11	17°30	S14
M15	13 35 50	25°47'48	6°49	12°14	18°54	13° 3	16°50	3° 9	16°34	22°43	11°27	9°25	8°37	4°17	17°34	M15
T16	13 39 46	26°46'19	18°38	13°56	20° 5	13°49	17° 3	3°13	16°38	22°44	11°28	9°23	8°33	4°24	17°38	T16
W17	13 43 43	27°44'47	0°30	15°35	21°16	14°34	17°17	3°18	16°41	22°45	11°28	9°20	8°30	4°31	17°41	W17
T18	13 47 40	28°43'14	12°38	17° 9	22°27	15°20	17°31	3°23	16°45	22°46	11°29	9°17	8°27	4°37	17°45	T18
F19	13 51 36	29°41'39	24°33	18°40	23°39	16° 6	17°45	3°27	16°48	22°47	11°30	9°14	8°24	4°44	17°49	F19
S20	13 55 33	0♌40'03	6°49	20° 6	24°50	16°51	17°59	3°32	16°51	22°49	11°30	9°11	8°21	4°51	17°53	S20
S21	13 59 29	1°38'24	19°19	21°27	26° 1	17°37	18°12	3°37	16°55	22°50	11°31	9°10	8°18	4°57	17°56	S21
M22	14 3 26	2°36'45	2°8	22°44	27°13	18°23	18°26	3°42	16°58	22°51	11°32	9°D 9	8°14	5° 4	18° 0	M22
T23	14 7 22	3°35'03	15°18	23°57	28°24	19° 8	18°40	3°47	17° 1	22°52	11°32	9°10	8°11	5°11	18° 3	T23
W24	14 11 19	4°33'20	28°53	25° 5	29°36	19°54	18°54	3°52	17° 5	22°53	11°33	9°11	8° 8	5°17	18° 7	W24
T25	14 15 15	5°31'36	12°53	26° 7	0°47	20°39	19° 8	3°58	17° 8	22°54	11°34	9°12	8° 5	5°24	18°11	T25
F26	14 19 12	6°29'50	27°19	27° 5	1°59	21°24	19°22	4° 3	17°11	22°55	11°34	9°13	8° 2	5°31	18°14	F26
S27	14 23 9	7°28'03	12°7	27°58	3°11	22°10	19°36	4° 8	17°14	22°56	11°35	9°R14	7°58	5°37	18°18	S27
S28	14 27 5	8°26'14	27°12	28°46	4°22	22°55	19°50	4°14	17°18	22°57	11°36	9°13	7°55	5°44	18°21	S28
M29	14 31 2	9°24'23	12°25	29°29	5°34	23°40	20° 4	4°19	17°21	22°57	11°37	9°10	7°52	5°51	18°25	M29
T30	14 34 58	10°22'31	27°37	0♊ 7	6°46	24°25	20°18	4°25	17°24	22°58	11°38	9°2 7	7°49	5°57	18°28	T30

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	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	4n47	10n49	2s13	5n 2	0s41	11s15	0s39	0n 8	0s51	15n11	0s50	22n56	0s32	5n39	0s37	14s27	0s23	22n 0	1s 0	3s44	3s43	10s31	7n37	1n 8	
T 2	5 10	14 16	3 24	5 59	0 31	10 53	0 42	0 26	0 51	15 15	0 50	22 56	0 32	5 40	0 37	14 26	0 23	22 0	1 0	3 44	3 41	10 33	7 38	1 8	
W 3	5 33	16 43	4 19	6 57	0 21	10 30	0 45	0 45	0 51	15 19	0 50	22 56	0 31	5 42	0 37	14 26	0 23	22 0	1 0	3 44	3 40	10 34	7 40	1 8	
T 4	5 56	18 2	4 57	7 54	0 11	10 7	0 48	1 4	0 50	15 23	0 50	22 56	0 31	5 43	0 37	14 25	0 23	22 0	1 0	3 43	3 39	10 36	7 41	1 8	
F 5	6 19	18 12	5 15	8 50	0 0	9 43	0 51	1 23	0 50	15 27	0 50	22 56	0 31	5 44	0 37	14 25	0 23	22 0	1 0	3 43	3 38	10 37	7 42	1 7	
S 6	6 41	17 18	5 16	9 47	0n11	9 20	0 54	1 41	0 49	15 31	0 49	22 56	0 31	5 46	0 37	14 24	0 23	22 0	1 0	3 43	3 36	10 39	7 44	1 7	
S 7	7 4	15 28	4 59	10 42	0 22	8 56	0 57	2 0	0 49	15 35	0 49	22 56	0 31	5 47	0 37	14 24	0 23	22 0	1 0	3 43	3 35	10 40	7 45	1 7	
M 8	7 26	12 54	4 27	11 37	0 33	8 31	1 0	2 19	0 48	15 39	0 49	22 56	0 31	5 48	0 37	14 23	0 23	22 0	0 59	3 43	3 34	10 42	7 47	1 7	
T 9	7 48	9 47	3 44	12 30	0 44	8 7	1 3	2 37	0 48	15 43	0 49	22 56	0 31	5 50	0 37	14 23	0 23	22 0	0 59	3 44	3 33	10 43	7 48	1 7	
W10	8 11	6 17	2 50	13 22	0 55	7 42	1 5	2 56	0 47	15 47	0 49	22 57	0 30	5 51	0 37	14 22	0 23	22 0	0 59	3 44	3 31	10 45	7 49	1 7	
T11	8 33	2 35	1 50	14 12	1 6	7 17	1 8	3 15	0 47	15 51	0 49	22 57	0 30	5 52	0 37	14 22	0 23	22 0	0 59	3 45	3 30	10 46	7 51	1 7	
F12	8 54	1s12	0 45	15 1	1 17	6 52	1 10	3 33	0 46	15 55	0 49	22 57	0 30	5 54	0 37	14 21	0 23	22 0	0 59	3 45	3 29	10 48	7 52	1 7	
S13	9 16	4 53	0n21	15 47	1 27	6 27	1 13	3 51	0 46	15 59	0 49	22 57	0 30	5 55	0 37	14 21	0 23	22 0	0 59	3 45	3 28	10 49	7 53	1 7	
S14	9 38	8 22	1 25	16 32	1 37	6 1	1 15	4 10	0 46	16 3	0 48	22 57	0 30	5 56	0 37	14 21	0 23	22 0	0 59	3 45	3 26	10 51	7 55	1 7	
M15	9 59	11 31	2 26	17 14	1 47	5 35	1 17	4 28	0 45	16 7	0 48	22 57	0 30	5 58	0 37	14 20	0 23	22 0	0 59	3 44	3 25	10 52	7 56	1 7	
T16	10 20	14 11	3 20	17 53	1 56	5 9	1 19	4 46	0 45	16 11	0 48	22 57	0 30	5 59	0 37	14 20	0 23	22 0	0 59	3 43	3 24	10 53	7 57	1 7	
W17	10 41	16 17	4 6	18 31	2 4	4 43	1 21	5 5	0 44	16 15	0 48	22 57	0 29	6 0	0 37	14 19	0 24	22 0	0 59	3 42	3 23	10 55	7 59	1 7	
T18	11 2	17 40	4 42	19 5	2 12	4 17	1 23	5 23	0 44	16 19	0 48	22 57	0 29	6 2	0 37	14 19	0 24	22 0	0 59	3 41	3 21	10 56	8 0	1 7	
F19	11 23	18 17	5 5	19 38	2 19	3 50	1 25	5 41	0 43	16 23	0 48	22 57	0 29	6 3	0 37	14 19	0 24	22 1	0 59	3 40	3 20	10 58	8 1	1 6	
S20	11 43	18 4	5 15	20 7	2 25	3 23	1 27	5 59	0 43	16 27	0 48	22 57	0 29	6 4	0 37	14 18	0 24	22 1	0 58	3 39	3 19	10 59	8 3	1 6	
S21	12 4	16 58	5 10	20 34	2 30	2 57	1 29	6 17	0 42	16 31	0 48	22 57	0 29	6 5	0 37	14 18	0 24	22 1	0 58	3 38	3 18	11 1	8 4	1 6	
M22	12 24	15 0	4 50	20 59	2 34	2 30	1 31	6 35	0 42	16 35	0 47	22 57	0 29	6 7	0 37	14 18	0 24	22 1	0 58	3 38	3 16	11 2	8 6	1 6	
T23	12 44	12 13	4 15	21 20	2 38	2 3	1 32	6 52	0 41	16 39	0 47	22 57	0 29	6 8	0 37	14 17	0 24	22 1	0 58	3 38	3 15	11 4	8 7	1 6	
W24	13 4	8 41	3 24	21 40	2 41	1 36	1 34	7 10	0 40	16 43	0 47	22 57	0 28	6 9	0 37	14 17	0 24	22 1	0 58	3 39	3 14	11 5	8 8	1 6	
T25	13 23	4 35	2 20	21 56	2 42	1 8	1 35	7 28	0 40	16 47	0 47	22 57	0 28	6 10	0 37	14 17	0 24	22 1	0 58	3 39	3 13	11 7	8 9	1 6	
F26	13 42	0 4	1 5	22 11	2 43	0 41	1 36	7 45	0 39	16 51	0 47	22 57	0 28	6 12	0 37	14 16	0 24	22 1	0 58	3 40	3 11	11 8	8 11	1 6	
S27	14 2	4n33	0s16	22 22	2 42	0 14	1 38	8 2	0 39	16 55	0 47	22 57	0 28	6 13	0 37	14 16	0 24	22 1	0 58	3 40	3 10	11 10	8 12	1 6	
S28	14 20	8 59	1 37	22 32	2 41	0n14	1 39	8 20	0 38	16 58	0 47	22 57	0 28	6 14	0 37	14 16	0 24	22 1	0 58	3 39	3 9	11 11	8 13	1 6	
M29	14 39	12 51	2 52	22 39	2 38	0 41	1 40	8 37	0 38	17 2	0 47	22 57	0 28	6 15	0 37	14 16	0 24	22 1	0 58	3 39	3 8	11 13	8 15	1 6	
T30	14n57	15n51	3s55	22n43	2n34	1n 9	1s41	8n54	0s37	17n 6	0s47	22n57	0s28	6n17	0s37	14s15	0s24	22n 1	0s58	3s37	3s 6	11s14	8n16	1n 6	

