



# Astrodienst Ephemeris Tables for the year 1813

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 D5EPH

## ASTRODIENST EPHEMERIS for the year 1813

geocentric

JANUARY 1813

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 41 0	10 <sup>3</sup> 16'03	20 <sup>2</sup> 15	3 <sup>3</sup> R51	5 <sup>2</sup> 17	13 <sup>1</sup> M57	6 <sup>0</sup> R59	10 <sup>3</sup> 20	26 <sup>1</sup> M21	14 <sup>2</sup> 5	17 <sup>1</sup> 32	20 <sup>0</sup> R20	21 <sup>0</sup> 49	4 <sup>1</sup> M20	27 <sup>2</sup> 46	F 1
S 2	6 44 57	11 <sup>0</sup> 17'14	2 <sup>3</sup> 47	2 <sup>3</sup> 41	6 <sup>3</sup> 31	14 <sup>3</sup> 35	6 <sup>0</sup> L52	10 <sup>0</sup> 27	26 <sup>2</sup> 24	14 <sup>0</sup> 7	17 <sup>3</sup> 33	20 <sup>0</sup> 12	21 <sup>0</sup> 46	4 <sup>2</sup> 27	27 <sup>2</sup> 49	S 2
S 3	6 48 54	12 <sup>0</sup> 18'26	15 <sup>0</sup> 32	1 <sup>0</sup> 39	7 <sup>0</sup> 45	15 <sup>0</sup> 12	6 <sup>0</sup> 46	10 <sup>0</sup> 35	26 <sup>0</sup> 27	14 <sup>0</sup> 9	17 <sup>3</sup> 33	20 <sup>0</sup> 7	21 <sup>0</sup> 43	4 <sup>3</sup> 33	27 <sup>2</sup> 52	S 3
M 4	6 52 50	13 <sup>0</sup> 19'37	28 <sup>0</sup> 30	0 <sup>0</sup> 46	8 <sup>0</sup> 58	15 <sup>0</sup> 50	6 <sup>0</sup> 39	10 <sup>0</sup> 42	26 <sup>0</sup> 30	14 <sup>0</sup> 11	17 <sup>3</sup> 34	20 <sup>0</sup> 3	21 <sup>0</sup> 40	4 <sup>4</sup> 40	27 <sup>2</sup> 56	M 4
T 5	6 56 47	14 <sup>0</sup> 20'48	11 <sup>0</sup> 40	0 <sup>0</sup> 2	10 <sup>0</sup> 12	16 <sup>0</sup> 28	6 <sup>0</sup> 32	10 <sup>0</sup> 49	26 <sup>0</sup> 32	14 <sup>0</sup> 13	17 <sup>3</sup> 35	20 <sup>0</sup> 1	21 <sup>0</sup> 36	4 <sup>4</sup> 47	27 <sup>2</sup> 59	T 5
W 6	7 0 43	15 <sup>0</sup> 21'59	25 <sup>0</sup> 1	29 <sup>2</sup> 29	11 <sup>0</sup> 26	17 <sup>0</sup> 5	6 <sup>0</sup> 25	10 <sup>0</sup> 56	26 <sup>0</sup> 35	14 <sup>0</sup> 15	17 <sup>3</sup> 36	20 <sup>0</sup> D 0	21 <sup>0</sup> 33	4 <sup>4</sup> 54	28 <sup>0</sup> 2	W 6
T 7	7 4 40	16 <sup>0</sup> 23'10	8 <sup>0</sup> 33	29 <sup>0</sup> 5	12 <sup>0</sup> 40	17 <sup>0</sup> 43	6 <sup>0</sup> 18	11 <sup>0</sup> 3	26 <sup>0</sup> 38	14 <sup>0</sup> 17	17 <sup>3</sup> 37	20 <sup>0</sup> 1	21 <sup>0</sup> 30	5 <sup>0</sup> 0	28 <sup>0</sup> 5	T 7
F 8	7 8 36	17 <sup>0</sup> 24'19	22 <sup>0</sup> 16	28 <sup>0</sup> 51	13 <sup>0</sup> 53	18 <sup>0</sup> 21	6 <sup>0</sup> 11	11 <sup>0</sup> 10	26 <sup>0</sup> 41	14 <sup>0</sup> 19	17 <sup>3</sup> 38	20 <sup>0</sup> 3	21 <sup>0</sup> 27	5 <sup>0</sup> 7	28 <sup>0</sup> 9	F 8
S 9	7 12 33	18 <sup>0</sup> 25'29	6 <sup>0</sup> 10	28 <sup>0</sup> D47	15 <sup>0</sup> 7	18 <sup>0</sup> 58	6 <sup>0</sup> 3	11 <sup>0</sup> 17	26 <sup>0</sup> 43	14 <sup>0</sup> 21	17 <sup>3</sup> 39	20 <sup>0</sup> 4	21 <sup>0</sup> 24	5 <sup>0</sup> 14	28 <sup>0</sup> 12	S 9
S 10	7 16 29	19 <sup>0</sup> 26'37	20 <sup>0</sup> 13	28 <sup>0</sup> 51	16 <sup>0</sup> 21	19 <sup>0</sup> 36	5 <sup>0</sup> 56	11 <sup>0</sup> 24	26 <sup>0</sup> 46	14 <sup>0</sup> 23	17 <sup>3</sup> 39	20 <sup>0</sup> R 5	21 <sup>0</sup> 20	5 <sup>0</sup> 20	28 <sup>0</sup> 15	S 10
M 11	7 20 26	20 <sup>0</sup> 27'45	4 <sup>0</sup> 25	29 <sup>0</sup> 3	17 <sup>0</sup> 35	20 <sup>0</sup> 13	5 <sup>0</sup> 49	11 <sup>0</sup> 31	26 <sup>0</sup> 48	14 <sup>0</sup> 25	17 <sup>3</sup> 40	20 <sup>0</sup> 4	21 <sup>0</sup> 17	5 <sup>0</sup> 27	28 <sup>0</sup> 19	M 11
T 12	7 24 23	21 <sup>0</sup> 28'53	18 <sup>0</sup> 43	29 <sup>0</sup> 23	18 <sup>0</sup> 49	20 <sup>0</sup> 51	5 <sup>0</sup> 41	11 <sup>0</sup> 38	26 <sup>0</sup> 51	14 <sup>0</sup> 27	17 <sup>3</sup> 41	20 <sup>0</sup> 2	21 <sup>0</sup> 14	5 <sup>0</sup> 34	28 <sup>0</sup> 22	T 12
W 13	7 28 19	22 <sup>0</sup> 29'59	3 <sup>0</sup> 11	29 <sup>0</sup> 49	20 <sup>0</sup> 3	21 <sup>0</sup> 29	5 <sup>0</sup> 33	11 <sup>0</sup> 45	26 <sup>0</sup> 53	14 <sup>0</sup> 29	17 <sup>3</sup> 42	19 <sup>0</sup> 59	21 <sup>0</sup> 11	5 <sup>0</sup> 41	28 <sup>0</sup> 26	W 13
T 14	7 32 16	23 <sup>0</sup> 31'05	17 <sup>0</sup> 27	0 <sup>0</sup> 22	21 <sup>0</sup> 17	22 <sup>0</sup> 6	5 <sup>0</sup> 26	11 <sup>0</sup> 52	26 <sup>0</sup> 56	14 <sup>0</sup> 31	17 <sup>3</sup> 43	19 <sup>0</sup> 55	21 <sup>0</sup> 8	5 <sup>0</sup> 47	28 <sup>0</sup> 29	T 14
F 15	7 36 12	24 <sup>0</sup> 32'10	1 <sup>0</sup> 43	0 <sup>0</sup> 59	22 <sup>0</sup> 31	22 <sup>0</sup> 44	5 <sup>0</sup> 18	11 <sup>0</sup> 59	26 <sup>0</sup> 58	14 <sup>0</sup> 33	17 <sup>3</sup> 44	19 <sup>0</sup> 51	21 <sup>0</sup> 5	5 <sup>0</sup> 54	28 <sup>0</sup> 33	F 15
S 16	7 40 9	25 <sup>0</sup> 33'15	15 <sup>0</sup> 48	1 <sup>0</sup> 42	23 <sup>0</sup> 45	23 <sup>0</sup> 21	5 <sup>0</sup> 10	12 <sup>0</sup> 6	27 <sup>0</sup> 1	14 <sup>0</sup> 34	17 <sup>3</sup> 45	19 <sup>0</sup> 47	21 <sup>0</sup> 1	6 <sup>0</sup> 1	28 <sup>0</sup> 36	S 16
S 17	7 44 5	26 <sup>0</sup> 34'19	29 <sup>0</sup> 37	2 <sup>0</sup> 30	24 <sup>0</sup> 59	23 <sup>0</sup> 59	5 <sup>0</sup> 2	12 <sup>0</sup> 13	27 <sup>0</sup> 3	14 <sup>0</sup> 36	17 <sup>3</sup> 46	19 <sup>0</sup> 45	20 <sup>0</sup> 58	6 <sup>0</sup> 7	28 <sup>0</sup> 40	S 17
M 18	7 48 2	27 <sup>0</sup> 35'22	13 <sup>0</sup> 8	3 <sup>0</sup> 21	26 <sup>0</sup> 13	24 <sup>0</sup> 36	4 <sup>0</sup> 54	12 <sup>0</sup> 20	27 <sup>0</sup> 5	14 <sup>0</sup> 38	17 <sup>3</sup> 47	19 <sup>0</sup> 44	20 <sup>0</sup> 55	6 <sup>0</sup> 14	28 <sup>0</sup> 44	M 18
T 19	7 51 58	28 <sup>0</sup> 36'25	26 <sup>0</sup> 19	4 <sup>0</sup> 16	27 <sup>0</sup> 27	25 <sup>0</sup> 13	4 <sup>0</sup> 47	12 <sup>0</sup> 27	27 <sup>0</sup> 8	14 <sup>0</sup> 40	17 <sup>3</sup> 49	19 <sup>0</sup> D44	20 <sup>0</sup> 52	6 <sup>0</sup> 21	28 <sup>0</sup> 47	T 19
W 20	7 55 55	29 <sup>0</sup> 37'27	9 <sup>0</sup> 10	5 <sup>0</sup> 14	28 <sup>0</sup> 41	25 <sup>0</sup> 51	4 <sup>0</sup> 39	12 <sup>0</sup> 34	27 <sup>0</sup> 10	14 <sup>0</sup> 42	17 <sup>3</sup> 50	19 <sup>0</sup> 45	20 <sup>0</sup> 49	6 <sup>0</sup> 28	28 <sup>0</sup> 51	W 20
T 21	7 59 52	0 <sup>0</sup> 38'28	21 <sup>0</sup> 41	6 <sup>0</sup> 16	29 <sup>0</sup> 55	26 <sup>0</sup> 28	4 <sup>0</sup> 31	12 <sup>0</sup> 41	27 <sup>0</sup> 12	14 <sup>0</sup> 43	17 <sup>3</sup> 51	19 <sup>0</sup> 46	20 <sup>0</sup> 46	6 <sup>0</sup> 34	28 <sup>0</sup> 55	T 21
F 22	8 3 48	1 <sup>0</sup> 39'29	3 <sup>0</sup> 56	7 <sup>0</sup> 20	1 <sup>0</sup> 3	27 <sup>0</sup> 6	4 <sup>0</sup> 23	12 <sup>0</sup> 48	27 <sup>0</sup> 14	14 <sup>0</sup> 45	17 <sup>3</sup> 52	19 <sup>0</sup> 48	20 <sup>0</sup> 42	6 <sup>0</sup> 41	28 <sup>0</sup> 58	F 22
S 23	8 7 45	2 <sup>0</sup> 40'30	16 <sup>0</sup> 0	8 <sup>0</sup> 26	2 <sup>0</sup> 24	27 <sup>0</sup> 43	4 <sup>0</sup> 15	12 <sup>0</sup> 54	27 <sup>0</sup> 16	14 <sup>0</sup> 47	17 <sup>3</sup> 53	19 <sup>0</sup> 49	20 <sup>0</sup> 39	6 <sup>0</sup> 48	29 <sup>0</sup> 2	S 23
S 24	8 11 41	3 <sup>0</sup> 41'29	27 <sup>0</sup> 55	9 <sup>0</sup> 35	3 <sup>0</sup> 38	28 <sup>0</sup> 20	4 <sup>0</sup> 6	13 <sup>0</sup> 1	27 <sup>0</sup> 18	14 <sup>0</sup> 48	17 <sup>3</sup> 54	19 <sup>0</sup> 50	20 <sup>0</sup> 36	6 <sup>0</sup> 54	29 <sup>0</sup> 6	S 24
M 25	8 15 38	4 <sup>0</sup> 42'28	9 <sup>0</sup> 47	10 <sup>0</sup> 45	4 <sup>0</sup> 52	28 <sup>0</sup> 58	3 <sup>0</sup> 58	13 <sup>0</sup> 8	27 <sup>0</sup> 20	14 <sup>0</sup> 50	17 <sup>3</sup> 55	19 <sup>0</sup> R50	20 <sup>0</sup> 33	7 <sup>0</sup> 1	29 <sup>0</sup> 10	M 25
T 26	8 19 34	5 <sup>0</sup> 43'27	21 <sup>0</sup> 41	11 <sup>0</sup> 58	6 <sup>0</sup> 6	29 <sup>0</sup> 35	3 <sup>0</sup> 50	13 <sup>0</sup> 15	27 <sup>0</sup> 22	14 <sup>0</sup> 51	17 <sup>3</sup> 57	19 <sup>0</sup> 49	20 <sup>0</sup> 30	7 <sup>0</sup> 8	29 <sup>0</sup> 14	T 26
W 27	8 23 31	6 <sup>0</sup> 44'25	3 <sup>0</sup> 41	13 <sup>0</sup> 12	7 <sup>0</sup> 20	0 <sup>0</sup> 12	3 <sup>0</sup> 42	13 <sup>0</sup> 21	27 <sup>0</sup> 24	14 <sup>0</sup> 53	17 <sup>3</sup> 58	19 <sup>0</sup> 48	20 <sup>0</sup> 26	7 <sup>0</sup> 15	29 <sup>0</sup> 17	W 27
T 28	8 27 27	7 <sup>0</sup> 45'22	15 <sup>0</sup> 52	14 <sup>0</sup> 28	8 <sup>0</sup> 35	0 <sup>0</sup> 50	3 <sup>0</sup> 34	13 <sup>0</sup> 28	27 <sup>0</sup> 26	14 <sup>0</sup> 55	17 <sup>3</sup> 59	19 <sup>0</sup> 46	20 <sup>0</sup> 23	7 <sup>0</sup> 21	29 <sup>0</sup> 21	T 28
F 29	8 31 24	8 <sup>0</sup> 46'19	28 <sup>0</sup> 16	15 <sup>0</sup> 45	9 <sup>0</sup> 49	1 <sup>0</sup> 27	3 <sup>0</sup> 26	13 <sup>0</sup> 35	27 <sup>0</sup> 28	14 <sup>0</sup> 56	18 <sup>0</sup> 0	19 <sup>0</sup> 45	20 <sup>0</sup> 20	7 <sup>0</sup> 28	29 <sup>0</sup> 25	F 29
S 30	8 35 21	9 <sup>0</sup> 47'14	10 <sup>0</sup> 35	17 <sup>0</sup> 4	11 <sup>0</sup> 3	2 <sup>0</sup> 4	3 <sup>0</sup> 18	13 <sup>0</sup> 41	27 <sup>0</sup> 29	14 <sup>0</sup> 58	18 <sup>0</sup> 2	19 <sup>0</sup> 43	20 <sup>0</sup> 17	7 <sup>0</sup> 35	29 <sup>0</sup> 29	S 30
S 31	8 39 17	10 <sup>0</sup> 48'09	23 <sup>0</sup> 56	18 <sup>0</sup> 24	12 <sup>0</sup> 18	2 <sup>0</sup> 41	3 <sup>0</sup> 11	13 <sup>0</sup> 48	27 <sup>0</sup> 31	14 <sup>0</sup> 59	18 <sup>0</sup> 3	19 <sup>0</sup> 42	20 <sup>0</sup> 14	7 <sup>0</sup> 41	29 <sup>0</sup> 33	S 31

