



Astrodienst Ephemeris Tables for the year 2269

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming
Dieter Koch and Alois Treindl
based on Swiss Ephemeris
Code D5EPH

ASTRODIENST EPHEMERIS for the year 2269

geocentric

JANUARY 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 43 15	10°35'04	5°54'54	24°18'18	8°46'46	5°31'31	6°48'48	12°R46	24°R 5	28°R49	27°36'36	20°R51	22°20'20	18°43'43	9°42'42	F 1
S 2	6 47 12	11°36'13	20°44'44	25°46'46	10°1'1	6°17'17	7°1'1	12°36'41	24°D 5	28°49'49	27°38'38	20°44'44	22°17'17	18°50'50	9°43'43	S 2
S 3	6 51 8	12°37'23	5°38'28	27°15'15	11°17'17	7°3'3	7°15'15	12°36'36	24°Y 5	28°49'49	27°40'40	20°38'38	22°13'13	18°57'57	9°44'44	S 3
M 4	6 55 5	13°38'33	19°59'59	28°44'44	12°32'32	7°49'49	7°29'29	12°31'31	24°5'5	28°49'49	27°42'42	20°34'34	22°10'10	19°3'3	9°45'45	M 4
T 5	6 59 1	14°39'43	4°41'11	0°31'13	13°48'48	8°35'35	7°43'43	12°26'26	24°5'5	28°49'49	27°44'44	20°31'31	22°7'7	19°10'10	9°45'45	T 5
W 6	7 2 58	15°40'53	17°59'59	1°43'43	15°3'3	9°21'21	7°56'56	12°21'21	24°5'5	28°49'49	27°46'46	20°D29	22°4'4	19°17'17	9°46'46	W 6
T 7	7 6 54	16°42'03	1°42'21	3°13'13	16°19'19	10°7'7	8°10'10	12°16'16	24°5'5	28°49'49	27°48'48	20°30'30	22°1'1	19°23'23	9°47'47	T 7
F 8	7 10 51	17°43'12	14°20'20	4°44'44	17°35'35	10°53'53	8°24'24	12°11'11	24°5'5	28°48'48	27°50'50	20°31'31	21°57'57	19°30'30	9°48'48	F 8
S 9	7 14 48	18°44'22	26°56'56	6°15'15	18°50'50	11°39'39	8°37'37	12°6'6	24°6'6	28°48'48	27°52'52	20°33'33	21°54'54	19°37'37	9°49'49	S 9
S 10	7 18 44	19°45'30	9°14'14	7°47'47	20°6'6	12°25'25	8°51'51	12°2'2	24°6'6	28°48'48	27°54'54	20°35'35	21°51'51	19°44'44	9°51'51	S 10
M 11	7 22 41	20°46'39	21°18'18	9°19'19	21°21'21	13°10'10	9°5'5	11°57'57	24°7'7	28°47'47	27°56'56	20°R35	21°48'48	19°50'50	9°52'52	M 11
T 12	7 26 37	21°47'47	3°14'14	10°51'51	22°36'36	13°56'56	9°18'18	11°52'52	24°7'7	28°47'47	27°58'58	20°34'34	21°45'45	19°57'57	9°53'53	T 12
W 13	7 30 34	22°48'55	15°6'6	12°24'24	23°52'52	14°42'42	9°32'32	11°47'47	24°8'8	28°46'46	28°0'0	20°32'32	21°42'42	20°4'4	9°54'54	W 13
T 14	7 34 30	23°50'03	26°58'58	13°57'57	25°7'7	15°28'28	9°46'46	11°42'42	24°8'8	28°46'46	28°2'2	20°29'29	21°38'38	20°11'11	9°56'56	T 14
F 15	7 38 27	24°51'10	8°11'11	15°31'31	26°23'23	16°14'14	9°59'59	11°37'37	24°9'9	28°45'45	28°4'4	20°25'25	21°35'35	20°17'17	9°57'57	F 15
S 16	7 42 23	25°52'17	21°1'1	17°5'5	27°38'38	17°0'0	10°13'13	11°33'33	24°10'10	28°45'45	28°6'6	20°20'20	21°32'32	20°24'24	9°59'59	S 16
S 17	7 46 20	26°53'23	3°17'17	18°40'40	28°54'54	17°46'46	10°26'26	11°28'28	24°10'10	28°44'44	28°8'8	20°16'16	21°29'29	20°31'31	10°0'0	S 17
M 18	7 50 17	27°54'28	15°45'45	20°15'15	0°9'9	18°32'32	10°40'40	11°23'23	24°11'11	28°44'44	28°10'10	20°13'13	21°26'26	20°37'37	10°2'2	M 18
T 19	7 54 13	28°55'34	28°26'26	21°50'50	1°25'25	19°17'17	10°53'53	11°19'19	24°12'12	28°43'43	28°12'12	20°10'10	21°23'23	20°44'44	10°3'3	T 19
W 20	7 58 10	29°56'38	11°20'20	23°26'26	2°40'40	20°3'3	11°7'7	11°14'14	24°13'13	28°43'43	28°14'14	20°9'9	21°19'19	20°51'51	10°5'5	W 20
T 21	8 2 6	0°57'43	24°28'28	25°3'3	3°56'56	20°49'49	11°20'20	11°10'10	24°14'14	28°42'42	28°16'16	20°D 9	21°16'16	20°58'58	10°7'7	T 21
F 22	8 6 3	1°58'47	7°48'48	26°40'40	5°11'11	21°35'35	11°34'34	11°5'5	24°15'15	28°41'41	28°18'18	20°9'9	21°13'13	21°4'4	10°9'9	F 22
S 23	8 9 59	2°59'50	21°20'20	28°17'17	6°26'26	22°20'20	11°47'47	11°1'1	24°16'16	28°40'40	28°20'20	20°11'11	21°10'10	21°11'11	10°10'10	S 23
S 24	8 13 56	4°0'53	5°3'3	29°55'55	7°42'42	23°6'6	12°0'0	10°56'56	24°17'17	28°40'40	28°22'22	20°12'12	21°7'7	21°18'18	10°12'12	S 24
M 25	8 17 52	5°1'56	18°56'56	1°34'34	8°57'57	23°52'52	12°14'14	10°52'52	24°18'18	28°39'39	28°24'24	20°13'13	21°3'3	21°25'25	10°14'14	M 25
T 26	8 21 49	6°2'59	2°15'15	3°13'13	10°13'13	24°38'38	12°27'27	10°48'48	24°19'19	28°38'38	28°26'26	20°R14	21°0'0	21°31'31	10°16'16	T 26
W 27	8 25 46	7°4'01	17°10'10	4°53'53	11°28'28	25°23'23	12°40'40	10°43'43	24°21'21	28°37'37	28°28'28	20°13'13	20°57'57	21°38'38	10°18'18	W 27
T 28	8 29 42	8°5'03	1°27'27	6°33'33	12°43'43	26°9'9	12°53'53	10°39'39	24°22'22	28°36'36	28°30'30	20°13'13	20°54'54	21°45'45	10°20'20	T 28
F 29	8 33 39	9°6'04	15°47'47	8°14'14	13°59'59	26°54'54	13°6'6	10°35'35	24°23'23	28°35'35	28°32'32	20°11'11	20°51'51	21°51'51	10°22'22	F 29
S 30	8 37 35	10°7'05	0°3'6	9°56'56	15°14'14	27°40'40	13°19'19	10°31'31	24°25'25	28°34'34	28°34'34	20°10'10	20°48'48	21°58'58	10°25'25	S 30
S 31	8 41 32	11°8'06	14°30'30	11°38'38	16°30'30	28°42'42	13°32'32	10°27'27	24°Y26	28°33'33	28°35'35	20°9'9	20°44'44	22°5'5	10°Y27	S 31

