



Astrodienst Ephemeris Tables for the year 1638

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 1638
geocentric

JANUARY 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 42 34	10 ³ 46'39	18 ⁵ 7	0 ³ 47	22 ²⁸ 17	2 ¹¹ 21	1 ¹¹ 44	25 ³ 50	23 ²¹ 7	20 ¹¹ 18	27 ¹⁰ R48	16 ¹⁰ D10	16 ¹⁰ 29	23 ³ 42	9 ¹⁰ R 4	F 1
S 2	6 46 30	11 ¹ 47'48	3 ¹ 18	2 ² 21	23 ² 28	2 ² 56	1 ¹ 52	25 ² 57	23 ² 9	20 ² 19	27 ¹⁰ 47	16 ¹⁰ 10	16 ¹⁰ 26	23 ³ 49	9 ¹⁰ 3	S 2
S 3	6 50 27	12 ² 48'57	18 ¹ 19	3 ³ 54	24 ³ 39	3 ³ 31	1 ¹ 59	26 ² 4	23 ² 10	20 ² 21	27 ¹⁰ 47	16 ¹⁰ 11	16 ¹⁰ 23	23 ³ 55	9 ¹⁰ 2	S 3
M 4	6 54 23	13 ² 50'05	3 ¹ 19	5 ² 28	25 ² 50	4 ² 5	2 ² 7	26 ² 11	23 ² 11	20 ² 22	27 ¹⁰ 46	16 ¹⁰ 11	16 ¹⁰ 20	24 ² 2	9 ¹⁰ 1	M 4
T 5	6 58 20	14 ² 51'14	17 ² 3	7 ² 3	27 ² 1	4 ² 40	2 ² 15	26 ² 18	23 ² 13	20 ² 24	27 ¹⁰ 45	16 ¹⁰ 11	16 ¹⁰ 17	24 ² 9	9 ¹⁰ 0	T 5
W 6	7 2 16	15 ² 52'22	1 ¹ 17	8 ² 38	28 ² 12	5 ² 15	2 ² 22	26 ² 25	23 ² 14	20 ² 25	27 ¹⁰ 44	16 ¹⁰ R11	16 ¹⁰ 14	24 ² 15	8 ¹⁰ 59	W 6
T 7	7 6 13	16 ² 53'31	14 ² 46	10 ² 13	29 ² 22	5 ² 49	2 ² 30	26 ² 32	23 ² 15	20 ² 27	27 ¹⁰ 44	16 ¹⁰ D11	16 ¹⁰ 10	24 ² 22	8 ¹⁰ 59	T 7
F 8	7 10 9	17 ² 54'39	27 ² 51	11 ² 49	0 ¹ 33	6 ² 24	2 ² 37	26 ² 39	23 ² 16	20 ² 28	27 ¹⁰ 43	16 ¹⁰ 11	16 ¹⁰ 7	24 ² 29	8 ¹⁰ 58	F 8
S 9	7 14 6	18 ² 55'48	10 ¹ 35	13 ² 25	1 ¹ 43	6 ² 58	2 ² 44	26 ² 46	23 ² 17	20 ² 29	27 ¹⁰ 42	16 ¹⁰ 11	16 ¹⁰ 4	24 ² 35	8 ¹⁰ 58	S 9
S 10	7 18 3	19 ² 56'56	23 ² 1	15 ² 2	2 ² 53	7 ² 32	2 ² 51	26 ² 53	23 ² 18	20 ² 31	27 ¹⁰ 42	16 ¹⁰ 12	16 ¹⁰ 1	24 ² 42	8 ¹⁰ 57	S 10
M 11	7 21 59	20 ² 58'04	5 ¹ 13	16 ² 40	4 ² 3	8 ² 6	2 ² 57	27 ² 0	23 ² 19	20 ² 32	27 ¹⁰ 41	16 ¹⁰ 12	15 ¹⁰ 58	24 ² 48	8 ¹⁰ 57	M 11
T 12	7 25 56	21 ² 59'12	17 ² 15	18 ² 17	5 ² 13	8 ² 41	3 ² 4	27 ² 7	23 ² 20	20 ² 33	27 ¹⁰ 40	16 ¹⁰ 13	15 ¹⁰ 55	24 ² 55	8 ¹⁰ 56	T 12
W 13	7 29 52	23 ² 0'19	29 ² 10	19 ² 56	6 ² 23	9 ² 15	3 ² 11	27 ² 14	23 ² 21	20 ² 35	27 ¹⁰ 40	16 ¹⁰ 13	15 ¹⁰ 51	25 ² 2	8 ¹⁰ 56	W 13
T 14	7 33 49	24 ² 1'26	11 ¹ 3	0 ¹ 35	7 ² 33	9 ² 49	3 ² 17	27 ² 22	23 ² 22	20 ² 36	27 ¹⁰ 39	16 ¹⁰ R14	15 ¹⁰ 48	25 ² 8	8 ¹⁰ 56	T 14
F 15	7 37 45	25 ² 2'32	22 ² 47	23 ² 14	8 ² 43	10 ² 23	3 ² 23	27 ² 29	23 ² 22	20 ² 37	27 ¹⁰ 39	16 ¹⁰ 14	15 ¹⁰ 45	25 ² 15	8 ¹⁰ 55	F 15
S 16	7 41 42	26 ² 3'37	4 ¹ 34	24 ² 54	9 ² 52	10 ² 56	3 ² 29	27 ² 36	23 ² 23	20 ² 38	27 ¹⁰ 38	16 ¹⁰ 13	15 ¹⁰ 42	25 ² 22	8 ¹⁰ 55	S 16
S 17	7 45 38	27 ² 4'42	16 ² 24	26 ² 35	11 ² 1	11 ² 30	3 ² 35	27 ² 43	23 ² 24	20 ² 40	27 ¹⁰ 38	16 ¹⁰ 12	15 ¹⁰ 39	25 ² 28	8 ¹⁰ D55	S 17
M 18	7 49 35	28 ² 5'46	28 ² 17	28 ² 16	12 ² 10	12 ² 4	3 ² 41	27 ² 50	23 ² 24	20 ² 41	27 ¹⁰ 37	16 ¹⁰ 10	15 ¹⁰ 35	25 ² 35	8 ¹⁰ 55	M 18
T 19	7 53 32	29 ² 6'48	10 ¹ 17	29 ² 58	13 ² 19	12 ² 37	3 ² 46	27 ² 57	23 ² 25	20 ² 42	27 ¹⁰ 37	16 ¹⁰ 8	15 ¹⁰ 32	25 ² 42	8 ¹⁰ 55	T 19
W 20	7 57 28	0 ¹ 7'50	22 ² 26	1 ¹ 41	14 ² 28	13 ² 11	3 ² 51	28 ² 4	23 ² 25	20 ² 43	27 ¹⁰ 36	16 ¹⁰ 6	15 ¹⁰ 29	25 ² 48	8 ¹⁰ 55	W 20
T 21	8 1 25	1 ¹ 8'51	4 ¹ 47	3 ² 24	15 ² 37	13 ² 44	3 ² 57	28 ² 11	23 ² 25	20 ² 44	27 ¹⁰ 36	16 ¹⁰ 4	15 ¹⁰ 26	25 ² 55	8 ¹⁰ 56	T 21
F 22	8 5 21	2 ¹ 9'50	17 ² 24	5 ² 7	16 ² 45	14 ² 18	4 ² 2	28 ² 18	23 ² 26	20 ² 45	27 ¹⁰ 35	16 ¹⁰ 3	15 ¹⁰ 23	26 ² 2	8 ¹⁰ 56	F 22
S 23	8 9 18	3 ¹ 10'49	0 ¹ 19	6 ² 51	17 ² 53	14 ² 51	4 ² 7	28 ² 26	23 ² 26	20 ² 46	27 ¹⁰ 35	16 ¹⁰ D 3	15 ¹⁰ 20	26 ² 8	8 ¹⁰ 56	S 23
S 24	8 13 14	4 ¹ 11'46	13 ² 37	8 ² 36	19 ² 1	15 ² 24	4 ² 11	28 ² 33	23 ² 26	20 ² 47	27 ¹⁰ 35	16 ¹⁰ 3	15 ¹⁰ 16	26 ² 15	8 ¹⁰ 57	S 24
M 25	8 17 11	5 ¹ 12'42	27 ² 18	10 ² 21	20 ² 9	15 ² 57	4 ² 16	28 ² 40	23 ² 26	20 ² 48	27 ¹⁰ 34	16 ¹⁰ 4	15 ¹⁰ 13	26 ² 22	8 ¹⁰ 57	M 25
T 26	8 21 7	6 ¹ 13'36	11 ¹ 25	12 ² 7	21 ² 17	16 ² 30	4 ² 20	28 ² 47	23 ² 27	20 ² 49	27 ¹⁰ 34	16 ¹⁰ 5	15 ¹⁰ 10	26 ² 28	8 ¹⁰ 58	T 26
W 27	8 25 4	7 ¹ 14'30	25 ² 56	13 ² 53	22 ² 24	17 ² 3	4 ² 25	28 ² 54	23 ² R27	20 ² 50	27 ¹⁰ 34	16 ¹⁰ 6	15 ¹⁰ 7	26 ² 35	8 ¹⁰ 58	W 27
T 28	8 29 1	8 ¹ 15'22	10 ¹ 29	15 ² 40	23 ² 31	17 ² 36	4 ² 29	29 ² 1	23 ² 27	20 ² 50	27 ¹⁰ 33	16 ¹⁰ R 7	15 ¹⁰ 4	26 ² 41	8 ¹⁰ 59	T 28
F 29	8 32 57	9 ¹ 16'13	25 ² 57	17 ² 27	24 ² 38	18 ² 9	4 ² 33	29 ² 8	23 ² 27	20 ² 51	27 ¹⁰ 33	16 ¹⁰ 7	15 ¹⁰ 1	26 ² 48	9 ¹⁰ 0	F 29
S 30	8 36 54	10 ¹ 17'02	11 ¹ 11	19 ² 14	25 ² 45	18 ² 41	4 ² 36	29 ² 15	23 ² 26	20 ² 52	27 ¹⁰ 33	16 ¹⁰ 6	14 ¹⁰ 57	26 ² 55	9 ¹⁰ 0	S 30
S 31	8 40 50	11 ¹ 17'50	26 ² 11	21 ² 1	26 ² 52	19 ² 14	4 ² 40	29 ² 22	23 ² 26	20 ² 53	27 ¹⁰ 32	16 ¹⁰ 3	14 ¹⁰ 54	27 ² 1	9 ¹⁰ 1	S 31

Day	☉	☾	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
F 1	23s 3	22n 5	0s11	24s29	1s 0	15s44	1s42	11s 5	1n19	10s57	1n13	21s17	0s16	8s27	0n36	16s11	1n44	7n 8	12s53
S 2	22 58	17 56	1 34	24 34	1 6	15 18	1 40	11 17	1 19	11 0	1 13	21 16	0 16	8 27	0 36	16 11	1 44	7 8	12 53
S 3	22 52	12 41	2 50	24 37	1 11	14 52	1 38	11 29	1 19	11 3	1 13	21 15	0 16	8 28	0 36	16 12	1 44	7 8	12 53
M 4	22 46	6 48	3 52	24 39	1 17	14 26	1 36	11 41	1 18	11 5	1 13	21 13	0 16	8 28	0 36	16 12	1 44	7 8	12 52
T 5	22 39	0 43	4 39	24 40	1 22	14 0	1 33	11 52	1 18	11 8	1 14	21 12	0 16	8 29	0 36	16 12	1 44	7 8	12 52
W 6	22 32	5s13	5 8	24 39	1 27	13 33	1 31	12 4	1 18	11 10	1 14	21 11	0 17	8 29	0 36	16 13	1 44	7 9	12 52
T 7	22 25	10 43	5 18	24 36	1 31	13 6	1 28	12 16	1 18	11 12	1 14	21 10	0 17	8 29	0 36	16 13	1 44	7 9	12 52
F 8	22 17	15 34	5 12	24 33	1 36	12 38	1 26	12 27	1 18	11 15	1 14	21 8	0 17	8 30	0 36	16 13	1 44	7 9	12 51
S 9	22 9	19 36	4 50	24 28	1 40	12 10	1 23	12 39	1 18	11 17	1 14	21 7	0 17	8 30	0 36	16 14	1 44	7 9	12 51
S 10	22 0	22 40	4 15	24 21	1 44	11 42	1 20	12 50	1 17	11 19	1 14	21 6	0 17	8 30	0 36	16 14	1 44	7 9	12 51
M11	21 51	24 38	3 29	24 13	1 47	11 14	1 17	13 1	1 17	11 21	1 15	21 4	0 17	8 31	0 36	16 14	1 45	7 9	12 51
T 12	21 41	25 26	2 34	24 4	1 50	10 45	1 14	13 12	1 17	11 23	1 15	21 3	0 17	8 31	0 36	16 15	1 45	7 9	12 50
W13	21 31	25 3	1 34	23 52	1 53	10 17	1 11	13 23	1 17	11 25	1 15	21 2	0 17	8 31	0 36	16 15	1 45	7 9	12 50
T 14	21 21	23 31	0 29	23 40	1 56	9 48	1 7	13 34	1 16	11 27	1 15	21 1	0 17	8 32	0 36	16 15	1 45	7 9	12 50
F 15	21 10	20 58	0n36	23 26	1 58	9 18	1 4	13 45	1 16	11 29	1 15	20 59	0 17	8 32	0 37	16 16	1 45	7 10	12 50
S 16	20 59	17 32	1 40	23 10	2 0	8 49	1 0	13 56	1 16	11 31	1 16	20 58	0 17	8 32	0 37	16 16	1 45	7 10	12 49
S 17	20 47	13 25	2 40	22 53	2 2	8 19	0 57	14 7	1 16	11 33	1 16	20 57	0 17	8 32	0 37	16 16	1 45	7 10	12 49
M18	20 35	8 46	3 33	22 34	2 3	7 49	0 53	14 17	1 16	11 35	1 16	20 55	0 17	8 32	0 37	16 16	1 45	7 10	12 49
T 19	20 23	3 46	4 17	22 13	2 4	7 19	0 49	14 28	1 15	11 36	1 16	20 54	0 17	8 33	0 37	16 17	1 45	7 10	12 49
W20	20 10	1n26	4 50	21 51	2 5	6 49	0 45	14 38	1 15	11 38	1 16	20 52	0 18	8 33	0 37	16 17	1 45	7 10	12 48
T 21	19 57	6 39	5 10	21 27	2 5	6 19	0 41	14 48	1 15	11 39	1 17	20 51	0 18	8 33	0 37	16 17	1 45	7 11	12 48
F 22	19 43	11 43	5 16	21 2	2 4	5 49	0 37	14 59	1 14	11 41	1 17	20 50	0 18	8 33	0 37	16 17	1 45	7 11	12 48
S 23	19 29	16 23	5 7	20 35	2 3	5 18	0 33	15 9	1 14	11 42	1 17	20 48	0 18	8 33	0 37	16 17	1 45	7 11	12 47
S 24	19 15	20 25	4 41	20 6	2 2	4 47	0 29	15 19	1 14	11 44	1 17	20 47	0 18	8 33	0 37	16 18	1 45	7 11	12 47
M25	19 0	23 28	3 58	19 36	2 0	4 17	0 24	15 28	1 14	11 45	1 17	20 46	0 18	8 33	0 37	16 18	1 45	7 11	12 47
T 26	18 45	25 10	3 0	19 5	1 58	3 46	0 20	15 38	1 13	11 46	1 18	20 44	0 18	8 33	0 37	16 18	1 45	7 12	12 47
W27	18 30	25 15	1 49	18 31	1 55	3 15	0 15	15 48	1 13	11 48	1 18	20 43	0 18	8 33	0 37	16 18	1 45	7 12	12 46
T 28	18 14	23 32	0 29	17 57	1 51	2 44	0 11	15 57	1 13	11 49	1 18	20 42	0 18	8 33	0 37	16 18	1 45	7 12	12 46
F 29	17 58	20 7	0s54	17 20	1 47	2 13	0 6	16 7	1 12	11 50	1 18	20 40	0 18	8 33	0 37	16 18	1 45	7 12	12 46
S 30	17 42	15 19	2 14	16 42	1 42	1 43	0 1	16 16	1 12	11 51	1 18	20 39	0 18	8 33	0 37	16 19	1 46	7 12	12 45
S 31	17s25	9n34	3s24	16s 3	1s37	1s12	0n 4	16s25	1n12	11s52	1n19	20s37	0s18	8s33	0n37	16s19	1n46	7n13	12s45

