



Astrodienst Ephemeris Tables for the year 1616

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 1616
geocentric

JANUARY 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	6 39 54	10°36'12"	7°11'22"	22°R10	12°R21	13°32'23"	14°37'55"	19°V50	7°R41	3°31'4"	6°R48	21°R16	22°H 2	28°33'5	9°34'14"	F 1
S 2	6 43 50	11° 7'22"	19°32'	22°D 2	12°D21	14° 9'	15° 8'	19°52'	7°38'	3° 4'	6°47'	21°H 3	21°58'	28°41'	9°19'	S 2
S 3	6 47 47	12° 8'31"	19°35'	22°34'	12°23'	14°56'	15°21'	19°53'	7°36'	3° 4'	6°47'	20°50'	21°55'	28°48'	9°23'	S 3
M 4	6 51 44	13° 9'40"	13°33'	22°14'	12°28'	15°42'	15°33'	19°54'	7°33'	3° 4'	6°46'	20°36'	21°52'	28°55'	9°27'	M 4
T 5	6 55 40	14°10'48"	25°26'	22°32'	12°35'	16°29'	15°46'	19°55'	7°31'	3°R 4	6°46'	20°24'	21°49'	29° 2'	9°31'	T 5
W 6	6 59 37	15°11'56"	7°11'17"	22°57'	12°44'	17°15'	15°59'	19°57'	7°28'	3° 4'	6°46'	20°14'	21°46'	29° 8'	9°36'	W 6
T 7	7 3 33	16°13'04"	19° 6'	23°28'	12°55'	18° 2'	16°12'	19°59'	7°26'	3° 4'	6°45'	20° 6'	21°43'	29°15'	9°40'	T 7
F 8	7 7 30	17°14'12"	0°11'57"	24° 5'	13° 9'	18°49'	16°24'	20° 0'	7°23'	3° 4'	6°45'	20° 2'	21°39'	29°22'	9°44'	F 8
S 9	7 11 26	18°15'19"	12°52'	24°47'	13°24'	19°35'	16°37'	20° 2'	7°20'	3° 4'	6°45'	20° 0'	21°36'	29°28'	9°49'	S 9
S 10	7 15 23	19°16'26"	24°56'	25°34'	13°42'	20°22'	16°49'	20° 4'	7°18'	3° 3'	6°45'	19°D59	21°33'	29°35'	9°53'	S 10
M 11	7 19 19	20°17'33"	7°11'13"	26°25'	14° 2'	21° 9'	17° 2'	20° 6'	7°15'	3° 3'	6°44'	20° 0'	21°30'	29°42'	9°58'	M 11
T 12	7 23 16	21°18'40"	19°48'	27°19'	14°24'	21°56'	17°14'	20° 8'	7°13'	3° 3'	6°44'	20°R 1	21°27'	29°48'	10° 2'	T 12
W 13	7 27 13	22°19'46"	2°11'46"	28°18'	14°47'	22°42'	17°26'	20°11'	7°10'	3° 3'	6°44'	20° 0'	21°23'	29°55'	10° 6'	W 13
T 14	7 31 9	23°20'53"	16°12'	29°19'	15°13'	23°29'	17°39'	20°13'	7° 8'	3° 2'	6°44'	19°58'	21°20'	0°11'2	10°11'	T 14
F 15	7 35 6	24°21'59"	0°37'7"	0°32'23"	15°40'	24°16'	17°51'	20°16'	7° 5'	3° 2'	6°44'	19°53'	21°17'	0° 9'	10°15'	F 15
S 16	7 39 2	25°23'04"	14°31'	1°29'	16° 9'	25° 3'	18° 3'	20°18'	7° 3'	3° 2'	6°43'	19°46'	21°14'	0°15'	10°20'	S 16
S 17	7 42 59	26°24'09"	29°22'	2°38'	16°39'	25°50'	18°15'	20°21'	7° 1'	3° 1'	6°43'	19°38'	21°11'	0°22'	10°24'	S 17
M 18	7 46 55	27°25'14"	14°32'32"	3°49'	17°11'	26°37'	18°27'	20°24'	6°58'	3° 1'	6°43'	19°29'	21° 8'	0°29'	10°29'	M 18
T 19	7 50 52	28°26'18"	29°51'	5° 1'	17°44'	27°24'	18°39'	20°27'	6°56'	3° 0'	6°43'	19°21'	21° 4'	0°35'	10°33'	T 19
W 20	7 54 49	29°27'20"	15°31'8"	6°16'	18°19'	28°11'	18°51'	20°30'	6°53'	3° 0'	6°43'	19°15'	21° 1'	0°42'	10°38'	W 20
T 21	7 58 45	0°28'22"	0°31'12"	7°32'	18°55'	28°58'	19° 3'	20°33'	6°51'	2°59'	6°D43	19°12'	20°58'	0°49'	10°43'	T 21
F 22	8 2 42	1°29'23"	14°54'	8°49'	19°33'	29°45'	19°15'	20°36'	6°49'	2°59'	6°43'	19°D10	20°55'	0°55'	10°47'	F 22
S 23	8 6 38	2°30'23"	29°11'	10° 8'	20°11'	0°32'32"	19°26'	20°39'	6°47'	2°58'	6°43'	19°10'	20°52'	1° 2'	10°52'	S 23
S 24	8 10 35	3°31'21"	13°V 1	11°28'	20°51'	1°19'	19°38'	20°43'	6°44'	2°58'	6°43'	19°12'	20°49'	1° 9'	10°56'	S 24
M 25	8 14 31	4°32'18"	26°24'	12°49'	21°32'	2° 6'	19°50'	20°46'	6°42'	2°57'	6°43'	19°13'	20°45'	1°15'	11° 1'	M 25
T 26	8 18 28	5°33'14"	9°32'23"	14°11'	22°14'	2°53'	20° 1'	20°50'	6°40'	2°56'	6°44'	19°R13	20°42'	1°22'	11° 6'	T 26
W 27	8 22 24	6°34'08"	22° 2'	15°35'	22°58'	3°41'	20°12'	20°53'	6°38'	2°55'	6°44'	19°12'	20°39'	1°29'	11°10'	W 27
T 28	8 26 21	7°35'02"	4°11'24"	16°59'	23°42'	4°28'	20°24'	20°57'	6°36'	2°55'	6°44'	19° 8'	20°36'	1°36'	11°15'	T 28
F 29	8 30 18	8°35'54"	16°35'	18°24'	24°27'	5°15'	20°35'	21° 1'	6°33'	2°54'	6°44'	19° 3'	20°33'	1°42'	11°19'	F 29
S 30	8 34 14	9°36'44"	28°36'	19°51'	25°13'	6° 2'	20°46'	21° 5'	6°31'	2°53'	6°44'	18°56'	20°29'	1°49'	11°24'	S 30
S 31	8 38 11	10°37'33"	10°32'	21°318	26°318	6°349	20°357	21°V 9	6°329	2°52	6°44	18°H49	20°H26	1°56	11°29	S 31