Delta T = 247.11 sec

FEBRUARY 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 45 28	12°39'05	28°32'25	13°21'21	17°44'45	29°11'11	13°45'45	10°R24	24°Y28	28°R32	28°37'37	20°R 8	20°44'41	22°8'12	10°Y29	M 1
T 2	8 49 25	13°10'04	12°16'16	15°4'4	19°0'0	29°57'57	13°58'58	10°20'20	24°29'29	28°31'31	28°39'39	20°8'8	20°38'38	22°18'18	10°31'31	T 2
W 3	8 53 22	14°11'02	25°50'50	16°49'49	20°16'16	0°42'42	14°11'11	10°16'16	24°31'31	28°30'30	28°41'41	20°D 8	20°35'35	22°25'25	10°34'34	W 3
T 4	8 57 18	15°11'59	9°4'6	18°33'33	21°31'31	1°28'28	14°24'24	10°12'12	24°32'32	28°29'29	28°43'43	20°8'8	20°32'32	22°32'32	10°36'36	T 4
F 5	9 1 15	16°12'54	22°1'1	20°19'19	22°46'46	2°13'13	14°37'37	10°9'9	24°34'34	28°28'28	28°45'45	20°8'8	20°29'29	22°38'38	10°39'39	F 5
S 6	9 5 11	17°13'49	4°Y38	22°4'4	24°2'2	2°58'58	14°50'50	10°5'5	24°36'36	28°27'27	28°47'47	20°9'9	20°25'25	22°45'45	10°41'41	S 6
S 7	9 9 8	18°14'42	16°59'59	23°51'51	25°17'17	3°44'44	15°2'2	10°2'2	24°38'38	28°26'26	28°49'49	20°9'9	20°22'22	22°52'52	10°44'44	S 7
M 8	9 13 4	19°15'34	29°6'6	25°38'38	26°32'32	4°29'29	15°15'15	9°59'59	24°39'39	28°25'25	28°51'51	20°9'9	20°19'19	22°59'59	10°46'46	M 8
T 9	9 17 1	20°16'24	11°8'4	27°25'25	27°47'47	5°14'14	15°28'28	9°56'56	24°41'41	28°23'23	28°53'53	20°R 9	20°16'16	23°5'5	10°49'49	T 9
W 10	9 20 57	21°17'13	22°57'57	29°12'12	29°3'3	6°0'0	15°40'40	9°52'52	24°43'43	28°22'22	28°55'55	20°D 9	20°13'13	23°12'12	10°51'51	W 10
T 11	9 24 54	22°18'01	4°11'11	1°4'0	0°18'18	6°45'45	15°53'53	9°49'49	24°45'45	28°21'21	28°57'57	20°9'9	20°9'9	23°19'19	10°54'54	T 11
F 12	9 28 50	23°18'47	16°47'47	2°48'48	1°33'33	7°30'30	16°5'5	9°47'47	24°47'47	28°20'20	28°58'58	20°9'9	20°6'6	23°26'26	10°57'57	F 12
S 13	9 32 47	24°19'32	28°54'54	4°35'35	2°48'48	8°15'15	16°17'17	9°44'44	24°49'49	28°18'18	29°0'0	20°10'10	20°3'3	23°32'32	11°0'0	S 13
S 14	9 36 44	25°20'16	11°16'16	6°22'22	4°3'3	9°0'0	16°29'29	9°41'41	24°51'51	28°17'17	29°2'2	20°10'10	20°0'0	23°39'39	11°2'2	S 14
M 15	9 40 40	26°20'57	23°49'49	8°9'9	5°19'19	9°46'46	16°42'42	9°38'38	24°53'53	28°16'16	29°4'4	20°11'11	19°57'57	23°46'46	11°5'5	M 15
T 16	9 44 37	27°21'38	6°14'14	9°55'55	6°34'34	10°31'31	16°54'54	9°36'36	24°56'56	28°14'14	29°6'6	20°11'11	19°54'54	23°52'52	11°8'8	T 16
W 17	9 48 33	28°22'17	19°55'55	11°40'40	7°49'49	11°16'16	17°6'6	9°33'33	24°58'58	28°13'13	29°8'8	20°R12	19°50'50	23°59'59	11°11'11	W 17
T 18	9 52 30	29°22'54	3°11'11	13°24'24	9°4'4	12°1'1	17°18'18	9°31'31	25°0'0	28°11'11	29°9'9	20°11'11	19°47'47	24°6'6	11°14'14	T 18
F 19	9 56 26	0°23'30	17°14'14	15°6'6	10°19'19	12°46'46	17°30'30	9°29'29	25°2'2	28°10'10	29°11'11	20°11'11	19°44'44	24°13'13	11°17'17	F 19
S 20	10 0 23	1°24'04	1°15'15	16°45'45	11°34'34	13°31'31	17°42'42	9°27'27	25°5'5	28°9'9	29°13'13	20°9'9	19°41'41	24°19'19	11°20'20	S 20
S 21	10 4 19	2°24'38	15°25'25	18°22'22	12°49'49	14°15'15	17°53'53	9°25'25	25°7'7	28°7'7	29°15'15	20°8'8	19°38'38	24°26'26	11°23'23	S 21
M 22	10 8 16	3°25'10	29°41'41	19°55'55	14°4'4	15°0'0	18°5'5	9°23'23	25°9'9	28°6'6	29°16'16	20°6'6	19°35'35	24°33'33	11°26'26	M 22
T 23	10 12 13	4°25'40	13°15'15	21°25'25	15°19'19	15°45'45	18°17'17	9°21'21	25°12'12	28°4'4	29°18'18	20°5'5	19°31'31	24°40'40	11°29'29	T 23
W 24	10 16 9	5°26'10	28°14'14	22°50'50	16°34'34	16°30'30	18°28'28	9°19'19	25°14'14	28°3'3	29°20'20	20°4'4	19°28'28	24°46'46	11°32'32	W 24
T 25	10 20 6	6°26'39	12°25'25	24°9'9	17°49'49	17°15'15	18°40'40	9°18'18	25°17'17	28°1'1	29°21'21	20°D 4	19°25'25	24°53'53	11°35'35	T 25
F 26	10 24 2	7°27'06	26°29'29	25°23'23	19°4'4	17°59'59	18°51'51	9°16'16	25°19'19	28°0'0	29°23'23	20°5'5	19°22'22	25°0'0	11°39'39	F 26

ASTRODIENST EPHEMERIS for the year 2269

geocentric

MARCH 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 35 52	10°38'19"	7°46'	28°42'	22°49'	20°13'	19°24'	9°R13	25°27'	27°R55	29°28'	20°9	19°12	25°20'	11°48'	M 1
T 2	10 39 49	11°28'41"	21°10'	29° 8'	24° 4'	20°58'	19°35'	9°11	25°30'	27°53'	29°29'	20°R 9	19° 9'	25°27'	11°52'	T 2
W 3	10 43 45	12°29'01"	4°12'	29°44'	25°19'	21°42'	19°46'	9°11	25°32'	27°52'	29°31'	20° 8'	19° 6'	25°33'	11°55'	W 3
T 4	10 47 42	13°29'19"	17°21'	0°11'	26°33'	22°27'	19°57'	9°10	25°35'	27°50'	29°33'	20° 6'	19° 3'	25°40'	11°58'	T 4
F 5	10 51 38	14°29'35"	0°3'	0°28'	27°48'	23°11'	20° 8'	9° 9'	25°38'	27°49'	29°34'	20° 3'	19° 0'	25°47'	12° 2'	F 5
S 6	10 55 35	15°29'50"	12°33'	0°R35	29° 3'	23°56'	20°18'	9° 8'	25°41'	27°47'	29°36'	19°59'	18°56'	25°53'	12° 5'	S 6
S 7	10 59 31	16°30'03"	24°50'	0°33'	0°18'	24°40'	20°29'	9° 8'	25°43'	27°45'	29°37'	19°55'	18°53'	26° 0'	12° 9'	S 7
M 8	11 3 28	17°30'13"	6°56'	0°22'	1°33'	25°24'	20°39'	9° 8'	25°46'	27°44'	29°39'	19°50'	18°50'	26° 7'	12°12'	M 8
T 9	11 7 24	18°30'22"	18°54'	0° 1'	2°47'	26° 9'	20°50'	9° 7'	25°49'	27°42'	29°40'	19°46'	18°47'	26°14'	12°15'	T 9
W10	11 11 21	19°30'29"	0°47'	29°33'	4° 2'	26°53'	21° 0'	9° 7'	25°52'	27°41'	29°41'	19°43'	18°44'	26°20'	12°19'	W10
T 11	11 15 17	20°30'34"	12°39'	28°56'	5°17'	27°37'	21°10'	9°D 7	25°55'	27°39'	29°43'	19°41'	18°40'	26°27'	12°22'	T 11
F 12	11 19 14	21°30'36"	24°35'	28°13'	6°31'	28°21'	21°20'	9° 7'	25°58'	27°37'	29°44'	19°D41	18°37'	26°34'	12°26'	F 12
S 13	11 23 11	22°30'37"	6°40'	27°24'	7°46'	29° 5'	21°30'	9° 7'	26° 1'	27°36'	29°46'	19°42'	18°34'	26°41'	12°29'	S 13
S 14	11 27 7	23°30'35"	18°58'	26°30'	9° 0'	29°49'	21°40'	9° 8'	26° 4'	27°34'	29°47'	19°43'	18°31'	26°47'	12°33'	S 14
M15	11 31 4	24°30'32"	1°34'	25°34'	10°15'	0°33'	21°49'	9° 8'	26° 7'	27°32'	29°48'	19°45'	18°28'	26°54'	12°37'	M15
T 16	11 35 0	25°30'26"	14°33'	24°35'	11°30'	1°17'	21°59'	9° 9'	26°10'	27°31'	29°50'	19°R46	18°25'	27° 1'	12°40'	T 16
W17	11 38 57	26°30'18"	27°55'	23°36'	12°44'	2° 1'	22° 8'	9° 9'	26°13'	27°29'	29°51'	19°46'	18°21'	27° 7'	12°44'	W17
T 18	11 42 53	27°30'07"	11°42'	22°38'	13°58'	2°45'	22°18'	9°10	26°16'	27°27'	29°52'	19°44'	18°18'	27°14'	12°47'	T 18
F 19	11 46 50	28°29'55"	25°51'	21°42'	15°13'	3°29'	22°27'	9°11	26°19'	27°26'	29°53'	19°40'	18°15'	27°21'	12°51'	F 19
S 20	11 50 46	29°29'41"	10°19'	20°49'	16°27'	4°13'	22°36'	9°12	26°22'	27°24'	29°55'	19°35'	18°12'	27°28'	12°54'	S 20
S 21	11 54 43	0°29'25"	24°59'	20° 1'	17°42'	4°56'	22°45'	9°13	26°26'	27°22'	29°56'	19°29'	18° 9'	27°34'	12°58'	S 21
M22	11 58 40	1°29'07"	9°44'	19°16'	18°56'	5°40'	22°54'	9°14	26°29'	27°21'	29°57'	19°22'	18° 6'	27°41'	13° 2'	M22
T 23	12 2 36	2°28'47"	24°26'	18°37'	20°10'	6°24'	23° 3'	9°16	26°32'	27°19'	29°58'	19°17'	18° 2'	27°48'	13° 5'	T 23
W24	12 6 33	3°28'26"	8°28'	18° 4'	21°25'	7° 7'	23°11'	9°17	26°35'	27°17'	29°59'	19°12'	17°59'	27°54'	13° 9'	W24
T 25	12 10 29	4°28'03"	23°17'	17°37'	22°39'	7°51'	23°20'	9°19	26°38'	27°16'	0° 0'	19°10'	17°56'	28° 1'	13°13'	T 25
F 26	12 14 26	5°27'38"	7°31'	17°16'	23°53'	8°34'	23°28'	9°20	26°42'	27°14'	0° 1'	19°D10	17°53'	28° 8'	13°16'	F 26
S 27	12 18 22	6°27'12"	21° 4'	17° 1'	25° 7'	9°18'	23°36'	9°22	26°45'	27°12'	0° 2'	19°10'	17°50'	28°15'	13°20'	S 27
S 28	12 22 19	7°26'44"	4°32'	16°52'	26°21'	10° 1'	23°44'	9°24	26°48'	27°11'	0° 3'	19°11'	17°46'	28°21'	13°24'	S 28
M29	12 26 15	8°26'14"	17°46'	16°D49	27°35'	10°45'	23°52'	9°26	26°51'	27° 9'	0° 4'	19°R12	17°43'	28°28'	13°28'	M29
T 30	12 30 12	9°25'42"	0°47'	16°52'	28°49'	11°28'	24° 0'	9°28	26°55'	27° 7'	0° 5'	19°12'	17°40'	28°35'	13°31'	T 30
W31	12 34 9	10°25'08"	13°36'	17°1'	0° 4'	12°11'	24° 8'	9°30	26°58'	27°10'	0° 6'	19°9	17°37'	28°42'	13°35'	W31

