



Astrodienst Ephemeris Tables for the year 1660

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 D5EPX

ASTRODIENST EPHEMERIS for the year 1660
geocentric

JANUARY 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	6 41 15	10°25'25"	17°01'	27°00'	19°01'	2°R 6	13°R54	9°M57	25°04'	6°040	19°R49	12°R11	11°M 0	18°047	13°011	T 1
F 2	6 45 12	11°26'34"	29° 0'	28°29'	20°17'	2°II 2	13°M53	10° 2'	25° 8'	6°42	19°II48	12°M 2	10°57'	18°54'	13°17'	F 2
S 3	6 49 9	12°27'43"	11°M 5'	29°56'	21°32'	1°58	13°52'	10° 6'	25°11'	6°45	19°46'	11°55'	10°54'	19° 1'	13°22'	S 3
S 4	6 53 5	13°28'52"	23°20'	1°21	22°47'	1°56	13°52'	10°11'	25°15'	6°47	19°45'	11°50'	10°51'	19° 7'	13°28'	S 4
M 5	6 57 2	14°30'01"	5°250	2°43'	24° 3'	1°54	13°50'	10°15'	25°18'	6°49	19°44'	11°48'	10°47'	19°14'	13°34'	M 5
T 6	7 0 58	15°31'10"	18°37'	4° 1'	25°18'	1°53	13°49'	10°19'	25°21'	6°51	19°43'	11°D47	10°44'	19°21'	13°40'	T 6
W 7	7 4 55	16°32'19"	1°M48	5°15'	26°33'	1°D53	13°48'	10°24'	25°25'	6°54	19°42'	11°48'	10°41'	19°28'	13°45'	W 7
T 8	7 8 51	17°33'28"	15°25'	6°25'	27°49'	1°54	13°46'	10°28'	25°28'	6°56	19°41'	11°R48	10°38'	19°34'	13°51'	T 8
F 9	7 12 48	18°34'37"	29°31'	7°29'	29° 4'	1°55	13°44'	10°32'	25°32'	6°58	19°40'	11°47'	10°35'	19°41'	13°57'	F 9
S 10	7 16 44	19°35'46"	14°M 5'	8°28'	0°M19	1°57	13°42'	10°36'	25°36'	7° 0'	19°39'	11°43'	10°32'	19°48'	14° 3'	S 10
S 11	7 20 41	20°36'55"	29° 3'	9°19'	1°35'	2° 0'	13°39'	10°40'	25°39'	7° 3'	19°38'	11°37'	10°28'	19°55'	14° 8'	S 11
M12	7 24 38	21°38'03"	14°018	10° 2'	2°50'	2° 4'	13°37'	10°44'	25°43'	7° 5'	19°37'	11°28'	10°25'	20° 1'	14°14'	M12
T 13	7 28 34	22°39'11"	29°40'	10°36'	4° 5'	2° 8'	13°34'	10°47'	25°46'	7° 7'	19°36'	11°17'	10°22'	20° 8'	14°20'	T 13
W14	7 32 31	23°40'18"	14°M56	11° 1'	5°21'	2°13	13°31'	10°51'	25°50'	7° 9'	19°35'	11° 6'	10°19'	20°15'	14°25'	W14
T 15	7 36 27	24°41'24"	29°56'	11°16'	6°36'	2°19	13°28'	10°55'	25°53'	7°11	19°34'	10°56'	10°16'	20°21'	14°31'	T 15
F 16	7 40 24	25°42'29"	14°M31	11°R19	7°51'	2°25	13°25'	10°58'	25°57'	7°14	19°33'	10°48'	10°13'	20°28'	14°37'	F 16
S 17	7 44 20	26°43'34"	28°37'	11°11'	9° 6'	2°32	13°22'	11° 1'	26° 0'	7°16	19°32'	10°43'	10° 9'	20°35'	14°42'	S 17
S 18	7 48 17	27°44'37"	12°V13	10°51'	10°22'	2°40	13°18'	11° 5'	26° 4'	7°18	19°32'	10°40'	10° 6'	20°42'	14°48'	S 18
M19	7 52 13	28°45'39"	25°21'	10°20'	11°37'	2°49	13°14'	11° 8'	26° 7'	7°20	19°31'	10°D39	10° 3'	20°48'	14°53'	M19
T 20	7 56 10	29°46'41"	8°04	9°38'	12°52'	2°58	13°10'	11°11'	26°11'	7°22	19°30'	10°R39	10° 0'	20°55'	14°59'	T 20
W21	8 0 7	0°M4741	20°28'	8°46'	14° 7'	3° 7'	13° 6'	11°14'	26°14'	7°24	19°29'	10°39'	9°57'	21° 2'	15° 5'	W21
T 22	8 4 3	1°48'40"	2°II37	7°46'	15°22'	3°18	13° 2'	11°17'	26°18'	7°27	19°28'	10°37'	9°53'	21° 8'	15°10'	T 22
F 23	8 8 0	2°49'38"	14°37'	6°38'	16°38'	3°29	12°58'	11°20'	26°21'	7°29	19°27'	10°33'	9°50'	21°15'	15°16'	F 23
S 24	8 11 56	3°50'35"	26°30'	5°27'	17°53'	3°40	12°53'	11°23'	26°25'	7°31	19°27'	10°25'	9°47'	21°22'	15°21'	S 24
S 25	8 15 53	4°51'31"	8°021	4°12'	19° 8'	3°52	12°48'	11°25'	26°28'	7°33	19°26'	10°15'	9°44'	21°29'	15°27'	S 25
M26	8 19 49	5°52'25"	20°13'	2°57'	20°23'	4° 5'	12°43'	11°28'	26°32'	7°35	19°25'	10° 2'	9°41'	21°35'	15°32'	M26
T 27	8 23 46	6°53'19"	2°05	1°44'	21°38'	4°18	12°38'	11°30'	26°35'	7°37	19°24'	9°48'	9°38'	21°42'	15°38'	T 27
W28	8 27 42	7°54'11"	14° 2'	0°35'	22°53'	4°31	12°33'	11°33'	26°39'	7°39	19°23'	9°33'	9°34'	21°49'	15°43'	W28
T 29	8 31 39	8°55'03"	26° 2'	2°30	24° 8'	4°46	12°28'	11°35'	26°42'	7°41	19°23'	9°18'	9°31'	21°55'	15°48'	T 29
F 30	8 35 36	9°55'53"	8°M 8'	28°33'	25°23'	5° 0'	12°22'	11°37'	26°46'	7°43	19°22'	9° 6'	9°28'	22° 2'	15°54'	F 30
S 31	8 39 32	10°56'42"	20°M21	27°042	26°M38	5°II15	12°M16	11°M39	26°049	7°045	19°II21	8°M55	9°M25	22°09	15°059	S 31

Day	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
	decl	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat	decl lat
T 1	23s 4	10n57	5s 3	22s34	1s49	23s12	1s 4	23n12	2n38	7n29	1n14	12s37	2n19	21s39	0s30	22s24
F 2	22 59	7 18	4 51	22 11	1 43	23 2	1 6	23 12	2 39	7 29	1 14	12 39	2 19	21 39	0 30	22 24
S 3	22 54	3 19	4 26	21 46	1 36	22 52	1 8	23 11	2 39	7 30	1 14	12 40	2 20	21 38	0 30	22 24
S 4	22 48	0s51	3 49	21 20	1 29	22 41	1 9	23 11	2 39	7 31	1 15	12 41	2 20	21 37	0 30	22 24
M 5	22 41	5 4	2 59	20 53	1 20	22 30	1 11	23 11	2 39	7 31	1 15	12 42	2 20	21 37	0 30	22 24
T 6	22 35	9 10	2 0	20 26	1 11	22 18	1 12	23 11	2 39	7 32	1 15	12 43	2 20	21 36	0 30	22 24
W 7	22 27	12 57	0 53	19 58	1 0	22 5	1 14	23 11	2 39	7 33	1 16	12 45	2 20	21 36	0 30	22 24
T 8	22 20	16 11	0n19	19 30	0 49	21 52	1 15	23 11	2 39	7 34	1 16	12 46	2 21	21 35	0 30	22 23
F 9	22 11	18 34	1 33	19 1	0 37	21 38	1 17	23 11	2 39	7 35	1 16	12 47	2 21	21 34	0 30	22 23
S 10	22 3	19 50	2 43	18 33	0 23	21 23	1 18	23 11	2 39	7 36	1 16	12 48	2 21	21 34	0 30	22 23
S 11	21 54	19 46	3 43	18 6	0 9	21 8	1 19	23 12	2 39	7 37	1 17	12 49	2 21	21 33	0 30	22 23
M12	21 44	18 15	4 29	17 40	0n 6	20 52	1 20	23 13	2 39	7 38	1 17	12 50	2 21	21 32	0 30	22 23
T 13	21 34	15 26	4 56	17 15	0 23	20 35	1 21	23 13	2 39	7 39	1 17	12 51	2 22	21 32	0 30	22 23
W14	21 24	11 35	5 1	16 52	0 40	20 18	1 22	23 14	2 39	7 41	1 18	12 52	2 22	21 31	0 30	22 23
T 15	21 13	7 3	4 45	16 31	0 57	20 0	1 23	23 15	2 39	7 42	1 18	12 53	2 22	21 30	0 30	22 23
F 16	21 2	2 14	4 12	16 12	1 15	19 42	1 24	23 16	2 38	7 44	1 18	12 53	2 22	21 30	0 30	22 22
S 17	20 51	2n33	3 23	15 57	1 34	19 23	1 25	23 17	2 38	7 45	1 18	12 54	2 22	21 29	0 30	22 22
S 18	20 39	7 3	2 25	15 45	1 52	19 3	1 26	23 19	2 38	7 47	1 19	12 55	2 23	21 28	0 30	22 22
M19	20 27	11 4	1 20	15 36	2 10	18 43	1 27	23 20	2 38	7 49	1 19	12 56	2 23	21 28	0 30	22 22
T 20	20 14	14 26	0 14	15 31	2 27	18 23	1 27	23 21	2 37	7 50	1 19	12 57	2 23	21 27	0 30	22 22
W21	20 1	17 4	0s52	15 29	2 43	18 1	1 28	23 23	2 37	7 52	1 19	12 57	2 23	21 26	0 30	22 22
T 22	19 48	18 52	1 53	15 30	2 57	17 40	1 29	23 25	2 37	7 54	1 20	12 58	2 23	21 26	0 31	22 22
F 23	19 34	19 47	2 49	15 35	3 10	17 18	1 29	23 26	2 36	7 56	1 20	12 59	2 24	21 25	0 31	22 22
S 24	19 20	19 49	3 37	15 42	3 21	16 55	1 30	23 28	2 36	7 58	1 20	12 59	2 24	21 24	0 31	22 22
S 25	19 5	18 59	4 15	15 52	3 29	16 32	1 30	23 30	2 35	8 0	1 20	13 0	2 24	21 24	0 31	22 21
M26	18 50	17 19	4 42	16 3	3 34	16 9	1 30	23 32	2 35	8 2	1 21	13 1	2 24	21 23	0 31	22 21
T 27	18 35	14 55	4 57	16 16	3 37	15 45	1 30	23 34	2 35	8 4	1 21	13 1	2 25	21 22	0 31	22 21
W28	18 19	11 53	4 58	16 31	3 38	15 20	1 31	23 36	2 34	8 7	1 21	13 2	2 25	21 22	0 31	22 21
T 29	18 4	8 22	4 47	16 45	3 37	14 56	1 31	23 39	2 34	8 9	1 21	13 2	2 25	21 21	0 31	22 21
F 30	17 47	4 28	4 22	17 1	3 33	14 30	1 31	23 41	2 33	8 11	1 21	13 3	2 25	21 20	0 31	22 21
S 31	17s31	0n22	3s46	17s16	3n28	14s 5	1s31	23n43	2n33	8n14	1n22	13s 3	2n25	21s20	0s31	22s21

Julian Day Number = 2327362.5, Delta T = 36.39 sec
Ecliptic obliquity = 23°28'53", Nutation = 0°00'12", out-of-bounds declination in red
Ayanamsha: Fagan/Bradley = 19°59'40", Lahiri = 19°06'41Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1660

