



# Astrodienst Ephemeris Tables for the year 1404

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 1404

geocentric

JANUARY 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	7 12 50	18°34'16	24°32	29°R28	9°355	7°Y39	22°351	11°19	6°352	13°R56	7°R43	10°Q43	11°Q54	13°Q 3	21°R45	T 1
W 2	7 16 46	19°45'22	6°120	28°338	11°10	8°17	23° 5	11°26	6°55	13°II55	7°II42	10°44	11°51	13°10	21°II41	W 2
T 3	7 20 43	20°46'27	18°12	27°40	12°25	8°56	23°19	11°33	6°59	13°53	7°41	10°46	11°48	13°17	21°38	T 3
F 4	7 24 39	21°47'31	0°12	26°33	13°41	9°35	23°34	11°40	7° 2	13°52	7°40	10°48	11°45	13°23	21°35	F 4
S 5	7 28 36	22°48'35	12°26	25°21	14°56	10°13	23°48	11°47	7° 6	13°51	7°39	10°49	11°42	13°30	21°31	S 5
S 6	7 32 32	23°49'38	24°56	24° 5	16°12	10°52	24° 2	11°54	7° 9	13°50	7°39	10°R49	11°38	13°36	21°28	S 6
M 7	7 36 29	24°50'41	7°149	22°48	17°27	11°31	24°16	12° 1	7°13	13°48	7°38	10°49	11°35	13°43	21°25	M 7
T 8	7 40 25	25°51'44	21° 7	21°33	18°42	12°10	24°30	12° 8	7°16	13°47	7°37	10°47	11°32	13°50	21°22	T 8
W 9	7 44 22	26°52'46	4°53	20°20	19°58	12°48	24°45	12°15	7°19	13°46	7°36	10°46	11°29	13°56	21°19	W 9
T 10	7 48 19	27°53'47	19° 6	19°13	21°13	13°27	24°59	12°22	7°23	13°45	7°36	10°44	11°26	14° 3	21°16	T 10
F 11	7 52 15	28°54'48	3°344	18°12	22°28	14° 6	25°13	12°29	7°26	13°44	7°35	10°42	11°23	14°10	21°13	F 11
S 12	7 56 12	29°55'48	18°42	17°18	23°44	14°45	25°27	12°36	7°30	13°43	7°34	10°41	11°19	14°16	21°10	S 12
S 13	8 0 8	0°56'47	3°52	16°33	24°59	15°24	25°41	12°43	7°33	13°42	7°34	10°D41	11°16	14°23	21° 8	S 13
M14	8 4 5	1°57'45	19° 3	15°57	26°14	16° 3	25°55	12°50	7°36	13°41	7°33	10°41	11°13	14°30	21° 5	M14
T 15	8 8 1	2°58'41	4° 7	15°29	27°30	16°42	26°10	12°58	7°40	13°40	7°32	10°41	11°10	14°36	21° 2	T 15
W16	8 11 58	3°59'37	18°56	15°10	28°45	17°20	26°24	13° 5	7°43	13°39	7°32	10°42	11° 7	14°43	21° 0	W16
T 17	8 15 54	5° 0'30	3°Y22	14°59	0° 0	17°59	26°38	13°12	7°46	13°38	7°31	10°42	11° 3	14°50	20°57	T 17
F 18	8 19 51	6° 1'23	17°25	14°D57	1°16	18°38	26°52	13°19	7°50	13°37	7°31	10°43	11° 0	14°56	20°55	F 18
S 19	8 23 48	7° 2'14	1° 1	15° 1	2°31	19°17	27° 6	13°26	7°53	13°36	7°30	10°43	10°57	15° 3	20°52	S 19
S 20	8 27 44	8° 3'03	14°14	15°13	3°46	19°56	27°20	13°33	7°56	13°35	7°30	10°R43	10°54	15° 9	20°50	S 20
M21	8 31 41	9° 3'51	27° 5	15°31	5° 1	20°35	27°34	13°41	7°59	13°34	7°29	10°43	10°51	15°16	20°48	M21
T 22	8 35 37	10° 4'38	9°II37	15°55	6°17	21°14	27°48	13°48	8° 2	13°34	7°29	10°43	10°48	15°23	20°46	T 22
W23	8 39 34	11° 5'23	21°55	16°25	7°32	21°53	28° 2	13°55	8° 6	13°33	7°28	10°D43	10°44	15°29	20°44	W23
T 24	8 43 30	12° 6'06	4° 1	17° 0	8°47	22°32	28°16	14° 2	8° 9	13°32	7°28	10°43	10°41	15°36	20°42	T 24
F 25	8 47 27	13° 6'48	15°59	17°39	10° 2	23°11	28°30	14° 9	8°12	13°31	7°28	10°43	10°38	15°43	20°40	F 25
S 26	8 51 23	14° 7'28	27°51	18°23	11°17	23°50	28°44	14°17	8°15	13°31	7°27	10°43	10°35	15°49	20°38	S 26
S 27	8 55 20	15° 8'07	9°Q39	19°11	12°33	24°29	28°58	14°24	8°18	13°30	7°27	10°R44	10°32	15°56	20°36	S 27
M28	8 59 17	16° 8'45	21°27	20° 2	13°48	25° 8	29°12	14°31	8°21	13°29	7°26	10°43	10°28	16° 3	20°35	M28
T 29	9 3 13	17° 9'20	3°116	20°56	15° 3	25°47	29°26	14°38	8°24	13°29	7°26	10°43	10°25	16° 9	20°33	T 29
W30	9 7 10	18° 9'55	15° 8	21°54	16°18	26°26	29°40	14°46	8°27	13°28	7°26	10°42	10°22	16°16	20°32	W30
T 31	9 11 6	19°10'28	27°116	22°354	17°33	27°Y 6	29°354	14°53	8°30	13°II28	7°II26	10°Q41	10°Q19	16°Q23	20°II30	T 31

Delta T = 07m47s

Julian Calendar 1 Jan. 1404 == Greg. Calendar 10 Jan. 1404

FEBRUARY 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	9 15 3	20°10'59	9°12	23°357	18°48	27°Y45	0° 8	15° 0	8°33	13°R27	7°R25	10°R40	10°Q16	16°Q29	20°R29	F 1
S 2	9 18 59	21°11'29	21°29	25° 2	20° 3	28°24	0°21	15° 7	8°36	13°II27	7°II25	10°Q38	10°13	16°36	20°II28	S 2
S 3	9 22 56	22°11'58	4°11	26° 9	21°18	29° 3	0°35	15°14	8°39	13°26	7°25	10°37	10° 9	16°43	20°27	S 3
M 4	9 26 52	23°12'26	16°50	27°19	22°34	29°42	0°49	15°22	8°41	13°26	7°25	10°37	10° 6	16°49	20°25	M 4
T 5	9 30 49	24°12'52	0°1	28°30	23°49	0°821	1° 3	15°29	8°44	13°26	7°24	10°D37	10° 3	16°56	20°24	T 5
W 6	9 34 45	25°13'17	13°35	29°44	25° 4	1° 0	1°16	15°36	8°47	13°25	7°24	10°37	10° 0	17° 2	20°24	W 6
T 7	9 38 42	26°13'40	27°34	0°59	26°19	1°39	1°30	15°43	8°50	13°25	7°24	10°38	9°57	17° 9	20°23	T 7
F 8	9 42 39	27°14'02	11°359	2°15	27°34	2°18	1°43	15°50	8°52	13°25	7°24	10°40	9°54	17°16	20°22	F 8
S 9	9 46 35	28°14'23	26°45	3°34	28°49	2°57	1°57	15°57	8°55	13°25	7°24	10°41	9°50	17°22	20°21	S 9
S 10	9 50 32	29°14'41	11°47	4°53	0°X 4	3°36	2°10	16° 4	8°58	13°25	7°24	10°R41	9°47	17°29	20°21	S 10
M11	9 54 28	0°X14'59	26°59	6°15	1°19	4°15	2°24	16°12	9° 0	13°24	7°24	10°40	9°44	17°36	20°20	M11
T 12	9 58 25	1°15'14	12°11	7°37	2°34	4°54	2°37	16°19	9° 3	13°24	7°D24	10°39	9°41	17°42	20°20	T 12
W13	10 2 21	2°15'27	27°10	9° 1	3°49	5°33	2°50	16°26	9° 5	13°24	7°24	10°36	9°38	17°49	20°20	W13
T 14	10 6 18	3°15'39	11°Y51	10°26	5° 4	6°12	3° 4	16°33	9° 8	13°24	7°24	10°33	9°34	17°56	20°19	T 14
F 15	10 10 14	4°15'48	26° 8	11°53	6°19	6°51	3°17	16°40	9°10	13°D24	7°24	10°30	9°31	18° 2	20°19	F 15
S 16	10 14 11	5°15'55	9°356	13°20	7°34	7°30	3°30	16°47	9°12	13°24	7°24	10°27	9°28	18° 9	20°D19	S 16
S 17	10 18 8	6°16'00	23°16	14°49	8°48	8° 9	3°43	16°54	9°15	13°24	7°24	10°25	9°25	18°16	20°19	S 17
M18	10 22 4	7°16'03	6°II11	16°19	10° 3	8°48	3°56	17° 1	9°17	13°24	7°24	10°D24	9°22	18°22	20°20	M18
T 19	10 26 1	8°16'04	18°42	17°51	11°18	9°27	4° 9	17° 8	9°19	13°25	7°24	10°25	9°19	18°29	20°20	T 19
W20	10 29 57	9°16'03	0°356	19°23	12°33	10° 6	4°22	17°14	9°22	13°25	7°25	10°26	9°15	18°35	20°20	W20
T 21	10 33 54	10°15'59	12°57	20°57	13°48	10°45	4°35	17°21	9°24	13°25	7°25	10°28	9°12	18°42	20°21	T 21
F 22	10 37 50	11°15'53	24°49	22°32	15° 3	11°24	4°48	17°28	9°26	13°25	7°25	10°30	9° 9	18°49	20°21	F 22
S 23	10 41 47	12°15'46	6°Q36	24° 8	16°17	12° 3	5° 0	17°35	9°28	13°25	7°25	10°R31	9° 6	18°55	20°22	S 23
S 24	10 45 43	13°15'35	18°22	25°45	17°32	12°42	5°13	17°42	9°30	13°26	7°26	10°30	9° 3	19° 2	20°22	S 24
M25	10 49 40	14°15'23	0°11	27°23	18°47	13°21	5°26	17°48	9°32	13°26	7°26	10°29	9° 0	19° 9	20°23	M25
T 26	10 53 37	15°15'09	12° 5	29° 2	20° 2	14° 0	5°38	17°55	9°34	13°26	7°26	10°25	8°56	19°15	20°24	T 26
W27	10 57 33	16°14'52	24° 5	0°X43	21°16	14°39	5°51	18° 2	9°36	13°27	7°26	10°20	8°53	19°22	20°25	W27
T 28	11 1 30	17°14'34	6°14	2°25	22°31	15°18	6° 3	18° 8	9°38	13°27	7°27	10°13	8°50	19°29	20°26	T 28
F 29	11 5 26	18°X14'14	18°32	4°X 8	23°X46	15°357	6°X16	18°X15	9°340	13°II28	7°II27	10°Q 6	8°Q47	19°Q35	20°II27	F 29

