



Astrodienst Ephemeris Tables for the year 2190

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 2190
geocentric

JANUARY 2190

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 43 45	10 ³ 45'15	28 ² 5 5	24 ² 7 3	27 ¹ 11.51	4 ² 31	5 ⁸ 7	15 ¹ 11.30	13 ¹ 19.19	29 ² 11.59	8 ¹ 43	21 ¹ 846	20 ¹ 815	14 ¹ 1114	20 ¹ 20 R 5	F 1
S 2	6 47 41	11 ¹ 46'24	12 ¹ 11.15	25 ¹ 31	28 ¹ 32	5 ¹ 17	5 ¹ 8	15 ¹ 35	13 ¹ 818	0 ¹ 0 0	8 ¹ 41	21 ¹ 47	20 ¹ 11	14 ¹ 21	20 ¹ 20 1	S 2
S 3	6 51 38	12 ¹ 47'34	26 ¹ 45	26 ¹ 59	29 ¹ 15	6 ¹ 3	5 ¹ 9	15 ¹ 40	13 ¹ 17	0 ¹ 1	8 ¹ 40	21 ¹ 47	20 ¹ 8	14 ¹ 28	19 ¹ 56	S 3
M 4	6 55 34	13 ¹ 48'43	11 ¹ 13.35	28 ¹ 27	29 ¹ 59	6 ¹ 49	5 ¹ 9	15 ¹ 45	13 ¹ 17	0 ¹ 2	8 ¹ 39	21 ¹ 45	20 ¹ 5	14 ¹ 34	19 ¹ 52	M 4
T 5	6 59 31	14 ¹ 49'54	26 ¹ 37	29 ¹ 57	0 ¹ 144	7 ¹ 35	5 ¹ 11	15 ¹ 50	13 ¹ 16	0 ¹ 3	8 ¹ 38	21 ¹ 41	20 ¹ 2	14 ¹ 41	19 ¹ 48	T 5
W 6	7 3 27	15 ¹ 51'04	11 ¹ 343	1 ¹ 326	1 ¹ 30	8 ¹ 21	5 ¹ 12	15 ¹ 55	13 ¹ 15	0 ¹ 4	8 ¹ 37	21 ¹ 35	19 ¹ 59	14 ¹ 48	19 ¹ 44	W 6
T 7	7 7 24	16 ¹ 52'15	26 ¹ 44	2 ¹ 56	2 ¹ 17	9 ¹ 7	5 ¹ 14	16 ¹ 0	13 ¹ 14	0 ¹ 4	8 ¹ 35	21 ¹ 26	19 ¹ 55	14 ¹ 54	19 ¹ 40	T 7
F 8	7 11 21	17 ¹ 53'25	11 ¹ 11.30	4 ¹ 27	3 ¹ 4	9 ¹ 53	5 ¹ 15	16 ¹ 4	13 ¹ 14	0 ¹ 5	8 ¹ 34	21 ¹ 17	19 ¹ 52	15 ¹ 1	19 ¹ 36	F 8
S 9	7 15 17	18 ¹ 54'35	25 ¹ 53	5 ¹ 58	3 ¹ 53	10 ¹ 39	5 ¹ 17	16 ¹ 9	13 ¹ 13	0 ¹ 6	8 ¹ 33	21 ¹ 8	19 ¹ 49	15 ¹ 8	19 ¹ 31	S 9
S 10	7 19 14	19 ¹ 55'44	9 ¹ 11.49	7 ¹ 29	4 ¹ 42	11 ¹ 25	5 ¹ 20	16 ¹ 13	13 ¹ 12	0 ¹ 7	8 ¹ 32	21 ¹ 0	19 ¹ 46	15 ¹ 14	19 ¹ 27	S 10
M 11	7 23 10	20 ¹ 56'54	23 ¹ 15	9 ¹ 1	5 ¹ 33	12 ¹ 11	5 ¹ 22	16 ¹ 18	13 ¹ 12	0 ¹ 8	8 ¹ 30	20 ¹ 54	19 ¹ 43	15 ¹ 21	19 ¹ 23	M 11
T 12	7 27 7	21 ¹ 58'03	6 ¹ 11.13	10 ¹ 33	6 ¹ 24	12 ¹ 57	5 ¹ 25	16 ¹ 22	13 ¹ 11	0 ¹ 10	8 ¹ 29	20 ¹ 50	19 ¹ 40	15 ¹ 28	19 ¹ 19	T 12
W 13	7 31 3	22 ¹ 59'11	18 ¹ 47	12 ¹ 6	7 ¹ 15	13 ¹ 43	5 ¹ 27	16 ¹ 26	13 ¹ 11	0 ¹ 11	8 ¹ 28	20 ¹ D49	19 ¹ 36	15 ¹ 34	19 ¹ 15	W 13
T 14	7 35 0	24 ¹ 0'19	1 ¹ 8 1	13 ¹ 39	8 ¹ 8	14 ¹ 29	5 ¹ 31	16 ¹ 30	13 ¹ 11	0 ¹ 12	8 ¹ 26	20 ¹ 49	19 ¹ 33	15 ¹ 41	19 ¹ 10	T 14
F 15	7 38 56	25 ¹ 1'26	13 ¹ 1	15 ¹ 12	9 ¹ 1	15 ¹ 15	5 ¹ 34	16 ¹ 34	13 ¹ 10	0 ¹ 13	8 ¹ 25	20 ¹ 50	19 ¹ 30	15 ¹ 48	19 ¹ 6	F 15
S 16	7 42 53	26 ¹ 2'33	24 ¹ 51	16 ¹ 46	9 ¹ 55	16 ¹ 1	5 ¹ 37	16 ¹ 38	13 ¹ 10	0 ¹ 14	8 ¹ 24	20 ¹ R50	19 ¹ 27	15 ¹ 54	19 ¹ 2	S 16
S 17	7 46 50	27 ¹ 3'39	6 ¹ 11.38	18 ¹ 21	10 ¹ 49	16 ¹ 47	5 ¹ 41	16 ¹ 42	13 ¹ 10	0 ¹ 15	8 ¹ 22	20 ¹ 48	19 ¹ 24	16 ¹ 1	18 ¹ 58	S 17
M 18	7 50 46	28 ¹ 4'44	18 ¹ 25	19 ¹ 56	11 ¹ 45	17 ¹ 33	5 ¹ 45	16 ¹ 46	13 ¹ 10	0 ¹ 17	8 ¹ 21	20 ¹ 45	19 ¹ 21	16 ¹ 8	18 ¹ 54	M 18
T 19	7 54 43	29 ¹ 5'49	0 ¹ 11.17	21 ¹ 31	12 ¹ 40	18 ¹ 19	5 ¹ 48	16 ¹ 50	13 ¹ 9	0 ¹ 18	8 ¹ 20	20 ¹ 38	19 ¹ 17	16 ¹ 14	18 ¹ 50	T 19
W 20	7 58 39	0 ¹ 11.6'54	12 ¹ 16	23 ¹ 7	13 ¹ 37	19 ¹ 5	5 ¹ 53	16 ¹ 53	13 ¹ 9	0 ¹ 19	8 ¹ 18	20 ¹ 29	19 ¹ 14	16 ¹ 21	18 ¹ 46	W 20
T 21	8 2 36	1 ¹ 7'57	24 ¹ 25	24 ¹ 43	14 ¹ 33	19 ¹ 51	5 ¹ 57	16 ¹ 57	13 ¹ D 9	0 ¹ 21	8 ¹ 17	20 ¹ 17	19 ¹ 11	16 ¹ 28	18 ¹ 41	T 21
F 22	8 6 32	2 ¹ 9'01	6 ¹ 11.44	26 ¹ 20	15 ¹ 31	20 ¹ 37	6 ¹ 2	17 ¹ 0	13 ¹ 9	0 ¹ 22	8 ¹ 16	20 ¹ 4	19 ¹ 8	16 ¹ 34	18 ¹ 37	F 22
S 23	8 10 29	3 ¹ 10'03	19 ¹ 15	27 ¹ 58	16 ¹ 29	21 ¹ 22	6 ¹ 6	17 ¹ 4	13 ¹ 9	0 ¹ 23	8 ¹ 14	19 ¹ 50	19 ¹ 5	16 ¹ 41	18 ¹ 33	S 23
S 24	8 14 25	4 ¹ 11'05	1 ¹ 11.56	29 ¹ 36	17 ¹ 27	22 ¹ 8	6 ¹ 11	17 ¹ 7	13 ¹ 10	0 ¹ 25	8 ¹ 13	19 ¹ 38	19 ¹ 1	16 ¹ 48	18 ¹ 29	S 24
M 25	8 18 22	5 ¹ 12'07	14 ¹ 48	1 ¹ 11.51	18 ¹ 26	22 ¹ 54	6 ¹ 16	17 ¹ 10	13 ¹ 10	0 ¹ 26	8 ¹ 12	19 ¹ 27	18 ¹ 58	16 ¹ 54	18 ¹ 25	M 25
T 26	8 22 19	6 ¹ 13'08	27 ¹ 52	2 ¹ 54	19 ¹ 25	23 ¹ 40	6 ¹ 22	17 ¹ 13	13 ¹ 10	0 ¹ 28	8 ¹ 10	19 ¹ 19	18 ¹ 55	17 ¹ 1	18 ¹ 21	T 26
W 27	8 26 15	7 ¹ 14'08	11 ¹ 11.7	4 ¹ 34	20 ¹ 25	24 ¹ 25	6 ¹ 27	17 ¹ 16	13 ¹ 10	0 ¹ 29	8 ¹ 9	19 ¹ 14	18 ¹ 52	17 ¹ 8	18 ¹ 18	W 27
T 28	8 30 12	8 ¹ 15'08	24 ¹ 35	6 ¹ 14	21 ¹ 25	25 ¹ 11	6 ¹ 33	17 ¹ 19	13 ¹ 11	0 ¹ 31	8 ¹ 7	19 ¹ 11	18 ¹ 49	17 ¹ 14	18 ¹ 14	T 28
F 29	8 34 8	9 ¹ 16'07	8 ¹ 11.17	7 ¹ 55	22 ¹ 26	25 ¹ 57	6 ¹ 38	17 ¹ 22	13 ¹ 11	0 ¹ 32	8 ¹ 6	19 ¹ D11	18 ¹ 46	17 ¹ 21	18 ¹ 10	F 29
S 30	8 38 5	10 ¹ 17'06	22 ¹ 14	9 ¹ 37	23 ¹ 27	26 ¹ 42	6 ¹ 44	17 ¹ 24	13 ¹ 12	0 ¹ 34	8 ¹ 5	19 ¹ R11	18 ¹ 42	17 ¹ 28	18 ¹ 6	S 30
S 31	8 42 1	11 ¹ 18'05	6 ¹ 11.26	11 ¹ 11.20	24 ¹ 11.28	27 ¹ 11.28	6 ¹ 11.28	17 ¹ 11.27	13 ¹ 11.28	0 ¹ 11.36	8 ¹ 11.3	19 ¹ 11.30	18 ¹ 11.39	17 ¹ 11.34	18 ¹ 11.32	S 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	22s59	8s51	2n 4	23s 2	0n15	15s49	3n57	10s46	1s 0	12n 5	1s12	14s18	2n16	15n27	0s23	1s11	1s18
S 2	22 54	14 41	0 51	23 13	0 8	15 56	3 59	10 29	0 59	12 5	1 12	14 19	2 16	15 27	0 23	1 11	1 18
S 3	22 48	19 51	0s27	23 23	0 0	16 3	4 1	10 11	0 58	12 6	1 11	14 20	2 17	15 27	0 23	1 11	1 18
M 4	22 42	23 53	1 44	23 32	0s 7	16 11	4 2	9 53	0 57	12 7	1 11	14 21	2 17	15 26	0 23	1 10	1 18
T 5	22 36	26 18	2 56	23 39	0 15	16 18	4 4	9 35	0 56	12 7	1 11	14 23	2 17	15 26	0 23	1 10	1 18
W 6	22 29	26 48	3 55	23 46	0 22	16 26	4 5	9 17	0 55	12 8	1 11	14 24	2 17	15 26	0 23	1 10	1 17
T 7	22 21	25 20	4 38	23 52	0 29	16 35	4 6	8 59	0 54	12 9	1 10	14 25	2 17	15 26	0 23	1 9	1 17
F 8	22 13	22 8	5 1	23 56	0 35	16 43	4 6	8 41	0 53	12 10	1 10	14 26	2 17	15 26	0 23	1 9	1 17
S 9	22 5	17 39	5 4	23 59	0 42	16 52	4 7	8 22	0 53	12 11	1 10	14 27	2 18	15 25	0 23	1 8	1 17
S 10	21 56	12 20	4 49	24 1	0 48	17 0	4 7	8 4	0 52	12 12	1 9	14 28	2 18	15 25	0 23	1 8	1 17
M 11	21 47	6 38	4 18	24 1	0 55	17 9	4 7	7 46	0 51	12 13	1 9	14 29	2 18	15 25	0 23	1 8	1 17
T 12	21 38	0 49	3 35	24 0	1 1	17 18	4 7	7 27	0 50	12 14	1 9	14 30	2 18	15 25	0 23	1 7	1 17
W 13	21 28	4n51	2 43	23 58	1 6	17 27	4 6	7 9	0 49	12 15	1 8	14 32	2 18	15 25	0 23	1 7	1 17
T 14	21 17	10 12	1 44	23 55	1 12	17 36	4 6	6 50	0 48	12 16	1 8	14 32	2 19	15 25	0 23	1 6	1 17
F 15	21 6	15 4	0 42	23 50	1 17	17 45	4 5	6 32	0 47	12 18	1 8	14 33	2 19	15 25	0 23	1 6	1 17
S 16	20 55	19 19	0n21	23 44	1 22	17 53	4 4	6 13	0 46	12 19	1 8	14 34	2 19	15 25	0 23	1 5	1 17
S 17	20 44	22 46	1 23	23 36	1 27	18 2	4 3	5 54	0 45	12 21	1 7	14 35	2 19	15 25	0 23	1 5	1 17
M 18	20 32	25 16	2 21	23 27	1 32	18 11	4 2	5 36	0 44	12 22	1 7	14 36	2 19	15 25	0 23	1 4	1 17
T 19	20 19	26 39	3 14	23 17	1 36	18 19	4 0	5 17	0 44	12 24	1 7	14 37	2 20	15 25	0 23	1 4	1 17
W 20	20 6	26 48	3 58	23 5	1 41	18 28	3 59	4 58	0 43	12 25	1 6	14 38	2 20	15 25	0 23	1 3	1 17
T 21	19 53	25 40	4 31	22 52	1 44	18 36	3 57	4 40	0 42	12 27	1 6	14 39	2 20	15 25	0 23	1 2	1 17
F 22	19 40	23 18	4 53	22 38	1 48	18 44	3 55	4 21	0 41	12 29	1 6	14 39	2 20	15 25	0 23	1 2	1 17
S 23	19 26	19 48	5 1	22 22	1 51	18 52	3 53	4 2	0 40	12 31	1 5	14 40	2 20	15 25	0 23	1 1	1 17