geocentric

MARCH 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	10 37 49	11°10'35	25°08' 8	16°42' 8	3°57' 57	15°51' 51	8°R41	11°R53	28°25' 25	8°35' 35	19°R10	6°R 3	7°M50	25°30' 30	18°21' 21	M 1
T 2	10 41 45	12°10'35	8°M 8	18° 4' 4	5°11' 11	16°16' 16	8°M33	11°M52	28°28' 28	8°36' 36	19°M10	6°D 3	7°46' 46	25°37' 37	18°25' 25	T 2
W 3	10 45 42	13°10'34	21°22' 22	19°28' 28	6°25' 25	16°42' 42	8°25' 25	11°51' 51	28°30' 30	8°37' 37	19°D10	6°M 3	7°43' 43	25°44' 44	18°29' 29	W 3
T 4	10 49 38	14°10'31	4°M52	20°54' 54	7°39' 39	17° 9' 9	8°17' 17	11°50' 50	28°33' 33	8°38' 38	19°10' 10	6° 4' 4	7°40' 40	25°51' 51	18°33' 33	T 4
F 5	10 53 35	15°10'27	18°40' 40	22°21' 21	8°53' 53	17°35' 35	8°10' 10	11°48' 48	28°36' 36	8°40' 40	19°10' 10	6°R 5	7°37' 37	25°57' 57	18°37' 37	F 5
S 6	10 57 32	16°10'21	2°346	23°49' 49	10° 7' 7	18° 2' 2	8° 2' 2	11°47' 47	28°38' 38	8°41' 41	19°10' 10	6° 3' 3	7°34' 34	26° 4' 4	18°41' 41	S 6
S 7	11 1 28	17°10'13	17° 9' 9	25°18' 18	11°21' 21	18°29' 29	7°54' 54	11°45' 45	28°41' 41	8°42' 42	19°10' 10	6° 0' 0	7°30' 30	26°11' 11	18°44' 44	S 7
M 8	11 5 25	18°10'04	1°M47	26°49' 49	12°34' 34	18°56' 56	7°47' 47	11°43' 43	28°44' 44	8°43' 43	19°11' 11	5°55' 55	7°27' 27	26°17' 17	18°48' 48	M 8
T 9	11 9 21	19° 9'53	16°34' 34	28°21' 21	13°48' 48	19°23' 23	7°39' 39	11°42' 42	28°46' 46	8°44' 44	19°11' 11	5°48' 48	7°24' 24	26°24' 24	18°52' 52	T 9
W10	11 13 18	20° 9'40	1°M23	29°54' 54	15° 2' 2	19°50' 50	7°31' 31	11°40' 40	28°49' 49	8°45' 45	19°11' 11	5°41' 41	7°21' 21	26°31' 31	18°55' 55	W10
T 11	11 17 14	21° 9'25	16° 6' 6	1°M28	16°16' 16	20°18' 18	7°24' 24	11°38' 38	28°51' 51	8°46' 46	19°11' 11	5°34' 34	7°18' 18	26°38' 38	18°59' 59	T 11
F 12	11 21 11	22° 9'08	0°M34	3° 4' 4	17°30' 30	20°46' 46	7°17' 17	11°36' 36	28°54' 54	8°47' 47	19°11' 11	5°28' 28	7°15' 15	26°44' 44	19° 2' 2	F 12
S 13	11 25 7	23° 8'49	14°42' 42	4°41' 41	18°43' 43	21°14' 14	7° 9' 9	11°33' 33	28°56' 56	8°48' 48	19°11' 11	5°24' 24	7°11' 11	26°51' 51	19° 5' 5	S 13
S 14	11 29 4	24° 8'28	28°26' 26	6°19' 19	19°57' 57	21°42' 42	7° 2' 2	11°31' 31	28°58' 58	8°49' 49	19°12' 12	5°22' 22	7° 8' 8	26°58' 58	19° 9' 9	S 14
M15	11 33 0	25° 8'05	11°M44	7°58' 58	21°10' 10	22°11' 11	6°55' 55	11°29' 29	29° 1' 1	8°50' 50	19°12' 12	5°D22	7° 5' 5	27° 4' 4	19°12' 12	M15
T 16	11 36 57	26° 7'40	24°38' 38	9°39' 39	22°24' 24	22°39' 39	6°48' 48	11°26' 26	29° 3' 3	8°50' 50	19°12' 12	5°23' 23	7° 2' 2	27°11' 11	19°15' 15	T 16
W17	11 40 54	27° 7'12	7°M10	11°21' 21	23°38' 38	23° 8' 8	6°41' 41	11°24' 24	29° 5' 5	8°51' 51	19°13' 13	5°25' 25	6°59' 59	27°18' 18	19°18' 18	W17
T 18	11 44 50	28° 6'42	19°25' 25	13° 4' 4	24°51' 51	23°37' 37	6°34' 34	11°21' 21	29° 8' 8	8°52' 52	19°13' 13	5°26' 26	6°56' 56	27°25' 25	19°21' 21	T 18
F 19	11 48 47	29° 6'10	1°M28	14°49' 49	26° 4' 4	24° 6' 6	6°27' 27	11°19' 19	29°10' 10	8°53' 53	19°13' 13	5°R27	6°52' 52	27°31' 31	19°24' 24	F 19
S 20	11 52 43	0°M5' 53	13°22' 22	16°35' 35	27°18' 18	24°35' 35	6°20' 20	11°16' 16	29°12' 12	8°54' 54	19°14' 14	5°26' 26	6°49' 49	27°38' 38	19°27' 27	S 20
S 21	11 56 40	1° 4'58	25°14' 14	18°22' 22	28°31' 31	25° 4' 4	6°14' 14	11°13' 13	29°14' 14	8°54' 54	19°14' 14	5°23' 23	6°46' 46	27°45' 45	19°30' 30	S 21
M22	12 0 36	2° 4'19	7°M 7	20°10' 10	29°44' 44	25°34' 34	6° 7' 7	11°10' 10	29°16' 16	8°55' 55	19°14' 14	5°19' 19	6°43' 43	27°52' 52	19°32' 32	M22
T 23	12 4 33	3° 3'37	19° 6' 6	22° 0' 0	0°M57	26° 4' 4	6° 1' 1	11° 7' 7	29°18' 18	8°55' 55	19°15' 15	5°14' 14	6°40' 40	27°58' 58	19°35' 35	T 23
W24	12 8 29	4° 2'54	1°M13	23°51' 51	2°10' 10	26°33' 33	5°55' 55	11° 4' 4	29°20' 20	8°56' 56	19°15' 15	5° 8' 8	6°36' 36	28° 5' 5	19°38' 38	W24
T 25	12 12 26	5° 2'07	13°31' 31	25°44' 44	3°24' 24	27° 3' 3	5°49' 49	11° 1' 1	29°22' 22	8°57' 57	19°16' 16	5° 3' 3	6°33' 33	28°12' 12	19°40' 40	T 25
F 26	12 16 23	6° 1'19	26° 2' 2	27°38' 38	4°37' 37	27°33' 33	5°43' 43	10°58' 58	29°24' 24	8°57' 57	19°16' 16	4°58' 58	6°30' 30	28°18' 18	19°43' 43	F 26
S 27	12 20 19	7° 0'29	8°M45	29°33' 33	5°49' 49	28° 3' 3	5°37' 37	10°54' 54	29°26' 26	8°58' 58	19°17' 17	4°55' 55	6°27' 27	28°25' 25	19°45' 45	S 27
S 28	12 24 16	7°59'36	21°42' 42	1°M29	7° 2' 2	28°34' 34	5°31' 31	10°51' 51	29°27' 27	8°58' 58	19°17' 17	4°53' 53	6°24' 24	28°32' 32	19°47' 47	S 28
M29	12 28 12	8°58'42	4°M51	3°27' 27	8°15' 15	29° 4' 4	5°26' 26	10°47' 47	29°29' 29	8°58' 58	19°18' 18	4°D52	6°21' 21	28°39' 39	19°49' 49	M29
T 30	12 32 9	9°57'46	18°13' 13	5°26' 26	9°28' 28	29°35' 35	5°20' 20	10°44' 44	29°31' 31	8°59' 59	19°19' 19	4°53' 53	6°17' 17	28°45' 45	19°52' 52	T 30
W31	12 36 5	10°M56'48	1°M47	7°M27	10°M41	0°M 5	5°M15	10°M40	29°M33	8°M59	19°M19	4°M54	6°M14	28°M52	19°M54	W31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	
M 1	7s23	10s39	0s58	17s16	1s29	0n40	0s59	24n59	2n16	9n39	1n26	13s 1	2n32	21s 1	0s31	22s17	0n55	15n31	7s33	13s34	14s 9	16n 8	15s46	6n31						
T 2	7 0	14 4	0n11	16 56	1 35	1 12	0 57	25 1	2 16	9 42	1 26	13 0	2 33	21 1	0 31	22 17	0 55	15 31	7 33	13 34	14 8	16 7	15 45	6 31						
W 3	6 37	16 50	1 21	16 35	1 40	1 43	0 55	25 3	2 15	9 45	1 26	13 0	2 33	21 0	0 31	22 17	0 55	15 31	7 33	13 34	14 7	16 5	15 44	6 32						
T 4	6 14	18 43	2 29	16 13	1 45	2 14	0 53	25 5	2 15	9 48	1 26	12 59	2 33	21 0	0 31	22 17	0 55	15 31	7 32	13 34	14 6	16 4	15 43	6 32						
F 5	5 51	19 32	3 29	15 49	1 50	2 45	0 50	25 7	2 14	9 51	1 26	12 58	2 33	20 59	0 31	22 17	0 55	15 32	7 32	13 34	14 4	16 2	15 42	6 32						
S 6	5 28	19 10	4 17	15 25	1 55	3 16	0 48	25 9	2 13	9 54	1 26	12 58	2 33	20 59	0 31	22 17	0 55	15 32	7 32	13 34	14 3	16 1	15 41	6 33						
S 7	5 5	17 34	4 51	14 58	1 59	3 47	0 46	25 11	2 13	9 57	1 26	12 57	2 34	20 58	0 31	22 17	0 55	15 32	7 32	13 33	14 2	16 0	15 40	6 33						
M 8	4 41	14 49	5 7	14 31	2 2	4 18	0 44	25 13	2 12	10 0	1 26	12 56	2 34	20 58	0 31	22 17	0 55	15 32	7 31	13 31	14 1	15 58	15 39	6 34						
T 9	4 18	11 5	5 2	14 2	2 6	4 49	0 41	25 15	2 12	10 3	1 26	12 56	2 34	20 57	0 31	22 16	0 55	15 33	7 31	13 29	14 0	15 57	15 38	6 34						
W10	3 54	6 41	4 37	13 32	2 8	5 20	0 39	25 16	2 11	10 6	1 26	12 55	2 34	20 57	0 31	22 16	0 55	15 33	7 31	13 26	13 59	15 55	15 38	6 35						
T 11	3 31	1 54	3 54	13 0	2 11	5 51	0 36	25 18	2 11	10 8	1 26	12 54	2 34	20 56	0 31	22 16	0 55	15 33	7 31	13 24	13 58	15 54	15 37	6 35						
F 12	3 7	2n56	2 57	12 28	2 13	6 21	0 34	25 19	2 10	10 11	1 26	12 53	2 35	20 56	0 31	22 16	0 55	15 33	7 31	13 22	13 57	15 53	15 36	6 36						
S 13	2 44	7 29	1 50	11 54	2 14	6 52	0 31	25 21	2 9	10 14	1 26	12 52	2 35	20 55	0 31	22 16	0 55	15 33	7 30	13 21	13 56	15 51	15 35	6 36						
S 14	2 20	11 31	0 38	11 18	2 15	7 22	0 29	25 22	2 9	10 16	1 26	12 51	2 35	20 55	0 31	22 16	0 55	15 34	7 30	13 20	13 55	15 50	15 34	6 37						
M15	1 56	14 50	0s35	10 42	2 16	7 52	0 26	25 23	2 8	10 19	1 26	12 51	2 35	20 54	0 31	22 16	0 55	15 34	7 30	13 20	13 54	15 48	15 33	6 37						
T 16	1 33	17 18	1 43	10 4	2 16	8 22	0 23	25 24	2 8	10 22	1 26	12 50	2 35	20 54	0 32	22 16	0 55	15 34	7 30	13 21	13 53	15 47	15 32	6 38						
W17	1 9	18 51	2 44	9 25	2 16	8 52	0 21	25 25	2 7	10 24	1 26	12 49	2 35	20 53	0 32	22 16	0 55	15 34	7 30	13 21	13 52	15 46	15 31	6 38						
T 18	0 45	19 28	3 37	8 45	2 15	9 22	0 18	25 26	2 6	10 27	1 26	12 48	2 36	20 53	0 32	22 16	0 55	15 35	7 29	13 22	13 51	15 44	15 30	6 39						
F 19	0 21	19 10	4 19	8 3	2 14	9 51	0 15	25 27	2 6	10 29	1 26	12 47	2 36	20 53	0 32	22 16	0 55	15 35	7 29	13 22	13 50	15 43	15 29	6 39						
S 20	0n 2	18 1	4 49	7 20	2 12	10 20	0 13	25 27	2 5	10 32	1 26	12 46	2 36	20 52	0 32	22 16	0 55	15 35	7 29	13 21	13 49	15 41	15 28	6 40						
S 21	0 26	16 6	5 7	6 36	2 10	10 49	0 10	25 28	2 5	10 34	1 26	12 45	2 36	20 52	0 32	22 16	0 55	15 35	7 29	13 20	13 48	15 40	15 27	6 40						
M22	0 50	13 30	5 11	5 51	2 7	11 17	0 7	25 29	2 4	10 36	1 26	12 44	2 36	20 51	0 32	22 16	0 56	15 36	7 28	13 19	13 47	15 38	15 26	6 41						
T 23	1 13	10 20	5 2	5 5	2 4	11 46	0 4	25 29	2 4	10 39	1 26	12 43	2 36	20 51	0 32	22 15	0 56	15 36	7 28	13 17	13 46	15 37	15 26	6 41						
W24	1 37	6 42	4 40	4 17	2 1	12 14	0 1	25 29	2 3	10 41	1 25	12 42	2 37	20 51	0 32	22 15	0 56	15 36	7 28	13 16	13 45	15 36	15 25	6 42						
T 25	2 0	2 44	4 5	3 29	1 56	12 42	0n 2	25 29	2 2	10 43	1 25	12 40	2 37	20 50	0 32	22 15	0 56	15 36	7 28	13 14	13 44	15 34	15 24	6 42						
F 26	2 24	1s26	3 17	2 39	1 52	13 9	0 5	25 29	2 2	10 45	1 25	12 39	2 37	20 50	0 32	22 15	0 56	15 37	7 28	13 12	13 43	15 33	15 23	6 43						
S 27	2 47	5 36	2 18	1 48	1 46	13 36	0 8	25 29	2 1	10 47	1 25	12 38	2 37	20 50	0 32	22 15	0 56	15 37	7 27	13 11	13 42	15 31	15 22	6 44						
S 28	3 11	9 35	1 12	0 57	1 41	14 3	0 11	25 29	2 1	10 49	1 25	12 37	2 37	20 49	0 32	22 15	0 56	15 37	7 27	13 10	13 41	15 30	15 21	6 44						
M29	3 34	13 10	0 0	0 4	1 34	14 30	0 14	25 29	2 0	10 51	1 25	12 36	2 37	20 49	0 32	22 15	0 56	15 37	7 27	13 10	13 39	15 28	15 20	6 45						
T 30	3 57	16 7	1n13	0n49	1 28	14 56	0 17	25 29	2 0	10 53	1 25	12 35	2 37	20 49	0 32	22 15	0 56	15 38	7 27	13 10	13 38	15 27	15 20	6 45						
W31	4n20	18s14	2n23	1n44	1s20	15n22	0n20	25n28	1n59	10n55	1n25	12s33	2n38	20s48	0s32	22s15	0n56	15n38	7s27	13s11	13s37	15n26	15s19	6n46						