Delta T = 07m46s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1404

## geocentric

MARCH 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	11 9 23	19°13'52	1°11' 2	5°53	25°11' 0	16°36	6°28	18°22	9°41	13°28	7°28	10°R 0	8°44	19°42	20°28	S 1
S 2	11 13 19	20°13'27	13°43	7°38	26°15	17°15	6°40	18°28	9°43	13°29	7°28	9°54	8°40	19°49	20°29	S 2
M 3	11 17 16	21°13'02	26°39	9°25	27°30	17°53	6°52	18°35	9°45	13°29	7°28	9°49	8°37	19°55	20°31	M 3
T 4	11 21 12	22°12'34	9°50	11°13	28°44	18°32	7° 4	18°41	9°46	13°30	7°29	9°47	8°34	20° 2	20°32	T 4
W 5	11 25 9	23°12'05	23°19	13° 2	29°59	19°11	7°16	18°48	9°48	13°31	7°29	9°D46	8°31	20° 9	20°34	W 5
T 6	11 29 6	24°11'34	7°3 7	14°53	1°Y13	19°50	7°28	18°54	9°50	13°31	7°30	9°46	8°28	20°15	20°35	T 6
F 7	11 33 2	25°11'01	21°14	16°45	2°28	20°29	7°40	19° 0	9°51	13°32	7°30	9°48	8°25	20°22	20°37	F 7
S 8	11 36 59	26°10'26	5°41	18°38	3°42	21° 8	7°52	19° 6	9°53	13°33	7°31	9°R48	8°21	20°28	20°39	S 8
S 9	11 40 55	27° 9'50	20°24	20°33	4°57	21°47	8° 3	19°13	9°54	13°33	7°31	9°48	8°18	20°35	20°41	S 9
M10	11 44 52	28° 9'12	5°19	22°29	6°11	22°25	8°15	19°19	9°55	13°34	7°32	9°46	8°15	20°42	20°43	M10
T 11	11 48 48	29° 8'31	20°18	24°26	7°26	23° 4	8°26	19°25	9°57	13°35	7°33	9°41	8°12	20°48	20°45	T 11
W12	11 52 45	0°Y 7'49	5°Y12	26°24	8°40	23°43	8°38	19°31	9°58	13°36	7°33	9°34	8° 9	20°55	20°47	W12
T 13	11 56 41	1° 7'04	19°53	28°23	9°55	24°22	8°49	19°37	9°59	13°37	7°34	9°26	8° 5	21° 2	20°49	T 13
F 14	12 0 38	2° 6'18	4°B13	0°Y24	11° 9	25° 1	9° 0	19°43	10° 0	13°38	7°34	9°18	8° 2	21° 8	20°51	F 14
S 15	12 4 34	3° 5'29	18° 7	2°25	12°23	25°39	9°11	19°49	10° 1	13°39	7°35	9°10	7°59	21°15	20°54	S 15
S 16	12 8 31	4° 4'38	1°B34	4°28	13°38	26°18	9°22	19°55	10° 3	13°40	7°36	9° 4	7°56	21°22	20°56	S 16
M17	12 12 28	5° 3'44	14°34	6°31	14°52	26°57	9°33	20° 1	10° 4	13°41	7°36	8°59	7°53	21°28	20°59	M17
T 18	12 16 24	6° 2'48	27° 9	8°35	16° 6	27°36	9°44	20° 7	10° 5	13°42	7°37	8°57	7°50	21°35	21° 1	T 18
W19	12 20 21	7° 1'50	9°B24	10°40	17°21	28°14	9°55	20°12	10° 5	13°43	7°38	8°D57	7°46	21°42	21° 4	W19
T 20	12 24 17	8° 0'50	21°25	12°45	18°35	28°53	10° 5	20°18	10° 6	13°44	7°39	8°57	7°43	21°48	21° 7	T 20
F 21	12 28 14	8°59'47	3°B16	14°49	19°49	29°32	10°16	20°24	10° 7	13°45	7°40	8°R58	7°40	21°55	21°10	F 21
S 22	12 32 10	9°58'42	15° 3	16°54	21° 3	0°B10	10°26	20°29	10° 8	13°46	7°40	8°58	7°37	22° 2	21°13	S 22
S 23	12 36 7	10°57'35	26°50	18°58	22°17	0°49	10°37	20°35	10° 9	13°48	7°41	8°56	7°34	22° 8	21°16	S 23
M24	12 40 3	11°56'25	8°B42	21° 2	23°32	1°28	10°47	20°40	10° 9	13°49	7°42	8°52	7°31	22°15	21°19	M24
T 25	12 44 0	12°55'13	20°43	23° 4	24°46	2° 6	10°57	20°45	10°10	13°50	7°43	8°45	7°27	22°22	21°22	T 25
W26	12 47 57	13°53'59	2°B53	25° 4	26° 0	2°45	11° 7	20°51	10°10	13°51	7°44	8°36	7°24	22°28	21°25	W26
T 27	12 51 53	14°52'43	15°16	27° 3	27°14	3°24	11°17	20°56	10°11	13°53	7°45	8°25	7°21	22°35	21°28	T 27
F 28	12 55 50	15°51'25	27°51	29° 0	28°28	4° 2	11°27	21° 1	10°11	13°54	7°45	8°13	7°18	22°41	21°31	F 28
S 29	12 59 46	16°50'05	10°B38	0°B54	29°42	4°41	11°36	21° 6	10°12	13°55	7°46	8° 2	7°15	22°48	21°35	S 29
S 30	13 3 43	17°48'44	23°38	2°46	0°B56	5°19	11°46	21°11	10°12	13°57	7°47	7°51	7°11	22°55	21°38	S 30
M31	13 7 39	18°Y47'20	6°B49	4°B34	2°B10	5°B58	11°55	21°16	10°13	13°58	7°48	7°52	7°12	23°01	21°42	M31

Delta T = 07m46s

Julian Calendar 1 March 1404 == Greg. Calendar 10 March 1404

APRIL 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	13 11 36	19°Y45'55	20°B12	6°B19	3°B24	6°B36	12°28 4	21°22	10°B13	14°B 0	7°B49	7°R37	7°B 5	23°B 8	21°B46	T 1
W 2	13 15 32	20°44'28	3°B47	8° 0	4°38	7°15	12°14	21°26	10°13	14° 1	7°50	7°B34	7° 2	23°15	21°49	W 2
T 3	13 19 29	21°43'00	17°33	9°37	5°52	7°53	12°23	21°31	10°13	14° 3	7°51	7°D33	6°59	23°21	21°53	T 3
F 4	13 23 26	22°41'29	1°B33	11°11	7° 5	8°32	12°31	21°35	10°13	14° 4	7°52	7°R33	6°56	23°28	21°57	F 4
S 5	13 27 22	23°39'58	15°44	12°40	8°19	9°10	12°40	21°40	10°13	14° 6	7°53	7°33	6°52	23°35	22° 1	S 5
S 6	13 31 19	24°38'24	0°B 7	14° 4	9°33	9°49	12°49	21°44	10°R13	14° 7	7°54	7°31	6°49	23°41	22° 5	S 6
M 7	13 35 15	25°36'49	14°38	15°24	10°47	10°27	12°57	21°49	10°13	14° 9	7°55	7°27	6°46	23°48	22° 9	M 7
T 8	13 39 12	26°35'12	29°14	16°39	12° 1	11° 6	13° 6	21°53	10°13	14°10	7°56	7°20	6°43	23°55	22°13	T 8
W 9	13 43 8	27°33'34	13°Y47	17°50	13°14	11°44	13°14	21°58	10°13	14°12	7°58	7°11	6°40	24° 1	22°17	W 9
T 10	13 47 5	28°31'53	28°12	18°56	14°28	12°23	13°22	22° 2	10°13	14°14	7°59	7° 0	6°36	24° 8	22°21	T 10
F 11	13 51 1	29°30'11	12°B20	19°56	15°42	13° 1	13°30	22° 6	10°13	14°15	8° 0	6°48	6°33	24°15	22°25	F 11
S 12	13 54 58	0°B28'27	26° 8	20°52	16°55	13°39	13°38	22°10	10°12	14°17	8° 1	6°37	6°30	24°21	22°29	S 12
S 13	13 58 55	1°26'42	9°B32	21°42	18° 9	14°18	13°46	22°14	10°12	14°19	8° 2	6°27	6°27	24°28	22°34	S 13
M14	14 2 51	2°24'54	22°32	22°28	19°23	14°56	13°53	22°18	10°12	14°21	8° 3	6°20	6°24	24°35	22°38	M14
T 15	14 6 48	3°23'04	5°B 8	23° 8	20°36	15°35	14° 1	22°22	10°11	14°22	8° 4	6°15	6°21	24°41	22°43	T 15
W16	14 10 44	4°21'13	17°25	23°43	21°50	16°13	14° 8	22°26	10°11	14°24	8° 6	6°13	6°17	24°48	22°47	W16
T 17	14 14 41	5°19'19	29°28	24°13	23° 3	16°51	14°15	22°29	10°10	14°26	8° 7	6°12	6°14	24°54	22°52	T 17
F 18	14 18 37	6°17'23	11°B20	24°37	24°17	17°30	14°22	22°33	10°10	14°28	8° 8	6°12	6°11	25° 1	22°56	F 18
S 19	14 22 34	7°15'26	23° 8	24°56	25°30	18° 8	14°29	22°36	10° 9	14°30	8° 9	6°12	6° 8	25° 8	23° 1	S 19
S 20	14 26 30	8°13'26	4°B58	25°10	26°44	18°46	14°36	22°40	10° 8	14°32	8°10	6°10	6° 5	25°14	23° 6	S 20
M21	14 30 27	9°11'25	16°53	25°18	27°57	19°25	14°42	22°43	10° 8	14°33	8°12	6° 5	6° 2	25°21	23°11	M21
T 22	14 34 23	10° 9'21	29° 0	25°R21	29°11	20° 3	14°49	22°46	10° 7	14°35	8°13	5°58	5°58	25°28	23°15	T 22
W23	14 38 20	11° 7'16	11°B19	25°20	0°B24	20°41	14°55	22°50	10° 6	14°37	8°14	5°49	5°55	25°34	23°20	W23
T 24	14 42 17	12° 5'10	23°55	25°13	1°37	21°19	15° 1	22°53	10° 5	14°39	8°15	5°37	5°52	25°41	23°25	T 24
F 25	14 46 13	13° 3'01	6°B46	25° 2	2°51	21°58	15° 7	22°56	10° 4	14°41	8°17	5°25	5°49	25°48	23°30	F 25
S 26	14 50 10	14° 0'51	19°54	24°46	4° 4	22°36	15°13	22°58	10° 3	14°43	8°18	5°12	5°46	25°54	23°35	S 26
S 27	14 54 6	14°58'40	3°B16	24°27	5°17	23°14	15°18	23° 1	10° 2	14°45	8°19	5° 1	5°42	26° 1	23°40	S 27
M28	14 58 3	15°56'27	16°50	24° 4	6°30	23°52	15°24	23° 4	10° 1	14°47	8°20	4°52	5°39	26° 8	23°45	M28
T 29	15 1 59	16°54'13	0°B34	23°37	7°44	24°30	15°29	23° 7	10° 0	14°49	8°22	4°46	5°36	26°14	23°51	T 29
W30	15 5 56	17°B51'58	14°B26	23°B 8	8°B57	25°B 9	15°B34	23°B 9	9°B59	14°B51	8°B23	4°B42	5°B33	26°B21	23°B56	W30