ASTRODIENST EPHEMERIS for the year 1638

geocentric

FEBRUARY 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 44 47	12 ²⁸ 18'37	11 ¹⁷ 18	22 ²⁸ 47	27 ¹⁵ 58	19 ¹⁴ 46	4 ¹⁴ 43	29 ²³ 29	23 ²⁰ R26	20 ¹⁰ M53	27 ²⁰ R32	15 ²⁰ R59	14 ²⁸ 51	27 ²⁸ 8	9 ²⁸ 2	M 1
T 2	8 48 43	13 ²⁰ 19'23	25 ²⁰ 53	24 ²⁰ 34	29 ²⁰ 4	20 ²⁰ 19	4 ²⁰ 46	29 ²⁰ 36	23 ²⁰ 26	20 ²⁰ 54	27 ²⁰ 32	15 ²⁰ 55	14 ²⁰ 48	27 ²⁰ 15	9 ²⁰ 3	T 2
W 3	8 52 40	14 ²⁰ 20'08	10 ²⁰ 2	26 ²⁰ 20	0 ²⁰ Y 9	20 ²⁰ 51	4 ²⁰ 49	29 ²⁰ 43	23 ²⁰ 25	20 ²⁰ 55	27 ²⁰ 32	15 ²⁰ 51	14 ²⁰ 45	27 ²⁰ 21	9 ²⁰ 4	W 3
T 4	8 56 36	15 ²⁰ 20'52	23 ²⁰ 42	28 ²⁰ 5	1 ²⁰ 15	21 ²⁰ 23	4 ²⁰ 52	29 ²⁰ 50	23 ²⁰ 25	20 ²⁰ 55	27 ²⁰ 32	15 ²⁰ 48	14 ²⁰ 41	27 ²⁰ 28	9 ²⁰ 5	T 4
F 5	9 0 33	16 ²⁰ 21'34	6 ²⁰ M53	29 ²⁰ 50	2 ²⁰ 20	21 ²⁰ 55	4 ²⁰ 55	29 ²⁰ 57	23 ²⁰ 25	20 ²⁰ 56	27 ²⁰ 32	15 ²⁰ 47	14 ²⁰ 38	27 ²⁰ 35	9 ²⁰ 6	F 5
S 6	9 4 30	17 ²⁰ 22'16	19 ²⁰ 40	1 ²⁰ X32	3 ²⁰ 25	22 ²⁰ 27	4 ²⁰ 57	0 ²⁰ 22	23 ²⁰ 24	20 ²⁰ 56	27 ²⁰ 32	15 ²⁰ D46	14 ²⁰ 35	27 ²⁰ 41	9 ²⁰ 8	S 6
S 7	9 8 26	18 ²⁰ 22'57	2 ²⁰ X 4	3 ²⁰ 13	4 ²⁰ 30	22 ²⁰ 59	5 ²⁰ 0	0 ²⁰ 11	23 ²⁰ 23	20 ²⁰ 57	27 ²⁰ 31	15 ²⁰ 47	14 ²⁰ 32	27 ²⁰ 48	9 ²⁰ 9	S 7
M 8	9 12 23	19 ²⁰ 23'36	14 ²⁰ 12	4 ²⁰ 52	5 ²⁰ 34	23 ²⁰ 30	5 ²⁰ 2	0 ²⁰ 18	23 ²⁰ 23	20 ²⁰ 57	27 ²⁰ 31	15 ²⁰ 49	14 ²⁰ 29	27 ²⁰ 55	9 ²⁰ 10	M 8
T 9	9 16 19	20 ²⁰ 24'14	26 ²⁰ 9	6 ²⁰ 28	6 ²⁰ 38	24 ²⁰ 2	5 ²⁰ 4	0 ²⁰ 25	23 ²⁰ 22	20 ²⁰ 58	27 ²⁰ 31	15 ²⁰ 51	14 ²⁰ 26	28 ²⁰ 1	9 ²⁰ 12	T 9
W10	9 20 16	21 ²⁰ 24'52	7 ²⁰ 58	8 ²⁰ 0	7 ²⁰ 42	24 ²⁰ 33	5 ²⁰ 5	0 ²⁰ 31	23 ²⁰ 21	20 ²⁰ 58	27 ²⁰ D31	15 ²⁰ 52	14 ²⁰ 22	28 ²⁰ 8	9 ²⁰ 13	W10
T 11	9 24 12	22 ²⁰ 25'27	19 ²⁰ 44	9 ²⁰ 29	8 ²⁰ 45	25 ²⁰ 4	5 ²⁰ 7	0 ²⁰ 38	23 ²⁰ 21	20 ²⁰ 58	27 ²⁰ 31	15 ²⁰ R52	14 ²⁰ 19	28 ²⁰ 15	9 ²⁰ 15	T 11
F 12	9 28 9	23 ²⁰ 26'01	1 ²⁰ 21	10 ²⁰ 53	9 ²⁰ 48	25 ²⁰ 36	5 ²⁰ 8	0 ²⁰ 45	23 ²⁰ 20	20 ²⁰ 59	27 ²⁰ 31	15 ²⁰ 51	14 ²⁰ 16	28 ²⁰ 21	9 ²⁰ 16	F 12
S 13	9 32 5	24 ²⁰ 26'34	13 ²⁰ 20	12 ²⁰ 12	10 ²⁰ 51	26 ²⁰ 7	5 ²⁰ 9	0 ²⁰ 52	23 ²⁰ 19	20 ²⁰ 59	27 ²⁰ 32	15 ²⁰ 47	14 ²⁰ 13	28 ²⁰ 28	9 ²⁰ 18	S 13
S 14	9 36 2	25 ²⁰ 27'05	25 ²⁰ 16	13 ²⁰ 26	11 ²⁰ 53	26 ²⁰ 38	5 ²⁰ 10	0 ²⁰ 58	23 ²⁰ 18	20 ²⁰ 59	27 ²⁰ 32	15 ²⁰ 42	14 ²⁰ 10	28 ²⁰ 34	9 ²⁰ 20	S 14
M15	9 39 59	26 ²⁰ 27'35	7 ²⁰ X19	14 ²⁰ 32	12 ²⁰ 55	27 ²⁰ 8	5 ²⁰ 11	1 ²⁰ 5	23 ²⁰ 17	20 ²⁰ 59	27 ²⁰ 32	15 ²⁰ 35	14 ²⁰ 6	28 ²⁰ 41	9 ²⁰ 21	M15
T 16	9 43 55	27 ²⁰ 28'03	19 ²⁰ 30	15 ²⁰ 32	13 ²⁰ 57	27 ²⁰ 39	5 ²⁰ 12	1 ²⁰ 12	23 ²⁰ 16	21 ²⁰ 0	27 ²⁰ 32	15 ²⁰ 27	14 ²⁰ 3	28 ²⁰ 48	9 ²⁰ 23	T 16
W17	9 47 52	28 ²⁰ 28'29	1 ²⁰ Y52	16 ²⁰ 23	14 ²⁰ 58	28 ²⁰ 9	5 ²⁰ 12	1 ²⁰ 18	23 ²⁰ 15	21 ²⁰ 0	27 ²⁰ 32	15 ²⁰ 19	14 ²⁰ 0	28 ²⁰ 54	9 ²⁰ 25	W17
T 18	9 51 48	29 ²⁰ 28'53	14 ²⁰ 24	17 ²⁰ 6	15 ²⁰ 59	28 ²⁰ 40	5 ²⁰ 12	1 ²⁰ 25	23 ²⁰ 14	21 ²⁰ 0	27 ²⁰ 32	15 ²⁰ 11	13 ²⁰ 57	29 ²⁰ 1	9 ²⁰ 27	T 18
F 19	9 55 45	0 ²⁰ X29'16	27 ²⁰ 9	17 ²⁰ 40	16 ²⁰ 59	29 ²⁰ 10	5 ²⁰ R12	1 ²⁰ 32	23 ²⁰ 13	21 ²⁰ 0	27 ²⁰ 32	15 ²⁰ 5	13 ²⁰ 54	29 ²⁰ 8	9 ²⁰ 29	F 19
S 20	9 59 41	1 ²⁰ 29'36	10 ²⁰ X 9	18 ²⁰ 5	17 ²⁰ 59	29 ²⁰ 40	5 ²⁰ 12	1 ²⁰ 38	23 ²⁰ 11	21 ²⁰ 0	27 ²⁰ 32	15 ²⁰ 1	13 ²⁰ 51	29 ²⁰ 14	9 ²⁰ 31	S 20
S 21	10 3 38	2 ²⁰ 29'55	23 ²⁰ 24	18 ²⁰ 21	18 ²⁰ 59	0 ²⁰ X 9	5 ²⁰ 12	1 ²⁰ 45	23 ²⁰ 10	21 ²⁰ R 0	27 ²⁰ 33	14 ²⁰ 58	13 ²⁰ 47	29 ²⁰ 21	9 ²⁰ 33	S 21
M22	10 7 34	3 ²⁰ 30'11	6 ²⁰ II57	18 ²⁰ R26	19 ²⁰ 58	0 ²⁰ 39	5 ²⁰ 11	1 ²⁰ 51	23 ²⁰ 9	21 ²⁰ 0	27 ²⁰ 33	14 ²⁰ D58	13 ²⁰ 44	29 ²⁰ 28	9 ²⁰ 35	M22
T 23	10 11 31	4 ²⁰ 30'26	20 ²⁰ 50	18 ²⁰ 22	20 ²⁰ 56	1 ²⁰ 9	5 ²⁰ 11	1 ²⁰ 57	23 ²⁰ 8	21 ²⁰ 0	27 ²⁰ 33	14 ²⁰ 59	13 ²⁰ 41	29 ²⁰ 34	9 ²⁰ 38	T 23
W24	10 15 28	5 ²⁰ 30'38	5 ²⁰ 3	18 ²⁰ 9	21 ²⁰ 54	1 ²⁰ 38	5 ²⁰ 10	2 ²⁰ 4	23 ²⁰ 6	21 ²⁰ 0	27 ²⁰ 34	15 ²⁰ 0	13 ²⁰ 38	29 ²⁰ 41	9 ²⁰ 40	W24
T 25	10 19 24	6 ²⁰ 30'49	19 ²⁰ 35	17 ²⁰ 46	22 ²⁰ 52	2 ²⁰ 7	5 ²⁰ 9	2 ²⁰ 10	23 ²⁰ 5	21 ²⁰ 0	27 ²⁰ 34	15 ²⁰ R 0	13 ²⁰ 35	29 ²⁰ 48	9 ²⁰ 42	T 25
F 26	10 23 21	7 ²⁰ 30'57	4 ²⁰ Q23	17 ²⁰ 15	23 ²⁰ 49	2 ²⁰ 36	5 ²⁰ 7	2 ²⁰ 16	23 ²⁰ 3	21 ²⁰ 0	27 ²⁰ 34	14 ²⁰ 59	13 ²⁰ 32	29 ²⁰ 54	9 ²⁰ 45	F 26
S 27	10 27 17	8 ²⁰ 31'03	19 ²⁰ 20	16 ²⁰ 36	24 ²⁰ 45	3 ²⁰ 5	5 ²⁰ 6	2 ²⁰ 23	23 ²⁰ 2	20 ²⁰ 59	27 ²⁰ 35	14 ²⁰ 55	13 ²⁰ 28	0 ²⁰ 22	9 ²⁰ 47	S 27
S 28	10 31 14	9 ²⁰ X31'07	4 ²⁰ Q20	15 ²⁰ X50	25 ²⁰ Y41	3 ²⁰ X34	5 ²⁰ M 4	2 ²⁰ 22	23 ²⁰ 0	20 ²⁰ M59	27 ²⁰ 35	14 ²⁰ X49	13 ²⁰ X25	0 ²⁰ 22	9 ²⁰ X50	S 28

Day	☉	☾	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
M 1	17s 8	3n21	4s19	15s23	1s31	0s41	0n 9	16s34	1n11	11s53	1n19	20s36	0s18	8s33	0n37	16s19	1n46	7n13	12s45	22s32	22s39	19s42	12n43	1s56
T 2	16 51	2s53	4 55	14 41	1 24	0 10	0 14	16 43	1 11	11 54	1 19	20 35	0 18	8 33	0 37	16 19	1 46	7 13	12 45	22 32	22 40	19 40	12 43	1 56
W 3	16 34	8 46	5 12	13 58	1 17	0n21	0 19	16 52	1 10	11 55	1 19	20 33	0 19	8 33	0 37	16 19	1 46	7 13	12 44	22 33	22 40	19 38	12 43	1 56
T 4	16 16	14 2	5 11	13 14	1 9	0 52	0 24	17 1	1 10	11 55	1 19	20 32	0 19	8 32	0 37	16 19	1 46	7 14	12 44	22 33	22 41	19 35	12 44	1 55
F 5	15 58	18 27	4 53	12 30	1 0	1 23	0 29	17 10	1 10	11 56	1 20	20 30	0 19	8 32	0 37	16 19	1 46	7 14	12 44	22 33	22 41	19 33	12 44	1 55
S 6	15 40	21 52	4 21	11 44	0 51	1 54	0 35	17 18	1 9	11 57	1 20	20 29	0 19	8 32	0 37	16 19	1 46	7 14	12 43	22 33	22 41	19 31	12 45	1 55
S 7	15 21	24 10	3 37	10 58	0 40	2 24	0 40	17 27	1 9	11 57	1 20	20 28	0 19	8 32	0 37	16 19	1 46	7 14	12 43	22 33	22 42	19 29	12 45	1 55
M 8	15 2	25 17	2 45	10 12	0 29	2 55	0 46	17 35	1 8	11 58	1 20	20 26	0 19	8 31	0 37	16 20	1 46	7 15	12 43	22 33	22 42	19 27	12 45	1 55
T 9	14 43	25 12	1 46	9 26	0 17	3 25	0 51	17 43	1 8	11 58	1 20	20 25	0 19	8 31	0 37	16 20	1 46	7 15	12 42	22 33	22 42	19 25	12 46	1 55
W10	14 24	23 58	0 43	8 40	0 5	3 56	0 57	17 51	1 7	11 59	1 21	20 23	0 19	8 31	0 37	16 20	1 46	7 15	12 42	22 33	22 43	19 22	12 46	1 55
T 11	14 4	21 41	0n21	7 54	0n 8	4 26	1 3	17 59	1 7	11 59	1 21	20 22	0 19	8 31	0 37	16 20	1 46	7 16	12 42	22 32	22 43	19 20	12 47	1 55
F 12	13 44	18 30	1 24	7 10	0 22	4 56	1 9	18 7	1 6	11 59	1 21	20 21	0 19	8 30	0 37	16 20	1 46	7 16	12 42	22 33	22 43	19 18	12 47	1 55
S 13	13 24	14 33	2 24	6 27	0 36	5 26	1 14	18 15	1 6	11 59	1 21	20 19	0 19	8 30	0 37	16 20	1 46	7 16	12 41	22 33	22 44	19 16	12 48	1 55
S 14	13 4	10 1	3 18	5 45	0 50	5 56	1 20	18 23	1 5	11 59	1 22	20 18	0 19	8 30	0 37	16 20	1 46	7 17	12 41	22 34	22 44	19 14	12 49	1 55
M15	12 43	5 5	4 3	5 6	1 5	6 26	1 26	18 30	1 5	12 0	1 22	20 16	0 20	8 29	0 37	16 20	1 46	7 17	12 41	22 34	22 44	19 12	12 49	1 55
T 16	12 23	0n 6	4 38	4 29	1 21	6 56	1 32	18 38	1 4	12 0	1 22	20 15	0 20	8 29	0 37	16 20	1 47	7 17	12 40	22 35	22 45	19 9	12 50	1 55
W17	12 2	5 20	5 0	3 55	1 36	7 25	1 38	18 45	1 4	12 0	1 22	20 14	0 20	8 28	0 37	16 20	1 47	7 18	12 40	22 36	22 45	19 7	12 50	1 55
T 18	11 41	10 26	5 9	3 24	1 51	7 54	1 44	18 52	1 3	11 59	1 22	20 12	0 20	8 28	0 37	16 20	1 47	7 18	12 40	22 37	22 45	19 5	12 51	1 55
F 19	11 19	15 10	5 2	2 57	2 6	8 23	1 51	19 0	1 2	11 59	1 23	20 11	0 20	8 27	0 37	16 20	1 47	7 18	12 39	22 38	22 46	19 3	12 52	1 55
S 20	10 58	19 18	4 40	2 33	2 21	8 52	1 57	19 7	1 2	11 59	1 23	20 10	0 20	8 27	0 37	16 20	1 47	7 19	12 39	22 38	22 46	19 1	12 52	1 55
S 21	10 36	22 34	4 2	2 14	2 35	9 21	2 3	19 14	1 1	11 59	1 23	20 8	0 20	8 27	0 37	16 20	1 47	7 19	12 39	22 39	22 46	18 58	12 53	1 55
M22	10 15	24 39	3 11	2 0	2 48	9 49	2 9	19 20	1 1	11 58	1 23	20 7	0 20	8 26	0 37	16 19	1 47	7 19	12 39	22 39	22 47	18 56	12 54	1 55
T 23	9 53	25 17	2 7	1 50	3 1	10 17	2 16	19 27	1 0	11 58	1 23	20 6	0 20	8 25	0 38	16 19	1 47	7 20	12 38	22 39	22 47	18 54	12 54	1 55
W24	9 31	24 17	0 53	1 45	3 12	10 45	2 22	19 34	0 59	11 57	1 24	20 4	0 20	8 25	0 38	16 19	1 47	7 20	12 38	22 38	22 47	18 52	12 55	1 55
T 25	9 8	21 19	0s25	1 45	3 21	11 12	2 28	19 40	0 59	11 57	1 24	20 3	0 20	8 24	0 38	16 19	1 47	7 20	12 38	22 38	22 48	18 50	12 56	1 55
F 26	8 46	17 33	1 42	1 50	3 29	11 39	2 35	19 47	0 58	11 56	1 24	20 2	0 21	8 24	0 38	16 19	1 47	7 21	12 37	22 39	22 48	18 47	12 57	1 55
S 27	8 24	12 18	2 54	1 59	3 35	12 6	2 41	19 53	0 57	11 56	1 24	20 0	0 21	8 23	0 38	16 19	1 47	7 21	12 37	22 39	22 48	18 45	12 57	1 55
S 28	8s 1	6n19	3s53	2s13	3n40	12n33	2n48	19s59	0n56	11s55	1n24	19s59	0s21	8s23	0n38	16s19	1n47	7n21	12s37	22s40	22s49	18s43	12n58	1s55

