



Astrodienst Ephemeris Tables for the year 2224

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 2224
geocentric

JANUARY 2224

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 38 53	9♂28'45	24♂50	4♂ 7	15♂27	28♂33	12♂41	2♂33	21♂31	17°R 6	15♂10	22°R11	22♂43	17♂35	21°R50	T 1
F 2	6 42 49	10°29'52	6♂47	5°42	16°42	29°14	12°51	2°40	21°33	17°II 4	15°11	22♂10	22°40	17°42	21♂50	F 2
S 3	6 46 46	11°31'00	18°52	7°16	17°57	29°55	13° 2	2°47	21°34	17° 3	15°11	22° 9	22°37	17°49	21°D50	S 3
S 4	6 50 42	12°32'07	1♂II 9	8°51	19°12	0♂36	13°12	2°54	21°35	17° 1	15°12	22° 7	22°34	17°55	21°50	S 4
M 5	6 54 39	13°33'15	13°40	10°26	20°27	1°17	13°23	3° 1	21°36	17° 0	15°12	22° 6	22°30	18° 2	21°50	M 5
T 6	6 58 35	14°34'22	26°28	12° 2	21°42	1°58	13°33	3° 8	21°38	16°58	15°13	22° 5	22°27	18° 9	21°51	T 6
W 7	7 2 32	15°35'30	9♂33	13°38	22°57	2°39	13°44	3°15	21°39	16°57	15°13	22° 4	22°24	18°16	21°51	W 7
T 8	7 6 29	16°36'37	22°54	15°14	24°12	3°20	13°55	3°22	21°40	16°56	15°13	22°D 4	22°21	18°22	21°51	T 8
F 9	7 10 25	17°37'45	6♂31	16°51	25°27	4° 2	14° 6	3°29	21°41	16°54	15°14	22° 4	22°18	18°29	21°51	F 9
S 10	7 14 22	18°38'52	20°21	18°28	26°42	4°43	14°17	3°36	21°42	16°53	15°14	22° 5	22°14	18°36	21°52	S 10
S 11	7 18 18	19°40'00	4♂20	20° 5	27°57	5°24	14°28	3°43	21°43	16°51	15°14	22° 5	22°11	18°43	21°52	S 11
M12	7 22 15	20°41'07	18°27	21°43	29°12	6° 5	14°39	3°50	21°44	16°50	15°15	22° 5	22° 8	18°49	21°53	M12
T 13	7 26 11	21°42'15	2♂38	23°21	0♂27	6°46	14°50	3°56	21°44	16°49	15°15	22°R 5	22° 5	18°56	21°53	T 13
W14	7 30 8	22°43'23	16°50	24°59	1°42	7°27	15° 2	4° 3	21°45	16°47	15°15	22°D 5	22° 2	19° 3	21°54	W14
T 15	7 34 4	23°44'31	1♂II 2	26°38	2°57	8° 8	15°13	4°10	21°46	16°46	15°15	22° 5	21°59	19° 9	21°54	T 15
F 16	7 38 1	24°45'39	15°10	28°18	4°13	8°49	15°25	4°17	21°47	16°45	15°15	22° 5	21°55	19°16	21°55	F 16
S 17	7 41 58	25°46'47	29°12	29°58	5°28	9°31	15°37	4°24	21°47	16°43	15°15	22° 6	21°52	19°23	21°56	S 17
S 18	7 45 54	26°47'55	13♂ 8	1♂38	6°43	10°12	15°49	4°30	21°48	16°42	15°R15	22° 6	21°49	19°30	21°57	S 18
M19	7 49 51	27°49'03	26°54	3°19	7°58	10°53	16° 0	4°37	21°48	16°41	15°15	22° 7	21°46	19°36	21°58	M19
T 20	7 53 47	28°50'11	10♂28	5° 0	9°13	11°34	16°12	4°44	21°49	16°40	15°15	22° 7	21°43	19°43	21°59	T 20
W21	7 57 44	29°51'18	23°49	6°41	10°28	12°15	16°25	4°51	21°49	16°39	15°15	22°R 7	21°40	19°50	22° 0	W21
T 22	8 1 40	0♂52'25	6♂56	8°23	11°43	12°57	16°37	4°57	21°49	16°38	15°15	22° 7	21°36	19°57	22° 1	T 22
F 23	8 5 37	1°53'31	19°47	10° 5	12°58	13°38	16°49	5° 4	21°50	16°37	15°15	22° 6	21°33	20° 3	22° 2	F 23
S 24	8 9 33	2°54'37	2♂22	11°47	14°13	14°19	17° 1	5°10	21°50	16°35	15°15	22° 5	21°30	20°10	22° 3	S 24
S 25	8 13 30	3°55'42	14°43	13°30	15°29	15° 0	17°14	5°17	21°50	16°34	15°15	22° 3	21°27	20°17	22° 4	S 25
M26	8 17 27	4°56'46	26°52	15°12	16°44	15°42	17°26	5°23	21°50	16°33	15°14	22° 1	21°24	20°23	22° 5	M26
T 27	8 21 23	5°57'49	8♂52	16°55	17°59	16°23	17°39	5°30	21°R50	16°32	15°14	21°59	21°20	20°30	22° 7	T 27
W28	8 25 20	6°58'51	20°45	18°37	19°14	17° 4	17°51	5°36	21°50	16°31	15°14	21°58	21°17	20°37	22° 8	W28
T 29	8 29 16	7°59'53	2♂37	20°19	20°29	17°45	18° 4	5°43	21°50	16°30	15°13	21°D57	21°14	20°44	22° 9	T 29
F 30	8 33 13	9° 0'53	14°33	22° 0	21°44	18°26	18°17	5°49	21°50	16°30	15°13	21°57	21°11	20°50	22°11	F 30
S 31	8 37 9	10♂ 1'52	26♂36	23♂41	22♂59	19♂ 8	18♂30	5♂55	21♂49	16°II29	15♂12	21♂58	21♂ 8	20♂57	22♂12	S 31

Delta T = 188.37 sec

FEBRUARY 2224

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	8 41 6	11♂ 2'50	8♂II52	25♂20	24♂14	19♂49	18♂43	6♂ 1	21°R49	16°R28	15°R12	21♂59	21♂ 5	21♂ 4	22♂14	S 1
M 2	8 45 2	12° 3'47	21°24	26°58	25°29	20°30	18°56	6° 8	21♂49	16°II27	15♂11	22° 1	21° 1	21°10	22°16	M 2
T 3	8 48 59	13° 4'43	4♂217	28°35	26°45	21°11	19° 9	6°14	21°48	16°26	15°11	22° 2	20°58	21°17	22°17	T 3
W 4	8 52 56	14° 5'38	17°33	0♂ 9	28° 0	21°52	19°22	6°20	21°48	16°26	15°10	22°R 3	20°55	21°24	22°19	W 4
T 5	8 56 52	15° 6'32	1♂II11	1°41	29°15	22°34	19°35	6°26	21°48	16°25	15°10	22° 3	20°52	21°31	22°21	T 5
F 6	9 0 49	16° 7'24	15°11	3°10	0♂30	23°15	19°49	6°32	21°47	16°24	15° 9	22° 1	20°49	21°37	22°23	F 6
S 7	9 4 45	17° 8'16	29°29	4°35	1°45	23°56	20° 2	6°38	21°46	16°23	15° 9	21°59	20°46	21°44	22°25	S 7
S 8	9 8 42	18° 9'06	13♂59	5°56	3° 0	24°37	20°15	6°44	21°46	16°23	15° 8	21°55	20°42	21°51	22°26	S 8
M 9	9 12 38	19° 9'56	28°36	7°12	4°15	25°18	20°29	6°50	21°45	16°22	15° 7	21°51	20°39	21°58	22°28	M 9
T 10	9 16 35	20°10'44	13♂12	8°22	5°30	25°59	20°42	6°56	21°44	16°22	15° 6	21°47	20°36	22° 4	22°30	T 10
W11	9 20 31	21°11'32	27°41	9°26	6°45	26°40	20°56	7° 1	21°44	16°21	15° 6	21°44	20°33	22°11	22°33	W11
T 12	9 24 28	22°12'18	12♂II 0	10°22	8° 0	27°21	21° 9	7° 7	21°43	16°21	15° 5	21°42	20°30	22°18	22°35	T 12
F 13	9 28 25	23°13'04	26° 5	11°10	9°16	28° 2	21°23	7°13	21°42	16°20	15° 4	21°D42	20°26	22°24	22°37	F 13
S 14	9 32 21	24°13'49	9♂55	11°50	10°31	28°43	21°37	7°18	21°41	16°20	15° 3	21°43	20°23	22°31	22°39	S 14
S 15	9 36 18	25°14'33	23°30	12°20	11°46	29°25	21°50	7°24	21°40	16°19	15° 2	21°44	20°20	22°38	22°41	S 15
M16	9 40 14	26°15'16	6♂52	12°40	13° 1	0♂ 6	22° 4	7°29	21°39	16°19	15° 1	21°46	20°17	22°45	22°44	M16
T 17	9 44 11	27°15'58	20° 1	12°R49	14°16	0°47	22°18	7°35	21°38	16°19	15° 0	21°R47	20°14	22°51	22°46	T 17
W18	9 48 7	28°16'39	2♂57	12°49	15°31	1°28	22°32	7°40	21°36	16°18	14°59	21°46	20°11	22°58	22°48	W18
T 19	9 52 4	29°17'18	15°42	12°37	16°46	2° 9	22°46	7°45	21°35	16°18	14°58	21°44	20° 7	23° 5	22°51	T 19
F 20	9 56 0	0♂17'56	28°16	12°15	18° 1	2°50	23° 0	7°50	21°34	16°18	14°57	21°39	20° 4	23°12	22°53	F 20
S 21	9 59 57	1°18'33	10♂39	11°44	19°16	3°31	23°14	7°56	21°33	16°18	14°56	21°33	20° 1	23°18	22°56	S 21
S 22	10 3 54	2°19'08	22°53	11° 3	20°31	4°11	23°28	8° 1	21°31	16°17	14°55	21°25	19°58	23°25	22°58	S 22
M23	10 7 50	3°19'41	4♂57	10°14	21°46	4°52	23°42	8° 6	21°30	16°17	14°54	21°17	19°55	23°32	23° 1	M23
T 24	10 11 47	4°20'13	16°55	9°19	23° 1	5°33	23°56	8°11	21°28	16°17	14°53	21° 9	19°51	23°38	23° 3	T 24
W25	10 15 43	5°20'43	28°47	8°18	24°16	6°14	24°10	8°16	21°27	16°17	14°52	21° 2	19°48	23°45	23° 6	W25
T 26	10 19 40	6°21'11	10♂38	7°14	25°31	6°55	24°24	8°20	21°25	16°D17	14°50	20°57	19°45	23°52	23° 9	T 26
F 27	10 23 36	7°21'37	22°32	6° 8	26°46	7°36	24°38	8°25	21°24	16°17	14°49	20°53	19°42	23°59	23°11	F 27
S 28	10 27 33	8°22'02	4♂II32	5° 1	28° 1	8°17	24°53	8°30	21°22	16°17	14°48	20°D52	19°39	24° 5	23°14	S 28
S 29	10 31 29	9♂22'25	16♂II43	3♂57	29♂16	8♂58	25♂ 7	8♂34	21♂21	16♂II17	14♂47	20♂52	19♂36	24♂12	23♂17	S 29

