



Astrodienst Ephemeris Tables for the year 1889

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 1889
geocentric

JANUARY 1889

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 43 20	10 ³ 49'41	28 ² 32	12 ³ 43	22 ²² 27	23 ²² 18	22 ²² 32	19 ² R28	21 ² 42	29 ² R55	4 ² R22	21 ² R13	21 ² 52	6 ² II59	8 ² R28	T 1
W 2	6 47 17	11 ¹ 50'53	13 ³ 30	14 ² 20	23 ³ 38	24 ² 4	22 ² 46	19 ² Q25	21 ² 44	29 ² R54	4 ² II21	21 ² 52	21 ² 49	7 ² 6	8 ² 524	W 2
T 3	6 51 13	12 ² 52'04	28 ¹ 16	15 ² 58	24 ² 49	24 ² 51	22 ² 59	19 ² 22	21 ² 45	29 ² 52	4 ² 20	21 ² D12	21 ² 46	7 ² 13	8 ² 20	T 3
F 4	6 55 10	13 ² 53'16	12 ² 42	17 ² 36	26 ² 0	25 ² 38	23 ² 12	19 ² 18	21 ² 46	29 ² 51	4 ² 19	21 ² 13	21 ² 43	7 ² 19	8 ² 16	F 4
S 5	6 59 7	14 ² 54'27	26 ² 43	19 ² 15	27 ² 11	26 ² 25	23 ² 25	19 ² 15	21 ² 47	29 ² 50	4 ² 18	21 ² 13	21 ² 39	7 ² 26	8 ² 12	S 5
S 6	7 3 3	15 ² 55'38	10 ² 19	20 ² 54	28 ² 22	27 ² 12	23 ² 38	19 ² 11	21 ² 48	29 ² 49	4 ² 17	21 ² 14	21 ² 36	7 ² 33	8 ² 7	S 6
M 7	7 7 0	16 ² 56'48	23 ² 29	22 ² 33	29 ² 33	27 ² 59	23 ² 51	19 ² 8	21 ² 49	29 ² 48	4 ² 17	21 ² 14	21 ² 33	7 ² 39	8 ² 3	M 7
T 8	7 10 56	17 ² 57'58	6 ² 14	24 ² 13	0 ² 43	28 ² 46	24 ² 4	19 ² 4	21 ² 50	29 ² 47	4 ² 16	21 ² 15	21 ² 30	7 ² 46	7 ² 59	T 8
W 9	7 14 53	18 ² 59'07	18 ² 40	25 ² 53	1 ² 53	29 ² 32	24 ² 18	19 ² 0	21 ² 51	29 ² 46	4 ² 15	21 ² R15	21 ² 27	7 ² 53	7 ² 55	W 9
T 10	7 18 49	20 ² 0'15	0 ² 50	27 ² 33	3 ² 4	0 ² 19	24 ² 30	18 ² 56	21 ² 52	29 ² 45	4 ² 14	21 ² 15	21 ² 23	7 ² 59	7 ² 51	T 10
F 11	7 22 46	21 ² 1'24	12 ² 48	29 ² 14	4 ² 14	1 ² 6	24 ² 43	18 ² 52	21 ² 53	29 ² 44	4 ² 14	21 ² D15	21 ² 20	8 ² 6	7 ² 47	F 11
S 12	7 26 42	22 ² 2'31	24 ² 40	0 ² 54	5 ² 24	1 ² 53	24 ² 56	18 ² 48	21 ² 54	29 ² 43	4 ² 13	21 ² 15	21 ² 17	8 ² 13	7 ² 43	S 12
S 13	7 30 39	23 ² 3'38	6 ² II29	2 ² 35	6 ² 34	2 ² 40	25 ² 9	18 ² 44	21 ² 55	29 ² 42	4 ² 12	21 ² 15	21 ² 14	8 ² 19	7 ² 39	S 13
M14	7 34 36	24 ² 4'44	18 ² 20	4 ² 16	7 ² 43	3 ² 26	25 ² 22	18 ² 40	21 ² 55	29 ² 41	4 ² 11	21 ² 15	21 ² 11	8 ² 26	7 ² 35	M14
T 15	7 38 32	25 ² 5'50	0 ² 51	5 ² 57	8 ² 53	4 ² 13	25 ² 35	18 ² 35	21 ² 56	29 ² 41	4 ² 11	21 ² 16	21 ² 8	8 ² 33	7 ² 31	T 15
W16	7 42 29	26 ² 6'55	12 ² 18	7 ² 38	10 ² 2	5 ² 0	25 ² 47	18 ² 31	21 ² 57	29 ² 40	4 ² 10	21 ² 16	21 ² 4	8 ² 39	7 ² 28	W16
T 17	7 46 25	27 ² 7'59	24 ² 30	9 ² 19	11 ² 12	5 ² 47	26 ² 0	18 ² 27	21 ² 57	29 ² 39	4 ² 9	21 ² R16	21 ² 1	8 ² 46	7 ² 24	T 17
F 18	7 50 22	28 ² 9'03	6 ² Q25	10 ² 59	12 ² 21	6 ² 33	26 ² 13	18 ² 22	21 ² 58	29 ² 38	4 ² 9	21 ² 16	20 ² 58	8 ² 53	7 ² 20	F 18
S 19	7 54 18	29 ² 10'06	19 ² 27	12 ² 39	13 ² 30	7 ² 20	26 ² 25	18 ² 18	21 ² 58	29 ² 38	4 ² 8	21 ² 15	20 ² 55	8 ² 59	7 ² 16	S 19
S 20	7 58 15	0 ² 11'08	2 ² 14	14 ² 17	14 ² 38	8 ² 7	26 ² 38	18 ² 14	21 ² 58	29 ² 37	4 ² 8	21 ² 14	20 ² 52	9 ² 6	7 ² 13	S 20
M21	8 2 11	1 ² 12'10	15 ² 15	15 ² 55	15 ² 47	8 ² 53	26 ² 50	18 ² 9	21 ² 59	29 ² 36	4 ² 7	21 ² 13	20 ² 49	9 ² 13	7 ² 9	M21
T 22	8 6 8	2 ² 13'11	28 ² 29	17 ² 32	16 ² 55	9 ² 40	27 ² 3	18 ² 4	21 ² 59	29 ² 36	4 ² 7	21 ² 11	20 ² 45	9 ² 19	7 ² 5	T 22
W23	8 10 5	3 ² 14'12	11 ² 58	19 ² 6	18 ² 3	10 ² 27	27 ² 15	18 ² 0	21 ² 59	29 ² 35	4 ² 6	21 ² 10	20 ² 42	9 ² 26	7 ² 2	W23
T 24	8 14 1	4 ² 15'12	25 ² 41	20 ² 39	19 ² 11	11 ² 13	27 ² 27	17 ² 55	21 ² 59	29 ² 35	4 ² 6	21 ² 9	20 ² 39	9 ² 33	6 ² 58	T 24
F 25	8 17 58	5 ² 16'12	9 ² 18	22 ² 9	20 ² 19	12 ² 0	27 ² 39	17 ² 50	21 ² 59	29 ² 34	4 ² 5	21 ² D 9	20 ² 36	9 ² 40	6 ² 55	F 25
S 26	8 21 54	6 ² 17'11	23 ² 48	23 ² 36	21 ² 27	12 ² 47	27 ² 51	17 ² 46	21 ² R59	29 ² 34	4 ² 5	21 ² 10	20 ² 33	9 ² 46	6 ² 51	S 26
S 27	8 25 51	7 ² 18'10	8 ² 10	24 ² 59	22 ² 34	13 ² 33	28 ² 3	17 ² 41	21 ² 59	29 ² 33	4 ² 4	21 ² 11	20 ² 29	9 ² 53	6 ² 48	S 27
M28	8 29 47	8 ² 19'08	22 ² 41	26 ² 18	23 ² 41	14 ² 20	28 ² 15	17 ² 36	21 ² 59	29 ² 33	4 ² 4	21 ² 12	20 ² 26	10 ² 0	6 ² 45	M28
T 29	8 33 44	9 ² 20'05	7 ² 31	27 ² 32	24 ² 48	15 ² 6	28 ² 27	17 ² 31	21 ² 59	29 ² 32	4 ² 3	21 ² 13	20 ² 23	10 ² 6	6 ² 41	T 29
W30	8 37 40	10 ² 21'01	21 ² 50	28 ² 40	25 ² 55	15 ² 53	28 ² 39	17 ² 27	21 ² 59	29 ² 32	4 ² 3	21 ² R14	20 ² 20	10 ² 13	6 ² 38	W30
T 31	8 41 37	11 ² 21'57	6 ² 17	29 ² 41	27 ² 18	16 ² 39	28 ² 51	17 ² Q22	21 ² 59	29 ² 32	4 ² II 3	21 ² 53	20 ² 17	10 ² II20	6 ² 35	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
T 1	23s 1	21s24	2n 3	24s44	1s54	15s42	1s46	14s48	1s 6	22s52	0n23	16n 0	1n 4	7s53	0n38	18n28
W 2	22 55	22 4	0 43	24 37	1 57	15 17	1 44	14 32	1 6	22 52	0 23	16 1	1 4	7 53	0 38	18 28
T 3	22 50	21 10	0s39	24 29	2 0	14 51	1 42	14 16	1 5	22 53	0 23	16 2	1 4	7 54	0 38	18 28
F 4	22 44	18 52	1 57	24 18	2 2	14 25	1 40	14 0	1 4	22 54	0 23	16 3	1 4	7 54	0 38	18 28
S 5	22 37	15 30	3 5	24 7	2 4	13 59	1 37	13 43	1 4	22 55	0 23	16 5	1 4	7 55	0 38	18 28
S 6	22 30	11 25	4 0	23 53	2 5	13 32	1 35	13 26	1 3	22 55	0 23	16 6	1 5	7 55	0 38	18 27
M 7	22 23	6 54	4 41	23 38	2 6	13 5	1 32	13 10	1 3	22 56	0 23	16 7	1 5	7 56	0 38	18 27
T 8	22 15	2 13	5 7	23 22	2 7	12 37	1 30	12 53	1 2	22 57	0 23	16 9	1 5	7 56	0 38	18 27
W 9	22 6	2n25	5 17	23 4	2 7	12 10	1 27	12 36	1 1	22 57	0 22	16 10	1 5	7 56	0 38	18 27
T 10	21 58	6 52	5 13	22 44	2 7	11 42	1 24	12 19	1 1	22 58	0 22	16 11	1 5	7 57	0 38	18 27
F 11	21 48	10 59	4 56	22 23	2 6	11 14	1 21	12 1	1 0	22 59	0 22	16 13	1 5	7 57	0 38	18 27
S 12	21 39	14 39	4 25	22 0	2 5	10 45	1 18	11 44	0 59	22 59	0 22	16 14	1 6	7 57	0 38	18 26
S 13	21 29	17 43	3 44	21 36	2 3	10 16	1 15	11 27	0 59	23 0	0 22	16 16	1 6	7 57	0 38	18 26
M14	21 18	20 4	2 53	21 10	2 1	9 47	1 12	11 9	0 58	23 0	0 22	16 17	1 6	7 58	0 38	18 26
T 15	21 8	21 33	1 54	20 42	1 58	9 18	1 9	10 51	0 57	23 1	0 22	16 18	1 6	7 58	0 38	18 26
W16	20 56	21 22	4 0	50 20	13 55	8 49	1 5	10 34	0 57	23 1	0 22	16 20	1 6	7 58	0 38	18 26
T 17	20 45	22 4	0n18	19 43	1 51	8 19	1 2	10 16	0 56	23 2	0 22	16 21	1 6	7 58	0 38	18 26
F 18	20 33	19 57	1 26	19 11	1 46	7 50	0 58	9 58	0 55	23 2	0 22	16 23	1 6	7 58	0 38	18 26
S 19	20 20	17 22	2 30	18 38	1 41	7 20	0 54	9 40	0 55	23 2	0 22	16 24	1 7	7 58	0 38	18 26
S 20	20 7	13 55	3 28	18 4	1 35	6 50	0 50	9 22	0 54	23 3	0 22	16 26	1 7	7 58	0 38	18 26
M21	19 54	9 45	4 17	17 28	1 28	6 19	0 46	9 4	0 53	23 3	0 22	16 28	1 7	7 59	0 38	18 25
T 22	19 41	5 4	4 52	16 52	1 20	5 49	0 42	8 45	0 52	23 3	0 22	16 29	1 7	7 59	0 38	18 25
W23	19 27	0 4	5 13	16 15	1 12	5 19	0 38	8 27	0 52	23 4	0 22	16 31	1 7	7 59	0 38	18 25
T 24	19 12	5s 2	5 16	15 37	1 3	4 48	0 34	8 9	0 51	23 4	0 22	16 32	1 7	7 59	0 38	18 25
F 25	18 58	9 57	5 0	14 58	0 53	4 18	0 30	7 50	0 50	23 4	0 22	16 34	1 7	7 59	0 38	18