ASTRODIENST EPHEMERIS for the year 1638
geocentric

MARCH 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
M 1	10 35 10	10 ^h 31'09"	19 ^m 13	14°R59	26 ^Y 37	4 [♂] 2	5°R 2	2 [♂] 35	22°R58	20°R59	27 [♂] 35	14°R40	13 [♂] 22	0 [♂] 14	9 [♂] 52	M 1
T 2	10 39 7	11°31'10"	3 [♂] 49	14 [♂] 4	27°31	4°30	5 [♂] 0	2°41	22 [♂] 57	20 [♂] 59	27°36	14 [♂] 31	13°19	0°21	9°55	T 2
W 3	10 43 3	12°31'08"	18° 3	13° 6	28°25	4°58	4°58	2°47	22°55	20°58	27°36	14°22	13°16	0°28	9°57	W 3
T 4	10 47 0	13°31'05"	1 [♂] 50	12° 6	29°18	5°26	4°56	2°53	22°53	20°58	27°37	14°14	13°12	0°34	10° 0	T 4
F 5	10 50 57	14°31'00"	15° 9	11° 6	0 [♂] 11	5°54	4°53	2°59	22°51	20°58	27°37	14° 8	13° 9	0°41	10° 3	F 5
S 6	10 54 53	15°30'54"	28° 1	10° 7	1° 3	6°21	4°51	3° 5	22°50	20°57	27°38	14° 4	13° 6	0°47	10° 6	S 6
S 7	10 58 50	16°30'46"	10 [♂] 29	9°11	1°54	6°49	4°48	3°11	22°48	20°57	27°38	14° 2	13° 3	0°54	10° 8	S 7
M 8	11 2 46	17°30'36"	22°39	8°18	2°45	7°16	4°44	3°16	22°46	20°56	27°39	14°D 2	13° 0	1° 1	10°11	M 8
T 9	11 6 43	18°30'24"	4 [♂] 35	7°30	3°34	7°43	4°41	3°22	22°44	20°56	27°39	14° 3	12°57	1° 7	10°14	T 9
W10	11 10 39	19°30'11"	16°24	6°46	4°23	8° 9	4°38	3°28	22°42	20°55	27°40	14°R 3	12°53	1°14	10°17	W10
T 11	11 14 36	20°29'56"	28°10	6° 9	5°11	8°35	4°34	3°33	22°40	20°55	27°40	14° 2	12°50	1°21	10°20	T 11
F 12	11 18 32	21°29'39"	9 [♂] 58	5°37	5°59	9° 2	4°30	3°39	22°38	20°54	27°41	13°59	12°47	1°27	10°23	F 12
S 13	11 22 29	22°29'20"	21°53	5°11	6°45	9°27	4°26	3°45	22°36	20°53	27°42	13°53	12°44	1°34	10°26	S 13
S 14	11 26 26	23°29'00"	3 [♂] 56	4°51	7°30	9°53	4°22	3°50	22°34	20°53	27°42	13°44	12°41	1°41	10°29	S 14
M15	11 30 22	24°28'37"	16°10	4°38	8°15	10°18	4°18	3°55	22°32	20°52	27°43	13°33	12°38	1°47	10°33	M15
T 16	11 34 19	25°28'12"	28°36	4°31	8°58	10°43	4°13	4° 1	22°29	20°51	27°44	13°20	12°34	1°54	10°36	T 16
W17	11 38 15	26°27'45"	11 ^Y 15	4°D30	9°40	11° 8	4° 9	4° 6	22°27	20°51	27°44	13° 7	12°31	2° 1	10°39	W17
T 18	11 42 12	27°27'17"	24° 6	4°34	10°21	11°33	4° 4	4°11	22°25	20°50	27°45	12°55	12°28	2° 7	10°42	T 18
F 19	11 46 8	28°26'46"	7 [♂] 9	4°45	11° 1	11°57	3°59	4°16	22°23	20°49	27°46	12°45	12°25	2°14	10°46	F 19
S 20	11 50 5	29°26'13"	20°23	5° 0	11°40	12°21	3°54	4°21	22°20	20°48	27°47	12°37	12°22	2°21	10°49	S 20
S 21	11 54 1	0 ^Y 25'37"	3 [♂] 49	5°21	12°18	12°45	3°49	4°26	22°18	20°47	27°48	12°32	12°18	2°27	10°53	S 21
M22	11 57 58	1°24'59"	17°26	5°46	12°54	13° 8	3°43	4°31	22°16	20°46	27°48	12°29	12°15	2°34	10°56	M22
T 23	12 1 54	2°24'19"	1 [♂] 15	6°16	13°29	13°31	3°38	4°36	22°14	20°45	27°49	12°D29	12°12	2°41	10°59	T 23
W24	12 5 51	3°23'37"	15°17	6°51	14° 3	13°54	3°32	4°41	22°11	20°44	27°50	12°R29	12° 9	2°47	11° 3	W24
T 25	12 9 48	4°22'52"	29°32	7°29	14°35	14°16	3°27	4°46	22° 9	20°43	27°51	12°28	12° 6	2°54	11° 7	T 25
F 26	12 13 44	5°22'05"	13 [♂] 57	8°11	15° 6	14°38	3°21	4°50	22° 6	20°42	27°52	12°26	12° 3	3° 1	11°10	F 26
S 27	12 17 41	6°21'15"	28°30	8°57	15°35	15° 0	3°15	4°55	22° 4	20°41	27°53	12°20	11°59	3° 7	11°14	S 27
S 28	12 21 37	7°20'24"	13 [♂] 6	9°46	16° 2	15°21	3° 8	4°59	22° 2	20°40	27°54	12°12	11°56	3°14	11°17	S 28
M29	12 25 34	8°19'29"	27°38	10°39	16°28	15°42	3° 2	5° 4	21°59	20°39	27°54	12° 2	11°53	3°21	11°21	M29
T 30	12 29 30	9°18'33"	11 [♂] 59	11°34	16°52	16° 3	2°56	5° 8	21°57	20°38	27°55	11°50	11°50	3°27	11°25	T 30
W31	12 33 27	10 ^Y 17'35"	26 [♂] 3	12 [♂] 33	17 [♂] 14	16 [♂] 23	2 [♂] 49	5 [♂] 12	21 [♂] 54	20 [♂] 37	27 [♂] 56	11 [♂] 38	11 [♂] 47	3 [♂] 34	11 [♂] 29	W31

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	
M 1	7s38	0n 3 4s36	2s31 3n42	12n59 2n54	20s 5 0n56	11s54 1n25	19s58 0s21	8s22 0n38	16s19 1n47	7n22 12s37	22s41 22s49	18s41 12n59	1s55		
T 2	7 15 6s 7	5 0 2 52	3 42 13 25	3 1 20 11	0 55 11 53	1 25 19 56	0 21 8 21	0 38 16 19	1 47 7 22	12 36 22 42	22 49 18 38	13 0 1 55			
W 3	6 53 11 47	5 5 3 16	3 40 13 51	3 7 20 17	0 54 11 52	1 25 19 55	0 21 8 21	0 38 16 19	1 47 7 22	12 36 22 43	22 49 18 36	13 1 1 55			
T 4	6 30 16 41	4 51 3 43	3 36 14 16	3 14 20 23	0 53 11 51	1 25 19 54	0 21 8 20	0 38 16 18	1 47 7 23	12 36 22 44	22 50 18 34	13 2 1 55			
F 5	6 6 20 35	4 22 4 11	3 30 14 41	3 20 20 28	0 52 11 50	1 25 19 52	0 21 8 19	0 38 16 18	1 47 7 23	12 35 22 44	22 50 18 32	13 2 1 55			
S 6	5 43 23 20	3 41 4 40	3 22 15 6	3 27 20 34	0 52 11 49	1 25 19 51	0 21 8 19	0 38 16 18	1 48 7 24	12 35 22 45	22 50 18 29	13 3 1 55			
S 7	5 20 24 52	2 50 5 10	3 13 15 30	3 33 20 39	0 51 11 48	1 26 19 50	0 21 8 18	0 38 16 18	1 48 7 24	12 35 22 45	22 51 18 27	13 4 1 55			
M 8	4 57 25 9	1 52 5 40	3 2 15 53	3 40 20 45	0 50 11 47	1 26 19 49	0 21 8 17	0 38 16 18	1 48 7 24	12 35 22 45	22 51 18 25	13 5 1 55			
T 9	4 33 24 15	0 50 6 9	2 50 16 17	3 47 20 50	0 49 11 46	1 26 19 47	0 22 8 16	0 38 16 18	1 48 7 25	12 34 22 45	22 51 18 23	13 6 1 55			
W10	4 10 22 16	0n13 6 37	2 37 16 40	3 53 20 55	0 48 11 44	1 26 19 46	0 22 8 16	0 38 16 17	1 48 7 25	12 34 22 45	22 52 18 20	13 7 1 55			
T 11	3 46 19 21	1 15 7 4	2 23 17 2	4 0 21 0	0 47 11 43	1 26 19 45	0 22 8 15	0 38 16 17	1 48 7 26	12 34 22 45	22 52 18 18	13 8 1 55			
F 12	3 23 15 38	2 14 7 29	2 9 17 24	4 6 21 5	0 46 11 41	1 27 19 44	0 22 8 14	0 38 16 17	1 48 7 26	12 33 22 45	22 52 18 16	13 9 1 55			
S 13	2 59 11 18	3 7 7 52	1 54 17 46	4 13 21 10	0 45 11 40	1 27 19 43	0 22 8 13	0 38 16 17	1 48 7 26	12 33 22 46	22 53 18 14	13 10 1 55			
S 14	2 36 6 28	3 53 8 13	1 39 18 7	4 19 21 15	0 44 11 38	1 27 19 41	0 22 8 13	0 38 16 16	1 48 7 27	12 33 22 47	22 53 18 11	13 11 1 55			
M15	2 12 1 21	4 28 8 31	1 24 18 28	4 25 21 20	0 43 11 37	1 27 19 40	0 22 8 12	0 38 16 16	1 48 7 27	12 33 22 48	22 53 18 9	13 12 1 55			
T 16	1 48 3n54	4 52 8 48	1 9 18 48	4 32 21 24	0 42 11 35	1 27 19 39	0 22 8 11	0 38 16 16	1 48 7 28	12 32 22 49	22 53 18 7	13 13 1 55			
W17	1 25 9 4	5 1 9 2	0 55 19 8	4 38 21 29	0 41 11 33	1 27 19 38	0 22 8 10	0 38 16 16	1 48 7 28	12 32 22 50	22 54 18 4	13 14 1 55			
T 18	1 1 13 57	4 56 9 14	0 40 19 27	4 44 21 33	0 40 11 32	1 27 19 37	0 22 8 9	0 38 16 16	1 48 7 28	12 32 22 52	22 54 18 2	13 15 1 55			
F 19	0 37 18 15	4 35 9 23	0 26 19 45	4 50 21 38	0 39 11 30	1 28 19 36	0 23 8 9	0 38 16 15	1 48 7 29	12 32 22 53	22 54 18 0	13 16 1 55			
S 20	0 13 21 43	3 59 9 30	0 12 20 4	4 56 21 42	0 37 11 28	1 28 19 35	0 23 8 8	0 38 16 15	1 48 7 29	12 31 22 53	22 55 17 58	13 17 1 55			
S 21	0n10 24 3	3 9 9 35	0s 1 20 21	5 2 21 46	0 36 11 26	1 28 19 33	0 23 8 7	0 38 16 15	1 48 7 30	12 31 22 54	22 55 17 55	13 18 1 55			
M22	0 34 25 1	2 9 9 38	0 14 20 38	5 8 21 51	0 35 11 24	1 28 19 32	0 23 8 6	0 38 16 14	1 48 7 30	12 31 22 54	22 55 17 53	13 19 1 55			
T 23	0 58 24 28	0 59 9 38	0 26 20 54	5 14 21 55	0 34 11 22	1 28 19 31	0 23 8 5	0 38 16 14	1 48 7 30	12 31 22 54	22 56 17 51	13 20 1 55			
W24	1 21 22 22	0s15 9 36	0 38 21 10	5 20 21 59	0 32 11 20	1 28 19 30	0 23 8 4	0 38 16 14	1 48 7 31	12 30 22 54	22 56 17 48	13 21 1 55			
T 25	1 45 18 50	1 29 9 32	0 49 21 25	5 25 22 3	0 31 11 18	1 28 19 29	0 23 8 3	0 38 16 14	1 48 7 31	12 30 22 54	22 56 17 46	13 22 1 55			
F 26	2 8 14 9	2 38 9 26	1 0 21 40	5 31 22 7	0 30 11 16	1 28 19 28	0 23 8 2	0 38 16 13	1 49 7 32	12 30 22 54	22 56 17 44	13 23 1 55			
S 27	2 32 8 37	3 38 9 19	1 10 21 53	5 36 22 10	0 28 11 14	1 29 19 27	0 23 8 1	0 38 16 13	1 49 7 32	12 30 22 55	22 57 17 41	13 24 1 55			
S 28	2 55 2 36	4 23 9 9	1 20 22 7	5 41 22 14	0 27 11 12	1 29 19 26	0 24 8 1	0 38 16 13	1 49 7 33	12 29 22 56	22 57 17 39	13 26 1 55			
M29	3 18 3s30	4 51 8 57	1 29 22 19	5 46 22 18	0 25 11 10	1 29 19 25	0 24 8 0	0 38 16 12	1 49 7 33	12 29 22 57	22 57 17 37	13 27 1 55			
T 30	3 42 9 21	5 0 8 44	1 37 22 31	5 51 22 21	0 24 11 7	1 29 19 24	0 24 7 59	0 38 16 12	1 49 7 33	12 29 22 58	22 58 17 34	13 28 1 55			
W31	4n 5 14s35	4s51 8s29	1s45 22n42	5n56 22s25	0n22 11s 5	1n29 19s23	0s24 7s58	0n38 16s12	1n49 7n34	12s29 22s59	22s58 17s32	13n29 1s55			

Julian Day Number = 2319386.5, Delta T = 51.72 sec
Ecliptic obliquity = 23°29'14", Nutation = 0°00'1

ASTRODIENST EPHEMERIS for the year 1638

geocentric

APRIL 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 37 23	11°16'35	9°44	13°34	17°35	16°43	2°R43	5°17	21°R52	20°R36	27°R57	11°R27	11°R43	3°40	11°R32	T 1
F 2	12 41 20	12°15'33	23° 1	14°38	17°53	17° 3	2°M36	5°21	21°R49	20°M35	27°58	11°R18	11°40	3°47	11°36	F 2
S 3	12 45 17	13°14'29	5°54	15°45	18°10	17°22	2°29	5°25	21°47	20°34	27°59	11°12	11°37	3°54	11°40	S 3
S 4	12 49 13	14°13'23	18°25	16°53	18°24	17°41	2°22	5°29	21°44	20°32	28° 0	11° 8	11°34	4° 0	11°44	S 4
M 5	12 53 10	15°12'16	0°37	18° 5	18°37	17°59	2°15	5°33	21°42	20°31	28° 1	11° 7	11°31	4° 7	11°48	M 5
T 6	12 57 6	16°11'07	12°36	19°18	18°47	18°17	2° 8	5°36	21°39	20°30	28° 2	11° 7	11°28	4°14	11°51	T 6
W 7	13 1 3	17° 9'56	24°26	20°34	18°55	18°34	2° 1	5°40	21°36	20°29	28° 3	11° 6	11°24	4°20	11°55	W 7
T 8	13 4 59	18° 8'43	6°14	21°51	19° 1	18°51	1°54	5°44	21°34	20°27	28° 5	11° 5	11°21	4°27	11°59	T 8
F 9	13 8 56	19° 7'29	18° 5	23°11	19° 4	19° 8	1°47	5°47	21°31	20°26	28° 6	11° 2	11°18	4°34	12° 3	F 9
S 10	13 12 52	20° 6'12	0°R 3	24°32	19°R 5	19°24	1°40	5°51	21°29	20°25	28° 7	10°57	11°15	4°40	12° 7	S 10
S 11	13 16 49	21° 4'54	12°13	25°56	19° 4	19°39	1°32	5°54	21°26	20°23	28° 8	10°49	11°12	4°47	12°11	S 11
M12	13 20 46	22° 3'34	24°37	27°21	19° 1	19°55	1°25	5°58	21°24	20°22	28° 9	10°38	11° 9	4°54	12°15	M12
T 13	13 24 42	23° 2'13	7°Y18	28°49	18°54	20° 9	1°17	6° 1	21°21	20°21	28°10	10°26	11° 5	5° 0	12°19	T 13
W14	13 28 39	24° 0'49	20°14	0°Y18	18°46	20°23	1°10	6° 4	21°18	20°19	28°11	10°13	11° 2	5° 7	12°23	W14
T 15	13 32 35	24°59'23	3°R26	1°48	18°35	20°37	1° 2	6° 7	21°16	20°18	28°12	10° 1	10°59	5°14	12°28	T 15
F 16	13 36 32	25°57'56	16°52	3°21	18°22	20°50	0°55	6°10	21°13	20°16	28°14	9°51	10°56	5°20	12°32	F 16
S 17	13 40 28	26°56'27	0°R29	4°55	18° 6	21° 2	0°47	6°13	21°11	20°15	28°15	9°43	10°53	5°27	12°36	S 17
S 18	13 44 25	27°54'55	14°15	6°31	17°47	21°14	0°39	6°16	21° 8	20°13	28°16	9°38	10°49	5°34	12°40	S 18
M19	13 48 21	28°53'22	28° 9	8° 9	17°27	21°25	0°32	6°18	21° 6	20°12	28°17	9°36	10°46	5°40	12°44	M19
T 20	13 52 18	29°51'46	12°R 8	9°49	17° 4	21°36	0°24	6°21	21° 3	20°10	28°18	9°D35	10°43	5°47	12°48	T 20
W21	13 56 15	0°R50'08	26°11	11°30	16°39	21°46	0°16	6°24	21° 1	20° 9	28°20	9°R36	10°40	5°54	12°52	W21
T 22	14 0 11	1°48'28	10°R19	13°13	16°12	21°56	0° 9	6°26	20°58	20° 7	28°21	9°35	10°37	6° 0	12°56	T 22
F 23	14 4 8	2°46'46	24°30	14°58	15°43	22° 5	0° 1	6°28	20°56	20° 6	28°22	9°34	10°34	6° 7	13° 1	F 23
S 24	14 8 4	3°45'02	8°R42	16°44	15°12	22°13	29°R53	6°31	20°53	20° 4	28°23	9°29	10°30	6°14	13° 5	S 24
S 25	14 12 1	4°43'15	22°52	18°33	14°39	22°21	29°46	6°33	20°51	20° 3	28°25	9°23	10°27	6°20	13° 9	S 25
M26	14 15 57	5°41'27	6°R57	20°23	14° 6	22°28	29°38	6°35	20°48	20° 1	28°26	9°14	10°24	6°27	13°13	M26
T 27	14 19 54	6°39'37	20°52	22°15	13°30	22°34	29°31	6°37	20°46	20° 0	28°27	9° 4	10°21	6°34	13°17	T 27
W28	14 23 50	7°37'45	4°R33	24° 8	12°54	22°40	29°23	6°39	20°43	19°58	28°28	8°54	10°18	6°40	13°22	W28
T 29	14 27 47	8°35'51	17°58	26° 3	12°17	22°45	29°15	6°40	20°41	19°57	28°30	8°45	10°15	6°47	13°26	T 29
F 30	14 31 44	9°R33'55	1°R 3	28°Y 1	11°R40	22°R50	29°R 8	6°R42	20°R39	19°R55	28°R31	8°R37	10°R11	6°R54	13°R30	F 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
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ASTRODIENST EPHEMERIS for the year 1638
geocentric