Delta T = 15.59 sec

FEBRUARY 1813

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 43 14	11 <sup>0</sup> 49'02	7 <sup>0</sup> 14	19 <sup>0</sup> 35	13 <sup>0</sup> 32	3 <sup>0</sup> 18	3 <sup>0</sup> R 3	13 <sup>0</sup> 55	27 <sup>0</sup> M33	15 <sup>0</sup> 1	18 <sup>0</sup> 4	19 <sup>0</sup> R41	20 <sup>0</sup> 11	7 <sup>0</sup> M48	29 <sup>0</sup> 37	M 1
T 2	8 47 10	12 <sup>0</sup> 49'55	20 <sup>0</sup> 48	21 <sup>0</sup> 7	14 <sup>0</sup> 46	3 <sup>0</sup> 56	2 <sup>0</sup> Ω55	14 <sup>0</sup> 1	27 <sup>0</sup> 34	15 <sup>0</sup> 2	18 <sup>0</sup> 6	19 <sup>0</sup> D41	20 <sup>0</sup> 7	7 <sup>0</sup> 55	29 <sup>0</sup> 41	T 2
W 3	8 51 7	13 <sup>0</sup> 50'46	4 <sup>0</sup> 36	22 <sup>0</sup> 31	16 <sup>0</sup> 1	4 <sup>0</sup> 33	2 <sup>0</sup> 47	14 <sup>0</sup> 8	27 <sup>0</sup> 36	15 <sup>0</sup> 3	18 <sup>0</sup> 7	19 <sup>0</sup> Ω41	20 <sup>0</sup> 4	8 <sup>0</sup> 2	29 <sup>0</sup> 45	W 3
T 4	8 55 3	14 <sup>0</sup> 51'36	18 <sup>0</sup> 37	23 <sup>0</sup> 55	17 <sup>0</sup> 15	5 <sup>0</sup> 10	2 <sup>0</sup> 39	14 <sup>0</sup> 14	27 <sup>0</sup> 37	15 <sup>0</sup> 5	18 <sup>0</sup> 8	19 <sup>0</sup> 42	20 <sup>0</sup> 1	8 <sup>0</sup> 8	29 <sup>0</sup> 49	T 4
F 5	8 59 0	15 <sup>0</sup> 52'24	2 <sup>0</sup> 46	25 <sup>0</sup> 21	18 <sup>0</sup> 29	5 <sup>0</sup> 47	2 <sup>0</sup> 32	14 <sup>0</sup> 21	27 <sup>0</sup> 39	15 <sup>0</sup> 6	18 <sup>0</sup> 10	19 <sup>0</sup> 42	19 <sup>0</sup> 58	8 <sup>0</sup> 15	29 <sup>0</sup> 53	F 5
S 6	9 2 56	16 <sup>0</sup> 53'11	16 <sup>0</sup> 59	26 <sup>0</sup> 47	19 <sup>0</sup> 44	6 <sup>0</sup> 24	2 <sup>0</sup> 24	14 <sup>0</sup> 27	27 <sup>0</sup> 40	15 <sup>0</sup> 7	18 <sup>0</sup> 11	19 <sup>0</sup> 43	19 <sup>0</sup> 55	8 <sup>0</sup> 22	29 <sup>0</sup> 57	S 6
S 7	9 6 53	17 <sup>0</sup> 53'56	1 <sup>0</sup> 14	28 <sup>0</sup> 15	20 <sup>0</sup> 58	7 <sup>0</sup> 1	2 <sup>0</sup> 17	14 <sup>0</sup> 33	27 <sup>0</sup> 41	15 <sup>0</sup> 9	18 <sup>0</sup> 12	19 <sup>0</sup> 43	19 <sup>0</sup> 52	8 <sup>0</sup> 29	0 <sup>0</sup> 1	S 7
M 8	9 10 50	18 <sup>0</sup> 54'40	15 <sup>0</sup> 28	29 <sup>0</sup> 43	22 <sup>0</sup> 12	7 <sup>0</sup> 38	2 <sup>0</sup> 9	14 <sup>0</sup> 39	27 <sup>0</sup> 43	15 <sup>0</sup> 10	18 <sup>0</sup> 14	19 <sup>0</sup> 43	19 <sup>0</sup> 48	8 <sup>0</sup> 35	0 <sup>0</sup> 5	M 8
T 9	9 14 46	19 <sup>0</sup> 55'22	29 <sup>0</sup> 37	1 <sup>0</sup> 12	23 <sup>0</sup> 27	8 <sup>0</sup> 15	2 <sup>0</sup> 2	14 <sup>0</sup> 46	27 <sup>0</sup> 44	15 <sup>0</sup> 11	18 <sup>0</sup> 15	19 <sup>0</sup> 43	19 <sup>0</sup> 45	8 <sup>0</sup> 42	0 <sup>0</sup> 9	T 9
W10	9 18 43	20 <sup>0</sup> 56'03	13 <sup>0</sup> 11	2 <sup>0</sup> 42	24 <sup>0</sup> 41	8 <sup>0</sup> 52	1 <sup>0</sup> 55	14 <sup>0</sup> 52	27 <sup>0</sup> 45	15 <sup>0</sup> 12	18 <sup>0</sup> 16	19 <sup>0</sup> 43	19 <sup>0</sup> 42	8 <sup>0</sup> 49	0 <sup>0</sup> 13	W10
T11	9 22 39	21 <sup>0</sup> 56'42	27 <sup>0</sup> 37	4 <sup>0</sup> 13	25 <sup>0</sup> 55	9 <sup>0</sup> 28	1 <sup>0</sup> 47	14 <sup>0</sup> 58	27 <sup>0</sup> 46	15 <sup>0</sup> 14	18 <sup>0</sup> 18	19 <sup>0</sup> 43	19 <sup>0</sup> 39	8 <sup>0</sup> 55	0 <sup>0</sup> 17	T11
F 12	9 26 36	22 <sup>0</sup> 57'19	11 <sup>0</sup> 23	5 <sup>0</sup> 45	27 <sup>0</sup> 10	10 <sup>0</sup> 5	1 <sup>0</sup> 40	15 <sup>0</sup> 4	27 <sup>0</sup> 47	15 <sup>0</sup> 15	18 <sup>0</sup> 19	19 <sup>0</sup> 43	19 <sup>0</sup> 36	9 <sup>0</sup> 2	0 <sup>0</sup> 21	F 12
S 13	9 30 32	23 <sup>0</sup> 57'54	24 <sup>0</sup> 59	7 <sup>0</sup> 18	28 <sup>0</sup> 24	10 <sup>0</sup> 42	1 <sup>0</sup> 33	15 <sup>0</sup> 10	27 <sup>0</sup> 48	15 <sup>0</sup> 16	18 <sup>0</sup> 21	19 <sup>0</sup> 44	19 <sup>0</sup> 32	9 <sup>0</sup> 9	0 <sup>0</sup> 25	S 13
S 14	9 34 29	24 <sup>0</sup> 58'28	8 <sup>0</sup> 22	8 <sup>0</sup> 52	29 <sup>0</sup> 38	11 <sup>0</sup> 19	1 <sup>0</sup> 27	15 <sup>0</sup> 16	27 <sup>0</sup> 49	15 <sup>0</sup> 17	18 <sup>0</sup> 22	19 <sup>0</sup> 44	19 <sup>0</sup> 29	9 <sup>0</sup> 16	0 <sup>0</sup> 29	S 14
M15	9 38 25	25 <sup>0</sup> 59'00	21 <sup>0</sup> 31	10 <sup>0</sup> 27	0 <sup>0</sup> 53	11 <sup>0</sup> 56	1 <sup>0</sup> 20	15 <sup>0</sup> 22	27 <sup>0</sup> 50	15 <sup>0</sup> 18	18 <sup>0</sup> 24	19 <sup>0</sup> R44	19 <sup>0</sup> 26	9 <sup>0</sup> 22	0 <sup>0</sup> 33	M15
T 16	9 42 22	26 <sup>0</sup> 59'31	4 <sup>0</sup> 25	12 <sup>0</sup> 2	2 <sup>0</sup> 7	12 <sup>0</sup> 32	1 <sup>0</sup> 13	15 <sup>0</sup> 28	27 <sup>0</sup> 51	15 <sup>0</sup> 19	18 <sup>0</sup> 25	19 <sup>0</sup> 44	19 <sup>0</sup> 23	9 <sup>0</sup> 29	0 <sup>0</sup> 37	T 16
W17	9 46 19	28 <sup>0</sup> 0'00	17 <sup>0</sup> 5	13 <sup>0</sup> 39	3 <sup>0</sup> 22	13 <sup>0</sup> 9	1 <sup>0</sup> 7	15 <sup>0</sup> 34	27 <sup>0</sup> 52	15 <sup>0</sup> 20	18 <sup>0</sup> 27	19 <sup>0</sup> 43	19 <sup>0</sup> 20	9 <sup>0</sup> 36	0 <sup>0</sup> 41	W17
T 18	9 50 15	29 <sup>0</sup> 0'27	29 <sup>0</sup> 31	15 <sup>0</sup> 16	4 <sup>0</sup> 36	13 <sup>0</sup> 46	1 <sup>0</sup> 0	15 <sup>0</sup> 40	27 <sup>0</sup> 52	15 <sup>0</sup> 21	18 <sup>0</sup> 28	19 <sup>0</sup> 42	19 <sup>0</sup> 17	9 <sup>0</sup> 42	0 <sup>0</sup> 46	T 18
F 19	9 54 12	0 <sup>0</sup> 1 <sup>0</sup> 53	11 <sup>0</sup> 24	16 <sup>0</sup> 54	5 <sup>0</sup> 50	14 <sup>0</sup> 22	0 <sup>0</sup> 54	15 <sup>0</sup> 46	27 <sup>0</sup> 53	15 <sup>0</sup> 22	18 <sup>0</sup> 30	19 <sup>0</sup> 41	19 <sup>0</sup> 13	9 <sup>0</sup> 49	0 <sup>0</sup> 50	F 19
S 20	9 58 8	1 <sup>0</sup> 1'18	23 <sup>0</sup> 48	18 <sup>0</sup> 34	7 <sup>0</sup> 5	14 <sup>0</sup> 59	0 <sup>0</sup> 48	15 <sup>0</sup> 51	27 <sup>0</sup> 54	15 <sup>0</sup> 23	18 <sup>0</sup> 31	19 <sup>0</sup> 39	19 <sup>0</sup> 10	9 <sup>0</sup> 56	0 <sup>0</sup> 54	S 20