Delta T = 70.39 sec

Greg. Calendar

FEBRUARY 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	8 42 7	11°38'21"	22°24'	22°36'	26°348	7°336	21°318	21°V13	6°R27	2°R51	6°45	18°R41	20°H23	2°112	11°333	M 1
T 2	8 46 4	12°39'08"	4°11'14"	24°15'	27°37'	8°24'	21°19'	21°17'	6°25	2°50	6°45	18°H35	20°20	2° 9'	11°38	T 2
W 3	8 50 0	13°39'53"	16° 5'	25°45'	28°27'	9°11'	21°30'	21°22'	6°24	2°50	6°45	18°29	20°17	2°16	11°42	W 3
T 4	8 53 57	14°40'36"	27°58'	27°15'	29°17'	9°58'	21°40'	21°26'	6°22	2°49	6°45	18°25	20°14	2°22	11°47	T 4
F 5	8 57 53	15°41'19"	9°11'54"	28°47'	0°39	10°45'	21°51'	21°31'	6°20	2°48	6°46	18°23	20°10	2°29	11°52	F 5
S 6	9 1 50	16°42'00"	21°57'	0°19	1° 0'	11°33'	22° 1'	21°35'	6°18	2°47	6°46	18°D23	20° 7'	2°36	11°56	S 6
S 7	9 5 47	17°42'40"	4°11'8"	1°53'	1°53'	12°20'	22°12'	21°40'	6°16	2°46	6°46	18°24	20° 4'	2°42	12° 1'	S 7
M 8	9 9 43	18°43'19"	16°31'	3°27'	2°46'	13° 7'	22°22'	21°45'	6°14	2°45	6°47	18°26	20° 1'	2°49	12° 5'	M 8
T 9	9 13 40	19°43'56"	29°10'	5° 2'	3°40'	13°54'	22°32'	21°49'	6°13	2°43	6°47	18°27	19°58	2°56	12°10	T 9
W 10	9 17 36	20°44'33"	12°11'7"	6°38'	4°35'	14°42'	22°42'	21°54'	6°11	2°42	6°48	18°29	19°55	3° 2'	12°14	W 10
T 11	9 21 33	21°45'08"	25°27'	8°14'	5°30'	15°29'	22°52'	21°59'	6°10	2°41	6°48	18°R29	19°51	3° 9'	12°19	T 11
F 12	9 25 29	22°45'42"	9°31'11"	9°52'	6°25'	16°16'	23° 2'	22° 4'	6° 8'	2°40	6°49	18°28	19°48	3°16	12°24	F 12
S 13	9 29 26	23°46'15"	23°21'	11°30'	7°22'	17° 4'	23°12'	22°10'	6° 6'	2°39	6°49	18°26	19°45	3°23	12°28	S 13
S 14	9 33 22	24°46'47"	7°35'54"	13°10'	8°18'	17°51'	23°21'	22°15'	6° 5'	2°38	6°50	18°23	19°42	3°29	12°33	S 14
M 15	9 37 19	25°47'17"	22°48'	14°50'	9°16'	18°38'	23°31'	22°20'	6° 4'	2°36	6°50	18°20	19°39	3°36	12°37	M 15
T 16	9 41 16	26°47'46"	7°35'54"	16°31'	10°13'	19°26'	23°40'	22°25'	6° 2'	2°35	6°51	18°17	19°35	3°43	12°42	T 16
W 17	9 45 12	27°48'13"	23° 3'	18°13'	11°12'	20°13'	23°50'	22°31'	6° 1'	2°34	6°51	18°14	19°32	3°49	12°46	W 17
T 18	9 49 9	28°48'38"	8°H 7	19°56'	12°10'	21° 0'	23°59'	22°36'	5°59	2°33	6°52	18°13	19°29	3°56	12°51	T 18
F 19	9 53 5	29°49'02"	22°55'	21°40'	13° 9'	21°48'	24° 8'	22°42'	5°58	2°31	6°52	18°D13	19°26	4° 3'	12°55	F 19
S 20	9 57 2	0°49'24"	7°V22	23°26'	14° 9'	22°35'	24°17'	22°48'	5°57	2°30	6°53	18°14	19°23	4° 9'	13° 0'	S 20
S 21	10 0 58	1°49'44"	21°22'	25°12'	15° 9'	23°22'	24°26'	22°53'	5°56	2°29	6°54	18°15	19°20	4°16	13° 4'	S 21
M 22	10 4 55	2°50'02"	4°35'6"	26°59'	16° 9'	24°10'	24°34'	22°59'	5°55	2°27	6°54	18°16	19°16	4°23	13° 8'	M 22
T 23	10 8 51	3°50'18"	18° 4'	28°47'	17° 9'	24°57'	24°43'	23° 5'	5°54	2°26	6°55	18°17	19°13	4°29	13°13	T 23
W 24	10 12 48	4°50'32"	0°H48	0°H36	18°10'	25°44'	24°51'	23°11'	5°53	2°24	6°56	18°R18	19°10	4°36	13°17	W 24
T 25	10 16 45	5°50'43"	13°13'	2°26'	19°12'	26°32'	25° 0'	23°17'	5°52	2°23	6°57	18°18	19° 7'	4°43	13°21	T 25
F 26	10 20 41	6°50'53"	25°23'	4°17'	20°13'	27°19'	25° 8'	23°23'	5°51	2°22	6°57	18°17	19° 4'	4°49	13°26	F 26
S 27	10 24 38	7°51'01"	7°32'1	6° 9'	21°15'	28° 6'	25°16'	23°29'	5°50	2°20	6°58	18°16	19° 1'	4°56	13°30	S 27
S 28	10 28 34	8°51'07"	19°14'	8° 2'	22°18'	28°54'	25°24'	23°35'	5°49	2°19	6°59	18°15	18°57	5° 3'	13°34	S 28
M 29	10 32 31	9°51'10"	1°11'3	9°H56	23°320	29°341	25°332	23°V41	5°49	2°17	7°0	18°H13	18°H54	5°11	13°39	M 29

Delta T = 70.30 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1616
geocentric

MARCH 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	10 36 27	10♌51°12	12♏53	11♌51	24♌23	0♌28	25♌39	23♌48	5°R48	2°R16	7♌0	18°R12	18♌51	5♏16	13♌43	T 1
W 2	10 40 24	11°51'11	24°46	13°47	25°26	1°15	25°47	23°54	5♌47	2♌14	7°1	18♌11	18°48	5°23	13°47	W 2
T 3	10 44 20	12°51'08	6♏45	15°43	26°30	2°3	25°54	24°0	5°47	2°13	7°2	18°11	18°45	5°30	13°51	T 3
F 4	10 48 17	13°51'04	18°52	17°40	27°33	2°50	26°2	24°7	5°46	2°11	7°3	18°D11	18°41	5°36	13°55	F 4
S 5	10 52 14	14°50'57	1♏7	19°38	28°37	3°37	26°9	24°13	5°46	2°9	7°4	18°11	18°38	5°43	13°59	S 5
S 6	10 56 10	15°50'49	13°34	21°36	29°41	4°24	26°16	24°20	5°45	2°8	7°5	18°11	18°35	5°50	14°3	S 6
M 7	11 0 7	16°50'38	26°12	23°34	0♏46	5°12	26°22	24°27	5°45	2°6	7°6	18°11	18°32	5°56	14°7	M 7
T 8	11 4 3	17°50'26	9♏5	25°33	1°51	5°59	26°29	24°33	5°44	2°5	7°7	18°R11	18°29	6°3	14°12	T 8
W 9	11 8 0	18°50'13	22°12	27°31	2°55	6°46	26°36	24°40	5°44	2°3	7°8	18°11	18°26	6°10	14°15	W 9
T 10	11 11 56	19°49'57	5♌36	29°28	4°1	7°33	26°42	24°47	5°44	2°2	7°9	18°11	18°22	6°16	14°19	T 10
F 11	11 15 53	20°49'40	19°18	1♌25	5°6	8°20	26°48	24°53	5°44	2°0	7°10	18°D11	18°19	6°23	14°23	F 11
S 12	11 19 49	21°49'21	3♌17	3°21	6°11	9°8	26°54	25°0	5°44	1°58	7°11	18°11	18°16	6°30	14°27	S 12
S 13	11 23 46	22°49'01	17°33	5°15	7°17	9°55	27°0	25°7	5°44	1°57	7°12	18°11	18°13	6°36	14°31	S 13
M14	11 27 43	23°48'39	2♏4	7°7	8°23	10°42	27°6	25°14	5°D44	1°55	7°13	18°12	18°10	6°43	14°35	M14
T 15	11 31 39	24°48'15	16°45	8°56	9°29	11°29	27°11	25°21	5°44	1°53	7°14	18°12	18°7	6°50	14°39	T 15
W16	11 35 36	25°47'49	1♌32	10°43	10°36	12°16	27°17	25°28	5°44	1°52	7°15	18°13	18°3	6°56	14°42	W16
T 17	11 39 32	26°47'21	16°17	12°27	11°42	13°3	27°22	25°35	5°44	1°50	7°16	18°R13	18°0	7°3	14°46	T 17
F 18	11 43 29	27°46'51	0♌53	14°7	12°49	13°50	27°27	25°42	5°44	1°49	7°17	18°13	17°57	7°10	14°50	F 18
S 19	11 47 25	28°46'19	15°14	15°43	13°55	14°37	27°32	25°49	5°44	1°47	7°18	18°12	17°54	7°16	14°53	S 19
S 20	11 51 22	29°45'44	29°15	17°15	15°2	15°24	27°37	25°57	5°45	1°45	7°19	18°11	17°51	7°23	14°57	S 20
M21	11 55 18	0♌45'08	12♌53	18°41	16°9	16°11	27°42	26°4	5°45	1°44	7°20	18°9	17°47	7°30	15°1	M21
T 22	11 59 15	1°44'30	26°6	20°2	17°17	16°58	27°46	26°11	5°45	1°42	7°21	18°8	17°44	7°36	15°4	T 22
W23	12 3 11	2°43'49	8♏56	21°18	18°24	17°45	27°50	26°18	5°46	1°40	7°22	18°6	17°41	7°43	15°7	W23
T 24	12 7 8	3°43'06	21°26	22°27	19°31	18°32	27°54	26°26	5°47	1°39	7°24	18°5	17°38	7°50	15°11	T 24
F 25	12 11 5	4°42'20	3♌38	23°30	20°39	19°19	27°58	26°33	5°47	1°37	7°25	18°D 5	17°35	7°56	15°14	F 25
S 26	12 15 1	5°41'33	15°38	24°27	21°47	20°5	28°2	26°40	5°48	1°35	7°26	18°5	17°32	8°3	15°18	S 26
S 27	12 18 58	6°40'42	27°30	25°17	22°55	20°52	28°5	26°48	5°48	1°34	7°27	18°6	17°28	8°10	15°21	S 27
M28	12 22 54	7°39'50	9♏20	26°1	24°3	21°39	28°9	26°55	5°49	1°32	7°28	18°7	17°25	8°16	15°24	M28
T 29	12 26 51	8°38'55	21°11	26°37	25°11	22°26	28°12	27°2	5°50	1°30	7°29	18°9	17°22	8°23	15°27	T 29
W30	12 30 47	9°37'58	3♌7	27°7	26°19	23°13	28°15	27°10	5°51	1°29	7°31	18°10	17°19	8°30	15°30	W30
T 31	12 34 44	10♌36'59	15♏13	27♌30	27♌27	23♌59	28♌18	27♌17	5♌52	1♌27	7♌32	18°R11	17♌16	8♏37	15♌34	T 31