Delta T = 07m46s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1404

## geocentric

MAY 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	15 9 52	18♂49'42	28♂24	22°R37	10II10	25II47	15♂39	23♂12	9°R58	14II53	8II24	4°R41	5♂30	26♂28	24II 1	T 1
F 2	15 13 49	19°47'24	12♂27	22♂ 4	11°23	26°25	15°44	23°14	9♂56	14°55	8°26	4♂41	5°27	26°34	24° 6	F 2
S 3	15 17 46	20°45'06	26°34	21°29	12°36	27° 3	15°48	23°16	9°55	14°57	8°27	4°41	5°23	26°41	24°12	S 3
S 4	15 21 42	21°42'46	10♂44	20°55	13°49	27°41	15°53	23°19	9°54	14°59	8°28	4°40	5°20	26°48	24°17	S 4
M 5	15 25 39	22°40'26	24°56	20°20	15° 2	28°19	15°57	23°21	9°53	15° 1	8°30	4°36	5°17	26°54	24°22	M 5
T 6	15 29 35	23°38'04	9°Y 7	19°47	16°15	28°58	16° 1	23°23	9°51	15° 4	8°31	4°30	5°14	27° 1	24°28	T 6
W 7	15 33 32	24°35'41	23°15	19°14	17°28	29°36	16° 5	23°24	9°50	15° 6	8°32	4°22	5°11	27° 8	24°33	W 7
T 8	15 37 28	25°33'18	7♂14	18°44	18°41	0♂14	16° 8	23°26	9°48	15° 8	8°34	4°12	5° 8	27°14	24°39	T 8
F 9	15 41 25	26°30'53	21° 0	18°16	19°54	0°52	16°12	23°28	9°47	15°10	8°35	4° 1	5° 4	27°21	24°44	F 9
S 10	15 45 21	27°28'27	4II30	17°50	21° 7	1°30	16°15	23°30	9°45	15°12	8°36	3°50	5° 1	27°28	24°50	S 10
S 11	15 49 18	28°26'00	17°40	17°28	22°20	2° 8	16°19	23°31	9°44	15°14	8°38	3°41	4°58	27°34	24°55	S 11
M12	15 53 15	29°23'32	0♂31	17° 9	23°33	2°46	16°22	23°33	9°42	15°16	8°39	3°35	4°55	27°41	25° 1	M12
T 13	15 57 11	0II21'02	13° 3	16°55	24°45	3°24	16°24	23°34	9°40	15°19	8°41	3°30	4°52	27°47	25° 7	T 13
W14	16 1 8	1°18'31	25°18	16°44	25°58	4° 2	16°27	23°35	9°39	15°21	8°42	3°28	4°48	27°54	25°12	W14
T 15	16 5 4	2°15'59	7♂20	16°37	27°11	4°40	16°29	23°36	9°37	15°23	8°43	3°D28	4°45	28° 1	25°18	T 15
F 16	16 9 1	3°13'26	19°13	16°D35	28°24	5°18	16°32	23°37	9°35	15°25	8°45	3°29	4°42	28° 7	25°24	F 16
S 17	16 12 57	4°10'52	1♂ 2	16°37	29°36	5°57	16°34	23°38	9°33	15°27	8°46	3°R29	4°39	28°14	25°29	S 17
S 18	16 16 54	5° 8'16	12°53	16°44	0♂49	6°35	16°36	23°39	9°32	15°30	8°47	3°29	4°36	28°21	25°35	S 18
M19	16 20 50	6° 5'39	24°51	16°55	2° 1	7°13	16°37	23°40	9°30	15°32	8°49	3°27	4°33	28°27	25°41	M19
T 20	16 24 47	7° 3'01	7♂ 0	17°10	3°14	7°51	16°39	23°40	9°28	15°34	8°50	3°23	4°29	28°34	25°47	T 20
W21	16 28 44	8° 0'22	19°25	17°30	4°26	8°29	16°40	23°41	9°26	15°36	8°52	3°17	4°26	28°41	25°53	W21
T 22	16 32 40	8°57'41	2♂ 9	17°55	5°39	9° 7	16°41	23°41	9°24	15°38	8°53	3° 9	4°23	28°47	25°59	T 22
F 23	16 36 37	9°55'00	15°13	18°24	6°51	9°45	16°42	23°42	9°22	15°41	8°54	3° 0	4°20	28°54	26° 4	F 23
S 24	16 40 33	10°52'18	28°37	18°57	8° 4	10°23	16°43	23°42	9°20	15°43	8°56	2°52	4°17	29° 1	26°10	S 24
S 25	16 44 30	11°49'36	12♂20	19°34	9°16	11° 1	16°43	23°42	9°18	15°45	8°57	2°44	4°14	29° 7	26°16	S 25
M26	16 48 26	12°46'52	26°18	20°15	10°29	11°39	16°44	23°R42	9°16	15°47	8°59	2°38	4°10	29°14	26°22	M26
T 27	16 52 23	13°44'08	10♂27	21° 1	11°41	12°16	16°R44	23°42	9°14	15°50	9° 0	2°33	4° 7	29°21	26°28	T 27
W28	16 56 20	14°41'24	24°43	21°50	12°53	12°54	16°44	23°42	9°12	15°52	9° 1	2°32	4° 4	29°27	26°34	W28
T 29	17 0 16	15°38'39	9♂ 2	22°43	14° 5	13°32	16°44	23°42	9°10	15°54	9° 3	2°D31	4° 1	29°34	26°40	T 29
F 30	17 4 13	16°35'54	23°20	23°40	15°17	14°10	16°43	23°41	9° 7	15°56	9° 4	2°32	3°58	29°41	26°46	F 30
S 31	17 8 9	17II33'08	7♂34	24♂41	16♂30	14♂48	16♂43	23♂41	9♂ 5	15II59	9II 6	2♂34	3♂54	29♂47	26II52	S 31

Delta T = 07m46s

Julian Calendar 1 May 1404 == Greg. Calendar 10 May 1404

JUNE 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	17 12 6	18II30'22	21♂43	25♂46	17♂42	15♂26	16°R42	23°R40	9°R 3	16II 1	9II 7	2°R34	3♂51	29♂54	26II58	S 1
M 2	17 16 2	19°27'36	5°Y45	26°54	18°54	16° 4	16♂41	23♂40	9♂ 1	16° 3	9° 8	2♂33	3°48	0♂ 1	27° 4	M 2
T 3	17 19 59	20°24'50	19°40	28° 5	20° 6	16°42	16°40	23°39	8°59	16° 5	9°10	2°30	3°45	0° 7	27°10	T 3
W 4	17 23 55	21°22'04	3♂24	29°20	21°18	17°20	16°38	23°38	8°56	16° 7	9°11	2°25	3°42	0°14	27°16	W 4
T 5	17 27 52	22°19'17	16°58	0II39	22°30	17°58	16°37	23°37	8°54	16°10	9°12	2°19	3°39	0°21	27°23	T 5
F 6	17 31 49	23°16'31	0II18	2° 1	23°42	18°36	16°35	23°36	8°52	16°12	9°14	2°13	3°35	0°27	27°29	F 6
S 7	17 35 45	24°13'44	13°25	3°27	24°54	19°14	16°33	23°35	8°49	16°14	9°15	2° 7	3°32	0°34	27°35	S 7
S 8	17 39 42	25°10'57	26°16	4°55	26° 6	19°52	16°31	23°34	8°47	16°16	9°16	2° 1	3°29	0°41	27°41	S 8
M 9	17 43 38	26° 8'10	8♂52	6°27	27°17	20°30	16°28	23°32	8°45	16°19	9°18	1°58	3°26	0°47	27°47	M 9
T 10	17 47 35	27° 5'23	21°14	8° 3	28°29	21° 8	16°26	23°31	8°42	16°21	9°19	1°55	3°23	0°54	27°53	T 10
W11	17 51 31	28° 2'35	3♂22	9°41	29°41	21°46	16°23	23°30	8°40	16°23	9°20	1°D55	3°20	1° 1	27°59	W11
T 12	17 55 28	28°59'47	15°21	11°23	0♂52	22°23	16°20	23°28	8°38	16°25	9°22	1°56	3°16	1° 7	28° 5	T 12
F 13	17 59 24	29°56'58	27°12	13° 8	2° 4	23° 1	16°17	23°26	8°35	16°27	9°23	1°57	3°13	1°14	28°11	F 13
S 14	18 3 21	0♂54'09	9♂ 1	14°56	3°16	23°39	16°14	23°24	8°33	16°30	9°24	1°59	3°10	1°21	28°18	S 14
S 15	18 7 18	1°51'20	20°52	16°47	4°27	24°17	16°11	23°23	8°31	16°32	9°26	2° 0	3° 7	1°27	28°24	S 15
M16	18 11 14	2°48'31	2♂49	18°40	5°39	24°55	16° 7	23°21	8°28	16°34	9°27	2°R 1	3° 4	1°34	28°30	M16
T 17	18 15 11	3°45'41	14°59	20°36	6°50	25°33	16° 3	23°19	8°26	16°36	9°28	2° 0	3° 0	1°41	28°36	T 17
W18	18 19 7	4°42'51	27°24	22°35	8° 2	26°11	15°59	23°16	8°23	16°38	9°30	1°58	2°57	1°47	28°42	W18
T 19	18 23 4	5°40'01	10♂10	24°36	9°13	26°49	15°55	23°14	8°21	16°40	9°31	1°56	2°54	1°54	28°48	T 19
F 20	18 27 0	6°37'11	23°19	26°39	10°24	27°27	15°51	23°12	8°19	16°43	9°32	1°52	2°51	2° 1	28°54	F 20
S 21	18 30 57	7°34'21	6♂51	28°43	11°35	28° 5	15°46	23°10	8°16	16°45	9°33	1°49	2°48	2° 7	29° 0	S 21
S 22	18 34 53	8°31'30	20°47	0♂49	12°46	28°43	15°42	23° 7	8°14	16°47	9°35	1°45	2°45	2°14	29° 6	S 22
M23	18 38 50	9°28'40	5♂ 3	2°57	13°58	29°20	15°37	23° 5	8°11	16°49	9°36	1°43	2°41	2°21	29°12	M23
T 24	18 42 47	10°25'51	19°35	5° 5	15° 9	29°58	15°32	23° 2	8° 9	16°51	9°37	1°41	2°38	2°27	29°18	T 24
W25	18 46 43	11°23'01	4♂15	7°14	16°20	0♂36	15°27	22°59	8° 6	16°53	9°38	1°D41	2°35	2°34	29°24	W25
T 26	18 50 40	12°20'12	18°59	9°23	17°31	1°14	15°22	22°56	8° 4	16°55	9°39	1°42	2°32	2°41	29°31	T 26
F 27	18 54 36	13°17'23	3♂39	11°32	18°41	1°52	15°16	22°54	8° 2	16°57	9°41	1°43	2°29	2°47	29°37	F 27
S 28	18 58 33	14°14'35	18°11	13°41	19°52	2°30	15°11	22°51	7°59	16°59	9°42	1°44	2°26	2°54	29°43	S 28
S 29	19 2 29	15°11'48	2°Y29	15°49	21° 3	3° 8	15° 5	22°48	7°57	17° 1	9°43	1°45	2°22	3° 1	29°49	S 29
M30	19 6 26	16♂ 9'01	16°Y32	17♂57	22♂14	3♂46	14♂59	22♂44	7♂54	17II 3	9II44	1°R45	2♂19	3♂ 7	29II55	M30