Delta T = 188.46 sec

ASTRODIENST EPHEMERIS for the year 2224

geocentric

MARCH 2224

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 35 26	10°22'45"	29°11'12"	2°R55	0°K31	9°839	25°K21	8°339	21°R19	16°II17	14°R45	20°53	19°532	24°Y19	23°Y20	M 1
T 2	10 39 22	11°23'04"	12°52'2	1°K57	1°46	10°19	25°36	8°43	21°17	16°17	14°44	20°54	19°29	24°25	23°23	T 2
W 3	10 43 19	12°23'21"	25°18	1°4	3°1	11°0	25°50	8°48	21°15	16°18	14°43	20°R54	19°26	24°32	23°25	W 3
T 4	10 47 16	13°23'36"	9°1	0°17	4°16	11°41	26°4	8°52	21°13	16°18	14°41	20°53	19°23	24°39	23°28	T 4
F 5	10 51 12	14°23'49"	23°11	29°37	5°31	12°22	26°19	8°56	21°12	16°18	14°40	20°49	19°20	24°46	23°31	F 5
S 6	10 55 9	15°24'00"	7°47	29°4	6°46	13°2	26°33	9°0	21°10	16°18	14°39	20°43	19°17	24°52	23°34	S 6
S 7	10 59 5	16°24'09"	22°40	28°37	8°1	13°43	26°47	9°4	21°8	16°19	14°37	20°35	19°13	24°59	23°37	S 7
M 8	11 3 2	17°24'16"	7°43	28°18	9°16	14°24	27°2	9°8	21°6	16°19	14°36	20°26	19°10	25°6	23°40	M 8
T 9	11 6 58	18°24'22"	22°46	28°5	10°31	15°4	27°16	9°12	21°4	16°19	14°34	20°17	19°7	25°13	23°43	T 9
W10	11 10 55	19°24'26"	7°40	27°D59	11°46	15°45	27°31	9°16	21°2	16°20	14°33	20°10	19°4	25°19	23°47	W10
T 11	11 14 51	20°24'29"	22°16	28°0	13°1	16°25	27°45	9°20	21°0	16°20	14°31	20°4	19°1	25°26	23°50	T 11
F 12	11 18 48	21°24'30"	6°31	28°7	14°15	17°6	28°0	9°24	20°58	16°21	14°30	20°1	18°57	25°33	23°53	F 12
S 13	11 22 45	22°24'29"	20°23	28°20	15°30	17°46	28°14	9°27	20°55	16°21	14°28	20°D 0	18°54	25°39	23°56	S 13
S 14	11 26 41	23°24'27"	3°35	28°38	16°45	18°27	28°29	9°31	20°53	16°22	14°27	20°0	18°51	25°46	23°59	S 14
M15	11 30 38	24°24'23"	17°3	29°2	18°0	19°7	28°43	9°34	20°51	16°23	14°25	20°R 1	18°48	25°53	24°3	M15
T 16	11 34 34	25°24'18"	29°56	29°30	19°15	19°48	28°58	9°37	20°49	16°23	14°24	20°1	18°45	26°0	24°6	T 16
W17	11 38 31	26°24'11"	12°34	0°K 3	20°30	20°28	29°12	9°41	20°47	16°24	14°22	19°58	18°42	26°6	24°9	W17
T 18	11 42 27	27°24'02"	25°1	0°40	21°44	21°9	29°27	9°44	20°44	16°24	14°21	19°53	18°38	26°13	24°12	T 18
F 19	11 46 24	28°23'51"	7°K 19	1°22	22°59	21°49	29°41	9°47	20°42	16°25	14°19	19°45	18°35	26°20	24°16	F 19
S 20	11 50 20	29°23'39"	19°29	2°7	24°14	22°30	29°56	9°50	20°40	16°26	14°18	19°35	18°32	26°26	24°19	S 20
S 21	11 54 17	0°Y23'24"	1°Y33	2°55	25°29	23°10	0°Y10	9°53	20°37	16°27	14°16	19°22	18°29	26°33	24°22	S 21
M22	11 58 14	1°23'07"	13°31	3°47	26°43	23°50	0°25	9°55	20°35	16°28	14°14	19°8	18°26	26°40	24°26	M22
T 23	12 2 10	2°22'49"	25°25	4°42	27°58	24°31	0°39	9°58	20°32	16°28	14°13	18°55	18°23	26°47	24°29	T 23
W24	12 6 7	3°22'28"	7°B 16	5°40	29°13	25°11	0°54	10°1	20°30	16°29	14°11	18°42	18°19	26°53	24°33	W24
T 25	12 10 3	4°22'05"	19°7	6°41	0°Y28	25°51	1°8	10°3	20°28	16°30	14°9	18°32	18°16	27°0	24°36	T 25
F 26	12 14 0	5°21'41"	1°II 0	7°44	1°42	26°31	1°23	10°6	20°25	16°31	14°8	18°25	18°13	27°7	24°40	F 26
S 27	12 17 56	6°21'13"	12°59	8°50	2°57	27°12	1°37	10°8	20°23	16°32	14°6	18°20	18°10	27°14	24°43	S 27
S 28	12 21 53	7°20'44"	25°8	9°58	4°12	27°52	1°52	10°10	20°20	16°33	14°4	18°18	18°7	27°20	24°47	S 28
M29	12 25 49	8°20'12"	7°53	11°8	5°26	28°32	2°6	10°12	20°18	16°34	14°3	18°D17	18°3	27°27	24°50	M29
T 30	12 29 46	9°19'39"	20°17	12°20	6°41	29°12	2°21	10°14	20°15	16°35	14°1	18°R17	18°0	27°34	24°54	T 30
W31	12 33 43	10°Y19'02"	3°D 26	13°K 34	7°Y55	29°852	2°Y35	10°316	20°13	16°II36	13°59	18°517	17°557	27°Y40	24°Y57	W31