ASTRODIENST EPHEMERIS for the year 1660

geocentric

APRIL 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	12 40 2	11°55'48	15♌32	9°28	11♌53	0°36	5°R10	10°R37	29♌34	8♌59	19♌20	4♌55	6♌11	28♌59	19♌56	T 1
F 2	12 43 58	12°54'46	29°28	11°31	13° 6	1° 7	5♌ 5	10♌33	29°36	9° 0	19°20	4°57	6° 8	29° 5	19°58	F 2
S 3	12 47 55	13°53'43	13♌33	13°35	14°19	1°38	5° 0	10°29	29°37	9° 0	19°21	4°R57	6° 5	29°12	19°59	S 3
S 4	12 51 52	14°52'38	27°47	15°39	15°31	2° 9	4°55	10°26	29°39	9° 0	19°22	4°57	6° 1	29°19	20° 1	S 4
M 5	12 55 48	15°51'31	12♌ 7	17°44	16°44	2°40	4°51	10°22	29°40	9° 0	19°22	4°55	5°58	29°26	20° 3	M 5
T 6	12 59 45	16°50'23	26°29	19°50	17°56	3°12	4°46	10°18	29°42	9° 1	19°23	4°53	5°55	29°32	20° 4	T 6
W 7	13 3 41	17°49'12	10♌49	21°56	19° 8	3°43	4°42	10°14	29°43	9° 1	19°24	4°51	5°52	29°39	20° 6	W 7
T 8	13 7 38	18°48'00	25° 3	24° 2	20°21	4°15	4°38	10°10	29°44	9° 1	19°25	4°49	5°49	29°46	20° 7	T 8
F 9	13 11 34	19°46'46	9♌ 7	26° 8	21°33	4°46	4°34	10° 6	29°46	9° 1	19°25	4°47	5°46	29°53	20° 9	F 9
S 10	13 15 31	20°45'30	22°55	28°14	22°45	5°18	4°31	10° 2	29°47	9°R 1	19°26	4°46	5°42	29°59	20°10	S 10
S 11	13 19 27	21°44'12	6♌25	0♌19	23°57	5°50	4°27	9°57	29°48	9° 1	19°27	4°D46	5°39	0♌ 6	20°11	S 11
M12	13 23 24	22°42'52	19°35	2°23	25° 9	6°22	4°24	9°53	29°49	9° 1	19°28	4°46	5°36	0°13	20°13	M12
T 13	13 27 20	23°41'30	2♌26	4°25	26°21	6°54	4°21	9°49	29°50	9° 1	19°29	4°47	5°33	0°19	20°14	T 13
W14	13 31 17	24°40'06	14°59	6°26	27°33	7°26	4°18	9°45	29°51	9° 0	19°30	4°48	5°30	0°26	20°15	W14
T 15	13 35 14	25°38'40	27°16	8°24	28°45	7°58	4°15	9°41	29°52	9° 0	19°31	4°49	5°27	0°33	20°16	T 15
F 16	13 39 10	26°37'11	9♌20	10°20	29°56	8°30	4°12	9°36	29°53	9° 0	19°31	4°50	5°23	0°40	20°16	F 16
S 17	13 43 7	27°35'41	21°17	12°14	1♌ 8	9° 3	4°10	9°32	29°54	9° 0	19°32	4°50	5°20	0°46	20°17	S 17
S 18	13 47 3	28°34'08	3♌10	14° 4	2°20	9°35	4° 8	9°27	29°55	9° 0	19°33	4°R50	5°17	0°53	20°18	S 18
M19	13 51 0	29°32'33	15° 5	15°52	3°31	10° 8	4° 6	9°23	29°55	8°59	19°34	4°50	5°14	1° 0	20°18	M19
T 20	13 54 56	0♌30'56	27° 5	17°36	4°43	10°40	4° 4	9°19	29°56	8°59	19°35	4°50	5°11	1° 6	20°19	T 20
W21	13 58 53	1°29'17	9♌15	19°16	5°54	11°13	4° 2	9°14	29°57	8°59	19°36	4°49	5° 7	1°13	20°19	W21
T 22	14 2 49	2°27'36	21°38	20°52	7° 5	11°46	4° 1	9°10	29°57	8°58	19°37	4°49	5° 4	1°20	20°20	T 22
F 23	14 6 46	3°25'52	4♌17	22°25	8°16	12°19	3°59	9° 5	29°58	8°58	19°38	4°49	5° 1	1°27	20°20	F 23
S 24	14 10 43	4°24'07	17°14	23°53	9°27	12°52	3°58	9° 1	29°58	8°58	19°39	4°D48	4°58	1°33	20°20	S 24
S 25	14 14 39	5°22'20	0♌30	25°17	10°39	13°25	3°57	8°56	29°59	8°57	19°40	4°R48	4°55	1°40	20°20	S 25
M26	14 18 36	6°20'31	14° 2	26°37	11°49	13°58	3°56	8°52	29°59	8°57	19°41	4°48	4°52	1°47	20°R20	M26
T 27	14 22 32	7°18'41	27°51	27°53	13° 0	14°31	3°56	8°47	29°59	8°56	19°43	4°48	4°48	1°54	20°20	T 27
W28	14 26 29	8°16'49	11♌52	29° 4	14°11	15° 4	3°55	8°43	29°59	8°55	19°44	4°48	4°45	2° 0	20°20	W28
T 29	14 30 25	9°14'55	26° 2	0♌10	15°22	15°37	3°55	8°38	0♌ 0	8°55	19°45	4°48	4°42	2° 7	20°20	T 29
F 30	14 34 22	10♌13'00	10♌18	1♌12	16♌32	16♌11	3°D55	8♌34	0♌ 0	8♌54	19♌46	4♌47	4♌39	2♌14	20♌20	F 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	4n43	19s18	3n25	2n39	1s13	15n47	0n23	25n27	1n59	10n57	1n25	12s32	2n38	20s48	0s32	22s15	0n56	15n38	7s26	13s11	13s36	15n24	15s18	6n46			
F 2	5 7	19 12	4 17	3 35	1 4	16 12	0 26	25 27	1 58	10 59	1 25	12 31	2 38	20 48	0 32	22 15	0 56	15 38	7 26	13 12	13 35	15 23	15 17	6 47			
S 3	5 29	17 55	4 53	4 31	0 56	16 37	0 29	25 26	1 57	11 0	1 24	12 30	2 38	20 47	0 32	22 15	0 56	15 39	7 26	13 12	13 34	15 21	15 16	6 47			
S 4	5 52	15 32	5 13	5 27	0 46	17 1	0 32	25 25	1 57	11 2	1 24	12 28	2 38	20 47	0 32	22 15	0 56	15 39	7 26	13 12	13 33	15 20	15 15	6 48			
M 5	6 15	12 11	5 13	6 24	0 37	17 25	0 35	25 24	1 56	11 3	1 24	12 27	2 38	20 47	0 32	22 15	0 56	15 39	7 26	13 11	13 32	15 18	15 15	6 49			
T 6	6 38	8 7	4 53	7 21	0 27	17 48	0 38	25 22	1 56	11 5	1 24	12 26	2 38	20 46	0 32	22 15	0 56	15 39	7 25	13 10	13 31	15 17	15 14	6 49			
W 7	7 0	3 35	4 15	8 18	0 17	18 11	0 41	25 21	1 55	11 6	1 24	12 24	2 38	20 46	0 32	22 15	0 56	15 40	7 25	13 10	13 30	15 15	15 13	6 50			
T 8	7 23	1n 7	3 22	9 15	0 6	18 34	0 44	25 19	1 55	11 8	1 24	12 23	2 38	20 46	0 32	22 15	0 56	15 40	7 25	13 9	13 29	15 14	15 12	6 50			
F 9	7 45	5 43	2 17	10 11	0n 5	18 56	0 47	25 18	1 54	11 9	1 24	12 22	2 38	20 46	0 32	22 15	0 56	15 40	7 25	13 8	13 28	15 12	15 11	6 51			
S 10	8 7	9 56	1 5	11 7	0 16	19 17	0 50	25 16	1 54	11 10	1 23	12 20	2 39	20 46	0 32	22 15	0 56	15 40	7 25	13 8	13 27	15 11	15 11	6 51			
S 11	8 29	13 32	0s 9	12 1	0 27	19 38	0 53	25 14	1 53	11 11	1 23	12 19	2 39	20 45	0 32	22 15	0 56	15 41	7 24	13 8	13 26	15 9	15 10	6 52			
M12	8 51	16 22	1 21	12 55	0 38	19 59	0 55	25 12	1 52	11 12	1 23	12 18	2 39	20 45	0 32	22 15	0 56	15 41	7 24	13 8	13 25	15 8	15 9	6 53			
T 13	9 13	18 17	2 27	13 47	0 49	20 19	0 58	25 10	1 52	11 13	1 23	12 16	2 39	20 45	0 32	22 15	0 56	15 41	7 24	13 8	13 24	15 7	15 8	6 53			
W14	9 34	19 15	3 25	14 37	1 0	20 39	1 1	25 8	1 51	11 14	1 23	12 15	2 39	20 45	0 32	22 15	0 56	15 41	7 24	13 9	13 23	15 5	15 8	6 54			
T 15	9 56	19 16	4 11	15 26	1 10	20 58	1 4	25 5	1 51	11 15	1 23	12 13	2 39	20 45	0 32	22 15	0 56	15 42	7 24	13 9	13 22	15 4	15 7	6 54			
F 16	10 17	18 24	4 46	16 13	1 21	21 16	1 7	25 3	1 50	11 16	1 22	12 12	2 39	20 44	0 33	22 15	0 56	15 42	7 24	13 9	13 20	15 2	15 6	6 55			
S 17	10 38	16 43	5 8	16 58	1 31	21 34	1 10	25 0	1 50	11 17	1 22	12 11	2 39	20 44	0 33	22 15	0 56	15 42	7 23	13 9	13 19	15 1	15 6	6 56			
S 18	10 59	14 21	5 17	17 41	1 40	21 51	1 13	24 57	1 49	11 17	1 22	12 9	2 39	20 44	0 33	22 15	0 56	15 42	7 23	13 9	13 18	14 59	15 5	6 56			
M19	11 20	11 22	5 12	18 21	1 49	22 8	1 16	24 54	1 49	11 18	1 22	12 8	2 39	20 44	0 33	22 15	0 56	15 43	7 23	13 9	13 17	14 58	15 4	6 57			
T 20	11 40	7 54	4 53	18 59	1 57	22 24	1 18	24 51	1 48	11 18	1 22	12 6	2 39	20 44	0 33	22 15	0 56	15 43	7 23	13 9	13 16	14 56	15 4	6 57			
W21	12 1	4 5	4 22	19 35	2 5	22 40	1 21	24 48	1 48	11 19	1 22	12 5	2 39	20 44	0 33	22 15	0 56	15 43	7 23	13 9	13 15	14 55	15 3	6 58			
T 22	12 21	0s 0	3 37	20 8	2 12	22 54	1 24	24 44	1 47	11 19	1 21	12 4	2 39	20 44	0 33	22 15	0 56	15 43	7 23	13 9	13 14	14 53	15 2	6 58			
F 23	12 41	4 10	2 41	20 38	2 19	23 9	1 26	24 41	1 47	11 20	1 21	12 2	2 39	20 44	0 33	22 15	0 56	15 43	7 22	13 9	13 13	14 52	15 2	6 59			
S 24	13 1	8 15	1 36	21 6	2 24	23 23	1 29	24 37	1 46	11 20	1 21	12 1	2 39	20 44	0 33	22 15	0 56	15 44	7 22	13 9	13 12	14 50	15 1	7 0			
S 25	13 20	12 2	0 24	21 31	2 29	23 36	1 32	24 33	1 45	11 20	1 21	11 59	2 39	20 43	0 33	22 15	0 56	15 44	7 22	13 9	13 11	14 49	15 1	7 0			
M26	13 39	15 16	0n51	21 54	2 32	23 48	1 34	24 29	1 45	11 20	1 21	11 58	2 39	20 43	0 33	22 15	0 56	15 44	7 22	13 9	13 10	14 47	15 0	7 1			
T 27	13 59	17 42	2 4	22 15	2 35	24 0	1 37	24 25	1 44	11 20	1 21	11 56	2 39	20 43	0 33	22 15	0 56	15 44	7 22	13 9	13 9	14 46	14 59	7 1			
W28	14 17	19 5	3 11	22 33	2 37	24 11	1 39	24 21	1 44	11 20	1 20	11 55	2 39	20 43	0 33	22 15	0 56	15 45	7 22	13 9	13 8	14 44	14 59	7 2			
T 29	14 36	19 18	4 7	22 48	2 38	24 21	1 42	24 17	1 43	11 20	1 20	11 54	2 39	20 43	0 33	22 15	0 56	15 45	7 21	13 9	13 7	14 43	14 58	7 2			
F 30	14n55	18s17	4n48	23n 1	2n38	24n31	1n44	24n12	1n43	11n20	1n20	11s52	2n39	20s43	0s33	22s15	0n56	15n45	7s21	13s 8	13s 6	14n41	14s58	7n			

ASTRODIENST EPHEMERIS for the year 1660
geocentric

MAY 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 38 18	11♂11'04	24♂35	2♂110	17♂43	16♂44	3♂55	8°R29	0≈ 1	8°R54	19♂47	4°R47	4♂36	2♂20	20°R19	S 1
S 2	14 42 15	12° 9'06	8≈51	3° 2	18°53	17°18	3°56	8♂25	0° 1	8♂53	19°48	4°D46	4°32	2°27	20♂19	S 2
M 3	14 46 12	13° 7'07	23° 3	3°50	20° 4	17°51	3°56	8°20	0° 1	8°52	19°49	4♂47	4°29	2°34	20°19	M 3
T 4	14 50 8	14° 5'06	7♂9	4°32	21°14	18°25	3°57	8°16	0°R 1	8°51	19°51	4°47	4°26	2°41	20°18	T 4
W 5	14 54 5	15° 3'04	21° 5	5°10	22°24	18°58	3°58	8°11	0° 1	8°51	19°52	4°48	4°23	2°47	20°17	W 5
T 6	14 58 1	16° 1'01	4♂52	5°43	23°34	19°32	3°59	8° 7	0° 1	8°50	19°53	4°49	4°20	2°54	20°17	T 6
F 7	15 1 58	16°58'57	18°27	6°11	24°44	20° 6	4° 0	8° 2	0° 0	8°49	19°54	4°49	4°17	3° 1	20°16	F 7
S 8	15 5 54	17°56'51	1♂50	6°34	25°54	20°40	4° 1	7°58	0° 0	8°48	19°55	4°R50	4°13	3° 7	20°15	S 8
S 9	15 9 51	18°54'43	14°59	6°52	27° 4	21°14	4° 3	7°53	0° 0	8°47	19°57	4°50	4°10	3°14	20°14	S 9
M10	15 13 47	19°52'35	27°53	7° 5	28°14	21°48	4° 5	7°49	29♂59	8°46	19°58	4°49	4° 7	3°21	20°13	M10
T 11	15 17 44	20°50'24	10♂33	7°13	29°23	22°22	4° 7	7°45	29°59	8°46	19°59	4°47	4° 4	3°28	20°12	T 11
W12	15 21 41	21°48'13	22°59	7°R16	0♂33	22°56	4° 9	7°40	29°59	8°45	20° 0	4°45	4° 1	3°34	20°11	W12
T 13	15 25 37	22°45'59	5♂13	7°14	1°42	23°30	4°11	7°36	29°59	8°44	20° 2	4°42	3°58	3°41	20° 9	T 13
F 14	15 29 34	23°43'45	17°16	7° 8	2°51	24° 4	4°13	7°32	29°58	8°43	20° 3	4°39	3°54	3°48	20° 8	F 14
S 15	15 33 30	24°41'28	29°12	6°57	4° 1	24°39	4°16	7°28	29°58	8°42	20° 4	4°37	3°51	3°55	20° 7	S 15
S 16	15 37 27	25°39'10	11♂ 5	6°42	5°10	25°13	4°19	7°23	29°57	8°41	20° 6	4°35	3°48	4° 1	20° 5	S 16
M17	15 41 23	26°36'50	22°59	6°23	6°18	25°47	4°22	7°19	29°56	8°39	20° 7	4°D34	3°45	4° 8	20° 4	M17
T 18	15 45 20	27°34'29	4♂59	6° 1	7°27	26°22	4°25	7°15	29°56	8°38	20° 8	4°35	3°42	4°15	20° 2	T 18
W19	15 49 16	28°32'06	17° 8	5°35	8°36	26°56	4°28	7°11	29°55	8°37	20° 9	4°36	3°38	4°21	20° 0	W19
T 20	15 53 13	29°29'42	29°32	5° 7	9°45	27°31	4°32	7° 7	29°54	8°36	20°11	4°37	3°35	4°28	19°59	T 20
F 21	15 57 10	0♂27'16	12♂14	4°36	10°53	28° 5	4°35	7° 3	29°53	8°35	20°12	4°39	3°32	4°35	19°57	F 21
S 22	16 1 6	1°24'49	25°18	4° 4	12° 1	28°40	4°39	6°59	29°53	8°34	20°14	4°40	3°29	4°42	19°55	S 22
S 23	16 5 3	2°22'21	8♂46	3°31	13° 9	29°15	4°43	6°55	29°52	8°33	20°15	4°R40	3°26	4°48	19°53	S 23
M24	16 8 59	3°19'51	22°36	2°57	14°17	29°49	4°47	6°51	29°51	8°31	20°16	4°39	3°23	4°55	19°51	M24
T 25	16 12 56	4°17'21	6♂48	2°23	15°25	0♂24	4°52	6°48	29°50	8°30	20°18	4°37	3°19	5° 2	19°49	T 25
W26	16 16 52	5°14'49	21°16	1°50	16°33	0°59	4°56	6°44	29°49	8°29	20°19	4°33	3°16	5° 9	19°47	W26
T 27	16 20 49	6°12'16	5♂55	1°19	17°41	1°34	5° 1	6°40	29°48	8°28	20°20	4°29	3°13	5°15	19°45	T 27
F 28	16 24 45	7° 9'43	20°36	0°48	18°48	2° 9	5° 6	6°37	29°47	8°26	20°22	4°24	3°10	5°22	19°42	F 28
S 29	16 28 42	8° 7'09	5≈14	0°21	19°55	2°44	5°10	6°33	29°45	8°25	20°23	4°20	3° 7	5°29	19°40	S 29
S 30	16 32 39	9° 4'34	19°43	29♂55	21° 2	3°19	5°16	6°30	29°44	8°24	20°25	4°17	3° 4	5°35	19°38	S 30
M31	16 36 35	10♂1'58	3♂59	29♂33	22♂ 9	3♂54	5♂21	6♂26	29♂43	8♂22	20♂26	4°D16	3♂ 0	5♂42	19♂35	M31