ASTRODIENST EPHEMERIS for the year 2190
geocentric

MARCH 2190

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
M 1	10 36 21	10♈37'28	1♉18	28♊37	26♋6	19♌17	10♍54	17°R59	13♎49	1♏31	7°R26	16°R 7	17♐7	20♑48	16°R40	M 1
T 2	10 40 18	11°37'46	15°34	29°25	27°14	20° 1	11° 5	17♌58	13°51	1°34	7♎25	16♏3	17° 4	20°54	16♐38	T 2
W 3	10 44 15	12°38'04	29°51	0♏5	28°23	20°46	11°15	17°58	13°53	1°36	7°24	15°57	17° 1	21° 1	16°37	W 3
T 4	10 48 11	13°38'20	14♏5	0°35	29°31	21°30	11°26	17°57	13°55	1°38	7°23	15°48	16°58	21° 8	16°35	T 4
F 5	10 52 8	14°38'34	28°11	0°56	0♏40	22°15	11°36	17°56	13°57	1°40	7°22	15°37	16°54	21°14	16°34	F 5
S 6	10 56 4	15°38'46	12♈5	1° 8	1°49	22°59	11°47	17°55	13°59	1°42	7°21	15°27	16°51	21°21	16°33	S 6
S 7	11 0 1	16°38'56	25°42	1°R10	2°58	23°44	11°58	17°54	14° 1	1°44	7°20	15°17	16°48	21°28	16°31	S 7
M 8	11 3 57	17°39'05	8♏58	1° 3	4° 7	24°28	12° 9	17°53	14° 4	1°47	7°19	15°10	16°45	21°34	16°30	M 8
T 9	11 7 54	18°39'12	21°54	0°47	5°16	25°12	12°20	17°52	14° 6	1°49	7°18	15° 5	16°42	21°41	16°29	T 9
W10	11 11 50	19°39'17	4♈30	0°23	6°25	25°57	12°31	17°51	14° 8	1°51	7°17	15° 2	16°39	21°48	16°28	W10
T 11	11 15 47	20°39'19	16°47	29♈50	7°35	26°41	12°43	17°50	14°10	1°53	7°16	15°D 2	16°35	21°54	16°27	T 11
F 12	11 19 44	21°39'20	28°51	29°10	8°44	27°25	12°54	17°48	14°13	1°56	7°15	15° 2	16°32	22° 1	16°26	F 12
S 13	11 23 40	22°39'19	10♑45	28°25	9°54	28° 9	13° 6	17°46	14°15	1°58	7°14	15° 3	16°29	22° 8	16°26	S 13
S 14	11 27 37	23°39'15	22°34	27°34	11° 3	28°53	13°17	17°45	14°18	2° 0	7°13	15°R 4	16°26	22°14	16°25	S 14
M15	11 31 33	24°39'09	4♐25	26°40	12°13	29°37	13°29	17°43	14°20	2° 2	7°13	15° 3	16°23	22°21	16°24	M15
T 16	11 35 30	25°39'02	16°21	25°43	13°23	0♉21	13°40	17°41	14°23	2° 5	7°12	15° 1	16°19	22°28	16°24	T 16
W17	11 39 26	26°38'51	28°29	24°45	14°33	1° 5	13°52	17°39	14°25	2° 7	7°11	14°56	16°16	22°34	16°24	W17
T 18	11 43 23	27°38'39	10♒51	23°47	15°43	1°49	14° 4	17°37	14°28	2° 9	7°10	14°50	16°13	22°41	16°23	T 18
F 19	11 47 19	28°38'25	23°31	22°51	16°53	2°33	14°16	17°35	14°30	2°11	7° 9	14°43	16°10	22°48	16°23	F 19
S 20	11 51 16	29°38'08	6♐31	21°57	18° 3	3°17	14°28	17°33	14°33	2°14	7° 9	14°34	16° 7	22°54	16°D23	S 20
S 21	11 55 13	0♏37'49	19°49	21° 6	19°13	4° 0	14°40	17°31	14°36	2°16	7° 8	14°27	16° 4	23° 1	16°23	S 21
M22	11 59 9	1°37'28	3♑25	20°20	20°24	4°44	14°53	17°28	14°39	2°18	7° 7	14°20	16° 0	23° 8	16°23	M22
T 23	12 3 6	2°37'06	17°16	19°39	21°34	5°28	15° 5	17°26	14°41	2°21	7° 6	14°15	15°57	23°14	16°23	T 23
W24	12 7 2	3°36'41	1♒18	19° 3	22°44	6°11	15°17	17°23	14°44	2°23	7° 6	14°13	15°54	23°21	16°24	W24
T 25	12 10 59	4°36'14	15°28	18°33	23°55	6°55	15°30	17°20	14°47	2°25	7° 5	14°D12	15°51	23°28	16°24	T 25
F 26	12 14 55	5°35'46	29°41	18° 9	25° 5	7°39	15°42	17°18	14°50	2°27	7° 5	14°13	15°48	23°34	16°25	F 26
S 27	12 18 52	6°35'16	13♈55	17°51	26°16	8°22	15°55	17°15	14°53	2°30	7° 4	14°14	15°44	23°41	16°25	S 27
S 28	12 22 48	7°34'45	28° 8	17°39	27°27	9° 5	16° 7	17°12	14°55	2°32	7° 3	14°15	15°41	23°48	16°26	S 28
M29	12 26 45	8°34'11	12♉17	17°33	28°38	9°49	16°20	17° 9	14°58	2°34	7° 3	14°R16	15°38	23°54	16°27	M29
T 30	12 30 42	9°33'36	2♊21	17°D33	29°48	10°32	16°33	17° 6	15° 1	2°36	7° 2	14°15	15°35	24° 1	16°28	T 30
W31	12 34 38	10°Y32'59	10♋19	17♈39	0♉59	11♌15	16♍46	17♎3	15♏4	2°Y39	7♏2	14♐12	15♑32	24♒8	16♓29	W31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒	♓	♈	♉	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	7s35	27s 1	3s36	1n 0	1n42	19s20	1n36	7n24	0s 9	14n12	0s56	14s48	2n29	15n38	0s22	0s34	1s16	23n 0	4n47	16n39	16n56	25n57	15n11	7s14											
T 2	7 12	26 51	4 22	1 33	1 56	19 12	1 32	7 42	0 8	14 15	0 56	14 47	2 29	15 38	0 22	0 33	1 16	23 1	4 47	16 38	16 55	25 58	15 12	7 14											
W 3	6 49	24 55	4 52	2 2	2 11	19 3	1 27	7 59	0 7	14 19	0 56	14 47	2 29	15 39	0 22	0 32	1 16	23 1	4 47	16 36	16 54	25 59	15 13	7 13											
T 4	6 26	21 25	5 3	2 26	2 24	18 53	1 23	8 17	0 6	14 22	0 55	14 46	2 29	15 39	0 22	0 31	1 16	23 1	4 47	16 33	16 53	26 0	15 14	7 13											
F 5	6 2	16 43	4 56	2 47	2 38	18 43	1 18	8 34	0 6	14 25	0 55	14 46	2 29	15 40	0 22	0 30	1 16	23 2	4 47	16 30	16 52	26 2	15 14	7 12											
S 6	5 39	11 12	4 32	3 3	2 50	18 32	1 14	8 51	0 5	14 29	0 55	14 46	2 30	15 41	0 22	0 29	1 16	23 2	4 47	16 27	16 51	26 3	15 15	7 12											
S 7	5 16	5 16	3 52	3 14	3 1	18 21	1 9	9 8	0 4	14 32	0 55	14 45	2 30	15 41	0 22	0 28	1 16	23 2	4 47	16 24	16 50	26 4	15 16	7 11											
M 8	4 53	0n47	3 0	3 21	3 11	18 9	1 5	9 25	0 3	14 36	0 55	14 45	2 30	15 42	0 22	0 27	1 16	23 2	4 47	16 22	16 50	26 5	15 16	7 11											
T 9	4 29	6 40	2 1	3 22	3 20	17 57	1 1	9 42	0 3	14 40	0 54	14 44	2 30	15 43	0 22	0 27	1 16	23 3	4 47	16 21	16 49	26 6	15 17	7 10											
W10	4 6	12 7	0 56	3 19	3 27	17 44	0 56	9 59	0 2	14 43	0 54	14 44	2 30	15 43	0 21	0 26	1 16	23 3	4 47	16 20	16 48	26 7	15 18	7 9											
T 11	3 42	16 59	0n 9	3 11	3 33	17 31	0 52	10 16	0 1	14 47	0 54	14 43	2 31	15 44	0 21	0 25	1 16	23 3	4 47	16 20	16 47	26 9	15 18	7 9											
F 12	3 18	21 5	1 14	2 59	3 36	17 17	0 48	10 32	0 0	14 50	0 54	14 42	2 31	15 45	0 21	0 24	1 16	23 3	4 46	16 20	16 46	26 10	15 19	7 8											
S 13	2 55	24 15	2 14	2 42	3 38	17 3	0 43	10 49	0n 0	14 54	0 54	14 42	2 31	15 46	0 21	0 23	1 16	23 3	4 46	16 20	16 45	26 11	15 20	7 8											
S 14	2 31	26 20	3 8	2 21	3 37	16 49	0 39	11 5	0 1	14 58	0 54	14 41	2 31	15 46	0 21	0 22	1 16	23 4	4 46	16 20	16 44	26 12	15 20	7 7											
M15	2 7	27 15	3 54	1 57	3 35	16 33	0 35	11 21	0 2	15 1	0 53	14 40	2 31	15 47	0 21	0 21	1 16	23 4	4 46	16 20	16 43	26 13	15 21	7 7											
T 16	1 44	26 53	4 30	1 31	3 30	16 18	0 31	11 37	0 3	15 5	0 53	14 40	2 32	15 48	0 21	0 20	1 16	23 4	4 46	16 20	16 42	26 14	15 22	7 6											
W17	1 20	25 16	4 55	1 2	3 24	16 2	0 27	11 54	0 3	15 9	0 53	14 39	2 32	15 49	0 21	0 19	1 16	23 4	4 46	16 18	16 41	26 15	15 22	7 5											
T 18	0 56	22 25	5 7	0 31	3 15	15 45	0 23	12 9	0 4	15 12	0 53	14 38	2 32	15 49	0 21	0 19	1 16	23 4	4 46	16 16	16 40	26 16	15 23	7 5											
F 19	0 32	18 27	5 4	0 0	3 5	15 28	0 19	12 25	0 5	15 16	0 53	14 37	2 32	15 50	0 21	0 18	1 16	23 5	4 46	16 14	16 40	26 17	15 24	7 4											
S 20	0 9	13 32	4 46	0s31	2 54	15 11	0 15	12 41	0 5	15 20	0 52	14 37	2 32	15 51	0 21	0 17	1 16	23 5	4 46	16 12	16 39	26 19	15 24	7 4											
S 21	0n15	7 53	4 12	1 3	2 42	14 53	0 11	12 56	0 6	15 24	0 52	14 36	2 33	15 52	0 21	0 16	1 16	23 5	4 46	16 9	16 38	26 20	15 25	7 3											
M22	0 39	1 45	3 23	1 33	2 28	14 34	0 7	13 12	0 7	15 27	0 52	14 35	2 33	15 53	0 21	0 15	1 16	23 5	4 46	16 7	16 37	26 21	15 25	7 2											
T 23	1 2	4s36	2 21	2 2	2 14	14 16	0 3	13 27	0 8	15 31	0 52	14 34	2 33	15 53	0 21	0 14	1 16	23 5	4 46	16 6	16 36	26 22	15 26	7 2											
W24	1 26	10 50	1 9	2 30	1 59	13 56	0s 1	13 42	0 8	15 35	0 52	14 33	2 33	15 54	0 21	0 13	1 16	23 5	4 46	16 5	16 35	26 23	15 26	7 1											
T 25	1 50	16 34	0s 7	2 56	1 44	13 37	0 5	13 57	0 9	15 39	0 52	14 32	2 33	15 55	0 21	0 12	1 16	23 6	4 46	16 5	16 34	26 24	15 27	7 1											
F 26	2 13	21 25	1 23	3 19	1 29	13 17	0 9	14 12	0 10	15 42	0 51	14 31	2 33	15 56	0 21	0 11	1 16	23 6	4 46	16 5	16 33	26 25	15 28	7 0											
S 27	2 37	25 0	2 35	3 40	1 13	12 57	0 12	14 27	0 10	15 46	0 51	14 31	2 34	15 57	0 21	0 10	1 16	23 6	4 46	16 6	16 32	26 26	15 28	6 59											
S 28	3 0	27 1	3 36	3 59	0 58	12 36	0 16	14 41	0 11	15 50	0 51	14 30	2 34	15 58	0 21	0 10	1 16	23 6	4 46	16 6	16 31	26 27	15 29	6 59											
M29	3 24	27 14	4 25	4 15	0 43	12 15	0 20	14 56	0 12	15 54	0 51	14 29	2 34	15 59	0 21	0 9	1 16	23 6	4 46	16 6	16 30	26 28	15 29	6 58											
T 30	3 47	25 43	4 57	4 29	0 28	11 53	0 23	15 10	0 12	15 57	0 51	14 28	2 34	15 59	0 21	0 8	1 16	23 6	4 46	16 6	16 29	26 29	15 30	6 58											
W31	4n10	22s37	5s11	4s40	0n14	11s32	0s27	15n24	0n13	16n 1	0s51	14s27	2n34	16n 0	0s21	0s 7	1s16	23n 6	4n46	16n 5	16n29	26n30	15n30	6s57											

ASTRODIENST EPHEMERIS for the year 2190

geocentric

APRIL 2190

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 38 35	11°32'21"	24°8' 8"	17°50' 50"	2°10' 10"	11°59' 59"	16°59' 59"	17°R 0	15°8' 7"	2°41' 41"	7°R 1	14°R 8	15°8' 29"	24°11' 14"	16°53' 30"	T 1
F 2	12 42 31	12°31'40"	7°46' 46"	18° 6' 6"	3°21' 21"	12°42' 42"	17°12' 12"	16°15' 56"	15°10' 10"	2°43' 43"	7°R 1	14°8' 3	15°25' 25"	24°21' 21"	16°31' 31"	F 2
S 3	12 46 28	13°30'58"	21°13' 13"	18°27' 27"	4°32' 32"	13°25' 25"	17°25' 25"	16°53' 53"	15°13' 13"	2°45' 45"	7° 0	13°58' 58"	15°22' 22"	24°28' 28"	16°32' 32"	S 3
S 4	12 50 24	14°30'14"	4°42' 22"	18°53' 53"	5°43' 43"	14° 8' 8"	17°38' 38"	16°50' 50"	15°16' 16"	2°48' 48"	7° 0	13°53' 53"	15°19' 19"	24°34' 34"	16°33' 33"	S 4
M 5	12 54 21	15°29'27"	17°25' 25"	19°23' 23"	6°55' 55"	14°51' 51"	17°51' 51"	16°46' 46"	15°20' 20"	2°50' 50"	7° 0	13°50' 50"	15°16' 16"	24°41' 41"	16°35' 35"	M 5
T 6	12 58 17	16°28'39"	0°8' 3	19°58' 58"	8° 6' 6"	15°34' 34"	18° 4' 4"	16°43' 43"	15°23' 23"	2°52' 52"	6°59' 59"	13°47' 47"	15°13' 13"	24°48' 48"	16°36' 36"	T 6
W 7	13 2 14	17°27'48"	12°29' 29"	20°37' 37"	9°17' 17"	16°17' 17"	18°17' 17"	16°39' 39"	15°26' 26"	2°54' 54"	6°59' 59"	13°D47	15°10' 10"	24°54' 54"	16°38' 38"	W 7
T 8	13 6 10	18°26'56"	24°41' 41"	21°19' 19"	10°28' 28"	17° 0' 0"	18°30' 30"	16°35' 35"	15°29' 29"	2°57' 57"	6°59' 59"	13°47' 47"	15° 6' 6"	25° 1' 1"	16°40' 40"	T 8
F 9	13 10 7	19°26'01"	6°11' 43"	22° 5' 5"	11°40' 40"	17°43' 43"	18°44' 44"	16°32' 32"	15°32' 32"	2°59' 59"	6°58' 58"	13°48' 48"	15° 3' 3"	25° 8' 8"	16°41' 41"	F 9
S 10	13 14 4	20°25'04"	18°36' 36"	22°55' 55"	12°51' 51"	18°26' 26"	18°57' 57"	16°28' 28"	15°35' 35"	3° 1' 1"	6°58' 58"	13°50' 50"	15° 0' 0"	25°15' 15"	16°43' 43"	S 10
S 11	13 18 0	21°24'05"	0°26' 26"	23°47' 47"	14° 2' 2"	19° 9' 9"	19°11' 11"	16°24' 24"	15°39' 39"	3° 3' 3"	6°58' 58"	13°52' 52"	14°57' 57"	25°21' 21"	16°45' 45"	S 11
M 12	13 21 57	22°23'04"	12°17' 17"	24°43' 43"	15°14' 14"	19°52' 52"	19°24' 24"	16°20' 20"	15°42' 42"	3° 5' 5"	6°58' 58"	13°53' 53"	14°54' 54"	25°28' 28"	16°47' 47"	M 12
T 13	13 25 53	23°22'01"	24°14' 14"	25°42' 42"	16°25' 25"	20°34' 34"	19°38' 38"	16°16' 16"	15°45' 45"	3° 8' 8"	6°58' 58"	13°R53	14°50' 50"	25°35' 35"	16°49' 49"	T 13
W 14	13 29 50	24°20'55"	6°12' 12"	26°43' 43"	17°37' 37"	21°17' 17"	19°51' 51"	16°12' 12"	15°48' 48"	3°10' 10"	6°57' 57"	13°53' 53"	14°47' 47"	25°41' 41"	16°52' 52"	W 14
T 15	13 33 46	25°19'46"	18°43' 43"	27°48' 48"	18°48' 48"	22° 0' 0"	20° 5' 5"	16° 8' 8"	15°52' 52"	3°12' 12"	6°57' 57"	13°51' 51"	14°44' 44"	25°48' 48"	16°54' 54"	T 15
F 16	13 37 43	26°18'36"	1°17' 25"	28°54' 54"	20° 0' 0"	22°42' 42"	20°18' 18"	16° 4' 4"	15°55' 55"	3°14' 14"	6°57' 57"	13°49' 49"	14°41' 41"	25°55' 55"	16°56' 56"	F 16
S 17	13 41 39	27°17'23"	14°28' 28"	0°43' 3	21°12' 12"	23°25' 25"	20°32' 32"	16° 0' 0"	15°58' 58"	3°16' 16"	6°57' 57"	13°47' 47"	14°38' 38"	26° 1' 1"	16°59' 59"	S 17
S 18	13 45 36	28°16'08"	27°54' 54"	1°15' 15"	22°23' 23"	24° 7' 7"	20°46' 46"	15°56' 56"	16° 2' 2"	3°18' 18"	6°57' 57"	13°45' 45"	14°35' 35"	26° 8' 8"	17° 1' 1"	S 18
M 19	13 49 33	29°14'51"	11°12' 12"	2°28' 28"	23°35' 35"	24°50' 50"	20°59' 59"	15°51' 51"	16° 5' 5"	3°20' 20"	6°D57	13°43' 43"	14°31' 31"	26°15' 15"	17° 4' 4"	M 19
T 20	13 53 29	0°13'32"	25°52' 52"	3°44' 44"	24°47' 47"	25°32' 32"	21°13' 13"	15°47' 47"	16° 8' 8"	3°22' 22"	6°57' 57"	13°42' 42"	14°28' 28"	26°21' 21"	17° 7' 7"	T 20
W 21	13 57 26	1°12'11"	10°11' 18"	5° 2' 2"	25°58' 58"	26°14' 14"	21°27' 27"	15°43' 43"	16°12' 12"	3°25' 25"	6°57' 57"	13°D41	14°25' 25"	26°28' 28"	17° 9' 9"	W 21
T 22	14 1 22	2°10'48"	24°55' 55"	6°22' 22"	27°10' 10"	26°57' 57"	21°41' 41"	15°38' 38"	16°15' 15"	3°27' 27"	6°57' 57"	13°41' 41"	14°22' 22"	26°35' 35"	17°12' 12"	T 22
F 23	14 5 19	3° 9'24"	9°17' 36"	7°44' 44"	28°22' 22"	27°39' 39"	21°55' 55"	15°34' 34"	16°18' 18"	3°29' 29"	6°57' 57"	13°42' 42"	14°19' 19"	26°41' 41"	17°15' 15"	F 23
S 24	14 9 15	4° 7'58"	24°15' 15"	9° 8' 8"	29°34' 34"	28°21' 21"	22° 8' 8"	15°30' 30"	16°22' 22"	3°31' 31"	6°57' 57"	13°43' 43"	14°16' 16"	26°48' 48"	17°18' 18"	S 24
S 25	14 13 12	5° 6'30"	8°36' 46"	10°34' 34"	0°46' 46"	29° 3' 3"	22°22' 22"	15°25' 25"	16°25' 25"	3°33' 33"	6°58' 58"	13°44' 44"	14°12' 12"	26°55' 55"	17°22' 22"	S 25
M 26	14 17 8	6° 5'00"	23° 6' 6"	12° 2' 2"	1°57' 57"	29°45' 45"	22°36' 36"	15°21' 21"	16°29' 29"	3°35' 35"	6°58' 58"	13°44' 44"	14° 9' 9"	27° 1' 1"	17°25' 25"	M 26
T 27	14 21 5	7° 3'29"	7°12' 12"	13°32' 32"	3° 9' 9"	0°11' 28"	22°50' 50"	15°16' 16"	16°32' 32"	3°37' 37"	6°58' 58"	13°R44	14° 6' 6"	27° 8' 8"	17°28' 28"	T 27
W 28	14 25 2	8° 1'57"	21° 2' 2"	15° 3' 3"	4°21' 21"	1°10' 10"	23° 4' 4"	15°12' 12"	16°36' 36"	3°39' 39"	6°58' 58"	13°44' 44"	14° 3' 3"	27°15' 15"	17°31' 31"	W 28
T 29	14 28 58	9° 0'22"	4°17' 36"	16°37' 37"	5°33' 33"	1°52' 52"	23°18' 18"	15° 7' 7"	16°39' 39"	3°41' 41"	6°58' 58"	13°44' 44"	14° 0' 0"	27°21' 21"	17°35' 35"	T 29
F 30	14 32 55	9°58'46"	17°15' 54"	18°12' 12"	6°45' 45"	2°11' 34"	23°32' 32"	15°11' 11"	16°42' 42"	3°43' 43"	6°D59	13°R43	13°56' 56"	27°11' 28"	17°38' 38"	F 30