MAY 1638 GC

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 35 40	10♂31'58	13♂49	29♂59	11°R 2	22♂54	29°R 1	6♂44	20°R36	19°R53	28♂32	8°R32	10♂8	7♂0	13♂34	S 1
S 2	14 39 37	11°30'00	26°16	2♂0	10♂24	22°57	28♂53	6°45	20♂34	19♂52	28°33	8♂29	10° 5	7° 7	13°39	S 2
M 3	14 43 33	12°28'00	8♂27	4° 2	9°46	22°59	28°46	6°47	20°32	19°50	28°35	8°D28	10° 2	7°14	13°43	M 3
T 4	14 47 30	13°25'59	20°26	6° 6	9° 9	23° 1	28°39	6°48	20°29	19°49	28°36	8°29	9°59	7°20	13°47	T 4
W 5	14 51 26	14°23'56	2♂18	8°11	8°32	23° 1	28°32	6°49	20°27	19°47	28°37	8°30	9°55	7°27	13°51	W 5
T 6	14 55 23	15°21'52	14° 7	10°18	7°57	23°R 2	28°24	6°50	20°25	19°45	28°39	8°R31	9°52	7°34	13°56	T 6
F 7	14 59 19	16°19'47	26° 0	12°26	7°22	23° 1	28°17	6°51	20°22	19°44	28°40	8°30	9°49	7°40	14° 0	F 7
S 8	15 3 16	17°17'40	8♂0	14°35	6°49	23° 0	28°11	6°52	20°20	19°42	28°41	8°28	9°46	7°47	14° 4	S 8
S 9	15 7 13	18°15'32	20°13	16°44	6°17	22°57	28° 4	6°53	20°18	19°40	28°43	8°23	9°43	7°53	14° 8	S 9
M10	15 11 9	19°13'23	2♂43	18°55	5°47	22°54	27°57	6°54	20°16	19°39	28°44	8°17	9°40	8° 0	14°13	M10
T 11	15 15 6	20°11'12	15°32	21° 6	5°19	22°51	27°50	6°54	20°14	19°37	28°45	8°10	9°36	8° 7	14°17	T 11
W12	15 19 2	21° 9'00	28°41	23°17	4°53	22°46	27°44	6°55	20°12	19°36	28°47	8° 2	9°33	8°13	14°21	W12
T 13	15 22 59	22° 6'47	12♂11	25°28	4°29	22°41	27°37	6°55	20°10	19°34	28°48	7°54	9°30	8°20	14°25	T 13
F 14	15 26 55	23° 4'33	25°58	27°39	4° 8	22°35	27°31	6°56	20° 8	19°32	28°50	7°47	9°27	8°27	14°30	F 14
S 15	15 30 52	24° 2'18	9♂59	29°50	3°48	22°28	27°25	6°56	20° 6	19°31	28°51	7°43	9°24	8°33	14°34	S 15
S 16	15 34 48	25° 0'01	24°11	1♂59	3°31	22°21	27°19	6°56	20° 4	19°29	28°52	7°40	9°21	8°40	14°38	S 16
M17	15 38 45	25°57'42	8♂29	4° 7	3°16	22°13	27°13	6°R56	20° 2	19°27	28°54	7°D39	9°17	8°47	14°42	M17
T 18	15 42 42	26°55'22	22°48	6°14	3° 4	22° 4	27° 7	6°56	20° 0	19°26	28°55	7°40	9°14	8°53	14°46	T 18
W19	15 46 38	27°53'01	7♂6	8°19	2°53	21°54	27° 1	6°56	19°58	19°24	28°56	7°41	9°11	9° 0	14°51	W19
T 20	15 50 35	28°50'37	21°20	10°22	2°46	21°44	26°55	6°55	19°56	19°23	28°58	7°42	9° 8	9° 7	14°55	T 20
F 21	15 54 31	29°48'13	5♂28	12°23	2°41	21°33	26°50	6°55	19°54	19°21	28°59	7°R42	9° 5	9°13	14°59	F 21
S 22	15 58 28	0♂45'46	19°28	14°23	2°38	21°21	26°44	6°55	19°53	19°19	29° 0	7°41	9° 1	9°20	15° 3	S 22
S 23	16 2 24	1°43'19	3♂19	16°19	2°D37	21° 9	26°39	6°54	19°51	19°18	29° 2	7°38	8°58	9°27	15° 7	S 23
M24	16 6 21	2°40'49	17° 0	18°13	2°39	20°55	26°34	6°53	19°49	19°16	29° 3	7°34	8°55	9°33	15°11	M24
T 25	16 10 17	3°38'19	0♂29	20° 5	2°43	20°42	26°29	6°53	19°48	19°15	29° 4	7°29	8°52	9°40	15°15	T 25
W26	16 14 14	4°35'47	13°45	21°54	2°49	20°27	26°25	6°52	19°46	19°13	29° 6	7°23	8°49	9°47	15°19	W26
T 27	16 18 11	5°33'15	26°46	23°41	2°58	20°13	26°20	6°51	19°45	19°12	29° 7	7°18	8°46	9°53	15°23	T 27
F 28	16 22 7	6°30'41	9♂33	25°24	3° 8	19°57	26°15	6°50	19°43	19°10	29° 9	7°15	8°42	10° 0	15°28	F 28
S 29	16 26 4	7°28'06	22° 5	27° 5	3°21	19°41	26°11	6°49	19°42	19° 9	29°10	7°12	8°39	10° 7	15°32	S 29
S 30	16 30 0	8°25'31	4♂22	28°43	3°36	19°25	26° 7	6°48	19°40	19° 7	29°11	7°D11	8°36	10°13	15°36	S 30
M31	16 33 57	9♂22'54	16♂28	0♂18	3♂52	19♂8	26♂3	6♂46	19♂39	19♂6	29♂13	7♂12	8♂33	10♂20	15♂40	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	15n 1	24s37	2s 8	10n12	1s22	19n36	4n41	24s 3	0s46	9s46	1n28	19s 4	0s28	7s29	0n38	15s59	1n50	7n46	12s23	23s13	23s 6	16s18	14n 5	1s57	
S 2	15 19	24 31	1 5	11 3	1 13	19 13	4 28	24 6	0 49	9 43	1 28	19 4	0 28	7 28	0 38	15 59	1 50	7 47	12 23	23 13	23 6	16 16	14 7	1 57	
M 3	15 37	23 13	0 0	11 53	1 4	18 49	4 16	24 10	0 52	9 41	1 28	19 4	0 28	7 27	0 38	15 58	1 50	7 47	12 23	23 13	23 6	16 13	14 8	1 57	
T 4	15 54	20 53	1n 4	12 43	0 55	18 24	4 3	24 13	0 55	9 39	1 28	19 4	0 28	7 26	0 38	15 58	1 50	7 48	12 23	23 13	23 7	16 11	14 9	1 57	
W 5	16 11	17 40	2 5	13 33	0 45	18 0	3 49	24 16	0 58	9 36	1 28	19 3	0 28	7 25	0 38	15 58	1 50	7 48	12 23	23 13	23 7	16 8	14 10	1 57	
T 6	16 28	13 45	3 0	14 23	0 35	17 35	3 36	24 19	1 1	9 34	1 28	19 3	0 28	7 25	0 38	15 57	1 50	7 48	12 23	23 13	23 7	16 6	14 11	1 57	
F 7	16 45	9 19	3 47	15 12	0 25	17 10	3 22	24 22	1 4	9 31	1 28	19 3	0 28	7 24	0 38	15 57	1 50	7 49	12 23	23 13	23 7	16 4	14 12	1 57	
S 8	17 2	4 29	4 26	16 1	0 14	16 46	3 8	24 25	1 7	9 29	1 28	19 3	0 28	7 23	0 38	15 56	1 50	7 49	12 23	23 13	23 8	16 1	14 14	1 57	
S 9	17 18	0n36	4 52	16 49	0 4	16 22	2 53	24 29	1 11	9 27	1 27	19 3	0 29	7 22	0 37	15 56	1 50	7 49	12 22	23 13	23 8	15 59	14 15	1 57	
M10	17 34	5 46	5 6	17 35	0n 7	15 58	2 39	24 32	1 14	9 24	1 27	19 3	0 29	7 21	0 37	15 55	1 50	7 50	12 22	23 14	23 8	15 56	14 16	1 57	
T 11	17 50	10 49	5 5	18 21	0 17	15 35	2 24	24 35	1 18	9 22	1 27	19 3	0 29	7 21	0 37	15 55	1 50	7 50	12 22	23 14	23 8	15 54	14 17	1 57	
W12	18 5	15 31	4 48	19 5	0 28	15 13	2 10	24 38	1 21	9 20	1 27	19 3	0 29	7 20	0 37	15 54	1 50	7 50	12 22	23 15	23 9	15 51	14 18	1 58	
T 13	18 20	19 34	4 15	19 47	0 38	14 52	1 56	24 41	1 25	9 18	1 27	19 3	0 29	7 19	0 37	15 54	1 50	7 51	12 22	23 15	23 9	15 49	14 19	1 58	
F 14	18 35	22 37	3 26	20 27	0 48	14 31	1 42	24 45	1 28	9 16	1 27	19 3	0 29	7 18	0 37	15 54	1 50	7 51	12 22	23 15	23 9	15 46	14 21	1 58	
S 15	18 49	24 22	2 24	21 5	0 58	14 11	1 28	24 48	1 32	9 14	1 26	19 3	0 29	7 18	0 37	15 53	1 50	7 51	12 22	23 16	23 9	15 44	14 22	1 58	
S 16	19 3	24 34	1 12	21 41	1 7	13 52	1 14	24 51	1 35	9 12	1 26	19 3	0 29	7 17	0 37	15 53	1 50	7 52	12 22	23 16	23 9	15 41	14 23	1 58	
M17	19 17	23 8	0s 4	22 15	1 16	13 34	1 0	24 54	1 39	9 10	1 26	19 3	0 30	7 16	0 37	15 52	1 50	7 52	12 22	23 16	23 10	15 39	14 24	1 58	
T 18	19 31	20 13	1 21	22 46	1 24	13 18	0 47	24 57	1 43	9 8	1 26	19 3	0 30	7 16	0 37	15 52	1 49	7 52	12 22	23 16	23 10	15 37	14 25	1 58	
W19	19 44	16 4	2 33	23 15	1 32	13 2	0 34	25 1	1 46	9 6	1 26	19 3	0 30	7 15	0 37	15 51	1 49	7 53	12 22	23 16	23 10	15 34	14 26	1 58	
T 20	19 56	11 1	3 35	23 41	1 39	12 48	0 22	25 4	1 50	9 4	1 25	19 4	0 30	7 14	0 37	15 51	1 49	7 53	12 22	23 16	23 10	15 32	14 27	1 58	
F 21	20 9	5 26	4 24	24 4	1 45	12 34	0 9	25 7	1 54	9 2	1 25	19 4	0 30	7 14	0 37	15 51	1 49	7 53	12 22	23 16	23 11	15 29	14 28	1 59	
S 22	20 21	0s21	4 56	24 24	1 51	12 22	0s 3	25 10	1 58	9 1	1 25	19 4	0 30	7 13	0 37	15 50	1 49	7 54	12 22	23 16	23 11	15 27	14 29	1 59	
S 23	20 33	6 4	5 10	24 42	1 56	12 11	0 14	25 13	2 1	8 59	1 25	19 4	0 30	7 12	0 37	15 50	1 49	7 54	12 22	23 16	23 11	15 24	14 31	1 59	
M24	20 44	11 25	5 7	24 58	2 0	12 1	0 25	25 16	2 5	8 57	1 24	19 5	0 30	7 12	0 37	15 49	1 49	7 54	12 22	23 16	23 11	15 22	14 32	1 59	
T 25	20 55	16 8	4 47	25 10	2 4	11 52	0 36	25 18	2 9	8 56	1 24	19 5	0 31	7 11	0 37	15 49	1 49	7 55	12 22	23 17	23 11	15 19	14 33	1 59	
W26	21 6	19 59	4 11	25 21	2 7	11 45	0 47	25 21	2 13	8 54	1 24	19 5	0 31	7 11	0 37	15 49	1 49	7 55	12 22	23 17	23 12	15 17	14 34	1 59	
T 27	21 16	22 46	3 23	25 29	2 9	11 38	0 57	25 24	2 17	8 53	1 24	19 6	0 31	7 10	0 37	15 48	1 49	7 55	12 22	23 17	23 12	15 14	14 35	1 59	
F 28	21 26	24 19	2 26	25 34	2 10	11 32	1 7	25 26	2 21	8 51	1 24	19 6	0 31	7 9	0 37	15 48	1 49	7 55	12 22	23 17	23 12	15 12	14 36	1 59	
S 29	21 36	24 37	1 22	25 37	2 10	11 28	1 16	25 29	2 24	8 50	1 23	19 6	0 31	7 9	0 37	15 47	1 49	7 56	12 22	23 17	23 12	15 9	14 37	2 0	
S 30	21 45	23 40	0 15	25 39	2 10	11 25	1 25	25 31	2 28	8 49	1 23	19 7	0 31	7 8	0 37	15 47	1 49	7 56	12 22	23 17	23 12	15 7	14 38	2 0	
M31	21n54	21s38	0n51	25n38	2n 9	11n22	1s33	25s34	2s32	8s48	1n23	19s 7	0s31	7s 8	0n37	15s47	1n49	7n56	12s22	23s17	23s13	15s 4	14n39	2s 0	

ASTRODIENST EPHEMERIS for the year 1638
geocentric

JUNE 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 37 53	10 ^{II} 20'17	28 ^Σ 25	19 ^Σ 51	4 ^Σ 11	18°R51	25°R59	6°R45	19°R38	19°R 4	29 ^Σ 14	7 ^Σ 13	8 ^Σ 30	10 ^Σ 27	15 ^Σ 44	T 1
W 2	16 41 50	11°17'39	10 ^Σ 16	3°20	4°31	18 ^Σ 33	25 ^Σ 56	6 ^Σ 43	19 ^Σ 36	19 ^Σ 3	29°15	7°15	8°27	10°33	15°48	W 2
T 3	16 45 46	12°15'01	22° 6	4°47	4°54	18°15	25°52	6°42	19°35	19° 1	29°17	7°16	8°23	10°40	15°51	T 3
F 4	16 49 43	13°12'22	3 ^Σ 59	6°11	5°17	17°56	25°49	6°40	19°34	19° 0	29°18	7°17	8°20	10°47	15°55	F 4
S 5	16 53 40	14° 9'42	16° 0	7°32	5°43	17°38	25°46	6°38	19°33	18°58	29°19	7°R18	8°17	10°53	15°59	S 5
S 6	16 57 36	15° 7'02	28°13	8°49	6°10	17°19	25°43	6°37	19°32	18°57	29°21	7°17	8°14	11° 0	16° 3	S 6
M 7	17 1 33	16° 4'21	10 ^Σ 43	10° 4	6°39	16°59	25°40	6°35	19°31	18°55	29°22	7°15	8°11	11° 7	16° 7	M 7
T 8	17 5 29	17° 1'40	23°34	11°16	7° 9	16°40	25°37	6°33	19°30	18°54	29°23	7°13	8° 7	11°13	16°11	T 8
W 9	17 9 26	17°58'59	6 ^Σ 48	12°24	7°41	16°21	25°35	6°31	19°29	18°53	29°25	7°10	8° 4	11°20	16°15	W 9
T 10	17 13 22	18°56'17	20°26	13°30	8°14	16° 1	25°32	6°28	19°28	18°51	29°26	7° 8	8° 1	11°27	16°18	T 10
F 11	17 17 19	19°53'35	4 ^{II} 27	14°32	8°48	15°42	25°30	6°26	19°27	18°50	29°27	7° 6	7°58	11°33	16°22	F 11
S 12	17 21 15	20°50'52	18°47	15°30	9°23	15°22	25°28	6°24	19°26	18°49	29°28	7° 4	7°55	11°40	16°26	S 12
S 13	17 25 12	21°48'09	3 ^Σ 21	16°26	10° 0	15° 3	25°27	6°21	19°25	18°47	29°30	7°D 4	7°52	11°47	16°29	S 13
M14	17 29 9	22°45'25	18° 4	17°17	10°38	14°43	25°25	6°19	19°25	18°46	29°31	7° 4	7°48	11°53	16°33	M14
T 15	17 33 5	23°42'41	2 ^Σ 48	18° 5	11°17	14°24	25°24	6°16	19°24	18°45	29°32	7° 5	7°45	12° 0	16°37	T 15
W16	17 37 2	24°39'56	17°28	18°49	11°57	14° 5	25°22	6°13	19°23	18°43	29°33	7° 6	7°42	12° 7	16°40	W16
T 17	17 40 58	25°37'10	1 ^{II} 57	19°30	12°38	13°47	25°21	6°11	19°23	18°42	29°35	7° 6	7°39	12°14	16°44	T 17
F 18	17 44 55	26°34'23	16°13	20° 6	13°20	13°29	25°20	6° 8	19°22	18°41	29°36	7° 7	7°36	12°20	16°47	F 18
S 19	17 48 51	27°31'36	0 ^Σ 12	20°38	14° 3	13°11	25°20	6° 5	19°22	18°40	29°37	7°R 7	7°32	12°27	16°51	S 19
S 20	17 52 48	28°28'48	13°55	21° 6	14°47	12°53	25°19	6° 2	19°21	18°39	29°38	7° 7	7°29	12°34	16°54	S 20
M21	17 56 44	29°26'00	27°20	21°30	15°32	12°36	25°19	5°59	19°21	18°37	29°40	7° 6	7°26	12°40	16°58	M21
T 22	18 0 41	0 ^Σ 23'11	10 ^{II} 30	21°49	16°17	12°20	25°D19	5°56	19°21	18°36	29°41	7° 5	7°23	12°47	17° 1	T 22
W23	18 4 38	1°20'22	23°24	22° 4	17° 4	12° 4	25°19	5°53	19°20	18°35	29°42	7° 5	7°20	12°54	17° 5	W23
T 24	18 8 34	2°17'32	6 ^Σ 4	22°14	17°51	11°48	25°19	5°49	19°20	18°34	29°43	7° 4	7°17	13° 0	17° 8	T 24
F 25	18 12 31	3°14'43	18°31	22°20	18°39	11°33	25°20	5°46	19°20	18°33	29°44	7° 4	7°13	13° 7	17°11	F 25
S 26	18 16 27	4°11'53	0 ^Σ 47	22°R21	19°28	11°19	25°20	5°43	19°20	18°32	29°46	7° 4	7°10	13°14	17°14	S 26
S 27	18 20 24	5° 9'03	12°54	22°18	20°17	11° 5	25°21	5°39	19°D20	18°31	29°47	7°D 4	7° 7	13°20	17°18	S 27
M28	18 24 20	6° 6'13	24°53	22° 9	21° 7	10°52	25°22	5°36	19°20	18°30	29°48	7° 4	7° 4	13°27	17°21	M28
T 29	18 28 17	7° 3'23	6 ^Σ 46	21°57	21°58	10°40	25°23	5°32	19°20	18°29	29°49	7°R 4	7° 1	13°34	17°24	T 29
W30	18 32 14	8 ^Σ 0'33	18 ^Σ 35	21 ^Σ 40	22 ^Σ 50	10 ^Σ 28	25 ^Σ 24	5 ^Σ 28	19 ^Σ 20	18 ^Σ 28	29 ^Σ 50	7 ^Σ 4	6 ^Σ 58	13 ^Σ 40	17 ^Σ 27	W30

