



# Astrodienst Ephemeris Tables for the year 1424

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 1424

geocentric

JANUARY 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	7 13 26	18°53'03	6°8	20°R41	25°24	29°10	16°19	4°38	23°33	29°R45	29°R 2	15°12	15°4	16°59	10°1	S 1
S 2	7 17 23	19°54'10	18°39	19°24	25°43	29°56	16°23	4°41	23°35	29°R44	29°R 1	15°R12	15° 1	17° 6	10° 5	S 2
M 3	7 21 19	20°55'17	18°23	18° 6	26° 0	0°41	16°27	4°45	23°37	29°42	29° 0	15°11	14°58	17°13	10° 9	M 3
T 4	7 25 16	21°56'23	14°21	16°50	26°14	1°26	16°31	4°48	23°39	29°40	28°58	15°11	14°55	17°19	10°14	T 4
W 5	7 29 12	22°57'29	27°33	15°38	26°26	2°11	16°35	4°51	23°41	29°39	28°57	15°10	14°52	17°26	10°18	W 5
T 6	7 33 9	23°58'33	10°58	14°32	26°37	2°56	16°38	4°54	23°43	29°37	28°56	15° 9	14°48	17°33	10°22	T 6
F 7	7 37 5	24°59'36	24°36	13°34	26°44	3°42	16°41	4°57	23°45	29°35	28°55	15° 8	14°45	17°39	10°27	F 7
S 8	7 41 2	26° 0'38	8°24	12°43	26°50	4°27	16°44	5° 0	23°47	29°34	28°54	15° 7	14°42	17°46	10°31	S 8
S 9	7 44 58	27° 1'39	22°23	12° 1	26°53	5°12	16°47	5° 3	23°49	29°32	28°53	15°D 6	14°39	17°53	10°35	S 9
M10	7 48 55	28° 2'39	6°32	11°29	26°R54	5°58	16°49	5° 6	23°51	29°30	28°52	15° 6	14°36	18° 0	10°40	M10
T 11	7 52 52	29° 3'38	20°47	11° 5	26°52	6°43	16°52	5° 8	23°54	29°29	28°51	15° 7	14°33	18° 6	10°44	T 11
W12	7 56 48	0°43'5	5°11	10°50	26°47	7°29	16°54	5°11	23°56	29°27	28°50	15° 8	14°29	18°13	10°48	W12
T 13	8 0 45	1° 5'32	19°29	10°D43	26°40	8°14	16°56	5°13	23°58	29°25	28°49	15° 9	14°26	18°20	10°53	T 13
F 14	8 4 41	2° 6'27	3°49	10°45	26°31	9° 0	16°58	5°15	24° 1	29°23	28°48	15°10	14°23	18°26	10°57	F 14
S 15	8 8 38	3° 7'21	18° 2	10°53	26°19	9°45	17° 0	5°18	24° 3	29°22	28°47	15°R11	14°20	18°33	11° 2	S 15
S 16	8 12 34	4° 8'13	2°4	11° 9	26° 4	10°31	17° 1	5°20	24° 6	29°20	28°46	15°10	14°17	18°40	11° 6	S 16
M17	8 16 31	5° 9'05	15°51	11°31	25°47	11°17	17° 3	5°22	24° 8	29°18	28°45	15° 8	14°13	18°46	11°11	M17
T 18	8 20 27	6° 9'55	29°19	11°59	25°28	12° 2	17° 4	5°24	24°11	29°17	28°44	15° 5	14°10	18°53	11°15	T 18
W19	8 24 24	7°10'44	12°28	12°32	25° 6	12°48	17° 5	5°25	24°13	29°15	28°43	15° 2	14° 7	19° 0	11°20	W19
T 20	8 28 21	8°11'32	25°17	13°10	24°42	13°34	17° 6	5°27	24°16	29°13	28°42	14°58	14° 4	19° 7	11°24	T 20
F 21	8 32 17	9°12'20	7°47	13°52	24°16	14°20	17° 6	5°29	24°18	29°12	28°41	14°55	14° 1	19°13	11°29	F 21
S 22	8 36 14	10°13'06	20° 0	14°39	23°47	15° 5	17° 7	5°30	24°21	29°10	28°40	14°52	13°58	19°20	11°33	S 22
S 23	8 40 10	11°13'51	2°11	15°29	23°17	15°51	17° 7	5°32	24°24	29° 8	28°39	14°50	13°54	19°27	11°37	S 23
M24	8 44 7	12°14'35	13°56	16°23	22°46	16°37	17°R 7	5°33	24°26	29° 7	28°39	14°D50	13°51	19°33	11°42	M24
T 25	8 48 3	13°15'18	25°46	17°20	22°12	17°23	17° 7	5°34	24°29	29° 5	28°38	14°51	13°48	19°40	11°46	T 25
W26	8 52 0	14°15'59	7°39	18°20	21°38	18° 9	17° 6	5°35	24°32	29° 3	28°37	14°52	13°45	19°47	11°51	W26
T 27	8 55 56	15°16'40	19°39	19°22	21° 2	18°55	17° 6	5°36	24°35	29° 2	28°36	14°54	13°42	19°53	11°55	T 27
F 28	8 59 53	16°17'20	1°49	20°27	20°26	19°41	17° 5	5°37	24°38	29° 0	28°35	14°56	13°39	20° 0	12° 0	F 28
S 29	9 3 50	17°17'58	14°15	21°34	19°49	20°27	17° 4	5°38	24°40	28°59	28°35	14°R56	13°35	20° 7	12° 4	S 29
S 30	9 7 46	18°18'35	26°59	22°43	19°12	21°13	17° 3	5°38	24°43	28°57	28°34	14°56	13°32	20°14	12° 9	S 30
M31	9 11 43	19°19'10	10°1	23°54	18°34	21°59	17° 2	5°39	24°46	28°56	28°33	14°53	13°29	20°12	12°13	M31

Delta T = 07m14s

Julian Calendar 1 Jan. 1424 == Greg. Calendar 10 Jan. 1424

FEBRUARY 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	9 15 39	20°19'44	23°23	25°7	17°R57	22°45	17°R 0	5°39	24°49	28°R54	28°R32	14°R49	13°26	20°12	12°18	T 1
W 2	9 19 36	21°20'16	7°2	26°22	17°20	23°31	16°58	5°40	24°52	28°52	28°R32	14°44	13°23	20°34	12°22	W 2
T 3	9 23 32	22°20'47	20°55	27°38	16°44	24°17	16°57	5°40	24°55	28°51	28°31	14°37	13°19	20°40	12°26	T 3
F 4	9 27 29	23°21'16	4°59	28°56	16° 9	25° 3	16°54	5°40	24°58	28°49	28°30	14°31	13°16	20°47	12°31	F 4
S 5	9 31 25	24°21'43	19° 9	0°15	15°35	25°50	16°52	5°R40	25° 1	28°48	28°30	14°26	13°13	20°54	12°35	S 5
S 6	9 35 22	25°22'08	3°22	1°36	15° 2	26°36	16°50	5°40	25° 4	28°46	28°29	14°22	13°10	21° 0	12°40	S 6
M 7	9 39 19	26°22'31	17°34	2°58	14°31	27°22	16°47	5°40	25° 7	28°45	28°29	14°20	13° 7	21° 7	12°44	M 7
T 8	9 43 15	27°22'52	1°43	4°21	14° 1	28° 8	16°44	5°40	25°11	28°43	28°28	14°D20	13° 4	21°14	12°48	T 8
W 9	9 47 12	28°23'11	15°47	5°46	13°34	28°55	16°41	5°39	25°14	28°42	28°28	14°21	13° 0	21°20	12°53	W 9
T 10	9 51 8	29°23'28	29°46	7°12	13° 8	29°41	16°38	5°39	25°17	28°41	28°27	14°22	12°57	21°27	12°57	T 10
F 11	9 55 5	0°23'43	13°38	8°39	12°45	0°27	16°35	5°38	25°20	28°39	28°27	14°R23	12°54	21°34	13° 1	F 11
S 12	9 59 1	1°23'56	27°23	10° 7	12°24	1°13	16°31	5°38	25°23	28°38	28°26	14°22	12°51	21°41	13° 6	S 12
S 13	10 2 58	2°24'07	10°58	11°36	12° 5	2° 0	16°28	5°37	25°26	28°36	28°26	14°19	12°48	21°47	13°10	S 13
M14	10 6 54	3°24'16	24°22	13° 7	11°48	2°46	16°24	5°36	25°30	28°35	28°25	14°14	12°44	21°54	13°14	M14
T 15	10 10 51	4°24'23	7°33	14°38	11°34	3°32	16°20	5°35	25°33	28°34	28°25	14° 6	12°41	22° 1	13°18	T 15
W16	10 14 48	5°24'28	20°30	16°11	11°23	4°19	16°16	5°34	25°36	28°33	28°24	13°57	12°38	22° 7	13°23	W16
T 17	10 18 44	6°24'32	3°11	17°45	11°14	5° 5	16°11	5°33	25°39	28°31	28°24	13°47	12°35	22°14	13°27	T 17
F 18	10 22 41	7°24'33	15°37	19°20	11° 7	5°52	16° 7	5°32	25°43	28°30	28°24	13°38	12°32	22°21	13°31	F 18
S 19	10 26 37	8°24'33	27°50	20°56	11° 3	6°38	16° 2	5°30	25°46	28°29	28°23	13°29	12°29	22°27	13°35	S 19
S 20	10 30 34	9°24'31	9°51	22°33	11°D 2	7°25	15°57	5°29	25°49	28°28	28°23	13°23	12°25	22°34	13°39	S 20
M21	10 34 30	10°24'28	21°44	24°12	11° 2	8°11	15°52	5°27	25°53	28°26	28°23	13°18	12°22	22°41	13°43	M21
T 22	10 38 27	11°24'23	3°34	25°51	11° 6	8°57	15°47	5°26	25°56	28°25	28°22	13°16	12°19	22°47	13°47	T 22
W23	10 42 23	12°24'16	15°26	27°32	11°11	9°44	15°42	5°24	25°59	28°24	28°22	13°D16	12°16	22°54	13°51	W23
T 24	10 46 20	13°24'08	27°25	29°13	11°19	10°30	15°36	5°22	26° 3	28°23	28°22	13°16	12°13	23° 1	13°55	T 24
F 25	10 50 16	14°23'57	9°36	0°56	11°29	11°17	15°31	5°20	26° 6	28°22	28°22	13°R17	12°10	23° 8	13°59	F 25
S 26	10 54 13	15°23'46	22° 4	2°40	11°41	12° 3	15°25	5°18	26°10	28°21	28°22	13°17	12° 6	23°14	14° 3	S 26
S 27	10 58 10	16°23'32	4°53	4°26	11°56	12°50	15°19	5°16	26°13	28°20	28°22	13°15	12° 3	23°21	14° 7	S 27
M28	11 2 6	17°23'16	18° 6	6°12	12°12	13°37	15°13	5°14	26°16	28°19	28°21	13°10	12° 0	23°28	14°11	M28
T 29	11 6 3	18°22'59	1°44	8°11	12°30	14°23	15° 7	5°11	26°19	28°18	28°21	13° 3	11°57	23°34	14°15	T 29