Delta T = 07m46s

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1404  
geocentric

JULY 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	19 10 22	17°56'15	08°19	20°54	23°24	4°24	14°R53	22°R41	7°R52	17°II 5	9°II45	1°R45	2°216	3°14	0°51	T 1
W 2	19 14 19	18° 3'30	13°50	22° 9	24°35	5° 2	14°47	22°38	7°50	17° 7	9°46	1°44	2°13	3°21	0° 6	W 2
T 3	19 18 16	19° 0'46	27° 4	24°14	25°45	5°40	14°41	22°35	7°47	17° 9	9°48	1°42	2°10	3°27	0°12	T 3
F 4	19 22 12	19°58'02	10°II 3	26°17	26°56	6°17	14°35	22°31	7°45	17°11	9°49	1°41	2° 6	3°34	0°18	F 4
S 5	19 26 9	20°55'20	22°47	28°18	28° 6	6°55	14°28	22°28	7°43	17°13	9°50	1°39	2° 3	3°41	0°24	S 5
S 6	19 30 5	21°52'38	5°519	0°218	29°16	7°33	14°22	22°24	7°40	17°15	9°51	1°38	2° 0	3°47	0°30	S 6
M 7	19 34 2	22°49'57	17°38	2°17	0°27	8°11	14°15	22°21	7°38	17°17	9°52	1°37	1°57	3°54	0°36	M 7
T 8	19 37 58	23°47'16	29°47	4°14	1°37	8°49	14° 8	22°17	7°36	17°19	9°53	1°D37	1°54	4° 1	0°42	T 8
W 9	19 41 55	24°44'36	11°247	6° 9	2°47	9°27	14° 1	22°14	7°33	17°21	9°54	1°37	1°51	4° 7	0°48	W 9
T 10	19 45 51	25°41'57	23°41	8° 3	3°57	10° 5	13°54	22°10	7°31	17°23	9°55	1°38	1°47	4°14	0°53	T 10
F 11	19 49 48	26°39'19	5°230	9°55	5° 7	10°43	13°47	22° 6	7°29	17°24	9°56	1°38	1°44	4°21	0°59	F 11
S 12	19 53 45	27°36'41	17°19	11°45	6°17	11°21	13°40	22° 2	7°27	17°26	9°57	1°39	1°41	4°27	1° 5	S 12
S 13	19 57 41	28°34'03	29°10	13°34	7°27	11°59	13°33	21°58	7°24	17°28	9°58	1°39	1°38	4°34	1°11	S 13
M14	20 1 38	29°31'27	11°15	15°20	8°36	12°37	13°25	21°54	7°22	17°30	9°59	1°39	1°35	4°41	1°16	M14
T 15	20 5 34	0°28'50	23°15	17° 6	9°46	13°15	13°18	21°50	7°20	17°32	10° 0	1°39	1°32	4°47	1°22	T 15
W16	20 9 31	1°26'15	5°238	18°49	10°56	13°53	13°10	21°46	7°18	17°33	10° 1	1°39	1°28	4°54	1°27	W16
T 17	20 13 27	2°23'40	18°21	20°31	12° 5	14°31	13° 3	21°42	7°16	17°35	10° 2	1°39	1°25	5° 1	1°33	T 17
F 18	20 17 24	3°21'06	1°226	22°12	13°14	15° 9	12°55	21°38	7°14	17°37	10° 3	1°40	1°22	5° 7	1°39	F 18
S 19	20 21 20	4°18'33	14°57	23°50	14°24	15°47	12°48	21°34	7°12	17°38	10° 4	1°40	1°19	5°14	1°44	S 19
S 20	20 25 17	5°16'01	28°55	25°28	15°33	16°25	12°40	21°29	7°10	17°40	10° 5	1°40	1°16	5°21	1°50	S 20
M21	20 29 14	6°13'30	13°317	27° 3	16°42	17° 3	12°32	21°25	7° 8	17°42	10° 5	1°40	1°12	5°27	1°55	M21
T 22	20 33 10	7°10'59	28° 1	28°37	17°51	17°41	12°24	21°21	7° 6	17°43	10° 6	1°R41	1° 9	5°34	2° 1	T 22
W23	20 37 7	8° 8'30	12°59	0°29	19° 0	18°19	12°17	21°17	7° 4	17°45	10° 7	1°41	1° 6	5°41	2° 6	W23
T 24	20 41 3	9° 6'01	28° 4	1°40	20° 9	18°57	12° 9	21°12	7° 2	17°46	10° 8	1°40	1° 3	5°47	2°11	T 24
F 25	20 45 0	10° 3'34	13°37	3° 9	21°17	19°35	12° 1	21° 8	7° 0	17°48	10° 9	1°39	1° 0	5°54	2°17	F 25
S 26	20 48 56	11° 1'09	27°59	4°36	22°26	20°13	11°53	21° 4	6°58	17°49	10° 9	1°38	0°57	6° 1	2°22	S 26
S 27	20 52 53	11°58'44	12°33	6° 2	23°34	20°51	11°45	20°59	6°56	17°51	10°10	1°37	0°53	6° 7	2°27	S 27
M28	20 56 49	12°56'22	26°46	7°26	24°43	21°29	11°38	20°55	6°54	17°52	10°11	1°36	0°50	6°14	2°32	M28
T 29	21 0 46	13°54'01	10°36	8°48	25°51	22° 8	11°30	20°50	6°53	17°54	10°12	1°D36	0°47	6°21	2°37	T 29
W30	21 4 43	14°51'41	24° 2	10° 8	26°59	22°46	11°22	20°46	6°51	17°55	10°12	1°36	0°44	6°27	2°42	W30
T 31	21 8 39	15°49'23	7°II 6	11°27	28°27	23°24	11°14	20°41	6°549	17°II57	10°II13	1°237	0°41	6°34	2°47	T 31

Delta T = 07m46s

Julian Calendar 1 July 1404 == Greg. Calendar 10 July 1404

AUGUST 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	21 12 36	16°47'07	19°II51	12°244	29°215	24°2	11°R 6	20°R37	6°R47	17°II58	10°II14	1°238	0°237	6°241	2°552	F 1
S 2	21 16 32	17°44'53	2°20	13°59	0°223	24°40	10°58	20°32	6°46	17°59	10°14	1°39	0°34	6°47	2°57	S 2
S 3	21 20 29	18°42'40	14°36	15°12	1°31	25°18	10°51	20°28	6°44	18° 1	10°15	1°41	0°31	6°54	3° 2	S 3
M 4	21 24 25	19°40'29	26°41	16°23	2°38	25°56	10°43	20°23	6°43	18° 2	10°16	1°R41	0°28	7° 1	3° 7	M 4
T 5	21 28 22	20°38'19	8°239	17°32	3°46	26°35	10°35	20°19	6°41	18° 3	10°16	1°41	0°25	7° 7	3°12	T 5
W 6	21 32 18	21°36'10	20°32	18°39	4°53	27°13	10°28	20°14	6°40	18° 4	10°17	1°40	0°22	7°14	3°17	W 6
T 7	21 36 15	22°34'04	2°22	19°43	6° 0	27°51	10°20	20°10	6°38	18° 5	10°17	1°38	0°18	7°21	3°22	T 7
F 8	21 40 12	23°31'58	14°11	20°45	7° 7	28°29	10°13	20° 5	6°37	18° 7	10°18	1°35	0°15	7°27	3°26	F 8
S 9	21 44 8	24°29'54	26° 0	21°45	8°14	29° 7	10° 5	20° 1	6°35	18° 8	10°18	1°31	0°12	7°34	3°31	S 9
S 10	21 48 5	25°27'52	7°54	22°41	9°21	29°46	9°58	19°56	6°34	18° 9	10°19	1°27	0° 9	7°41	3°35	S 10
M11	21 52 1	26°25'51	19°53	23°35	10°28	0°24	9°51	19°52	6°33	18°10	10°19	1°24	0° 6	7°47	3°40	M11
T 12	21 55 58	27°23'51	2°2	24°26	11°34	1° 2	9°44	19°47	6°32	18°11	10°20	1°20	0° 3	7°54	3°44	T 12
W13	21 59 54	28°21'53	14°24	25°14	12°40	1°40	9°37	19°43	6°30	18°12	10°20	1°18	29°59	8° 1	3°49	W13
T 14	22 3 51	29°19'56	27° 3	25°58	13°47	2°19	9°30	19°38	6°29	18°13	10°21	1°D18	29°56	8° 7	3°53	T 14
F 15	22 7 47	0°218'01	10°2	26°39	14°53	2°57	9°23	19°34	6°28	18°14	10°21	1°18	29°53	8°14	3°57	F 15
S 16	22 11 44	1°16'07	23°25	27°16	15°58	3°35	9°16	19°29	6°27	18°15	10°21	1°19	29°50	8°21	4° 2	S 16
S 17	22 15 41	2°14'15	7°315	27°49	17° 4	4°14	9° 9	19°25	6°26	18°16	10°22	1°21	29°47	8°27	4° 6	S 17
M18	22 19 37	3°12'24	21°31	28°17	18°10	4°52	9° 3	19°21	6°25	18°17	10°22	1°22	29°43	8°34	4°10	M18
T 19	22 23 34	4°10'34	6°12	28°41	19°15	5°30	8°56	19°16	6°24	18°17	10°22	1°R22	29°40	8°41	4°14	T 19
W20	22 27 30	5° 8'46	21°13	28°59	20°20	6° 9	8°50	19°12	6°23	18°18	10°23	1°21	29°37	8°47	4°18	W20
T 21	22 31 27	6° 7'00	6°27	29°13	21°25	6°47	8°44	19° 8	6°22	18°19	10°23	1°18	29°34	8°54	4°22	T 21
F 22	22 35 23	7° 5'16	21°43	29°20	22°29	7°26	8°38	19° 4	6°22	18°20	10°23	1°14	29°31	9° 1	4°25	F 22
S 23	22 39 20	8° 3'33	6°51	29°R22	23°34	8° 4	8°32	19° 0	6°21	18°20	10°23	1° 8	29°28	9° 7	4°29	S 23
S 24	22 43 16	9° 1'53	21°41	29°18	24°38	8°42	8°26	18°55	6°20	18°21	10°23	1° 3	29°24	9°14	4°33	S 24
M25	22 47 13	10° 0'14	6°8	29° 7	25°42	9°21	8°21	18°51	6°19	18°22	10°24	0°58	29°21	9°21	4°37	M25
T 26	22 51 10	10°58'38	20° 6	28°50	26°46	9°59	8°15	18°47	6°19	18°22	10°24	0°55	29°18	9°28	4°40	T 26
W27	22 55 6	11°57'04	3°II36	28°26	27°50	10°38	8°10	18°43	6°18	18°23	10°24	0°53	29°15	9°34	4°44	W27
T 28	22 59 3	12°55'32	16°39	27°55	28°53	11°16	8° 5	18°39	6°18	18°23	10°24	0°D53	29°12	9°41	4°47	T 28
F 29	23 2 59	13°54'02	29°19	27°17	29°56	11°55	8° 0	18°36	6°17	18°24	10°24	0°53	29° 9	9°48	4°51	F 29
S 30	23 6 56	14°52'35	11°540	26°33	0°259	12°33	7°55	18°32	6°17	18°24	10°24	0°55	29° 5	9°54	4°54	S 30
S 31	23 10 52	15°51'09	23°547	25°244	2°2	13°212	7°550	18°28	6°317	18°II25	10°II24	0°256	29°52	10°21	4°57	S 31

