



# Astrodienst Ephemeris Tables for the year 2217

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 2217  
geocentric

JANUARY 2217

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	6 41 39	10♏11'54	29♏15	0♏23	13♏0	20♏44	5°R47	17♏53	18°R18	1°R 1	28°R38	9°R19	8♏5	2♏47	26♏45	W 1
T 2	6 45 36	11°13'02	12♏18	1°56	13° 9	20°59	5♏45	17°55	18♏17	1♏0	28♏38	9°D19	8° 1	2°54	26°46	T 2
F 3	6 49 32	12°14'10	25°42	3°29	13°16	21°13	5°42	17°58	18°17	0°59	28°38	9♏19	7°58	3° 0	26°48	F 3
S 4	6 53 29	13°15'19	9♏31	5° 2	13°20	21°26	5°40	18° 1	18°16	0°57	28°38	9°21	7°55	3° 7	26°49	S 4
S 5	6 57 25	14°16'28	23°45	6°36	13°R21	21°39	5°37	18° 3	18°15	0°56	28°38	9°22	7°52	3°14	26°51	S 5
M 6	7 1 22	15°17'38	8♏23	8°10	13°21	21°51	5°35	18° 5	18°15	0°55	28°38	9°R23	7°49	3°20	26°52	M 6
T 7	7 5 18	16°18'48	23°21	9°44	13°18	22° 3	5°32	18° 8	18°14	0°54	28°38	9°22	7°45	3°27	26°54	T 7
W 8	7 9 15	17°19'58	8♏32	11°18	13°12	22°14	5°28	18°10	18°13	0°53	28°37	9°20	7°42	3°34	26°56	W 8
T 9	7 13 11	18°21'09	23°46	12°53	13° 4	22°25	5°25	18°12	18°12	0°52	28°37	9°15	7°39	3°40	26°57	T 9
F 10	7 17 8	19°22'19	8♏54	14°29	12°53	22°35	5°21	18°14	18°11	0°51	28°37	9° 9	7°36	3°47	26°59	F 10
S 11	7 21 5	20°23'28	23°44	16° 4	12°40	22°44	5°18	18°15	18°10	0°50	28°36	9° 3	7°33	3°54	27° 1	S 11
S 12	7 25 1	21°24'38	8♏11	17°40	12°24	22°53	5°14	18°17	18° 9	0°49	28°36	8°56	7°30	4° 0	27° 3	S 12
M13	7 28 58	22°25'47	22° 8	19°17	12° 6	23° 1	5°10	18°19	18° 8	0°48	28°36	8°51	7°26	4° 7	27° 5	M13
T 14	7 32 54	23°26'55	5♏37	20°54	11°46	23° 9	5° 5	18°20	18° 7	0°47	28°35	8°47	7°23	4°14	27° 7	T 14
W15	7 36 51	24°28'03	18°37	22°31	11°23	23°16	5° 1	18°22	18° 6	0°46	28°35	8°46	7°20	4°20	27° 9	W15
T 16	7 40 47	25°29'11	1♏13	24° 9	10°58	23°22	4°56	18°23	18° 5	0°46	28°34	8°D46	7°17	4°27	27°11	T 16
F 17	7 44 44	26°30'17	13°30	25°48	10°31	23°28	4°51	18°24	18° 3	0°45	28°34	8°47	7°14	4°34	27°13	F 17
S 18	7 48 40	27°31'24	25°32	27°26	10° 2	23°33	4°47	18°25	18° 2	0°44	28°33	8°48	7°11	4°40	27°15	S 18
S 19	7 52 37	28°32'29	7♏25	29° 6	9°32	23°37	4°41	18°26	18° 1	0°43	28°33	8°R49	7° 7	4°47	27°18	S 19
M20	7 56 34	29°33'34	19°12	0♏45	8°59	23°40	4°36	18°27	17°59	0°43	28°32	8°48	7° 4	4°54	27°20	M20
T 21	8 0 30	0♏34'39	0♏59	2°26	8°26	23°43	4°31	18°28	17°58	0°42	28°31	8°45	7° 1	5° 0	27°22	T 21
W22	8 4 27	1°35'42	12°48	4° 6	7°51	23°45	4°25	18°28	17°56	0°41	28°31	8°40	6°58	5° 7	27°24	W22
T 23	8 8 23	2°36'45	24°42	5°48	7°15	23°46	4°19	18°29	17°55	0°41	28°30	8°32	6°55	5°14	27°27	T 23
F 24	8 12 20	3°37'48	6♏43	7°30	6°39	23°R47	4°14	18°29	17°53	0°40	28°29	8°23	6°51	5°20	27°29	F 24
S 25	8 16 16	4°38'50	18°51	9°12	6° 2	23°47	4° 8	18°30	17°52	0°39	28°28	8°12	6°48	5°27	27°32	S 25
S 26	8 20 13	5°39'51	1♏9	10°55	5°25	23°46	4° 1	18°30	17°50	0°39	28°28	8° 0	6°45	5°34	27°34	S 26
M27	8 24 9	6°40'51	13°36	12°38	4°48	23°44	3°55	18°30	17°48	0°38	28°27	7°50	6°42	5°40	27°37	M27
T 28	8 28 6	7°41'51	26°13	14°21	4°11	23°42	3°49	18°R30	17°46	0°38	28°26	7°41	6°39	5°47	27°39	T 28
W29	8 32 3	8°42'51	9♏4	16° 5	3°35	23°39	3°42	18°30	17°45	0°38	28°25	7°34	6°36	5°54	27°42	W29
T 30	8 35 59	9°43'49	22° 8	17°50	3° 0	23°35	3°36	18°30	17°43	0°37	28°24	7°30	6°32	6° 0	27°45	T 30
F 31	8 39 56	10♏44'48	5♏28	19♏34	2♏26	23♏30	3♏29	18♏29	17♏41	0♏37	28♏23	7°D29	6♏29	6♏7	27♏47	F 31

Delta T = 180.57 sec

FEBRUARY 2217

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	8 43 52	11♏45'46	19♏6	21♏19	1°R53	23°R25	3°R22	18°R29	17°R39	0°R36	28°R22	7♏29	6♏26	6♏14	27♏50	S 1
S 2	8 47 49	12°46'43	3♏5	23° 3	1♏22	23♏18	3♏15	18♏29	17♏37	0♏36	28♏21	7°R29	6°23	6°20	27°53	S 2
M 3	8 51 45	13°47'40	17°23	24°48	0°52	23°11	3° 8	18°28	17°35	0°36	28°20	7°29	6°20	6°27	27°56	M 3
T 4	8 55 42	14°48'36	2♏1	26°32	0°24	23° 3	3° 1	18°27	17°33	0°36	28°19	7°27	6°17	6°34	27°59	T 4
W 5	8 59 39	15°49'31	16°53	28°16	29♏59	22°54	2°54	18°26	17°31	0°35	28°18	7°22	6°13	6°40	28° 1	W 5
T 6	9 3 35	16°50'26	1♏52	29°59	29°35	22°45	2°46	18°25	17°29	0°35	28°17	7°14	6°10	6°47	28° 4	T 6
F 7	9 7 32	17°51'19	16°51	1♏40	29°14	22°34	2°39	18°24	17°26	0°35	28°16	7° 4	6° 7	6°54	28° 7	F 7
S 8	9 11 28	18°52'11	1♏38	3°21	28°55	22°23	2°31	18°23	17°24	0°35	28°15	6°53	6° 4	7° 0	28°10	S 8
S 9	9 15 25	19°53'02	16° 7	5° 0	28°38	22°11	2°24	18°22	17°22	0°35	28°14	6°41	6° 1	7° 7	28°13	S 9
M10	9 19 21	20°53'52	0♏10	6°37	28°24	21°59	2°16	18°20	17°20	0°D35	28°12	6°31	5°57	7°14	28°16	M10
T 11	9 23 18	21°54'40	13°45	8°11	28°12	21°45	2° 9	18°19	17°18	0°35	28°11	6°24	5°54	7°20	28°20	T 11
W12	9 27 14	22°55'27	26°51	9°42	28° 3	21°31	2° 1	18°17	17°15	0°35	28°10	6°18	5°51	7°27	28°23	W12
T 13	9 31 11	23°56'12	9♏32	11° 9	27°56	21°16	1°53	18°16	17°13	0°35	28° 9	6°16	5°48	7°34	28°26	T 13
F 14	9 35 7	24°56'56	21°52	12°32	27°52	21° 0	1°45	18°14	17°11	0°35	28° 7	6°D15	5°45	7°40	28°29	F 14
S 15	9 39 4	25°57'38	3♏55	13°49	27°D50	20°44	1°37	18°12	17° 8	0°36	28° 6	6°R15	5°42	7°47	28°32	S 15
S 16	9 43 1	26°58'19	15°48	15° 1	27°50	20°27	1°30	18°10	17° 6	0°36	28° 5	6°15	5°38	7°54	28°35	S 16
M17	9 46 57	27°58'58	27°36	16° 7	27°53	20° 9	1°22	18° 8	17° 3	0°36	28° 3	6°13	5°35	8° 0	28°39	M17
T 18	9 50 54	28°59'35	9♏23	17° 5	27°58	19°51	1°14	18° 6	17° 1	0°36	28° 2	6° 9	5°32	8° 7	28°42	T 18
W19	9 54 50	0♏0'11	21°15	17°55	28° 6	19°32	1° 6	18° 4	16°59	0°37	28° 1	6° 2	5°29	8°14	28°45	W19
T 20	9 58 47	1° 0'46	3♏14	18°37	28°16	19°13	0°58	18° 1	16°56	0°37	27°59	5°52	5°26	8°20	28°48	T 20
F 21	10 2 43	2° 1'18	15°24	19° 9	28°28	18°53	0°50	17°59	16°54	0°37	27°58	5°40	5°23	8°27	28°52	F 21
S 22	10 6 40	3° 1'49	27°45	19°32	28°42	18°32	0°42	17°56	16°51	0°38	27°56	5°26	5°19	8°34	28°55	S 22
S 23	10 10 36	4° 2'19	10♏18	19°45	28°58	18°11	0°34	17°54	16°49	0°38	27°55	5°12	5°16	8°40	28°58	S 23
M24	10 14 33	5° 2'46	23° 4	19°R48	29°16	17°50	0°26	17°51	16°46	0°39	27°54	4°59	5°13	8°47	29° 2	M24
T 25	10 18 30	6° 3'13	6♏0	19°40	29°36	17°28	0°18	17°48	16°43	0°39	27°52	4°47	5°10	8°54	29° 5	T 25
W26	10 22 26	7° 3'38	19° 8	19°22	29°58	17° 6	0°11	17°45	16°41	0°40	27°51	4°38	5° 7	9° 0	29° 9	W26
T 27	10 26 23	8° 4'01	2♏26	18°55	0♏22	16°43	0° 3	17°42	16°38	0°40	27°49	4°33	5° 3	9° 7	29°12	T 27
F 28	10 30 19	9♏4'24	15♏55	18♏19	0♏48	16♏20	29♏55	17♏39	16♏36	0♏41	27♏48	4♏30	5♏0	9♏14	29♏16	F 28