Delta T = 07m14s

Julian Calendar

## ASTRODIENST EPHEMERIS for the year 1424

geocentric

MARCH 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	11 9 59	19°22'39	15°45	9°49	12°51	15°10	15°R 1	5°R 9	26°23	28°R17	28°R21	12°R53	11°54	23°41	14°19	W 1
T 2	11 13 56	20°22'18	0°Y 5	11°39	13°13	15°56	14°55	5°M 6	26°27	28°516	28°I21	12°543	11°50	23°48	14°23	T 2
F 3	11 17 52	21°21'54	14°37	13°31	13°37	16°43	14°48	5° 4	26°30	28°15	28°21	12°32	11°47	23°54	14°27	F 3
S 4	11 21 49	22°21'29	29°15	15°23	14° 2	17°29	14°42	5° 1	26°33	28°14	28°D21	12°22	11°44	24° 1	14°30	S 4
S 5	11 25 45	23°21'01	13°51	17°17	14°29	18°16	14°35	4°58	26°37	28°13	28°21	12°15	11°41	24° 8	14°34	S 5
M 6	11 29 42	24°20'31	28°20	19°12	14°58	19° 3	14°28	4°56	26°40	28°13	28°21	12°10	11°38	24°14	14°38	M 6
T 7	11 33 39	25°19'58	12°I37	21° 9	15°28	19°49	14°21	4°53	26°44	28°12	28°21	12° 8	11°35	24°21	14°41	T 7
W 8	11 37 35	26°19'23	26°40	23° 6	16° 0	20°36	14°14	4°50	26°47	28°11	28°21	12°D 7	11°31	24°28	14°45	W 8
T 9	11 41 32	27°18'46	10°529	25° 5	16°33	21°22	14° 7	4°47	26°51	28°10	28°22	12°R 7	11°28	24°34	14°48	T 9
F 10	11 45 28	28°18'07	24° 5	27° 4	17° 8	22° 9	14° 0	4°44	26°54	28°10	28°22	12° 7	11°25	24°41	14°52	F 10
S 11	11 49 25	29°17'25	7°Q28	29° 5	17°44	22°55	13°53	4°40	26°57	28° 9	28°22	12° 5	11°22	24°48	14°55	S 11
S 12	11 53 21	0°Y16'41	20°40	1°Y 7	18°21	23°42	13°46	4°37	27° 1	28° 8	28°22	12° 0	11°19	24°55	14°59	S 12
M13	11 57 18	1°15'54	3°M40	3° 9	18°59	24°29	13°39	4°34	27° 4	28° 8	28°22	11°52	11°16	25° 1	15° 2	M13
T 14	12 1 14	2°15'05	16°30	5°12	19°38	25°15	13°31	4°30	27° 8	28° 7	28°22	11°41	11°12	25° 8	15° 6	T 14
W15	12 5 11	3°14'14	29° 9	7°16	20°19	26° 2	13°24	4°27	27°11	28° 7	28°23	11°29	11° 9	25°15	15° 9	W15
T 16	12 9 8	4°13'21	11°A37	9°19	21° 0	26°48	13°16	4°23	27°15	28° 6	28°23	11°15	11° 6	25°21	15°12	T 16
F 17	12 13 4	5°12'26	23°54	11°23	21°43	27°35	13° 9	4°20	27°18	28° 6	28°23	11° 1	11° 3	25°28	15°15	F 17
S 18	12 17 1	6°11'29	6°M 0	13°27	22°27	28°21	13° 1	4°16	27°21	28° 5	28°24	10°49	11° 0	25°35	15°19	S 18
S 19	12 20 57	7°10'30	17°58	15°30	23°11	29° 8	12°54	4°12	27°25	28° 5	28°24	10°39	10°56	25°41	15°22	S 19
M20	12 24 54	8° 9'29	29°49	17°32	23°57	29°55	12°46	4° 9	27°28	28° 5	28°24	10°32	10°53	25°48	15°25	M20
T 21	12 28 50	9° 8'27	11°X38	19°33	24°43	0°K41	12°38	4° 5	27°31	28° 4	28°25	10°27	10°50	25°55	15°28	T 21
W22	12 32 47	10° 7'22	23°28	21°33	25°30	1°28	12°31	4° 1	27°35	28° 4	28°25	10°25	10°47	26° 1	15°31	W22
T 23	12 36 43	11° 6'16	5°Z25	23°31	26°18	2°14	12°23	3°57	27°38	28° 4	28°26	10°24	10°44	26° 8	15°34	T 23
F 24	12 40 40	12° 5'08	17°34	25°26	27° 7	3° 1	12°15	3°53	27°42	28° 4	28°26	10°24	10°41	26°15	15°37	F 24
S 25	12 44 37	13° 3'59	29°59	27°20	27°57	3°47	12° 7	3°49	27°45	28° 3	28°27	10°24	10°37	26°21	15°40	S 25
S 26	12 48 33	14° 2'47	12°A48	29°10	28°47	4°34	12° 0	3°45	27°48	28° 3	28°27	10°21	10°34	26°28	15°43	S 26
M27	12 52 30	15° 1'34	26° 3	0°B56	29°38	5°20	11°52	3°41	27°52	28° 3	28°28	10°17	10°31	26°35	15°45	M27
T 28	12 56 26	16° 0'19	9°H46	2°40	0°K30	6° 7	11°44	3°37	27°55	28° 3	28°28	10° 9	10°28	26°41	15°48	T 28
W29	13 0 23	16°59'02	23°57	4°19	1°22	6°53	11°37	3°32	27°58	28° 3	28°29	10° 0	10°25	26°48	15°51	W29
T 30	13 4 19	17°57'44	8°Y33	5°55	2°15	7°40	11°29	3°28	28° 1	28° 3	28°29	9°48	10°21	26°55	15°53	T 30
F 31	13 8 16	18°Y56'23	23°Y25	7°B26	3°H 8	8°H26	11°A21	3°M24	28°H 5	28°D 3	28°I30	9°537	10°518	27°M 2	15°56	F 31

Delta T = 07m14s

Julian Calendar 1 March 1424 == Greg. Calendar 10 March 1424

APRIL 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	13 12 12	19°Y55'00	8°B26	8°B52	4°H 3	9°H13	11°R14	3°R19	28°H 8	28°5 3	28°I31	9°R27	10°515	27°M 8	15°558	S 1
S 2	13 16 9	20°53'36	23°26	10°14	4°57	9°59	11°A 6	3°M15	28°11	28° 3	28°31	9°519	10°12	27°15	16° 1	S 2
M 3	13 20 5	21°52'09	8°I16	11°32	5°52	10°45	10°59	3°11	28°14	28° 3	28°32	9°13	10° 9	27°22	16° 3	M 3
T 4	13 24 2	22°50'40	22°49	12°44	6°48	11°32	10°51	3° 6	28°18	28° 3	28°33	9°10	10° 6	27°28	16° 6	T 4
W 5	13 27 59	23°49'09	7°5 3	13°51	7°44	12°18	10°44	3° 2	28°21	28° 3	28°33	9°D10	10° 2	27°35	16° 8	W 5
T 6	13 31 55	24°47'36	20°55	14°53	8°40	13° 4	10°37	2°58	28°24	28° 4	28°34	9°R10	9°59	27°42	16°10	T 6
F 7	13 35 52	25°46'01	4°Q28	15°49	9°37	13°51	10°29	2°53	28°27	28° 4	28°35	9° 9	9°56	27°48	16°12	F 7
S 8	13 39 48	26°44'23	17°41	16°41	10°35	14°37	10°22	2°49	28°30	28° 4	28°36	9° 8	9°53	27°55	16°15	S 8
S 9	13 43 45	27°42'43	0°M39	17°27	11°33	15°23	10°15	2°44	28°33	28° 4	28°36	9° 4	9°50	28° 2	16°17	S 9
M10	13 47 41	28°41'02	13°24	18° 7	12°31	16° 9	10° 8	2°40	28°36	28° 5	28°37	8°57	9°47	28° 8	16°19	M10
T 11	13 51 38	29°39'18	25°56	18°42	13°29	16°56	10° 1	2°35	28°40	28° 5	28°38	8°48	9°43	28°15	16°21	T 11
W12	13 55 34	0°B37'32	8°A19	19°11	14°29	17°42	9°54	2°31	28°43	28° 5	28°39	8°36	9°40	28°22	16°23	W12
T 13	13 59 31	1°35'44	20°32	19°35	15°28	18°28	9°48	2°26	28°46	28° 6	28°40	8°24	9°37	28°28	16°24	T 13
F 14	14 3 28	2°33'54	2°M38	19°54	16°28	19°14	9°41	2°22	28°49	28° 6	28°41	8°12	9°34	28°35	16°26	F 14
S 15	14 7 24	3°32'03	14°36	20° 6	17°28	20° 0	9°35	2°17	28°52	28° 7	28°42	8° 1	9°31	28°42	16°28	S 15
S 16	14 11 21	4°30'10	26°29	20°14	18°28	20°46	9°28	2°13	28°54	28° 7	28°43	7°52	9°27	28°48	16°30	S 16
M17	14 15 17	5°28'15	8°A18	20°R16	19°29	21°32	9°22	2° 8	28°57	28° 8	28°43	7°46	9°24	28°55	16°31	M17
T 18	14 19 14	6°26'19	20° 7	20°13	20°30	22°18	9°16	2° 3	29° 0	28° 8	28°44	7°42	9°21	29° 2	16°33	T 18
W19	14 23 10	7°24'22	1°57	20° 5	21°31	23° 4	9° 9	1°59	29° 3	28° 9	28°45	7°40	9°18	29° 8	16°34	W19
T 20	14 27 7	8°22'23	13°55	19°52	22°33	23°50	9° 3	1°55	29° 6	28°10	28°46	7°D40	9°15	29°15	16°36	T 20
F 21	14 31 3	9°20'22	26° 3	19°35	23°35	24°36	8°58	1°50	29° 9	28°10	28°47	7°41	9°12	29°22	16°37	F 21
S 22	14 35 0	10°18'21	8°A27	19°13	24°37	25°22	8°52	1°46	29°12	28°11	28°48	7°R41	9° 8	29°28	16°38	S 22
S 23	14 38 57	11°16'18	21°13	18°48	25°40	26° 8	8°46	1°41	29°14	28°12	28°50	7°41	9° 5	29°35	16°40	S 23
M24	14 42 53	12°14'13	4°H24	18°20	26°42	26°54	8°41	1°37	29°17	28°13	28°51	7°39	9° 2	29°42	16°41	M24
T 25	14 46 50	13°12'07	18° 3	17°50	27°45	27°40	8°36	1°32	29°20	28°13	28°52	7°34	8°59	29°49	16°42	T 25
W26	14 50 46	14°10'00	2°Y12	17°17	28°49	28°25	8°30	1°28	29°23	28°14	28°53	7°28	8°56	29°55	16°43	W26
T 27	14 54 43	15° 7'52	16°48	16°43	29°52	29°11	8°25	1°24	29°25	28°15	28°54	7°21	8°53	0°A 2	16°44	T 27
F 28	14 58 39	16° 5'42	1°B46	16° 8	0°Y56	29°57	8°20	1°19	29°28	28°16	28°55	7°13	8°49	0° 9	16°45	F 28
S 29	15 2 36	17° 3'31	16°56	15°32	2° 0	0°Y42	8°16	1°15	29°30	28°17	28°56	7° 5	8°46	0°15	16°46	S 29
S 30	15 6 32	18°B 1'19	2°I10	14°B57	3°Y 4	1°Y28	8°A11	1°M11	29°H33	28°518	28°I57	7°5 0	8°543	0°A22	16°47	S 30