Delta T = 188.56 sec

APRIL 2224

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 37 39	11°Y18'24"	17°D 4	14°K51	9°Y10	0°II32	2°Y50	10°318	20°R10	16°II37	13°R58	18°R14	17°54	27°Y47	25°Y 1	T 1
F 2	12 41 36	12°17'43"	1°112	16°9	10°25	1°12	3°4	10°20	20°17	16°39	13°56	18°D10	17°51	27°54	25°4	F 2
S 3	12 45 32	13°17'00"	15°48	17°29	11°39	1°52	3°19	10°22	20°5	16°40	13°54	18°2	17°48	28°1	25°8	S 3
S 4	12 49 29	14°16'14"	0°49	18°51	12°54	2°32	3°33	10°23	20°2	16°41	13°53	17°52	17°44	28°7	25°11	S 4
M 5	12 53 25	15°15'27"	16°4	20°14	14°8	3°12	3°47	10°25	20°0	16°42	13°51	17°41	17°41	28°14	25°15	M 5
T 6	12 57 22	16°14'37"	1°124	21°39	15°23	3°52	4°2	10°26	19°57	16°44	13°49	17°30	17°38	28°21	25°18	T 6
W 7	13 1 18	17°13'45"	16°36	23°6	16°37	4°32	4°16	10°27	19°55	16°45	13°48	17°20	17°35	28°27	25°22	W 7
T 8	13 5 15	18°12'52"	1°31	24°35	17°51	5°12	4°30	10°28	19°52	16°46	13°46	17°13	17°32	28°34	25°26	T 8
F 9	13 9 11	19°11'57"	16°1	26°5	19°6	5°52	4°45	10°30	19°49	16°48	13°44	17°8	17°28	28°41	25°29	F 9
S 10	13 13 8	20°11'00"	0°34	27°36	20°20	6°32	4°59	10°31	19°47	16°49	13°43	17°5	17°25	28°48	25°33	S 10
S 11	13 17 5	21°10'02"	13°40	29°9	21°35	7°12	5°13	10°31	19°44	16°50	13°41	17°5	17°22	28°54	25°37	S 11
M12	13 21 1	22°9'02"	26°50	0°Y44	22°49	7°52	5°27	10°32	19°42	16°52	13°39	17°5	17°19	29°1	25°40	M12
T 13	13 24 58	23°8'00"	9°38	2°20	24°4	8°31	5°42	10°33	19°39	16°53	13°38	17°4	17°16	29°8	25°44	T 13
W14	13 28 54	24°6'56"	2°9	3°58	25°18	9°11	5°56	10°33	19°36	16°55	13°36	17°2	17°13	29°15	25°47	W14
T 15	13 32 51	25°5'50"	4°K 26	5°37	26°32	9°51	6°10	10°34	19°34	16°56	13°34	16°56	17°9	29°21	25°51	T 15
F 16	13 36 47	26°4'43"	16°34	7°18	27°47	10°31	6°24	10°34	19°31	16°58	13°33	16°48	17°6	29°28	25°55	F 16
S 17	13 40 44	27°3'34"	28°34	9°0	29°1	11°10	6°38	10°35	19°29	16°59	13°31	16°38	17°3	29°35	25°58	S 17
S 18	13 44 40	28°2'23"	10°Y30	10°44	0°B 15	11°50	6°52	10°35	19°26	17°1	13°30	16°25	17°0	29°41	26°2	S 18
M19	13 48 37	29°1'10"	22°24	12°30	1°30	12°30	7°6	10°R35	19°24	17°3	13°28	16°11	16°57	29°48	26°6	M19
T 20	13 52 34	29°59'55"	4°B 15	14°17	2°44	13°9	7°20	10°35	19°21	17°4	13°26	15°57	16°54	29°55	26°9	T 20
W21	13 56 30	0°B58'38"	16°7	16°6	3°58	13°49	7°34	10°35	19°19	17°6	13°25	15°44	16°50	0°B 8	26°13	W21
T 22	14 0 27	1°57'19"	28°0	17°56	5°12	14°28	7°48	10°35	19°16	17°8	13°23	15°34	16°47	0°8	26°16	T 22
F 23	14 4 23	2°55'58"	9°II57	19°48	6°27	15°8	8°2	10°34	19°14	17°9	13°22	15°26	16°44	0°15	26°20	F 23
S 24	14 8 20	3°54'36"	22°0	21°41	7°41	15°48	8°16	10°34	19°11	17°11	13°20	15°21	16°41	0°22	26°24	S 24
S 25	14 12 16	4°53'11"	4°512	23°36	8°55	16°27	8°29	10°33	19°9	17°13	13°19	15°18	16°38	0°28	26°27	S 25
M26	14 16 13	5°51'43"	16°37	25°33	10°9	17°7	8°43	10°33	19°6	17°14	13°17	15°D18	16°34	0°35	26°31	M26
T 27	14 20 9	6°50'14"	29°20	27°31	11°23	17°46	8°57	10°32	19°4	17°16	13°16	15°18	16°31	0°42	26°34	T 27
W28	14 24 6	7°48'43"	12°D 25	29°31	12°37	18°25	9°10	10°31	19°1	17°18	13°14	15°R18	16°28	0°49	26°38	W28
T 29	14 28 3	8°47'09"	25°55	1°B 32	13°51	19°5	9°24	10°30	18°59	17°20	13°13	15°17	16°25	0°55	26°42	T 29
F 30	14 31 59	9°B45'33"	9°1153	3°B 34	15°B 6	19°II44	9°Y37	10°329	18°56	17°II22	13°11	15°514	16°522	1°B 2	26°Y45	F 30

Delta T = 188.65 sec

ASTRODIENST EPHEMERIS for the year 2224

geocentric

MAY 2224

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 35 56	10♈43'55	24♏19	5♊38	16♋20	20♌24	9♍51	10°R28	18°R54	17♎24	13°R10	15°R 8	16♏19	1♊ 9	26♑49	S 1
S 2	14 39 52	11°42'15	9♏11	7°44	17°34	21° 3	10° 4	10♈27	18♏52	17°25	13♏ 8	15♏ 0	16°15	1°15	26°52	S 2
M 3	14 43 49	12°40'33	24°20	9°50	18°48	21°42	10°18	10°26	18°50	17°27	13° 7	14°51	16°12	1°22	26°56	M 3
T 4	14 47 45	13°38'49	9♏39	11°58	20° 2	22°22	10°31	10°25	18°47	17°29	13° 5	14°42	16° 9	1°29	26°59	T 4
W 5	14 51 42	14°37'04	24°54	14° 6	21°16	23° 1	10°44	10°23	18°45	17°31	13° 4	14°34	16° 6	1°36	27° 3	W 5
T 6	14 55 38	15°35'16	9♏57	16°15	22°30	23°40	10°57	10°22	18°43	17°33	13° 3	14°28	16° 3	1°42	27° 6	T 6
F 7	14 59 35	16°33'27	24°37	18°25	23°44	24°19	11°11	10°20	18°41	17°35	13° 1	14°24	16° 0	1°49	27°10	F 7
S 8	15 3 32	17°31'37	8♏50	20°35	24°58	24°58	11°24	10°18	18°38	17°37	13° 0	14°D23	15°56	1°56	27°13	S 8
S 9	15 7 28	18°29'45	22°35	22°45	26°12	25°38	11°37	10°16	18°36	17°39	12°59	14°23	15°53	2° 2	27°17	S 9
M10	15 11 25	19°27'52	5♏54	24°54	27°25	26°17	11°50	10°14	18°34	17°41	12°58	14°24	15°50	2° 9	27°20	M10
T 11	15 15 21	20°25'57	18°44	27° 3	28°39	26°56	12° 3	10°12	18°32	17°43	12°56	14°R24	15°47	2°16	27°24	T 11
W12	15 19 18	21°24'01	1♊16	29°11	29°53	27°35	12°15	10°10	18°30	17°45	12°55	14°24	15°44	2°23	27°27	W12
T 13	15 23 14	22°22'04	13°32	1♌18	1♌ 7	28°14	12°28	10° 8	18°28	17°47	12°54	14°21	15°40	2°29	27°30	T 13
F 14	15 27 11	23°20'05	25°36	3°24	2°21	28°53	12°41	10° 6	18°26	17°49	12°53	14°17	15°37	2°36	27°34	F 14
S 15	15 31 7	24°18'05	7♑32	5°27	3°35	29°32	12°54	10° 4	18°24	17°51	12°51	14°10	15°34	2°43	27°37	S 15
S 16	15 35 4	25°16'03	19°25	7°29	4°49	0♏11	13° 6	10° 1	18°22	17°54	12°50	14° 2	15°31	2°49	27°40	S 16
M17	15 39 1	26°14'00	1♊16	9°29	6° 2	0°50	13°19	9°59	18°20	17°56	12°49	13°53	15°28	2°56	27°44	M17
T 18	15 42 57	27°11'56	13° 8	11°26	7°16	1°29	13°31	9°56	18°18	17°58	12°48	13°44	15°25	3° 3	27°47	T 18
W19	15 46 54	28° 9'50	25° 2	13°20	8°30	2° 8	13°43	9°54	18°17	18° 0	12°47	13°36	15°21	3°10	27°50	W19
T 20	15 50 50	29° 7'43	7♌ 1	15°12	9°44	2°47	13°56	9°51	18°15	18° 2	12°46	13°29	15°18	3°16	27°53	T 20
F 21	15 54 47	0♌ 1	19° 6	17° 1	10°58	3°26	14° 8	9°48	18°13	18° 4	12°45	13°24	15°15	3°23	27°57	F 21
S 22	15 58 43	1° 3'24	1♏19	18°47	12°11	4° 5	14°20	9°45	18°11	18° 6	12°44	13°22	15°12	3°30	28° 0	S 22
S 23	16 2 40	2° 1'12	13°41	20°30	13°25	4°44	14°32	9°42	18°10	18° 8	12°43	13°D21	15° 9	3°37	28° 3	S 23
M24	16 6 36	2°58'59	26°16	22°10	14°39	5°23	14°44	9°39	18° 8	18°11	12°42	13°21	15° 6	3°43	28° 6	M24
T 25	16 10 33	3°56'44	9♏ 6	23°47	15°52	6° 2	14°56	9°36	18° 7	18°13	12°41	13°23	15° 2	3°50	28° 9	T 25
W26	16 14 30	4°54'28	22°13	25°20	17° 6	6°41	15° 8	9°33	18° 5	18°15	12°40	13°24	14°59	3°57	28°12	W26
T 27	16 18 26	5°52'10	5♏42	26°50	18°20	7°19	15°19	9°30	18° 4	18°17	12°40	13°R25	14°56	4° 3	28°15	T 27
F 28	16 22 23	6°49'50	19°32	28°17	19°33	7°58	15°31	9°26	18° 2	18°19	12°39	13°24	14°53	4°10	28°18	F 28
S 29	16 26 19	7°47'29	3♏46	29°40	20°47	8°37	15°42	9°23	18° 1	18°22	12°38	13°22	14°50	4°17	28°21	S 29
S 30	16 30 16	8°45'06	18°21	19° 0	22° 1	9°16	15°54	9°19	17°59	18°24	12°37	13°18	14°46	4°24	28°24	S 30
M31	16 34 12	9♌42'41	3♏12	29°16	23♌14	9♏54	16♑ 5	9♏16	17°58	18♌26	12°36	13♏14	14°54	4♊30	28♑27	M31

