



Astrodienst Ephemeris Tables for the year 1453

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 1453

geocentric

JANUARY 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	7 17 19	19°35'51	2°49	5°349	4°31 6	28°42	6°29	0°11 7	28°57	4°36	8°18	25°15	24°31 8	26°56	27°30	M 1
T 2	7 21 15	20°52'56	16°50	7°21	4°59	29°11	6°41	0°9	28°54	4°36	8°17	25°D14	24°5	27°3	27°26	T 2
W 3	7 25 12	21°54'02	0°1129	8°53	5°52	29°39	6°53	0°12	28°52	4°36	8°15	25°14	24°2	27°9	27°22	W 3
T 4	7 29 8	22°55'06	13°47	10°26	6°46	0°8 9	7°6	0°15	28°49	4°35	8°14	25°15	23°59	27°16	27°19	T 4
F 5	7 33 5	23°56'11	26°47	11°59	7°41	0°38	7°18	0°18	28°46	4°35	8°13	25°17	23°55	27°23	27°15	F 5
S 6	7 37 1	24°57'15	9°31	13°33	8°37	1°7	7°30	0°20	28°44	4°35	8°11	25°19	23°52	27°29	27°12	S 6
S 7	7 40 58	25°58'18	22°2	15°8	9°33	1°37	7°43	0°23	28°41	4°35	8°10	25°R20	23°49	27°36	27°8	S 7
M 8	7 44 55	26°59'21	4°322	16°43	10°29	2°7	7°56	0°25	28°38	4°34	8°8	25°19	23°46	27°43	27°5	M 8
T 9	7 48 51	28°0'23	16°33	18°19	11°26	2°37	8°8	0°27	28°36	4°34	8°7	25°17	23°43	27°49	27°2	T 9
W10	7 52 48	29°1'25	28°36	19°55	12°24	3°7	8°21	0°29	28°33	4°33	8°6	25°14	23°40	27°56	26°59	W10
T 11	7 56 44	0°2'25	10°34	21°32	13°22	3°37	8°34	0°31	28°31	4°33	8°4	25°8	23°36	28°3	26°55	T 11
F 12	8 0 41	1°3'24	22°28	23°10	14°21	4°8	8°47	0°33	28°28	4°32	8°3	25°1	23°33	28°10	26°52	F 12
S 13	8 4 37	2°4'22	4°19	24°48	15°20	4°39	9°0	0°35	28°25	4°32	8°1	24°54	23°30	28°16	26°49	S 13
S 14	8 8 34	3°5'19	16°10	26°28	16°19	5°10	9°13	0°37	28°23	4°31	8°0	24°47	23°27	28°23	26°46	S 14
M15	8 12 30	4°6'14	28°3	28°7	17°19	5°41	9°26	0°38	28°20	4°31	7°59	24°40	23°24	28°30	26°43	M15
T 16	8 16 27	5°7'09	10°12	29°48	18°19	6°12	9°40	0°40	28°18	4°30	7°57	24°35	23°20	28°36	26°40	T 16
W17	8 20 24	6°8'02	22°10	18°29	19°20	6°43	9°53	0°41	28°15	4°29	7°56	24°32	23°17	28°43	26°37	W17
T 18	8 24 20	7°8'53	4°31	3°11	20°21	7°14	10°6	0°43	28°12	4°29	7°54	24°D31	23°14	28°50	26°35	T 18
F 19	8 28 17	8°9'43	17°11	4°54	21°23	7°46	10°20	0°44	28°10	4°28	7°53	24°32	23°11	28°57	26°32	F 19
S 20	8 32 13	9°10'32	0°13	6°37	22°24	8°18	10°33	0°45	28°7	4°27	7°51	24°33	23°8	29°3	26°29	S 20
S 21	8 36 10	10°11'19	13°41	8°21	23°26	8°50	10°47	0°46	28°5	4°26	7°50	24°34	23°5	29°10	26°27	S 21
M22	8 40 6	11°12'05	27°38	10°6	24°29	9°22	11°0	0°47	28°2	4°26	7°49	24°R35	23°1	29°17	26°24	M22
T 23	8 44 3	12°12'49	12°3	11°52	25°32	9°54	11°14	0°48	28°0	4°25	7°47	24°33	22°58	29°23	26°22	T 23
W24	8 47 59	13°13'32	26°54	13°39	26°35	10°26	11°27	0°48	27°57	4°24	7°46	24°30	22°55	29°30	26°20	W24
T 25	8 51 56	14°14'13	12°2	15°26	27°38	10°58	11°41	0°49	27°55	4°23	7°44	24°24	22°52	29°37	26°17	T 25
F 26	8 55 53	15°14'52	27°20	17°14	28°42	11°31	11°55	0°50	27°52	4°22	7°43	24°17	22°49	29°44	26°15	F 26
S 27	8 59 49	16°15'31	12°36	19°3	29°46	12°3	12°9	0°50	27°50	4°21	7°42	24°8	22°45	29°50	26°13	S 27
S 28	9 3 46	17°16'07	27°38	20°52	0°50	12°36	12°22	0°50	27°47	4°20	7°40	24°0	22°42	29°57	26°11	S 28
M29	9 7 42	18°16'43	12°19	22°42	1°54	13°8	12°36	0°50	27°45	4°19	7°39	23°54	22°39	0°4	26°9	M29
T 30	9 11 39	19°17'17	26°33	24°33	2°59	13°41	12°50	0°R51	27°42	4°18	7°37	23°49	22°36	0°10	26°7	T 30
W31	9 15 35	20°17'51	10°20	26°24	4°3	14°14	13°4	0°150	27°40	4°17	7°36	23°47	22°33	0°17	26°6	W31

Delta T = 06m24s

Julian Calendar 1 Jan. 1453 == Greg. Calendar 10 Jan. 1453

FEBRUARY 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	9 19 32	21°18'23	23°39	28°15	5°3 9	14°47	13°18	0°R50	27°R38	4°R16	7°R35	23°D46	22°30	0°24	26°R 4	T 1
F 2	9 23 28	22°18'54	6°34	0°31 7	6°15	15°20	13°32	0°150	27°35	4°15	7°33	23°47	22°26	0°31	26°R 2	F 2
S 3	9 27 25	23°19'23	19°9	1°59	7°20	15°53	13°46	0°50	27°33	4°14	7°32	23°R48	22°23	0°37	26°1	S 3
S 4	9 31 22	24°19'51	1°38	3°50	8°26	16°27	14°0	0°49	27°31	4°13	7°30	23°48	22°20	0°44	25°59	S 4
M 5	9 35 18	25°20'18	13°36	5°41	9°32	17°0	14°15	0°49	27°29	4°11	7°29	23°45	22°17	0°51	25°58	M 5
T 6	9 39 15	26°20'43	25°36	7°32	10°39	17°34	14°29	0°48	27°26	4°10	7°28	23°41	22°14	0°57	25°57	T 6
W 7	9 43 11	27°21'06	7°31	9°22	11°45	18°7	14°43	0°47	27°24	4°9	7°26	23°33	22°11	1°4	25°56	W 7
T 8	9 47 8	28°21'28	19°23	11°11	12°52	18°41	14°57	0°46	27°22	4°8	7°25	23°23	22°7	1°11	25°54	T 8
F 9	9 51 4	29°21'48	1°15	12°58	13°59	19°15	15°11	0°46	27°20	4°6	7°24	23°11	22°4	1°18	25°53	F 9
S 10	9 55 1	0°22'07	13°7	14°43	15°6	19°48	15°26	0°44	27°18	4°5	7°22	22°57	22°1	1°24	25°53	S 10
S 11	9 58 57	1°22'23	25°0	16°26	16°13	20°22	15°40	0°43	27°16	4°4	7°21	22°44	21°58	1°31	25°52	S 11
M12	10 2 54	2°22'38	6°57	18°6	17°20	20°56	15°54	0°42	27°14	4°2	7°20	22°32	21°55	1°38	25°51	M12
T 13	10 6 51	3°22'50	19°0	19°42	18°28	21°30	16°9	0°41	27°12	4°1	7°19	22°22	21°51	1°44	25°50	T 13
W14	10 10 47	4°23'01	1°10	21°14	19°35	22°4	16°23	0°39	27°10	4°0	7°17	22°14	21°48	1°51	25°50	W14
T 15	10 14 44	5°23'10	13°32	22°41	20°43	22°39	16°38	0°38	27°8	3°58	7°16	22°10	21°45	1°58	25°49	T 15
F 16	10 18 40	6°23'16	26°8	24°4	21°51	23°13	16°52	0°36	27°6	3°57	7°15	22°8	21°42	2°5	25°49	F 16
S 17	10 22 37	7°23'21	9°11	25°20	22°59	23°47	17°6	0°34	27°4	3°55	7°14	22°D 7	21°39	2°11	25°49	S 17
S 18	10 26 33	8°23'23	22°23	26°30	24°7	24°21	17°21	0°32	27°2	3°54	7°13	22°R 8	21°36	2°18	25°48	S 18
M19	10 30 30	9°23'23	6°8	27°34	25°15	24°56	17°35	0°30	27°1	3°53	7°11	22°7	21°32	2°25	25°48	M19
T 20	10 34 26	10°23'21	20°22	28°30	26°24	25°30	17°50	0°28	26°59	3°51	7°10	22°5	21°29	2°31	25°D48	T 20
W21	10 38 23	11°23'16	5°2	29°18	27°32	26°5	18°4	0°26	26°57	3°50	7°9	22°0	21°26	2°38	25°48	W21
T 22	10 42 20	12°23'10	20°5	29°58	28°41	26°39	18°19	0°24	26°56	3°48	7°8	21°52	21°23	2°45	25°49	T 22
F 23	10 46 16	13°23'01	5°22	0°30	29°50	27°14	18°33	0°22	26°54	3°47	7°7	21°42	21°20	2°52	25°49	F 23
S 24	10 50 13	14°22'50	20°43	0°53	0°58	27°49	18°48	0°19	26°53	3°45	7°6	21°30	21°17	2°58	25°49	S 24
S 25	10 54 9	15°22'37	5°55	1°8	2°7	28°24	19°2	0°17	26°51	3°44	7°5	21°19	21°13	3°5	25°50	S 25
M26	10 58 6	16°22'23	20°49	1°R14	3°16	28°58	19°17	0°14	26°50	3°42	7°4	21°10	21°10	3°12	25°50	M26
T 27	11 2 2	17°22'06	5°16	1°11	4°26	29°33	19°31	0°12	26°48	3°40	7°3	21°2	21°7	3°18	25°51	T 27
W28	11 5 59	18°21'48	19°13	1°10	5°35	0°11 8	19°46	0°11 9	26°47	3°39	7°2	20°58	21°4	3°25	25°52	W28