ASTRODIENST EPHEMERIS for the year 1889

geocentric

FEBRUARY 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	8 45 34	12 ²² 51	20 ³² 32	0 ³⁶ 36	28 ³⁸ 8	17 ³⁸ 26	29 ³⁷ 3	17 ³⁸ 17	21 ³⁸ 58	29 ³⁸ 32	4 ³⁸ 2	21 ³⁸ 11	20 ³⁸ 14	10 ³⁸ 26	6 ³⁸ 32	F 1
S 2	8 49 30	13 ²³ 44	4 ³⁸ 29	1 ²¹	29 ¹⁴	18 ¹²	29 ¹⁴	17 ¹²	21 ¹² 58	29 ¹² 31	4 ¹² 2	21 ¹² 8	20 ¹⁰	10 ³³	6 ²⁹	S 2
S 3	8 53 27	14 ²⁴ 36	18 ⁵	1 ⁵⁸	0 ³⁸ 20	18 ⁵⁸	29 ²⁶	17 ⁷	21 ⁵⁸	29 ³¹	4 ²	21 ⁵	20 ⁷	10 ⁴⁰	6 ²⁶	S 3
M 4	8 57 23	15 ²⁵ 26	1 ³⁸ 18	2 ²⁶	1 ²⁵	19 ⁴⁵	29 ³⁷	17 ²	21 ⁵⁷	29 ³¹	4 ¹	21 ¹	20 ⁴	10 ⁴⁶	6 ²³	M 4
T 5	9 1 20	16 ²⁶ 15	14 ⁸	2 ⁴³	2 ³¹	20 ³¹	29 ⁴⁹	16 ⁵⁷	21 ⁵⁶	29 ³¹	4 ¹	20 ⁵⁸	20 ¹	10 ⁵³	6 ²⁰	T 5
W 6	9 5 16	17 ²⁷ 03	26 ³⁸	2 ³⁸ 49	3 ³⁶	21 ¹⁸	0 ³⁸ 0	16 ⁵²	21 ⁵⁶	29 ³¹	4 ¹	20 ⁵⁵	19 ⁵⁸	11 ⁰	6 ¹⁷	W 6
T 7	9 9 13	18 ²⁷ 49	8 ⁵¹	2 ⁴⁵	4 ⁴⁰	22 ⁴	0 ¹¹	16 ⁴⁷	21 ⁵⁵	29 ³¹	4 ¹	20 ⁵³	19 ⁵⁵	11 ⁶	6 ¹⁵	T 7
F 8	9 13 9	19 ²⁸ 33	20 ⁵¹	2 ³⁰	5 ⁴⁵	22 ⁵⁰	0 ²²	16 ⁴³	21 ⁵⁵	29 ³¹	4 ⁰	20 ⁵²	19 ⁵¹	11 ¹³	6 ¹²	F 8
S 9	9 17 6	20 ²⁹ 16	2 ³⁸ 43	2 ⁴	6 ⁴⁹	23 ³⁶	0 ³³	16 ³⁸	21 ⁵⁴	29 ³¹	4 ⁰	20 ⁵³	19 ⁴⁸	11 ²⁰	6 ¹⁰	S 9
S 10	9 21 3	21 ²⁹ 57	14 ³³	1 ²⁸	7 ⁵³	24 ²²	0 ⁴⁴	16 ³³	21 ⁵³	29 ³¹	4 ⁰	20 ⁵⁵	19 ⁴⁵	11 ²⁶	6 ⁷	S 10
M 11	9 24 59	22 ³⁰ 37	26 ²⁴	0 ⁴³	8 ⁵⁶	25 ⁹	0 ⁵⁵	16 ²⁸	21 ⁵²	29 ³¹	4 ⁰	20 ⁵⁷	19 ⁴²	11 ³³	6 ⁵	M 11
T 12	9 28 56	23 ³¹ 15	8 ⁵² 22	29 ³⁸ 50	9 ⁵⁹	25 ⁵⁵	1 ⁶	16 ²³	21 ⁵¹	29 ³¹	4 ⁰	20 ⁵⁸	19 ³⁹	11 ⁴⁰	6 ³	T 12
W 13	9 32 52	24 ³¹ 51	20 ³⁰	28 ⁵¹	11 ²	26 ⁴¹	1 ¹⁷	16 ¹⁸	21 ⁵⁰	29 ³¹	4 ⁰	20 ⁵⁹	19 ³⁵	11 ⁴⁶	6 ⁰	W 13
T 14	9 36 49	25 ³² 26	2 ⁵² 30	27 ⁴⁷	12 ⁴	27 ²⁷	1 ²⁷	16 ¹³	21 ⁴⁹	29 ³¹	4 ⁰	20 ⁵⁸	19 ³²	11 ⁵³	5 ⁵⁸	T 14
F 15	9 40 45	26 ³² 59	15 ³⁰	26 ⁴⁰	13 ⁶	28 ¹³	1 ³⁸	16 ⁹	21 ⁴⁸	29 ³¹	4 ⁰	20 ⁵⁶	19 ²⁹	12 ⁰	5 ⁵⁶	F 15
S 16	9 44 42	27 ³³ 31	28 ²⁵	25 ³¹	14 ⁸	28 ⁵⁹	1 ⁴⁸	16 ⁴	21 ⁴⁷	29 ³²	4 ⁰	20 ⁵²	19 ²⁶	12 ⁶	5 ⁵⁴	S 16
S 17	9 48 38	28 ³⁴ 01	11 ³⁶	24 ²³	15 ⁹	29 ⁴⁵	1 ⁵⁹	15 ⁵⁹	21 ⁴⁶	29 ³²	4 ⁰	20 ⁴⁶	19 ²³	12 ¹³	5 ⁵²	S 17
M 18	9 52 35	29 ³⁴ 29	25 ³	23 ¹⁸	16 ¹⁰	0 ³¹	2 ⁹	15 ⁵⁴	21 ⁴⁵	29 ³²	4 ⁰	20 ³⁹	19 ²⁰	12 ²⁰	5 ⁵¹	M 18
T 19	9 56 32	0 ³⁴ 56	8 ⁴²	22 ¹⁶	17 ¹⁰	1 ¹⁷	2 ¹⁹	15 ⁵⁰	21 ⁴³	29 ³³	4 ⁰	20 ³³	19 ¹⁶	12 ²⁶	5 ⁴⁹	T 19
W 20	10 0 28	1 ³⁵ 22	22 ³²	21 ¹⁸	18 ¹⁰	2 ³	2 ²⁹	15 ⁴⁵	21 ⁴²	29 ³³	4 ⁰	20 ²⁷	19 ¹³	12 ³³	5 ⁴⁷	W 20
T 21	10 4 25	2 ³⁵ 46	6 ³⁰	20 ²⁷	19 ⁹	2 ⁴⁸	2 ³⁹	15 ⁴¹	21 ⁴¹	29 ³³	4 ⁰	20 ²²	19 ¹⁰	12 ⁴⁰	5 ⁴⁶	T 21
F 22	10 8 21	3 ³⁶ 09	20 ³³	19 ⁴²	20 ⁸	3 ³⁴	2 ⁴⁹	15 ³⁶	21 ³⁹	29 ³⁴	4 ⁰	20 ¹⁹	19 ⁷	12 ⁴⁶	5 ⁴⁴	F 22
S 23	10 12 18	4 ³⁶ 30	4 ³⁹	19 ⁴	21 ⁷	4 ²⁰	2 ⁵⁸	15 ³²	21 ³⁸	29 ³⁴	4 ⁰	20 ¹⁸	19 ⁴	12 ⁵³	5 ⁴³	S 23
S 24	10 16 14	5 ³⁶ 50	18 ⁴⁸	18 ³⁴	22 ⁵	5 ⁶	3 ⁸	15 ²⁷	21 ³⁶	29 ³⁵	4 ⁰	20 ¹⁹	19 ¹	13 ⁰	5 ⁴¹	S 24
M 25	10 20 11	6 ³⁷ 09	2 ⁵⁷	18 ¹⁰	23 ²	5 ⁵¹	3 ¹⁷	15 ²³	21 ³⁵	29 ³⁵	4 ⁰	20 ²⁰	18 ⁵⁷	13 ⁶	5 ⁴⁰	M 25
T 26	10 24 7	7 ³⁷ 26	17 ⁶	17 ⁵⁴	23 ⁵⁹	6 ³⁷	3 ²⁷	15 ¹⁸	21 ³³	29 ³⁶	4 ¹	20 ²¹	18 ⁵⁴	13 ¹³	5 ³⁹	T 26
W 27	10 28 4	8 ³⁷ 42	1 ¹¹	17 ⁴⁵	24 ⁵⁵	7 ²²	3 ³⁶	15 ¹⁴	21 ³²	29 ³⁷	4 ¹	20 ²¹	18 ⁵¹	13 ²⁰	5 ³⁸	W 27
T 28	10 32 1	9 ³⁷ 56	15 ¹¹	17 ⁴³	25 ⁵¹	8 ³⁸	3 ⁴⁵	15 ¹⁰	21 ³⁰	29 ³⁷	4 ¹	20 ¹⁸	18 ⁴⁸	13 ²⁶	5 ³⁷	T 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
F 1	17s 6	17s 6	2s35	10s38	0n40	0s42	0n 3	5s40	0s45	23s 6	0n21	16n45	1n 8	7s58	0n38	18n25	1s41	9n 3	12s 7	21n47	21n56	18n46	16n11	7s 7	
S 2	16 49	13 14	3 36	10 7	0 57	0 11	0 8	5 21	0 45	23 6	0 21	16 46	1 8	7 58	0 39	18 25	1 41	9 3	12 7	21 47	21 56	18 47	16 12	7 7	
S 3	16 31	8 46	4 24	9 38	1 13	0n20	0 13	5 2	0 44	23 6	0 21	16 48	1 8	7 58	0 39	18 25	1 41	9 3	12 7	21 48	21 57	18 49	16 12	7 6	
M 4	16 13	4 1	4 56	9 13	1 30	0 51	0 18	4 44	0 43	23 6	0 21	16 50	1 9	7 58	0 39	18 25	1 41	9 4	12 6	21 49	21 57	18 50	16 13	7 6	
T 5	15 55	0n47	5 12	8 51	1 47	1 22	0 24	4 25	0 43	23 6	0 21	16 51	1 9	7 57	0 39	18 25	1 41	9 4	12 6	21 49	21 58	18 52	16 13	7 5	
W 6	15 37	5 25	5 13	8 33	2 4	1 53	0 29	4 6	0 42	23 6	0 21	16 53	1 9	7 57	0 39	18 25	1 41	9 4	12 6	21 50	21 58	18 54	16 14	7 5	
T 7	15 18	9 44	4 59	8 19	2 20	2 23	0 35	3 47	0 41	23 6	0 21	16 54	1 9	7 57	0 39	18 25	1 41	9 4	12 5	21 50	21 59	18 55	16 14	7 5	
F 8	14 59	13 36	4 32	8 10	2 36	2 54	0 40	3 28	0 40	23 6	0 21	16 56	1 9	7 57	0 39	18 25	1 40	9 4	12 5	21 50	21 59	18 57	16 15	7 4	
S 9	14 40	16 53	3 54	8 6	2 50	3 24	0 46	3 9	0 40	23 6	0 21	16 58	1 9	7 56	0 39	18 25	1 40	9 5	12 5	21 50	21 59	18 58	16 15	7 4	
S 10	14 21	19 28	3 7	8 6	3 4	3 55	0 51	2 50	0 39	23 6	0 21	16 59	1 9	7 56	0 39	18 25	1 40	9 5	12 5	21 50	22 0	19 0	16 16	7 4	
M11	14 1	21 14	2 11	8 10	3 16	4 25	0 57	2 31	0 38	23 6	0 21	17 1	1 9	7 56	0 39	18 25	1 40	9 5	12 4	21 49	22 0	19 2	16 16	7 3	
T 12	13 41	22 3	1 9	8 19	3 26	4 55	1 3	2 12	0 38	23 6	0 21	17 2	1 9	7 55	0 39	18 26	1 40	9 5	12 4	21 49	22 1	19 3	16 17	7 3	
W13	13 21	21 51	0 3	8 33	3 34	5 25	1 9	1 53	0 37	23 6	0 20	17 4	1 9	7 55	0 39	18 26	1 40	9 6	12 4	21 49	22 1	19 5	16 17	7 2	
T 14	13 1	20 34	1n 5	8 49	3 39	5 55	1 15	1 34	0 36	23 6	0 20	17 5	1 9	7 54	0 39	18 26	1 40	9 6	12 3	21 49	22 2	19 6	16 18	7 2	
F 15	12 40	18 16	2 10	9 9	3 43	6 25	1 21	1 15	0 35	23 6	0 20	17 7	1 9	7 54	0 39	18 26	1 40	9 6	12 3	21 49	22 2	19 8	16 18	7 1	
S 16	12 20	15 0	3 10	9 30	3 44	6 55	1 27	0 56	0 35	23 6	0 20	17 8	1 10	7 54	0 39	18 26	1 40	9 7	12 3	21 50	22 3	19 9	16 19	7 1	
S 17	11 59	10 55	4 1	9 54	3 43	7 24	1 33	0 37	0 34	23 6	0 20	17 10	1 10	7 53	0 39	18 26	1 40	9 7	12 3	21 51	22 3	19 11	16 19	7 1	
M18	11 38	6 15	4 40	10 19	3 39	7 53	1 39	0 18	0 33	23 6	0 20	17 11	1 10	7 53	0 39	18 26	1 40	9 7	12 2	21 52	22 4	19 13	16 20	7 0	
T 19	11 16	1 12	5 3	10 44	3 34	8 22	1 45	0n 1	0 32	23 6	0 20	17 13	1 10	7 52	0 39	18 26	1 40	9 7	12 2	21 53	22 4	19 14	16 20	7 0	
W20	10 55	3s59	5 9	11 9	3 26	8 51	1 52	0 20	0 32	23 6	0 20	17 14	1 10	7 52	0 39	18 27	1 40	9 8	12 2	21 54	22 4	19 16	16 21	6 59	
T 21	10 33	9 0	4 58	11 33	3 17	9 19	1 58	0 39	0 31	23 6	0 20	17 15	1 10	7 51	0 39	18 27	1 40	9 8	12 1	21 54	22 5	19 17	16 21	6 59	
F 22	10 12	13 35	4 28	11 57	3 7	9 48	2 4	0 57	0 30	23 5	0 20	17 17	1 10	7 51	0 39	18 27	1 40	9 8	12 1	21 55	22 5	19 19	16 22	6 58	
S 23	9 50	17 27	3 42	12 19	2 56	10 16	2 11	1 16	0 30	23 5	0 20	17 18	1 10	7 50	0 39	18 27	1 40	9 9	12 1	21 55	22 6	19 20	16 22	6 58	
S 24	9 27	20 17	2 42	12 40	2 44	10 44	2 17	1 35	0 29	23 5	0 20	17 20	1 10	7 49	0 39	18 27	1 40	9 9	12 1	21 55	22 6	19 22	16 23	6 57	
M25	9 5	21 52	1 33	12 59	2 31	11 11	2 24	1 54	0 28	23 5	0 20	17 21	1 10	7 49	0 39	18 27	1 39	9 9	12 0	21 55	22 7	19 23	16 24	6 57	
T 26	8 43	22 4	0 18	13 17	2 18	11 38	2 30	2 13	0 27	23 5	0 20	17 22	1 10	7 48	0 39	18 28	1 39	9 10	12 0	21 55	22 7	19 25	16 24	6 56	
W27	8 20	20 51	0s58	13 32	2 5	12 5	2 37	2 31	0 27	23 4	0 20	17 24	1 10	7 48	0 39	18 28	1 39	9 10	12 0	21 55	22 8	19 26	16 25	6 56	
T 28	7s58	18s21	2s10	13s46	1n51	12n32	2n44	2n50	0s26	23s 4	0n20	17n25	1n10	7s47	0n39	18n28	1s39	9n10	11s59	21n55	22n 8	19n28	16n25	6s55	

ASTRODIENST EPHEMERIS for the year 1889

geocentric

MARCH 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	10 35 57	10 ^h 38'09"	29 ^m 22"	17 ^h 47'	26 ^h 47'	8 ^h 54'	3 ^h 54'	15°R 6	21°R28	29 ^h 38'	4 ^h 11'	20°R13	18 ^h 45'	13 ^h 33'	5°R36	F 1
S 2	10 39 54	11°38'19"	12 ^h 41'	17°58'	27°41'	9°39'	4° 3	15 ^h 01'	21 ^h 27'	29°39'	4° 2	20 ^h 06'	18°41'	13°40'	5°35'	S 2
S 3	10 43 50	12°38'28"	26° 4	18°14'	28°35'	10°24'	4°11'	14°57'	21°25'	29°40'	4° 2	19°57'	18°38'	13°46'	5°35'	S 3
M 4	10 47 47	13°38'35"	9 ^h 9'	18°35'	29°29'	11°10'	4°20'	14°53'	21°23'	29°40'	4° 2	19°47'	18°35'	13°53'	5°34'	M 4
T 5	10 51 43	14°38'39"	21°57'	19° 2	0 ^h 21'	11°55'	4°28'	14°50'	21°21'	29°41'	4° 3	19°37'	18°32'	14° 0	5°34'	T 5
W 6	10 55 40	15°38'42"	4 ^h 26'	19°34'	1°13'	12°40'	4°37'	14°46'	21°19'	29°42'	4° 3	19°29'	18°29'	14° 6	5°33'	W 6
T 7	10 59 36	16°38'43"	16°39'	20°10'	2° 5	13°26'	4°45'	14°42'	21°17'	29°43'	4° 3	19°22'	18°26'	14°13'	5°33'	T 7
F 8	11 3 33	17°38'41"	28°40'	20°50'	2°55'	14°11'	4°53'	14°38'	21°15'	29°44'	4° 4	19°18'	18°22'	14°20'	5°33'	F 8
S 9	11 7 29	18°38'38"	10 ^h 32'	21°34'	3°45'	14°56'	5° 1	14°35'	21°13'	29°45'	4° 4	19°16'	18°19'	14°26'	5°33'	S 9
S 10	11 11 26	19°38'32"	22°21'	22°21'	4°34'	15°41'	5° 9	14°31'	21°11'	29°46'	4° 5	19°D15	18°16'	14°33'	5°D33	S 10
M 11	11 15 23	20°38'24"	4 ^h 12'	23°12'	5°22'	16°26'	5°16'	14°27'	21° 9	29°47'	4° 5	19°16'	18°13'	14°40'	5°33'	M 11
T 12	11 19 19	21°38'14"	16°11'	24° 6	6° 9	17°11'	5°24'	14°24'	21° 7	29°48'	4° 6	19°R17	18°10'	14°46'	5°33'	T 12
W 13	11 23 16	22°38'02"	28°21'	25° 3	6°55'	17°56'	5°31'	14°21'	21° 5	29°49'	4° 6	19°16'	18° 6	14°53'	5°33'	W 13
T 14	11 27 12	23°37'47"	10 ^h 49'	26° 3	7°40'	18°41'	5°39'	14°18'	21° 3	29°50'	4° 7	19°14'	18° 3	15° 0	5°33'	T 14
F 15	11 31 9	24°37'30"	23°38'	27° 5	8°24'	19°26'	5°46'	14°14'	21° 1	29°51'	4° 7	19° 9	18° 0	15° 7	5°34'	F 15
S 16	11 35 5	25°37'11"	6 ^h 48'	28°10'	9° 7	20°11'	5°53'	14°11'	20°58'	29°52'	4° 8	19° 2	17°57'	15°13'	5°34'	S 16
S 17	11 39 2	26°36'50"	20°20'	29°18'	9°49'	20°56'	6° 0	14° 8	20°56'	29°54'	4° 9	18°52'	17°54'	15°20'	5°35'	S 17
M 18	11 42 58	27°36'27"	4 ^h 12'	0 ^h 27'	10°30'	21°41'	6° 6	14° 6	20°54'	29°55'	4° 9	18°41'	17°51'	15°27'	5°36'	M 18
T 19	11 46 55	28°36'02"	18°19'	1°39'	11°10'	22°25'	6°13'	14° 3	20°52'	29°56'	4°10'	18°30'	17°47'	15°33'	5°36'	T 19
W 20	11 50 52	29°35'35"	2 ^h 37'	2°52'	11°49'	23°10'	6°19'	14° 0	20°49'	29°57'	4°10'	18°20'	17°44'	15°40'	5°37'	W 20
T 21	11 54 48	0 ^h 35'06"	16°59'	4° 8	12°26'	23°55'	6°25'	13°57'	20°47'	29°59'	4°11'	18°12'	17°41'	15°46'	5°38'	T 21
F 22	11 58 45	1°34'35"	1 ^h 21'	5°25'	13° 2	24°39'	6°31'	13°55'	20°45'	29°59'	4°12'	18° 6	17°38'	15°53'	5°39'	F 22
S 23	12 2 41	2°34'03"	15°38'	6°44'	13°37'	25°24'	6°37'	13°53'	20°42'	0 ^h 11'	4°13'	18° 3	17°35'	16° 0	5°40'	S 23
S 24	12 6 38	3°33'28"	29°48'	8° 5	14°10'	26° 8	6°43'	13°50'	20°40'	0° 3	4°13'	18°D 2	17°32'	16° 6	5°42'	S 24
M 25	12 10 34	4°32'53"	13 ^h 34'	9°28'	14°42'	26°53'	6°49'	13°48'	20°37'	0° 4	4°14'	18°R 2	17°28'	16°13'	5°43'	M 25
T 26	12 14 31	5°32'15"	27°42'	10°52'	15°13'	27°37'	6°54'	13°46'	20°35'	0° 6	4°15'	18° 2	17°25'	16°20'	5°44'	T 26
W 27	12 18 27	6°31'36"	11 ^h 25'	12°18'	15°41'	28°21'	6°59'	13°44'	20°32'	0° 7	4°16'	18° 0	17°22'	16°26'	5°46'	W 27
T 28	12 22 24	7°30'55"	25° 0	13°45'	16° 9	29° 6	7° 5	13°42'	20°30'	0° 8	4°16'	17°56'	17°19'	16°33'	5°48'	T 28
F 29	12 26 21	8°30'11"	8 ^h 26'	15°14'	16°34'	29°50'	7°10'	13°40'	20°27'	0°10'	4°17'	17°49'	17°16'	16°40'	5°49'	F 29
S 30	12 30 17	9°29'26"	21°40'	16°45'	16°58'	0 ^h 34'	7°14'	13°38'	20°25'	0°12'	4°18'	17°38'	17°12'	16°46'	5°51'	S 30
S 31	12 34 14	10 ^h 28'39"	4 ^h 43'	18 ^h 17'	17 ^h 20'	1 ^h 18'	7 ^h 19'	13 ^h 37'	20 ^h 22'	0 ^h 11'	4 ^h 19'	17 ^h 26'	17 ^h 09'	16 ^h 53'	5 ^h 53'	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl
F 1	7s35	14s50	3s13	13s58	1n37	12n58	2n50	3n 8	0s25	23s 4	0n20	17n26	1n10	7s46	0n39	18n28
S 2	7 12	10 33	4 4	14 8	1 24	13 24	2 57	3 27	0 25	23 4	0 20	17 27	1 10	7 46	0 39	18 28
S 3	6 49	5 51	4 40	14 15	1 10	13 50	3 4	3 46	0 24	23 4	0 20	17 29	1 10	7 45	0 39	18 29
M 4	6 26	0 58	5 0	14 21	0 57	14 16	3 10	4 4	0 23	23 3	0 20	17 30	1 10	7 44	0 39	18 29
T 5	6 3	3n50	5 5	14 25	0 44	14 41	3 17	4 22	0 22	23 3	0 19	17 31	1 10	7 44	0 39	18 29
W 6	5 40	8 22	4 55	14 27	0 32	15 5	3 24	4 41	0 22	23 3	0 19	17 32	1 10	7 43	0 39	18 29
T 7	5 16	12 28	4 32	14 28	0 20	15 29	3 30	4 59	0 21	23 3	0 19	17 33	1 10	7 42	0 39	18 29
F 8	4 53	16 1	3 57	14 26	0 8	15 53	3 37	5 17	0 20	23 2	0 19	17 34	1 10	7 41	0 39	18 30
S 9	4 30	18 52	3 12	14 23	0s 4	16 17	3 44	5 35	0 19	23 2	0 19	17 36	1 10	7 41	0 39	18 30
S 10	4 6	20 55	2 19	14 18	0 15	16 40	3 51	5 53	0 19	23 2	0 19	17 37	1 10	7 40	0 39	18 30
M 11	3 43	22 3	1 20	14 12	0 25	17 3	3 57	6 11	0 18	23 2	0 19	17 38	1 10	7 39	0 39	18 31
T 12	3 19	22 12	0 17	14 3	0 36	17 25	4 4	6 29	0 17	23 1	0 19	17 39	1 10	7 38	0 39	18 31
W 13	2 55	21 17	0n48	13 53	0 45	17 47	4 11	6 47	0 17	23 1	0 19	17 40	1 10	7 37	0 39	18 31
T 14	2 32	19 20	1 52	13 42	0 55	18 8	4 18	7 5	0 16	23 1	0 19	17 41	1 11	7 37	0 39	18 31
F 15	2 8	16 22	2 52	13 29	1 4	18 29	4 24	7 23	0 15	23 1	0 19	17 41	1 11	7 36	0 39	18 32
S 16	1 45	12 30	3 45	13 15	1 12	18 49	4 31	7 40	0 14	23 0	0 19	17 42	1 11	7 35	0 39	18 32
S 17	1 21	7 54	4 26	12 59	1 20	19 9	4 37	7 58	0 14	23 0	0 19	17 43	1 11	7 34	0 39	18 32
M 18	0 57	2 48	4 53	12 41	1 28	19 28	4 44	8 15	0 13	23 0	0 19	17 44	1 11	7 33	0 39	18 33
T 19	0 33	2s32	5 2	12 22	1 35	19 47	4 50	8 32	0 12	23 0	0 19	17 45	1 11	7 32	0 39	18 33
W 20	0 10	7 48	4 53	12 2	1 41	20 5	4 57	8 50	0 12	22 59	0 19	17 46	1 11	7 31	0 39	18 33
T 21	0n14	12 41	4 25	11 40	1 48	20 23	5 3	9 7	0 11	22 59	0 19	17 46	1 10	7 31	0 39	18 34
F 22	0 38	16 50	3 41	11 17	1 53	20 40	5 9	9 24	0 10	22 59	0 19	17 47	1 10	7 30	0 39	18 34
S 23	1 1	19 59	2 43	10 53	1 59	20 56	5 15	9 41	0 10	22 59	0 19	17 48	1 10	7 29	0 39	18 34
S 24	1 25	21 52	1 35	10 27	2 3	21 12	5 21	9 58	0 9	22 58	0 19	17 48	1 10	7 28	0 39	18 35
M 25	1 49	22 22	0 22	10 0	2 8	21 28	5 27	10 14	0 8	22 58	0 18	17 49	1 10	7 27	0 39	18 35
T 26	2 12	21 28	0s51	9 31	2 12	21 42	5 33	10 31	0 7	22 58	0 18	17 50	1 10	7 26	0 39	18 35
W 27	2 36	19 18	2 0	9 2	2 15	21 56	5 39	10 47	0 7	22 58	0 18	17 50	1 10	7 25	0 39	18 36
T 28	2 59	16 3	3 2	8 31	2 18	22 10	5 44	11 4	0 6	22 58	0 18	17 51	1 10	7 24	0 39	18 36
F 29	3 22	12 1	3 53	7 59	2 20	22 22	5 49	11 20	0 5	22 57	0 18	17 51	1 10	7 23	0 39	18 36
S 30	3 46	7 27	4 30	7 25	2 22	22 34	5 55	11 36	0 5	22 57	0 18	17 52	1 10	7 22	0 39	18 37
S 31	4n 9	2s36	4s53	6s51	2s24	22n45	6n 0	11n52	0s 4	22s57	0n18	17n52	1n10	7s21	0n39	18n37

