



Astrodienst Ephemeris Tables for the year 1668

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 1668

geocentric

JANUARY 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	6 41 29	10°28'25	27°49	12°R 4	19°34'1	19°26	25°V50	1°29	25°44	23°36	28°R26	7°R45	6°II16	14°II21	27°14	S 1
M 2	6 45 25	11°29'34	10°4	10°344	20°57	19°56	25°52	1°35	25°47	23°38	28°II24	7°II39	6°13	14°28	27°17	M 2
T 3	6 49 22	12°30'43	22°30	9°23	22°12	20°26	25°55	1°42	25°49	23°40	28°23	7°32	6° 9	14°35	27°20	T 3
W 4	6 53 18	13°31'51	5°17 7	8° 6	23°27	20°56	25°58	1°49	25°52	23°42	28°22	7°27	6° 6	14°41	27°23	W 4
T 5	6 57 15	14°33'00	17°58	6°53	24°43	21°26	26° 1	1°56	25°55	23°44	28°21	7°22	6° 3	14°48	27°27	T 5
F 6	7 1 11	15°34'08	1°4	5°47	25°58	21°56	26° 4	2° 3	25°58	23°47	28°20	7°19	6° 0	14°55	27°30	F 6
S 7	7 5 8	16°35'17	14°28	4°50	27°13	22°25	26° 7	2°10	26° 1	23°49	28°19	7°D18	5°57	15° 1	27°33	S 7
S 8	7 9 4	17°36'26	28°10	4° 1	28°29	22°55	26°11	2°17	26° 4	23°51	28°17	7°18	5°54	15° 8	27°37	S 8
M 9	7 13 1	18°37'34	12°13	3°23	29°44	23°24	26°15	2°24	26° 6	23°54	28°16	7°20	5°50	15°15	27°40	M 9
T 10	7 16 58	19°38'42	26°36	2°53	0°59	23°53	26°19	2°31	26° 9	23°56	28°15	7°21	5°47	15°21	27°43	T 10
W11	7 20 54	20°39'51	11°16	2°34	2°15	24°22	26°23	2°38	26°12	23°58	28°14	7°R21	5°44	15°28	27°47	W11
T 12	7 24 51	21°40'59	26°10	2°24	3°30	24°51	26°27	2°45	26°15	24° 0	28°13	7°20	5°41	15°35	27°50	T 12
F 13	7 28 47	22°42'07	11°10	2°D22	4°45	25°19	26°32	2°52	26°18	24° 3	28°12	7°16	5°38	15°41	27°54	F 13
S 14	7 32 44	23°43'14	26° 7	2°29	6° 1	25°47	26°36	2°59	26°21	24° 5	28°11	7°10	5°35	15°48	27°57	S 14
S 15	7 36 40	24°44'20	10°53	2°43	7°16	26°16	26°41	3° 6	26°24	24° 7	28°10	7° 3	5°31	15°54	28° 1	S 15
M16	7 40 37	25°45'26	25°20	3° 4	8°31	26°44	26°46	3°13	26°27	24° 9	28° 9	6°55	5°28	16° 1	28° 4	M16
T 17	7 44 33	26°46'31	9°11	3°32	9°46	27°11	26°52	3°21	26°31	24°12	28° 8	6°47	5°25	16° 8	28° 8	T 17
W18	7 48 30	27°47'34	22°55	4° 5	11° 2	27°39	26°57	3°28	26°34	24°14	28° 7	6°40	5°22	16°14	28°12	W18
T 19	7 52 27	28°48'37	6°V 0	4°44	12°17	28° 6	27° 3	3°35	26°37	24°16	28° 6	6°35	5°19	16°21	28°15	T 19
F 20	7 56 23	29°49'39	18°41	5°27	13°32	28°34	27° 9	3°42	26°40	24°19	28° 5	6°32	5°15	16°28	28°19	F 20
S 21	8 0 20	0°50'40	1°8 0	6°14	14°47	29° 1	27°15	3°49	26°43	24°21	28° 4	6°D32	5°12	16°34	28°23	S 21
S 22	8 4 16	1°51'39	13° 4	7° 6	16° 2	29°27	27°21	3°56	26°46	24°23	28° 3	6°32	5° 9	16°41	28°26	S 22
M23	8 8 13	2°52'38	24°56	8° 1	17°17	29°54	27°27	4° 3	26°50	24°25	28° 2	6°33	5° 6	16°48	28°30	M23
T 24	8 12 9	3°53'35	6°II43	8°59	18°32	0°M20	27°34	4°11	26°53	24°28	28° 1	6°R34	5° 3	16°54	28°34	T 24
W25	8 16 6	4°54'31	18°30	10° 0	19°48	0°46	27°40	4°18	26°56	24°30	28° 0	6°33	5° 0	17° 1	28°38	W25
T 26	8 20 2	5°55'26	0°20	11° 3	21° 3	1°12	27°47	4°25	26°59	24°32	27°59	6°30	4°56	17° 8	28°42	T 26
F 27	8 23 59	6°56'20	12°18	12° 9	22°18	1°38	27°54	4°32	27° 3	24°34	27°58	6°24	4°53	17°14	28°45	F 27
S 28	8 27 56	7°57'12	24°25	13°17	23°33	2° 3	28° 1	4°39	27° 6	24°37	27°57	6°16	4°50	17°21	28°49	S 28
S 29	8 31 52	8°58'04	6°II45	14°28	24°48	2°28	28° 8	4°46	27° 9	24°39	27°56	6° 5	4°47	17°28	28°53	S 29
M30	8 35 49	9°58'54	19°16	15°40	26° 3	2°53	28°16	4°53	27°13	24°41	27°55	5°54	4°44	17°34	28°57	M30
T 31	8 39 45	10°59'43	2°17 0	16°354	27°18	3°M18	28°V23	5°1	27°16	24°43	27°II54	5°II41	4°II41	17°II41	29°1	T 31

Delta T = 31.03 sec

Greg. Calendar

FEBRUARY 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	8 43 42	12°0'31	14°17'57	18°3 9	28°33	3°M42	28°V31	5°1 8	27°19	24°345	27°R54	5°R30	4°II37	17°II48	29°5	W 1
T 2	8 47 38	13° 1'18	28° 4	19°26	29°48	4° 6	28°39	5°15	27°23	24°48	27°II53	5°II21	4°34	17°54	29° 9	T 2
F 3	8 51 35	14° 2'04	11°123	20°44	1°X 2	4°30	28°47	5°22	27°26	24°50	27°52	5°14	4°31	18° 1	29°13	F 3
S 4	8 55 31	15° 2'48	24°53	22° 4	2°17	4°54	28°55	5°29	27°29	24°52	27°51	5° 9	4°28	18° 7	29°17	S 4
S 5	8 59 28	16° 3'32	8°M35	23°25	3°32	5°17	29° 4	5°36	27°33	24°54	27°50	5° 8	4°25	18°14	29°21	S 5
M 6	9 3 25	17° 4'15	22°30	24°48	4°47	5°40	29°12	5°43	27°36	24°56	27°50	5°D 8	4°21	18°21	29°25	M 6
T 7	9 7 21	18° 4'57	6°17	26°11	6° 2	6° 2	29°21	5°50	27°40	24°58	27°49	5°R 8	4°18	18°27	29°29	T 7
W 8	9 11 18	19° 5'38	20°55	27°35	7°17	6°25	29°29	5°57	27°43	25° 1	27°48	5° 7	4°15	18°34	29°33	W 8
T 9	9 15 14	20° 6'17	5°324	29° 1	8°31	6°47	29°38	6° 4	27°47	25° 3	27°48	5° 4	4°12	18°41	29°37	T 9
F 10	9 19 11	21° 6'56	19°59	0°28	9°46	7° 8	29°47	6°11	27°50	25° 5	27°47	4°58	4° 9	18°47	29°41	F 10
S 11	9 23 7	22° 7'33	4°33	1°55	11° 1	7°30	29°56	6°18	27°53	25° 7	27°46	4°49	4° 6	18°54	29°45	S 11
S 12	9 27 4	23° 8'09	19° 2	3°24	12°16	7°51	0°8 6	6°25	27°57	25° 9	27°46	4°38	4° 2	19° 1	29°49	S 12
M13	9 31 0	24° 8'43	3°16	4°54	13°30	8°11	0°15	6°32	28° 0	25°11	27°45	4°26	3°59	19° 7	29°53	M13
T 14	9 34 57	25° 9'15	17°12	6°24	14°45	8°32	0°25	6°39	28° 4	25°13	27°44	4°14	3°56	19°14	29°57	T 14
W15	9 38 54	26° 9'46	0°V44	7°56	16° 0	8°52	0°34	6°46	28° 7	25°15	27°44	4° 3	3°53	19°21	0°X 1	W15
T 16	9 42 50	27°10'15	13°51	9°29	17°14	9°11	0°44	6°53	28°11	25°17	27°43	3°54	3°50	19°27	0° 5	T 16
F 17	9 46 47	28°10'42	26°34	11° 2	18°29	9°30	0°54	7° 0	28°14	25°19	27°43	3°48	3°46	19°34	0° 9	F 17
S 18	9 50 43	29°11'07	8°56	12°37	19°43	9°49	1° 4	7° 7	28°18	25°21	27°42	3°45	3°43	19°41	0°13	S 18
S 19	9 54 40	0°11'31	21° 2	14°12	20°58	10° 8	1°14	7°13	28°21	25°23	27°42	3°44	3°40	19°47	0°17	S 19
M20	9 58 36	1°11'52	2°II56	15°49	22°12	10°26	1°24	7°20	28°24	25°25	27°41	3°44	3°37	19°54	0°22	M20
T 21	10 2 33	2°12'12	14°44	17°26	23°27	10°43	1°35	7°27	28°28	25°27	27°41	3°43	3°34	20° 0	0°26	T 21
W22	10 6 29	3°12'29	26°32	19° 5	24°41	11° 0	1°45	7°34	28°31	25°29	27°40	3°42	3°31	20° 7	0°30	W22
T 23	10 10 26	4°12'45	8°25	20°44	25°56	11°17	1°56	7°40	28°35	25°31	27°40	3°38	3°27	20°14	0°34	T 23
F 24	10 14 23	5°12'58	20°27	22°24	27°10	11°33	2° 6	7°47	28°38	25°33	27°40	3°32	3°24	20°20	0°38	F 24
S 25	10 18 19	6°13'10	2°II42	24° 6	28°24	11°49	2°17	7°53	28°42	25°34	27°39	3°23	3°21	20°27	0°42	S 25
S 26	10 22 16	7°13'19	15°13	25°48	29°38	12° 4	2°28	8° 0	28°45	25°36	27°39	3°12	3°18	20°34	0°46	S 26
M27	10 26 12	8°13'27	28° 1	27°32	0°V53	12°19	2°39	8° 7	28°49	25°38	27°39	2°59	3°15	20°40	0°50	M27
T 28	10 30 9	9°13'33	11°17 5	29°17	2° 7	12°34	2°50	8°13	28°52	25°40	27°38	2°45	3°12	20°47	0°54	T 28
W29	10 34 5	10°13'37	24°17 24	1°X 2	3°V21	12°M48	3°8 1	8°19	28°55	25°42	27°II38	2°II32	3°II 8	20°II54	0°X58	W29