Delta T = 188.75 sec

JUNE 2224

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 38 9	10♌40'16	18♏13	3♏29	24♌28	10♏33	16♑16	9°R12	17°R57	18♌28	12°R36	13°R 9	14♏40	4♊37	28♑30	T 1
W 2	16 42 4	11°37'49	3♏15	4°39	25°41	11°12	16°27	9° 5	17°56	18°31	12°35	13° 5	14°37	4°44	28°33	W 2
T 3	16 46 2	12°35'21	18° 9	5°44	26°55	11°51	16°39	9° 5	17°55	18°33	12°34	13° 2	14°34	4°50	28°36	T 3
F 4	16 49 59	13°32'52	2♏46	6°46	28° 8	12°29	16°49	9° 1	17°53	18°35	12°34	13° 0	14°31	4°57	28°39	F 4
S 5	16 53 55	14°30'22	17° 1	7°45	29°22	13° 8	17° 0	8°58	17°52	18°37	12°33	13°D 0	14°27	5° 4	28°41	S 5
S 6	16 57 52	15°27'51	0♏50	8°39	0♏35	13°46	17°11	8°54	17°51	18°39	12°33	13° 1	14°24	5°11	28°44	S 6
M 7	17 1 48	16°25'20	14°12	9°30	1°49	14°25	17°22	8°50	17°50	18°42	12°32	13° 2	14°21	5°17	28°47	M 7
T 8	17 5 45	17°22'47	27°10	10°16	3° 2	15° 4	17°32	8°46	17°50	18°44	12°32	13° 4	14°18	5°24	28°50	T 8
W 9	17 9 41	18°20'14	9♏47	10°59	4°15	15°42	17°43	8°42	17°49	18°46	12°31	13° 5	14°15	5°31	28°52	W 9
T 10	17 13 38	19°17'40	22° 5	11°37	5°29	16°21	17°53	8°38	17°48	18°48	12°31	13°R 5	14°11	5°37	28°55	T 10
F 11	17 17 34	20°15'06	4♑11	12°11	6°42	16°59	18° 3	8°34	17°47	18°51	12°30	13° 4	14° 8	5°44	28°57	F 11
S 12	17 21 31	21°12'30	16° 7	12°41	7°56	17°38	18°13	8°30	17°46	18°53	12°30	13° 3	14° 5	5°51	29° 0	S 12
S 13	17 25 28	22° 9'55	28° 0	13° 6	9° 9	18°16	18°23	8°26	17°46	18°55	12°30	13° 0	14° 2	5°58	29° 2	S 13
M14	17 29 24	23° 7'18	9♏51	13°27	10°22	18°55	18°33	8°22	17°45	18°57	12°29	12°57	13°59	6° 4	29° 5	M14
T 15	17 33 21	24° 4'41	21°45	13°43	11°36	19°33	18°43	8°17	17°44	19° 0	12°29	12°54	13°56	6°11	29° 7	T 15
W16	17 37 17	25° 2'04	3♌45	13°55	12°49	20°12	18°53	8°13	17°44	19° 2	12°29	12°51	13°52	6°18	29°10	W16
T 17	17 41 14	25°59'26	15°52	14° 3	14° 2	20°50	19° 2	8° 9	17°43	19° 4	12°29	12°49	13°49	6°24	29°12	T 17
F 18	17 45 10	26°56'47	28° 8	14°R 5	15°16	21°29	19°12	8° 5	17°43	19° 6	12°29	12°48	13°46	6°31	29°14	F 18
S 19	17 49 7	27°54'08	10♏36	14° 4	16°29	22° 7	19°21	8° 0	17°43	19° 9	12°28	12°D47	13°43	6°38	29°16	S 19
S 20	17 53 4	28°51'28	23°15	13°57	17°42	22°46	19°30	7°56	17°42	19°11	12°28	12°47	13°40	6°45	29°19	S 20
M21	17 57 0	29°48'47	6♏ 7	13°47	18°56	23°24	19°39	7°52	17°42	19°13	12°28	12°48	13°37	6°51	29°21	M21
T 22	18 0 57	0♏46'06	19°13	13°32	20° 9	24° 3	19°48	7°47	17°42	19°15	12°D28	12°49	13°33	6°58	29°23	T 22
W23	18 4 53	1°43'23	2♏34	13°13	21°22	24°41	19°57	7°43	17°42	19°17	12°28	12°50	13°30	7° 5	29°25	W23
T 24	18 8 50	2°40'40	16°10	12°51	22°35	25°19	20° 6	7°39	17°42	19°20	12°28	12°51	13°27	7°11	29°27	T 24
F 25	18 12 46	3°37'56	0♏ 2	12°26	23°48	25°58	20°14	7°34	17°D42	19°22	12°28	12°R51	13°24	7°18	29°29	F 25
S 26	18 16 43	4°35'12	14° 9	11°57	25° 2	26°36	20°22	7°30	17°42	19°24	12°28	12°51	13°21	7°25	29°31	S 26
S 27	18 20 39	5°32'26	28°29	11°26	26°15	27°14	20°31	7°25	17°42	19°26	12°29	12°51	13°17	7°31	29°33	S 27
M28	18 24 36	6°29'40	12♏59	10°53	27°28	27°53	20°39	7°21	17°42	19°28	12°29	12°50	13°14	7°38	29°35	M28
T 29	18 28 33	7°26'54	27°36	10°19	28°41	28°31	20°47	7°16	17°42	19°31	12°29	12°50	13°11	7°45	29°37	T 29
W30	18 32 29	8♏24'07	12♏13	9♏44	29♏54	29♏ 9	20♑55	7♏12	17°42	19♌33	12°29	12°54	13° 8	7♏52	29♑38	W30