S 21	10 2 5	2 <sup>0</sup> 1'41	5 <sup>0</sup> M44	20 <sup>0</sup> 14	8 <sup>0</sup> 19	15 <sup>0</sup> 35	0 <sup>0</sup> 42	15 <sup>0</sup> 57	27 <sup>0</sup> 54	15 <sup>0</sup> 23	18 <sup>0</sup> 33	19 <sup>0</sup> 37	19 <sup>0</sup> 7	10 <sup>0</sup> 3	0 <sup>0</sup> 58	S 21
M22	10 6 1	3 <sup>0</sup> 2'03	17 <sup>0</sup> 36	21 <sup>0</sup> 55	9 <sup>0</sup> 34	16 <sup>0</sup> 12	0 <sup>0</sup> 36	16 <sup>0</sup> 3	27 <sup>0</sup> 55	15 <sup>0</sup> 24	18 <sup>0</sup> 34	19 <sup>0</sup> 36	19 <sup>0</sup> 4	10 <sup>0</sup> 9	1 <sup>0</sup> 2	M22
T 23	10 9 58	4 <sup>0</sup> 2'23	29 <sup>0</sup> 30	23 <sup>0</sup> 37	10 <sup>0</sup> 48	16 <sup>0</sup> 48	0 <sup>0</sup> 31	16 <sup>0</sup> 8	27 <sup>0</sup> 55	15 <sup>0</sup> 25	18 <sup>0</sup> 36	19 <sup>0</sup> D36	19 <sup>0</sup> 1	10 <sup>0</sup> 16	1 <sup>0</sup> 6	T 23
W24	10 13 54	5 <sup>0</sup> 2'42	11 <sup>0</sup> 27	25 <sup>0</sup> 20	12 <sup>0</sup> 2	17 <sup>0</sup> 25	0 <sup>0</sup> 25	16 <sup>0</sup> 14	27 <sup>0</sup> 56	15 <sup>0</sup> 26	18 <sup>0</sup> 37	19 <sup>0</sup> 36	18 <sup>0</sup> 57	10 <sup>0</sup> 23	1 <sup>0</sup> 10	W24
T25	10 17 51	6 <sup>0</sup> 2'59	23 <sup>0</sup> 38	27 <sup>0</sup> 4	13 <sup>0</sup> 17	18 <sup>0</sup> 1	0 <sup>0</sup> 20	16 <sup>0</sup> 19	27 <sup>0</sup> 56	15 <sup>0</sup> 27	18 <sup>0</sup> 39	19 <sup>0</sup> 36	18 <sup>0</sup> 54	10 <sup>0</sup> 30	1 <sup>0</sup> 14	T25
F 26	10 21 47	7 <sup>0</sup> 3'15	6 <sup>0</sup> 3	28 <sup>0</sup> 49	14 <sup>0</sup> 31	18 <sup>0</sup> 37	0 <sup>0</sup> 15	16 <sup>0</sup> 24	27 <sup>0</sup> 56	15 <sup>0</sup> 27	18 <sup>0</sup> 40	19 <sup>0</sup> 38	18 <sup>0</sup> 51	10 <sup>0</sup> 36	1 <sup>0</sup> 18	F 26
S 27	10 25 44	8 <sup>0</sup> 3'30	18 <sup>0</sup> 45	0 <sup>0</sup> 1 <sup>0</sup> 36	15 <sup>0</sup> 46	19 <sup>0</sup> 13	0 <sup>0</sup> 10	16 <sup>0</sup> 30	27 <sup>0</sup> 57	15 <sup>0</sup> 28	18 <sup>0</sup> 42	19 <sup>0</sup> 39	18 <sup>0</sup> 48	10 <sup>0</sup> 43	1 <sup>0</sup> 22	S 27
S 28	10 29 41	9 <sup>0</sup> 1 <sup>0</sup> 3'42	1 <sup>0</sup> 49	2 <sup>0</sup> 1 <sup>0</sup> 23	17 <sup>0</sup> 40	19 <sup>0</sup> 27	0 <sup>0</sup> Ω5	16 <sup>0</sup> 35	27 <sup>0</sup> M57	15 <sup>0</sup> 28	18 <sup>0</sup> 1 <sup>0</sup> 43	19 <sup>0</sup> Ω41	18 <sup>0</sup> Ω45	10 <sup>0</sup> M50	1 <sup>0</sup> 1 <sup>0</sup> 26	S 28

ASTRODIENST EPHEMERIS for the year 1813  
geocentric

MARCH 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 33 37	10°35'4	15°17'	4°11'	18°14'	20°26'	29°R59	16°340	27°M57	15°29'	18°45'	19°R41	18°42'	10°M56	1°30'	M 1
T 2	10 37 34	11°4'03	29°8'	6°1'	19°29'	21°2'	29°55'	16°45'	27°57'	15°30'	18°46'	19°41'	18°38'	11°3'	1°34'	T 2
W 3	10 41 30	12°4'11	13°20'	7°51'	20°43'	21°38'	29°51'	16°50'	27°R57	15°30'	18°48'	19°40'	18°35'	11°10'	1°38'	W 3
T 4	10 45 27	13°4'16	27°49'	9°42'	21°58'	22°14'	29°47'	16°55'	27°57'	15°31'	18°49'	19°37'	18°32'	11°17'	1°42'	T 4
F 5	10 49 23	14°4'20	12°27'	11°35'	23°12'	22°50'	29°43'	17°0'	27°57'	15°31'	18°51'	19°34'	18°29'	11°23'	1°46'	F 5
S 6	10 53 20	15°4'22	27°9'	13°28'	24°27'	23°26'	29°39'	17°5'	27°57'	15°32'	18°53'	19°30'	18°26'	11°30'	1°50'	S 6
S 7	10 57 16	16°4'21	11°47'	15°23'	25°41'	24°2'	29°35'	17°10'	27°57'	15°32'	18°54'	19°27'	18°23'	11°37'	1°54'	S 7
M 8	11 1 13	17°4'19	26°16'	17°18'	26°55'	24°37'	29°32'	17°14'	27°56'	15°32'	18°56'	19°24'	18°19'	11°43'	1°58'	M 8
T 9	11 5 10	18°4'14	10°31'	19°15'	28°10'	25°13'	29°29'	17°19'	27°56'	15°33'	18°57'	19°23'	18°16'	11°50'	2°2'	T 9
W10	11 9 6	19°4'07	24°30'	21°12'	29°24'	25°49'	29°25'	17°23'	27°56'	15°33'	18°59'	19°D23	18°13'	11°57'	2°6'	W10
T 11	11 13 3	20°3'58	8°13'	23°10'	0°38'	26°24'	29°22'	17°28'	27°55'	15°33'	19°0'	19°24'	18°10'	12°4'	2°10'	T 11
F 12	11 16 59	21°3'46	21°40'	25°8'	1°53'	27°0'	29°20'	17°32'	27°55'	15°33'	19°2'	19°25'	18°7'	12°10'	2°14'	F 12
S 13	11 20 56	22°3'33	4°52'	27°7'	3°7'	27°35'	29°17'	17°37'	27°55'	15°34'	19°4'	19°27'	18°3'	12°17'	2°18'	S 13
S 14	11 24 52	23°3'17	17°50'	29°6'	4°21'	28°11'	29°15'	17°41'	27°54'	15°34'	19°5'	19°R28	18°0'	12°24'	2°22'	S 14
M15	11 28 49	24°2'58	0°36'	1°6'	5°36'	28°46'	29°13'	17°45'	27°53'	15°34'	19°7'	19°27'	17°57'	12°31'	2°26'	M15
T 16	11 32 45	25°2'38	13°11'	3°5'	6°50'	29°21'	29°11'	17°49'	27°53'	15°34'	19°8'	19°25'	17°54'	12°37'	2°30'	T 16
W17	11 36 42	26°2'16	25°36'	5°4'	8°4'	29°56'	29°9'	17°53'	27°52'	15°34'	19°10'	19°21'	17°51'	12°44'	2°33'	W17
T 18	11 40 39	27°1'51	7°25'	7°2'	9°19'	0°32'	29°7'	17°57'	27°51'	15°R34	19°11'	19°15'	17°48'	12°51'	2°37'	T 18
F 19	11 44 35	28°1'25	19°58'	8°59'	10°33'	1°7'	29°6'	18°1'	27°50'	15°34'	19°13'	19°8'	17°44'	12°57'	2°41'	F 19
S 20	11 48 32	29°0'56	1°58'	10°55'	11°47'	1°42'	29°5'	18°5'	27°50'	15°34'	19°14'	19°0'	17°41'	13°4'	2°45'	S 20
S 21	11 52 28	0°26'	13°52'	12°49'	13°2'	2°17'	29°4'	18°8'	27°49'	15°34'	19°16'	18°53'	17°38'	13°11'	2°48'	S 21
M22	11 56 25	0°59'54	25°44'	14°40'	14°16'	2°51'	29°3'	18°12'	27°48'	15°34'	19°17'	18°47'	17°35'	13°18'	2°52'	M22
T 23	12 0 21	1°59'20	7°37'	16°30'	15°30'	3°26'	29°2'	18°15'	27°47'	15°34'	19°19'	18°42'	17°32'	13°24'	2°56'	T 23
W24	12 4 18	2°58'44	19°35'	18°16'	16°44'	4°1'	29°2'	18°19'	27°46'	15°33'	19°21'	18°39'	17°28'	13°31'	3°0'	W24
T 25	12 8 14	3°58'07	1°41'	19°58'	17°59'	4°35'	29°1'	18°22'	27°45'	15°33'	19°22'	18°D37	17°25'	13°38'	3°3'	T 25
F 26	12 12 11	4°57'28	14°1'	21°37'	19°13'	5°10'	29°D 1	18°25'	27°43'	15°33'	19°24'	18°38'	17°22'	13°44'	3°7'	F 26
S 27	12 16 7	5°56'47	26°40'	23°12'	20°27'	5°44'	29°1'	18°29'	27°42'	15°33'	19°25'	18°39'	17°19'	13°51'	3°10'	S 27
S 28	12 20 4	6°56'04	9°42'	24°42'	21°42'	6°19'	29°2'	18°32'	27°41'	15°32'	19°27'	18°40'	17°16'	13°58'	3°14'	S 28
M29	12 24 1	7°55'19	23°10'	26°7'	22°56'	6°53'	29°2'	18°35'	27°40'	15°32'	19°28'	18°R40	17°13'	14°5'	3°17'	M29
T 30	12 27 57	8°54'33	7°6'	27°26'	24°10'	7°27'	29°3'	18°37'	27°38'	15°32'	19°30'	18°39'	17°9'	14°11'	3°21'	T 30
W31	12 31 54	9°53'44	21°29'	28°40'	25°24'	8°28'	29°4'	18°340	27°M37	15°31'	19°31'	18°435	17°46	14°M18	3°24'	W31