Delta T = 06m24s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1453

geocentric

MARCH 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	11 9 55	19°21'28	2°40	0°R42	6°44	0°II43	20°H 0	0°R 6	26°R46	3°R37	7°R 1	20°R56	21°R 1	3°H32	25°II52	T 1
F 2	11 13 52	20°21'07	15°40	0°Y16	7°54	1°18	20°15	0°II 3	26°R44	3°H36	7°R 0	20°R55	20°57	3°39	25°53	F 2
S 3	11 17 48	21°20'43	28°16	29°H43	9° 3	1°53	20°30	0° 0	26°43	3°34	6°59	20°55	20°54	3°45	25°54	S 3
S 4	11 21 45	22°20'18	10°33	29° 5	10°13	2°28	20°44	29°H57	26°42	3°32	6°58	20°54	20°51	3°52	25°55	S 4
M 5	11 25 42	23°19'51	22°38	28°21	11°23	3° 3	20°59	29°54	26°41	3°31	6°57	20°52	20°48	3°59	25°56	M 5
T 6	11 29 38	24°19'22	4°33	27°34	12°33	3°38	21°13	29°51	26°40	3°29	6°56	20°46	20°45	4° 5	25°58	T 6
W 7	11 33 35	25°18'52	16°24	26°43	13°43	4°13	21°28	29°48	26°39	3°28	6°55	20°38	20°42	4°12	25°59	W 7
T 8	11 37 31	26°18'19	28°14	25°51	14°53	4°49	21°42	29°44	26°38	3°26	6°54	20°27	20°38	4°19	26° 0	T 8
F 9	11 41 28	27°17'45	10°H 6	24°59	16° 3	5°24	21°57	29°41	26°37	3°24	6°53	20°14	20°35	4°26	26° 2	F 9
S 10	11 45 24	28°17'08	22° 0	24° 6	17°13	5°59	22°11	29°37	26°36	3°23	6°52	20° 0	20°32	4°32	26° 3	S 10
S 11	11 49 21	29°16'29	4°Y 0	23°15	18°23	6°35	22°26	29°34	26°35	3°21	6°52	19°46	20°29	4°39	26° 5	S 11
M12	11 53 17	0°Y15'49	16° 5	22°27	19°33	7°10	22°40	29°30	26°34	3°19	6°51	19°32	20°26	4°46	26° 7	M12
T 13	11 57 14	1°15'06	28°16	21°41	20°43	7°45	22°55	29°26	26°34	3°18	6°50	19°21	20°22	4°52	26° 9	T 13
W14	12 1 11	2°14'21	10°H37	21° 0	21°54	8°21	23° 9	29°23	26°33	3°16	6°49	19°13	20°19	4°59	26°11	W14
T 15	12 5 7	3°13'34	23° 7	20°23	23° 4	8°56	23°24	29°19	26°33	3°14	6°49	19° 8	20°16	5° 6	26°13	T 15
F 16	12 9 4	4°12'44	5°II49	19°50	24°15	9°32	23°38	29°15	26°32	3°13	6°48	19° 5	20°13	5°13	26°15	F 16
S 17	12 13 0	5°11'53	18°47	19°23	25°25	10° 8	23°52	29°11	26°31	3°11	6°47	19°D 5	20°10	5°19	26°17	S 17
S 18	12 16 57	6°10'59	2°H 4	19° 2	26°36	10°43	24° 7	29° 7	26°31	3° 9	6°47	19°R 5	20° 7	5°26	26°19	S 18
M19	12 20 53	7°10'02	15°42	18°46	27°47	11°19	24°21	29° 3	26°31	3° 8	6°46	19° 5	20° 3	5°33	26°22	M19
T 20	12 24 50	8° 9'03	29°43	18°35	28°57	11°54	24°35	28°59	26°30	3° 6	6°46	19° 3	20° 0	5°39	26°24	T 20
W21	12 28 46	9° 8'02	14°D 8	18°D30	0°H 8	12°30	24°50	28°55	26°30	3° 5	6°45	18°59	19°57	5°46	26°27	W21
T 22	12 32 43	10° 6'58	28°53	18°31	1°19	13° 6	25° 4	28°51	26°30	3° 3	6°45	18°52	19°54	5°53	26°29	T 22
F 23	12 36 40	11° 5'53	13°H53	18°37	2°30	13°42	25°18	28°47	26°30	3° 1	6°44	18°44	19°51	6° 0	26°32	F 23
S 24	12 40 36	12° 4'44	29° 0	18°48	3°41	14°17	25°32	28°42	26°29	3° 0	6°44	18°34	19°48	6° 6	26°35	S 24
S 25	12 44 33	13° 3'34	14°H 3	19° 4	4°52	14°53	25°47	28°38	26°29	2°58	6°43	18°24	19°44	6°13	26°38	S 25
M26	12 48 29	14° 2'22	28°53	19°24	6° 3	15°29	26° 1	28°34	26°D29	2°56	6°43	18°15	19°41	6°20	26°40	M26
T 27	12 52 26	15° 1'08	13°H21	19°50	7°14	16° 5	26°15	28°29	26°29	2°55	6°42	18° 9	19°38	6°27	26°43	T 27
W28	12 56 22	15°59'52	27°22	20°20	8°25	16°41	26°29	28°25	26°30	2°53	6°42	18° 5	19°35	6°33	26°46	W28
T 29	13 0 19	16°58'34	10°H55	20°54	9°36	17°17	26°43	28°21	26°30	2°52	6°42	18° 3	19°32	6°40	26°50	T 29
F 30	13 4 15	17°57'15	24° 1	21°32	10°47	17°52	26°57	28°16	26°30	2°50	6°41	18°D 3	19°28	6°47	26°53	F 30
S 31	13 8 12	18°Y55'54	6°H43	22°H13	11°H58	18°II28	27°H11	28°H12	26°H30	2°H48	6°H41	18°H 3	19°H25	6°H53	26°II56	S 31

Delta T = 06m24s

Julian Calendar 1 March 1453 == Greg. Calendar 10 March 1453

APRIL 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	13 12 9	19°Y54'31	19°H 4	22°H59	13°H10	19°II 4	27°H25	28°R 7	26°H30	2°R47	6°R41	18°R 4	19°H22	7°H 0	26°II59	S 1
M 2	13 16 5	20°53'07	1°H10	23°48	14°21	19°40	27°39	28°H 3	26°31	2°H45	6°H41	18°H 3	19°19	7° 7	27° 3	M 2
T 3	13 20 2	21°51'40	13° 7	24°40	15°32	20°16	27°53	27°58	26°31	2°44	6°40	18° 1	19°16	7°14	27° 6	T 3
W 4	13 23 58	22°50'12	24°59	25°35	16°44	20°52	28° 7	27°54	26°32	2°42	6°40	17°56	19°13	7°20	27°10	W 4
T 5	13 27 55	23°48'43	6°H49	26°33	17°55	21°28	28°21	27°49	26°32	2°41	6°40	17°49	19° 9	7°27	27°14	T 5
F 6	13 31 51	24°47'11	18°43	27°35	19° 7	22° 4	28°34	27°45	26°33	2°39	6°40	17°41	19° 6	7°34	27°17	F 6
S 7	13 35 48	25°45'38	0°Y42	28°39	20°18	22°40	28°48	27°40	26°33	2°38	6°40	17°31	19° 3	7°40	27°21	S 7
S 8	13 39 44	26°44'03	12°48	29°45	21°30	23°17	29° 2	27°36	26°34	2°36	6°40	17°21	19° 0	7°47	27°25	S 8
M 9	13 43 41	27°42'26	25° 3	0°Y54	22°41	23°53	29°16	27°31	26°35	2°35	6°40	17°12	18°57	7°54	27°29	M 9
T 10	13 47 37	28°40'47	7°H29	2° 6	23°53	24°29	29°29	27°26	26°36	2°33	6°D40	17° 4	18°54	8° 1	27°33	T 10
W11	13 51 34	29°39'07	20° 4	3°20	25° 4	25° 5	29°43	27°22	26°36	2°32	6°40	16°59	18°50	8° 7	27°37	W11
T 12	13 55 31	0°H37'25	2°II51	4°36	26°16	25°41	29°56	27°17	26°37	2°30	6°40	16°56	18°47	8°14	27°41	T 12
F 13	13 59 27	1°35'41	15°50	5°55	27°28	26°17	0°Y10	27°13	26°38	2°29	6°40	16°D55	18°44	8°21	27°45	F 13
S 14	14 3 24	2°33'54	29° 1	7°15	28°39	26°54	0°23	27° 8	26°39	2°28	6°40	16°56	18°41	8°27	27°49	S 14
S 15	14 7 20	3°32'06	12°H27	8°38	29°51	27°30	0°36	27° 4	26°40	2°26	6°40	16°57	18°38	8°34	27°54	S 15
M16	14 11 17	4°30'16	26° 8	10° 3	1°Y 3	28° 6	0°50	26°59	26°41	2°25	6°40	16°58	18°34	8°41	27°58	M16
T 17	14 15 13	5°28'24	10°H 5	11°30	2°15	28°42	1° 3	26°55	26°43	2°23	6°41	16°R58	18°31	8°48	28° 3	T 17
W18	14 19 10	6°26'29	24°18	13° 0	3°26	29°19	1°16	26°50	26°44	2°22	6°41	16°57	18°28	8°54	28° 7	W18
T 19	14 23 6	7°24'33	8°H45	14°31	4°38	29°55	1°29	26°46	26°45	2°21	6°41	16°54	18°25	9° 1	28°12	T 19
F 20	14 27 3	8°22'34	23°22	16° 4	5°50	0°H31	1°42	26°41	26°46	2°20	6°41	16°49	18°22	9° 8	28°16	F 20
S 21	14 31 0	9°20'34	8°H 4	17°39	7° 2	1° 8	1°55	26°37	26°48	2°18	6°42	16°44	18°19	9°15	28°21	S 21
S 22	14 34 56	10°18'32	22°43	19°16	8°14	1°44	2° 8	26°33	26°49	2°17	6°42	16°38	18°15	9°21	28°26	S 22
M23	14 38 53	11°16'28	7°H13	20°55	9°26	2°20	2°21	26°28	26°51	2°16	6°42	16°34	18°12	9°28	28°30	M23
T 24	14 42 49	12°14'23	21°27	22°36	10°37	2°57	2°34	26°24	26°52	2°15	6°43	16°30	18° 9	9°35	28°35	T 24
W25	14 46 46	13°12'16	5°H21	24°19	11°49	3°33	2°46	26°20	26°54	2°14	6°43	16°28	18° 6	9°41	28°40	W25
T 26	14 50 42	14°10'08	18°51	26° 4	13° 1	4°10	2°59	26°16	26°55	2°12	6°43	16°D28	18° 3	9°48	28°45	T 26
F 27	14 54 39	15° 7'58	1°H57	27°52	14°13	4°46	3°12	26°11	26°57	2°11	6°44	16°28	17°59	9°55	28°50	F 27
S 28	14 58 35	16° 5'47	14°41	29°41	15°25	5°23	3°24	26° 7	26°58	2°10	6°44	16°30	17°56	10° 2	28°55	S 28
S 29	15 2 32	17° 3'35	27° 6	1°H32	16°37	5°59	3°37	26° 3	27° 0	2° 9	6°45	16°31	17°53	10° 8	29° 0	S 29
M30	15 6 29	18°H 1'22	9°H16	3°H25	17°Y49	6°H35	3°Y49	25°H59	27°H 2	2°H 8	6°H45	16°H33	17°H50	10°H15	29°II 5	M30