Delta T = 07m14s

Julian Calendar

## ASTRODIENST EPHEMERIS for the year 1424

geocentric

MAY 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	15 10 29	18°59'05	17°11'16	14°R23	4°Y 8	2°Y14	8°R 7	1°R 7	29°J35	28°E19	28°II58	6°R56	8°E40	0°J29	16°E47	M 1
T 2	15 14 26	19°56'50	2°E 6	13°E50	5°13	2°59	8°E 3	1°E 2	29°38	28°20	29° 0	6°D55	8°37	0°35	16°48	T 2
W 3	15 18 22	20°54'33	16°34	13°20	6°17	3°45	7°58	0°58	29°40	28°21	29° 1	6°E55	8°33	0°42	16°49	W 3
T 4	15 22 19	21°52'14	0°J37	12°52	7°22	4°30	7°55	0°54	29°43	28°22	29° 2	6°56	8°30	0°49	16°49	T 4
F 5	15 26 15	22°49'54	14°16	12°27	8°27	5°16	7°51	0°50	29°45	28°23	29° 3	6°57	8°27	0°55	16°50	F 5
S 6	15 30 12	23°47'33	27°30	12° 5	9°32	6° 1	7°47	0°46	29°47	28°24	29° 5	6°R57	8°24	1° 2	16°50	S 6
S 7	15 34 8	24°45'09	10°J25	11°47	10°38	6°46	7°44	0°42	29°50	28°26	29° 6	6°56	8°21	1° 9	16°51	S 7
M 8	15 38 5	25°42'44	23° 2	11°34	11°43	7°31	7°40	0°38	29°52	28°27	29° 7	6°53	8°18	1°15	16°51	M 8
T 9	15 42 1	26°40'18	5°E24	11°24	12°49	8°17	7°37	0°35	29°54	28°28	29° 8	6°48	8°14	1°22	16°51	T 9
W10	15 45 58	27°37'50	17°36	11°18	13°55	9° 2	7°34	0°31	29°56	28°29	29°10	6°42	8°11	1°29	16°51	W10
T 11	15 49 55	28°35'21	29°39	11°D17	15° 1	9°47	7°32	0°27	29°59	28°31	29°11	6°35	8° 8	1°35	16°51	T 11
F 12	15 53 51	29°32'51	11°E35	11°20	16° 7	10°32	7°29	0°23	0°Y 1	28°32	29°12	6°29	8° 5	1°42	16°R51	F 12
S 13	15 57 48	0°II30'19	23°27	11°28	17°13	11°17	7°27	0°20	0° 3	28°33	29°14	6°23	8° 2	1°49	16°51	S 13
S 14	16 1 44	1°27'47	5°J17	11°41	18°20	12° 2	7°25	0°16	0° 5	28°35	29°15	6°18	7°58	1°55	16°51	S 14
M15	16 5 41	2°25'13	17° 6	11°57	19°26	12°47	7°22	0°13	0° 7	28°36	29°16	6°14	7°55	2° 2	16°51	M15
T 16	16 9 37	3°22'39	28°57	12°19	20°33	13°32	7°21	0° 9	0° 9	28°37	29°18	6°13	7°52	2° 9	16°51	T 16
W17	16 13 34	4°20'04	10°E52	12°44	21°40	14°17	7°19	0° 6	0°11	28°39	29°19	6°D13	7°49	2°15	16°51	W17
T 18	16 17 30	5°17'27	22°54	13°14	22°47	15° 1	7°17	0° 3	0°13	28°40	29°20	6°14	7°46	2°22	16°51	T 18
F 19	16 21 27	6°14'51	5°E 7	13°48	23°54	15°46	7°16	29°E59	0°14	28°42	29°22	6°15	7°43	2°29	16°50	F 19
S 20	16 25 24	7°12'13	17°35	14°26	25° 1	16°31	7°15	29°56	0°16	28°43	29°23	6°17	7°39	2°35	16°50	S 20
S 21	16 29 20	8° 9'35	0°J20	15° 8	26° 9	17°15	7°14	29°53	0°18	28°45	29°24	6°18	7°36	2°42	16°49	S 21
M22	16 33 17	9° 6'56	13°29	15°54	27°16	18° 0	7°13	29°50	0°20	28°46	29°26	6°R18	7°33	2°49	16°49	M22
T 23	16 37 13	10° 4'17	27° 2	16°44	28°24	18°44	7°13	29°47	0°21	28°48	29°27	6°17	7°30	2°55	16°48	T 23
W24	16 41 10	11° 1'37	11°Y 2	17°38	29°32	19°29	7°12	29°45	0°23	28°50	29°29	6°15	7°27	3° 2	16°47	W24
T 25	16 45 6	11°58'57	25°27	18°35	0°E40	20°13	7°12	29°42	0°25	28°51	29°30	6°12	7°24	3° 9	16°47	T 25
F 26	16 49 3	12°56'16	10°E15	19°36	1°48	20°58	7°D12	29°39	0°26	28°53	29°32	6° 9	7°20	3°15	16°46	F 26
S 27	16 52 59	13°53'35	25°19	20°40	2°56	21°42	7°12	29°37	0°28	28°54	29°33	6° 6	7°17	3°22	16°45	S 27
S 28	16 56 56	14°50'54	10°II31	21°48	4° 4	22°26	7°12	29°34	0°29	28°56	29°34	6° 4	7°14	3°29	16°44	S 28
M29	17 0 53	15°48'12	25°40	23° 0	5°12	23°10	7°13	29°32	0°30	28°58	29°36	6° 3	7°11	3°35	16°43	M29
T 30	17 4 49	16°45'29	10°E37	24°14	6°20	23°54	7°13	29°29	0°32	29° 0	29°37	6°D 3	7° 8	3°42	16°42	T 30
W31	17 8 46	17°II42'46	25°E15	25°E32	7°E29	24°Y38	7°E14	29°E27	0°Y33	29°E 1	29°II39	6°E 3	7°E 4	3°E49	16°E41	W31

Delta T = 07m14s

Julian Calendar 1 May 1424 == Greg. Calendar 10 May 1424

JUNE 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	17 12 42	18°II40'01	9°E29	26°E53	8°E37	25°Y22	7°E15	29°R25	0°Y34	29°E 3	29°II40	6°E 4	7°E 1	3°E55	16°R40	T 1
F 2	17 16 39	19°37'16	23°16	28°17	9°46	26° 6	7°16	29°E23	0°36	29° 5	29°42	6° 6	6°58	4° 2	16°E38	F 2
S 3	17 20 35	20°34'31	6°J38	29°45	10°55	26°50	7°18	29°21	0°37	29° 7	29°43	6° 7	6°55	4° 9	16°37	S 3
S 4	17 24 32	21°31'44	19°35	1°II16	12° 3	27°34	7°19	29°19	0°38	29° 9	29°45	6°R 7	6°52	4°15	16°36	S 4
M 5	17 28 29	22°28'57	2°E12	2°50	13°12	28°17	7°21	29°17	0°39	29°10	29°46	6° 7	6°49	4°22	16°34	M 5
T 6	17 32 25	23°26'09	14°32	4°27	14°21	29° 1	7°23	29°15	0°40	29°12	29°48	6° 6	6°45	4°29	16°33	T 6
W 7	17 36 22	24°23'21	26°38	6° 7	15°30	29°44	7°25	29°13	0°41	29°14	29°49	6° 5	6°42	4°35	16°31	W 7
T 8	17 40 18	25°20'32	8°E36	7°50	16°39	0°E28	7°27	29°12	0°42	29°16	29°51	6° 3	6°39	4°42	16°30	T 8
F 9	17 44 15	26°17'42	20°27	9°36	17°49	1°11	7°30	29°10	0°43	29°18	29°52	6° 2	6°36	4°49	16°28	F 9
S 10	17 48 11	27°14'53	2°J17	11°25	18°58	1°54	7°32	29° 9	0°44	29°20	29°54	6° 1	6°33	4°55	16°27	S 10
S 11	17 52 8	28°12'03	14° 6	13°16	20° 7	2°38	7°35	29° 8	0°45	29°22	29°55	6° 0	6°30	5° 2	16°25	S 11
M12	17 56 4	29° 9'13	25°58	15°11	21°17	3°21	7°38	29° 7	0°45	29°24	29°57	5°59	6°26	5° 9	16°23	M12
T 13	18 0 1	0°E 6'22	7°E55	17° 8	22°26	4° 4	7°41	29° 6	0°46	29°26	29°58	5°D59	6°23	5°15	16°21	T 13
W14	18 3 58	1° 3'32	19°59	19° 7	23°36	4°47	7°44	29° 5	0°47	29°28	29°59	5°59	6°20	5°22	16°19	W14
T 15	18 7 54	2° 0'42	2°E12	21° 8	24°46	5°30	7°48	29° 4	0°47	29°30	0°E 1	6° 0	6°17	5°29	16°17	T 15
F 16	18 11 51	2°57'51	14°37	23°12	25°55	6°13	7°51	29° 3	0°48	29°32	0° 3	6° 0	6°14	5°35	16°15	F 16
S 17	18 15 47	3°55'01	27°14	25°17	27° 5	6°56	7°55	29° 2	0°48	29°34	0° 4	6° 0	6°10	5°42	16°13	S 17
S 18	18 19 44	4°52'11	10°J 8	27°24	28°15	7°38	7°59	29° 2	0°49	29°36	0° 6	6° 0	6° 7	5°49	16°11	S 18
M19	18 23 40	5°49'22	23°19	29°32	29°25	8°21	8° 3	29° 1	0°49	29°38	0° 7	6°R 0	6° 4	5°55	16° 9	M19
T 20	18 27 37	6°46'32	6°Y50	19°E40	0°II35	9° 4	8° 7	29° 1	0°50	29°40	0° 8	6°D 0	6° 1	6° 2	16° 7	T 20
W21	18 31 33	7°43'43	20°42	3°50	1°45	9°46	8°12	29° 0	0°50	29°42	0°10	6° 0	5°58	6° 9	16° 5	W21
T 22	18 35 30	8°40'55	4°E54	6° 0	2°56	10°28	8°16	29° 0	0°50	29°44	0°11	6° 1	5°55	6°15	16° 3	T 22
F 23	18 39 27	9°38'07	19°25	8° 9	4° 6	11°11	8°21	29° 0	0°51	29°46	0°13	6° 1	5°51	6°22	16° 0	F 23
S 24	18 43 23	10°35'20	4°II11	10°19	5°16	11°53	8°26	29°D 0	0°51	29°49	0°14	6° 1	5°48	6°29	15°58	S 24
S 25	18 47 20	11°32'33	19° 6	12°28	6°27	12°35	8°31	29° 0	0°51	29°51	0°16	6° 2	5°45	6°35	15°56	S 25
M26	18 51 16	12°29'47	4°E 3	14°36	7°37	13°17	8°36	29° 0	0°51	29°53	0°17	6°R 2	5°42	6°42	15°53	M26
T 27	18 55 13	13°27'01	18°53	16°43	8°48	13°59	8°41	29° 0	0°R51	29°55	0°19	6° 2	5°39	6°49	15°51	T 27
W28	18 59 9	14°24'15	3°E30	18°50	9°58	14°41	8°47	29° 1	0°51	29°57	0°20	6° 1	5°36	6°55	15°48	W28
T 29	19 3 6	15°21'30	17°46	20°55	11° 9	15°23	8°53	29° 1	0°51	29°59	0°22	6° 0	5°32	7° 2	15°46	T 29
F 30	19 7 2	16°E18'44	1°J39	22°E58	12°II20	16°E 5	8°E58	29°E 2	0°Y51	0°E 1	0°E23	5°E59	5°E29	7°E 9	15°E43	F 30