Julian Day Number = 2411062.5, Delta T = -3.88 sec
 Ecliptic obliquity = 23°27'11", Nutation = -0°00'15", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 23°11'33", Lahiri = 22°18'33"

ASTRODIENST EPHEMERIS for the year 1889

geocentric

APRIL 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	12 38 10	11°27'50	17°32'	19°50'	17°40'	28° 2	7°23	13°R35	20°R20	0°115	4°1120	17°R13	17° 6	17° 0	5°55	M 1
T 2	12 42 7	12°26'59	0° 8	21°25	17°58	2°47	7°28	13°R34	20°17	0°16	4°21	16°59	17° 3	17° 6	5°57	T 2
W 3	12 46 3	13°26'06	12°29	23° 1	18°15	3°31	7°32	13°33	20°15	0°18	4°22	16°47	17° 0	17°13	5°59	W 3
T 4	12 50 0	14°25'10	24°38	24°39	18°29	4°14	7°36	13°31	20°12	0°20	4°22	16°37	16°57	17°20	6° 1	T 4
F 5	12 53 56	15°24'13	6°1136	26°19	18°41	4°58	7°39	13°30	20°10	0°21	4°23	16°30	16°53	17°26	6° 3	F 5
S 6	12 57 53	16°23'13	18°27	28° 0	18°51	5°42	7°43	13°29	20° 7	0°23	4°24	16°25	16°50	17°33	6° 6	S 6
S 7	13 1 49	17°22'11	0°14	29°42	18°59	6°26	7°46	13°28	20° 5	0°25	4°25	16°23	16°47	17°40	6° 8	S 7
M 8	13 5 46	18°21'07	12° 4	1°26	19° 4	7°10	7°50	13°28	20° 2	0°27	4°26	16°22	16°44	17°46	6°11	M 8
T 9	13 9 43	19°20'00	24° 2	3°11	19° 7	7°54	7°53	13°27	19°59	0°28	4°27	16°22	16°41	17°53	6°13	T 9
W10	13 13 39	20°18'51	6°12	4°58	19°R 8	8°37	7°55	13°27	19°57	0°30	4°28	16°22	16°38	18° 0	6°16	W10
T 11	13 17 36	21°17'40	18°40	6°46	19° 6	9°21	7°58	13°26	19°54	0°32	4°29	16°19	16°34	18° 6	6°19	T 11
F 12	13 21 32	22°16'27	1°31	8°36	19° 2	10° 4	8° 1	13°26	19°52	0°34	4°30	16°15	16°31	18°13	6°22	F 12
S 13	13 25 29	23°15'11	14°48	10°27	18°55	10°48	8° 3	13°26	19°49	0°36	4°31	16° 8	16°28	18°20	6°25	S 13
S 14	13 29 25	24°13'53	28°31	12°20	18°46	11°31	8° 5	13°25	19°46	0°38	4°33	15°58	16°25	18°26	6°28	S 14
M15	13 33 22	25°12'33	12°40	14°15	18°34	12°15	8° 7	13°D25	19°44	0°39	4°34	15°47	16°22	18°33	6°31	M15
T 16	13 37 18	26°11'11	27° 9	16°11	18°20	12°58	8° 9	13°26	19°41	0°41	4°35	15°35	16°18	18°40	6°34	T 16
W17	13 41 15	27° 9'47	11°51	18° 8	18° 4	13°41	8°10	13°26	19°39	0°43	4°36	15°25	16°15	18°46	6°37	W17
T 18	13 45 12	28° 8'21	26°40	20° 7	17°45	14°25	8°12	13°26	19°36	0°45	4°37	15°16	16°12	18°53	6°41	T 18
F 19	13 49 8	29° 6'54	11°26	22° 8	17°24	15° 8	8°13	13°27	19°34	0°47	4°38	15°10	16° 9	19° 0	6°44	F 19
S 20	13 53 5	0° 5'25	26° 2	24°10	17° 0	15°51	8°14	13°27	19°31	0°49	4°39	15° 7	16° 6	19° 6	6°47	S 20
S 21	13 57 1	1° 3'54	10°25	26°13	16°35	16°34	8°15	13°28	19°29	0°51	4°40	15°D 5	16° 3	19°13	6°51	S 21
M22	14 0 58	2° 2'22	24°32	28°17	16° 7	17°17	8°16	13°28	19°26	0°53	4°42	15° 6	15°59	19°20	6°55	M22
T 23	14 4 54	3° 0'48	8°23	0°23	15°38	18° 0	8°16	13°29	19°24	0°55	4°43	15°R 6	15°56	19°26	6°58	T 23
W24	14 8 51	3°59'12	21°57	2°30	15° 6	18°43	8°16	13°30	19°21	0°57	4°44	15° 4	15°53	19°33	7° 2	W24
T 25	14 12 47	4°57'35	5°17	4°38	14°34	19°26	8°R16	13°31	19°19	0°59	4°45	15° 1	15°50	19°40	7° 6	T 25
F 26	14 16 44	5°55'56	18°23	6°46	13°59	20° 9	8°16	13°33	19°16	1° 1	4°46	14°55	15°47	19°46	7°10	F 26
S 27	14 20 41	6°54'16	1°17	8°55	13°24	20°52	8°16	13°34	19°14	1° 3	4°47	14°46	15°43	19°53	7°14	S 27
S 28	14 24 37	7°52'34	13°59	11° 4	12°48	21°35	8°15	13°35	19°12	1° 5	4°49	14°35	15°40	20° 0	7°18	S 28
M29	14 28 34	8°50'50	26°30	13°13	12°11	22°17	8°15	13°37	19° 9	1° 8	4°50	14°24	15°37	20° 6	7°22	M29
T 30	14 32 30	9°49'04	8°50	15°22	11°33	23° 0	8°14	13°38	19° 7	1°110	4°51	14°12	15°34	20°13	7°26	T 30

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
M 1	4n32	2n16	5s 0	6s15	2s25	22n56	6n 4	12n 8	0s 3	22s57	0n18	17n53	1n10	7s20	0n39	M 1
T 2	4 55	6 57	4 52	5 38	2 26	23 5	6 9	12 24	0 3	22 57	0 18	17 53	1 10	7 19	0 39	T 2
W 3	5 18	11 17	4 31	5 0	2 26	23 14	6 13	12 40	0 2	22 56	0 18	17 53	1 10	7 18	0 39	W 3
T 4	5 41	15 6	3 57	4 21	2 25	23 22	6 17	12 55	0 1	22 56	0 18	17 54	1 10	7 17	0 39	T 4
F 5	6 4	18 14	3 14	3 41	2 24	23 29	6 21	13 11	0 1	22 56	0 18	17 54	1 10	7 17	0 39	F 5
S 6	6 27	20 35	2 22	2 59	2 23	23 35	6 24	13 26	0 0	22 56	0 18	17 54	1 10	7 16	0 39	S 6
S 7	6 49	22 3	1 24	2 17	2 21	23 40	6 27	13 41	0n 1	22 56	0 18	17 54	1 10	7 15	0 39	S 7
M 8	7 12	22 32	0 23	1 33	2 19	23 44	6 30	13 56	0 1	22 56	0 18	17 55	1 10	7 14	0 39	M 8
T 9	7 34	21 59	0n40	0 49	2 16	23 48	6 32	14 11	0 2	22 56	0 18	17 55	1 10	7 13	0 39	T 9
W10	7 57	20 24	1 43	0 3	2 12	23 50	6 34	14 26	0 3	22 55	0 18	17 55	1 10	7 12	0 39	W10
T 11	8 19	17 48	2 42	0n43	2 9	23 51	6 36	14 40	0 3	22 55	0 17	17 55	1 10	7 11	0 39	T 11
F 12	8 41	14 17	3 35	1 31	2 4	23 50	6 37	14 55	0 4	22 55	0 17	17 55	1 10	7 10	0 39	F 12
S 13	9 2	9 57	4 18	2 19	1 59	23 49	6 37	15 9	0 5	22 55	0 17	17 55	1 10	7 9	0 39	S 13
S 14	9 24	4 59	4 47	3 8	1 54	23 46	6 37	15 23	0 5	22 55	0 17	17 55	1 10	7 8	0 39	S 14
M15	9 46	0s24	5 0	3 58	1 48	23 42	6 37	15 37	0 6	22 55	0 17	17 55	1 10	7 7	0 39	M15
T 16	10 7	5 52	4 55	4 48	1 41	23 37	6 35	15 51	0 7	22 55	0 17	17 55	1 10	7 6	0 39	T 16
W17	10 28	11 7	4 30	5 40	1 34	23 31	6 34	16 4	0 7	22 55	0 17	17 55	1 10	7 5	0 39	W17
T 18	10 49	15 45	3 47	6 31	1 27	23 23	6 31	16 18	0 8	22 55	0 17	17 55	1 10	7 4	0 39	T 18
F 19	11 10	19 23	2 48	7 24	1 19	23 14	6 28	16 31	0 8	22 55	0 17	17 55	1 10	7 3	0 39	F 19
S 20	11 31	21 44	1 39	8 16	1 11	23 3	6 24	16 44	0 9	22 55	0 17	17 54	1 10	7 2	0 39	S 20
S 21	11 51	22 38	0 25	9 10	1 2	22 51	6 20	16 57	0 10	22 55	0 17	17 54	1 10	7 1	0 39	S 21
M22	12 11	22 3	0s50	10 3	0 53	22 38	6 14	17 10	0 10	22 55	0 17	17 54	1 10	7 0	0 39	M22
T 23	12 31	20 7	2 0	10 56	0 44	22 24	6 8	17 23	0 11	22 55	0 17	17 54	1 10	6 59	0 39	T 23
W24	12 51	17 5	3 2	11 49	0 34	22 8	6 2	17 35	0 12	22 55	0 17	17 53	1 10	6 58	0 39	W24
T 25	13 11	13 12	3 53	12 42	0 24	21 51	5 54	17 48	0 12	22 55	0 17	17 53	1 10	6 57	0 39	T 25
F 26	13 30	8 45	4 31	13 34	0 13	21 33	5 46	18 0	0 13	22 55	0 16	17 53	1 9	6 57	0 39	F 26
S 27	13 50	3 59	4 54	14 26	0 3	21 13	5 37	18 12	0 13	22 55	0 16	17 52	1 9	6 56	0 39	S 27
S 28	14 9	0n52	5 2	15 17	0n 8	20 53	5 28	18 24	0 14	22 55	0 16	17 52	1 9	6 55	0 39	S 28
M29	14 27	5 38	4 56	16 7	0 18	20 32	5 17	18 35	0 15	22 56	0 16	17 51	1 9	6 54	0 39	M29
T 30	14n46	10n 6	4s35	16n55	0n29	20n10	5n 7	18n47	0n15	22s56	0n16	17n51	1n 9	6s53	0n39	T 30

Julian Day Number = 2411093.5, Delta T = -3.87 sec

Ecliptic obliquity = 23°27'11, Nutation = - 0°00'17, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 23°11'37, Lahiri = 22°18'37