Delta T = 180.66 sec

# ASTRODIENST EPHEMERIS for the year 2217

## geocentric

MARCH 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	10 34 16	10°44'	29°36'	17°R36	1°15'	15°R57	29°R47	17°R36	16°R33	0°II41	27°R46	4°R29	4°57'	9°520	29°H19	S 1
S 2	10 38 12	11° 5'04	13°29'	16°H45	1°44'	15°R33	29°R40	17°H33	16°R30	0°42'	27°R45	4°29'	4°54'	9°27'	29°23	S 2
M 3	10 42 9	12° 5'22	27°35'	15°49'	2°14'	15°10'	29°32'	17°30'	16°28'	0°43'	27°43'	4°28'	4°51'	9°34'	29°26	M 3
T 4	10 46 5	13° 5'39	11°53'	14°49'	2°46'	14°46'	29°24'	17°26'	16°25'	0°44'	27°42'	4°26'	4°48'	9°40'	29°30	T 4
W 5	10 50 2	14° 5'54	26°21'	13°46'	3°20'	14°22'	29°17'	17°23'	16°23'	0°44'	27°40'	4°21'	4°44'	9°47'	29°33	W 5
T 6	10 53 59	15° 6'08	10°55'	12°43'	3°54'	13°59'	29°10'	17°19'	16°20'	0°45'	27°38'	4°13'	4°41'	9°54'	29°37	T 6
F 7	10 57 55	16° 6'20	25°29'	11°40'	4°30'	13°35'	29° 2'	17°16'	16°17'	0°46'	27°37'	4° 3'	4°38'	10° 0'	29°40	F 7
S 8	11 1 52	17° 6'31	9°H56	10°40'	5° 8'	13°11'	28°55'	17°12'	16°15'	0°47'	27°35'	3°51'	4°35'	10° 7'	29°44	S 8
S 9	11 5 48	18° 6'39	24° 9'	9°42'	5°46'	12°47'	28°48'	17° 8'	16°12'	0°48'	27°34'	3°39'	4°32'	10°14'	29°48	S 9
M10	11 9 45	19° 6'46	8°Y 3	8°49'	6°26'	12°24'	28°41'	17° 4'	16°10'	0°49'	27°32'	3°28'	4°28'	10°20'	29°51	M10
T 11	11 13 41	20° 6'51	21°34'	8° 1'	7° 7'	12° 0'	28°34'	17° 1'	16° 7'	0°50'	27°30'	3°20'	4°25'	10°27'	29°55	T 11
W12	11 17 38	21° 6'54	4°B40	7°19'	7°49'	11°37'	28°27'	16°57'	16° 4'	0°51'	27°29'	3°14'	4°22'	10°34'	29°58	W12
T 13	11 21 34	22° 6'55	17°22'	6°43'	8°32'	11°15'	28°20'	16°53'	16° 2'	0°52'	27°27'	3°10'	4°19'	10°40'	0°Y 2	T 13
F 14	11 25 31	23° 6'53	29°45'	6°13'	9°16'	10°52'	28°14'	16°49'	15°59'	0°53'	27°26'	3°D 9	4°16'	10°47'	0° 6'	F 14
S 15	11 29 28	24° 6'50	11°II51	5°51'	10° 1'	10°30'	28° 7'	16°45'	15°56'	0°54'	27°24'	3° 9'	4°13'	10°54'	0° 9'	S 15
S 16	11 33 24	25° 6'44	23°46'	5°34'	10°47'	10° 8'	28° 1'	16°40'	15°54'	0°55'	27°22'	3°R10	4° 9'	11° 0'	0°13	S 16
M17	11 37 21	26° 6'37	5°B36	5°25'	11°34'	9°47'	27°54'	16°36'	15°51'	0°56'	27°21'	3° 9'	4° 6'	11° 7'	0°17	M17
T 18	11 41 17	27° 6'27	17°25'	5°D21	12°21'	9°26'	27°48'	16°32'	15°49'	0°57'	27°19'	3° 7'	4° 3'	11°14'	0°20	T 18
W19	11 45 14	28° 6'14	29°19'	5°24'	13°10'	9° 6'	27°42'	16°28'	15°46'	0°59'	27°17'	3° 3'	4° 0'	11°20'	0°24	W19
T 20	11 49 10	29° 6'00	11°Q23	5°32'	13°59'	8°46'	27°36'	16°23'	15°44'	1° 0'	27°16'	2°56'	3°57'	11°27'	0°28	T 20
F 21	11 53 7	0°Y 5'44	23°39'	5°47'	14°49'	8°27'	27°31'	16°19'	15°41'	1° 1'	27°14'	2°46'	3°54'	11°34'	0°31	F 21
S 22	11 57 3	1° 5'25	6°R11	6° 6'	15°39'	8° 9'	27°25'	16°15'	15°39'	1° 2'	27°13'	2°36'	3°50'	11°40'	0°35	S 22
S 23	12 1 0	2° 5'04	18°59'	6°31'	16°31'	7°51'	27°20'	16°10'	15°36'	1° 4'	27°11'	2°25'	3°47'	11°47'	0°38	S 23
M24	12 4 56	3° 4'41	2°B 3	7° 0'	17°23'	7°34'	27°14'	16° 6'	15°34'	1° 5'	27° 9'	2°14'	3°44'	11°54'	0°42	M24
T 25	12 8 53	4° 4'16	15°21'	7°34'	18°16'	7°17'	27° 9'	16° 1'	15°31'	1° 6'	27° 8'	2° 5'	3°41'	12° 0'	0°46	T 25
W26	12 12 50	5° 3'49	28°53'	8°11'	19° 9'	7° 1'	27° 4'	15°57'	15°29'	1° 8'	27° 6'	1°58'	3°38'	12° 7'	0°49	W26
T 27	12 16 46	6° 3'21	12°R35	8°53'	20° 3'	6°46'	26°59'	15°52'	15°26'	1° 9'	27° 5'	1°54'	3°34'	12°14'	0°53	T 27
F 28	12 20 43	7° 2'50	26°25'	9°39'	20°57'	6°31'	26°55'	15°48'	15°24'	1°11'	27° 3'	1°D52	3°31'	12°20'	0°57	F 28
S 29	12 24 39	8° 2'18	10°H22	10°28'	21°52'	6°17'	26°50'	15°43'	15°22'	1°12'	27° 1'	1°53'	3°28'	12°27'	1° 0'	S 29
S 30	12 28 36	9° 1'44	24°24'	11°20'	22°48'	6° 4'	26°46'	15°38'	15°19'	1°14'	27° 0'	1°54'	3°25'	12°34'	1° 4'	S 30
M31	12 32 32	10°Y 1'08	8°B30	12°H15	23°H44	5°R52	26°Q42	15°B34	15°R17	1°II15	26°R58	1°R54	3°H22	12°B40	1°Y 8	M31

Delta T = 180.74 sec

APRIL 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 36 29	11°Y 0'31	22°B40	13°H13	24°H41	5°R40	26°R38	15°R29	15°R15	1°II17	26°R57	1°R54	3°H19	12°B47	1°Y11	T 1
W 2	12 40 25	11°59'52	6°H51	14°14'	25°38'	5°R30	26°Q34	15°B25	15°R12	1°18'	26°R55	1°H51	3°15'	12°54'	1°15	W 2
T 3	12 44 22	12°59'11	21° 1'	15°18'	26°35'	5°20'	26°30'	15°20'	15°10'	1°20'	26°54'	1°46'	3°12'	13° 1'	1°18	T 3
F 4	12 48 19	13°58'28	5°H 7	16°24'	27°33'	5°10'	26°27'	15°15'	15° 8'	1°22'	26°52'	1°40'	3° 9'	13° 7'	1°22	F 4
S 5	12 52 15	14°57'44	19° 6'	17°32'	28°32'	5° 2'	26°23'	15°11'	15° 6'	1°23'	26°50'	1°32'	3° 6'	13°14'	1°26	S 5
S 6	12 56 12	15°56'57	2°Y53	18°43'	29°31'	4°54'	26°20'	15° 6'	15° 4'	1°25'	26°49'	1°24'	3° 3'	13°21'	1°29	S 6
M 7	13 0 8	16°56'09	16°25'	19°56'	0°H30	4°47'	26°17'	15° 1'	15° 1'	1°27'	26°47'	1°17'	3° 0'	13°27'	1°33	M 7
T 8	13 4 5	17°55'18	29°40'	21°11'	1°30'	4°41'	26°15'	14°57'	14°59'	1°28'	26°46'	1°12'	2°56'	13°34'	1°36	T 8
W 9	13 8 1	18°54'26	12°B35	22°28'	2°30'	4°36'	26°12'	14°52'	14°57'	1°30'	26°44'	1° 8'	2°53'	13°41'	1°40	W 9
T 10	13 11 58	19°53'31	25°12'	23°46'	3°30'	4°32'	26°10'	14°47'	14°55'	1°32'	26°43'	1°D 6	2°50'	13°47'	1°43	T 10
F 11	13 15 54	20°52'34	7°II32	25° 7'	4°30'	4°28'	26° 7'	14°43'	14°53'	1°34'	26°42'	1° 6'	2°47'	13°54'	1°47	F 11
S 12	13 19 51	21°51'35	19°38'	26°30'	5°31'	4°25'	26° 5'	14°38'	14°51'	1°35'	26°40'	1° 7'	2°44'	14° 1'	1°50	S 12
S 13	13 23 44	22°50'34	1°B34	27°54'	6°33'	4°23'	26° 4'	14°33'	14°50'	1°37'	26°39'	1° 9'	2°40'	14° 7'	1°54	S 13
M14	13 27 48	23°49'31	13°25'	29°20'	7°34'	4°21'	26° 2'	14°29'	14°48'	1°39'	26°37'	1°11'	2°37'	14°14'	1°57	M14
T 15	13 31 41	24°48'25	25°16'	0°Y48	8°36'	4°D21	26° 0'	14°24'	14°46'	1°41'	26°36'	1°R11	2°34'	14°21'	2° 1'	T 15
W16	13 35 37	25°47'17	7°Q11	2°17'	9°38'	4°21'	25°59'	14°20'	14°44'	1°43'	26°34'	1°10'	2°31'	14°27'	2° 4'	W16
T 17	13 39 34	26°46'07	19°16'	3°49'	10°41'	4°22'	25°58'	14°15'	14°42'	1°45'	26°33'	1° 8'	2°28'	14°34'	2° 7'	T 17
F 18	13 43 30	27°44'54	1°R36	5°21'	11°44'	4°23'	25°57'	14°11'	14°41'	1°47'	26°32'	1° 4'	2°25'	14°41'	2°11	F 18
S 19	13 47 27	28°43'39	14°12'	6°56'	12°47'	4°25'	25°57'	14° 6'	14°39'	1°49'	26°30'	1° 0'	2°21'	14°47'	2°14	S 19
S 20	13 51 23	29°42'22	27° 8'	8°32'	13°50'	4°28'	25°56'	14° 2'	14°37'	1°51'	26°29'	0°55'	2°18'	14°54'	2°17	S 20
M21	13 55 20	0°B41'03	10°B25	10°10'	14°53'	4°32'	25°56'	13°58'	14°36'	1°53'	26°28'	0°50'	2°15'	15° 1'	2°21	M21
T 22	13 59 17	1°39'42	24° 2'	11°49'	15°57'	4°36'	25°D56	13°53'	14°34'	1°55'	26°27'	0°46'	2°12'	15° 7'	2°24	T 22
W23	14 3 13	2°38'19	7°R56	13°30'	17° 1'	4°41'	25°56'	13°49'	14°33'	1°57'	26°25'	0°43'	2° 9'	15°14'	2°27	W23
T 24	14 7 10	3°36'54	22° 4'	15°13'	18° 5'	4°47'	25°56'	13°45'	14°31'	1°59'	26°24'	0°41'	2° 5'	15°21'	2°31	T 24
F 25	14 11 6	4°35'28	6°H21	16°57'	19° 9'	4°53'	25°56'	13°40'	14°30'	2° 1'	26°23'	0°D41	2° 2'	15°27'	2°34	F 25
S 26	14 15 3	5°33'59	20°43'	18°43'	20°14'	5° 0'	25°57'	13°36'	14°28'	2° 3'	26°22'	0°42'	1°59'	15°34'	2°37	S 26
S 27	14 18 59	6°32'29	5°B 6	20°31'	21°19'	5° 8'	25°58'	13°32'	14°27'	2° 5'	26°21'	0°43'	1°56'	15°41'	2°40	S 27
M28	14 22 56	7°30'58	19°26'	22°20'	22°24'	5°16'	25°59'	13°28'	14°26'	2° 7'	26°19'	0°45'	1°53'	15°48'	2°43	M28
T 29	14 26 52	8°29'25	3°H41	24°11'	23°29'	5°25'	26° 0'	13°24'	14°25'	2° 9'	26°18'	0°R45	1°50'	15°54'	2°46	T 29
W30	14 30 49	9°B27'50	17°H47	26°Y 3	24°H35	5°R34	26°Q 1	13°B20	14°R24	2°II11	26°R17	0°H45	1°H46	16°B 1	2°Y50	W30