Delta T = 70.23 sec

Greg. Calendar

APRIL 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	12 38 40	11♌35°57	27♏30	27♌45	28♌36	24♌46	28♌21	27♌25	5♌53	1°R25	7♌33	18°R11	17♌12	8♏43	15♌37	F 1
S 2	12 42 37	12°34'54	10♏2	27°54	29°44	25°33	28°23	27°32	5°54	1♌24	7°34	18♌9	17°9	8°50	15°40	S 2
S 3	12 46 34	13°33'48	22°47	27°R56	0♌53	26°19	28°25	27°40	5°55	1°22	7°36	18°7	17°6	8°57	15°42	S 3
M 4	12 50 30	14°32'41	5♏48	27°51	2°1	27°6	28°27	27°47	5°56	1°21	7°37	18°3	17°3	9°3	15°45	M 4
T 5	12 54 27	15°31'31	19°3	27°41	3°10	27°52	28°29	27°55	5°57	1°19	7°38	17°59	17°0	9°10	15°48	T 5
W 6	12 58 23	16°30'20	2♌31	27°24	4°19	28°39	28°31	28°3	5°58	1°17	7°39	17°54	16°57	9°17	15°51	W 6
T 7	13 2 20	17°29'07	16°11	27°2	5°28	29°25	28°33	28°10	6°0	1°16	7°41	17°51	16°53	9°23	15°54	T 7
F 8	13 6 16	18°27'52	0♌2	26°35	6°37	0♌12	28°34	28°18	6°1	1°14	7°42	17°48	16°50	9°30	15°56	F 8
S 9	13 10 13	19°26'36	14°2	26°3	7°47	0°58	28°35	28°25	6°2	1°13	7°43	17°D47	16°47	9°37	15°59	S 9
S 10	13 14 9	20°25'18	28°9	25°28	8°56	1°44	28°36	28°33	6°4	1°11	7°45	17°47	16°44	9°43	16°2	S 10
M11	13 18 6	21°23'58	12♌24	24°50	10°5	2°31	28°37	28°41	6°5	1°10	7°46	17°48	16°41	9°50	16°4	M11
T 12	13 22 3	22°22'37	26°42	24°9	11°15	3°17	28°38	28°48	6°7	1°8	7°47	17°49	16°38	9°57	16°7	T 12
W13	13 25 59	23°21'13	11♌2	23°27	12°34	4°3	28°38	28°56	6°8	1°7	7°49	17°R51	16°34	10°3	16°9	W13
T 14	13 29 56	24°19'48	25°20	22°45	13°34	4°50	28°39	29°4	6°10	1°5	7°50	17°50	16°31	10°10	16°11	T 14
F 15	13 33 52	25°18'21	9♌32	22°3	14°44	5°36	28°R39	29°11	6°11	1°4	7°51	17°49	16°28	10°17	16°14	F 15
S 16	13 37 49	26°16'53	23°34	21°21	15°53	6°22	28°38	29°19	6°13	1°2	7°53	17°45	16°25	10°23	16°16	S 16
S 17	13 41 45	27°15'22	7♌21	20°41	17°3	7°8	28°38	29°27	6°15	1°1	7°54	17°40	16°22	10°30	16°18	S 17
M18	13 45 42	28°13'50	20°51	20°3	18°13	7°54	28°38	29°34	6°17	0°59	7°55	17°33	16°18	10°37	16°20	M18
T 19	13 49 38	29°12'16	4♏0	19°29	19°23	8°40	28°37	29°42	6°18	0°58	7°57	17°26	16°15	10°43	16°22	T 19
W20	13 53 35	0♌10'39	16°50	18°57	20°33	9°26	28°36	29°50	6°20	0°56	7°58	17°19	16°12	10°50	16°24	W20
T 21	13 57 32	1°9'01	29°20	18°30	21°43	10°12	28°35	29°57	6°22	0°55	7°59	17°14	16°9	10°57	16°26	T 21
F 22	14 1 28	2°7'21	11♌33	18°6	22°53	10°58	28°34	0♌5	6°24	0°54	8°1	17°10	16°6	11°3	16°28	F 22
S 23	14 5 25	3°5'38	23°34	17°47	24°3	11°44	28°32	0°13	6°26	0°52	8°2	17°7	16°3	11°10	16°30	S 23
S 24	14 9 21	4°3'54	5♏27	17°32	25°13	12°30	28°31	0°21	6°28	0°51	8°3	17°D 7	15°59	11°17	16°32	S 24
M25	14 13 18	5°2'07	17°17	17°23	26°24	13°15	28°29	0°28	6°30	0°50	8°5	17°8	15°56	11°23	16°34	M25
T 26	14 17 14	6°0'18	29°9	17°18	27°34	14°1	28°27	0°36	6°33	0°48	8°6	17°9	15°53	11°30	16°35	T 26
W27	14 21 11	6°58'28	11♏8	17°D18	28°44	14°47	28°25	0°44	6°35	0°47	8°7	17°R10	15°50	11°37	16°37	W27
T 28	14 25 7	7°56'35	23°18	17°22	29°55	15°32	28°22	0°51	6°37	0°46	8°9	17°10	15°47	11°43	16°38	T 28
F 29	14 29 4	8°54'40	5♌44	17°32	1♌5	16°18	28°20	0°59	6°39	0°45	8°10	17°8	15°44	11°50	16°40	F 29
S 30	14 33 1	9♌52'44	18♏29	17♌46	2♌16	17♌4	28♌17	1♌7	6♌42	0♌43	8♌12	17♌4	15♌40	11♏57	16♌41	S 30