ASTRODIENST EPHEMERIS for the year 1889
geocentric

MAY 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	14 36 27	10 ⁸ 47'17	21 ⁸ 0	17 ⁸ 31	10°R56	23 ⁸ 43	8°R13	13 ⁸ 40	19°R 4	1 ^{II} 12	4 ^{II} 52	14°R 1	15 ⁸ 31	20 ^{II} 20	7 ⁸ 30	W 1
T 2	14 40 23	11°45'29	3 ^{II} 1	19°38	10 ⁸ 18	24°25	8 ⁸ 12	13°42	19 ⁸ 2	1°14	4°54	13 ⁸ 52	15°28	20°26	7°35	T 2
F 3	14 44 20	12°43'38	14°54	21°45	9°40	25° 8	8°10	13°44	19° 0	1°16	4°55	13°46	15°24	20°33	7°39	F 3
S 4	14 48 16	13°41'45	26°42	23°50	9° 3	25°50	8° 9	13°46	18°58	1°18	4°56	13°42	15°21	20°40	7°43	S 4
S 5	14 52 13	14°39'51	8 ⁸ 29	25°53	8°27	26°33	8° 7	13°48	18°55	1°20	4°58	13°D40	15°18	20°46	7°48	S 5
M 6	14 56 10	15°37'55	20°18	27°54	7°52	27°15	8° 5	13°50	18°53	1°23	4°59	13°40	15°15	20°53	7°52	M 6
T 7	15 0 6	16°35'57	2 ⁸ 15	29°53	7°18	27°58	8° 3	13°52	18°51	1°25	5° 0	13°41	15°12	21° 0	7°57	T 7
W 8	15 4 3	17°33'57	14°24	1 ^{II} 50	6°45	28°40	8° 0	13°55	18°49	1°27	5° 1	13°R42	15° 9	21° 6	8° 2	W 8
T 9	15 7 59	18°31'55	26°50	3°44	6°13	29°22	7°58	13°57	18°47	1°29	5° 3	13°41	15° 5	21°13	8° 6	T 9
F 10	15 11 56	19°29'52	9 ^{II} 39	5°35	5°44	0 ^{II} 4	7°55	14° 0	18°44	1°31	5° 4	13°39	15° 2	21°20	8°11	F 10
S 11	15 15 52	20°27'46	22°54	7°23	5°16	0°47	7°52	14° 3	18°42	1°34	5° 5	13°35	14°59	21°26	8°16	S 11
S 12	15 19 49	21°25'39	6 ⁸ 38	9° 8	4°50	1°29	7°49	14° 6	18°40	1°36	5° 7	13°29	14°56	21°33	8°21	S 12
M13	15 23 45	22°23'30	20°50	10°50	4°27	2°11	7°46	14° 9	18°38	1°38	5° 8	13°22	14°53	21°40	8°26	M13
T 14	15 27 42	23°21'19	5 ^{II} 27	12°29	4° 6	2°53	7°42	14°12	18°36	1°40	5° 9	13°14	14°49	21°46	8°31	T 14
W15	15 31 39	24°19'07	20°23	14° 4	3°46	3°35	7°39	14°15	18°34	1°42	5°11	13° 7	14°46	21°53	8°36	W15
T 16	15 35 35	25°16'53	5 ⁸ 29	15°36	3°30	4°17	7°35	14°18	18°33	1°45	5°12	13° 1	14°43	22° 0	8°41	T 16
F 17	15 39 32	26°14'38	20°34	17° 4	3°15	4°58	7°31	14°21	18°31	1°47	5°13	12°57	14°40	22° 6	8°46	F 17
S 18	15 43 28	27°12'22	5 ⁸ 32	18°29	3° 3	5°40	7°27	14°24	18°29	1°49	5°15	12°55	14°37	22°13	8°51	S 18
S 19	15 47 25	28°10'05	20°13	19°50	2°54	6°22	7°23	14°28	18°27	1°51	5°16	12°D55	14°34	22°19	8°56	S 19
M20	15 51 21	29° 7'46	4 ⁸ 34	21° 8	2°47	7° 4	7°18	14°32	18°25	1°54	5°17	12°56	14°30	22°26	9° 2	M20
T 21	15 55 18	0 ^{II} 5'27	18°33	22°22	2°42	7°45	7°14	14°35	18°24	1°56	5°19	12°58	14°27	22°33	9° 7	T 21
W22	15 59 14	1° 3'06	2 ⁸ 9	23°32	2°D40	8°27	7° 9	14°39	18°22	1°58	5°20	12°R58	14°24	22°39	9°12	W22
T 23	16 3 11	2° 0'45	15°25	24°39	2°40	9° 9	7° 4	14°43	18°20	2° 0	5°22	12°57	14°21	22°46	9°18	T 23
F 24	16 7 8	2°58'22	28°22	25°41	2°43	9°50	6°59	14°47	18°19	2° 3	5°23	12°55	14°18	22°53	9°23	F 24
S 25	16 11 4	3°55'59	11°Y 3	26°40	2°48	10°32	6°54	14°51	18°17	2° 5	5°24	12°50	14°15	22°59	9°29	S 25
S 26	16 15 1	4°53'35	23°31	27°35	2°55	11°13	6°49	14°55	18°16	2° 7	5°26	12°45	14°11	23° 6	9°34	S 26
M27	16 18 57	5°51'09	5 ⁸ 47	28°25	3° 4	11°55	6°43	14°59	18°14	2° 9	5°27	12°38	14° 8	23°13	9°40	M27
T 28	16 22 54	6°48'43	17°54	29°12	3°15	12°36	6°38	15° 3	18°13	2°12	5°28	12°32	14° 5	23°19	9°46	T 28
W29	16 26 50	7°46'16	29°53	29°54	3°29	13°17	6°32	15° 7	18°11	2°14	5°30	12°26	14° 2	23°26	9°51	W29
T 30	16 30 47	8°43'47	11 ^{II} 46	0 ⁸ 33	3°44	13°59	6°26	15°12	18°10	2°16	5°31	12°21	13°59	23°33	9°57	T 30
F 31	16 34 43	9 ^{II} 41'18	23 ^{II} 34	1 ⁸ 6	4 ⁸ 1	14 ^{II} 40	6 ⁸ 20	15 ⁸ 16	18 ⁸ 9	2 ^{II} 18	5 ^{II} 32	12 ⁸ 18	13 ⁸ 55	23 ^{II} 39	10 ⁸ 3	F 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	15n 4	14n 7	4s 3	17n42	0n40	19n47	4n55	18n58	0n16	22s56	0n16	17n50	1n 9	6s52	0n39	18n50	1s36	9n33	11s45	22n43	22n33	20n55	16n52	6s23					
T 2	15 22	17 31	3 19	18 27	0 50	19 23	4 43	19 9	0 17	22 56	0 16	17 50	1 9	6 51	0 39	18 51	1 36	9 33	11 45	22 44	22 33	20 56	16 52	6 23					
F 3	15 40	20 9	2 28	19 11	1 0	19 0	4 31	19 20	0 17	22 56	0 16	17 49	1 9	6 50	0 39	18 51	1 36	9 34	11 45	22 44	22 34	20 57	16 52	6 23					
S 4	15 58	21 55	1 30	19 52	1 10	18 35	4 18	19 31	0 18	22 56	0 16	17 48	1 9	6 50	0 39	18 52	1 36	9 34	11 45	22 45	22 34	20 58	16 52	6 22					
S 5	16 15	22 43	0 28	20 31	1 19	18 11	4 4	19 41	0 18	22 57	0 16	17 48	1 9	6 49	0 39	18 52	1 36	9 34	11 45	22 45	22 34	21 0	16 52	6 22					
M 6	16 32	22 30	0n36	21 8	1 28	17 46	3 51	19 52	0 19	22 57	0 16	17 47	1 9	6 48	0 39	18 53	1 36	9 35	11 45	22 45	22 35	21 1	16 52	6 22					
T 7	16 48	21 16	1 38	21 43	1 37	17 22	3 37	20 2	0 20	22 57	0 16	17 46	1 9	6 47	0 39	18 53	1 36	9 35	11 44	22 45	22 35	21 2	16 52	6 21					
W 8	17 5	19 2	2 37	22 15	1 44	16 58	3 23	20 12	0 20	22 57	0 16	17 46	1 9	6 46	0 39	18 53	1 36	9 35	11 44	22 45	22 36	21 4	16 52	6 21					
T 9	17 21	15 52	3 31	22 44	1 52	16 34	3 8	20 22	0 21	22 57	0 15	17 45	1 9	6 46	0 39	18 54	1 36	9 36	11 44	22 45	22 36	21 5	16 53	6 20					
F 10	17 37	11 53	4 15	23 11	1 58	16 10	2 54	20 31	0 21	22 58	0 15	17 44	1 9	6 45	0 39	18 54	1 36	9 36	11 44	22 45	22 36	21 6	16 53	6 20					
S 11	17 53	7 13	4 48	23 36	2 4	15 47	2 40	20 41	0 22	22 58	0 15	17 43	1 9	6 44	0 39	18 55	1 36	9 36	11 44	22 46	22 37	21 7	16 53	6 20					
S 12	18 8	2 2	5 5	23 57	2 9	15 25	2 25	20 50	0 22	22 58	0 15	17 42	1 9	6 43	0 39	18 55	1 36	9 37	11 44	22 46	22 37	21 8	16 53	6 19					
M13	18 23	3s26	5 5	24 17	2 13	15 4	2 11	20 59	0 23	22 58	0 15	17 42	1 9	6 43	0 39	18 56	1 36	9 37	11 44	22 47	22 37	21 10	16 53	6 19					
T 14	18 37	8 52	4 45	24 34	2 17	14 43	1 57	21 8	0 24	22 59	0 15	17 41	1 9	6 42	0 39	18 56	1 36	9 37	11 44	22 48	22 38	21 11	16 53	6 19					
W15	18 52	13 55	4 5	24 48	2 19	14 23	1 42	21 17	0 24	22 59	0 15	17 40	1 9	6 41	0 39	18 57	1 36	9 38	11 44	22 48	22 38	21 12	16 53	6 18					
T 16	19 6	18 9	3 8	25 1	2 21	14 5	1 29	21 25	0 25	22 59	0 15	17 39	1 9	6 40	0 39	18 57	1 36	9 38	11 44	22 49	22 38	21 13	16 53	6 18					
F 17	19 19	21 10	1 58	25 11	2 22	13 47	1 15	21 33	0 25	23 0	0 15	17 38	1 9	6 40	0 39	18 58	1 36	9 38	11 44	22 49	22 39	21 15	16 53	6 18					
S 18	19 33	22 40	0 40	25 19	2 22	13 30	1 1	21 41	0 26	23 0	0 15	17 37	1 9	6 39	0 39	18 58	1 36	9 38	11 43	22 49	22 39	21 16	16 53	6 17					
S 19	19 46	22 35	0s39	25 24	2 21	13 15	0 48	21 49	0 26	23 0	0 15	17 36	1 9	6 38	0 39	18 58	1 36	9 39	11 43	22 49	22 39	21 17	16 53	6 17					
M20	19 59	20 59	1 55	25 28	2 19	13 0	0 36	21 57	0 27	23 1	0 14	17 35	1 9	6 38	0 39	18 59	1 36	9 39	11 43	22 49	22 40	21 18	16 53	6 17					
T 21	20 11	18 9	3 1	25 30	2 17	12 47	0 23	22 4	0 27	23 1	0 14	17 33	1 9	6 37	0 39	18 59	1 36	9 39	11 43	22 49	22 40	21 19	16 53	6 16					
W22	20 23	14 22	3 55	25 31	2 13	12 35	0 11	22 11	0 28	23 1	0 14	17 32	1 8	6 36	0 39	19 0	1 36	9 40	11 43	22 49	22 40	21 20	16 53	6 16					
T 23	20 35	9 59	4 35	25 29	2 9	12 24	0s 1	22 18	0 29	23 2	0 14	17 31	1 8	6 36	0 39	19 0	1 36	9 40	11 43	22 49	22 41	21 22	16 53	6 16					
F 24	20 46	5 15	5 1	25 26	2 4	12 14	0 12	22 25	0 29	23 2	0 14	17 30	1 8	6 35	0 39	19 1	1 36	9 40	11 43	22 50	22 41	21 23	16 52	6 16					
S 25	20 57	0 23	5 10	25 22	1 57	12 5	0 23	22 32	0 30	23 2	0 14	17 29	1 8	6 35	0 39	19 1	1 36	9 40	11 43	22 50	22 41	21 24	16 52	6 15					
S 26	21 7	4n25	5 5	25 16	1 50	11 57	0 34	22 38	0 30	23 3	0 14	17 28	1 8	6 34	0 38	19 2	1 36	9 41	11 43	22 51	22 42	21 25	16 52	6 15					
M27	21 18	8 58	4 46	25 9	1 43	11 51	0 44	22 44	0 31	23 3	0 14	17 26	1 8	6 34	0 38	19 2	1 36	9 41	11 43	22 51	22 42	21 26	16 52	6 15					
T 28	21 28	13 7	4 14	25 1	1 34	11 45	0 54	22 50	0 31	23 4	0 14	17 25	1 8	6 33	0 38	19 2	1 36	9 41	11 43	22 52	22 42	21 28	16 52	6 15					
W29	21 37	16 42	3 31	24 51	1 24	11 41	1 4	22 56	0 32	23 4	0 13	17 24	1 8	6 33	0 38	19 3	1 36	9 41	11 43	22 52	22 43	21 29	16 52	6 14					
T 30	21 46	19 35	2 39	24 41	1 14	11 37	1 13	23 2	0 32	23 4	0 13	17 22	1 8	6 32	0 38	19 3	1 36	9 42	11 43	22 53	22 43	21 30	16 52	6 14					
F 31	21n55	21n37	1s41	24n29	1n 2	11n35	1s22	23n 7	0n33	23s 5	0n13	17n21	1n 8	6s32	0n38	19n 4	1s36	9n42	11s43	22n53	22n43	21n31	16n51	6s14					

ASTRODIENST EPHEMERIS for the year 1889

geocentric

JUNE 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 38 40	10II38'47	5☾21	1☾36	4☾20	15II21	6°R14	15☾21	18°R 7	2II21	5II34	12°R16	13☾52	23II46	10☾ 8	S 1
S 2	16 42 37	11°36'16	17° 9	2° 1	4°41	16° 2	6☾ 8	15°26	18☾ 6	2°23	5°35	12°D16	13°49	23°53	10°14	S 2
M 3	16 46 33	12°33'43	29° 0	2°21	5° 4	16°43	6° 1	15°30	18° 5	2°25	5°37	12☾17	13°46	23°59	10°20	M 3
T 4	16 50 30	13°31'10	10☾59	2°37	5°28	17°24	5°55	15°35	18° 4	2°27	5°38	12°19	13°43	24° 6	10°26	T 4
W 5	16 54 26	14°28'35	23°10	2°48	5°54	18° 6	5°48	15°40	18° 3	2°29	5°39	12°20	13°40	24°13	10°32	W 5
T 6	16 58 23	15°25'59	5II36	2°54	6°22	18°46	5°42	15°45	18° 2	2°32	5°41	12°22	13°36	24°19	10°38	T 6
F 7	17 2 19	16°23'21	18°22	2°R56	6°51	19°27	5°35	15°50	18° 1	2°34	5°42	12°R22	13°33	24°26	10°44	F 7
S 8	17 6 16	17°20'43	1☾33	2°54	7°21	20° 8	5°28	15°55	18° 0	2°36	5°43	12°21	13°30	24°33	10°50	S 8
S 9	17 10 12	18°18'04	15°11	2°47	7°53	20°49	5°21	16° 0	17°59	2°38	5°45	12°20	13°27	24°39	10°56	S 9
M10	17 14 9	19°15'23	29°16	2°36	8°26	21°30	5°14	16° 6	17°58	2°40	5°46	12°17	13°24	24°46	11° 2	M10
T 11	17 18 6	20°12'42	13II48	2°20	9° 1	22°11	5° 7	16°11	17°57	2°43	5°47	12°14	13°21	24°53	11° 8	T 11
W12	17 22 2	21°10'00	28°41	2° 1	9°37	22°51	5° 0	16°16	17°57	2°45	5°49	12°11	13°17	24°59	11°14	W12
T 13	17 25 59	22° 7'17	13☾49	1°39	10°14	23°32	4°52	16°22	17°56	2°47	5°50	12° 9	13°14	25° 6	11°20	T 13
F 14	17 29 55	23° 4'33	29° 2	1°13	10°52	24°13	4°45	16°27	17°55	2°49	5°51	12° 8	13°11	25°12	11°26	F 14
S 15	17 33 52	24° 1'49	14☾11	0°45	11°31	24°53	4°38	16°33	17°55	2°51	5°53	12°D 8	13° 8	25°19	11°33	S 15
S 16	17 37 48	24°59'05	29° 7	0°14	12°11	25°34	4°30	16°39	17°54	2°53	5°54	12° 8	13° 5	25°26	11°39	S 16
M17	17 41 45	25°56'20	13☾42	29II41	12°53	26°15	4°23	16°44	17°54	2°55	5°55	12° 9	13° 1	25°32	11°45	M17
T 18	17 45 42	26°53'35	27°53	29° 7	13°35	26°55	4°15	16°50	17°54	2°58	5°56	12°10	12°58	25°39	11°51	T 18
W19	17 49 38	27°50'49	11II38	28°33	14°18	27°35	4° 8	16°56	17°53	3° 0	5°58	12°11	12°55	25°46	11°58	W19
T 20	17 53 35	28°48'03	24°58	27°58	15° 3	28°16	4° 0	17° 2	17°53	3° 2	5°59	12°R12	12°52	25°52	12° 4	T 20
F 21	17 57 31	29°45'18	7II55	27°24	15°48	28°56	3°53	17° 8	17°53	3° 4	6° 0	12°12	12°49	25°59	12°10	F 21
S 22	18 1 28	0☾42'32	20°32	26°52	16°34	29°37	3°45	17°14	17°52	3° 6	6° 2	12°11	12°46	26° 6	12°16	S 22
S 23	18 5 24	1°39'46	2☾52	26°20	17°20	0☾17	3°37	17°20	17°52	3° 8	6° 3	12°10	12°42	26°12	12°23	S 23
M24	18 9 21	2°37'00	15° 0	25°51	18° 8	0°57	3°30	17°26	17°52	3°10	6° 4	12° 9	12°39	26°19	12°29	M24
T 25	18 13 17	3°34'14	26°58	25°25	18°56	1°37	3°22	17°32	17°D52	3°12	6° 5	12° 7	12°36	26°26	12°35	T 25
W26	18 17 14	4°31'27	8II49	25° 2	19°45	2°18	3°14	17°39	17°52	3°14	6° 7	12° 6	12°33	26°32	12°42	W26
T 27	18 21 11	5°28'41	20°38	24°42	20°35	2°58	3° 6	17°45	17°52	3°16	6° 8	12° 5	12°30	26°39	12°48	T 27
F 28	18 25 7	6°25'55	2☾25	24°27	21°26	3°38	2°59	17°51	17°52	3°18	6° 9	12° 5	12°27	26°46	12°55	F 28
S 29	18 29 4	7°23'08	14°13	24°15	22°17	4°18	2°51	17°58	17°52	3°20	6°10	12°D 5	12°23	26°52	13° 1	S 29
S 30	18 33 0	8☾20'22	26☾ 6	24II 8	23☾ 8	4☾58	2☾44	18☾ 4	17☾53	3II22	6II11	12☾ 5	12☾20	26II59	13☾ 7	S 30

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	22n 3	22n43	0s38	24n17	0n50	11n33	1s30	23n12	0n33	23s 5	0n13	17n20	1n 8	6s31	0n38	19n 4	1s36	9n42	11s43	22n53	22n44	21n32	16n51	6s14			
S 2	22 11	22 48	0n27	24 4	0 37	11 33	1 38	23 17	0 34	23 6	0 13	17 18	1 8	6 31	0 38	19 5	1 36	9 42	11 43	22 53	22 44	21 33	16 51	6 14			
M 3	22 19	21 51	1 31	23 50	0 24	11 33	1 46	23 22	0 34	23 6	0 13	17 17	1 8	6 30	0 38	19 5	1 36	9 43	11 43	22 53	22 44	21 34	16 51	6 13			
T 4	22 26	19 54	2 31	23 35	0 9	11 34	1 53	23 26	0 35	23 6	0 13	17 15	1 8	6 30	0 38	19 6	1 36	9 43	11 43	22 53	22 45	21 36	16 51	6 13			
W 5	22 33	17 3	3 26	23 20	0s 5	11 36	2 0	23 30	0 35	23 7	0 13	17 14	1 8	6 30	0 38	19 6	1 36	9 43	11 43	22 53	22 45	21 37	16 50	6 13			
T 6	22 39	13 22	4 13	23 4	0 21	11 39	2 7	23 34	0 36	23 7	0 13	17 12	1 8	6 29	0 38	19 6	1 36	9 43	11 43	22 53	22 45	21 38	16 50	6 13			
F 7	22 45	9 1	4 48	22 48	0 37	11 42	2 13	23 38	0 36	23 8	0 12	17 11	1 8	6 29	0 38	19 7	1 36	9 43	11 43	22 53	22 46	21 39	16 50	6 13			
S 8	22 51	4 7	5 9	22 32	0 53	11 46	2 20	23 42	0 37	23 8	0 12	17 9	1 8	6 29	0 38	19 7	1 36	9 44	11 43	22 53	22 46	21 40	16 49	6 12			
S 9	22 56	1s 9	5 15	22 15	1 10	11 51	2 25	23 45	0 37	23 9	0 12	17 8	1 8	6 28	0 38	19 8	1 36	9 44	11 43	22 53	22 46	21 41	16 49	6 12			
M10	23 1	6 31	5 1	21 59	1 27	11 57	2 31	23 49	0 38	23 9	0 12	17 6	1 8	6 28	0 38	19 8	1 36	9 44	11 43	22 53	22 47	21 42	16 49	6 12			
T 11	23 6	11 43	4 29	21 42	1 44	12 3	2 36	23 52	0 38	23 9	0 12	17 5	1 8	6 28	0 38	19 8	1 36	9 44	11 43	22 53	22 47	21 43	16 48	6 12			
W12	23 10	16 21	3 37	21 25	2 1	12 9	2 41	23 54	0 39	23 10	0 12	17 3	1 8	6 28	0 38	19 9	1 36	9 44	11 43	22 54	22 47	21 44	16 48	6 12			
T 13	23 13	19 59	2 30	21 9	2 18	12 17	2 45	23 57	0 39	23 10	0 12	17 1	1 8	6 27	0 38	19 9	1 36	9 45	11 43	22 54	22 48	21 45	16 48	6 12			
F 14	23 16	22 15	1 12	20 52	2 34	12 24	2 50	23 59	0 40	23 11	0 12	17 0	1 8	6 27	0 38	19 10	1 36	9 45	11 43	22 54	22 48	21 47	16 47	6 12			
S 15	23 19	22 53	0s11	20 37	2 50	12 33	2 54	24 1	0 40	23 11	0 11	16 58	1 8	6 27	0 38	19 10	1 36	9 45	11 43	22 54	22 48	21 48	16 47	6 11			
S 16	23 21	21 51	1 33	20 21	3 6	12 41	2 57	24 3	0 41	23 11	0 11	16 56	1 8	6 27	0 38	19 10	1 36	9 45	11 43	22 54	22 49	21 49	16 47	6 11			
M17	23 23	19 22	2 46	20 7	3 20	12 50	3 1	24 5	0 41	23 12	0 11	16 54	1 8	6 27	0 38	19 11	1 36	9 45	11 43	22 54	22 49	21 50	16 46	6 11			
T 18	23 25	15 46	3 47	19 53	3 34	13 0	3 4	24 7	0 42	23 12	0 11	16 53	1 8	6 27	0 38	19 11	1 36	9 46	11 43	22 54	22 49	21 51	16 46	6 11			
W19	23 26	11 24	4 33	19 40	3 47	13 10	3 7	24 8	0 42	23 12	0 11	16 51	1 8	6 26	0 38	19 12	1 36	9 46	11 43	22 54	22 50	21 52	16 45	6 11			
T 20	23 27	6 38	5 3	19 28	3 58	13 20	3 10	24 9	0 43	23 13	0 11	16 49	1 8	6 26	0 38	19 12	1 36	9 46	11 43	22 54	22 50	21 53	16 45	6 11			
F 21	23 27	1 42	5 16	19 18	4 8	13 30	3 12	24 10	0 43	23 13	0 11	16 47	1 8	6 26	0 38	19 12	1 36	9 46	11 43	22 54	22 50	21 54	16 44	6 11			
S 22	23 27	3n11	5 14	19 8	4 17	13 41	3 15	24 11	0 44	23 14	0 10	16 45	1 8	6 26	0 38	19 13	1 36	9 46	11 43	22 54	22 50	21 55	16 44	6 11			
S 23	23 27	7 50	4 57	19 0	4 24	13 52	3 17	24 11	0 44	23 14	0 10	16 44	1 8	6 26	0 37	19 13	1 36	9 46	11 44	22 54	22 51	21 56	16 43	6 11			
M24	23 26	12 6	4 27	18 53	4 30	14 4	3 19	24 11	0 44	23 14	0 10	16 42	1 8	6 26	0 37	19 13	1 36	9 46	11 44	22 54	22 51	21 57	16 43	6 11			
T 25	23 24	15 50	3 45	18 48	4 34	14 15	3 20	24 11	0 45	23 15	0 10	16 40	1 8	6 26	0 37	19 14	1 36	9 46	11 44	22 54	22 51	21 58	16 42	6 11			
W26	23 23	18 55	2 54	18 44	4 37	14 27	3 22	24 11	0 45	23 15	0 10	16 38	1 8	6 26	0 37	19 14	1 36	9 47	11 44	22 54	22 52	21 59	16 42	6 11			
T 27	23 20	21 11	1 56	18 42	4 39	14 39	3 23	24 11	0 46	23 15	0 10	16 36	1 8	6 26	0 37	19 15	1 37	9 47	11 44	22 54	22 52	22 0	16 41	6 11			
F 28	23 18	22 32	0 53	18 42	4 39	14 51	3 24	24 10	0 46	23 16	0 10	16 34	1 8	6 26	0 37	19 15	1 37	9 47	11 44	22 54	22 52	22 1	16 41	6 11			
S 29	23 15	22 53	0n12	18 43	4 37	15 3	3 25	24 10	0 47	23 16	0 10	16 32	1 8	6 27	0 37	19 15	1 37	9 47	11 44	22 54	22 53	22 2	16 40	6 11			
S 30	23n11	22n12	1n17	18n45	4s35	15n15	3s26	24n 9	0n47	23s16	0n 9	16n30	1n 8	6s27	0n37	19n16	1s37	9n47	11s44	22n54	22n53	22n 3	16n39	6s11			