Delta T = 15.63 sec

APRIL 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 35 50	10°52'54	6°14'	29°48'	26°39'	8°35'	29°5	18°343	27°R36	15°R31	19°33'	18°R29	17°43	14°M25	3°28'	T 1
F 2	12 39 47	11°52'01	21°15'	0°50'	27°53'	9°9'	29°6'	18°46'	27°M34	15°330	19°34'	18°422	17°0'	14°32'	3°31'	F 2
S 3	12 43 43	12°51'07	6°22'	1°46'	29°7'	9°42'	29°8'	18°48'	27°33'	15°30'	19°35'	18°13'	16°57'	14°38'	3°35'	S 3
S 4	12 47 40	13°50'10	21°25'	2°36'	0°21'	10°16'	29°9'	18°51'	27°31'	15°29'	19°37'	18°5'	16°54'	14°45'	3°38'	S 4
M 5	12 51 36	14°49'12	6°14'	3°18'	1°35'	10°50'	29°11'	18°53'	27°30'	15°29'	19°38'	17°58'	16°50'	14°52'	3°41'	M 5
T 6	12 55 33	15°48'10	20°44'	3°55'	2°50'	11°23'	29°13'	18°55'	27°28'	15°28'	19°40'	17°53'	16°47'	14°58'	3°44'	T 6
W 7	12 59 30	16°47'07	4°51'	4°24'	4°4'	11°56'	29°15'	18°57'	27°26'	15°28'	19°41'	17°51'	16°44'	15°5'	3°48'	W 7
T 8	13 3 26	17°46'01	18°33'	4°47'	5°18'	12°29'	29°18'	19°0'	27°25'	15°27'	19°43'	17°D50	16°41'	15°12'	3°51'	T 8
F 9	13 7 23	18°44'53	1°53'	5°3'	6°32'	13°2'	29°20'	19°2'	27°23'	15°26'	19°44'	17°51'	16°38'	15°19'	3°54'	F 9
S 10	13 11 19	19°43'43	14°53'	5°12'	7°46'	13°35'	29°23'	19°3'	27°21'	15°25'	19°45'	17°R51	16°34'	15°25'	3°57'	S 10
S 11	13 15 16	20°42'30	27°36'	5°R15	9°0'	14°8'	29°26'	19°5'	27°19'	15°25'	19°47'	17°51'	16°31'	15°32'	4°0'	S 11
M12	13 19 12	21°41'15	10°6'	5°12'	10°14'	14°41'	29°29'	19°7'	27°17'	15°24'	19°48'	17°49'	16°28'	15°39'	4°3'	M12
T 13	13 23 9	22°39'58	22°25'	5°2'	11°28'	15°13'	29°32'	19°9'	27°16'	15°23'	19°50'	17°46'	16°25'	15°45'	4°6'	T 13
W14	13 27 5	23°38'39	4°36'	4°47'	12°43'	15°45'	29°36'	19°10'	27°14'	15°22'	19°51'	17°34'	16°22'	15°52'	4°9'	W14
T 15	13 31 2	24°37'17	16°40'	4°27'	13°57'	16°18'	29°39'	19°11'	27°12'	15°21'	19°52'	17°26'	16°19'	15°59'	4°12'	T 15
F 16	13 34 59	25°35'54	28°39'	4°2'	15°11'	16°50'	29°43'	19°13'	27°10'	15°21'	19°54'	17°14'	16°15'	16°6'	4°15'	F 16
S 17	13 38 55	26°34'29	10°M35	3°32'	16°25'	17°22'	29°47'	19°14'	27°8'	15°20'	19°55'	17°1'	16°12'	16°12'	4°18'	S 17
S 18	13 42 52	27°33'02	22°28'	2°59'	17°39'	17°53'	29°51'	19°15'	27°6'	15°19'	19°56'	16°48'	16°9'	16°19'	4°21'	S 18
M19	13 46 48	28°31'33	4°20'	2°22'	18°53'	18°25'	29°56'	19°16'	27°4'	15°18'	19°57'	16°37'	16°6'	16°26'	4°23'	M19
T 20	13 50 45	29°30'02	16°13'	1°44'	20°7'	18°57'	29°59'	19°17'	27°1'	15°17'	19°59'	16°27'	16°3'	16°33'	4°26'	T 20
W21	13 54 41	0°28'30	28°11'	1°4'	21°21'	19°28'	0°45	19°18'	26°59'	15°16'	20°0'	16°20'	16°0'	16°39'	4°29'	W21
T 22	13 58 38	1°26'56	10°317	0°23'	22°35'	19°59'	0°9'	19°19'	26°57'	15°15'	20°1'	16°16'	15°56'	16°46'	4°31'	T 22
F 23	14 2 34	2°25'21	22°52'	29°42'	23°49'	20°30'	0°14	19°19'	26°55'	15°14'	20°2'	16°14'	15°53'	16°53'	4°34'	F 23
S 24	14 6 31	3°23'44	5°10'	29°1'	25°3'	21°1'	0°19	19°20'	26°53'	15°13'	20°4'	16°D14	15°50'	16°59'	4°37'	S 24
S 25	14 10 28	4°22'05	18°6'	28°22'	26°17'	21°32'	0°25	19°20'	26°51'	15°12'	20°5'	16°R14	15°47'	17°6'	4°39'	S 25
M26	14 14 24	5°20'25	1°29'	27°45'	27°31'	22°2'	0°30	19°21'	26°48'	15°10'	20°6'	16°14'	15°44'	17°13'	4°42'	M26
T 27	14 18 21	6°18'43	15°19'	27°11'	28°45'	22°32'	0°36	19°21'	26°46'	15°9'	20°7'	16°11'	15°40'	17°20'	4°44'	T 27
W28	14 22 17	7°16'59	29°40'	26°40'	29°59'	23°2'	0°41	19°21'	26°44'	15°8'	20°8'	16°6'	15°37'	17°26'	4°46'	W28
T 29	14 26 14	8°15'14	14°27'	26°12'	1°13'	23°32'	0°47	19°R21	26°41'	15°7'	20°9'	15°58'	15°34'	17°33'	4°49'	T 29
F 30	14 30 10	9°13'28	29°34'	25°49'	2°27'	24°28'	0°53	19°321	26°M39	15°6'	20°11	15°49	15°431	17°M40	4°51'	F 30

Delta T = 15.65 sec

# ASTRODIENST EPHEMERIS for the year 1813

## geocentric

MAY 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 34 7	10♈11'39	14♈52	25°R29	3♈41	24♈31	0♈59	19°R21	26°R37	15°R 4	20♈12	15°R38	15♈28	17♈47	4♈53	S 1
S 2	14 38 3	11° 9'49	0♈10	25°Y14	4°55	25° 0	1° 6	19♈21	26♈34	15♈ 3	20°13	15♈27	15°25	17°53	4°55	S 2
M 3	14 42 0	12° 7'58	15°16	25° 4	6° 9	25°29	1°12	19°20	26°32	15° 2	20°14	15°18	15°21	18° 0	4°57	M 3
T 4	14 45 57	13° 6'04	0♈ 1	24°58	7°22	25°58	1°19	19°20	26°30	15° 1	20°15	15°11	15°18	18° 7	4°59	T 4
W 5	14 49 53	14° 4'09	14°19	24°D57	8°36	26°27	1°26	19°19	26°27	14°59	20°16	15° 6	15°15	18°13	5° 1	W 5
T 6	14 53 50	15° 2'11	28° 9	25° 1	9°50	26°55	1°32	19°19	26°25	14°58	20°17	15° 4	15°12	18°20	5° 3	T 6
F 7	14 57 46	16° 0'12	11♈32	25° 9	11° 4	27°23	1°40	19°18	26°22	14°57	20°18	15° 4	15° 9	18°27	5° 5	F 7
S 8	15 1 43	16°58'11	24°31	25°22	12°18	27°51	1°47	19°17	26°20	14°55	20°19	15° 4	15° 5	18°34	5° 7	S 8
S 9	15 5 39	17°56'08	7♈ 9	25°40	13°32	28°18	1°54	19°16	26°17	14°54	20°20	15° 3	15° 2	18°40	5° 9	S 9
M10	15 9 36	18°54'03	19°32	26° 2	14°46	28°45	2° 1	19°15	26°15	14°52	20°21	15° 0	14°59	18°47	5°11	M10
T 11	15 13 32	19°51'56	1♈42	26°28	16° 0	29°12	2° 9	19°14	26°12	14°51	20°22	14°55	14°56	18°54	5°12	T 11
W12	15 17 29	20°49'47	13°44	26°58	17°13	29°39	2°17	19°13	26°10	14°50	20°22	14°46	14°53	19° 0	5°14	W12
T 13	15 21 25	21°47'37	25°41	27°33	18°27	0♈ 5	2°24	19°11	26° 7	14°48	20°23	14°36	14°50	19° 7	5°15	T 13
F 14	15 25 22	22°45'25	7♈35	28°11	19°41	0°32	2°32	19°10	26° 5	14°47	20°24	14°23	14°46	19°14	5°17	F 14
S 15	15 29 19	23°43'12	19°28	28°53	20°55	0°57	2°40	19° 9	26° 2	14°45	20°25	14° 9	14°43	19°21	5°18	S 15
S 16	15 33 15	24°40'57	1♈21	29°39	22° 9	1°23	2°49	19° 7	26° 0	14°44	20°26	13°56	14°40	19°27	5°20	S 16
M17	15 37 12	25°38'41	13°15	0♈29	23°23	1°48	2°57	19° 5	25°57	14°42	20°27	13°43	14°37	19°34	5°21	M17
T 18	15 41 8	26°36'24	25°13	1°22	24°36	2°13	3° 5	19° 4	25°55	14°41	20°27	13°33	14°34	19°41	5°22	T 18
W19	15 45 5	27°34'06	7♈16	2°18	25°50	2°38	3°14	19° 2	25°52	14°39	20°28	13°26	14°31	19°48	5°24	W19
T 20	15 49 1	28°31'46	19°26	3°17	27° 4	3° 2	3°22	19° 0	25°50	14°38	20°29	13°21	14°27	19°54	5°25	T 20
F 21	15 52 58	29°29'25	1♈48	4°20	28°18	3°26	3°31	18°58	25°47	14°36	20°30	13°19	14°24	20° 1	5°26	F 21
S 22	15 56 55	0♈27'04	14°24	5°25	29°31	3°49	3°40	18°56	25°45	14°35	20°30	13°D18	14°21	20° 8	5°27	S 22
S 23	16 0 51	1°24'41	27°19	6°34	0♈45	4°12	3°49	18°53	25°42	14°33	20°31	13°R18	14°18	20°14	5°28	S 23
M24	16 4 48	2°22'17	10♈36	7°45	1°59	4°35	3°58	18°51	25°40	14°31	20°32	13°18	14°15	20°21	5°29	M24
T 25	16 8 44	3°19'52	24°19	8°59	3°13	4°58	4° 7	18°49	25°37	14°30	20°32	13°16	14°11	20°28	5°30	T 25
W26	16 12 41	4°17'27	8°Y30	10°16	4°27	5°20	4°17	18°46	25°35	14°28	20°33	13°13	14° 8	20°35	5°31	W26
T 27	16 16 37	5°15'00	23° 7	11°36	5°40	5°41	4°26	18°44	25°33	14°27	20°33	13° 6	14° 5	20°41	5°32	T 27
F 28	16 20 34	6°12'33	8♈ 5	12°58	6°54	6° 2	4°35	18°41	25°30	14°25	20°34	12°58	14° 2	20°48	5°32	F 28
S 29	16 24 30	7°10'05	23°17	14°24	8° 8	6°23	4°45	18°39	25°28	14°23	20°35	12°49	13°59	20°55	5°33	S 29
S 30	16 28 27	8° 7'36	8♈33	15°51	9°22	6°43	4°55	18°36	25°25	14°22	20°35	12°39	13°56	21° 1	5°34	S 30
M31	16 32 24	9♈ 5'06	23♈41	17♈22	10♈35	7°33	5°50	18♈33	25♈23	14°20	20♈36	12♈31	13♈52	21♈ 8	5♈34	M31