Delta T = 30.98 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1668

geocentric

MARCH 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	10 38 2	11°13'38	7°56	2°49	4°35	13°11	3°13	8°26	28°59	25°43	27°38	2°22	3°5	21°0	1°2	T 1
F 2	10 41 58	12°13'39	21°38	4°37	5°49	13°14	3°24	8°32	29°2	25°45	27°38	2°14	3°2	21°7	1°6	F 2
S 3	10 45 55	13°13'37	5°27	6°26	7°3	13°26	3°35	8°39	29°6	25°47	27°37	2°9	2°59	21°14	1°10	S 3
S 4	10 49 52	14°13'34	19°23	8°16	8°17	13°38	3°47	8°45	29°9	25°48	27°37	2°7	2°56	21°20	1°14	S 4
M 5	10 53 48	15°13'30	3°23	10°7	9°31	13°50	3°59	8°51	29°12	25°50	27°37	2°D 6	2°52	21°27	1°18	M 5
T 6	10 57 45	16°13'23	17°27	12°0	10°45	14°0	4°10	8°57	29°16	25°52	27°37	2°R 6	2°49	21°34	1°22	T 6
W 7	11 1 41	17°13'16	1°35	13°53	11°59	14°11	4°22	9°3	29°19	25°53	27°37	2°6	2°46	21°40	1°26	W 7
T 8	11 5 38	18°13'06	15°44	15°48	13°13	14°20	4°34	9°10	29°22	25°55	27°37	2°3	2°43	21°47	1°30	T 8
F 9	11 9 34	19°12'55	29°54	17°43	14°26	14°29	4°46	9°16	29°26	25°56	27°37	1°58	2°40	21°54	1°34	F 9
S 10	11 13 31	20°12'42	14°2	19°40	15°40	14°38	4°58	9°22	29°29	25°58	27°37	1°50	2°37	22°0	1°38	S 10
S 11	11 17 27	21°12'27	28°3	21°38	16°54	14°45	5°10	9°28	29°32	25°59	27°D37	1°40	2°33	22°7	1°42	S 11
M12	11 21 24	22°12'11	11°53	23°36	18°7	14°53	5°22	9°33	29°35	26°1	27°37	1°28	2°30	22°14	1°45	M12
T 13	11 25 21	23°11'52	25°28	25°35	19°21	14°59	5°35	9°39	29°39	26°2	27°37	1°17	2°27	22°20	1°49	T 13
W14	11 29 17	24°11'31	8°46	27°35	20°35	15°5	5°47	9°45	29°42	26°4	27°37	1°6	2°24	22°27	1°53	W14
T 15	11 33 14	25°11'08	21°44	29°36	21°48	15°10	6°0	9°51	29°45	26°5	27°37	0°58	2°21	22°33	1°57	T 15
F 16	11 37 10	26°10'43	4°22	1°36	23°2	15°15	6°12	9°57	29°48	26°7	27°37	0°52	2°18	22°40	2°1	F 16
S 17	11 41 7	27°10'16	16°42	3°37	24°15	15°18	6°25	10°2	29°52	26°8	27°37	0°49	2°14	22°47	2°5	S 17
S 18	11 45 3	28°9'46	28°48	5°38	25°28	15°22	6°37	10°8	29°55	26°9	27°37	0°D48	2°11	22°53	2°8	S 18
M19	11 49 0	29°9'15	10°43	7°39	26°42	15°24	6°50	10°13	29°58	26°10	27°37	0°48	2°8	23°0	2°12	M19
T 20	11 52 56	0°8'41	22°32	9°38	27°55	15°26	7°3	10°19	0°1	26°12	27°38	0°49	2°5	23°7	2°16	T 20
W21	11 56 53	1°8'05	4°21	11°37	29°8	15°27	7°16	10°24	0°4	26°13	27°38	0°R49	2°2	23°13	2°19	W21
T 22	12 0 50	2°7'26	16°15	13°35	0°21	15°R27	7°28	10°29	0°7	26°14	27°38	0°48	1°58	23°20	2°23	T 22
F 23	12 4 46	3°6'45	28°20	15°31	1°34	15°27	7°41	10°35	0°10	26°15	27°38	0°44	1°55	23°27	2°27	F 23
S 24	12 8 43	4°6'02	10°239	17°25	2°47	15°26	7°54	10°40	0°13	26°16	27°39	0°39	1°52	23°33	2°30	S 24
S 25	12 12 39	5°5'17	23°16	19°16	4°0	15°24	8°7	10°45	0°16	26°18	27°39	0°31	1°49	23°40	2°34	S 25
M26	12 16 36	6°4'29	6°14	21°4	5°13	15°21	8°21	10°50	0°19	26°19	27°39	0°22	1°46	23°47	2°37	M26
T 27	12 20 32	7°3'39	19°33	22°50	6°26	15°18	8°34	10°55	0°22	26°20	27°40	0°13	1°43	23°53	2°41	T 27
W28	12 24 29	8°2'47	3°11	24°31	7°39	15°13	8°47	11°0	0°25	26°21	27°40	0°4	1°39	24°0	2°44	W28
T 29	12 28 25	9°1'52	17°7	26°8	8°52	15°9	9°0	11°5	0°28	26°22	27°40	29°57	1°36	24°7	2°48	T 29
F 30	12 32 22	10°0'56	1°15	27°41	10°5	15°3	9°13	11°10	0°31	26°23	27°41	29°51	1°33	24°13	2°51	F 30
S 31	12 36 18	10°59'58	15°31	29°10	11°17	14°56	9°27	11°15	0°34	26°24	27°41	29°54	1°30	24°20	2°55	S 31

Delta T = 30.93 sec

Greg. Calendar

APRIL 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	12 40 15	11°58'58	29°50	0°33	12°30	14°R49	9°40	11°19	0°36	26°24	27°42	29°D48	1°27	24°27	2°58	S 1
M 2	12 44 12	12°57'57	14°5	1°51	13°42	14°M41	9°54	11°24	0°39	26°25	27°42	29°B48	1°23	24°33	3°1	M 2
T 3	12 48 8	13°56'53	28°24	3°4	14°55	14°32	10°7	11°28	0°42	26°26	27°43	29°49	1°20	24°40	3°5	T 3
W 4	12 52 5	14°55'48	12°34	4°11	16°7	14°23	10°21	11°33	0°45	26°27	27°43	29°R50	1°17	24°47	3°8	W 4
T 5	12 56 1	15°54'41	26°38	5°12	17°19	14°13	10°34	11°37	0°47	26°28	27°44	29°50	1°14	24°53	3°11	T 5
F 6	12 59 58	16°53'33	10°33	6°7	18°32	14°2	10°48	11°41	0°50	26°28	27°44	29°47	1°11	25°0	3°14	F 6
S 7	13 3 54	17°52'22	24°19	6°56	19°44	13°50	11°2	11°46	0°53	26°29	27°45	29°43	1°8	25°7	3°18	S 7
S 8	13 7 51	18°51'10	7°54	7°39	20°56	13°37	11°15	11°50	0°55	26°30	27°46	29°38	1°4	25°13	3°21	S 8
M 9	13 11 47	19°49'56	21°18	8°16	22°8	13°24	11°29	11°54	0°58	26°30	27°46	29°31	1°1	25°20	3°24	M 9
T 10	13 15 44	20°48'40	4°28	8°46	23°20	13°10	11°43	11°58	1°0	26°31	27°47	29°24	0°58	25°27	3°27	T 10
W11	13 19 41	21°47'23	17°24	9°11	24°32	12°55	11°57	12°2	1°3	26°32	27°48	29°18	0°55	25°33	3°30	W11
T 12	13 23 37	22°46'03	0°5	9°29	25°44	12°40	12°10	12°6	1°5	26°32	27°48	29°13	0°52	25°40	3°33	T 12
F 13	13 27 34	23°44'41	12°31	9°40	26°56	12°24	12°24	12°9	1°8	26°33	27°49	29°10	0°49	25°47	3°36	F 13
S 14	13 31 30	24°43'18	24°44	9°R46	28°8	12°7	12°38	12°13	1°10	26°33	27°50	29°D 9	0°45	25°53	3°39	S 14
S 15	13 35 27	25°41'52	6°45	9°45	29°19	11°50	12°52	12°17	1°12	26°34	27°51	29°9	0°42	26°0	3°41	S 15
M16	13 39 23	26°40'24	18°39	9°39	0°31	11°32	13°6	12°20	1°15	26°34	27°51	29°10	0°39	26°6	3°44	M16
T 17	13 43 20	27°38'55	0°28	9°28	1°43	11°14	13°20	12°23	1°17	26°34	27°52	29°12	0°36	26°13	3°47	T 17
W18	13 47 16	28°37'23	12°17	9°11	2°54	10°55	13°34	12°27	1°19	26°35	27°53	29°14	0°33	26°20	3°50	W18
T 19	13 51 13	29°35'49	24°11	8°49	4°5	10°36	13°48	12°30	1°21	26°35	27°54	29°R15	0°29	26°26	3°52	T 19
F 20	13 55 10	0°34'12	6°15	8°23	5°17	10°16	14°2	12°33	1°23	26°35	27°55	29°15	0°26	26°33	3°55	F 20
S 21	13 59 6	1°32'34	18°34	7°54	6°28	9°56	14°16	12°36	1°26	26°36	27°56	29°13	0°23	26°40	3°58	S 21
S 22	14 3 3	2°30'54	1°11	7°21	7°39	9°35	14°30	12°39	1°28	26°36	27°56	29°11	0°20	26°46	4°0	S 22
M23	14 6 59	3°29'11	14°11	6°46	8°50	9°15	14°44	12°42	1°30	26°36	27°57	29°8	0°17	26°53	4°3	M23
T 24	14 10 56	4°27'26	27°35	6°8	10°1	8°53	14°58	12°45	1°32	26°36	27°58	29°4	0°14	27°0	4°5	T 24
W25	14 14 52	5°25'40	11°24	5°30	11°12	8°32	15°12	12°48	1°34	26°36	27°59	29°1	0°10	27°6	4°7	W25
T 26	14 18 49	6°23'51	25°34	4°51	12°23	8°10	15°26	12°50	1°36	26°36	28°0	28°58	0°7	27°13	4°10	T 26
F 27	14 22 45	7°22'01	10°11	4°12	13°33	7°48	15°41	12°53	1°37	26°36	28°1	28°56	0°4	27°20	4°12	F 27
S 28	14 26 42	8°20'09	24°43	3°34	14°44	7°27	15°55	12°55	1°39	26°R36	28°2	28°D55	0°1	27°26	4°14	S 28
S 29	14 30 39	9°18'15	9°29	2°58	15°55	7°5	16°9	12°58	1°41	26°36	28°3	28°55	29°58	27°33	4°17	S 29
M30	14 34 35	10°16'21	24°12	2°24	17°11	6°42	16°23	13°0	1°43	26°36	28°4	28°56	29°55	27°40	4°19	M30