Day	☉	☾			♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	4n34	18s17	5s 7	4s49	0s 0	11s 9	0s30	15n38	0n14	16n 5	0s50	14s26	2n34	16n 1	0s21	0s 6	1s16	23n 6	4n46	16n 4	16n28	26n31	15n31	6s56									
F 2	4 57	13 4	4 46	4 55	0 14	10 47	0 33	15 52	0 14	16 9	0 50	14 25	2 35	16 2	0 21	0 5	1 16	23 6	4 46	16 2	16 27	26 32	15 31	6 56									
S 3	5 20	7 17	4 9	4 59	0 27	10 24	0 37	16 5	0 15	16 13	0 50	14 23	2 35	16 3	0 21	0 4	1 16	23 6	4 46	16 1	16 26	26 33	15 32	6 55									
S 4	5 43	1 18	3 19	5 0	0 39	10 1	0 40	16 19	0 16	16 16	0 50	14 22	2 35	16 4	0 21	0 3	1 16	23 6	4 46	15 59	16 25	26 34	15 32	6 54									
M 5	6 6	4n39	2 20	4 59	0 51	9 38	0 43	16 32	0 16	16 20	0 50	14 21	2 35	16 5	0 21	0 3	1 16	23 7	4 46	15 58	16 24	26 35	15 32	6 54									
T 6	6 28	10 19	1 15	4 56	1 2	9 14	0 46	16 45	0 17	16 24	0 50	14 20	2 35	16 6	0 21	0 2	1 16	23 7	4 46	15 58	16 23	26 36	15 33	6 53									
W 7	6 51	15 27	0 7	4 50	1 13	8 50	0 49	16 58	0 18	16 28	0 50	14 19	2 35	16 7	0 21	0 1	1 16	23 7	4 46	15 58	16 22	26 37	15 33	6 53									
T 8	7 13	19 53	1n 0	4 43	1 23	8 26	0 52	17 11	0 18	16 32	0 49	14 18	2 35	16 8	0 21	0n 0	1 16	23 7	4 45	15 58	16 21	26 38	15 34	6 52									
F 9	7 36	23 26	2 3	4 33	1 33	8 2	0 55	17 24	0 19	16 35	0 49	14 17	2 35	16 9	0 21	0 1	1 16	23 7	4 45	15 58	16 20	26 39	15 34	6 51									
S 10	7 58	25 55	3 0	4 22	1 41	7 37	0 57	17 37	0 19	16 39	0 49	14 16	2 36	16 10	0 21	0 2	1 16	23 7	4 45	15 59	16 19	26 39	15 34	6 51									
S 11	8 20	27 14	3 49	4 8	1 50	7 12	1 0	17 49	0 20	16 43	0 49	14 14	2 36	16 10	0 21	0 3	1 16	23 7	4 45	15 59	16 18	26 40	15 35	6 50									
M 12	8 42	27 19	4 29	3 53	1 57	6 47	1 3	18 1	0 21	16 47	0 49	14 13	2 36	16 11	0 21	0 4	1 16	23 7	4 45	15 59	16 17	26 41	15 35	6 50									
T 13	9 4	26 7	4 57	3 37	2 4	6 21	1 5	18 13	0 21	16 50	0 49	14 12	2 36	16 12	0 21	0 4	1 16	23 7	4 45	16 0	16 16	26 42	15 35	6 49									
W 14	9 26	23 43	5 13	3 18	2 11	5 56	1 8	18 25	0 22	16 54	0 49	14 11	2 36	16 13	0 21	0 5	1 16	23 7	4 45	15 59	16 16	26 43	15 36	6 49									
T 15	9 47	20 10	5 14	2 58	2 17	5 30	1 10	18 37	0 23	16 58	0 49	14 9	2 36	16 14	0 21	0 6	1 16	23 7	4 45	15 59	16 15	26 44	15 36	6 48									
F 16	10 9	15 39	5 1	2 36	2 22	5 4	1 13	18 48	0 23	17 2	0 48	14 8	2 36	16 15	0 21	0 7	1 17	23 7	4 45	15 58	16 14	26 45	15 36	6 47									
S 17	10 30	10 17	4 32	2 13	2 27	4 38	1 15	18 59	0 24	17 5	0 48	14 7	2 36	16 16	0 21	0 8	1 17	23 7	4 45	15 58	16 13	26 46	15 37	6 47									
S 18	10 51	4 18	3 47	1 49	2 31	4 12	1 17	19 11	0 24	17 9	0 48	14 6	2 36	16 17	0 21	0 8	1 17	23 7	4 45	15 57	16 12	26 47	15 37	6 46									
M 19	11 12	2s 3	2 48	1 23	2 34	3 45	1 19	19 22	0 25	17 13	0 48	14 4	2 36	16 18	0 21	0 9	1 17	23 6	4 45	15 56	16 11	26 47	15 37	6 46									
T 20	11 32	8 29	1 37	0 55	2 37	3 19	1 21	19 32	0 25	17 17	0 48	14 3	2 36	16 19	0 21	0 10	1 17	23 6	4 45	15 56	16 10	26 48	15 37	6 45									
W 21	11 53	14 36	0 19	0 27	2 40	2 52	1 23	19 43	0 26	17 20	0 48	14 2	2 36	16 20	0 21	0 11	1 17	23 6	4 45	15 56	16 9	26 49	15 38	6 44									
T 22	12 13	19 59	1s 2	0n 3	2 42	2 25	1 25	19 53	0 27	17 24	0 48	14 1	2 36	16 21	0 21	0 12	1 17	23 6	4 45	15 56	16 8	26 50	15 38	6 44									
F 23	12 33	24 9	2 19	0 34	2 43	1 58	1 27	20 4	0 27	17 28	0 48	13 59	2 36	16 22	0 21	0 12	1 17	23 6	4 45	15 56	16 7	26 51	15 38	6 43									
S 24	12 53	26 44	3 26	1 7	2 44	1 31	1 28	20 14	0 28	17 31	0 47	13 58	2 36	16 23	0 21	0 13	1 17	23 6	4 45	15 56	16 6	26 52	15 38	6 43									
S 25	13 13	27 19	4 20	1 40	2 44	1 4	1 30	20 23	0 28	17 35	0 47	13 57	2 36	16 24	0 21	0 14	1 17	23 6	4 45	15 57	16 5	26 52	15 38	6 42									
M 26	13 32	26 17	4 57	2 15	2 43	0 37	1 31	20 33	0 29	17 39	0 47	13 55	2 37	16 25	0 21	0 15	1 17	23 6	4 44	15 57	16 4	26 53	15 39	6 42									
T 27	13 51	23 32	5 15	2 50	2 42	0 10	1 33	20 42	0 29	17 42	0 47	13 54	2 37	16 26	0 21	0 16	1 17	23 6	4 44	15 57	16 3	26 54	15 39	6 41									
W 28	14 10	19 26	5 15	3 27	2 41	0n17	1 34	20 52	0 30	17 46	0 47	13 53	2 37	16 27	0 21	0 16	1 17	23 6	4 44	15 57	16 2	26 55	15 39	6 41									
T 29	14 29	14 25	4 56	4 5	2 39	0 45	1 35	21 1	0 31	17 49	0 47	13 52	2 37	16 28	0 21	0 17	1 17	23 6	4 44	15 57	16 1	26 56	15 39	6 40									
F 30	14n48	8s49	4s23	4n43	2s36	1n12	1s37	21n10	0n31	17n53	0s47	13s50	2n37	16n29	0s21	0n18	1s17	23n 5	4n44	15n57	16n 0	26n56	15n39	6s40									

ASTRODIENST EPHEMERIS for the year 2190

geocentric

MAY 2190

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 36 51	10♂57'09	0♀56	19♀49	7♀57	3♂15	23♂46	14°R58	16♂46	3♀44	6♂59	13°R43	13♂53	27♂35	17♂42	S 1
S 2	14 40 48	11°55'30	13°45	21°28	9° 9	3°57	24° 1	14♂54	16°49	3°46	6°59	13♂43	13°50	27°41	17°46	S 2
M 3	14 44 44	12°53'49	26°21	23° 8	10°21	4°39	24°15	14°49	16°53	3°48	7° 0	13°42	13°47	27°48	17°49	M 3
T 4	14 48 41	13°52'06	8♂44	24°51	11°33	5°21	24°29	14°45	16°56	3°50	7° 0	13°42	13°44	27°55	17°53	T 4
W 5	14 52 37	14°50'22	20°57	26°35	12°46	6° 3	24°43	14°40	17° 0	3°52	7° 0	13°42	13°41	28° 2	17°57	W 5
T 6	14 56 34	15°48'36	3♂11	28°21	13°58	6°44	24°57	14°36	17° 3	3°54	7° 1	13°42	13°37	28° 8	18° 1	T 6
F 7	15 0 31	16°46'48	14°57	0♂ 9	15°10	7°26	25°11	14°31	17° 7	3°55	7° 1	13°42	13°34	28°15	18° 5	F 7
S 8	15 4 27	17°44'59	26°49	1°58	16°22	8° 8	25°25	14°27	17°10	3°57	7° 2	13°42	13°31	28°22	18° 9	S 8
S 9	15 8 24	18°43'08	8♂39	3°50	17°34	8°49	25°39	14°22	17°14	3°59	7° 2	13°41	13°28	28°28	18°13	S 9
M10	15 12 20	19°41'14	20°30	5°43	18°46	9°31	25°54	14°18	17°17	4° 1	7° 3	13°40	13°25	28°35	18°18	M10
T 11	15 16 17	20°39'19	2♂26	7°38	19°59	10°12	26° 8	14°13	17°21	4° 2	7° 3	13°40	13°22	28°42	18°22	T 11
W12	15 20 13	21°37'22	14°32	9°35	21°11	10°54	26°22	14° 9	17°24	4° 4	7° 4	13°39	13°18	28°48	18°26	W12
T 13	15 24 10	22°35'23	26°52	11°34	22°23	11°35	26°36	14° 4	17°27	4° 6	7° 5	13°D39	13°15	28°55	18°31	T 13
F 14	15 28 6	23°33'23	9♂30	13°34	23°35	12°16	26°50	14° 0	17°31	4° 7	7° 5	13°40	13°12	29° 2	18°35	F 14
S 15	15 32 3	24°31'20	22°29	15°37	24°48	12°58	27° 5	13°55	17°34	4° 9	7° 6	13°40	13° 9	29° 8	18°40	S 15
S 16	15 36 0	25°29'15	5♂54	17°40	26° 0	13°39	27°19	13°51	17°38	4°11	7° 7	13°41	13° 6	29°15	18°44	S 16
M17	15 39 56	26°27'09	19°45	19°46	27°12	14°20	27°33	13°46	17°41	4°12	7° 7	13°42	13° 2	29°22	18°49	M17
T 18	15 43 53	27°25'01	4♂11	21°52	28°25	15° 1	27°47	13°42	17°45	4°14	7° 8	13°43	12°59	29°28	18°54	T 18
W19	15 47 49	28°22'52	18°39	24° 0	29°37	15°42	28° 1	13°38	17°48	4°15	7° 9	13°R43	12°56	29°35	18°58	W19
T 20	15 51 46	29°20'41	3♂34	26°10	0♂49	16°23	28°16	13°33	17°52	4°17	7° 9	13°42	12°53	29°42	19° 3	T 20
F 21	15 55 42	0♂18'28	18°37	28°20	2° 2	17° 4	28°30	13°29	17°55	4°18	7°10	13°41	12°50	29°48	19° 8	F 21
S 22	15 59 39	1°16'15	3♂40	0♂30	3°14	17°45	28°44	13°25	17°58	4°20	7°11	13°39	12°47	29°55	19°13	S 22
S 23	16 3 35	2°14'00	18°34	2°42	4°26	18°26	28°58	13°21	18° 2	4°21	7°12	13°37	12°43	0♂ 2	19°18	S 23
M24	16 7 32	3°11'44	3♂12	4°53	5°39	19° 7	29°12	13°17	18° 5	4°23	7°13	13°35	12°40	0° 9	19°23	M24
T 25	16 11 29	4° 9'27	17°29	7° 5	6°51	19°48	29°27	13°12	18° 9	4°24	7°14	13°33	12°37	0°15	19°28	T 25
W26	16 15 25	5° 7'09	1♂22	9°16	8° 4	20°29	29°41	13° 8	18°12	4°25	7°15	13°D32	12°34	0°22	19°34	W26
T 27	16 19 22	6° 4'50	14°52	11°27	9°16	21°10	29°55	13° 4	18°15	4°27	7°16	13°33	12°31	0°29	19°39	T 27
F 28	16 23 18	7° 2'30	28° 0	13°37	10°29	21°51	0♂ 9	13° 0	18°19	4°28	7°17	13°34	12°28	0°35	19°44	F 28
S 29	16 27 15	8° 0'09	10♀48	15°45	11°41	22°31	0°23	12°57	18°22	4°29	7°17	13°35	12°24	0°42	19°50	S 29
S 30	16 31 11	8°57'46	23°21	17°53	12°54	23°12	0°37	12°53	18°25	4°30	7°18	13°37	12°21	0°49	19°55	S 30
M31	16 35 8	9♂55'23	5♂40	19♂59	14♂ 6	23♂53	0♂51	12♂49	18♂28	4♀32	7♂20	13♂38	12♂18	0♂55	20♂ 0	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	15n 6	2s55	3s36	5n22	2s33	1n39	1s38	21n18	0n32	17n57	0s47	13s49	2n37	16n30	0s21	0n19	1s17	23n 5	4n44	15n56	16n 0	26n57	15n39	6s39	
S 2	15 24	2n59	2 39	6 3	2 30	2 7	1 39	21 27	0 32	18 0	0 47	13 48	2 37	16 31	0 21	0 19	1 17	23 5	4 44	15 56	15 59	26 58	15 39	6 39	
M 3	15 42	8 41	1 35	6 44	2 26	2 34	1 40	21 35	0 33	18 4	0 47	13 46	2 37	16 32	0 21	0 20	1 17	23 5	4 44	15 56	15 58	26 59	15 39	6 38	
T 4	15 59	13 58	0 28	7 25	2 21	3 1	1 41	21 43	0 33	18 7	0 46	13 45	2 37	16 33	0 21	0 21	1 17	23 5	4 44	15 56	15 57	26 59	15 39	6 38	
W 5	16 16	18 37	0n40	8 8	2 16	3 29	1 41	21 51	0 34	18 11	0 46	13 44	2 36	16 34	0 21	0 21	1 17	23 5	4 44	15 56	15 56	27 0	15 39	6 37	
T 6	16 33	22 28	1 45	8 51	2 10	3 56	1 42	21 59	0 34	18 14	0 46	13 42	2 36	16 35	0 21	0 22	1 17	23 5	4 44	15 56	15 55	27 1	15 39	6 37	
F 7	16 50	25 18	2 45	9 34	2 4	4 23	1 43	22 6	0 35	18 18	0 46	13 41	2 36	16 36	0 21	0 23	1 17	23 4	4 44	15 56	15 54	27 2	15 39	6 36	
S 8	17 6	27 0	3 37	10 18	1 58	4 50	1 43	22 13	0 35	18 21	0 46	13 40	2 36	16 37	0 21	0 23	1 17	23 4	4 44	15 56	15 53	27 2	15 39	6 36	
S 9	17 23	27 27	4 20	11 3	1 51	5 18	1 44	22 20	0 36	18 25	0 46	13 39	2 36	16 38	0 21	0 24	1 17	23 4	4 44	15 56	15 52	27 3	15 39	6 35	
M10	17 38	26 39	4 52	11 48	1 43	5 45	1 44	22 27	0 36	18 28	0 46	13 37	2 36	16 39	0 21	0 25	1 17	23 4	4 44	15 56	15 51	27 4	15 39	6 35	
T 11	17 54	24 38	5 11	12 33	1 35	6 12	1 44	22 34	0 37	18 31	0 46	13 36	2 36	16 40	0 21	0 25	1 17	23 4	4 44	15 55	15 50	27 4	15 39	6 34	
W12	18 9	21 30	5 17	13 18	1 27	6 38	1 45	22 40	0 37	18 35	0 46	13 35	2 36	16 41	0 21	0 26	1 17	23 3	4 44	15 55	15 49	27 5	15 39	6 34	
T 13	18 24	17 23	5 9	14 3	1 18	7 5	1 45	22 46	0 38	18 38	0 46	13 34	2 36	16 42	0 21	0 27	1 17	23 3	4 44	15 55	15 48	27 6	15 39	6 33	
F 14	18 39	12 24	4 45	14 48	1 9	7 32	1 45	22 52	0 38	18 42	0 46	13 32	2 36	16 43	0 21	0 27	1 17	23 3	4 44	15 55	15 47	27 6	15 38	6 33	
S 15	18 53	6 46	4 7	15 33	0 59	7 58	1 45	22 58	0 39	18 45	0 46	13 31	2 36	16 44	0 21	0 28	1 17	23 3	4 43	15 56	15 46	27 7	15 38	6 32	
S 16	19 7	0 38	3 14	16 18	0 49	8 24	1 45	23 4	0 39	18 48	0 45	13 30	2 36	16 45	0 21	0 28	1 17	23 3	4 43	15 56	15 45	27 8	15 38	6 32	
M17	19 21	5s43	2 9	17 2	0 39	8 51	1 44	23 9	0 40	18 51	0 45	13 29	2 36	16 46	0 21	0 29	1 18	23 2	4 43	15 56	15 44	27 8	15 38	6 31	
T 18	19 34	12 0	0 53	17 45	0 29	9 16	1 44	23 14	0 40	18 55	0 45	13 27	2 36	16 47	0 21	0 30	1 18	23 2	4 43	15 56	15 43	27 9	15 38	6 31	
W19	19 47	17 48	0s27	18 27	0 19	9 42	1 44	23 19	0 41	18 58	0 45	13 26	2 36	16 48	0 21	0 30	1 18	23 2	4 43	15 56	15 42	27 10	15 38	6 31	
T 20	19 59	22 36	1 48	19 8	0 8	10 8	1 44	23 24	0 41	19 1	0 45	13 25	2 35	16 49	0 21	0 31	1 18	23 2	4 43	15 56	15 41	27 10	15 37	6 30	
F 21	20 12	25 56	3 1	19 48	0n 2	10 33	1 43	23 29	0 41	19 4	0 45	13 24	2 35	16 50	0 21	0 31	1 18	23 1	4 43	15 56	15 40	27 11	15 37	6 30	
S 22	20 24	27 24	4 2	20 27	0 13	10 58	1 42	23 33	0 42	19 8	0 45	13 23	2 35	16 51	0 20	0 32	1 18	23 1	4 43	15 55	15 39	27 12	15 37	6 29	
S 23	20 35	26 51	4 46	21 4	0 23	11 23	1 42	23 37	0 42	19 11	0 45	13 22	2 35	16 51	0 20	0 32	1 18	23 1	4 43	15 55	15 39	27 12	15 36	6 29	
M24	20 47	24 27	5 10	21 38	0 34	11 48	1 41	23 41	0 43	19 14	0 45	13 21	2 35	16 52	0 20	0 33	1 18	23 1	4 43	15 54	15 38	27 13	15 36	6 29	
T 25	20 57	20 34	5 15	22 11	0 44	12 12	1 40	23 45	0 43	19 17	0 45	13 20	2 35	16 53	0 20	0 33	1 18	23 0	4 43	15 53	15 37	27 13	15 36	6 28	
W26	21 8	15 39	5 0	22 42	0 53	12 37	1 40	23 48	0 44	19 20	0 45	13 18	2 35	16 54	0 20	0 34	1 18	23 0	4 43	15 53	15 36	27 14	15 35	6 28	
T 27	21 18	10 6	4 30	23 10	1 3	13 1	1 39	23 51	0 44	19 23	0 45	13 17	2 35	16 55	0 20	0 34	1 18	23 0	4 43	15 53	15 35	27 15	15 35	6 28	
F 28	21 28	4 15	3 45	23 36	1 11	13 24	1 38	23 54	0 45	19 26	0 45	13 16	2 34	16 56	0 20	0 35	1 18	22 59	4 43	15 54	15 34	27 15	15 35	6 27	
S 29	21 37	1n39	2 51	23 59	1 20	13 47	1 37	23 57	0 45	19 29	0 45	13 15	2 34	16 57	0 20	0 35	1 18	22 59	4 43	15 54	15 33	27 16	15 34	6 27	
S 30	21 46	7 22	1 49	24 19	1 28	14 10	1 36	24 0	0 45	19 32	0 45	13 14	2 34	16 58	0 20	0 36	1 18	22 59	4 43	15 55	15 32	27 16	15 34	6 26	
M31	21n55	12n43	0s44	24n37	1n35	14n33	1s34	24n 2	0n46	19n35	0s44	13s13	2n34	16n59	0s20	0n36	1s18	22n59	4n43	15n55	15n31	27n17	15n34	6s26	