Day	☉	☾		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	22n 3	18s39	1n54	25n35	2n 7	11n21	1s41	25s36	2s36	8s46	1n23	19s 8	0s32	7s 7	0n37	15s46	1n49	7n56	12s22	23s17	23s13	15s 2	14n40	2s 0	
W 2	22 11	14 56	2 52	25 31	2 4	11 20	1 49	25 38	2 39	8 45	1 22	19 8	0 32	7 7	0 37	15 46	1 49	7 57	12 22	23 17	23 13	14 59	14 41	2 0	
T 3	22 18	10 40	3 42	25 25	2 1	11 21	1 57	25 40	2 43	8 44	1 22	19 9	0 32	7 7	0 37	15 45	1 49	7 57	12 22	23 17	23 13	14 57	14 42	2 0	
F 4	22 26	5 58	4 24	25 17	1 56	11 22	2 4	25 42	2 47	8 43	1 22	19 9	0 32	7 6	0 37	15 45	1 49	7 57	12 22	23 17	23 13	14 54	14 43	2 0	
S 5	22 33	1 1	4 54	25 8	1 52	11 24	2 11	25 44	2 50	8 42	1 22	19 10	0 32	7 6	0 37	15 45	1 49	7 57	12 22	23 17	23 14	14 52	14 44	2 0	
S 6	22 39	4n 3	5 11	24 57	1 46	11 27	2 17	25 46	2 54	8 42	1 21	19 11	0 32	7 5	0 37	15 44	1 49	7 58	12 22	23 17	23 14	14 49	14 45	2 1	
M 7	22 45	9 4	5 15	24 45	1 39	11 30	2 23	25 47	2 57	8 41	1 21	19 11	0 32	7 5	0 37	15 44	1 49	7 58	12 22	23 17	23 14	14 47	14 46	2 1	
T 8	22 51	13 51	5 3	24 33	1 32	11 35	2 29	25 49	3 1	8 40	1 21	19 12	0 32	7 5	0 37	15 44	1 49	7 58	12 22	23 17	23 14	14 44	14 47	2 1	
W 9	22 57	18 7	4 34	24 19	1 25	11 40	2 34	25 50	3 4	8 39	1 21	19 12	0 33	7 4	0 37	15 43	1 49	7 58	12 22	23 18	23 14	14 42	14 48	2 1	
T 10	23 1	21 35	3 50	24 4	1 16	11 45	2 40	25 51	3 7	8 39	1 20	19 13	0 33	7 4	0 37	15 43	1 49	7 59	12 22	23 18	23 15	14 39	14 49	2 1	
F 11	23 6	23 52	2 51	23 48	1 7	11 52	2 45	25 53	3 11	8 38	1 20	19 14	0 33	7 4	0 36	15 43	1 49	7 59	12 22	23 18	23 15	14 36	14 50	2 1	
S 12	23 10	24 40	1 39	23 32	0 57	11 59	2 49	25 54	3 14	8 38	1 20	19 15	0 33	7 3	0 36	15 42	1 49	7 59	12 22	23 18	23 15	14 34	14 51	2 2	
S 13	23 14	23 47	0 21	23 15	0 47	12 6	2 53	25 54	3 17	8 37	1 19	19 15	0 33	7 3	0 36	15 42	1 49	7 59	12 22	23 18	23 15	14 31	14 51	2 2	
M14	23 17	21 16	1s 1	22 57	0 35	12 14	2 57	25 55	3 20	8 37	1 19	19 16	0 33	7 3	0 36	15 42	1 49	7 59	12 22	23 18	23 15	14 29	14 52	2 2	
T 15	23 20	17 20	2 18	22 39	0 24	12 22	3 1	25 56	3 23	8 37	1 19	19 17	0 33	7 3	0 36	15 41	1 49	8 0	12 22	23 18	23 16	14 26	14 53	2 2	
W16	23 23	12 22	3 26	22 21	0 11	12 31	3 5	25 56	3 26	8 37	1 19	19 18	0 33	7 3	0 36	15 41	1 49	8 0	12 22	23 18	23 16	14 24	14 54	2 2	
T 17	23 25	6 46	4 19	22 3	0s 1	12 40	3 8	25 57	3 28	8 37	1 18	19 18	0 34	7 2	0 36	15 41	1 49	8 0	12 22	23 18	23 16	14 21	14 55	2 2	
F 18	23 27	0 54	4 56	21 44	0 15	12 50	3 11	25 57	3 31	8 37	1 18	19 19	0 34	7 2	0 36	15 41	1 49	8 0	12 23	23 18	23 16	14 19	14 56	2 3	
S 19	23 28	4s53	5 15	21 26	0 29	13 0	3 14	25 57	3 34	8 37	1 18	19 20	0 34	7 2	0 36	15 40	1 49	8 0	12 23	23 18	23 16	14 16	14 57	2 3	
S 20	23 29	10 20	5 15	21 7	0 43	13 11	3 16	25 58	3 36	8 37	1 18	19 21	0 34	7 2	0 36	15 40	1 49	8 0	12 23	23 18	23 16	14 14	14 57	2 3	
M21	23 29	15 10	4 57	20 49	0 58	13 21	3 18	25 58	3 38	8 37	1 17	19 22	0 34	7 2	0 36	15 40	1 49	8 0	12 23	23 18	23 17	14 11	14 58	2 3	
T 22	23 29	19 11	4 25	20 31	1 13	13 32	3 20	25 58	3 41	8 37	1 17	19 23	0 34	7 2	0 36	15 39	1 49	8 1	12 23	23 18	23 17	14 9	14 59	2 3	
W23	23 29	22 12	3 39	20 13	1 28	13 44	3 22	25 58	3 43	8 37	1 17	19 24	0 34	7 2	0 36	15 39	1 48	8 1	12 23	23 18	23 17	14 6	15 0	2 3	
T 24	23 28	24 3	2 44	19 56	1 44	13 55	3 24	25 57	3 45	8 38	1 16	19 25	0 34	7 2	0 36	15 39	1 48	8 1	12 23	23 18	23 17	14 3	15 0	2 4	
F 25	23 27	24 40	1 41	19 40	2 0	14 7	3 25	25 57	3 47	8 38	1 16	19 25	0 35	7 2	0 36	15 39	1 48	8 1	12 23	23 18	23 17	14 1	15 1	2 4	
S 26	23 25	24 4	0 35	19 24	2 15	14 19	3 27	25 57	3 49	8 38	1 16	19 26	0 35	7 2	0 36	15 38	1 48	8 1	12 23	23 18	23 18	13 58	15 2	2 4	
S 27	23 23	22 19	0n32	19 9	2 31	14 31	3 28	25 57	3 50	8 39	1 16	19 27	0 35	7 2	0 36	15 38	1 48	8 1	12 23	23 18	23 18	13 56	15 3	2 4	
M28	23 21	19 36	1 37	18 55	2 47	14 43	3 28	25 57	3 52	8 40	1 15	19 28	0 35	7 2	0 36	15 38	1 48	8 1	12 24	23 18	23 18	13 53	15 3	2 4	
T 29	23 18	16 5	2 38	18 42	3 2	14 56	3 29	25 56	3 53	8 40	1 15	19 29	0 35	7 2	0 36	15 38	1 48	8 1	12 24	23 18	23 18	13 51	15 4	2 4	
W30	23n15	11s56	3n31	18n30	3s17	15n 8	3s30	25s56	3s55	8s41	1n15	19s30	0s35	7s 2	0n36	15s38	1n48	8n 2	12s24	23s18	23s18	13s48	15n 5	2s 5	

ASTRODIENST EPHEMERIS for the year 1638
geocentric

JULY 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	18 36 10	8 ⁵⁵ 5743	0 ¹⁸ 25	21°R18	23 ⁸ 42	10°R17	25 ²⁶ 26	5°R25	19 ²⁰ 20	18°R27	29 ⁸ 51	7°R 3	6 ³ 54	13 ³ 47	17 ⁸ 30	T 1
F 2	18 40 7	9°54'53	12°19	20 ⁵ 53	24°34	10 ² 7	25°27	5 ² 21	19°21	18 ¹ 27	29°52	7 ³ 3	6°51	13°54	17°33	F 2
S 3	18 44 3	10°52'04	24°19	20°25	25°28	9°58	25°29	5°17	19°21	18°26	29°53	7°3	6°48	14°0	17°36	S 3
S 4	18 48 0	11°49'15	6 ¹ 31	19°53	26°22	9°49	25°31	5°13	19°21	18°25	29°54	7°D 3	6°45	14°7	17°39	S 4
M 5	18 51 56	12°46'27	18°59	19°19	27°16	9°41	25°33	5°9	19°22	18°24	29°55	7°3	6°42	14°14	17°42	M 5
T 6	18 55 53	13°43'39	1 ⁸ 47	18°42	28°11	9°34	25°36	5°5	19°22	18°23	29°56	7°3	6°38	14°20	17°45	T 6
W 7	18 59 49	14°40'52	14°58	18°4	29°6	9°28	25°38	5°1	19°22	18°23	29°57	7°4	6°35	14°27	17°47	W 7
T 8	19 3 46	15°38'05	28°35	17°25	0 ¹¹ 2	9°23	25°41	4°57	19°23	18°22	29°58	7°4	6°32	14°34	17°50	T 8
F 9	19 7 43	16°35'19	12 ¹¹ 37	16°46	0°58	9°18	25°44	4°53	19°24	18°21	29°59	7°5	6°29	14°40	17°53	F 9
S 10	19 11 39	17°32'34	27°5	16°7	1°55	9°14	25°47	4°49	19°24	18°21	0 ¹¹ 0	7°5	6°26	14°47	17°55	S 10
S 11	19 15 36	18°29'49	11 ⁵ 52	15°29	2°52	9°12	25°50	4°45	19°25	18°20	0°1	7°R 6	6°23	14°54	17°58	S 11
M 12	19 19 32	19°27'04	26°52	14°53	3°50	9°10	25°53	4°41	19°26	18°19	0°2	7°5	6°19	15°0	18°1	M 12
T 13	19 23 29	20°24'20	11 ⁵ 58	14°19	4°48	9°8	25°57	4°37	19°26	18°19	0°3	7°4	6°16	15°7	18°3	T 13
W 14	19 27 25	21°21'36	26°59	13°49	5°46	9°D 8	26°1	4°32	19°27	18°18	0°4	7°2	6°13	15°14	18°5	W 14
T 15	19 31 22	22°18'52	11 ¹¹ 48	13°22	6°45	9°9	26°4	4°28	19°28	18°18	0°5	7°1	6°10	15°20	18°8	T 15
F 16	19 35 18	23°16'09	26°18	12°59	7°44	9°10	26°8	4°24	19°29	18°17	0°6	6°59	6°7	15°27	18°10	F 16
S 17	19 39 15	24°13'25	10 ² 25	12°40	8°44	9°12	26°13	4°19	19°30	18°17	0°7	6°58	6°4	15°34	18°13	S 17
S 18	19 43 12	25°10'42	24°8	12°27	9°44	9°16	26°17	4°15	19°31	18°16	0°8	6°D57	6°0	15°40	18°15	S 18
M 19	19 47 8	26°8'00	7 ¹¹ 28	12°19	10°44	9°19	26°21	4°11	19°32	18°16	0°9	6°58	5°57	15°47	18°17	M 19
T 20	19 51 5	27°5'18	30°7	12°D16	11°44	9°24	26°26	4°6	19°34	18°16	0°9	6°59	5°54	15°54	18°19	T 20
W 21	19 55 1	28°2'36	3 ² 7	12°20	12°45	9°30	26°31	4°2	19°35	18°15	0°10	7°0	5°51	16°0	18°21	W 21
T 22	19 58 58	28°59'55	15°32	12°29	13°46	9°36	26°36	3°57	19°36	18°15	0°11	7°2	5°48	16°7	18°23	T 22
F 23	20 2 54	29°57'14	27°44	12°44	14°48	9°43	26°41	3°53	19°37	18°15	0°12	7°3	5°44	16°14	18°25	F 23
S 24	20 6 51	0 ² 54'34	9 ³ 48	13°6	15°49	9°51	26°46	3°49	19°39	18°15	0°13	7°R 3	5°41	16°20	18°27	S 24
S 25	20 10 47	1°51'55	21°44	13°33	16°52	10°0	26°52	3°44	19°40	18°14	0°13	7°2	5°38	16°27	18°29	S 25
M 26	20 14 44	2°49'17	3 ² 37	14°7	17°54	10°9	26°57	3°40	19°41	18°14	0°14	7°0	5°35	16°34	18°31	M 26
T 27	20 18 41	3°46'39	15°27	14°47	18°56	10°20	27°3	3°35	19°43	18°14	0°15	6°57	5°32	16°41	18°33	T 27
W 28	20 22 37	4°44'02	27°17	15°33	19°59	10°31	27°9	3°31	19°45	18°14	0°15	6°52	5°29	16°47	18°34	W 28
T 29	20 26 34	5°41'26	9 ¹ 9	16°25	21°2	10°42	27°15	3°26	19°46	18°14	0°16	6°48	5°25	16°54	18°36	T 29
F 30	20 30 30	6°38'52	21°5	17°23	22°6	10°55	27°21	3°22	19°48	18°14	0°17	6°43	5°22	17°1	18°37	F 30
S 31	20 34 27	7 ² 36'18	3 ¹ 8	18 ⁵ 27	23 ¹¹ 9	11 ² 8	27 ² 27	3 ² 17	19 ² 49	18°D14	0 ¹¹ 17	6 ³ 38	5 ³ 19	17 ² 7	18 ⁸ 39	S 31

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
T 1	23n11	7s22	4n15	18n19	3s31	15n21	3s30	25s56	3s56	8s42	1n15	19s31	0s35	7s 2	0n36	15s37	1n48	8n 2	12s24	23s18	23s18	13s45	15n 5	2s 5
F 2	23 7	2 31	4 48	18 10	3 45	15 33	3 30	25 55	3 57	8 43	1 14	19 32	0 35	7 2	0 36	15 37	1 48	8 2	12 24	23 18	23 19	13 43	15 6	2 5
S 3	23 2	2n28	5 10	18 1	3 57	15 46	3 30	25 55	3 59	8 44	1 14	19 33	0 35	7 2	0 36	15 37	1 48	8 2	12 24	23 18	23 19	13 40	15 7	2 5
S 4	22 58	7 27	5 17	17 54	4 9	15 59	3 30	25 55	4 0	8 45	1 14	19 35	0 36	7 2	0 36	15 37	1 48	8 2	12 24	23 18	23 19	13 38	15 7	2 5
M 5	22 52	12 14	5 10	17 48	4 20	16 11	3 30	25 55	4 1	8 46	1 13	19 36	0 36	7 3	0 36	15 37	1 48	8 2	12 24	23 18	23 19	13 35	15 8	2 6
T 6	22 47	16 37	4 48	17 44	4 29	16 24	3 29	25 54	4 1	8 47	1 13	19 37	0 36	7 3	0 36	15 36	1 48	8 2	12 25	23 18	23 19	13 33	15 9	2 6
W 7	22 41	20 21	4 11	17 41	4 37	16 36	3 28	25 54	4 2	8 48	1 13	19 38	0 36	7 3	0 35	15 36	1 48	8 2	12 25	23 18	23 19	13 30	15 9	2 6
T 8	22 34	23 6	3 18	17 40	4 44	16 49	3 28	25 54	4 3	8 49	1 13	19 39	0 36	7 3	0 35	15 36	1 48	8 2	12 25	23 18	23 19	13 27	15 10	2 6
F 9	22 27	24 32	2 12	17 40	4 49	17 1	3 27	25 54	4 4	8 50	1 12	19 40	0 36	7 3	0 35	15 36	1 48	8 2	12 25	23 18	23 20	13 25	15 10	2 6
S 10	22 20	24 22	0 55	17 41	4 52	17 14	3 26	25 54	4 4	8 52	1 12	19 41	0 36	7 4	0 35	15 36	1 48	8 2	12 25	23 18	23 20	13 22	15 11	2 7
S 11	22 12	22 31	0s26	17 44	4 53	17 26	3 24	25 54	4 5	8 53	1 12	19 42	0 36	7 4	0 35	15 36	1 48	8 2	12 25	23 18	23 20	13 20	15 11	2 7
M12	22 4 19	4 1	4 47	17 48	4 53	17 38	3 23	25 54	4 5	8 55	1 12	19 43	0 36	7 4	0 35	15 36	1 48	8 2	12 26	23 18	23 20	13 17	15 12	2 7
T 13	21 56	14 20	3 1	17 53	4 52	17 50	3 22	25 54	4 5	8 56	1 11	19 44	0 37	7 5	0 35	15 36	1 47	8 2	12 26	23 18	23 20	13 15	15 12	2 7
W14	21 47	8 45	4 2	17 59	4 48	18 2	3 20	25 54	4 6	8 58	1 11	19 45	0 37	7 5	0 35	15 35	1 47	8 2	12 26	23 18	23 20	13 12	15 13	2 7
T 15	21 38	2 45	4 46	18 7	4 43	18 13	3 18	25 55	4 6	8 59	1 11	19 47	0 37	7 5	0 35	15 35	1 47	8 2	12 26	23 18	23 21	13 9	15 13	2 8
F 16	21 29	3s16	5 11	18 16	4 37	18 24	3 17	25 55	4 6	9 1	1 11	19 48	0 37	7 6	0 35	15 35	1 47	8 2	12 26	23 18	23 21	13 7	15 14	2 8
S 17	21 19	8 58	5 15	18 25	4 29	18 36	3 15	25 55	4 6	9 3	1 10	19 49	0 37	7 6	0 35	15 35	1 47	8 2	12 26	23 18	23 21	13 4	15 14	2 8
S 18	21 8	14 3	5 2	18 35	4 20	18 47	3 13	25 56	4 6	9 5	1 10	19 50	0 37	7 7	0 35	15 35	1 47	8 2	12 27	23 18	23 21	13 2	15 14	2 8
M19	20 58	18 19	4 32	18 46	4 10	18 57	3 11	25 56	4 6	9 7	1 10	19 51	0 37	7 7	0 35	15 35	1 47	8 2	12 27	23 18	23 21	12 59	15 15	2 9
T 20	20 47	21 35	3 50	18 58	3 58	19 8	3 8	25 57	4 6	9 8	1 9	19 52	0 37	7 8	0 35	15 35	1 47	8 2	12 27	23 18	23 21	12 56	15 15	2 9
W21	20 36	23 42	2 56	19 10	3 46	19 18	3 6	25 58	4 5	9 10	1 9	19 53	0 37	7 8	0 35	15 35	1 47	8 2	12 27	23 18	23 21	12 54	15 16	2 9
T 22	20 24	24 37	1 56	19 22	3 33	19 27	3 4	25 58	4 5	9 12	1 9	19 55	0 37	7 9	0 35	15 35	1 47	8 2	12 27	23 18	23 22	12 51	15 16	2 9
F 23	20 12	24 19	0 51	19 34	3 19	19 37	3 1	25 59	4 5	9 15	1 9	19 56	0 37	7 9	0 35	15 35	1 47	8 2	12 27	23 18	23 22	12 48	15 16	2 9
S 24	20 0	22 52	0n15	19 47	3 5	19 46	2 59	26 0	4 4	9 17	1 8	19 57	0 38	7 10	0 35	15 35	1 47	8 2	12 28	23 18	23 22	12 46	15 17	2 10
S 25	19 47	20 25	1 20	19 59	2 50	19 55	2 56	26 1	4 4	9 19	1 8	19 58	0 38	7 10	0 35	15 35	1 47	8 2	12 28	23 18	23 22	12 43	15 17	2 10
M26	19 34	17 6	2 21	20 10	2 35	20 4	2 53	26 2	4 4	9 21	1 8	19 59	0 38	7 11	0 35	15 35	1 47	8 2	12 28	23 18	23 22	12 41	15 17	2 10
T 27	19 21	13 7	3 15	20 22	2 19	20 12	2 50	26 3	4 3	9 23	1 8	20 0	0 38	7 11	0 35	15 35	1 47	8 2	12 28	23 18	23 22	12 38	15 17	2 10
W28	19 7	8 39	4 1	20 32	2 4	20 19	2 47	26 4	4 3	9 26	1 7	20 1	0 38	7 12	0 35	15 35	1 47	8 2	12 28	23 18	23 22	12 35	15 18	2 11
T 29	18 53	3 52	4 37	20 41	1 48	20 27	2 45	26 5	4 2	9 28	1 7	20 2	0 38	7 13	0 35	15 35	1 47	8 2	12 29	23 19	23 23	12 33	15 18	2 11
F 30	18 39	1n 4	5 1	20 50	1 32	20 34	2 41	26 6	4 1	9 31	1 7	20 4	0 38	7 13	0 35	15 35	1 48	8 2	12 29	23 19	23 23	12 30	15 18	2 11
S 31	18n24	6n 1	5n12	20n57	1s17	20n40	2s38	26s 8	4s 1	9s33	1n 7	20s 5	0s38	7s14	0n35	15s35	1n46	8n 2	12s29	23s19	23s23	12s28	15n18	2s11