Delta T = 07m13s

Julian Calendar

## ASTRODIENST EPHEMERIS for the year 1424

geocentric

JULY 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	19 10 59	17°15'59"	15°11' 6"	25°00' 0"	13°11'30"	16°08'46"	9°14' 4"	29°12' 2"	0°R51	0°14' 4"	0°25' 5"	5°R58	5°26' 6"	7°15' 15"	15°R40	S 1
S 2	19 14 56	18°13'14"	28° 8' 8"	27° 1' 14"	14°41' 17"	17°28' 9"	9°10' 29"	29° 3' 0"	0°Y50	0° 6' 0"	0°26' 5"	5°25' 5"	5°23' 7"	7°22' 15"	15°38' 38"	S 2
M 3	19 18 52	19°10'30"	10°12'47"	29° 0' 15"	15°52' 18"	18° 9' 9"	9°17' 29"	29° 4' 0"	0°50' 0"	0° 8' 0"	0°27' 5"	5°56' 5"	5°20' 7"	7°29' 15"	15°35' 35"	M 3
T 4	19 22 49	20° 7'45"	23° 8' 0"	0°15'57"	17° 3' 18"	18°50' 9"	9°23' 29"	29° 5' 0"	0°50' 0"	0°10' 0"	0°29' 5"	5°D56	5°16' 7"	7°35' 15"	15°32' 32"	T 4
W 5	19 26 45	21° 5'01"	5°11'14"	2°53' 18"	18°14' 19"	19°32' 9"	9°29' 29"	29° 6' 0"	0°50' 0"	0°12' 0"	0°30' 5"	5°56' 5"	5°13' 7"	7°42' 15"	15°30' 30"	W 5
T 6	19 30 42	22° 2'18"	17° 9' 4"	4°47' 19"	19°25' 20"	13° 9' 36"	9°36' 29"	29° 7' 0"	0°49' 0"	0°15' 0"	0°32' 5"	5°57' 5"	5°10' 7"	7°49' 15"	15°27' 27"	T 6
F 7	19 34 38	22°59'35"	29° 0' 6"	6°39' 20"	20°36' 20"	54° 9' 43"	29° 8' 0"	29° 8' 0"	0°49' 0"	0°17' 0"	0°33' 5"	5°59' 5"	5° 7' 7"	7°55' 15"	15°24' 24"	F 7
S 8	19 38 35	23°56'52"	10°12'49"	8°30' 21"	21°48' 21"	35° 9' 50"	29°10' 29"	29°10' 29"	0°48' 0"	0°19' 0"	0°34' 6"	6° 0' 5"	5° 4' 8"	8° 2' 15"	15°21' 21"	S 8
S 9	19 42 31	24°54'10"	22°40' 10"	10°18' 22"	22°59' 22"	16° 9' 57"	29°11' 29"	29°11' 29"	0°48' 0"	0°21' 0"	0°36' 6"	6° 1' 5"	5° 1' 8"	8° 9' 15"	15°18' 18"	S 9
M10	19 46 28	25°51'28"	4°33'38"	12° 6' 24"	24°10' 22"	56° 10' 4"	29°13' 29"	29°13' 29"	0°47' 0"	0°23' 0"	0°37' 6"	6°R 2	4°57' 8"	8°15' 15"	15°15' 15"	M10
T 11	19 50 25	26°48'47"	16°44' 13"	51° 13°51'	25°22' 23°37'	10°11' 10°11'	29°14' 29°14'	29°14' 29°14'	0°46' 0"	0°26' 0"	0°39' 6"	6° 1' 4"	4°54' 8"	8°22' 15"	15°13' 13"	T 11
W12	19 54 21	27°46'07"	29° 1' 15"	34° 26°33'	24°17' 10°18'	18°10' 29°16'	29°16' 29°16'	29°16' 29°16'	0°46' 0"	0°28' 0"	0°40' 6"	6° 0' 4"	4°51' 8"	8°29' 15"	15°10' 10"	W12
T 13	19 58 18	28°43'28"	11°11'30"	17°16' 27°45'	24°58' 10°26'	28°18' 29°18'	29°18' 29°18'	29°18' 29°18'	0°45' 0"	0°30' 0"	0°41' 5"	5°58' 4"	4°48' 8"	8°35' 15"	15° 7' 7"	T 13
F 14	20 2 14	29°40'50"	24°12' 18°57'	28°56' 25°38'	10°34' 29°20'	44° 29°20'	29°20' 29°20'	29°20' 29°20'	0°44' 0"	0°32' 0"	0°43' 5"	5°54' 4"	4°45' 8"	8°42' 15"	15° 4' 4"	F 14
S 15	20 6 11	0°138'12"	7°11' 8"	20°35' 0°58'	26°18' 10°41'	29°22' 29°22'	29°22' 29°22'	29°22' 29°22'	0°43' 0"	0°35' 0"	0°44' 5"	5°51' 4"	4°42' 8"	8°49' 15"	15° 1' 1"	S 15
S 16	20 10 7	1°35'36"	20°17' 22°12'	1°20' 26°59'	10°49' 29°24'	43° 29°24'	29°24' 29°24'	29°24' 29°24'	0°43' 0"	0°37' 0"	0°45' 5"	5°47' 4"	4°38' 9"	8°55' 14"	15°58' 58"	S 16
M17	20 14 4	2°33'00"	3°Y41'	23°47' 2°31'	27°39' 10°57'	29°26' 29°26'	29°26' 29°26'	29°26' 29°26'	0°42' 0"	0°39' 0"	0°47' 5"	5°44' 4"	4°35' 9"	9° 2' 14"	15°55' 55"	M17
T 18	20 18 0	3°30'26"	17°18' 25°21'	3°43' 28°19'	11° 5' 29°28'	41° 29°28'	29°28' 29°28'	29°28' 29°28'	0°41' 0"	0°41' 0"	0°48' 5"	5°42' 4"	4°32' 9"	9° 9' 14"	15°52' 52"	T 18
W19	20 21 57	4°27'54"	1°18' 9"	26°52' 4°55'	28°58' 11°14'	29°30' 29°30'	29°30' 29°30'	29°30' 29°30'	0°40' 0"	0°43' 0"	0°49' 5"	5°D41	4°29' 9"	9°15' 14"	15°49' 49"	W19
T 20	20 25 54	5°25'22"	15°13' 28°22'	6° 7' 29°38'	11°22' 29°33'	39° 29°33'	29°33' 29°33'	29°33' 29°33'	0°39' 0"	0°46' 0"	0°50' 5"	5°41' 4"	4°26' 9"	9°22' 14"	15°46' 46"	T 20
F 21	20 29 50	6°22'52"	29°28' 29°51'	7°19' 0°11'18'	11°31' 29°35'	38° 29°35'	29°35' 29°35'	29°35' 29°35'	0°38' 0"	0°48' 0"	0°52' 5"	5°42' 4"	4°22' 9"	9°29' 14"	15°42' 42"	F 21
S 22	20 33 47	7°20'24"	13°11'53"	1°11'18"	8°31' 0°57'	11°39' 29°38'	29°38' 29°38'	29°38' 29°38'	0°36' 0"	0°50' 0"	0°53' 5"	5°44' 4"	4°19' 9"	9°35' 14"	15°39' 39"	S 22
S 23	20 37 43	8°17'57"	28°25' 2°43'	9°43' 1°37'	11°48' 29°41'	35° 29°41'	29°41' 29°41'	29°41' 29°41'	0°35' 0"	0°52' 0"	0°54' 5"	5°R45	4°16' 9"	9°42' 14"	15°36' 36"	S 23
M24	20 41 40	9°15'31"	12°25'59"	4° 6' 10°56'	2°16' 11°57'	29°44' 29°44'	29°44' 29°44'	29°44' 29°44'	0°34' 0"	0°55' 0"	0°55' 5"	5°45' 4"	4°13' 9"	9°49' 14"	15°33' 33"	M24
T 25	20 45 36	10°13'07"	27°29' 5°27'	12° 8' 2°55'	12° 6' 2°55'	12° 6' 2°55'	29°47' 29°47'	29°47' 29°47'	0°33' 0"	0°57' 0"	0°57' 5"	5°43' 4"	4°10' 9"	9°55' 14"	15°30' 30"	T 25
W26	20 49 33	11°10'43"	11°12'51"	6°47' 13°20'	3°34' 12°15'	29°50' 29°50'	29°50' 29°50'	29°50' 29°50'	0°32' 0"	0°59' 0"	0°58' 5"	5°40' 4"	4° 7' 10"	10° 2' 14"	15°27' 27"	W26
T 27	20 53 29	12° 8'21"	25°57' 8° 4'	14°32' 4°13'	12°24' 29°53'	30° 29°53'	29°53' 29°53'	29°53' 29°53'	0°30' 0"	1° 1' 0"	0°59' 5"	5°35' 4"	4° 3' 10"	10° 9' 14"	15°24' 24"	T 27
F 28	20 57 26	13° 6'00"	9°11'45"	9°20' 15°45'	4°52' 12°33'	29°56' 29°56'	29°56' 29°56'	29°56' 29°56'	0°29' 0"	1° 3' 0"	1° 0' 5"	5°29' 4"	4° 0' 10"	10°15' 15"	15°21' 21"	F 28
S 29	21 1 23	14° 3'41"	23°11' 10°34'	16°57' 5°30'	12°42' 29°59'	27° 29°59'	29°59' 29°59'	29°59' 29°59'	0°27' 0"	1° 6' 0"	1° 1' 5"	5°23' 3"	3°57' 10"	10°22' 14"	15°18' 18"	S 29
S 30	21 5 19	15° 1'22"	6°11'14"	11°45' 18°10'	6° 9' 12°52'	0°11' 2"	0°26' 1° 8'	1° 2' 5"	1° 2' 5"	1° 2' 5"	5°17' 3°54'	10°29' 14°14'	14°14' 14°14'	14°14' 14°14'	14°14' 14°14'	S 30
M31	21 9 16	15°159'04"	18°15'55"	12°11'55"	19°12'22"	6°11'47"	13°13' 1"	0°11' 6"	0°Y24	1°12'10"	1°12' 4"	5°13' 3°51'	10°12'35'	14°11'11"	14°11'11"	M31