ASTRODIENST EPHEMERIS for the year 2190
geocentric

JUNE 2190

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	16 39 4	10♊52'59	17♋49	22♌3	15♍19	24♎33	1♏6	12°R45	18♐32	4♑33	7♒21	13°R38	12♓15	1♈2	20♉6	T 1
W 2	16 43 1	11°50'34	29°50	24° 5	16°31	25°14	1°20	12♎41	18°35	4°34	7°22	13♐37	12°12	1° 9	20°11	W 2
T 3	16 46 58	12°48'08	11♊45	26° 4	17°44	25°54	1°34	12°38	18°38	4°35	7°23	13°34	12° 8	1°15	20°17	T 3
F 4	16 50 54	13°45'41	23°37	28° 2	18°57	26°35	1°48	12°34	18°42	4°36	7°24	13°30	12° 5	1°22	20°23	F 4
S 5	16 54 51	14°43'13	5♋27	29°57	20° 9	27°15	2° 2	12°31	18°45	4°37	7°25	13°25	12° 2	1°29	20°28	S 5
S 6	16 58 47	15°40'44	17°17	1♌50	21°22	27°56	2°16	12°27	18°48	4°38	7°26	13°20	11°59	1°36	20°34	S 6
M 7	17 2 44	16°38'13	29°10	3°40	22°34	28°36	2°30	12°24	18°51	4°39	7°27	13°14	11°56	1°42	20°40	M 7
T 8	17 6 40	17°35'42	11♊8	5°28	23°47	29°17	2°44	12°21	18°54	4°40	7°28	13° 9	11°53	1°49	20°46	T 8
W 9	17 10 37	18°33'09	23°15	7°13	25° 0	29°57	2°58	12°17	18°57	4°41	7°30	13° 5	11°49	1°56	20°51	W 9
T 10	17 14 34	19°30'35	5♎34	8°56	26°12	0♌37	3°11	12°14	19° 0	4°42	7°31	13° 2	11°46	2° 2	20°57	T 10
F 11	17 18 30	20°28'00	18° 8	10°35	27°25	1°17	3°25	12°11	19° 4	4°43	7°32	13°D 1	11°43	2° 9	21° 3	F 11
S 12	17 22 27	21°25'24	1♌2	12°12	28°38	1°58	3°39	12° 8	19° 7	4°44	7°33	13° 1	11°40	2°16	21° 9	S 12
S 13	17 26 23	22°22'46	14°20	13°47	29°51	2°38	3°53	12° 5	19°10	4°44	7°35	13° 3	11°37	2°22	21°15	S 13
M14	17 30 20	23°20'08	28° 4	15°18	1♌3	3°18	4° 7	12° 2	19°13	4°45	7°36	13° 4	11°33	2°29	21°21	M14
T 15	17 34 16	24°17'28	12♎16	16°47	2°16	3°58	4°20	12° 0	19°16	4°46	7°37	13°R 5	11°30	2°36	21°27	T 15
W16	17 38 13	25°14'48	26°53	18°13	3°29	4°38	4°34	11°57	19°19	4°47	7°38	13° 4	11°27	2°42	21°33	W16
T 17	17 42 9	26°12'07	11♊52	19°36	4°42	5°18	4°48	11°54	19°22	4°47	7°40	13° 1	11°24	2°49	21°39	T 17
F 18	17 46 6	27° 9'25	27° 4	20°56	5°54	5°58	5° 1	11°52	19°24	4°48	7°41	12°57	11°21	2°56	21°45	F 18
S 19	17 50 3	28° 6'43	12♌21	22°14	7° 7	6°38	5°15	11°49	19°27	4°49	7°43	12°51	11°18	3° 3	21°52	S 19
S 20	17 53 59	29° 4'00	27°31	23°28	8°20	7°18	5°29	11°47	19°30	4°49	7°44	12°44	11°14	3° 9	21°58	S 20
M21	17 57 56	0♌1'17	12♎25	24°40	9°33	7°58	5°42	11°45	19°33	4°50	7°45	12°38	11°11	3°16	22° 4	M21
T 22	18 1 52	0°58'33	26°55	25°48	10°46	8°38	5°56	11°43	19°36	4°50	7°47	12°32	11° 8	3°23	22°10	T 22
W23	18 5 49	1°55'49	10♋57	26°53	11°59	9°18	6° 9	11°40	19°39	4°51	7°48	12°28	11° 5	3°29	22°17	W23
T 24	18 9 45	2°53'04	24°31	27°55	13°12	9°57	6°22	11°38	19°41	4°51	7°50	12°26	11° 2	3°36	22°23	T 24
F 25	18 13 42	3°50'20	7♐38	28°54	14°25	10°37	6°36	11°37	19°44	4°52	7°51	12°D26	10°59	3°43	22°29	F 25
S 26	18 17 38	4°47'35	20°21	29°49	15°38	11°17	6°49	11°35	19°47	4°52	7°53	12°27	10°55	3°49	22°36	S 26
S 27	18 21 35	5°44'50	2♋46	0♌41	16°51	11°57	7° 2	11°33	19°49	4°52	7°54	12°28	10°52	3°56	22°42	S 27
M28	18 25 32	6°42'05	14°56	1°29	18° 4	12°36	7°15	11°31	19°52	4°53	7°56	12°R28	10°49	4° 3	22°48	M28
T 29	18 29 28	7°39'20	26°56	2°14	19°17	13°16	7°29	11°30	19°55	4°53	7°57	12°27	10°46	4° 9	22°55	T 29
W30	18 33 25	8♌36'35	8♊50	2♌55	20♌30	13♌56	7♊42	11♎28	19♋57	4♑53	7♒59	12♓24	10♈43	4♉16	23♉1	W30

Day	☉	☽		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	22n 3	17n29	0n23	24n52	1n41	14n56	1s33	24n 4	0n46	19n38	0s44	13s12	2n34	17n 0	0s20	0n36	1s18	22n58	4n43	15n55	15n30	27n17	15n33	6s26	
W 2	22 11	21 31	1 28	25 4	1 47	15 18	1 32	24 6	0 47	19 41	0 44	13 11	2 34	17 1	0 20	0 37	1 18	22 58	4 43	15 55	15 29	27 18	15 33	6 25	
T 3	22 19	24 37	2 28	25 13	1 52	15 39	1 31	24 8	0 47	19 44	0 44	13 10	2 34	17 2	0 20	0 37	1 18	22 58	4 43	15 54	15 28	27 18	15 32	6 25	
F 4	22 26	26 37	3 21	25 20	1 56	16 0	1 29	24 10	0 47	19 47	0 44	13 10	2 33	17 2	0 20	0 38	1 18	22 57	4 43	15 53	15 27	27 19	15 32	6 25	
S 5	22 33	27 24	4 6	25 25	2 0	16 21	1 28	24 11	0 48	19 50	0 44	13 9	2 33	17 3	0 20	0 38	1 18	22 57	4 43	15 51	15 26	27 19	15 31	6 24	
S 6	22 39	26 56	4 40	25 27	2 3	16 42	1 26	24 12	0 48	19 52	0 44	13 8	2 33	17 4	0 20	0 38	1 18	22 57	4 43	15 49	15 25	27 20	15 31	6 24	
M 7	22 45	25 14	5 2	25 26	2 5	17 2	1 25	24 13	0 49	19 55	0 44	13 7	2 33	17 5	0 20	0 39	1 18	22 56	4 43	15 48	15 24	27 20	15 30	6 24	
T 8	22 50	22 24	5 11	25 24	2 6	17 22	1 23	24 14	0 49	19 58	0 44	13 6	2 33	17 6	0 20	0 39	1 19	22 56	4 43	15 46	15 23	27 21	15 30	6 24	
W 9	22 55	18 34	5 6	25 19	2 6	17 41	1 21	24 14	0 49	20 1	0 44	13 5	2 32	17 7	0 20	0 39	1 19	22 56	4 42	15 45	15 22	27 21	15 29	6 23	
T 10	23 0	13 55	4 48	25 13	2 6	18 0	1 20	24 15	0 50	20 3	0 44	13 5	2 32	17 8	0 20	0 40	1 19	22 55	4 42	15 44	15 21	27 22	15 28	6 23	
F 11	23 4	8 36	4 15	25 4	2 5	18 18	1 18	24 15	0 50	20 6	0 44	13 4	2 32	17 8	0 20	0 40	1 19	22 55	4 42	15 44	15 20	27 22	15 28	6 23	
S 12	23 8	2 47	3 29	24 54	2 3	18 36	1 16	24 15	0 51	20 9	0 44	13 3	2 32	17 9	0 20	0 40	1 19	22 55	4 42	15 44	15 19	27 23	15 27	6 23	
S 13	23 12	3s21	2 30	24 42	2 0	18 53	1 14	24 14	0 51	20 11	0 44	13 2	2 32	17 10	0 20	0 41	1 19	22 54	4 42	15 44	15 18	27 23	15 26	6 22	
M14	23 15	9 31	1 21	24 29	1 57	19 10	1 12	24 14	0 51	20 14	0 44	13 2	2 31	17 11	0 20	0 41	1 19	22 54	4 42	15 45	15 17	27 23	15 26	6 22	
T 15	23 18	15 26	0 4	24 14	1 53	19 27	1 10	24 13	0 52	20 16	0 44	13 1	2 31	17 12	0 20	0 41	1 19	22 54	4 42	15 45	15 16	27 24	15 25	6 22	
W16	23 20	20 39	1s14	23 58	1 48	19 43	1 8	24 12	0 52	20 19	0 44	13 1	2 31	17 13	0 20	0 41	1 19	22 53	4 42	15 45	15 15	27 24	15 24	6 22	
T 17	23 22	24 39	2 29	23 41	1 43	19 58	1 6	24 11	0 52	20 21	0 44	13 0	2 31	17 13	0 20	0 42	1 19	22 53	4 42	15 44	15 14	27 25	15 24	6 21	
F 18	23 23	26 58	3 35	23 23	1 36	20 13	1 4	24 10	0 53	20 24	0 44	12 59	2 31	17 14	0 20	0 42	1 19	22 52	4 42	15 43	15 13	27 25	15 23	6 21	
S 19	23 24	27 15	4 26	23 3	1 30	20 27	1 2	24 8	0 53	20 26	0 44	12 59	2 30	17 15	0 20	0 42	1 19	22 52	4 42	15 41	15 12	27 26	15 22	6 21	
S 20	23 25	25 29	4 57	22 44	1 22	20 41	1 0	24 6	0 53	20 29	0 44	12 58	2 30	17 16	0 20	0 42	1 19	22 52	4 42	15 39	15 11	27 26	15 22	6 21	
M21	23 25	21 59	5 8	22 23	1 14	20 55	0 58	24 4	0 54	20 31	0 44	12 58	2 30	17 16	0 20	0 42	1 19	22 51	4 42	15 37	15 10	27 26	15 21	6 21	
T 22	23 25	17 12	4 58	22 2	1 5	21 7	0 56	24 2	0 54	20 34	0 44	12 57	2 30	17 17	0 20	0 43	1 19	22 51	4 42	15 35	15 9	27 27	15 20	6 20	
W23	23 24	11 38	4 31	21 40	0 55	21 19	0 53	24 0	0 54	20 36	0 43	12 57	2 29	17 18	0 20	0 43	1 19	22 51	4 42	15 34	15 8	27 27	15 19	6 20	
T 24	23 23	5 41	3 49	21 18	0 45	21 31	0 51	23 57	0 55	20 38	0 43	12 57	2 29	17 19	0 20	0 43	1 19	22 50	4 42	15 33	15 7	27 27	15 18	6 20	
F 25	23 22	0n19	2 56	20 56	0 35	21 42	0 49	23 54	0 55	20 41	0 43	12 56	2 29	17 19	0 21	0 43	1 19	22 50	4 42	15 33	15 6	27 28	15 18	6 20	
S 26	23 20	6 9	1 56	20 33	0 23	21 52	0 46	23 51	0 55	20 43	0 43	12 56	2 29	17 20	0 21	0 43	1 19	22 49	4 42	15 34	15 5	27 28	15 17	6 20	
S 27	23 17	11 36	0 52	20 10	0 12	22 2	0 44	23 48	0 56	20 45	0 43	12 56	2 28	17 21	0 21	0 43	1 19	22 49	4 42	15 34	15 4	27 28	15 16	6 20	
M28	23 15	16 31	0n13	19 48	0s 1	22 11	0 42	23 45	0 56	20 47	0 43	12 55	2 28	17 22	0 21	0 43	1 20	22 49	4 42	15 34	15 3	27 29	15 15	6 19	
T 29	23 12	20 42	1 17	19 25	0 14	22 20	0 39	23 41	0 56	20 49	0 43	12 55	2 28	17 22	0 21	0 43	1 20	22 48	4 42	15 34	15 2	27 29	15 14	6 19	
W30	23n 8	24n 0	2n16	19n 3	0s27	22n28	0s37	23n38	0n57	20n52	0s43	12s55	2n28	17n23	0s21	0n43	1s20	22n48	4n42	15n33	15n 1	27n29	15n13	6s19	