Delta T = 06m24s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1453

geocentric

MAY 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	15 10 25	18 ⁸ 59'07	21 ¹ 15	5 ⁸ 20	19 ⁹ 2	7 ¹² 12	4 ⁹ 1	25 ⁵ R55	27 ¹² 4	2 ⁹ R 7	6 ¹² 46	16 ⁹ R33	17 ¹² 47	10 ¹² 22	29 ¹² 10	T 1
W 2	15 14 22	19 ⁵ 56'52	3 ¹ 9	7 ¹⁷ 17	20 ¹⁴	7 ⁴⁸	4 ¹³	25 ¹² 51	27 ⁶	2 ¹² 6	6 ⁴⁷	16 ¹² 32	17 ⁴⁴	10 ²⁸	29 ¹⁵	W 2
T 3	15 18 18	20 ⁵ 54'35	15 ¹	9 ¹⁶	21 ²⁶	8 ²⁵	4 ²⁶	25 ⁴⁷	27 ⁸	2 ⁵	6 ⁴⁷	16 ³⁰	17 ⁴⁰	10 ³⁵	29 ²¹	T 3
F 4	15 22 15	21 ⁵ 22'17	26 ⁵⁷	11 ¹⁶	22 ³⁸	9 ¹	4 ³⁸	25 ⁴³	27 ¹⁰	2 ⁴	6 ⁴⁸	16 ²⁷	17 ³⁷	10 ⁴²	29 ²⁶	F 4
S 5	15 26 11	22 ⁴⁹ 57	9 ⁹ 0	13 ¹⁹	23 ⁵⁰	9 ³⁸	4 ⁵⁰	25 ⁴⁰	27 ¹²	2 ³	6 ⁴⁸	16 ²⁴	17 ³⁴	10 ⁴⁹	29 ³¹	S 5
S 6	15 30 8	23 ⁴⁷ 37	21 ¹³	15 ²³	25 ²	10 ¹⁵	5 ¹	25 ³⁶	27 ¹⁴	2 ²	6 ⁴⁹	16 ²⁰	17 ³¹	10 ⁵⁵	29 ³⁷	S 6
M 7	15 34 4	24 ⁴⁵ 16	3 ⁸ 39	17 ²⁹	26 ¹⁵	10 ⁵¹	5 ¹³	25 ³²	27 ¹⁶	2 ¹	6 ⁵⁰	16 ¹⁷	17 ²⁸	11 ²	29 ⁴²	M 7
T 8	15 38 1	25 ⁴² 53	16 ¹⁸	19 ³⁶	27 ²⁷	11 ²⁸	5 ²⁵	25 ²⁸	27 ¹⁸	2 ¹	6 ⁵¹	16 ¹⁴	17 ²⁵	11 ⁹	29 ⁴⁸	T 8
W 9	15 41 58	26 ⁴⁰ 30	29 ¹¹	21 ⁴⁵	28 ³⁹	12 ⁴	5 ³⁷	25 ²⁵	27 ²⁰	2 ⁰	6 ⁵¹	16 ¹²	17 ²¹	11 ¹⁶	29 ⁵³	W 9
T 10	15 45 54	27 ³⁸ 05	12 ¹¹ 19	23 ⁵⁵	29 ⁵¹	12 ⁴¹	5 ⁴⁸	25 ²¹	27 ²²	1 ⁵⁹	6 ⁵²	16 ¹¹	17 ¹⁸	11 ²²	29 ⁵⁹	T 10
F 11	15 49 51	28 ³⁵ 39	25 ⁴⁰	26 ⁵	1 ⁸ 4	13 ¹⁸	6 ⁰	25 ¹⁸	27 ²⁵	1 ⁵⁸	6 ⁵³	16 ¹²	17 ¹⁵	11 ²⁹	0 ⁵ 4	F 11
S 12	15 53 47	29 ³³ 12	9 ¹² 15	28 ¹⁷	2 ¹⁶	13 ⁵⁴	6 ¹¹	25 ¹⁵	27 ²⁷	1 ⁵⁸	6 ⁵⁴	16 ¹²	17 ¹²	11 ³⁶	0 ¹⁰	S 12
S 13	15 57 44	0 ¹¹ 30'43	23 ⁰	0 ¹¹ 29	3 ²⁸	14 ³¹	6 ²²	25 ¹¹	27 ²⁹	1 ⁵⁷	6 ⁵⁵	16 ¹⁴	17 ⁹	11 ⁴²	0 ¹⁶	S 13
M14	16 1 40	1 ²⁸ 13	6 ¹² 56	2 ⁴¹	4 ⁴¹	15 ⁸	6 ³³	25 ⁸	27 ³²	1 ⁵⁶	6 ⁵⁶	16 ¹⁵	17 ⁵	11 ⁴⁹	0 ²¹	M14
T 15	16 5 37	2 ²⁵ 42	21 ¹	4 ⁵²	5 ⁵³	15 ⁴⁴	6 ⁴⁵	25 ⁵	27 ³⁴	1 ⁵⁶	6 ⁵⁶	16 ¹⁵	17 ²	11 ⁵⁶	0 ²⁷	T 15
W16	16 9 33	3 ²³ 09	5 ¹¹ 12	7 ⁴	7 ⁵	16 ²¹	6 ⁵⁶	25 ²	27 ³⁷	1 ⁵⁵	6 ⁵⁷	16 ¹⁶	16 ⁵⁹	12 ³	0 ³³	W16
T 17	16 13 30	4 ²⁰ 35	19 ²⁸	9 ¹⁵	8 ¹⁸	16 ⁵⁸	7 ⁶	24 ⁵⁹	27 ³⁹	1 ⁵⁴	6 ⁵⁸	16 ¹⁵	16 ⁵⁶	12 ⁹	0 ³⁹	T 17
F 18	16 17 27	5 ¹⁸ 00	3 ¹² 46	11 ²⁵	9 ³⁰	17 ³⁵	7 ¹⁷	24 ⁵⁶	27 ⁴²	1 ⁵⁴	6 ⁵⁹	16 ¹⁴	16 ⁵³	12 ¹⁶	0 ⁴⁴	F 18
S 19	16 21 23	6 ¹⁵ 23	18 ³	13 ³⁴	10 ⁴²	18 ¹¹	7 ²⁸	24 ⁵³	27 ⁴⁴	1 ⁵³	7 ⁰	16 ¹³	16 ⁵⁰	12 ²³	0 ⁵⁰	S 19
S 20	16 25 20	7 ¹² 46	2 ¹¹ 14	15 ⁴¹	11 ⁵⁵	18 ⁴⁸	7 ³⁸	24 ⁵⁰	27 ⁴⁷	1 ⁵³	7 ¹	16 ¹²	16 ⁴⁶	12 ²⁹	0 ⁵⁶	S 20
M21	16 29 16	8 ¹⁰ 07	16 ¹⁶	17 ⁴⁷	13 ⁷	19 ²⁵	7 ⁴⁹	24 ⁴⁸	27 ⁴⁹	1 ⁵²	7 ²	16 ¹¹	16 ⁴³	12 ³⁶	1 ²	M21
T 22	16 33 13	9 ⁷ 27	0 ¹² 6	19 ⁵¹	14 ²⁰	20 ²	7 ⁵⁹	24 ⁴⁵	27 ⁵²	1 ⁵²	7 ⁴	16 ¹¹	16 ⁴⁰	12 ⁴³	1 ⁸	T 22
W23	16 37 9	10 ⁴ 47	13 ⁴⁰	21 ⁵³	15 ³²	20 ³⁸	8 ¹⁰	24 ⁴²	27 ⁵⁵	1 ⁵²	7 ⁵	16 ¹⁰	16 ³⁷	12 ⁵⁰	1 ¹⁴	W23
T 24	16 41 6	11 ² 06	26 ⁵⁷	23 ⁵³	16 ⁴⁵	21 ¹⁵	8 ²⁰	24 ⁴⁰	27 ⁵⁸	1 ⁵¹	7 ⁶	16 ¹¹	16 ³⁴	12 ⁵⁶	1 ²⁰	T 24
F 25	16 45 2	11 ⁵⁹ 24	9 ¹² 55	25 ⁵¹	17 ⁵⁷	21 ⁵²	8 ³⁰	24 ³⁸	28 ⁰	1 ⁵¹	7 ⁷	16 ¹¹	16 ³¹	13 ³	1 ²⁶	F 25
S 26	16 48 59	12 ⁵⁶ 41	22 ³⁵	27 ⁴⁷	19 ¹⁰	22 ²⁹	8 ⁴⁰	24 ³⁵	28 ³	1 ⁵¹	7 ⁸	16 ¹¹	16 ²⁷	13 ¹⁰	1 ³²	S 26
S 27	16 52 56	13 ⁵³ 58	4 ¹² 59	29 ⁴¹	20 ²²	23 ⁶	8 ⁴⁹	24 ³³	28 ⁶	1 ⁵⁰	7 ⁹	16 ¹²	16 ²⁴	13 ¹⁷	1 ³⁸	S 27
M28	16 56 52	14 ⁵¹ 15	17 ¹⁰	1 ¹² 32	21 ³⁵	23 ⁴³	8 ⁵⁹	24 ³¹	28 ⁹	1 ⁵⁰	7 ¹⁰	16 ¹²	16 ²¹	13 ²³	1 ⁴⁴	M28
T 29	17 0 49	15 ⁴⁸ 31	29 ¹⁰	3 ²¹	22 ⁴⁸	24 ¹⁹	9 ⁹	24 ²⁹	28 ¹²	1 ⁵⁰	7 ¹²	16 ¹²	16 ¹⁸	13 ³⁰	1 ⁵⁰	T 29
W30	17 4 45	16 ⁴⁵ 46	11 ¹¹ 5	5 ⁷	24 ⁰	24 ⁵⁶	9 ¹⁸	24 ²⁷	28 ¹⁵	1 ⁵⁰	7 ¹³	16 ¹²	16 ¹⁵	13 ³⁷	1 ⁵⁶	W30
T 31	17 8 42	17 ¹¹ 43'02	22 ¹² 59	6 ¹² 51	25 ¹³	25 ¹² 33	9 ⁹ 28	24 ¹² 5	28 ¹⁸	1 ¹² 50	7 ¹⁴	16 ¹²	16 ¹¹	13 ⁴³	2 ⁵ 2	T 31