ASTRODIENST EPHEMERIS for the year 1638
geocentric

SEPTEMBER 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 40 37	8 ^m 26'14	3 ^{II} 0	16 ^m 11	28 ^s 49	23 ^m 11	1 ^m 55	1 [°] R12	21 ^m 6	18 ^m 31	0 [°] R27	4 [°] D46	3 [°] 37	20 ^m 41	18 [°] R56	W 1
T 2	22 44 33	9 [°] 24'28	16 [°] 22	17 [°] 57	29 [°] 58	23 [°] 41	2 [°] 5	1 [°] 9	21 [°] 9	18 [°] 32	0 [°] II27	4 [°] 36	3 [°] 34	20 [°] 48	18 [°] 55	T 2
F 3	22 48 30	10 [°] 22'45	0 [°] 57	19 [°] 43	1 [°] 8	24 [°] 12	2 [°] 16	1 [°] 6	21 [°] 12	18 [°] 33	0 [°] 27	4 [°] R46	3 [°] 31	20 [°] 54	18 [°] 55	F 3
S 4	22 52 26	11 [°] 21'04	14 [°] 7	21 [°] 28	2 [°] 17	24 [°] 42	2 [°] 26	1 [°] 3	21 [°] 16	18 [°] 34	0 [°] 27	4 [°] 46	3 [°] 28	21 [°] 1	18 [°] 54	S 4
S 5	22 56 23	12 [°] 19'24	28 [°] 50	23 [°] 11	3 [°] 27	25 [°] 14	2 [°] 36	1 [°] 0	21 [°] 19	18 [°] 35	0 [°] 27	4 [°] 44	3 [°] 25	21 [°] 8	18 [°] 53	S 5
M 6	23 0 19	13 [°] 17'47	13 [°] 43	24 [°] 53	4 [°] 37	25 [°] 45	2 [°] 47	0 [°] 58	21 [°] 22	18 [°] 36	0 [°] 27	4 [°] 39	3 [°] 22	21 [°] 15	18 [°] 53	M 6
T 7	23 4 16	14 [°] 16'12	28 [°] 50	26 [°] 34	5 [°] 47	26 [°] 17	2 [°] 57	0 [°] 55	21 [°] 25	18 [°] 37	0 [°] 27	4 [°] 32	3 [°] 18	21 [°] 21	18 [°] 52	T 7
W 8	23 8 12	15 [°] 14'39	14 ^m 1	28 [°] 14	6 [°] 57	26 [°] 49	3 [°] 8	0 [°] 53	21 [°] 28	18 [°] 39	0 [°] 26	4 [°] 23	3 [°] 15	21 [°] 28	18 [°] 51	W 8
T 9	23 12 9	16 [°] 13'07	29 [°] 7	29 [°] 53	8 [°] 8	27 [°] 22	3 [°] 19	0 [°] 50	21 [°] 31	18 [°] 40	0 [°] 26	4 [°] 12	3 [°] 12	21 [°] 35	18 [°] 50	T 9
F 10	23 16 6	17 [°] 11'38	13 ^m 56	1 ^m 31	9 [°] 18	27 [°] 54	3 [°] 30	0 [°] 48	21 [°] 35	18 [°] 41	0 [°] 26	4 [°] 2	3 [°] 9	21 [°] 41	18 [°] 49	F 10
S 11	23 20 2	18 [°] 10'10	28 [°] 22	3 [°] 8	10 [°] 29	28 [°] 28	3 [°] 41	0 [°] 45	21 [°] 38	18 [°] 42	0 [°] 26	3 [°] 53	3 [°] 6	21 [°] 48	18 [°] 48	S 11
S 12	23 23 59	19 [°] 8'44	12 ^m 18	4 [°] 44	11 [°] 39	29 [°] 1	3 [°] 52	0 [°] 43	21 [°] 41	18 [°] 44	0 [°] 25	3 [°] 46	3 [°] 2	21 [°] 55	18 [°] 47	S 12
M13	23 27 55	20 [°] 7'20	25 [°] 46	6 [°] 18	12 [°] 50	29 [°] 35	4 [°] 3	0 [°] 41	21 [°] 45	18 [°] 45	0 [°] 25	3 [°] 42	2 [°] 59	22 [°] 1	18 [°] 46	M13
T 14	23 31 52	21 [°] 5'57	8 ^m 45	7 [°] 52	14 [°] 1	0 [°] 9	4 [°] 14	0 [°] 39	21 [°] 48	18 [°] 46	0 [°] 25	3 [°] 39	2 [°] 56	22 [°] 8	18 [°] 44	T 14
W15	23 35 48	22 [°] 4'36	21 [°] 21	9 [°] 25	15 [°] 12	0 [°] 43	4 [°] 25	0 [°] 37	21 [°] 51	18 [°] 48	0 [°] 25	3 [°] D39	2 [°] 53	22 [°] 15	18 [°] 43	W15
T 16	23 39 45	23 [°] 3'17	3 [°] 37	10 [°] 56	16 [°] 23	1 [°] 17	4 [°] 36	0 [°] 35	21 [°] 55	18 [°] 49	0 [°] 24	3 [°] R39	2 [°] 50	22 [°] 21	18 [°] 42	T 16
F 17	23 43 41	24 [°] 2'00	15 [°] 39	12 [°] 27	17 [°] 34	1 [°] 52	4 [°] 48	0 [°] 33	21 [°] 58	18 [°] 51	0 [°] 24	3 [°] 39	2 [°] 47	22 [°] 28	18 [°] 40	F 17
S 18	23 47 38	25 [°] 0'44	27 [°] 32	13 [°] 57	18 [°] 45	2 [°] 27	4 [°] 59	0 [°] 32	22 [°] 2	18 [°] 52	0 [°] 24	3 [°] 36	2 [°] 43	22 [°] 35	18 [°] 39	S 18
S 19	23 51 35	25 [°] 59'30	9 ^m 21	15 [°] 25	19 [°] 57	3 [°] 3	5 [°] 11	0 [°] 30	22 [°] 5	18 [°] 54	0 [°] 23	3 [°] 32	2 [°] 40	22 [°] 41	18 [°] 37	S 19
M20	23 55 31	26 [°] 58'18	21 [°] 10	16 [°] 53	21 [°] 8	3 [°] 38	5 [°] 22	0 [°] 29	22 [°] 9	18 [°] 55	0 [°] 23	3 [°] 25	2 [°] 37	22 [°] 48	18 [°] 36	M20
T 21	23 59 28	27 [°] 57'07	3 [°] 3	18 [°] 20	22 [°] 20	4 [°] 14	5 [°] 34	0 [°] 27	22 [°] 12	18 [°] 57	0 [°] 22	3 [°] 15	2 [°] 34	22 [°] 55	18 [°] 34	T 21
W22	0 3 24	28 [°] 55'59	15 [°] 1	19 [°] 45	23 [°] 31	4 [°] 50	5 [°] 46	0 [°] 26	22 [°] 16	18 [°] 58	0 [°] 22	3 [°] 2	2 [°] 31	23 [°] 2	18 [°] 32	W22
T 23	0 7 21	29 [°] 54'52	27 [°] 7	21 [°] 10	24 [°] 43	5 [°] 26	5 [°] 57	0 [°] 25	22 [°] 19	19 [°] 0	0 [°] 21	2 [°] 49	2 [°] 27	23 [°] 8	18 [°] 30	T 23
F 24	0 11 17	0 ^m 53'48	9 ^m 22	22 [°] 33	25 [°] 55	6 [°] 2	6 [°] 9	0 [°] 24	22 [°] 23	19 [°] 2	0 [°] 21	2 [°] 34	2 [°] 24	23 [°] 15	18 [°] 29	F 24
S 25	0 15 14	1 [°] 52'45	21 [°] 45	23 [°] 55	27 [°] 7	6 [°] 39	6 [°] 21	0 [°] 23	22 [°] 26	19 [°] 3	0 [°] 20	2 [°] 21	2 [°] 21	23 [°] 22	18 [°] 27	S 25
S 26	0 19 10	2 [°] 51'45	4 [°] 18	25 [°] 16	28 [°] 19	7 [°] 16	6 [°] 33	0 [°] 22	22 [°] 30	19 [°] 5	0 [°] 20	2 [°] 10	2 [°] 18	23 [°] 28	18 [°] 25	S 26
M27	0 23 7	3 [°] 50'47	17 [°] 1	26 [°] 36	29 [°] 31	7 [°] 53	6 [°] 45	0 [°] 21	22 [°] 33	19 [°] 7	0 [°] 19	2 [°] 2	2 [°] 15	23 [°] 35	18 [°] 23	M27
T 28	0 27 3	4 [°] 49'51	29 [°] 56	27 [°] 55	0 ^m 43	8 [°] 30	6 [°] 57	0 [°] 20	22 [°] 37	19 [°] 8	0 [°] 19	1 [°] 56	2 [°] 12	23 [°] 42	18 [°] 21	T 28
W29	0 31 0	5 [°] 48'58	13 ^{II} 4	29 [°] 12	1 [°] 56	9 [°] 8	7 [°] 9	0 [°] 19	22 [°] 41	19 [°] 10	0 [°] 18	1 [°] 53	2 [°] 8	23 [°] 48	18 [°] 19	W29
T 30	0 34 57	6 ^m 48'07	26 ^{II} 27	0 ^m 29	3 ^m 8	9 [°] 45	7 ^m 21	0 ^m 19	22 ^m 44	19 ^m 12	0 ^{II} 18	1 [°] 52	2 [°] 5	23 ^m 55	18 [°] 17	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	decl	lat
W 1	8n25	23n26	2n41	6n38	1n16	19n47	0s40	26s46	3s28	11s14	1n 0	20s35	0s40	7s44	0n34	15s42	1n44	7n57	12s36	23s24	23s26	11s 3	15n16	2s19			
T 2	8 3	24 23	1 36	5 52	1 11	19 36	0 36	26 46	3 26	11 17	1 0	20 36	0 40	7 45	0 34	15 42	1 44	7 56	12 36	23 24	23 26	11 0	15 15	2 19			
F 3	7 41	23 54	0 25	5 5	1 6	19 25	0 33	26 46	3 25	11 21	1 0	20 36	0 40	7 46	0 34	15 42	1 44	7 56	12 37	23 24	23 26	10 58	15 15	2 19			
S 4	7 19	21 53	0s50	4 18	1 0	19 13	0 29	26 46	3 24	11 25	0 59	20 37	0 40	7 47	0 34	15 43	1 44	7 56	12 37	23 24	23 26	10 55	15 14	2 20			
S 5	6 57	18 24	2 4	3 32	0 54	19 1	0 25	26 46	3 22	11 28	0 59	20 38	0 40	7 49	0 33	15 43	1 44	7 56	12 37	23 24	23 27	10 52	15 14	2 20			
M 6	6 35	13 41	3 11	2 46	0 47	18 48	0 21	26 46	3 21	11 32	0 59	20 38	0 40	7 50	0 33	15 44	1 44	7 55	12 37	23 24	23 27	10 50	15 14	2 20			
T 7	6 12	8 4	4 6	2 0	0 41	18 35	0 18	26 46	3 20	11 36	0 59	20 39	0 40	7 51	0 33	15 44	1 44	7 55	12 38	23 25	23 27	10 47	15 13	2 20			
W 8	5 50	1 56	4 43	1 14	0 34	18 21	0 14	26 45	3 18	11 40	0 59	20 40	0 40	7 52	0 33	15 44	1 44	7 55	12 38	23 25	23 27	10 44	15 13	2 20			
T 9	5 27	4s15	5 1	0 28	0 28	18 6	0 10	26 45	3 17	11 43	0 59	20 40	0 40	7 54	0 33	15 45	1 44	7 55	12 38	23 25	23 27	10 41	15 12	2 21			
F 10	5 4	10 4	4 57	0s17	0 21	17 51	0 7	26 44	3 16	11 47	0 58	20 41	0 40	7 55	0 33	15 45	1 44	7 54	12 38	23 25	23 27	10 39	15 12	2 21			
S 11	4 41	15 11	4 35	1 2	0 14	17 36	0 3	26 43	3 14	11 51	0 58	20 41	0 40	7 56	0 33	15 45	1 44	7 54	12 39	23 26	23 27	10 36	15 11	2 21			
S 12	4 18	19 19	3 57	1 47	0 6	17 20	0n 0	26 42	3 13	11 55	0 58	20 42	0 40	7 57	0 33	15 46	1 44	7 54	12 39	23 26	23 27	10 33	15 11	2 21			
M13	3 55	22 15	3 6	2 31	0s 1	17 3	0 4	26 41	3 12	11 59	0 58	20 42	0 41	7 59	0 33	15 46	1 44	7 54	12 39	23 26	23 27	10 31	15 10	2 22			
T 14	3 32	23 55	2 8	3 15	0 8	16 46	0 7	26 39	3 10	12 3	0 58	20 43	0 41	8 0	0 33	15 47	1 44	7 53	12 39	23 26	23 27	10 28	15 9	2 22			
W15	3 9	24 17	1 5	3 59	0 16	16 29	0 11	26 38	3 9	12 7	0 58	20 43	0 41	8 1	0 33	15 47	1 44	7 53	12 39	23 26	23 27	10 25	15 9	2 22			
T 16	2 46	23 26	0 0	4 42	0 23	16 11	0 14	26 36	3 7	12 11	0 58	20 44	0 41	8 2	0 33	15 48	1 44	7 53	12 40	23 26	23 27	10 23	15 8	2 22			
F 17	2 22	21 31	1n 3	5 24	0 31	15 52	0 17	26 34	3 6	12 15	0 57	20 44	0 41	8 4	0 33	15 48	1 44	7 53	12 40	23 26	23 27	10 20	15 8	2 23			
S 18	1 59	18 41	2 3	6 6	0 38	15 33	0 21	26 32	3 5	12 19	0 57	20 44	0 41	8 5	0 33	15 48	1 44	7 52	12 40	23 26	23 28	10 17	15 7	2 23			
S 19	1 36	15 6	2 57	6 47	0 46	15 14	0 24	26 30	3 3	12 23	0 57	20 45	0 41	8 6	0 33	15 49	1 44	7 52	12 40	23 26	23 28	10 15	15 6	2 23			
M20	1 12	10 57	3 43	7 28	0 53	14 54	0 27	26 28	3 2	12 27	0 57	20 45	0 41	8 8	0 33	15 49	1 44	7 52	12 40	23 27	23 28	10 12	15 6	2 23			
T 21	0 49	6 22	4 20	8 8	1 1	14 34	0 30	26 25	3 0	12 31	0 57	20 45	0 41	8 9	0 33	15 50	1 43	7 51	12 41	23 27	23 28	10 9	15 5	2 23			
W22	0 26	1 32	4 45	8 48	1 9	14 14	0 33	26 23	2 59	12 35	0 57	20 46	0 41	8 10	0 33	15 50	1 43	7 51	12 41	23 27	23 28	10 7	15 4	2 24			
T 23	0 2	3n25	4 58	9 27	1 16	13 52	0 36	26 20	2 58	12 39	0 57	20 46	0 41	8 12	0 33	15 51	1 43	7 51	12 41	23 27	23 28	10 4	15 4	2 24			
F 24	0s21	8 16	4 58	10 5	1 23	13 31	0 39	26 17	2 56	12 43	0 56	20 46	0 41	8 13	0 33	15 51	1 43	7 51	12 41	23 28	23 28	10 1	15 3	2 24			
S 25	0 45	12 52	4 43	10 42	1 31	13 9	0 42	26 14	2 55	12 47	0 56	20 46	0 41	8 14	0 33	15 52	1 43	7 50	12 41	23 28	23 28	9 59	15 2	2 24			
S 26	1 8	16 58	4 15	11 19	1 38	12 47	0 45	26 10	2 53	12 51	0 56	20 47	0 41	8 16	0 33	15 52	1 43	7 50	12 42	23 28	23 28	9 56	15 2	2 25			
M27	1 32	20 21	3 33	11 55	1 45	12 24	0 48	26 7	2 52	12 55	0 56	20 47	0 41	8 17	0 33	15 53	1 43	7 50	12 42	23 28	23 28	9 53	15 1	2 25			
T 28	1 55	22 47	2 40	12 30	1 52	12 1	0 50	26 3	2 51	12 59	0 56	20 47	0 41	8 18	0 33	15 53	1 43	7 49	12 42	23 28	23 28	9 50	15 0	2 25			
W29	2 19	24 2	1 38	13 40	1 59	11 38	0 53	25 59	2 49	13 3	0 56	20 47	0 41	8 20	0 33	15 54	1 43	7 49	12 42	23 28	23 28	9 48	14 59	2 25			
T 30	2s42	23n55	0n29	13s37	2s 6	11n14	0n55	25s55	2s48	13s 7	0n56	20s47	0s41	8s21	0n33	15s54	1n43	7n49	12s42	23s28	23s28	9s45	14n58	2s25			