ASTRODIENST EPHEMERIS for the year 1680
geocentric

MAY 1680 GC

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	14 38 55	11°20'37	12°11'38	0°11'40	7°15'57	25°10'10	20°18'32	4°25'31	17°17'27	22°22'59	11°25'38	9°10'2	7°12'46	6°11'4	18°17'32	W 1
T 2	14 42 51	12°18'41	27°10'18	1°7	9°9	25°55	20°47	4°36	17°31	23°0	11°39	8°15'58	7°43	6°11	18°35	T 2
F 3	14 46 48	13°16'43	11°23'30	1°29	10°21	26°40	21°1	4°42	17°34	23°1	11°40	8°54	7°39	6°17	18°39	F 3
S 4	14 50 44	14°14'43	25°20	1°46	11°33	27°25	21°15	4°48	17°37	23°1	11°41	8°51	7°36	6°24	18°42	S 4
S 5	14 54 41	15°12'42	8°12'39	1°58	12°44	28°10	21°29	4°54	17°40	23°2	11°42	8°49	7°33	6°31	18°46	S 5
M 6	14 58 38	16°10'38	21°32	2°5	13°56	28°55	21°43	5°0	17°43	23°3	11°43	8°D49	7°30	6°37	18°49	M 6
T 7	15 2 34	17°8'33	4°17'3	2°R 7	15°8	29°40	21°57	5°6	17°46	23°3	11°44	8°50	7°27	6°44	18°53	T 7
W 8	15 6 31	18°6'26	16°18	2°3	16°20	0°12'25	22°11	5°12	17°50	23°4	11°45	8°52	7°24	6°51	18°56	W 8
T 9	15 10 27	19°4'17	28°20	1°55	17°32	1°9	22°25	5°18	17°53	23°4	11°46	8°53	7°20	6°57	18°59	T 9
F 10	15 14 24	20°2'06	10°12'13	1°43	18°44	1°54	22°39	5°25	17°56	23°5	11°47	8°R54	7°17	7°4	19°3	F 10
S 11	15 18 20	20°59'54	22°2	1°26	19°56	2°39	22°54	5°31	17°59	23°5	11°48	8°53	7°14	7°11	19°6	S 11
S 12	15 22 17	21°57'40	3°11'50	1°6	21°7	3°23	23°8	5°37	18°2	23°6	11°49	8°50	7°11	7°17	19°9	S 12
M13	15 26 13	22°55'25	15°39	0°42	22°19	4°8	23°22	5°44	18°5	23°6	11°50	8°45	7°8	7°24	19°12	M13
T 14	15 30 10	23°53'08	27°32	0°15	23°31	4°52	23°36	5°50	18°8	23°7	11°51	8°38	7°4	7°31	19°16	T 14
W15	15 34 7	24°50'50	9°12'31	29°13'45	24°43	5°37	23°50	5°57	18°10	23°7	11°52	8°30	7°1	7°37	19°19	W15
T 16	15 38 3	25°48'31	21°36	29°13	25°56	6°21	24°4	6°3	18°13	23°7	11°53	8°21	6°58	7°44	19°22	T 16
F 17	15 42 0	26°46'11	3°25'50	28°40	27°8	7°5	24°18	6°10	18°16	23°7	11°55	8°13	6°55	7°51	19°25	F 17
S 18	15 45 56	27°43'49	16°15	28°6	28°20	7°49	24°33	6°16	18°19	23°8	11°56	8°5	6°52	7°57	19°28	S 18
S 19	15 49 53	28°41'27	28°51	27°32	29°32	8°33	24°47	6°23	18°22	23°8	11°57	7°59	6°49	8°4	19°31	S 19
M20	15 53 49	29°39'03	11°12'43	26°58	0°14'44	9°18	25°1	6°30	18°25	23°8	11°58	7°56	6°45	8°11	19°34	M20
T 21	15 57 46	0°11'36'38	24°51	26°25	1°56	10°2	25°15	6°37	18°27	23°8	11°59	7°D54	6°42	8°17	19°37	T 21
W22	16 1 42	1°34'13	8°11'19	25°53	3°8	10°46	25°29	6°44	18°30	23°8	12°1	7°54	6°39	8°24	19°40	W22
T 23	16 5 39	2°31'46	22°8	25°24	4°20	11°30	25°43	6°50	18°33	23°8	12°2	7°55	6°36	8°31	19°43	T 23
F 24	16 9 36	3°29'19	6°12'20	24°56	5°33	12°14	25°57	6°57	18°36	23°9	12°3	7°R56	6°33	8°37	19°46	F 24
S 25	16 13 32	4°26'51	20°54	24°32	6°45	12°57	26°11	7°4	18°38	23°R 9	12°4	7°55	6°29	8°44	19°49	S 25
S 26	16 17 29	5°24'22	5°12'46	24°11	7°57	13°41	26°25	7°11	18°41	23°9	12°6	7°52	6°26	8°51	19°52	S 26
M27	16 21 25	6°21'53	20°50	23°54	9°10	14°25	26°39	7°18	18°43	23°8	12°7	7°47	6°23	8°57	19°55	M27
T 28	16 25 22	7°19'22	5°11'57	23°40	10°22	15°9	26°53	7°26	18°46	23°8	12°8	7°40	6°20	9°4	19°58	T 28
W29	16 29 18	8°16'50	20°57	23°31	11°34	15°52	27°7	7°33	18°48	23°8	12°10	7°31	6°17	9°11	20°0	W29
T 30	16 33 15	9°14'18	5°24'1	23°26	12°47	16°36	27°21	7°40	18°51	23°8	12°11	7°22	6°14	9°17	20°3	T 30
F 31	16 37 11	10°11'44	20°2	23°D25	13°18'59	17°18'19	27°18'35	7°24'47	18°17'53	23°8	12°12	7°13	6°10	9°12'24	20°17'6	F 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	15n15	17n43	4s40	22n46	2n29	1n36	1s42	9n11	0s37	17n10	0s47	22n57	0s28	6n18	0s37	14s15	0s24	22n 1	0s58	3s35	3s 5	11s15	8n17	1n 6					
T 2	15 33	18 21	5 6	22 45	2 24	2 4	1 43	9 28	0 36	17 14	0 46	22 56	0 27	6 19	0 37	14 15	0 24	22 1	0 57	3 33	3 4	11 17	8 19	1 6					
F 3	15 51	17 48	5 12	22 43	2 16	2 31	1 43	9 45	0 36	17 18	0 46	22 56	0 27	6 20	0 37	14 15	0 24	22 1	0 57	3 32	3 3	11 18	8 20	1 6					
S 4	16 8	16 12	5 0	22 39	2 8	2 59	1 44	10 2	0 35	17 21	0 46	22 56	0 27	6 22	0 37	14 15	0 24	22 1	0 57	3 31	3 1	11 20	8 21	1 6					
S 5	16 25	13 46	4 31	22 32	1 59	3 26	1 45	10 18	0 34	17 25	0 46	22 56	0 27	6 23	0 37	14 14	0 24	22 1	0 57	3 30	3 0	11 21	8 22	1 6					
M 6	16 42	10 43	3 50	22 23	1 48	3 54	1 45	10 35	0 34	17 29	0 46	22 56	0 27	6 24	0 37	14 14	0 24	22 1	0 57	3 30	2 59	11 23	8 24	1 6					
T 7	16 59	7 16	2 59	22 12	1 37	4 21	1 45	10 51	0 33	17 33	0 46	22 56	0 27	6 25	0 37	14 14	0 24	22 1	0 57	3 30	2 58	11 24	8 25	1 6					
W 8	17 15	3 34	2 0	21 59	1 24	4 48	1 46	11 7	0 33	17 36	0 46	22 56	0 27	6 26	0 37	14 14	0 24	22 1	0 57	3 31	2 56	11 26	8 26	1 5					
T 9	17 31	0s13	0 57	21 44	1 11	5 15	1 46	11 24	0 32	17 40	0 46	22 56	0 27	6 27	0 37	14 14	0 24	22 1	0 57	3 32	2 55	11 27	8 27	1 5					
F 10	17 47	3 56	0n 7	21 27	0 56	5 43	1 46	11 40	0 32	17 44	0 46	22 56	0 26	6 29	0 37	14 13	0 24	22 1	0 57	3 32	2 54	11 28	8 29	1 5					
S 11	18 2	7 30	1 11	21 9	0 41	6 10	1 46	11 56	0 31	17 47	0 46	22 55	0 26	6 30	0 37	14 13	0 24	22 1	0 57	3 31	2 53	11 30	8 30	1 5					
S 12	18 17	10 45	2 11	20 49	0 25	6 37	1 46	12 11	0 30	17 51	0 46	22 55	0 26	6 31	0 37	14 13	0 24	22 1	0 57	3 30	2 51	11 31	8 31	1 5					
M13	18 32	13 35	3 6	20 28	0 9	7 4	1 46	12 27	0 30	17 55	0 46	22 55	0 26	6 32	0 37	14 13	0 24	22 1	0 57	3 28	2 50	11 33	8 32	1 5					
T 14	18 46	15 52	3 53	20 6	0s 8	7 30	1 46	12 42	0 29	17 58	0 45	22 55	0 26	6 33	0 37	14 13	0 24	22 1	0 57	3 26	2 49	11 34	8 33	1 5					
W15	19 1	17 28	4 29	19 43	0 26	7 57	1 46	12 58	0 29	18 2	0 45	22 55	0 26	6 34	0 37	14 13	0 24	22 1	0 56	3 23	2 47	11 36	8 35	1 5					
T 16	19 14	18 19	4 55	19 19	0 43	8 24	1 46	13 13	0 28	18 5	0 45	22 55	0 26	6 35	0 37	14 13	0 24	22 1	0 56	3 19	2 46	11 37	8 36	1 5					
F 17	19 28	18 19	5 6	18 54	1 1	8 50	1 45	13 28	0 27	18 9	0 45	22 54	0 26	6 36	0 37	14 13	0 24	22 1	0 56	3 16	2 45	11 38	8 37	1 5					
S 18	19 41	17 27	5 4	18 30	1 18	9 16	1 45	13 43	0 27	18 12	0 45	22 54	0 25	6 37	0 37	14 13	0 24	22 1	0 56	3 13	2 44	11 40	8 38	1 5					
S 19	19 54	15 44	4 47	18 6	1 35	9 42	1 44	13 58	0 26	18 16	0 45	22 54	0 25	6 39	0 37	14 13	0 24	22 0	0 56	3 10	2 42	11 41	8 39	1 5					
M20	20 7	13 12	4 16	17 42	1 52	10 8	1 44	14 13	0 26	18 19	0 45	22 54	0 25	6 40	0 37	14 13	0 24	22 0	0 56	3 9	2 41	11 43	8 40	1 5					
T 21	20 19	9 57	3 30	17 19	2 8	10 33	1 43	14 27	0 25	18 23	0 45	22 54	0 25	6 41	0 37	14 13	0 24	22 0	0 56	3 8	2 40	11 44	8 41	1 5					
W22	20 31	6 7	2 32	16 56	2 23	10 59	1 42	14 42	0 24	18 26	0 45	22 53	0 25	6 42	0 37	14 13	0 24	22 0	0 56	3 8	2 39	11 45	8 43	1 5					
T 23	20 42	1 50	1 24	16 35	2 38	11 24	1 41	14 56	0 24	18 30	0 45	22 53	0 25	6 43	0 37	14 13	0 24	22 0	0 56	3 9	2 37	11 47	8 44	1 5					
F 24	20 53	2n39	0 9	16 16	2 51	11 49	1 41	15 10	0 23	18 33	0 45	22 53	0 25	6 44	0 37	14 13	0 24	22 0	0 56	3 9	2 36	11 48	8 45	1 5					
S 25	21 4	7 6	1s 9	15 58	3 3	12 13	1 40	15 24	0 22	18 36	0 45	22 53	0 25	6 45	0 37	14 13	0 24	22 0	0 56	3 9	2 35	11 50	8 46	1 5					
S 26	21 14	11 13	2 24	15 42	3 15	12 38	1 39	15 38	0 22	18 40	0 45	22 52	0 25	6 46	0 37	14 13	0 24	22 0	0 56	3 8	2 34	11 51	8 47	1 5					
M27	21 24	14 38	3 29	15 28	3 25	13 2	1 37	15 51	0 21	18 43	0 45	22 52	0 24	6 47	0 37	14 13	0 24	22 0	0 56	3 6	2 32	11 52	8 48	1 5					
T 28	21 34	17 4	4 20	15 16	3 34	13 26	1 36	16 5	0 21	18 46	0 45	22 52	0 24	6 48	0 37	14 13	0 24	22 0	0 55	3 3	2 31	11 54	8 49	1 5					
W29	21 43	18 19	4 52	15 6	3 41	13 49	1 35	16 18	0 20	18 50	0 45	22 52	0 24	6 48	0 37	14 13	0 25	22 0	0 55	2 59	2 30	11 55	8 50	1 5					
T 30	21 52	18 17	5 4	14 59	3 48	14 12	1 34	16 31	0 19	18 53	0 44	22 51	0 24	6 49	0 37	14 13	0 25	22 0	0 55	2 56	2 29	11 57	8 51	1 5					
F 31	22n 1	17n 5	4s57	14n54	3s53	14n35	1s33	16n44	0s19	18n56	0s44	22n51	0s24	6n50	0s37	14s13	0s25	22n 0	0s55	2s52	2s27	11s58	8n52	1n 5					