ASTRODIENST EPHEMERIS for the year 1889

geocentric

JULY 1889

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	18 36 57	9°17'35	8°14' 4	24°D 6	24°R 1	5°38	2°R36	18°11	17°53	3°25	6°14	12° 6	12°14	27°12	13°20	M 1
T 2	18 40 53	10°14'48	20°10	24°II 8	24°53	6°18	2°38	18°17	17°53	3°25	6°14	12° 6	12°14	27°12	13°20	T 2
W 3	18 44 50	11°12'00	2°17 8	24°16	25°47	6°58	2°21	18°24	17°54	3°27	6°15	12° 6	12°11	27°19	13°27	W 3
T 4	18 48 46	12° 9'13	15° 0	24°28	26°41	7°38	2°13	18°30	17°54	3°29	6°16	12°R 6	12° 7	27°26	13°33	T 4
F 5	18 52 43	13° 6'25	27°49	24°46	27°35	8°18	2° 6	18°37	17°54	3°31	6°17	12° 6	12° 4	27°32	13°40	F 5
S 6	18 56 40	14° 3'37	10°58	25° 8	28°30	8°57	1°58	18°44	17°55	3°33	6°18	12°D 6	12° 1	27°39	13°46	S 6
S 7	19 0 36	15° 0'49	24°29	25°36	29°26	9°37	1°51	18°51	17°56	3°35	6°19	12° 6	11°58	27°45	13°52	S 7
M 8	19 4 33	15°58'01	8°14 24	26° 9	0°11 22	10°17	1°44	18°57	17°56	3°36	6°20	12° 6	11°55	27°52	13°59	M 8
T 9	19 8 29	16°55'13	22°43	26°47	1°18	10°57	1°37	19° 4	17°57	3°38	6°22	12° 6	11°52	27°59	14° 5	T 9
W10	19 12 26	17°52'24	7°22	27°29	2°15	11°36	1°30	19°11	17°58	3°40	6°23	12° 7	11°48	28° 5	14°12	W10
T 11	19 16 22	18°49'36	22°18	28°17	3°12	12°16	1°22	19°18	17°58	3°42	6°24	12° 7	11°45	28°12	14°18	T 11
F 12	19 20 19	19°46'48	7°23	29°10	4°10	12°55	1°16	19°25	17°59	3°43	6°25	12°R 8	11°42	28°19	14°25	F 12
S 13	19 24 15	20°44'00	22°29	0°58 8	5° 8	13°35	1° 9	19°32	18° 0	3°45	6°26	12° 7	11°39	28°25	14°31	S 13
S 14	19 28 12	21°41'12	7°27	1°10	6° 6	14°15	1° 2	19°39	18° 1	3°47	6°27	12° 7	11°36	28°32	14°38	S 14
M15	19 32 9	22°38'25	22° 9	2°17	7° 5	14°54	0°55	19°46	18° 2	3°48	6°28	12° 6	11°33	28°39	14°44	M15
T 16	19 36 5	23°35'38	6°28	3°29	8° 4	15°34	0°49	19°53	18° 3	3°50	6°29	12° 5	11°29	28°45	14°50	T 16
W17	19 40 2	24°32'52	20°22	4°45	9° 4	16°13	0°42	20° 1	18° 4	3°51	6°30	12° 3	11°26	28°52	14°57	W17
T 18	19 43 58	25°30'07	3°17 48	6° 6	10° 4	16°52	0°36	20° 8	18° 5	3°53	6°31	12° 2	11°23	28°59	15° 3	T 18
F 19	19 47 55	26°27'22	16°49	7°31	11° 4	17°32	0°29	20°15	18° 7	3°55	6°32	12° 1	11°20	29° 5	15°10	F 19
S 20	19 51 51	27°24'38	29°27	9° 1	12° 5	18°11	0°23	20°22	18° 8	3°56	6°33	12°D 1	11°17	29°12	15°16	S 20
S 21	19 55 48	28°21'55	11°46	10°35	13° 6	18°50	0°17	20°29	18° 9	3°57	6°34	12° 1	11°13	29°19	15°22	S 21
M22	19 59 44	29°19'13	23°51	12°12	14° 7	19°30	0°11	20°37	18°10	3°59	6°34	12° 2	11°10	29°25	15°29	M22
T 23	20 3 41	0°16'32	5°11 45	13°54	15° 9	20° 9	0° 6	20°44	18°12	4° 0	6°35	12° 4	11° 7	29°32	15°35	T 23
W24	20 7 38	1°13'52	17°34	15°39	16°10	20°48	0° 0	20°51	18°13	4° 2	6°36	12° 5	11° 4	29°39	15°41	W24
T 25	20 11 34	2°11'12	29°20	17°27	17°13	21°27	29°55	20°59	18°15	4° 3	6°37	12° 7	11° 1	29°45	15°48	T 25
F 26	20 15 31	3° 8'33	11°58 9	19°19	18°15	22° 7	29°49	21° 6	18°16	4° 5	6°38	12°R 7	10°58	29°52	15°54	F 26
S 27	20 19 27	4° 5'56	23° 3	21°13	19°18	22°46	29°44	21°14	18°18	4° 6	6°39	12° 7	10°54	29°58	16° 0	S 27
S 28	20 23 24	5° 3'19	5°12 3	23°10	20°20	23°25	29°39	21°21	18°20	4° 7	6°39	12° 5	10°51	0°58 5	16° 7	S 28
M29	20 27 20	6° 0'42	17°13	25° 9	21°24	24° 4	29°34	21°29	18°21	4° 8	6°40	12° 2	10°48	0°12	16°13	M29
T 30	20 31 17	6°58'07	29°33	27°10	22°27	24°43	29°29	21°36	18°23	4°10	6°41	11°59	10°45	0°18	16°19	T 30
W31	20 35 13	7°15'53	12°17 5	29°52	23°11 31	25°52	29°25	21°44	18°25	4°11	6°42	11°55	10°42	0°25	16°25	W31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	23n 8	20n30	2n19	18n49	4s31	15n27	3s26	24n 7	0n48	23s16	0n 9	16n28	1n 8	6s27	0n37	19n16	1s37	9n47	11s44	22n54	22n53	22n 4	16n39	6s11			
T 2	23 3	17 52	3 16	18 54	4 25	15 39	3 27	24 6	0 48	23 17	0 9	16 26	1 8	6 27	0 37	19 16	1 37	9 47	11 44	22 54	22 53	22 5	16 38	6 11			
W 3	22 59	14 25	4 5	19 1	4 19	15 52	3 27	24 4	0 48	23 17	0 9	16 24	1 8	6 27	0 37	19 17	1 37	9 47	11 44	22 54	22 54	22 6	16 38	6 11			
T 4	22 54	10 16	4 43	19 9	4 12	16 4	3 27	24 3	0 49	23 17	0 9	16 22	1 8	6 27	0 37	19 17	1 37	9 47	11 44	22 54	22 54	22 7	16 37	6 11			
F 5	22 48	5 35	5 8	19 18	4 3	16 17	3 27	24 1	0 49	23 18	0 9	16 20	1 8	6 28	0 37	19 17	1 37	9 47	11 45	22 54	22 54	22 8	16 36	6 11			
S 6	22 43	0 32	5 18	19 28	3 54	16 29	3 26	23 59	0 50	23 18	0 9	16 18	1 8	6 28	0 37	19 17	1 37	9 48	11 45	22 54	22 55	22 9	16 36	6 11			
S 7	22 36	4s41	5 10	19 39	3 44	16 41	3 26	23 56	0 50	23 18	0 8	16 16	1 8	6 28	0 37	19 18	1 37	9 48	11 45	22 54	22 55	22 10	16 35	6 11			
M 8	22 30	9 49	4 45	19 51	3 33	16 53	3 25	23 54	0 50	23 18	0 8	16 13	1 8	6 28	0 37	19 18	1 37	9 48	11 45	22 54	22 55	22 11	16 34	6 11			
T 9	22 23	14 34	4 2	20 3	3 22	17 5	3 25	23 51	0 51	23 19	0 8	16 11	1 8	6 29	0 37	19 18	1 37	9 48	11 45	22 54	22 55	22 12	16 33	6 11			
W10	22 16	18 34	3 1	20 16	3 10	17 17	3 24	23 48	0 51	23 19	0 8	16 9	1 8	6 29	0 37	19 19	1 37	9 48	11 45	22 54	22 56	22 13	16 33	6 11			
T 11	22 8	21 26	1 48	20 29	2 58	17 29	3 23	23 45	0 52	23 19	0 8	16 7	1 8	6 29	0 37	19 19	1 37	9 48	11 45	22 54	22 56	22 14	16 32	6 11			
F 12	22 0	22 49	0 26	20 42	2 45	17 41	3 22	23 41	0 52	23 19	0 8	16 5	1 8	6 30	0 37	19 19	1 37	9 48	11 45	22 54	22 56	22 15	16 31	6 11			
S 13	21 51	22 31	0s57	20 55	2 32	17 53	3 20	23 38	0 52	23 19	0 7	16 3	1 8	6 30	0 37	19 20	1 37	9 48	11 46	22 54	22 57	22 16	16 30	6 11			
S 14	21 42	20 37	2 16	21 9	2 18	18 4	3 19	23 34	0 53	23 20	0 7	16 0	1 8	6 30	0 37	19 20	1 37	9 48	11 46	22 54	22 57	22 17	16 30	6 11			
M15	21 33	17 21	3 24	21 21	2 5	18 15	3 18	23 30	0 53	23 20	0 7	15 58	1 8	6 31	0 37	19 20	1 37	9 48	11 46	22 54	22 57	22 18	16 29	6 12			
T 16	21 23	13 8	4 18	21 34	1 51	18 26	3 16	23 26	0 54	23 20	0 7	15 56	1 8	6 31	0 37	19 20	1 37	9 48	11 46	22 54	22 57	22 19	16 28	6 12			
W17	21 13	8 20	4 55	21 45	1 37	18 37	3 14	23 22	0 54	23 20	0 7	15 54	1 8	6 32	0 37	19 21	1 37	9 48	11 46	22 54	22 58	22 20	16 27	6 12			
T 18	21 3	3 17	5 14	21 56	1 23	18 48	3 12	23 17	0 54	23 20	0 7	15 52	1 8	6 32	0 36	19 21	1 37	9 48	11 46	22 54	22 58	22 20	16 27	6 12			
F 19	20 52	1n45	5 16	22 5	1 9	18 58	3 11	23 13	0 55	23 21	0 7	15 49	1 8	6 33	0 36	19 21	1 37	9 48	11 46	22 55	22 58	22 21	16 26	6 12			
S 20	20 41	6 34	5 2	22 13	0 55	19 8	3 8	23 8	0 55	23 21	0 6	15 47	1 8	6 33	0 36	19 21	1 37	9 48	11 47	22 55	22 58	22 22	16 25	6 12			
S 21	20 30	11 0	4 35	22 20	0 42	19 18	3 6	23 3	0 56	23 21	0 6	15 45	1 8	6 34	0 36	19 22	1 37	9 48	11 47	22 55	22 59	22 23	16 24	6 12			
M22	20 18	14 55	3 56	22 25	0 29	19 28	3 4	22 57	0 56	23 21	0 6	15 42	1 8	6 34	0 36	19 22	1 37	9 48	11 47	22 54	22 59	22 24	16 23	6 13			
T 23	20 6	18 12	3 8	22 28	0 16	19 37	3 2	22 52	0 56	23 21	0 6	15 40	1 8	6 35	0 36	19 22	1 37	9 48	11 47	22 54	22 59	22 25	16 22	6 13			
W24	19 54	20 41	2 12	22 29	0 3	19 46	2 59	22 47	0 57	23 21	0 6	15 38	1 8	6 35	0 36	19 22	1 37	9 48	11 47	22 54	23 0	22 26	16 21	6 13			
T 25	19 41	22 17	1 10	22 28	0n 9	19 54	2 57	22 41	0 57	23 21	0 6	15 35	1 8	6 36	0 36	19 22	1 37	9 48	11 47	22 54	23 0	22 27	16 20	6 13			
F 26	19 28	22 54	0 5	22 24	0 21	20 2	2 54	22 35	0 57	23 22	0 6	15 33	1 8	6 37	0 36	19 23	1 37	9 48	11 48	22 54	23 0	22 28	16 20	6 13			
S 27	19 15	22 28	1n 0	22 18	0 32	20 10	2 52	22 29	0 58	23 22	0 5	15 31	1 8	6 37	0 36	19 23	1 38	9 48	11 48	22 54	23 0	22 28	16 19	6 13			
S 28	19 1	21 0	2 3	22 9	0 42	20 18	2 49	22 23	0 58	23 22	0 5	15 28	1 8	6 38	0 36	19 23	1 38	9 48	11 48	22 54	23 1	22 29	16 18	6 14			
M29	18 47	18 34	3 1	21 58	0 52	20 25	2 46	22 16	0 58	23 22	0 5	15 26	1 9	6 39	0 36	19 23	1 38	9 48	11 48	22 54	23 1	22 30	16 17	6 14			
T 30	18 32	15 15	3 52	21 44	1 1	20 32	2 43	22 10	0 59	23 22	0 5	15 24	1 9	6 39	0 36	19 23	1 38	9 48	11 48	22 55	23 1	22 31	16 16	6 14			
W31	18n18	11n13	4n32	21n27	1n 9	20n38	2s40	22n 3	0n59	23s22	0n 5	15n21	1n 9	6s40	0n36	19n24	1s38	9n48	11s48	22n55	23n 1	22n32	16n15	6s14			