Delta T = 07m46s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1404

## geocentric

SEPTEMBER 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	23 14 49	16°49'46	5°44	24°R49	3°4	13°50	7°R46	18°R24	6°R16	18°II25	10°R24	0°R56	28°59	10°8	5°0	M 1
T 2	23 18 45	17°48'25	17°36	23°49	4°6	14°29	7°41	18°21	6°16	18°26	10°II24	0°55	28°56	10°14	5°3	T 2
W 3	23 22 42	18°47'06	29°24	22°47	5°8	15°8	7°37	18°17	6°16	18°26	10°24	0°51	28°53	10°21	5°6	W 3
T 4	23 26 39	19°45'49	11°13	21°42	6°10	15°46	7°33	18°14	6°16	18°26	10°24	0°45	28°49	10°28	5°9	T 4
F 5	23 30 35	20°44'34	23°3	20°37	7°11	16°25	7°29	18°10	6°15	18°27	10°24	0°37	28°46	10°34	5°12	F 5
S 6	23 34 32	21°43'21	4°58	19°33	8°12	17°4	7°26	18°7	6°15	18°27	10°24	0°27	28°43	10°41	5°15	S 6
S 7	23 38 28	22°42'10	16°58	18°32	9°12	17°42	7°22	18°3	6°D15	18°27	10°24	0°17	28°40	10°48	5°18	S 7
M 8	23 42 25	23°41'01	29°5	17°35	10°13	18°21	7°19	18°0	6°15	18°27	10°24	0°7	28°37	10°54	5°20	M 8
T 9	23 46 21	24°39'54	11°20	16°44	11°13	19°0	7°16	17°57	6°16	18°27	10°23	29°59	28°34	11°1	5°23	T 9
W10	23 50 18	25°38'49	23°46	16°1	12°12	19°39	7°13	17°54	6°16	18°27	10°23	29°52	28°30	11°8	5°25	W10
T 11	23 54 14	26°37'45	6°26	15°26	13°12	20°17	7°10	17°51	6°16	18°28	10°23	29°47	28°27	11°14	5°27	T 11
F 12	23 58 11	27°36'44	19°23	15°0	14°10	20°56	7°8	17°48	6°16	18°28	10°23	29°45	28°24	11°21	5°30	F 12
S 13	0 2 7	28°35'44	2°39	14°44	15°9	21°35	7°5	17°45	6°16	18°R28	10°23	29°D45	28°21	11°28	5°32	S 13
S 14	0 6 4	29°34'46	16°17	14°D38	16°7	22°14	7°3	17°42	6°17	18°28	10°22	29°46	28°18	11°34	5°34	S 14
M15	0 10 1	0°33'49	0°20	14°43	17°4	22°52	7°1	17°39	6°17	18°28	10°22	29°R46	28°14	11°41	5°36	M15
T 16	0 13 57	1°32'55	14°47	14°58	18°2	23°31	7°0	17°37	6°18	18°27	10°22	29°45	28°11	11°48	5°38	T 16
W17	0 17 54	2°32'02	29°37	15°24	18°58	24°10	6°58	17°34	6°18	18°27	10°21	29°42	28°8	11°54	5°40	W17
T 18	0 21 50	3°31'11	14°42	15°58	19°55	24°49	6°57	17°32	6°19	18°27	10°21	29°37	28°5	12°1	5°42	T 18
F 19	0 25 47	4°30'22	29°55	16°42	20°50	25°28	6°56	17°30	6°19	18°27	10°21	29°29	28°2	12°8	5°44	F 19
S 20	0 29 43	5°29'35	15°5	17°34	21°45	26°7	6°55	17°27	6°20	18°27	10°20	29°19	27°59	12°15	5°45	S 20
S 21	0 33 40	6°28'50	0°8	18°34	22°40	26°46	6°54	17°25	6°21	18°26	10°20	29°9	27°55	12°21	5°47	S 21
M22	0 37 36	7°28'07	14°36	19°40	23°34	27°25	6°53	17°23	6°21	18°26	10°19	28°59	27°52	12°28	5°48	M22
T 23	0 41 33	8°27'27	28°43	20°53	24°28	28°4	6°53	17°21	6°22	18°26	10°19	28°52	27°49	12°35	5°50	T 23
W24	0 45 30	9°26'49	12°19	22°11	25°21	28°43	6°D53	17°19	6°23	18°25	10°19	28°46	27°46	12°41	5°51	W24
T 25	0 49 26	10°26'13	25°27	23°33	26°13	29°22	6°53	17°17	6°24	18°25	10°18	28°43	27°43	12°48	5°52	T 25
F 26	0 53 23	11°25'40	8°9	24°59	27°5	0°1	6°53	17°15	6°25	18°25	10°18	28°D42	27°40	12°55	5°53	F 26
S 27	0 57 19	12°25'09	20°30	26°29	27°56	0°40	6°54	17°14	6°26	18°24	10°17	28°43	27°36	13°1	5°54	S 27
S 28	1 1 16	13°24'40	2°35	28°2	28°46	1°19	6°54	17°12	6°27	18°24	10°17	28°R43	27°33	13°8	5°55	S 28
M29	1 5 12	14°24'14	14°30	29°37	29°36	1°58	6°55	17°11	6°28	18°23	10°16	28°42	27°30	13°15	5°56	M29
T 30	1 9 9	15°23'49	26°18	1°13	0°25	2°38	6°56	17°10	6°29	18°II23	10°II15	28°38	27°27	13°21	5°57	T 30

Delta T = 07m46s

Julian Calendar 1 Sept. 1404 == Greg. Calendar 10 Sept. 1404

OCTOBER 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	1 13 5	16°23'27	8°6	2°52	1°13	3°17	6°57	17°R8	6°31	18°R22	10°R15	28°R32	27°24	13°28	5°57	W 1
T 2	1 17 2	17°23'08	19°56	4°31	2°0	3°56	6°59	17°8	6°32	18°II21	10°II14	28°24	27°20	13°35	5°58	T 2
F 3	1 20 59	18°22'50	1°52	6°11	2°47	4°35	7°1	17°6	6°33	18°21	10°13	28°12	27°17	13°41	5°58	F 3
S 4	1 24 55	19°22'34	13°54	7°52	3°32	5°14	7°2	17°5	6°34	18°20	10°13	27°59	27°14	13°48	5°59	S 4
S 5	1 28 52	20°22'21	26°4	9°33	4°17	5°54	7°4	17°4	6°36	18°19	10°12	27°44	27°11	13°55	5°59	S 5
M 6	1 32 48	21°22'09	8°24	11°15	5°1	6°33	7°7	17°4	6°37	18°19	10°11	27°30	27°8	14°1	5°59	M 6
T 7	1 36 45	22°22'00	20°53	12°56	5°44	7°12	7°9	17°3	6°39	18°18	10°11	27°18	27°5	14°8	5°59	T 7
W 8	1 40 41	23°21'52	3°32	14°38	6°25	7°52	7°12	17°2	6°40	18°17	10°10	27°8	27°1	14°15	5°R59	W 8
T 9	1 44 38	24°21'46	16°22	16°19	7°6	8°31	7°15	17°2	6°42	18°16	10°9	27°1	26°58	14°22	5°59	T 9
F 10	1 48 34	25°21'42	29°24	18°0	7°46	9°10	7°18	17°2	6°44	18°15	10°8	26°57	26°55	14°28	5°59	F 10
S 11	1 52 31	26°21'40	12°42	19°41	8°24	9°50	7°21	17°1	6°45	18°14	10°8	26°55	26°52	14°35	5°59	S 11
S 12	1 56 27	27°21'39	26°15	21°22	9°1	10°29	7°24	17°1	6°47	18°14	10°7	26°55	26°49	14°42	5°59	S 12
M13	2 0 24	28°21'40	10°7	23°2	9°37	11°9	7°28	17°D1	6°49	18°13	10°6	26°55	26°46	14°48	5°58	M13
T 14	2 4 21	29°21'42	24°18	24°42	10°12	11°48	7°32	17°1	6°51	18°12	10°5	26°53	26°42	14°55	5°58	T 14
W15	2 8 17	0°21'46	8°48	26°21	10°45	12°28	7°36	17°1	6°53	18°11	10°4	26°49	26°39	15°2	5°57	W15
T 16	2 12 14	1°21'52	23°32	28°0	11°17	13°7	7°40	17°2	6°54	18°10	10°4	26°43	26°36	15°8	5°56	T 16
F 17	2 16 10	2°21'59	8°26	29°39	11°47	13°47	7°44	17°2	6°56	18°9	10°3	26°34	26°33	15°15	5°56	F 17
S 18	2 20 7	3°22'08	23°20	1°17	12°16	14°26	7°49	17°3	6°58	18°7	10°2	26°23	26°30	15°22	5°55	S 18
S 19	2 24 3	4°22'19	8°6	2°55	12°43	15°6	7°53	17°3	7°0	18°6	10°1	26°11	26°26	15°28	5°54	S 19
M20	2 28 0	5°22'31	22°36	4°32	13°8	15°46	7°58	17°4	7°3	18°5	10°0	25°59	26°23	15°35	5°53	M20
T 21	2 31 56	6°22'46	6°42	6°9	13°32	16°25	8°3	17°5	7°5	18°4	9°59	25°50	26°20	15°42	5°51	T 21
W22	2 35 53	7°23'02	20°21	7°46	13°54	17°5	8°9	17°6	7°7	18°3	9°58	25°43	26°17	15°48	5°50	W22
T 23	2 39 50	8°23'21	3°32	9°22	14°14	17°45	8°14	17°7	7°9	18°2	9°57	25°39	26°14	15°55	5°49	T 23
F 24	2 43 46	9°23'41	16°18	10°58	14°32	18°24	8°20	17°8	7°11	18°0	9°56	25°37	26°11	16°2	5°48	F 24
S 25	2 47 43	10°24'03	28°43	12°33	14°48	19°4	8°25	17°9	7°14	17°59	9°55	25°D37	26°7	16°9	5°46	S 25
S 26	2 51 39	11°24'28	10°50	14°9	15°2	19°44	8°31	17°10	7°16	17°58	9°54	25°R37	26°4	16°15	5°44	S 26
M27	2 55 36	12°24'54	22°46	15°44	15°14	20°24	8°37	17°12	7°18	17°57	9°53	25°36	26°1	16°22	5°43	M27
T 28	2 59 32	13°25'22	4°36	17°18	15°24	21°4	8°44	17°13	7°21	17°55	9°52	25°34	25°58	16°29	5°41	T 28
W29	3 3 29	14°25'52	16°25	18°53	15°32	21°44	8°50	17°15	7°23	17°54	9°51	25°30	25°55	16°35	5°39	W29
T 30	3 7 25	15°26'23	28°17	20°27	15°37	22°23	8°57	17°17	7°26	17°53	9°50	25°22	25°51	16°42	5°37	T 30
F 31	3 11 22	16°26'57	10°18	22°11	15°40	23°3	9°55	17°18	7°28	17°II51	9°II49	25°D12	25°48	16°49	5°35	F 31