ASTRODIENST EPHEMERIS for the year 1680
geocentric

JUNE 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
S 1	16 41 8	11 ^{II} 9'09	3 [♊] 55	23 [♋] 28	15 [♌] 11	18 [♍] 3	27 [♎] 49	7 [♏] 54	18 [♐] 56	23 [♑] 8	12 [♒] 14	7 [♓] 6	6 [♈] 7	9 [♉] 31	20 [♊] 8	S 1
S 2	16 45 5	12° 6'33	17°18	23°37	16°24	18°46	28° 3	8° 2	18°58	23 [♑] 8	12°15	7 [♒] 2	6° 4	9°37	20°11	S 2
M 3	16 49 1	13° 3'56	0 [♒] 15	23°49	17°36	19°29	28°17	8° 9	19° 0	23° 7	12°16	6°59	6° 1	9°44	20°14	M 3
T 4	16 52 58	14° 1'18	12°48	24° 6	18°49	20°13	28°31	8°16	19° 3	23° 7	12°18	6°D58	5°58	9°51	20°16	T 4
W 5	16 56 54	14°58'39	25° 2	24°28	20° 1	20°56	28°45	8°24	19° 5	23° 7	12°19	6°58	5°55	9°57	20°19	W 5
T 6	17 0 51	15°55'58	7 [♒] 2	24°54	21°13	21°39	28°58	8°31	19° 7	23° 6	12°20	6°R59	5°51	10° 4	20°21	T 6
F 7	17 4 47	16°53'17	18°53	25°24	22°26	22°22	29°12	8°39	19° 9	23° 6	12°22	6°58	5°48	10°11	20°24	F 7
S 8	17 8 44	17°50'35	0 [♒] 41	25°59	23°38	23° 5	29°26	8°46	19°12	23° 5	12°23	6°56	5°45	10°17	20°26	S 8
S 9	17 12 40	18°47'52	12°30	26°38	24°51	23°48	29°40	8°54	19°14	23° 5	12°25	6°51	5°42	10°24	20°28	S 9
M10	17 16 37	19°45'08	24°22	27°21	26° 3	24°31	29°53	9° 1	19°16	23° 5	12°26	6°43	5°39	10°31	20°30	M10
T 11	17 20 34	20°42'23	6 [♒] 22	28° 8	27°16	25°14	0 [♒] 7	9° 9	19°18	23° 4	12°28	6°33	5°35	10°37	20°33	T 11
W12	17 24 30	21°39'38	18°30	28°59	28°29	25°57	0°20	9°16	19°20	23° 3	12°29	6°21	5°32	10°44	20°35	W12
T 13	17 28 27	22°36'53	0 [♒] 47	29°53	29°41	26°40	0°34	9°24	19°22	23° 3	12°31	6° 8	5°29	10°51	20°37	T 13
F 14	17 32 23	23°34'07	13°16	0 [♒] 52	0 [♒] 54	27°22	0°48	9°31	19°24	23° 2	12°32	5°56	5°26	10°57	20°39	F 14
S 15	17 36 20	24°31'20	25°55	1°55	2° 7	28° 5	1° 1	9°39	19°26	23° 2	12°34	5°45	5°23	11° 4	20°41	S 15
S 16	17 40 16	25°28'33	8 [♒] 45	3° 1	3°19	28°48	1°15	9°47	19°27	23° 1	12°35	5°36	5°20	11°11	20°43	S 16
M17	17 44 13	26°25'46	21°47	4°11	4°32	29°30	1°28	9°54	19°29	23° 0	12°37	5°29	5°16	11°17	20°45	M17
T 18	17 48 9	27°22'59	5 [♒] 2	5°24	5°45	0 [♒] 12	1°41	10° 2	19°31	23° 0	12°38	5°26	5°13	11°24	20°47	T 18
W19	17 52 6	28°20'12	18°32	6°41	6°57	0°55	1°55	10°10	19°33	22°59	12°40	5°24	5°10	11°31	20°49	W19
T 20	17 56 3	29°17'24	2 [♒] 17	8° 2	8°10	1°37	2° 8	10°18	19°34	22°58	12°41	5°24	5° 7	11°37	20°51	T 20
F 21	17 59 59	0 [♒] 14'37	16°19	9°26	9°23	2°20	2°21	10°25	19°36	22°57	12°43	5°24	5° 4	11°44	20°53	F 21
S 22	18 3 56	1°11'50	0 [♒] 38	10°54	10°36	3° 2	2°34	10°33	19°38	22°56	12°44	5°23	5° 1	11°51	20°54	S 22
S 23	18 7 52	2° 9'03	15°11	12°25	11°49	3°44	2°48	10°41	19°39	22°56	12°46	5°19	4°57	11°57	20°56	S 23
M24	18 11 49	3° 6'16	29°55	13°59	13° 1	4°26	3° 1	10°49	19°41	22°55	12°47	5°13	4°54	12° 4	20°58	M24
T 25	18 15 45	4° 3'29	14 [♒] 44	15°36	14°14	5° 8	3°14	10°56	19°42	22°54	12°49	5° 4	4°51	12°11	20°59	T 25
W26	18 19 42	5° 0'42	29°28	17°17	15°27	5°50	3°27	11° 4	19°44	22°53	12°50	4°53	4°48	12°17	21° 1	W26
T 27	18 23 38	5°57'55	14 [♒] 1	19° 1	16°40	6°32	3°40	11°12	19°45	22°52	12°52	4°42	4°45	12°24	21° 2	T 27
F 28	18 27 35	6°55'08	28°15	20°49	17°53	7°14	3°53	11°20	19°46	22°51	12°53	4°31	4°41	12°31	21° 4	F 28
S 29	18 31 32	7°52'20	12 [♒] 5	22°39	19° 6	7°56	4° 5	11°27	19°48	22°50	12°55	4°22	4°38	12°37	21° 5	S 29
S 30	18 35 28	8 [♒] 49'33	25 [♒] 29	24 [♒] 32	20 [♒] 19	8 [♒] 38	4 [♒] 18	11 [♒] 35	19 [♒] 49	22 [♒] 49	12 [♒] 57	4 [♒] 15	4 [♒] 35	12 [♒] 44	21 [♒] 7	S 30

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	decl	decl	decl	decl	decl	decl	decl	decl	decl	decl	decl	decl	decl	decl
S 1	22n 9	14n54	4s32	14n51	3s57	14n58	1s31	16n57	0s18	18n59	0s44	22n51	0s24	6n51	0s37	14s13	0s25	22n 0	0s55	2s49	2s26	11s59	8n53	1n 5										
S 2	22 17	11 58	3 53	14 50	4 0	15 20	1 30	17 9	0 17	19 2	0 44	22 50	0 24	6 52	0 37	14 13	0 25	22 0	0 55	2 48	2 25	12 1	8 54	1 5										
M 3	22 24	8 33	3 3	14 51	4 2	15 42	1 28	17 22	0 17	19 5	0 44	22 50	0 24	6 53	0 37	14 13	0 25	22 0	0 55	2 47	2 24	12 2	8 55	1 5										
T 4	22 31	4 50	2 5	14 54	4 3	16 3	1 27	17 34	0 16	19 9	0 44	22 50	0 24	6 54	0 37	14 13	0 25	22 0	0 55	2 46	2 22	12 4	8 56	1 5										
W 5	22 38	1 1	1 3	15 0	4 2	16 25	1 25	17 46	0 15	19 12	0 44	22 49	0 24	6 55	0 37	14 13	0 25	22 0	0 55	2 46	2 21	12 5	8 57	1 5										
T 6	22 44	2s47	0n 0	15 7	4 1	16 45	1 23	17 58	0 15	19 15	0 44	22 49	0 23	6 55	0 37	14 14	0 25	22 0	0 55	2 46	2 20	12 6	8 58	1 4										
F 7	22 50	6 26	1 3	15 17	3 59	17 6	1 22	18 10	0 14	19 18	0 44	22 48	0 23	6 56	0 37	14 14	0 25	22 0	0 55	2 46	2 19	12 8	8 58	1 4										
S 8	22 55	9 49	2 3	15 28	3 55	17 26	1 20	18 22	0 13	19 21	0 44	22 48	0 23	6 57	0 37	14 14	0 25	22 0	0 55	2 45	2 17	12 9	8 59	1 4										
S 9	23 0	12 48	2 57	15 41	3 51	17 45	1 18	18 33	0 13	19 24	0 44	22 48	0 23	6 58	0 37	14 14	0 25	21 59	0 55	2 43	2 16	12 11	9 0	1 4										
M10	23 5	15 17	3 44	15 55	3 47	18 4	1 16	18 44	0 12	19 27	0 44	22 47	0 23	6 59	0 37	14 14	0 25	21 59	0 55	2 40	2 15	12 12	9 1	1 4										
T 11	23 9	17 7	4 21	16 11	3 41	18 23	1 14	18 55	0 11	19 30	0 44	22 47	0 23	6 59	0 37	14 14	0 25	21 59	0 54	2 36	2 13	12 13	9 2	1 4										
W12	23 13	18 13	4 47	16 28	3 35	18 41	1 12	19 6	0 11	19 32	0 44	22 46	0 23	7 0	0 37	14 15	0 25	21 59	0 54	2 32	2 12	12 15	9 3	1 4										
T 13	23 16	18 29	5 0	16 47	3 27	18 58	1 10	19 17	0 10	19 35	0 44	22 46	0 23	7 1	0 37	14 15	0 25	21 59	0 54	2 27	2 11	12 16	9 3	1 4										
F 14	23 19	17 52	4 59	17 6	3 20	19 16	1 8	19 27	0 9	19 38	0 44	22 46	0 23	7 2	0 37	14 15	0 25	21 59	0 54	2 22	2 10	12 17	9 4	1 4										
S 15	23 22	16 22	4 43	17 27	3 11	19 32	1 6	19 37	0 9	19 41	0 44	22 45	0 23	7 2	0 37	14 15	0 25	21 59	0 54	2 17	2 8	12 19	9 5	1 4										
S 16	23 24	14 2	4 13	17 49	3 3	19 48	1 4	19 48	0 8	19 44	0 44	22 45	0 22	7 3	0 37	14 16	0 25	21 59	0 54	2 14	2 7	12 20	9 6	1 4										
M17	23 26	10 58	3 29	18 11	2 53	20 4	1 2	19 57	0 7	19 46	0 44	22 44	0 22	7 4	0 37	14 16	0 25	21 59	0 54	2 11	2 6	12 21	9 6	1 4										
T 18	23 27	7 18	2 33	18 34	2 43	20 19	1 0	20 7	0 7	19 49	0 44	22 44	0 22	7 4	0 37	14 16	0 25	21 59	0 54	2 10	2 5	12 23	9 7	1 4										
W19	23 28	3 11	1 28	18 57	2 33	20 34	0 57	20 17	0 6	19 52	0 44	22 43	0 22	7 5	0 38	14 16	0 25	21 59	0 54	2 9	2 3	12 24	9 8	1 4										
T 20	23 29	1n10	0 16	19 21	2 22	20 48	0 55	20 26	0 5	19 55	0 44	22 43	0 22	7 5	0 38	14 17	0 25	21 59	0 54	2 9	2 2	12 26	9 9	1 4										
F 21	23 29	5 33	0s57	19 44	2 11	21 1	0 53	20 35	0 5	19 57	0 44	22 42	0 22	7 6	0 38	14 17	0 25	21 59	0 54	2 9	2 1	12 27	9 9	1 4										
S 22	23 28	9 42	2 9	20 8	2 0	21 14	0 51	20 44	0 4	20 0	0 44	22 42	0 22	7 7	0 38	14 17	0 25	21 59	0 54	2 8	2 0	12 28	9 10	1 4										
S 23	23 28	13 20	3 14	20 32	1 48	21 27	0 48	20 53	0 3	20 2	0 44	22 41	0 22	7 7	0 38	14 18	0 25	21 58	0 54	2 7	1 58	12 30	9 10	1 4										
M24	23 26	16 9	4 6	20 55	1 36	21 38	0 46	21 1	0 2	20 5	0 43	22 41	0 22	7 8	0 38	14 18	0 25	21 58	0 54	2 4	1 57	12 31	9 11	1 4										
T 25	23 25	17 56	4 42	21 18	1 24	21 50	0 44	21 10	0 2	20 7	0 43	22 40	0 22	7 8	0 38	14 18	0 25	21 58	0 54	2 1	1 56	12 32	9 12	1 4										
W26	23 23	18 29	4 59	21 41	1 12	22 0	0 41	21 18	0 1	20 10	0 43	22 40	0 21	7 9	0 38	14 19	0 25	21 58	0 53	1 57	1 55	12 34	9 12	1 4										
T 27	23 21	17 49	4 57	22 2	1 0	22 10	0 39	21 26	0 0	20 12	0 43	22 39	0 21	7 9	0 38	14 19	0 25	21 58	0 53	1 52	1 53	12 35	9 13	1 4										
F 28	23 18	16 3	4 36	22 22	0 47	22 19	0 36	21 33	0n 0	20 15	0 43	22 38	0 21	7 10	0 38	14 19	0 25	21 58	0 53	1 48	1 52	12 36	9 13	1 4										
S 29	23 15	13 23	3 59	22 41	0 35	22 28	0 34	21 41	0 1	20 17	0 43	22 38	0 21	7 10	0 38	14 20	0 25	21 58	0 53	1 44	1 51	12 38	9 14	1 4										
S 30	23n11	10n 5	3s 9	22n59	0s23	22n36	0s31	21n48	0n 2	20n20	0s43	22n37	0s21	7n11	0s38	14s20	0s25	21n58	0s53	1s41	1s50	12s39	9n14	1n 4										