Delta T = 247.35 sec

APRIL 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 38 5	11°24'33"	26°14'	17°15'	18°18'	12°54'	24°15'	9°32	27°1'	27°R 4	0° 7'	19°R 3	17°34'	28°48'	13°39'	T 1
F 2	12 42 2	12°23'55"	8°41'	17°34'	2°32'	13°38'	24°23'	9°35	27° 5'	27°10'	0° 8'	18°56'	17°31'	28°55'	13°42'	F 2
S 3	12 45 58	13°23'16"	20°59'	17°58'	3°45'	14°21'	24°30'	9°37	27° 8'	27° 1'	0° 9'	18°46'	17°27'	29° 2'	13°46'	S 3
S 4	12 49 55	14°22'34"	3° 9'	18°26'	4°59'	15° 4'	24°37'	9°40	27°11'	26°59'	0° 9'	18°35'	17°24'	29° 8'	13°50'	S 4
M 5	12 53 51	15°21'51"	15°10'	18°59'	6°13'	15°47'	24°44'	9°42	27°15'	26°58'	0°10'	18°24'	17°21'	29°15'	13°53'	M 5
T 6	12 57 48	16°21'05"	27° 5'	19°36'	7°27'	16°30'	24°51'	9°45	27°18'	26°56'	0°11'	18°14'	17°18'	29°22'	13°57'	T 6
W 7	13 1 44	17°20'17"	8°15'	20°17'	8°41'	17°13'	24°57'	9°48	27°22'	26°55'	0°12'	18° 6'	17°15'	29°29'	14° 1'	W 7
T 8	13 5 41	18°19'27"	20°48'	21° 2'	9°55'	17°56'	25° 4'	9°51	27°25'	26°53'	0°12'	18° 0'	17°12'	29°35'	14° 5'	T 8
F 9	13 9 38	19°18'35"	2°42'	21°50'	11° 8'	18°39'	25°10'	9°54	27°28'	26°52'	0°13'	17°56'	17° 8'	29°42'	14° 8'	F 9
S 10	13 13 34	20°17'40"	14°44'	22°41'	12°22'	19°22'	25°16'	9°57	27°32'	26°50'	0°14'	17°54'	17° 5'	29°49'	14°12'	S 10
S 11	13 17 31	21°16'43"	26°58'	23°36'	13°36'	20° 4'	25°22'	10° 1'	27°35'	26°49'	0°14'	17°D54	17° 2'	29°55'	14°16'	S 11
M12	13 21 27	22°15'44"	9°23'	24°33'	14°49'	20°47'	25°28'	10° 4'	27°39'	26°47'	0°15'	17°55'	16°59'	0°12'	14°19'	M12
T 13	13 25 24	23°14'42"	22°26'	25°33'	16° 3'	21°30'	25°34'	10° 8'	27°42'	26°46'	0°15'	17°R55	16°56'	0° 9'	14°23'	T 13
W14	13 29 20	24°13'38"	5°48'	26°36'	17°16'	22°12'	25°40'	10°11	27°46'	26°44'	0°16'	17°54'	16°52'	0°16'	14°27'	W14
T 15	13 33 17	25°12'32"	19°39'	27°42'	18°30'	22°55'	25°45'	10°15	27°49'	26°43'	0°16'	17°50'	16°49'	0°22'	14°30'	T 15
F 16	13 37 13	26°11'24"	3°58'	28°50'	19°43'	23°38'	25°50'	10°19	27°52'	26°42'	0°17'	17°44'	16°46'	0°29'	14°34'	F 16
S 17	13 41 10	27°10'13"	18°41'	0°1'	20°57'	24°20'	25°55'	10°23	27°56'	26°40'	0°17'	17°35'	16°43'	0°36'	14°38'	S 17
S 18	13 45 6	28° 9'01"	3°42'	1°13'	22°10'	25° 3'	26° 0'	10°27	27°59'	26°39'	0°18'	17°25'	16°40'	0°42'	14°41'	S 18
M19	13 49 3	29° 7'46"	18°50'	2°28'	23°23'	25°45'	26° 5'	10°31	28° 3'	26°37'	0°18'	17°15'	16°37'	0°49'	14°45'	M19
T 20	13 53 0	0° 6'30"	3°56'	3°45'	24°37'	26°27'	26° 9'	10°35	28° 6'	26°36'	0°18'	17° 6'	16°33'	0°56'	14°49'	T 20
W21	13 56 56	1° 5'13"	18°50'	5° 4'	25°50'	27°10'	26°14'	10°39	28°10'	26°35'	0°19'	16°58'	16°30'	1° 3'	14°52'	W21
T 22	14 0 53	2° 3'53"	3°35'	6°25'	27° 3'	27°52'	26°18'	10°43	28°13'	26°33'	0°19'	16°53'	16°27'	1° 9'	14°56'	T 22
F 23	14 4 49	3° 2'32"	17°36'	7°48'	28°16'	28°34'	26°22'	10°48	28°16'	26°32'	0°19'	16°50'	16°24'	1°16'	14°59'	F 23
S 24	14 8 46	4° 1'09"	1°23'	9°13'	29°29'	29°16'	26°26'	10°52	28°20'	26°31'	0°20'	16°D49	16°21'	1°23'	15° 3'	S 24
S 25	14 12 42	4°59'44"	14°48'	10°40'	0°42'	29°59'	26°30'	10°57	28°23'	26°30'	0°20'	16°R49	16°18'	1°29'	15° 6'	S 25
M26	14 16 39	5°58'18"	27°52'	12° 9'	1°55'	0°41'	26°33'	11° 1'	28°27'	26°29'	0°20'	16°49'	16°14'	1°36'	15°10'	M26
T 27	14 20 36	6°56'50"	10°39'	13°39'	3° 8'	1°23'	26°37'	11° 6'	28°30'	26°27'	0°20'	16°47'	16°11'	1°43'	15°13'	T 27
W28	14 24 32	7°55'21"	23°12'	15°11'	4°21'	2° 5'	26°40'	11°11	28°34'	26°26'	0°20'	16°43'	16° 8'	1°50'	15°17'	W28
T 29	14 28 29	8°53'50"	5°34'	16°46'	5°34'	2°47'	26°43'	11°16	28°37'	26°25'	0°20'	16°36'	16° 5'	1°56'	15°20'	T 29
F 30	14 32 25	9°52'17"	17°48'	18°21'	6°47'	3°12'	26°46'	11°21	28°40'	26°24'	0°20'	16°25'	16° 2'	2°11'	15°24'	F 30