Delta T = 180.84 sec

ASTRODIENST EPHEMERIS for the year 2217  
geocentric

MAY 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	14 34 46	10♌26'13	1♋43	27♏58	25♋40	5♏44	26♌3	13°R16	14°R22	2♏13	26°R16	0°R44	1♌43	16♌8	2♏53	T 1
F 2	14 38 42	11°24'35	15°29	29°54	26°46	5°55	26° 4	13♌12	14♏21	2°15	26♏15	0♌42	1°40	16°14	2°56	F 2
S 3	14 42 39	12°22'56	29° 3	1♌51	27°52	6° 6	26° 6	13° 9	14°20	2°17	26°14	0°40	1°37	16°21	2°59	S 3
S 4	14 46 35	13°21'15	12♏23	3°51	28°58	6°18	26° 8	13° 5	14°19	2°20	26°13	0°37	1°34	16°28	3° 2	S 4
M 5	14 50 32	14°19'32	25°30	5°51	0♏4	6°30	26°10	13° 1	14°18	2°22	26°12	0°35	1°31	16°34	3° 5	M 5
T 6	14 54 28	15°17'48	8♌22	7°54	1°11	6°43	26°13	12°58	14°18	2°24	26°11	0°33	1°27	16°41	3° 7	T 6
W 7	14 58 25	16°16'02	21° 0	9°58	2°17	6°56	26°15	12°54	14°17	2°26	26°10	0°32	1°24	16°48	3°10	W 7
T 8	15 2 21	17°14'14	3♏24	12° 3	3°24	7°10	26°18	12°51	14°16	2°28	26° 9	0°D32	1°21	16°54	3°13	T 8
F 9	15 6 18	18°12'25	15°37	14°10	4°31	7°24	26°21	12°47	14°15	2°30	26° 8	0°33	1°18	17° 1	3°16	F 9
S 10	15 10 15	19°10'33	27°39	16°17	5°37	7°39	26°24	12°44	14°15	2°33	26° 8	0°33	1°15	17° 8	3°19	S 10
S 11	15 14 11	20° 8'40	9♌33	18°26	6°45	7°54	26°27	12°41	14°14	2°35	26° 7	0°34	1°11	17°14	3°22	S 11
M12	15 18 8	21° 6'45	21°24	20°36	7°52	8°10	26°31	12°38	14°13	2°37	26° 6	0°35	1° 8	17°21	3°24	M12
T 13	15 22 4	22° 4'49	3♏15	22°46	8°59	8°26	26°35	12°35	14°13	2°39	26° 5	0°36	1° 5	17°28	3°27	T 13
W14	15 26 1	23° 2'50	15°10	24°57	10° 6	8°43	26°38	12°32	14°12	2°41	26° 5	0°37	1° 2	17°34	3°30	W14
T 15	15 29 57	24° 0'49	27°15	27° 7	11°14	9° 0	26°42	12°29	14°12	2°44	26° 4	0°R37	0°59	17°41	3°32	T 15
F 16	15 33 54	24°58'47	9♏33	29°18	12°22	9°18	26°46	12°26	14°12	2°46	26° 3	0°37	0°56	17°48	3°35	F 16
S 17	15 37 50	25°56'43	22° 8	1♏28	13°29	9°36	26°51	12°23	14°11	2°48	26° 3	0°36	0°52	17°55	3°37	S 17
S 18	15 41 47	26°54'37	5♌6	3°37	14°37	9°54	26°55	12°20	14°11	2°50	26° 2	0°36	0°49	18° 1	3°40	S 18
M19	15 45 43	27°52'29	18°26	5°46	15°45	10°13	27° 0	12°18	14°11	2°53	26° 1	0°35	0°46	18° 8	3°42	M19
T 20	15 49 40	28°50'19	2♏11	7°53	16°53	10°32	27° 5	12°15	14°11	2°55	26° 1	0°35	0°43	18°15	3°45	T 20
W21	15 53 37	29°48'09	16°19	9°58	18° 2	10°52	27° 9	12°13	14°11	2°57	26° 0	0°35	0°40	18°21	3°47	W21
T 22	15 57 33	0♏45'56	0♌47	12° 2	19°10	11°12	27°15	12°11	14°D11	2°59	26° 0	0°35	0°37	18°28	3°49	T 22
F 23	16 1 30	1°43'42	15°28	14° 4	20°18	11°32	27°20	12° 8	14°11	3° 2	25°59	0°35	0°33	18°35	3°52	F 23
S 24	16 5 26	2°41'27	0♌17	16° 3	21°27	11°53	27°25	12° 6	14°11	3° 4	25°59	0°35	0°30	18°41	3°54	S 24
S 25	16 9 23	3°39'11	15° 6	18° 0	22°35	12°14	27°31	12° 4	14°11	3° 6	25°59	0°35	0°27	18°48	3°56	S 25
M26	16 13 19	4°36'54	29°48	19°55	23°44	12°35	27°36	12° 2	14°11	3° 8	25°58	0°34	0°24	18°55	3°58	M26
T 27	16 17 16	5°34'35	14♌17	21°47	24°53	12°57	27°42	12° 1	14°11	3°11	25°58	0°34	0°21	19° 1	4° 0	T 27
W28	16 21 13	6°32'16	28°30	23°36	26° 2	13°19	27°48	11°59	14°12	3°13	25°57	0°34	0°17	19° 8	4° 2	W28
T 29	16 25 9	7°29'55	12♌24	25°23	27°10	13°41	27°54	11°57	14°12	3°15	25°57	0°D34	0°14	19°15	4° 4	T 29
F 30	16 29 6	8°27'34	26° 0	27° 6	28°20	14° 4	28° 0	11°56	14°12	3°17	25°57	0°34	0°11	19°21	4° 6	F 30
S 31	16 33 2	9♏25'11	9♏17	28♏47	29♏29	14♏27	28♌7	11♌54	14♏13	3♏20	25♏57	0♌34	0♌8	19♌28	4♏8	S 31

Delta T = 180.93 sec

JUNE 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	16 36 59	10♏22'48	22♏17	0♌25	0♌38	14♏51	28♌13	11°R53	14♏13	3♏22	25°R57	0♌35	0♌5	19♌35	4♏10	S 1
M 2	16 40 55	11°20'24	5♌3	1°59	1°47	15°14	28°20	11♌51	14°14	3°24	25♏56	0°36	0° 2	19°42	4°12	M 2
T 3	16 44 52	12°17'59	17°35	3°31	2°56	15°38	28°27	11°50	14°14	3°26	25°56	0°37	29♏58	19°48	4°14	T 3
W 4	16 48 48	13°15'33	29°55	4°59	4° 6	16° 3	28°34	11°49	14°15	3°29	25°56	0°R37	29°55	19°55	4°16	W 4
T 5	16 52 45	14°13'06	12♏5	6°25	5°15	16°27	28°41	11°48	14°16	3°31	25°56	0°37	29°52	20° 2	4°17	T 5
F 6	16 56 42	15°10'37	24° 8	7°47	6°25	16°52	28°48	11°47	14°17	3°33	25°D56	0°36	29°49	20° 8	4°19	F 6
S 7	17 0 38	16° 8'08	6♌4	9° 6	7°34	17°17	28°55	11°46	14°17	3°35	25°56	0°34	29°46	20°15	4°21	S 7
S 8	17 4 35	17° 5'38	17°56	10°22	8°44	17°43	29° 3	11°46	14°18	3°37	25°56	0°32	29°43	20°22	4°22	S 8
M 9	17 8 31	18° 3'07	29°46	11°34	9°54	18° 9	29°10	11°45	14°19	3°40	25°56	0°29	29°39	20°28	4°24	M 9
T 10	17 12 28	19° 0'34	11♌37	12°43	11° 4	18°35	29°18	11°45	14°20	3°42	25°56	0°27	29°36	20°35	4°25	T 10
W11	17 16 24	19°58'01	23°33	13°49	12°13	19° 1	29°26	11°44	14°21	3°44	25°56	0°24	29°33	20°42	4°27	W11
T 12	17 20 21	20°55'26	5♏36	14°51	13°23	19°27	29°34	11°44	14°22	3°46	25°57	0°23	29°30	20°48	4°28	T 12
F 13	17 24 17	21°52'50	17°52	15°50	14°33	19°54	29°42	11°44	14°23	3°48	25°57	0°D22	29°27	20°55	4°29	F 13
S 14	17 28 14	22°50'13	0♌24	16°45	15°43	20°21	29°50	11°D44	14°25	3°50	25°57	0°22	29°23	21° 2	4°31	S 14
S 15	17 32 11	23°47'35	13°17	17°36	16°53	20°48	29°59	11°44	14°26	3°53	25°57	0°23	29°20	21° 9	4°32	S 15
M16	17 36 7	24°44'56	26°34	18°24	18° 4	21°16	0♏7	11°44	14°27	3°55	25°58	0°24	29°17	21°15	4°33	M16
T 17	17 40 4	25°42'16	10♏17	19° 7	19°14	21°44	0°16	11°44	14°28	3°57	25°58	0°26	29°14	21°22	4°34	T 17
W18	17 44 0	26°39'35	24°27	19°47	20°24	22°12	0°24	11°45	14°30	3°59	25°58	0°R27	29°11	21°29	4°35	W18
T 19	17 47 57	27°36'54	9♌2	20°22	21°34	22°40	0°33	11°45	14°31	4° 1	25°59	0°26	29° 8	21°35	4°36	T 19
F 20	17 51 53	28°34'11	23°57	20°53	22°45	23° 8	0°42	11°45	14°33	4° 3	25°59	0°25	29° 4	21°42	4°37	F 20
S 21	17 55 50	29°31'28	9♌4	21°20	23°55	23°37	0°51	11°46	14°34	4° 5	26° 0	0°22	29° 1	21°49	4°38	S 21
S 22	17 59 46	0♌28'45	24°14	21°43	25° 6	24° 6	1° 0	11°47	14°36	4° 7	26° 0	0°19	28°58	21°55	4°39	S 22
M23	18 3 43	1°26'01	9♌17	22° 1	26°16	24°35	1° 9	11°48	14°37	4° 9	26° 1	0°14	28°55	22° 2	4°40	M23
T 24	18 7 40	2°23'17	24° 5	22°15	27°27	25° 4	1°18	11°49	14°39	4°11	26° 1	0°10	28°52	22° 9	4°41	T 24
W25	18 11 36	3°20'32	8♌31	22°24	28°37	25°33	1°28	11°50	14°41	4°13	26° 2	0° 7	28°49	22°16	4°41	W25
T 26	18 15 33	4°17'48	22°32	22°R28	29°48	26° 3	1°37	11°51	14°43	4°15	26° 2	0° 5	28°45	22°22	4°42	T 26
F 27	18 19 29	5°15'03	6♏7	22°28	0♏59	26°33	1°47	11°52	14°44	4°17	26° 3	0°D 5	28°42	22°29	4°43	F 27
S 28	18 23 26	6°12'18	19°18	22°24	2°10	27° 3	1°56	11°53	14°46	4°19	26° 4	0° 5	28°39	22°36	4°43	S 28
S 29	18 27 22	7° 9'33	2♌8	22°15	3°20	27°33	2° 6	11°55	14°48	4°21	26° 4	0° 7	28°36	22°42	4°44	S 29
M30	18 31 19	8♌6'48	14♌40	22♌1	4♏31	28♏3	2♏16	11♌56	14♏50	4♏23	26♏5	0♌8	28♏33	22♌49	4♏44	M30