ASTRODIENST EPHEMERIS for the year 2190
geocentric

JULY 2190

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
T 1	18 37 21	9♉33'50	20♊40	3♊32	21♊43	14♉35	7♊55	11°R27	20♈ 0	4♋54	8♏ 0	12°R18	10♈40	4♉23	23♉ 8	T 1
F 2	18 41 18	10°31'05	2♉30	4° 5	22°56	15°15	8° 8	11♊26	20° 2	4°54	8° 2	12♈10	10°36	4°30	23°14	F 2
S 3	18 45 14	11°28'20	14°20	4°33	24° 9	15°54	8°21	11°24	20° 5	4°54	8° 3	12° 0	10°33	4°36	23°21	S 3
S 4	18 49 11	12°25'34	26°14	4°58	25°22	16°34	8°34	11°23	20° 7	4°54	8° 5	11°49	10°30	4°43	23°27	S 4
M 5	18 53 8	13°22'48	8♊12	5°18	26°35	17°13	8°47	11°22	20°10	4°54	8° 6	11°37	10°27	4°50	23°34	M 5
T 6	18 57 4	14°20'02	20°16	5°33	27°48	17°53	8°59	11°21	20°12	4°54	8° 8	11°27	10°24	4°56	23°40	T 6
W 7	19 1 1	15°17'16	2♊29	5°44	29° 1	18°32	9°12	11°21	20°14	4°54	8°10	11°18	10°20	5° 3	23°47	W 7
T 8	19 4 57	16°14'29	14°51	5°51	0♉15	19°12	9°25	11°20	20°17	4°R54	8°11	11°12	10°17	5°10	23°53	T 8
F 9	19 8 54	17°11'43	27°27	5°R52	1°28	19°51	9°37	11°19	20°19	4°54	8°13	11° 8	10°14	5°16	24° 0	F 9
S 10	19 12 50	18° 8'55	10♊20	5°49	2°41	20°30	9°50	11°19	20°21	4°54	8°14	11° 6	10°11	5°23	24° 7	S 10
S 11	19 16 47	19° 6'08	23°32	5°42	3°54	21° 9	10° 2	11°18	20°23	4°54	8°16	11°D 6	10° 8	5°30	24°13	S 11
M12	19 20 43	20° 3'21	7♊ 8	5°29	5° 8	21°49	10°15	11°18	20°25	4°54	8°18	11°R 6	10° 5	5°37	24°20	M12
T 13	19 24 40	21° 0'33	21° 9	5°13	6°21	22°28	10°27	11°18	20°27	4°54	8°19	11° 6	10° 1	5°43	24°26	T 13
W14	19 28 36	21°57'45	5♊35	4°52	7°34	23° 7	10°39	11°18	20°29	4°54	8°21	11° 4	9°58	5°50	24°33	W14
T 15	19 32 33	22°54'58	20°24	4°27	8°48	23°46	10°51	11°D18	20°31	4°53	8°23	10°59	9°55	5°57	24°40	T 15
F 16	19 36 30	23°52'10	5♉31	3°58	10° 1	24°26	11° 4	11°18	20°33	4°53	8°24	10°53	9°52	6° 3	24°46	F 16
S 17	19 40 26	24°49'23	20°45	3°25	11°14	25° 5	11°16	11°18	20°35	4°53	8°26	10°44	9°49	6°10	24°53	S 17
S 18	19 44 23	25°46'36	5♉58	2°50	12°28	25°44	11°28	11°18	20°37	4°53	8°28	10°33	9°46	6°17	24°59	S 18
M19	19 48 19	26°43'49	20°37	2°13	13°41	26°23	11°39	11°18	20°39	4°52	8°29	10°23	9°42	6°23	25° 6	M19
T 20	19 52 16	27°41'02	5♊34	1°34	14°54	27° 2	11°51	11°19	20°41	4°52	8°31	10°14	9°39	6°30	25°13	T 20
W21	19 56 12	28°38'16	19°44	0°53	16° 8	27°41	12° 3	11°19	20°43	4°51	8°33	10° 7	9°36	6°37	25°19	W21
T 22	20 0 9	29°35'31	3♋23	0°13	17°21	28°20	12°15	11°20	20°44	4°51	8°34	10° 3	9°33	6°44	25°26	T 22
F 23	20 4 6	0♊32'46	16°34	29♉32	18°35	28°59	12°26	11°21	20°46	4°51	8°36	10° 1	9°30	6°50	25°33	F 23
S 24	20 8 2	1°30'02	29°19	28°53	19°48	29°38	12°38	11°22	20°48	4°50	8°38	10°D 0	9°26	6°57	25°39	S 24
S 25	20 11 59	2°27'19	11♉43	28°15	21° 2	0♊17	12°49	11°23	20°49	4°50	8°40	10°R 0	9°23	7° 4	25°46	S 25
M26	20 15 55	3°24'37	23°52	27°39	22°16	0°56	13° 1	11°24	20°51	4°49	8°41	10° 0	9°20	7°10	25°52	M26
T 27	20 19 52	4°21'56	5♊49	27° 7	23°29	1°35	13°12	11°25	20°52	4°48	8°43	9°58	9°17	7°17	25°59	T 27
W28	20 23 48	5°19'15	17°40	26°38	24°43	2°14	13°23	11°26	20°54	4°48	8°45	9°53	9°14	7°24	26° 6	W28
T 29	20 27 45	6°16'36	29°29	26°14	25°57	2°52	13°34	11°27	20°55	4°47	8°46	9°46	9°11	7°30	26°12	T 29
F 30	20 31 41	7°13'57	11♉19	25°54	27°10	3°31	13°45	11°29	20°57	4°46	8°48	9°36	9° 7	7°37	26°19	F 30
S 31	20 35 38	8♊11'19	23♉13	25♉39	28♉24	4♊10	13♊56	11♊30	20♉58	4♋46	8♏50	9♉24	9♉ 4	7♉44	26♉25	S 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	23n 4	26n14	3n10	18n41	0s41	22n35	0s34	23n34	0n57	20n54	0s43	12s55	2n27	17n24	0s21	0n43	1s20	22n47	4n42	15n31	15n 0	27n30	15n12	6s19	
F 2	23 0	27 18	3 54	18 20	0 55	22 42	0 32	23 30	0 57	20 56	0 43	12 55	2 27	17 24	0 21	0 43	1 20	22 47	4 42	15 28	14 59	27 30	15 11	6 19	
S 3	22 55	27 6	4 29	17 59	1 9	22 48	0 30	23 25	0 58	20 58	0 43	12 54	2 27	17 25	0 21	0 43	1 20	22 47	4 42	15 25	14 58	27 30	15 10	6 19	
S 4	22 50	25 40	4 52	17 39	1 24	22 53	0 27	23 21	0 58	21 0	0 43	12 54	2 27	17 26	0 21	0 43	1 20	22 46	4 42	15 22	14 57	27 30	15 9	6 19	
M 5	22 45	23 4	5 3	17 19	1 39	22 58	0 25	23 16	0 58	21 2	0 43	12 54	2 26	17 26	0 21	0 43	1 20	22 46	4 42	15 18	14 56	27 31	15 8	6 19	
T 6	22 39	19 27	5 0	17 1	1 54	23 2	0 22	23 11	0 58	21 4	0 43	12 54	2 26	17 27	0 21	0 43	1 20	22 45	4 42	15 15	14 55	27 31	15 7	6 19	
W 7	22 32	14 59	4 43	16 43	2 10	23 5	0 20	23 6	0 59	21 6	0 43	12 54	2 26	17 27	0 21	0 43	1 20	22 45	4 42	15 12	14 54	27 31	15 6	6 19	
T 8	22 26	9 51	4 13	16 27	2 25	23 8	0 17	23 1	0 59	21 8	0 43	12 54	2 26	17 28	0 21	0 43	1 20	22 45	4 42	15 10	14 53	27 31	15 5	6 19	
F 9	22 19	4 14	3 30	16 11	2 41	23 10	0 15	22 56	0 59	21 10	0 43	12 54	2 25	17 29	0 21	0 43	1 20	22 44	4 42	15 9	14 52	27 32	15 4	6 19	
S 10	22 11	1s42	2 36	15 57	2 56	23 11	0 12	22 50	1 0	21 11	0 43	12 54	2 25	17 29	0 21	0 43	1 20	22 44	4 42	15 9	14 51	27 32	15 3	6 18	
S 11	22 3	7 42	1 32	15 45	3 11	23 12	0 10	22 44	1 0	21 13	0 43	12 55	2 25	17 30	0 21	0 43	1 20	22 43	4 42	15 9	14 50	27 32	15 2	6 18	
M12	21 55	13 33	0 21	15 34	3 25	23 12	0 7	22 38	1 0	21 15	0 43	12 55	2 25	17 30	0 21	0 43	1 20	22 43	4 43	15 9	14 49	27 32	15 1	6 18	
T 13	21 47	18 53	0s53	15 24	3 39	23 11	0 5	22 32	1 0	21 17	0 43	12 55	2 24	17 31	0 21	0 43	1 20	22 43	4 43	15 9	14 48	27 33	15 0	6 18	
W14	21 38	23 17	2 6	15 16	3 52	23 10	0 2	22 26	1 1	21 19	0 43	12 55	2 24	17 31	0 21	0 43	1 20	22 42	4 43	15 8	14 47	27 33	14 59	6 18	
T 15	21 28	26 16	3 12	15 10	4 5	23 8	0n 0	22 20	1 1	21 20	0 43	12 55	2 24	17 32	0 21	0 43	1 20	22 42	4 43	15 7	14 46	27 33	14 58	6 18	
F 16	21 19	27 24	4 6	15 6	4 16	23 5	0 3	22 13	1 1	21 22	0 43	12 56	2 24	17 32	0 21	0 43	1 20	22 41	4 43	15 4	14 45	27 33	14 57	6 18	
S 17	21 9	26 29	4 43	15 3	4 27	23 2	0 5	22 6	1 1	21 24	0 43	12 56	2 23	17 33	0 21	0 42	1 21	22 41	4 43	15 2	14 44	27 33	14 55	6 18	
S 18	20 58	23 37	5 0	15 2	4 36	22 58	0 8	21 59	1 2	21 25	0 43	12 56	2 23	17 33	0 21	0 42	1 21	22 41	4 43	14 58	14 43	27 33	14 54	6 18	
M19	20 47	19 10	4 56	15 2	4 44	22 53	0 10	21 52	1 2	21 27	0 43	12 57	2 23	17 34	0 21	0 42	1 21	22 40	4 43	14 55	14 42	27 34	14 53	6 18	
T 20	20 36	13 41	4 33	15 5	4 50	22 48	0 13	21 45	1 2	21 29	0 43	12 57	2 23	17 34	0 21	0 42	1 21	22 40	4 43	14 52	14 41	27 34	14 52	6 18	
W21	20 25	7 38	3 53	15 9	4 55	22 42	0 15	21 37	1 2	21 30	0 43	12 57	2 22	17 35	0 21	0 42	1 21	22 39	4 43	14 50	14 40	27 34	14 51	6 19	
T 22	20 13	1 25	3 1	15 14	4 58	22 35	0 18	21 30	1 3	21 32	0 43	12 58	2 22	17 35	0 21	0 41	1 21	22 39	4 43	14 49	14 39	27 34	14 50	6 19	
F 23	20 1	4n39	2 1	15 21	4 59	22 27	0 20	21 22	1 3	21 33	0 43	12 58	2 22	17 36	0 21	0 41	1 21	22 38	4 43	14 48	14 38	27 34	14 48	6 19	
S 24	19 48	10 21	0 56	15 29	4 59	22 19	0 22	21 14	1 3	21 35	0 43	12 59	2 21	17 36	0 21	0 41	1 21	22 38	4 43	14 48	14 37	27 34	14 47	6 19	
S 25	19 36	15 29	0n 9	15 39	4 57	22 11	0 25	21 6	1 3	21 36	0 43	12 59	2 21	17 37	0 21	0 41	1 21	22 38	4 43	14 48	14 36	27 34	14 46	6 19	
M26	19 22	19 54	1 13	15 49	4 53	22 1	0 27	20 58	1 4	21 37	0 43	13 0	2 21	17 37	0 21	0 40	1 21	22 37	4 43	14 48	14 35	27 34	14 45	6 19	
T 27	19 9	23 25	2 12	16 1	4 47	21 51	0 29	20 50	1 4	21 39	0 43	13 1	2 21	17 37	0 21	0 40	1 21	22 37	4 43	14 47	14 34	27 35	14 43	6 19	
W28	18 55	25 55	3 5	16 13	4 40	21 41	0 31	20 41	1 4	21 40	0 43	13 1	2 20	17 38	0 21	0 40	1 21	22 36	4 43	14 46	14 33	27 35	14 42	6 19	
T 29	18 41	27 15	3 50	16 26	4 32	21 29	0 34	20 32	1 4	21 42	0 43	13 2	2 20	17 38	0 21	0 40	1 21	22 36	4 43	14 44	14 32	27 35	14 41	6 19	
F 30	18 27	27 20	4 24	16 39	4 22	21 17	0 36	20 24	1 4	21 43	0 43	13 3	2 20	17 38	0 21	0 39	1 21	22 36	4 43	14 40	14 31	27 35	14 39	6 19	
S 31	18n12	26n 9	4n48	16n53	4s11	21n 5	0n38	20n15	1n 5	21n44	0s43	13s 3	2n20	17n39	0s21	0n39	1s21	22n35	4n43	14n37	14n30	27n35	14n38	6s19	