ASTRODIENST EPHEMERIS for the year 1889

geocentric

AUGUST 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 39 10	8♂52°58	24♂50	1♂16	24♂35	26♂1	29°R20	21♂51	18♂27	4♂12	6♂43	11°R51	10♂38	0♂32	16♂31	T 1
F 2	20 43 7	9°50'24	7♂50	3°20	25°39	26°40	29♂16	21°59	18°29	4°13	6°43	11♂47	10°35	0°38	16°37	F 2
S 3	20 47 3	10°47'52	21° 4	5°25	26°43	27°19	29°12	22° 6	18°30	4°14	6°44	11°44	10°32	0°45	16°44	S 3
S 4	20 51 0	11°45'20	4♂36	7°30	27°48	27°58	29° 8	22°14	18°32	4°15	6°45	11°43	10°29	0°52	16°50	S 4
M 5	20 54 56	12°42'49	18°24	9°34	28°52	28°36	29° 4	22°21	18°34	4°17	6°45	11°D43	10°26	0°58	16°56	M 5
T 6	20 58 53	13°40'18	2♂29	11°39	29°57	29°15	29° 0	22°29	18°37	4°18	6°46	11°44	10°23	1° 5	17° 2	T 6
W 7	21 2 49	14°37'49	16°51	13°43	1♂2	29°54	28°57	22°37	18°39	4°19	6°47	11°45	10°19	1°12	17° 8	W 7
T 8	21 6 46	15°35'20	1♂27	15°46	2° 8	0♂33	28°54	22°44	18°41	4°20	6°47	11°47	10°16	1°18	17°14	T 8
F 9	21 10 42	16°32'52	16°12	17°48	3°13	1°12	28°51	22°52	18°43	4°21	6°48	11°R47	10°13	1°25	17°20	F 9
S 10	21 14 39	17°30'25	1♂1	19°49	4°19	1°50	28°48	22°59	18°45	4°22	6°48	11°46	10°10	1°32	17°26	S 10
S 11	21 18 36	18°27'59	15°46	21°49	5°25	2°29	28°45	23° 7	18°47	4°22	6°49	11°43	10° 7	1°38	17°32	S 11
M12	21 22 32	19°25'34	0♂21	23°48	6°31	3° 8	28°43	23°15	18°50	4°23	6°49	11°38	10° 4	1°45	17°38	M12
T 13	21 26 29	20°23'11	14°39	25°46	7°38	3°46	28°40	23°22	18°52	4°24	6°50	11°32	10° 0	1°51	17°43	T 13
W14	21 30 25	21°20'48	28°34	27°42	8°44	4°25	28°38	23°30	18°55	4°25	6°50	11°26	9°57	1°58	17°49	W14
T 15	21 34 22	22°18'28	12°Y 3	29°37	9°51	5° 3	28°36	23°38	18°57	4°26	6°51	11°20	9°54	2° 5	17°55	T 15
F 16	21 38 18	23°16'08	25° 7	1♂30	10°58	5°42	28°34	23°45	18°59	4°26	6°51	11°16	9°51	2°11	18° 1	F 16
S 17	21 42 15	24°13'51	7♂48	3°23	12° 5	6°21	28°32	23°53	19° 2	4°27	6°52	11°12	9°48	2°18	18° 6	S 17
S 18	21 46 11	25°11'35	20° 8	5°13	13°12	6°59	28°31	24° 1	19° 5	4°28	6°52	11°D11	9°44	2°25	18°12	S 18
M19	21 50 8	26° 9'20	2♂13	7° 3	14°19	7°38	28°30	24° 8	19° 7	4°28	6°52	11°11	9°41	2°31	18°18	M19
T 20	21 54 5	27° 7'08	14° 6	8°50	15°27	8°16	28°29	24°16	19°10	4°29	6°53	11°12	9°38	2°38	18°23	T 20
W21	21 58 1	28° 4'57	25°55	10°37	16°35	8°54	28°28	24°24	19°12	4°30	6°53	11°13	9°35	2°45	18°29	W21
T 22	22 1 58	29° 2'47	7♂43	12°22	17°42	9°33	28°27	24°31	19°15	4°30	6°54	11°R14	9°32	2°51	18°34	T 22
F 23	22 5 54	0♂ 0'40	19°34	14° 6	18°50	10°11	28°27	24°39	19°18	4°31	6°54	11°14	9°29	2°58	18°40	F 23
S 24	22 9 51	0°58'34	1♂34	15°48	19°59	10°50	28°26	24°47	19°21	4°31	6°54	11°12	9°25	3° 5	18°45	S 24
S 25	22 13 47	1°56'30	13°44	17°30	21° 7	11°28	28°D26	24°54	19°24	4°32	6°54	11° 7	9°22	3°11	18°50	S 25
M26	22 17 44	2°54'27	26° 8	19° 9	22°15	12° 6	28°26	25° 2	19°26	4°32	6°55	11° 1	9°19	3°18	18°56	M26
T 27	22 21 40	3°52'26	8♂46	20°48	23°24	12°44	28°26	25° 9	19°29	4°32	6°55	10°53	9°16	3°24	19° 1	T 27
W28	22 25 37	4°50'26	21°38	22°25	24°33	13°23	28°27	25°17	19°32	4°33	6°55	10°43	9°13	3°31	19° 6	W28
T 29	22 29 34	5°48'28	4♂44	24° 1	25°41	14° 1	28°27	25°25	19°35	4°33	6°55	10°34	9°10	3°38	19°11	T 29
F 30	22 33 30	6°46'31	18° 2	25°36	26°50	14°39	28°28	25°32	19°38	4°33	6°55	10°25	9° 6	3°44	19°16	F 30
S 31	22 37 27	7♂44'36	1♂32	27♂9	28♂0	15♂17	28♂29	25♂40	19♂41	4♂34	6♂56	10♂18	9♂3	3♂51	19♂21	S 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
T 1	18n 3	6n38	5n 0	21n 8	1n16	20n44	2s37	21n56	1n 0	23s22	0n 5	15n19	1n 9	6s41	0n36	T 1
F 2	17 48	1 41	5 13	20 46	1 23	20 49	2 34	21 49	1 0	23 23	0 5	15 16	1 9	6 42	0 36	F 2
S 3	17 32	3s27	5 9	20 21	1 28	20 54	2 31	21 42	1 0	23 23	0 4	15 14	1 9	6 42	0 36	S 3
S 4	17 16	8 31	4 49	19 55	1 33	20 59	2 28	21 34	1 1	23 23	0 4	15 12	1 9	6 43	0 36	S 4
M 5	17 0	13 17	4 12	19 26	1 37	21 3	2 24	21 27	1 1	23 23	0 4	15 9	1 9	6 44	0 36	M 5
T 6	16 44	17 25	3 19	18 55	1 40	21 6	2 21	21 19	1 1	23 23	0 4	15 7	1 9	6 45	0 36	T 6
W 7	16 27	20 37	2 12	18 22	1 43	21 9	2 18	21 11	1 2	23 23	0 4	15 4	1 9	6 46	0 36	W 7
T 8	16 10	22 30	0 56	17 47	1 45	21 12	2 14	21 3	1 2	23 23	0 4	15 2	1 9	6 46	0 36	T 8
F 9	15 53	22 52	0s24	17 11	1 46	21 14	2 11	20 55	1 2	23 23	0 4	14 59	1 9	6 47	0 36	F 9
S 10	15 36	21 37	1 43	16 33	1 46	21 16	2 7	20 47	1 3	23 23	0 3	14 57	1 9	6 48	0 36	S 10
S 11	15 18	18 54	2 55	15 54	1 46	21 17	2 4	20 38	1 3	23 24	0 3	14 55	1 9	6 49	0 36	S 11
M12	15 0	15 0	3 54	15 14	1 44	21 18	2 0	20 30	1 3	23 24	0 3	14 52	1 9	6 50	0 36	M12
T 13	14 42	10 18	4 37	14 33	1 43	21 18	1 56	20 21	1 4	23 24	0 3	14 50	1 9	6 51	0 36	T 13
W14	14 24	5 12	5 3	13 51	1 41	21 17	1 53	20 12	1 4	23 24	0 3	14 47	1 9	6 52	0 35	W14
T 15	14 5	0n 0	5 10	13 9	1 38	21 17	1 49	20 3	1 4	23 24	0 3	14 45	1 10	6 53	0 35	T 15
F 16	13 46	5 3	5 1	12 25	1 35	21 15	1 45	19 54	1 4	23 24	0 3	14 42	1 10	6 54	0 35	F 16
S 17	13 27	9 44	4 38	11 41	1 31	21 13	1 42	19 45	1 5	23 24	0 2	14 40	1 10	6 55	0 35	S 17
S 18	13 8	13 54	4 2	10 57	1 27	21 11	1 38	19 35	1 5	23 24	0 2	14 37	1 10	6 56	0 35	S 18
M19	12 48	17 25	3 16	10 12	1 22	21 8	1 34	19 26	1 5	23 25	0 2	14 35	1 10	6 57	0 35	M19
T 20	12 29	20 10	2 22	9 27	1 17	21 4	1 30	19 16	1 6	23 25	0 2	14 32	1 10	6 58	0 35	T 20
W21	12 9	22 1	1 22	8 42	1 12	21 0	1 26	19 6	1 6	23 25	0 2	14 30	1 10	6 59	0 35	W21
T 22	11 49	22 55	0 19	7 57	1 7	20 55	1 23	18 56	1 6	23 25	0 2	14 27	1 10	7 0	0 35	T 22
F 23	11 28	22 46	0n45	7 12	1 1	20 50	1 19	18 46	1 7	23 25	0 2	14 25	1 10	7 1	0 35	F 23
S 24	11 8	21 34	1 47	6 26	0 54	20 44	1 15	18 36	1 7	23 25	0 2	14 22	1 10	7 2	0 35	S 24
S 25	10 47	19 22	2 46	5 41	0 48	20 37	1 11	18 26	1 7	23 25	0 1	14 20	1 10	7 3	0 35	S 25
M26	10 27	16 13	3 38	4 56	0 41	20 31	1 7	18 15	1 7	23 25	0 1	14 17	1 10	7 4	0 35	M26
T 27	10 6	12 18	4 19	4 11	0 34	20 23	1 3	18 5	1 8	23 26	0 1	14 15	1 10	7 5	0 35	T 27
W28	9 45	7 45	4 49	3 26	0 27	20 15	1 0	17 54	1 8	23 26	0 1	14 13	1 11	7 6	0 35	W28
T 29	9 23	2 46	5 4	2 41	0 20	20 6	0 56	17 43	1 8	23 26	0 1	14 10	1 11	7 8	0 35	T 29
F 30	9 2	2s25	5 3	1 57	0 12	19 57	0 52	17 32	1 9	23 26	0 1	14 8	1 11	7 9	0 35	F 30
S 31	8n40	7s33	4n45	1n12	0n 5	19n47	0s48	17n21	1n 9	23s26	0n 1	14n 5	1n11	7s10	0n35	S 31

Julian Day Number = 2411215.5, Delta T = -3.88 sec
 Ecliptic obliquity = 23°27'11", Nutation = - 0°00'16", out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 23°11'54", Lahiri = 22°18'54"

ASTRODIENST EPHEMERIS for the year 1889

geocentric

SEPTEMBER 1889

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 41 23	8 ^h 42'42"	15 ^m 13	28 ^m 41	29 ^s 9	15 ^h 55	28 ^m 30	25 ^h 47	19 ^h 44	4 ^h 34	6 ^h 56	10 ^h R13	9 ^h 50	3 ^h 58	19 ^h 26	S 1
M 2	22 45 20	9°40'50"	29° 4	0 ^h 12	0 ^h 18	16°34	28°32	25°55	19°47	4°34	6°56	10 ^h 11	8°57	4° 4	19°31	M 2
T 3	22 49 16	10°38'59"	13 ^m 4	1°41	1°28	17°12	28°33	26° 2	19°50	4°34	6°56	10°D11	8°54	4°11	19°36	T 3
W 4	22 53 13	11°37'10"	27°12	3°10	2°37	17°50	28°35	26°10	19°54	4°34	6°56	10°11	8°50	4°18	19°41	W 4
T 5	22 57 9	12°35'22"	11 ^h 29	4°37	3°47	18°28	28°37	26°17	19°57	4°34	6°56	10°R12	8°47	4°24	19°46	T 5
F 6	23 1 6	13°33'36"	25°51	6° 2	4°57	19° 6	28°39	26°25	20° 0	4°34	6°R56	10°11	8°44	4°31	19°51	F 6
S 7	23 5 3	14°31'51"	10 ^m 15	7°27	6° 7	19°44	28°42	26°32	20° 3	4°R34	6°56	10° 8	8°41	4°38	19°55	S 7
S 8	23 8 59	15°30'07"	24°38	8°49	7°17	20°22	28°44	26°39	20° 6	4°34	6°56	10° 2	8°38	4°44	20° 0	S 8
M 9	23 12 56	16°28'26"	8 ^h 53	10°11	8°27	21° 0	28°47	26°47	20°10	4°34	6°56	9°53	8°35	4°51	20° 4	M 9
T 10	23 16 52	17°26'46"	22°56	11°31	9°37	21°38	28°50	26°54	20°13	4°34	6°56	9°43	8°31	4°58	20° 9	T 10
W11	23 20 49	18°25'07"	6 ^h 41	12°50	10°48	22°16	28°53	27° 1	20°16	4°34	6°56	9°32	8°28	5° 4	20°13	W11
T 12	23 24 45	19°23'31"	20° 5	14° 7	11°58	22°53	28°56	27° 9	20°20	4°34	6°56	9°21	8°25	5°11	20°18	T 12
F 13	23 28 42	20°21'57"	3 ^h 6	15°23	13° 9	23°31	28°59	27°16	20°23	4°34	6°55	9°12	8°22	5°17	20°22	F 13
S 14	23 32 38	21°20'25"	15°46	16°37	14°20	24° 9	29° 3	27°23	20°27	4°34	6°55	9° 5	8°19	5°24	20°26	S 14
S 15	23 36 35	22°18'55"	28° 7	17°49	15°31	24°47	29° 7	27°30	20°30	4°33	6°55	9° 0	8°16	5°31	20°30	S 15
M16	23 40 31	23°17'27"	10 ^h 11	19° 0	16°42	25°25	29°11	27°38	20°33	4°33	6°55	8°57	8°12	5°37	20°34	M16
T 17	23 44 28	24°16'02"	22° 5	20° 9	17°53	26° 3	29°15	27°45	20°37	4°33	6°55	8°D56	8° 9	5°44	20°38	T 17
W18	23 48 25	25°14'38"	3 ^h 54	21°15	19° 4	26°40	29°19	27°52	20°40	4°32	6°54	8°R57	8° 6	5°51	20°42	W18
T 19	23 52 21	26°13'17"	15°43	22°20	20°15	27°18	29°23	27°59	20°44	4°32	6°54	8°56	8° 3	5°57	20°46	T 19
F 20	23 56 18	27°11'58"	27°37	23°22	21°27	27°56	29°28	28° 6	20°47	4°32	6°54	8°55	8° 0	6° 4	20°50	F 20
S 21	0 0 14	28°10'42"	9 ^h 41	24°22	22°38	28°33	29°33	28°13	20°51	4°31	6°54	8°52	7°56	6°11	20°54	S 21
S 22	0 4 11	29° 9'27"	22° 0	25°19	23°50	29°11	29°38	28°20	20°55	4°31	6°53	8°46	7°53	6°17	20°57	S 22
M23	0 8 7	0 ^h 8'15"	4 ^h 13	26°14	25° 1	29°49	29°43	28°27	20°58	4°30	6°53	8°37	7°50	6°24	21° 1	M23
T 24	0 12 4	1° 7'04"	17°30	27° 5	26°13	0 ^h 26	29°48	28°34	21° 2	4°30	6°53	8°26	7°47	6°31	21° 5	T 24
W25	0 16 0	2° 5'56"	0 ^h 42	27°54	27°25	1° 4	29°54	28°41	21° 5	4°29	6°52	8°13	7°44	6°37	21° 8	W25
T 26	0 19 57	3° 4'49"	14°12	28°38	28°37	1°41	29°59	28°47	21° 9	4°29	6°52	8° 0	7°41	6°44	21°11	T 26
F 27	0 23 54	4° 3'45"	27°56	29°19	29°49	2°19	0 ^h 5	28°54	21°13	4°28	6°51	7°48	7°37	6°50	21°15	F 27
S 28	0 27 50	5° 2'43"	11 ^h 50	29°56	1 ^h 1	2°57	0°11	29° 1	21°16	4°27	6°51	7°39	7°34	6°57	21°18	S 28
S 29	0 31 47	6° 1'42"	25°51	0 ^h 28	2°13	3°34	0°17	29° 8	21°20	4°27	6°50	7°32	7°31	7° 4	21°21	S 29
M30	0 35 43	7 ^h 0'43"	9 ^m 55	0 ^h 55	3 ^h 26	4 ^h 11	0 ^h 23	29 ^h 14	21 ^h 24	4 ^h 26	6 ^h 50	7 ^h 28	7 ^h 28	7 ^h 10	21 ^h 24	M30

Day	☉	☽		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	8n18	12s25	4n11	0n29	0s 3	19n37	0s44	17n10	1n 9	23s26	0n 0	14n 3	1n11	7s11	0n35	19n26	1s39	9n43	11s55	23n 4	23n 9	22n56	15n41	6s26			
M 2	7 57	16 41	3 22	0s15	0 11	19 26	0 40	16 59	1 9	23 26	0 0	14 0	1 11	7 12	0 35	19 26	1 39	9 43	11 55	23 4	23 9	22 57	15 40	6 26			
T 3	7 35	20 4	2 20	0 58	0 19	19 15	0 37	16 48	1 10	23 27	0 0	13 58	1 11	7 13	0 35	19 26	1 39	9 43	11 55	23 4	23 9	22 58	15 38	6 27			
W 4	7 13	22 17	1 9	1 40	0 27	19 3	0 33	16 36	1 10	23 27	0 0	13 55	1 11	7 15	0 35	19 26	1 39	9 43	11 56	23 4	23 10	22 58	15 37	6 27			
T 5	6 50	23 4	0s 7	2 22	0 35	18 51	0 29	16 25	1 10	23 27	0s 0	13 53	1 11	7 16	0 35	19 26	1 39	9 42	11 56	23 4	23 10	22 59	15 36	6 28			
F 6	6 28	22 20	1 23	3 4	0 43	18 38	0 25	16 13	1 11	23 27	0 0	13 50	1 11	7 17	0 35	19 26	1 40	9 42	11 56	23 4	23 10	23 0	15 35	6 28			
S 7	6 6	20 8	2 33	3 45	0 52	18 24	0 22	16 2	1 11	23 27	0 0	13 48	1 12	7 18	0 35	19 26	1 40	9 42	11 56	23 4	23 10	23 0	15 34	6 29			
S 8	5 43	16 40	3 34	4 25	1 0	18 10	0 18	15 50	1 11	23 27	0 0	13 46	1 12	7 20	0 35	19 26	1 40	9 42	11 57	23 4	23 10	23 1	15 33	6 29			
M 9	5 20	12 15	4 20	5 5	1 8	17 56	0 14	15 38	1 11	23 27	0 0	13 43	1 12	7 21	0 35	19 26	1 40	9 42	11 57	23 5	23 11	23 2	15 32	6 30			
T 10	4 58	7 15	4 50	5 44	1 17	17 41	0 11	15 26	1 12	23 28	0 0	13 41	1 12	7 22	0 35	19 26	1 40	9 41	11 57	23 6	23 11	23 2	15 30	6 30			
W11	4 35	1 58	5 2	6 22	1 25	17 25	0 7	15 14	1 12	23 28	0 0	13 38	1 12	7 23	0 35	19 26	1 40	9 41	11 57	23 7	23 11	23 3	15 29	6 31			
T 12	4 12	3n16	4 57	7 0	1 33	17 9	0 4	15 2	1 12	23 28	0 0	13 36	1 12	7 25	0 35	19 26	1 40	9 41	11 57	23 7	23 11	23 4	15 28	6 31			
F 13	3 49	8 13	4 37	7 37	1 41	16 53	0 0	14 49	1 12	23 28	0 0	13 34	1 12	7 26	0 35	19 26	1 40	9 41	11 58	23 8	23 11	23 4	15 27	6 32			
S 14	3 26	12 41	4 3	8 13	1 49	16 36	0n 3	14 37	1 13	23 28	0 0	13 31	1 12	7 27	0 35	19 26	1 40	9 40	11 58	23 9	23 12	23 5	15 26	6 32			
S 15	3 3	16 31	3 19	8 48	1 57	16 18	0 7	14 25	1 13	23 28	0 0	13 29	1 13	7 29	0 35	19 25	1 40	9 40	11 58	23 9	23 12	23 5	15 25	6 33			
M16	2 40	19 34	2 27	9 23	2 5	16 0	0 10	14 12	1 13	23 28	0 0	13 26	1 13	7 30	0 35	19 25	1 40	9 40	11 58	23 9	23 12	23 6	15 24	6 33			
T 17	2 17	21 45	1 28	9 56	2 13	15 42	0 13	14 0	1 13	23 29	0 0	13 24	1 13	7 31	0 35	19 25	1 40	9 40	11 58	23 9	23 12	23 7	15 22	6 34			
W18	1 53	22 57	0 27	10 28	2 21	15 23	0 17	13 47	1 14	23 29	0 2	13 22	1 13	7 33	0 35	19 25	1 40	9 39	11 59	23 9	23 12	23 7	15 21	6 35			
T 19	1 30	23 7	0n36	11 0	2 28	15 3	0 20	13 34	1 14	23 29	0 2	13 19	1 13	7 34	0 35	19 25	1 40	9 39	11 59	23 9	23 13	23 8	15 20	6 35			
F 20	1 7	22 15	1 37	11 30	2 36	14 44	0 23	13 21	1 14	23 29	0 2	13 17	1 13	7 35	0 35	19 25	1 40	9 39	11 59	23 9	23 13	23 8	15 19	6 36			
S 21	0 43	20 20	2 35	11 58	2 43	14 23	0 26	13 9	1 14	23 29	0 2	13 15	1 13	7 37	0 35	19 25	1 40	9 39	11 59	23 9	23 13	23 9	15 18	6 36			
S 22	0 20	17 27	3 27	12 26	2 50	14 3	0 29	12 56	1 14	23 29	0 2	13 12	1 13	7 38	0 35	19 25	1 40	9 38	11 59	23 10	23 13	23 10	15 17	6 37			
M23	0s 3	13 42	4 10	12 52	2 56	13 42	0 32	12 43	1 15	23 29	0 2	13 10	1 14	7 39	0 35	19 25	1 40	9 38	12 0	23 10	23 13	23 10	15 16	6 38			
T 24	0 27	9 15	4 41	13 17	3 2	13 20	0 35	12 30	1 15	23 29	0 2	13 8	1 14	7 41	0 34	19 24	1 40	9 38	12 0	23 11	23 13	23 11	15 14	6 38			
W25	0 50	4 16	4 58	13 39	3 8	12 59	0 38	12 16	1 15	23 30	0 2	13 6	1 14	7 42	0 34	19 24	1 40	9 38	12 0	23 12	23 14	23 11	15 13	6 39			
T 26	1 14	1s 1	4 59	14 1	3 14	12 36	0 41	12 3	1 15	23 30	0 2	13 3	1 14	7 43	0 34	19 24	1 41	9 37	12 0	23 13	23 14	23 12	15 12	6 39			
F 27	1 37	6 21	4 42	14 20	3 19	12 14	0 44	11 50	1 16	23 30	0 3	13 1	1 14	7 45	0 34	19 24	1 41	9 37	12 0	23 13	23 14	23 12	15 11	6 40			
S 28	2 0	11 26	4 9	14 37	3 23	11 51	0 47	11 37	1 16	23 30	0 3	12 59	1 14	7 46	0 34	19 24	1 41	9 37	12 1	23 14	23 14	23 13	15 10	6 41			
S 29	2 24	15 59	3 21	14 52	3 27	11 28	0 49	11 23	1 16	23 30	0 3	12 57	1 14	7 48	0 34	19 24	1 41	9 37	12 1	23 14	23 14	23 13	15 9	6 41			
M30	2s47	19s39	2n20	15s 4	3s30	11n 4	0n52	11n10	1n16	23s30	0s 3	12n55	1n15	7s49	0n34	19n23	1s41	9n36	12s 1	23n15	23n15	23n14	15n 8	6s42			