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	15n13	16s 8	5n12	23n12	2n37	24n40	1n46	24n 7	1n42	11n20	1n20	11s51	2n39	20s43	0s33	22s15	0n56	15n45	7s21	13s 8	13s 4	14n40	14s57	7n 4	
S 2	15 31	12 59	5 16	23 20	2 35	24 49	1 48	24 3	1 42	11 19	1 20	11 49	2 39	20 43	0 33	22 15	0 56	15 46	7 21	13 8	13 3	14 38	14 57	7 4	
M 3	15 48	9 7	5 1	23 27	2 32	24 57	1 51	23 58	1 41	11 19	1 19	11 48	2 39	20 43	0 33	22 15	0 56	15 46	7 21	13 8	13 2	14 37	14 56	7 5	
T 4	16 6	4 45	4 28	23 31	2 28	25 4	1 53	23 53	1 41	11 19	1 19	11 47	2 39	20 43	0 33	22 15	0 56	15 46	7 21	13 8	13 1	14 35	14 56	7 5	
W 5	16 23	0 11	3 39	23 32	2 23	25 10	1 55	23 47	1 40	11 18	1 19	11 45	2 39	20 43	0 33	22 15	0 56	15 46	7 21	13 9	13 0	14 34	14 55	7 6	
T 6	16 40	4n22	2 38	23 32	2 17	25 16	1 57	23 42	1 40	11 18	1 19	11 44	2 39	20 43	0 33	22 15	0 56	15 47	7 20	13 9	12 59	14 32	14 55	7 6	
F 7	16 56	8 37	1 29	23 30	2 9	25 21	1 59	23 36	1 39	11 17	1 19	11 43	2 39	20 44	0 33	22 15	0 56	15 47	7 20	13 9	12 58	14 31	14 55	7 7	
S 8	17 13	12 23	0 17	23 26	2 1	25 26	2 1	23 31	1 39	11 16	1 19	11 41	2 39	20 44	0 33	22 15	0 56	15 47	7 20	13 9	12 57	14 29	14 54	7 8	
S 9	17 29	15 28	0s56	23 29	1 51	25 29	2 2	23 25	1 38	11 15	1 18	11 40	2 38	20 44	0 33	22 15	0 56	15 47	7 20	13 9	12 56	14 28	14 54	7 8	
M10	17 44	17 43	2 4	23 11	1 41	25 32	2 4	23 19	1 38	11 15	1 18	11 39	2 38	20 44	0 33	22 15	0 56	15 47	7 20	13 9	12 55	14 26	14 53	7 9	
T 11	18 0	19 1	3 5	23 1	1 29	25 34	2 6	23 13	1 37	11 14	1 18	11 37	2 38	20 44	0 33	22 15	0 56	15 48	7 20	13 8	12 54	14 24	14 53	7 9	
W12	18 15	19 23	3 55	22 49	1 17	25 36	2 7	23 7	1 36	11 13	1 18	11 36	2 38	20 44	0 33	22 15	0 57	15 48	7 20	13 8	12 53	14 23	14 53	7 10	
T 13	18 30	18 49	4 34	22 36	1 3	25 37	2 9	23 0	1 36	11 12	1 18	11 35	2 38	20 44	0 33	22 15	0 57	15 48	7 19	13 7	12 52	14 21	14 52	7 10	
F 14	18 44	17 24	5 1	22 20	0 49	25 37	2 10	22 54	1 35	11 11	1 17	11 33	2 38	20 44	0 33	22 15	0 57	15 48	7 19	13 6	12 51	14 20	14 52	7 11	
S 15	18 58	15 14	5 13	22 4	0 34	25 37	2 11	22 47	1 35	11 10	1 17	11 32	2 38	20 44	0 33	22 15	0 57	15 48	7 19	13 5	12 49	14 18	14 52	7 11	
S 16	19 12	12 27	5 13	21 45	0 18	25 35	2 13	22 41	1 34	11 8	1 17	11 31	2 38	20 45	0 34	22 15	0 57	15 49	7 19	13 4	12 48	14 17	14 51	7 12	
M17	19 26	9 10	4 59	21 26	0 1	25 33	2 14	22 34	1 34	11 7	1 17	11 30	2 38	20 45	0 34	22 15	0 57	15 49	7 19	13 4	12 47	14 15	14 51	7 12	
T 18	19 39	5 29	4 32	21 6	0s16	25 31	2 15	22 27	1 33	11 6	1 17	11 28	2 38	20 45	0 34	22 15	0 57	15 49	7 19	13 4	12 46	14 14	14 51	7 13	
W19	19 52	1 32	3 52	20 44	0 33	25 28	2 16	22 19	1 33	11 4	1 16	11 27	2 37	20 45	0 34	22 16	0 57	15 49	7 19	13 4	12 45	14 12	14 50	7 13	
T 20	20 5	2s35	3 1	20 22	0 50	25 24	2 17	22 12	1 32	11 3	1 16	11 26	2 37	20 45	0 34	22 16	0 57	15 49	7 19	13 5	12 44	14 11	14 50	7 14	
F 21	20 17	6 41	2 0	19 59	1 8	25 19	2 18	22 5	1 32	11 1	1 16	11 25	2 37	20 45	0 34	22 16	0 57	15 50	7 19	13 6	12 43	14 9	14 50	7 14	
S 22	20 29	10 36	0 51	19 36	1 25	25 14	2 18	21 57	1 31	11 0	1 16	11 24	2 37	20 46	0 34	22 16	0 57	15 50	7 19	13 6	12 42	14 8	14 50	7 15	
S 23	20 40	14 5	0n22	19 13	1 42	25 8	2 19	21 49	1 31	10 58	1 16	11 23	2 37	20 46	0 34	22 16	0 57	15 50	7 18	13 6	12 41	14 6	14 50	7 15	
M24	20 52	16 54	1 37	18 50	1 59	25 1	2 19	21 42	1 30	10 57	1 16	11 22	2 37	20 46	0 34	22 16	0 57	15 50	7 18	13 6	12 40	14 4	14 49	7 16	
T 25	21 2	18 45	2 47	18 28	2 15	24 54	2 20	21 34	1 30	10 55	1 15	11 20	2 37	20 46	0 34	22 16	0 57	15 50	7 18	13 5	12 39	14 3	14 49	7 16	
W26	21 13	19 25	3 48	18 6	2 31	24 46	2 20	21 26	1 29	10 53	1 15	11 19	2 36	20 47	0 34	22 16	0 57	15 51	7 18	13 4	12 38	14 1	14 49	7 17	
T 27	21 23	18 47	4 34	17 46	2 45	24 38	2 20	21 17	1 29	10 51	1 15	11 18	2 36	20 47	0 34	22 16	0 57	15 51	7 18	13 2	12 36	14 0	14 49	7 17	
F 28	21 33	16 55	5 3	17 26	2 59	24 29	2 20	21 9	1 28	10 49	1 15	11 17	2 36	20 47	0 34	22 16	0 57	15 51	7 18	13 1	12 35	13 58	14 49	7 18	
S 29	21 42	13 57	5 12	17 8	3 11	24 19	2 20	21 0	1 28	10 47	1 15	11 16	2 36	20 47	0 34	22 16	0 57	15 51	7 18	12 59	12 34	13 57	14 49	7 18	
S 30	21 51	10 10	5 0	16 52	3 23	24 8	2 20	20 52	1 27	10 45	1 14	11 15	2 36	20 48	0 34	22 16	0 57	15 51	7 18	12 58	12 33	13 55	14 49	7 18	
M31	22n 0	5s51	4n31	16n37	3s33	23n57	2n20	20n43	1n27	10n43	1n14	11s14	2n36	20s48	0s34	22s16	0n57	15n51	7s18	12s58	12s32	13n54	14s48	7n19	

ASTRODIENST EPHEMERIS for the year 1660

geocentric

JUNE 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 40 32	10II59'22	17K58	29°R15	23S16	4Ω29	5♂26	6°R23	29°R42	8°R21	20II27	4♂16	2♂57	5Ω49	19°R33	T 1
W 2	16 44 28	11°56'45	1Y42	29B 0	24°23	5° 4	5°32	6♂20	29S40	8S19	20°29	4°17	2°54	5°56	19S30	W 2
T 3	16 48 25	12°54'07	15° 9	28°49	25°29	5°39	5°37	6°17	29°39	8°18	20°30	4°18	2°51	6° 2	19°27	T 3
F 4	16 52 21	13°51'29	28°22	28°43	26°36	6°15	5°43	6°14	29°38	8°17	20°32	4°R20	2°48	6° 9	19°25	F 4
S 5	16 56 18	14°48'51	11B22	28°D41	27°42	6°50	5°49	6°10	29°36	8°15	20°33	4°19	2°44	6°16	19°22	S 5
S 6	17 0 14	15°46'12	24° 9	28°43	28°48	7°25	5°55	6° 7	29°35	8°14	20°34	4°18	2°41	6°22	19°19	S 6
M 7	17 4 11	16°43'32	6II45	28°50	29°54	8° 1	6° 1	6° 5	29°33	8°12	20°36	4°14	2°38	6°29	19°17	M 7
T 8	17 8 8	17°40'52	19°10	29° 1	0Ω59	8°36	6° 8	6° 2	29°32	8°11	20°37	4° 8	2°35	6°36	19°14	T 8
W 9	17 12 4	18°38'11	1S25	29°17	2° 5	9°12	6°14	5°59	29°30	8° 9	20°39	4° 1	2°32	6°43	19°11	W 9
T 10	17 16 1	19°35'29	13°32	29°37	3°10	9°47	6°21	5°56	29°28	8° 8	20°40	3°53	2°29	6°49	19° 8	T 10
F 11	17 19 57	20°32'47	25°32	0II 2	4°15	10°23	6°28	5°54	29°27	8° 6	20°41	3°44	2°25	6°56	19° 5	F 11
S 12	17 23 54	21°30'04	7Ω26	0°31	5°20	10°58	6°35	5°51	29°25	8° 5	20°43	3°36	2°22	7° 3	19° 2	S 12
S 13	17 27 50	22°27'20	19°17	1° 5	6°24	11°34	6°42	5°49	29°23	8° 3	20°44	3°30	2°19	7°10	18°59	S 13
M14	17 31 47	23°24'36	1♂10	1°43	7°29	12°10	6°49	5°47	29°21	8° 2	20°46	3°25	2°16	7°16	18°56	M14
T 15	17 35 43	24°21'50	13° 7	2°26	8°33	12°45	6°56	5°44	29°20	8° 0	20°47	3°23	2°13	7°23	18°52	T 15
W16	17 39 40	25°19'04	25°14	3°12	9°37	13°21	7° 4	5°42	29°18	7°58	20°49	3°D22	2°10	7°30	18°49	W16
T 17	17 43 37	26°16'18	7B35	4° 3	10°40	13°57	7°11	5°40	29°16	7°57	20°50	3°22	2° 6	7°36	18°46	T 17
F 18	17 47 33	27°13'31	20°15	4°58	11°44	14°33	7°19	5°38	29°14	7°55	20°51	3°23	2° 3	7°43	18°43	F 18
S 19	17 51 30	28°10'43	3♂19	5°56	12°47	15° 9	7°27	5°36	29°12	7°54	20°53	3°R24	2° 0	7°50	18°39	S 19
S 20	17 55 26	29° 7'54	16°50	6°59	13°50	15°45	7°35	5°35	29°10	7°52	20°54	3°23	1°57	7°57	18°36	S 20
M21	17 59 23	0S5 0'06	0K48	8° 6	14°52	16°21	7°43	5°33	29° 8	7°51	20°56	3°20	1°54	8° 3	18°33	M21
T 22	18 3 19	1° 2'17	15°13	9°16	15°55	16°57	7°51	5°31	29° 6	7°49	20°57	3°15	1°50	8°10	18°29	T 22
W23	18 7 16	1°59'27	29°59	10°30	16°57	17°33	7°59	5°30	29° 4	7°47	20°58	3° 8	1°47	8°17	18°26	W23
T 24	18 11 12	2°56'38	15S 0	11°48	17°58	18° 9	8° 8	5°28	29° 2	7°46	21° 0	3° 0	1°44	8°24	18°22	T 24
F 25	18 15 9	3°53'48	0B 6	13°10	19° 0	18°45	8°16	5°27	29° 0	7°44	21° 1	2°51	1°41	8°30	18°19	F 25
S 26	18 19 6	4°50'58	15° 6	14°35	20° 1	19°21	8°25	5°26	28°58	7°42	21° 3	2°43	1°38	8°37	18°15	S 26
S 27	18 23 2	5°48'09	29°53	16° 4	21° 2	19°57	8°33	5°25	28°56	7°41	21° 4	2°36	1°35	8°44	18°12	S 27
M28	18 26 59	6°45'19	14K20	17°36	22° 2	20°34	8°42	5°23	28°54	7°39	21° 5	2°32	1°31	8°50	18° 8	M28
T 29	18 30 55	7°42'30	28°25	19°12	23° 2	21°10	8°51	5°23	28°51	7°38	21° 7	2°30	1°28	8°57	18° 5	T 29
W30	18 34 52	8S39'41	12Y 6	20II52	24Ω 2	21Ω46	9♂ 0	5♂22	28S49	7S36	21II 8	2°D30	1♂25	9Ω 4	18S 1	W30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
T 1	22n 8	1s18	3n46	16n25	3s42	23n46	2n20	20n34	1n26	10n41	1n14	11s14	2n35	20s48	0s34	22s16	0n57	15n52	7s18	12s58	12s31	13n52	14s48	7n19	
W 2	22 16	3n15	2 48	16 14	3 50	23 34	2 19	20 25	1 26	10 39	1 14	11 13	2 35	20 49	0 34	22 17	0 57	15 52	7 18	12 58	12 30	13 50	14 48	7 20	
T 3	22 23	7 33	1 42	16 5	3 56	23 21	2 19	20 16	1 25	10 36	1 14	11 12	2 35	20 49	0 34	22 17	0 57	15 52	7 18	12 59	12 29	13 49	14 48	7 20	
F 4	22 30	11 25	0 32	15 59	4 1	23 8	2 18	20 7	1 25	10 34	1 14	11 11	2 35	20 49	0 34	22 17	0 57	15 52	7 17	12 59	12 28	13 47	14 48	7 20	
S 5	22 37	14 40	0s38	15 55	4 5	22 54	2 17	19 57	1 24	10 32	1 13	11 10	2 35	20 50	0 34	22 17	0 57	15 52	7 17	12 59	12 27	13 46	14 48	7 21	
S 6	22 43	17 8	1 45	15 52	4 8	22 39	2 16	19 48	1 24	10 29	1 13	11 9	2 34	20 50	0 34	22 17	0 57	15 52	7 17	12 58	12 26	13 44	14 48	7 21	
M 7	22 49	18 44	2 46	15 52	4 10	22 25	2 15	19 38	1 23	10 27	1 13	11 9	2 34	20 50	0 34	22 17	0 57	15 53	7 17	12 57	12 25	13 43	14 48	7 22	
T 8	22 55	19 25	3 38	15 54	4 10	22 9	2 14	19 28	1 23	10 24	1 13	11 8	2 34	20 51	0 34	22 17	0 57	15 53	7 17	12 55	12 23	13 41	14 48	7 22	
W 9	23 0	19 9	4 20	15 58	4 9	21 53	2 13	19 18	1 22	10 22	1 13	11 7	2 34	20 51	0 34	22 17	0 57	15 53	7 17	12 53	12 22	13 39	14 48	7 22	
T 10	23 4	18 1	4 48	16 4	4 7	21 37	2 11	19 8	1 22	10 19	1 13	11 7	2 34	20 51	0 34	22 17	0 57	15 53	7 17	12 50	12 21	13 38	14 48	7 23	
F 11	23 9	16 5	5 4	16 12	4 5	21 20	2 10	18 58	1 21	10 17	1 12	11 6	2 33	20 52	0 34	22 17	0 57	15 53	7 17	12 47	12 20	13 36	14 49	7 23	
S 12	23 12	13 30	5 7	16 22	4 1	21 2	2 8	18 48	1 20	10 14	1 12	11 5	2 33	20 52	0 34	22 17	0 57	15 53	7 17	12 44	12 19	13 35	14 49	7 23	
S 13	23 16	10 23	4 56	16 33	3 56	20 44	2 6	18 38	1 20	10 11	1 12	11 5	2 33	20 52	0 34	22 18	0 57	15 53	7 17	12 42	12 18	13 33	14 49	7 24	
M14	23 19	6 50	4 32	16 46	3 51	20 26	2 4	18 27	1 19	10 8	1 12	11 4	2 33	20 53	0 34	22 18	0 57	15 54	7 17	12 41	12 17	13 31	14 49	7 24	
T 15	23 22	3 0	3 57	17 1	3 45	20 7	2 2	18 16	1 19	10 5	1 12	11 4	2 32	20 53	0 34	22 18	0 57	15 54	7 17	12 40	12 16	13 30	14 49	7 24	
W16	23 24	1s 1	3 10	17 16	3 38	19 48	2 0	18 6	1 18	10 2	1 12	11 3	2 32	20 54	0 34	22 18	0 57	15 54	7 17	12 39	12 15	13 28	14 49	7 24	
T 17	23 26	5 4	2 14	17 33	3 30	19 29	1 58	17 55	1 18	10 0	1 11	11 3	2 32	20 54	0 34	22 18	0 57	15 54	7 17	12 40	12 14	13 27	14 49	7 25	
F 18	23 27	9 1	1 10	17 51	3 22	19 9	1 55	17 44	1 17	9 57	1 11	11 2	2 32	20 55	0 34	22 18	0 57	15 54	7 17	12 40	12 12	13 25	14 49	7 25	
S 19	23 28	12 39	0 0	18 10	3 13	18 48	1 53	17 33	1 17	9 53	1 11	11 2	2 31	20 55	0 34	22 18	0 57	15 54	7 17	12 40	12 11	13 24	14 50	7 25	
S 20	23 29	15 45	1n11	18 30	3 3	18 27	1 50	17 22	1 16	9 50	1 11	11 2	2 31	20 55	0 35	22 18	0 57	15 54	7 17	12 40	12 10	13 22	14 50	7 25	
M21	23 29	18 3	2 21	18 51	2 53	18 6	1 47	17 10	1 16	9 47	1 11	11 1	2 31	20 56	0 35	22 18	0 57	15 54	7 17	12 39	12 9	13 20	14 50	7 26	
T 22	23 29	19 17	3 24	19 12	2 43	17 45	1 44	16 59	1 15	9 44	1 11	11 1	2 31	20 56	0 35	22 18	0 57	15 55	7 17	12 37	12 8	13 19	14 50	7 26	
W23	23 28	19 14	4 15	19 33	2 32	17 23	1 41	16 47	1 15	9 41	1 11	11 1	2 30	20 57	0 35	22 18	0 57	15 55	7 17	12 35	12 7	13 17	14 51	7 26	
T 24	23 27	17 51	4 49	19 55	2 20	17 1	1 37	16 36	1 14	9 38	1 10	11 0	2 30	20 57	0 35	22 19	0 57	15 55	7 17	12 32	12 6	13 16	14 51	7 26	
F 25	23 25	15 13	5 4	20 17	2 9	16 39	1 34	16 24	1 14	9 34	1 10	11 0	2 30	20 58	0 35	22 19	0 57	15 55	7 17	12 29	12 5	13 14	14 51	7 26	
S 26	23 24	11 36	4 57	20 39	1 57	16 16	1 30	16 12	1 13	9 31	1 10	11 0	2 30	20 58	0 35	22 19	0 57	15 55	7 17	12 26	12 4	13 12	14 51	7 27	
S 27	23 21	7 18	4 31	21 1	1 45	15 53	1 27	16 0	1 13	9 27	1 10	11 0	2 29	20 58	0 35	22 19	0 57	15 55	7 17	12 24	12 3	13 11	14 52	7 27	
M28	23 19	2 41	3 47	21 22	1 33	15 30	1 23	15 48	1 12	9 24	1 10	11 0	2 29	20 59	0 35	22 19	0 57	15 55	7 17	12 23	12 1	13 9	14 52	7 27	
T 29	23 15	1n59	2 51	21 43	1 20	15 6	1 19	15 36	1 12	9 21	1 10	11 0	2 29	20 59	0 35	22 19	0 57	15 55	7 17	12 22	12 0	13 7	14 52	7 27	
W30	23n12	6n25	1n47	22n 3	1s 8	14n42	1n15	15n24	1n11	9n17	1n10	11s 0	2n29	21s 0	0s35	22s19	0n57	15n55	7s17	12s22	11s59	13n 6	14s53	7n27	