Delta T = 181.02 sec

# ASTRODIENST EPHEMERIS for the year 2217

## geocentric

JULY 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 35 15	9 <sup>55</sup> 4'03	26 <sup>58</sup> 58	21 <sup>44</sup> 44	5 <sup>42</sup> 42	28 <sup>34</sup> 34	2 <sup>26</sup> 26	11 <sup>58</sup> 58	14 <sup>52</sup> 52	4 <sup>25</sup> 25	26 <sup>06</sup> 6	0 <sup>09</sup> 9	28 <sup>29</sup> 29	22 <sup>56</sup> 56	4 <sup>44</sup> 44	T 1
W 2	18 39 12	10 <sup>0</sup> 1'18	9 <sup>11</sup> 6	21 <sup>52</sup> 23	6 <sup>53</sup> 53	29 <sup>0</sup> 4	2 <sup>36</sup> 36	12 <sup>0</sup> 0	14 <sup>54</sup> 54	4 <sup>27</sup> 27	26 <sup>0</sup> 7	0 <sup>07</sup> 9	28 <sup>26</sup> 26	23 <sup>0</sup> 2	4 <sup>45</sup> 45	W 2
T 3	18 43 9	10 <sup>58</sup> 33	21 <sup>0</sup> 5	20 <sup>58</sup> 8	4 <sup>0</sup> 4	29 <sup>35</sup> 35	2 <sup>46</sup> 46	12 <sup>0</sup> 1	14 <sup>56</sup> 56	4 <sup>29</sup> 29	26 <sup>0</sup> 7	0 <sup>06</sup> 6	28 <sup>23</sup> 23	23 <sup>0</sup> 9	4 <sup>45</sup> 45	T 3
F 4	18 47 5	11 <sup>55</sup> 47	3 <sup>50</sup> 0	20 <sup>30</sup> 9	16 <sup>0</sup> 16	0 <sup>06</sup> 6	2 <sup>56</sup> 56	12 <sup>0</sup> 3	14 <sup>59</sup> 59	4 <sup>31</sup> 31	26 <sup>0</sup> 8	0 <sup>02</sup> 2	28 <sup>20</sup> 20	23 <sup>16</sup> 16	4 <sup>45</sup> 45	F 4
S 5	18 51 2	12 <sup>53</sup> 02	14 <sup>51</sup> 19	19 <sup>59</sup> 10	27 <sup>0</sup> 27	0 <sup>38</sup> 38	3 <sup>0</sup> 7	12 <sup>0</sup> 5	15 <sup>0</sup> 1	4 <sup>33</sup> 33	26 <sup>0</sup> 9	29 <sup>0</sup> 11	28 <sup>17</sup> 17	23 <sup>22</sup> 22	4 <sup>46</sup> 46	S 5
S 6	18 54 58	13 <sup>50</sup> 16	26 <sup>41</sup> 19	19 <sup>25</sup> 11	38 <sup>0</sup> 38	1 <sup>0</sup> 9	3 <sup>17</sup> 17	12 <sup>0</sup> 7	15 <sup>0</sup> 3	4 <sup>35</sup> 35	26 <sup>10</sup> 10	29 <sup>49</sup> 49	28 <sup>14</sup> 14	23 <sup>29</sup> 29	4 <sup>46</sup> 46	S 6
M 7	18 58 55	14 <sup>47</sup> 31	8 <sup>02</sup> 32	18 <sup>50</sup> 12	49 <sup>0</sup> 49	1 <sup>41</sup> 41	3 <sup>27</sup> 27	12 <sup>10</sup> 10	15 <sup>0</sup> 5	4 <sup>37</sup> 37	26 <sup>11</sup> 11	29 <sup>41</sup> 41	28 <sup>10</sup> 10	23 <sup>36</sup> 36	4 <sup>46</sup> 46	M 7
T 8	19 2 51	15 <sup>44</sup> 45	20 <sup>26</sup> 18	14 <sup>0</sup> 14	2 <sup>13</sup> 13	3 <sup>38</sup> 38	12 <sup>12</sup> 12	15 <sup>0</sup> 7	4 <sup>38</sup> 38	26 <sup>12</sup> 12	29 <sup>32</sup> 32	28 <sup>0</sup> 7	23 <sup>43</sup> 43	4 <sup>47</sup> 47	4 <sup>46</sup> 46	T 8
W 9	19 6 48	16 <sup>41</sup> 59	2 <sup>14</sup> 24	17 <sup>37</sup> 15	12 <sup>0</sup> 12	2 <sup>45</sup> 45	3 <sup>49</sup> 49	12 <sup>14</sup> 14	15 <sup>10</sup> 10	4 <sup>40</sup> 40	26 <sup>13</sup> 13	29 <sup>25</sup> 25	28 <sup>0</sup> 4	23 <sup>49</sup> 49	4 <sup>46</sup> 46	W 9
T 10	19 10 44	17 <sup>39</sup> 12	14 <sup>30</sup> 17	0 <sup>0</sup> 0	16 <sup>23</sup> 23	3 <sup>17</sup> 17	3 <sup>59</sup> 59	12 <sup>17</sup> 17	15 <sup>12</sup> 12	4 <sup>42</sup> 42	26 <sup>14</sup> 14	29 <sup>18</sup> 18	28 <sup>0</sup> 1	23 <sup>56</sup> 56	4 <sup>46</sup> 46	T 10
F 11	19 14 41	18 <sup>36</sup> 26	26 <sup>46</sup> 16	16 <sup>23</sup> 17	35 <sup>0</sup> 35	3 <sup>49</sup> 49	4 <sup>10</sup> 10	12 <sup>19</sup> 19	15 <sup>15</sup> 15	4 <sup>44</sup> 44	26 <sup>15</sup> 15	29 <sup>14</sup> 14	27 <sup>58</sup> 58	24 <sup>0</sup> 3	4 <sup>45</sup> 45	F 11
S 12	19 18 38	19 <sup>33</sup> 39	9 <sup>16</sup> 15	15 <sup>48</sup> 18	46 <sup>0</sup> 46	4 <sup>22</sup> 22	4 <sup>21</sup> 21	12 <sup>22</sup> 22	15 <sup>17</sup> 17	4 <sup>45</sup> 45	26 <sup>16</sup> 16	29 <sup>11</sup> 11	27 <sup>54</sup> 54	24 <sup>0</sup> 9	4 <sup>45</sup> 45	S 12
S 13	19 22 34	20 <sup>30</sup> 52	22 <sup>0</sup> 5	15 <sup>15</sup> 19	58 <sup>0</sup> 58	4 <sup>54</sup> 54	4 <sup>32</sup> 32	12 <sup>25</sup> 25	15 <sup>20</sup> 20	4 <sup>47</sup> 47	26 <sup>17</sup> 17	29 <sup>0</sup> 11	27 <sup>51</sup> 51	24 <sup>16</sup> 16	4 <sup>45</sup> 45	S 13
M14	19 26 31	21 <sup>28</sup> 05	5 <sup>11</sup> 15	14 <sup>44</sup> 21	9 <sup>0</sup> 9	5 <sup>27</sup> 27	4 <sup>43</sup> 43	12 <sup>28</sup> 28	15 <sup>22</sup> 22	4 <sup>49</sup> 49	26 <sup>18</sup> 18	29 <sup>12</sup> 12	27 <sup>48</sup> 48	24 <sup>23</sup> 23	4 <sup>45</sup> 45	M14
T 15	19 30 27	22 <sup>25</sup> 18	18 <sup>51</sup> 14	14 <sup>16</sup> 22	21 <sup>0</sup> 21	6 <sup>0</sup> 0	4 <sup>54</sup> 54	12 <sup>31</sup> 31	15 <sup>25</sup> 25	4 <sup>50</sup> 50	26 <sup>20</sup> 20	29 <sup>13</sup> 13	27 <sup>45</sup> 45	24 <sup>29</sup> 29	4 <sup>44</sup> 44	T 15
W16	19 34 24	23 <sup>22</sup> 31	2 <sup>07</sup> 53	13 <sup>52</sup> 23	32 <sup>0</sup> 32	6 <sup>33</sup> 33	5 <sup>0</sup> 5	12 <sup>34</sup> 34	15 <sup>27</sup> 27	4 <sup>52</sup> 52	26 <sup>21</sup> 21	29 <sup>0</sup> 13	27 <sup>42</sup> 42	24 <sup>36</sup> 36	4 <sup>44</sup> 44	W16
T 17	19 38 20	24 <sup>19</sup> 44	17 <sup>23</sup> 13	13 <sup>32</sup> 24	44 <sup>0</sup> 44	7 <sup>0</sup> 6	5 <sup>16</sup> 16	12 <sup>37</sup> 37	15 <sup>30</sup> 30	4 <sup>54</sup> 54	26 <sup>22</sup> 22	29 <sup>11</sup> 11	27 <sup>39</sup> 39	24 <sup>43</sup> 43	4 <sup>43</sup> 43	T 17
F 18	19 42 17	25 <sup>16</sup> 57	2 <sup>31</sup> 16	13 <sup>16</sup> 25	56 <sup>0</sup> 56	7 <sup>39</sup> 39	5 <sup>28</sup> 28	12 <sup>40</sup> 40	15 <sup>33</sup> 33	4 <sup>55</sup> 55	26 <sup>23</sup> 23	29 <sup>0</sup> 8	27 <sup>35</sup> 35	24 <sup>50</sup> 50	4 <sup>43</sup> 43	F 18
S 19	19 46 13	26 <sup>14</sup> 10	17 <sup>27</sup> 13	5 <sup>0</sup> 27	8 <sup>0</sup> 8	8 <sup>13</sup> 13	5 <sup>39</sup> 39	12 <sup>43</sup> 43	15 <sup>36</sup> 36	4 <sup>57</sup> 57	26 <sup>25</sup> 25	29 <sup>0</sup> 2	27 <sup>32</sup> 32	24 <sup>56</sup> 56	4 <sup>42</sup> 42	S 19
S 20	19 50 10	27 <sup>11</sup> 23	2 <sup>00</sup> 45	12 <sup>59</sup> 28	19 <sup>0</sup> 19	8 <sup>47</sup> 47	5 <sup>50</sup> 50	12 <sup>47</sup> 47	15 <sup>38</sup> 38	4 <sup>58</sup> 58	26 <sup>26</sup> 26	28 <sup>55</sup> 55	27 <sup>29</sup> 29	25 <sup>0</sup> 3	4 <sup>42</sup> 42	S 20
M21	19 54 7	28 <sup>0</sup> 837	18 <sup>0</sup> 0	12 <sup>58</sup> 29	31 <sup>0</sup> 31	9 <sup>20</sup> 20	6 <sup>0</sup> 2	12 <sup>50</sup> 50	15 <sup>41</sup> 41	5 <sup>0</sup> 0	26 <sup>27</sup> 27	28 <sup>46</sup> 46	27 <sup>26</sup> 26	25 <sup>10</sup> 10	4 <sup>41</sup> 41	M21
T 22	19 58 3	29 <sup>0</sup> 5'51	3 <sup>07</sup> 1	13 <sup>0</sup> 2	0 <sup>43</sup> 43	9 <sup>54</sup> 54	6 <sup>13</sup> 13	12 <sup>54</sup> 54	15 <sup>44</sup> 44	5 <sup>1</sup> 1	26 <sup>29</sup> 29	28 <sup>38</sup> 38	27 <sup>23</sup> 23	25 <sup>16</sup> 16	4 <sup>40</sup> 40	T 22
W23	20 2 0	0 <sup>0</sup> 3'06	17 <sup>39</sup> 17	13 <sup>12</sup> 17	55 <sup>0</sup> 55	10 <sup>28</sup> 28	6 <sup>25</sup> 25	12 <sup>57</sup> 57	15 <sup>47</sup> 47	5 <sup>3</sup> 3	26 <sup>30</sup> 30	28 <sup>30</sup> 30	27 <sup>20</sup> 20	25 <sup>23</sup> 23	4 <sup>40</sup> 40	W23
T 24	20 5 56	1 <sup>0</sup> 0'21	1 <sup>0</sup> 50	13 <sup>28</sup> 3	7 <sup>0</sup> 11	11 <sup>0</sup> 2	6 <sup>36</sup> 36	13 <sup>0</sup> 1	15 <sup>50</sup> 50	5 <sup>4</sup> 4	26 <sup>31</sup> 31	28 <sup>25</sup> 25	27 <sup>16</sup> 16	25 <sup>30</sup> 30	4 <sup>39</sup> 39	T 24
F 25	20 9 53	1 <sup>57</sup> 37	15 <sup>31</sup> 13	13 <sup>49</sup> 4	19 <sup>0</sup> 19	11 <sup>37</sup> 37	6 <sup>48</sup> 48	13 <sup>0</sup> 5	15 <sup>53</sup> 53	5 <sup>6</sup> 6	26 <sup>33</sup> 33	28 <sup>22</sup> 22	27 <sup>13</sup> 13	25 <sup>36</sup> 36	4 <sup>38</sup> 38	F 25
S 26	20 13 49	2 <sup>54</sup> 54	28 <sup>44</sup> 14	14 <sup>16</sup> 5	31 <sup>0</sup> 31	12 <sup>11</sup> 11	7 <sup>0</sup> 0	13 <sup>0</sup> 9	15 <sup>56</sup> 56	5 <sup>7</sup> 7	26 <sup>34</sup> 34	28 <sup>0</sup> 21	27 <sup>10</sup> 10	25 <sup>43</sup> 43	4 <sup>37</sup> 37	S 26
S 27	20 17 46	3 <sup>52</sup> 12	11 <sup>03</sup> 32	14 <sup>49</sup> 6	44 <sup>0</sup> 44	12 <sup>46</sup> 46	7 <sup>12</sup> 12	13 <sup>13</sup> 13	15 <sup>59</sup> 59	5 <sup>8</sup> 8	26 <sup>36</sup> 36	28 <sup>21</sup> 21	27 <sup>0</sup> 7	25 <sup>50</sup> 50	4 <sup>36</sup> 36	S 27
M28	20 21 42	4 <sup>49</sup> 31	24 <sup>0</sup> 0	15 <sup>27</sup> 7	56 <sup>0</sup> 56	13 <sup>21</sup> 21	7 <sup>24</sup> 24	13 <sup>17</sup> 17	16 <sup>0</sup> 2	5 <sup>10</sup> 10	26 <sup>37</sup> 37	28 <sup>0</sup> 21	27 <sup>0</sup> 4	25 <sup>57</sup> 57	4 <sup>35</sup> 35	M28
T 29	20 25 39	5 <sup>46</sup> 51	6 <sup>11</sup> 11	16 <sup>12</sup> 9	8 <sup>0</sup> 13	13 <sup>55</sup> 55	7 <sup>35</sup> 35	13 <sup>21</sup> 21	16 <sup>0</sup> 5	5 <sup>11</sup> 11	26 <sup>39</sup> 39	28 <sup>21</sup> 21	27 <sup>0</sup> 0	26 <sup>0</sup> 3	4 <sup>34</sup> 34	T 29
W30	20 29 36	6 <sup>44</sup> 11	18 <sup>12</sup> 17	1 <sup>0</sup> 10	20 <sup>0</sup> 20	14 <sup>30</sup> 30	7 <sup>47</sup> 47	13 <sup>25</sup> 25	16 <sup>0</sup> 8	5 <sup>12</sup> 12	26 <sup>40</sup> 40	28 <sup>19</sup> 19	26 <sup>57</sup> 57	26 <sup>10</sup> 10	4 <sup>33</sup> 33	W30
T 31	20 33 32	7 <sup>0</sup> 41'32	0 <sup>5</sup> 5	17 <sup>57</sup> 17	53 <sup>0</sup> 53	15 <sup>0</sup> 6	7 <sup>59</sup> 59	13 <sup>29</sup> 29	16 <sup>0</sup> 11	5 <sup>14</sup> 14	26 <sup>42</sup> 42	28 <sup>15</sup> 15	26 <sup>54</sup> 54	26 <sup>17</sup> 17	4 <sup>32</sup> 32	T 31