ASTRODIENST EPHEMERIS for the year 1680
geocentric

JULY 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	18 39 25	9 ⁵⁴ 46'45	8 ¹⁷ 26	26 ¹¹ 27	21 ¹¹ 32	9 ¹¹ 19	4 ¹¹ 31	11 ⁵⁴ 43	19 ¹⁷ 50	22 ²⁸ 48	12 ⁵⁸ 58	4 ¹⁸ 11	4 ⁵² 32	12 ¹¹ 51	21 ¹⁷ 8	M 1
T 2	18 43 21	10 ⁴³ 57	21 ⁰ 1	28 ²⁵	22 ⁴⁵	10 ⁰ 1	4 ⁴⁴	11 ⁵¹	19 ⁵¹	22 ⁴⁷	13 ⁰ 0	4 ⁴⁹ 9	4 ²⁹	12 ⁵⁷	21 ⁰ 9	T 2
W 3	18 47 18	11 ⁴¹ 09	3 ¹⁶	0 ⁵² 26	23 ⁵⁸	10 ⁴³	4 ⁵⁶	11 ⁵⁹	19 ⁵²	22 ⁴⁵	13 ⁰ 1	4 ¹⁸ 8	4 ²⁶	13 ⁰ 4	21 ¹⁰	W 3
T 4	18 51 14	12 ³⁸ 21	15 ¹⁷	2 ²⁸	25 ¹¹	11 ²⁴	5 ⁰ 9	12 ⁰ 7	19 ⁵³	22 ⁴⁴	13 ⁰ 3	4 ¹⁸ 8	4 ²²	13 ¹¹	21 ¹²	T 4
F 5	18 55 11	13 ³⁵ 32	27 ¹⁰	4 ³²	26 ²⁵	12 ⁰ 5	5 ²¹	12 ¹⁴	19 ⁵⁴	22 ⁴³	13 ⁰ 4	4 ⁰ 8	4 ¹⁹	13 ¹⁸	21 ¹³	F 5
S 6	18 59 7	14 ³² 44	8 ¹¹ 59	6 ³⁸	27 ³⁸	12 ⁴⁷	5 ³⁴	12 ²²	19 ⁵⁵	22 ⁴²	13 ⁰ 6	4 ⁰ 6	4 ¹⁶	13 ²⁴	21 ¹⁴	S 6
S 7	19 3 4	15 ²⁹ 56	20 ⁵⁰	8 ⁴⁵	28 ⁵¹	13 ²⁸	5 ⁴⁶	12 ³⁰	19 ⁵⁶	22 ⁴¹	13 ⁰ 7	4 ⁰ 1	4 ¹³	13 ³¹	21 ¹⁵	S 7
M 8	19 7 1	16 ²⁷ 08	2 ¹⁷ 47	10 ⁵³	0 ⁵⁸ 4	14 ⁰ 9	5 ⁵⁸	12 ³⁸	19 ⁵⁷	22 ⁴⁰	13 ⁰ 9	3 ⁵⁴	4 ¹⁰	13 ³⁸	21 ¹⁶	M 8
T 9	19 10 57	17 ²⁴ 19	14 ⁵³	13 ⁰ 2	1 ¹⁷	14 ⁵¹	6 ¹⁰	12 ⁴⁶	19 ⁵⁸	22 ³⁸	13 ¹¹	3 ⁴⁵	4 ⁰ 7	13 ⁴⁴	21 ¹⁶	T 9
W10	19 14 54	18 ²¹ 32	27 ¹¹	15 ¹¹	2 ³⁰	15 ³²	6 ²³	12 ⁵³	19 ⁵⁸	22 ³⁷	13 ¹²	3 ³³	4 ⁰ 3	13 ⁵¹	21 ¹⁷	W10
T 11	19 18 50	19 ¹⁸ 44	9 ³ 42	17 ¹⁹	3 ⁴⁴	16 ¹³	6 ³⁵	13 ⁰ 1	19 ⁵⁹	22 ³⁶	13 ¹⁴	3 ²¹	4 ⁰ 0	13 ⁵⁸	21 ¹⁸	T 11
F 12	19 22 47	20 ¹⁵ 57	22 ²⁷	19 ²⁸	4 ⁵⁷	16 ⁵⁴	6 ⁴⁷	13 ⁰ 9	20 ⁰ 0	22 ³⁴	13 ¹⁵	3 ⁰ 9	3 ⁵⁷	14 ⁰ 4	21 ¹⁹	F 12
S 13	19 26 43	21 ¹³ 10	5 ⁵² 25	21 ³⁶	6 ¹⁰	17 ³⁵	6 ⁵⁹	13 ¹⁷	20 ⁰ 0	22 ³³	13 ¹⁷	2 ⁵⁸	3 ⁵⁴	14 ¹¹	21 ¹⁹	S 13
S 14	19 30 40	22 ¹⁰ 24	18 ³⁵	23 ⁴⁴	7 ²⁴	18 ¹⁶	7 ¹⁰	13 ²⁵	20 ⁰ 1	22 ³²	13 ¹⁸	2 ⁴⁹	3 ⁵¹	14 ¹⁸	21 ²⁰	S 14
M15	19 34 37	23 ⁰ 738	1 ¹⁸ 57	25 ⁵⁰	8 ³⁷	18 ⁵⁷	7 ²²	13 ³²	20 ⁰ 2	22 ³⁰	13 ²⁰	2 ⁴³	3 ⁴⁷	14 ²⁴	21 ²¹	M15
T 16	19 38 33	24 ⁰ 453	15 ²⁹	27 ⁵⁵	9 ⁵⁰	19 ³⁸	7 ³⁴	13 ⁴⁰	20 ⁰ 2	22 ²⁹	13 ²¹	2 ⁴⁰	3 ⁴⁴	14 ³¹	21 ²¹	T 16
W17	19 42 30	25 ⁰ 208	29 ¹⁰	29 ⁵⁹	11 ⁰ 4	20 ¹⁸	7 ⁴⁶	13 ⁴⁸	20 ⁰ 2	22 ²⁸	13 ²³	2 ¹⁸ 39	3 ⁴¹	14 ³⁸	21 ²²	W17
T 18	19 46 26	25 ⁵⁹ 25	13 ¹⁷ 2	2 ¹⁸ 3	12 ¹⁷	20 ⁵⁹	7 ⁵⁷	13 ⁵⁵	20 ⁰ 3	22 ²⁶	13 ²⁴	2 ³⁹	3 ³⁸	14 ⁴⁴	21 ²²	T 18
F 19	19 50 23	26 ⁵⁶ 42	27 ⁰ 3	4 ⁰ 4	13 ³¹	21 ⁴⁰	8 ⁰ 9	14 ⁰ 3	20 ⁰ 3	22 ²⁵	13 ²⁶	2 ¹⁸ 39	3 ³⁵	14 ⁵¹	21 ²²	F 19
S 20	19 54 19	27 ⁵⁴ 01	11 ¹⁸ 13	6 ⁰ 4	14 ⁴⁴	22 ²⁰	8 ²⁰	14 ¹¹	20 ⁰ 3	22 ²³	13 ²⁷	2 ³⁹	3 ³²	14 ⁵⁸	21 ²³	S 20
S 21	19 58 16	28 ⁵¹ 20	25 ³⁰	8 ⁰ 3	15 ⁵⁸	23 ⁰ 1	8 ³¹	14 ¹⁸	20 ⁰ 4	22 ²²	13 ²⁹	2 ³⁶	3 ²⁸	15 ⁰ 4	21 ²³	S 21
M22	20 2 12	29 ⁴⁸ 41	9 ¹¹ 53	9 ⁵⁹	17 ¹¹	23 ⁴¹	8 ⁴²	14 ²⁶	20 ⁰ 4	22 ²⁰	13 ³⁰	2 ³¹	3 ²⁵	15 ¹¹	21 ²³	M22
T 23	20 6 9	0 ¹⁸ 46'02	24 ¹⁷	11 ⁵⁵	18 ²⁵	24 ²¹	8 ⁵³	14 ³⁴	20 ⁰ 4	22 ¹⁹	13 ³²	2 ²⁴	3 ²²	15 ¹⁸	21 ²³	T 23
W24	20 10 6	1 ⁴³ 25	8 ⁵³ 36	13 ⁴⁸	19 ³⁹	25 ⁰ 2	9 ⁰ 4	14 ⁴¹	20 ⁰ 4	22 ¹⁷	13 ³³	2 ¹⁵	3 ¹⁹	15 ²⁴	21 ²³	W24
T 25	20 14 2	2 ⁴⁰ 48	2 ¹⁷ 42	15 ⁴⁰	20 ⁵²	25 ⁴²	9 ¹⁵	14 ⁴⁹	20 ⁰ 4	22 ¹⁶	13 ³⁵	2 ⁰ 6	3 ¹⁶	15 ³¹	21 ²³	T 25
F 26	20 17 59	3 ³⁸ 13	6 ¹⁸ 42	17 ³⁰	22 ⁰ 6	26 ²²	9 ²⁶	14 ⁵⁷	20 ⁰ 4	22 ¹⁴	13 ³⁶	1 ⁵⁷	3 ¹³	15 ³⁸	21 ²³	F 26
S 27	20 21 55	4 ³⁵ 38	20 ¹⁸	19 ¹⁹	23 ²⁰	27 ⁰ 2	9 ³⁷	15 ⁰ 4	20 ⁰ 4	22 ¹³	13 ³⁸	1 ⁴⁹	3 ⁰ 9	15 ⁴⁴	21 ²³	S 27
S 28	20 25 52	5 ³³ 04	3 ¹⁷ 32	21 ⁰ 6	24 ³³	27 ⁴²	9 ⁴⁸	15 ¹²	20 ⁰ 4	22 ¹¹	13 ³⁹	1 ⁴³	3 ⁰ 6	15 ⁵¹	21 ²³	S 28
M29	20 29 48	6 ³⁰ 38	16 ²⁵	22 ⁵¹	25 ⁴⁷	28 ²²	9 ⁵⁸	15 ¹⁹	20 ⁰ 4	22 ¹⁰	13 ⁴¹	1 ⁴⁰	3 ⁰ 3	15 ⁵⁸	21 ²³	M29
T 30	20 33 45	7 ²⁷ 58	28 ⁵⁷	24 ³⁵	27 ⁰ 1	29 ⁰ 2	10 ⁰ 9	15 ²⁷	20 ⁰ 3	22 ⁰ 8	13 ⁴²	1 ¹⁸ 39	3 ⁰ 0	16 ⁰ 4	21 ²²	T 30
W31	20 37 41	8 ¹⁸ 25'26	11 ¹² 12	26 ¹⁷ 17	28 ⁵¹ 5	29 ¹¹ 42	10 ¹¹ 19	15 ³⁴	20 ⁰ 3	22 ⁰ 7	13 ⁴⁴	1 ¹⁸ 39	2 ¹² 57	16 ¹¹ 11	21 ¹⁷ 22	W31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	23n 7	6n23	2s12	23n15	0s11	22n44	0s29	21n55	0n 2	20n22	0s43	22n37	0s21	7n11	0s38	14s20	0s25	21n58	0s53	1s40	1s48	12s40	9n15	1n 4									
T 2	23 3	2 31	1 9	23 28	0n 0	22 50	0 26	22 2	0 3	20 24	0 43	22 36	0 21	7 11	0 38	14 21	0 25	21 58	0 53	1 39	1 47	12 42	9 15	1 4									
W 3	22 58	1s22	0 5	23 40	0 12	22 57	0 24	22 9	0 4	20 27	0 43	22 35	0 21	7 12	0 38	14 21	0 25	21 58	0 53	1 39	1 46	12 43	9 16	1 4									
T 4	22 53	5 8	0n59	23 50	0 22	23 2	0 21	22 16	0 5	20 29	0 43	22 35	0 21	7 12	0 38	14 21	0 25	21 57	0 53	1 39	1 44	12 44	9 16	1 4									
F 5	22 47	8 38	1 59	23 57	0 33	23 7	0 19	22 22	0 5	20 31	0 43	22 34	0 21	7 13	0 38	14 22	0 25	21 57	0 53	1 39	1 43	12 46	9 16	1 4									
S 6	22 41	11 46	2 54	24 1	0 43	23 11	0 16	22 28	0 6	20 33	0 43	22 34	0 21	7 13	0 38	14 22	0 25	21 57	0 53	1 38	1 42	12 47	9 17	1 4									
S 7	22 35	14 26	3 41	24 3	0 52	23 15	0 14	22 34	0 7	20 36	0 43	22 33	0 21	7 13	0 38	14 23	0 25	21 57	0 53	1 36	1 41	12 48	9 17	1 4									
M 8	22 28	16 31	4 19	24 2	1 1	23 17	0 11	22 39	0 7	20 38	0 43	22 32	0 20	7 14	0 38	14 23	0 25	21 57	0 53	1 33	1 39	12 50	9 18	1 4									
T 9	22 21	17 53	4 45	23 59	1 9	23 20	0 9	22 45	0 8	20 40	0 43	22 32	0 20	7 14	0 38	14 23	0 25	21 57	0 53	1 29	1 38	12 51	9 18	1 4									
W10	22 13	18 27	4 59	23 52	1 16	23 21	0 6	22 50	0 9	20 42	0 43	22 31	0 20	7 14	0 38	14 24	0 25	21 57	0 53	1 25	1 37	12 52	9 18	1 4									
T 11	22 5	18 9	5 0	23 43	1 23	23 22	0 4	22 55	0 10	20 44	0 43	22 30	0 20	7 14	0 38	14 24	0 25	21 57	0 53	1 20	1 36	12 54	9 18	1 4									
F 12	21 57	16 55	4 45	23 31	1 29	23 22	0 1	23 0	0 10	20 46	0 43	22 30	0 20	7 15	0 38	14 25	0 26	21 57	0 53	1 15	1 34	12 55	9 19	1 4									
S 13	21 48	14 49	4 15	23 17	1 34	23 21	0n 1	23 5	0 11	20 48	0 43	22 29	0 20	7 15	0 38	14 25	0 26	21 57	0 52	1 11	1 33	12 56	9 19	1 4									
S 14	21 39	11 56	3 31	23 0	1 38	23 20	0 4	23 9	0 12	20 50	0 43	22 28	0 20	7 15	0 38	14 26	0 26	21 57	0 52	1 7	1 32	12 58	9 19	1 4									
M15	21 30	8 23	2 36	22 40	1 41	23 18	0 6	23 13	0 12	20 52	0 43	22 28	0 20	7 15	0 38	14 26	0 26	21 56	0 52	1 5	1 31	12 59	9 19	1 4									
T 16	21 20	4 21	1 30	22 19	1 44	23 16	0 9	23 17	0 13	20 54	0 43	22 27	0 20	7 15	0 38	14 27	0 26	21 56	0 52	1 4	1 29	13 0	9 19	1 4									
W17	21 10	0 3	0 19	21 55	1 46	23 12	0 11	23 21	0 14	20 56	0 43	22 26	0 20	7 15	0 38	14 27	0 26	21 56	0 52	1 3	1 28	13 1	9 20	1 4									
T 18	20 59	4n19	0s55	21 29	1 47	23 8	0 14	23 25	0 15	20 58	0 43	22 25	0 20	7 15	0 38	14 28	0 26	21 56	0 52	1 3	1 27	13 3	9 20	1 4									
F 19	20 48	8 28	2 6	21 1	1 48	23 3	0 16	23 28	0 15	20 59	0 43	22 25	0 20	7 16	0 38	14 28	0 26	21 56	0 52	1 4	1 26	13 4	9 20	1 4									
S 20	20 37	12 12	3 10	20 32	1 48	22 58	0 19	23 31	0 16	21 1	0 43	22 24	0 19	7 16	0 38	14 29	0 26	21 56	0 52	1 3	1 24	13 5	9 20	1 4									
S 21	20 25	15 14	4 3	20 1	1 47	22 52	0 21	23 34	0 17	21 3	0 43	22 23	0 19	7 16	0 38	14 29	0 26	21 56	0 52	1 2	1 23	13 7	9 20	1 4									
M22	20 13	17 20	4 41	19 28	1 46	22 45	0 23	23 37	0 17	21 5	0 43	22 23	0 19	7 16	0 38	14 30	0 26	21 56	0 52	1 0	1 22	13 8	9 20	1 4									
T 23	20 1	18 20	5 1	18 55	1 44	22 38	0 26	23 40	0 18	21 6	0 43	22 22	0 19	7 16	0 38	14 30	0 26	21 56	0 52	0 57	1 20	13 9	9 20	1 4									
W24	19 48	18 10	5 2	18 20	1 41	22 30	0 28	23 42	0 19	21 8	0 43	22 21	0 19	7 16	0 38	14 31	0 26	21 56	0 52	0 54	1 19	13 10	9 20	1 4									
T 25	19 36	16 52	4 45	17 44	1 38	22 21	0 30	23 44	0 20	21 10	0 43	22 20	0 19	7 16	0 38	14 31	0 26	21 55	0 52	0 50	1 18	13 12	9 20	1 4									
F 26	19 22	14 35	4 11	17 7	1 35	22 12	0 32	23 46	0 20	21 11	0 43	22 20	0 19	7 16	0 38	14 32	0 26	21 55	0 52	0 46	1 17	13 13	9 20	1 4									
S 27	19 9	11 32	3 23	16 29	1 31	22 2	0 35	23 48	0 21	21 13	0 43	22 19	0 19	7 16	0 39	14 32	0 26	21 55	0 52	0 43	1 15	13 14	9 20	1 4									
S 28	18 55	7 58	2 25	15 51	1 26	21 51	0 37	23 49	0 22	21 14	0 43	22 18	0 19	7 16	0 39	14 33	0 26	21 55	0 52	0 41	1 14	13 16	9 20	1 3									
M29	18 41	4 8	1 21	15 12	1 21	21 40	0 39	23 51	0 23	21 16	0 43	22 17	0 19	7 16	0 39	14 33	0 26	21 55	0 52	0 40	1 13	13 17	9 20	1 3									
T 30	18 26	0 12	0 14	14 32	1 16	21 28	0 41	23 52	0 23	21 18	0 43	22 16	0 19	7 15	0 39	14 34	0 26	21 55	0 52	0 39	1 12	13 18	9 20	1 3									
W31	18n11	3s39	0n51	13n52	1n10	21n15	0n43	23n53	0n24	21n19	0s43	22n16	0s19	7n15	0s39	14s34	0s26	21n55	0s52	0s40	1s10	13s19	9n20	1n 3									