Delta T = 30.87 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1668
geocentric

MAY 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	14 38 32	11♈14'24"	8♌49	1°R52	18♈15	6°R20	16♈37	13♈2	1♈45	26°R36	28♈5	28♈57	29♈51	27♈46	4♈21	T 1
W 2	14 42 28	12°12'26"	23°13	1♈24	19°26	5♈58	16°51	13°4	1°46	26°R36	28°6	28°58	29°48	27°53	4°23	W 2
T 3	14 46 25	13°10'27"	7♈22	0°59	20°36	5°36	17°6	13°6	1°48	26°36	28°7	28°R59	29°45	28°0	4°25	T 3
F 4	14 50 21	14°8'27"	21°15	0°38	21°46	5°15	17°20	13°8	1°49	26°36	28°8	28°59	29°42	28°6	4°27	F 4
S 5	14 54 18	15°6'25"	4♈50	0°22	22°56	4°53	17°34	13°10	1°51	26°36	28°10	28°58	29°39	28°13	4°29	S 5
S 6	14 58 14	16°4'22"	18°9	0°9	24°6	4°32	17°48	13°11	1°52	26°35	28°11	28°57	29°35	28°20	4°31	S 6
M 7	15 2 11	17°2'17"	1°Y11	0°1	25°16	4°10	18°2	13°13	1°54	26°35	28°12	28°56	29°32	28°26	4°32	M 7
T 8	15 6 8	18°0'11"	14°0	29°D58	26°25	3°50	18°17	13°15	1°55	26°35	28°13	28°54	29°29	28°33	4°34	T 8
W 9	15 10 4	18°58'04"	26°34	29°Y59	27°35	3°29	18°31	13°16	1°57	26°34	28°14	28°53	29°26	28°40	4°36	W 9
T 10	15 14 1	19°55'55"	8♈57	0♈5	28°44	3°9	18°45	13°17	1°58	26°34	28°15	28°52	29°23	28°46	4°38	T 10
F 11	15 17 57	20°53'45"	21°9	0°16	29°54	2°49	18°59	13°18	1°59	26°34	28°17	28°51	29°20	28°53	4°39	F 11
S 12	15 21 54	21°51'34"	3♈11	0°31	1♈3	2°30	19°13	13°20	2°0	26°33	28°18	28°D51	29°16	29°0	4°41	S 12
S 13	15 25 50	22°49'21"	15°7	0°50	2°12	2°12	19°27	13°21	2°2	26°33	28°19	28°51	29°13	29°6	4°42	S 13
M14	15 29 47	23°47'07"	26°57	1°14	3°21	1°54	19°42	13°22	2°3	26°32	28°20	28°52	29°10	29°13	4°44	M14
T 15	15 33 43	24°44'51"	8♈46	1°42	4°30	1°36	19°56	13°22	2°4	26°32	28°21	28°52	29°7	29°20	4°45	T 15
W16	15 37 40	25°42'34"	20°35	2°14	5°39	1°19	20°10	13°23	2°5	26°31	28°23	28°53	29°4	29°26	4°46	W16
T 17	15 41 37	26°40'15"	2♈30	2°51	6°47	1°3	20°24	13°24	2°6	26°31	28°24	28°53	29°1	29°33	4°47	T 17
F 18	15 45 33	27°37'55"	14°33	3°31	7°56	0°48	20°38	13°24	2°7	26°30	28°25	28°53	28°57	29°40	4°49	F 18
S 19	15 49 30	28°35'33"	26°50	4°15	9°4	0°33	20°52	13°25	2°8	26°29	28°27	28°53	28°54	29°46	4°50	S 19
S 20	15 53 26	29°33'09"	9♈25	5°2	10°13	0°18	21°6	13°25	2°8	26°29	28°28	28°53	28°51	29°53	4°51	S 20
M21	15 57 23	0♈30'44"	22°21	5°53	11°21	0°5	21°21	13°25	2°9	26°28	28°29	28°53	28°48	29°59	4°52	M21
T 22	16 1 19	1°28'18"	5♈42	6°48	12°29	29°A52	21°35	13°25	2°10	26°27	28°30	28°54	28°45	0♈6	4°53	T 22
W23	16 5 16	2°25'50"	19°29	7°46	13°37	29°40	21°49	13°R25	2°11	26°26	28°32	28°54	28°41	0°13	4°54	W23
T 24	16 9 12	3°23'21"	3♈42	8°47	14°44	29°29	22°3	13°25	2°11	26°26	28°33	28°54	28°38	0°20	4°55	T 24
F 25	16 13 9	4°20'50"	18°19	9°51	15°52	29°19	22°17	13°25	2°12	26°25	28°34	28°54	28°35	0°26	4°55	F 25
S 26	16 17 6	5°18'19"	3♈13	10°59	16°59	29°9	22°31	13°25	2°12	26°24	28°36	28°R55	28°32	0°33	4°56	S 26
S 27	16 21 2	6°15'46"	18°17	12°9	18°7	29°1	22°45	13°25	2°13	26°23	28°37	28°54	28°29	0°40	4°57	S 27
M28	16 24 59	7°13'13"	3♈23	13°23	19°14	28°53	22°59	13°24	2°13	26°22	28°39	28°54	28°26	0°46	4°58	M28
T 29	16 28 55	8°10'39"	18°21	14°39	20°21	28°46	23°13	13°24	2°14	26°21	28°40	28°53	28°22	0°53	4°58	T 29
W30	16 32 52	9°8'04"	3♈4	15°58	21°27	28°39	23°26	13°23	2°14	26°20	28°41	28°52	28°19	1°0	4°59	W30
T 31	16 36 48	10♈5'28"	17♈27	17♈20	22♈34	28♈34	23♈40	13♈22	2♈14	26♈19	28♈43	28♈51	28♈16	1♈6	4♈59	T 31