Delta T = 70.14 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1616

geocentric

MAY 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	14 36 57	10°35'46	1°13'33	18°47' 4	3°47'26	17°47'49	28°R14	1°18'14	6°46'44	0°R42	8°13'13	16°R58	15°37'37	12°12' 3	16°43'43	S 1
M 2	14 40 54	11°48'46	14°56' 1	18°27' 4	4°37' 1	18°34' 1	28°R11	1°22' 1	6°46' 1	0°41' 1	8°14' 1	16°R50	15°34' 1	12°10' 1	16°44' 1	M 2
T 3	14 44 50	12°46'44	28°36' 1	18°55' 5	5°48' 1	19°20' 8	28° 8	1°29' 8	6°49' 8	0°40' 8	8°16' 8	16°41' 8	15°31' 8	12°17' 8	16°45' 8	T 3
W 4	14 48 47	13°44'42	12°31' 1	19°26' 6	6°58' 6	20° 5	28° 4	1°37' 4	6°51' 4	0°39' 4	8°17' 4	16°32' 4	15°28' 4	12°23' 4	16°46' 4	W 4
T 5	14 52 43	14°42'37	26°36' 2	20° 2	8° 9	20°50' 28	28° 1	1°45' 1	6°54' 1	0°38' 1	8°18' 1	16°23' 1	15°24' 1	12°30' 1	16°47' 1	T 5
F 6	14 56 40	15°40'32	10°34' 6	20°41' 9	9°20' 21	21°36' 27	27°57' 1	1°52' 1	6°56' 1	0°37' 1	8°20' 1	16°17' 1	15°21' 1	12°37' 1	16°48' 1	F 6
S 7	15 0 36	16°38'25	24°59' 2	21°24' 10	10°31' 22	22°21' 27	27°53' 2	2° 0	6°59' 2	0°36' 2	8°21' 2	16°13' 2	15°18' 2	12°43' 2	16°49' 2	S 7
S 8	15 4 33	17°36'17	9°11' 1	22°11' 11	11°42' 23	23° 6	27°49' 2	2° 7	7° 1	0°35' 8	8°22' 16	16°11' 15	15°15' 12	12°50' 16	16°50' 16	S 8
M 9	15 8 30	18°34'07	23°20' 2	23° 1	12°53' 23	23°51' 27	27°45' 2	2°15' 7	7° 4	0°34' 8	8°24' 16	16°D11	15°12' 12	12°57' 16	16°51' 16	M 9
T 10	15 12 26	19°31'56	7°24' 2	23°55' 14	14° 4	24°36' 27	27°40' 2	2°22' 7	7° 7	0°33' 8	8°25' 16	16°11' 15	15° 9	13° 3	16°52' 16	T 10
W11	15 16 23	20°29'45	21°24' 2	24°52' 15	15°15' 25	25°21' 27	27°36' 2	2°30' 7	7°10' 7	0°32' 8	8°26' 16	16°R11	15° 5	13°10' 16	16°52' 16	W11
T 12	15 20 19	21°27'32	5°47' 1	25°52' 16	26° 6	27°31' 2	27°31' 2	2°37' 7	7°12' 7	0°31' 8	8°28' 16	16°10' 15	15° 2	13°17' 16	16°53' 16	T 12
F 13	15 24 16	22°25'17	19° 3	26°55' 17	26°51' 27	27°26' 2	27°26' 2	2°45' 7	7°15' 7	0°30' 8	8°29' 16	16° 6	14°59' 13	12°37' 16	16°54' 16	F 13
S 14	15 28 12	23°23'02	2°40' 2	28° 1	18°48' 27	27°36' 27	27°21' 2	2°52' 7	7°18' 7	0°29' 8	8°30' 16	16° 0	14°56' 13	13°30' 16	16°54' 16	S 14
S 15	15 32 9	24°20'45	16° 6	29°10' 19	19°59' 28	28°21' 27	27°16' 2	2°59' 7	7°21' 7	0°28' 8	8°32' 15	15°51' 14	14°53' 13	13°37' 16	16°55' 16	S 15
M16	15 36 5	25°18'28	29°18' 0	21°11' 29	29° 6	27°11' 3	27°11' 3	3° 7	7°24' 7	0°27' 8	8°33' 15	15°40' 14	14°50' 13	13°43' 16	16°55' 16	M16
T 17	15 40 2	26°16'09	12°14' 1	1°36' 22	22°22' 29	29°50' 27	27° 5	3°14' 7	7°27' 7	0°27' 8	8°34' 15	15°28' 14	14°46' 13	13°50' 16	16°55' 16	T 17
W18	15 43 59	27°13'48	24°55' 2	25°53' 23	26° 0	27° 0	27° 0	3°21' 7	7°30' 7	0°26' 8	8°36' 15	15°16' 14	14°43' 13	13°57' 16	16°56' 16	W18
T 19	15 47 55	28°11'26	7°19' 4	4°13' 24	24°44' 1	20° 26	26°54' 3	3°28' 7	7°32' 7	0°25' 8	8°37' 15	15° 6	14°40' 14	14° 3	16°56' 16	T 19
F 20	15 51 52	29° 9'03	19°30' 5	5°35' 25	25°56' 2	26°48' 3	26°48' 3	3°36' 7	7°35' 7	0°24' 8	8°38' 14	14°57' 14	14°37' 14	14°10' 16	16°56' 16	F 20
S 21	15 55 48	0°11'39	1°29' 7	7° 0	27° 7	2°49' 26	26°42' 3	3°43' 7	7°39' 7	0°24' 8	8°40' 14	14°52' 14	14°34' 14	14°17' 16	16°56' 16	S 21
S 22	15 59 45	1° 4'12	13°21' 8	8°28' 28	28°19' 3	26°36' 3	26°36' 3	3°50' 7	7°42' 7	0°23' 8	8°41' 14	14°48' 14	14°30' 14	14°23' 16	16°56' 16	S 22
M23	16 3 41	2° 1'45	25°10' 9	9°58' 29	29°30' 4	26°30' 3	26°30' 3	3°57' 7	7°45' 7	0°23' 8	8°42' 14	14°47' 14	14°27' 14	14°30' 16	16°56' 16	M23
T 24	16 7 38	2°59'16	7°11' 1	11°30' 0	4°42' 5	26°23' 4	26°23' 4	4° 4	7°48' 7	0°22' 8	8°43' 14	14°D47	14°24' 14	14°37' 16	16°56' 16	T 24
W25	16 11 34	3°56'46	19° 0	13° 5	1°53' 5	5°46' 26	26°17' 4	4°11' 7	7°51' 7	0°21' 8	8°45' 14	14°R47	14°21' 14	14°43' 16	16°55' 16	W25
T 26	16 15 31	4°54'14	1°12' 1	14°42' 3	3° 5	6°30' 26	26°10' 4	4°18' 7	7°54' 7	0°21' 8	8°46' 14	14°46' 14	14°18' 14	14°50' 16	16°55' 16	T 26
F 27	16 19 28	5°51'41	13°42' 1	16°22' 4	4°16' 7	7°14' 26	26° 3	4°25' 7	7°57' 7	0°20' 8	8°47' 14	14°43' 14	14°15' 14	14°57' 16	16°55' 16	F 27
S 28	16 23 24	6°49'07	26°34' 1	18° 5	5°28' 7	7°58' 25	25°57' 4	4°32' 8	8° 0	0°20' 8	8°48' 14	14°38' 14	14°11' 15	15° 3	16°54' 16	S 28
S 29	16 27 21	7°46'32	9°15' 1	19°49' 6	6°39' 8	8°42' 25	25°50' 4	4°39' 8	8° 4	0°20' 8	8°50' 14	14°30' 14	14° 8	15°10' 16	16°54' 16	S 29
M30	16 31 17	8°43'56	23°30' 2	21°36' 7	7°51' 9	9°26' 25	25°43' 4	4°46' 8	8° 7	0°19' 8	8°51' 14	14°20' 14	14° 5	15°17' 16	16°53' 16	M30
T 31	16 35 14	9°41'19	7°33' 2	23°26' 9	8° 3	10°10' 25	25°36' 4	4°53' 8	8°10' 8	0°19' 8	8°52' 14	14°R 9	14°R 2	15°12' 16	16°53' 16	T 31