Delta T = 15.67 sec

JUNE 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 36 20	10♈23'35	8♈32	18♈55	11♈49	7°23	5♈14	18°R30	25°R20	14°R19	20♈36	12°R25	13♈49	21♈15	5♈35	T 1
W 2	16 40 17	11° 0'03	22°58	20°30	13° 3	7°41	5°24	18♈27	25♈18	14°R17	20°36	12♈21	13°46	21°22	5°35	W 2
T 3	16 44 13	11°57'29	6♈56	22° 8	14°17	8° 0	5°34	18°24	25°16	14°15	20°37	12°D20	13°43	21°28	5°36	T 3
F 4	16 48 10	12°54'55	20°26	23°49	15°30	8°18	5°45	18°21	25°13	14°14	20°37	12°20	13°40	21°35	5°36	F 4
S 5	16 52 6	13°52'19	3♈29	25°32	16°44	8°35	5°55	18°18	25°11	14°12	20°38	12°21	13°37	21°42	5°36	S 5
S 6	16 56 3	14°49'42	16° 9	27°18	17°58	8°52	6° 5	18°14	25° 9	14°11	20°38	12°R21	13°33	21°49	5°36	S 6
M 7	16 59 59	15°47'04	28°32	29° 6	19°12	9° 8	6°16	18°11	25° 6	14° 9	20°38	12°20	13°30	21°55	5°36	M 7
T 8	17 3 56	16°44'24	10♈40	0♈57	20°25	9°24	6°26	18° 8	25° 4	14° 7	20°39	12°17	13°27	22° 2	5°37	T 8
W 9	17 7 53	17°41'44	22°40	2°50	21°39	9°40	6°37	18° 4	25° 2	14° 6	20°39	12°12	13°24	22° 9	5°R37	W 9
T 10	17 11 49	18°39'03	4♈34	4°45	22°53	9°54	6°47	18° 1	25° 0	14° 4	20°39	12° 5	13°21	22°15	5°37	T 10
F 11	17 15 46	19°36'21	16°26	6°43	24° 6	10° 8	6°58	17°57	24°57	14° 2	20°39	11°56	13°17	22°22	5°36	F 11
S 12	17 19 42	20°33'38	28°18	8°43	25°20	10°22	7° 9	17°54	24°55	14° 1	20°40	11°47	13°14	22°29	5°36	S 12
S 13	17 23 39	21°30'55	10♈14	10°45	26°34	10°35	7°20	17°50	24°53	13°59	20°40	11°37	13°11	22°36	5°36	S 13
M14	17 27 35	22°28'11	22°13	12°49	27°47	10°47	7°31	17°46	24°51	13°58	20°40	11°29	13° 8	22°42	5°36	M14
T 15	17 31 32	23°25'26	4♈19	14°54	29° 1	10°59	7°42	17°42	24°49	13°56	20°40	11°22	13° 5	22°49	5°36	T 15
W16	17 35 28	24°22'41	16°32	17° 2	0♈15	11°10	7°53	17°39	24°47	13°54	20°40	11°17	13° 2	22°56	5°35	W16
T 17	17 39 25	25°19'55	28°54	19°10	1°29	11°21	8° 4	17°35	24°45	13°53	20°40	11°14	12°58	23° 3	5°35	T 17
F 18	17 43 22	26°17'10	11♈26	21°20	2°42	11°31	8°15	17°31	24°43	13°51	20°41	11°D13	12°55	23° 9	5°34	F 18
S 19	17 47 18	27°14'23	24°12	23°31	3°56	11°40	8°27	17°27	24°41	13°50	20°41	11°14	12°52	23°16	5°34	S 19
S 20	17 51 15	28°11'37	7♈13	25°42	5°10	11°49	8°38	17°23	24°39	13°48	20°41	11°15	12°49	23°23	5°33	S 20
M21	17 55 11	29° 8'50	20°33	27°53	6°23	11°56	8°50	17°19	24°37	13°47	20°R41	11°16	12°46	23°29	5°32	M21
T 22	17 59 8	0♈ 6'04	4°Y13	0♈ 5	7°37	12° 4	9° 1	17°15	24°35	13°45	20°41	11°R17	12°43	23°36	5°32	T 22
W23	18 3 4	1° 3'17	18°15	2°16	8°51	12°10	9°13	17°10	24°33	13°43	20°41	11°15	12°39	23°43	5°31	W23
T 24	18 7 1	2° 0'30	2♈38	4°27	10° 4	12°16	9°24	17° 6	24°31	13°42	20°41	11°13	12°36	23°50	5°30	T 24
F 25	18 10 57	2°57'44	17°19	6°37	11°18	12°21	9°36	17° 2	24°29	13°40	20°40	11° 8	12°33	23°56	5°29	F 25
S 26	18 14 54	3°54'57	2♈12	8°46	12°32	12°25	9°48	16°58	24°28	13°39	20°40	11° 3	12°30	24° 3	5°28	S 26
S 27	18 18 51	4°52'11	17°11	10°53	13°45	12°28	10° 0	16°54	24°26	13°37	20°40	10°58	12°27	24°10	5°27	S 27
M28	18 22 47	5°49'24	2♈ 5	13° 0	14°59	12°31	10°12	16°49	24°24	13°36	20°40	10°53	12°23	24°16	5°26	M28
T 29	18 26 44	6°46'38	16°47	15° 5	16°13	12°33	10°24	16°45	24°23	13°35	20°40	10°50	12°20	24°23	5°25	T 29
W30	18 30 40	7°43'51	1♈10	17♈ 8	17♈26	12°34	10♈36	16♈41	24♈21	13°33	20♈40	10♈48	12♈17	24♈30	5♈24	W30

Delta T = 15.70 sec

ASTRODIENST EPHEMERIS for the year 1813  
geocentric

JULY 1813

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 34 37	8♂41'04	15♂ 9	19♂ 9	18♂40	12°R35	10♂48	16°R36	24°R20	13°R32	20°R40	10°D48	12♂14	24♂37	5°R23	T 1
F 2	18 38 33	9°38'17	28°42	21° 9	19°54	12°334	11° 0	16°332	24♂18	13°30	20°39	10♂49	12°11	24°43	5°21	F 2
S 3	18 42 30	10°35'29	11♂49	23° 7	21° 8	12°33	11°12	16°27	24°17	13°29	20°39	10°50	12° 8	24°50	5°20	S 3
S 4	18 46 26	11°32'41	24°34	25° 3	22°21	12°31	11°24	16°23	24°15	13°27	20°39	10°52	12° 4	24°57	5°19	S 4
M 5	18 50 23	12°29'53	6♂59	26°57	23°35	12°29	11°36	16°19	24°14	13°26	20°38	10°R53	12° 1	25° 3	5°17	M 5
T 6	18 54 20	13°27'05	19°10	28°50	24°49	12°25	11°49	16°14	24°12	13°25	20°38	10°53	11°58	25°10	5°16	T 6
W 7	18 58 16	14°24'17	1♂10	0♂40	26° 2	12°21	12° 1	16°10	24°11	13°23	20°38	10°52	11°55	25°17	5°14	W 7
T 8	19 2 13	15°21'28	13° 4	2°28	27°16	12°16	12°13	16° 5	24°10	13°22	20°37	10°49	11°52	25°24	5°13	T 8
F 9	19 6 9	16°18'40	24°56	4°14	28°30	12°11	12°26	16° 1	24° 9	13°21	20°37	10°46	11°49	25°30	5°11	F 9
S 10	19 10 6	17°15'52	6♂51	5°59	29°43	12° 5	12°38	15°56	24° 7	13°19	20°37	10°42	11°45	25°37	5° 9	S 10
S 11	19 14 2	18°13'04	18°50	7°41	0♂57	11°58	12°51	15°52	24° 6	13°18	20°36	10°39	11°42	25°44	5° 8	S 11
M 12	19 17 59	19°10'16	0♂57	9°21	2°11	11°50	13° 3	15°48	24° 5	13°17	20°36	10°35	11°39	25°51	5° 6	M 12
T 13	19 21 55	20° 7'28	13°13	11° 0	3°24	11°42	13°16	15°43	24° 4	13°16	20°35	10°33	11°36	25°57	5° 4	T 13
W 14	19 25 52	21° 4'40	25°39	12°36	4°38	11°32	13°28	15°39	24° 3	13°15	20°35	10°31	11°33	26° 4	5° 2	W 14
T 15	19 29 49	22° 1'53	8♂18	14°11	5°51	11°23	13°41	15°34	24° 2	13°13	20°34	10°D30	11°29	26°11	5° 0	T 15
F 16	19 33 45	22°59'07	21° 9	15°43	7° 5	11°12	13°54	15°30	24° 1	13°12	20°34	10°31	11°26	26°17	4°58	F 16
S 17	19 37 42	23°56'21	4♂13	17°14	8°19	11° 1	14° 6	15°26	24° 0	13°11	20°33	10°32	11°23	26°24	4°56	S 17
S 18	19 41 38	24°53'35	17°31	18°42	9°32	10°50	14°19	15°21	24° 0	13°10	20°33	10°33	11°20	26°31	4°54	S 18
M 19	19 45 35	25°50'50	1° 2	20° 9	10°46	10°38	14°32	15°17	23°59	13° 9	20°32	10°34	11°17	26°38	4°52	M 19
T 20	19 49 31	26°48'06	14°49	21°33	12° 0	10°25	14°45	15°13	23°58	13° 8	20°31	10°35	11°14	26°44	4°50	T 20
W 21	19 53 28	27°45'23	28°49	22°56	13°13	10°12	14°58	15° 8	23°57	13° 7	20°31	10°R35	11°10	26°51	4°48	W 21
T 22	19 57 24	28°42'41	13♂ 2	24°16	14°27	9°58	15°10	15° 4	23°57	13° 6	20°30	10°35	11° 7	26°58	4°46	T 22
F 23	20 1 21	29°40'00	27°26	25°34	15°41	9°44	15°23	15° 0	23°56	13° 5	20°29	10°34	11° 4	27° 4	4°43	F 23
S 24	20 5 18	0♂37'20	11♂57	26°50	16°54	9°30	15°36	14°56	23°56	13° 4	20°29	10°33	11° 1	27°11	4°41	S 24
S 25	20 9 14	1°34'41	26°30	28° 4	18° 8	9°15	15°49	14°52	23°55	13° 3	20°28	10°32	10°58	27°18	4°39	S 25
M 26	20 13 11	2°32'03	10♂59	29°15	19°21	9° 0	16° 2	14°47	23°55	13° 2	20°27	10°31	10°55	27°25	4°37	M 26
T 27	20 17 7	3°29'26	25°20	0♂24	20°35	8°44	16°15	14°43	23°55	13° 1	20°26	10°30	10°51	27°31	4°34	T 27
W 28	20 21 4	4°26'49	9♂27	1°31	21°49	8°28	16°28	14°39	23°54	13° 0	20°26	10°D30	10°48	27°38	4°32	W 28
T 29	20 25 0	5°24'14	23°15	2°35	23° 2	8°13	16°41	14°35	23°54	12°59	20°25	10°30	10°45	27°45	4°29	T 29
F 30	20 28 57	6°21'39	6♂43	3°36	24°16	7°57	16°54	14°31	23°54	12°58	20°24	10°31	10°42	27°51	4°27	F 30
S 31	20 32 53	7♂19'04	19♂49	4♂34	25♂29	7♂40	17♂ 7	14♂27	23♂54	12♂58	20♂23	10♂31	10♂39	27♂58	4♂24	S 31