Delta T = 30.82 sec

Greg. Calendar

JUNE 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	16 40 45	11♈2'52"	1♈26	18♈46	23♈40	28°R29	23♈54	13°R21	2♈15	26°R18	28♈44	28°R50	28♈13	1♈13	5♈0	F 1
S 2	16 44 41	12°0'15"	15°1	20°13	24°47	28♈25	24°8	13♈21	2°15	26°R17	28°45	28°D50	28°10	1°20	5°0	S 2
S 3	16 48 38	12°57'37"	28°13	21°44	25°53	28°22	24°22	13°19	2°15	26°16	28°47	28♈50	28°7	1°26	5°0	S 3
M 4	16 52 35	13°54'59"	11°Y5	23°17	26°59	28°20	24°35	13°18	2°15	26°15	28°48	28°51	28°3	1°33	5°0	M 4
T 5	16 56 31	14°52'20"	23°39	24°54	28°4	28°18	24°49	13°17	2°15	26°14	28°50	28°52	28°0	1°40	5°1	T 5
W 6	17 0 28	15°49'41"	5♈58	26°32	29°10	28°D18	25°3	13°16	2°R15	26°13	28°51	28°54	27°57	1°46	5°1	W 6
T 7	17 4 24	16°47'01"	18°6	28°14	0♈15	28°18	25°17	13°14	2°15	26°12	28°53	28°55	27°54	1°53	5°R1	T 7
F 8	17 8 21	17°44'21"	0♈6	29°58	1°20	28°19	25°30	13°13	2°15	26°11	28°54	28°R55	27°51	2°0	5°1	F 8
S 9	17 12 17	18°41'40"	12°0	1♈45	2°25	28°21	25°44	13°11	2°15	26°10	28°55	28°54	27°47	2°6	5°1	S 9
S 10	17 16 14	19°38'59"	23°50	3°35	3°30	28°23	25°57	13°10	2°15	26°8	28°57	28°53	27°44	2°13	5°0	S 10
M11	17 20 11	20°36'17"	5♈39	5°27	4°35	28°27	26°11	13°8	2°15	26°7	28°58	28°50	27°41	2°20	5°0	M11
T 12	17 24 7	21°33'35"	17°28	7°21	5°39	28°31	26°24	13°6	2°14	26°6	29°0	28°47	27°38	2°26	5°0	T 12
W13	17 28 4	22°30'51"	29°20	9°18	6°43	28°36	26°38	13°4	2°14	26°5	29°1	28°43	27°35	2°33	5°0	W13
T 14	17 32 0	23°28'07"	11♈18	11°18	7°47	28°41	26°51	13°2	2°14	26°3	29°3	28°39	27°32	2°40	4°59	T 14
F 15	17 35 57	24°25'23"	23°24	13°19	8°50	28°48	27°4	13°0	2°13	26°2	29°4	28°36	27°28	2°46	4°59	F 15
S 16	17 39 53	25°22'37"	5♈41	15°22	9°54	28°55	27°18	12°58	2°13	26°1	29°6	28°33	27°25	2°53	4°58	S 16
S 17	17 43 50	26°19'51"	18°14	17°28	10°57	29°3	27°31	12°56	2°12	25°59	29°7	28°32	27°22	3°0	4°58	S 17
M18	17 47 46	27°17'05"	1♈6	19°34	12°0	29°11	27°44	12°53	2°12	25°58	29°9	28°D32	27°19	3°6	4°57	M18
T 19	17 51 43	28°14'17"	14°20	21°43	13°2	29°21	27°57	12°51	2°11	25°57	29°10	28°32	27°16	3°13	4°57	T 19
W20	17 55 40	29°11'29"	27°59	23°52	14°4	29°31	28°10	12°48	2°10	25°55	29°12	28°34	27°12	3°20	4°56	W20
T 21	17 59 36	0♈8'41"	12♈5	26°2	15°6	29°41	28°23	12°46	2°10	25°54	29°13	28°35	27°9	3°26	4°55	T 21
F 22	18 3 33	1°5'52"	26°36	28°13	16°8	29°53	28°36	12°43	2°9	25°52	29°14	28°R36	27°6	3°33	4°54	F 22
S 23	18 7 29	2°3'03"	11♈30	0♈24	17°9	0♈5	28°49	12°40	2°8	25°51	29°16	28°35	27°3	3°40	4°54	S 23
S 24	18 11 26	3°0'14"	26°38	2°35	18°10	0°17	29°2	12°37	2°7	25°49	29°17	28°33	27°0	3°46	4°53	S 24
M25	18 15 22	3°57'24"	11♈54	4°46	19°11	0°31	29°15	12°34	2°6	25°48	29°19	28°30	26°57	3°53	4°52	M25
T 26	18 19 19	4°54'34"	27°6	6°56	20°11	0°44	29°28	12°31	2°6	25°46	29°20	28°25	26°53	4°0	4°51	T 26
W27	18 23 15	5°51'45"	12♈3	9°5	21°11	0°59	29°40	12°28	2°5	25°45	29°22	28°20	26°50	4°6	4°49	W27
T 28	18 27 12	6°48'55"	26°40	11°14	22°11	1°14	29°53	12°25	2°4	25°43	29°23	28°15	26°47	4°13	4°48	T 28
F 29	18 31 9	7°46'06"	10♈49	13°21	23°10	1°30	0♈6	12°22	2°3	25°42	29°25	28°10	26°44	4°20	4°47	F 29
S 30	18 35 5	8♈43'16"	24♈30	15♈27	24♈9	1♈46	0♈18	12♈19	2♈1	25♈40	29♈26	28♈8	26♈41	4♈27	4♈46	S 30

Delta T = 30.76 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1668

geocentric

JULY 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	18 39 2	9 ⁵⁴ 0'28	7 ⁴⁴ 44	17 ⁵³ 31	25 ⁵² 8	2 ¹¹ 3	0 ¹¹ 31	12 ² R15	2 ² R 0	25 ² R39	29 ¹¹ 28	28 ² D 7	26 ⁸ 38	4 ⁵³ 33	4 ² R45	S 1
M 2	18 42 58	10 ³⁷ 3'39	20 ³³	19 ³⁴	26 ⁶	2 ²⁰	0 ⁴³	12 ² 12	1 ¹ 59	25 ² 37	29 ² 29	28 ⁸ 7	26 ³⁴	4 ⁴⁰	4 ¹ 43	M 2
T 3	18 46 55	11 ³⁴ 5'1	3 ⁸ 1	21 ³⁵	27 ⁴	2 ³⁸	0 ⁵⁵	12 ² 8	1 ⁵⁸	25 ² 36	29 ² 30	28 ² 9	26 ³¹	4 ⁴⁷	4 ⁴²	T 3
W 4	18 50 51	12 ³² 0'3	15 ¹³	23 ³⁵	28 ¹	2 ⁵⁶	1 ⁷	12 ² 5	1 ⁵⁷	25 ² 34	29 ² 32	28 ² 10	26 ²⁸	4 ⁵³	4 ⁴⁰	W 4
T 5	18 54 48	13 ²⁹ 1'6	27 ¹³	25 ³³	28 ⁵⁸	3 ¹⁵	1 ²⁰	12 ² 1	1 ⁵⁵	25 ² 33	29 ² 33	28 ² R11	26 ²⁵	5 ⁰	4 ³⁹	T 5
F 6	18 58 44	14 ²⁶ 2'9	9 ¹¹ 6	27 ²⁹	29 ⁵⁴	3 ³⁵	1 ³²	11 ⁵⁸	1 ⁵⁴	25 ² 31	29 ² 35	28 ² 10	26 ²²	5 ⁷	4 ³⁷	F 6
S 7	19 2 41	15 ²³ 4'3	20 ⁵⁴	29 ²³	0 ¹¹ 50	3 ⁵⁵	1 ⁴⁴	11 ⁵⁴	1 ⁵³	25 ² 29	29 ² 36	28 ² 7	26 ¹⁹	5 ¹³	4 ³⁶	S 7
S 8	19 6 38	16 ²⁰ 5'7	2 ⁵⁴ 2	1 ⁵¹ 15	1 ⁴⁶	4 ¹⁵	1 ⁵⁶	11 ⁵⁰	1 ⁵¹	25 ² 28	29 ² 38	28 ² 3	26 ¹⁵	5 ²⁰	4 ³⁴	S 8
M 9	19 10 34	17 ¹⁸ 1'11	14 ³²	3 ⁵	2 ⁴⁰	4 ³⁶	2 ⁸	11 ⁴⁶	1 ⁵⁰	25 ² 26	29 ² 39	27 ⁵⁶	26 ¹²	5 ²⁷	4 ³²	M 9
T 10	19 14 31	18 ¹⁵ 2'6	26 ²⁵	4 ⁵⁴	3 ³⁵	4 ⁵⁸	2 ¹⁹	11 ⁴³	1 ⁴⁸	25 ² 25	29 ² 40	27 ⁴⁷	26 ⁹	5 ³³	4 ³¹	T 10
W 11	19 18 27	19 ¹² 4'1	8 ⁵² 23	6 ⁴⁰	4 ²⁹	5 ²⁰	2 ³¹	11 ³⁹	1 ⁴⁷	25 ² 23	29 ² 42	27 ³⁸	26 ⁶	5 ⁴⁰	4 ²⁹	W 11
T 12	19 22 24	20 ⁹ 5'6	20 ²⁸	8 ²⁵	5 ²²	5 ⁴²	2 ⁴³	11 ³⁵	1 ⁴⁵	25 ² 21	29 ² 43	27 ²⁸	26 ³	5 ⁴⁷	4 ²⁷	T 12
F 13	19 26 20	21 ⁷ 12	2 ¹¹ 4	10 ⁸	6 ¹⁵	6 ⁵	2 ⁵⁴	11 ³¹	1 ⁴³	25 ² 20	29 ² 45	27 ¹⁹	25 ⁵⁹	5 ⁵³	4 ²⁵	F 13
S 14	19 30 17	22 ² 4'27	15 ⁵	11 ⁴⁹	7 ⁷	6 ²⁹	3 ⁶	11 ²⁷	1 ⁴²	25 ² 18	29 ² 46	27 ¹²	25 ⁵⁶	6 ⁰	4 ²³	S 14
S 15	19 34 13	23 ¹ 4'3	27 ⁴²	13 ²⁸	7 ⁵⁹	6 ⁵²	3 ¹⁷	11 ²²	1 ⁴⁰	25 ² 17	29 ² 47	27 ⁷	25 ⁵³	6 ⁷	4 ²¹	S 15
M 16	19 38 10	23 ⁵⁹ 0'0	10 ⁵⁴ 34	15 ⁵	8 ⁵⁰	7 ¹⁶	3 ²⁹	11 ¹⁸	1 ³⁸	25 ² 15	29 ² 49	27 ⁴	25 ⁵⁰	6 ¹³	4 ¹⁹	M 16
T 17	19 42 7	24 ⁵⁶ 1'6	23 ⁴⁴	16 ⁴¹	9 ⁴⁰	7 ⁴¹	3 ⁴⁰	11 ¹⁴	1 ³⁷	25 ² 13	29 ² 50	27 ² D 3	25 ⁴⁷	6 ²⁰	4 ¹⁷	T 17
W 18	19 46 3	25 ⁵³ 3'3	7 ¹¹ 16	18 ¹⁴	10 ²⁹	8 ⁶	3 ⁵¹	11 ¹⁰	1 ³⁵	25 ² 12	29 ² 51	27 ³	25 ⁴⁴	6 ²⁷	4 ¹⁵	W 18
T 19	19 50 0	26 ⁵⁰ 5'0	21 ¹⁰	19 ⁴⁶	11 ¹⁸	8 ³²	4 ²	11 ⁶	1 ³³	25 ² 10	29 ² 53	27 ² R 4	25 ⁴⁰	6 ³³	4 ¹³	T 19
F 20	19 53 56	27 ⁴⁸ 0'8	5 ²⁷ 29	21 ¹⁵	12 ⁶	8 ⁵⁷	4 ¹³	11 ¹	1 ³¹	25 ² 8	29 ² 54	27 ² 4	25 ³⁷	6 ⁴⁰	4 ¹¹	F 20
S 21	19 57 53	28 ⁴⁵ 2'6	20 ¹⁰	22 ⁴³	12 ⁵³	9 ²⁴	4 ²⁴	10 ⁵⁷	1 ²⁹	25 ² 7	29 ² 55	27 ² 2	25 ³⁴	6 ⁴⁷	4 ⁸	S 21
S 22	20 1 49	29 ⁴² 4'5	5 ³ 9	24 ⁹	13 ⁴⁰	9 ⁵⁰	4 ³⁵	10 ⁵³	1 ²⁸	25 ² 5	29 ² 57	26 ⁵⁸	25 ³¹	6 ⁵³	4 ⁶	S 22
M 23	20 5 46	0 ⁵⁴ 0'0'4	20 ¹⁸	25 ³³	14 ²⁶	10 ¹⁷	4 ⁴⁵	10 ⁴⁸	1 ²⁶	25 ² 4	29 ² 58	26 ⁵¹	25 ²⁸	7 ⁰	4 ⁴	M 23
T 24	20 9 43	1 ³⁷ 2'5	5 ²⁸ 28	26 ⁵⁵	15 ¹⁰	10 ⁴⁵	4 ⁵⁶	10 ⁴⁴	1 ²⁴	25 ² 2	29 ² 59	26 ⁴³	25 ²⁵	7 ⁷	4 ¹	T 24
W 25	20 13 39	2 ³⁴ 4'5	20 ²⁹	28 ¹⁵	15 ⁵⁴	11 ¹²	5 ⁶	10 ⁴⁰	1 ²²	25 ² 0	0 ⁵⁴ 1	26 ³³	25 ²¹	7 ¹³	3 ⁵⁹	W 25
T 26	20 17 36	3 ³² 0'7	5 ¹¹ 11	29 ³²	16 ³⁷	11 ⁴⁰	5 ¹⁷	10 ³⁵	1 ²⁰	24 ⁵⁹	0 ²	26 ²⁴	25 ¹⁸	7 ²⁰	3 ⁵⁷	T 26
F 27	20 21 32	4 ²⁹ 3'0	19 ²⁷	0 ¹¹ 48	17 ¹⁹	12 ⁹	5 ²⁷	10 ³¹	1 ¹⁸	24 ⁵⁷	0 ³	26 ¹⁵	25 ¹⁵	7 ²⁷	3 ⁵⁴	F 27
S 28	20 25 29	5 ²⁶ 5'3	3 ¹⁴ 14	2 ²	18 ⁰	12 ³⁷	5 ³⁷	10 ²⁶	1 ¹⁶	24 ⁵⁶	0 ⁴	26 ⁹	25 ¹²	7 ³⁴	3 ⁵²	S 28
S 29	20 29 25	6 ²⁴ 1'8	16 ³²	3 ¹³	18 ⁴⁰	13 ⁶	5 ⁴⁷	10 ²²	1 ¹³	24 ⁵⁴	0 ⁶	26 ⁶	25 ⁹	7 ⁴⁰	3 ⁴⁹	S 29
M 30	20 33 22	7 ²¹ 4'4	29 ²³	4 ²²	19 ¹⁸	13 ³⁶	5 ⁵⁷	10 ¹⁷	1 ¹¹	24 ⁵²	0 ⁷	26 ⁴	25 ⁵	7 ⁴⁷	3 ⁴⁷	M 30
T 31	20 37 18	8 ⁵¹ 19'12	11 ⁵¹	5 ¹¹ 28	19 ¹¹ 56	14 ¹¹ 5	6 ¹¹ 7	10 ¹³	1 ¹¹ 9	24 ⁵¹	0 ⁸	26 ² D 4	25 ⁵ 2	7 ⁵⁴	3 ⁴⁴	T 31