Julian Day Number = 2327514.5, Delta T = 36.10 sec

Ecliptic obliquity = 23°28'52, Nutation = 0°00'09, out-of-bounds declination in red

Ayanamsha: Fagan/Bradley = 20°00'01, Lahiri = 19°07'02Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1660

geocentric

JULY 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	18 38 48	9 ⁵ 36'53	25 ⁵ 25	22 ¹¹ 34	25 ⁵ 2	22 ⁵ 23	9 ¹¹ 9	5 ⁵ R21	28 ⁵ R47	7 ⁵ R34	21 ¹¹ 10	2 ⁵ R30	1 ¹¹ 22	9 ⁵ 11	17 ⁵ R58	T 1
F 2	18 42 45	10 ⁵ 34'05	8 ⁵ 25	24 ⁵ 20	26 ⁵ 1	22 ⁵ 59	9 ⁵ 19	5 ¹¹ 20	28 ⁵ 45	7 ⁵ 33	21 ⁵ 11	2 ¹¹ 30	1 ⁵ 19	9 ⁵ 17	17 ⁵ 54	F 2
S 3	18 46 41	11 ⁵ 31'17	21 ⁵ 9	26 ⁵ 9	26 ⁵ 59	23 ⁵ 35	9 ⁵ 28	5 ⁵ 20	28 ⁵ 43	7 ⁵ 31	21 ⁵ 12	2 ⁵ 29	1 ⁵ 16	9 ⁵ 24	17 ⁵ 50	S 3
S 4	18 50 38	12 ⁵ 28'30	3 ¹¹ 40	28 ⁵ 1	27 ⁵ 58	24 ⁵ 12	9 ⁵ 37	5 ⁵ 19	28 ⁵ 40	7 ⁵ 29	21 ⁵ 14	2 ⁵ 25	1 ⁵ 12	9 ⁵ 31	17 ⁵ 47	S 4
M 5	18 54 35	13 ⁵ 25'43	16 ⁵ 0	29 ⁵ 56	28 ⁵ 56	24 ⁵ 49	9 ⁵ 47	5 ⁵ 19	28 ⁵ 38	7 ⁵ 28	21 ⁵ 15	2 ⁵ 19	1 ⁵ 9	9 ⁵ 37	17 ⁵ 43	M 5
T 6	18 58 31	14 ⁵ 22'56	28 ⁵ 12	19 ⁵ 53	29 ⁵ 53	25 ⁵ 25	9 ⁵ 57	5 ⁵ 18	28 ⁵ 36	7 ⁵ 26	21 ⁵ 16	2 ⁵ 10	1 ⁵ 6	9 ⁵ 44	17 ⁵ 39	T 6
W 7	19 2 28	15 ⁵ 20'10	10 ⁵ 17	3 ⁵ 53	0 ¹¹ 50	26 ⁵ 2	10 ⁵ 6	5 ⁵ 18	28 ⁵ 33	7 ⁵ 25	21 ⁵ 18	1 ⁵ 58	1 ⁵ 3	9 ⁵ 51	17 ⁵ 36	W 7
T 8	19 6 24	16 ⁵ 17'24	22 ⁵ 16	5 ⁵ 55	1 ⁵ 47	26 ⁵ 38	10 ⁵ 16	5 ⁵ D18	28 ⁵ 31	7 ⁵ 23	21 ⁵ 19	1 ⁵ 45	1 ⁵ 0	9 ⁵ 58	17 ⁵ 32	T 8
F 9	19 10 21	17 ⁵ 14'38	4 ⁵ 11	7 ⁵ 59	2 ⁵ 43	27 ⁵ 15	10 ⁵ 26	5 ⁵ 18	28 ⁵ 29	7 ⁵ 21	21 ⁵ 20	1 ⁵ 32	0 ⁵ 56	10 ⁵ 4	17 ⁵ 29	F 9
S 10	19 14 17	18 ⁵ 11'53	16 ⁵ 3	10 ⁵ 4	3 ⁵ 39	27 ⁵ 52	10 ⁵ 36	5 ⁵ 18	28 ⁵ 26	7 ⁵ 20	21 ⁵ 22	1 ⁵ 20	0 ⁵ 53	10 ⁵ 11	17 ⁵ 25	S 10
S 11	19 18 14	19 ⁵ 9'08	27 ⁵ 54	12 ⁵ 10	4 ⁵ 34	28 ⁵ 29	10 ⁵ 46	5 ⁵ 19	28 ⁵ 24	7 ⁵ 18	21 ⁵ 23	1 ⁵ 9	0 ⁵ 50	10 ⁵ 18	17 ⁵ 21	S 11
M 12	19 22 10	20 ⁵ 6'23	9 ¹¹ 46	14 ⁵ 17	5 ⁵ 28	29 ⁵ 6	10 ⁵ 56	5 ⁵ 19	28 ⁵ 22	7 ⁵ 17	21 ⁵ 24	1 ⁵ 0	0 ⁵ 47	10 ⁵ 25	17 ⁵ 18	M 12
T 13	19 26 7	21 ⁵ 3'38	21 ⁵ 43	16 ⁵ 25	6 ⁵ 22	29 ⁵ 42	11 ⁵ 7	5 ⁵ 19	28 ⁵ 19	7 ⁵ 15	21 ⁵ 25	0 ⁵ 55	0 ⁵ 44	10 ⁵ 31	17 ⁵ 14	T 13
W 14	19 30 4	22 ⁵ 0'53	3 ⁵ 48	18 ⁵ 33	7 ⁵ 16	0 ¹¹ 19	11 ⁵ 17	5 ⁵ 20	28 ⁵ 17	7 ⁵ 14	21 ⁵ 27	0 ⁵ 52	0 ⁵ 41	10 ⁵ 38	17 ⁵ 10	W 14
T 15	19 34 0	22 ⁵ 58'09	16 ⁵ 7	20 ⁵ 42	8 ⁵ 9	0 ⁵ 56	11 ⁵ 27	5 ⁵ 20	28 ⁵ 15	7 ⁵ 12	21 ⁵ 28	0 ⁵ 51	0 ⁵ 37	10 ⁵ 45	17 ⁵ 7	T 15
F 16	19 37 57	23 ⁵ 55'25	28 ⁵ 43	22 ⁵ 49	9 ⁵ 1	1 ⁵ 33	11 ⁵ 38	5 ⁵ 21	28 ⁵ 12	7 ⁵ 11	21 ⁵ 29	0 ⁵ 51	0 ⁵ 34	10 ⁵ 51	17 ⁵ 3	F 16
S 17	19 41 53	24 ⁵ 52'41	11 ¹¹ 43	24 ⁵ 57	9 ⁵ 53	2 ⁵ 10	11 ⁵ 48	5 ⁵ 22	28 ⁵ 10	7 ⁵ 9	21 ⁵ 30	0 ⁵ 50	0 ⁵ 31	10 ⁵ 58	17 ⁵ 0	S 17
S 18	19 45 50	25 ⁵ 49'58	25 ⁵ 9	27 ⁵ 4	10 ⁵ 44	2 ⁵ 47	11 ⁵ 59	5 ⁵ 23	28 ⁵ 7	7 ⁵ 7	21 ⁵ 32	0 ⁵ 49	0 ⁵ 28	11 ⁵ 5	16 ⁵ 56	S 18
M 19	19 49 46	26 ⁵ 47'15	9 ⁵ 5	29 ⁵ 9	11 ⁵ 35	3 ⁵ 24	12 ⁵ 10	5 ⁵ 24	28 ⁵ 5	7 ⁵ 6	21 ⁵ 33	0 ⁵ 45	0 ⁵ 25	11 ⁵ 12	16 ⁵ 52	M 19
T 20	19 53 43	27 ⁵ 44'33	23 ⁵ 30	1 ⁵ 14	12 ⁵ 25	4 ⁵ 2	12 ⁵ 21	5 ⁵ 25	28 ⁵ 3	7 ⁵ 4	21 ⁵ 34	0 ⁵ 39	0 ⁵ 22	11 ⁵ 18	16 ⁵ 49	T 20
W 21	19 57 39	28 ⁵ 41'51	8 ⁵ 21	3 ⁵ 18	13 ⁵ 14	4 ⁵ 39	12 ⁵ 31	5 ⁵ 26	28 ⁵ 0	7 ⁵ 3	21 ⁵ 35	0 ⁵ 31	0 ⁵ 18	11 ⁵ 25	16 ⁵ 45	W 21
T 22	20 1 36	29 ⁵ 39'09	23 ⁵ 31	5 ⁵ 20	14 ⁵ 2	5 ⁵ 16	12 ⁵ 42	5 ⁵ 27	27 ⁵ 58	7 ⁵ 2	21 ⁵ 36	0 ⁵ 20	0 ⁵ 15	11 ⁵ 32	16 ⁵ 42	T 22
F 23	20 5 33	0 ⁵ 36'29	8 ⁵ 50	7 ⁵ 21	14 ⁵ 50	5 ⁵ 53	12 ⁵ 53	5 ⁵ 29	27 ⁵ 55	7 ⁵ 0	21 ⁵ 37	0 ⁵ 10	0 ⁵ 12	11 ⁵ 38	16 ⁵ 38	F 23
S 24	20 9 29	1 ⁵ 33'49	24 ⁵ 6	9 ⁵ 20	15 ⁵ 36	6 ⁵ 31	13 ⁵ 5	5 ⁵ 30	27 ⁵ 53	6 ⁵ 59	21 ⁵ 39	29 ⁵ 59	0 ⁵ 9	11 ⁵ 45	16 ⁵ 35	S 24
S 25	20 13 26	2 ⁵ 31'10	9 ⁵ 9	11 ⁵ 18	16 ⁵ 22	7 ⁵ 8	13 ⁵ 16	5 ⁵ 32	27 ⁵ 51	6 ⁵ 57	21 ⁵ 40	29 ⁵ 51	0 ⁵ 6	11 ⁵ 52	16 ⁵ 31	S 25
M 26	20 17 22	3 ⁵ 28'32	23 ⁵ 49	13 ⁵ 14	17 ⁵ 7	7 ⁵ 45	13 ⁵ 27	5 ⁵ 33	27 ⁵ 48	6 ⁵ 56	21 ⁵ 41	29 ⁵ 46	0 ⁵ 2	11 ⁵ 59	16 ⁵ 28	M 26
T 27	20 21 19	4 ⁵ 25'55	8 ⁵ 4	15 ⁵ 9	17 ⁵ 52	8 ⁵ 23	13 ⁵ 38	5 ⁵ 35	27 ⁵ 46	6 ⁵ 54	21 ⁵ 42	29 ⁵ 43	29 ⁵ 59	12 ⁵ 5	16 ⁵ 25	T 27
W 28	20 25 15	5 ⁵ 23'19	21 ⁵ 51	17 ⁵ 2	18 ⁵ 35	9 ⁵ 0	13 ⁵ 50	5 ⁵ 37	27 ⁵ 43	6 ⁵ 53	21 ⁵ 43	29 ⁵ 42	29 ⁵ 56	12 ⁵ 12	16 ⁵ 21	W 28
T 29	20 29 12	6 ⁵ 20'45	5 ⁵ 11	18 ⁵ 54	19 ⁵ 17	9 ⁵ 38	14 ⁵ 1	5 ⁵ 39	27 ⁵ 41	6 ⁵ 52	21 ⁵ 44	29 ⁵ 42	29 ⁵ 53	12 ⁵ 19	16 ⁵ 18	T 29
F 30	20 33 8	7 ⁵ 18'12	18 ⁵ 8	20 ⁵ 44	19 ⁵ 59	10 ⁵ 15	14 ⁵ 12	5 ⁵ 41	27 ⁵ 39	6 ⁵ 50	21 ⁵ 45	29 ⁵ 41	29 ⁵ 50	12 ⁵ 26	16 ⁵ 15	F 30
S 31	20 37 5	8 ⁵ 15'40	0 ¹¹ 46	22 ⁵ 32	20 ⁵ 39	10 ⁵ 53	14 ⁵ 24	5 ⁵ 43	27 ⁵ 36	6 ⁵ 49	21 ⁵ 46	29 ⁵ 40	29 ⁵ 47	12 ⁵ 32	16 ⁵ 11	S 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
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ASTRODIENST EPHEMERIS for the year 1660