Delta T = 15.72 sec

AUGUST 1813

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 36 50	8♂16'31	2♂35	5♂30	26♂43	7°R24	17♂20	14°R24	23°R53	12°R57	20°R22	10♂31	10♂35	28♂ 5	4°R22	S 1
M 2	20 40 47	9°13'58	15° 2	6°22	27°57	7° 8	17°33	14°30	23♂53	12°56	20°22	10°31	10°32	28°12	4°19	M 2
T 3	20 44 43	10°11'25	27°14	7°12	29°10	6°52	17°46	14°16	23°D53	12°55	20°21	10°31	10°29	28°18	4°16	T 3
W 4	20 48 40	11° 8'54	9♂16	7°58	0♂24	6°36	17°59	14°12	23°53	12°55	20°20	10°31	10°26	28°25	4°14	W 4
T 5	20 52 36	12° 6'23	21°11	8°40	1°37	6°20	18°12	14° 9	23°54	12°54	20°19	10°31	10°23	28°32	4°11	T 5
F 6	20 56 33	13° 3'54	3♂ 4	9°19	2°51	6° 4	18°26	14° 5	23°54	12°54	20°18	10°32	10°20	28°38	4° 8	F 6
S 7	21 0 29	14° 1'25	14°59	9°54	4° 4	5°49	18°39	14° 1	23°54	12°53	20°17	10°32	10°16	28°45	4° 6	S 7
S 8	21 4 26	14°58'57	27° 2	10°25	5°18	5°34	18°52	13°58	23°54	12°52	20°16	10°32	10°13	28°52	4° 3	S 8
M 9	21 8 22	15°56'29	9♂14	10°52	6°31	5°19	19° 5	13°55	23°54	12°52	20°15	10°33	10°10	28°59	4° 0	M 9
T 10	21 12 19	16°54'03	21°40	11°14	7°45	5° 5	19°18	13°51	23°55	12°51	20°14	10°33	10° 7	29° 5	3°57	T 10
W 11	21 16 16	17°51'38	4♂20	11°31	8°58	4°51	19°31	13°48	23°55	12°51	20°13	10°R34	10° 4	29°12	3°55	W 11
T 12	21 20 12	18°49'14	17°17	11°43	10°12	4°37	19°44	13°45	23°56	12°50	20°12	10°34	10° 1	29°19	3°52	T 12
F 13	21 24 9	19°46'52	0♂31	11°51	11°25	4°24	19°57	13°42	23°56	12°50	20°11	10°33	9°57	29°26	3°49	F 13
S 14	21 28 5	20°44'30	14° 0	11°R53	12°39	4°11	20°11	13°38	23°57	12°50	20°10	10°32	9°54	29°32	3°46	S 14
S 15	21 32 2	21°42'10	27°42	11°49	13°52	3°59	20°24	13°35	23°57	12°49	20° 9	10°31	9°51	29°39	3°43	S 15
M 16	21 35 58	22°39'52	11°36	11°40	15° 6	3°48	20°37	13°33	23°58	12°49	20° 8	10°30	9°48	29°46	3°40	M 16
T 17	21 39 55	23°37'35	25°39	11°25	16°19	3°37	20°50	13°30	23°59	12°49	20° 7	10°28	9°45	29°52	3°38	T 17
W 18	21 43 51	24°35'19	9♂48	11° 5	17°32	3°26	21° 3	13°27	24° 0	12°48	20° 6	10°27	9°41	29°59	3°35	W 18
T 19	21 47 48	25°33'06	24° 1	10°39	18°46	3°17	21°16	13°24	24° 0	12°48	20° 5	10°D27	9°38	0♂ 6	3°32	T 19
F 20	21 51 45	26°30'54	8♂14	10° 7	19°59	3° 8	21°29	13°21	24° 1	12°48	20° 4	10°27	9°35	0°12	3°29	F 20
S 21	21 55 41	27°28'44	22°27	9°30	21°13	2°59	21°42	13°19	24° 2	12°48	20° 3	10°28	9°32	0°19	3°26	S 21
S 22	21 59 38	28°26'36	6♂35	8°48	22°26	2°52	21°56	13°16	24° 3	12°48	20° 1	10°29	9°29	0°26	3°23	S 22
M 23	22 3 34	29°24'29	20°38	8° 2	23°39	2°45	22° 9	13°14	24° 4	12°48	20° 0	10°30	9°26	0°33	3°20	M 23
T 24	22 7 31	0♂22'24	4♂31	7°12	24°53	2°39	22°22	13°12	24° 5	12°48	19°59	10°R31	9°22	0°39	3°17	T 24
W 25	22 11 27	1°20'21	18°14	6°19	26° 6	2°34	22°35	13°10	24° 6	12°D48	19°58	10°31	9°19	0°46	3°14	W 25
T 26	22 15 24	2°18'20	1♂43	5°25	27°19	2°29	22°48	13° 7	24° 8	12°48	19°57	10°30	9°16	0°53	3°11	T 26
F 27	22 19 20	3°16'20	14°56	4°29	28°33	2°25	23° 1	13° 5	24° 9	12°48	19°56	10°28	9°13	0°59	3° 8	F 27
S 28	22 23 17	4°14'21	27°53	3°33	29°46	2°22	23°14	13° 3	24°10	12°48	19°55	10°24	9°10	1° 6	3° 5	S 28
S 29	22 27 14	5°12'24	10♂34	2°39	0♂59	2°20	23°27	13° 1	24°11	12°48	19°53	10°20	9° 6	1°13	3° 2	S 29
M 30	22 31 10	6°10'28	22°59	1°48	2°13	2°19	23°40	13° 0	24°13	12°48	19°52	10°16	9° 3	1°20	2°59	M 30
T 31	22 35 7	7♂ 8'34	5♂10	1♂ 0	3♂26	2°D19	23♂53	12♂58	24♂14	12♂48	19♂51	10♂13	9♂ 0	1♂26	2♂56	T 31