Delta T = 07m13s

Julian Calendar 1 July 1424 == Greg. Calendar 10 July 1424

AUGUST 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	21 13 12	16♌56'48	1♌16	14♍ 2	20♍35	7♏25	13♏11	0♏ 9	0°R23	1♌12	1♍ 5	5°R10	3♍48	10♌42	14°R 8	T 1
W 2	21 17 9	17°54'33	13°23	15° 7	21°48	8° 3	13°21	0°13	0°Y21	1°14	1° 6	5°D 8	3°44	10°48	14° 5	W 2
T 3	21 21 5	18°52'19	25°18	16°10	23° 0	8°41	13°31	0°16	0°20	1°16	1° 7	5♍ 8	3°41	10°55	14° 2	T 3
F 4	21 25 2	19°50'06	7♌ 8	17°10	24°13	9°19	13°41	0°20	0°18	1°18	1° 8	5°10	3°38	11° 2	13°59	F 4
S 5	21 28 58	20°47'54	18°58	18° 7	25°26	9°57	13°51	0°24	0°16	1°21	1° 9	5°11	3°35	11° 8	13°56	S 5
S 6	21 32 55	21°45'44	0♌52	19° 2	26°39	10°34	14° 1	0°28	0°15	1°23	1°10	5°R12	3°32	11°15	13°53	S 6
M 7	21 36 52	22°43'34	12°54	19°53	27°52	11°12	14°11	0°32	0°13	1°25	1°11	5°12	3°28	11°22	13°50	M 7
T 8	21 40 48	23°41'27	25° 9	20°41	29° 5	11°49	14°21	0°36	0°11	1°27	1°12	5°10	3°25	11°28	13°47	T 8
W 9	21 44 45	24°39'20	7♌40	21°26	0♌18	12°26	14°32	0°40	0° 9	1°29	1°13	5° 6	3°22	11°35	13°43	W 9
T 10	21 48 41	25°37'15	20°26	22° 8	1°31	13° 3	14°42	0°44	0° 8	1°31	1°14	4°59	3°19	11°42	13°40	T 10
F 11	21 52 38	26°35'12	3♌30	22°45	2°44	13°40	14°53	0°49	0° 6	1°33	1°15	4°51	3°16	11°48	13°37	F 11
S 12	21 56 34	27°33'10	16°49	23°19	3°57	14°17	15° 3	0°53	0° 4	1°35	1°16	4°43	3°13	11°55	13°34	S 12
S 13	22 0 31	28°31'10	0°Y23	23°48	5°11	14°53	15°14	0°57	0° 2	1°37	1°17	4°34	3° 9	12° 2	13°31	S 13
M14	22 4 27	29°29'12	14° 8	24°13	6°24	15°30	15°25	1° 2	29♌59	1°39	1°18	4°26	3° 6	12° 8	13°28	M14
T 15	22 8 24	0♍27'16	28° 1	24°33	7°37	16° 6	15°36	1° 6	29°58	1°41	1°18	4°20	3° 3	12°15	13°26	T 15
W16	22 12 21	1°25'21	12♌ 1	24°48	8°51	16°42	15°46	1°11	29°56	1°43	1°19	4°16	3° 0	12°22	13°23	W16
T 17	22 16 17	2°23'29	26° 6	24°57	10° 4	17°18	15°58	1°16	29°54	1°45	1°20	4°14	2°57	12°28	13°20	T 17
F 18	22 20 14	3°21'39	10♏14	25°R 1	11°18	17°54	16° 9	1°21	29°52	1°47	1°21	4°D14	2°54	12°35	13°17	F 18
S 19	22 24 10	4°19'51	24°23	24°59	12°31	18°30	16°20	1°25	29°50	1°49	1°22	4°15	2°50	12°42	13°14	S 19
S 20	22 28 7	5°18'05	8♌33	24°50	13°45	19° 5	16°31	1°30	29°47	1°51	1°22	4°R15	2°47	12°48	13°11	S 20
M21	22 32 3	6°16'21	22°42	24°35	14°58	19°40	16°42	1°35	29°45	1°53	1°23	4°14	2°44	12°55	13° 8	M21
T 22	22 36 0	7°14'39	6♌47	24°14	16°12	20°15	16°54	1°40	29°43	1°55	1°24	4°10	2°41	13° 2	13° 6	T 22
W23	22 39 56	8°12'59	20°45	23°46	17°26	20°50	17° 5	1°45	29°41	1°57	1°25	4° 4	2°38	13° 8	13° 3	W23
T 24	22 43 53	9°11'20	4♍31	23°12	18°40	21°25	17°17	1°51	29°39	1°59	1°25	3°55	2°34	13°15	13° 0	T 24
F 25	22 47 50	10° 9'44	18° 4	22°32	19°53	22° 0	17°28	1°56	29°37	2° 1	1°26	3°44	2°31	13°22	12°58	F 25
S 26	22 51 46	11° 8'09	1♌19	21°45	21° 7	22°34	17°40	2° 1	29°34	2° 2	1°27	3°33	2°28	13°28	12°55	S 26
S 27	22 55 43	12° 6'37	14°15	20°54	22°21	23° 8	17°52	2° 7	29°32	2° 4	1°27	3°22	2°25	13°35	12°52	S 27
M28	22 59 39	13° 5'06	26°52	19°57	23°35	23°42	18° 3	2°12	29°30	2° 6	1°28	3°12	2°22	13°41	12°50	M28
T 29	23 3 36	14° 3'36	9♏12	18°58	24°49	24°16	18°15	2°17	29°27	2° 8	1°28	3° 5	2°19	13°48	12°47	T 29
W30	23 7 32	15° 2'09	21°17	17°55	26° 3	24°50	18°27	2°23	29°25	2° 9	1°29	3° 0	2°15	13°55	12°45	W30
T 31	23 11 29	16♍ 0'43	3♌12	16♍52	27♌17	25♏23	18♏39	2♌29	29♌23	2♌11	1♍30	2♍57	2♍12	14♌ 1	12°42	T 31

ASTRODIENST EPHEMERIS for the year 1424  
geocentric

SEPTEMBER 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	23 15 25	16♐59'19	15♌1	15°R49	28♏31	25♊56	18♏51	2♐34	29°R20	2♏13	1♌30	2°D56	2♌9	14♌8	12°R40	F 1
S 2	23 19 22	17°57'57	26°50	14♐48	29°46	26°29	19°3	2°40	29♐18	2°15	1°31	2°R57	2°6	14°15	12°38	S 2
S 3	23 23 19	18°56'36	8♌45	13°51	1♐0	27°2	19°15	2°46	29°16	2°16	1°31	2♌57	2°3	14°21	12°35	S 3
M 4	23 27 15	19°55'17	20°50	12°58	2°14	27°35	19°27	2°52	29°13	2°18	1°31	2°55	1°59	14°28	12°33	M 4
T 5	23 31 12	20°54'00	3♌10	12°12	3°28	28°7	19°39	2°57	29°11	2°20	1°32	2°52	1°56	14°35	12°31	T 5
W 6	23 35 8	21°52'45	15°49	11°33	4°43	28°39	19°52	3°3	29°9	2°21	1°32	2°46	1°53	14°41	12°29	W 6
T 7	23 39 5	22°51'31	28°50	11°3	5°57	29°11	20°4	3°9	29°6	2°23	1°33	2°37	1°50	14°48	12°26	T 7
F 8	23 43 1	23°50'19	12♌12	10°42	7°11	29°43	20°16	3°15	29°4	2°24	1°33	2°27	1°47	14°55	12°24	F 8
S 9	23 46 58	24°49'10	25°55	10°31	8°26	0♌15	20°29	3°21	29°1	2°26	1°33	2°15	1°44	15°1	12°22	S 9
S 10	23 50 54	25°48'02	9♏55	10°D30	9°40	0°46	20°41	3°28	28°59	2°27	1°34	2°2	1°40	15°8	12°20	S 10
M 11	23 54 51	26°46'56	24°6	10°40	10°55	1°17	20°54	3°34	28°56	2°29	1°34	1°52	1°37	15°15	12°18	M 11
T 12	23 58 47	27°45'53	8♌25	10°59	12°9	1°48	21°6	3°40	28°54	2°30	1°34	1°43	1°34	15°21	12°17	T 12
W 13	0 2 44	28°44'52	22°44	11°28	13°24	2°18	21°19	3°46	28°52	2°32	1°35	1°37	1°31	15°28	12°15	W 13
T 14	0 6 41	29°43'53	7♊12	12°7	14°38	2°48	21°31	3°52	28°49	2°33	1°35	1°34	1°28	15°35	12°13	T 14
F 15	0 10 37	0♏42'57	21°14	12°54	15°53	3°19	21°44	3°59	28°47	2°34	1°35	1°33	1°25	15°41	12°11	F 15
S 16	0 14 34	1°42'03	5♌19	13°49	17°8	3°48	21°56	4°5	28°44	2°36	1°35	1°33	1°21	15°48	12°10	S 16
S 17	0 18 30	2°41'11	19°16	14°52	18°22	4°18	22°9	4°12	28°42	2°37	1°35	1°32	1°18	15°55	12°8	S 17
M 18	0 22 27	3°40'22	3♏6	16°1	19°37	4°47	22°22	4°18	28°40	2°38	1°35	1°30	1°15	16°1	12°6	M 18
T 19	0 26 23	4°39'35	16°48	17°16	20°52	5°16	22°35	4°25	28°37	2°40	1°36	1°25	1°12	16°8	12°5	T 19
W 20	0 30 20	5°38'50	0♐21	18°36	22°7	5°45	22°47	4°31	28°35	2°41	1°36	1°18	1°9	16°14	12°3	W 20
T 21	0 34 16	6°38'08	13°23	20°1	23°21	6°13	23°0	4°38	28°32	2°42	1°36	1°7	1°5	16°21	12°2	T 21
F 22	0 38 13	7°37'27	26°54	21°30	24°36	6°41	23°13	4°44	28°30	2°43	1°36	0°55	1°2	16°28	12°1	F 22
S 23	0 42 10	8°36'49	9♏51	23°2	25°51	7°9	23°26	4°51	28°28	2°44	1°36	0°41	0°59	16°34	11°59	S 23
S 24	0 46 6	9°36'13	22°33	24°36	27°6	7°36	23°39	4°58	28°25	2°45	1°36	0°28	0°56	16°41	11°58	S 24
M 25	0 50 3	10°35'39	5♐1	26°13	28°21	8°4	23°52	5°4	28°23	2°46	1°36	0°17	0°53	16°48	11°57	M 25
T 26	0 53 59	11°35'07	17°14	27°51	29°36	8°30	24°5	5°11	28°20	2°48	1°36	0°7	0°50	16°54	11°56	T 26
W 27	0 57 56	12°34'36	29°15	29°31	0♏51	8°57	24°18	5°18	28°18	2°49	1°36	0°1	0°46	17°1	11°55	W 27
T 28	1 1 52	13°34'08	11♌8	1♏12	2°6	9°23	24°31	5°25	28°16	2°50	1°35	29♊57	0°43	17°8	11°54	T 28
F 29	1 5 49	14°33'42	22°55	2°54	3°21	9°49	24°44	5°31	28°14	2°51	1°35	29°56	0°40	17°14	11°53	F 29
S 30	1 9 45	15°33'17	4♌43	4♏37	4♏36	10♌14	24°57	5♐38	28♐11	2♏51	1♌35	29°D56	0♌37	17♌21	11°52	S 30