Delta T = 06m23s

Julian Calendar 1 May 1453 == Greg. Calendar 10 May 1453

JUNE 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	17 12 38	18 ¹¹ 40'17	4 ⁹ 56	8 ¹² 33	26 ¹⁸ 26	26 ¹⁰	9 ⁹ 37	24 ¹² R23	28 ¹² 21	1 ¹² R49	7 ¹² 15	16 ¹² 12	16 ¹² 8	13 ¹² 50	2 ¹² 9	F 1
S 2	17 16 35	19 ³⁷ 32	17 ⁰	10 ¹²	27 ³⁸	26 ⁴⁷	9 ⁴⁶	24 ¹² 22	28 ²⁴	1 ¹² 49	7 ¹⁷	16 ¹²	16 ⁵	13 ⁵⁷	2 ¹⁵	S 2
S 3	17 20 31	20 ³⁴ 46	29 ¹⁷	11 ⁴⁹	28 ⁵¹	27 ²⁴	9 ⁵⁵	24 ²⁰	28 ²⁷	1 ⁴⁹	7 ¹⁸	16 ¹³	16 ²	14 ⁴	2 ²¹	S 3
M 4	17 24 28	21 ³² 00	11 ¹⁸ 48	13 ²⁴	0 ¹¹ 4	28 ¹	10 ⁴	24 ¹⁹	28 ³⁰	1 ¹² D49	7 ¹⁹	16 ¹³	15 ⁵⁹	14 ¹⁰	2 ²⁷	M 4
T 5	17 28 25	22 ²⁹ 15	24 ³⁷	14 ⁵⁵	1 ¹⁷	28 ³⁸	10 ¹²	24 ¹⁷	28 ³³	1 ⁴⁹	7 ²¹	16 ¹⁴	15 ⁵⁶	14 ¹⁷	2 ³³	T 5
W 6	17 32 21	23 ²⁶ 29	7 ¹¹ 46	16 ²⁵	2 ²⁹	29 ¹⁵	10 ²¹	24 ¹⁶	28 ³⁶	1 ⁴⁹	7 ²²	16 ¹⁴	15 ⁵²	14 ²⁴	2 ⁴⁰	W 6
T 7	17 36 18	24 ²³ 42	21 ¹⁴	17 ⁵²	3 ⁴²	29 ⁵²	10 ²⁹	24 ¹⁵	28 ⁴⁰	1 ⁴⁹	7 ²⁴	16 ¹⁴	15 ⁴⁹	14 ³¹	2 ⁴⁶	T 7
F 8	17 40 14	25 ²⁰ 56	5 ¹² 0	19 ¹⁶	4 ⁵⁵	0 ¹² 29	10 ³⁸	24 ¹⁴	28 ⁴³	1 ⁵⁰	7 ²⁵	16 ¹⁴	15 ⁴⁶	14 ³⁷	2 ⁵²	F 8
S 9	17 44 11	26 ¹⁸ 09	19 ¹	20 ³⁸	6 ⁸	1 ⁶	10 ⁴⁶	24 ¹³	28 ⁴⁶	1 ⁵⁰	7 ²⁶	16 ¹³	15 ⁴³	14 ⁴⁴	2 ⁵⁸	S 9
S 10	17 48 7	27 ¹⁵ 21	3 ¹² 13	21 ⁵⁷	7 ²¹	1 ⁴³	10 ⁵⁴	24 ¹²	28 ⁴⁹	1 ⁵⁰	7 ²⁸	16 ¹²	15 ⁴⁰	14 ⁵¹	3 ⁵	S 10
M11	17 52 4	28 ¹² 34	17 ³³	23 ¹³	8 ³⁴	2 ²⁰	11 ²	24 ¹¹	28 ⁵³	1 ⁵⁰	7 ²⁹	16 ¹⁰	15 ³⁷	14 ⁵⁷	3 ¹¹	M11
T 12	17 56 1	29 ⁹ 45	1 ¹¹ 55	24 ²⁷	9 ⁴⁷	2 ⁵⁷	11 ¹⁰	24 ¹⁰	28 ⁵⁶	1 ⁵⁰	7 ³¹	16 ⁹	15 ³³	15 ⁴	3 ¹⁷	T 12
W13	17 59 57	0 ¹² 6'57	16 ¹⁶	25 ³⁸	10 ⁵⁹	3 ³⁵	11 ¹⁷	24 ¹⁰	28 ⁵⁹	1 ⁵¹	7 ³²	16 ⁸	15 ³⁰	15 ¹¹	3 ²⁴	W13
T 14	18 3 54	1 ⁴ 07	0 ¹² 32	26 ⁴⁶	12 ¹²	4 ¹²	11 ²⁵	24 ⁹	29 ³	1 ⁵¹	7 ³⁴	16 ⁸	15 ²⁷	15 ¹⁸	3 ³⁰	T 14
F 15	18 7 50	2 ¹ 18	14 ⁴⁰	27 ⁵¹	13 ²⁵	4 ⁴⁹	11 ³²	24 ⁹	29 ⁶	1 ⁵¹	7 ³⁵	16 ⁸	15 ²⁴	15 ²⁴	3 ³⁶	F 15
S 16	18 11 47	2 ⁵⁸ 28	28 ³⁸	28 ⁵⁴	14 ³⁸	5 ²⁶	11 ³⁹	24 ⁹	29 ⁹	1 ⁵²	7 ³⁷	16 ⁹	15 ²¹	15 ³¹	3 ⁴³	S 16
S 17	18 15 43	3 ⁵⁵ 38	12 ¹¹ 26	29 ⁵³	15 ⁵¹	6 ³	11 ⁴⁶	24 ⁸	29 ¹³	1 ⁵²	7 ³⁸	16 ¹⁰	15 ¹⁷	15 ³⁸	3 ⁴⁹	S 17
M18	18 19 40	4 ⁵² 47	26 ²	0 ¹² 49	17 ⁴	6 ⁴⁰	11 ⁵³	24 ⁸	29 ¹⁶	1 ⁵²	7 ⁴⁰	16 ¹¹	15 ¹⁴	15 ⁴⁵	3 ⁵⁵	M18
T 19	18 23 36	5 ⁴⁹ 57	9 ¹² 25	1 ⁴¹	18 ¹⁷	7 ¹⁸	12 ⁰	24 ¹² D 8	29 ²⁰	1 ⁵³	7 ⁴²	16 ¹²	15 ¹¹	15 ⁵¹	4 ¹	T 19
W20	18 27 33	6 ⁴⁷ 06	22 ³⁵	2 ³⁰	19 ³¹	7 ⁵⁵	12 ⁶	24 ⁸	29 ²³	1 ⁵³	7 ⁴³	16 ¹²	15 ⁸	15 ⁵⁸	4 ⁸	W20
T 21	18 31 30	7 ⁴⁴ 16	5 ¹² 32	3 ¹⁶	20 ⁴⁴	8 ³²	12 ¹³	24 ⁸	29 ²⁷	1 ⁵⁴	7 ⁴⁵	16 ¹¹	15 ⁵	16 ⁵	4 ¹⁴	T 21
F 22	18 35 26	8 ⁴¹ 26	18 ¹⁶	3 ⁵⁸	21 ⁵⁷	9 ⁹	12 ¹⁹	24 ⁹	29 ³⁰	1 ⁵⁵	7 ⁴⁶	16 ⁹	15 ²	16 ¹¹	4 ²⁰	F 22
S 23	18 39 23	9 ³⁸ 36	0 ¹¹ 46	4 ³⁶	23 ¹⁰	9 ⁴⁷	12 ²⁵	24 ⁹	29 ³⁴	1 ⁵⁵	7 ⁴⁸	16 ⁶	14 ⁵⁸	16 ¹⁸	4 ²⁷	S 23
S 24	18 43 19	10 ³⁵ 46	13 ⁴	5 ¹¹	24 ²³	10 ²⁴	12 ³¹	24 ¹⁰	29 ³⁷	1 ⁵⁶	7 ⁵⁰	16 ²	14 ⁵⁵	16 ²⁵	4 ³³	S 24
M25	18 47 16	11 ³² 56	25 ¹²	5 ⁴¹	25 ³⁶	11 ¹	12 ³⁷	24 ¹⁰	29 ⁴¹	1 ⁵⁶	7 ⁵¹	15 ⁵⁸	14 ⁵²	16 ³²	4 ³⁹	M25
T 26	18 51 12	12 ³⁰ 07	7 ¹¹	6 ⁷	26 ⁵⁰	11 ³⁸	12 ⁴²	24 ¹¹	29 ⁴⁴	1 ⁵⁷	7 ⁵³	15 ⁵⁴	14 ⁴⁹	16 ³⁸	4 ⁴⁶	T 26
W27	18 55 9	13 ²⁷ 18	19 ⁵	6 ²⁸	28 ³	12 ¹⁶	12 ⁴⁸	24 ¹²	29 ⁴⁸	1 ⁵⁸	7 ⁵⁵	15 ⁵¹	14 ⁴⁶	16 ⁴⁵	4 ⁵²	W27
T 28	18 59 5	14 ²⁴ 30	0 ¹⁵ 58	6 ⁴⁶	29 ¹⁶	12 ⁵³	12 ⁵³	24 ¹²	29 ⁵¹	1 ⁵⁹	7 ⁵⁶	15 ⁴⁹	14 ⁴³	16 ⁵²	4 ⁵⁸	T 28
F 29	19 3 2	15 ²¹ 43	12 ⁵⁴	6 ⁵⁸	0 ¹² 29	13 ³⁰	12 ⁵⁸	24 ¹³	29 ⁵⁵	1 ⁵⁹	7 ⁵⁸	15 ⁴⁸	14 ³⁹	16 ⁵⁸	5 ⁵	F 29
S 30	19 6 59	16 ¹¹ 18'56	24 ⁹ 57	7 ¹² 6	1 ¹² 43	14 ¹² 8	13 ¹³ 3	24 ¹² 14	29 ⁵⁸ 59	2 ¹² 0	8 ¹² 0	15 ¹² 48	14 ¹² 36	17 ¹² 5	5 ¹² 11	S 30

ASTRODIENST EPHEMERIS for the year 1453

geocentric

JULY 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	19 10 55	17°16'10	7°13	7°R 9	2°56	14°45	13°V 8	24°16	0°2	2°1	8°1	15°50	14°33	17°12	5°17	S 1
M 2	19 14 52	18°13'25	19°45	7°17	4° 9	15°23	13°12	24°17	0° 6	2° 2	8° 3	15°51	14°30	17°19	5°23	M 2
T 3	19 18 48	19°10'40	2°138	7° 0	5°23	16° 0	13°17	24°18	0°10	2° 3	8° 5	15°53	14°27	17°25	5°30	T 3
W 4	19 22 45	20° 7'56	15°55	6°49	6°36	16°38	13°21	24°20	0°13	2° 4	8° 7	15°R53	14°23	17°32	5°36	W 4
T 5	19 26 41	21° 5'13	29°36	6°32	7°50	17°15	13°25	24°21	0°17	2° 5	8° 8	15°52	14°20	17°39	5°42	T 5
F 6	19 30 38	22° 2'31	13°40	6°11	9° 3	17°53	13°29	24°23	0°21	2° 6	8°10	15°50	14°17	17°46	5°48	F 6
S 7	19 34 34	22°59'50	28° 5	5°45	10°17	18°30	13°33	24°24	0°24	2° 7	8°12	15°46	14°14	17°52	5°54	S 7
S 8	19 38 31	23°57'09	12°45	5°16	11°30	19° 8	13°36	24°26	0°28	2° 8	8°14	15°41	14°11	17°59	6° 0	S 8
M 9	19 42 28	24°54'28	27°31	4°42	12°44	19°45	13°39	24°28	0°32	2° 9	8°15	15°35	14° 8	18° 6	6° 7	M 9
T 10	19 46 24	25°51'48	12°17	4° 5	13°58	20°23	13°42	24°30	0°35	2°10	8°17	15°30	14° 4	18°12	6°13	T 10
W11	19 50 21	26°49'08	26°56	3°25	15°11	21° 1	13°45	24°32	0°39	2°11	8°19	15°25	14° 1	18°19	6°19	W11
T 12	19 54 17	27°46'29	11°21	2°43	16°25	21°38	13°48	24°35	0°43	2°12	8°21	15°22	13°58	18°26	6°25	T 12
F 13	19 58 14	28°43'51	25°29	1°59	17°38	22°16	13°51	24°37	0°46	2°13	8°23	15°D21	13°55	18°33	6°31	F 13
S 14	20 2 10	29°41'13	9°120	1°14	18°52	22°54	13°53	24°39	0°50	2°15	8°24	15°22	13°52	18°39	6°37	S 14
S 15	20 6 7	0°138'36	22°53	0°29	20° 6	23°31	13°55	24°42	0°54	2°16	8°26	15°23	13°49	18°46	6°43	S 15
M16	20 10 3	1°35'59	6°110	29°45	21°20	24° 9	13°57	24°44	0°57	2°17	8°28	15°24	13°45	18°53	6°49	M16
T 17	20 14 0	2°33'23	19°12	29° 3	22°33	24°47	13°59	24°47	1° 1	2°18	8°30	15°R24	13°42	19° 0	6°55	T 17
W18	20 17 57	3°30'48	2°1	28°23	23°47	25°25	14° 1	24°50	1° 5	2°20	8°32	15°23	13°39	19° 6	7° 1	W18
T 19	20 21 53	4°28'13	14°39	27°46	25° 1	26° 2	14° 2	24°52	1° 9	2°21	8°33	15°19	13°36	19°13	7° 7	T 19
F 20	20 25 50	5°25'40	27° 6	27°13	26°15	26°40	14° 3	24°55	1°12	2°22	8°35	15°13	13°33	19°20	7°13	F 20
S 21	20 29 46	6°23'07	9°23	26°44	27°29	27°18	14° 4	24°58	1°16	2°24	8°37	15° 6	13°29	19°26	7°19	S 21
S 22	20 33 43	7°20'36	21°33	26°21	28°42	27°56	14° 5	25° 1	1°20	2°25	8°39	14°56	13°26	19°33	7°24	S 22
M23	20 37 39	8°18'06	3°135	26° 3	29°56	28°34	14° 6	25° 5	1°23	2°27	8°41	14°47	13°23	19°40	7°30	M23
T 24	20 41 36	9°15'37	15°31	25°52	1°10	29°12	14° 6	25° 8	1°27	2°28	8°43	14°37	13°20	19°47	7°36	T 24
W25	20 45 32	10°13'09	27°23	25°D47	2°24	29°50	14° 6	25°11	1°31	2°30	8°44	14°28	13°17	19°53	7°42	W25
T 26	20 49 29	11°10'42	9°15	25°49	3°38	0°128	14°R 6	25°15	1°34	2°31	8°46	14°22	13°14	20° 0	7°47	T 26
F 27	20 53 26	12° 8'17	21° 9	25°58	4°52	1° 5	14° 6	25°18	1°38	2°33	8°48	14°17	13°10	20° 7	7°53	F 27
S 28	20 57 22	13° 5'54	3°10	26°14	6° 6	1°43	14° 6	25°22	1°42	2°34	8°50	14°15	13° 7	20°13	7°59	S 28
S 29	21 1 19	14° 3'32	15°22	26°37	7°20	2°21	14° 5	25°25	1°45	2°36	8°52	14°D14	13° 4	20°20	8° 4	S 29
M30	21 5 15	15° 1'12	27°52	27° 8	8°34	3° 0	14° 5	25°29	1°49	2°38	8°54	14°15	13° 1	20°27	8°10	M30
T 31	21 9 12	15°58'53	10°142	27°46	9°149	3°138	14°V 4	25°33	1°53	2°39	8°55	14°R15	12°58	20°34	8°15	T 31