Delta T = 15.74 sec

## ASTRODIENST EPHEMERIS for the year 1813

geocentric

SEPTEMBER 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 39 3	8 <sup>h</sup> 6'42"	17 <sup>m</sup> 11"	0°R17	4 <sup>h</sup> 39'	2 <sup>h</sup> 19'	24 <sup>h</sup> 6'	12°R56	24 <sup>m</sup> 16"	12 <sup>h</sup> 48'	19°R50	10°R10	8 <sup>h</sup> 57'	1 <sup>h</sup> 33'	2°R53	W 1
T 2	22 43 0	9° 4'51"	29° 6'	29 <sup>h</sup> 40'	5°52'	2°20'	24°19'	12 <sup>h</sup> 55'	24°17'	12°49'	19 <sup>h</sup> 49'	10 <sup>h</sup> 8'	8°54'	1°40'	2 <sup>h</sup> 50'	T 2
F 3	22 46 56	10° 3'01"	10 <sup>h</sup> 58'	29°10'	7° 5'	2°22'	24°32'	12°53'	24°19'	12°49'	19°47'	10°D 8'	8°51'	1°46'	2°48'	F 3
S 4	22 50 53	11° 1'13"	22°53'	28°47'	8°19'	2°25'	24°44'	12°52'	24°20'	12°49'	19°46'	10° 8'	8°47'	1°53'	2°45'	S 4
S 5	22 54 49	11°59'26"	4 <sup>h</sup> 55'	28°32'	9°32'	2°29'	24°57'	12°51'	24°22'	12°49'	19°45'	10°10'	8°44'	2° 0'	2°42'	S 5
M 6	22 58 46	12°57'41"	17° 9'	28°D27'	10°45'	2°33'	25°10'	12°50'	24°24'	12°50'	19°44'	10°11'	8°41'	2° 7'	2°39'	M 6
T 7	23 2 43	13°55'58"	29°40'	28°29'	11°58'	2°38'	25°23'	12°49'	24°26'	12°50'	19°43'	10°13'	8°38'	2°13'	2°36'	T 7
W 8	23 6 39	14°54'16"	12 <sup>h</sup> 30'	28°41'	13°11'	2°45'	25°36'	12°48'	24°27'	12°51'	19°41'	10°R13'	8°35'	2°20'	2°33'	W 8
T 9	23 10 36	15°52'36"	25°42'	29° 2'	14°24'	2°51'	25°48'	12°47'	24°29'	12°51'	19°40'	10°12'	8°32'	2°27'	2°30'	T 9
F 10	23 14 32	16°50'57"	9 <sup>h</sup> 15'	29°32'	15°37'	2°59'	26° 1'	12°46'	24°31'	12°52'	19°39'	10° 9'	8°28'	2°33'	2°27'	F 10
S 11	23 18 29	17°49'20"	23° 9'	0 <sup>h</sup> 11'	16°50'	3° 7'	26°14'	12°45'	24°33'	12°52'	19°38'	10° 5'	8°25'	2°40'	2°25'	S 11
S 12	23 22 25	18°47'45"	7 <sup>h</sup> 20'	0°58'	18° 3'	3°17'	26°26'	12°45'	24°35'	12°53'	19°37'	9°59'	8°22'	2°47'	2°22'	S 12
M13	23 26 22	19°46'12"	21°42'	1°53'	19°16'	3°26'	26°39'	12°44'	24°37'	12°53'	19°35'	9°53'	8°19'	2°54'	2°19'	M13
T 14	23 30 18	20°44'41"	6 <sup>h</sup> 10'	2°55'	20°29'	3°37'	26°51'	12°44'	24°39'	12°54'	19°34'	9°47'	8°16'	3° 0'	2°16'	T 14
W15	23 34 15	21°43'13"	20°38'	4° 4'	21°42'	3°48'	27° 4'	12°44'	24°41'	12°55'	19°33'	9°43'	8°12'	3° 7'	2°13'	W15
T 16	23 38 11	22°41'46"	5 <sup>h</sup> 11'	5°20'	22°55'	4° 0'	27°16'	12°44'	24°43'	12°55'	19°32'	9°39'	8° 9'	3°14'	2°11'	T 16
F 17	23 42 8	23°40'22"	19°16'	6°41'	24° 8'	4°13'	27°29'	12°D43'	24°46'	12°56'	19°30'	9°D38'	8° 6'	3°20'	2° 8'	F 17
S 18	23 46 5	24°39'00"	3 <sup>h</sup> 20'	8° 7'	25°21'	4°26'	27°41'	12°43'	24°48'	12°57'	19°29'	9°38'	8° 3'	3°27'	2° 5'	S 18
S 19	23 50 1	25°37'40"	17°12'	9°38'	26°34'	4°41'	27°54'	12°44'	24°50'	12°58'	19°28'	9°39'	8° 0'	3°34'	2° 3'	S 19
M20	23 53 58	26°36'23"	0 <sup>h</sup> 52'	11°12'	27°47'	4°55'	28° 6'	12°44'	24°52'	12°58'	19°27'	9°41'	7°57'	3°41'	2° 0'	M20
T 21	23 57 54	27°35'08"	14°21'	12°50'	29° 0'	5°11'	28°18'	12°44'	24°55'	12°59'	19°26'	9°R41'	7°53'	3°47'	1°58'	T 21
W22	0 1 51	28°33'55"	27°39'	14°31'	0 <sup>h</sup> 12'	5°27'	28°30'	12°45'	24°57'	13° 0'	19°24'	9°39'	7°50'	3°54'	1°55'	W22
T 23	0 5 47	29°32'44"	10 <sup>h</sup> 45'	16°13'	1°25'	5°43'	28°42'	12°45'	25° 0'	13° 1'	19°23'	9°35'	7°47'	4° 1'	1°52'	T 23
F 24	0 9 44	0 <sup>h</sup> 31'35"	23°39'	17°58'	2°38'	6° 1'	28°55'	12°46'	25° 2'	13° 2'	19°22'	9°29'	7°44'	4° 7'	1°50'	F 24
S 25	0 13 40	1°30'28"	6 <sup>h</sup> 21'	19°44'	3°51'	6°19'	29° 7'	12°46'	25° 5'	13° 3'	19°21'	9°21'	7°41'	4°14'	1°48'	S 25
S 26	0 17 37	2°29'23"	18°50'	21°31'	5° 4'	6°37'	29°19'	12°47'	25° 7'	13° 4'	19°20'	9°11'	7°37'	4°21'	1°45'	S 26
M27	0 21 34	3°28'20"	1 <sup>h</sup> 8'	23°19'	6°16'	6°56'	29°30'	12°48'	25°10'	13° 5'	19°18'	9° 1'	7°34'	4°27'	1°43'	M27
T 28	0 25 30	4°27'19"	13°15'	25° 7'	7°29'	7°16'	29°42'	12°49'	25°13'	13° 6'	19°17'	8°51'	7°31'	4°34'	1°40'	T 28
W29	0 29 27	5°26'20"	25°14'	26°55'	8°42'	7°36'	29°54'	12°50'	25°15'	13° 7'	19°16'	8°42'	7°28'	4°41'	1°38'	W29
T 30	0 33 23	6 <sup>h</sup> 25'22"	7 <sup>h</sup> 6'	28 <sup>h</sup> 44'	9 <sup>h</sup> 54'	7 <sup>h</sup> 57'	0 <sup>h</sup> 6'	12 <sup>h</sup> 51'	25 <sup>m</sup> 18"	13 <sup>h</sup> 8'	19 <sup>h</sup> 15'	8 <sup>h</sup> 36'	7 <sup>h</sup> 25'	4 <sup>h</sup> 48'	1 <sup>h</sup> 36'	T 30

Delta T = 15.76 sec

OCTOBER 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 37 20	7 <sup>h</sup> 24'27"	18 <sup>h</sup> 56'	0 <sup>h</sup> 32'	11 <sup>m</sup> 7"	8 <sup>h</sup> 18'	0 <sup>h</sup> 18'	12 <sup>h</sup> 53'	25 <sup>m</sup> 21"	13 <sup>h</sup> 9'	19°R14'	8°R32'	7 <sup>h</sup> 22'	4 <sup>h</sup> 54'	1°R34'	F 1
S 2	0 41 16	8°23'33"	0 <sup>h</sup> 34'	2°20'	12°19'	8°40'	0°29'	12°54'	25°23'	13°11'	19 <sup>h</sup> 13'	8 <sup>h</sup> 30'	7°18'	5° 1'	1 <sup>h</sup> 31'	S 2
S 3	0 45 13	9°22'42"	12°47'	4° 8'	13°32'	9° 3'	0°41'	12°56'	25°26'	13°12'	19°11'	8°D30'	7°15'	5° 8'	1°29'	S 3
M 4	0 49 9	10°21'51"	24°59'	5°55'	14°45'	9°25'	0°52'	12°57'	25°29'	13°13'	19°10'	8°30'	7°12'	5°14'	1°27'	M 4
T 5	0 53 6	11°21'03"	7 <sup>h</sup> 29'	7°41'	15°57'	9°49'	1° 4'	12°59'	25°32'	13°14'	19° 9'	8°R31'	7° 9'	5°21'	1°25'	T 5
W 6	0 57 3	12°20'17"	20°21'	9°27'	17° 9'	10°13'	1°15'	13° 1'	25°35'	13°16'	19° 8'	8°30'	7° 6'	5°28'	1°23'	W 6
T 7	1 0 59	13°19'32"	3 <sup>h</sup> 38'	11°13'	18°22'	10°37'	1°26'	13° 3'	25°38'	13°17'	19° 7'	8°27'	7° 3'	5°35'	1°21'	T 7
F 8	1 4 56	14°18'49"	17°23'	12°57'	19°34'	11° 2'	1°38'	13° 4'	25°41'	13°18'	19° 6'	8°22'	6°59'	5°41'	1°19'	F 8
S 9	1 8 52	15°18'08"	1 <sup>h</sup> 34'	14°41'	20°47'	11°27'	1°49'	13° 7'	25°44'	13°20'	19° 5'	8°15'	6°56'	5°48'	1°17'	S 9
S 10	1 12 49	16°17'29"	16° 7'	16°24'	21°59'	11°53'	2° 0'	13° 9'	25°47'	13°21'	19° 4'	8° 5'	6°53'	5°55'	1°15'	S 10
M11	1 16 45	17°16'52"	0 <sup>h</sup> 55'	18° 7'	23°11'	12°19'	2°11'	13°11'	25°50'	13°22'	19° 3'	7°55'	6°50'	6° 1'	1°14'	M11
T 12	1 20 42	18°16'17"	15°51'	19°49'	24°24'	12°45'	2°22'	13°13'	25°53'	13°24'	19° 2'	7°44'	6°47'	6° 8'	1°12'	T 12
W13	1 24 38	19°15'44"	0 <sup>h</sup> 11'	21°30'	25°36'	13°12'	2°32'	13°16'	25°56'	13°25'	19° 1'	7°35'	6°43'	6°15'	1°10'	W13
T 14	1 28 35	20°15'14"	15°27'	23°10'	26°48'	13°39'	2°43'	13°18'	25°59'	13°27'	19° 0'	7°29'	6°40'	6°21'	1° 9'	T 14
F 15	1 32 31	21°14'46"	29°54'	24°50'	28° 0'	14° 7'	2°54'	13°21'	26° 3'	13°28'	18°59'	7°25'	6°37'	6°28'	1° 7'	F 15
S 16	1 36 28	22°14'21"	14 <sup>h</sup> 21'	26°29'	29°12'	14°34'	3° 4'	13°24'	26° 6'	13°30'	18°58'	7°23'	6°34'	6°35'	1° 5'	S 16
S 17	1 40 25	23°13'57"	27°50'	28° 8'	0 <sup>h</sup> 24'	15° 3'	3°15'	13°27'	26° 9'	13°32'	18°57'	7°D23'	6°31'	6°42'	1° 4'	S 17
M18	1 44 21	24°13'36"	11 <sup>h</sup> 19'	29°45'	1°36'	15°31'	3°25'	13°29'	26°12'	13°33'	18°56'	7°R23'	6°28'	6°48'	1° 2'	M18
T 19	1 48 18	25°13'18"	24°32'	1 <sup>h</sup> 23'	2°48'	16° 0'	3°36'	13°32'	26°16'	13°35'	18°55'	7°22'	6°24'	6°55'	1° 1'	T 19
W20	1 52 14	26°13'01"	7 <sup>h</sup> 30'	2°59'	4° 0'	16°30'	3°46'	13°35'	26°19'	13°36'	18°54'	7°19'	6°21'	7° 2'	1° 0'	W20
T 21	1 56 11	27°12'47"	20°16'	4°35'	5°12'	16°59'	3°56'	13°39'	26°22'	13°38'	18°53'	7°13'	6°18'	7° 8'	0°58'	T 21
F 22	2 0 7	28°12'34"	2 <sup>h</sup> 52'	6°11'	6°24'	17°29'	4° 6'	13°42'	26°26'	13°40'	18°52'	7° 4'	6°15'	7°15'	0°57'	F 22
S 23	2 4 4	29°12'24"	15°17'	7°46'	7°36'	18° 0'	4°16'	13°45'	26°29'	13°42'	18°51'	6°52'	6°12'	7°22'	0°56'	S 23
S 24	2 8 0	0 <sup>h</sup> 12'16"	27°34'	9°20'	8°48'	18°30'	4°26'	13°49'	26°32'	13°43'	18°50'	6°39'	6° 9'	7°29'	0°55'	S 24
M25	2 11 57	1°12'10"	9 <sup>h</sup> 42'	10°54'	10° 0'	19° 1'	4°36'	13°52'	26°36'	13°45'	18°49'	6°24'	6° 5'	7°35'	0°54'	M25
T 26	2 15 54	2°12'06"	21°42'	12°27'	11°11'	19°32'	4°45'	13°56'	26°39'	13°47'	18°48'	6°10'	6° 2'	7°42'	0°53'	T 26
W27	2 19 50	3°12'04"	3 <sup>h</sup> 37'	14° 0'	12°23'	20° 4'	4°55'	14° 0'	26°43'	13°49'	18°48'	5°57'	5°59'	7°49'	0°52'	W27
T 28	2 23 47	4°12'03"	15°26'	15°33'	13°35'	20°35'	5° 4'	14° 3'	26°46'	13°51'	18°47'	5°47'	5°56'	7°55'	0°51'	T 28
F 29	2 27 43	5°12'04"	27°15'	17° 5'	14°46'	21° 8'	5°13'	14° 7'	26°50'	13°52'	18°46'	5°40'	5°53'	8° 2'	0°50'	F 29
S 30	2 31 40	6°12'07"	9 <sup>h</sup> 35'	18°36'	15°58'	21°40'	5°23'	14°11'	26°53'	13°54'	18°45'	5°35'	5°49'	8° 9'	0°49'	S 30
S 31	2 35 36	7 <sup>h</sup> 12'12"	21 <sup>h</sup> 32'	20 <sup>m</sup> 7"	17 <sup>h</sup> 10'	22 <sup>h</sup> 12'	5 <sup>h</sup> 32'	14 <sup>h</sup> 15'	26 <sup>m</sup> 57"	13 <sup>h</sup> 56'	18 <sup>h</sup> 45'	5 <sup>h</sup> 33'	5 <sup>h</sup> 46'	8 <sup>h</sup> 15'	0 <sup>h</sup> 49'	S 31