Delta T = 188.84 sec

ASTRODIENST EPHEMERIS for the year 2224
geocentric

JULY 2224

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 36 26	9 ²¹ 21'20	26 [♂] 44	9 [°] R 8	1 [♂] 7	29 [♂] 48	21 [°] Y 2	7 [°] R 8	17 [♂] 43	19 ^{II} 35	12 [♂] 29	12 [°] R49	13 [♂] 5	7 [♂] 58	29 [°] Y40	T 1
F 2	18 40 22	10 [°] 18'32	11 [♂] 4	8 [♂] 33	2 [°] 20	0 [♂] 26	21 [°] 10	7 [♂] 3	17 [°] 43	19 [°] 37	12 [°] 30	12 [°] D49	13 [°] 2	8 [°] 5	29 [°] 42	F 2
S 3	18 44 19	11 [°] 15'44	25 [°] 8	7 [°] 59	3 [°] 33	1 [°] 4	21 [°] 17	6 [°] 59	17 [°] 43	19 [°] 39	12 [°] 30	12 [°] 58	12 [°] 58	8 [°] 12	29 [°] 43	S 3
S 4	18 48 15	12 [°] 12'56	8 [♂] 51	7 [°] 26	4 [°] 46	1 [°] 43	21 [°] 25	6 [°] 54	17 [°] 44	19 [°] 41	12 [°] 30	12 [°] 49	12 [°] 55	8 [°] 18	29 [°] 45	S 4
M 5	18 52 12	13 [°] 10'08	22 [°] 12	6 [°] 56	5 [°] 59	2 [°] 21	21 [°] 32	6 [°] 50	17 [°] 44	19 [°] 43	12 [°] 31	12 [°] R49	12 [°] 52	8 [°] 25	29 [°] 46	M 5
T 6	18 56 8	14 [°] 7'20	5 [♂] 12	6 [°] 28	7 [°] 12	2 [°] 59	21 [°] 39	6 [°] 46	17 [°] 45	19 [°] 45	12 [°] 31	12 [°] 49	12 [°] 49	8 [°] 32	29 [°] 48	T 6
W 7	19 0 5	15 [°] 4'32	17 [°] 51	6 [°] 3	8 [°] 25	3 [°] 37	21 [°] 46	6 [°] 41	17 [°] 45	19 [°] 47	12 [°] 32	12 [°] 48	12 [°] 46	8 [°] 39	29 [°] 49	W 7
T 8	19 4 2	16 [°] 1'44	0 [°] Y12	5 [°] 42	9 [°] 38	4 [°] 16	21 [°] 52	6 [°] 37	17 [°] 46	19 [°] 50	12 [°] 32	12 [°] 48	12 [°] 43	8 [°] 45	29 [°] 51	T 8
F 9	19 7 58	16 [°] 58'56	12 [°] 20	5 [°] 25	10 [°] 51	4 [°] 54	21 [°] 59	6 [°] 33	17 [°] 47	19 [°] 52	12 [°] 33	12 [°] D48	12 [°] 39	8 [°] 52	29 [°] 52	F 9
S 10	19 11 55	17 [°] 56'09	24 [°] 18	5 [°] 12	12 [°] 3	5 [°] 32	22 [°] 5	6 [°] 28	17 [°] 47	19 [°] 54	12 [°] 33	12 [°] 48	12 [°] 36	8 [°] 59	29 [°] 53	S 10
S 11	19 15 51	18 [°] 53'22	6 [♂] 11	5 [°] 4	13 [°] 16	6 [°] 10	22 [°] 11	6 [°] 24	17 [°] 48	19 [°] 56	12 [°] 34	12 [°] 48	12 [°] 33	9 [°] 5	29 [°] 55	S 11
M12	19 19 48	19 [°] 50'35	18 [°] 3	5 [°] D 0	14 [°] 29	6 [°] 48	22 [°] 17	6 [°] 20	17 [°] 49	19 [°] 58	12 [°] 35	12 [°] 49	12 [°] 30	9 [°] 12	29 [°] 56	M12
T 13	19 23 44	20 [°] 47'49	29 [°] 59	5 [°] 2	15 [°] 42	7 [°] 27	22 [°] 23	6 [°] 16	17 [°] 50	20 [°] 0	12 [°] 35	12 [°] 50	12 [°] 27	9 [°] 19	29 [°] 57	T 13
W14	19 27 41	21 [°] 45'03	12 ^{II} 3	5 [°] 8	16 [°] 55	8 [°] 5	22 [°] 29	6 [°] 11	17 [°] 51	20 [°] 2	12 [°] 36	12 [°] 51	12 [°] 23	9 [°] 26	29 [°] 58	W14
T 15	19 31 37	22 [°] 42'17	24 [°] 19	5 [°] 20	18 [°] 7	8 [°] 43	22 [°] 34	6 [°] 7	17 [°] 52	20 [°] 4	12 [°] 37	12 [°] 51	12 [°] 20	9 [°] 32	29 [°] 59	T 15
F 16	19 35 34	23 [°] 39'32	6 [♂] 47	5 [°] 37	19 [°] 20	9 [°] 21	22 [°] 40	6 [°] 3	17 [°] 53	20 [°] 5	12 [°] 37	12 [°] R52	12 [°] 17	9 [°] 39	0 [♂] 0	F 16
S 17	19 39 31	24 [°] 36'47	19 [°] 31	6 [°] 0	20 [°] 33	9 [°] 59	22 [°] 45	5 [°] 59	17 [°] 54	20 [°] 7	12 [°] 38	12 [°] 52	12 [°] 14	9 [°] 46	0 [°] 1	S 17
S 18	19 43 27	25 [°] 34'02	2 [♂] 31	6 [°] 28	21 [°] 46	10 [°] 37	22 [°] 50	5 [°] 55	17 [°] 55	20 [°] 9	12 [°] 39	12 [°] 51	12 [°] 11	9 [°] 52	0 [°] 2	S 18
M19	19 47 24	26 [°] 31'18	15 [°] 46	7 [°] 1	22 [°] 58	11 [°] 16	22 [°] 55	5 [°] 51	17 [°] 56	20 [°] 11	12 [°] 40	12 [°] 50	12 [°] 8	9 [°] 59	0 [°] 3	M19
T 20	19 51 20	27 [°] 28'34	29 [°] 16	7 [°] 39	24 [°] 11	11 [°] 54	23 [°] 0	5 [°] 47	17 [°] 58	20 [°] 13	12 [°] 41	12 [°] 48	12 [°] 4	10 [°] 6	0 [°] 3	T 20
W21	19 55 17	28 [°] 25'50	12 [♂] 59	8 [°] 23	25 [°] 24	12 [°] 32	23 [°] 4	5 [°] 43	17 [°] 59	20 [°] 15	12 [°] 42	12 [°] 46	12 [°] 1	10 [°] 13	0 [°] 4	W21
T 22	19 59 13	29 [°] 23'06	26 [°] 53	9 [°] 12	26 [°] 36	13 [°] 10	23 [°] 8	5 [°] 39	18 [°] 0	20 [°] 17	12 [°] 43	12 [°] 44	11 [°] 58	10 [°] 19	0 [°] 5	T 22
F 23	20 3 10	0 [♂] 20'22	10 [♂] 56	10 [°] 6	27 [°] 49	13 [°] 48	23 [°] 13	5 [°] 35	18 [°] 2	20 [°] 19	12 [°] 44	12 [°] 43	11 [°] 55	10 [°] 26	0 [°] 5	F 23
S 24	20 7 6	1 [°] 17'38	25 [°] 6	11 [°] 5	29 [°] 1	14 [°] 26	23 [°] 17	5 [°] 32	18 [°] 3	20 [°] 20	12 [°] 45	12 [°] D42	11 [°] 52	10 [°] 33	0 [°] 6	S 24
S 25	20 11 3	2 [°] 14'55	9 [♂] 19	12 [°] 9	0 [♂] 14	15 [°] 5	23 [°] 20	5 [°] 28	18 [°] 5	20 [°] 22	12 [°] 46	12 [°] 42	11 [°] 49	10 [°] 39	0 [°] 7	S 25
M26	20 15 0	3 [°] 12'12	23 [°] 33	13 [°] 18	1 [°] 26	15 [°] 43	23 [°] 24	5 [°] 24	18 [°] 6	20 [°] 24	12 [°] 47	12 [°] 43	11 [°] 45	10 [°] 46	0 [°] 7	M26
T 27	20 18 56	4 [°] 9'29	7 [♂] 48	14 [°] 32	2 [°] 39	16 [°] 21	23 [°] 27	5 [°] 21	18 [°] 8	20 [°] 26	12 [°] 48	12 [°] 44	11 [°] 42	10 [°] 53	0 [°] 7	T 27
W28	20 22 53	5 [°] 6'46	21 [°] 58	15 [°] 51	3 [°] 51	16 [°] 59	23 [°] 31	5 [°] 17	18 [°] 10	20 [°] 27	12 [°] 49	12 [°] 45	11 [°] 39	10 [°] 59	0 [°] 8	W28
T 29	20 26 49	6 [°] 4'04	6 [♂] 2	17 [°] 14	5 [°] 3	17 [°] 37	23 [°] 34	5 [°] 14	18 [°] 11	20 [°] 29	12 [°] 50	12 [°] R46	11 [°] 36	11 [°] 6	0 [°] 8	T 29
F 30	20 30 46	7 [°] 1'23	19 [°] 57	18 [°] 42	6 [°] 16	18 [°] 15	23 [°] 37	5 [°] 10	18 [°] 13	20 [°] 31	12 [°] 51	12 [°] 46	11 [°] 33	11 [°] 13	0 [°] 8	F 30
S 31	20 34 42	7 [♂] 58'42	3 [♂] 40	20 [♂] 14	7 [♂] 28	18 [♂] 53	23 [°] Y39	5 [♂] 7	18 [♂] 15	20 ^{II} 32	12 [♂] 53	12 [♂] 45	11 [♂] 29	11 [♂] 20	0 [♂] 9	S 31