Delta T = 06m23s

Julian Calendar 1 July 1453 == Greg. Calendar 10 July 1453

AUGUST 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	21 13 8	16°156'36	23°158	28°30	11°12 3	4°16	14°R 3	25°37	1°156	2°41	8°57	14°R15	12°55	20°40	8°26	W 1
T 2	21 17 5	17°54'21	7°42	29°22	12°17	4°54	14°V 1	25°41	2° 0	2°43	8°59	14°13	12°51	20°47	8°26	T 2
F 3	21 21 1	18°52'07	21°55	0°120	13°31	5°32	14° 0	25°45	2° 3	2°44	9° 1	14° 8	12°48	20°54	8°31	F 3
S 4	21 24 58	19°49'54	6°133	1°25	14°45	6°10	13°58	25°49	2° 7	2°46	9° 3	14° 1	12°45	21° 1	8°37	S 4
S 5	21 28 55	20°47'44	21°30	2°37	16° 0	6°48	13°56	25°53	2°10	2°48	9° 4	13°52	12°42	21° 7	8°42	S 5
M 6	21 32 51	21°45'34	6°139	3°54	17°14	7°27	13°54	25°58	2°14	2°50	9° 6	13°42	12°39	21°14	8°47	M 6
T 7	21 36 48	22°43'26	21°47	5°16	18°28	8° 5	13°51	26° 2	2°18	2°51	9° 8	13°33	12°35	21°21	8°52	T 7
W 8	21 40 44	23°41'19	6°146	6°44	19°42	8°43	13°49	26° 7	2°21	2°53	9°10	13°25	12°32	21°27	8°58	W 8
T 9	21 44 41	24°39'14	21°26	8°17	20°57	9°21	13°46	26°11	2°25	2°55	9°12	13°18	12°29	21°34	9° 3	T 9
F 10	21 48 37	25°37'10	5°144	9°54	22°11	10° 0	13°43	26°16	2°28	2°57	9°13	13°15	12°26	21°41	9° 8	F 10
S 11	21 52 34	26°35'07	19°38	11°35	23°25	10°38	13°40	26°20	2°32	2°59	9°15	13°14	12°23	21°48	9°13	S 11
S 12	21 56 30	27°33'06	3°17	13°19	24°40	11°17	13°37	26°25	2°35	3° 1	9°17	13°D13	12°20	21°54	9°18	S 12
M13	22 0 27	28°31'06	16°15	15° 6	25°54	11°55	13°33	26°30	2°38	3° 3	9°19	13°R14	12°16	22° 1	9°23	M13
T 14	22 4 24	29°29'07	29° 4	16°56	27° 9	12°33	13°30	26°35	2°42	3° 4	9°20	13°13	12°13	22° 8	9°27	T 14
W15	22 8 20	0°127'10	11°339	18°48	28°23	13°12	13°26	26°40	2°45	3° 6	9°22	13°10	12°10	22°14	9°32	W15
T 16	22 12 17	1°25'14	24° 2	20°41	29°37	13°50	13°22	26°45	2°49	3° 8	9°24	13° 4	12° 7	22°21	9°37	T 16
F 17	22 16 13	2°23'20	6°15	22°36	0°152	14°29	13°17	26°50	2°52	3°10	9°25	12°56	12° 4	22°28	9°42	F 17
S 18	22 20 10	3°21'27	18°22	24°31	2° 6	15° 7	13°13	26°55	2°55	3°12	9°27	12°45	12° 0	22°35	9°46	S 18
S 19	22 24 6	4°19'36	0°123	26°27	3°21	15°46	13° 8	27° 0	2°59	3°14	9°29	12°32	11°57	22°41	9°51	S 19
M20	22 28 3	5°17'47	12°19	28°23	4°35	16°25	13° 4	27° 5	3° 2	3°16	9°31	12°18	11°54	22°48	9°55	M20
T 21	22 31 59	6°15'59	24°12	0°120	5°50	17° 3	12°59	27°11	3° 5	3°18	9°32	12° 4	11°51	22°55	10° 0	T 21
W22	22 35 56	7°14'14	6°14	2°16	7° 4	17°42	12°54	27°16	3° 8	3°20	9°34	11°51	11°48	23° 2	10° 4	W22
T 23	22 39 53	8°12'30	17°56	4°11	8°19	18°21	12°48	27°22	3°11	3°22	9°35	11°41	11°45	23° 8	10° 9	T 23
F 24	22 43 49	9°10'48	29°50	6° 6	9°34	18°59	12°43	27°27	3°15	3°24	9°37	11°34	11°41	23°15	10°13	F 24
S 25	22 47 46	10° 9'09	11°151	8° 1	10°48	19°38	12°37	27°33	3°18	3°27	9°39	11°29	11°38	23°22	10°17	S 25
S 26	22 51 42	11° 7'31	24° 3	9°54	12° 3	20°17	12°32	27°38	3°21	3°29	9°40	11°27	11°35	23°28	10°21	S 26
M27	22 55 39	12° 5'56	6°129	11°47	13°17	20°56	12°26	27°44	3°24	3°31	9°42	11°26	11°32	23°35	10°25	M27
T 28	22 59 35	13° 4'23	19°15	13°39	14°32	21°35	12°20	27°50	3°27	3°33	9°44	11°26	11°29	23°42	10°29	T 28
W29	23 3 32	14° 2'52	2°25	15°30	15°47	22°13	12°14	27°55	3°30	3°35	9°45	11°26	11°26	23°49	10°33	W29
T 30	23 7 28	15° 1'23	16° 4	17°20	17° 1	22°52	12° 7	28° 1	3°33	3°37	9°47	11°23	11°22	23°55	10°37	T 30
F 31	23 11 25	15°59'57	0°12	19°19	18°16	23°13	12°V 1	28°17	3°36	3°39	9°48	11°18	11°19	24°12	10°41	F 31