Delta T = 70.06 sec

Greg. Calendar

JUNE 1616 GC

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	16 39 10	10°38'41	21°53' 2	25°18' 10	18°14' 10	18°54' 25	25°R29	5°18' 0	8°17' 8	0°R18	8°53' 13	13°R58	13°59' 13	15°12' 15	16°R52	W 1
T 2	16 43 7	11°36'02	6°34' 2	27°12' 11	11°26' 11	11°38' 25	25°R22	5° 6	8°17' 8	0°18' 8	8°54' 13	13°R47	13°56' 13	15°37' 16	16°R51	T 2
F 3	16 47 4	12°33'22	20°59' 2	29° 9	12°38' 12	12°22' 25	25°14' 5	5°13' 8	8°20' 8	0°18' 8	8°56' 13	13°39' 13	13°52' 13	15°43' 16	16°51' 16	F 3
S 4	16 51 0	13°30'42	5°33' 1	13°50' 13	13° 5	25° 7	25° 7	5°20' 8	8°24' 8	0°18' 8	8°57' 13	13°33' 13	13°49' 13	15°50' 16	16°50' 16	S 4
S 5	16 54 57	14°28'01	19°59' 3	15° 1	13°49' 25	25° 0	25° 0	5°26' 8	8°27' 8	0°17' 8	8°58' 13	13°30' 13	13°46' 13	15°57' 16	16°49' 16	S 5
M 6	16 58 53	15°25'20	4°14' 5	16°13' 14	14°33' 24	24°52' 5	24°52' 5	5°33' 8	8°30' 8	0°17' 8	8°59' 13	13°29' 13	13°43' 13	16° 3	16°48' 16	M 6
T 7	17 2 50	16°22'39	18°17' 7	17°25' 15	15°16' 24	24°45' 5	24°45' 5	5°39' 8	8°34' 8	0°17' 8	9° 0	13°29' 13	13°40' 13	16°10' 16	16°47' 16	T 7
W 8	17 6 46	17°19'57	2°47' 7	9°23' 18	18°37' 16	24°37' 5	24°37' 5	5°46' 8	8°37' 8	0°17' 8	9° 1	13°29' 13	13°36' 13	16°17' 16	16°46' 16	W 8
T 9	17 10 43	18°17'14	15°45' 1	11°30' 19	16°43' 24	24°30' 5	24°30' 5	5°52' 8	8°41' 8	0°17' 8	9° 2	13°27' 13	13°33' 13	16°23' 16	16°45' 16	T 9
F 10	17 14 39	19°14'31	29°11' 1	13°40' 21	17°26' 24	24°22' 5	24°22' 5	5°58' 8	8°44' 8	0°17' 8	9° 3	13°22' 13	13°30' 13	16°30' 16	16°43' 16	F 10
S 11	17 18 36	20°11'48	12°26' 1	15°50' 22	18°10' 18	24°14' 6	24°14' 6	6° 5	8°48' 8	0°D17	9° 4	13°15' 13	13°27' 13	16°37' 16	16°42' 16	S 11
S 12	17 22 33	21° 9'05	25°29' 1	23°25' 18	18°53' 24	24° 7	24° 7	6°11' 8	8°51' 8	0°17' 8	9° 6	13° 5	13°24' 13	16°43' 16	16°41' 16	S 12
M13	17 26 29	22° 6'21	8°12' 2	20°12' 24	19°36' 23	23°59' 6	23°59' 6	6°17' 8	8°55' 8	0°17' 8	9° 7	12°53' 13	13°21' 13	16°50' 16	16°39' 16	M13
T 14	17 30 26	23° 3'37	20°59' 2	22°24' 25	24°49' 20	23°51' 6	23°51' 6	6°23' 8	8°58' 8	0°17' 8	9° 8	12°41' 13	13°17' 13	16°57' 16	16°38' 16	T 14
W15	17 34 22	24° 0'53	3°26' 2	24°36' 27	27° 2	21° 2	23°44' 6	6°29' 8	9° 2	0°17' 8	9° 9	12°28' 13	13°14' 13	17° 3	16°37' 16	W15
T 16	17 38 19	24°58'08	15°41' 2	26°47' 28	21°45' 23	23°36' 6	23°36' 6	6°35' 8	9° 5	0°17' 8	9°10' 12	12°16' 13	13°11' 13	17°10' 16	16°35' 16	T 16
F 17	17 42 15	25°55'22	27°44' 2	28°58' 29	22°28' 23	23°28' 6	23°28' 6	6°41' 8	9° 9	0°18' 8	9°11' 12	12° 7	13° 8	17°17' 16	16°33' 16	F 17
S 18	17 46 12	26°52'36	9°29' 1	18° 8	0°11'38	23°11' 6	23°11' 6	6°47' 8	9°12' 8	0°18' 8	9°12' 12	12° 0	13° 5	17°23' 16	16°32' 16	S 18
S 19	17 50 8	27°49'50	21°28' 3	1°50' 23	23°54' 23	23°13' 6	23°13' 6	6°53' 8	9°16' 8	0°18' 8	9°13' 11	11°56' 13	13° 2	17°30' 16	16°30' 16	S 19
M20	17 54 5	28°47'03	3°16' 5	3° 3	24°36' 23	23° 6	23° 6	6°59' 8	9°20' 8	0°18' 8	9°14' 11	11°55' 13	12°58' 17	17°37' 16	16°28' 16	M20
T 21	17 58 2	29°44'15	15° 6	7°30' 4	25°19' 22	22°58' 7	22°58' 7	7° 4	9°23' 8	0°19' 8	9°15' 11	11°D54	12°55' 17	17°43' 16	16°26' 16	T 21
W22	18 1 58	0°41'27	27° 3	9°35' 5	26° 2	22°50' 7	22°50' 7	7°10' 8	9°27' 8	0°19' 8	9°15' 11	11°R55	12°52' 17	17°50' 16	16°24' 16	W22
T 23	18 5 55	1°38'38	9°15' 1	11°38' 6	26°40' 26	24°44' 7	24°44' 7	7°15' 8	9°30' 8	0°19' 8	9°16' 11	11°54' 13	12°49' 17	17°57' 16	16°22' 16	T 23
F 24	18 9 51	2°35'49	21°44' 1	13°39' 7	27°27' 22	23°35' 7	23°35' 7	7°21' 8	9°34' 8	0°20' 8	9°17' 11	11°53' 13	12°46' 18	18° 3	16°20' 16	F 24
S 25	18 13 48	3°33'00	4°13' 7	15°38' 9	28° 9	22°28' 7	22°28' 7	7°26' 8	9°38' 8	0°20' 8	9°18' 11	11°49' 13	12°42' 18	18°10' 16	16°18' 16	S 25
S 26	18 17 44	4°30'10	17°57' 1	17°36' 10	10°17' 28	28°51' 22	22°21' 7	7°32' 9	9°41' 0	0°21' 9	9°19' 11	11°43' 12	12°39' 18	18°17' 16	16°16' 16	S 26
M27	18 21 41	5°27'20	1°44' 1	19°31' 11	29°34' 22	22°13' 7	22°13' 7	7°37' 9	9°45' 0	0°21' 9	9°20' 11	11°35' 12	12°36' 18	18°23' 16	16°14' 16	M27
T 28	18 25 37	6°24'30	15°58' 1	21°25' 12	12°42' 0	11°16' 2	7°42' 9	7°42' 9	9°48' 0	0°22' 9	9°21' 11	11°26' 12	12°33' 18	18°30' 16	16°12' 16	T 28
W29	18 29 34	7°21'40	0°34' 1	23°16' 13	13°54' 0	21°59' 7	21°59' 7	7°47' 9	9°52' 0	0°22' 9	9°21' 11	11°16' 12	12°30' 18	18°37' 16	16°10' 16	W29
T 30	18 33 31	8°18'50	15°25' 1	25°16' 15	11°40' 21	21°52' 7	21°52' 7	7°52' 9	9°56' 0	0°23' 9	9°22' 11	11°R 7	12°R27	18°R43	16°R8	T 30