Delta T = 247.47 sec

ASTRODIENST EPHEMERIS for the year 2269

geocentric

MAY 2269

00:00 UT

Day	Sid.t	☉	☾	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 36 22	10♌50'42	29♍54	19♍59	8♏0	4♏11	26♐48	11♐26	28♐44	26♐23	0♑20	16♑13	15♑58	2♒10	15♒27	S 1
S 2	14 40 18	11°49'06	11♌55	21°38	9°13	4°52	26°51	11°31	28°47	26♐22	0♑20	15♑59	15°55	2°17	15°31	S 2
M 3	14 44 15	12°47'28	23°50	23°20	10°25	5°34	26°53	11°36	28°50	26°21	0°20	15°45	15°52	2°23	15°34	M 3
T 4	14 48 11	13°45'48	5♏43	25° 3	11°38	6°16	26°55	11°41	28°54	26°20	0°20	15°31	15°49	2°30	15°38	T 4
W 5	14 52 8	14°44'06	17°33	26°47	12°51	6°58	26°57	11°47	28°57	26°19	0°20	15°20	15°46	2°37	15°41	W 5
T 6	14 56 4	15°42'22	29°24	28°34	14° 3	7°39	26°59	11°52	29° 0	26°18	0°20	15°11	15°43	2°43	15°44	T 6
F 7	15 0 1	16°40'37	11♌19	0♏22	15°16	8°21	27° 0	11°58	29° 4	26°17	0°20	15° 5	15°39	2°50	15°48	F 7
S 8	15 3 58	17°38'49	23°20	2°12	16°28	9° 3	27° 1	12° 3	29° 7	26°16	0°20	15° 1	15°36	2°57	15°51	S 8
S 9	15 7 54	18°37'00	5♏33	4° 4	17°41	9°44	27° 3	12° 9	29°10	26°15	0°20	15° 0	15°33	3° 4	15°54	S 9
M10	15 11 51	19°35'08	18° 3	5°58	18°53	10°26	27° 4	12°15	29°14	26°14	0°19	15° 0	15°30	3°10	15°57	M10
T 11	15 15 47	20°33'15	0♐54	7°54	20° 5	11° 7	27° 4	12°20	29°17	26°13	0°19	15° 0	15°27	3°17	16° 0	T 11
W12	15 19 44	21°31'19	14°10	9°51	21°18	11°49	27° 5	12°26	29°20	26°12	0°19	14°58	15°23	3°24	16° 4	W12
T 13	15 23 40	22°29'22	27°56	11°50	22°30	12°30	27° 5	12°32	29°23	26°12	0°18	14°55	15°20	3°30	16° 7	T 13
F 14	15 27 37	23°27'23	12♌12	13°51	23°42	13°11	27° 5	12°38	29°27	26°11	0°18	14°49	15°17	3°37	16°10	F 14
S 15	15 31 33	24°25'22	26°55	15°53	24°54	13°53	27°R 5	12°44	29°30	26°10	0°18	14°40	15°14	3°44	16°13	S 15
S 16	15 35 30	25°23'19	12♏0	17°57	26° 6	14°34	27° 5	12°50	29°33	26°10	0°17	14°30	15°11	3°51	16°16	S 16
M17	15 39 27	26°21'15	27°18	20° 3	27°18	15°15	27° 5	12°56	29°36	26° 9	0°17	14°20	15° 8	3°57	16°19	M17
T 18	15 43 23	27°19'09	12♌37	22°10	28°30	15°56	27° 4	13° 2	29°39	26° 8	0°16	14°10	15° 4	4° 4	16°22	T 18
W19	15 47 20	28°17'02	27°46	24°18	29°42	16°37	27° 4	13° 9	29°42	26° 8	0°16	14° 2	15° 1	4°11	16°25	W19
T 20	15 51 16	29°15'16	12♌35	26°27	0♏54	17°18	27° 3	13°15	29°46	26° 7	0°15	13°56	14°58	4°17	16°28	T 20
F 21	15 55 13	0♐12'43	27° 0	28°37	2° 6	17°59	27° 2	13°21	29°49	26° 7	0°15	13°53	14°55	4°24	16°31	F 21
S 22	15 59 9	1°10'33	10♑56	0♐48	3°17	18°40	27° 0	13°28	29°52	26° 6	0°14	13°D52	14°52	4°31	16°34	S 22
S 23	16 3 6	2° 8'21	24°26	2°59	4°29	19°21	26°59	13°34	29°55	26° 6	0°14	13°52	14°49	4°38	16°37	S 23
M24	16 7 3	3° 6'07	7♏31	5°11	5°40	20° 2	26°57	13°41	29°58	26° 5	0°13	13°R52	14°45	4°44	16°39	M24
T 25	16 10 59	4° 3'53	20°14	7°22	6°52	20°43	26°55	13°47	0♏1	26° 5	0°13	13°51	14°42	4°51	16°42	T 25
W26	16 14 56	5° 1'38	2♐42	9°33	8° 3	21°24	26°53	13°54	0° 4	26° 4	0°12	13°48	14°39	4°58	16°45	W26
T 27	16 18 52	5°59'21	14°56	11°44	9°15	22° 5	26°51	14° 1	0° 7	26° 4	0°11	13°42	14°36	5° 4	16°48	T 27
F 28	16 22 49	6°57'03	27° 1	13°53	10°26	22°46	26°49	14° 8	0°10	26° 4	0°11	13°34	14°33	5°11	16°50	F 28
S 29	16 26 45	7°54'45	8♏59	16° 2	11°37	23°26	26°46	14°14	0°12	26° 3	0°10	13°24	14°29	5°18	16°53	S 29
S 30	16 30 42	8°52'25	20°53	18° 9	12°49	24° 7	26°43	14°21	0°15	26° 3	0° 9	13°12	14°26	5°25	16°56	S 30
M31	16 34 38	9♐50'04	2♐45	20♏14	14♏0	24♐48	26♐40	14♏28	0♏18	26♐3	0♑8	13♑0	14♑23	5♒31	16♒58	M31

Delta T = 247.60 sec

JUNE 2269

00:00 UT

Day	Sid.t	☉	☾	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 38 35	10♐47'42	14♐36	22♐17	15♑11	25♐28	26°R37	14♏35	0♏21	26°R 3	0°R 7	12°R48	14♑20	5♒38	17♒1	T 1
W 2	16 42 32	11°45'19	26°28	24°19	16°22	26° 9	26♐34	14°42	0°24	26♐3	0♑8	12♑39	14°17	5°45	17° 3	W 2
T 3	16 46 28	12°42'55	8♏23	26°18	17°33	26°49	26°49	14°49	0°27	26° 2	0° 6	12°31	14°14	5°51	17° 6	T 3
F 4	16 50 25	13°40'29	20°22	28°15	18°44	27°30	26°27	14°56	0°29	26° 2	0° 5	12°26	14°10	5°58	17° 8	F 4
S 5	16 54 21	14°38'02	2♏28	0♏9	19°55	28°10	26°23	15° 3	0°32	26° 2	0° 4	12°24	14° 7	6° 5	17°10	S 5
S 6	16 58 18	15°35'34	14°46	2° 1	21° 5	28°51	26°19	15°10	0°35	26°D 2	0° 3	12°D23	14° 4	6°12	17°13	S 6
M 7	17 2 14	16°33'05	27°18	3°51	22°16	29°31	26°14	15°17	0°37	26° 2	0° 2	12°24	14° 1	6°18	17°15	M 7
T 8	17 6 11	17°30'34	10♐8	5°38	23°26	0♏12	26°10	15°25	0°40	26° 2	0° 1	12°25	13°58	6°25	17°17	T 8
W 9	17 10 7	18°28'02	23°21	7°22	24°37	0°52	26° 6	15°32	0°42	26° 2	0° 0	12°R25	13°55	6°32	17°19	W 9
T 10	17 14 4	19°25'29	6♏59	9° 3	25°47	1°32	26° 1	15°39	0°45	26° 2	29♌59	12°24	13°51	6°38	17°21	T 10
F 11	17 18 1	20°22'54	21° 5	10°42	26°58	2°12	25°56	15°46	0°47	26° 3	29°58	12°20	13°48	6°45	17°23	F 11
S 12	17 21 57	21°20'19	5♏38	12°18	28° 8	2°53	25°51	15°54	0°50	26° 3	29°57	12°15	13°45	6°52	17°25	S 12
S 13	17 25 54	22°17'42	20°33	13°51	29°18	3°33	25°46	16° 1	0°52	26° 3	29°56	12° 8	13°42	6°59	17°27	S 13
M14	17 29 50	23°15'05	5♏42	15°21	0♏28	4°13	25°41	16° 8	0°55	26° 3	29°55	12° 1	13°39	7° 5	17°29	M14
T 15	17 33 47	24°12'26	20°58	16°49	1°38	4°53	25°35	16°16	0°57	26° 3	29°54	11°54	13°35	7°12	17°31	T 15
W16	17 37 43	25° 9'47	6♏7	18°13	2°48	5°33	25°30	16°23	0°59	26° 4	29°53	11°49	13°32	7°19	17°33	W16
T 17	17 41 40	26° 7'08	21° 2	19°35	3°58	6°13	25°24	16°31	1° 2	26° 4	29°52	11°45	13°29	7°25	17°35	T 17
F 18	17 45 37	27° 4'27	5♑34	20°54	5° 8	6°53	25°18	16°38	1° 4	26° 4	29°51	11°D44	13°26	7°32	17°37	F 18
S 19	17 49 33	28° 1'46	19°39	22° 9	6°17	7°33	25°12	16°46	1° 6	26° 5	29°49	11°44	13°23	7°39	17°39	S 19
S 20	17 53 30	28°59'05	3♏17	23°22	7°27	8°13	25° 6	16°53	1° 8	26° 5	29°48	11°45	13°20	7°46	17°40	S 20
M21	17 57 26	29°56'23	16°28	24°32	8°36	8°53	25° 0	17° 1	1°11	26° 6	29°47	11°46	13°16	7°52	17°42	M21
T 22	18 1 23	0♏53'41	29°15	25°39	9°45	9°33	24°54	17° 9	1°13	26° 6	29°46	11°R47	13°13	7°59	17°43	T 22
W23	18 5 19	1°50'58	11♐43	26°42	10°55	10°13	24°47	17°16	1°15	26° 7	29°45	11°46	13°10	8° 6	17°45	W23
T 24	18 9 16	2°48'16	23°56	27°42	12° 4	10°52	24°41	17°24	1°17	26° 7	29°43	11°44	13° 7	8°12	17°46	T 24
F 25	18 13 12	3°45'33	5♏58	28°39	13°13	11°32	24°34	17°31	1°19	26° 8	29°42	11°40	13° 4	8°19	17°48	F 25
S 26	18 17 9	4°42'50	17°53	29°32	14°22	12°12	24°27	17°39	1°21	26° 8	29°41	11°35	13° 1	8°26	17°49	S 26
S 27	18 21 5	5°40'07	29°44	0♏22	15°31	12°52	24°21	17°47	1°23	26° 9	29°40	11°29	12°57	8°33	17°51	S 27
M28	18 25 2	6°37'23	11♐35	1° 8	16°39	13°31	24°14	17°55	1°25	26°10	29°38	11°23	12°54	8°39	17°52	M28
T 29	18 28 59	7°34'39	23°28	1°50	17°48	14°11	24° 7	18° 2	1°26	26°10	29°37	11°17	12°51	8°46	17°53	T 29
W30	18 32 55	8♏31'55	5♏24	2♏28	18♏56	14♏51	24♌0	18♏10	1♏28	26♐11	29♌36	11♑12	12♑48	8♒53	17♒54	W30