ASTRODIENST EPHEMERIS for the year 2190

geocentric

AUGUST 2190

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 39 35	9♌ 8'41	5♌13	25°R30	29♊38	4♌49	14♌7	11♌32	20♊59	4°R45	8♌52	9°R10	9♊1	7♊51	26♊32	S 1
M 2	20 43 31	10° 6'05	17°20	25°D27	0♌51	5°28	14°17	11°34	21° 0	4°Y44	8°53	8♊56	8°58	7°57	26°39	M 2
T 3	20 47 28	11° 3'29	29°35	25♊30	2° 5	6° 6	14°28	11°36	21° 2	4°43	8°55	8°43	8°55	8° 4	26°45	T 3
W 4	20 51 24	12° 0'54	11♌59	25°38	3°19	6°45	14°38	11°38	21° 3	4°43	8°57	8°33	8°51	8°11	26°52	W 4
T 5	20 55 21	12°58'19	24°32	25°54	4°33	7°24	14°49	11°40	21° 4	4°42	8°59	8°24	8°48	8°17	26°58	T 5
F 6	20 59 17	13°55'46	7♊17	26°15	5°47	8° 2	14°59	11°42	21° 5	4°41	9° 0	8°19	8°45	8°24	27° 5	F 6
S 7	21 3 14	14°53'13	20°16	26°43	7° 1	8°41	15° 9	11°44	21° 6	4°40	9° 2	8°16	8°42	8°31	27°11	S 7
S 8	21 7 10	15°50'40	3♌30	27°18	8°14	9°20	15°19	11°46	21° 7	4°39	9° 4	8°15	8°39	8°37	27°17	S 8
M 9	21 11 7	16°48'08	17° 3	27°59	9°28	9°58	15°29	11°48	21° 8	4°38	9° 5	8°15	8°36	8°44	27°24	M 9
T 10	21 15 4	17°45'37	0♌55	28°46	10°42	10°37	15°39	11°51	21° 9	4°37	9° 7	8°15	8°32	8°51	27°30	T 10
W11	21 19 0	18°43'07	15° 9	29°40	11°56	11°16	15°49	11°53	21° 9	4°36	9° 9	8°13	8°29	8°58	27°37	W11
T 12	21 22 57	19°40'38	29°41	0♌40	13°10	11°54	15°58	11°56	21°10	4°35	9°11	8° 9	8°26	9° 4	27°43	T 12
F 13	21 26 53	20°38'09	14♊30	1°45	14°24	12°33	16° 8	11°59	21°11	4°34	9°12	8° 2	8°23	9°11	27°49	F 13
S 14	21 30 50	21°35'42	29°28	2°57	15°38	13°11	16°17	12° 2	21°12	4°33	9°14	7°53	8°20	9°18	27°56	S 14
S 15	21 34 46	22°33'15	14♊27	4°14	16°52	13°50	16°27	12° 5	21°12	4°32	9°16	7°42	8°17	9°24	28° 2	S 15
M16	21 38 43	23°30'49	29°17	5°36	18° 6	14°28	16°36	12° 8	21°13	4°31	9°17	7°32	8°13	9°31	28° 8	M16
T 17	21 42 39	24°28'24	13♌49	7° 4	19°20	15° 7	16°45	12°11	21°13	4°29	9°19	7°22	8°10	9°38	28°15	T 17
W18	21 46 36	25°26'01	27°57	8°36	20°34	15°45	16°54	12°14	21°14	4°28	9°21	7°15	8° 7	9°45	28°21	W18
T 19	21 50 33	26°23'39	11°Y38	10°13	21°48	16°23	17° 3	12°17	21°14	4°27	9°22	7°10	8° 4	9°51	28°27	T 19
F 20	21 54 29	27°21'19	24°52	11°54	23° 3	17° 2	17°11	12°20	21°14	4°26	9°24	7° 8	8° 1	9°58	28°33	F 20
S 21	21 58 26	28°19'00	7♊40	13°38	24°17	17°40	17°20	12°24	21°15	4°25	9°26	7°D 7	7°57	10° 5	28°39	S 21
S 22	22 2 22	29°16'43	20° 7	15°26	25°31	18°19	17°28	12°27	21°15	4°23	9°27	7° 7	7°54	10°11	28°45	S 22
M23	22 6 19	0♌14'27	2♌16	17°16	26°45	18°57	17°36	12°31	21°15	4°22	9°29	7°R 8	7°51	10°18	28°51	M23
T 24	22 10 15	1°12'13	14°15	19° 9	27°59	19°35	17°45	12°35	21°15	4°21	9°31	7° 7	7°48	10°25	28°57	T 24
W25	22 14 12	2°10'01	26° 7	21° 4	29°14	20°14	17°53	12°38	21°15	4°19	9°32	7° 4	7°45	10°31	29° 3	W25
T 26	22 18 8	3° 7'50	7♊57	23° 0	0♌28	20°52	18° 0	12°42	21°15	4°18	9°34	6°59	7°42	10°38	29° 9	T 26
F 27	22 22 5	4° 5'41	19°50	24°58	1°42	21°30	18° 8	12°46	21°R16	4°17	9°35	6°51	7°38	10°45	29°15	F 27
S 28	22 26 2	5° 3'34	1♌49	26°57	2°56	22° 9	18°16	12°50	21°15	4°15	9°37	6°42	7°35	10°52	29°21	S 28
S 29	22 29 58	6° 1'28	13°56	28°56	4°11	22°47	18°23	12°54	21°15	4°14	9°39	6°31	7°32	10°58	29°27	S 29
M30	22 33 55	6°59'24	26°13	0♌55	5°25	23°25	18°30	12°58	21°15	4°12	9°40	6°20	7°29	11° 5	29°33	M30
T 31	22 37 51	7♌57'21	8♌42	2♌54	6♌39	24♌3	18♌38	13♌3	21♌15	4°Y11	9♌42	6♌9	7♌26	11♌12	29♌39	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
S 1	17n57	23n46	4n59	17n 6	3s59	20n52	0n40	20n 5	1n 5	21n45	0s43	13s 4	2n19	17n39	0s21	0n39	1s21	22n35	4n44	14n32	14n29	27n35	14n37	6s20							
M 2	17 42	20 19	4 56	17 20	3 46	20 38	0 42	19 56	1 5	21 47	0 43	13 5	2 19	17 39	0 21	0 38	1 21	22 34	4 44	14 28	14 28	27 35	14 35	6 20							
T 3	17 26	15 59	4 40	17 33	3 32	20 24	0 44	19 47	1 5	21 48	0 43	13 6	2 19	17 40	0 21	0 38	1 21	22 34	4 44	14 24	14 27	27 35	14 34	6 20							
W 4	17 10	10 55	4 11	17 46	3 17	20 9	0 46	19 37	1 5	21 49	0 43	13 7	2 19	17 40	0 21	0 37	1 21	22 34	4 44	14 20	14 26	27 35	14 33	6 20							
T 5	16 54	5 22	3 29	17 58	3 2	19 53	0 48	19 28	1 6	21 50	0 43	13 7	2 18	17 40	0 21	0 37	1 21	22 33	4 44	14 18	14 25	27 35	14 31	6 20							
F 6	16 38	0s30	2 36	18 9	2 46	19 37	0 50	19 18	1 6	21 51	0 43	13 8	2 18	17 41	0 21	0 37	1 21	22 33	4 44	14 16	14 24	27 35	14 30	6 20							
S 7	16 21	6 28	1 34	18 20	2 30	19 21	0 52	19 8	1 6	21 52	0 43	13 9	2 18	17 41	0 21	0 36	1 22	22 33	4 44	14 15	14 23	27 35	14 29	6 20							
S 8	16 4	12 17	0 25	18 29	2 14	19 3	0 54	18 58	1 6	21 53	0 43	13 10	2 17	17 41	0 21	0 36	1 22	22 32	4 44	14 15	14 22	27 35	14 27	6 21							
M 9	15 47	17 39	0s46	18 37	1 58	18 46	0 56	18 48	1 6	21 55	0 43	13 11	2 17	17 41	0 21	0 35	1 22	22 32	4 44	14 15	14 21	27 35	14 26	6 21							
T 10	15 30	22 14	1 57	18 43	1 42	18 27	0 58	18 38	1 7	21 56	0 43	13 12	2 17	17 42	0 21	0 35	1 22	22 31	4 44	14 15	14 20	27 35	14 24	6 21							
W11	15 12	25 36	3 2	18 48	1 26	18 9	0 59	18 27	1 7	21 57	0 43	13 13	2 17	17 42	0 21	0 35	1 22	22 31	4 44	14 14	14 19	27 35	14 23	6 21							
T 12	14 54	27 21	3 56	18 51	1 10	17 49	1 1	18 17	1 7	21 58	0 43	13 14	2 16	17 42	0 21	0 34	1 22	22 31	4 44	14 12	14 18	27 35	14 22	6 21							
F 13	14 36	27 12	4 36	18 52	0 54	17 30	1 3	18 6	1 7	21 59	0 43	13 15	2 16	17 42	0 21	0 34	1 22	22 30	4 44	14 10	14 17	27 35	14 20	6 22							
S 14	14 18	25 6	4 58	18 51	0 39	17 9	1 4	17 55	1 7	21 59	0 43	13 16	2 16	17 42	0 21	0 33	1 22	22 30	4 45	14 7	14 16	27 35	14 19	6 22							
S 15	13 59	21 15	4 59	18 47	0 24	16 49	1 6	17 44	1 7	22 0	0 43	13 17	2 16	17 42	0 21	0 33	1 22	22 30	4 45	14 4	14 15	27 35	14 17	6 22							
M16	13 40	16 5	4 40	18 41	0 10	16 27	1 7	17 33	1 8	22 1	0 43	13 19	2 15	17 43	0 21	0 32	1 22	22 29	4 45	14 1	14 14	27 35	14 16	6 22							
T 17	13 21	10 6	4 3	18 33	0n 3	16 6	1 9	17 22	1 8	22 2	0 44	13 20	2 15	17 43	0 21	0 32	1 22	22 29	4 45	13 58	14 13	27 35	14 14	6 23							
W18	13 2	3 45	3 12	18 21	0 16	15 43	1 10	17 11	1 8	22 3	0 44	13 21	2 15	17 43	0 21	0 31	1 22	22 28	4 45	13 55	14 12	27 35	14 13	6 23							
T 19	12 42	2n35	2 11	18 7	0 28	15 21	1 11	16 59	1 8	22 4	0 44	13 22	2 15	17 43	0 21	0 31	1 22	22 28	4 45	13 54	14 11	27 35	14 12	6 23							
F 20	12 23	8 37	1 5	17 51	0 40	14 58	1 12	16 48	1 8	22 5	0 44	13 23	2 14	17 43	0 21	0 30	1 22	22 28	4 45	13 53	14 10	27 34	14 10	6 23							
S 21	12 3	14 6	0n 3	17 31	0 50	14 34	1 14	16 36	1 8	22 5	0 44	13 25	2 14	17 43	0 21	0 30	1 22	22 27	4 45	13 53	14 9	27 34	14 9	6 24							
S 22	11 43	18 51	1 9	17 9	1 0	14 11	1 15	16 25	1 9	22 6	0 44	13 26	2 14	17 43	0 21	0 29	1 22	22 27	4 45	13 53	14 8	27 34	14 7	6 24							
M23	11 23	22 43	2 10	16 44	1 9	13 46	1 16	16 13	1 9	22 7	0 44	13 27	2 14	17 43	0 21	0 29	1 22	22 27	4 45	13 53	14 7	27 34	14 6	6 24							
T 24	11 2	25 32	3 4	16 16	1 16	13 22	1 17	16 1	1 9	22 8	0 44	13 29	2 14	17 43	0 21	0 28	1 22	22 26	4 46	13 52	14 6	27 34	14 4	6 25							
W25	10 42	27 11	3 50	15 46	1 23	12 57	1 18	15 49	1 9	22 8	0 44	13 30	2 13	17 43	0 21	0 28	1 22	22 26	4 46	13 52	14 5	27 34	14 3	6 25							
T 26	10 21	27 36	4 26	15 14	1 29	12 32	1 19	15 37	1 9	22 9	0 44	13 31	2 13	17 43	0 21	0 27	1 22	22 26	4 46	13 50	14 4	27 34	14 1	6 25							
F 27	10 0	26 44	4 50	14 40	1 34	12 6	1 20	15 25	1 9	22 10	0 44	13 33	2 13	17 43	0 21	0 26	1 22	22 25	4 46	13 47	14 3	27 33	14 0	6 26							
S 28	9 39	24 39	5 2	14 3	1 38	11 40	1 20	15 13	1 9	22 10	0 44	13 34	2 13	17 43	0 21	0 26	1 22	22 25	4 46	13 44	14 2	27 33	13 58	6 26							
S 29	9 18	21 26	5 1	13 25	1 41	11 14	1 21	15 0	1 10	22 11	0 44	13 36	2 12	17 43	0 21	0 25	1 22	22 25	4 46	13 41	14 1	27 33	13 57	6 26							
M30	8 56	17 14	4 46	12 45	1 44	10 47	1 22	14 48	1 10	22 11	0 44	13 37	2 12	17 43	0 21	0 25	1 22	22 24	4 46	13 37	14 0	27 33	13 55	6 27							
T 31	8n35	12n16	4n17	12n 4	1n45	10n20	1n22	14n35	1n10	22n12	0s44	13s39	2n12	17n43	0s21	0n24	1s22	22n24	4n46	13n34	13n59	27n33	13n54	6s27							

ASTRODIENST EPHEMERIS for the year 2190

geocentric

SEPTEMBER 2190

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 41 48	8 ^m 55'20	21 ^m 22	4 ^m 53	7 ^m 54	24 ^m 41	18 ^m 45	13 ^m 7	21 ^m 15	4 ^m 10	9 ^m 43	6 ^m 0	7 ^m 23	11 ^m 18	29 ^m 44	W 1
T 2	22 45 44	9°53'20	4 ^m 13	6°52	9° 8	25°20	18°51	13°11	21 ^m 14	4 ^m 8	9°45	5 ^m 54	7°19	11°25	29°50	T 2
F 3	22 49 41	10°51'22	17°16	8°50	10°23	25°58	18°58	13°16	21°14	4° 7	9°46	5°50	7°16	11°32	29°56	F 3
S 4	22 53 37	11°49'25	0 ^m 13	10°47	11°37	26°36	19° 5	13°20	21°14	4° 5	9°48	5°D48	7°13	11°39	0 ^m 1	S 4
S 5	22 57 34	12°47'30	13°57	12°43	12°51	27°14	19°11	13°25	21°13	4° 4	9°49	5°49	7°10	11°45	0° 7	S 5
M 6	23 1 131	13°45'36	27°36	14°38	14° 6	27°52	19°17	13°30	21°13	4° 2	9°51	5°49	7° 7	11°52	0°12	M 6
T 7	23 5 27	14°43'44	11 ^m 29	16°33	15°20	28°31	19°23	13°34	21°12	4° 1	9°52	5°R50	7° 3	11°59	0°18	T 7
W 8	23 9 24	15°41'53	25°35	18°26	16°35	29° 9	19°29	13°39	21°12	3°59	9°54	5°50	7° 0	12° 5	0°23	W 8
T 9	23 13 20	16°40'03	9 ^m 53	20°18	17°49	29°47	19°35	13°44	21°11	3°57	9°55	5°48	6°57	12°12	0°28	T 9
F 10	23 17 17	17°38'15	24°21	22° 9	19° 4	0 ^m 25	19°41	13°49	21°10	3°56	9°57	5°43	6°54	12°19	0°34	F 10
S 11	23 21 13	18°36'28	8 ^m 55	23°59	20°18	1° 3	19°46	13°54	21°10	3°54	9°58	5°38	6°51	12°26	0°39	S 11
S 12	23 25 10	19°34'43	23°29	25°48	21°33	1°41	19°51	13°59	21° 9	3°53	9°59	5°31	6°48	12°32	0°44	S 12
M13	23 29 6	20°32'59	7 ^m 56	27°36	22°47	2°19	19°56	14° 4	21° 8	3°51	10° 1	5°23	6°44	12°39	0°49	M13
T 14	23 33 3	21°31'17	22° 9	29°22	24° 2	2°57	20° 1	14° 9	21° 7	3°49	10° 2	5°17	6°41	12°46	0°54	T 14
W15	23 37 0	22°29'37	6 ^m 4	1 ^m 1	25°17	3°35	20° 6	14°15	21° 6	3°48	10° 3	5°12	6°38	12°52	0°59	W15
T 16	23 40 56	23°27'59	19°38	2°51	26°31	4°13	20°10	14°20	21° 5	3°46	10° 5	5° 9	6°35	12°59	1° 4	T 16
F 17	23 44 53	24°26'22	2 ^m 48	4°35	27°46	4°51	20°15	14°25	21° 4	3°45	10° 6	5°D 8	6°32	13° 6	1° 9	F 17
S 18	23 48 49	25°24'48	15°36	6°17	29° 0	5°29	20°19	14°31	21° 3	3°43	10° 7	5° 8	6°29	13°13	1°14	S 18
S 19	23 52 46	26°23'16	28° 4	7°57	0 ^m 15	6° 7	20°23	14°36	21° 2	3°41	10° 9	5°10	6°25	13°19	1°19	S 19
M20	23 56 42	27°21'46	10 ^m 11	9°37	1°29	6°45	20°27	14°42	21° 1	3°40	10°10	5°11	6°22	13°26	1°24	M20
T 21	0 0 39	28°20'18	22°16	11°16	2°44	7°23	20°31	14°47	21° 0	3°38	10°11	5°13	6°19	13°33	1°28	T 21
W22	0 4 35	29°18'53	4 ^m 10	12°54	3°59	8° 1	20°34	14°53	20°59	3°36	10°12	5°R13	6°16	13°39	1°33	W22
T 23	0 8 32	0 ^m 17'29	16° 2	14°31	5°13	8°39	20°37	14°59	20°57	3°35	10°14	5°11	6°13	13°46	1°37	T 23
F 24	0 12 28	1°16'08	27°56	16° 6	6°28	9°17	20°40	15° 5	20°56	3°33	10°15	5° 8	6° 9	13°53	1°42	F 24
S 25	0 16 25	2°14'49	9 ^m 59	17°41	7°43	9°55	20°43	15°11	20°55	3°31	10°16	5° 4	6° 6	13°59	1°46	S 25
S 26	0 20 22	3°13'32	22°11	19°15	8°57	10°32	20°46	15°16	20°53	3°30	10°17	4°59	6° 3	14° 6	1°51	S 26
M27	0 24 18	4°12'17	4 ^m 38	20°48	10°12	11°10	20°49	15°22	20°52	3°28	10°18	4°54	6° 0	14°13	1°55	M27
T 28	0 28 15	5°11'04	17°19	22°20	11°27	11°48	20°51	15°28	20°50	3°26	10°19	4°49	5°57	14°20	1°59	T 28
W29	0 32 11	6° 9'53	0 ^m 16	23°51	12°42	12°26	20°53	15°34	20°49	3°25	10°20	4°45	5°54	14°26	2° 3	W29
T 30	0 36 8	7 ^m 8'44	13 ^m 28	25 ^m 21	13 ^m 56	13 ^m 4	20 ^m 55	15 ^m 41	20 ^m 47	3 ^m 23	10 ^m 22	4 ^m 42	5 ^m 50	14 ^m 33	2 ^m 7	T 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
W 1	8n13	6n42	3n34	11n21	1n46	9n53	1n23	14n23	1n10	22n13	0s44	13s40	2n12	17n43	0s21	W 1
T 2	7 51	0 47	2 41	10 38	1 46	9 25	1 23	14 10	1 10	22 13	0 44	13 42	2 11	17 43	0 21	T 2
F 3	7 29	5s16	1 38	9 53	1 46	8 58	1 24	13 57	1 10	22 14	0 44	13 43	2 11	17 43	0 21	F 3
S 4	7 7	11 12	0 28	9 8	1 44	8 30	1 24	13 44	1 10	22 14	0 44	13 45	2 11	17 43	0 21	S 4
S 5	6 45	16 42	0s44	8 22	1 43	8 2	1 24	13 31	1 10	22 15	0 44	13 46	2 11	17 43	0 21	S 5
M 6	6 23	21 28	1 54	7 35	1 40	7 33	1 25	13 18	1 10	22 15	0 44	13 48	2 11	17 42	0 21	M 6
T 7	6 0	25 6	3 0	6 48	1 37	7 5	1 25	13 5	1 11	22 16	0 44	13 49	2 10	17 42	0 21	T 7
W 8	5 38	27 16	3 55	6 1	1 34	6 36	1 25	12 52	1 11	22 16	0 44	13 51	2 10	17 42	0 21	W 8
T 9	5 15	27 39	4 37	5 13	1 30	6 7	1 25	12 39	1 11	22 16	0 44	13 53	2 10	17 42	0 21	T 9
F 10	4 53	26 10	5 2	4 26	1 26	5 37	1 25	12 25	1 11	22 17	0 44	13 54	2 10	17 42	0 21	F 10
S 11	4 30	22 57	5 7	3 38	1 21	5 8	1 25	12 12	1 11	22 17	0 44	13 56	2 10	17 42	0 21	S 11
S 12	4 7	18 17	4 53	2 50	1 16	4 39	1 25	11 58	1 11	22 17	0 44	13 58	2 9	17 41	0 21	S 12
M13	3 44	12 36	4 20	2 3	1 11	4 9	1 24	11 45	1 11	22 18	0 44	13 59	2 9	17 41	0 21	M13
T 14	3 22	6 21	3 31	1 15	1 6	3 39	1 24	11 31	1 11	22 18	0 44	14 1	2 9	17 41	0 21	T 14
W15	2 59	0n 6	2 31	0 28	1 0	3 9	1 24	11 18	1 11	22 18	0 44	14 3	2 9	17 41	0 21	W15
T 16	2 36	6 23	1 23	0s19	0 54	2 39	1 23	11 4	1 11	22 19	0 45	14 4	2 9	17 40	0 21	T 16
F 17	2 12	12 14	0 13	1 5	0 48	2 9	1 23	10 50	1 11	22 19	0 45	14 6	2 8	17 40	0 21	F 17
S 18	1 49	17 24	0n57	1 52	0 41	1 39	1 22	10 36	1 12	22 19	0 45	14 8	2 8	17 40	0 21	S 18
S 19	1 26	21 41	2 1	2 38	0 34	1 9	1 21	10 22	1 12	22 20	0 45	14 10	2 8	17 39	0 21	S 19
M20	1 3	24 55	2 59	3 23	0 28	0 39	1 21	10 8	1 12	22 20	0 45	14 12	2 8	17 39	0 21	M20
T 21	0 40	26 59	3 48	4 8	0 21	0 8	1 20	9 54	1 12	22 20	0 45	14 13	2 8	17 39	0 21	T 21
W22	0 16	27 48	4 27	4 53	0 14	0s22	1 19	9 40	1 12	22 20	0 45	14 15	2 8	17 39	0 21	W22
T 23	0s 7	27 20	4 54	5 37	0 7	0 52	1 18	9 26	1 12	22 20	0 45	14 17	2 7	17 38	0 21	T 23
F 24	0 30	25 36	5 9	6 20	0s 1	1 23	1 17	9 12	1 12	22 21	0 45	14 19	2 7	17 38	0 21	F 24
S 25	0 54	22 43	5 10	7 3	0 8	1 53	1 16	8 57	1 12	22 21	0 45	14 21	2 7	17 37	0 21	S 25
S 26	1 17	18 47	4 58	7 46	0 15	2 24	1 15	8 43	1 12	22 21	0 45	14 23	2 7	17 37	0 21	S 26
M27	1 40	14 0	4 31	8 28	0 23	2 54	1 14	8 29	1 12	22 21	0 45	14 24	2 7	17 37	0 21	M27
T 28	2 3	8 32	3 50	9 9	0 30	3 24	1 13	8 14	1 12	22 21	0 45	14 26	2 7	17 36	0 21	T 28
W29	2 27	2 36	2 57	9 50	0 37	3 54	1 12	8 0	1 12	22 21	0 45	14 28	2 6	17 36	0 21	W29
T 30	2s50	3s34	1n54	10s30	0s45	4s25	1n11	7n46	1n12	22n21	0s45	14s30	2n 6	17n35	0s21	T 30