Delta T = 15.78 sec

## ASTRODIENST EPHEMERIS for the year 1813

geocentric

NOVEMBER 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 39 33	8♂12'18	3♂10	21♂37	18♂21	22♂45	5♂41	14♂19	27♂0	13♂58	18♂R44	5♂R33	5♂Ω43	8♂22	0♂R48	M 1
T 2	2 43 29	9°12'26	15°35	23° 8	19°32	23°18	5°50	14°23	27° 4	14° 0	18♂43	5♂Ω33	5°40	8°29	0♂48	T 2
W 3	2 47 26	10°12'35	28°21	24°37	20°44	23°51	5°58	14°28	27° 8	14° 2	18°42	5°32	5°37	8°36	0°47	W 3
T 4	2 51 23	11°12'46	11♂35	26° 6	21°55	24°25	6° 7	14°32	27°11	14° 4	18°42	5°29	5°34	8°42	0°47	T 4
F 5	2 55 19	12°12'58	25°18	27°35	23° 6	24°59	6°15	14°36	27°15	14° 6	18°41	5°24	5°30	8°49	0°46	F 5
S 6	2 59 16	13°13'12	9♂32	29° 3	24°17	25°32	6°24	14°41	27°18	14° 8	18°40	5°16	5°27	8°56	0°46	S 6
S 7	3 3 12	14°13'27	24°13	0♂31	25°28	26° 7	6°32	14°45	27°22	14°10	18°40	5° 6	5°24	9° 2	0°45	S 7
M 8	3 7 9	15°13'44	9♂15	1°58	26°39	26°41	6°40	14°50	27°26	14°12	18°39	4°54	5°21	9° 9	0°45	M 8
T 9	3 11 5	16°14'03	24°29	3°24	27°50	27°15	6°48	14°55	27°29	14°14	18°39	4°43	5°18	9°16	0°45	T 9
W10	3 15 2	17°14'24	9♂43	4°50	29° 1	27°50	6°56	14°59	27°33	14°16	18°38	4°33	5°14	9°22	0°45	W10
T 11	3 18 58	18°14'46	24°47	6°16	0♂12	28°25	7° 4	15° 4	27°37	14°18	18°38	4°26	5°11	9°29	0°D45	T 11
F 12	3 22 55	19°15'10	9♂33	7°40	1°23	29° 0	7°12	15° 9	27°40	14°20	18°37	4°21	5° 8	9°36	0°45	F 12
S 13	3 26 52	20°15'36	23°55	9° 4	2°33	29°35	7°19	15°14	27°44	14°22	18°37	4°19	5° 5	9°43	0°45	S 13
S 14	3 30 48	21°16'04	7♂51	10°27	3°44	0♂10	7°26	15°19	27°48	14°24	18°36	4°D19	5° 2	9°49	0°45	S 14
M15	3 34 45	22°16'34	21°23	11°49	4°54	0°46	7°34	15°24	27°51	14°26	18°36	4°R19	4°59	9°56	0°45	M15
T 16	3 38 41	23°17'06	4♂32	13°10	6° 5	1°22	7°41	15°30	27°55	14°29	18°35	4°19	4°55	10° 3	0°46	T 16
W17	3 42 38	24°17'39	17°22	14°30	7°15	1°57	7°48	15°35	27°59	14°31	18°35	4°16	4°52	10° 9	0°46	W17
T 18	3 46 34	25°18'15	29°56	15°48	8°25	2°33	7°54	15°40	28° 3	14°33	18°35	4°11	4°49	10°16	0°46	T 18
F 19	3 50 31	26°18'52	12♂18	17° 5	9°35	3°10	8° 1	15°45	28° 6	14°35	18°34	4° 4	4°46	10°23	0°47	F 19
S 20	3 54 27	27°19'30	24°30	18°20	10°45	3°46	8° 8	15°51	28°10	14°37	18°34	3°53	4°43	10°29	0°47	S 20
S 21	3 58 24	28°20'10	6♂35	19°33	11°55	4°22	8°14	15°56	28°14	14°39	18°34	3°41	4°40	10°36	0°48	S 21
M22	4 2 21	29°20'52	18°34	20°44	13° 5	4°59	8°20	16° 2	28°17	14°42	18°33	3°28	4°36	10°43	0°48	M22
T 23	4 6 17	0♂21'35	0♂29	21°53	14°15	5°36	8°26	16° 8	28°21	14°44	18°33	3°15	4°33	10°49	0°49	T 23
W24	4 10 14	1°22'20	12°20	22°58	15°24	6°13	8°32	16°13	28°25	14°46	18°33	3° 4	4°30	10°56	0°50	W24
T 25	4 14 10	2°23'06	24° 9	24° 0	16°34	6°50	8°38	16°19	28°28	14°48	18°33	2°55	4°27	11° 3	0°51	T 25
F 26	4 18 7	3°23'53	5♂58	24°59	17°43	7°27	8°43	16°25	28°32	14°50	18°32	2°48	4°24	11°10	0°52	F 26
S 27	4 22 3	4°24'41	17°51	25°53	18°53	8° 4	8°49	16°31	28°36	14°53	18°32	2°45	4°20	11°16	0°53	S 27
S 28	4 26 0	5°25'30	29°49	26°42	20° 2	8°41	8°54	16°36	28°40	14°55	18°32	2°D43	4°17	11°23	0°53	S 28
M29	4 29 56	6°26'20	11♂57	27°25	21°11	9°19	8°59	16°42	28°43	14°57	18°32	2°44	4°14	11°30	0°55	M29
T 30	4 33 53	7♂27'12	24♂20	28♂2	22♂20	9♂56	9♂4	16♂48	28♂47	14♂59	18♂32	2♂45	4♂11	11♂36	0♂56	T 30

Delta T = 15.80 sec

DECEMBER 1813

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	4 37 50	8♂28'03	7♂2	28♂32	23♂28	10♂34	9♂9	16♂54	28♂51	15♂2	18♂R32	2♂R45	4♂Ω8	11♂43	0♂57	W 1
T 2	4 41 46	9°28'56	20° 8	28°54	24°37	11°12	9°13	17° 1	28°54	15° 4	18♂43	2♂Ω45	4° 5	11°50	0°58	T 2
F 3	4 45 43	10°29'50	3♂42	29° 8	25°45	11°50	9°18	17° 7	28°58	15° 6	18°D32	2°42	4° 1	11°56	0°59	F 3
S 4	4 49 39	11°30'44	17°45	29°R12	26°54	12°28	9°22	17°13	29° 2	15° 8	18°32	2°37	3°58	12° 3	1° 1	S 4
S 5	4 53 36	12°31'39	2♂17	29° 5	28° 2	13° 6	9°26	17°19	29° 5	15°11	18°32	2°31	3°55	12°10	1° 2	S 5
M 6	4 57 32	13°32'35	17°14	28°47	29°10	13°44	9°30	17°25	29° 9	15°13	18°32	2°23	3°52	12°17	1° 4	M 6
T 7	5 1 29	14°33'31	2♂17	28°18	0♂17	14°22	9°33	17°32	29°13	15°15	18°32	2°16	3°49	12°23	1° 5	T 7
W 8	5 5 25	15°34'29	17°47	27°38	1°25	15° 0	9°37	17°38	29°16	15°18	18°32	2° 9	3°46	12°30	1° 7	W 8
T 9	5 9 22	16°35'27	3♂3	26°47	2°32	15°39	9°40	17°44	29°20	15°20	18°32	2° 4	3°42	12°37	1° 8	T 9
F 10	5 13 19	17°36'27	18° 3	25°45	3°40	16°17	9°44	17°51	29°23	15°22	18°32	2° 1	3°39	12°43	1°10	F 10
S 11	5 17 15	18°37'27	2♂41	24°35	4°47	16°56	9°47	17°57	29°27	15°24	18°33	2°D 0	3°36	12°50	1°12	S 11
S 12	5 21 12	19°38'29	16°51	23°18	5°53	17°34	9°49	18° 4	29°30	15°27	18°33	2° 1	3°33	12°57	1°13	S 12
M13	5 25 8	20°39'31	0♂34	21°56	7° 0	18°13	9°52	18°10	29°34	15°29	18°33	2° 2	3°30	13° 3	1°15	M13
T 14	5 29 5	21°40'34	1♂30	20°33	8° 6	18°52	9°54	18°17	29°37	15°31	18°33	2° 3	3°26	13°10	1°17	T 14
W15	5 33 1	22°41'38	26°42	19°12	9°13	19°30	9°57	18°24	29°41	15°33	18°34	2°R 4	3°23	13°17	1°19	W15
T 16	5 36 58	23°42'43	9♂15	17°54	10°18	20° 9	9°59	18°30	29°44	15°36	18°34	2° 2	3°20	13°23	1°21	T 16
F 17	5 40 54	24°43'49	21°32	16°42	11°24	20°48	10° 1	18°37	29°48	15°38	18°34	1°59	3°17	13°30	1°23	F 17
S 18	5 44 51	25°44'56	3♂38	15°38	12°30	21°27	10° 2	18°44	29°51	15°40	18°35	1°54	3°14	13°37	1°25	S 18
S 19	5 48 48	26°46'04	15°35	14°45	13°35	22° 6	10° 4	18°50	29°55	15°42	18°35	1°48	3°11	13°44	1°27	S 19
M20	5 52 44	27°47'12	27°28	14° 1	14°40	22°45	10° 5	18°57	29°58	15°45	18°35	1°42	3° 7	13°50	1°30	M20
T 21	5 56 41	28°48'21	9♂18	13°29	15°44	23°24	10° 6	19° 4	0♂2	15°47	18°36	1°35	3° 4	13°57	1°32	T 21
W22	6 0 37	29°49'30	21° 8	13° 7	16°49	24° 4	10° 7	19°11	0° 5	15°49	18°36	1°29	3° 1	14° 4	1°34	W22
T 23	6 4 34	0♂50'40	3♂0	12°55	17°53	24°43	10° 8	19°18	0° 8	15°51	18°37	1°25	2°58	14°10	1°37	T 23
F 24	6 8 30	1°51'50	14°55	12°D54	18°57	25°22	10° 8	19°25	0°12	15°53	18°37	1°22	2°55	14°17	1°39	F 24
S 25	6 12 27	2°53'00	26°55	13° 2	20° 0	26° 2	10° 9	19°32	0°15	15°56	18°38	1°D20	2°52	14°24	1°41	S 25
S 26	6 16 24	3°54'11	9♂2	13°18	21° 3	26°41	10°R 9	19°38	0°18	15°58	18°38	1°21	2°48	14°30	1°44	S 26
M27	6 20 20	4°55'21	21°18	13°42	22° 6	27°20	10° 9	19°45	0°21	16° 0	18°39	1°22	2°45	14°37	1°47	M27
T 28	6 24 17	5°56'32	3♂48	14°13	23° 9	28° 0	10° 9	19°52	0°25	16° 2	18°40	1°24	2°42	14°44	1°49	T 28
W29	6 28 13	6°57'42	16°33	14°51	24°11	28°39	10° 8	19°59	0°28	16° 4	18°40	1°25	2°39	14°50	1°52	W29
T 30	6 32 10	7°58'52	29°38	15°34	25°12	29°19	10° 8	20° 6	0°31	16° 6	18°41	1°26	2°36	14°57	1°54	T 30
F 31	6 36 6	9♂0'02	13♂4	16♂22	26♂14	29♂59	10♂7	20♂13	0♂34	16♂9	18♂41	1°R26	2♂Ω32	15♂4	1♂57	F 31

Delta T = 15.83 sec