Delta T = 06m23s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1453

geocentric

SEPTEMBER 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	23 15 22	16 ^h 58'32	14 ^h 48	20 ^h 57	19 ^h 31	24 ^h 10	11 ^h 54	28 ^h 13	3 ^h 39	3 ^h 41	9 ^h 50	11 ^h 11	11 ^h 16	24 ^h 9	10 ^h 45	S 1
S 2	23 19 18	17 ^h 57'10	29 ^h 49	22 ^h 44	20 ^h 46	24 ^h 49	11 ^h 48	28 ^h 19	3 ^h 42	3 ^h 44	9 ^h 51	11 ^h 17	11 ^h 13	24 ^h 15	10 ^h 48	S 2
M 3	23 23 15	18 ^h 55'50	15 ^h 4	24 ^h 30	22 ^h 0	25 ^h 28	11 ^h 41	28 ^h 25	3 ^h 45	3 ^h 46	9 ^h 53	10 ^h 50	11 ^h 10	24 ^h 22	10 ^h 52	M 3
T 4	23 27 11	19 ^h 54'31	0 ^h 25	26 ^h 15	23 ^h 15	26 ^h 7	11 ^h 34	28 ^h 31	3 ^h 48	3 ^h 48	9 ^h 54	10 ^h 39	11 ^h 6	24 ^h 29	10 ^h 55	T 4
W 5	23 31 8	20 ^h 53'15	15 ^h 37	27 ^h 59	24 ^h 30	26 ^h 46	11 ^h 27	28 ^h 37	3 ^h 50	3 ^h 50	9 ^h 56	10 ^h 29	11 ^h 3	24 ^h 36	10 ^h 59	W 5
T 6	23 35 4	21 ^h 52'00	0 ^h 33	29 ^h 42	25 ^h 45	27 ^h 26	11 ^h 20	28 ^h 44	3 ^h 53	3 ^h 52	9 ^h 57	10 ^h 22	11 ^h 0	24 ^h 42	11 ^h 2	T 6
F 7	23 39 1	22 ^h 50'48	15 ^h 3	1 ^h 24	26 ^h 59	28 ^h 5	11 ^h 13	28 ^h 50	3 ^h 56	3 ^h 54	9 ^h 59	10 ^h 18	10 ^h 57	24 ^h 49	11 ^h 5	F 7
S 8	23 42 57	23 ^h 49'37	29 ^h 6	3 ^h 5	28 ^h 14	28 ^h 44	11 ^h 5	28 ^h 56	3 ^h 59	3 ^h 57	10 ^h 0	10 ^h 16	10 ^h 54	24 ^h 56	11 ^h 9	S 8
S 9	23 46 54	24 ^h 48'28	12 ^h 41	4 ^h 45	29 ^h 29	29 ^h 23	10 ^h 58	29 ^h 2	4 ^h 1	3 ^h 59	10 ^h 1	10 ^h D16	10 ^h 51	25 ^h 2	11 ^h 12	S 9
M10	23 50 50	25 ^h 47'21	25 ^h 50	6 ^h 24	0 ^h 44	0 ^h 2	10 ^h 50	29 ^h 9	4 ^h 4	4 ^h 1	10 ^h 3	10 ^h R16	10 ^h 47	25 ^h 9	11 ^h 15	M10
T 11	23 54 47	26 ^h 46'15	8 ^h 36	8 ^h 3	1 ^h 59	0 ^h 42	10 ^h 43	29 ^h 15	4 ^h 7	4 ^h 3	10 ^h 4	10 ^h 15	10 ^h 44	25 ^h 16	11 ^h 18	T 11
W12	23 58 44	27 ^h 45'11	21 ^h 5	9 ^h 40	3 ^h 14	1 ^h 21	10 ^h 35	29 ^h 22	4 ^h 9	4 ^h 6	10 ^h 5	10 ^h 13	10 ^h 41	25 ^h 23	11 ^h 21	W12
T 13	0 2 40	28 ^h 44'09	3 ^h 20	11 ^h 16	4 ^h 28	2 ^h 0	10 ^h 27	29 ^h 28	4 ^h 12	4 ^h 8	10 ^h 7	10 ^h 8	10 ^h 38	25 ^h 29	11 ^h 24	T 13
F 14	0 6 37	29 ^h 43'09	15 ^h 26	12 ^h 52	5 ^h 43	2 ^h 40	10 ^h 19	29 ^h 35	4 ^h 14	4 ^h 10	10 ^h 8	10 ^h 1	10 ^h 35	25 ^h 36	11 ^h 26	F 14
S 15	0 10 33	0 ^h 42'10	27 ^h 25	14 ^h 27	6 ^h 58	3 ^h 19	10 ^h 12	29 ^h 41	4 ^h 17	4 ^h 12	10 ^h 9	9 ^h 51	10 ^h 32	25 ^h 43	11 ^h 29	S 15
S 16	0 14 30	1 ^h 41'14	9 ^h 20	16 ^h 0	8 ^h 13	3 ^h 59	10 ^h 4	29 ^h 48	4 ^h 19	4 ^h 14	10 ^h 11	9 ^h 39	10 ^h 28	25 ^h 50	11 ^h 32	S 16
M17	0 18 26	2 ^h 40'19	21 ^h 13	17 ^h 33	9 ^h 28	4 ^h 38	9 ^h 56	29 ^h 54	4 ^h 21	4 ^h 17	10 ^h 12	9 ^h 26	10 ^h 25	25 ^h 56	11 ^h 34	M17
T 18	0 22 23	3 ^h 39'27	3 ^h 5	19 ^h 6	10 ^h 43	5 ^h 18	9 ^h 48	0 ^h 1	4 ^h 24	4 ^h 19	10 ^h 13	9 ^h 13	10 ^h 22	26 ^h 3	11 ^h 37	T 18
W19	0 26 19	4 ^h 38'36	14 ^h 58	20 ^h 37	11 ^h 57	5 ^h 57	9 ^h 40	0 ^h 8	4 ^h 26	4 ^h 21	10 ^h 14	9 ^h 2	10 ^h 19	26 ^h 10	11 ^h 39	W19
T 20	0 30 16	5 ^h 37'48	26 ^h 54	22 ^h 8	13 ^h 12	6 ^h 37	9 ^h 32	0 ^h 15	4 ^h 28	4 ^h 23	10 ^h 15	8 ^h 52	10 ^h 16	26 ^h 16	11 ^h 41	T 20
F 21	0 34 13	6 ^h 37'02	8 ^h 54	23 ^h 38	14 ^h 27	7 ^h 17	9 ^h 24	0 ^h 21	4 ^h 30	4 ^h 26	10 ^h 16	8 ^h 46	10 ^h 12	26 ^h 23	11 ^h 43	F 21
S 22	0 38 9	7 ^h 36'18	21 ^h 1	25 ^h 7	15 ^h 42	7 ^h 56	9 ^h 16	0 ^h 28	4 ^h 32	4 ^h 28	10 ^h 18	8 ^h 42	10 ^h 9	26 ^h 30	11 ^h 45	S 22
S 23	0 42 6	8 ^h 35'36	3 ^h 17	26 ^h 35	16 ^h 57	8 ^h 36	9 ^h 7	0 ^h 35	4 ^h 34	4 ^h 30	10 ^h 19	8 ^h D40	10 ^h 6	26 ^h 37	11 ^h 47	S 23
M24	0 46 2	9 ^h 34'57	15 ^h 46	28 ^h 2	18 ^h 12	9 ^h 16	8 ^h 59	0 ^h 42	4 ^h 36	4 ^h 32	10 ^h 20	8 ^h 40	10 ^h 3	26 ^h 43	11 ^h 49	M24
T 25	0 49 59	10 ^h 34'20	28 ^h 32	29 ^h 29	19 ^h 27	9 ^h 55	8 ^h 51	0 ^h 49	4 ^h 38	4 ^h 35	10 ^h 21	8 ^h 41	10 ^h 0	26 ^h 50	11 ^h 51	T 25
W26	0 53 55	11 ^h 33'45	11 ^h 38	0 ^h 54	20 ^h 42	10 ^h 35	8 ^h 43	0 ^h 55	4 ^h 40	4 ^h 37	10 ^h 22	8 ^h R41	9 ^h 57	26 ^h 57	11 ^h 53	W26
T 27	0 57 52	12 ^h 33'13	25 ^h 9	2 ^h 19	21 ^h 57	11 ^h 15	8 ^h 35	1 ^h 2	4 ^h 42	4 ^h 39	10 ^h 23	8 ^h 40	9 ^h 53	27 ^h 3	11 ^h 54	T 27
F 28	1 1 48	13 ^h 32'43	9 ^h 6	3 ^h 43	23 ^h 12	11 ^h 55	8 ^h 27	1 ^h 9	4 ^h 44	4 ^h 41	10 ^h 24	8 ^h 38	9 ^h 50	27 ^h 10	11 ^h 56	F 28
S 29	1 5 45	14 ^h 32'16	23 ^h 30	5 ^h 6	24 ^h 26	12 ^h 35	8 ^h 19	1 ^h 16	4 ^h 46	4 ^h 43	10 ^h 25	8 ^h 33	9 ^h 47	27 ^h 17	11 ^h 57	S 29
S 30	1 9 42	15 ^h 31'50	8 ^h 18	6 ^h 28	25 ^h 41	13 ^h 15	8 ^h Y11	1 ^h 23	4 ^h 48	4 ^h 46	10 ^h 26	8 ^h 26	9 ^h 44	27 ^h 24	11 ^h 59	S 30

Delta T = 06m23s

Julian Calendar 1 Sept. 1453 == Greg. Calendar 10 Sept. 1453

OCTOBER 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	1 13 38	16♂31'27	23♂23	7♂50	26♂56	13♂55	8°R 3	1♂30	4♂50	4♂48	10♂27	8°R18	9♂41	27♂30	12♂0	M 1
T 2	1 17 35	17°31'06	8♂37	9°10	28°11	14°35	7°Y55	1°37	4°51	4°50	10°28	8♂10	9°37	27°37	12°1	T 2
W 3	1 21 31	18°30'47	23°49	10°28	29°26	15°15	7°47	1°44	4°53	4°52	10°28	8°3	9°34	27°44	12°2	W 3
T 4	1 25 28	19°30'31	8♂48	11°46	0♂41	15°55	7°40	1°51	4°54	4°54	10°29	7°58	9°31	27°50	12°3	T 4
F 5	1 29 24	20°30'16	23°26	13°3	1°56	16°35	7°32	1°59	4°56	4°57	10°30	7°55	9°28	27°57	12°4	F 5
S 6	1 33 21	21°30'03	7♂38	14°18	3°11	17°15	7°24	2°6	4°57	4°59	10°31	7°D54	9°25	28°4	12°5	S 6
S 7	1 37 17	22°29'52	21°21	15°31	4°26	17°56	7°17	2°13	4°59	5°1	10°32	7°55	9°22	28°11	12°6	S 7
M 8	1 41 14	23°29'42	4♂37	16°43	5°41	18°36	7°9	2°20	5°0	5°3	10°32	7°56	9°18	28°17	12°7	M 8
T 9	1 45 11	24°29'34	17°28	17°53	6°56	19°16	7°2	2°27	5°1	5°5	10°33	7°57	9°15	28°24	12°7	T 9
W10	1 49 7	25°29'28	29°59	19°1	8°11	19°56	6°55	2°34	5°3	5°7	10°34	7°R57	9°12	28°31	12°8	W10
T11	1 53 4	26°29'24	12≈14	20°7	9°26	20°37	6°47	2°41	5°4	5°9	10°35	7°56	9°9	28°37	12°8	T11
F 12	1 57 0	27°29'21	24°17	21°10	10°41	21°17	6°40	2°48	5°5	5°12	10°35	7°52	9°6	28°44	12°8	F 12
S 13	2 0 57	28°29'20	6♂12	22°11	11°56	21°58	6°33	2°56	5°6	5°14	10°36	7°47	9°3	28°51	12°8	S 13
S 14	2 4 53	29°29'20	18°5	23°9	13°11	22°38	6°26	3°3	5°7	5°16	10°36	7°41	8°59	28°58	12°R 8	S 14
M15	2 8 50	0♂29'23	29°57	24°3	14°26	23°19	6°20	3°10	5°8	5°18	10°37	7°34	8°56	29°4	12°8	M15
T 16	2 12 46	1°29'27	11°Y50	24°54	15°41	23°59	6°13	3°17	5°9	5°20	10°37	7°27	8°53	29°11	12°8	T 16
W17	2 16 43	2°29'32	23°48	25°40	16°55	24°40	6°7	3°24	5°10	5°22	10°38	7°20	8°50	29°18	12°8	W17
T 18	2 20 39	3°29'40	5♂52	26°22	18°10	25°20	6°0	3°31	5°11	5°24	10°38	7°15	8°47	29°24	12°8	T 18
F 19	2 24 36	4°29'50	0♂13	26°59	19°25	26°1	5°54	3°39	5°12	5°26	10°39	7°12	8°43	29°31	12°7	F 19
S 20	2 28 33	5°30'01	18°E22	27°30	20°40	26°42	5°48	3°46	5°12	5°28	10°39	7°10	8°40	29°38	12°7	S 20
S 21	2 32 29	6°30'14	12°51	27°54	21°55	27°22	5°42	3°53	5°13	5°30	10°40	7°D10	8°37	29°45	12°6	S 21
M22	2 36 26	7°30'30	25°32	28°12	23°10	28°3	5°36	4°0	5°14	5°32	10°40	7°11	8°34	29°51	12°6	M22
T 23	2 40 22	8°30'47	8♂28	28°22	24°25	28°44	5°31	4°7	5°14	5°34	10°40	7°13	8°31	29°58	12°5	T 23
W24	2 44 19	9°31'07	21°39	28°R23	25°40	29°25	5°25	4°14	5°15	5°36	10°41	7°15	8°28	0°Y 5	12°4	W24
T 25	2 48 15	10°31'28	5♂9	28°16	26°55	0♂6	5°20	4°22	5°15	5°38	10°41	7°R15	8°24	0°11	12°3	T 25
F 26	2 52 12	11°31'51	18°58	27°58	28°10	0°47	5°15	4°29	5°16	5°40	10°41	7°15	8°21	0°18	12°2	F 26
S 27	2 56 8	12°32'16	3♂8	27°31	29°25	1°28	5°10	4°36	5°16	5°42	10°41	7°14	8°18	0°25	12°1	S 27
S 28	3 0 5	13°32'44	17°35	26°54	0♂40	2°9	5°5	4°43	5°16	5°43	10°41	7°12	8°15	0°32	12°0	S 28
M29	3 4 2	14°33'13	2♂18	26°6	1°55	2°50	5°1	4°50	5°17	5°45	10°42	7°9	8°12	0°38	11°58	M29
T 30	3 7 58	15°33'44	17°10	25°9	3°10	3°31	4°56	4°57	5°17	5°47	10°42	7°6	8°9	0°45	11°57	T 30
W31	3 11 55	16♂34'16	2♂3	24♂4	4♂24	4♂12	4°Y52	5♂4	5♂17	5♂49	10♂42	7♂3	8♂5	0°Y52	11♂56	W31