Delta T = 247.72 sec

ASTRODIENST EPHEMERIS for the year 2269
geocentric

JULY 2269

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 36 52	9 ⁵⁵ 29'11	17 ⁵⁶ 26	3 ³³ 3	20 ¹⁰ 5	15 ⁵³ 30	23 ⁰ R52	18 ⁵⁶ 18	1 ³³ 30	26 ¹⁰ 12	29 ⁰ R34	11 ⁰ R 8	12 ⁵⁵ 45	8 ¹¹ 59	17 ⁵⁷ 55	T 1
F 2	18 40 48	10 ²⁶ 27	29 ³⁵	3 ³³	21 ¹³	16 ¹⁰	23 ³⁵ 45	18 ²⁶	1 ³²	26 ¹³	29 ³⁵ 33	11 ⁵⁵ 6	12 ⁴¹	9 ⁶	17 ⁵⁶	F 2
S 3	18 44 45	11 ²³ 42	11 ⁵³	3 ⁵⁹	22 ²¹	16 ⁴⁹	23 ³⁸	18 ³³	1 ³³	26 ¹⁴	29 ³²	11 ⁰ D 5	12 ³⁸	9 ¹³	17 ⁵⁷	S 3
S 4	18 48 41	12 ²⁰ 56	24 ²²	4 ²⁰	23 ²⁹	17 ²⁹	23 ³⁰	18 ⁴¹	1 ³⁵	26 ¹⁴	29 ³⁰	11 ⁶	12 ³⁵	9 ¹⁹	17 ⁵⁸	S 4
M 5	18 52 38	13 ¹⁸ 11	7 ¹⁰	4 ³⁸	24 ³⁷	18 ⁸	23 ²³	18 ⁴⁹	1 ³⁷	26 ¹⁵	29 ²⁹	11 ⁷	12 ³²	9 ²⁶	17 ⁵⁹	M 5
T 6	18 56 35	14 ¹⁵ 24	20 ³	4 ⁵⁰	25 ⁴⁵	18 ⁴⁸	23 ¹⁵	18 ⁵⁷	1 ³⁸	26 ¹⁶	29 ²⁸	11 ⁹	12 ²⁹	9 ³³	18 ⁰	T 6
W 7	19 0 31	15 ¹² 38	3 ⁵¹ 19	4 ⁵⁸	26 ⁵²	19 ²⁷	23 ⁸	19 ⁴	1 ⁴⁰	26 ¹⁷	29 ²⁶	11 ¹⁰	12 ²⁶	9 ⁴⁰	18 ¹	W 7
T 8	19 4 28	16 ⁹ 51	16 ⁵⁶	5 ⁰ R 2	28 ⁰	20 ⁷	23 ⁰	19 ¹²	1 ⁴¹	26 ¹⁸	29 ²⁵	11 ⁰ R11	12 ²²	9 ⁴⁶	18 ²	T 8
F 9	19 8 24	17 ⁷ 04	0 ¹¹ 54	5 ⁰	29 ⁷	20 ⁴⁶	22 ⁵³	19 ²⁰	1 ⁴²	26 ¹⁹	29 ²³	11 ¹⁰	12 ¹⁹	9 ⁵³	18 ³	F 9
S 10	19 12 21	18 ⁴ 16	15 ¹²	4 ⁵⁴	0 ¹⁰ 14	21 ²⁵	22 ⁴⁵	19 ²⁸	1 ⁴⁴	26 ²⁰	29 ²²	11 ⁸	12 ¹⁶	10 ⁰	18 ³	S 10
S 11	19 16 17	19 ¹ 29	29 ⁴⁹	4 ⁴⁴	1 ²²	22 ⁵	22 ³⁷	19 ³⁶	1 ⁴⁵	26 ²¹	29 ²¹	11 ⁶	12 ¹³	10 ⁶	18 ⁴	S 11
M12	19 20 14	19 ⁵⁸ 41	14 ⁵⁷ 40	4 ²⁹	2 ²⁸	22 ⁴⁴	22 ³⁰	19 ⁴³	1 ⁴⁶	26 ²²	29 ¹⁹	11 ³	12 ¹⁰	10 ¹³	18 ⁴	M12
T 13	19 24 10	20 ⁵⁵ 53	29 ³⁶	4 ⁹	3 ³⁵	23 ²³	22 ²²	19 ⁵¹	1 ⁴⁸	26 ²⁴	29 ¹⁸	11 ¹	12 ⁷	10 ²⁰	18 ⁵	T 13
W14	19 28 7	21 ⁵³ 05	14 ⁵³ 31	3 ⁴⁶	4 ⁴²	24 ²	22 ¹⁴	19 ⁵⁹	1 ⁴⁹	26 ²⁵	29 ¹⁶	10 ⁵⁹	12 ³	10 ²⁷	18 ⁵	W14
T 15	19 32 4	22 ⁵⁰ 17	29 ¹⁶	3 ¹⁹	5 ⁴⁸	24 ⁴²	22 ⁷	20 ⁷	1 ⁵⁰	26 ²⁶	29 ¹⁵	10 ⁵⁸	12 ⁰	10 ³³	18 ⁶	T 15
F 16	19 36 0	23 ⁴⁷ 30	13 ⁵⁵ 44	2 ⁴⁸	6 ⁵⁴	25 ²¹	21 ⁵⁹	20 ¹⁵	1 ⁵¹	26 ²⁷	29 ¹³	10 ⁰ D57	11 ⁵⁷	10 ⁴⁰	18 ⁶	F 16
S 17	19 39 57	24 ⁴⁴ 42	27 ⁵⁰	2 ¹⁴	8 ⁰	26 ⁰	21 ⁵¹	20 ²²	1 ⁵²	26 ²⁸	29 ¹²	10 ⁵⁸	11 ⁵⁴	10 ⁴⁷	18 ⁶	S 17
S 18	19 43 53	25 ⁴¹ 55	11 ⁵³ 31	1 ³⁸	9 ⁶	26 ³⁹	21 ⁴³	20 ³⁰	1 ⁵³	26 ³⁰	29 ¹¹	10 ⁵⁹	11 ⁵¹	10 ⁵³	18 ⁶	S 18
M19	19 47 50	26 ³⁹ 08	24 ⁴⁶	1 ⁰	10 ¹²	27 ¹⁸	21 ³⁶	20 ³⁸	1 ⁵⁴	26 ³¹	29 ⁹	11 ⁰	11 ⁴⁷	11 ⁰	18 ⁷	M19
T 20	19 51 46	27 ³⁶ 22	7 ⁵³ 38	0 ²¹	11 ¹⁷	27 ⁵⁷	21 ²⁸	20 ⁴⁶	1 ⁵⁵	26 ³²	29 ⁸	11 ¹	11 ⁴⁴	11 ⁷	18 ⁷	T 20
W21	19 55 43	28 ³³ 37	20 ¹⁰	29 ⁵³ 40	12 ²³	28 ³⁶	21 ²⁰	20 ⁵⁴	1 ⁵⁶	26 ³⁴	29 ⁶	11 ²	11 ⁴¹	11 ¹³	18 ⁷	W21
T 22	19 59 39	29 ³⁰ 52	2 ⁵² 25	29 ⁰	13 ²⁸	29 ¹⁵	21 ¹³	21 ¹	1 ⁵⁶	26 ³⁵	29 ⁵	11 ⁰ R 2	11 ³⁸	11 ²⁰	18 ⁷	T 22
F 23	20 3 36	0 ¹² 28'08	14 ²⁸	28 ²¹	14 ³³	29 ⁵⁴	21 ⁵	21 ⁹	1 ⁵⁷	26 ³⁶	29 ³	11 ¹	11 ³⁵	11 ²⁷	18 ⁷	F 23
S 24	20 7 33	1 ²⁵ 25	26 ²³	27 ⁴³	15 ³⁸	0 ¹⁰ 33	20 ⁵⁸	21 ¹⁷	1 ⁵⁸	26 ³⁸	29 ²	11 ¹	11 ³²	11 ³⁴	18 ⁷	S 24
S 25	20 11 29	2 ²² 42	8 ¹¹ 14	27 ⁷	16 ⁴²	1 ¹²	20 ⁵⁰	21 ²⁵	1 ⁵⁹	26 ³⁹	29 ⁰	11 ⁰	11 ²⁸	11 ⁴⁰	18 ⁶	S 25
M26	20 15 26	3 ²⁰ 00	20 ⁶	26 ³⁴	17 ⁴⁷	1 ⁵¹	20 ⁴³	21 ³²	1 ⁵⁹	26 ⁴¹	28 ⁵⁹	10 ⁵⁹	11 ²⁵	11 ⁴⁷	18 ⁶	M26
T 27	20 19 22	4 ¹⁷ 19	2 ⁵⁶ 2	26 ⁵	18 ⁵¹	2 ³⁰	20 ³⁶	21 ⁴⁰	2 ⁰	26 ⁴²	28 ⁵⁸	10 ⁵⁸	11 ²²	11 ⁵⁴	18 ⁶	T 27
W28	20 23 19	5 ¹⁴ 38	14 ⁴	25 ³⁹	19 ⁵⁵	3 ⁹	20 ²⁸	21 ⁴⁸	2 ⁰	26 ⁴⁴	28 ⁵⁶	10 ⁵⁷	11 ¹⁹	12 ⁰	18 ⁶	W28
T 29	20 27 15	6 ¹¹ 58	26 ¹⁶	25 ¹⁸	20 ⁵⁸	3 ⁴⁸	20 ²¹	21 ⁵⁵	2 ¹	26 ⁴⁵	28 ⁵⁵	10 ⁵⁶	11 ¹⁶	12 ⁷	18 ⁵	T 29
F 30	20 31 12	7 ⁹ 19	8 ¹² 38	25 ²	22 ²	4 ²⁷	20 ¹⁴	22 ³	2 ¹	26 ⁴⁷	28 ⁵³	10 ⁰ D56	11 ¹³	12 ¹⁴	18 ⁵	F 30
S 31	20 35 8	8 ¹² 6'40	21 ¹⁶ 13	24 ⁵⁵ 51	23 ¹⁰ 5	5 ¹² 5	20 ³⁵ 7	22 ⁵¹ 11	2 ¹ 8	26 ¹⁰ 48	28 ⁵²	10 ⁵⁵ 6	11 ⁵⁵ 9	12 ¹¹ 21	18 ⁵ 4	S 31