Delta T = 07m45s

Julian Calendar

# ASTRODIENST EPHEMERIS for the year 1404

## geocentric

NOVEMBER 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	3 15 19	17 <sup>11</sup> 27'32	22 <sup>11</sup> 28	23 <sup>11</sup> 34	15 <sup>11</sup> R41	23 <sup>11</sup> 43	9 <sup>11</sup> 10	17 <sup>11</sup> 20	7 <sup>11</sup> 31	17 <sup>11</sup> R50	9 <sup>11</sup> R48	25 <sup>11</sup> R 1	25 <sup>11</sup> 45	16 <sup>11</sup> 55	5 <sup>11</sup> R33	S 1
S 2	3 19 15	18 <sup>11</sup> 28'09	4 <sup>11</sup> 50	25 <sup>11</sup> 8	15 <sup>11</sup> 39	24 <sup>11</sup> 23	9 <sup>11</sup> 18	17 <sup>11</sup> 22	7 <sup>11</sup> 33	17 <sup>11</sup> 48	9 <sup>11</sup> 47	24 <sup>11</sup> 48	25 <sup>11</sup> 42	17 <sup>11</sup> 2	5 <sup>11</sup> 31	S 2
M 3	3 23 12	19 <sup>11</sup> 28'47	17 <sup>11</sup> 24	26 <sup>11</sup> 41	15 <sup>11</sup> 35	25 <sup>11</sup> 3	9 <sup>11</sup> 25	17 <sup>11</sup> 24	7 <sup>11</sup> 36	17 <sup>11</sup> 47	9 <sup>11</sup> 46	24 <sup>11</sup> 35	25 <sup>11</sup> 39	17 <sup>11</sup> 9	5 <sup>11</sup> 29	M 3
T 4	3 27 8	20 <sup>11</sup> 29'27	0 <sup>11</sup> 11	28 <sup>11</sup> 14	15 <sup>11</sup> 29	25 <sup>11</sup> 43	9 <sup>11</sup> 32	17 <sup>11</sup> 27	7 <sup>11</sup> 39	17 <sup>11</sup> 45	9 <sup>11</sup> 45	24 <sup>11</sup> 24	25 <sup>11</sup> 36	17 <sup>11</sup> 15	5 <sup>11</sup> 26	T 4
W 5	3 31 5	21 <sup>11</sup> 30'09	13 <sup>11</sup> 10	29 <sup>11</sup> 47	15 <sup>11</sup> 19	26 <sup>11</sup> 23	9 <sup>11</sup> 40	17 <sup>11</sup> 29	7 <sup>11</sup> 41	17 <sup>11</sup> 44	9 <sup>11</sup> 44	24 <sup>11</sup> 15	25 <sup>11</sup> 32	17 <sup>11</sup> 22	5 <sup>11</sup> 24	W 5
T 6	3 35 1	22 <sup>11</sup> 30'52	26 <sup>11</sup> 21	1 <sup>11</sup> 19	15 <sup>11</sup> 8	27 <sup>11</sup> 4	9 <sup>11</sup> 47	17 <sup>11</sup> 31	7 <sup>11</sup> 44	17 <sup>11</sup> 42	9 <sup>11</sup> 43	24 <sup>11</sup> 9	25 <sup>11</sup> 29	17 <sup>11</sup> 29	5 <sup>11</sup> 22	T 6
F 7	3 38 58	23 <sup>11</sup> 31'36	9 <sup>11</sup> 34	2 <sup>11</sup> 52	14 <sup>11</sup> 54	27 <sup>11</sup> 44	9 <sup>11</sup> 55	17 <sup>11</sup> 34	7 <sup>11</sup> 47	17 <sup>11</sup> 41	9 <sup>11</sup> 42	24 <sup>11</sup> 6	25 <sup>11</sup> 26	17 <sup>11</sup> 36	5 <sup>11</sup> 19	F 7
S 8	3 42 54	24 <sup>11</sup> 32'21	23 <sup>11</sup> 12	4 <sup>11</sup> 24	14 <sup>11</sup> 38	28 <sup>11</sup> 24	10 <sup>11</sup> 3	17 <sup>11</sup> 37	7 <sup>11</sup> 50	17 <sup>11</sup> 39	9 <sup>11</sup> 40	24 <sup>11</sup> D 5	25 <sup>11</sup> 23	17 <sup>11</sup> 42	5 <sup>11</sup> 16	S 8
S 9	3 46 51	25 <sup>11</sup> 33'07	6 <sup>11</sup> 53	5 <sup>11</sup> 57	14 <sup>11</sup> 19	29 <sup>11</sup> 4	10 <sup>11</sup> 12	17 <sup>11</sup> 39	7 <sup>11</sup> 53	17 <sup>11</sup> 38	9 <sup>11</sup> 39	24 <sup>11</sup> 5	25 <sup>11</sup> 20	17 <sup>11</sup> 49	5 <sup>11</sup> 14	S 9
M10	3 50 48	26 <sup>11</sup> 33'54	20 <sup>11</sup> 46	7 <sup>11</sup> 29	13 <sup>11</sup> 58	29 <sup>11</sup> 44	10 <sup>11</sup> 20	17 <sup>11</sup> 42	7 <sup>11</sup> 55	17 <sup>11</sup> 36	9 <sup>11</sup> 38	24 <sup>11</sup> R 6	25 <sup>11</sup> 17	17 <sup>11</sup> 56	5 <sup>11</sup> 11	M10
T 11	3 54 44	27 <sup>11</sup> 34'42	4 <sup>11</sup> 49	9 <sup>11</sup> 0	13 <sup>11</sup> 35	0 <sup>11</sup> M24	10 <sup>11</sup> 28	17 <sup>11</sup> 45	7 <sup>11</sup> 58	17 <sup>11</sup> 35	9 <sup>11</sup> 37	24 <sup>11</sup> 6	25 <sup>11</sup> 13	18 <sup>11</sup> 2	5 <sup>11</sup> 8	T 11
W12	3 58 41	28 <sup>11</sup> 35'31	19 <sup>11</sup> 2	10 <sup>11</sup> 32	13 <sup>11</sup> 9	1 <sup>11</sup> 5	10 <sup>11</sup> 37	17 <sup>11</sup> 48	8 <sup>11</sup> 1	17 <sup>11</sup> 33	9 <sup>11</sup> 36	24 <sup>11</sup> 4	25 <sup>11</sup> 10	18 <sup>11</sup> 9	5 <sup>11</sup> 5	W12
T 13	4 2 37	29 <sup>11</sup> 36'21	3 <sup>11</sup> Y24	12 <sup>11</sup> 4	12 <sup>11</sup> 42	1 <sup>11</sup> 45	10 <sup>11</sup> 46	17 <sup>11</sup> 51	8 <sup>11</sup> 4	17 <sup>11</sup> 32	9 <sup>11</sup> 35	24 <sup>11</sup> 0	25 <sup>11</sup> 7	18 <sup>11</sup> 16	5 <sup>11</sup> 2	T 13
F 14	4 6 34	0 <sup>11</sup> 37'12	17 <sup>11</sup> 51	13 <sup>11</sup> 35	12 <sup>11</sup> 13	2 <sup>11</sup> 25	10 <sup>11</sup> 54	17 <sup>11</sup> 54	8 <sup>11</sup> 7	17 <sup>11</sup> 30	9 <sup>11</sup> 34	23 <sup>11</sup> 54	25 <sup>11</sup> 4	18 <sup>11</sup> 22	4 <sup>11</sup> 59	F 14
S 15	4 10 30	1 <sup>11</sup> 38'04	2 <sup>11</sup> 18	15 <sup>11</sup> 6	11 <sup>11</sup> 42	3 <sup>11</sup> 5	11 <sup>11</sup> 4	17 <sup>11</sup> 58	8 <sup>11</sup> 10	17 <sup>11</sup> 28	9 <sup>11</sup> 32	23 <sup>11</sup> 45	25 <sup>11</sup> 1	18 <sup>11</sup> 29	4 <sup>11</sup> 56	S 15
S 16	4 14 27	2 <sup>11</sup> 38'56	16 <sup>11</sup> 38	16 <sup>11</sup> 37	11 <sup>11</sup> 9	3 <sup>11</sup> 46	11 <sup>11</sup> 13	18 <sup>11</sup> 1	8 <sup>11</sup> 13	17 <sup>11</sup> 27	9 <sup>11</sup> 31	23 <sup>11</sup> 37	24 <sup>11</sup> 57	18 <sup>11</sup> 36	4 <sup>11</sup> 53	S 16
M17	4 18 23	3 <sup>11</sup> 39'50	0 <sup>11</sup> 47	18 <sup>11</sup> 7	10 <sup>11</sup> 36	4 <sup>11</sup> 26	11 <sup>11</sup> 22	18 <sup>11</sup> 4	8 <sup>11</sup> 16	17 <sup>11</sup> 25	9 <sup>11</sup> 30	23 <sup>11</sup> 28	24 <sup>11</sup> 54	18 <sup>11</sup> 43	4 <sup>11</sup> 50	M17
T 18	4 22 20	4 <sup>11</sup> 40'45	14 <sup>11</sup> 39	19 <sup>11</sup> 37	10 <sup>11</sup> 1	5 <sup>11</sup> 6	11 <sup>11</sup> 31	18 <sup>11</sup> 8	8 <sup>11</sup> 19	17 <sup>11</sup> 23	9 <sup>11</sup> 29	23 <sup>11</sup> 21	24 <sup>11</sup> 51	18 <sup>11</sup> 49	4 <sup>11</sup> 46	T 18
W19	4 26 17	5 <sup>11</sup> 41'41	28 <sup>11</sup> 9	21 <sup>11</sup> 7	9 <sup>11</sup> 25	5 <sup>11</sup> 47	11 <sup>11</sup> 41	18 <sup>11</sup> 12	8 <sup>11</sup> 23	17 <sup>11</sup> 22	9 <sup>11</sup> 28	23 <sup>11</sup> 16	24 <sup>11</sup> 48	18 <sup>11</sup> 56	4 <sup>11</sup> 43	W19
T 20	4 30 13	6 <sup>11</sup> 42'38	11 <sup>11</sup> 41	22 <sup>11</sup> 36	8 <sup>11</sup> 49	6 <sup>11</sup> 27	11 <sup>11</sup> 50	18 <sup>11</sup> 15	8 <sup>11</sup> 26	17 <sup>11</sup> 20	9 <sup>11</sup> 27	23 <sup>11</sup> 13	24 <sup>11</sup> 45	19 <sup>11</sup> 3	4 <sup>11</sup> 40	T 20
F 21	4 34 10	7 <sup>11</sup> 43'36	24 <sup>11</sup> 3	24 <sup>11</sup> 5	8 <sup>11</sup> 13	7 <sup>11</sup> 8	12 <sup>11</sup> 0	18 <sup>11</sup> 19	8 <sup>11</sup> 29	17 <sup>11</sup> 18	9 <sup>11</sup> 26	23 <sup>11</sup> D13	24 <sup>11</sup> 42	19 <sup>11</sup> 9	4 <sup>11</sup> 36	F 21
S 22	4 38 6	8 <sup>11</sup> 44'36	6 <sup>11</sup> 29	25 <sup>11</sup> 33	7 <sup>11</sup> 36	7 <sup>11</sup> 48	12 <sup>11</sup> 10	18 <sup>11</sup> 23	8 <sup>11</sup> 32	17 <sup>11</sup> 17	9 <sup>11</sup> 24	23 <sup>11</sup> 13	24 <sup>11</sup> 38	19 <sup>11</sup> 16	4 <sup>11</sup> 33	S 22
S 23	4 42 3	9 <sup>11</sup> 45'36	18 <sup>11</sup> 39	27 <sup>11</sup> 0	7 <sup>11</sup> 0	8 <sup>11</sup> 29	12 <sup>11</sup> 20	18 <sup>11</sup> 27	8 <sup>11</sup> 35	17 <sup>11</sup> 15	9 <sup>11</sup> 23	23 <sup>11</sup> 15	24 <sup>11</sup> 35	19 <sup>11</sup> 23	4 <sup>11</sup> 29	S 23
M24	4 45 59	10 <sup>11</sup> 46'37	0 <sup>11</sup> 37	28 <sup>11</sup> 26	6 <sup>11</sup> 24	9 <sup>11</sup> 9	12 <sup>11</sup> 30	18 <sup>11</sup> 31	8 <sup>11</sup> 39	17 <sup>11</sup> 13	9 <sup>11</sup> 22	23 <sup>11</sup> 16	24 <sup>11</sup> 32	19 <sup>11</sup> 29	4 <sup>11</sup> 26	M24
T 25	4 49 56	11 <sup>11</sup> 47'40	12 <sup>11</sup> 29	29 <sup>11</sup> 52	5 <sup>11</sup> 49	9 <sup>11</sup> 50	12 <sup>11</sup> 41	18 <sup>11</sup> 35	8 <sup>11</sup> 42	17 <sup>11</sup> 12	9 <sup>11</sup> 21	23 <sup>11</sup> R17	24 <sup>11</sup> 29	19 <sup>11</sup> 36	4 <sup>11</sup> 22	T 25
W26	4 53 52	12 <sup>11</sup> 48'43	24 <sup>11</sup> 20	1 <sup>11</sup> 35	5 <sup>11</sup> 15	10 <sup>11</sup> 31	12 <sup>11</sup> 51	18 <sup>11</sup> 39	8 <sup>11</sup> 45	17 <sup>11</sup> 10	9 <sup>11</sup> 20	23 <sup>11</sup> 16	24 <sup>11</sup> 26	19 <sup>11</sup> 43	4 <sup>11</sup> 18	W26
T 27	4 57 49	13 <sup>11</sup> 49'48	6 <sup>11</sup> 14	2 <sup>11</sup> 38	4 <sup>11</sup> 42	11 <sup>11</sup> 11	13 <sup>11</sup> 1	18 <sup>11</sup> 44	8 <sup>11</sup> 48	17 <sup>11</sup> 8	9 <sup>11</sup> 19	23 <sup>11</sup> 13	24 <sup>11</sup> 23	19 <sup>11</sup> 49	4 <sup>11</sup> 14	T 27
F 28	5 1 46	14 <sup>11</sup> 50'53	18 <sup>11</sup> 16	3 <sup>11</sup> 58	4 <sup>11</sup> 10	11 <sup>11</sup> 52	13 <sup>11</sup> 12	18 <sup>11</sup> 48	8 <sup>11</sup> 52	17 <sup>11</sup> 7	9 <sup>11</sup> 17	23 <sup>11</sup> 9	24 <sup>11</sup> 19	19 <sup>11</sup> 56	4 <sup>11</sup> 11	F 28
S 29	5 5 42	15 <sup>11</sup> 52'00	0 <sup>11</sup> 31	5 <sup>11</sup> 17	3 <sup>11</sup> 40	12 <sup>11</sup> 33	13 <sup>11</sup> 23	18 <sup>11</sup> 53	8 <sup>11</sup> 55	17 <sup>11</sup> 5	9 <sup>11</sup> 16	23 <sup>11</sup> 3	24 <sup>11</sup> 16	20 <sup>11</sup> 3	4 <sup>11</sup> 7	S 29
S 30	5 9 39	16 <sup>11</sup> 53'07	13 <sup>11</sup> 11	6 <sup>11</sup> 32	3 <sup>11</sup> 11	13 <sup>11</sup> 13	13 <sup>11</sup> 34	18 <sup>11</sup> 57	8 <sup>11</sup> 58	17 <sup>11</sup> 11	9 <sup>11</sup> 15	22 <sup>11</sup> 57	24 <sup>11</sup> 13	20 <sup>11</sup> 10	4 <sup>11</sup> 3	S 30