ASTRODIENST EPHEMERIS for the year 1638

geocentric

OCTOBER 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 38 53	7♂47'18	10♂ 7	1♂43	4♂21	10♂23	7♂34	0°R19	22♂48	19♂14	0°R17	1°R52	2♂ 2	24♂ 2	18°R14	F 1
S 2	0 42 50	8°46'32	24° 5	2°56	5°33	11° 1	7°46	0°18	22°52	19°15	0°16	1°50	1°56	24°15	18°10	S 2
S 3	0 46 46	9°45'48	8♂22	4° 8	6°46	11°39	7°58	0°18	22°55	19°17	0°16	1°50	1°56	24°15	18°10	S 3
M 4	0 50 43	10°45'06	22°56	5°17	7°59	12°18	8°11	0°18	22°59	19°19	0°15	1°45	1°53	24°22	18° 7	M 4
T 5	0 54 39	11°44'26	7♂43	6°25	9°11	12°56	8°23	0°D18	23° 3	19°21	0°14	1°37	1°49	24°29	18° 5	T 5
W 6	0 58 36	12°43'49	22°36	7°31	10°24	13°35	8°35	0°18	23° 7	19°23	0°14	1°27	1°46	24°35	18° 3	W 6
T 7	1 2 32	13°43'14	7♂26	8°34	11°37	14°14	8°48	0°18	23°10	19°25	0°13	1°16	1°43	24°42	18° 0	T 7
F 8	1 6 29	14°42'41	22° 6	9°35	12°50	14°53	9° 0	0°18	23°14	19°27	0°12	1° 5	1°40	24°49	17°58	F 8
S 9	1 10 26	15°42'10	6♂27	10°34	14° 3	15°32	9°13	0°19	23°18	19°29	0°11	0°55	1°37	24°55	17°55	S 9
S 10	1 14 22	16°41'41	20°23	11°29	15°16	16°12	9°26	0°19	23°22	19°31	0°11	0°47	1°33	25° 2	17°53	S 10
M 11	1 18 19	17°41'14	3♂52	12°21	16°30	16°51	9°38	0°20	23°25	19°33	0°10	0°41	1°30	25° 9	17°50	M 11
T 12	1 22 15	18°40'49	16°54	13°10	17°43	17°31	9°51	0°20	23°29	19°35	0° 9	0°38	1°27	25°15	17°47	T 12
W 13	1 26 12	19°40'26	29°32	13°55	18°56	18°11	10° 4	0°21	23°33	19°37	0° 8	0°D38	1°24	25°22	17°45	W 13
T 14	1 30 8	20°40'04	11♂51	14°36	20°10	18°51	10°17	0°22	23°37	19°39	0° 7	0°38	1°21	25°29	17°42	T 14
F 15	1 34 5	21°39'45	23°55	15°11	21°23	19°31	10°30	0°23	23°40	19°41	0° 7	0°R38	1°18	25°36	17°39	F 15
S 16	1 38 1	22°39'27	5♂49	15°42	22°37	20°11	10°42	0°24	23°44	19°43	0° 6	0°37	1°14	25°42	17°36	S 16
S 17	1 41 58	23°39'10	17°39	16° 7	23°50	20°51	10°55	0°25	23°48	19°45	0° 5	0°34	1°11	25°49	17°33	S 17
M 18	1 45 55	24°38'55	29°30	16°26	25° 4	21°32	11° 8	0°27	23°52	19°47	0° 4	0°29	1° 8	25°56	17°31	M 18
T 19	1 49 51	25°38'43	11♂25	16°37	26°18	22°13	11°21	0°28	23°55	19°49	0° 3	0°21	1° 5	26° 2	17°28	T 19
W 20	1 53 48	26°38'31	23°29	16°R42	27°32	22°53	11°34	0°30	23°59	19°51	0° 2	0°11	1° 2	26° 9	17°25	W 20
T 21	1 57 44	27°38'22	5♂44	16°38	28°45	23°34	11°47	0°31	24° 3	19°53	0° 1	29♂59	0°58	26°16	17°22	T 21
F 22	2 1 41	28°38'15	18°11	16°26	29°59	24°15	12° 0	0°33	24° 7	19°55	0° 0	29°48	0°55	26°22	17°19	F 22
S 23	2 5 37	29°38'09	0♂50	16° 5	1♂13	24°56	12°13	0°35	24°10	19°57	29♂59	29°37	0°52	26°29	17°16	S 23
S 24	2 9 34	0♂38'05	13°42	15°35	2°27	25°37	12°26	0°36	24°14	19°59	29°58	29°27	0°49	26°36	17°13	S 24
M 25	2 13 30	1°38'04	26°46	14°55	3°41	26°19	12°39	0°38	24°18	20° 2	29°57	29°21	0°46	26°42	17°10	M 25
T 26	2 17 27	2°38'04	10♂ 0	14° 6	4°56	27° 0	12°52	0°40	24°22	20° 4	29°56	29°16	0°43	26°49	17° 7	T 26
W 27	2 21 24	3°38'07	23°25	13° 8	6°10	27°42	13° 6	0°43	24°25	20° 6	29°55	29°D15	0°39	26°56	17° 3	W 27
T 28	2 25 20	4°38'12	7♂ 1	12° 3	7°24	28°23	13°19	0°45	24°29	20° 8	29°54	29°15	0°36	27° 3	17° 0	T 28
F 29	2 29 17	5°38'19	20°47	10°52	8°38	29° 5	13°32	0°47	24°33	20°10	29°53	29°16	0°33	27° 9	16°57	F 29
S 30	2 33 13	6°38'28	4♂44	9°36	9°52	29°47	13°45	0°50	24°37	20°13	29°52	29°R16	0°30	27°16	16°54	S 30
S 31	2 37 10	7♂38'39	18♂51	8♂17	11♂ 7	0°28	13♂58	0°52	24°40	20♂15	29♂51	29♂16	0°37	27°23	16°51	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	3s 6	22n23	0s43	14s10	2s12	10n50	0n58	25s50	2s46	13s11	0n55	20s47	0s41	8s22	0n33	15s55	1n43	7n48	12s43	23s28	23s28	9s42	14n58	2s26					
S 2	3 29	19 27	1 55	14 41	2 19	10 26	1 0	25 46	2 45	13 15	0 55	20 47	0 41	8 24	0 33	15 55	1 43	7 48	12 43	23 28	23 28	9 40	14 57	2 26					
S 3	3 53	15 19	3 0	15 12	2 25	10 1	1 3	25 41	2 43	13 19	0 55	20 48	0 41	8 25	0 33	15 56	1 43	7 48	12 43	23 28	23 28	9 37	14 56	2 26					
M 4	4 16	10 12	3 55	15 41	2 31	9 36	1 5	25 36	2 42	13 23	0 55	20 48	0 41	8 27	0 33	15 56	1 43	7 48	12 43	23 28	23 28	9 34	14 55	2 26					
T 5	4 39	4 26	4 35	16 9	2 37	9 11	1 7	25 31	2 40	13 28	0 55	20 48	0 41	8 28	0 33	15 57	1 43	7 47	12 43	23 29	23 28	9 32	14 54	2 26					
W 6	5 2	1s36	4 57	16 36	2 42	8 45	1 9	25 26	2 39	13 32	0 55	20 48	0 41	8 29	0 33	15 58	1 43	7 47	12 43	23 29	23 28	9 29	14 54	2 27					
T 7	5 25	7 32	4 59	17 1	2 47	8 19	1 12	25 20	2 38	13 36	0 55	20 48	0 41	8 31	0 33	15 58	1 43	7 47	12 44	23 29	23 29	9 26	14 53	2 27					
F 8	5 49	12 58	4 41	17 25	2 52	7 53	1 14	25 14	2 36	13 40	0 55	20 48	0 41	8 32	0 33	15 59	1 43	7 46	12 44	23 29	23 29	9 23	14 52	2 27					
S 9	6 12	17 33	4 6	17 48	2 56	7 27	1 16	25 8	2 35	13 44	0 55	20 47	0 41	8 34	0 33	15 59	1 43	7 46	12 44	23 29	23 29	9 21	14 51	2 27					
S 10	6 34	21 1	3 16	18 9	3 0	7 0	1 17	25 2	2 33	13 48	0 54	20 47	0 41	8 35	0 33	16 0	1 43	7 46	12 44	23 29	23 29	9 18	14 50	2 27					
M 11	6 57	23 12	2 17	18 29	3 3	6 33	1 19	24 56	2 32	13 52	0 54	20 47	0 41	8 36	0 33	16 0	1 43	7 45	12 44	23 29	23 29	9 15	14 49	2 28					
T 12	7 20	24 2	1 12	18 46	3 6	6 6	1 21	24 49	2 30	13 56	0 54	20 47	0 41	8 38	0 33	16 1	1 43	7 45	12 44	23 29	23 29	9 13	14 48	2 28					
W 13	7 43	23 35	0 6	19 2	3 8	5 39	1 23	24 42	2 29	14 0	0 54	20 47	0 41	8 39	0 33	16 1	1 43	7 45	12 45	23 29	23 29	9 10	14 47	2 28					
T 14	8 5	21 58	0n59	19 16	3 9	5 12	1 24	24 35	2 27	14 5	0 54	20 47	0 41	8 41	0 33	16 2	1 43	7 45	12 45	23 29	23 29	9 7	14 46	2 28					
F 15	8 28	19 23	2 1	19 27	3 10	4 44	1 26	24 28	2 26	14 9	0 54	20 47	0 41	8 42	0 33	16 3	1 43	7 44	12 45	23 29	23 29	9 4	14 45	2 28					
S 16	8 50	16 1	2 56	19 36	3 10	4 16	1 27	24 21	2 24	14 13	0 54	20 46	0 41	8 43	0 33	16 3	1 43	7 44	12 45	23 29	23 29	9 2	14 44	2 29					
S 17	9 12	12 2	3 43	19 42	3 9	3 48	1 28	24 13	2 23	14 17	0 54	20 46	0 41	8 45	0 33	16 4	1 42	7 44	12 45	23 29	23 29	8 59	14 43	2 29					
M 18	9 34	7 36	4 20	19 46	3 7	3 20	1 30	24 5	2 21	14 21	0 54	20 46	0 41	8 46	0 33	16 4	1 42	7 43	12 45	23 29	23 29	8 56	14 43	2 29					
T 19	9 56	2 52	4 47	19 46	3 3	2 52	1 31	23 57	2 20	14 25	0 54	20 46	0 41	8 48	0 33	16 5	1 42	7 43	12 45	23 29	23 29	8 54	14 42	2 29					
W 20	10 18	2n 1	5 1	19 43	2 59	2 24	1 32	23 49	2 19	14 29	0 53	20 45	0 41	8 49	0 33	16 5	1 42	7 43	12 45	23 29	23 29	8 51	14 41	2 29					
T 21	10 39	6 54	5 2	19 36	2 53	1 55	1 33	23 41	2 17	14 33	0 53	20 45	0 41	8 50	0 33	16 6	1 42	7 42	12 46	23 29	23 29	8 48	14 40	2 29					
F 22	11 1	11 34	4 48	19 25	2 45	1 26	1 34	23 32	2 16	14 37	0 53	20 45	0 41	8 52	0 33	16 7	1 42	7 42	12 46	23 29	23 29	8 45	14 39	2 29					
S 23	11 22	15 51	4 20	19 11	2 36	0 58	1 35	23 23	2 14	14 41	0 53	20 44	0 41	8 53	0 33	16 7	1 42	7 42	12 46	23 29	23 29	8 43	14 38	2 30					
S 24	11 43	19 27	3 38	18 52	2 26	0 29	1 36	23 14	2 13	14 45	0 53	20 44	0 41	8 54	0 33	16 8	1 42	7 42	12 46	23 29	23 29	8 40	14 37	2 30					
M 25	12 4	22 8	2 45	18 28	2 13	0 0	1 36	23 5	2 11	14 49	0 53	20 43	0 41	8 56	0 33	16 8	1 42	7 41	12 46	23 29	23 29	8 37	14 36	2 30					
T 26	12 25	23 40	1 41	18 0	1 59	0s29	1 37	22 55	2 10	14 53	0 53	20 43	0 41	8 57	0 33	16 9	1 42	7 41	12 46	23 29	23 29	8 35	14 35	2 30					
W 27	12 45	23 50	0 31	17 27	1 43	0 58	1 38	22 46	2 8	14 58	0 53	20 42	0 41	8 59	0 33	16 10	1 42	7 41	12 46	23 29	23 29	8 32	14 34	2 30					
T 28	13 6	22 36	0s42	16 51	1 26	1 26	1 38	22 36	2 7	15 2	0 53	20 42	0 41	9 0	0 33	16 10	1 42	7 40	12 46	23 29	23 29	8 29	14 33	2 30					
F 29	13 26	20 1	1 53	16 11	1 7	1 55	1 38	22 26	2 5	15 6	0 53	20 41	0 41	9 1	0 33	16 11	1 42	7 40	12 46	23 29	23 29	8 26	14 32	2 31					
S 30	13 46	16 14	2 59	15 28	0 47	2 24	1 39	22 15	2 4	15 10	0 53	20 41	0 41	9 3	0 33	16 11	1 42	7 40	12 46	23 29	23 29	8 24	14 31	2 31					
S 31	14s 5	11n29	3s54	14s43	0s27	2s53	1n39	22s 5	2s 3	15s14	0n53	20s40	0s41	9s 4	0n33	16s12	1n42	7n40	12s47	23s29	23s29	8s21	14n30	2s31					

ASTRODIENST EPHEMERIS for the year 1638

geocentric

NOVEMBER 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 41 6	8♉38'52	3♊8	6♉R58	12♊21	1♉10	14♉12	0♉55	24♊44	20♉17	29♉R50	29♉R13	0♉24	27♉29	16♉R48	M 1
T 2	2 45 3	9♉39'07	17°31	5♉42	13°36	1°52	14°25	0°58	24°48	20°19	29♉49	29♉8	0°20	27°36	16♉45	T 2
W 3	2 48 59	10°39'25	1♊58	4°31	14°50	2°34	14°38	1° 0	24°51	20°21	29°48	29° 2	0°17	27°43	16°41	W 3
T 4	2 52 56	11°39'44	16°21	3°28	16° 5	3°17	14°51	1° 3	24°55	20°24	29°47	28°54	0°14	27°50	16°38	T 4
F 5	2 56 52	12°40'05	0♉37	2°33	17°19	3°59	15° 4	1° 6	24°59	20°26	29°46	28°46	0°11	27°56	16°35	F 5
S 6	3 0 49	13°40'28	14°38	1°48	18°34	4°41	15°18	1° 9	25° 2	20°28	29°45	28°39	0° 8	28° 3	16°32	S 6
S 7	3 4 46	14°40'53	28°21	1°15	19°49	5°24	15°31	1°13	25° 6	20°30	29°44	28°34	0° 4	28°10	16°28	S 7
M 8	3 8 42	15°41'19	11♉43	0°54	21° 3	6° 6	15°44	1°16	25°10	20°33	29°43	28°30	0° 1	28°16	16°25	M 8
T 9	3 12 39	16°41'47	24°42	0°D44	22°18	6°49	15°58	1°19	25°13	20°35	29°42	28°D29	29♉58	28°23	16°22	T 9
W10	3 16 35	17°42'16	7♉20	0°46	23°33	7°32	16°11	1°23	25°17	20°37	29°41	28°D29	29°55	28°30	16°19	W10
T 11	3 20 32	18°42'47	19°40	0°58	24°47	8°14	16°24	1°26	25°20	20°39	29°39	28°30	29°52	28°36	16°15	T 11
F 12	3 24 28	19°43'19	1♉46	1°20	26° 2	8°57	16°37	1°30	25°24	20°42	29°38	28°32	29°49	28°43	16°12	F 12
S 13	3 28 25	20°43'52	13°42	1°51	27°17	9°40	16°51	1°34	25°27	20°44	29°37	28°33	29°45	28°50	16° 9	S 13
S 14	3 32 22	21°44'27	25°33	2°31	28°32	10°23	17° 4	1°37	25°31	20°46	29°36	28°R34	29°42	28°57	16° 6	S 14
M15	3 36 18	22°45'02	7♉25	3°18	29°47	11° 6	17°17	1°41	25°34	20°48	29°35	28°32	29°39	29° 3	16° 3	M15
T 16	3 40 15	23°45'39	19°23	4°11	1♉2	11°49	17°30	1°45	25°38	20°51	29°34	28°29	29°36	29°10	15°59	T 16
W17	3 44 11	24°46'17	1♉29	5°10	2°17	12°32	17°44	1°49	25°41	20°53	29°33	28°25	29°33	29°17	15°56	W17
T 18	3 48 8	25°46'57	13°49	6°14	3°32	13°15	17°57	1°53	25°45	20°55	29°32	28°20	29°30	29°23	15°53	T 18
F 19	3 52 4	26°47'37	26°25	7°22	4°47	13°58	18°10	1°58	25°48	20°57	29°30	28°14	29°26	29°30	15°50	F 19
S 20	3 56 1	27°48'19	9♉18	8°34	6° 2	14°41	18°23	2° 2	25°51	21° 0	29°29	28° 9	29°23	29°37	15°47	S 20
S 21	3 59 57	28°49'02	22°28	9°49	7°17	15°25	18°36	2° 6	25°55	21° 2	29°28	28° 4	29°20	29°43	15°44	S 21
M22	4 3 54	29°49'47	5♉54	11° 7	8°32	16° 8	18°50	2°11	25°58	21° 4	29°27	28° 1	29°17	29°50	15°40	M22
T 23	4 7 51	0♉50'33	19°34	12°27	9°47	16°51	19° 3	2°15	26° 1	21° 6	29°26	27°59	29°14	29°57	15°37	T 23
W24	4 11 47	1°51'20	3♊25	13°49	11° 2	17°34	19°16	2°20	26° 4	21° 9	29°25	27°D59	29°10	0♉4	15°34	W24
T 25	4 15 44	2°52'08	17°26	15°13	12°17	18°18	19°29	2°25	26° 8	21°11	29°24	28° 0	29° 7	0°10	15°31	T 25
F 26	4 19 40	3°52'58	1♊32	16°38	13°32	19° 1	19°42	2°29	26°11	21°13	29°22	28° 2	29° 4	0°17	15°28	F 26
S 27	4 23 37	4°53'50	15°41	18° 4	14°47	19°45	19°55	2°34	26°14	21°15	29°21	28° 3	29° 1	0°24	15°25	S 27
S 28	4 27 33	5°54'42	29°52	19°32	16° 2	20°28	20° 8	2°39	26°17	21°17	29°20	28°R 4	28°58	0°30	15°22	S 28
M29	4 31 30	6°55'36	14♉3	21° 0	17°18	21°12	20°21	2°44	26°20	21°20	29°19	28° 4	28°55	0°37	15°19	M29
T 30	4 35 26	7♉56'32	28♉10	22♉29	18♉33	21°55	20♉34	2°49	26°23	21♉22	29♉18	28♉3	28♉51	0°44	15♉16	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	decl	lat
M 1	14s25	6n 5	4s36	13s58	0s 6	3s22	1n39	21s54	2s 1	15s18	0n53	20s40	0s41	9s 5	0n33	16s13	1n42	7n39	12s47	23s29	23s29	8s18	14n29	2s31			
T 2	14 44	0 19	5 1	13 13	0n14	3 51	1 39	21 43	2 0	15 22	0 52	20 39	0 41	9 7	0 33	16 13	1 42	7 39	12 47	23 29	23 29	8 16	14 28	2 31			
W 3	15 3	5s28	5 7	12 31	0 34	4 20	1 39	21 32	1 58	15 26	0 52	20 39	0 41	9 8	0 33	16 14	1 42	7 39	12 47	23 29	23 29	8 13	14 27	2 31			
T 4	15 22	10 57	4 53	11 52	0 53	4 49	1 39	21 21	1 57	15 29	0 52	20 38	0 41	9 9	0 33	16 14	1 42	7 39	12 47	23 29	23 29	8 10	14 25	2 31			
F 5	15 40	15 47	4 22	11 17	1 10	5 17	1 39	21 10	1 55	15 33	0 52	20 37	0 41	9 11	0 33	16 15	1 42	7 38	12 47	23 29	23 29	8 7	14 24	2 31			
S 6	15 58	19 40	3 34	10 47	1 26	5 46	1 39	20 58	1 54	15 37	0 52	20 37	0 41	9 12	0 33	16 16	1 42	7 38	12 47	23 29	23 29	8 5	14 23	2 31			
S 7	16 16	22 22	2 36	10 23	1 39	6 14	1 39	20 46	1 52	15 41	0 52	20 36	0 41	9 13	0 33	16 16	1 42	7 38	12 47	23 29	23 29	8 2	14 22	2 32			
M 8	16 34	23 43	1 30	10 4	1 51	6 43	1 38	20 35	1 51	15 45	0 52	20 35	0 41	9 15	0 33	16 17	1 42	7 37	12 47	23 29	23 29	7 59	14 21	2 32			
T 9	16 52	23 43	0 20	9 52	2 1	7 11	1 38	20 22	1 50	15 49	0 52	20 34	0 41	9 16	0 33	16 17	1 42	7 37	12 47	23 29	23 29	7 56	14 20	2 32			
W10	17 9	22 29	0n48	9 45	2 9	7 39	1 37	20 10	1 48	15 53	0 52	20 34	0 41	9 17	0 33	16 18	1 42	7 37	12 47	23 29	23 29	7 54	14 19	2 32			
T 11	17 26	20 11	1 53	9 43	2 15	8 7	1 37	19 58	1 47	15 57	0 52	20 33	0 41	9 19	0 33	16 19	1 42	7 37	12 47	23 29	23 29	7 51	14 18	2 32			
F 12	17 42	17 1	2 51	9 47	2 20	8 35	1 36	19 45	1 45	16 1	0 52	20 32	0 41	9 20	0 33	16 19	1 42	7 37	12 47	23 29	23 29	7 48	14 17	2 32			
S 13	17 58	13 13	3 41	9 55	2 23	9 3	1 35	19 32	1 44	16 4	0 52	20 31	0 41	9 21	0 33	16 20	1 42	7 36	12 47	23 29	23 29	7 46	14 16	2 32			
S 14	18 14	8 55	4 22	10 7	2 24	9 30	1 35	19 19	1 42	16 8	0 52	20 31	0 41	9 22	0 33	16 20	1 42	7 36	12 47	23 29	23 29	7 43	14 15	2 32			
M15	18 30	4 18	4 51	10 22	2 25	9 57	1 34	19 6	1 41	16 12	0 52	20 30	0 41	9 24	0 33	16 21	1 42	7 36	12 47	23 29	23 29	7 40	14 14	2 32			
T 16	18 45	0n30	5 8	10 41	2 24	10 24	1 33	18 52	1 40	16 16	0 52	20 29	0 41	9 25	0 33	16 22	1 42	7 36	12 47	23 29	23 29	7 37	14 13	2 32			
W17	19 0	5 21	5 11	11 2	2 22	10 51	1 32	18 39	1 38	16 19	0 52	20 28	0 41	9 26	0 33	16 22	1 42	7 35	12 47	23 29	23 29	7 35	14 12	2 32			
T 18	19 14	10 4	5 0	11 26	2 19	11 18	1 31	18 25	1 37	16 23	0 52	20 27	0 41	9 27	0 33	16 23	1 42	7 35	12 47	23 29	23 29	7 32	14 11	2 33			
F 19	19 29	14 29	4 35	11 51	2 16	11 44	1 30	18 11	1 35	16 27	0 52	20 26	0 41	9 29	0 33	16 23	1 42	7 35	12 47	23 28	23 29	7 29	14 10	2 33			
S 20	19 43	18 20	3 55	12 18	2 12	12 10	1 28	17 58	1 34	16 31	0 52	20 25	0 41	9 30	0 33	16 24	1 42	7 35	12 47	23 28	23 29	7 26	14 9	2 33			
S 21	19 56	21 21	3 2	12 46	2 7	12 36	1 27	17 43	1 33	16 34	0 52	20 24	0 41	9 31	0 33	16 24	1 42	7 35	12 47	23 28	23 29	7 24	14 9	2 33			
M22	20 9	23 16	1 58	13 15	2 2	13 1	1 26	17 29	1 31	16 38	0 52	20 23	0 41	9 32	0 33	16 25	1 42	7 34	12 47	23 28	23 29	7 21	14 8	2 33			
T 23	20 22	23 50	0 46	13 45	1 57	13 26	1 25	17 15	1 30	16 41	0 51	20 22	0 41	9 33	0 33	16 26	1 42	7 34	12 47	23 28	23 29	7 18	14 7	2 33			
W24	20 34	22 57	0s30	14 15	1 51	13 51	1 23	17 0	1 29	16 45	0 51	20 21	0 41	9 35	0 33	16 26	1 42	7 34	12 47	23 28	23 29	7 16	14 6	2 33			
T 25	20 46	20 37	1 45	14 46	1 45	14 15	1 22	16 45	1 27	16 49	0 51	20 20	0 41	9 36	0 33	16 27	1 42	7 34	12 47	23 28	23 29	7 13	14 5	2 33			
F 26	20 58	17 2	2 54	15 16	1 38	14 39	1 20	16 31	1 26	16 52	0 51	20 19	0 41	9 37	0 33	16 27	1 42	7 34	12 47	23 28	23 29	7 10	14 4	2 33			
S 27	21 9	12 27	3 53	15 47	1 32	15 3	1 19	16 16	1 25	16 56	0 51	20 18	0 41	9 38	0 33	16 28	1 42	7 33	12 47	23 28	23 29	7 7	14 3	2 33			
S 28	21 20	7 12	4 38	16 17	1 25	15 27	1 17	16 0	1 23	16 59	0 51	20 17	0 42	9 39	0 33	16 28	1 42	7 33	12 47	23 28	23 29	7 5	14 2	2 33			
M29	21 31	1 35	5 6	16 47	1 18	15 50	1 15	15 45	1 22	17 3	0 51	20 16	0 42	9 40	0 33	16 29	1 42	7 33	12 47	23 28	23 29	7 2	14 1	2 33			
T 30	21s41	4s 5	5s15	17s17	1n11	16s12	1n13	15s30	1s20	17s 6	0n51	20s15	0s42	9s41	0n33	16s30	1n42	7n33	12s46	23s28	23s29	6s59	14n 0	2s33			