Delta T = 188.94 sec

AUGUST 2224

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 38 39	8♂56'01	17≈ 8	21♂51	8♂40	19♂31	23Y42	5°R 4	18♂17	20II34	12♂54	12°R42	11♂26	11♂26	0♂ 9	S 1
M 2	20 42 35	9°53'22	0Y19	23°31	9°53	20° 9	23°44	5♂ 0	18°19	20°36	12°55	12♂39	11°23	11°33	0° 9	M 2
T 3	20 46 32	10°50'43	13°12	25°15	11° 5	20°48	23°46	4°57	18°21	20°37	12°56	12°35	11°20	11°40	0°R 9	T 3
W 4	20 50 29	11°48'05	25°48	27° 3	12°17	21°26	23°48	4°54	18°22	20°39	12°58	12°30	11°17	11°46	0° 9	W 4
T 5	20 54 25	12°45'28	8Y 9	28°54	13°29	22° 4	23°50	4°51	18°25	20°40	12°59	12°26	11°14	11°53	0° 9	T 5
F 6	20 58 22	13°42'52	20°16	0♂47	14°41	22°42	23°51	4°48	18°27	20°42	13° 0	12°22	11°10	12° 0	0° 9	F 6
S 7	21 2 18	14°40'17	2♂14	2°43	15°53	23°20	23°53	4°45	18°29	20°43	13° 2	12°20	11° 7	12° 6	0° 8	S 7
S 8	21 6 15	15°37'44	14° 7	4°41	17° 5	23°58	23°54	4°42	18°31	20°45	13° 3	12°D19	11° 4	12°13	0° 8	S 8
M 9	21 10 11	16°35'11	25°59	6°42	18°17	24°36	23°55	4°40	18°33	20°46	13° 5	12°20	11° 1	12°20	0° 8	M 9
T 10	21 14 8	17°32'40	7II56	8°43	19°29	25°14	23°56	4°37	18°35	20°48	13° 6	12°21	10°58	12°27	0° 7	T 10
W11	21 18 4	18°30'11	20° 2	10°46	20°41	25°52	23°56	4°34	18°38	20°49	13° 8	12°23	10°55	12°33	0° 7	W11
T 12	21 22 1	19°27'42	2♂22	12°49	21°53	26°31	23°57	4°32	18°40	20°50	13° 9	12°24	10°51	12°40	0° 7	T 12
F 13	21 25 58	20°25'15	14°59	14°53	23° 5	27° 9	23°R57	4°29	18°42	20°52	13°11	12°R24	10°48	12°47	0° 6	F 13
S 14	21 29 54	21°22'49	27°56	16°56	24°17	27°47	23°57	4°27	18°45	20°53	13°13	12°23	10°45	12°53	0° 6	S 14
S 15	21 33 51	22°20'24	11♂14	19° 0	25°29	28°25	23°57	4°25	18°47	20°54	13°14	12°20	10°42	13° 0	0° 5	S 15
M16	21 37 47	23°18'00	24°53	21° 4	26°40	29° 3	23°56	4°23	18°50	20°56	13°16	12°16	10°39	13° 7	0° 4	M16
T 17	21 41 44	24°15'38	8♂49	23° 6	27°52	29°41	23°55	4°21	18°52	20°57	13°17	12°10	10°35	13°14	0° 4	T 17
W18	21 45 40	25°13'16	23° 0	25° 8	29° 4	0♂19	23°55	4°19	18°55	20°58	13°19	12° 3	10°32	13°20	0° 3	W18
T 19	21 49 37	26°10'56	7♂20	27° 9	0♂15	0°57	23°54	4°17	18°57	20°59	13°21	11°56	10°29	13°27	0° 2	T 19
F 20	21 53 33	27° 8'37	21°43	29°10	1°27	1°36	23°52	4°15	19° 0	21° 0	13°23	11°51	10°26	13°34	0° 1	F 20
S 21	21 57 30	28° 6'18	6♂ 5	1♂ 9	2°39	2°14	23°51	4°13	19° 3	21° 2	13°24	11°47	10°23	13°40	0° 0	S 21
S 22	22 1 127	29° 4'01	20°22	3° 6	3°50	2°52	23°49	4°12	19° 5	21° 3	13°26	11°45	10°20	13°47	29Y59	S 22
M23	22 5 23	0♂ 1'45	4♂31	5° 3	5° 2	3°30	23°48	4°10	19° 8	21° 4	13°28	11°D45	10°16	13°54	29°58	M23
T 24	22 9 20	0°59'30	2♂31	6°58	6°13	4° 8	23°45	4° 9	19°11	21° 5	13°30	11°46	10°13	14° 0	29°57	T 24
W25	22 13 16	1°57'16	18♂21	8°52	7°24	4°46	23°43	4° 7	19°14	21° 6	13°32	11°47	10°10	14° 7	29°56	W25
T 26	22 17 13	2°55'03	16° 1	10°45	8°36	5°24	23°41	4° 6	19°17	21° 7	13°34	11°R47	10° 7	14°14	29°55	T 26
F 27	22 21 9	3°52'51	29°31	12°36	9°47	6° 3	23°38	4° 5	19°20	21° 8	13°35	11°45	10° 4	14°21	29°53	F 27
S 28	22 25 6	4°50'40	12≈49	14°26	10°58	6°41	23°35	4° 4	19°23	21° 9	13°37	11°42	10° 1	14°27	29°52	S 28
S 29	22 29 2	5°48'33	25°56	16°14	12° 9	7°19	23°33	4° 3	19°26	21° 9	13°39	11°36	9°57	14°34	29°51	S 29
M30	22 32 59	6°46'23	8♂50	18° 2	13°20	7°57	23°29	4° 2	19°29	21°10	13°41	11°27	9°54	14°41	29°49	M30
T 31	22 36 56	7♂44'17	21Y31	19♂47	14♂31	8♂35	23Y26	4♂ 1	19♂32	21II11	13♂43	11♂18	9♂51	14♂47	29Y48	T 31

ASTRODIENST EPHEMERIS for the year 2224
geocentric

SEPTEMBER 2224

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	22 40 52	8♉42'12	3♊59	21♉32	15♊42	9♉13	23°R22	4°R 0	19♊35	21♉12	13♊45	11°R 7	9♉48	14♊54	29°R47	W 1
T 2	22 44 49	9°40'09	16°14	23°15	16°53	9°51	23°Y19	4°Z 0	19°38	21°13	13°47	10♉57	9°45	15° 1	29°Y45	T 2
F 3	22 48 45	10°38'08	28°18	24°57	18° 4	10°30	23°15	3°59	19°41	21°13	13°49	10°49	9°41	15° 7	29°44	F 3
S 4	22 52 42	11°36'08	10♉14	26°38	19°15	11° 8	23°11	3°59	19°44	21°14	13°51	10°42	9°38	15°14	29°42	S 4
S 5	22 56 38	12°34'11	22° 5	28°17	20°26	11°46	23° 6	3°58	19°47	21°15	13°53	10°37	9°35	15°21	29°40	S 5
M 6	23 0 35	13°32'15	3♊55	29°55	21°36	12°24	23° 2	3°58	19°50	21°15	13°55	10°35	9°32	15°27	29°39	M 6
T 7	23 4 31	14°30'21	15°50	1♊32	22°47	13° 2	22°57	3°58	19°54	21°16	13°57	10°D35	9°29	15°34	29°37	T 7
W 8	23 8 28	15°28'29	27°55	3° 8	23°58	13°41	22°53	3°D58	19°57	21°16	14° 0	10°35	9°26	15°41	29°35	W 8
T 9	23 12 24	16°26'39	10♉14	4°42	25° 8	14°19	22°48	3°58	20° 0	21°17	14° 2	10°R35	9°22	15°48	29°33	T 9
F 10	23 16 21	17°24'52	22°54	6°16	26°19	14°57	22°43	3°58	20° 3	21°17	14° 4	10°35	9°19	15°54	29°31	F 10
S 11	23 20 18	18°23'06	5♉57	7°48	27°29	15°35	22°37	3°59	20° 7	21°18	14° 6	10°32	9°16	16° 1	29°29	S 11
S 12	23 24 14	19°21'22	19°26	9°19	28°39	16°14	22°32	3°59	20°10	21°18	14° 8	10°27	9°13	16° 8	29°27	S 12
M13	23 28 11	20°19'39	3♉20	10°48	29°50	16°52	22°26	3°59	20°14	21°19	14°10	10°19	9°10	16°14	29°25	M13
T 14	23 32 7	21°17'59	17°39	12°17	1♉ 0	17°30	22°20	4° 0	20°17	21°19	14°13	10°10	9° 6	16°21	29°23	T 14
W15	23 36 4	22°16'21	2♊15	13°44	2°10	18° 9	22°14	4° 1	20°20	21°19	14°15	9°59	9° 3	16°28	29°21	W15
T 16	23 40 0	23°14'44	17° 2	15°10	3°20	18°47	22° 8	4° 1	20°24	21°20	14°17	9°48	9° 0	16°34	29°19	T 16
F 17	23 43 57	24°13'09	1♉50	16°35	4°30	19°25	22° 2	4° 2	20°27	21°20	14°19	9°39	8°57	16°41	29°17	F 17
S 18	23 47 53	25°11'35	16°33	17°59	5°40	20° 4	21°56	4° 3	20°31	21°20	14°21	9°32	8°54	16°48	29°15	S 18
S 19	23 51 50	26°10'04	1♊ 4	19°21	6°50	20°42	21°49	4° 4	20°34	21°20	14°24	9°28	8°51	16°55	29°13	S 19
M20	23 55 47	27° 8'33	15°18	20°42	8° 0	21°20	21°43	4° 5	20°38	21°20	14°26	9°26	8°47	17° 1	29°11	M20
T 21	23 59 43	28° 7'05	29°16	22° 1	9°10	21°59	21°36	4° 7	20°41	21°21	14°28	9°D26	8°44	17° 8	29° 8	T 21
W22	0 3 40	29° 5'38	12♉56	23°19	10°19	22°37	21°29	4° 8	20°45	21°21	14°30	9°R26	8°41	17°15	29° 6	W22
T 23	0 7 36	0♊ 4'13	26°21	24°36	11°29	23°15	21°22	4° 9	20°49	21°21	14°33	9°25	8°38	17°21	29° 4	T 23
F 24	0 11 33	1° 2'49	9♉31	25°51	12°39	23°54	21°15	4°11	20°52	21°R21	14°35	9°22	8°35	17°28	29° 1	F 24
S 25	0 15 29	2° 1'27	22°29	27° 5	13°48	24°32	21° 8	4°13	20°56	21°21	14°37	9°16	8°32	17°35	28°59	S 25
S 26	0 19 26	3° 0'07	5♊16	28°16	14°57	25°10	21° 1	4°14	20°59	21°21	14°40	9° 8	8°28	17°41	28°56	S 26
M27	0 23 22	3°58'48	17°52	29°27	16° 6	25°49	20°54	4°16	21° 3	21°21	14°42	8°57	8°25	17°48	28°54	M27
T 28	0 27 19	4°57'31	0♊17	0♉35	17°16	26°27	20°46	4°18	21° 7	21°21	14°44	8°44	8°22	17°55	28°51	T 28
W29	0 31 16	5°56'17	12°33	1°41	18°25	27° 6	20°39	4°20	21°10	21°20	14°47	8°30	8°19	18° 1	28°49	W29
T 30	0 35 12	6♊55'04	24°Y40	2♉45	19♉34	27°Y44	20°Y31	4°Z22	21♊14	21♉20	14♊49	8♉16	8♉16	18♉ 8	28°Y46	T 30