ASTRODIENST EPHEMERIS for the year 1680
geocentric

AUGUST 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	20 41 38	9♌22°55	23♊14	27♏58	29♎28	0♉22	10♌29	15♎41	20♒3	22♒5	13♎45	1♌40	2♊53	16♌18	21♒22	T 1
F 2	20 45 34	10°20'24	5♌8	29°37	0♌42	1°2	10°39	15°49	20♒2	22°4	13°47	1°R41	2°50	16°25	21♒21	F 2
S 3	20 49 31	11°17'55	16°59	1♌14	1°56	1°42	10°49	15°56	20°2	22°2	13°48	1°41	2°47	16°31	21°21	S 3
S 4	20 53 28	12°15'26	28°51	2°50	3°10	2°21	10°59	16°3	20°2	22°0	13°49	1°39	2°44	16°38	21°20	S 4
M 5	20 57 24	13°12'58	10♊51	4°24	4°24	3°1	11°9	16°11	20°1	21°59	13°51	1°36	2°41	16°45	21°19	M 5
T 6	21 1 121	14°10'32	23°1	5°56	5°38	3°40	11°19	16°18	20°0	21°57	13°52	1°31	2°38	16°51	21°19	T 6
W 7	21 5 17	15°8'06	5♎26	7°27	6°52	4°20	11°28	16°25	20°0	21°55	13°54	1°24	2°34	16°58	21°18	W 7
T 8	21 9 14	16°5'41	18°8	8°57	8°6	4°59	11°38	16°32	19°59	21°54	13°55	1°16	2°31	17°5	21°17	T 8
F 9	21 13 10	17°3'17	1♌7	10°25	9°20	5°38	11°47	16°39	19°59	21°52	13°56	1°8	2°28	17°11	21°17	F 9
S 10	21 17 7	18°0'55	14°24	11°51	10°34	6°18	11°56	16°46	19°58	21°51	13°58	1°2	2°25	17°18	21°16	S 10
S 11	21 21 3	18°58'33	27°56	13°15	11°48	6°57	12°5	16°54	19°57	21°49	13°59	0°56	2°22	17°25	21°15	S 11
M12	21 25 0	19°56'13	11♊42	14°38	13°2	7°36	12°14	17°1	19°56	21°47	14°0	0°53	2°18	17°31	21°14	M12
T 13	21 28 57	20°53'55	25°38	15°59	14°16	8°15	12°23	17°8	19°55	21°46	14°2	0°D51	2°15	17°38	21°13	T 13
W14	21 32 53	21°51'38	9♒42	17°18	15°30	8°54	12°32	17°14	19°54	21°44	14°3	0°51	2°12	17°45	21°12	W14
T 15	21 36 50	22°49'22	23°51	18°36	16°44	9°33	12°41	17°21	19°53	21°42	14°4	0°53	2°9	17°51	21°11	T 15
F 16	21 40 46	23°47'09	8♊2	19°51	17°59	10°12	12°49	17°28	19°52	21°41	14°5	0°54	2°6	17°58	21°9	F 16
S 17	21 44 43	24°44'57	22°14	21°5	19°13	10°50	12°57	17°35	19°51	21°39	14°7	0°R55	2°3	18°5	21°8	S 17
S 18	21 48 39	25°42'47	6♌24	22°17	20°27	11°29	13°6	17°42	19°50	21°37	14°8	0°54	1°59	18°11	21°7	S 18
M19	21 52 36	26°40'38	20°31	23°27	21°41	12°8	13°14	17°48	19°49	21°36	14°9	0°52	1°56	18°18	21°6	M19
T 20	21 56 32	27°38'32	4♎33	24°34	22°56	12°46	13°22	17°55	19°48	21°34	14°10	0°49	1°53	18°25	21°4	T 20
W21	22 0 29	28°36'27	18°27	25°40	24°10	13°25	13°29	18°2	19°47	21°33	14°11	0°45	1°50	18°32	21°3	W21
T 22	22 4 26	29°34'24	2♌10	26°43	25°24	14°3	13°37	18°8	19°45	21°31	14°13	0°40	1°47	18°38	21°1	T 22
F 23	22 8 22	0♌32°23	15°39	27°43	26°39	14°42	13°45	18°15	19°44	21°29	14°14	0°35	1°44	18°45	21°0	F 23
S 24	22 12 19	1°30'23	28°54	28°41	27°53	15°20	13°52	18°21	19°43	21°28	14°15	0°31	1°40	18°52	20°58	S 24
S 25	22 16 15	2°28'25	11♌51	29°37	29°7	15°58	13°59	18°28	19°41	21°26	14°16	0°29	1°37	18°58	20°57	S 25
M26	22 20 12	3°26'28	24°32	0♌29	0♌22	16°37	14°6	18°34	19°40	21°24	14°17	0°D27	1°34	19°5	20°55	M26
T 27	22 24 8	4°24'33	6♌57	1°18	1°36	17°15	14°13	18°40	19°38	21°23	14°18	0°27	1°31	19°12	20°53	T 27
W28	22 28 5	5°22'40	19°9	2°4	2°51	17°53	14°20	18°46	19°37	21°21	14°19	0°28	1°28	19°18	20°51	W28
T 29	22 32 1	6°20'48	1♌9	2°47	4°5	18°31	14°27	18°52	19°35	21°20	14°20	0°30	1°24	19°25	20°50	T 29
F 30	22 35 58	7°18'57	13°2	3°25	5°20	19°9	14°33	18°59	19°34	21°18	14°21	0°32	1°21	19°32	20°48	F 30
S 31	22 39 55	8♌17°08	24♌53	4♌0	6♌34	19♎47	14♌40	19♎5	19♒32	21°17	14°22	0♌33	1♌18	19♌38	20♒46	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
T 1	17n56	7s17	1n54	13n12	1n 4	21n 2	0n45	23n53	0n25	21n20	0s43	22n15	0s19	7n15	0s39	14s35	0s26	21n55	0s51	0s40	1s 9	13s21	9n19	1n 3	
F 2	17 41	10 35	2 50	12 31	0 58	20 48	0 47	23 54	0 25	21 22	0 43	22 14	0 18	7 15	0 39	14 35	0 26	21 55	0 51	0 40	1 8	13 22	9 19	1 3	
S 3	17 25	13 25	3 40	11 51	0 51	20 34	0 49	23 54	0 26	21 23	0 43	22 13	0 18	7 15	0 39	14 36	0 26	21 55	0 51	0 40	1 7	13 23	9 19	1 3	
S 4	17 9	15 43	4 19	11 10	0 44	20 19	0 51	23 54	0 27	21 25	0 43	22 13	0 18	7 15	0 39	14 36	0 26	21 55	0 51	0 40	1 5	13 25	9 19	1 3	
M 5	16 53	17 21	4 48	10 28	0 36	20 3	0 53	23 54	0 28	21 26	0 43	22 12	0 18	7 14	0 39	14 37	0 26	21 54	0 51	0 38	1 4	13 26	9 19	1 3	
T 6	16 36	18 13	5 5	9 47	0 29	19 47	0 55	23 54	0 28	21 27	0 43	22 11	0 18	7 14	0 39	14 37	0 26	21 54	0 51	0 36	1 3	13 27	9 18	1 3	
W 7	16 19	18 15	5 7	9 6	0 21	19 30	0 57	23 54	0 29	21 29	0 43	22 10	0 18	7 14	0 39	14 38	0 26	21 54	0 51	0 33	1 1	13 28	9 18	1 3	
T 8	16 2	17 22	4 55	8 25	0 12	19 13	0 58	23 53	0 30	21 30	0 43	22 9	0 18	7 14	0 39	14 38	0 26	21 54	0 51	0 30	1 0	13 30	9 18	1 3	
F 9	15 45	15 35	4 27	7 44	0 4	18 55	1 0	23 52	0 31	21 31	0 44	22 9	0 18	7 13	0 39	14 39	0 26	21 54	0 51	0 27	0 59	13 31	9 17	1 3	
S 10	15 27	12 57	3 45	7 4	0s 4	18 36	1 2	23 51	0 31	21 32	0 44	22 8	0 18	7 13	0 39	14 40	0 26	21 54	0 51	0 25	0 58	13 32	9 17	1 3	
S 11	15 10	9 34	2 49	6 23	0 13	18 17	1 3	23 50	0 32	21 33	0 44	22 7	0 18	7 13	0 39	14 40	0 26	21 54	0 51	0 22	0 56	13 33	9 17	1 3	
M12	14 51	5 37	1 42	5 43	0 22	17 58	1 5	23 48	0 33	21 35	0 44	22 6	0 18	7 12	0 39	14 41	0 26	21 54	0 51	0 21	0 55	13 35	9 16	1 3	
T 13	14 33	1 18	0 28	5 4	0 31	17 38	1 6	23 47	0 34	21 36	0 44	22 5	0 18	7 12	0 39	14 41	0 26	21 54	0 51	0 20	0 54	13 36	9 16	1 3	
W14	14 15	3n 7	0s48	4 24	0 40	17 18	1 8	23 45	0 34	21 37	0 44	22 4	0 18	7 12	0 39	14 42	0 26	21 54	0 51	0 20	0 53	13 37	9 15	1 3	
T 15	13 56	7 23	2 2	3 45	0 50	16 57	1 9	23 43	0 35	21 38	0 44	22 4	0 17	7 11	0 39	14 42	0 26	21 54	0 51	0 21	0 51	13 38	9 15	1 3	
F 16	13 37	11 14	3 9	3 7	0 59	16 35	1 11	23 41	0 36	21 39	0 44	22 3	0 17	7 11	0 39	14 43	0 26	21 53	0 51	0 21	0 50	13 40	9 14	1 3	
S 17	13 18	14 26	4 4	2 29	1 9	16 13	1 12	23 39	0 37	21 40	0 44	22 2	0 17	7 10	0 39	14 43	0 26	21 53	0 51	0 22	0 49	13 41	9 14	1 3	
S 18	12 58	16 45	4 44	1 52	1 18	15 51	1 13	23 36	0 37	21 41	0 44	22 1	0 17	7 10	0 39	14 44	0 26	21 53	0 51	0 22	0 48	13 42	9 13	1 3	
M19	12 39	18 2	5 7	1 16	1 28	15 28	1 14	23 33	0 38	21 42	0 44	22 0	0 17	7 10	0 39	14 44	0 26	21 53	0 51	0 21	0 46	13 43	9 13	1 3	
T 20	12 19	18 13	5 11	0 40	1 38	15 5	1 15	23 31	0 39	21 43	0 44	22 0	0 17	7 9	0 39	14 45	0 26	21 53	0 51	0 20	0 45	13 44	9 12	1 3	
W21	11 59	17 18	4 57	0 5	1 47	14 41	1 16	23 28	0 40	21 44	0 44	21 59	0 17	7 9	0 39	14 45	0 26	21 53	0 50	0 18	0 44	13 46	9 12	1 3	
T 22	11 38	15 23	4 26	0s29	1 57	14 17	1 17	23 24	0 40	21 45	0 44	21 58	0 17	7 8	0 39	14 46	0 26	21 53	0 50	0 16	0 43	13 47	9 11	1 3	
F 23	11 18	12 39	3 41	1 2	2 7	13 53	1 18	23 21	0 41	21 46	0 44	21 57	0 17	7 8	0 39	14 47	0 26	21 53	0 50	0 14	0 41	13 48	9 11	1 3	
S 24	10 57	9 18	2 44	1 34	2 16	13 28	1 19	23 17	0 42	21 47	0 44	21 56	0 17	7 7	0 39	14 47	0 26	21 53	0 50	0 12	0 40	13 49	9 10	1 3	
S 25	10 37	5 35	1 40	2 4	2 26	13 3	1 20	23 14	0 43	21 47	0 44	21 56	0 17	7 7	0 39	14 48	0 26	21 53	0 50	0 11	0 39	13 51	9 9	1 3	
M26	10 16	1 41	0 32	2 34	2 35	12 37	1 21	23 10	0 44	21 48	0 44	21 55	0 17	7 6	0 39	14 48	0 26	21 53	0 50	0 11	0 37	13 52	9 9	1 3	
T 27	9 55	2s13	0n36	3 2	2 44	12 11	1 21	23 6	0 44	21 49	0 44	21 54	0 17	7 5	0 39	14 49	0 26	21 53	0 50	0 11	0 36	13 53	9 8	1 3	
W28	9 33	5 57	1 41	3 28	2 53	11 45	1 22	23 2	0 45	21 50	0 44	21 53	0 17	7 5	0 39	14 49	0 26	21 53	0 50	0 11	0 35	13 54	9 7	1 3	
T 29	9 12	9 23	2 41	3 53	3 2	11 19	1 23	22 57	0 46	21 50	0 44	21 52	0 16	7 4	0 39	14 50	0 26	21 52	0 50	0 12	0 34	13 55	9 7	1 3	
F 30	8 50	12 23	3 34	4 17	3 11	10 52	1 23	22 53	0 47	21 51	0 44	21 52	0 16	7 4	0 39	14 50	0 26	21 52	0 50	0 13	0 32	13 57	9 6	1 3	
S 31	8n29	14s52	4n17	4s38	3s19	10n25	1n24	22n48	0n47	21n52	0s44	21n51	0s16	7n 3	0s39	14s51	0s26	21n52	0s50	0s13	0s31	13s58	9n 5	1n 3	