Delta T = 181.11 sec

AUGUST 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	20 37 29	8♠38'54	11☾55	18☾58	12☾45	15♠41	8♠12	13♠34	16♠14	5♠15	26♠44	28♠R 8	26♠51	26☾23	4♠R30	F 1
S 2	20 41 25	9°36'17	23°45	20° 4	13°58	16°16	8°24	13°38	16°17	5°16	26°45	27♠59	26°48	26°30	4♠Y29	S 2
S 3	20 45 22	10°33'41	5♠36	21°15	15°10	16°52	8°36	13°43	16°21	5°17	26°47	27°47	26°45	26°37	4°28	S 3
M 4	20 49 18	11°31'06	17°31	22°32	16°23	17°27	8°48	13°47	16°24	5°18	26°48	27°34	26°41	26°44	4°27	M 4
T 5	20 53 15	12°28'31	29°30	23°53	17°35	18° 3	9° 0	13°52	16°27	5°20	26°50	27°21	26°38	26°50	4°25	T 5
W 6	20 57 11	13°25'57	11♠36	25°20	18°48	18°39	9°13	13°56	16°30	5°21	26°52	27° 8	26°35	26°57	4°24	W 6
T 7	21 1 8	14°23'24	23°49	26°51	20° 0	19°15	9°25	14° 1	16°34	5°22	26°54	26°58	26°32	27° 4	4°22	T 7
F 8	21 5 5	15°20'52	6♠12	28°26	21°13	19°51	9°37	14° 6	16°37	5°23	26°55	26°50	26°29	27°10	4°21	F 8
S 9	21 9 1	16°18'20	18°46	0♠ 6	22°26	20°27	9°50	14°11	16°40	5°24	26°57	26°45	26°26	27°17	4°19	S 9
S 10	21 12 58	17°15'49	1♠35	1°49	23°39	21° 4	10° 2	14°16	16°44	5°25	26°59	26°43	26°22	27°24	4°17	S 10
M11	21 16 54	18°13'19	14°43	3°36	24°51	21°40	10°15	14°21	16°47	5°26	27° 1	26°D42	26°19	27°30	4°16	M11
T 12	21 20 51	19°10'49	28°12	5°26	26° 4	22°17	10°27	14°26	16°51	5°27	27° 3	26°R42	26°16	27°37	4°14	T 12
W13	21 24 47	20° 8'20	12♠ 4	7°18	27°17	22°53	10°40	14°31	16°54	5°27	27° 4	26°41	26°13	27°44	4°12	W13
T 14	21 28 44	21° 5'52	26°22	9°14	28°30	23°30	10°52	14°37	16°58	5°28	27° 6	26°39	26°10	27°51	4°10	T 14
F 15	21 32 40	22° 3'25	11☾ 2	11°11	29°43	24° 7	11° 5	14°42	17° 1	5°29	27° 8	26°35	26° 6	27°57	4° 9	F 15
S 16	21 36 37	23° 0'59	26° 2	13°10	0♠56	24°44	11°17	14°47	17° 5	5°30	27°10	26°27	26° 3	28° 4	4° 7	S 16
S 17	21 40 34	23°58'34	11≈12	15°10	2° 9	25°21	11°30	14°53	17° 8	5°31	27°12	26°18	26° 0	28°11	4° 5	S 17
M18	21 44 30	24°56'10	26°23	17°11	3°22	25°58	11°43	14°58	17°12	5°31	27°14	26° 7	25°57	28°17	4° 3	M18
T 19	21 48 27	25°53'47	11☾24	19°13	4°35	26°36	11°56	15° 4	17°15	5°32	27°16	25°56	25°54	28°24	4° 1	T 19
W20	21 52 23	26°51'25	26° 6	21°15	5°49	27°13	12° 8	15°10	17°19	5°33	27°18	25°47	25°51	28°31	3°59	W20
T 21	21 56 20	27°49'05	10☾22	23°18	7° 2	27°51	12°21	15°15	17°22	5°33	27°20	25°39	25°47	28°38	3°57	T 21
F 22	22 0 16	28°46'46	24° 9	25°20	8°15	28°28	12°34	15°21	17°26	5°34	27°22	25°34	25°44	28°44	3°55	F 22
S 23	22 4 13	29°44'29	7☾26	27°21	9°29	29° 6	12°47	15°27	17°30	5°35	27°24	25°32	25°41	28°51	3°52	S 23
S 24	22 8 9	0♠42'13	20°17	29°22	10°42	29°44	12°59	15°33	17°33	5°35	27°26	25°31	25°38	28°58	3°50	S 24
M25	22 12 6	1°40'00	2♠16	1♠22	11°55	0♠22	13°12	15°39	17°37	5°36	27°28	25°31	25°35	29° 4	3°48	M25
T 26	22 16 3	2°37'47	14°57	3°21	13° 9	1° 0	13°25	15°45	17°41	5°36	27°30	25°30	25°32	29°11	3°46	T 26
W27	22 19 59	3°35'37	26°56	5°20	14°22	1°38	13°38	15°51	17°44	5°36	27°32	25°28	25°28	29°18	3°43	W27
T 28	22 23 56	4°33'28	8☾49	7°17	15°36	2°16	13°51	15°57	17°48	5°37	27°34	25°24	25°25	29°24	3°41	T 28
F 29	22 27 52	5°31'21	20°38	9°13	16°49	2°55	14° 4	16° 3	17°52	5°37	27°36	25°18	25°22	29°31	3°39	F 29
S 30	22 31 49	6°29'15	2♠29	11° 8	18° 3	3°33	14°17	16° 9	17°55	5°38	27°38	25° 8	25°19	29°38	3°36	S 30
S 31	22 35 45	7♠27'11	14♠24	13♠ 1	19♠17	4♠12	14♠30	16♠15	17♠59	5♠38	27♠40	24♠56	25♠16	29☾45	3°Y34	S 31