ASTRODIENST EPHEMERIS for the year 1453

geocentric

NOVEMBER 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	3 15 51	17 ¹¹ 34'51	16 ¹¹ 49	22 ² R51	5 ² ♂39	4 ¹¹ ♂53	4 ¹⁰ R48	5 ¹¹ ♂11	5 ¹⁰ ♂17	5 ¹⁰ ♂51	10 ¹⁰ ♂42	7 ¹⁰ R 1	8 ¹⁰ ♂ 2	0 ¹⁰ Y58	11 ¹⁰ R54	T 1
F 2	3 19 48	18 ¹⁰ 35'27	1 ¹⁰ ♂20	21 ¹¹ ♂33	6 ¹⁰ ♂54	5 ¹⁰ ♂35	4 ¹⁰ Y44	5 ¹⁰ ♂18	5 ¹⁰ R17	5 ¹⁰ ♂52	10 ¹⁰ ♂42	7 ¹⁰ D 0	7 ¹⁰ ♂59	1 ¹⁰ ♂ 5	11 ¹⁰ ♂52	F 2
S 3	3 23 44	19 ¹⁰ 36'04	15 ¹⁰ ♂31	20 ¹⁰ ♂12	8 ¹⁰ ♂ 9	6 ¹⁰ ♂16	4 ¹⁰ ♂41	5 ¹⁰ ♂26	5 ¹⁰ ♂17	5 ¹⁰ ♂54	10 ¹⁰ R42	7 ¹⁰ ♂ 0	7 ¹⁰ ♂56	1 ¹⁰ ♂12	11 ¹⁰ ♂51	S 3
S 4	3 27 41	20 ¹⁰ 36'43	29 ¹⁰ ♂18	18 ¹⁰ ♂50	9 ¹⁰ ♂24	6 ¹⁰ ♂57	4 ¹⁰ ♂37	5 ¹⁰ ♂33	5 ¹⁰ ♂17	5 ¹⁰ ♂56	10 ¹⁰ ♂42	7 ¹⁰ ♂ 1	7 ¹⁰ ♂53	1 ¹⁰ ♂19	11 ¹⁰ ♂49	S 4
M 5	3 31 37	21 ¹⁰ 37'23	12 ¹⁰ ♂30	17 ¹⁰ ♂31	10 ¹⁰ ♂39	7 ¹⁰ ♂38	4 ¹⁰ ♂34	5 ¹⁰ ♂40	5 ¹⁰ ♂17	5 ¹⁰ ♂58	10 ¹⁰ ♂42	7 ¹⁰ ♂ 2	7 ¹⁰ ♂49	1 ¹⁰ ♂25	11 ¹⁰ ♂47	M 5
T 6	3 35 34	22 ¹⁰ 38'05	25 ¹⁰ ♂37	16 ¹⁰ ♂18	11 ¹⁰ ♂54	8 ¹⁰ ♂20	4 ¹⁰ ♂31	5 ¹⁰ ♂47	5 ¹⁰ ♂16	5 ¹⁰ ♂59	10 ¹⁰ ♂42	7 ¹⁰ ♂ 4	7 ¹⁰ ♂46	1 ¹⁰ ♂32	11 ¹⁰ ♂45	T 6
W 7	3 39 31	23 ¹⁰ 38'47	8 ¹⁰ ♂13	15 ¹⁰ ♂11	13 ¹⁰ ♂ 9	9 ¹⁰ ♂ 1	4 ¹⁰ ♂28	5 ¹⁰ ♂54	5 ¹⁰ ♂16	6 ¹⁰ ♂ 1	10 ¹⁰ ♂42	7 ¹⁰ ♂ 5	7 ¹⁰ ♂43	1 ¹⁰ ♂39	11 ¹⁰ ♂43	W 7
T 8	3 43 27	24 ¹⁰ 39'30	20 ¹⁰ ♂31	14 ¹⁰ ♂14	14 ¹⁰ ♂24	9 ¹⁰ ♂43	4 ¹⁰ ♂25	6 ¹⁰ ♂ 0	5 ¹⁰ ♂16	6 ¹⁰ ♂ 3	10 ¹⁰ ♂42	7 ¹⁰ R 5	7 ¹⁰ ♂40	1 ¹⁰ ♂45	11 ¹⁰ ♂41	T 8
F 9	3 47 24	25 ¹⁰ 40'15	2 ¹⁰ ♂36	13 ¹⁰ ♂28	15 ¹⁰ ♂39	10 ¹⁰ ♂24	4 ¹⁰ ♂23	6 ¹⁰ ♂ 7	5 ¹⁰ ♂15	6 ¹⁰ ♂ 4	10 ¹⁰ ♂41	7 ¹⁰ ♂ 5	7 ¹⁰ ♂37	1 ¹⁰ ♂52	11 ¹⁰ ♂38	F 9
S 10	3 51 20	26 ¹⁰ 41'00	14 ¹⁰ ♂32	12 ¹⁰ ♂52	16 ¹⁰ ♂53	11 ¹⁰ ♂ 6	4 ¹⁰ ♂21	6 ¹⁰ ♂14	5 ¹⁰ ♂15	6 ¹⁰ ♂ 6	10 ¹⁰ ♂41	7 ¹⁰ ♂ 4	7 ¹⁰ ♂34	1 ¹⁰ ♂59	11 ¹⁰ ♂36	S 10
S 11	3 55 17	27 ¹⁰ 41'47	26 ¹⁰ ♂24	12 ¹⁰ ♂29	18 ¹⁰ ♂ 8	11 ¹⁰ ♂47	4 ¹⁰ ♂18	6 ¹⁰ ♂21	5 ¹⁰ ♂14	6 ¹⁰ ♂ 7	10 ¹⁰ ♂41	7 ¹⁰ ♂ 3	7 ¹⁰ ♂30	2 ¹⁰ ♂ 6	11 ¹⁰ ♂34	S 11
M 12	3 59 13	28 ¹⁰ 42'35	8 ¹⁰ Y16	12 ¹⁰ ♂16	19 ¹⁰ ♂23	12 ¹⁰ ♂29	4 ¹⁰ ♂17	6 ¹⁰ ♂28	5 ¹⁰ ♂14	6 ¹⁰ ♂ 9	10 ¹⁰ ♂41	7 ¹⁰ ♂ 2	7 ¹⁰ ♂27	2 ¹⁰ ♂12	11 ¹⁰ ♂31	M 12
T 13	4 3 10	29 ¹⁰ 43'23	20 ¹⁰ ♂12	12 ¹⁰ D15	20 ¹⁰ ♂38	13 ¹⁰ ♂11	4 ¹⁰ ♂15	6 ¹⁰ ♂35	5 ¹⁰ ♂13	6 ¹⁰ ♂10	10 ¹⁰ ♂41	7 ¹⁰ ♂ 1	7 ¹⁰ ♂24	2 ¹⁰ ♂19	11 ¹⁰ ♂28	T 13
W 14	4 7 6	0 ¹⁰ ♂44'13	2 ¹⁰ ♂15	12 ¹⁰ ♂24	21 ¹⁰ ♂53	13 ¹⁰ ♂52	4 ¹⁰ ♂14	6 ¹⁰ ♂42	5 ¹⁰ ♂13	6 ¹⁰ ♂12	10 ¹⁰ ♂40	7 ¹⁰ ♂ 0	7 ¹⁰ ♂21	2 ¹⁰ ♂26	11 ¹⁰ ♂26	W 14
T 15	4 11 3	1 ¹⁰ ♂45'04	14 ¹⁰ ♂27	12 ¹⁰ ♂43	23 ¹⁰ ♂ 8	14 ¹⁰ ♂34	4 ¹⁰ ♂12	6 ¹⁰ ♂48	5 ¹⁰ ♂12	6 ¹⁰ ♂13	10 ¹⁰ ♂40	7 ¹⁰ ♂ 0	7 ¹⁰ ♂18	2 ¹⁰ ♂32	11 ¹⁰ ♂23	T 15
F 16	4 15 0	2 ¹⁰ ♂45'56	26 ¹⁰ ♂51	13 ¹⁰ ♂11	24 ¹⁰ ♂23	15 ¹⁰ ♂16	4 ¹⁰ ♂11	6 ¹⁰ ♂55	5 ¹⁰ ♂11	6 ¹⁰ ♂15	10 ¹⁰ ♂40	6 ¹⁰ ♂59	7 ¹⁰ ♂14	2 ¹⁰ ♂39	11 ¹⁰ ♂20	F 16
S 17	4 18 56	3 ¹⁰ ♂46'49	9 ¹⁰ Y27	13 ¹⁰ ♂47	25 ¹⁰ ♂37	15 ¹⁰ ♂57	4 ¹⁰ ♂11	7 ¹⁰ ♂ 2	5 ¹⁰ ♂10	6 ¹⁰ ♂16	10 ¹⁰ ♂39	6 ¹⁰ D59	7 ¹⁰ ♂11	2 ¹⁰ ♂46	11 ¹⁰ ♂17	S 17
S 18	4 22 53	4 ¹⁰ ♂47'43	22 ¹⁰ ♂17	14 ¹⁰ ♂29	26 ¹⁰ ♂52	16 ¹⁰ ♂39	4 ¹⁰ ♂10	7 ¹⁰ ♂ 8	5 ¹⁰ ♂10	6 ¹⁰ ♂18	10 ¹⁰ ♂39	6 ¹⁰ ♂59	7 ¹⁰ ♂ 8	2 ¹⁰ ♂52	11 ¹⁰ ♂14	S 18
M 19	4 26 49	5 ¹⁰ ♂48'38	5 ¹⁰ ♂20	15 ¹⁰ ♂18	28 ¹⁰ ♂ 7	17 ¹⁰ ♂21	4 ¹⁰ ♂10	7 ¹⁰ ♂15	5 ¹⁰ ♂ 9	6 ¹⁰ ♂19	10 ¹⁰ ♂38	6 ¹⁰ ♂59	7 ¹⁰ ♂ 5	2 ¹⁰ ♂59	11 ¹⁰ ♂11	M 19
T 20	4 30 46	6 ¹⁰ ♂49'35	18 ¹⁰ ♂36	16 ¹⁰ ♂13	29 ¹⁰ ♂22	18 ¹⁰ ♂ 3	4 ¹⁰ D 9	7 ¹⁰ ♂22	5 ¹⁰ ♂ 8	6 ¹⁰ ♂20	10 ¹⁰ ♂38	6 ¹⁰ R59	7 ¹⁰ ♂ 2	3 ¹⁰ ♂ 6	11 ¹⁰ ♂ 8	T 20
W 21	4 34 42	7 ¹⁰ ♂50'32	2 ¹⁰ ♂ 5	17 ¹⁰ ♂12	0 ¹⁰ ♂37	18 ¹⁰ ♂45	4 ¹⁰ ♂ 9	7 ¹⁰ ♂28	5 ¹⁰ ♂ 7	6 ¹⁰ ♂21	10 ¹⁰ ♂37	6 ¹⁰ ♂59	6 ¹⁰ ♂59	3 ¹⁰ ♂13	11 ¹⁰ ♂ 5	W 21
T 22	4 38 39	8 ¹⁰ ♂51'31	15 ¹⁰ ♂46	18 ¹⁰ ♂15	1 ¹⁰ ♂51	19 ¹⁰ ♂27	4 ¹⁰ ♂10	7 ¹⁰ ♂35	5 ¹⁰ ♂ 6	6 ¹⁰ ♂23	10 ¹⁰ ♂37	6 ¹⁰ ♂59	6 ¹⁰ ♂55	3 ¹⁰ ♂19	11 ¹⁰ ♂ 2	T 22
F 23	4 42 36	9 ¹⁰ ♂52'31	29 ¹⁰ ♂39	19 ¹⁰ ♂22	3 ¹⁰ ♂ 6	20 ¹⁰ ♂ 9	4 ¹⁰ ♂10	7 ¹⁰ ♂41	5 ¹⁰ ♂ 4	6 ¹⁰ ♂24	10 ¹⁰ ♂36	6 ¹⁰ ♂59	6 ¹⁰ ♂52	3 ¹⁰ ♂26	10 ¹⁰ ♂59	F 23
S 24	4 46 32	10 ¹⁰ ♂53'32	13 ¹⁰ Y43	20 ¹⁰ ♂32	4 ¹⁰ ♂21	20 ¹⁰ ♂51	4 ¹⁰ ♂11	7 ¹⁰ ♂48	5 ¹⁰ ♂ 3	6 ¹⁰ ♂25	10 ¹⁰ ♂36	6 ¹⁰ D59	6 ¹⁰ ♂49	3 ¹⁰ ♂33	10 ¹⁰ ♂55	S 24
S 25	4 50 29	11 ¹⁰ ♂54'34	27 ¹⁰ ♂55	21 ¹⁰ ♂45	5 ¹⁰ ♂36	21 ¹⁰ ♂33	4 ¹⁰ ♂12	7 ¹⁰ ♂54	5 ¹⁰ ♂ 2	6 ¹⁰ ♂26	10 ¹⁰ ♂35	6 ¹⁰ ♂59	6 ¹⁰ ♂46	3 ¹⁰ ♂39	10 ¹⁰ ♂52	S 25
M 26	4 54 25	12 ¹⁰ ♂55'37	12 ¹⁰ ♂15	23 ¹⁰ ♂ 1	6 ¹⁰ ♂50	22 ¹⁰ ♂16	4 ¹⁰ ♂13	8 ¹⁰ ♂ 0	5 ¹⁰ ♂ 1	6 ¹⁰ ♂28	10 ¹⁰ ♂35	7 ¹⁰ ♂ 0	6 ¹⁰ ♂43	3 ¹⁰ ♂46	10 ¹⁰ ♂49	M 26
T 27	4 58 22	13 ¹⁰ ♂56'41	26 ¹⁰ ♂39	24 ¹⁰ ♂18	8 ¹⁰ ♂ 5	22 ¹⁰ ♂58	4 ¹⁰ ♂14	8 ¹⁰ ♂ 7	5 ¹⁰ ♂ 0	6 ¹⁰ ♂29	10 ¹⁰ ♂34	7 ¹⁰ ♂ 0	6 ¹⁰ ♂40	3 ¹⁰ ♂53	10 ¹⁰ ♂45	T 27
W 28	5 2 18	14 ¹⁰ ♂57'47	11 ¹⁰ ♂ 3	25 ¹⁰ ♂37	9 ¹⁰ ♂20	23 ¹⁰ ♂40	4 ¹⁰ ♂15	8 ¹⁰ ♂13	4 ¹⁰ ♂58	6 ¹⁰ ♂30	10 ¹⁰ ♂33	7 ¹⁰ ♂ 1	6 ¹⁰ ♂36	4 ¹⁰ ♂ 0	10 ¹⁰ ♂41	W 28
T 29	5 6 15	15 ¹⁰ ♂58'53	25 ¹⁰ ♂22	26 ¹⁰ ♂58	10 ¹⁰ ♂34	24 ¹⁰ ♂22	4 ¹⁰ ♂17	8 ¹⁰ ♂19	4 ¹⁰ ♂57	6 ¹⁰ ♂31	10 ¹⁰ ♂32	7 ¹⁰ ♂ 1	6 ¹⁰ ♂33	4 ¹⁰ ♂ 6	10 ¹⁰ ♂38	T 29
F 30	5 10 11	17 ¹⁰ ♂ 0'00	9 ¹⁰ ♂31	28 ¹⁰ ♂20	11 ¹⁰ ♂49	25 ¹⁰ ♂ 5	4 ¹⁰ Y19	8 ¹⁰ ♂25	4 ¹⁰ ♂55	6 ¹⁰ ♂32	10 ¹⁰ ♂32	7 ¹⁰ R 2	6 ¹⁰ ♂30	4 ¹⁰ Y13	10 ¹⁰ ♂34	F 30