ASTRODIENST EPHEMERIS for the year 1680

geocentric

OCTOBER 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 42 8	8♂36'18	8♂57	21♂35	15♂11	8♂42	16♂30	21♂35	18♂27	20♂36	14♂44	0♂D19	29♂40	23♂6	19♂R30	T 1
W 2	0 46 4	9°35'30	21°20	22° 7	16°25	9°17	16°30	21°38	18♂25	20♂35	14°44	0♂19	29°36	23°13	19♂Y28	W 2
T 3	0 50 1	10°34'45	4♂2	22°48	17°40	9°52	16°30	21°42	18°22	20°35	14°44	0°20	29°33	23°19	19°25	T 3
F 4	0 53 57	11°34'01	17° 7	23°38	18°55	10°27	16°R30	21°45	18°20	20°34	14°44	0°21	29°30	23°26	19°22	F 4
S 5	0 57 54	12°33'20	0♂38	24°36	20°10	11° 2	16°30	21°48	18°18	20°33	14°45	0°22	29°27	23°33	19°19	S 5
S 6	1 1 50	13°32'40	14°34	25°41	21°25	11°37	16°30	21°51	18°15	20°32	14°45	0°23	29°24	23°39	19°16	S 6
M 7	1 5 47	14°32'01	28°55	26°51	22°40	12°12	16°30	21°54	18°13	20°31	14°45	0°R23	29°21	23°46	19°13	M 7
T 8	1 9 43	15°31'25	13♂36	28° 8	23°55	12°46	16°29	21°57	18°10	20°30	14°45	0°23	29°17	23°53	19°11	T 8
W 9	1 13 40	16°30'51	28°31	29°29	25°10	13°21	16°28	22° 0	18° 8	20°30	14°45	0°22	29°14	23°59	19° 8	W 9
T 10	1 17 37	17°30'19	13♂32	0♂54	26°25	13°55	16°27	22° 3	18° 5	20°29	14°46	0°20	29°11	24° 6	19° 5	T 10
F 11	1 21 33	18°29'49	28°30	2°22	27°40	14°30	16°26	22° 5	18° 3	20°28	14°46	0°18	29° 8	24°13	19° 2	F 11
S 12	1 25 30	19°29'22	13♂16	3°54	28°55	15° 4	16°24	22° 8	18° 1	20°28	14°46	0°15	29° 5	24°19	18°59	S 12
S 13	1 29 26	20°28'57	27°46	5°27	0♂. 9	15°38	16°22	22°10	17°58	20°27	14°46	0°13	29° 1	24°26	18°56	S 13
M14	1 33 23	21°28'34	11♂54	7° 3	1°24	16°12	16°21	22°12	17°56	20°26	14°46	0°12	28°58	24°33	18°53	M14
T 15	1 37 19	22°28'14	25°40	8°40	2°39	16°46	16°18	22°15	17°53	20°26	14°R46	0°D12	28°55	24°40	18°50	T 15
W16	1 41 16	23°27'56	9♂4	10°19	3°54	17°20	16°16	22°17	17°51	20°25	14°46	0°13	28°52	24°46	18°48	W16
T 17	1 45 12	24°27'40	22° 8	11°58	5° 9	17°54	16°14	22°19	17°48	20°25	14°46	0°14	28°49	24°53	18°45	T 17
F 18	1 49 9	25°27'26	4♂55	13°38	6°24	18°27	16°11	22°20	17°46	20°24	14°46	0°16	28°46	25° 0	18°42	F 18
S 19	1 53 6	26°27'15	17°27	15°18	7°39	19° 1	16° 8	22°22	17°44	20°24	14°46	0°17	28°42	25° 6	18°39	S 19
S 20	1 57 2	27°27'05	29°47	16°59	8°54	19°34	16° 5	22°24	17°41	20°23	14°46	0°R18	28°39	25°13	18°36	S 20
M21	2 0 59	28°26'58	11♂57	18°40	10° 9	20° 7	16° 2	22°25	17°39	20°23	14°45	0°17	28°36	25°20	18°33	M21
T 22	2 4 55	29°26'53	24° 0	20°21	11°24	20°41	15°58	22°27	17°36	20°23	14°45	0°15	28°33	25°26	18°31	T 22
W23	2 8 52	0♂.26'50	5♂.57	22° 2	12°39	21°14	15°55	22°28	17°34	20°22	14°45	0°11	28°30	25°33	18°28	W23
T 24	2 12 48	1°26'48	17°50	23°42	13°54	21°46	15°51	22°29	17°32	20°22	14°45	0° 6	28°26	25°40	18°25	T 24
F 25	2 16 45	2°26'49	29°40	25°23	15° 9	22°19	15°47	22°30	17°29	20°22	14°45	0° 0	28°23	25°47	18°22	F 25
S 26	2 20 41	3°26'51	11♂30	27° 3	16°24	22°52	15°43	22°31	17°27	20°22	14°44	29♂54	28°20	25°53	18°19	S 26
S 27	2 24 38	4°26'56	23°23	28°43	17°39	23°24	15°38	22°32	17°25	20°21	14°44	29°48	28°17	26° 0	18°17	S 27
M28	2 28 35	5°27'01	5♂20	0♂.22	18°54	23°57	15°34	22°33	17°22	20°21	14°44	29°43	28°14	26° 7	18°14	M28
T 29	2 32 31	6°27'09	17°27	2° 1	20° 9	24°29	15°29	22°33	17°20	20°21	14°43	29°39	28°11	26°13	18°11	T 29
W30	2 36 28	7°27'18	29°46	3°40	21°24	25° 1	15°24	22°34	17°18	20°21	14°43	29°38	28° 7	26°20	18° 9	W30
T 31	2 40 24	8♂.27'29	12♂21	5♂.18	22♂.39	25♂.33	15♂.19	22♂.34	17♂.16	20♂.21	14♂.43	29°D37	28♂. 4	26♂.27	18♂. 6	T 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	3s25	17s58	5n14	4n 6	0n49	4s59	1n 6	19n17	1n12	22n 3	0s45	21n31	0s14	6n38	0s40	15s 4	0s26	21n51	0s49	0s 8	0n 8	14s34	8n35	1n 1			
W 2	3 48	16 54	4 56	4 5	1 2	5 29	1 4	19 8	1 13	22 3	0 45	21 30	0 14	6 37	0 40	15 4	0 26	21 51	0 49	0 8	0 9	14 35	8 34	1 1			
T 3	4 12	15 0	4 24	4 0	1 14	5 59	1 2	19 0	1 14	22 3	0 45	21 30	0 14	6 36	0 40	15 4	0 26	21 51	0 49	0 8	0 11	14 37	8 33	1 1			
F 4	4 35	12 16	3 37	3 49	1 24	6 29	1 1	18 51	1 15	22 3	0 45	21 29	0 14	6 35	0 40	15 5	0 26	21 51	0 49	0 8	0 12	14 38	8 32	1 1			
S 5	4 58	8 49	2 38	3 35	1 33	6 59	0 59	18 42	1 16	22 3	0 45	21 29	0 14	6 34	0 40	15 5	0 26	21 51	0 49	0 9	0 13	14 39	8 30	1 1			
S 6	5 21	4 45	1 27	3 16	1 41	7 29	0 57	18 33	1 17	22 2	0 45	21 28	0 14	6 34	0 40	15 5	0 26	21 51	0 49	0 9	0 14	14 40	8 29	1 1			
M 7	5 44	0 18	0 8	2 53	1 47	7 58	0 56	18 25	1 18	22 2	0 45	21 28	0 14	6 33	0 40	15 5	0 26	21 51	0 48	0 9	0 16	14 41	8 28	1 0			
T 8	6 7	4n16	1s13	2 27	1 52	8 28	0 54	18 16	1 18	22 2	0 45	21 28	0 14	6 32	0 40	15 6	0 26	21 51	0 48	0 9	0 17	14 42	8 27	1 0			
W 9	6 30	8 38	2 29	1 59	1 56	8 57	0 52	18 6	1 19	22 2	0 45	21 27	0 14	6 31	0 40	15 6	0 26	21 51	0 48	0 9	0 18	14 43	8 26	1 0			
T 10	6 53	12 29	3 36	1 27	1 58	9 26	0 50	17 57	1 20	22 2	0 45	21 27	0 14	6 30	0 40	15 6	0 26	21 52	0 48	0 8	0 20	14 44	8 25	1 0			
F 11	7 16	15 30	4 28	0 53	2 0	9 55	0 48	17 48	1 21	22 2	0 45	21 27	0 13	6 29	0 40	15 6	0 26	21 52	0 48	0 7	0 21	14 46	8 23	1 0			
S 12	7 38	17 26	5 2	0 18	2 1	10 23	0 46	17 39	1 22	22 2	0 45	21 26	0 13	6 28	0 40	15 6	0 26	21 52	0 48	0 6	0 22	14 47	8 22	1 0			
S 13	8 1	18 12	5 15	0s20	2 0	10 51	0 44	17 30	1 23	22 2	0 45	21 26	0 13	6 27	0 40	15 7	0 26	21 52	0 48	0 5	0 23	14 48	8 21	1 0			
M14	8 23	17 49	5 9	0 58	2 0	11 20	0 42	17 20	1 24	22 1	0 45	21 26	0 13	6 26	0 40	15 7	0 26	21 52	0 48	0 5	0 25	14 49	8 20	1 0			
T 15	8 46	16 23	4 45	1 38	1 58	11 47	0 40	17 11	1 25	22 1	0 45	21 25	0 13	6 25	0 40	15 7	0 26	21 52	0 48	0 5	0 26	14 50	8 19	1 0			
W16	9 8	14 4	4 6	2 19	1 56	12 15	0 38	17 1	1 26	22 1	0 45	21 25	0 13	6 24	0 40	15 7	0 26	21 52	0 48	0 5	0 27	14 51	8 18	1 0			
T 17	9 30	11 5	3 15	3 1	1 53	12 42	0 36	16 52	1 26	22 1	0 45	21 25	0 13	6 23	0 40	15 7	0 26	21 52	0 48	0 6	0 28	14 52	8 16	1 0			
F 18	9 52	7 38	2 15	3 43	1 49	13 9	0 33	16 42	1 27	22 0	0 45	21 25	0 13	6 22	0 40	15 7	0 26	21 52	0 48	0 6	0 30	14 53	8 15	1 0			
S 19	10 13	3 54	1 10	4 25	1 45	13 36	0 31	16 33	1 28	22 0	0 45	21 24	0 13	6 22	0 40	15 8	0 26	21 52	0 48	0 7	0 31	14 54	8 14	0 59			
S 20	10 35	0 3	0 3	5 8	1 41	14 2	0 29	16 23	1 29	22 0	0 45	21 24	0 13	6 21	0 39	15 8	0 26	21 52	0 48	0 7	0 32	14 56	8 13	0 59			
M21	10 56	3s45	1n 4	5 51	1 36	14 28	0 27	16 13	1 30	21 59	0 45	21 24	0 13	6 20	0 39	15 8	0 26	21 52	0 48	0 7	0 33	14 57	8 12	0 59			
T 22	11 18	7 22	2 6	6 33	1 31	14 53	0 24	16 4	1 31	21 59	0 45	21 24	0 13	6 19	0 39	15 8	0 26	21 52	0 48	0 6	0 35	14 58	8 11	0 59			
W23	11 39	10 39	3 3	7 16	1 26	15 19	0 22	15 54	1 32	21 59	0 45	21 24	0 13	6 18	0 39	15 8	0 26	21 52	0 48	0 4	0 36	14 59	8 9	0 59			
T 24	12 0	13 28	3 51	7 58	1 20	15 44	0 20	15 44	1 33	21 58	0 45	21 24	0 12	6 17	0 39	15 8	0 26	21 52	0 48	0 2	0 37	15 0	8 8	0 59			
F 25	12 21	15 44	4 29	8 40	1 15	16 8	0 17	15 34	1 34	21 58	0 45	21 24	0 12	6 16	0 39	15 8	0 26	21 52	0 48	0 0	0 39	15 1	8 7	0 59			
S 26	12 41	17 19	4 55	9 22	1 9	16 32	0 15	15 25	1 35	21 57	0 45	21 23	0 12	6 15	0 39	15 8	0 26	21 52	0 48	0n 2	0 40	15 2	8 6	0 59			
S 27	13 1	18 10	5 9	10 4	1 2	16 56	0 12	15 15	1 36	21 57	0 45	21 23	0 12	6 14	0 39	15 8	0 26	21 52	0 48	0 5	0 41	15 3	8 5	0 59			
M28	13 22	18 13	5 10	10 45	0 56	17 19	0 10	15 5	1 37	21 57	0 45	21 23	0 12	6 14	0 39	15 8	0 26	21 52	0 48	0 7	0 42	15 4	8 4	0 59			
T 29	13 42	17 26	4 56	11 25	0 50	17 41	0 7	14 55	1 38	21 56	0 45	21 23	0 12	6 13	0 39	15 8	0 26	21 53	0 48	0 8	0 44	15 5	8 3	0 58			
W30	14 1	15 51	4 29	12 5	0 43	18 4	0 5	14 45	1 39	21 56	0 45	21 23	0 12	6 12	0 39	15 8	0 26	21 53	0 48	0 9	0 45	15 6	8 2	0 58			
T 31	14s21	13s27	3n49	12s44	0n37	18s25	0n 3	14n35	1n40	21n55	0s45	21n23	0s12	6n11	0s39	15s 8	0s26	21n53	0s47	0n 9	0n46	15s 7	8n 0	0n58			