Delta T = 30.71 sec

Greg. Calendar

AUGUST 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	20 41 15	9♌16'40	24♏ 1	6♍33	20♍33	14♌35	6♍17	10°R 8	1°R 7	24°R49	0♏ 9	26°R 4	24♏59	8♏ 0	3°R42	W 1
T 2	20 45 11	10°14'11	5♍59	7°34	21° 8	15° 6	6°26	10≈ 4	1°H 5	24♏48	0°10	26♏ 4	24°56	8° 7	3°H39	T 2
F 3	20 49 8	11°11'42	17°50	8°33	21°42	15°36	6°36	10° 0	1° 3	24°46	0°11	26° 2	24°53	8°14	3°36	F 3
S 4	20 53 5	12° 9'15	29°38	9°29	22°15	16° 7	6°45	9°55	1° 1	24°45	0°13	25°57	24°50	8°20	3°34	S 4
S 5	20 57 1	13° 6'49	11♏27	10°22	22°46	16°38	6°54	9°51	0°58	24°43	0°14	25°50	24°46	8°27	3°31	S 5
M 6	21 0 58	14° 4'24	23°20	11°12	23°16	17°10	7° 3	9°46	0°56	24°42	0°15	25°41	24°43	8°34	3°28	M 6
T 7	21 4 54	15° 2'01	5♌20	11°58	23°44	17°41	7°12	9°42	0°54	24°40	0°16	25°29	24°40	8°40	3°25	T 7
W 8	21 8 51	15°59'38	17°27	12°41	24°11	18°14	7°21	9°37	0°51	24°39	0°17	25°15	24°37	8°47	3°23	W 8
T 9	21 12 47	16°57'17	29°44	13°21	24°37	18°46	7°30	9°33	0°49	24°37	0°18	25° 2	24°34	8°54	3°20	T 9
F 10	21 16 44	17°54'58	12♍11	13°57	25° 0	19°18	7°39	9°28	0°47	24°36	0°19	24°49	24°30	9° 0	3°17	F 10
S 11	21 20 41	18°52'39	24°48	14°28	25°22	19°51	7°47	9°24	0°45	24°34	0°20	24°39	24°27	9° 7	3°14	S 11
S 12	21 24 37	19°50'21	7♎36	14°56	25°43	20°24	7°56	9°20	0°42	24°33	0°21	24°31	24°24	9°14	3°11	S 12
M 13	21 28 34	20°48'05	20°36	15°18	26° 1	20°58	8° 4	9°15	0°40	24°31	0°22	24°26	24°21	9°20	3° 8	M 13
T 14	21 32 30	21°45'49	3♌51	15°36	26°18	21°32	8°12	9°11	0°38	24°30	0°23	24°24	24°18	9°27	3° 6	T 14
W 15	21 36 27	22°43'35	17°21	15°49	26°32	22° 5	8°20	9° 7	0°35	24°29	0°24	24°23	24°15	9°34	3° 3	W 15
T 16	21 40 23	23°41'22	1♏ 9	15°57	26°45	22°40	8°28	9° 2	0°33	24°27	0°25	24°23	24°11	9°40	3° 0	T 16
F 17	21 44 20	24°39'10	15°15	16°R 0	26°55	23°14	8°35	8°58	0°30	24°26	0°26	24°22	24° 8	9°47	2°57	F 17
S 18	21 48 16	25°37'00	29°39	15°56	27° 4	23°49	8°43	8°54	0°28	24°24	0°27	24°20	24° 5	9°54	2°54	S 18
S 19	21 52 13	26°34'50	14♏19	15°47	27°10	24°23	8°50	8°50	0°26	24°23	0°28	24°15	24° 2	10° 1	2°51	S 19
M 20	21 56 10	27°32'42	29°10	15°32	27°14	24°58	8°58	8°46	0°23	24°22	0°29	24° 7	23°59	10° 7	2°48	M 20
T 21	22 0 6	28°30'36	14≈ 3	15°11	27°R16	25°34	9° 5	8°42	0°21	24°21	0°30	23°57	23°56	10°14	2°45	T 21
W 22	22 4 3	29°28'30	28°51	14°44	27°15	26° 9	9°12	8°38	0°19	24°19	0°31	23°46	23°52	10°21	2°42	W 22
T 23	22 7 59	0♍26'26	13°H25	14°11	27°12	26°45	9°18	8°34	0°16	24°18	0°31	23°34	23°49	10°27	2°39	T 23
F 24	22 11 56	1°24'24	27°37	13°33	27° 7	27°21	9°25	8°30	0°14	24°17	0°32	23°25	23°46	10°34	2°36	F 24
S 25	22 15 52	2°22'23	11♏24	12°50	26°59	27°57	9°32	8°26	0°11	24°16	0°33	23°17	23°43	10°41	2°33	S 25
S 26	22 19 49	3°20'25	24°43	12° 2	26°49	28°33	9°38	8°22	0° 9	24°14	0°34	23°12	23°40	10°47	2°30	S 26
M 27	22 23 45	4°18'28	7♏36	11° 9	26°36	29°10	9°44	8°18	0° 7	24°13	0°35	23° 9	23°36	10°54	2°27	M 27
T 28	22 27 42	5°16'33	20° 7	10°14	26°21	29°47	9°50	8°14	0° 4	24°12	0°35	23°D 8	23°33	11° 1	2°24	T 28
W 29	22 31 38	6°14'40	2♍19	9°17	26° 4	0♏23	9°56	8°11	0° 2	24°11	0°36	23°R 8	23°30	11° 7	2°22	W 29
T 30	22 35 35	7°12'49	14°18	8°19	25°45	1° 1	10° 2	8° 7	29≈59	24°10	0°37	23° 8	23°27	11°14	2°19	T 30
F 31	22 39 32	8♍11'01	26♍10	7♍21	25♍23	1♏38	10♍ 7	8≈ 3	29≈57	24♏ 9	0♏37	23♏ 7	23♏24	11♏21	2°H16	F 31