Delta T = 07m45s

Julian Calendar 1 Nov. 1404 — Greg. Calendar 10 Nov. 1404

DECEMBER 1404 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	5 13 35	17 <sup>11</sup> 54'15	25 <sup>11</sup> 47	7 <sup>11</sup> 34	2 <sup>11</sup> R45	13 <sup>11</sup> 54	13 <sup>11</sup> 45	19 <sup>11</sup> 2	9 <sup>11</sup> 32	17 <sup>11</sup> R 2	9 <sup>11</sup> R14	22 <sup>11</sup> R50	24 <sup>11</sup> 10	20 <sup>11</sup> 16	3 <sup>11</sup> R59	M 1
T 2	5 17 32	18 <sup>11</sup> 55'24	8 <sup>11</sup> 51	8 <sup>11</sup> 55	2 <sup>11</sup> 20	14 <sup>11</sup> 35	13 <sup>11</sup> 56	19 <sup>11</sup> 7	9 <sup>11</sup> 5	17 <sup>11</sup> 11	9 <sup>11</sup> 13	22 <sup>11</sup> 44	24 <sup>11</sup> 7	20 <sup>11</sup> 23	3 <sup>11</sup> 55	T 2
W 3	5 21 28	19 <sup>11</sup> 56'33	22 <sup>11</sup> 11	10 <sup>11</sup> 0	1 <sup>11</sup> 58	15 <sup>11</sup> 16	14 <sup>11</sup> 7	19 <sup>11</sup> 11	9 <sup>11</sup> 9	16 <sup>11</sup> 58	9 <sup>11</sup> 12	22 <sup>11</sup> 40	24 <sup>11</sup> 3	20 <sup>11</sup> 30	3 <sup>11</sup> 51	W 3
T 4	5 25 25	20 <sup>11</sup> 57'43	5 <sup>11</sup> 34	11 <sup>11</sup> 1	1 <sup>11</sup> 38	15 <sup>11</sup> 57	14 <sup>11</sup> 18	19 <sup>11</sup> 16	9 <sup>11</sup> 12	16 <sup>11</sup> 56	9 <sup>11</sup> 11	22 <sup>11</sup> 37	24 <sup>11</sup> 0	20 <sup>11</sup> 36	3 <sup>11</sup> 47	T 4
F 5	5 29 22	21 <sup>11</sup> 58'54	19 <sup>11</sup> 33	11 <sup>11</sup> 57	1 <sup>11</sup> 21	16 <sup>11</sup> 37	14 <sup>11</sup> 29	19 <sup>11</sup> 21	9 <sup>11</sup> 16	16 <sup>11</sup> 55	9 <sup>11</sup> 9	22 <sup>11</sup> D36	23 <sup>11</sup> 57	20 <sup>11</sup> 43	3 <sup>11</sup> 43	F 5
S 6	5 33 18	23 <sup>11</sup> 0'04	3 <sup>11</sup> 30	12 <sup>11</sup> 47	1 <sup>11</sup> 5	17 <sup>11</sup> 18	14 <sup>11</sup> 41	19 <sup>11</sup> 26	9 <sup>11</sup> 19	16 <sup>11</sup> 53	9 <sup>11</sup> 8	22 <sup>11</sup> 36	23 <sup>11</sup> 54	20 <sup>11</sup> 50	3 <sup>11</sup> 39	S 6
S 7	5 37 15	24 <sup>11</sup> 1'15	17 <sup>11</sup> 33	13 <sup>11</sup> 29	0 <sup>11</sup> 52	17 <sup>11</sup> 59	14 <sup>11</sup> 52	19 <sup>11</sup> 31	9 <sup>11</sup> 22	16 <sup>11</sup> 51	9 <sup>11</sup> 7	22 <sup>11</sup> 37	23 <sup>11</sup> 51	20 <sup>11</sup> 56	3 <sup>11</sup> 35	S 7
M 8	5 41 11	25 <sup>11</sup> 2'25	1 <sup>11</sup> 40	14 <sup>11</sup> 4	0 <sup>11</sup> 42	18 <sup>11</sup> 40	15 <sup>11</sup> 4	19 <sup>11</sup> 36	9 <sup>11</sup> 26	16 <sup>11</sup> 50	9 <sup>11</sup> 6	22 <sup>11</sup> 39	23 <sup>11</sup> 48	21 <sup>11</sup> 3	3 <sup>11</sup> 31	M 8
T 9	5 45 8	26 <sup>11</sup> 3'36	15 <sup>11</sup> 50	14 <sup>11</sup> 31	0 <sup>11</sup> 34	19 <sup>11</sup> 21	15 <sup>11</sup> 16	19 <sup>11</sup> 42	9 <sup>11</sup> 29	16 <sup>11</sup> 48	9 <sup>11</sup> 5	22 <sup>11</sup> 40	23 <sup>11</sup> 44	21 <sup>11</sup> 10	3 <sup>11</sup> 27	T 9
W10	5 49 4	27 <sup>11</sup> 4'47	29 <sup>11</sup> 59	14 <sup>11</sup> 47	0 <sup>11</sup> 29	20 <sup>11</sup> 2	15 <sup>11</sup> 28	19 <sup>11</sup> 47	9 <sup>11</sup> 33	16 <sup>11</sup> 46	9 <sup>11</sup> 4	22 <sup>11</sup> R40	23 <sup>11</sup> 41	21 <sup>11</sup> 17	3 <sup>11</sup> 23	W10
T 11	5 53 1	28 <sup>11</sup> 5'57	14 <sup>11</sup> Y 8	14 <sup>11</sup> R53	0 <sup>11</sup> 26	20 <sup>11</sup> 43	15 <sup>11</sup> 39	19 <sup>11</sup> 52	9 <sup>11</sup> 36	16 <sup>11</sup> 45	9 <sup>11</sup> 3	22 <sup>11</sup> 39	23 <sup>11</sup> 38	21 <sup>11</sup> 23	3 <sup>11</sup> 18	T 11
F 12	5 56 57	29 <sup>11</sup> 7'07	28 <sup>11</sup> 13	14 <sup>11</sup> 49	0 <sup>11</sup> D25	21 <sup>11</sup> 24	15 <sup>11</sup> 51	19 <sup>11</sup> 58	9 <sup>11</sup> 40	16 <sup>11</sup> 43	9 <sup>11</sup> 2	22 <sup>11</sup> 37	23 <sup>11</sup> 35	21 <sup>11</sup> 30	3 <sup>11</sup> 14	F 12
S 13	6 0 54	0 <sup>11</sup> 38'18	12 <sup>11</sup> 12	14 <sup>11</sup> 32	0 <sup>11</sup> 27	22 <sup>11</sup> 5	16 <sup>11</sup> 4	20 <sup>11</sup> 3	9 <sup>11</sup> 44	16 <sup>11</sup> 41	9 <sup>11</sup> 1	22 <sup>11</sup> 35	23 <sup>11</sup> 32	21 <sup>11</sup> 37	3 <sup>11</sup> 10	S 13
S 14	6 4 51	1 <sup>11</sup> 9'28	26 <sup>11</sup> 3	14 <sup>11</sup> 4	0 <sup>11</sup> 31	22 <sup>11</sup> 46	16 <sup>11</sup> 16	20 <sup>11</sup> 9	9 <sup>11</sup> 47	16 <sup>11</sup> 40	9 <sup>11</sup> 0	22 <sup>11</sup> 31	23 <sup>11</sup> 29	21 <sup>11</sup> 43	3 <sup>11</sup> 6	S 14
M15	6 8 47	2 <sup>11</sup> 10'38	9 <sup>11</sup> 43	13 <sup>11</sup> 24	0 <sup>11</sup> 38	23 <sup>11</sup> 27	16 <sup>11</sup> 28	20 <sup>11</sup> 14	9 <sup>11</sup> 51	16 <sup>11</sup> 38	8 <sup>11</sup> 58	22 <sup>11</sup> 28	23 <sup>11</sup> 25	21 <sup>11</sup> 50	3 <sup>11</sup> 2	M15