ASTRODIENST EPHEMERIS for the year 1680
geocentric

NOVEMBER 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 44 21	9♐27'41	25♏19	6♐56	23♐54	26♐5	15°R14	22♏35	17°R13	20°D21	14°R42	29♐38	28♐1	26♐33	18°R3	F 1
S 2	2 48 17	10°27'54	8♏41	8°34	25°9	26°36	15°II8	22°35	17°Y11	20°21	14°42	29°40	27°58	26°40	18°Y1	S 2
S 3	2 52 14	11°28'09	22°31	10°11	26°24	27°8	15°3	22°R35	17°9	20°21	14°41	29°R41	27°55	26°47	17°58	S 3
M 4	2 56 10	12°28'26	6°Y49	11°48	27°39	27°39	14°57	22°35	17°7	20°21	14°41	29°41	27°52	26°54	17°56	M 4
T 5	3 0 7	13°28'44	21°33	13°24	28°54	28°10	14°51	22°35	17°5	20°21	14°40	29°39	27°48	27°0	17°53	T 5
W 6	3 4 4	14°29'04	6♏38	15°0	0♏9	28°41	14°45	22°34	17°3	20°22	14°40	29°35	27°45	27°7	17°51	W 6
T 7	3 8 0	15°29'25	21°55	16°36	1°24	29°12	14°39	22°34	17°1	20°22	14°39	29°29	27°42	27°14	17°48	T 7
F 8	3 11 57	16°29'49	7♐12	18°11	2°38	29°43	14°32	22°33	16°59	20°22	14°39	29°22	27°39	27°20	17°46	F 8
S 9	3 15 53	17°30'14	22°20	19°47	3°53	0♐13	14°26	22°33	16°57	20°22	14°38	29°15	27°36	27°27	17°43	S 9
S 10	3 19 50	18°30'41	7♏8	21°21	5°8	0°44	14°19	22°32	16°55	20°23	14°38	29°8	27°32	27°34	17°41	S 10
M 11	3 23 46	19°31'09	21°31	22°56	6°23	1°14	14°13	22°31	16°53	20°23	14°37	29°3	27°29	27°41	17°38	M 11
T 12	3 27 43	20°31'40	5♐25	24°30	7°38	1°44	14°6	22°30	16°51	20°23	14°36	28°59	27°26	27°47	17°36	T 12
W 13	3 31 39	21°32'12	18°52	26°4	8°53	2°14	13°59	22°29	16°49	20°24	14°36	28°D58	27°23	27°54	17°34	W 13
T 14	3 35 36	22°32'46	1♐52	27°38	10°8	2°44	13°52	22°28	16°47	20°24	14°35	28°58	27°20	28°1	17°32	T 14
F 15	3 39 33	23°33'22	14°31	29°12	11°23	3°13	13°44	22°27	16°45	20°25	14°34	28°59	27°17	28°7	17°29	F 15
S 16	3 43 29	24°34'00	26°53	0♏46	12°38	3°42	13°37	22°25	16°43	20°25	14°33	29°R0	27°13	28°14	17°27	S 16
S 17	3 47 26	25°34'39	9♏2	2°19	13°53	4°12	13°30	22°24	16°42	20°26	14°33	29°0	27°10	28°21	17°25	S 17
M 18	3 51 22	26°35'20	21°2	3°52	15°8	4°41	13°22	22°22	16°40	20°26	14°32	28°57	27°7	28°27	17°23	M 18
T 19	3 55 19	27°36'03	2♐56	5°25	16°23	5°9	13°15	22°21	16°38	20°27	14°31	28°52	27°4	28°34	17°21	T 19
W 20	3 59 15	28°36'47	14°47	6°58	17°38	5°38	13°7	22°19	16°37	20°27	14°30	28°44	27°1	28°41	17°19	W 20
T 21	4 3 12	29°37'32	26°38	8°31	18°53	6°6	12°59	22°17	16°35	20°28	14°30	28°33	26°58	28°48	17°17	T 21
F 22	4 7 8	0♏38'19	8♏29	10°3	20°8	6°34	12°51	22°15	16°33	20°29	14°29	28°21	26°54	28°54	17°15	F 22
S 23	4 11 5	1°39'07	20°23	11°36	21°23	7°2	12°44	22°13	16°32	20°30	14°28	28°8	26°51	29°1	17°13	S 23
S 24	4 15 2	2°39'57	2♏20	13°8	22°37	7°30	12°36	22°10	16°30	20°30	14°27	27°56	26°48	29°8	17°12	S 24
M 25	4 18 58	3°40'47	14°22	14°40	23°52	7°57	12°28	22°8	16°29	20°31	14°26	27°44	26°45	29°14	17°10	M 25
T 26	4 22 55	4°41'38	26°32	16°12	25°7	8°25	12°20	22°6	16°28	20°32	14°25	27°36	26°42	29°21	17°8	T 26
W 27	4 26 51	5°42'31	8♏52	17°44	26°22	8°52	12°11	22°3	16°26	20°33	14°24	27°30	26°38	29°28	17°6	W 27
T 28	4 30 48	6°43'24	21°26	19°16	27°37	9°18	12°3	22°0	16°25	20°34	14°23	27°26	26°35	29°35	17°5	T 28
F 29	4 34 44	7°44'18	4♏17	20°47	28°52	9°45	11°55	21°58	16°24	20°35	14°22	27°D25	26°32	29°41	17°3	F 29
S 30	4 38 41	8♏45'13	17♏30	22♏19	0♏7	10♐11	11°II47	21°55	16°Y22	20°36	14°21	27♐25	26♐29	29♐48	17°Y2	S 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	14s40	10s21	2n56	13s23	0n30	18s47	0n0	14n25	1n41	21n54	0s45	21n23	0s12	6n10	0s39	F 1
S 2	14 59	6 36	1 52	14 1	0 23	19 7	0s 2	14 16	1 42	21 54	0 45	21 23	0 12	6 9	0 39	S 2
S 3	15 18	2 23	0 39	14 38	0 16	19 28	0 5	14 6	1 43	21 53	0 45	21 23	0 12	6 9	0 39	S 3
M 4	15 36	2n 7	0s39	15 15	0 10	19 47	0 7	13 56	1 44	21 53	0 45	21 24	0 12	6 8	0 39	M 4
T 5	15 55	6 38	1 56	15 50	0 3	20 6	0 10	13 46	1 45	21 52	0 45	21 24	0 12	6 7	0 39	T 5
W 6	16 13	10 49	3 6	16 25	0s 4	20 25	0 13	13 36	1 46	21 51	0 45	21 24	0 11	6 6	0 39	W 6
T 7	16 30	14 20	4 4	16 59	0 10	20 43	0 15	13 26	1 47	21 51	0 45	21 24	0 11	6 5	0 39	T 7
F 8	16 48	16 52	4 45	17 33	0 17	21 1	0 18	13 16	1 48	21 50	0 45	21 24	0 11	6 5	0 39	F 8
S 9	17 5	18 10	5 5	18 5	0 24	21 17	0 20	13 6	1 49	21 49	0 45	21 24	0 11	6 4	0 39	S 9
S 10	17 22	18 13	5 5	18 37	0 30	21 34	0 23	12 57	1 50	21 49	0 45	21 24	0 11	6 3	0 39	S 10
M 11	17 38	17 4	4 44	19 8	0 37	21 49	0 25	12 47	1 51	21 48	0 45	21 25	0 11	6 2	0 39	M 11
T 12	17 55	14 56	4 8	19 37	0 43	22 4	0 28	12 37	1 52	21 47	0 45	21 25	0 11	6 2	0 39	T 12
W 13	18 11	12 3	3 19	20 6	0 49	22 19	0 30	12 27	1 53	21 47	0 45	21 25	0 11	6 1	0 39	W 13
T 14	18 26	8 38	2 21	20 34	0 55	22 32	0 32	12 17	1 54	21 46	0 45	21 25	0 11	6 0	0 39	T 14
F 15	18 42	4 55	1 17	21 1	1 1	22 45	0 35	12 8	1 55	21 45	0 45	21 26	0 11	6 0	0 39	F 15
S 16	18 57	1 4	0 11	21 26	1 7	22 58	0 37	11 58	1 56	21 44	0 44	21 26	0 11	5 59	0 39	S 16
S 17	19 11	2s46	0n54	21 51	1 13	23 10	0 40	11 48	1 57	21 43	0 44	21 26	0 11	5 58	0 39	S 17
M 18	19 25	6 26	1 55	22 15	1 19	23 21	0 42	11 39	1 58	21 43	0 44	21 27	0 10	5 58	0 39	M 18
T 19	19 39	9 50	2 51	22 37	1 24	23 31	0 44	11 29	1 59	21 42	0 44	21 27	0 10	5 57	0 39	T 19
W 20	19 53	12 48	3 39	22 59	1 29	23 41	0 47	11 20	2 1	21 41	0 44	21 28	0 10	5 56	0 39	W 20
T 21	20 6	15 15	4 18	23 19	1 35	23 50	0 49	11 10	2 2	21 40	0 44	21 28	0 10	5 55	0 39	T 21
F 22	20 19	17 4	4 45	23 38	1 39	23 58	0 51	11 1	2 3	21 39	0 44	21 28	0 10	5 55	0 39	F 22
S 23	20 32	18 9	5 0	23 56	1 44	24 5	0 54	10 52	2 4	21 38	0 44	21 29	0 10	5 55	0 39	S 23
S 24	20 44	18 26	5 2	24 12	1 49	24 12	0 56	10 42	2 5	21 37	0 44	21 29	0 10	5 54	0 39	S 24
M 25	20 55	17 54	4 50	24 28	1 53	24 18	0 58	10 33	2 6	21 36	0 44	21 30	0 10	5 54	0 39	M 25
T 26	21 7	16 32	4 25	24 42	1 57	24 24	1 0	10 24	2 7	21 35	0 44	21 30	0 10	5 53	0 39	T 26
W 27	21 18	14 24	3 48	24 55	2 1	24 28	1 2	10 15	2 9	21 34	0 43	21 31	0 10	5 53	0 39	W 27
T 28	21 28	11 34	2 59	25 6	2 4	24 32	1 5	10 6	2 10	21 33	0 43	21 31	0 10	5 52	0 39	T 28
F 29	21 38	8 6	2 0	25 16	2 7	24 35	1 7	9 57	2 11	21 33	0 43	21 32	0 9	5 52	0 39	F 29
S 30	21s48	4s 9	0n53	25s25	2s10	24s37	1s 9	9n48	2n12	21n32	0s43	21n32	0s 9	5n51	0s39	S 30