Delta T = 247.84 sec

AUGUST 2269

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 39 5	9♌ 4'02	4♐ 1	24°D45	24♐ 8	5♌44	20°R 0	22°28'18	2♌ 2	26♐50	28°R50	10♌56	11♌ 6	12♐27	18°R 4	S 1
M 2	20 43 2	10° 1'25	17° 2	24♌46	25°11	6°23	19♌53	22°26	2° 2	26°52	28♌49	10°57	11° 3	12°34	18♌ 3	M 2
T 3	20 46 58	10°58'48	0♌18	24°52	26°13	7° 2	19°46	22°33	2° 2	26°53	28°48	10°R57	11° 0	12°41	18° 2	T 3
W 4	20 50 55	11°56'11	13°47	25° 5	27°15	7°41	19°40	22°41	2° 2	26°55	28°46	10°57	10°57	12°47	18° 2	W 4
T 5	20 54 51	12°53'35	27°31	25°24	28°17	8°19	19°33	22°48	2° 2	26°57	28°45	10°56	10°53	12°54	18° 1	T 5
F 6	20 58 48	13°51'00	11♌29	25°49	29°19	8°58	19°27	22°56	2° 3	26°58	28°43	10°D56	10°50	13° 1	18° 0	F 6
S 7	21 2 44	14°48'25	25°39	26°21	0♌20	9°37	19°20	23° 3	2°R 3	27° 0	28°42	10°56	10°47	13° 7	17°59	S 7
S 8	21 6 41	15°45'51	9♌59	26°59	1°21	10°15	19°14	23°11	2° 2	27° 2	28°41	10°57	10°44	13°14	17°58	S 8
M 9	21 10 37	16°43'18	24°27	27°43	2°22	10°54	19° 8	23°18	2° 2	27° 4	28°39	10°57	10°41	13°21	17°57	M 9
T 10	21 14 34	17°40'45	8♌59	28°33	3°22	11°32	19° 2	23°26	2° 2	27° 5	28°38	10°58	10°38	13°28	17°56	T 10
W11	21 18 31	18°38'13	23°28	29°30	4°22	12°11	18°56	23°33	2° 2	27° 7	28°37	10°58	10°34	13°34	17°55	W11
T 12	21 22 27	19°35'42	7♌51	0♌32	5°22	12°50	18°51	23°40	2° 2	27° 9	28°35	10°R58	10°31	13°41	17°54	T 12
F 13	21 26 24	20°33'12	22° 2	1°40	6°21	13°28	18°45	23°47	2° 2	27°11	28°34	10°58	10°28	13°48	17°53	F 13
S 14	21 30 20	21°30'43	5♌57	2°54	7°20	14° 7	18°40	23°55	2° 1	27°13	28°33	10°58	10°25	13°54	17°52	S 14
S 15	21 34 17	22°28'15	19°32	4°14	8°19	14°45	18°34	24° 2	2° 1	27°15	28°31	10°57	10°22	14° 1	17°51	S 15
M16	21 38 13	23°25'48	2♌46	5°38	9°17	15°24	18°29	24° 9	2° 0	27°17	28°30	10°55	10°19	14° 8	17°49	M16
T 17	21 42 10	24°23'22	15°39	7° 8	10°14	16° 2	18°24	24°16	2° 0	27°18	28°29	10°53	10°15	14°14	17°48	T 17
W18	21 46 6	25°20'58	28°12	8°42	11°12	16°41	18°19	24°23	1°59	27°20	28°28	10°52	10°12	14°21	17°47	W18
T 19	21 50 3	26°18'35	10♌29	10°20	12° 9	17°19	18°15	24°30	1°59	27°22	28°26	10°50	10° 9	14°28	17°45	T 19
F 20	21 54 0	27°16'14	22°33	12° 2	13° 5	17°57	18°10	24°37	1°58	27°24	28°25	10°D50	10° 6	14°35	17°44	F 20
S 21	21 57 56	28°13'54	4♐29	13°48	14° 1	18°36	18° 6	24°44	1°58	27°26	28°24	10°50	10° 3	14°41	17°42	S 21
S 22	22 1 53	29°11'36	16°21	15°37	14°57	19°14	18° 2	24°51	1°57	27°28	28°23	10°50	9°59	14°48	17°40	S 22
M23	22 5 49	0♐9'20	28°13	17°29	15°52	19°53	17°58	24°58	1°56	27°30	28°22	10°52	9°56	14°55	17°39	M23
T 24	22 9 46	1° 7'05	10♌11	19°23	16°46	20°31	17°54	25° 5	1°55	27°32	28°20	10°53	9°53	15° 1	17°37	T 24
W25	22 13 42	2° 4'51	22°19	21°18	17°40	20° 9	17°50	25°12	1°55	27°34	28°19	10°55	9°50	15° 8	17°35	W25
T 26	22 17 39	3° 2'39	4♌40	23°16	18°34	21°48	17°47	25°19	1°54	27°36	28°18	10°R56	9°47	15°15	17°34	T 26
F 27	22 21 35	4° 0'29	17°16	25°14	19°26	22°26	17°43	25°25	1°53	27°38	28°17	10°56	9°44	15°21	17°32	F 27
S 28	22 25 32	4°58'20	0♐ 8	27°13	20°19	23° 4	17°40	25°32	1°52	27°41	28°16	10°54	9°40	15°28	17°30	S 28
S 29	22 29 29	5°56'12	13°18	29°13	21°11	23°43	17°37	25°39	1°51	27°43	28°15	10°52	9°37	15°35	17°28	S 29
M30	22 33 25	6°54'06	26°45	1♐13	22° 2	24°21	17°35	25°45	1°50	27°45	28°14	10°49	9°34	15°42	17°26	M30
T 31	22 37 22	7♐52'01	10♌25	3♐12	22°52	24♌59	17♌32	25°52	1♌49	27♐47	28♌13	10♌45	9♌31	15♐48	17♌24	T 31

ASTRODIENST EPHEMERIS for the year 2269

geocentric

SEPTEMBER 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 41 18	8♐49°58	24♌18	5♎12	23♎42	25♏37	17°R30	25♏58	1°R47	27♎49	28°R12	10°R41	9♏28	15♐55	17°R22	W 1
T 2	22 45 15	9°47'56	8♎19	7°10	24°31	26°16	17♏27	26° 4	1♏46	27°51	28♏11	10♏37	9°25	16° 2	17°Y20	T 2
F 3	22 49 11	10°45'55	22°27	9° 9	25°19	26°54	17°25	26°11	1°45	27°53	28°10	10°35	9°21	16° 8	17°18	F 3
S 4	22 53 8	11°43'56	6♏38	11° 6	26° 7	27°32	17°23	26°17	1°44	27°55	28° 9	10°D34	9°18	16°15	17°16	S 4
S 5	22 57 4	12°41'58	20°50	13° 3	26°53	28°10	17°22	26°23	1°42	27°58	28° 8	10°34	9°15	16°22	17°13	S 5
M 6	23 1 1	13°40'01	5♏0	14°58	27°39	28°48	17°20	26°29	1°41	28° 0	28° 7	10°35	9°12	16°28	17°11	M 6
T 7	23 4 58	14°38'05	19° 8	16°52	28°24	29°27	17°19	26°36	1°40	28° 2	28° 6	10°36	9° 9	16°35	17° 9	T 7
W 8	23 8 54	15°36'11	3♏11	18°46	29° 8	0♎5	17°18	26°42	1°38	28° 4	28° 5	10°37	9° 5	16°42	17° 7	W 8
T 9	23 12 51	16°34'19	17° 7	20°38	29°52	0°43	17°17	26°48	1°37	28° 6	28° 4	10°R37	9° 2	16°48	17° 4	T 9
F 10	23 16 47	17°32'27	0♎54	22°29	0♎34	1°21	17°16	26°54	1°35	28° 8	28° 4	10°36	8°59	16°55	17° 2	F 10
S 11	23 20 44	18°30'38	14°28	24°19	1°15	1°59	17°16	26°59	1°34	28°11	28° 3	10°32	8°56	17° 2	17° 0	S 11
S 12	23 24 40	19°28'50	27°48	26° 8	1°55	2°37	17°16	27° 5	1°32	28°13	28° 2	10°27	8°53	17° 9	16°57	S 12
M13	23 28 37	20°27'04	10°Y52	27°55	2°34	3°15	17°D15	27°11	1°30	28°15	28° 1	10°21	8°50	17°15	16°55	M13
T 14	23 32 33	21°25'19	23°39	29°42	3°12	3°53	17°16	27°17	1°29	28°17	28° 0	10°14	8°46	17°22	16°52	T 14
W15	23 36 30	22°23'37	6♏9	1♎27	3°49	4°31	17°16	27°22	1°27	28°19	28° 0	10° 7	8°43	17°29	16°50	W15
T 16	23 40 27	23°21'57	18°24	3°11	4°25	5° 9	17°16	27°28	1°25	28°22	27°59	10° 1	8°40	17°35	16°47	T 16
F 17	23 44 23	24°20'18	0♐28	4°54	4°59	5°47	17°17	27°33	1°23	28°24	27°58	9°56	8°37	17°42	16°45	F 17
S 18	23 48 20	25°18'42	12°23	6°36	5°32	6°25	17°18	27°38	1°22	28°26	27°58	9°53	8°34	17°49	16°42	S 18
S 19	23 52 16	26°17'08	24°14	8°17	6° 3	7° 3	17°19	27°44	1°20	28°28	27°57	9°D52	8°30	17°55	16°40	S 19
M20	23 56 13	27°15'36	6♏6	9°56	6°34	7°41	17°20	27°49	1°18	28°31	27°57	9°52	8°27	18° 2	16°37	M20
T 21	0 0 9	28°14'07	18° 4	11°35	7° 2	8°19	17°21	27°54	1°16	28°33	27°56	9°53	8°24	18° 9	16°34	T 21
W22	0 4 6	29°12'39	0♐13	13°13	7°30	8°57	17°23	27°59	1°14	28°35	27°55	9°55	8°21	18°15	16°32	W22
T 23	0 8 2	0♐11'13	12°38	14°49	7°55	9°35	17°25	28° 4	1°12	28°37	27°55	9°R55	8°18	18°22	16°29	T 23
F 24	0 11 59	1° 9'50	25°23	16°25	8°19	10°13	17°27	28° 9	1°10	28°39	27°55	9°54	8°15	18°29	16°26	F 24
S 25	0 15 56	2° 8'28	8♎30	18° 0	8°41	10°51	17°29	28°14	1° 8	28°42	27°54	9°50	8°11	18°36	16°24	S 25
S 26	0 19 52	3° 7'09	21°59	19°33	9° 2	11°29	17°31	28°19	1° 6	28°44	27°54	9°45	8° 8	18°42	16°21	S 26
M27	0 23 49	4° 5'51	5♎49	21° 6	9°21	12° 7	17°34	28°23	1° 4	28°46	27°53	9°37	8° 5	18°49	16°18	M27
T 28	0 27 45	5° 4'36	19°57	22°37	9°37	12°45	17°36	28°28	1° 2	28°48	27°53	9°28	8° 2	18°56	16°15	T 28
W29	0 31 42	6° 3'22	4♎18	24° 8	9°52	13°23	17°39	28°32	1° 0	28°51	27°53	9°19	7°59	19° 2	16°13	W29
T 30	0 35 38	7♎2'10	18♎45	25♎38	10♎5	14♎1	17♏42	28♏37	0♏57	28♎53	27♏52	9♏11	7♏56	19♐9	16°Y10	T 30