ASTRODIENST EPHEMERIS for the year 1668

geocentric

SEPTEMBER 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	22 43 28	9 ^h 9'14	7 ^h 59	6 ^h R24	24 ^h R59	2 ^h 15	10 ^h II13	8 ^h R 0	29 ^h R55	24 ^h R 8	0 ^h 38	23 ^h R 3	23 ^h 21	11 ^h 27	2 ^h R13	S 1
S 2	22 47 25	10 ^h 7'29	19 ^h 50	5 ^h 31	24 ^h 34	2 ^h 53	10 ^h 18	7 ^h 56	29 ^h 52	24 ^h 7	0 ^h 39	22 ^h 57	23 ^h 17	11 ^h 34	2 ^h 10	S 2
M 3	22 51 21	11 ^h 5'46	1 ^h 48	4 ^h 41	24 ^h 6	3 ^h 31	10 ^h 23	7 ^h 53	29 ^h 50	24 ^h 6	0 ^h 39	22 ^h 49	23 ^h 14	11 ^h 41	2 ^h 7	M 3
T 4	22 55 18	12 ^h 4'06	13 ^h 55	3 ^h 57	23 ^h 37	4 ^h 9	10 ^h 28	7 ^h 50	29 ^h 48	24 ^h 5	0 ^h 40	22 ^h 38	23 ^h 11	11 ^h 48	2 ^h 4	T 4
W 5	22 59 14	13 ^h 2'27	26 ^h 13	3 ^h 20	23 ^h 5	4 ^h 47	10 ^h 33	7 ^h 46	29 ^h 45	24 ^h 4	0 ^h 41	22 ^h 26	23 ^h 8	11 ^h 54	2 ^h 1	W 5
T 6	23 3 11	14 ^h 0'49	8 ^h 44	2 ^h 49	22 ^h 33	5 ^h 25	10 ^h 37	7 ^h 43	29 ^h 43	24 ^h 3	0 ^h 41	22 ^h 14	23 ^h 5	12 ^h 1	1 ^h 58	T 6
F 7	23 7 7	14 ^h 59'14	21 ^h 28	2 ^h 27	21 ^h 59	6 ^h 4	10 ^h 42	7 ^h 40	29 ^h 41	24 ^h 2	0 ^h 42	22 ^h 2	23 ^h 2	12 ^h 8	1 ^h 55	F 7
S 8	23 11 4	15 ^h 57'41	4 ^h 24	2 ^h 14	21 ^h 24	6 ^h 43	10 ^h 46	7 ^h 37	29 ^h 39	24 ^h 1	0 ^h 42	21 ^h 52	22 ^h 58	12 ^h 14	1 ^h 53	S 8
S 9	23 15 1	16 ^h 56'09	17 ^h 31	2 ^h D10	20 ^h 48	7 ^h 22	10 ^h 50	7 ^h 34	29 ^h 36	24 ^h 0	0 ^h 43	21 ^h 45	22 ^h 55	12 ^h 21	1 ^h 50	S 9
M10	23 18 57	17 ^h 54'39	0 ^h 49	2 ^h 15	20 ^h 12	8 ^h 1	10 ^h 54	7 ^h 31	29 ^h 34	24 ^h 0	0 ^h 43	21 ^h 41	22 ^h 52	12 ^h 28	1 ^h 47	M10
T 11	23 22 54	18 ^h 53'11	14 ^h 19	2 ^h 29	19 ^h 35	8 ^h 40	10 ^h 57	7 ^h 29	29 ^h 32	23 ^h 59	0 ^h 44	21 ^h 39	22 ^h 49	12 ^h 34	1 ^h 44	T 11
W12	23 26 50	19 ^h 51'45	27 ^h 58	2 ^h 53	18 ^h 58	9 ^h 19	11 ^h 1	7 ^h 26	29 ^h 30	23 ^h 58	0 ^h 44	21 ^h D39	22 ^h 46	12 ^h 41	1 ^h 41	W12
T 13	23 30 47	20 ^h 50'20	11 ^h 49	3 ^h 26	18 ^h 21	9 ^h 59	11 ^h 4	7 ^h 23	29 ^h 27	23 ^h 57	0 ^h 44	21 ^h 40	22 ^h 42	12 ^h 48	1 ^h 39	T 13
F 14	23 34 43	21 ^h 48'57	25 ^h 51	4 ^h 8	17 ^h 45	10 ^h 39	11 ^h 7	7 ^h 21	29 ^h 25	23 ^h 57	0 ^h 45	21 ^h R40	22 ^h 39	12 ^h 54	1 ^h 36	F 14
S 15	23 38 40	22 ^h 47'36	10 ^h 3	4 ^h 58	17 ^h 9	11 ^h 18	11 ^h 10	7 ^h 18	29 ^h 23	23 ^h 56	0 ^h 45	21 ^h 39	22 ^h 36	13 ^h 1	1 ^h 33	S 15
S 16	23 42 36	23 ^h 46'16	24 ^h 24	5 ^h 56	16 ^h 33	11 ^h 58	11 ^h 13	7 ^h 16	29 ^h 21	23 ^h 56	0 ^h 45	21 ^h 35	22 ^h 33	13 ^h 8	1 ^h 31	S 16
M17	23 46 33	24 ^h 44'58	8 ^h 51	7 ^h 1	15 ^h 59	12 ^h 39	11 ^h 15	7 ^h 13	29 ^h 19	23 ^h 55	0 ^h 46	21 ^h 29	22 ^h 30	13 ^h 15	1 ^h 28	M17
T 18	23 50 30	25 ^h 43'42	23 ^h 19	8 ^h 13	15 ^h 26	13 ^h 19	11 ^h 17	7 ^h 11	29 ^h 17	23 ^h 54	0 ^h 46	21 ^h 22	22 ^h 27	13 ^h 21	1 ^h 25	T 18
W19	23 54 26	26 ^h 42'27	7 ^h 42	9 ^h 31	14 ^h 54	13 ^h 59	11 ^h 19	7 ^h 9	29 ^h 15	23 ^h 54	0 ^h 46	21 ^h 13	22 ^h 23	13 ^h 28	1 ^h 23	W19
T 20	23 58 23	27 ^h 41'15	21 ^h 54	10 ^h 54	14 ^h 24	14 ^h 40	11 ^h 21	7 ^h 7	29 ^h 13	23 ^h 53	0 ^h 47	21 ^h 4	22 ^h 20	13 ^h 35	1 ^h 20	T 20
F 21	0 2 19	28 ^h 40'04	5 ^h 50	12 ^h 21	13 ^h 56	15 ^h 20	11 ^h 23	7 ^h 5	29 ^h 11	23 ^h 53	0 ^h 47	20 ^h 57	22 ^h 17	13 ^h 41	1 ^h 18	F 21
S 22	0 6 16	29 ^h 38'55	19 ^h 25	13 ^h 53	13 ^h 30	16 ^h 1	11 ^h 25	7 ^h 3	29 ^h 9	23 ^h 52	0 ^h 47	20 ^h 51	22 ^h 14	13 ^h 48	1 ^h 15	S 22
S 23	0 10 12	0 ^h 37'49	2 ^h 38	15 ^h 28	13 ^h 5	16 ^h 42	11 ^h 26	7 ^h 2	29 ^h 7	23 ^h 52	0 ^h 47	20 ^h 47	22 ^h 11	13 ^h 55	1 ^h 13	S 23
M24	0 14 9	1 ^h 36'45	15 ^h 29	17 ^h 6	12 ^h 43	17 ^h 23	11 ^h 27	7 ^h 0	29 ^h 5	23 ^h 52	0 ^h 47	20 ^h D45	22 ^h 7	14 ^h 1	1 ^h 10	M24
T 25	0 18 5	2 ^h 35'43	28 ^h 0	18 ^h 46	12 ^h 24	18 ^h 4	11 ^h 28	6 ^h 58	29 ^h 3	23 ^h 51	0 ^h 47	20 ^h 45	22 ^h 4	14 ^h 8	1 ^h 8	T 25
W26	0 22 2	3 ^h 34'43	10 ^h II13	20 ^h 29	12 ^h 6	18 ^h 46	11 ^h 29	6 ^h 57	29 ^h 1	23 ^h 51	0 ^h 48	20 ^h 46	22 ^h 1	14 ^h 15	1 ^h 5	W26
T 27	0 25 59	4 ^h 33'46	22 ^h 14	22 ^h 12	11 ^h 51	19 ^h 27	11 ^h 29	6 ^h 55	28 ^h 59	23 ^h 51	0 ^h 48	20 ^h 48	21 ^h 58	14 ^h 21	1 ^h 3	T 27
F 28	0 29 55	5 ^h 32'51	4 ^h 7	23 ^h 57	11 ^h 38	20 ^h 9	11 ^h 30	6 ^h 54	28 ^h 58	23 ^h 50	0 ^h 48	20 ^h R48	21 ^h 55	14 ^h 28	1 ^h 1	F 28
S 29	0 33 52	6 ^h 31'58	15 ^h 58	25 ^h 43	11 ^h 28	20 ^h 50	11 ^h R30	6 ^h 53	28 ^h 56	23 ^h 50	0 ^h 48	20 ^h 48	21 ^h 52	14 ^h 35	0 ^h 59	S 29
S 30	0 37 48	7 ^h 31'07	27 ^h 51	27 ^h 29	11 ^h 20	21 ^h 32	11 ^h II30	6 ^h 52	28 ^h 54	23 ^h 50	0 ^h R48	20 ^h 46	21 ^h 48	14 ^h 42	0 ^h 56	S 30