geocentric

AUGUST 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	20 41 2	9♏13'09	13♐ 8	24♏19	21♐18	11♐30	14♐36	5♐45	27°R34	6°R48	21♐47	29°R36	29♏43	12♏39	16°R 8	S 1
M 2	20 44 58	10°10'40	25°19	26° 4	21°56	12° 8	14°47	5°48	27♐32	6♐46	21°48	29♏29	29°40	12°46	16♐ 5	M 2
T 3	20 48 55	11° 8'12	7♏22	27°48	22°33	12°46	14°59	5°50	27°29	6°45	21°49	29°20	29°37	12°52	16° 2	T 3
W 4	20 52 51	12° 5'45	19°19	29°30	23° 9	13°24	15°11	5°52	27°27	6°44	21°50	29° 8	29°34	12°59	15°59	W 4
T 5	20 56 48	13° 3'19	1♏13	1♐11	23°44	14° 1	15°23	5°55	27°25	6°43	21°51	28°55	29°31	13° 6	15°56	T 5
F 6	21 0 44	14° 0'55	13° 5	2°50	24°17	14°39	15°34	5°58	27°22	6°41	21°52	28°42	29°27	13°13	15°53	F 6
S 7	21 4 41	14°58'32	24°57	4°27	24°49	15°17	15°46	6° 0	27°20	6°40	21°53	28°29	29°24	13°19	15°50	S 7
S 8	21 8 37	15°56'10	6♐49	6° 3	25°20	15°55	15°58	6° 3	27°18	6°39	21°54	28°18	29°21	13°26	15°47	S 8
M 9	21 12 34	16°53'49	18°45	7°38	25°49	16°33	16°10	6° 6	27°16	6°38	21°55	28° 9	29°18	13°33	15°44	M 9
T 10	21 16 31	17°51'29	0♏46	9°10	26°16	17°11	16°22	6° 9	27°14	6°37	21°56	28° 3	29°15	13°39	15°41	T 10
W11	21 20 27	18°49'10	12°55	10°42	26°42	17°49	16°35	6°12	27°11	6°36	21°57	28° 0	29°12	13°46	15°38	W11
T 12	21 24 24	19°46'53	25°15	12°12	27° 7	18°27	16°47	6°16	27° 9	6°35	21°57	27°D59	29° 8	13°53	15°36	T 12
F 13	21 28 20	20°44'36	7♐52	13°40	27°30	19° 5	16°59	6°19	27° 7	6°33	21°58	28° 0	29° 5	14° 0	15°33	F 13
S 14	21 32 17	21°42'21	20°48	15° 7	27°51	19°43	17°11	6°22	27° 5	6°32	21°59	28°R 0	29° 2	14° 6	15°30	S 14
S 15	21 36 13	22°40'07	4♐ 9	16°32	28°10	20°22	17°24	6°26	27° 3	6°31	22° 0	27°59	28°59	14°13	15°28	S 15
M16	21 40 10	23°37'53	17°57	17°56	28°27	21° 0	17°36	6°29	27° 1	6°30	22° 1	27°57	28°56	14°20	15°25	M16
T 17	21 44 6	24°35'42	2♐12	19°17	28°42	21°38	17°48	6°33	26°59	6°30	22° 1	27°52	28°53	14°26	15°23	T 17
W18	21 48 3	25°33'31	16°54	20°38	28°56	22°16	18° 1	6°37	26°57	6°29	22° 2	27°46	28°49	14°33	15°20	W18
T 19	21 52 0	26°31'21	1♏57	21°56	29° 7	22°55	18°13	6°40	26°55	6°28	22° 3	27°37	28°46	14°40	15°18	T 19
F 20	21 55 56	27°29'13	17°13	23°13	29°16	23°33	18°26	6°44	26°53	6°27	22° 4	27°28	28°43	14°47	15°16	F 20
S 21	21 59 53	28°27'07	2♐30	24°28	29°23	24°12	18°38	6°48	26°51	6°26	22° 4	27°20	28°40	14°53	15°14	S 21
S 22	22 3 49	29°25'01	17°37	25°41	29°28	24°50	18°51	6°52	26°49	6°25	22° 5	27°13	28°37	15° 0	15°11	S 22
M23	22 7 46	0♐22'58	2♐26	26°53	29°31	25°29	19° 3	6°56	26°47	6°24	22° 6	27° 9	28°33	15° 7	15° 9	M23
T 24	22 11 42	1°20'56	16°50	28° 2	29°R31	26° 7	19°16	7° 0	26°45	6°24	22° 6	27° 6	28°30	15°13	15° 7	T 24
W25	22 15 39	2°18'56	0♏45	29° 9	29°29	26°46	19°28	7° 5	26°43	6°23	22° 7	27°D 6	28°27	15°20	15° 5	W25
T 26	22 19 35	3°16'59	14°12	0♏14	29°25	27°25	19°41	7° 9	26°42	6°22	22° 7	27° 7	28°24	15°27	15° 3	T 26
F 27	22 23 32	4°15'03	27°13	1°16	29°18	28° 3	19°54	7°13	26°40	6°21	22° 8	27° 8	28°21	15°34	15° 2	F 27
S 28	22 27 29	5°13'09	9♐52	2°16	29° 9	28°42	20° 6	7°18	26°38	6°21	22° 8	27°R 8	28°18	15°40	15° 0	S 28
S 29	22 31 25	6°11'17	22°13	3°14	28°58	29°21	20°19	7°22	26°36	6°20	22° 9	27° 6	28°14	15°47	14°58	S 29
M30	22 35 22	7° 9'27	4♏21	4° 9	28°44	29°59	20°32	7°27	26°35	6°20	22° 9	27° 3	28°11	15°54	14°57	M30
T 31	22 39 18	8♐ 7'39	16♏20	5♏ 0	28♐28	0♏39	20♐45	7♐32	26♐33	6♐19	22♐10	26♏57	28♏ 8	16♏ 1	14♐55	T 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
S 1	17n59	18n58	3s28	14n45	1n23	1n15	2s24	8n 6	0n55	7n 6	1n 6	11s16	2n20	21s15	0s35	22s22	0n56	15n57	7s18	11s21	11s24	12n14	15s 8	7n25			
M 2	17 43	19 15	4 9	14 4	1 18	0 51	2 33	7 51	0 54	7 1	1 6	11 17	2 20	21 16	0 35	22 23	0 56	15 56	7 18	11 19	11 23	12 12	15 8	7 25			
T 3	17 28	18 38	4 39	13 23	1 12	0 28	2 43	7 36	0 54	6 57	1 6	11 18	2 20	21 16	0 35	22 23	0 56	15 56	7 18	11 15	11 21	12 10	15 9	7 25			
W 4	17 12	17 12	4 56	12 42	1 7	0 5	2 53	7 21	0 53	6 52	1 6	11 19	2 19	21 17	0 35	22 23	0 56	15 56	7 18	11 11	11 20	12 9	15 10	7 25			
T 5	16 56	15 2	5 0	12 1	1 0	0s18	3 3	7 6	0 53	6 47	1 6	11 20	2 19	21 17	0 35	22 23	0 56	15 56	7 18	11 7	11 19	12 7	15 10	7 24			
F 6	16 39	12 16	4 51	11 19	0 54	0 41	3 13	6 51	0 52	6 43	1 6	11 21	2 19	21 18	0 35	22 23	0 56	15 56	7 18	11 2	11 18	12 5	15 11	7 24			
S 7	16 22	8 59	4 30	10 37	0 47	1 3	3 23	6 36	0 51	6 38	1 6	11 22	2 19	21 18	0 35	22 23	0 56	15 56	7 18	10 57	11 17	12 4	15 12	7 24			
S 8	16 5	5 22	3 56	9 55	0 40	1 25	3 34	6 21	0 51	6 33	1 6	11 23	2 18	21 18	0 35	22 23	0 56	15 56	7 18	10 53	11 16	12 2	15 12	7 24			
M 9	15 48	1 31	3 12	9 13	0 32	1 46	3 44	6 6	0 50	6 29	1 6	11 24	2 18	21 19	0 35	22 23	0 56	15 56	7 18	10 50	11 15	12 0	15 13	7 23			
T 10	15 30	2s26	2 19	8 31	0 25	2 7	3 55	5 50	0 50	6 24	1 6	11 26	2 18	21 19	0 35	22 23	0 56	15 56	7 19	10 48	11 14	11 59	15 13	7 23			
W11	15 13	6 20	1 19	7 50	0 17	2 27	4 6	5 35	0 49	6 19	1 6	11 27	2 18	21 20	0 35	22 23	0 56	15 56	7 19	10 47	11 12	11 57	15 14	7 23			
T 12	14 55	10 1	0 15	7 8	0 9	2 47	4 17	5 19	0 49	6 14	1 6	11 28	2 17	21 20	0 35	22 23	0 56	15 56	7 19	10 47	11 11	11 55	15 15	7 22			
F 13	14 36	13 20	0n52	6 26	0 0	3 6	4 28	5 4	0 48	6 10	1 6	11 29	2 17	21 21	0 35	22 24	0 56	15 56	7 19	10 47	11 10	11 54	15 15	7 22			
S 14	14 18	16 5	1 58	5 45	0s 8	3 24	4 39	4 49	0 48	6 5	1 6	11 31	2 17	21 21	0 35	22 24	0 56	15 56	7 19	10 47	11 9	11 52	15 16	7 22			
S 15	13 59	18 4	3 0	5 4	0 17	3 42	4 50	4 33	0 47	6 0	1 6	11 32	2 17	21 21	0 35	22 24	0 56	15 56	7 19	10 47	11 8	11 50	15 16	7 21			
M16	13 40	19 3	3 54	4 23	0 25	4 0	5 2	4 17	0 47	5 55	1 6	11 34	2 16	21 22	0 35	22 24	0 56	15 56	7 19	10 46	11 7	11 48	15 17	7 21			
T 17	13 21	18 53	4 34	3 43	0 34	4 16	5 13	4 2	0 46	5 50	1 6	11 35	2 16	21 22	0 35	22 24	0 56	15 56	7 19	10 44	11 6	11 47	15 18	7 21			
W18	13 1	17 28	4 59	3 3	0 43	4 32	5 24	3 46	0 46	5 45	1 6	11 36	2 16	21 23	0 35	22 24	0 55	15 56	7 19	10 42	11 4	11 45	15 18	7 20			
T 19	12 42	14 50	5 3	3 24	0 52	4 47	5 36	3 30	0 45	5 40	1 6	11 38	2 16	21 23	0 35	22 24	0 55	15 56	7 19	10 39	11 3	11 43	15 19	7 20			
F 20	12 22	11 9	4 46	1 45	1 2	5 1	5 47	3 15	0 45	5 35	1 5	11 39	2 15	21 23	0 35	22 24	0 55	15 56	7 20	10 36	11 2	11 42	15 20	7 19			
S 21	12 2	6 43	4 9	1 7	1 11	5 14	5 58	2 59	0 44	5 30	1 5	11 41	2 15	21 24	0 35	22 24	0 55	15 56	7 20	10 33	11 1	11 40	15 20	7 19			
S 22	11 42	1 54	3 15	0 29	1 20	5 26	6 10	2 43	0 43	5 25	1 5	11 42	2 15	21 24	0 35	22 24	0 55	15 56	7 20	10 30	11 0	11 38	15 21	7 19			
M23	11 21	2n56	2 8	0s 8	1 30	5 38	6 21	2 27	0 43	5 21	1 5	11 44	2 15	21 24	0 35	22 24	0 55	15 56	7 20	10 28	10 59	11 37	15 22	7 18			
T 24	11 1	7 28	0 55	0 44	1 39	5 48	6 32	2 12	0 42	5 16	1 5	11 45	2 15	21 25	0 35	22 24	0 55	15 56	7 20	10 28	10 58	11 35	15 22	7 18			
W25	10 40	11 27	0s20	1 19	1 48	5 57	6 43	1 56	0 42	5 11	1 5	11 47	2 14	21 25	0 35	22 24	0 55	15 55	7 20	10 27	10 57	11 33	15 23	7 17			
T 26	10 19	14 41	1 31	1 53	1 58	6 5	6 54	1 40	0 41	5 6	1 5	11 49	2 14	21 25	0 35	22 25	0 55	15 55	7 20	10 28	10 55	11 32	15 23	7 17			
F 27	9 58	17 4	2 35	2 27	2 7	6 12	7 4	1 24	0 41	5 1	1 5	11 50	2 14	21 26	0 35	22 25	0 55	15 55	7 20	10 28	10 54	11 30	15 24	7 17			
S 28	9 37	18 31	3 29	2 59	2 16	6 18	7 14	1 8	0 40	4 56	1 5	11 52	2 14	21 26	0 35	22 25	0 55	15 55	7 20	10 28	10 53	11 28	15 25	7 16			
S 29	9 15	19 3	4 12	3 30	2 25	6 23	7 24	0 52	0 40	4 50	1 5	11 54	2 13	21 26	0 35	22 25	0 55	15 55	7 20	10 28	10 52	11 27	15 25	7 16			
M30	8 54	18 4	4 44	4 0	2 34	6 26	7 34	0 36	0 39	4 45	1 5	11 55	2 13	21 27	0 35	22 25	0 55	15 55	7 21	10 26	10 51	11 25	15 26	7 15			
T 31	8n32	17n29	5s 2	4s29	2s43	6s28	7s43	0n20	0n39	4n40	1n 5	11s57	2n13	21s27	0s35	22s25	0n55	15n55	7s21	10s24	10s50	11n23	15s27	7n15			

ASTRODIENST EPHEMERIS for the year 1660
geocentric

OCTOBER 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	0 41 31	8♂27°10	0♂29	25°R21	13°R49	21♂ 8	27♂26	10♂27	26°R 4	6♂17	22°R14	25°R43	26♂30	19♂29	14♂43	F 1
S 2	0 45 28	9°26'24	12°27	25♂ 7	13♂41	21°48	27°38	10°33	26♂ 4	6°18	22♂14	25♂41	26°26	19°35	14°44	S 2
S 3	0 49 24	10°25'41	24°32	25°D 5	13°34	22°29	27°51	10°40	26° 4	6°18	22°14	25°38	26°23	19°42	14°45	S 3
M 4	0 53 21	11°25'00	6♂47	25°13	13°31	23° 9	28° 4	10°46	26° 4	6°19	22°13	25°37	26°20	19°49	14°46	M 4
T 5	0 57 18	12°24'21	19°12	25°32	13°D29	23°50	28°17	10°53	26°D 4	6°19	22°13	25°36	26°17	19°55	14°47	T 5
W 6	1 1 14	13°23'44	1♂48	26° 0	13°30	24°30	28°30	11° 0	26° 4	6°20	22°13	25°D36	26°14	20° 2	14°49	W 6
T 7	1 5 11	14°23'10	14°37	26°38	13°34	25°11	28°42	11° 6	26° 4	6°21	22°12	25°37	26°10	20° 9	14°50	T 7
F 8	1 9 7	15°22'37	27°39	27°25	13°39	25°52	28°55	11°13	26° 4	6°21	22°12	25°38	26° 7	20°16	14°51	F 8
S 9	1 13 4	16°22'06	10♂55	28°19	13°47	26°32	29° 8	11°20	26° 4	6°22	22°12	25°39	26° 4	20°22	14°53	S 9
S 10	1 17 0	17°21'37	24°26	29°21	13°57	27°13	29°21	11°26	26° 4	6°23	22°11	25°39	26° 1	20°29	14°54	S 10
M11	1 20 57	18°21'09	8♂10	0♂29	14° 9	27°54	29°33	11°33	26° 5	6°24	22°11	25°40	25°58	20°36	14°56	M11
T 12	1 24 53	19°20'44	22°10	1°43	14°24	28°35	29°46	11°40	26° 5	6°24	22°10	25°R40	25°55	20°42	14°57	T 12
W13	1 28 50	20°20'20	6♂22	3° 2	14°40	29°16	29°58	11°47	26° 5	6°25	22°10	25°40	25°51	20°49	14°59	W13
T 14	1 32 47	21°19'57	20°46	4°24	14°59	29°57	0♂11	11°53	26° 6	6°26	22° 9	25°39	25°48	20°56	15° 1	T 14
F 15	1 36 43	22°19'37	5♂18	5°51	15°19	0♂138	0°23	12° 0	26° 6	6°27	22° 9	25°39	25°45	21° 3	15° 2	F 15
S 16	1 40 40	23°19'18	19°52	7°20	15°41	1°19	0°36	12° 7	26° 7	6°28	22° 8	25°39	25°42	21° 9	15° 4	S 16
S 17	1 44 36	24°19'01	4♂24	8°52	16° 5	2° 0	0°48	12°14	26° 8	6°29	22° 8	25°38	25°39	21°16	15° 6	S 17
M18	1 48 33	25°18'46	18°47	10°26	16°31	2°41	1° 1	12°21	26° 8	6°30	22° 7	25°38	25°35	21°23	15° 8	M18
T 19	1 52 29	26°18'32	2♂57	12° 1	16°58	3°22	1°13	12°28	26° 9	6°31	22° 7	25°38	25°32	21°29	15°11	T 19
W20	1 56 26	27°18'21	16°48	13°38	17°27	4° 4	1°25	12°35	26°10	6°32	22° 6	25°38	25°29	21°36	15°13	W20
T 21	2 0 22	28°18'12	0♂19	15°15	17°58	4°45	1°38	12°42	26°10	6°33	22° 6	25°38	25°26	21°43	15°15	T 21
F 22	2 4 19	29°18'05	13°27	16°54	18°30	5°26	1°50	12°49	26°11	6°34	22° 5	25°38	25°23	21°50	15°17	F 22
S 23	2 8 15	0♂18'01	26°14	18°32	19° 4	6° 8	2° 2	12°56	26°12	6°35	22° 4	25°37	25°20	21°56	15°20	S 23
S 24	2 12 12	1°17'58	8♂41	20°12	19°39	6°49	2°14	13° 3	26°13	6°36	22° 4	25°37	25°16	22° 3	15°22	S 24
M25	2 16 9	2°17'58	20°54	21°51	20°15	7°31	2°26	13°10	26°14	6°38	22° 3	25°36	25°13	22°10	15°25	M25
T 26	2 20 5	3°18'00	2♂54	23°31	20°53	8°12	2°38	13°17	26°15	6°39	22° 2	25°D36	25°10	22°16	15°28	T 26
W27	2 24 2	4°18'03	14°48	25°10	21°32	8°54	2°50	13°24	26°16	6°40	22° 1	25°36	25° 7	22°23	15°30	W27
T 28	2 27 58	5°18'09	26°40	26°50	22°12	9°36	3° 2	13°32	26°17	6°41	22° 1	25°37	25° 4	22°30	15°33	T 28
F 29	2 31 55	6°18'17	8♂34	28°29	22°54	10°17	3°14	13°39	26°19	6°43	22° 0	25°38	25° 1	22°36	15°36	F 29
S 30	2 35 51	7°18'28	20°34	0♂18	23°36	10°59	3°26	13°46	26°20	6°44	21°59	25°39	24°57	22°43	15°39	S 30
S 31	2 39 48	8♂18'40	2♂45	1♂47	24♂20	11♂41	3♂38	13♂53	26♂21	6♂45	21♂58	25♂40	24♂54	22♂50	15♂42	S 31