Delta T = 07m13s

Julian Calendar 1 Sept. 1424 == Greg. Calendar 10 Sept. 1424

OCTOBER 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	1 13 42	16♏32'54	16♌36	6♏19	5♏51	10♌39	25♏10	5♐45	28°R9	2♏52	1°R35	29°R56	0♌34	17♌28	11°R51	S 1
M 2	1 17 39	17°32'33	28°39	8°2	7°6	11°4	25°23	5°52	28♐7	2°53	1♌35	29♊55	0°31	17°34	11°55	M 2
T 3	1 21 35	18°32'14	10♏59	9°45	8°21	11°29	25°36	5°59	28°4	2°54	1°35	29°53	0°27	17°41	11°50	T 3
W 4	1 25 32	19°31'56	23°40	11°28	9°36	11°53	25°49	6°6	28°2	2°55	1°34	29°48	0°24	17°48	11°49	W 4
T 5	1 29 28	20°31'40	6♌46	13°10	10°51	12°16	26°2	6°13	28°0	2°56	1°34	29°41	0°21	17°54	11°49	T 5
F 6	1 33 25	21°31'26	20°18	14°52	12°6	12°40	26°15	6°20	27°58	2°56	1°34	29°32	0°18	18°1	11°48	F 6
S 7	1 37 21	22°31'14	4♏15	16°34	13°22	13°2	26°28	6°27	27°56	2°57	1°33	29°21	0°15	18°7	11°48	S 7
S 8	1 41 18	23°31'03	18°35	18°16	14°37	13°25	26°42	6°34	27°54	2°58	1°33	29°11	0°11	18°14	11°47	S 8
M 9	1 45 14	24°30'55	3♌11	19°57	15°52	13°47	26°55	6°41	27°52	2°58	1°33	29°1	0°8	18°21	11°47	M 9
T 10	1 49 11	25°30'48	17°55	21°38	17°7	14°9	27°8	6°48	27°49	2°59	1°32	28°53	0°5	18°27	11°47	T 10
W 11	1 53 8	26°30'44	2♏14	23°18	18°22	14°30	27°21	6°55	27°47	3°0	1°32	28°48	0°2	18°34	11°47	W 11
T 12	1 57 4	27°30'42	17°20	24°58	19°38	14°51	27°34	7°2	27°45	3°0	1°32	28°45	29♊59	18°41	11°47	T 12
F 13	2 1 1	28°30'42	1♌49	26°37	20°53	15°11	27°47	7°9	27°43	3°1	1°31	28°D45	29°56	18°47	11°D47	F 13
S 14	2 4 57	29°30'45	16°3	28°16	22°8	15°31	28°1	7°16	27°41	3°1	1°31	28°45	29°52	18°54	11°47	S 14
S 15	2 8 54	0♐30'49	0♏1	29°54	23°23	15°50	28°14	7°23	27°40	3°2	1°30	28°R46	29°49	19°1	11°47	S 15
M 16	2 12 50	1°30'56	13°44	1♐32	24°39	16°9	28°27	7°30	27°38	3°2	1°30	28°45	29°46	19°7	11°47	M 16
T 17	2 16 47	2°31'04	27°12	3°10	25°54	16°27	28°40	7°38	27°36	3°2	1°29	28°42	29°43	19°14	11°47	T 17
W 18	2 20 43	3°31'15	10♐26	4°47	27°9	16°45	28°53	7°45	27°34	3°3	1°29	28°37	29°40	19°21	11°48	W 18
T 19	2 24 40	4°31'28	23°27	6°24	28°25	17°3	29°6	7°52	27°32	3°3	1°28	28°30	29°36	19°27	11°48	T 19
F 20	2 28 37	5°31'43	6♏16	8°0	29°40	17°20	29°19	7°59	27°30	3°3	1°27	28°21	29°33	19°34	11°48	F 20
S 21	2 32 33	6°32'00	18°53	9°36	0♐55	17°36	29°33	8°6	27°29	3°3	1°27	28°11	29°30	19°41	11°49	S 21
S 22	2 36 30	7°32'18	1♐18	11°11	2°11	17°52	29°46	8°13	27°27	3°4	1°26	28°1	29°27	19°47	11°49	S 22
M 23	2 40 26	8°32'39	13°32	12°46	3°26	18°7	29°59	8°20	27°25	3°4	1°25	27°52	29°24	19°54	11°50	M 23
T 24	2 44 23	9°33'01	25°36	14°21	4°42	18°22	0♐12	8°28	27°24	3°4	1°25	27°45	29°21	20°0	11°51	T 24
W 25	2 48 19	10°33'25	7♌32	15°55	5°57	18°36	0°25	8°35	27°22	3°4	1°24	27°41	29°17	20°7	11°51	W 25
T 26	2 52 16	11°33'50	19°21	17°29	7°12	18°49	0°38	8°42	27°21	3°4	1°23	27°38	29°14	20°14	11°52	T 26
F 27	2 56 12	12°34'17	1♌7	19°3	8°28	19°2	0°51	8°49	27°19	3°R4	1°23	27°D38	29°11	20°20	11°53	F 27
S 28	3 0 9	13°34'46	12°53	20°37	9°43	19°14	1°4	8°56	27°18	3°4	1°22	27°39	29°8	20°27	11°54	S 28
S 29	3 4 6	14°35'16	24°45	22°10	10°59	19°26	1°17	9°3	27°16	3°4	1°21	27°40	29°5	20°34	11°55	S 29
M 30	3 8 2	15°35'47	6♏47	23°43	12°14	19°37	1°30	9°10	27°15	3°4	1°20	27°42	29°2	20°40	11°56	M 30
T 31	3 11 59	16♐36'19	19♏3	25♐16	13♐30	19♌47	1♐43	9♐18	27♐13	3♏4	1♌20	27°R42	28♊58	20♌47	11°57	T 31

Delta T = 07m13s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1424

## geocentric

NOVEMBER 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	3 15 55	17 <sup>11</sup> 36 <sup>53</sup>	1 <sup>11</sup> 40	26 <sup>11</sup> 48	14 <sup>11</sup> 45	19 <sup>11</sup> 57	1 <sup>11</sup> 56	9 <sup>11</sup> 25	27 <sup>11</sup> R12	3 <sup>11</sup> R 4	1 <sup>11</sup> R19	27 <sup>11</sup> R41	28 <sup>11</sup> II55	20 <sup>11</sup> 754	11 <sup>11</sup> 59	W 1
T 2	3 19 52	18 <sup>11</sup> 37 <sup>28</sup>	14 <sup>11</sup> 42	28 <sup>11</sup> 20	16 <sup>11</sup> 1	20 <sup>11</sup> 6	2 <sup>11</sup> 9	9 <sup>11</sup> 32	27 <sup>11</sup> 11	3 <sup>11</sup> 4	1 <sup>11</sup> 18	27 <sup>11</sup> II38	28 <sup>11</sup> 52	21 <sup>11</sup> 0	12 <sup>11</sup> 0	T 2
F 3	3 23 48	19 <sup>11</sup> 38 <sup>04</sup>	28 <sup>11</sup> 11	29 <sup>11</sup> 53	17 <sup>11</sup> 16	20 <sup>11</sup> 14	2 <sup>11</sup> 22	9 <sup>11</sup> 39	27 <sup>11</sup> 10	3 <sup>11</sup> 3	1 <sup>11</sup> 17	27 <sup>11</sup> 34	28 <sup>11</sup> 49	21 <sup>11</sup> 7	12 <sup>11</sup> 1	F 3
S 4	3 27 45	20 <sup>11</sup> 38 <sup>41</sup>	12 <sup>11</sup> 9	1 <sup>11</sup> 24	18 <sup>11</sup> 31	20 <sup>11</sup> 22	2 <sup>11</sup> 35	9 <sup>11</sup> 46	27 <sup>11</sup> 8	3 <sup>11</sup> 3	1 <sup>11</sup> 16	27 <sup>11</sup> 28	28 <sup>11</sup> 46	21 <sup>11</sup> 14	12 <sup>11</sup> 3	S 4
S 5	3 31 41	21 <sup>11</sup> 39 <sup>20</sup>	26 <sup>11</sup> 33	2 <sup>11</sup> 56	19 <sup>11</sup> 47	20 <sup>11</sup> 28	2 <sup>11</sup> 47	9 <sup>11</sup> 53	27 <sup>11</sup> 7	3 <sup>11</sup> 3	1 <sup>11</sup> 15	27 <sup>11</sup> 22	28 <sup>11</sup> 42	21 <sup>11</sup> 20	12 <sup>11</sup> 4	S 5
M 6	3 35 38	22 <sup>11</sup> 40 <sup>00</sup>	11 <sup>11</sup> 20	4 <sup>11</sup> 27	21 <sup>11</sup> 2	20 <sup>11</sup> 35	3 <sup>11</sup> 0	10 <sup>11</sup> 0	27 <sup>11</sup> 6	3 <sup>11</sup> 3	1 <sup>11</sup> 14	27 <sup>11</sup> 17	28 <sup>11</sup> 39	21 <sup>11</sup> 27	12 <sup>11</sup> 6	M 6
T 7	3 39 34	23 <sup>11</sup> 40 <sup>41</sup>	26 <sup>11</sup> 22	5 <sup>11</sup> 58	22 <sup>11</sup> 18	20 <sup>11</sup> 40	3 <sup>11</sup> 13	10 <sup>11</sup> 7	27 <sup>11</sup> 5	3 <sup>11</sup> 2	1 <sup>11</sup> 13	27 <sup>11</sup> 13	28 <sup>11</sup> 36	21 <sup>11</sup> 34	12 <sup>11</sup> 7	T 7
W 8	3 43 31	24 <sup>11</sup> 41 <sup>24</sup>	11 <sup>11</sup> II29	7 <sup>11</sup> 29	23 <sup>11</sup> 33	20 <sup>11</sup> 45	3 <sup>11</sup> 26	10 <sup>11</sup> 14	27 <sup>11</sup> 4	3 <sup>11</sup> 2	1 <sup>11</sup> 12	27 <sup>11</sup> 10	28 <sup>11</sup> 33	21 <sup>11</sup> 40	12 <sup>11</sup> 9	W 8
T 9	3 47 28	25 <sup>11</sup> 42 <sup>08</sup>	26 <sup>11</sup> 32	9 <sup>11</sup> 0	24 <sup>11</sup> 49	20 <sup>11</sup> 49	3 <sup>11</sup> 38	10 <sup>11</sup> 21	27 <sup>11</sup> 3	3 <sup>11</sup> 1	1 <sup>11</sup> 11	27 <sup>11</sup> D10	28 <sup>11</sup> 30	21 <sup>11</sup> 47	12 <sup>11</sup> 10	T 9
F 10	3 51 24	26 <sup>11</sup> 42 <sup>54</sup>	11 <sup>11</sup> 23	10 <sup>11</sup> 30	26 <sup>11</sup> 4	20 <sup>11</sup> 52	3 <sup>11</sup> 51	10 <sup>11</sup> 28	27 <sup>11</sup> 2	3 <sup>11</sup> 1	1 <sup>11</sup> 11	27 <sup>11</sup> 10	28 <sup>11</sup> 27	21 <sup>11</sup> 53	12 <sup>11</sup> 12	F 10