Delta T = 30.60 sec

Greg. Calendar

OCTOBER 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	0 41 45	8 ^h 30'19	9 ^h 51	29 ^h 15	11 ^h R15	22 ^h 14	11 ^h R30	6 ^h R51	28 ^h R52	23 ^h R50	0 ^h R48	20 ^h R41	21 ^h 45	14 ^h 48	0 ^h R54	M 1
T 2	0 45 41	9 ^h 29'33	22 ^h 3	1 ^h 2	11 ^h 12	22 ^h 56	11 ^h II29	6 ^h 50	28 ^h 51	23 ^h 50	0 ^h 48	20 ^h 36	21 ^h 42	14 ^h 55	0 ^h 52	T 2
W 3	0 49 38	10 ^h 28'50	4 ^h 29	2 ^h 49	11 ^h D11	23 ^h 38	11 ^h 28	6 ^h 49	28 ^h 49	23 ^h 50	0 ^h 48	20 ^h 29	21 ^h 39	15 ^h 2	0 ^h 50	W 3
T 4	0 53 34	11 ^h 28'08	17 ^h 11	4 ^h 35	11 ^h 13	24 ^h 21	11 ^h 28	6 ^h 48	28 ^h 48	23 ^h 50	0 ^h 48	20 ^h 22	21 ^h 36	15 ^h 8	0 ^h 48	T 4
F 5	0 57 31	12 ^h 27'29	0 ^h 10	6 ^h 21	11 ^h 17	25 ^h 3	11 ^h 27	6 ^h 48	28 ^h 46	23 ^h D50	0 ^h 48	20 ^h 15	21 ^h 33	15 ^h 15	0 ^h 46	F 5
S 6	1 1 28	13 ^h 26'52	13 ^h 26	8 ^h 7	11 ^h 24	25 ^h 45	11 ^h 25	6 ^h 47	28 ^h 45	23 ^h 50	0 ^h 47	20 ^h 10	21 ^h 29	15 ^h 22	0 ^h 44	S 6
S 7	1 5 24	14 ^h 26'17	26 ^h 57	9 ^h 52	11 ^h 33	26 ^h 28	11 ^h 24	6 ^h 47	28 ^h 43	23 ^h 50	0 ^h 47	20 ^h 6	21 ^h 26	15 ^h 28	0 ^h 42	S 7
M 8	1 9 21	15 ^h 25'44	10 ^h 40	11 ^h 36	11 ^h 44	27 ^h 11	11 ^h 22	6 ^h 46	28 ^h 42	23 ^h 50	0 ^h 47	20 ^h 4	21 ^h 23	15 ^h 35	0 ^h 40	M 8
T 9	1 13 17	16 ^h 25'13	24 ^h 34	13 ^h 20	11 ^h 57	27 ^h 54	11 ^h 20	6 ^h 46	28 ^h 40	23 ^h 50	0 ^h 47	20 ^h D 4	21 ^h 20	15 ^h 42	0 ^h 39	T 9
W10	1 17 14	17 ^h 24'44	8 ^h 35	15 ^h 4	12 ^h 12	28 ^h 37	11 ^h 18	6 ^h 46	28 ^h 39	23 ^h 50	0 ^h 47	20 ^h 5	21 ^h 17	15 ^h 48	0 ^h 37	W10
T 11	1 21 10	18 ^h 24'16	22 ^h 42	16 ^h 47	12 ^h 29	29 ^h 20	11 ^h 16	6 ^h D46	28 ^h 38	23 ^h 50	0 ^h 46	20 ^h 6	21 ^h 13	15 ^h 55	0 ^h 35	T 11
F 12	1 25 7	19 ^h 23'51	6 ^h 51	18 ^h 29	12 ^h 48	0 ^h 3	11 ^h 13	6 ^h 46	28 ^h 36	23 ^h 50	0 ^h 46	20 ^h 7	21 ^h 10	16 ^h 2	0 ^h 33	F 12
S 13	1 29 3	20 ^h 23'27	21 ^h 2	20 ^h 11	13 ^h 9	0 ^h 46	11 ^h 11	6 ^h 46	28 ^h 35	23 ^h 51	0 ^h 46	20 ^h R 8	21 ^h 7	16 ^h 9	0 ^h 32	S 13
S 14	1 33 0	21 ^h 23'05	5 ^h 12	21 ^h 52	13 ^h 32	1 ^h 29	11 ^h 8	6 ^h 47	28 ^h 34	23 ^h 51	0 ^h 46	20 ^h 7	21 ^h 4	16 ^h 15	0 ^h 30	S 14
M15	1 36 57	22 ^h 22'45	19 ^h 19	23 ^h 32	13 ^h 57	2 ^h 12	11 ^h 5	6 ^h 47	28 ^h 33	23 ^h 51	0 ^h 45	20 ^h 5	21 ^h 1	16 ^h 22	0 ^h 29	M15
T 16	1 40 53	23 ^h 22'26	3 ^h 22	25 ^h 12	14 ^h 23	2 ^h 56	11 ^h 2	6 ^h 48	28 ^h 32	23 ^h 52	0 ^h 45	20 ^h 2	20 ^h 58	16 ^h 29	0 ^h 27	T 16
W17	1 44 50	24 ^h 22'09	17 ^h 17	26 ^h 51	14 ^h 51	3 ^h 40	10 ^h 58	6 ^h 48	28 ^h 31	23 ^h 52	0 ^h 45	19 ^h 58	20 ^h 54	16 ^h 35	0 ^h 26	W17
T 18	1 48 46	25 ^h 21'53	1 ^h 1	28 ^h 30	15 ^h 20	4 ^h 23	10 ^h 55	6 ^h 49	28 ^h 30	23 ^h 52	0 ^h 44	19 ^h 54	20 ^h 51	16 ^h 42	0 ^h 25	T 18
F 19	1 52 43	26 ^h 21'40	14 ^h 31	0 ^h 8	15 ^h 52	5 ^h 7	10 ^h 51	6 ^h 50	28 ^h 29	23 ^h 53	0 ^h 44	19 ^h 51	20 ^h 48	16 ^h 49	0 ^h 23	F 19
S 20	1 56 39	27 ^h 21'29	27 ^h 46	1 ^h 45	16 ^h 24	5 ^h 51	10 ^h 47	6 ^h 51	28 ^h 28	23 ^h 53	0 ^h 43	19 ^h 48	20 ^h 45	16 ^h 55	0 ^h 22	S 20
S 21	2 0 36	28 ^h 21'19	10 ^h 44	3 ^h 22	16 ^h 58	6 ^h 35	10 ^h 43	6 ^h 52	28 ^h 27	23 ^h 54	0 ^h 43	19 ^h 47	20 ^h 42	17 ^h 2	0 ^h 21	S 21
M22	2 4 32	29 ^h 21'12	23 ^h 26	4 ^h 58	17 ^h 34	7 ^h 18	10 ^h 38	6 ^h 53	28 ^h 26	23 ^h 54	0 ^h 42	19 ^h D47	20 ^h 39	17 ^h 9	0 ^h 20	M22
T 23	2 8 29	0 ^h M21'07	5 ^h II51	6 ^h 34	18 ^h 11	8 ^h 2	10 ^h 34	6 ^h 54	28 ^h 26	23 ^h 55	0 ^h 42	19 ^h 48	20 ^h 35	17 ^h 16	0 ^h 19	T 23
W24	2 12 25	1 ^h 21'03	18 ^h 2	8 ^h 9	18 ^h 49	8 ^h 47	10 ^h 29	6 ^h 55	28 ^h 25	23 ^h 56	0 ^h 41	19 ^h 49	20 ^h 32	17 ^h 22	0 ^h 18	W24
T 25	2 16 22	2 ^h 21'02	0 ^h 3	9 ^h 44	19 ^h 28	9 ^h 31	10 ^h 24	6 ^h 57	28 ^h 24	23 ^h 56	0 ^h 41	19 ^h 51	20 ^h 29	17 ^h 29	0 ^h 17	T 25
F 26	2 20 19	3 ^h 21'04	11 ^h 57	11 ^h 18	20 ^h 9	10 ^h 15	10 ^h 19	6 ^h 58	28 ^h 24	23 ^h 57	0 ^h 40	19 ^h 52	20 ^h 26	17 ^h 36	0 ^h 16	F 26
S 27	2 24 15	4 ^h 21'07	23 ^h 48	12 ^h 52	20 ^h 51	10 ^h 59	10 ^h 14	7 ^h 0	28 ^h 23	23 ^h 58	0 ^h 40	19 ^h 53	20 ^h 23	17 ^h 42	0 ^h 15	S 27
S 28	2 28 12	5 ^h 21'12	5 ^h II41	14 ^h 26	21 ^h 33	11 ^h 44	10 ^h 8	7 ^h 2	28 ^h 23	23 ^h 58	0 ^h 39	19 ^h R53	20 ^h 19	17 ^h 49	0 ^h 14	S 28
M29	2 32 8	6 ^h 21'20	17 ^h 41	15 ^h 59	22 ^h 17	12 ^h 28	10 ^h 3	7 ^h 3	28 ^h 22	23 ^h 59	0 ^h 39	19 ^h 53	20 ^h 16	17 ^h 56	0 ^h 13	M29
T 30	2 36 5	7 ^h 21'29	29 ^h 53	17 ^h 31	23 ^h 2	13 ^h 13	9 ^h 57	7 ^h 5	28 ^h 22	24 ^h 0	0 ^h 38	19 ^h 52	20 ^h 13	18 ^h 2	0 ^h 13	T 30
W31	2 40 1	8 ^h M21'41	12 ^h 20	19 ^h M 4	23 ^h 28	13 ^h 35	9 ^h II51	7 ^h 7	28 ^h 21	24 ^h 3 1	0 ^h 37	19 ^h 51	20 ^h 10	18 ^h 9	0 ^h 12	W31