Delta T = 189.13 sec

OCTOBER 2224

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 39 9	7♊53'53	6♉39	3♉46	20♉42	28♉23	20°R23	4°Z24	21♊18	21°R20	14♊51	8°R 4	8♉12	18♉15	28°R44	F 1
S 2	0 43 5	8°52'45	18°31	4°46	21°51	29° 1	20°Y16	4°27	21°22	21♉20	14°53	7♉54	8° 9	18°21	28°Y41	S 2
S 3	0 47 2	9°51'38	0♊20	5°42	23° 0	29°39	20° 8	4°29	21°25	21°20	14°56	7°47	8° 6	18°28	28°39	S 3
M 4	0 50 58	10°50'34	12° 9	6°36	24° 8	0♊18	20° 0	4°31	21°29	21°19	14°58	7°43	8° 3	18°35	28°36	M 4
T 5	0 54 55	11°49'33	24° 2	7°26	25°17	0°56	19°52	4°34	21°33	21°19	15° 0	7°41	8° 0	18°42	28°33	T 5
W 6	0 58 51	12°48'33	6♉ 4	8°13	26°25	1°35	19°44	4°37	21°37	21°18	15° 3	7°40	7°57	18°48	28°31	W 6
T 7	1 2 48	13°47'36	18°20	8°57	27°33	2°14	19°36	4°39	21°40	21°18	15° 5	7°40	7°53	18°55	28°28	T 7
F 8	1 6 45	14°46'41	0♊56	9°36	28°41	2°52	19°28	4°42	21°44	21°18	15° 8	7°39	7°50	19° 2	28°25	F 8
S 9	1 10 41	15°45'48	13°57	10°11	29°49	3°31	19°20	4°45	21°48	21°17	15°10	7°37	7°47	19° 8	28°23	S 9
S 10	1 14 38	16°44'58	27°26	10°41	0♊57	4° 9	19°12	4°48	21°52	21°17	15°12	7°32	7°44	19°15	28°20	S 10
M11	1 18 34	17°44'10	11♉25	11° 6	2° 5	4°48	19° 4	4°51	21°55	21°16	15°15	7°24	7°41	19°22	28°17	M11
T 12	1 22 31	18°43'24	25°52	11°25	3°13	5°26	18°56	4°54	21°59	21°16	15°17	7°14	7°38	19°28	28°14	T 12
W13	1 26 27	19°42'40	10♊42	11°38	4°20	6° 5	18°48	4°58	22° 3	21°15	15°19	7° 3	7°34	19°35	28°12	W13
T 14	1 30 24	20°41'58	25°47	11°R44	5°28	6°44	18°40	5° 1	22° 7	21°14	15°22	6°52	7°31	19°42	28° 9	T 14
F 15	1 34 20	21°41'18	10♉57	11°43	6°35	7°22	18°31	5° 4	22°11	21°14	15°24	6°42	7°28	19°48	28° 6	F 15
S 16	1 38 17	22°40'41	26° 1	11°35	7°42	8° 1	18°23	5° 8	22°14	21°13	15°26	6°35	7°25	19°55	28° 3	S 16
S 17	1 42 13	23°40'05	10♊51	11°18	8°49	8°40	18°15	5°12	22°18	21°12	15°29	6°30	7°22	20° 2	28° 0	S 17
M18	1 46 10	24°39'31	25°21	10°54	9°56	9°18	18° 7	5°15	22°22	21°12	15°31	6°28	7°18	20° 9	27°58	M18
T 19	1 50 7	25°38'59	9♉27	10°20	11° 2	9°57	17°59	5°19	22°26	21°11	15°33	6°D28	7°15	20°15	27°55	T 19
W20	1 54 3	26°38'28	23°10	9°39	12° 9	10°36	17°52	5°23	22°29	21°10	15°36	6°R28	7°12	20°22	27°52	W20
T 21	1 58 0	27°37'59	6♉31	8°49	13°15	11°15	17°44	5°27	22°33	21° 9	15°38	6°28	7° 9	20°29	27°49	T 21
F 22	2 1 56	28°37'32	19°32	7°52	14°21	11°53	17°36	5°31	22°37	21° 8	15°40	6°26	7° 6	20°35	27°46	F 22
S 23	2 5 53	29°37'06	2♉18	6°48	15°27	12°32	17°28	5°35	22°41	21° 7	15°42	6°21	7° 3	20°42	27°44	S 23
S 24	2 9 49	0♉36'43	14°50	5°38	16°33	13°11	17°20	5°39	22°45	21° 6	15°45	6°14	6°59	20°49	27°41	S 24
M25	2 13 46	1°36'21	27°11	4°25	17°39	13°50	17°13	5°43	22°48	21° 5	15°47	6° 5	6°56	20°55	27°38	M25
T 26	2 17 42	2°36'00	9♊23	3°10	18°44	14°29	17° 5	5°48	22°52	21° 4	15°49	5°53	6°53	21° 2	27°35	T 26
W27	2 21 39	3°35'42	21°28	1°55	19°49	15° 7	16°58	5°52	22°56	21° 3	15°52	5°41	6°50	21° 9	27°32	W27
T 28	2 25 36	4°35'26	3♉26	0°43	20°54	15°46	16°51	5°57	23° 0	21° 2	15°54	5°29	6°47	21°15	27°30	T 28
F 29	2 29 32	5°35'11	15°19	29♊36	21°59	16°25	16°43	6° 1	23° 3	21° 1	15°56	5°19	6°43	21°22	27°27	F 29
S 30	2 33 29	6°34'59	27° 9	28°35	23° 3	17° 4	16°36	6° 6	23° 7	21° 0	15°58	5°10	6°40	21°29	27°24	S 30
S 31	2 37 25	7♉34'49	8♉58	27♊43	24♊ 8	17♊43	16°Y29	6°Z10	23♊11	20♉59	16♊ 1	5♉ 4	6♉37	21♉35	27°Y21	S 31