Delta T = 248.10 sec

OCTOBER 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 39 35	8♎1'00	3♏13	27♎6	10♎16	14♎39	17♏46	28♏41	0°R55	28♎55	27°R52	9°R 4	7♏52	19♐16	16°R 7	F 1
S 2	0 43 31	8°59'52	17°36	28°34	10°25	15°17	17°49	28°45	0♏53	28°57	27♏52	9♏0	7°49	19°22	16°Y 4	S 2
S 3	0 47 28	9°58'46	1♏51	0♎1	10°31	15°54	17°53	28°50	0°51	28°59	27°51	8°58	7°46	19°29	16° 1	S 3
M 4	0 51 25	10°57'41	15°55	1°27	10°35	16°32	17°57	28°54	0°49	29° 2	27°51	8°D58	7°43	19°36	15°59	M 4
T 5	0 55 21	11°56'38	29°49	2°51	10°R37	17°10	18° 1	28°58	0°46	29° 4	27°51	8°59	7°40	19°42	15°56	T 5
W 6	0 59 18	12°55'37	13♏32	4°15	10°37	17°48	18° 5	29° 1	0°44	29° 6	27°51	8°R59	7°36	19°49	15°53	W 6
T 7	1 3 14	13°54'37	27° 4	5°38	10°34	18°26	18° 9	29° 5	0°42	29° 8	27°51	8°57	7°33	19°56	15°50	T 7
F 8	1 7 11	14°53'39	10♏25	6°59	10°29	19° 3	18°14	29° 9	0°39	29°10	27°51	8°54	7°30	20° 2	15°47	F 8
S 9	1 11 7	15°52'42	23°36	8°20	10°21	19°41	18°18	29°13	0°37	29°12	27°51	8°47	7°27	20° 9	15°44	S 9
S 10	1 15 4	16°51'48	6°Y36	9°39	10°11	20°19	18°23	29°16	0°35	29°15	27°D51	8°38	7°24	20°16	15°42	S 10
M11	1 19 0	17°50'56	19°23	10°57	9°58	20°57	18°28	29°19	0°32	29°17	27°51	8°26	7°21	20°23	15°39	M11
T 12	1 22 57	18°50'06	1♏58	12°13	9°43	21°35	18°34	29°23	0°30	29°19	27°51	8°14	7°17	20°29	15°36	T 12
W13	1 26 53	19°49'18	14°19	13°28	9°26	22°12	18°39	29°26	0°28	29°21	27°51	8° 1	7°14	20°36	15°33	W13
T 14	1 30 50	20°48'32	26°30	14°42	9° 7	22°50	18°44	29°29	0°25	29°23	27°51	7°50	7°11	20°43	15°30	T 14
F 15	1 34 47	21°47'48	8♐30	15°54	8°45	23°28	18°50	29°32	0°23	29°25	27°51	7°40	7° 8	20°49	15°28	F 15
S 16	1 38 43	22°47'06	20°22	17° 4	8°21	24° 6	18°56	29°35	0°20	29°27	27°51	7°33	7° 5	20°56	15°25	S 16
S 17	1 42 40	23°46'27	2♏11	18°13	7°55	24°43	19° 2	29°38	0°18	29°29	27°51	7°29	7° 2	21° 3	15°22	S 17
M18	1 46 36	24°45'50	14° 1	19°19	7°27	25°21	19° 8	29°41	0°16	29°31	27°52	7°27	6°58	21° 9	15°19	M18
T 19	1 50 33	25°45'16	25°57	20°24	6°58	25°59	19°15	29°43	0°13	29°33	27°52	7°D26	6°55	21°16	15°16	T 19
W20	1 54 29	26°44'43	8♐4	21°26	6°27	26°36	19°21	29°46	0°11	29°36	27°52	7°R27	6°52	21°23	15°14	W20
T 21	1 58 26	27°44'13	20°28	22°25	5°54	27°14	19°28	29°48	0° 8	29°38	27°52	7°26	6°49	21°29	15°11	T 21
F 22	2 2 22	28°43'45	3♎14	23°21	5°20	27°52	19°35	29°51	0° 6	29°40	27°53	7°24	6°46	21°36	15° 8	F 22
S 23	2 6 19	29°43'20	16°25	24°15	4°45	28°29	19°42	29°53	0° 3	29°42	27°53	7°19	6°42	21°43	15° 5	S 23
S 24	2 10 16	0♎42'56	0♎4	25° 5	4°10	29° 7	19°49	29°55	0° 1	29°44	27°53	7°12	6°39	21°49	15° 3	S 24
M25	2 14 12	1°42'35	14°10	25°51	3°33	29°45	19°56	29°57	29°Y58	29°45	27°54	7° 2	6°36	21°56	15° 0	M25
T 26	2 18 9	2°42'15	28°39	26°33	2°57	0♎22	20° 3	29°59	29°56	29°47	27°54	6°50	6°33	22° 3	14°57	T 26
W27	2 22 5	3°41'58	13♎24	27°10	2°20	1° 0	20°11	0♎0	29°54	29°49	27°55	6°38	6°30	22°10	14°55	W27
T 28	2 26 2	4°41'43	28°18	27°42	1°44	1°38	20°19	0° 2	29°51	29°51	27°55	6°27	6°27	22°16	14°52	T 28
F 29	2 29 58	5°41'30	13♏11	28° 8	1° 8	2°15	20°27	0° 4	29°49	29°53	27°56	6°18	6°23	22°23	14°49	F 29
S 30	2 33 55	6°41'19	27°55	28°28	0°32	2°53	20°35	0° 5	29°46	29°55	27°56	6°12	6°20	22°30	14°47	S 30
S 31	2 37 51	7♎41'09	12♏24	28♎42	29♎58	3♎30	20♏43	0♎6	29°Y44	29♎57	27♏57	6♏9	6♏17	22♐36	14°Y44	S 31