ASTRODIENST EPHEMERIS for the year 1668

geocentric

NOVEMBER 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	2 43 58	9♉21'55	25♊6	20♉36	24♊35	14♉42	9°R45	7♉9	28°R21	24♉2	0°R37	19°R49	20♉7	18♉16	0°R12	T 1
F 2	2 47 54	10°22'10	8♉14	22°7	25°23	15°27	9♉39	7°12	28°R21	24°3	0°R36	19°R48	20°4	18°23	0°R11	F 2
S 3	2 51 51	11°22'28	21°43	23°38	26°12	16°11	9°33	7°14	28°21	24°4	0°35	19°47	20°0	18°29	0°11	S 3
S 4	2 55 48	12°22'47	5♉33	25°9	27°1	16°56	9°26	7°16	28°20	24°5	0°34	19°46	19°57	18°36	0°10	S 4
M 5	2 59 44	13°23'09	19°41	26°39	27°52	17°41	9°20	7°19	28°20	24°6	0°34	19°D46	19°54	18°43	0°10	M 5
T 6	3 3 41	14°23'32	4♉3	28°9	28°43	18°26	9°13	7°21	28°20	24°7	0°33	19°46	19°51	18°49	0°10	T 6
W 7	3 7 37	15°23'56	18°33	29°39	29°35	19°11	9°6	7°24	28°D20	24°8	0°32	19°46	19°48	18°56	0°10	W 7
T 8	3 11 34	16°24'23	3♉5	1♉8	0♉28	19°56	8°59	7°27	28°20	24°9	0°31	19°47	19°45	19°3	0°9	T 8
F 9	3 15 30	17°24'50	17°35	2°37	1°21	20°41	8°52	7°30	28°20	24°10	0°30	19°47	19°41	19°9	0°D9	F 9
S 10	3 19 27	18°25'19	1♉58	4°5	2°15	21°27	8°45	7°33	28°20	24°11	0°30	19°47	19°38	19°16	0°9	S 10
S 11	3 23 24	19°25'49	16°10	5°33	3°10	22°12	8°38	7°36	28°21	24°12	0°29	19°47	19°35	19°23	0°9	S 11
M12	3 27 20	20°26'21	0♉10	7°0	4°5	22°57	8°30	7°39	28°21	24°13	0°28	19°47	19°32	19°30	0°10	M12
T 13	3 31 17	21°26'53	13°56	8°27	5°1	23°43	8°23	7°42	28°21	24°15	0°27	19°47	19°29	19°36	0°10	T 13
W14	3 35 13	22°27'27	27°28	9°53	5°57	24°28	8°15	7°45	28°21	24°16	0°26	19°47	19°25	19°43	0°10	W14
T 15	3 39 10	23°28'02	10°Y46	11°19	6°54	25°13	8°7	7°49	28°22	24°17	0°25	19°48	19°22	19°50	0°10	T 15
F 16	3 43 6	24°28'39	23°50	12°44	7°52	25°59	8°0	7°52	28°22	24°19	0°24	19°48	19°19	19°56	0°11	F 16
S 17	3 47 3	25°29'16	6♉41	14°7	8°50	26°44	7°52	7°56	28°23	24°20	0°23	19°49	19°16	20°3	0°11	S 17
S 18	3 50 59	26°29'56	19°20	15°30	9°49	27°30	7°44	8°0	28°23	24°21	0°22	19°R49	19°13	20°10	0°12	S 18
M19	3 54 56	27°30'36	1♉46	16°52	10°48	28°15	7°36	8°3	28°24	24°23	0°21	19°49	19°10	20°17	0°12	M19
T 20	3 58 52	28°31'18	14°2	18°13	11°47	29°1	7°28	8°7	28°25	24°24	0°20	19°48	19°6	20°23	0°13	T 20
W21	4 2 49	29°32'01	26°8	19°33	12°48	29°47	7°20	8°11	28°25	24°26	0°19	19°47	19°3	20°30	0°13	W21
T 22	4 6 46	0♉32'46	8♉6	20°50	13°48	0♉32	7°12	8°15	28°26	24°27	0°18	19°45	19°0	20°37	0°14	T 22
F 23	4 10 42	1°33'32	19°59	22°6	14°49	1°18	7°4	8°19	28°27	24°29	0°17	19°44	18°57	20°43	0°15	F 23
S 24	4 14 39	2°34'20	1♉49	23°20	15°51	2°4	6°56	8°23	28°28	24°30	0°16	19°42	18°54	20°50	0°16	S 24
S 25	4 18 35	3°35'09	13°42	24°32	16°52	2°50	6°48	8°28	28°29	24°32	0°15	19°40	18°51	20°57	0°17	S 25
M26	4 22 32	4°36'00	25°40	25°41	17°55	3°35	6°40	8°32	28°30	24°34	0°14	19°39	18°47	21°3	0°18	M26
T 27	4 26 28	5°36'52	7♉48	26°47	18°57	4°21	6°31	8°37	28°31	24°35	0°13	19°D39	18°44	21°10	0°19	T 27
W28	4 30 25	6°37'45	20°11	27°49	20°0	5°7	6°23	8°41	28°32	24°37	0°12	19°40	18°41	21°17	0°20	W28
T 29	4 34 22	7°38'39	2♉53	28°47	21°4	5°53	6°15	8°46	28°33	24°38	0°11	19°41	18°38	21°24	0°21	T 29
F 30	4 38 18	8♉39'35	15♉58	29♉40	22♉7	6♉39	6♉7	8♉50	28♉34	24♉40	0♉10	19♉42	18♉35	21♉30	0♉22	F 30

Delta T = 30.49 sec

Greg. Calendar

DECEMBER 1668 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	4 42 15	9♉40'33	29♉29	0♉28	23♉11	7♉25	5°R59	8♉55	28♉35	24♉42	0°R9	19♉44	18♉31	21♉37	0°R23	S 1
S 2	4 46 11	10°41'31	13♉26	1°10	24°16	8°11	5♉50	9°0	28°36	24°44	0°8	19°R44	18°28	21°44	0°25	S 2
M 3	4 50 8	11°42'31	27°48	1°45	25°20	8°57	5°42	9°5	28°38	24°45	0°6	19°44	18°25	21°50	0°26	M 3
T 4	4 54 4	12°43'31	12♉31	2°13	26°25	9°43	5°34	9°10	28°39	24°47	0°5	19°43	18°22	21°57	0°28	T 4
W 5	4 58 1	13°44'33	27°26	2°32	27°30	10°29	5°26	9°15	28°40	24°49	0°4	19°41	18°19	22°4	0°29	W 5
T 6	5 1 57	14°45'36	12♉27	2°R41	28°36	11°15	5°18	9°20	28°42	24°51	0°3	19°37	18°16	22°11	0°31	T 6
F 7	5 5 54	15°46'39	27°24	2°40	29°42	12°1	5°10	9°25	28°43	24°53	0°2	19°34	18°12	22°17	0°32	F 7
S 8	5 9 51	16°47'43	12♉9	2°29	0♉48	12°47	5°2	9°30	28°45	24°55	0°1	19°30	18°9	22°24	0°34	S 8
S 9	5 13 47	17°48'47	26°36	2°6	1°54	13°33	4°55	9°35	28°47	24°56	29♉59	19°27	18°6	22°31	0°36	S 9
M10	5 17 44	18°49'51	10♉41	1°31	3°1	14°19	4°47	9°41	28°48	24°58	29°58	19°26	18°3	22°37	0°37	M10
T 11	5 21 40	19°50'56	24°24	0°45	4°7	15°5	4°39	9°46	28°50	25°0	29°57	19°D26	18°0	22°44	0°39	T 11
W12	5 25 37	20°52'01	7°Y45	29♉48	5°14	15°51	4°32	9°52	28°52	25°2	29°56	19°27	17°57	22°51	0°41	W12
T 13	5 29 33	21°53'06	20°47	28°41	6°21	16°38	4°24	9°57	28°53	25°4	29°55	19°28	17°53	22°58	0°43	T 13
F 14	5 33 30	22°54'12	3♉33	27°27	7°29	17°24	4°17	10°3	28°55	25°6	29°53	19°30	17°50	23°4	0°45	F 14
S 15	5 37 26	23°55'18	16°4	26°8	8°36	18°10	4°10	10°8	28°57	25°8	29°52	19°R31	17°47	23°11	0°47	S 15
S 16	5 41 23	24°56'25	28°25	24°45	9°44	18°56	4°2	10°14	28°59	25°10	29°51	19°30	17°44	23°18	0°49	S 16
M17	5 45 20	25°57'32	10♉36	23°23	10°52	19°42	3°55	10°20	29°1	25°12	29°50	19°28	17°41	23°24	0°51	M17
T 18	5 49 16	26°58'39	22°40	22°3	12°0	20°28	3°48	10°26	29°3	25°14	29°49	19°24	17°37	23°31	0°53	T 18
W19	5 53 13	27°59'46	4♉39	20°49	13°9	21°15	3°42	10°32	29°5	25°16	29°47	19°18	17°34	23°38	0°56	W19
T 20	5 57 9	29°0'54	16°33	19°41	14°17	22°1	3°35	10°38	29°7	25°18	29°46	19°11	17°31	23°45	0°58	T 20
F 21	6 1 6	0♉2'03	28°25	18°43	15°26	22°47	3°28	10°44	29°9	25°21	29°45	19°3	17°28	23°51	1°0	F 21
S 22	6 5 2	1°3'11	10♉16	17°54	16°35	23°33	3°22	10°50	29°11	25°23	29°44	18°54	17°25	23°58	1°3	S 22
S 23	6 8 59	2°4'21	22°9	17°16	17°44	24°19	3°16	10°56	29°13	25°25	29°43	18°47	17°22	24°5	1°5	S 23
M24	6 12 56	3°5'30	4♉7	16°49	18°53	25°5	3°9	11°2	29°16	25°27	29°41	18°41	17°18	24°11	1°8	M24
T 25	6 16 52	4°6'40	16°13	16°31	20°3	25°52	3°3	11°8	29°18	25°29	29°40	18°37	17°15	24°18	1°10	T 25
W26	6 20 49	5°7'50	28°32	16°D24	21°12	26°38	2°58	11°14	29°20	25°31	29°39	18°35	17°12	24°25	1°13	W26
T 27	6 24 45	6°9'00	11♉7	16°26	22°22	27°24	2°52	11°21	29°23	25°33	29°38	18°D35	17°9	24°32	1°15	T 27
F 28	6 28 42	7°10'11	24°4	16°37	23°32	28°10	2°46	11°27	29°25	25°36	29°37	18°36	17°6	24°38	1°18	F 28
S 29	6 32 38	8°11'22	7♉27	16°56	24°42	28°56	2°41	11°33	29°27	25°38	29°35	18°37	17°3	24°45	1°21	S 29
S 30	6 36 35	9°12'34	21°17	17°22	25°52	29°42	2°36	11°40	29°30	25°40	29°34	18°R38	16°59	24°52	1°23	S 30
M31	6 40 31	10♉13'46	5♉37	17♉55	27♉2	0♉28	2♉31	11♉46	29♉32	25♉42	29♉33	18♉36	16♉56	24♉58	1♉26	M31

Delta T = 30.44 sec

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