Julian Day Number = 2334972.5, Delta T = 23.19 sec
Ecliptic obliquity = 23°28'42, Nutation = - 0°00'02, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 20°17'07, Lahiri = 19°24'07Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1680

geocentric

DECEMBER 1680 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 42 37	9°46'08	1°7' 7	23°50	1°22	10°37	11°R39	21°R52	16°R21	20°37	14°R20	27°R25	26°26	29°55	17°R 0	S 1
M 2	4 46 34	10°47'04	15°12	25°20	2°36	11° 3	11°II31	21°349	16°Y20	20°38	14°319	27°24	26°23	0°1	16°Y59	M 2
T 3	4 50 31	11°48'01	29°44	26°51	3°51	11°28	11°23	21°46	16°19	20°39	14°18	27°21	26°19	0° 8	16°57	T 3
W 4	4 54 27	12°48'59	14°40	28°20	5° 6	11°54	11°14	21°42	16°18	20°40	14°17	27°15	26°16	0°15	16°56	W 4
T 5	4 58 24	13°49'57	29°53	29°50	6°21	12°19	11° 6	21°39	16°17	20°41	14°16	27° 6	26°13	0°21	16°55	T 5
F 6	5 2 20	14°50'57	15°II13	1°319	7°36	12°43	10°58	21°36	16°16	20°42	14°15	26°55	26°10	0°28	16°54	F 6
S 7	5 6 17	15°51'57	0°28	2°47	8°51	13° 8	10°50	21°32	16°15	20°43	14°14	26°44	26° 7	0°35	16°52	S 7
S 8	5 10 13	16°52'58	15°28	4°14	10° 5	13°32	10°42	21°29	16°14	20°45	14°13	26°33	26° 4	0°42	16°51	S 8
M 9	5 14 10	17°54'00	0°2	5°40	11°20	13°56	10°34	21°25	16°13	20°46	14°12	26°24	26° 0	0°48	16°50	M 9
T 10	5 18 6	18°55'03	14° 9	7° 4	12°35	14°19	10°26	21°21	16°13	20°47	14°11	26°17	25°57	0°55	16°49	T 10
W11	5 22 3	19°56'06	27°45	8°28	13°50	14°43	10°18	21°18	16°12	20°48	14° 9	26°14	25°54	1° 2	16°48	W11
T 12	5 26 0	20°57'11	10°11	9°49	15° 4	15° 6	10°10	21°14	16°11	20°50	14° 8	26°12	25°51	1° 8	16°47	T 12
F 13	5 29 56	21°58'16	23°32	11° 9	16°19	15°28	10° 2	21°10	16°11	20°51	14° 7	26°12	25°48	1°15	16°47	F 13
S 14	5 33 53	22°59'23	5°53	12°26	17°34	15°51	9°54	21° 6	16°10	20°52	14° 6	26°12	25°44	1°22	16°46	S 14
S 15	5 37 49	24° 0'30	17°59	13°40	18°48	16°12	9°47	21° 2	16°10	20°54	14° 5	26°10	25°41	1°29	16°45	S 15
M16	5 41 46	25° 1'38	29°55	14°51	20° 3	16°34	9°39	20°58	16° 9	20°55	14° 4	26° 7	25°38	1°35	16°44	M16
T 17	5 45 42	26° 2'46	11°45	15°58	21°18	16°55	9°31	20°53	16° 9	20°57	14° 2	26° 0	25°35	1°42	16°44	T 17
W18	5 49 39	27° 3'56	23°34	17° 1	22°33	17°16	9°24	20°49	16° 8	20°58	14° 1	25°51	25°32	1°49	16°43	W18
T 19	5 53 35	28° 5'06	5°25	17°58	23°47	17°37	9°16	20°45	16° 8	21° 0	14° 0	25°39	25°29	1°55	16°43	T 19
F 20	5 57 32	29° 6'16	17°19	18°50	25° 2	17°57	9° 9	20°40	16° 8	21° 1	13°59	25°24	25°25	2° 2	16°42	F 20
S 21	6 1 29	0°3 7'27	29°19	19°35	26°16	18°17	9° 2	20°36	16° 8	21° 3	13°58	25° 9	25°22	2° 9	16°42	S 21
S 22	6 5 25	1° 8'38	11°325	20°12	27°31	18°36	8°55	20°32	16° 7	21° 5	13°56	24°54	25°19	2°16	16°42	S 22
M23	6 9 22	2° 9'49	23°38	20°41	28°46	18°55	8°48	20°27	16° 7	21° 6	13°55	24°41	25°16	2°22	16°41	M23
T 24	6 13 18	3°11'00	5°59	21° 0	0° 0	19°14	8°41	20°22	16°D 7	21° 8	13°54	24°30	25°13	2°29	16°41	T 24
W25	6 17 15	4°12'11	18°29	21°R 9	1°15	19°32	8°35	20°18	16° 7	21° 9	13°53	24°23	25°10	2°36	16°41	W25
T 26	6 21 11	5°13'22	1°10	21° 7	2°29	19°49	8°28	20°13	16° 7	21°11	13°51	24°18	25° 6	2°42	16°41	T 26
F 27	6 25 8	6°14'33	14° 5	20°53	3°44	20° 7	8°22	20° 8	16° 7	21°13	13°50	24°16	25° 3	2°49	16°D41	F 27
S 28	6 29 4	7°15'44	27°16	20°27	4°58	20°24	8°15	20° 4	16° 8	21°15	13°49	24°D16	25° 0	2°56	16°41	S 28
S 29	6 33 1	8°16'54	10°Y47	19°50	6°13	20°40	8° 9	19°59	16° 8	21°16	13°48	24°R16	24°57	3° 3	16°41	S 29
M30	6 36 58	9°18'04	24°39	19° 2	7°27	20°56	8° 3	19°54	16° 8	21°18	13°46	24°15	24°54	3° 9	16°41	M30
T 31	6 40 54	10°319'14	8°53	18°3	8°41	21°11	7°II57	19°349	16°Y 8	21°20	13°45	24°12	24°50	3°16	16°Y41	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
S 1	21s57	0n 9	0s20	25s32	2s12	24s39	1s11	9n39	2n13	21n31	0s43	21n33	0s 9	5n51	0s38	15s 3	0s26	21n57	0s46	1n 2	1n25	15s40	7n32	0n55			
M 2	22 6	4 34	1 33	25 38	2 14	24 40	1 13	9 31	2 15	21 30	0 43	21 33	0 9	5 50	0 38	15 3	0 26	21 57	0 46	1 2	1 27	15 41	7 31	0 55			
T 3	22 14	8 52	2 42	25 42	2 16	24 40	1 14	9 22	2 16	21 29	0 43	21 34	0 9	5 50	0 38	15 3	0 26	21 57	0 46	1 3	1 28	15 42	7 31	0 54			
W 4	22 22	12 43	3 42	25 45	2 17	24 39	1 16	9 13	2 17	21 28	0 42	21 35	0 9	5 50	0 38	15 2	0 26	21 57	0 46	1 6	1 29	15 43	7 30	0 54			
T 5	22 30	15 47	4 28	25 47	2 18	24 37	1 18	9 5	2 18	21 27	0 42	21 35	0 9	5 49	0 38	15 2	0 26	21 57	0 46	1 9	1 30	15 44	7 29	0 54			
F 6	22 37	17 47	4 55	25 47	2 18	24 35	1 20	8 57	2 20	21 26	0 42	21 36	0 9	5 49	0 38	15 2	0 26	21 57	0 46	1 14	1 32	15 45	7 29	0 54			
S 7	22 44	18 29	5 0	25 45	2 18	24 32	1 21	8 48	2 21	21 25	0 42	21 36	0 9	5 49	0 38	15 1	0 26	21 58	0 46	1 18	1 33	15 46	7 28	0 54			
S 8	22 50	17 52	4 45	25 42	2 18	24 29	1 23	8 40	2 22	21 24	0 42	21 37	0 9	5 48	0 38	15 1	0 26	21 58	0 46	1 23	1 34	15 47	7 28	0 54			
M 9	22 56	16 5	4 11	25 38	2 16	24 24	1 25	8 32	2 24	21 23	0 42	21 38	0 9	5 48	0 38	15 0	0 26	21 58	0 46	1 26	1 35	15 48	7 27	0 54			
T 10	23 1	13 22	3 23	25 32	2 14	24 19	1 26	8 24	2 25	21 22	0 42	21 38	0 8	5 48	0 38	15 0	0 26	21 58	0 46	1 29	1 37	15 49	7 27	0 54			
W11	23 6	10 1	2 24	25 24	2 12	24 13	1 28	8 17	2 26	21 21	0 41	21 39	0 8	5 48	0 38	15 0	0 26	21 58	0 45	1 30	1 38	15 50	7 26	0 53			
T 12	23 10	6 16	1 20	25 15	2 9	24 6	1 29	8 9	2 27	21 20	0 41	21 40	0 8	5 47	0 38	14 59	0 26	21 58	0 45	1 31	1 39	15 50	7 26	0 53			
F 13	23 14	2 21	0 14	25 5	2 4	23 59	1 31	8 1	2 29	21 19	0 41	21 41	0 8	5 47	0 38	14 59	0 26	21 59	0 45	1 31	1 40	15 51	7 25	0 53			
S 14	23 18	1s34	0n51	24 53	2 0	23 50	1 32	7 54	2 30	21 18	0 41	21 41	0 8	5 47	0 38	14 58	0 26	21 59	0 45	1 31	1 42	15 52	7 25	0 53			
S 15	23 21	5 20	1 52	24 40	1 54	23 41	1 33	7 47	2 32	21 17	0 41	21 42	0 8	5 47	0 38	14 58	0 26	21 59	0 45	1 31	1 43	15 53	7 24	0 53			
M16	23 23	8 50	2 48	24 26	1 47	23 32	1 34	7 39	2 33	21 16	0 41	21 43	0 8	5 47	0 38	14 57	0 26	21 59	0 45	1 33	1 44	15 54	7 24	0 53			
T 17	23 25	11 58	3 36	24 10	1 40	23 21	1 35	7 32	2 34	21 15	0 40	21 43	0 8	5 47	0 38	14 57	0 26	21 59	0 45	1 35	1 46	15 55	7 24	0 53			
W18	23 27	14 36	4 14	23 54	1 31	23 10	1 36	7 25	2 36	21 14	0 40	21 44	0 8	5 46	0 38	14 56	0 26	21 59	0 45	1 39	1 47	15 56	7 23	0 53			
T 19	23 28	16 38	4 41	23 37	1 21	22 59	1 37	7 19	2 37	21 13	0 40	21 45	0 7	5 46	0 38	14 56	0 26	22 0	0 45	1 44	1 48	15 57	7 23	0 52			
F 20	23 28	17 57	4 56	23 19	1 10	22 46	1 38	7 12	2 39	21 12	0 40	21 46	0 7	5 46	0 38	14 55	0 26	22 0	0 45	1 50	1 49	15 58	7 23	0 52			
S 21	23 29	18 30	4 59	23 1	0 58	22 33	1 39	7 6	2 40	21 11	0 40	21 47	0 7	5 46	0 38	14 55	0 26	22 0	0 45	1 56	1 51	15 59	7 23	0 52			
S 22	23 28	18 13	4 47	22 42	0 45	22 19	1 40	6 59	2 41	21 10	0 39	21 47	0 7	5 46	0 38	14 54	0 26	22 0	0 45	2 2	1 52	16 0	7 22	0 52			
M23	23 28	17 6	4 23	22 23	0 31	22 5	1 41	6 53	2 43	21 9	0 39	21 48	0 7	5 46	0 38	14 54	0 26	22 0	0 45	2 7	1 53	16 1	7 22	0 52			
T 24	23 26	15 10	3 46	22 5	0 15	21 50	1 41	6 47	2 44	21 9	0 39	21 49	0 7	5 46	0 38	14 53	0 26	22 1	0 45	2 11	1 54	16 2	7 22	0 52			
W25	23 25	12 30	2 57	21 47	0n 2	21 34	1 42	6 42	2 46	21 8	0 39	21 50	0 7	5 46	0 38	14 53	0 26	22 1	0 45	2 14	1 56	16 3	7 22	0 52			
T 26	23 22	9 13	1 59	21 30	0 19	21 18	1 42	6 36	2 47	21 7	0 39	21 50	0 7	5 46	0 38	14 52	0 26	22 1	0 45	2 16	1 57	16 4	7 22	0 52			
F 27	23 20	5 27	0 54	21 14	0 38	21 1	1 43	6 31	2 49	21 6	0 38	21 51	0 7	5 46	0 38	14 52	0 26	22 1	0 45	2 17	1 58	16 5	7 21	0 51			
S 28	23 17	1 20	0s16	20 59	0 57	20 43	1 43	6 25	2 50	21 5	0 38	21 52	0 7	5 47	0 38	14 51	0 26	22 1	0 45	2 17	1 59	16 6	7 21	0 51			
S 29	23 13	2n57	1 26	20 45	1 16	20 25	1 43	6 20	2 52	21 5	0 38	21 53	0 6	5 47	0 37	14 51	0 26	22 2	0 44	2 17	2 1	16 7	7 21	0 51			
M30	23 9	7 11	2 34	20 33	1 36	20 6	1 44	6 15	2 53	21 4	0 38	21 54	0 6	5 47	0 37	14 50	0 26	22 2	0 44	2 17	2 2	16 8	7 21	0 51			
T 31	23s 5	11n 7	3s33	20s22	1n55	19s47	1s44	6n11	2n55	21n 3	0s38	21n55	0s 6	5n47	0s37	14s49	0s26	22n 2	0s44	2n18	2n 3	16s 9	7n21	0n51			