S 11	3 55 21	27 <sup>11</sup> 43 <sup>41</sup>	25 <sup>11</sup> 56	12 <sup>11</sup> 1	27 <sup>11</sup> 20	20 <sup>11</sup> 54	4 <sup>11</sup> 4	10 <sup>11</sup> 35	27 <sup>11</sup> 2	3 <sup>11</sup> 1	1 <sup>11</sup> 10	27 <sup>11</sup> 12	28 <sup>11</sup> 23	22 <sup>11</sup> 0	12 <sup>11</sup> 14	S 11
S 12	3 59 17	28 <sup>11</sup> 44 <sup>30</sup>	10 <sup>11</sup> 8	13 <sup>11</sup> 30	28 <sup>11</sup> 35	20 <sup>11</sup> 56	4 <sup>11</sup> 16	10 <sup>11</sup> 42	27 <sup>11</sup> 1	3 <sup>11</sup> 0	1 <sup>11</sup> 9	27 <sup>11</sup> 13	28 <sup>11</sup> 20	22 <sup>11</sup> 7	12 <sup>11</sup> 16	S 12
M13	4 3 14	29 <sup>11</sup> 45 <sup>20</sup>	23 <sup>11</sup> 56	15 <sup>11</sup> 0	29 <sup>11</sup> 51	20 <sup>11</sup> 57	4 <sup>11</sup> 29	10 <sup>11</sup> 49	27 <sup>11</sup> 0	3 <sup>11</sup> 0	1 <sup>11</sup> 8	27 <sup>11</sup> R14	28 <sup>11</sup> 17	22 <sup>11</sup> 13	12 <sup>11</sup> 18	M13
T 14	4 7 10	0 <sup>11</sup> 46 <sup>11</sup>	7 <sup>11</sup> 23	16 <sup>11</sup> 29	1 <sup>11</sup> 6	20 <sup>11</sup> R57	4 <sup>11</sup> 41	10 <sup>11</sup> 56	26 <sup>11</sup> 59	2 <sup>11</sup> 59	1 <sup>11</sup> 6	27 <sup>11</sup> 14	28 <sup>11</sup> 14	22 <sup>11</sup> 20	12 <sup>11</sup> 20	T 14
W15	4 11 7	1 <sup>11</sup> 47 <sup>04</sup>	20 <sup>11</sup> 29	17 <sup>11</sup> 57	2 <sup>11</sup> 22	20 <sup>11</sup> 56	4 <sup>11</sup> 54	11 <sup>11</sup> 2	26 <sup>11</sup> 59	2 <sup>11</sup> 58	1 <sup>11</sup> 5	27 <sup>11</sup> 13	28 <sup>11</sup> 11	22 <sup>11</sup> 27	12 <sup>11</sup> 22	W15
T 16	4 15 4	2 <sup>11</sup> 47 <sup>59</sup>	3 <sup>11</sup> 18	19 <sup>11</sup> 25	3 <sup>11</sup> 37	20 <sup>11</sup> 54	5 <sup>11</sup> 6	11 <sup>11</sup> 9	26 <sup>11</sup> 58	2 <sup>11</sup> 58	1 <sup>11</sup> 4	27 <sup>11</sup> 10	28 <sup>11</sup> 8	22 <sup>11</sup> 33	12 <sup>11</sup> 24	T 16
F 17	4 19 0	3 <sup>11</sup> 48 <sup>54</sup>	15 <sup>11</sup> 52	20 <sup>11</sup> 52	4 <sup>11</sup> 53	20 <sup>11</sup> 52	5 <sup>11</sup> 19	11 <sup>11</sup> 16	26 <sup>11</sup> 58	2 <sup>11</sup> 57	1 <sup>11</sup> 3	27 <sup>11</sup> 7	28 <sup>11</sup> 4	22 <sup>11</sup> 40	12 <sup>11</sup> 26	F 17
S 18	4 22 57	4 <sup>11</sup> 49 <sup>51</sup>	28 <sup>11</sup> 12	22 <sup>11</sup> 19	6 <sup>11</sup> 8	20 <sup>11</sup> 49	5 <sup>11</sup> 31	11 <sup>11</sup> 23	26 <sup>11</sup> 57	2 <sup>11</sup> 56	1 <sup>11</sup> 2	27 <sup>11</sup> 3	28 <sup>11</sup> 1	22 <sup>11</sup> 47	12 <sup>11</sup> 28	S 18
S 19	4 26 53	5 <sup>11</sup> 50 <sup>50</sup>	10 <sup>11</sup> 22	23 <sup>11</sup> 44	7 <sup>11</sup> 24	20 <sup>11</sup> 45	5 <sup>11</sup> 43	11 <sup>11</sup> 30	26 <sup>11</sup> 57	2 <sup>11</sup> 56	1 <sup>11</sup> 1	26 <sup>11</sup> 59	27 <sup>11</sup> 58	22 <sup>11</sup> 53	12 <sup>11</sup> 31	S 19
M20	4 30 50	6 <sup>11</sup> 51 <sup>49</sup>	22 <sup>11</sup> 24	25 <sup>11</sup> 9	8 <sup>11</sup> 39	20 <sup>11</sup> 40	5 <sup>11</sup> 56	11 <sup>11</sup> 36	26 <sup>11</sup> 56	2 <sup>11</sup> 55	1 <sup>11</sup> 0	26 <sup>11</sup> 56	27 <sup>11</sup> 55	23 <sup>11</sup> 0	12 <sup>11</sup> 33	M20
T 21	4 34 46	7 <sup>11</sup> 52 <sup>49</sup>	4 <sup>11</sup> 19	26 <sup>11</sup> 32	9 <sup>11</sup> 55	20 <sup>11</sup> 34	6 <sup>11</sup> 8	11 <sup>11</sup> 43	26 <sup>11</sup> 56	2 <sup>11</sup> 54	0 <sup>11</sup> 59	26 <sup>11</sup> 54	27 <sup>11</sup> 52	23 <sup>11</sup> 7	12 <sup>11</sup> 35	T 21
W22	4 38 43	8 <sup>11</sup> 53 <sup>51</sup>	16 <sup>11</sup> 9	27 <sup>11</sup> 54	11 <sup>11</sup> 10	20 <sup>11</sup> 27	6 <sup>11</sup> 20	11 <sup>11</sup> 50	26 <sup>11</sup> 56	2 <sup>11</sup> 53	0 <sup>11</sup> 58	26 <sup>11</sup> 52	27 <sup>11</sup> 48	23 <sup>11</sup> 13	12 <sup>11</sup> 38	W22
T 23	4 42 39	9 <sup>11</sup> 54 <sup>53</sup>	27 <sup>11</sup> 56	29 <sup>11</sup> 15	12 <sup>11</sup> 26	20 <sup>11</sup> 19	6 <sup>11</sup> 32	11 <sup>11</sup> 56	26 <sup>11</sup> 55	2 <sup>11</sup> 52	0 <sup>11</sup> 57	26 <sup>11</sup> D52	27 <sup>11</sup> 45	23 <sup>11</sup> 20	12 <sup>11</sup> 40	T 23
F 24	4 46 36	10 <sup>11</sup> 55 <sup>56</sup>	9 <sup>11</sup> 42	0 <sup>11</sup> 33	13 <sup>11</sup> 41	20 <sup>11</sup> 11	6 <sup>11</sup> 44	12 <sup>11</sup> 3	26 <sup>11</sup> 55	2 <sup>11</sup> 51	0 <sup>11</sup> 56	26 <sup>11</sup> 52	27 <sup>11</sup> 42	23 <sup>11</sup> 27	12 <sup>11</sup> 43	F 24
S 25	4 50 33	11 <sup>11</sup> 56 <sup>59</sup>	21 <sup>11</sup> 31	1 <sup>11</sup> 49	14 <sup>11</sup> 57	20 <sup>11</sup> 2	6 <sup>11</sup> 56	12 <sup>11</sup> 9	26 <sup>11</sup> 55	2 <sup>11</sup> 51	0 <sup>11</sup> 54	26 <sup>11</sup> 53	27 <sup>11</sup> 39	23 <sup>11</sup> 33	12 <sup>11</sup> 45	S 25
S 26	4 54 29	12 <sup>11</sup> 58 <sup>04</sup>	3 <sup>11</sup> 25	3 <sup>11</sup> 3	16 <sup>11</sup> 12	19 <sup>11</sup> 52	7 <sup>11</sup> 8	12 <sup>11</sup> 16	26 <sup>11</sup> 55	2 <sup>11</sup> 50	0 <sup>11</sup> 53	26 <sup>11</sup> 55	27 <sup>11</sup> 36	23 <sup>11</sup> 40	12 <sup>11</sup> 48	S 26
M27	4 58 26	13 <sup>11</sup> 59 <sup>08</sup>	15 <sup>11</sup> 28	4 <sup>11</sup> 13	17 <sup>11</sup> 28	19 <sup>11</sup> 41	7 <sup>11</sup> 20	12 <sup>11</sup> 22	26 <sup>11</sup> D55	2 <sup>11</sup> 49	0 <sup>11</sup> 52	26 <sup>11</sup> 56	27 <sup>11</sup> 33	23 <sup>11</sup> 46	12 <sup>11</sup> 51	M27
T 28	5 2 22	15 <sup>11</sup> 0 <sup>14</sup>	27 <sup>11</sup> 44	5 <sup>11</sup> 20	18 <sup>11</sup> 43	19 <sup>11</sup> 29	7 <sup>11</sup> 31	12 <sup>11</sup> 29	26 <sup>11</sup> 55	2 <sup>11</sup> 48	0 <sup>11</sup> 51	26 <sup>11</sup> 57	27 <sup>11</sup> 29	23 <sup>11</sup> 53	12 <sup>11</sup> 53	T 28
W29	5 6 19	16 <sup>11</sup> 1 <sup>19</sup>	10 <sup>11</sup> 18	6 <sup>11</sup> 22	19 <sup>11</sup> 59	19 <sup>11</sup> 16	7 <sup>11</sup> 43	12 <sup>11</sup> 35	26 <sup>11</sup> 55	2 <sup>11</sup> 47	0 <sup>11</sup> 50	26 <sup>11</sup> R58	27 <sup>11</sup> 26	24 <sup>11</sup> 0	12 <sup>11</sup> 56	W29
T 30	5 10 15	17 <sup>11</sup> 2 <sup>25</sup>	23 <sup>11</sup> 12	7 <sup>11</sup> 20	21 <sup>11</sup> 14	19 <sup>11</sup> 23	7 <sup>11</sup> 55	12 <sup>11</sup> 41	26 <sup>11</sup> 55	2 <sup>11</sup> 46	0 <sup>11</sup> 49	26 <sup>11</sup> II58	27 <sup>11</sup> II23	24 <sup>11</sup> 7 6	12 <sup>11</sup> 59	T 30