Delta T = 248.22 sec

ASTRODIENST EPHEMERIS for the year 2269

geocentric

NOVEMBER 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 41 48	8♏41°01'	26♊35	28♏R48	29♏R24	4♏8	20♊51	0♏8	29♏R41	29♏R59	27♊58	6♏R8	6♏R14	22♏43	14♏R42	M 1
T 2	2 45 45	9°40'54	10♏27	28♏46	28♏52	4°45	21°0	0°9	29♏R39	0♏1	27°58	6♏8	6°11	22°50	14♏R39	T 2
W 3	2 49 41	10°40'49	24°1	28°35	28°22	5°23	21°8	0°10	29°37	0°2	27°59	6°7	6°8	22°56	14°37	W 3
T 4	2 53 38	11°40'46	7♏19	28°15	27°53	6°1	21°17	0°11	29°34	0°4	28°0	6°5	6°4	23°3	14°34	T 4
F 5	2 57 34	12°40'44	20°23	27°46	27°25	6°38	21°26	0°11	29°32	0°6	28°0	6°1	6°1	23°10	14°32	F 5
S 6	3 1 31	13°40'43	3♏14	27°8	27°0	7°16	21°35	0°12	29°30	0°8	28°1	5°54	5°58	23°16	14°29	S 6
S 7	3 5 27	14°40'45	15°54	26°20	26°37	7°53	21°44	0°13	29°27	0°9	28°2	5°43	5°55	23°23	14°27	S 7
M 8	3 9 24	15°40'48	28°23	25°23	26°16	8°31	21°53	0°13	29°25	0°11	28°3	5°31	5°52	23°30	14°25	M 8
T 9	3 13 20	16°40'53	10♏43	24°18	25°58	9°8	22°2	0°13	29°23	0°13	28°4	5°17	5°48	23°36	14°22	T 9
W10	3 17 17	17°41'00	22°54	23°7	25°42	9°46	22°12	0°14	29°20	0°14	28°4	5°3	5°45	23°43	14°20	W10
T 11	3 21 14	18°41'09	4♏56	21°51	25°28	10°23	22°21	0°R14	29°18	0°16	28°5	4°50	5°42	23°50	14°18	T 11
F 12	3 25 10	19°41'19	16°52	20°32	25°17	11°0	22°31	0°14	29°16	0°18	28°6	4°39	5°39	23°56	14°16	F 12
S 13	3 29 7	20°41'32	28°41	19°13	25°8	11°38	22°41	0°14	29°14	0°19	28°7	4°31	5°36	24°3	14°14	S 13
S 14	3 33 3	21°41'46	10♏29	17°56	25°2	12°15	22°51	0°13	29°11	0°21	28°8	4°26	5°33	24°10	14°12	S 14
M15	3 37 0	22°42'02	22°17	16°44	24°58	12°53	23°1	0°13	29°9	0°22	28°9	4°23	5°29	24°16	14°10	M15
T 16	3 40 56	23°42'21	4♏11	15°39	24°D57	13°30	23°11	0°13	29°7	0°24	28°10	4°D22	5°26	24°23	14°7	T 16
W17	3 44 53	24°42'41	16°16	14°43	24°58	14°8	23°21	0°12	29°5	0°25	28°11	4°23	5°23	24°30	14°5	W17
T 18	3 48 49	25°43'03	28°36	13°57	25°1	14°45	23°31	0°11	29°3	0°27	28°12	4°R23	5°20	24°36	14°4	T 18
F 19	3 52 46	26°43'27	11♏18	13°22	25°7	15°22	23°42	0°11	29°1	0°28	28°14	4°22	5°17	24°43	14°2	F 19
S 20	3 56 43	27°43'53	24°25	13°0	25°15	16°0	23°52	0°10	28°59	0°30	28°15	4°19	5°13	24°50	14°0	S 20
S 21	4 0 39	28°44'20	8♏1	12°D48	25°26	16°37	24°3	0°9	28°57	0°31	28°16	4°13	5°10	24°57	13°58	S 21
M22	4 4 36	29°44'50	22°8	12°49	25°38	17°14	24°14	0°7	28°55	0°32	28°17	4°5	5°7	25°3	13°56	M22
T 23	4 8 32	0♏45'21	6♏42	13°0	25°53	17°52	24°25	0°6	28°53	0°34	28°18	3°56	5°4	25°10	13°54	T 23
W24	4 12 29	1°45'54	21°38	13°21	26°10	18°29	24°36	0°5	28°51	0°35	28°19	3°46	5°1	25°17	13°53	W24
T 25	4 16 25	2°46'29	6♏48	13°51	26°29	19°6	24°47	0°3	28°49	0°36	28°21	3°36	4°58	25°23	13°51	T 25
F 26	4 20 22	3°47'05	22°1	14°29	26°50	19°44	24°58	0°2	28°47	0°37	28°22	3°29	4°54	25°30	13°50	F 26
S 27	4 24 18	4°47'43	7♏6	15°15	27°13	20°21	25°9	0°0	28°45	0°39	28°23	3°23	4°51	25°37	13°48	S 27
S 28	4 28 15	5°48'22	21°56	16°7	27°37	20°58	25°21	29°58	28°43	0°40	28°25	3°21	4°48	25°43	13°47	S 28
M29	4 32 12	6°49'02	6♏23	17°5	28°3	21°36	25°32	29°56	28°41	0°41	28°26	3°D20	4°45	25°50	13°45	M29
T 30	4 36 8	7♏49'43	20♏26	18♏8	28♏31	22♏13	25°34	29°54	28°Y40	0♏42	28°27	3♏21	4♏42	25°57	13°Y44	T 30

Delta T = 248.34 sec

DECEMBER 2269

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	4 40 5	8♏50'25	4♏5	19♏15	29♏1	22♏50	25°55	29°R52	28°R38	0♏43	28°29	3°R22	4♏39	26♏3	13°R42	W 1
T 2	4 44 1	9°51'08	17°21	20°26	29°32	23°27	26°7	29°50	28°Y36	0°44	28°30	3♏22	4°35	26°10	13°Y41	T 2
F 3	4 47 58	10°51'52	0♏Y17	21°40	0♏5	24°4	26°9	29°48	28°35	0°45	28°32	3°19	4°32	26°17	13°40	F 3
S 4	4 51 54	11°52'37	12°57	22°56	0°39	24°41	26°31	29°45	28°33	0°46	28°33	3°15	4°29	26°23	13°39	S 4
S 5	4 55 51	12°53'23	25°24	24°15	1°14	25°19	26°43	29°43	28°31	0°47	28°35	3°9	4°26	26°30	13°38	S 5
M 6	4 59 48	13°54'10	7♏40	25°36	1°51	25°56	26°55	29°40	28°30	0°48	28°36	3°0	4°23	26°37	13°36	M 6
T 7	5 3 44	14°54'58	19°47	26°59	2°30	26°33	27°7	29°38	28°28	0°49	28°38	2°51	4°19	26°43	13°35	T 7
W 8	5 7 41	15°55'47	1♏47	28°24	3°9	27°10	27°19	29°35	28°27	0°50	28°39	2°41	4°16	26°50	13°35	W 8
T 9	5 11 37	16°56'37	13°42	29°49	3°50	27°47	27°32	29°32	28°26	0°51	28°41	2°32	4°13	26°57	13°34	T 9
F 10	5 15 34	17°57'29	25°33	1♏16	4°32	28°24	27°44	29°29	28°24	0°51	28°42	2°25	4°10	27°3	13°33	F 10
S 11	5 19 30	18°58'21	7♏22	2°43	5°15	29°1	27°56	29°26	28°23	0°52	28°44	2°20	4°7	27°10	13°32	S 11
S 12	5 23 27	19°59'15	19°10	4°11	5°59	29°38	28°9	29°23	28°22	0°53	28°45	2°16	4°4	27°17	13°31	S 12
M13	5 27 23	21°0'09	1♏1	5°40	6°44	0♏15	28°21	29°19	28°20	0°54	28°47	2°D15	4°0	27°23	13°31	M13
T 14	5 31 20	22°1'05	12°58	7°9	7°30	0°52	28°34	29°16	28°19	0°54	28°49	2°16	3°57	27°30	13°30	T 14
W15	5 35 17	23°2'02	25°4	8°39	8°17	1°29	28°47	29°13	28°18	0°55	28°50	2°17	3°54	27°37	13°29	W15
T 16	5 39 13	24°3'00	7♏24	10°10	9°5	2°6	29°0	29°9	28°17	0°56	28°52	2°19	3°51	27°43	13°29	T 16
F 17	5 43 10	25°3'59	20°2	11°40	9°54	2°43	29°12	29°6	28°16	0°56	28°54	2°R20	3°48	27°50	13°28	F 17
S 18	5 47 6	26°4'59	3♏3	13°11	10°44	3°20	29°25	29°2	28°15	0°57	28°55	2°20	3°45	27°57	13°28	S 18
S 19	5 51 3	27°6'00	16°30	14°42	11°34	3°57	29°38	28°58	28°14	0°57	28°57	2°18	3°41	28°3	13°28	S 19
M20	5 54 59	28°7'02	0♏26	16°14	12°26	4°34	29°51	28°54	28°13	0°58	28°59	2°15	3°38	28°10	13°27	M20
T 21	5 58 56	29°8'06	14°50	17°46	13°18	5°11	0♏4	28°50	28°12	0°58	29°1	2°11	3°35	28°17	13°27	T 21
W22	6 2 52	0♏9'10	29°38	19°18	14°11	5°48	0°18	28°46	28°12	0°58	29°3	2°6	3°32	28°23	13°27	W22
T 23	6 6 49	1°10'15	14♏45	20°50	15°4	6°24	0°31	28°42	28°11	0°59	29°4	2°1	3°29	28°30	13°27	T 23
F 24	6 10 46	2°11'21	0♏1	22°22	15°59	7°1	0°44	28°38	28°10	0°59	29°6	1°57	3°25	28°37	13°D27	F 24
S 25	6 14 42	3°12'28	15°16	23°55	16°54	7°38	0°57	28°34	28°9	0°59	29°8	1°55	3°22	28°43	13°27	S 25
S 26	6 18 39	4°13'35	0♏19	25°28	17°49	8°15	1°11	28°30	28°9	1°0	29°10	1°D54	3°19	28°50	13°27	S 26
M27	6 22 35	5°14'42	15°2	27°1	18°45	8°52	1°24	28°25	28°8	1°0	29°12	1°55	3°16	28°57	13°27	M27
T 28	6 26 32	6°15'49	29°21	28°34	19°42	9°28	1°38	28°21	28°8	1°0	29°13	1°56	3°13	29°3	13°27	T 28
W29	6 30 28	7°16'57	13♏12	0♏7	20°39	10°5	1°51	28°17	28°7	1°0	29°15	1°58	3°10	29°10	13°27	W29
T 30	6 34 25	8°18'04	26°37	1°41	21°37	10°42	2°5	28°12	28°7	1°0	29°17	1°59	3°6	29°17	13°28	T 30
F 31	6 38 21	9♏19'12	9♏Y37	3♏15	22♏35	11♏18	2♏18	28°8	28°Y7	1♏1	29°19	1°R59	3♏3	29°Y23	13°Y28	F 31

Delta T = 248.47 sec