ASTRODIENST EPHEMERIS for the year 1616

geocentric

JULY 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	18 37 27	9 ⁵⁶ 16'00	0 ²³ 23	26 ⁵³ 53	16 ¹¹ 19	2 ¹¹ 22	21 ⁰ R45	7 ⁸ 57	9 ⁵⁶ 59	0 ²³ 23	9 ⁸ 23	11 ⁰ R 0	12 ¹¹ 23	18 ⁵⁰ 50	16 ⁰ R 5	F 1
S 2	18 41 24	10 ¹³ 10	15 ¹⁸ 18	28 ³⁹ 39	17 ³² 32	3 ⁰ 4	21 ⁰ 38	8 ⁰ 2	10 ⁰ 3	0 ²⁴ 24	9 ²⁴ 24	10 ¹¹ 55	12 ²⁰ 20	18 ⁵⁶ 56	16 ³⁶ 36	S 2
S 3	18 45 20	11 ¹⁰ 20	0 ¹¹ 4	0 ⁰ 22	18 ⁴⁵ 45	3 ⁴⁶ 46	21 ³¹ 31	8 ⁰ 7	10 ⁰ 7	0 ²⁵ 25	9 ²⁵ 25	10 ⁵³ 53	12 ¹⁷ 17	19 ⁰ 3	16 ⁰ 0	S 3
M 4	18 49 17	12 ⁰ 731	14 ³⁴ 34	2 ⁰ 3	19 ⁵⁷ 57	4 ²⁸ 28	21 ²⁴ 24	8 ¹² 12	10 ¹⁰ 10	0 ²⁶ 26	9 ²⁵ 25	10 ⁰ D53	12 ¹⁴ 14	19 ¹⁰ 10	15 ⁵⁸ 58	M 4
T 5	18 53 13	13 ⁰ 442	28 ⁴⁶ 46	3 ⁴³ 43	21 ¹⁰ 10	5 ¹⁰ 10	21 ¹⁷ 17	8 ¹⁷ 17	10 ¹⁴ 14	0 ²⁶ 26	9 ²⁶ 26	10 ⁵³ 53	12 ¹¹ 11	19 ¹⁶ 16	15 ⁵⁶ 56	T 5
W 6	18 57 10	14 ⁰ 154	12 ¹¹ 38	5 ²⁰ 20	22 ²³ 23	5 ⁵¹ 51	21 ¹¹ 11	8 ²¹ 21	10 ¹⁷ 17	0 ²⁷ 27	9 ²⁷ 27	10 ⁰ R54	12 ⁰ 8	19 ²³ 23	15 ⁵³ 53	W 6
T 7	19 1 6	14 ⁵⁹ 06	26 ¹¹ 11	6 ⁵⁵ 55	23 ³⁶ 36	6 ³³ 33	21 ⁰ 4	8 ²⁶ 26	10 ²¹ 21	0 ²⁸ 28	9 ²⁷ 27	10 ⁵³ 53	12 ⁰ 4	19 ³⁰ 30	15 ⁵⁰ 50	T 7
F 8	19 5 3	15 ⁵⁶ 19	9 ⁸ 27	8 ²⁹ 29	24 ⁴⁸ 48	7 ¹⁵ 15	20 ⁵⁸ 58	8 ³⁰ 30	10 ²⁵ 25	0 ²⁹ 29	9 ²⁸ 28	10 ⁵¹ 51	12 ⁰ 1	19 ³⁶ 36	15 ⁴⁸ 48	F 8
S 9	19 9 0	16 ⁵³ 32	22 ²⁷ 27	10 ⁰ 0	26 ⁰ 1	7 ⁵⁶ 56	20 ⁵² 52	8 ³⁵ 35	10 ²⁸ 28	0 ³⁰ 30	9 ²⁹ 29	10 ⁴⁶ 46	11 ⁵⁸ 58	19 ⁴³ 43	15 ⁴⁵ 45	S 9
S 10	19 12 56	17 ⁵⁰ 46	5 ¹¹ 13	11 ²⁹ 29	27 ¹⁴ 14	8 ³⁸ 38	20 ⁴⁶ 46	8 ³⁹ 39	10 ³² 32	0 ³¹ 31	9 ²⁹ 29	10 ³⁹ 39	11 ⁵⁵ 55	19 ⁵⁰ 50	15 ⁴² 42	S 10
M 11	19 16 53	18 ⁴⁸ 01	17 ⁴⁶ 46	12 ⁵⁶ 56	28 ²⁷ 27	9 ¹⁹ 19	20 ⁴⁰ 40	8 ⁴³ 43	10 ³⁶ 36	0 ³¹ 31	9 ³⁰ 30	10 ³¹ 31	11 ⁵² 52	19 ⁵⁶ 56	15 ⁴⁰ 40	M 11
T 12	19 20 49	19 ⁴⁵ 17	0 ⁵ 9	14 ²¹ 21	29 ⁴⁰ 40	10 ⁰ 0	20 ³⁴ 34	8 ⁴⁷ 47	10 ³⁹ 39	0 ³² 32	9 ³⁰ 30	10 ²² 22	11 ⁴⁸ 48	20 ⁰ 3	15 ³⁷ 37	T 12
W 13	19 24 46	20 ⁴² 32	12 ²¹ 21	15 ⁴⁴ 44	0 ⁵³ 53	10 ⁴² 42	20 ²⁸ 28	8 ⁵¹ 51	10 ⁴³ 43	0 ³³ 33	9 ³¹ 31	10 ¹³ 13	11 ⁴⁵ 45	20 ¹⁰ 10	15 ³⁴ 34	W 13
T 14	19 28 42	21 ³⁹ 49	24 ²⁴ 24	17 ⁰ 5	2 ⁰ 6	11 ²³ 23	20 ²² 22	8 ⁵⁵ 55	10 ⁴⁶ 46	0 ³⁴ 34	9 ³¹ 31	10 ⁰ 5	11 ⁴² 42	20 ¹⁶ 16	15 ³¹ 31	T 14
F 15	19 32 39	22 ³⁷ 05	6 ⁰ 20	18 ²⁴ 24	3 ¹⁹ 19	12 ⁰ 4	20 ¹⁷ 17	8 ⁵⁹ 59	10 ⁵⁰ 50	0 ³⁶ 36	9 ³² 32	9 ⁵⁸ 58	11 ³⁹ 39	20 ²³ 23	15 ²⁹ 29	F 15
S 16	19 36 36	23 ³⁴ 23	18 ¹⁰ 10	19 ⁴⁰ 40	4 ³² 32	12 ⁴⁵ 45	20 ¹² 12	9 ⁰ 3	10 ⁵⁴ 54	0 ³⁷ 37	9 ³² 32	9 ⁵³ 53	11 ³⁶ 36	20 ³⁰ 30	15 ²⁶ 26	S 16
S 17	19 40 32	24 ³¹ 40	29 ⁵⁷ 57	20 ⁵⁴ 54	5 ⁴⁵ 45	13 ²⁶ 26	20 ⁰ 6	9 ⁰ 7	10 ⁵⁷ 57	0 ³⁸ 38	9 ³³ 33	9 ⁵¹ 51	11 ³³ 33	20 ³⁶ 36	15 ²³ 23	S 17
M 18	19 44 29	25 ²⁸ 58	11 ¹¹ 44	22 ⁰ 5	6 ⁵⁸ 58	14 ⁰ 7	20 ⁰ 1	9 ¹⁰ 10	11 ⁰ 1	0 ³⁹ 39	9 ³³ 33	9 ⁰ D51	11 ²⁹ 29	20 ⁴³ 43	15 ²⁰ 20	M 18
T 19	19 48 25	26 ²⁶ 17	23 ³⁴ 34	23 ¹⁵ 15	8 ¹² 12	14 ⁴⁸ 48	19 ⁵⁶ 56	9 ¹⁴ 14	11 ⁰ 4	0 ⁴⁰ 40	9 ³⁴ 34	9 ⁵¹ 51	11 ²⁶ 26	20 ⁵⁰ 50	15 ¹⁷ 17	T 19
W 20	19 52 22	27 ²³ 36	5 ⁰ 32	24 ²¹ 21	9 ²⁵ 25	15 ²⁸ 28	19 ⁵² 52	9 ¹⁷ 17	11 ⁰ 8	0 ⁴¹ 41	9 ³⁴ 34	9 ⁵³ 53	11 ²³ 23	20 ⁵⁶ 56	15 ¹⁴ 14	W 20
T 21	19 56 18	28 ²⁰ 55	17 ⁴³ 43	25 ²⁵ 25	10 ³⁸ 38	16 ⁰ 9	19 ⁴⁷ 47	9 ²¹ 21	11 ¹¹ 11	0 ⁴² 42	9 ³⁵ 35	9 ⁵⁴ 54	11 ²⁰ 20	21 ⁰ 3	15 ¹¹ 11	T 21
F 22	20 0 15	29 ¹⁸ 15	0 ¹¹ 11	26 ²⁶ 26	11 ⁵¹ 51	16 ⁵⁰ 50	19 ⁴³ 43	9 ²⁴ 24	11 ¹⁵ 15	0 ⁴⁴ 44	9 ³⁵ 35	9 ⁰ R55	11 ¹⁷ 17	21 ¹⁰ 10	15 ⁰ 8	F 22
S 23	20 4 11	0 ⁰ 1536	13 ⁰ 1	27 ²⁵ 25	13 ⁰ 4	17 ³⁰ 30	19 ³⁸ 38	9 ²⁷ 27	11 ¹⁸ 18	0 ⁴⁵ 45	9 ³⁵ 35	9 ⁵⁴ 54	11 ¹⁴ 14	21 ¹⁶ 16	15 ⁰ 5	S 23
S 24	20 8 8	1 ⁰ 1257	26 ¹⁷ 17	28 ²⁰ 20	14 ¹⁸ 18	18 ¹¹ 11	19 ³⁴ 34	9 ³⁰ 30	11 ²² 22	0 ⁴⁶ 46	9 ³⁶ 36	9 ⁵¹ 51	11 ¹⁰ 10	21 ²³ 23	15 ⁰ 2	S 24
M 25	20 12 5	2 ¹⁰ 18	10 ¹¹ 11	29 ¹³ 13	15 ³¹ 31	18 ⁵¹ 51	19 ³⁰ 30	9 ³³ 33	11 ²⁵ 25	0 ⁴⁸ 48	9 ³⁶ 36	9 ⁴⁷ 47	11 ⁰ 7	21 ³⁰ 30	14 ⁵⁹ 59	M 25
T 26	20 16 1	3 ⁰ 741	24 ¹⁴ 14	0 ¹¹ 2	16 ⁴⁴ 44	19 ³² 32	19 ²⁷ 27	9 ³⁶ 36	11 ²⁹ 29	0 ⁴⁹ 49	9 ³⁶ 36	9 ⁴³ 43	11 ⁰ 4	21 ³⁶ 36	14 ⁵⁶ 56	T 26
W 27	20 19 58	4 ⁰ 504	8 ⁰ 52	0 ⁴⁸ 48	17 ⁵⁸ 58	20 ¹² 12	19 ²³ 23	9 ³⁹ 39	11 ³² 32	0 ⁵⁰ 50	9 ³⁷ 37	9 ³⁷ 37	11 ⁰ 1	21 ⁴³ 43	14 ⁵³ 53	W 27
T 28	20 23 54	5 ⁰ 227	23 ⁵⁰ 50	1 ³⁰ 30	19 ¹¹ 11	20 ⁵² 52	19 ¹⁹ 19	9 ⁴¹ 41	11 ³⁶ 36	0 ⁵² 52	9 ³⁷ 37	9 ³³ 33	10 ⁵⁸ 58	21 ⁵⁰ 50	14 ⁴⁹ 49	T 28
F 29	20 27 51	5 ⁵⁹ 52	9 ⁰ 00	2 ⁰ 9	20 ²⁵ 25	21 ³² 32	19 ¹⁶ 16	9 ⁴⁴ 44	11 ³⁹ 39	0 ⁵³ 53	9 ³⁷ 37	9 ²⁹ 29	10 ⁵⁴ 54	21 ⁵⁶ 56	14 ⁴⁶ 46	F 29
S 30	20 31 47	6 ⁵⁷ 17	24 ¹¹ 11	2 ⁴³ 43	21 ³⁸ 38	22 ¹² 12	19 ¹³ 13	9 ⁴⁶ 46	11 ⁴² 42	0 ⁵⁵ 55	9 ³⁷ 37	9 ²⁶ 26	10 ⁵¹ 51	22 ⁰ 3	14 ⁴³ 43	S 30
S 31	20 35 44	7 ⁰ 5444	9 ¹¹ 14	3 ¹¹ 14	22 ⁵² 52	22 ¹¹ 52	19 ⁰ 10	9 ⁴⁹ 49	11 ⁴⁶ 46	0 ⁵⁶ 56	9 ³⁸ 38	9 ⁰ D26	10 ¹¹ 48	22 ⁰ 10	14 ⁴⁰ 40	S 31