# ASTRODIENST EPHEMERIS for the year 2217

## geocentric

SEPTEMBER 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	22 39 42	8 <sup>h</sup> 25'09"	26 <sup>h</sup> 02'25"	14 <sup>h</sup> 54'	20 <sup>h</sup> 02'30"	4 <sup>h</sup> 50'	14 <sup>h</sup> 43'	16 <sup>h</sup> 22'	18 <sup>h</sup> 03'	5 <sup>h</sup> 38'	27 <sup>h</sup> 42'	24 <sup>h</sup> R43	25 <sup>h</sup> 12'	29 <sup>h</sup> 51'	3 <sup>h</sup> R32	M 1
T 2	22 43 38	9 <sup>h</sup> 23'08"	8 <sup>h</sup> 33'	16 <sup>h</sup> 45'	21 <sup>h</sup> 44'	5 <sup>h</sup> 29'	14 <sup>h</sup> 56'	16 <sup>h</sup> 28'	18 <sup>h</sup> 07'	5 <sup>h</sup> 38'	27 <sup>h</sup> 44'	24 <sup>h</sup> 30'	25 <sup>h</sup> 09'	29 <sup>h</sup> 58'	3 <sup>h</sup> Y29	T 2
W 3	22 47 35	10 <sup>h</sup> 21'09"	20 <sup>h</sup> 50'	18 <sup>h</sup> 34'	22 <sup>h</sup> 58'	6 <sup>h</sup> 08'	15 <sup>h</sup> 09'	16 <sup>h</sup> 34'	18 <sup>h</sup> 10'	5 <sup>h</sup> 39'	27 <sup>h</sup> 47'	24 <sup>h</sup> 17'	25 <sup>h</sup> 06'	0 <sup>h</sup> 02'5	3 <sup>h</sup> 27	W 3
T 4	22 51 32	11 <sup>h</sup> 19'11"	3 <sup>h</sup> 16'	20 <sup>h</sup> 23'	24 <sup>h</sup> 12'	6 <sup>h</sup> 47'	15 <sup>h</sup> 22'	16 <sup>h</sup> 41'	18 <sup>h</sup> 14'	5 <sup>h</sup> 39'	27 <sup>h</sup> 49'	24 <sup>h</sup> 07'	25 <sup>h</sup> 03'	0 <sup>h</sup> 11'	3 <sup>h</sup> 24	T 4
F 5	22 55 28	12 <sup>h</sup> 17'15"	15 <sup>h</sup> 52'	22 <sup>h</sup> 10'	25 <sup>h</sup> 26'	7 <sup>h</sup> 26'	15 <sup>h</sup> 35'	16 <sup>h</sup> 47'	18 <sup>h</sup> 18'	5 <sup>h</sup> 39'	27 <sup>h</sup> 51'	23 <sup>h</sup> 59'	25 <sup>h</sup> 00'	0 <sup>h</sup> 18'	3 <sup>h</sup> 22	F 5
S 6	22 59 25	13 <sup>h</sup> 15'20"	28 <sup>h</sup> 39'	23 <sup>h</sup> 56'	26 <sup>h</sup> 40'	8 <sup>h</sup> 05'	15 <sup>h</sup> 48'	16 <sup>h</sup> 54'	18 <sup>h</sup> 22'	5 <sup>h</sup> 39'	27 <sup>h</sup> 53'	23 <sup>h</sup> 54'	24 <sup>h</sup> 57'	0 <sup>h</sup> 25'	3 <sup>h</sup> 19	S 6
S 7	23 03 21	14 <sup>h</sup> 13'27"	11 <sup>h</sup> 39'	25 <sup>h</sup> 41'	27 <sup>h</sup> 54'	8 <sup>h</sup> 45'	16 <sup>h</sup> 01'	17 <sup>h</sup> 00'	18 <sup>h</sup> 25'	5 <sup>h</sup> 39'	27 <sup>h</sup> 55'	23 <sup>h</sup> 51'	24 <sup>h</sup> 53'	0 <sup>h</sup> 32'	3 <sup>h</sup> 17	S 7
M 8	23 07 18	15 <sup>h</sup> 11'35"	24 <sup>h</sup> 52'	27 <sup>h</sup> 24'	29 <sup>h</sup> 07'	9 <sup>h</sup> 24'	16 <sup>h</sup> 14'	17 <sup>h</sup> 07'	18 <sup>h</sup> 29'	5 <sup>h</sup> 39'	27 <sup>h</sup> 57'	23 <sup>h</sup> D51	24 <sup>h</sup> 50'	0 <sup>h</sup> 38'	3 <sup>h</sup> 14	M 8
T 9	23 11 14	16 <sup>h</sup> 09'45"	8 <sup>h</sup> 21'	29 <sup>h</sup> 06'	0 <sup>h</sup> 21'	10 <sup>h</sup> 04'	16 <sup>h</sup> 27'	17 <sup>h</sup> 13'	18 <sup>h</sup> 33'	5 <sup>h</sup> R39	28 <sup>h</sup> 00'	23 <sup>h</sup> 51'	24 <sup>h</sup> 47'	0 <sup>h</sup> 45'	3 <sup>h</sup> 11	T 9
W10	23 15 11	17 <sup>h</sup> 07'56"	22 <sup>h</sup> 09'	0 <sup>h</sup> 47'	1 <sup>h</sup> 36'	10 <sup>h</sup> 43'	16 <sup>h</sup> 40'	17 <sup>h</sup> 20'	18 <sup>h</sup> 37'	5 <sup>h</sup> 39'	28 <sup>h</sup> 02'	23 <sup>h</sup> R51	24 <sup>h</sup> 44'	0 <sup>h</sup> 52'	3 <sup>h</sup> 09	W10
T 11	23 19 07	18 <sup>h</sup> 06'09"	6 <sup>h</sup> 31'	2 <sup>h</sup> 27'	2 <sup>h</sup> 50'	11 <sup>h</sup> 23'	16 <sup>h</sup> 53'	17 <sup>h</sup> 27'	18 <sup>h</sup> 41'	5 <sup>h</sup> 39'	28 <sup>h</sup> 04'	23 <sup>h</sup> 50'	24 <sup>h</sup> 41'	0 <sup>h</sup> 58'	3 <sup>h</sup> 06	T 11
F 12	23 23 04	19 <sup>h</sup> 04'23"	20 <sup>h</sup> 39'	4 <sup>h</sup> 06'	4 <sup>h</sup> 04'	12 <sup>h</sup> 03'	17 <sup>h</sup> 06'	17 <sup>h</sup> 33'	18 <sup>h</sup> 44'	5 <sup>h</sup> 39'	28 <sup>h</sup> 06'	23 <sup>h</sup> 46'	24 <sup>h</sup> 37'	1 <sup>h</sup> 05'	3 <sup>h</sup> 03	F 12
S 13	23 27 01	20 <sup>h</sup> 02'38"	5 <sup>h</sup> 39'	5 <sup>h</sup> 43'	5 <sup>h</sup> 18'	12 <sup>h</sup> 42'	17 <sup>h</sup> 19'	17 <sup>h</sup> 40'	18 <sup>h</sup> 48'	5 <sup>h</sup> 39'	28 <sup>h</sup> 08'	23 <sup>h</sup> 40'	24 <sup>h</sup> 34'	1 <sup>h</sup> 12'	3 <sup>h</sup> 01	S 13
S 14	23 30 57	21 <sup>h</sup> 00'55"	20 <sup>h</sup> 08'	7 <sup>h</sup> 20'	6 <sup>h</sup> 32'	13 <sup>h</sup> 22'	17 <sup>h</sup> 32'	17 <sup>h</sup> 47'	18 <sup>h</sup> 52'	5 <sup>h</sup> 39'	28 <sup>h</sup> 11'	23 <sup>h</sup> 32'	24 <sup>h</sup> 31'	1 <sup>h</sup> 19'	2 <sup>h</sup> 58	S 14
M15	23 34 54	21 <sup>h</sup> 59'14"	5 <sup>h</sup> 31'	8 <sup>h</sup> 55'	7 <sup>h</sup> 46'	14 <sup>h</sup> 02'	17 <sup>h</sup> 45'	17 <sup>h</sup> 54'	18 <sup>h</sup> 56'	5 <sup>h</sup> 38'	28 <sup>h</sup> 13'	23 <sup>h</sup> 23'	24 <sup>h</sup> 28'	1 <sup>h</sup> 25'	2 <sup>h</sup> 55	M15
T 16	23 38 50	22 <sup>h</sup> 57'34"	19 <sup>h</sup> 46'	10 <sup>h</sup> 29'	9 <sup>h</sup> 00'	14 <sup>h</sup> 42'	17 <sup>h</sup> 58'	18 <sup>h</sup> 01'	18 <sup>h</sup> 59'	5 <sup>h</sup> 38'	28 <sup>h</sup> 15'	23 <sup>h</sup> 14'	24 <sup>h</sup> 25'	1 <sup>h</sup> 32'	2 <sup>h</sup> 53	T 16
W17	23 42 47	23 <sup>h</sup> 55'56"	4 <sup>h</sup> Y18	12 <sup>h</sup> 02'	10 <sup>h</sup> 15'	15 <sup>h</sup> 23'	18 <sup>h</sup> 11'	18 <sup>h</sup> 08'	19 <sup>h</sup> 03'	5 <sup>h</sup> 38'	28 <sup>h</sup> 17'	23 <sup>h</sup> 06'	24 <sup>h</sup> 22'	1 <sup>h</sup> 39'	2 <sup>h</sup> 50	W17
T 18	23 46 43	24 <sup>h</sup> 54'19"	18 <sup>h</sup> 28'	13 <sup>h</sup> 34'	11 <sup>h</sup> 29'	16 <sup>h</sup> 03'	18 <sup>h</sup> 24'	18 <sup>h</sup> 15'	19 <sup>h</sup> 07'	5 <sup>h</sup> 38'	28 <sup>h</sup> 19'	22 <sup>h</sup> 59'	24 <sup>h</sup> 18'	1 <sup>h</sup> 45'	2 <sup>h</sup> 47	T 18
F 19	23 50 40	25 <sup>h</sup> 52'45"	2 <sup>h</sup> 31'	15 <sup>h</sup> 05'	12 <sup>h</sup> 43'	16 <sup>h</sup> 43'	18 <sup>h</sup> 37'	18 <sup>h</sup> 22'	19 <sup>h</sup> 11'	5 <sup>h</sup> 37'	28 <sup>h</sup> 22'	22 <sup>h</sup> 55'	24 <sup>h</sup> 15'	1 <sup>h</sup> 52'	2 <sup>h</sup> 45	F 19
S 20	23 54 36	26 <sup>h</sup> 51'13"	15 <sup>h</sup> 32'	16 <sup>h</sup> 35'	13 <sup>h</sup> 58'	17 <sup>h</sup> 24'	18 <sup>h</sup> 50'	18 <sup>h</sup> 29'	19 <sup>h</sup> 15'	5 <sup>h</sup> 37'	28 <sup>h</sup> 24'	22 <sup>h</sup> 53'	24 <sup>h</sup> 12'	1 <sup>h</sup> 59'	2 <sup>h</sup> 42	S 20
S 21	23 58 33	27 <sup>h</sup> 49'43"	28 <sup>h</sup> 26'	18 <sup>h</sup> 03'	15 <sup>h</sup> 12'	18 <sup>h</sup> 04'	19 <sup>h</sup> 03'	18 <sup>h</sup> 36'	19 <sup>h</sup> 18'	5 <sup>h</sup> 36'	28 <sup>h</sup> 26'	22 <sup>h</sup> D53	24 <sup>h</sup> 09'	2 <sup>h</sup> 05'	2 <sup>h</sup> 39	S 21
M22	0 02 29	28 <sup>h</sup> 48'15"	10 <sup>h</sup> II57	19 <sup>h</sup> 31'	16 <sup>h</sup> 26'	18 <sup>h</sup> 45'	19 <sup>h</sup> 16'	18 <sup>h</sup> 43'	19 <sup>h</sup> 22'	5 <sup>h</sup> 36'	28 <sup>h</sup> 28'	22 <sup>h</sup> 54'	24 <sup>h</sup> 06'	2 <sup>h</sup> 12'	2 <sup>h</sup> 36	M22
T 23	0 06 26	29 <sup>h</sup> 46'50"	23 <sup>h</sup> 11'	20 <sup>h</sup> 57'	17 <sup>h</sup> 41'	19 <sup>h</sup> 26'	19 <sup>h</sup> 28'	18 <sup>h</sup> 50'	19 <sup>h</sup> 26'	5 <sup>h</sup> 36'	28 <sup>h</sup> 31'	22 <sup>h</sup> 55'	24 <sup>h</sup> 03'	2 <sup>h</sup> 19'	2 <sup>h</sup> 33	T 23
W24	0 10 23	0 <sup>h</sup> 45'26"	5 <sup>h</sup> 01'	22 <sup>h</sup> 22'	18 <sup>h</sup> 55'	20 <sup>h</sup> 07'	19 <sup>h</sup> 41'	18 <sup>h</sup> 57'	19 <sup>h</sup> 30'	5 <sup>h</sup> 35'	28 <sup>h</sup> 33'	22 <sup>h</sup> R55	23 <sup>h</sup> 59'	2 <sup>h</sup> 26'	2 <sup>h</sup> 31	W24
T 25	0 14 19	1 <sup>h</sup> 44'05"	17 <sup>h</sup> 06'	23 <sup>h</sup> 46'	20 <sup>h</sup> 10'	20 <sup>h</sup> 47'	19 <sup>h</sup> 54'	19 <sup>h</sup> 04'	19 <sup>h</sup> 33'	5 <sup>h</sup> 35'	28 <sup>h</sup> 35'	22 <sup>h</sup> 53'	23 <sup>h</sup> 56'	2 <sup>h</sup> 32'	2 <sup>h</sup> 28	T 25
F 26	0 18 16	2 <sup>h</sup> 42'46"	28 <sup>h</sup> 57'	25 <sup>h</sup> 09'	21 <sup>h</sup> 24'	21 <sup>h</sup> 28'	20 <sup>h</sup> 07'	19 <sup>h</sup> 11'	19 <sup>h</sup> 37'	5 <sup>h</sup> 34'	28 <sup>h</sup> 37'	22 <sup>h</sup> 50'	23 <sup>h</sup> 53'	2 <sup>h</sup> 39'	2 <sup>h</sup> 25	F 26
S 27	0 22 12	3 <sup>h</sup> 41'29"	10 <sup>h</sup> 02'50"	26 <sup>h</sup> 31'	22 <sup>h</sup> 39'	22 <sup>h</sup> 10'	20 <sup>h</sup> 20'	19 <sup>h</sup> 18'	19 <sup>h</sup> 41'	5 <sup>h</sup> 33'	28 <sup>h</sup> 39'	22 <sup>h</sup> 44'	23 <sup>h</sup> 50'	2 <sup>h</sup> 46'	2 <sup>h</sup> 22	S 27
S 28	0 26 09	4 <sup>h</sup> 40'14"	22 <sup>h</sup> 49'	27 <sup>h</sup> 51'	23 <sup>h</sup> 54'	22 <sup>h</sup> 51'	20 <sup>h</sup> 33'	19 <sup>h</sup> 25'	19 <sup>h</sup> 44'	5 <sup>h</sup> 33'	28 <sup>h</sup> 42'	22 <sup>h</sup> 37'	23 <sup>h</sup> 47'	2 <sup>h</sup> 52'	2 <sup>h</sup> 20	S 28
M29	0 30 05	5 <sup>h</sup> 39'02"	4 <sup>h</sup> 56'	29 <sup>h</sup> 10'	25 <sup>h</sup> 08'	23 <sup>h</sup> 32'	20 <sup>h</sup> 46'	19 <sup>h</sup> 32'	19 <sup>h</sup> 48'	5 <sup>h</sup> 32'	28 <sup>h</sup> 44'	22 <sup>h</sup> 29'	23 <sup>h</sup> 43'	2 <sup>h</sup> 59'	2 <sup>h</sup> 17	M29
T 30	0 34 02	6 <sup>h</sup> 37'51"	17 <sup>h</sup> 14'	0 <sup>h</sup> 28'	26 <sup>h</sup> 23'	24 <sup>h</sup> 13'	20 <sup>h</sup> 58'	19 <sup>h</sup> 40'	19 <sup>h</sup> 52'	5 <sup>h</sup> 32'	28 <sup>h</sup> 46'	22 <sup>h</sup> 20'	23 <sup>h</sup> 40'	3 <sup>h</sup> 02'	2 <sup>h</sup> Y14	T 30