ASTRODIENST EPHEMERIS for the year 1889
geocentric

OCTOBER 1889

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	0 39 40	7♏5947	24♈ 2	1♏16	4♏38	4♏49	0♏30	29♏21	21♏27	4♏25	6♏49	7♏27	7♏25	7♏17	21♏27	T 1
W 2	0 43 36	8°58'51	8♏ 8	1°32	5°50	5°26	0°36	29°27	21°31	4♏24	6♏49	7♏26	7°21	7°24	21°30	W 2
T 3	0 47 33	9°57'58	22°14	1°42	7° 3	6° 4	0°43	29°34	21°35	4°24	6°48	7°26	7°18	7°30	21°33	T 3
F 4	0 51 29	10°57'06	6♏18	1°R45	8°16	6°41	0°50	29°40	21°38	4°23	6°48	7°25	7°15	7°37	21°36	F 4
S 5	0 55 26	11°56'16	20°19	1°41	9°28	7°18	0°57	29°47	21°42	4°22	6°47	7°21	7°12	7°44	21°38	S 5
S 6	0 59 23	12°55'28	4♏16	1°30	10°41	7°56	1° 4	29°53	21°46	4°21	6°47	7°14	7° 9	7°50	21°41	S 6
M 7	1 3 19	13°54'42	18° 5	1°10	11°54	8°33	1°11	29°59	21°50	4°20	6°46	7° 4	7° 6	7°57	21°43	M 7
T 8	1 7 16	14°53'57	1°P44	0°43	13° 7	9°10	1°19	0♏ 5	21°53	4°19	6°45	6°53	7° 2	8° 4	21°46	T 8
W 9	1 11 12	15°53'14	15° 9	0° 7	14°20	9°48	1°26	0°11	21°57	4°18	6°45	6°40	6°59	8°10	21°48	W 9
T 10	1 15 9	16°52'34	28°18	29♏23	15°33	10°25	1°34	0°17	22° 1	4°17	6°44	6°28	6°56	8°17	21°50	T 10
F 11	1 19 5	17°51'56	11♏ 9	28°31	16°46	11° 2	1°42	0°23	22° 5	4°16	6°43	6°16	6°53	8°23	21°52	F 11
S 12	1 23 2	18°51'19	23°43	27°33	17°59	11°39	1°50	0°29	22° 8	4°15	6°43	6° 7	6°50	8°30	21°54	S 12
S 13	1 26 58	19°50'45	5♏59	26°28	19°12	12°16	1°58	0°35	22°12	4°14	6°42	6° 1	6°47	8°37	21°56	S 13
M14	1 30 55	20°50'14	18° 2	25°19	20°26	12°53	2° 6	0°41	22°16	4°13	6°41	5°58	6°43	8°43	21°58	M14
T 15	1 34 52	21°49'44	29°56	24° 6	21°39	13°31	2°15	0°47	22°20	4°12	6°40	5°56	6°40	8°50	22° 0	T 15
W16	1 38 48	22°49'17	11♏44	22°52	22°52	14° 8	2°23	0°53	22°24	4°10	6°40	5°D56	6°37	8°57	22° 2	W16
T 17	1 42 45	23°48'52	23°32	21°40	24° 6	14°45	2°32	0°58	22°27	4° 9	6°39	5°R56	6°34	9° 3	22° 3	T 17
F 18	1 46 41	24°48'30	5♏26	20°30	25°20	15°22	2°41	1° 4	22°31	4° 8	6°38	5°56	6°31	9°10	22° 5	F 18
S 19	1 50 38	25°48'10	17°31	19°25	26°33	15°59	2°50	1° 9	22°35	4° 7	6°37	5°54	6°27	9°17	22° 6	S 19
S 20	1 54 34	26°47'51	29°53	18°28	27°47	16°36	2°59	1°15	22°39	4° 6	6°36	5°49	6°24	9°23	22° 7	S 20
M21	1 58 31	27°47'36	12♏34	17°39	29° 1	17°13	3° 8	1°20	22°43	4° 4	6°36	5°42	6°21	9°30	22° 9	M21
T 22	2 2 27	28°47'22	25°38	17° 0	0♏15	17°50	3°17	1°25	22°46	4° 3	6°35	5°33	6°18	9°37	22°10	T 22
W23	2 6 24	29°47'10	9♏ 6	16°32	1°28	18°27	3°27	1°31	22°50	4° 2	6°34	5°22	6°15	9°43	22°11	W23
T 24	2 10 20	0♏47'01	22°55	16°15	2°42	19° 3	3°36	1°36	22°54	4° 0	6°33	5°11	6°12	9°50	22°12	T 24
F 25	2 14 17	1°46'53	7♏ 3	16°D10	3°56	19°40	3°46	1°41	22°58	3°59	6°32	5° 0	6° 8	9°56	22°13	F 25
S 26	2 18 14	2°46'48	21°23	16°16	5°10	20°17	3°55	1°46	23° 1	3°58	6°31	4°52	6° 5	10° 3	22°13	S 26
S 27	2 22 10	3°46'44	5♏51	16°32	6°25	20°54	4° 5	1°51	23° 5	3°56	6°30	4°46	6° 2	10°10	22°14	S 27
M28	2 26 7	4°46'42	20°19	16°59	7°39	21°31	4°15	1°55	23° 9	3°55	6°29	4°43	5°59	10°16	22°15	M28
T 29	2 30 3	5°46'42	4♏44	17°35	8°53	22° 7	4°25	2° 0	23°13	3°53	6°28	4°D42	5°56	10°23	22°15	T 29
W30	2 34 0	6°46'44	19° 2	18°20	10° 7	22°44	4°36	2° 5	23°16	3°52	6°27	4°43	5°53	10°30	22°16	W30
T 31	2 37 56	7♏46'47	3♏10	19♏12	11♏21	23♏21	4♏46	2♏ 9	23♏20	3♏50	6♏26	4°R44	5♏49	10♏36	22♏16	T 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
T 1	3s10	22s 9	1n10	15s14	3s32	10n40	0n55	10n56	1n16	23s30	0s 3	12n52	1n15	7s50	0n34	19n23
W 2	3 34	23 16	0s 4	15 21	3 34	10 16	0 57	10 43	1 17	23 30	0 3	12 50	1 15	7 52	0 34	19 23
T 3	3 57	22 53	1 17	15 25	3 34	9 51	1 0	10 29	1 17	23 30	0 3	12 48	1 15	7 53	0 34	19 23
F 4	4 20	21 4	2 26	15 26	3 34	9 26	1 2	10 15	1 17	23 30	0 3	12 46	1 15	7 55	0 34	19 23
S 5	4 43	17 58	3 26	15 23	3 32	9 1	1 4	10 2	1 17	23 30	0 3	12 44	1 15	7 56	0 34	19 22
S 6	5 6	13 52	4 13	15 16	3 29	8 35	1 7	9 48	1 18	23 30	0 3	12 42	1 15	7 57	0 34	19 22
M 7	5 29	9 4	4 44	15 4	3 24	8 10	1 9	9 34	1 18	23 30	0 4	12 40	1 16	7 59	0 34	19 22
T 8	5 52	3 53	4 59	14 49	3 18	7 44	1 11	9 20	1 18	23 31	0 4	12 38	1 16	8 0	0 34	19 22
W 9	6 15	1n24	4 57	14 29	3 10	7 18	1 13	9 6	1 18	23 31	0 4	12 36	1 16	8 2	0 34	19 22
T 10	6 38	6 31	4 39	14 4	3 0	6 51	1 15	8 53	1 18	23 31	0 4	12 34	1 16	8 3	0 34	19 21
F 11	7 1	11 16	4 7	13 35	2 49	6 24	1 17	8 39	1 19	23 31	0 4	12 32	1 16	8 4	0 34	19 21
S 12	7 23	15 25	3 24	13 2	2 36	5 57	1 18	8 25	1 19	23 31	0 4	12 30	1 16	8 6	0 34	19 21
S 13	7 46	18 50	2 32	12 24	2 20	5 30	1 20	8 11	1 19	23 31	0 4	12 28	1 17	8 7	0 34	19 21
M14	8 8	21 22	1 34	11 43	2 4	5 3	1 22	7 56	1 19	23 30	0 4	12 26	1 17	8 9	0 34	19 20
T 15	8 31	22 55	0 32	10 59	1 45	4 35	1 23	7 42	1 19	23 30	0 4	12 24	1 17	8 10	0 34	19 20
W16	8 53	23 27	0n31	10 14	1 26	4 8	1 25	7 28	1 19	23 30	0 4	12 22	1 17	8 11	0 34	19 20
T 17	9 15	22 57	1 32	9 28	1 6	3 40	1 26	7 14	1 20	23 30	0 5	12 20	1 17	8 13	0 34	19 20
F 18	9 37	21 21	2 30	8 42	0 45	3 12	1 28	7 0	1 20	23 30	0 5	12 19	1 18	8 14	0 34	19 19
S 19	9 59	18 48	3 22	7 59	0 24	2 44	1 29	6 46	1 20	23 30	0 5	12 17	1 18	8 16	0 34	19 19
S 20	10 20	15 22	4 6	7 18	0 4	2 16	1 30	6 31	1 20	23 30	0 5	12 15	1 18	8 17	0 34	19 19
M21	10 42	11 9	4 39	6 42	0n15	1 47	1 31	6 17	1 20	23 30	0 5	12 13	1 18	8 19	0 34	19 19
T 22	11 3	6 18	4 59	6 10	0 34	1 19	1 32	6 3	1 21	23 30	0 5	12 12	1 18	8 20	0 34	19 18
W23	11 24	1 2	5 3	5 43	0 51	0 50	1 33	5 49	1 21	23 30	0 5	12 10	1 18	8 21	0 34	19 18
T 24	11 45	4s26	4 49	5 23	1 6	0 22	1 34	5 34	1 21	23 29	0 5	12 8	1 19	8 23	0 34	19 18
F 25	12 6	9 49	4 18	5 8	1 20	0s 7	1 35	5 20	1 21	23 29	0 5	12 7	1 19	8 24	0 34	19 18
S 26	12 27	14 45	3 30	4 59	1 32	0 36	1 36	5 6	1 21	23 29	0 5	12 5	1 19	8 25	0 34	19 17
S 27	12 47	18 52	2 28	4 56	1 42	1 4	1 36	4 51	1 21	23 29	0 6	12 3	1 19	8 27	0 34	19 17
M28	13 7	21 50	1 16	4 58	1 51	1 33	1 37	4 37	1 21	23 29	0 6	12 2	1 19	8 28	0 34	19 17
T 29	13 27	23 22	0s 0	5 5	1 58	2 2	1 37	4 23	1 22	23 28	0 6	12 0	1 20	8 30	0 34	19 16
W30	13 47	23 21	1 16	5 17	2 3	2 31	1 38	4 8	1 22	23 28	0 6	11 59	1 20	8 31	0 34	19 16
T 31	14s 7	21s50	2s26	5s33	2n 7	2s59	1n38	3n54	1n22	23s28	0s 6	11n57	1n20	8s32	0n34	19n16

Julian Day Number = 2411276.5, Delta T = -3.88 sec
Ecliptic obliquity = 23°27'12", Nutation = - 0°00'18", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 23°12'02", Lahiri = 22°19'03"