ASTRODIENST EPHEMERIS for the year 1638
geocentric

DECEMBER 1638 GC

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
W 1	4 39 23	8♌57°29	12♊13	23♍58	19♍48	22♌39	20♍47	2♌54	26♊26	21♍24	29°R17	28°R 1	28♌48	0♈51	15°R13	W 1
T 2	4 43 20	9°58'27	26° 8	25°28	21° 3	23°23	21° 0	2°59	26°29	21°26	29♌16	27♌59	28°45	0°57	15♌10	T 2
F 3	4 47 16	10°59'26	9♍54	26°59	22°18	24° 6	21°13	3° 4	26°32	21°28	29°15	27°56	28°42	1° 4	15° 8	F 3
S 4	4 51 13	12° 0'26	23°28	28°30	23°34	24°50	21°26	3°10	26°35	21°31	29°14	27°54	28°39	1°11	15° 5	S 4
S 5	4 55 9	13° 1'28	6♌48	0♌1	24°49	25°34	21°39	3°15	26°38	21°33	29°12	27°52	28°36	1°17	15° 2	S 5
M 6	4 59 6	14° 2'30	19°51	1°32	26° 4	26°17	21°52	3°21	26°41	21°35	29°11	27°51	28°32	1°24	14°59	M 6
T 7	5 3 2	15° 3'33	2♌39	3° 4	27°20	27° 1	22° 4	3°26	26°44	21°37	29°10	27°D51	28°29	1°31	14°57	T 7
W 8	5 6 59	16° 4'37	15°10	4°36	28°35	27°45	22°17	3°32	26°47	21°39	29° 9	27°52	28°26	1°37	14°54	W 8
T 9	5 10 55	17° 5'42	27°28	6° 8	29°50	28°29	22°30	3°37	26°49	21°41	29° 8	27°53	28°23	1°44	14°51	T 9
F 10	5 14 52	18° 6'47	9♌33	7°40	1♌6	29°12	22°42	3°43	26°52	21°43	29° 7	27°54	28°20	1°51	14°49	F 10
S 11	5 18 49	19° 7'52	21°29	9°13	2°21	29°56	22°55	3°49	26°55	21°45	29° 6	27°55	28°16	1°58	14°46	S 11
S 12	5 22 45	20° 8'58	3♌21	10°45	3°36	0♌40	23° 8	3°54	26°58	21°47	29° 5	27°55	28°13	2° 4	14°44	S 12
M13	5 26 42	21°10'04	15°13	12°18	4°52	1°24	23°20	4° 0	27° 0	21°49	29° 4	27°56	28°10	2°11	14°41	M13
T 14	5 30 38	22°11'10	27° 9	13°51	6° 7	2° 8	23°33	4° 6	27° 3	21°51	29° 3	27°R56	28° 7	2°18	14°39	T 14
W15	5 34 35	23°12'17	9°Y14	15°24	7°22	2°52	23°45	4°12	27° 5	21°53	29° 2	27°56	28° 4	2°24	14°37	W15
T 16	5 38 31	24°13'24	21°34	16°57	8°38	3°35	23°57	4°18	27° 8	21°55	29° 1	27°55	28° 1	2°31	14°34	T 16
F 17	5 42 28	25°14'31	4♌11	18°31	9°53	4°19	24°10	4°24	27°10	21°57	29° 0	27°55	27°57	2°38	14°32	F 17
S 18	5 46 24	26°15'38	17° 8	20° 5	11° 8	5° 3	24°22	4°30	27°12	21°59	28°59	27°55	27°54	2°45	14°30	S 18
S 19	5 50 21	27°16'46	0♌28	21°38	12°24	5°47	24°34	4°36	27°15	22° 1	28°58	27°54	27°51	2°51	14°28	S 19
M20	5 54 18	28°17'54	14°10	23°13	13°39	6°31	24°46	4°43	27°17	22° 3	28°57	27°D54	27°48	2°58	14°25	M20
T 21	5 58 14	29°19'02	28°12	24°47	14°55	7°15	24°59	4°49	27°19	22° 5	28°56	27°R54	27°45	3° 5	14°23	T 21
W22	6 2 11	0♌20'11	12♌31	26°21	16°10	7°59	25°11	4°55	27°22	22° 7	28°55	27°54	27°42	3°11	14°21	W22
T 23	6 6 7	1°21'20	27° 2	27°56	17°25	8°43	25°23	5° 1	27°24	22° 9	28°54	27°54	27°38	3°18	14°19	T 23
F 24	6 10 4	2°22'29	11♌37	29°31	18°41	9°26	25°35	5° 8	27°26	22°11	28°53	27°54	27°35	3°25	14°18	F 24
S 25	6 14 0	3°23'38	26°12	1♌7	19°56	10°10	25°46	5°14	27°28	22°12	28°52	27°53	27°32	3°32	14°16	S 25
S 26	6 17 57	4°24'48	10♌41	2°42	21°12	10°54	25°58	5°21	27°30	22°14	28°51	27°53	27°29	3°38	14°14	S 26
M27	6 21 53	5°25'58	24°59	4°18	22°27	11°38	26°10	5°27	27°32	22°16	28°50	27°52	27°26	3°45	14°12	M27
T 28	6 25 50	6°27'08	9♌5	5°55	23°42	12°22	26°22	5°34	27°34	22°18	28°49	27°D52	27°22	3°52	14°11	T 28
W29	6 29 47	7°28'19	22°56	7°31	24°58	13° 6	26°33	5°40	27°36	22°19	28°49	27°52	27°19	3°58	14° 9	W29
T 30	6 33 43	8°29'30	6♌32	9° 9	26°13	13°50	26°45	5°47	27°38	22°21	28°48	27°53	27°16	4° 5	14° 7	T 30
F 31	6 37 40	9♌30'41	19♌53	10♌46	27♌29	14♌33	26♌56	5♌54	27♌39	22♌23	28♌47	27♌54	27♌13	4♌12	14♌6	F 31

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
W 1	21s50	9s31	5s 6	17s47	1n 4	16s34	1n12	15s14	1s19	17s10	0n51	20s13	0s42	9s43	0n33	16s30	1n42	7n33	12s46	23s28	23s29	6s56	13n59	2s33
T 2	21 59	14 25	4 38	18 15	0 56	16 56	1 10	14 59	1 18	17 13	0 51	20 12	0 42	9 44	0 33	16 31	1 42	7 33	12 46	23 28	23 29	6 54	13 59	2 33
F 3	22 8	18 31	3 55	18 43	0 49	17 17	1 8	14 43	1 16	17 17	0 51	20 11	0 42	9 45	0 33	16 31	1 42	7 33	12 46	23 28	23 29	6 51	13 58	2 33
S 4	22 16	21 34	2 59	19 11	0 42	17 38	1 6	14 27	1 15	17 20	0 51	20 10	0 42	9 46	0 33	16 32	1 42	7 32	12 46	23 28	23 29	6 48	13 57	2 33
S 5	22 24	23 21	1 54	19 38	0 35	17 58	1 4	14 11	1 14	17 23	0 51	20 9	0 42	9 47	0 33	16 32	1 42	7 32	12 46	23 28	23 29	6 46	13 56	2 33
M 6	22 32	23 50	0 44	20 4	0 27	18 18	1 2	13 55	1 13	17 27	0 51	20 7	0 42	9 48	0 33	16 33	1 42	7 32	12 46	23 28	23 29	6 43	13 55	2 33
T 7	22 39	23 1	0n27	20 29	0 20	18 38	1 0	13 39	1 11	17 30	0 51	20 6	0 42	9 49	0 33	16 33	1 42	7 32	12 46	23 28	23 29	6 40	13 54	2 33
W 8	22 45	21 3	1 35	20 53	0 13	18 56	0 58	13 22	1 10	17 33	0 51	20 5	0 42	9 50	0 33	16 34	1 42	7 32	12 46	23 28	23 29	6 37	13 54	2 33
T 9	22 52	18 9	2 37	21 17	0 6	19 15	0 56	13 6	1 9	17 36	0 51	20 3	0 42	9 51	0 33	16 34	1 42	7 32	12 46	23 28	23 29	6 35	13 53	2 33
F 10	22 57	14 30	3 31	21 39	0s 1	19 33	0 54	12 49	1 7	17 40	0 51	20 2	0 42	9 52	0 33	16 35	1 42	7 32	12 45	23 28	23 29	6 32	13 52	2 33
S 11	23 2	10 20	4 15	22 0	0 8	19 50	0 52	12 33	1 6	17 43	0 51	20 1	0 42	9 53	0 33	16 35	1 42	7 32	12 45	23 28	23 28	6 29	13 51	2 33
S 12	23 7	5 48	4 49	22 21	0 15	20 6	0 49	12 16	1 5	17 46	0 51	20 0	0 42	9 54	0 33	16 36	1 42	7 32	12 45	23 28	23 28	6 26	13 51	2 33
M13	23 11	1 5	5 9	22 40	0 22	20 23	0 47	11 59	1 3	17 49	0 51	19 58	0 42	9 55	0 33	16 36	1 42	7 32	12 45	23 28	23 28	6 24	13 50	2 33
T 14	23 15	3n43	5 17	22 58	0 28	20 38	0 45	11 42	1 2	17 52	0 51	19 57	0 42	9 55	0 33	16 37	1 42	7 31	12 45	23 28	23 28	6 21	13 49	2 33
W15	23 19	8 26	5 11	23 16	0 35	20 53	0 43	11 25	1 1	17 55	0 51	19 55	0 42	9 56	0 33	16 37	1 43	7 31	12 45	23 28	23 28	6 18	13 49	2 33
T 16	23 22	12 55	4 51	23 32	0 41	21 7	0 40	11 8	1 0	17 58	0 51	19 54	0 42	9 57	0 33	16 38	1 43	7 31	12 45	23 28	23 28	6 15	13 48	2 33
F 17	23 24	16 57	4 16	23 46	0 47	21 21	0 38	10 51	0 58	18 1	0 51	19 53	0 42	9 58	0 33	16 38	1 43	7 31	12 45	23 28	23 28	6 13	13 47	2 33
S 18	23 26	20 18	3 28	24 0	0 53	21 34	0 35	10 34	0 57	18 4	0 51	19 51	0 42	9 59	0 33	16 39	1 43	7 31	12 44	23 28	23 28	6 10	13 47	2 33
S 19	23 27	22 41	2 27	24 12	0 59	21 47	0 33	10 17	0 56	18 7	0 51	19 50	0 42	10 0	0 33	16 39	1 43	7 31	12 44	23 28	23 28	6 7	13 46	2 33
M20	23 28	23 48	1 16	24 24	1 5	21 59	0 31	9 59	0 55	18 10	0 51	19 48	0 42	10 0	0 33	16 40	1 43	7 31	12 44	23 28	23 28	6 4	13 45	2 33
T 21	23 29	23 27	0s 2	24 33	1 11	22 10	0 28	9 42	0 54	18 13	0 51	19 47	0 42	10 1	0 33	16 40	1 43	7 31	12 44	23 28	23 28	6 2	13 45	2 33
W22	23 29	21 34	1 20	24 42	1 16	22 20	0 26	9 24	0 52	18 16	0 51	19 45	0 42	10 2	0 33	16 41	1 43	7 31	12 44	23 28	23 28	5 59	13 44	2 33
T 23	23 29	18 16	2 35	24 49	1 21	22 30	0 23	9 7	0 51	18 19	0 51	19 44	0 42	10 3	0 33	16 41	1 43	7 31	12 43	23 28	23 28	5 56	13 44	2 33
F 24	23 28	13 49	3 40	24 55	1 26	22 39	0 21	8 49	0 50	18 22	0 51	19 42	0 42	10 4	0 33	16 42	1 43	7 31	12 43	23 28	23 28	5 54	13 43	2 33
S 25	23 27	8 34	4 30	25 0	1 31	22 48	0 18	8 31	0 49	18 25	0 51	19 41	0 42	10 4	0 33	16 42	1 43	7 31	12 43	23 28	23 28	5 51	13 43	2 33
S 26	23 25	2 54	5 3	25 3	1 35	22 56	0 16	8 13	0 48	18 27	0 51	19 39	0 42	10 5	0 33	16 42	1 43	7 31	12 43	23 28	23 28	5 48	13 42	2 33
M27	23 22	2s51	5 17	25 4	1 39	23 3	0 14	7 56	0 46	18 30	0 51	19 38	0 42	10 6	0 33	16 43	1 43	7 31	12 43	23 28	23 28	5 45	13 42	2 33
T 28	23 20	8 22	5 11	25 4	1 43	23 9	0 11	7 38	0 45	18 33	0 51	19 36	0 42	10 6	0 33	16 43	1 43	7 31	12 43	23 28	23 28	5 43	13 41	2 33
W29	23 16	13 22	4 47	25 3	1 47	23 15	0 9	7 20	0 44	18 35	0 51	19 34	0 42	10 7	0 34	16 44	1 43	7 31	12 42	23 28	23 28	5 40	13 41	2 33
T 30	23 13	17 37	4 8	25 0	1 50	23 20	0 6	7 2	0 43	18 38	0 51	19 33	0 42	10 8	0 34	16 44	1 43	7 31	12 42	23 28	23 27	5 37	13 41	2 33
F 31	23s 9	20s53	3s16	24s56	1s54	23s24	0n 4	6s44	0s42	18s41	0n51	19s31	0s42	10s 8	0n34	16s44	1n43	7n31	12s42	23s28	23s27	5s34	13n40	2s33