Delta T = 69.90 sec

Greg. Calendar

AUGUST 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	20 39 40	8♂52'11	24♂ 1	3♂40	24♂ 5	23♂32	19♂R 7	9♂51	11♂49	0♂58	9♂38	9♂26	10♂45	22♂16	14♂R37	M 1
T 2	20 43 37	9♂49'40	8♂Y27	4° 2	25°19	24°12	19♂ 5	9°53	11°52	0°59	9°38	9°28	10°42	22°23	14♂34	T 2
W 3	20 47 34	10°47'11	22°29	4°20	26°33	24°52	19° 3	9°55	11°56	1° 1	9°38	9°29	10°39	22°29	14°30	W 3
T 4	20 51 30	11°44'42	6♂ 7	4°32	27°46	25°32	19° 0	9°57	11°59	1° 2	9°38	9°R30	10°35	22°36	14°27	T 4
F 5	20 55 27	12°42'16	19°21	4°39	29° 0	26°11	18°58	9°59	12° 2	1° 4	9°38	9°30	10°32	22°43	14°24	F 5
S 6	20 59 23	13°39'50	2♂16	4°R41	0♂14	26°51	18°56	10° 1	12° 5	1° 6	9°38	9°29	10°29	22°49	14°21	S 6
S 7	21 3 20	14°37'27	14°52	4°38	1°27	27°30	18°55	10° 3	12° 9	1° 7	9°38	9°26	10°26	22°56	14°18	S 7
M 8	21 7 16	15°35'04	27°14	4°29	2°41	28°10	18°53	10° 4	12°12	1° 9	9°38	9°23	10°23	23° 3	14°15	M 8
T 9	21 11 13	16°32'43	9♂25	4°15	3°55	28°49	18°52	10° 6	12°15	1°11	9°R38	9°19	10°20	23° 9	14°11	T 9
W10	21 15 9	17°30'24	21°26	3°55	5° 9	29°28	18°51	10° 7	12°18	1°12	9°38	9°16	10°16	23°16	14° 8	W10
T11	21 19 6	18°28'06	3♂20	3°30	6°23	0♂ 8	18°50	10° 8	12°21	1°14	9°38	9°13	10°13	23°23	14° 5	T11
F 12	21 23 3	19°25'49	15°10	2°59	7°37	0°47	18°49	10° 9	12°24	1°16	9°38	9°10	10°10	23°29	14° 2	F 12
S 13	21 26 59	20°23'34	26°57	2°23	8°51	1°26	18°49	10°10	12°27	1°17	9°38	9° 9	10° 7	23°36	13°59	S 13
S 14	21 30 56	21°21'20	8♂45	1°43	10° 5	2° 5	18°48	10°11	12°30	1°19	9°38	9°D 8	10° 4	23°43	13°56	S 14
M15	21 34 52	22°19'07	20°34	0°58	11°19	2°44	18°D48	10°12	12°33	1°21	9°38	9° 9	10° 0	23°49	13°52	M15
T16	21 38 49	23°16'55	2♂29	0°10	12°33	3°23	18°48	10°13	12°36	1°23	9°38	9°10	9°57	23°56	13°49	T16
W17	21 42 45	24°14'45	14°31	29♂18	13°47	4° 1	18°49	10°13	12°39	1°25	9°38	9°11	9°54	24° 3	13°46	W17
T18	21 46 42	25°12'36	26°45	28°25	15° 1	4°40	18°49	10°14	12°42	1°27	9°38	9°12	9°51	24° 9	13°43	T18
F19	21 50 38	26°10'29	9♂14	27°31	16°15	5°18	18°50	10°14	12°45	1°29	9°37	9°13	9°48	24°16	13°40	F19
S20	21 54 35	27° 8'22	2° 3	26°37	17°29	5°57	18°50	10°15	12°48	1°30	9°37	9°R14	9°45	24°23	13°37	S20
S 21	21 58 32	28° 6'17	5♂14	25°45	18°43	6°35	18°51	10°15	12°51	1°32	9°37	9°14	9°41	24°29	13°34	S 21
M22	22 2 28	29° 4'14	18°50	24°54	19°57	7°14	18°53	10°R15	12°54	1°34	9°37	9°13	9°38	24°36	13°31	M22
T23	22 6 25	0♂ 2'12	2♂53	24° 7	21°12	7°52	18°54	10°15	12°56	1°36	9°36	9°12	9°35	24°42	13°28	T23
W24	22 10 21	1° 0'11	17°21	23°25	22°26	8°30	18°55	10°15	12°59	1°38	9°36	9°11	9°32	24°49	13°25	W24
T25	22 14 18	1°58'11	2♂11	22°48	23°40	9° 8	18°57	10°15	13° 2	1°40	9°36	9°10	9°29	24°56	13°22	T25
F26	22 18 14	2°56'13	17°16	22°18	24°54	9°46	18°59	10°14	13° 4	1°42	9°35	9°10	9°25	25° 2	13°19	F26
S27	22 22 11	3°54'16	2♂28	21°54	26° 9	10°24	19° 1	10°14	13° 7	1°44	9°35	9°D10	9°22	25° 9	13°16	S27
S28	22 26 7	4°52'21	17°37	21°39	27°23	11° 2	19° 3	10°13	13°10	1°46	9°35	9°10	9°19	25°16	13°13	S28
M29	22 30 4	5°50'28	2♂Y35	21°D31	28°37	11°40	19° 6	10°13	13°12	1°48	9°34	9°10	9°16	25°22	13°10	M29
T30	22 34 1	6°48'36	17°13	21°33	29°52	12°17	19° 9	10°12	13°15	1°50	9°34	9°10	9°13	25°29	13° 7	T30
W31	22 37 57	7♂46'47	1♂27	21♂43	1♂ 6	12♂55	19♂11	10♂11	13♂17	1♂52	9♂33	9♂10	9♂10	25♂36	13♂5	W31