ASTRODIENST EPHEMERIS for the year 1889

geocentric

NOVEMBER 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	2 41 53	8♈46'52	17♋8	20♏11	12♊36	23♎57	4♈56	2♈14	23♏24	3♈49	6♈25	4♈43	5♈46	10♈43	22♈16	F 1
S 2	2 45 50	9♈46'58	0♈55	21°16	13°50	24°34	5°7	2°18	23°27	3♈47	6♈25	4♈41	5°43	10°50	22°R16	S 2
S 3	2 49 46	10°47'05	14°32	22°26	15°4	25°11	5°18	2°23	23°31	3°46	6°23	4°37	5°40	10°56	22°16	S 3
M 4	2 53 43	11°47'15	27°57	23°40	16°19	25°47	5°28	2°27	23°35	3°44	6°22	4°30	5°37	11°3	22°16	M 4
T 5	2 57 39	12°47'25	11♈11	24°58	17°33	26°24	5°39	2°31	23°38	3°43	6°21	4°22	5°33	11°10	22°16	T 5
W 6	3 1 36	13°47'38	24°13	26°20	18°48	27°0	5°50	2°35	23°42	3°41	6°20	4°12	5°30	11°16	22°16	W 6
T 7	3 5 32	14°47'52	7♈1	27°44	20°2	27°37	6°1	2°39	23°45	3°40	6°19	4°3	5°27	11°23	22°15	T 7
F 8	3 9 29	15°48'08	19°36	29°10	21°17	28°13	6°12	2°43	23°49	3°38	6°18	3°55	5°24	11°30	22°15	F 8
S 9	3 13 25	16°48'25	1♈57	0♈39	22°32	28°49	6°23	2°47	23°53	3°36	6°17	3°48	5°21	11°36	22°14	S 9
S 10	3 17 22	17°48'45	14°6	2°8	23°46	29°26	6°35	2°50	23°56	3°35	6°16	3°44	5°18	11°43	22°13	S 10
M 11	3 21 18	18°49'06	26°4	3°40	25°1	0♈2	6°46	2°54	24°0	3°33	6°15	3°42	5°14	11°49	22°13	M 11
T 12	3 25 15	19°49'29	7♈55	5°12	26°16	0°39	6°57	2°57	24°3	3°31	6°14	3°D42	5°11	11°56	22°12	T 12
W 13	3 29 12	20°49'54	19°42	6°45	27°30	1°15	7°9	3°1	24°7	3°30	6°13	3°43	5°8	12°3	22°11	W 13
T 14	3 33 8	21°50'21	1♈30	8°18	28°45	1°51	7°21	3°4	24°10	3°28	6°12	3°44	5°5	12°9	22°10	T 14
F 15	3 37 5	22°50'50	13°23	9°52	0♈0	2°27	7°32	3°7	24°14	3°27	6°11	3°46	5°2	12°16	22°9	F 15
S 16	3 41 1	23°51'20	25°26	11°27	1°15	3°3	7°44	3°10	24°17	3°25	6°10	3°R46	4°58	12°23	22°8	S 16
S 17	3 44 58	24°51'52	7♈45	13°1	2°30	3°40	7°56	3°13	24°20	3°23	6°9	3°45	4°55	12°29	22°6	S 17
M 18	3 48 54	25°52'26	20°25	14°36	3°45	4°16	8°8	3°16	24°24	3°22	6°7	3°43	4°52	12°36	22°5	M 18
T 19	3 52 51	26°53'02	3♈29	16°11	5°0	4°52	8°20	3°19	24°27	3°20	6°6	3°38	4°49	12°43	22°3	T 19
W 20	3 56 47	27°53'40	16°59	17°46	6°15	5°28	8°32	3°22	24°30	3°18	6°5	3°33	4°46	12°49	22°2	W 20
T 21	4 0 44	28°54'19	0♈56	19°21	7°30	6°4	8°44	3°25	24°34	3°16	6°4	3°27	4°43	12°56	22°0	T 21
F 22	4 4 41	29°55'00	15°17	20°56	8°45	6°40	8°57	3°27	24°37	3°15	6°3	3°22	4°39	13°3	21°58	F 22
S 23	4 8 37	0♈55'42	29°56	22°31	10°0	7°16	9°9	3°29	24°40	3°13	6°2	3°18	4°36	13°9	21°56	S 23
S 24	4 12 34	1°56'26	14♈47	24°6	11°15	7°52	9°21	3°32	24°44	3°11	6°1	3°15	4°33	13°16	21°54	S 24
M 25	4 16 30	2°57'11	29°42	25°41	12°30	8°28	9°34	3°34	24°47	3°10	6°0	3°D14	4°30	13°22	21°52	M 25
T 26	4 20 27	3°57'57	14♈32	27°16	13°45	9°3	9°46	3°36	24°50	3°8	5°58	3°14	4°27	13°29	21°50	T 26
W 27	4 24 23	4°58'44	29°11	28°51	15°0	9°39	9°59	3°38	24°53	3°6	5°57	3°15	4°24	13°36	21°48	W 27
T 28	4 28 20	5°59'33	13♈35	0♈25	16°15	10°15	10°12	3°40	24°56	3°5	5°56	3°17	4°20	13°42	21°46	T 28
F 29	4 32 17	7°0'22	27°41	2°0	17°30	10°50	10°24	3°42	24°59	3°3	5°55	3°18	4°17	13°49	21°43	F 29
S 30	4 36 13	8♈1'12	11♈27	3♈34	18♈46	11♈26	10♈37	3♈43	25♈2	3♈1	5♈54	3°R18	4♈14	13♈56	21♈41	S 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	14s26	19s 0	3s27	5s53	2n10	3s28	1n39	3n39	1n22	23s28	0s 6	11n56	1n20	8s34	0n34	19n16	1s42	9n28	12s 6	23n22	23n20	23n28	14n38	7s 4	
S 2	14 45	15 8	4 15	6 16	2 12	3 57	1 39	3 25	1 22	23 27	0 6	11 55	1 20	8 35	0 34	19 15	1 42	9 28	12 6	23 22	23 20	23 28	14 38	7 4	
S 3	15 4	10 31	4 48	6 41	2 12	4 25	1 39	3 11	1 22	23 27	0 6	11 53	1 21	8 36	0 34	19 15	1 42	9 28	12 6	23 22	23 20	23 29	14 37	7 5	
M 4	15 23	5 28	5 4	7 9	2 12	4 54	1 39	2 56	1 23	23 27	0 6	11 52	1 21	8 38	0 34	19 15	1 42	9 27	12 6	23 23	23 20	23 29	14 36	7 6	
T 5	15 41	0 14	5 4	7 39	2 10	5 22	1 39	2 42	1 23	23 26	0 6	11 51	1 21	8 39	0 34	19 14	1 42	9 27	12 6	23 23	23 20	23 29	14 36	7 7	
W 6	15 59	4n55	4 48	8 11	2 8	5 51	1 39	2 28	1 23	23 26	0 6	11 49	1 21	8 40	0 34	19 14	1 42	9 27	12 6	23 23	23 20	23 29	14 35	7 7	
T 7	16 17	9 48	4 18	8 43	2 5	6 19	1 38	2 13	1 23	23 25	0 7	11 48	1 21	8 42	0 34	19 14	1 42	9 27	12 6	23 23	23 20	23 30	14 34	7 8	
F 8	16 35	14 11	3 35	9 17	2 2	6 47	1 38	1 59	1 23	23 25	0 7	11 47	1 22	8 43	0 34	19 13	1 42	9 26	12 6	23 24	23 21	23 30	14 34	7 9	
S 9	16 52	17 54	2 43	9 52	1 58	7 15	1 38	1 44	1 23	23 25	0 7	11 46	1 22	8 44	0 34	19 13	1 42	9 26	12 6	23 24	23 21	23 30	14 33	7 9	
S 10	17 9	20 47	1 44	10 27	1 53	7 43	1 37	1 30	1 23	23 24	0 7	11 45	1 22	8 46	0 34	19 13	1 42	9 26	12 6	23 24	23 21	23 31	14 33	7 10	
M 11	17 26	22 42	0 41	11 3	1 48	8 11	1 37	1 16	1 23	23 24	0 7	11 44	1 22	8 47	0 34	19 12	1 42	9 26	12 6	23 24	23 21	23 31	14 32	7 11	
T 12	17 42	23 36	0n23	11 39	1 43	8 39	1 36	1 1	1 24	23 23	0 7	11 43	1 23	8 48	0 34	19 12	1 42	9 26	12 6	23 24	23 21	23 31	14 32	7 11	
W 13	17 58	23 25	1 26	12 15	1 37	9 6	1 36	0 47	1 24	23 23	0 7	11 41	1 23	8 50	0 34	19 12	1 42	9 25	12 6	23 24	23 21	23 32	14 31	7 12	
T 14	18 14	22 12	2 25	12 50	1 31	9 33	1 35	0 33	1 24	23 22	0 7	11 41	1 23	8 51	0 34	19 11	1 42	9 25	12 6	23 24	23 21	23 32	14 31	7 13	
F 15	18 30	20 0	3 19	13 26	1 25	10 0	1 34	0 18	1 24	23 22	0 7	11 40	1 23	8 52	0 34	19 11	1 42	9 25	12 6	23 24	23 21	23 32	14 30	7 13	
S 16	18 45	16 53	4 5	14 1	1 19	10 27	1 33	0 4	1 24	23 21	0 7	11 39	1 23	8 53	0 34	19 11	1 42	9 25	12 6	23 24	23 22	23 32	14 30	7 14	
S 17	19 0	13 0	4 40	14 36	1 13	10 54	1 33	0s10	1 24	23 20	0 7	11 38	1 24	8 55	0 34	19 11	1 42	9 25	12 6	23 24	23 22	23 33	14 29	7 15	
M 18	19 14	8 27	5 3	15 11	1 6	11 20	1 32	0 24	1 24	23 20	0 7	11 37	1 24	8 56	0 34	19 10	1 42	9 24	12 6	23 24	23 22	23 33	14 29	7 15	
T 19	19 28	3 23	5 12	15 45	0 59	11 46	1 31	0 39	1 24	23 19	0 8	11 36	1 24	8 57	0 34	19 10	1 42	9 24	12 6	23 24	23 22	23 33	14 28	7 16	
W 20	19 42	2s 0	5 3	16 18	0 52	12 12	1 29	0 53	1 25	23 18	0 8	11 35	1 24	8 58	0 34	19 10	1 42	9 24	12 6	23 24	23 22	23 33	14 28	7 17	
T 21	19 56	7 29	4 37	16 51	0 46	12 38	1 28	1 7	1 25	23 18	0 8	11 35	1 25	8 59	0 34	19 9	1 42	9 24	12 6	23 24	23 22	23 34	14 28	7 17	
F 22	20 9	12 43	3 53	17 23	0 39	13 3	1 27	1 21	1 25	23 17	0 8	11 34	1 25	9 1	0 34	19 9	1 42	9 24	12 6	23 25	23 22	23 34	14 27	7 18	
S 23	20 21	17 21	2 52	17 54	0 32	13 28	1 26	1 35	1 25	23 16	0 8	11 33	1 25	9 2	0 34	19 9	1 42	9 24	12 6	23 25	23 22	23 34	14 27	7 18	
S 24	20 34	20 56	1 39	18 25	0 25	13 52	1 24	1 49	1 25	23 15	0 8	11 33	1 25	9 3	0 34	19 8	1 42	9 23	12 6	23 25	23 22	23 34	14 27	7 19	
M 25	20 46	23 8	0 19	18 54	0 18	14 17	1 23	2 3	1 25	23 15	0 8	11 32	1 26	9 4	0 34	19 8	1 42	9 23	12 6	23 25	23 23	23 34	14 26	7 20	
T 26	20 57	23 41	1s 2	19 23	0 11	14 41	1 22	2 17	1 25	23 14	0 8	11 31	1 26	9 5	0 34	19 8	1 42	9 23	12 6	23 25	23 23	23 35	14 26	7 20	
W 27	21 8	22 35	2 18	19 51	0 4	15 4	1 20	2 31	1 25	23 13	0 8	11 31	1 26	9 6	0 34	19 7	1 42	9 23	12 6	23 25	23 23	23 35	14 26	7 21	
T 28	21 19	20 1	3 24	20 18	0s 3	15 27	1 19	2 45	1 25	23 12	0 8	11 31	1 26	9 8	0 34	19 7	1 42	9 23	12 6	23 25	23 23	23 35	14 25	7 21	
F 29	21 30	16 17	4 16	20 44	0 10	15 50	1 17	2 59	1 25	23 11	0 8	11 30	1 26	9 9	0 34	19 7	1 42	9 23	12 6	23 25	23 23	23 35	14 25	7 22	
S 30	21s40	11s46	4s52	21s 9	0s16	16s12	1n15	3s13	1n25	23s10	0s 9	11n30	1n27	9s10	0n34	19n 6	1s42	9n22	12s 6	23n25	23n23	23n35	14n25	7s23	

ASTRODIENST EPHEMERIS for the year 1889

geocentric

DECEMBER 1889

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 40 10	9♂ 2'02	24♂56	5♂ 9	20♂ 1	12♂ 2	10♂50	3♂45	25♂ 5	2°R59	5°R53	3°R17	4♂11	14♂ 2	21°R38	S 1
M 2	4 44 6	10° 2'54	8♂ 7	6°43	21°16	12°37	11° 3	3°46	25° 8	2II58	5II52	3♂15	4° 8	14° 9	21♂36	M 2
T 3	4 48 3	11° 3'47	21° 2	8°17	22°31	13°13	11°16	3°48	25°11	2°56	5°50	3°12	4° 4	14°16	21°33	T 3
W 4	4 51 59	12° 4'40	3♂43	9°51	23°46	13°48	11°29	3°49	25°14	2°54	5°49	3° 9	4° 1	14°22	21°30	W 4
T 5	4 55 56	13° 5'34	16°11	11°26	25° 2	14°24	11°42	3°50	25°17	2°53	5°48	3° 5	3°58	14°29	21°28	T 5
F 6	4 59 52	14° 6'29	28°28	13° 0	26°17	14°59	11°55	3°51	25°20	2°51	5°47	3° 2	3°55	14°36	21°25	F 6
S 7	5 3 49	15° 7'25	10II36	14°34	27°32	15°34	12° 8	3°52	25°22	2°49	5°46	3° 0	3°52	14°42	21°22	S 7
S 8	5 7 46	16° 8'22	22°35	16° 8	28°47	16°10	12°22	3°53	25°25	2°48	5°45	2°59	3°49	14°49	21°19	S 8
M 9	5 11 42	17° 9'20	4♂28	17°43	0♂ 3	16°45	12°35	3°53	25°28	2°46	5°44	2°D58	3°45	14°56	21°16	M 9
T 10	5 15 39	18°10'19	16°17	19°17	1°18	17°20	12°48	3°54	25°31	2°45	5°43	2°59	3°42	15° 2	21°12	T 10
W11	5 19 35	19°11'19	28° 4	20°51	2°33	17°55	13° 1	3°54	25°33	2°43	5°41	3° 0	3°39	15° 9	21° 9	W11
T 12	5 23 32	20°12'20	9♂252	22°26	3°49	18°30	13°15	3°55	25°36	2°41	5°40	3° 1	3°36	15°16	21° 6	T 12
F 13	5 27 28	21°13'22	21°46	24° 0	5° 4	19° 5	13°28	3°55	25°38	2°40	5°39	3° 3	3°33	15°22	21° 2	F 13
S 14	5 31 25	22°14'24	3♂49	25°35	6°19	19°40	13°42	3°R55	25°41	2°38	5°38	3° 4	3°30	15°29	20°59	S 14
S 15	5 35 21	23°15'28	16° 5	27°10	7°35	20°15	13°55	3°55	25°43	2°37	5°37	3° 4	3°26	15°35	20°55	S 15
M16	5 39 18	24°16'32	28°40	28°45	8°50	20°50	14° 9	3°55	25°46	2°35	5°36	3°R 4	3°23	15°42	20°52	M16
T 17	5 43 15	25°17'38	11♂37	0♂20	10° 5	21°25	14°22	3°54	25°48	2°33	5°35	3° 4	3°20	15°49	20°48	T 17
W18	5 47 11	26°18'44	25° 0	1°56	11°21	22° 0	14°36	3°54	25°50	2°32	5°34	3° 3	3°17	15°55	20°45	W18
T 19	5 51 8	27°19'51	8♂50	3°31	12°36	22°34	14°50	3°54	25°53	2°30	5°33	3° 2	3°14	16° 2	20°41	T 19
F 20	5 55 4	28°20'59	23° 7	5° 7	13°52	23° 9	15° 3	3°53	25°55	2°29	5°32	3° 2	3°10	16° 9	20°37	F 20
S 21	5 59 1	29°22'07	7♂49	6°42	15° 7	23°43	15°17	3°52	25°57	2°27	5°31	3° 1	3° 7	16°15	20°33	S 21
S 22	6 2 57	0♂23'17	22°49	8°18	16°22	24°18	15°31	3°52	25°59	2°26	5°30	3° 1	3° 4	16°22	20°29	S 22
M23	6 6 54	1°24'26	7♂59	9°54	17°38	24°52	15°45	3°51	26° 1	2°25	5°29	3°D 1	3° 1	16°29	20°26	M23
T 24	6 10 50	2°25'36	23° 9	11°31	18°53	25°27	15°59	3°50	26° 3	2°23	5°28	3° 1	2°58	16°35	20°22	T 24
W25	6 14 47	3°26'47	8♂11	13° 7	20° 9	26° 1	16°12	3°49	26° 5	2°22	5°27	3°R 1	2°55	16°42	20°18	W25
T 26	6 18 44	4°27'57	22°57	14°43	21°24	26°35	16°26	3°47	26° 7	2°20	5°26	3° 1	2°51	16°49	20°14	T 26
F 27	6 22 40	5°29'07	7♂20	16°20	22°40	27°10	16°40	3°46	26° 9	2°19	5°25	3° 1	2°48	16°55	20° 9	F 27
S 28	6 26 37	6°30'17	21°17	17°56	23°55	27°44	16°54	3°45	26°11	2°18	5°24	3° 1	2°45	17° 2	20° 5	S 28
S 29	6 30 33	7°31'20	4♂50	19°32	25°10	28°18	17° 8	3°43	26°13	2°16	5°23	3°D 1	2°42	17° 9	20° 1	S 29
M30	6 34 30	8°32'37	17°58	21° 9	26°26	28°52	17°22	3°41	26°15	2°15	5°22	3° 1	2°39	17°15	19°57	M30
T 31	6 38 26	9♂33'46	0♂45	22♂44	27♂41	29♂26	17♂36	3♂40	26♂16	2II14	5II21	3♂ 1	2♂36	17♂22	19♂53	T 31

Day	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
S 1	21s49	6s47	5s12	21s33	0s23	16s34	1n14	3s27	1n26	23s 9	0s 9	11n29	1n27	9s11	0n34	19n 6
M 2	21 58	1 35	5 14	21 56	0 29	16 56	1 12	3 41	1 26	23 8	0 9	11 29	1 27	9 12	0 35	19 6
T 3	22 7	3n34	5 0	22 17	0 36	17 17	1 10	3 54	1 26	23 7	0 9	11 29	1 27	9 13	0 35	19 5
W 4	22 15	8 30	4 31	22 38	0 42	17 38	1 8	4 8	1 26	23 6	0 9	11 29	1 28	9 14	0 35	19 5
T 5	22 23	13 0	3 51	22 58	0 48	17 58	1 6	4 22	1 26	23 5	0 9	11 28	1 28	9 15	0 35	19 5
F 6	22 30	16 55	2 59	23 16	0 54	18 17	1 4	4 35	1 26	23 4	0 9	11 28	1 28	9 16	0 35	19 5
S 7	22 37	20 3	2 1	23 33	1 0	18 37	1 2	4 49	1 26	23 3	0 9	11 28	1 28	9 17	0 35	19 4
S 8	22 44	22 18	0 57	23 50	1 6	18 55	1 0	5 2	1 26	23 2	0 9	11 28	1 29	9 18	0 35	19 4
M 9	22 50	23 31	0n 8	24 4	1 12	19 13	0 58	5 16	1 26	23 1	0 9	11 28	1 29	9 19	0 35	19 4
T 10	22 56	23 40	1 13	24 18	1 17	19 31	0 56	5 29	1 26	23 0	0 9	11 28	1 29	9 20	0 35	19 3
W11	23 1	22 46	2 15	24 30	1 22	19 48	0 54	5 42	1 26	22 58	0 9	11 28	1 29	9 21	0 35	19 3
T 12	23 5	20 51	3 11	24 41	1 27	20 5	0 52	5 56	1 26	22 57	0 10	11 28	1 30	9 22	0 35	19 3
F 13	23 10	18 2	3 59	24 51	1 32	20 21	0 50	6 9	1 26	22 56	0 10	11 28	1 30	9 23	0 35	19 2
S 14	23 14	14 25	4 37	24 59	1 37	20 36	0 47	6 22	1 26	22 55	0 10	11 29	1 30	9 24	0 35	19 2
S 15	23 17	10 9	5 4	25 6	1 41	20 51	0 45	6 35	1 26	22 53	0 10	11 29	1 30	9 24	0 35	19 2
M16	23 20	5 22	5 17	25 12	1 45	21 5	0 43	6 48	1 26	22 52	0 10	11 29	1 31	9 25	0 35	19 2
T 17	23 22	0 14	5 14	25 16	1 49	21 19	0 40	7 1	1 26	22 51	0 10	11 29	1 31	9 26	0 35	19 1
W18	23 24	5s 6	4 55	25 19	1 53	21 31	0 38	7 14	1 26	22 49	0 10	11 30	1 31	9 27	0 35	19 1
T 19	23 26	10 22	4 18	25 20	1 56	21 44	0 36	7 27	1 26	22 48	0 10	11 30	1 31	9 28	0 35	19 1
F 20	23 27	15 16	3 24	25 20	1 59	21 55	0 33	7 40	1 26	22 46	0 10	11 31	1 32	9 29	0 35	19 1
S 21	23 27	19 24	2 16	25 19	2 2	22 7	0 31	7 53	1 26	22 45	0 10	11 31	1 32	9 29	0 35	19 0
S 22	23 27	22 19	0 57	25 15	2 4	22 17	0 29	8 5	1 26	22 43	0 10	11 32	1 32	9 30	0 35	19 0
M23	23 27	23 40	0s28	25 11	2 6	22 27	0 26	8 18	1 26	22 42	0 11	11 32	1 32	9 31	0 35	19 0
T 24	23 26	23 16	1 50	25 5	2 8	22 36	0 24	8 30	1 26	22 40	0 11	11 33	1 32	9 32	0 35	19 0
W25	23 25	21 11	3 4	24 57	2 9	22 44	0 21	8 43	1 26	22 39	0 11	11 33	1 33	9 32	0 35	18 59
T 26	23 23	17 43	4 4	24 48	2 10	22 52	0 19	8 55	1 26	22 37	0 11	11 34	1 33	9 33	0 35	18 59
F 27	23 20	13 15	4 47	24 37	2 10	22 59	0 16	9 7	1 26	22 36	0 11	11 35	1 33	9 34	0 35	18 59
S 28	23 18	8 13	5 11	24 24	2 10	23 5	0 14	9 20	1 26	22 34	0 11	11 35	1 33	9 34	0 35	18 59
S 29	23 14	2 57	5 18	24 10	2 10	23 10	0 11	9 32	1 26	22 32	0 11	11 36	1 34	9 35	0 35	18 58
M30	23 11	2n19	5 7	23 55	2 9	23 15	0 9	9 44	1 26	22 31	0 11	11 37	1 34	9 36	0 35	18 58
T 31	23s 7	7n20	4s42	23s38	2s 8	23s19	0n 6	9s56	1n26	22s29	0s11	11n38	1n34	9s36	0n35	18n58

Julian Day Number = 2411337.5, Delta T = -3.89 sec
 Ecliptic obliquity = 23°27'12, Nutation = - 0°00'18, out-of-bounds declination in red
 Ayanamsha: Fagan/Bradley = 23°12'11, Lahiri = 22°19'11