Julian Day Number = 2521184.5, Delta T = 154.15 sec

Ecliptic obliquity = 23°25'00, Nutation = - 0°00'09, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 27°24'17, Lahiri = 26°31'18

ASTRODIENST EPHEMERIS for the year 2190
geocentric

OCTOBER 2190

00:00 UT

Day	Sid.t	☉	☽	♊	♋	♌	♍	♎	♏	♐	♑	♒	♓	♈	♉	Day
F 1	0 40 4	8♌ 7'38	26♌54	26♌50	15♌11	13♏42	20♏57	15♏47	20♒46	3♒21	10♑23	4♒40	5♒47	14♑40	2♑11	F 1
S 2	0 44 1	9° 6'33	10♏33	28°18	16°26	14°20	20°58	15°53	20♌44	3♒20	10°24	4°D40	5°44	14°46	2°15	S 2
S 3	0 47 57	10° 5'30	24°22	29°45	17°41	14°57	21° 0	15°59	20°42	3°18	10°25	4♌41	5°41	14°53	2°19	S 3
M 4	0 51 54	11° 4'29	8♌20	1♏12	18°55	15°35	21° 1	16° 5	20°40	3°16	10°26	4°42	5°38	15° 0	2°23	M 4
T 5	0 55 51	12° 3'29	22°25	2°37	20°10	16°13	21° 2	16°12	20°39	3°15	10°27	4°44	5°34	15° 7	2°26	T 5
W 6	0 59 47	13° 2'32	6♌34	4° 1	21°25	16°51	21° 3	16°18	20°37	3°13	10°28	4♒45	5°31	15°13	2°30	W 6
T 7	1 3 44	14° 1'36	20°46	5°24	22°40	17°29	21° 3	16°24	20°35	3°12	10°28	4°45	5°28	15°20	2°34	T 7
F 8	1 7 40	15° 0'42	4♌59	6°46	23°54	18° 6	21° 4	16°31	20°33	3°10	10°29	4°44	5°25	15°27	2°37	F 8
S 9	1 11 37	15°59'50	19°11	8° 7	25° 9	18°44	21°R 4	16°37	20°31	3° 8	10°30	4°42	5°22	15°33	2°40	S 9
S 10	1 15 33	16°58'59	3♌17	9°27	26°24	19°22	21° 4	16°44	20°29	3° 7	10°31	4°40	5°19	15°40	2°44	S 10
M 11	1 19 30	17°58'10	17°15	10°46	27°39	20° 0	21° 3	16°51	20°27	3° 5	10°32	4°37	5°15	15°47	2°47	M 11
T 12	1 23 26	18°57'23	1°Y 2	12° 3	28°53	20°37	21° 3	16°57	20°25	3° 4	10°33	4°35	5°12	15°54	2°50	T 12
W 13	1 27 23	19°56'37	14°34	13°19	0♏ 8	21°15	21° 2	17° 4	20°23	3° 2	10°33	4°34	5° 9	16° 0	2°53	W 13
T 14	1 31 20	20°55'54	27°50	14°34	1°23	21°53	21° 2	17°10	20°21	3° 0	10°34	4°33	5° 6	16° 7	2°56	T 14
F 15	1 35 16	21°55'13	10♌48	15°47	2°38	22°30	21° 0	17°17	20°19	2°59	10°35	4°D33	5° 3	16°14	2°59	F 15
S 16	1 39 13	22°54'34	23°29	16°58	3°53	23° 8	20°59	17°24	20°17	2°57	10°36	4°33	5° 0	16°20	3° 2	S 16
S 17	1 43 9	23°53'58	5♏54	18° 8	5° 7	23°46	20°58	17°31	20°15	2°56	10°36	4°34	4°56	16°27	3° 4	S 17
M 18	1 47 6	24°53'23	18° 6	19°15	6°22	24°23	20°56	17°37	20°13	2°54	10°37	4°35	4°53	16°34	3° 7	M 18
T 19	1 51 2	25°52'51	0♌ 6	20°21	7°37	25° 1	20°54	17°44	20°11	2°53	10°38	4°36	4°50	16°41	3°10	T 19
W 20	1 54 59	26°52'21	12° 1	21°24	8°52	25°39	20°52	17°51	20° 9	2°51	10°38	4°37	4°47	16°47	3°12	W 20
T 21	1 58 55	27°51'54	23°53	22°25	10° 7	26°16	20°50	17°58	20° 6	2°50	10°39	4♒37	4°44	16°54	3°15	T 21
F 22	2 2 52	28°51'28	5♏48	23°23	11°21	26°54	20°48	18° 5	20° 4	2°48	10°39	4°37	4°40	17° 1	3°17	F 22
S 23	2 6 49	29°51'05	17°50	24°18	12°36	27°31	20°45	18°12	20° 2	2°47	10°40	4°37	4°37	17° 8	3°19	S 23
S 24	2 10 45	0♏50'44	0♏ 4	25°10	13°51	28° 9	20°42	18°19	19°59	2°45	10°40	4°37	4°34	17°14	3°21	S 24
M 25	2 14 42	1°50'26	12°33	25°58	15° 6	28°47	20°39	18°26	19°57	2°44	10°41	4°36	4°31	17°21	3°23	M 25
T 26	2 18 38	2°50'09	25°21	26°42	16°21	29°24	20°36	18°33	19°55	2°43	10°41	4°36	4°28	17°28	3°25	T 26
W 27	2 22 35	3°49'55	8♌29	27°22	17°35	0♌ 2	20°32	18°40	19°52	2°41	10°42	4°36	4°25	17°34	3°27	W 27
T 28	2 26 31	4°49'42	21°58	27°56	18°50	0°39	20°29	18°47	19°50	2°40	10°42	4°D36	4°21	17°41	3°29	T 28
F 29	2 30 28	5°49'32	5♏47	28°25	20° 5	1°17	20°25	18°54	19°48	2°39	10°42	4♒36	4°18	17°48	3°30	F 29
S 30	2 34 24	6°49'24	19°53	28°48	21°20	1°54	20°21	19° 1	19°45	2°37	10°43	4°36	4°15	17°55	3°32	S 30
S 31	2 38 21	7♏49'18	4♌11	29♏ 5	22♏35	2♌32	20♏17	19♏ 8	19♌43	2♒36	10♑43	4♌35	4♌12	18♑ 1	3♑33	S 31

Day	☉	☾		♊		♋		♌		♍		♎		♏		♐		♑		♒		♓		♈	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	3s13	9s42	0n42	11s 9	0s52	4s55	1n 9	7n31	1n12	22n21	0s45	14s32	2n 6	17n35	0s21	0n 4	1s23	22n17	4n51	13n 4	13n26	27n23	13n 7	6s42	
S 2	3 36	15 29	0s32	11 47	1 0	5 25	1 8	7 17	1 12	22 22	0 45	14 34	2 6	17 35	0 21	0 3	1 23	22 17	4 51	13 4	13 25	27 23	13 6	6 42	
S 3	4 0	20 34	1 46	12 25	1 7	5 54	1 6	7 2	1 12	22 22	0 45	14 36	2 6	17 34	0 21	0 3	1 23	22 17	4 52	13 4	13 24	27 22	13 5	6 43	
M 4	4 23	24 33	2 55	13 2	1 14	6 24	1 5	6 47	1 12	22 22	0 45	14 38	2 6	17 34	0 21	0 2	1 23	22 17	4 52	13 5	13 23	27 22	13 3	6 44	
T 5	4 46	27 5	3 53	13 39	1 22	6 54	1 3	6 33	1 13	22 22	0 45	14 40	2 6	17 33	0 21	0 1	1 23	22 17	4 52	13 5	13 22	27 21	13 2	6 44	
W 6	5 9	27 53	4 38	14 14	1 29	7 23	1 2	6 18	1 13	22 22	0 45	14 42	2 5	17 33	0 21	0 1	1 23	22 17	4 52	13 5	13 21	27 21	13 0	6 45	
T 7	5 32	26 51	5 6	14 49	1 36	7 53	1 0	6 3	1 13	22 22	0 45	14 44	2 5	17 32	0 21	0 0	1 23	22 17	4 52	13 5	13 20	27 20	12 59	6 45	
F 8	5 55	24 5	5 15	15 23	1 43	8 22	0 58	5 49	1 13	22 22	0 45	14 46	2 5	17 32	0 21	0s 1	1 23	22 17	4 53	13 5	13 19	27 20	12 58	6 46	
S 9	6 17	19 53	5 5	15 56	1 50	8 51	0 57	5 34	1 13	22 22	0 45	14 47	2 5	17 31	0 21	0 1	1 23	22 17	4 53	13 5	13 18	27 19	12 56	6 47	
S 10	6 40	14 35	4 37	16 28	1 56	9 20	0 55	5 19	1 13	22 22	0 45	14 49	2 5	17 31	0 21	0 2	1 23	22 17	4 53	13 4	13 17	27 19	12 55	6 47	
M11	7 3	8 36	3 52	16 59	2 3	9 48	0 53	5 4	1 13	22 22	0 45	14 51	2 5	17 30	0 21	0 3	1 23	22 17	4 53	13 3	13 16	27 18	12 54	6 48	
T 12	7 25	2 16	2 55	17 29	2 9	10 16	0 51	4 50	1 13	22 22	0 45	14 53	2 5	17 30	0 21	0 3	1 23	22 17	4 53	13 2	13 15	27 18	12 52	6 48	
W13	7 47	4n 4	1 48	17 58	2 15	10 45	0 49	4 35	1 13	22 22	0 45	14 55	2 5	17 29	0 21	0 4	1 23	22 17	4 53	13 2	13 14	27 17	12 51	6 49	
T 14	8 10	10 7	0 37	18 26	2 21	11 12	0 47	4 20	1 13	22 21	0 45	14 57	2 4	17 29	0 21	0 4	1 23	22 17	4 54	13 2	13 13	27 17	12 50	6 50	
F 15	8 32	15 36	0n35	18 53	2 27	11 40	0 45	4 5	1 13	22 21	0 45	14 59	2 4	17 28	0 21	0 5	1 23	22 17	4 54	13 1	13 11	27 16	12 49	6 50	
S 16	8 54	20 17	1 43	19 19	2 32	12 7	0 43	3 50	1 13	22 21	0 46	15 1	2 4	17 28	0 21	0 6	1 23	22 17	4 54	13 2	13 10	27 15	12 47	6 51	
S 17	9 16	23 59	2 45	19 44	2 37	12 34	0 41	3 35	1 13	22 21	0 46	15 3	2 4	17 27	0 21	0 6	1 23	22 17	4 54	13 2	13 9	27 15	12 46	6 52	
M18	9 38	26 30	3 38	20 7	2 42	13 1	0 39	3 20	1 13	22 21	0 46	15 5	2 4	17 26	0 21	0 7	1 23	22 17	4 54	13 2	13 8	27 14	12 45	6 52	
T 19	9 59	27 46	4 21	20 30	2 47	13 28	0 37	3 5	1 13	22 21	0 46	15 7	2 4	17 26	0 21	0 7	1 23	22 17	4 55	13 3	13 7	27 14	12 44	6 53	
W 20	10 21	27 44	4 53	20 51	2 51	13 54	0 34	2 51	1 13	22 21	0 46	15 9	2 4	17 25	0 21	0 8	1 23	22 17	4 55	13 3	13 6	27 13	12 43	6 54	
T 21	10 42	26 25	5 11	21 10	2 54	14 19	0 32	2 36	1 13	22 21	0 46	15 11	2 4	17 25	0 21	0 9	1 23	22 17	4 55	13 3	13 5	27 13	12 41	6 54	
F 22	11 3	23 55	5 17	21 28	2 58	14 45	0 30	2 21	1 13	22 20	0 46	15 13	2 4	17 24	0 21	0 9	1 23	22 17	4 55	13 3	13 4	27 12	12 40	6 55	
S 23	11 25	20 22	5 8	21 44	3 0	15 10	0 28	2 6	1 13	22 20	0 46	15 15	2 4	17 23	0 21	0 10	1 23	22 17	4 55	13 3	13 3	27 11	12 39	6 56	
S 24	11 45	15 54	4 46	21 59	3 2	15 35	0 25	1 51	1 13	22 20	0 46	15 17	2 3	17 23	0 21	0 10	1 23	22 17	4 56	13 3	13 2	27 11	12 38	6 56	
M25	12 6	10 42	4 10	22 12	3 4	15 59	0 23	1 36	1 13	22 20	0 46	15 19	2 3	17 22	0 21	0 11	1 23	22 17	4 56	13 3	13 1	27 10	12 37	6 57	
T 26	12 27	4 55	3 21	22 24	3 5	16 23	0 21	1 21	1 13	22 20	0 46	15 21	2 3	17 22	0 21	0 11	1 23	22 17	4 56	13 3	13 0	27 9	12 36	6 58	
W27	12 47	1s13	2 20	22 33	3 5	16 46	0 18	1 6	1 13	22 19	0 46	15 23	2 3	17 21	0 21	0 12	1 23	22 17	4 56	13 2	12 59	27 9	12 35	6 58	
T 28	13 7	7 29	1 9	22 40	3 4	17 9	0 16	0 51	1 13	22 19	0 46	15 25	2 3	17 20	0 21	0 12	1 23	22 17	4 56	13 2	12 58	27 8	12 34	6 59	
F 29	13 27	13 32	0s 7	22 45	3 2	17 32	0 13	0 36	1 13	22 19	0 46	15 27	2 3	17 20	0 21	0 13	1 23	22 17	4 57	13 2	12 57	27 7	12 33	7 0	
S 30	13 47	19 2	1 24	22 47	2 59	17 54	0 11	0 21	1 13	22 18	0 46	15 29	2 3	17 19	0 21	0 13	1 23	22 17	4 57	13 2	12 55	27 7	12 32	7 0	
S 31	14s 6	23s32	2s37	22s47	2s55	18s16	0n 8	0n 6	1n12	22n18	0s46	15s31	2n 3	17n18	0s21	0s14	1s23	22n17	4n57	13n 2	12n54	27n 6	12n31	7s 1	

ASTRODIENST EPHEMERIS for the year 2190

geocentric

NOVEMBER 2190

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 42 18	8♈49'13	18♈36	29♈14	23♈50	3♈9	20°R13	19♈15	19°R41	2°R35	10♈43	4°R35	4♈9	18♈8	3♈35	M 1
T 2	2 46 14	9°49'11	3♈4	29°R15	25°4	3°47	20°II 8	19°22	19♈38	2°Y33	10°44	4♈35	4°6	18°15	3°36	T 2
W 3	2 50 11	10°49'10	17°30	29°8	26°19	4°24	20°3	19°29	19°36	2°32	10°44	4°34	4°2	18°21	3°37	W 3
T 4	2 54 7	11°49'10	1♈48	28°52	27°34	5°2	19°58	19°36	19°33	2°31	10°44	4°34	3°59	18°28	3°38	T 4
F 5	2 58 4	12°49'12	15°58	28°27	28°49	5°39	19°53	19°43	19°31	2°30	10°44	4°D33	3°56	18°35	3°39	F 5
S 6	3 2 0	13°49'16	29°56	27°52	0♈4	6°17	19°48	19°51	19°28	2°29	10°44	4°34	3°53	18°42	3°40	S 6
S 7	3 5 57	14°49'21	13♈41	27°8	1°19	6°54	19°43	19°58	19°26	2°28	10°45	4°35	3°50	18°48	3°41	S 7
M 8	3 9 53	15°49'27	27°14	26°14	2°33	7°32	19°37	20°5	19°23	2°26	10°45	4°35	3°46	18°55	3°41	M 8
T 9	3 13 50	16°49'36	10°Y33	25°12	3°48	8°9	19°31	20°12	19°21	2°25	10°45	4°37	3°43	19°2	3°42	T 9
W10	3 17 47	17°49'45	23°40	24°2	5°3	8°46	19°26	20°19	19°18	2°24	10°45	4°37	3°40	19°8	3°42	W10
T 11	3 21 43	18°49'57	6♈33	22°47	6°18	9°24	19°20	20°26	19°16	2°23	10°R45	4°R38	3°37	19°15	3°43	T 11
F 12	3 25 40	19°50'10	19°14	21°29	7°33	10°1	19°13	20°34	19°13	2°22	10°45	4°37	3°34	19°22	3°43	F 12
S 13	3 29 36	20°50'25	1♈43	20°9	8°47	10°39	19°7	20°41	19°11	2°21	10°45	4°36	3°31	19°29	3°43	S 13
S 14	3 33 33	21°50'42	14°0	18°51	10°2	11°16	19°1	20°48	19°8	2°20	10°45	4°33	3°27	19°35	3°43	S 14
M15	3 37 29	22°51'01	26°7	17°36	11°17	11°53	18°54	20°55	19°6	2°19	10°45	4°31	3°24	19°42	3°R43	M15
T 16	3 41 26	23°51'21	8♈6	16°28	12°32	12°31	18°47	21°2	19°3	2°19	10°45	4°27	3°21	19°49	3°43	T 16
W17	3 45 22	24°51'43	20°0	15°28	13°47	13°8	18°41	21°9	19°1	2°18	10°44	4°24	3°18	19°55	3°43	W17
T 18	3 49 19	25°52'08	1♈51	14°39	15°1	13°45	18°34	21°17	18°59	2°17	10°44	4°22	3°15	20°2	3°43	T 18
F 19	3 53 16	26°52'34	13°44	14°0	16°16	14°23	18°27	21°24	18°56	2°16	10°44	4°20	3°12	20°9	3°42	F 19
S 20	3 57 12	27°53'01	25°44	13°33	17°31	15°0	18°19	21°31	18°54	2°15	10°44	4°D19	3°8	20°16	3°42	S 20
S 21	4 1 9	28°53'31	7♈54	13°18	18°46	15°37	18°12	21°38	18°51	2°14	10°44	4°19	3°5	20°22	3°41	S 21
M22	4 5 5	29°54'02	20°20	13°D14	20°1	16°14	18°5	21°45	18°49	2°14	10°43	4°21	3°2	20°29	3°41	M22
T 23	4 9 2	0♈54'36	3♈6	13°21	21°15	16°52	17°57	21°52	18°46	2°13	10°43	4°22	2°59	20°36	3°40	T 23
W24	4 12 58	1°55'11	16°16	13°38	22°30	17°29	17°50	21°59	18°44	2°12	10°43	4°24	2°56	20°43	3°39	W24
T 25	4 16 55	2°55'47	29°51	14°5	23°45	18°6	17°42	22°7	18°42	2°12	10°42	4°R25	2°52	20°49	3°38	T 25
F 26	4 20 51	3°56'26	13♈52	14°40	25°0	18°43	17°34	22°14	18°39	2°11	10°42	4°25	2°49	20°56	3°37	F 26
S 27	4 24 48	4°57'05	28°17	15°23	26°14	19°20	17°27	22°21	18°37	2°11	10°41	4°23	2°46	21°3	3°36	S 27
S 28	4 28 45	5°57'47	13♈0	16°12	27°29	19°58	17°19	22°28	18°34	2°10	10°41	4°19	2°43	21°9	3°35	S 28
M29	4 32 41	6°58'30	27°54	17°8	28°44	20°35	17°11	22°35	18°32	2°10	10°41	4°15	2°40	21°16	3°33	M29
T 30	4 36 38	7♈59'14	12♈50	18♈9	29♈59	21♈12	17°II 3	22♈42	18♈30	2°Y9	10♈40	4♈10	2♈37	21♈23	3♈32	T 30