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
F 1	3s21	7n17	4s19	1n43	0s 9	0n32	6s19	7s56	0n21	2n 2	1n 6	12s58	2n 8	21s32	0s34	22s26	0n54	15n52	7s24	9s58	10s14	10n30	15s44	6n59					
S 2	3 45	3 34	3 36	2 5	0n 9	0 47	6 6	8 11	0 21	1 57	1 6	13 0	2 8	21 32	0 34	22 26	0 54	15 51	7 24	9 57	10 13	10 28	15 44	6 58					
S 3	4 8	0s20	2 43	2 21	0 26	1 2	5 54	8 27	0 20	1 52	1 6	13 2	2 7	21 32	0 34	22 26	0 54	15 51	7 25	9 56	10 12	10 27	15 44	6 58					
M 4	4 31	4 16	1 42	2 33	0 42	1 15	5 41	8 43	0 20	1 47	1 6	13 4	2 7	21 32	0 34	22 26	0 54	15 51	7 25	9 55	10 11	10 25	15 45	6 57					
T 5	4 55	8 4	0 35	2 39	0 56	1 27	5 28	8 58	0 19	1 42	1 6	13 6	2 7	21 32	0 34	22 26	0 54	15 51	7 25	9 55	10 10	10 23	15 45	6 57					
W 6	5 18	11 35	0n34	2 39	1 9	1 39	5 15	9 14	0 18	1 37	1 6	13 8	2 7	21 32	0 34	22 26	0 54	15 51	7 25	9 55	10 9	10 21	15 46	6 56					
T 7	5 41	14 36	1 43	2 34	1 21	1 50	5 2	9 29	0 18	1 32	1 6	13 10	2 7	21 32	0 34	22 26	0 54	15 51	7 25	9 55	10 7	10 20	15 46	6 56					
F 8	6 4	16 56	2 48	2 25	1 30	2 0	4 49	9 44	0 17	1 27	1 6	13 13	2 7	21 32	0 34	22 26	0 54	15 51	7 25	9 55	10 6	10 18	15 46	6 55					
S 9	6 27	18 24	3 46	2 11	1 39	2 8	4 36	10 0	0 17	1 22	1 6	13 15	2 7	21 32	0 34	22 26	0 53	15 51	7 25	9 56	10 5	10 16	15 47	6 55					
S 10	6 50	18 51	4 31	1 53	1 46	2 16	4 23	10 15	0 16	1 17	1 6	13 17	2 7	21 32	0 34	22 26	0 53	15 50	7 25	9 56	10 4	10 14	15 47	6 54					
M11	7 12	18 12	5 3	1 31	1 52	2 24	4 10	10 30	0 15	1 12	1 7	13 19	2 7	21 32	0 34	22 26	0 53	15 50	7 25	9 56	10 3	10 13	15 47	6 54					
T 12	7 35	16 27	5 17	1 5	1 56	2 30	3 58	10 45	0 15	1 7	1 7	13 21	2 6	21 31	0 34	22 26	0 53	15 50	7 26	9 56	10 2	10 11	15 48	6 53					
W13	7 58	13 41	5 12	0 37	1 59	2 35	3 45	11 0	0 14	1 2	1 7	13 23	2 6	21 31	0 34	22 26	0 53	15 50	7 26	9 56	10 0	10 9	15 48	6 53					
T 14	8 20	10 3	4 47	0 6	2 1	2 39	3 33	11 15	0 14	0 57	1 7	13 26	2 6	21 31	0 34	22 26	0 53	15 50	7 26	9 56	9 59	10 7	15 48	6 52					
F 15	8 42	5 48	4 5	0s27	2 2	2 43	3 21	11 30	0 13	0 52	1 7	13 28	2 6	21 31	0 34	22 26	0 53	15 50	7 26	9 56	9 58	10 6	15 49	6 52					
S 16	9 5	1 10	3 6	1 2	2 3	2 45	3 9	11 45	0 13	0 47	1 7	13 30	2 6	21 31	0 34	22 26	0 53	15 50	7 26	9 56	9 57	10 4	15 49	6 51					
S 17	9 27	3n31	1 55	1 39	2 2	2 47	2 57	12 0	0 12	0 42	1 7	13 32	2 6	21 31	0 34	22 26	0 53	15 50	7 26	9 56	9 56	10 2	15 49	6 51					
M18	9 49	7 58	0 38	2 17	2 1	2 47	2 45	12 15	0 11	0 37	1 7	13 34	2 6	21 31	0 34	22 26	0 53	15 49	7 26	9 56	9 55	10 0	15 50	6 50					
T 19	10 10	11 53	0s40	2 56	1 58	2 47	2 34	12 30	0 11	0 32	1 7	13 37	2 6	21 31	0 34	22 26	0 53	15 49	7 26	9 56	9 53	9 59	15 50	6 50					
W20	10 32	15 3	1 55	3 36	1 56	2 46	2 23	12 44	0 10	0 28	1 7	13 39	2 6	21 30	0 34	22 26	0 53	15 49	7 26	9 56	9 52	9 57	15 50	6 49					
T 21	10 53	17 18	3 1	4 17	1 53	2 45	2 12	12 59	0 10	0 23	1 7	13 41	2 6	21 30	0 34	22 26	0 53	15 49	7 26	9 56	9 51	9 55	15 50	6 49					
F 22	11 15	18 34	3 55	4 58	1 49	2 42	2 1	13 13	0 9	0 18	1 7	13 43	2 6	21 30	0 34	22 26	0 53	15 49	7 27	9 55	9 50	9 53	15 51	6 48					
S 23	11 36	18 49	4 37	5 40	1 45	2 38	1 50	13 27	0 8	0 13	1 8	13 45	2 6	21 30	0 34	22 26	0 53	15 49	7 27	9 55	9 49	9 52	15 51	6 48					
S 24	11 57	18 9	5 4	6 22	1 40	2 34	1 40	13 42	0 8	0 9	1 8	13 47	2 5	21 30	0 34	22 26	0 53	15 49	7 27	9 55	9 48	9 50	15 51	6 47					
M25	12 18	16 39	5 16	7 4	1 35	2 29	1 30	13 56	0 7	0 4	1 8	13 50	2 5	21 29	0 34	22 26	0 53	15 49	7 27	9 55	9 47	9 48	15 51	6 47					
T 26	12 38	14 26	5 15	7 45	1 30	2 24	1 20	14 10	0 7	0s 1	1 8	13 52	2 5	21 29	0 34	22 26	0 53	15 48	7 27	9 55	9 45	9 46	15 51	6 46					
W27	12 59	11 39	5 0	8 27	1 24	2 17	1 10	14 24	0 6	0 6	1 8	13 54	2 5	21 29	0 34	22 26	0 53	15 48	7 27	9 55	9 44	9 45	15 52	6 46					
T 28	13 19	8 23	4 32	9 9	1 18	2 10	1 1	14 38	0 5	0 10	1 8	13 56	2 5	21 29	0 34	22 26	0 53	15 48	7 27	9 55	9 43	9 43	15 52	6 45					
F 29	13 39	4 47	3 52	9 50	1 12	2 2	0 52	14 51	0 5	0 15	1 8	13 58	2 5	21 29	0 34	22 26	0 53	15 48	7 27	9 55	9 42	9 41	15 52	6 45					
S 30	13 58	0 57	3 2	10 30	1 6	1 54	0 43	15 5	0 4	0 19	1 8	14 0	2 5	21 28	0 34	22 26	0 53	15 48	7 27	9 56	9 41	9 39	15 52	6 44					
S 31	14s18	2s59	2s 4	11s11	1n 0	1n44	0s34	15s18	0n 4	0s24	1n 8	14s 3	2n 5	21s28	0s33	22s26	0n53	15n48	7s27	9s56	9s40	9n38	15s52	6n44					

ASTRODIENST EPHEMERIS for the year 1660
geocentric

NOVEMBER 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	2 43 44	9♉18'54	15♊10	3♉26	25♏5	12♉23	3♊50	14♉0	26♏22	6♏47	21°R58	25♊41	24♊51	22♏57	15♏45	M 1
T 2	2 47 41	10°19'10	27°50	5°4	25°50	13°5	4°1	14°7	26°24	6°48	21♉57	25°R41	24°48	23°3	15°48	T 2
W 3	2 51 38	11°19'28	10♉46	6°42	26°37	13°47	4°13	14°14	26°25	6°50	21°56	25°41	24°45	23°10	15°51	W 3
T 4	2 55 34	12°19'47	23°59	8°20	27°25	14°29	4°24	14°22	26°27	6°51	21°55	25°39	24°41	23°17	15°54	T 4
F 5	2 59 31	13°20'09	7♏27	9°57	28°13	15°11	4°36	14°29	26°28	6°53	21°54	25°37	24°38	23°23	15°57	F 5
S 6	3 3 27	14°20'32	21°8	11°34	29°2	15°53	4°47	14°36	26°30	6°54	21°53	25°34	24°35	23°30	16°1	S 6
S 7	3 7 24	15°20'56	5♏1	13°11	29°52	16°35	4°59	14°43	26°31	6°56	21°52	25°32	24°32	23°37	16°4	S 7
M 8	3 11 20	16°21'22	19°1	14°47	0♊43	17°18	5°10	14°50	26°33	6°57	21°51	25°29	24°29	23°44	16°8	M 8
T 9	3 15 17	17°21'50	3♏7	16°23	1°35	18°0	5°21	14°57	26°35	6°59	21°50	25°28	24°26	23°50	16°11	T 9
W10	3 19 13	18°22'18	17°17	17°59	2°27	18°42	5°32	15°4	26°37	7°1	21°50	25°D27	24°22	23°57	16°15	W10
T 11	3 23 10	19°22'48	1♏28	19°34	3°20	19°25	5°43	15°12	26°38	7°2	21°49	25°27	24°19	24°4	16°18	T 11
F 12	3 27 7	20°23'19	15°38	21°10	4°14	20°7	5°54	15°19	26°40	7°4	21°48	25°29	24°16	24°10	16°22	F 12
S 13	3 31 3	21°23'51	29°46	22°45	5°9	20°50	6°5	15°26	26°42	7°6	21°47	25°30	24°13	24°17	16°26	S 13
S 14	3 35 0	22°24'25	13°Y48	24°19	6°4	21°32	6°16	15°33	26°44	7°7	21°46	25°31	24°10	24°24	16°30	S 14
M15	3 38 56	23°25'00	27°44	25°54	7°0	22°15	6°27	15°40	26°46	7°9	21°45	25°R32	24°7	24°30	16°33	M15
T 16	3 42 53	24°25'36	11♏29	27°28	7°56	22°57	6°37	15°47	26°48	7°11	21°44	25°31	24°3	24°37	16°37	T 16
W17	3 46 49	25°26'14	25°1	29°2	8°53	23°40	6°48	15°54	26°50	7°13	21°43	25°28	24°0	24°44	16°41	W17
T 18	3 50 46	26°26'53	8♉18	0♏36	9°50	24°23	6°58	16°1	26°52	7°15	21°41	25°24	23°57	24°51	16°45	T 18
F 19	3 54 42	27°27'34	21°19	2°10	10°48	25°6	7°9	16°9	26°54	7°16	21°40	25°19	23°54	24°57	16°49	F 19
S 20	3 58 39	28°28'16	4♏2	3°44	11°47	25°48	7°19	16°16	26°57	7°18	21°39	25°13	23°51	25°4	16°53	S 20
S 21	4 2 36	29°28'59	16°29	5°17	12°46	26°31	7°29	16°23	26°59	7°20	21°38	25°7	23°47	25°11	16°58	S 21
M22	4 6 32	0♏29'44	28°42	6°51	13°45	27°14	7°39	16°30	27°1	7°22	21°37	25°2	23°44	25°17	17°2	M22
T 23	4 10 29	1°30'31	10♊43	8°24	14°45	27°57	7°49	16°37	27°3	7°24	21°36	24°58	23°41	25°24	17°6	T 23
W24	4 14 25	2°31'19	22°37	9°57	15°46	28°40	7°59	16°44	27°6	7°26	21°35	24°56	23°38	25°31	17°10	W24
T 25	4 18 22	3°32'08	4♏27	11°30	16°47	29°23	8°9	16°51	27°8	7°28	21°34	24°D55	23°35	25°37	17°15	T 25
F 26	4 22 18	4°32'59	16°20	13°3	17°48	0♏6	8°19	16°58	27°11	7°30	21°33	24°56	23°32	25°44	17°19	F 26
S 27	4 26 15	5°33'52	28°20	14°36	18°50	0°50	8°28	17°5	27°13	7°32	21°32	24°58	23°28	25°51	17°24	S 27
S 28	4 30 11	6°34'45	10♊33	16°9	19°52	1°33	8°38	17°11	27°16	7°34	21°30	24°59	23°25	25°58	17°28	S 28
M29	4 34 8	7°35'40	23°2	17°42	20°55	2°16	8°47	17°18	27°18	7°36	21°29	25°R0	23°22	26°4	17°33	M29
T 30	4 38 5	8♏36'37	5♉51	19♏15	21♊57	3♏0	8♊56	17♉25	27♏21	7♏38	21♉28	24♊59	23♊19	26♊11	17♏37	T 30

Day	☉	☾		♂		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
M 1	14s37	6s52	0s58	11s50	0n54	1n34	0s25	15s32	0n 3	0s29	1n 9	14s 5	2n 5	21s28	0s33	22s26	0n53	15n48	7s27	9s57	9s38	9n36	15s52	6n43	
T 2	14 56	10 32	0n12	12 30	0 47	1 24	0 17	15 45	0 2	0 33	1 9	14 7	2 5	21 27	0 33	22 26	0 53	15 48	7 27	9 57	9 37	9 34	15 52	6 43	
W 3	15 15	13 47	1 22	13 8	0 40	1 13	0 9	15 58	0 2	0 38	1 9	14 9	2 5	21 27	0 33	22 26	0 53	15 47	7 27	9 56	9 36	9 32	15 52	6 42	
T 4	15 34	16 23	2 30	13 46	0 34	1 1	0 1	16 11	0 1	0 42	1 9	14 11	2 5	21 27	0 33	22 26	0 53	15 47	7 27	9 56	9 35	9 31	15 53	6 42	
F 5	15 52	18 8	3 31	14 24	0 27	0 49	0n 7	16 24	0 1	0 46	1 9	14 13	2 5	21 27	0 33	22 26	0 52	15 47	7 28	9 55	9 34	9 29	15 53	6 42	
S 6	16 10	18 52	4 20	15 0	0 20	0 36	0 15	16 37	0 0	0 51	1 9	14 15	2 5	21 26	0 33	22 26	0 52	15 47	7 28	9 54	9 33	9 27	15 53	6 41	
S 7	16 28	18 28	4 55	15 36	0 14	0 23	0 22	16 50	0s 1	0 55	1 9	14 18	2 5	21 26	0 33	22 26	0 52	15 47	7 28	9 53	9 31	9 25	15 53	6 41	
M 8	16 45	16 58	5 13	16 11	0 7	0 9	0 29	17 3	0 1	1 0	1 9	14 20	2 5	21 26	0 33	22 26	0 52	15 47	7 28	9 52	9 30	9 23	15 53	6 40	
T 9	17 3	14 26	5 12	16 46	0 0	0s 5	0 36	17 15	0 2	1 4	1 10	14 22	2 5	21 25	0 33	22 26	0 52	15 47	7 28	9 52	9 29	9 22	15 53	6 40	
W10	17 20	11 2	4 52	17 19	0s 7	0 20	0 43	17 27	0 2	1 8	1 10	14 24	2 5	21 25	0 33	22 25	0 52	15 47	7 28	9 52	9 28	9 20	15 53	6 40	
T 11	17 36	7 0	4 15	17 52	0 13	0 35	0 49	17 40	0 3	1 12	1 10	14 26	2 5	21 24	0 33	22 25	0 52	15 47	7 28	9 52	9 27	9 18	15 53	6 39	
F 12	17 53	2 34	3 22	18 24	0 20	0 51	0 55	17 52	0 4	1 17	1 10	14 28	2 5	21 24	0 33	22 25	0 52	15 47	7 28	9 52	9 26	9 16	15 53	6 39	
S 13	18 9	2n 0	2 17	18 55	0 26	1 7	1 1	18 4	0 4	1 21	1 10	14 30	2 5	21 24	0 33	22 25	0 52	15 46	7 28	9 53	9 24	9 15	15 53	6 38	
S 14	18 24	6 26	1 4	19 25	0 33	1 23	1 7	18 15	0 5	1 25	1 10	14 32	2 5	21 23	0 33	22 25	0 52	15 46	7 28	9 53	9 23	9 13	15 53	6 38	
M15	18 40	10 30	0s12	19 54	0 39	1 40	1 13	18 27	0 5	1 29	1 10	14 34	2 5	21 23	0 33	22 25	0 52	15 46	7 28	9 53	9 22	9 11	15 53	6 38	
T 16	18 55	13 56	1 26	20 22	0 46	1 57	1 18	18 38	0 6	1 33	1 11	14 36	2 5	21 23	0 33	22 25	0 52	15 46	7 28	9 53	9 21	9 9	15 52	6 37	
W17	19 9	16 33	2 34	20 49	0 52	2 15	1 24	18 50	0 7	1 37	1 11	14 38	2 5	21 22	0 33	22 25	0 52	15 46	7 28	9 52	9 20	9 8	15 52	6 37	
T 18	19 24	18 14	3 33	21 15	0 58	2 33	1 29	19 1	0 7	1 41	1 11	14 40	2 5	21 22	0 33	22 25	0 52	15 46	7 28	9 51	9 18	9 6	15 52	6 36	
F 19	19 38	18 54	4 19	21 40	1 4	2 51	1 34	19 12	0 8	1 45	1 11	14 42	2 5	21 21	0 33	22 25	0 52	15 46	7 28	9 49	9 17	9 4	15 52	6 36	
S 20	19 51	18 35	4 51	22 4	1 10	3 10	1 38	19 23	0 8	1 49	1 11	14 44	2 5	21 21	0 33	22 25	0 52	15 46	7 28	9 46	9 16	9 2	15 52	6 36	
S 21	20 5	17 22	5 8	22 27	1 15	3 28	1 43	19 33	0 9	1 53	1 11	14 46	2 5	21 20	0 33	22 25	0 52	15 46	7 28	9 44	9 15	9 0	15 52	6 35	
M22	20 17	15 23	5 11	22 49	1 21	3 47	1 47	19 44	0 10	1 57	1 12	14 48	2 5	21 20	0 33	22 25	0 52	15 46	7 28	9 42	9 14	8 59	15 52	6 35	
T 23	20 30	12 46	5 0	23 10	1 26	4 7	1 51	19 54	0 10	2 1	1 12	14 50	2 5	21 19	0 33	22 25	0 52	15 46	7 28	9 41	9 13	8 57	15 51	6 35	
W24	20 42	9 39	4 36	23 29	1 31	4 27	1 55	20 4	0 11	2 4	1 12	14 52	2 5	21 19	0 33	22 24	0 52	15 45	7 28	9 40	9 11	8 55	15 51	6 34	
T 25	20 54	6 10	4 0	23 47	1 36	4 46	1 59	20 14	0 11	2 8	1 12	14 54	2 5	21 18	0 33	22 24	0 52	15 45	7 28	9 40	9 10	8 53	15 51	6 34	
F 26	21 5	2 25	3 15	24 4	1 41	5 6	2 3	20 24	0 12	2 12	1 12	14 56	2 5	21 18	0 33	22 24	0 52	15 45	7 28	9 40	9 9	8 52	15 51	6 34	
S 27	21 16	1s28	2 20	24 20	1 45	5 27	2 6	20 34	0 13	2 15	1 12	14 58	2 5	21 17	0 33	22 24	0 52	15 45	7 28	9 41	9 8	8 50	15 51	6 33	
S 28	21 27	5 22	1 18	24 35	1 50	5 47	2 9	20 43	0 13	2 19	1 13	15 0	2 5	21 17	0 33	22 24	0 52	15 45	7 28	9 41	9 7	8 48	15 50	6 33	
M29	21 37	9 8	0 11	24 48	1 54	6 8	2 12	20 53	0 14	2 22	1 13	15 2	2 5	21 16	0 33	22 24	0 52	15 45	7 28	9 42	9 6	8 46	15 50	6 33	
T 30	21s47	12s34	0n58	25s 0	1s57	6s28	2n15	21s 2	0s14	2s26	1n13	15s 4	2n 5	21s16	0s33	22s24	0n52	15n45	7s28	9s41	9s 4	8n44	15s50	6n33	