Delta T = 181.29 sec

OCTOBER 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	0 37 58	7♂36'42	29♂44	1♂44	27♂37	24♂55	21♂11	19♂47	19♂55	5°R31	28♂48	22°R12	23♂37	3♂13	2°R11	W 1
T 2	0 41 55	8°35'36	12♂27	2°59	28°52	25°36	21°24	19°54	19°59	5♂30	28°50	22♂5	23°34	3°19	2°Y 9	T 2
F 3	0 45 52	9°34'31	25°22	4°12	0♂7	26°18	21°37	20°1	20°3	5°29	28°53	22°0	23°31	3°26	2°6	F 3
S 4	0 49 48	10°33'29	8♂30	5°24	1°22	27°0	21°49	20°9	20°6	5°29	28°55	21°57	23°28	3°33	2°3	S 4
S 5	0 53 45	11°32'28	21°48	6°34	2°36	27°41	22°2	20°16	20°10	5°28	28°57	21°D56	23°24	3°39	2°0	S 5
M 6	0 57 41	12°31'29	5♂19	7°42	3°51	28°23	22°14	20°23	20°13	5°27	28°59	21°57	23°21	3°46	1°58	M 6
T 7	1 1 38	13°30'32	19°0	8°48	5°6	29°5	22°27	20°30	20°17	5°26	29°1	21°58	23°18	3°53	1°55	T 7
W 8	1 5 34	14°29'37	2♂53	9°52	6°21	29°47	22°40	20°38	20°21	5°25	29°4	21°59	23°15	4°0	1°52	W 8
T 9	1 9 31	15°28'44	16°56	10°53	7°36	0♂29	22°52	20°45	20°24	5°24	29°6	22°R 0	23°12	4°6	1°50	T 9
F 10	1 13 27	16°27'52	1♂9	11°52	8°51	1°12	23°5	20°52	20°28	5°23	29°8	21°59	23°9	4°13	1°47	F 10
S 11	1 17 24	17°27'01	15°30	12°48	10°5	1°54	23°17	21°0	20°31	5°22	29°10	21°57	23°5	4°20	1°44	S 11
S 12	1 21 21	18°26'13	29°55	13°41	11°20	2°36	23°29	21°7	20°34	5°21	29°12	21°53	23°2	4°26	1°42	S 12
M13	1 25 17	19°25'26	14♂20	14°31	12°35	3°19	23°42	21°14	20°38	5°20	29°14	21°48	22°59	4°33	1°39	M13
T 14	1 29 14	20°24'41	28°39	15°17	13°50	4°1	23°54	21°22	20°41	5°19	29°16	21°43	22°56	4°40	1°36	T 14
W15	1 33 10	21°23'58	12Y47	16°0	15°5	4°44	24°6	21°29	20°45	5°18	29°18	21°39	22°53	4°47	1°34	W15
T 16	1 37 7	22°23'17	26°39	16°37	16°20	5°26	24°18	21°36	20°48	5°17	29°21	21°35	22°49	4°53	1°31	T 16
F 17	1 41 3	23°22'38	10♂12	17°11	17°35	6°9	24°31	21°44	20°51	5°16	29°23	21°34	22°46	5°0	1°29	F 17
S 18	1 45 0	24°22'02	23°24	17°39	18°50	6°52	24°43	21°51	20°55	5°14	29°25	21°D33	22°43	5°7	1°26	S 18
S 19	1 48 56	25°21'27	6♂16	18°1	20°5	7°35	24°55	21°58	20°58	5°13	29°27	21°34	22°40	5°13	1°24	S 19
M20	1 52 53	26°20'55	18°48	18°17	21°20	8°18	25°7	22°6	21°1	5°12	29°29	21°35	22°37	5°20	1°21	M20
T 21	1 56 50	27°20'25	1♂3	18°27	22°35	9°1	25°19	22°13	21°5	5°11	29°31	21°37	22°34	5°27	1°19	T 21
W22	2 0 46	28°19'57	13°6	18°R29	23°50	9°44	25°31	22°20	21°8	5°10	29°33	21°38	22°30	5°34	1°17	W22
T 23	2 4 43	29°19'31	25°2	18°23	25°5	10°27	25°43	22°28	21°11	5°8	29°35	21°R39	22°27	5°40	1°14	T 23
F 24	2 8 39	0♂19'08	6♂54	18°10	26°21	11°10	25°54	22°35	21°14	5°7	29°37	21°39	22°24	5°47	1°12	F 24
S 25	2 12 36	1°18'47	18°48	17°47	27°36	11°54	26°6	22°42	21°17	5°6	29°39	21°38	22°21	5°54	1°10	S 25
S 26	2 16 32	2°18'28	0♂48	17°16	28°51	12°37	26°18	22°50	21°20	5°4	29°41	21°36	22°18	6°1	1°7	S 26
M27	2 20 29	3°18'11	12°59	16°36	0♂6	13°21	26°29	22°57	21°23	5°3	29°43	21°34	22°14	6°7	1°5	M27
T 28	2 24 25	4°17'56	25°23	15°48	1°21	14°4	26°41	23°4	21°26	5°1	29°45	21°31	22°11	6°14	1°3	T 28
W29	2 28 22	5°17'44	8♂3	14°51	2°36	14°48	26°52	23°11	21°29	5°0	29°47	21°28	22°8	6°21	1°1	W29
T 30	2 32 18	6°17'33	21°1	13°47	3°51	15°32	27°4	23°19	21°32	4°59	29°48	21°26	22°5	6°27	0°59	T 30
F 31	2 36 15	7♂17'25	4♂15	12♂36	5♂7	16♂15	27♂15	23♂26	21♂35	4♂57	29♂50	21♂25	22♂2	6♂34	0°Y56	F 31