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	
M 1	14s26	26s35	3s40	22s44	2s50	18s37	0n6	0s9	1n12	22n18	0s46	15s33	2n3	17n18	0s21	M 1
T 2	14 45	27 53	4 30	22 38	2 44	18 58	0 4	0 24	1 12	22 18	0 46	15 35	2 3	17 17	0 21	T 2
W 3	15 3	27 17	5 3	22 29	2 36	19 18	0 1	0 39	1 12	22 17	0 46	15 37	2 3	17 16	0 21	W 3
T 4	15 22	24 52	5 16	22 16	2 26	19 37	0s2	0 53	1 12	22 17	0 46	15 39	2 3	17 16	0 21	T 4
F 5	15 40	20 58	5 10	21 59	2 15	19 57	0 4	1 8	1 12	22 17	0 45	15 41	2 3	17 15	0 21	F 5
S 6	15 58	15 57	4 46	21 39	2 2	20 15	0 7	1 23	1 12	22 16	0 45	15 43	2 3	17 14	0 21	S 6
S 7	16 16	10 12	4 6	21 15	1 48	20 33	0 9	1 38	1 12	22 16	0 45	15 45	2 3	17 14	0 21	S 7
M 8	16 34	4 3	3 12	20 46	1 32	20 51	0 12	1 53	1 12	22 15	0 45	15 47	2 3	17 13	0 21	M 8
T 9	16 51	2n12	2 9	20 15	1 14	21 7	0 14	2 8	1 12	22 15	0 45	15 49	2 2	17 12	0 21	T 9
W10	17 8	8 15	1 0	19 39	0 55	21 24	0 17	2 32	1 12	22 15	0 45	15 51	2 2	17 12	0 21	W10
T 11	17 24	13 52	0n11	19 1	0 35	21 39	0 19	2 37	1 12	22 14	0 45	15 52	2 2	17 11	0 21	T 11
F 12	17 41	18 48	1 20	18 21	0 15	21 54	0 22	2 52	1 12	22 14	0 45	15 54	2 2	17 10	0 21	F 12
S 13	17 57	22 50	2 24	17 40	0n6	22 9	0 24	3 7	1 12	22 13	0 45	15 56	2 2	17 10	0 21	S 13
S 14	18 13	25 46	3 20	16 59	0 26	22 23	0 27	3 21	1 12	22 13	0 45	15 58	2 2	17 9	0 21	S 14
M15	18 28	27 28	4 7	16 20	0 46	22 36	0 29	3 36	1 12	22 12	0 45	16 0	2 2	17 8	0 21	M15
T 16	18 43	27 52	4 42	15 43	1 4	22 48	0 32	3 50	1 11	22 12	0 45	16 2	2 2	17 8	0 21	T 16
W17	18 58	26 57	5 5	15 10	1 21	23 0	0 34	4 5	1 11	22 11	0 45	16 4	2 2	17 7	0 21	W17
T 18	19 12	24 50	5 14	14 41	1 36	23 11	0 37	4 20	1 11	22 11	0 45	16 6	2 2	17 6	0 21	T 18
F 19	19 26	21 38	5 10	14 17	1 49	23 22	0 39	4 34	1 11	22 10	0 45	16 8	2 2	17 6	0 21	F 19
S 20	19 40	17 31	4 53	13 58	2 1	23 31	0 42	4 49	1 11	22 10	0 45	16 9	2 2	17 5	0 21	S 20
S 21	19 54	12 39	4 22	13 45	2 10	23 40	0 44	5 3	1 11	22 9	0 45	16 11	2 2	17 5	0 21	S 21
M22	20 7	7 10	3 39	13 37	2 17	23 49	0 46	5 17	1 11	22 8	0 45	16 13	2 2	17 4	0 21	M22
T 23	20 19	1 16	2 43	13 34	2 22	23 56	0 49	5 32	1 11	22 8	0 45	16 15	2 2	17 3	0 21	T 23
W24	20 32	4s53	1 38	13 36	2 26	24 3	0 51	5 46	1 11	22 7	0 44	16 17	2 2	17 3	0 21	W24
T 25	20 43	11 1	0 25	13 42	2 28	24 10	0 53	6 0	1 11	22 7	0 44	16 19	2 2	17 2	0 21	T 25
F 26	20 55	16 48	0s52	13 51	2 29	24 15	0 56	6 15	1 10	22 6	0 44	16 20	2 2	17 1	0 21	F 26
S 27	21 6	21 49	2 7	14 4	2 28	24 20	0 58	6 29	1 10	22 5	0 44	16 22	2 2	17 1	0 21	S 27
S 28	21 17	25 34	3 15	14 20	2 26	24 24	1 0	6 43	1 10	22 5	0 44	16 24	2 2	17 0	0 21	S 28
M29	21 27	27 35	4 11	14 38	2 24	24 27	1 2	6 57	1 10	22 4	0 44	16 26	2 2	16 59	0 21	M29
T 30	21s37	27s36	4s50	14s58	2n20	24s30	1s5	7s11	1n10	22n3	0s44	16s27	2n2	16n59	0s21	T 30

Julian Day Number = 2521245.5, Delta T = 154.30 sec

Ecliptic obliquity = 23°25'00, Nutation = - 0°00'11, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 27°24'26, Lahiri = 26°31'26

ASTRODIENST EPHEMERIS for the year 2190
geocentric

DECEMBER 2190

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	4 40 34	8♂59'59	27♂40	19♂14	1♂14	21♂49	16°R55	22♂49	18°R27	2°R 9	10°R40	4°R 5	2♂33	21♂30	3°R30	W 1
T 2	4 44 31	10° 0'45	12♂17	20°23	2°28	22°26	16♂47	22°56	18♂25	2°Y 8	10♂39	4♂ 1	2°30	21°36	3♂29	T 2
F 3	4 48 27	11° 1'32	26°36	21°35	3°43	23° 3	16°39	23° 3	18°23	2° 8	10°39	3°58	2°27	21°43	3°27	F 3
S 4	4 52 24	12° 2'20	10♂34	22°51	4°58	23°40	16°30	23°10	18°21	2° 8	10°38	3°D57	2°24	21°50	3°25	S 4
S 5	4 56 21	13° 3'09	24°11	24° 8	6°13	24°17	16°22	23°17	18°19	2° 7	10°37	3°58	2°21	21°56	3°23	S 5
M 6	5 0 17	14° 3'58	7°Y29	25°28	7°27	24°54	16°14	23°24	18°16	2° 7	10°37	3°59	2°18	22° 3	3°21	M 6
T 7	5 4 14	15° 4'49	20°30	26°50	8°42	25°31	16° 6	23°30	18°14	2° 7	10°36	4° 0	2°14	22°10	3°19	T 7
W 8	5 8 10	16° 5'40	3♂15	28°13	9°57	26° 8	15°58	23°37	18°12	2° 7	10°35	4°R 1	2°11	22°17	3°17	W 8
T 9	5 12 7	17° 6'32	15°48	29°38	11°11	26°45	15°50	23°44	18°10	2° 6	10°35	4° 0	2° 8	22°23	3°15	T 9
F 10	5 16 3	18° 7'25	28°11	1♂ 4	12°26	27°22	15°41	23°51	18° 8	2° 6	10°34	3°58	2° 5	22°30	3°12	F 10
S 11	5 20 0	19° 8'19	10♂25	2°30	13°41	27°59	15°33	23°58	18° 6	2° 6	10°33	3°53	2° 2	22°37	3°10	S 11
S 12	5 23 56	20° 9'14	22°32	3°58	14°55	28°36	15°25	24° 4	18° 4	2° 6	10°32	3°45	1°58	22°44	3° 7	S 12
M13	5 27 53	21°10'10	4♂33	5°26	16°10	29°13	15°17	24°11	18° 2	2°D 6	10°32	3°36	1°55	22°50	3° 5	M13
T 14	5 31 50	22°11'07	16°29	6°55	17°25	29°50	15° 9	24°18	18° 0	2° 6	10°31	3°26	1°52	22°57	3° 2	T 14
W15	5 35 46	23°12'05	8°24	8°24	18°39	0♂27	15° 1	24°24	17°58	2° 6	10°30	3°17	1°49	23° 4	2°59	W15
T 16	5 39 43	24°13'04	10♂12	9°54	19°54	1° 3	14°53	24°31	17°56	2° 6	10°29	3° 8	1°46	23°10	2°57	T 16
F 17	5 43 39	25°14'04	22° 5	11°24	21° 8	1°40	14°45	24°37	17°54	2° 6	10°28	3° 0	1°43	23°17	2°54	F 17
S 18	5 47 36	26°15'05	4♂ 3	12°55	22°23	2°17	14°37	24°44	17°53	2° 7	10°27	2°55	1°39	23°24	2°51	S 18
S 19	5 51 32	27°16'07	16°10	14°26	23°37	2°54	14°29	24°50	17°51	2° 7	10°26	2°52	1°36	23°31	2°48	S 19
M20	5 55 29	28°17'09	28°31	15°57	24°52	3°30	14°22	24°57	17°49	2° 7	10°25	2°D51	1°33	23°37	2°44	M20
T 21	5 59 25	29°18'13	11♂10	17°28	26° 7	4° 7	14°14	25° 3	17°47	2° 7	10°25	2°52	1°30	23°44	2°41	T 21
W22	6 3 22	0♂19'17	24°12	19° 0	27°21	4°44	14° 6	25° 9	17°46	2° 8	10°24	2°53	1°27	23°51	2°38	W22
T 23	6 7 19	1°20'23	7♂42	20°32	28°36	5°21	13°59	25°16	17°44	2° 8	10°23	2°R53	1°24	23°57	2°35	T 23
F 24	6 11 15	2°21'29	21°41	22° 4	29°50	5°57	13°51	25°22	17°43	2° 8	10°22	2°51	1°20	24° 4	2°31	F 24
S 25	6 15 12	3°22'36	6♂ 8	23°36	1♂ 5	6°34	13°44	25°28	17°41	2° 9	10°20	2°47	1°17	24°11	2°28	S 25
S 26	6 19 8	4°23'44	21° 1	25° 9	2°19	7°10	13°37	25°34	17°40	2° 9	10°19	2°41	1°14	24°18	2°24	S 26
M27	6 23 5	5°24'52	6♂11	26°42	3°33	7°47	13°30	25°40	17°38	2° 9	10°18	2°32	1°11	24°24	2°21	M27
T 28	6 27 1	6°26'01	21°29	28°15	4°48	8°24	13°23	25°46	17°37	2°10	10°17	2°22	1° 8	24°31	2°17	T 28
W29	6 30 58	7°27'10	6♂42	29°48	6° 2	9° 0	13°16	25°52	17°35	2°11	10°16	2°12	1° 4	24°38	2°13	W29
T 30	6 34 54	8°28'19	21°41	1♂21	7°17	9°37	13° 9	25°58	17°34	2°11	10°15	2° 3	1° 1	24°45	2°10	T 30
F 31	6 38 51	9♂29'28	6♂17	2♂55	8♂31	10♂13	13♂ 3	26♂ 4	17♂33	2°Y12	10♂14	1♂56	0♂58	24♂51	2♂ 6	F 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	lat
W 1	21s47	25s39	5s 9	15s20	2n16	24s31	1s 7	7s25	1n10	22n 3	0s44	16s29	2n 2	16n58	0s21	0s24
T 2	21 56	22 1	5 8	15 43	2 12	24 32	1 9	7 39	1 10	22 2	0 44	16 31	2 2	16 58	0 21	0 24
F 3	22 4	17 8	4 47	16 7	2 6	24 33	1 11	7 53	1 9	22 1	0 44	16 33	2 2	16 57	0 21	0 24
S 4	22 13	11 27	4 10	16 31	2 1	24 32	1 13	8 6	1 9	22 1	0 43	16 34	2 2	16 56	0 21	0 24
S 5	22 21	5 21	3 19	16 56	1 55	24 31	1 15	8 20	1 9	22 0	0 43	16 36	2 2	16 56	0 21	0 24
M 6	22 28	0n50	2 19	17 22	1 48	24 29	1 17	8 34	1 9	21 59	0 43	16 38	2 2	16 55	0 21	0 24
T 7	22 35	6 52	1 13	17 47	1 41	24 26	1 18	8 47	1 9	21 59	0 43	16 39	2 2	16 55	0 21	0 24
W 8	22 41	12 31	0 4	18 12	1 35	24 23	1 20	9 1	1 9	21 58	0 43	16 41	2 3	16 54	0 21	0 24
T 9	22 48	17 34	1n 3	18 38	1 28	24 18	1 22	9 14	1 8	21 57	0 43	16 43	2 3	16 53	0 21	0 24
F 10	22 53	21 48	2 7	19 2	1 20	24 14	1 24	9 28	1 8	21 57	0 43	16 44	2 3	16 53	0 21	0 24
S 11	22 58	25 1	3 4	19 27	1 13	24 8	1 25	9 41	1 8	21 56	0 43	16 46	2 3	16 52	0 21	0 24
S 12	23 3	27 3	3 51	19 51	1 6	24 1	1 27	9 54	1 8	21 55	0 42	16 47	2 3	16 52	0 21	0 24
M13	23 7	27 48	4 28	20 14	0 58	23 54	1 29	10 8	1 8	21 54	0 42	16 49	2 3	16 51	0 21	0 24
T 14	23 11	27 15	4 53	20 37	0 51	23 46	1 30	10 21	1 8	21 54	0 42	16 50	2 3	16 51	0 21	0 24
W15	23 15	25 27	5 5	20 58	0 43	23 38	1 31	10 34	1 7	21 53	0 42	16 52	2 3	16 50	0 21	0 24
T 16	23 17	22 32	5 4	21 19	0 36	23 28	1 33	10 47	1 7	21 52	0 42	16 54	2 3	16 50	0 21	0 24
F 17	23 20	18 41	4 49	21 40	0 28	23 18	1 34	11 0	1 7	21 51	0 42	16 55	2 3	16 49	0 21	0 24
S 18	23 22	14 5	4 22	21 59	0 21	23 8	1 35	11 13	1 7	21 51	0 41	16 57	2 3	16 49	0 21	0 24
S 19	23 23	8 53	3 43	22 17	0 14	22 56	1 36	11 25	1 7	21 50	0 41	16 58	2 3	16 48	0 21	0 24
M20	23 24	3 15	2 53	22 34	0 6	22 44	1 38	11 38	1 6	21 49	0 41	16 59	2 3	16 48	0 21	0 24
T 21	23 25	2s40	1 54	22 50	0s 1	22 31	1 39	11 51	1 6	21 49	0 41	17 1	2 3	16 47	0 21	0 24
W22	23 25	8 40	0 46	23 6	0 8	22 18	1 40	12 3	1 6	21 48	0 41	17 2	2 3	16 47	0 21	0 24
T 23	23 25	14 28	0s26	23 20	0 15	22 4	1 41	12 16	1 6	21 47	0 41	17 4	2 3	16 47	0 21	0 23
F 24	23 24	19 45	1 39	23 32	0 22	21 49	1 41	12 28	1 5	21 46	0 40	17 5	2 4	16 46	0 21	0 23
S 25	23 22	24 4	2 48	23 44	0 28	21 34	1 42	12 40	1 5	21 46	0 40	17 7	2 4	16 46	0 20	0 23
S 26	23 21	26 53	3 47	23 55	0 35	21 18	1 43	12 52	1 5	21 45	0 40	17 8	2 4	16 45	0 20	0 23
M27	23 18	27 48	4 32	24 4	0 41	21 1	1 43	13 4	1 5	21 44	0 40	17 9	2 4	16 45	0 20	0 23
T 28	23 16	26 36	4 57	24 12	0 48	20 44	1 44	13 16	1 4	21 44	0 40	17 11	2 4	16 45	0 20	0 22
W29	23 12	23 27	5 2	24 19	0 54	20 26	1 44	13 28	1 4	21 43	0 39	17 12	2 4	16 44	0 20	0 22
T 30	23 9	18 46	4 45	24 24	1 0	20 8	1 45	13 40	1 4	21 42	0 39	17 13	2 4	16 44	0 20	0 22
F 31	23s 5	13s 4	4s10	24s28	1s 5	19s49	1s45	13s52	1n 4	21n42	0s39	17s14	2n 4	16n43	0s20	0s22

Julian Day Number = 2521275.5, Delta T = 154.38 sec
Ecliptic obliquity = 23°24'59, Nutation = - 0°00'10, out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 27°24'30, Lahiri = 26°31'30