Delta T = 189.22 sec

ASTRODIENST EPHEMERIS for the year 2224
geocentric

NOVEMBER 2224

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 41 22	8♉34'41	20♊48	27°R 1	25♊12	18♊22	16°R22	6♉15	23♊14	20°R58	16♊ 3	5°R 1	6♉34	21♊42	27°R19	M 1
T 2	2 45 18	9°34'34	2♉42	26♊30	26°16	19° 1	16°Y15	6°20	23°18	20♊57	16° 5	4°D59	6°31	21°49	27°Y16	T 2
W 3	2 49 15	10°34'31	14°44	26°11	27°19	19°40	16° 9	6°25	23°22	20°56	16° 7	5♉ 0	6°28	21°55	27°13	W 3
T 4	2 53 11	11°34'29	26°59	26°D 2	28°22	20°19	16° 2	6°30	23°25	20°54	16° 9	5° 1	6°24	22° 2	27°10	T 4
F 5	2 57 8	12°34'29	9♊32	26° 6	29°25	20°58	15°56	6°35	23°29	20°53	16°11	5°R 2	6°21	22° 9	27° 8	F 5
S 6	3 1 5	13°34'31	22°28	26°20	0♉28	21°37	15°49	6°40	23°33	20°52	16°14	5° 1	6°18	22°16	27° 5	S 6
S 7	3 5 1	14°34'36	5♊50	26°44	1°31	22°16	15°43	6°45	23°36	20°51	16°16	4°59	6°15	22°22	27° 2	S 7
M 8	3 8 58	15°34'43	19°41	27°18	2°33	22°55	15°37	6°50	23°40	20°49	16°18	4°55	6°12	22°29	27° 0	M 8
T 9	3 12 54	16°34'51	4♊ 1	28° 0	3°35	23°34	15°31	6°56	23°43	20°48	16°20	4°49	6° 9	22°36	26°57	T 9
W10	3 16 51	17°35'02	18°48	28°50	4°36	24°13	15°26	7° 1	23°47	20°47	16°22	4°41	6° 5	22°42	26°55	W10
T 11	3 20 47	18°35'15	3♊54	29°47	5°37	24°52	15°20	7° 6	23°51	20°45	16°24	4°34	6° 2	22°49	26°52	T 11
F 12	3 24 44	19°35'29	19°11	0♊49	6°38	25°31	15°15	7°12	23°54	20°44	16°26	4°27	5°59	22°56	26°49	F 12
S 13	3 28 40	20°35'46	4♊27	1°57	7°39	26°10	15°10	7°17	23°58	20°43	16°28	4°22	5°56	23° 2	26°47	S 13
S 14	3 32 37	21°36'04	19°32	3°10	8°39	26°49	15° 4	7°23	24° 1	20°41	16°30	4°20	5°53	23° 9	26°44	S 14
M15	3 36 34	22°36'23	4♊18	4°26	9°38	27°28	15° 0	7°29	24° 4	20°40	16°32	4°D19	5°49	23°16	26°42	M15
T 16	3 40 30	23°36'44	18°39	5°45	10°38	28° 8	14°55	7°34	24° 8	20°38	16°34	4°19	5°46	23°22	26°40	T 16
W17	3 44 27	24°37'07	2♊33	7° 8	11°37	28°47	14°50	7°40	24°11	20°37	16°36	4°21	5°43	23°29	26°37	W17
T 18	3 48 23	25°37'31	16° 0	8°32	12°35	29°26	14°46	7°46	24°15	20°35	16°38	4°22	5°40	23°36	26°35	T 18
F 19	3 52 20	26°37'56	29° 4	9°58	13°33	0♊ 5	14°42	7°52	24°18	20°34	16°40	4°R22	5°37	23°42	26°32	F 19
S 20	3 56 16	27°38'22	11♊47	11°27	14°31	0°44	14°38	7°58	24°21	20°32	16°42	4°21	5°34	23°49	26°30	S 20
S 21	4 0 13	28°38'50	24°13	12°56	15°28	1°24	14°34	8° 4	24°25	20°31	16°44	4°18	5°30	23°56	26°28	S 21
M22	4 4 9	29°39'19	6°Y26	14°26	16°24	2° 3	14°31	8°10	24°28	20°29	16°46	4°14	5°27	24° 2	26°26	M22
T 23	4 8 6	0♊39'49	18°29	15°58	17°20	2°42	14°27	8°16	24°31	20°28	16°48	4° 9	5°24	24° 9	26°23	T 23
W24	4 12 3	1°40'21	0♉25	17°30	18°15	3°22	14°24	8°22	24°34	20°26	16°49	4° 2	5°21	24°16	26°21	W24
T 25	4 15 59	2°40'54	12°18	19° 2	19°10	4° 1	14°21	8°28	24°38	20°24	16°51	3°56	5°18	24°22	26°19	T 25
F 26	4 19 56	3°41'28	24° 8	20°35	20° 4	4°40	14°18	8°34	24°41	20°23	16°53	3°51	5°15	24°29	26°17	F 26
S 27	4 23 52	4°42'04	5♊58	22° 9	20°58	5°20	14°15	8°41	24°44	20°21	16°55	3°47	5°11	24°36	26°15	S 27
S 28	4 27 49	5°42'41	17°50	23°42	21°51	5°59	14°13	8°47	24°47	20°20	16°56	3°44	5° 8	24°42	26°13	S 28
M29	4 31 45	6°43'20	29°45	25°16	22°43	6°38	14°11	8°53	24°50	20°18	16°58	3°D43	5° 5	24°49	26°11	M29
T 30	4 35 42	7°44'00	11♊46	26♊50	23♉35	7♊18	14°Y 9	9♉ 0	24°53	20♊16	17♊ 0	3♉43	5♉ 2	24°56	26°Y 9	T 30

Delta T = 189.32 sec

DECEMBER 2224

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	4 39 39	8♊44'42	23♉56	28♊24	24♉25	7♊57	14°R 7	9♉ 6	24♊56	20°R15	17♊ 1	3♉44	4♉59	25♉ 3	26°R 7	W 1
T 2	4 43 35	9°45'25	6♊17	29°58	25°16	8°37	14°Y 5	9°12	24°59	20♊13	17° 3	3°46	4°55	25° 9	26°Y 5	T 2
F 3	4 47 32	10°46'10	18°53	1♊32	26° 5	9°16	14° 4	9°19	25° 2	20°11	17° 5	3°48	4°52	25°16	26° 3	F 3
S 4	4 51 28	11°46'56	1♊47	3° 6	26°53	9°56	14° 3	9°25	25° 5	20°10	17° 6	3°49	4°49	25°23	26° 2	S 4
S 5	4 55 25	12°47'43	15° 4	4°40	27°41	10°35	14° 2	9°32	25° 8	20° 8	17° 8	3°R49	4°46	25°29	26° 0	S 5
M 6	4 59 21	13°48'32	28°44	6°15	28°27	11°15	14° 1	9°39	25°11	20° 6	17° 9	3°48	4°43	25°36	25°58	M 6
T 7	5 3 18	14°49'23	12♊50	7°49	29°13	11°54	14° 1	9°45	25°14	20° 5	17°11	3°47	4°40	25°43	25°57	T 7
W 8	5 7 14	15°50'15	27°20	9°23	29°58	12°34	14° 0	9°52	25°16	20° 3	17°12	3°45	4°36	25°49	25°55	W 8
T 9	5 11 11	16°51'08	12♊10	10°57	0♊42	13°14	14°D 0	9°59	25°19	20° 1	17°14	3°42	4°33	25°56	25°53	T 9
F 10	5 15 8	17°52'03	27°14	12°31	1°24	13°53	14° 0	10° 5	25°22	19°59	17°15	3°40	4°30	26° 3	25°52	F 10
S 11	5 19 4	18°52'58	12♊24	14° 5	2° 6	14°33	14° 0	10°12	25°24	19°58	17°16	3°39	4°27	26° 9	25°50	S 11
S 12	5 23 1	19°53'55	27°29	15°39	2°47	15°13	14° 1	10°19	25°27	19°56	17°18	3°D38	4°24	26°16	25°49	S 12
M13	5 26 57	20°54'53	12♉20	17°13	3°26	15°52	14° 2	10°26	25°29	19°54	17°19	3°38	4°21	26°23	25°48	M13
T 14	5 30 54	21°55'51	26°51	18°47	4° 4	16°32	14° 2	10°32	25°32	19°53	17°20	3°39	4°17	26°29	25°46	T 14
W15	5 34 50	22°56'51	10♊56	20°21	4°41	17°12	14° 4	10°39	25°34	19°51	17°22	3°40	4°14	26°36	25°45	W15
T 16	5 38 47	23°57'50	24°35	21°55	5°16	17°51	14° 5	10°46	25°37	19°49	17°23	3°41	4°11	26°43	25°44	T 16
F 17	5 42 43	24°58'51	7♊47	23°30	5°50	18°31	14° 6	10°53	25°39	19°48	17°24	3°42	4° 8	26°49	25°43	F 17
S 18	5 46 40	25°59'51	20°35	25° 4	6°23	19°11	14° 8	11° 0	25°42	19°46	17°25	3°R42	4° 5	26°56	25°42	S 18
S 19	5 50 37	27° 0'53	3°Y 3	26°38	6°54	19°51	14°10	11° 7	25°44	19°44	17°26	3°42	4° 1	27° 3	25°41	S 19
M20	5 54 33	28° 1'54	15°14	28°13	7°23	20°30	14°12	11°14	25°46	19°42	17°27	3°42	3°58	27° 9	25°40	M20
T 21	5 58 30	29° 2'56	27°14	29°48	7°51	21°10	14°15	11°21	25°48	19°41	17°28	3°41	3°55	27°16	25°39	T 21
W22	6 2 26	0♉ 3'59	9♉ 7	1♉22	8°17	21°50	14°17	11°28	25°50	19°39	17°29	3°41	3°52	27°23	25°38	W22
T 23	6 6 23	1° 5'02	20°56	2°57	8°41	22°30	14°20	11°35	25°53	19°37	17°30	3°40	3°49	27°29	25°37	T 23
F 24	6 10 19	2° 6'05	2♊46	4°32	9° 4	23°10	14°23	11°42	25°55	19°36	17°31	3°40	3°46	27°36	25°37	F 24
S 25	6 14 16	3° 7'09	14°38	6° 8	9°24	23°50	14°26	11°49	25°57	19°34	17°32	3°40	3°42	27°43	25°36	S 25
S 26	6 18 12	4° 8'13	26°36	7°43	9°43	24°30	14°29	11°56	25°59	19°33	17°33	3°D40	3°39	27°49	25°35	S 26
M27	6 22 9	5° 9'18	8♉41	9°19	9°59	25°10	14°33	12° 3	26° 1	19°31	17°34	3°R40	3°36	27°56	25°35	M27
T 28	6 26 6	6°10'23	20°55	10°55	10°14	25°50	14°37	12°10	26° 2	19°29	17°35	3°40	3°33	28° 3	25°34	T 28
W29	6 30 2	7°11'28	3♊20	12°31	10°26	26°29	14°41	12°17	26° 4	19°28	17°36	3°39	3°30	28° 9	25°34	W29
T 30	6 33 59	8°12'34	15°56	14° 7	10°36	27° 9	14°45	12°24	26° 6	19°26	17°36	3°39	3°27	28°16	25°33	T 30
F 31	6 37 55	9♉13'41	28♊46	15♉44	10♊44	27♊49	14°Y49	12♉31	26♊ 8	19♊25	17♊37	3♉38	3♉23	28♉23	25°Y33	F 31

Delta T = 189.42 sec