ASTRODIENST EPHEMERIS for the year 1660

geocentric

DECEMBER 1660 GC

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	4 42 1	9♂37'34	19♂ 2	20♂48	23♂ 1	3♂43	9♂ 6	17♂32	27♂23	7♂40	21°R27	24°R57	23♂16	26♂18	17♂42	W 1	
T 2	4 45 58	10°38'33	2♂36	22°20	24° 4	4°26	9°15	17°39	27°26	7°42	21♂26	24♂52	23°13	26°24	17°46	T 2	
F 3	4 49 54	11°39'33	16°30	23°53	25° 8	5°10	9°24	17°46	27°29	7°44	21°25	24°45	23° 9	26°31	17°51	F 3	
S 4	4 53 51	12°40'33	0♂40	25°25	26°12	5°53	9°33	17°52	27°31	7°46	21°24	24°37	23° 6	26°38	17°56	S 4	
S 5	4 57 47	13°41'35	15° 2	26°57	27°17	6°37	9°41	17°59	27°34	7°48	21°22	24°29	23° 3	26°45	18° 1	S 5	
M 6	5 1 44	14°42'37	29°29	28°29	28°22	7°21	9°50	18° 6	27°37	7°50	21°21	24°22	23° 0	26°51	18° 5	M 6	
T 7	5 5 40	15°43'39	13≈56	0♂ 1	29°27	8° 4	9°58	18°12	27°40	7°52	21°20	24°16	22°57	26°58	18°10	T 7	
W 8	5 9 37	16°44'43	28°17	1°32	0♂32	8°48	10° 7	18°19	27°42	7°55	21°19	24°12	22°53	27° 5	18°15	W 8	
T 9	5 13 34	17°45'46	12♂29	3° 3	1°38	9°32	10°15	18°26	27°45	7°57	21°18	24°D10	22°50	27°11	18°20	T 9	
F 10	5 17 30	18°46'50	26°30	4°33	2°44	10°16	10°23	18°32	27°48	7°59	21°17	24°10	22°47	27°18	18°25	F 10	
S 11	5 21 27	19°47'54	10♀21	6° 2	3°50	11° 0	10°31	18°39	27°51	8° 1	21°15	24°11	22°44	27°25	18°30	S 11	
S 12	5 25 23	20°48'59	24° 0	7°31	4°56	11°43	10°39	18°45	27°54	8° 3	21°14	24°R12	22°41	27°31	18°35	S 12	
M13	5 29 20	21°50'04	7♂29	8°59	6° 3	12°27	10°47	18°51	27°57	8° 5	21°13	24°11	22°38	27°38	18°40	M13	
T 14	5 33 16	22°51'09	20°48	10°26	7°10	13°11	10°54	18°58	28° 0	8° 8	21°12	24° 8	22°34	27°45	18°45	T 14	
W15	5 37 13	23°52'15	3♂56	11°51	8°17	13°55	11° 2	19° 4	28° 3	8°10	21°11	24° 2	22°31	27°51	18°50	W15	
T 16	5 41 9	24°53'21	16°53	13°15	9°24	14°40	11° 9	19°10	28° 6	8°12	21° 9	23°53	22°28	27°58	18°55	T 16	
F 17	5 45 6	25°54'28	29°38	14°36	10°32	15°24	11°16	19°17	28° 9	8°14	21° 8	23°42	22°25	28° 5	19° 0	F 17	
S 18	5 49 3	26°55'35	12♂11	15°56	11°40	16° 8	11°23	19°23	28°12	8°17	21° 7	23°30	22°22	28°12	19° 5	S 18	
S 19	5 52 59	27°56'43	24°31	17°13	12°48	16°52	11°30	19°29	28°16	8°19	21° 6	23°18	22°19	28°18	19°10	S 19	
M20	5 56 56	28°57'51	6♂40	18°26	13°56	17°36	11°37	19°35	28°19	8°21	21° 5	23° 6	22°15	28°25	19°15	M20	
T 21	6 0 52	29°58'59	18°39	19°36	15° 4	18°21	11°44	19°41	28°22	8°23	21° 4	22°57	22°12	28°32	19°21	T 21	
W22	6 4 49	1♂ 0'08	0♂31	20°41	16°13	19° 5	11°50	19°47	28°25	8°26	21° 2	22°50	22° 9	28°38	19°26	W22	
T 23	6 8 45	2° 1'17	12°20	21°42	17°21	19°50	11°56	19°53	28°28	8°28	21° 1	22°45	22° 6	28°45	19°31	T 23	
F 24	6 12 42	3° 2'27	24°11	22°37	18°30	20°34	12° 3	19°59	28°32	8°30	21° 0	22°43	22° 3	28°52	19°36	F 24	
S 25	6 16 38	4° 3'37	6♂ 8	23°25	19°39	21°18	12° 9	20° 5	28°35	8°32	20°59	22°D43	21°59	28°58	19°42	S 25	
S 26	6 20 35	5° 4'47	18°17	24° 5	20°48	22° 3	12°15	20°11	28°38	8°35	20°58	22°R43	21°56	29° 5	19°47	S 26	
M27	6 24 32	6° 5'58	0♂44	24°38	21°58	22°48	12°20	20°16	28°42	8°37	20°57	22°43	21°53	29°12	19°52	M27	
T 28	6 28 28	7° 7'10	13°34	25° 1	23° 7	23°32	12°26	20°22	28°45	8°39	20°55	22°41	21°50	29°19	19°58	T 28	
W29	6 32 25	8° 8'21	26°49	25°14	24°17	24°17	12°31	20°28	28°48	8°41	20°54	22°37	21°47	29°25	20° 3	W29	
T 30	6 36 21	9° 9'33	10♂32	25°R16	25°27	25° 2	12°37	20°33	28°52	8°44	20°53	22°30	21°44	29°32	20° 8	T 30	
F 31	6 40 18	10♂10'45	24♂42	25♂ 6	26♂37	25♂47	12♂42	20♂39	28♂55	8♂46	20♂52	22♂20	21♂40	29♂39	20♂14	F 31	

Day	☉	☾		♀		♀		♂		♂		♂		♂		♂		♂		♂		♂		♂		♂	
	decl	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat	decl	lat
W 1	21s56	15s29	2n 6	25s10	2s 1	6s49	2n18	21s11	0s15	2s29	1n13	15s 6	2n 5	21s15	0s33	22s24	0n52	15n45	7s28	9s41	9s 3	8n43	15s49	6n32			
T 2	22 5	17 38	3 9	25 19	2 4	7 10	2 21	21 19	0 16	2 33	1 13	15 7	2 5	21 15	0 33	22 24	0 52	15 45	7 28	9 39	9 2	8 41	15 49	6 32			
F 3	22 13	18 47	4 2	25 27	2 7	7 31	2 23	21 28	0 16	2 36	1 14	15 9	2 5	21 14	0 33	22 24	0 52	15 45	7 28	9 36	9 1	8 39	15 49	6 32			
S 4	22 21	18 48	4 41	25 33	2 9	7 52	2 26	21 36	0 17	2 39	1 14	15 11	2 5	21 14	0 33	22 24	0 52	15 45	7 28	9 33	9 0	8 37	15 49	6 31			
S 5	22 29	17 37	5 3	25 38	2 12	8 14	2 28	21 44	0 18	2 43	1 14	15 13	2 5	21 13	0 33	22 23	0 52	15 45	7 28	9 30	8 58	8 35	15 48	6 31			
M 6	22 36	15 19	5 6	25 42	2 13	8 35	2 30	21 52	0 18	2 46	1 14	15 15	2 5	21 13	0 33	22 23	0 52	15 45	7 28	9 28	8 57	8 34	15 48	6 31			
T 7	22 43	12 3	4 49	25 44	2 15	8 56	2 31	22 0	0 19	2 49	1 14	15 16	2 5	21 12	0 33	22 23	0 52	15 45	7 28	9 25	8 56	8 32	15 47	6 31			
W 8	22 49	8 7	4 15	25 44	2 16	9 17	2 33	22 8	0 19	2 52	1 15	15 18	2 5	21 12	0 33	22 23	0 52	15 45	7 28	9 24	8 55	8 30	15 47	6 30			
T 9	22 55	3 44	3 25	25 43	2 16	9 39	2 35	22 15	0 20	2 55	1 15	15 20	2 5	21 11	0 33	22 23	0 52	15 45	7 28	9 23	8 54	8 28	15 47	6 30			
F 10	23 0	0n48	2 23	25 41	2 16	10 0	2 36	22 22	0 21	2 58	1 15	15 22	2 6	21 10	0 33	22 23	0 52	15 45	7 28	9 23	8 53	8 26	15 46	6 30			
S 11	23 5	5 14	1 14	25 36	2 16	10 21	2 37	22 29	0 21	3 1	1 15	15 23	2 6	21 10	0 33	22 23	0 52	15 45	7 28	9 24	8 51	8 25	15 46	6 30			
S 12	23 10	9 21	0 1	25 31	2 15	10 42	2 38	22 35	0 22	3 4	1 15	15 25	2 6	21 9	0 33	22 23	0 52	15 44	7 28	9 24	8 50	8 23	15 45	6 30			
M13	23 14	12 55	1s11	25 24	2 13	11 4	2 39	22 42	0 22	3 7	1 16	15 27	2 6	21 9	0 33	22 23	0 52	15 44	7 28	9 24	8 49	8 21	15 45	6 29			
T 14	23 17	15 47	2 17	25 15	2 11	11 25	2 40	22 48	0 23	3 10	1 16	15 28	2 6	21 8	0 33	22 22	0 51	15 44	7 28	9 22	8 48	8 19	15 44	6 29			
W15	23 20	17 46	3 16	25 5	2 8	11 46	2 40	22 54	0 24	3 12	1 16	15 30	2 6	21 7	0 33	22 22	0 51	15 44	7 28	9 20	8 47	8 18	15 44	6 29			
T 16	23 23	18 48	4 3	24 53	2 5	12 6	2 41	23 0	0 24	3 15	1 16	15 32	2 6	21 7	0 33	22 22	0 51	15 44	7 28	9 17	8 45	8 16	15 43	6 29			
F 17	23 25	18 52	4 37	24 40	2 0	12 27	2 41	23 5	0 25	3 18	1 16	15 33	2 6	21 6	0 33	22 22	0 51	15 44	7 28	9 13	8 44	8 14	15 43	6 29			
S 18	23 27	18 0	4 57	24 26	1 55	12 48	2 42	23 11	0 25	3 20	1 17	15 35	2 6	21 5	0 33	22 22	0 51	15 44	7 28	9 9	8 43	8 12	15 42	6 29			
S 19	23 28	16 17	5 3	24 10	1 49	13 8	2 42	23 16	0 26	3 23	1 17	15 36	2 6	21 5	0 33	22 22	0 51	15 44	7 27	9 4	8 42	8 10	15 42	6 28			
M20	23 29	13 53	4 54	23 54	1 42	13 28	2 42	23 21	0 27	3 25	1 17	15 38	2 6	21 4	0 33	22 22	0 51	15 44	7 27	9 0	8 41	8 9	15 41	6 28			
T 21	23 29	10 56	4 33	23 36	1 34	13 48	2 42	23 25	0 27	3 28	1 17	15 39	2 6	21 3	0 33	22 22	0 51	15 44	7 27	8 56	8 40	8 7	15 41	6 28			
W22	23 29	7 34	4 0	23 17	1 25	14 8	2 41	23 30	0 28	3 30	1 18	15 41	2 7	21 3	0 33	22 21	0 51	15 44	7 27	8 54	8 38	8 5	15 40	6 28			
T 23	23 28	3 54	3 17	22 58	1 15	14 28	2 41	23 34	0 28	3 32	1 18	15 42	2 7	21 2	0 33	22 21	0 51	15 44	7 27	8 52	8 37	8 3	15 40	6 28			
F 24	23 27	0 5	2 26	22 38	1 4	14 48	2 40	23 38	0 29	3 34	1 18	15 44	2 7	21 1	0 33	22 21	0 51	15 44	7 27	8 51	8 36	8 1	15 39	6 28			
S 25	23 25	3s46	1 27	22 18	0 51	15 7	2 40	23 41	0 30	3 36	1 18	15 45	2 7	21 1	0 33	22 21	0 51	15 44	7 27	8 51	8 35	8 0	15 38	6 28			
S 26	23 23	7 33	0 24	21 57	0 38	15 26	2 39	23 45	0 30	3 39	1 18	15 47	2 7	21 0	0 33	22 21	0 51	15 44	7 27	8 51	8 34	7 58	15 38	6 27			
M27	23 20	11 5	0n42	21 37	0 23	15 44	2 38	23 48	0 31	3 41	1 19	15 48	2 7	20 59	0 33	22 21	0 51	15 44	7 27	8 51	8 32	7 56	15 37	6 27			
T 28	23 17	14 13	1 48	21 18	0 8	16 3	2 37	23 51	0 31	3 43	1 19	15 50	2 7	20 59	0 33	22 21	0 51	15 44	7 27	8 50	8 31	7 54	15 36	6 27			
W29	23 14	16 43	2 50	20 59	0n 9	16 21	2 36	23 53	0 32	3 44	1 19	15 51	2 7	20 58	0 33	22 21	0 51	15 44	7 27	8 49	8 30	7 52	15 36	6 27			
T 30	23 10	18 22	3 45	20 41	0 27	16 39	2 35	23 56	0 33	3 46	1 19	15 52	2 7	20 57	0 33	22 20	0 51	15 44	7 27	8 46	8 29	7 50	15 35	6 27			
F 31	23s 5	18s56	4n27	20s24	0n45	16s56	2n34	23s58	0s33	3s48	1n20	15s54	2n 8	20s57	0s33	22s20	0n51	15n45	7s26	8s43	8s28	7n49	15s34	6n27			