Delta T = 06m22s

Julian Calendar 1 Nov. 1453 == Greg. Calendar 10 Nov. 1453

DECEMBER 1453 JC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	5 14 8	18♂ 1'08	23♂27	29♂43	13♂ 4	25♂47	4♀21	8♂31	4°R54	6♂33	10°R31	7°R 1	6♂27	4♀20	10°R30	S 1
S 2	5 18 5	19° 2'16	7♂ 5	1♂ 8	14°19	26°30	4°23	8°37	4♂52	6°34	10♂30	7♂ 0	6°24	4°26	10♂27	S 2
M 3	5 22 1	20° 3'25	20°24	2°33	15°33	27°12	4°26	8°43	4°51	6°35	10°29	6°59	6°20	4°33	10°23	M 3
T 4	5 25 58	21° 4'34	3♂22	3°59	16°48	27°55	4°29	8°49	4°49	6°36	10°29	6°57	6°17	4°40	10°19	T 4
W 5	5 29 54	22° 5'43	16° 1	5°26	18° 2	28°37	4°31	8°55	4°47	6°36	10°28	6°54	6°14	4°47	10°15	W 5
T 6	5 33 51	23° 6'53	28°22	6°53	19°17	29°20	4°35	9° 1	4°46	6°37	10°27	6°52	6°11	4°53	10°11	T 6
F 7	5 37 47	24° 8'02	10♂29	8°21	20°32	0♂ 2	4°38	9° 7	4°44	6°38	10°26	6°51	6° 8	5° 0	10° 7	F 7
S 8	5 41 44	25° 9'12	22°26	9°50	21°46	0°45	4°41	9°12	4°42	6°39	10°25	6°D50	6° 5	5° 7	10° 3	S 8
S 9	5 45 40	26°10'22	4♀18	11°19	23° 1	1°28	4°45	9°18	4°40	6°40	10°24	6°51	6° 1	5°13	9°59	S 9
M10	5 49 37	27°11'31	16°10	12°48	24°15	2°10	4°49	9°24	4°38	6°40	10°23	6°52	5°58	5°20	9°55	M10
T 11	5 53 34	28°12'41	28° 6	14°18	25°30	2°53	4°53	9°29	4°36	6°41	10°22	6°53	5°55	5°27	9°51	T 11
W12	5 57 30	29°13'51	10♂11	15°48	26°44	3°36	4°57	9°35	4°34	6°42	10°21	6°55	5°52	5°33	9°47	W12
T 13	6 1 27	0♂15'01	22°30	17°19	27°59	4°19	5° 2	9°40	4°32	6°42	10°20	6°56	5°49	5°40	9°43	T 13
F 14	6 5 23	1°16'11	5♂ 4	18°50	29°13	5° 2	5° 6	9°45	4°30	6°43	10°19	6°R57	5°46	5°47	9°39	F 14
S 15	6 9 20	2°17'20	17°56	20°21	0♂28	5°45	5°11	9°51	4°28	6°43	10°18	6°57	5°42	5°54	9°34	S 15
S 16	6 13 16	3°18'30	1♂ 6	21°53	1°42	6°27	5°16	9°56	4°26	6°44	10°17	6°55	5°39	6° 0	9°30	S 16
M17	6 17 13	4°19'40	14°35	23°25	2°56	7°10	5°21	10° 1	4°24	6°44	10°16	6°52	5°36	6° 7	9°26	M17
T 18	6 21 9	5°20'50	28°19	24°58	4°11	7°54	5°27	10° 6	4°22	6°45	10°15	6°48	5°33	6°14	9°22	T 18
W19	6 25 6	6°21'59	12♂16	26°31	5°25	8°37	5°32	10°11	4°20	6°45	10°14	6°43	5°30	6°20	9°17	W19
T 20	6 29 3	7°23'09	26°21	28° 4	6°39	9°20	5°38	10°16	4°18	6°45	10°13	6°38	5°26	6°27	9°13	T 20
F 21	6 32 59	8°24'19	10♂32	29°37	7°53	10° 3	5°44	10°21	4°15	6°46	10°11	6°34	5°23	6°34	9° 9	F 21
S 22	6 36 56	9°25'29	24°44	1♂11	9° 8	10°46	5°50	10°26	4°13	6°46	10°10	6°32	5°20	6°41	9° 5	S 22
S 23	6 40 52	10°26'39	8♂55	2°46	10°22	11°29	5°56	10°31	4°11	6°46	10° 9	6°D31	5°17	6°47	9° 0	S 23
M24	6 44 49	11°27'49	23° 3	4°21	11°36	12°13	6° 3	10°35	4° 8	6°46	10° 8	6°32	5°14	6°54	8°56	M24
T 25	6 48 45	12°28'59	7♂ 5	5°56	12°50	12°56	6° 9	10°40	4° 6	6°47	10° 7	6°33	5°11	7° 1	8°52	T 25
W26	6 52 42	13°30'09	21° 2	7°31	14° 4	13°39	6°16	10°44	4° 4	6°47	10° 5	6°34	5° 7	7° 7	8°48	W26
T 27	6 56 38	14°31'19	4♂52	9° 8	15°18	14°23	6°23	10°49	4° 1	6°47	10° 4	6°R35	5° 4	7°14	8°43	T 27
F 28	7 0 35	15°32'29	18°33	10°44	16°32	15° 6	6°30	10°53	3°59	6°47	10° 3	6°35	5° 1	7°21	8°39	F 28
S 29	7 4 32	16°33'39	2♂ 4	12°21	17°46	15°50	6°37	10°57	3°56	6°47	10° 2	6°32	4°58	7°27	8°35	S 29
S 30	7 8 28	17°34'48	15°23	13°59	19° 0	16°33	6°45	11° 2	3°54	6°R47	10° 0	6°27	4°55	7°34	8°31	S 30
M31	7 12 25	18♂35'57	28♂27	15♂37	20♂44	17♂17	6♀52	11♂ 6	3♂51	6♂47	9♂59	6♂21	4♂52	7♀41	8♂26	M31