T 16	6 12 44	3 <sup>11</sup> 11'48	23 <sup>11</sup> 9	12 <sup>11</sup> 32	0 <sup>11</sup> 47	24 <sup>11</sup> 9	16 <sup>11</sup> 40	20 <sup>11</sup> 20	9 <sup>11</sup> 54	16 <sup>11</sup> 36	8 <sup>11</sup> 57	22 <sup>11</sup> 26	23 <sup>11</sup> 22	21 <sup>11</sup> 57	2 <sup>11</sup> 58	T 16
W17	6 16 40	4 <sup>11</sup> 12'58	6 <sup>11</sup> 20	11 <sup>11</sup> 31	0 <sup>11</sup> 58	24 <sup>11</sup> 50	16 <sup>11</sup> 53	20 <sup>11</sup> 26	9 <sup>11</sup> 58	16 <sup>11</sup> 35	8 <sup>11</sup> 56	22 <sup>11</sup> 24	23 <sup>11</sup> 19	22 <sup>11</sup> 4	2 <sup>11</sup> 53	W17
T 18	6 20 37	5 <sup>11</sup> 14'08	19 <sup>11</sup> 14	10 <sup>11</sup> 22	1 <sup>11</sup> 11	25 <sup>11</sup> 31	17 <sup>11</sup> 5	20 <sup>11</sup> 31	10 <sup>11</sup> 1	16 <sup>11</sup> 33	8 <sup>11</sup> 55	22 <sup>11</sup> D23	23 <sup>11</sup> 16	22 <sup>11</sup> 10	2 <sup>11</sup> 49	T 18
F 19	6 24 33	6 <sup>11</sup> 15'18	1 <sup>11</sup> 52	9 <sup>11</sup> 6	1 <sup>11</sup> 27	26 <sup>11</sup> 12	17 <sup>11</sup> 18	20 <sup>11</sup> 37	10 <sup>11</sup> 5	16 <sup>11</sup> 32	8 <sup>11</sup> 54	22 <sup>11</sup> 23	23 <sup>11</sup> 13	22 <sup>11</sup> 17	2 <sup>11</sup> 45	F 19
S 20	6 28 30	7 <sup>11</sup> 16'28	14 <sup>11</sup> 14	7 <sup>11</sup> 46	1 <sup>11</sup> 44	26 <sup>11</sup> 53	17 <sup>11</sup> 30	20 <sup>11</sup> 43	10 <sup>11</sup> 8	16 <sup>11</sup> 30	8 <sup>11</sup> 53	22 <sup>11</sup> 24	23 <sup>11</sup> 9	22 <sup>11</sup> 24	2 <sup>11</sup> 41	S 20
S 21	6 32 26	8 <sup>11</sup> 17'38	26 <sup>11</sup> 23	6 <sup>11</sup> 26	2 <sup>11</sup> 4	27 <sup>11</sup> 35	17 <sup>11</sup> 43	20 <sup>11</sup> 49	10 <sup>11</sup> 12	16 <sup>11</sup> 28	8 <sup>11</sup> 52	22 <sup>11</sup> 26	23 <sup>11</sup> 6	22 <sup>11</sup> 30	2 <sup>11</sup> 37	S 21
M22	6 36 23	9 <sup>11</sup> 18'48	8 <sup>11</sup> 22	5 <sup>11</sup> 6	2 <sup>11</sup> 26	28 <sup>11</sup> 16	17 <sup>11</sup> 56	20 <sup>11</sup> 55	10 <sup>11</sup> 16	16 <sup>11</sup> 27	8 <sup>11</sup> 51	22 <sup>11</sup> 27	23 <sup>11</sup> 3	22 <sup>11</sup> 37	2 <sup>11</sup> 33	M22
T 23	6 40 20	10 <sup>11</sup> 19'57	20 <sup>11</sup> 15	3 <sup>11</sup> 51	2 <sup>11</sup> 49	28 <sup>11</sup> 57	18 <sup>11</sup> 9	21 <sup>11</sup> 1	10 <sup>11</sup> 19	16 <sup>11</sup> 25	8 <sup>11</sup> 50	22 <sup>11</sup> 28	23 <sup>11</sup> 0	22 <sup>11</sup> 44	2 <sup>11</sup> 28	T 23
W24	6 44 16	11 <sup>11</sup> 21'07	2 <sup>11</sup> 1	2 <sup>11</sup> 41	3 <sup>11</sup> 14	29 <sup>11</sup> 39	18 <sup>11</sup> 22	21 <sup>11</sup> 7	10 <sup>11</sup> 23	16 <sup>11</sup> 24	8 <sup>11</sup> 49	22 <sup>11</sup> 29	22 <sup>11</sup> 57	22 <sup>11</sup> 50	2 <sup>11</sup> 24	W24
T 25	6 48 13	12 <sup>11</sup> 22'17	14 <sup>11</sup> 7	1 <sup>11</sup> 39	3 <sup>11</sup> 41	0 <sup>11</sup> 20	18 <sup>11</sup> 35	21 <sup>11</sup> 14	10 <sup>11</sup> 26	16 <sup>11</sup> 22	8 <sup>11</sup> 48	22 <sup>11</sup> R29	22 <sup>11</sup> 54	22 <sup>11</sup> 57	2 <sup>11</sup> 20	T 25
F 26	6 52 9	13 <sup>11</sup> 23'26	26 <sup>11</sup> 2	0 <sup>11</sup> 46	4 <sup>11</sup> 10	1 <sup>11</sup> 2	18 <sup>11</sup> 48	21 <sup>11</sup> 20	10 <sup>11</sup> 30	16 <sup>11</sup> 21	8 <sup>11</sup> 48	22 <sup>11</sup> 29	22 <sup>11</sup> 50	23 <sup>11</sup> 4	2 <sup>11</sup> 16	F 26
S 27	6 56 6	14 <sup>11</sup> 24'36	8 <sup>11</sup> 16	0 <sup>11</sup> 2	4 <sup>11</sup> 40	1 <sup>11</sup> 43	19 <sup>11</sup> 1	21 <sup>11</sup> 26	10 <sup>11</sup> 33	16 <sup>11</sup> 19	8 <sup>11</sup> 47	22 <sup>11</sup> 28	22 <sup>11</sup> 47	23 <sup>11</sup> 11	2 <sup>11</sup> 12	S 27
S 28	7 0 2	15 <sup>11</sup> 25'45	20 <sup>11</sup> 47	29 <sup>11</sup> 27	5 <sup>11</sup> 12	2 <sup>11</sup> 24	19 <sup>11</sup> 14	21 <sup>11</sup> 32	10 <sup>11</sup> 37	16 <sup>11</sup> 18	8 <sup>11</sup> 46	22 <sup>11</sup> 27	22 <sup>11</sup> 44	23 <sup>11</sup> 17	2 <sup>11</sup> 8	S 28
M29	7 3 59	16 <sup>11</sup> 26'54	3 <sup>11</sup> 37	29 <sup>11</sup> 3	5 <sup>11</sup> 45	3 <sup>11</sup> 6	19 <sup>11</sup> 27	21 <sup>11</sup> 39	10 <sup>11</sup> 41	16 <sup>11</sup> 17	8 <sup>11</sup> 45	22 <sup>11</sup> 26	22 <sup>11</sup> 41	23 <sup>11</sup> 24	2 <sup>11</sup> 4	M29
T 30	7 7 55	17 <sup>11</sup> 28'03	16 <sup>11</sup> 49	28 <sup>11</sup> 48	6 <sup>11</sup> 20	3 <sup>11</sup> 48	19 <sup>11</sup> 41	21 <sup>11</sup> 45	10 <sup>11</sup> 44	16 <sup>11</sup> 15	8 <sup>11</sup> 44	22 <sup>11</sup> 26	22 <sup>11</sup> 38	23 <sup>11</sup> 31	2 <sup>11</sup> 0	T 30
W31	7 11 52	18 <sup>11</sup> 29'12	0 <sup>11</sup> 23	28 <sup>11</sup> D41	6 <sup>11</sup> 25	4 <sup>11</sup> 29	19 <sup>11</sup> 54	21 <sup>11</sup> 52	10 <sup>11</sup> 48	16 <sup>11</sup> 14	8 <sup>11</sup> 43	22 <sup>11</sup> 25	22 <sup>11</sup> 35	23 <sup>11</sup> 37	1 <sup>11</sup> 56	W31