# ASTRODIENST EPHEMERIS for the year 2217

## geocentric

NOVEMBER 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	2 40 12	8♈17°19	17♈46	11°R22	6♈22	16♈59	27♈27	23♈33	21♈38	4°R56	29♈52	21°D24	21♈59	6♈41	0°R54	S 1
S 2	2 44 8	9°17'14	1♈32	10♈5	7°37	17°43	27°38	23°40	21°41	4♈54	29°54	21♈25	21°55	6°48	0°Y52	S 2
M 3	2 48 5	10°17'12	15°29	8°48	8°52	18°27	27°49	23°47	21°44	4°53	29°56	21°25	21°52	6°54	0°50	M 3
T 4	2 52 1	11°17'11	29°34	7°34	10°8	19°11	28°0	23°54	21°47	4°51	29°58	21°26	21°49	7°1	0°48	T 4
W 5	2 55 58	12°17'12	13♈45	6°24	11°23	19°55	28°11	24°2	21°49	4°50	29°59	21°27	21°46	7°8	0°47	W 5
T 6	2 59 54	13°17'14	27°58	5°22	12°38	20°40	28°22	24°9	21°52	4°48	0♈1	21°28	21°43	7°14	0°45	T 6
F 7	3 3 51	14°17'18	12♈11	4°27	13°53	21°24	28°33	24°16	21°55	4°47	0°3	21°R28	21°40	7°21	0°43	F 7
S 8	3 7 47	15°17'24	26°22	3°43	15°9	22°8	28°44	24°23	21°57	4°45	0°5	21°28	21°36	7°28	0°41	S 8
S 9	3 11 44	16°17'30	10♈28	3°10	16°24	22°53	28°54	24°30	22°0	4°43	0°6	21°27	21°33	7°35	0°39	S 9
M10	3 15 41	17°17'39	24°27	2°49	17°39	23°37	29°5	24°37	22°3	4°42	0°8	21°27	21°30	7°41	0°38	M10
T 11	3 19 37	18°17'49	8°Y17	2°D39	18°54	24°22	29°15	24°44	22°5	4°40	0°10	21°26	21°27	7°48	0°36	T 11
W12	3 23 34	19°18'00	21°56	2°41	20°10	25°6	29°26	24°51	22°8	4°39	0°11	21°26	21°24	7°55	0°34	W12
T 13	3 27 30	20°18'13	5♈23	2°53	21°25	25°51	29°36	24°57	22°10	4°37	0°13	21°26	21°20	8°1	0°33	T 13
F 14	3 31 27	21°18'28	18°35	3°16	22°40	26°36	29°46	25°4	22°12	4°35	0°14	21°26	21°17	8°8	0°31	F 14
S 15	3 35 23	22°18'44	1♈32	3°48	23°55	27°20	29°56	25°11	22°15	4°34	0°16	21°26	21°14	8°15	0°30	S 15
S 16	3 39 20	23°19'03	14°13	4°28	25°11	28°5	0♈7	25°18	22°17	4°32	0°17	21°26	21°11	8°22	0°29	S 16
M17	3 43 16	24°19'23	26°40	5°16	26°26	28°50	0°16	25°25	22°19	4°30	0°19	21°26	21°8	8°28	0°27	M17
T 18	3 47 13	25°19'45	8♈53	6°11	27°41	29°35	0°26	25°31	22°21	4°29	0°20	21°25	21°5	8°35	0°26	T 18
W19	3 51 10	26°20'08	20°56	7°11	28°57	0♈20	0°36	25°38	22°24	4°27	0°22	21°25	21°1	8°42	0°25	W19
T 20	3 55 6	27°20'34	2♈52	8°17	0♈12	1°5	0°46	25°45	22°26	4°25	0°23	21°24	20°58	8°48	0°23	T 20
F 21	3 59 3	28°21'01	14°44	9°27	1°27	1°50	0°55	25°51	22°28	4°24	0°25	21°23	20°55	8°55	0°22	F 21
S 22	4 2 59	29°21'30	26°37	10°41	2°43	2°35	1°5	25°58	22°30	4°22	0°26	21°D23	20°52	9°2	0°21	S 22
S 23	4 6 56	0♈22'01	8♈36	11°58	3°58	3°21	1°14	26°4	22°32	4°20	0°27	21°23	20°49	9°9	0°20	S 23
M24	4 10 52	1°22'34	20°45	13°18	5°13	4°6	1°23	26°11	22°34	4°19	0°29	21°24	20°46	9°15	0°19	M24
T 25	4 14 49	2°23'08	3♈9	14°40	6°29	4°51	1°33	26°17	22°36	4°17	0°30	21°25	20°42	9°22	0°18	T 25
W26	4 18 45	3°23'44	15°52	16°4	7°44	5°37	1°42	26°24	22°37	4°15	0°31	21°26	20°39	9°29	0°17	W26
T 27	4 22 42	4°24'22	28°56	17°30	8°59	6°22	1°51	26°30	22°39	4°14	0°32	21°27	20°36	9°36	0°16	T 27
F 28	4 26 39	5°25'01	12♈23	18°57	10°15	7°8	1°59	26°36	22°41	4°12	0°34	21°28	20°33	9°42	0°16	F 28
S 29	4 30 35	6°25'42	26°13	20°26	11°30	7°54	2°8	26°42	22°43	4°10	0°35	21°R28	20°30	9°49	0°15	S 29
S 30	4 34 32	7♈26'25	10♈23	21♈55	12♈45	8♈39	2♈17	26♈49	22♈44	4♈8	0♈36	21♈27	20♈26	9♈56	0°Y14	S 30

Delta T = 181.48 sec

DECEMBER 2217

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	4 38 28	8♈27'08	24♈48	23♈25	14♈1	9♈25	2♈25	26♈55	22♈46	4°R7	0♈37	21°R25	20♈23	10♈2	0°R13	M 1
T 2	4 42 25	9°27'53	9♈23	24°56	15°16	10°11	2°33	27°1	22°47	4♈5	0°38	21♈23	20°20	10°9	0°Y13	T 2
W 3	4 46 21	10°28'40	24°2	26°27	16°32	10°57	2°42	27°7	22°49	4°3	0°39	21°21	20°17	10°16	0°12	W 3
T 4	4 50 18	11°29'27	8♈37	27°59	17°47	11°42	2°50	27°13	22°50	4°2	0°40	21°18	20°14	10°23	0°12	T 4
F 5	4 54 14	12°30'15	23°4	29°31	19°2	12°28	2°58	27°19	22°51	4°0	0°41	21°16	20°11	10°29	0°12	F 5
S 6	4 58 11	13°31'03	7♈19	1♈3	20°18	13°14	3°5	27°25	22°53	3°58	0°42	21°D15	20°7	10°36	0°11	S 6
S 7	5 2 8	14°31'53	21°18	2°35	21°33	14°0	3°13	27°30	22°54	3°57	0°43	21°15	20°4	10°43	0°11	S 7
M 8	5 6 4	15°32'43	5°Y2	4°8	22°48	14°46	3°21	27°36	22°55	3°55	0°44	21°16	20°1	10°49	0°11	M 8
T 9	5 10 1	16°33'35	18°31	5°41	24°4	15°33	3°28	27°42	22°56	3°53	0°45	21°18	19°58	10°56	0°10	T 9
W10	5 13 57	17°34'27	1♈45	7°14	25°19	16°19	3°35	27°47	22°57	3°52	0°45	21°19	19°55	11°3	0°10	W10
T 11	5 17 54	18°35'20	14°46	8°47	26°35	17°5	3°42	27°53	22°58	3°50	0°46	21°20	19°52	11°10	0°10	T 11
F 12	5 21 50	19°36'13	27°35	10°20	27°50	17°51	3°49	27°58	22°59	3°48	0°47	21°R20	19°48	11°16	0°D10	F 12
S 13	5 25 47	20°37'08	10♈12	11°53	29°5	18°37	3°56	28°4	23°0	3°47	0°48	21°19	19°45	11°23	0°10	S 13
S 14	5 29 44	21°38'04	22°38	13°27	0♈21	19°24	4°3	28°9	23°1	3°45	0°48	21°16	19°42	11°30	0°10	S 14
M15	5 33 40	22°39'00	4♈55	15°0	1°36	20°10	4°10	28°14	23°2	3°44	0°49	21°11	19°39	11°37	0°11	M15
T 16	5 37 37	23°39'57	17°2	16°33	2°51	20°57	4°16	28°19	23°3	3°42	0°50	21°5	19°36	11°43	0°11	T 16
W17	5 41 33	24°40'56	29°2	18°7	4°7	21°43	4°22	28°25	23°4	3°41	0°50	20°59	19°32	11°50	0°11	W17
T 18	5 45 30	25°41'55	10♈57	19°41	5°22	22°30	4°28	28°30	23°4	3°39	0°51	20°53	19°29	11°57	0°11	T 18
F 19	5 49 26	26°42'55	22°48	21°14	6°37	23°16	4°34	28°35	23°5	3°37	0°51	20°47	19°26	12°3	0°12	F 19
S 20	5 53 23	27°43'56	4♈40	22°48	7°53	24°3	4°40	28°40	23°5	3°36	0°52	20°43	19°23	12°10	0°12	S 20
S 21	5 57 19	28°44'58	16°37	24°22	9°8	24°49	4°46	28°44	23°6	3°34	0°52	20°40	19°20	12°17	0°13	S 21
M22	6 1 16	29°46'01	28°42	25°56	10°23	25°36	4°51	28°49	23°6	3°33	0°53	20°D39	19°17	12°24	0°13	M22
T 23	6 5 13	0♈47'05	11♈1	27°30	11°39	26°23	4°57	28°54	23°7	3°31	0°53	20°40	19°13	12°30	0°14	T 23
W24	6 9 9	1°48'09	23°39	29°4	12°54	27°9	5°2	28°58	23°7	3°30	0°54	20°41	19°10	12°37	0°14	W24
T 25	6 13 6	2°49'15	6♈40	0♈39	14°9	27°56	5°7	29°3	23°7	3°29	0°54	20°43	19°7	12°44	0°15	T 25
F 26	6 17 2	3°50'21	20°7	2°14	15°25	28°43	5°12	29°7	23°7	3°27	0°54	20°R43	19°4	12°50	0°16	F 26
S 27	6 20 59	4°51'28	4♈2	3°49	16°40	29°30	5°16	29°12	23°7	3°26	0°54	20°43	19°1	12°57	0°17	S 27
S 28	6 24 55	5°52'36	18°24	5°24	17°55	0♈17	5°21	29°16	23°8	3°24	0°55	20°40	18°58	13°4	0°18	S 28
M29	6 28 52	6°53'44	3♈9	6°59	19°11	1°4	5°25	29°20	23°R8	3°23	0°55	20°35	18°54	13°11	0°19	M29
T 30	6 32 48	7°54'53	18°9	8°35	20°26	1°50	5°29	29°24	23°8	3°22	0°55	20°28	18°51	13°17	0°20	T 30
W31	6 36 45	8♈56'02	3♈15	10♈10	21♈41	2♈37	5♈33	29♈28	23♈7	3♈20	0♈55	20♈20	18♈48	13♈24	0°Y21	W31

Delta T = 181.57 sec