Delta T = 07m13s

Julian Calendar 1 Nov. 1424 == Greg. Calendar 10 Nov. 1424

DECEMBER 1424 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	5 14 12	18 <sup>11</sup> 3'31	6 <sup>11</sup> 32	8 <sup>11</sup> 13	22 <sup>11</sup> 30	18 <sup>11</sup> R49	8 <sup>11</sup> 6	12 <sup>11</sup> 48	26 <sup>11</sup> 55	2 <sup>11</sup> R45	0 <sup>11</sup> R47	26 <sup>11</sup> R57	27 <sup>11</sup> II20	24 <sup>11</sup> 713	13 <sup>11</sup> 2	F 1
S 2	5 18 8	19 <sup>11</sup> 4'38	20 <sup>11</sup> 19	8 <sup>11</sup> 59	23 <sup>11</sup> 45	18 <sup>11</sup> 234	8 <sup>11</sup> 18	12 <sup>11</sup> 54	26 <sup>11</sup> 55	2 <sup>11</sup> 43	0 <sup>11</sup> 46	26 <sup>11</sup> II56	27 <sup>11</sup> 17	24 <sup>11</sup> 20	13 <sup>11</sup> 5	S 2
S 3	5 22 5	20 <sup>11</sup> 5'44	4 <sup>11</sup> 33	9 <sup>11</sup> 38	25 <sup>11</sup> 0	18 <sup>11</sup> 18	8 <sup>11</sup> 29	13 <sup>11</sup> 0	26 <sup>11</sup> 56	2 <sup>11</sup> 42	0 <sup>11</sup> 45	26 <sup>11</sup> 55	27 <sup>11</sup> 14	24 <sup>11</sup> 26	13 <sup>11</sup> 8	S 3
M 4	5 26 2	21 <sup>11</sup> 6'51	19 <sup>11</sup> 13	10 <sup>11</sup> 10	26 <sup>11</sup> 16	18 <sup>11</sup> 2	8 <sup>11</sup> 41	13 <sup>11</sup> 6	26 <sup>11</sup> 56	2 <sup>11</sup> 41	0 <sup>11</sup> 44	26 <sup>11</sup> 55	27 <sup>11</sup> 10	24 <sup>11</sup> 33	13 <sup>11</sup> 11	M 4
T 5	5 29 58	22 <sup>11</sup> 7'59	4 <sup>11</sup> II12	10 <sup>11</sup> 32	27 <sup>11</sup> 31	17 <sup>11</sup> 45	8 <sup>11</sup> 52	13 <sup>11</sup> 12	26 <sup>11</sup> 56	2 <sup>11</sup> 40	0 <sup>11</sup> 43	26 <sup>11</sup> 54	27 <sup>11</sup> 7	24 <sup>11</sup> 40	13 <sup>11</sup> 14	T 5
W 6	5 33 55	23 <sup>11</sup> 9'06	19 <sup>11</sup> 25	10 <sup>11</sup> 45	28 <sup>11</sup> 47	17 <sup>11</sup> 27	9 <sup>11</sup> 3	13 <sup>11</sup> 19	26 <sup>11</sup> 57	2 <sup>11</sup> 39	0 <sup>11</sup> 41	26 <sup>11</sup> D54	27 <sup>11</sup> 4	24 <sup>11</sup> 46	13 <sup>11</sup> 17	W 6
T 7	5 37 51	24 <sup>11</sup> 10'15	4 <sup>11</sup> 40	10 <sup>11</sup> R47	0 <sup>11</sup> 2	17 <sup>11</sup> 8	9 <sup>11</sup> 14	13 <sup>11</sup> 25	26 <sup>11</sup> 57	2 <sup>11</sup> 38	0 <sup>11</sup> 40	26 <sup>11</sup> 54	27 <sup>11</sup> 1	24 <sup>11</sup> 53	13 <sup>11</sup> 20	T 7
F 8	5 41 48	25 <sup>11</sup> 11'23	19 <sup>11</sup> 48	10 <sup>11</sup> 38	1 <sup>11</sup> 18	16 <sup>11</sup> 49	9 <sup>11</sup> 25	13 <sup>11</sup> 30	26 <sup>11</sup> 58	2 <sup>11</sup> 36	0 <sup>11</sup> 39	26 <sup>11</sup> 54	26 <sup>11</sup> 58	25 <sup>11</sup> 0	13 <sup>11</sup> 24	F 8
S 9	5 45 44	26 <sup>11</sup> 12'32	4 <sup>11</sup> 40	10 <sup>11</sup> 17	2 <sup>11</sup> 33	16 <sup>11</sup> 30	9 <sup>11</sup> 36	13 <sup>11</sup> 36	26 <sup>11</sup> 58	2 <sup>11</sup> 35	0 <sup>11</sup> 38	26 <sup>11</sup> 54	26 <sup>11</sup> 54	25 <sup>11</sup> 6	13 <sup>11</sup> 27	S 9
S 10	5 49 41	27 <sup>11</sup> 13'41	19 <sup>11</sup> 9	9 <sup>11</sup> 45	3 <sup>11</sup> 49	16 <sup>11</sup> 9	9 <sup>11</sup> 47	13 <sup>11</sup> 42	26 <sup>11</sup> 59	2 <sup>11</sup> 34	0 <sup>11</sup> 36	26 <sup>11</sup> R54	26 <sup>11</sup> 51	25 <sup>11</sup> 13	13 <sup>11</sup> 30	S 10
M11	5 53 37	28 <sup>11</sup> 14'51	3 <sup>11</sup> 13	9 <sup>11</sup> 1	5 <sup>11</sup> 4	15 <sup>11</sup> 49	9 <sup>11</sup> 58	13 <sup>11</sup> 48	27 <sup>11</sup> 0	2 <sup>11</sup> 32	0 <sup>11</sup> 35	26 <sup>11</sup> 54	26 <sup>11</sup> 48	25 <sup>11</sup> 19	13 <sup>11</sup> 33	M11
T 12	5 57 34	29 <sup>11</sup> 16'01	16 <sup>11</sup> 49	8 <sup>11</sup> 6	6 <sup>11</sup> 19	15 <sup>11</sup> 27	10 <sup>11</sup> 9	13 <sup>11</sup> 54	27 <sup>11</sup> 0	2 <sup>11</sup> 31	0 <sup>11</sup> 34	26 <sup>11</sup> 54	26 <sup>11</sup> 45	25 <sup>11</sup> 26	13 <sup>11</sup> 37	T 12
W13	6 1 31	0 <sup>11</sup> 17'12	29 <sup>11</sup> 59	7 <sup>11</sup> 1	7 <sup>11</sup> 35	15 <sup>11</sup> 5	10 <sup>11</sup> 19	13 <sup>11</sup> 59	27 <sup>11</sup> 1	2 <sup>11</sup> 30	0 <sup>11</sup> 33	26 <sup>11</sup> D54	26 <sup>11</sup> 42	25 <sup>11</sup> 33	13 <sup>11</sup> 40	W13
T 14	6 5 27	1 <sup>11</sup> 18'23	12 <sup>11</sup> 46	5 <sup>11</sup> 49	8 <sup>11</sup> 50	14 <sup>11</sup> 43	10 <sup>11</sup> 30	14 <sup>11</sup> 5	27 <sup>11</sup> 2	2 <sup>11</sup> 28	0 <sup>11</sup> 32	26 <sup>11</sup> 54	26 <sup>11</sup> 39	25 <sup>11</sup> 39	13 <sup>11</sup> 44	T 14
F 15	6 9 24	2 <sup>11</sup> 19'34	25 <sup>11</sup> 14	4 <sup>11</sup> 31	10 <sup>11</sup> 6	14 <sup>11</sup> 20	10 <sup>11</sup> 40	14 <sup>11</sup> 11	27 <sup>11</sup> 3	2 <sup>11</sup> 27	0 <sup>11</sup> 30	26 <sup>11</sup> 54	26 <sup>11</sup> 35	25 <sup>11</sup> 46	13 <sup>11</sup> 47	F 15
S 16	6 13 20	3 <sup>11</sup> 20'45	7 <sup>11</sup> 126	3 <sup>11</sup> 10	11 <sup>11</sup> 21	13 <sup>11</sup> 58	10 <sup>11</sup> 50	14 <sup>11</sup> 16	27 <sup>11</sup> 4	2 <sup>11</sup> 26	0 <sup>11</sup> 29	26 <sup>11</sup> 55	26 <sup>11</sup> 32	25 <sup>11</sup> 53	13 <sup>11</sup> 51	S 16
S 17	6 17 17	4 <sup>11</sup> 21'57	19 <sup>11</sup> 26	1 <sup>11</sup> 49	12 <sup>11</sup> 37	13 <sup>11</sup> 34	11 <sup>11</sup> 1	14 <sup>11</sup> 21	27 <sup>11</sup> 5	2 <sup>11</sup> 24	0 <sup>11</sup> 28	26 <sup>11</sup> 56	26 <sup>11</sup> 29	25 <sup>11</sup> 59	13 <sup>11</sup> 54	S 17
M18	6 21 13	5 <sup>11</sup> 23'09	1 <sup>11</sup> 19	0 <sup>11</sup> 30	13 <sup>11</sup> 52	13 <sup>11</sup> 11	11 <sup>11</sup> 11	14 <sup>11</sup> 27	27 <sup>11</sup> 6	2 <sup>11</sup> 23	0 <sup>11</sup> 27	26 <sup>11</sup> 57	26 <sup>11</sup> 26	26 <sup>11</sup> 6	13 <sup>11</sup> 58	M18
T 19	6 25 10	6 <sup>11</sup> 24'21	13 <sup>11</sup> 7	29 <sup>11</sup> 16	15 <sup>11</sup> 7	12 <sup>11</sup> 47	11 <sup>11</sup> 21	14 <sup>11</sup> 32	27 <sup>11</sup> 7	2 <sup>11</sup> 21	0 <sup>11</sup> 25	26 <sup>11</sup> 57	26 <sup>11</sup> 23	26 <sup>11</sup> 13	14 <sup>11</sup> 2	T 19
W20	6 29 6	7 <sup>11</sup> 25'33	24 <sup>11</sup> 54	28 <sup>11</sup> 8	16 <sup>11</sup> 23	12 <sup>11</sup> 23	11 <sup>11</sup> 31	14 <sup>11</sup> 37	27 <sup>11</sup> 8	2 <sup>11</sup> 20	0 <sup>11</sup> 24	26 <sup>11</sup> R58	26 <sup>11</sup> 20	26 <sup>11</sup> 19	14 <sup>11</sup> 5	W20
T 21	6 33 3	8 <sup>11</sup> 26'45	6 <sup>11</sup> 42	27 <sup>11</sup> 9	17 <sup>11</sup> 38	11 <sup>11</sup> 59	11 <sup>11</sup> 41	14 <sup>11</sup> 43	27 <sup>11</sup> 9	2 <sup>11</sup> 18	0 <sup>11</sup> 23	26 <sup>11</sup> 58	26 <sup>11</sup> 16	26 <sup>11</sup> 26	14 <sup>11</sup> 9	T 21
F 22	6 37 0	9 <sup>11</sup> 27'57	18 <sup>11</sup> 32	26 <sup>11</sup> 19	18 <sup>11</sup> 53	11 <sup>11</sup> 35	11 <sup>11</sup> 51	14 <sup>11</sup> 48	27 <sup>11</sup> 11	2 <sup>11</sup> 17	0 <sup>11</sup> 22	26 <sup>11</sup> 57	26 <sup>11</sup> 13	26 <sup>11</sup> 33	14 <sup>11</sup> 13	F 22
S 23	6 40 56	10 <sup>11</sup> 29'09	0 <sup>11</sup> 28	25 <sup>11</sup> 38	20 <sup>11</sup> 9	11 <sup>11</sup> 11	12 <sup>11</sup> 0	14 <sup>11</sup> 53	27 <sup>11</sup> 12	2 <sup>11</sup> 15	0 <sup>11</sup> 21	26 <sup>11</sup> 55	26 <sup>11</sup> 10	26 <sup>11</sup> 39	14 <sup>11</sup> 16	S 23
S 24	6 44 53	11 <sup>11</sup> 30'20	12 <sup>11</sup> 31	25 <sup>11</sup> 8	21 <sup>11</sup> 24	10 <sup>11</sup> 47	12 <sup>11</sup> 10	14 <sup>11</sup> 58	27 <sup>11</sup> 13	2 <sup>11</sup> 14	0 <sup>11</sup> 19	26 <sup>11</sup> 53	26 <sup>11</sup> 7	26 <sup>11</sup> 46	14 <sup>11</sup> 20	S 24
M25	6 48 49	12 <sup>11</sup> 31'30	24 <sup>11</sup> 42	24 <sup>11</sup> 47	22 <sup>11</sup> 40	10 <sup>11</sup> 23	12 <sup>11</sup> 19	15 <sup>11</sup> 3	27 <sup>11</sup> 15	2 <sup>11</sup> 12	0 <sup>11</sup> 18	26 <sup>11</sup> 50	26 <sup>11</sup> 4	26 <sup>11</sup> 53	14 <sup>11</sup> 24	M25
T 26	6 52 46	13 <sup>11</sup> 32'40	7 <sup>11</sup> 5	24 <sup>11</sup> 36	23 <sup>11</sup> 55	9 <sup>11</sup> 59	12 <sup>11</sup> 29	15 <sup>11</sup> 7	27 <sup>11</sup> 16	2 <sup>11</sup> 10	0 <sup>11</sup> 17	26 <sup>11</sup> 48	26 <sup>11</sup> 0	26 <sup>11</sup> 59	14 <sup>11</sup> 28	T 26
W27	6 56 42	14 <sup>11</sup> 33'50	19 <sup>11</sup> 42	24 <sup>11</sup> D33	25 <sup>11</sup> 10	9 <sup>11</sup> 36	12 <sup>11</sup> 38	15 <sup>11</sup> 12	27 <sup>11</sup> 18	2 <sup>11</sup> 9	0 <sup>11</sup> 16	26 <sup>11</sup> 46	25 <sup>11</sup> 57	27 <sup>11</sup> 6	14 <sup>11</sup> 32	W27
T 28	7 0 39	15 <sup>11</sup> 34'58	2 <sup>11</sup> Y36	24 <sup>11</sup> 40	26 <sup>11</sup> 26	9 <sup>11</sup> 12	12 <sup>11</sup> 47	15 <sup>11</sup> 17	27 <sup>11</sup> 19	2 <sup>11</sup> 7	0 <sup>11</sup> 15	26 <sup>11</sup> 44	25 <sup>11</sup> 54	27 <sup>11</sup> 12	14 <sup>11</sup> 36	T 28
F 29	7 4 36	16 <sup>11</sup> 36'06	15 <sup>11</sup> 49	24 <sup>11</sup> 54	27 <sup>11</sup> 41	8 <sup>11</sup> 49	12 <sup>11</sup> 56	15 <sup>11</sup> 21	27 <sup>11</sup> 21	2 <sup>11</sup> 6	0 <sup>11</sup> 13	26 <sup>11</sup> D44	25 <sup>11</sup> 51	27 <sup>11</sup> 19	14 <sup>11</sup> 40	F 29
S 30	7 8 32	17 <sup>11</sup> 37'13	29 <sup>11</sup> 24	25 <sup>11</sup> 15	28 <sup>11</sup> 56	8 <sup>11</sup> 26	13 <sup>11</sup> 5	15 <sup>11</sup> 26	27 <sup>11</sup> 22	2 <sup>11</sup> 4	0 <sup>11</sup> 12	26 <sup>11</sup> 44	25 <sup>11</sup> 48	27 <sup>11</sup> 26	14 <sup>11</sup> 44	S 30
S 31	7 12 29	18 <sup>11</sup> 38'20	13 <sup>11</sup> 822	25 <sup>11</sup> 42	0 <sup>11</sup> 211	8 <sup>11</sup> 24	13 <sup>11</sup> 13	15 <sup>11</sup> 30	27 <sup>11</sup> 24	2 <sup>11</sup> 2	0 <sup>11</sup> 11	26 <sup>11</sup> II45	25 <sup>11</sup> II45	27 <sup>11</sup> 32	14 <sup>11</sup> 288	S 31