ASTRODIENST EPHEMERIS for the year 1616
geocentric

SEPTEMBER 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	22 41 54	8♏44'59	15♏14	22♏2	2♏21	13♏33	19♏14	10°R10	13♏20	1♏54	9°R33	9°R10	9♏6	25♏42	13°R2	T 1
F 2	22 45 50	9°43'14	28°35	22°29	3°35	14°10	19°18	10♏9	13°22	1°57	9♏33	9♏10	9°3	25°49	12°59	F 2
S 3	22 49 47	10°41'31	11♏31	23°5	4°50	14°47	19°21	10°8	13°24	1°59	9°32	9°D10	9°0	25°56	12°56	S 3
S 4	22 53 43	11°39'50	24°6	23°50	6°4	15°25	19°24	10°6	13°27	2°1	9°32	9°10	8°57	26°2	12°54	S 4
M 5	22 57 40	12°38'11	6♏23	24°42	7°19	16°2	19°28	10°5	13°29	2°3	9°31	9°10	8°54	26°9	12°51	M 5
T 6	23 1 36	13°36'34	18°27	25°42	8°33	16°39	19°32	10°3	13°31	2°5	9°30	9°11	8°51	26°16	12°49	T 6
W 7	23 5 33	14°34'59	0♏22	26°49	9°48	17°16	19°36	10°2	13°33	2°7	9°30	9°11	8°47	26°22	12°46	W 7
T 8	23 9 30	15°33'27	12°11	28°2	11°2	17°53	19°40	10°0	13°35	2°9	9°29	9°12	8°44	26°29	12°44	T 8
F 9	23 13 26	16°31'56	23°58	29°22	12°17	18°29	19°45	9°58	13°37	2°12	9°29	9°13	8°41	26°36	12°41	F 9
S 10	23 17 23	17°30'27	5♏46	0♏46	13°32	19°6	19°49	9°56	13°40	2°14	9°28	9°R13	8°38	26°42	12°39	S 10
S 11	23 21 19	18°29'00	17°37	2°16	14°46	19°43	19°54	9°54	13°42	2°16	9°27	9°13	8°35	26°49	12°36	S 11
M12	23 25 16	19°27'35	29°34	3°50	16°1	20°19	19°59	9°52	13°44	2°18	9°27	9°12	8°31	26°55	12°34	M12
T 13	23 29 12	20°26'12	11♏38	5°27	17°16	20°56	20°4	9°50	13°45	2°20	9°26	9°11	8°28	27°2	12°32	T 13
W14	23 33 9	21°24'51	23°51	7°7	18°31	21°32	20°9	9°48	13°47	2°22	9°25	9°9	8°25	27°9	12°29	W14
T 15	23 37 5	22°23'32	6♏15	8°50	19°45	22°8	20°15	9°45	13°49	2°25	9°25	9°8	8°22	27°15	12°27	T 15
F 16	23 41 2	23°22'14	18°53	10°35	21°0	22°44	20°20	9°43	13°51	2°27	9°24	9°6	8°19	27°22	12°25	F 16
S 17	23 44 58	24°20'59	1♏47	12°21	22°15	23°20	20°26	9°40	13°53	2°29	9°23	9°4	8°16	27°29	12°23	S 17
S 18	23 48 55	25°19'45	14°58	14°9	23°30	23°56	20°32	9°38	13°54	2°31	9°22	9°3	8°12	27°35	12°21	S 18
M19	23 52 52	26°18'32	28°28	15°58	24°45	24°32	20°38	9°35	13°56	2°33	9°22	9°D3	8°9	27°42	12°19	M19
T 20	23 56 48	27°17'22	12♏20	17°47	25°59	25°8	20°44	9°32	13°58	2°36	9°21	9°3	8°6	27°49	12°17	T 20
W21	0 0 45	28°16'13	26°32	19°36	27°14	25°43	20°50	9°29	13°59	2°38	9°20	9°4	8°3	27°55	12°15	W21
T 22	0 4 41	29°15'06	11♏3	21°26	28°29	26°19	20°57	9°26	14°1	2°40	9°19	9°6	8°0	28°2	12°13	T 22
F 23	0 8 38	0♏14'01	25°50	23°15	29°44	26°54	21°3	9°23	14°2	2°42	9°18	9°7	7°57	28°9	12°12	F 23
S 24	0 12 34	1°12'57	10♏47	25°5	0♏59	27°29	21°10	9°20	14°3	2°45	9°18	9°R7	7°53	28°15	12°10	S 24
S 25	0 16 31	2°11'56	25°47	26°53	2°14	28°4	21°17	9°16	14°5	2°47	9°17	9°7	7°50	28°22	12°8	S 25
M26	0 20 27	3°10'56	10♏41	28°42	3°29	28°39	21°24	9°13	14°6	2°49	9°16	9°5	7°47	28°29	12°7	M26
T 27	0 24 24	4°9'59	25°21	0♏30	4°43	29°14	21°32	9°10	14°7	2°51	9°15	9°2	7°44	28°35	12°5	T 27
W28	0 28 21	5°9'03	9♏41	2°17	5°58	29°49	21°39	9°6	14°9	2°54	9°14	8°58	7°41	28°42	12°4	W28
T 29	0 32 17	6°8'10	23°35	4°4	7°13	0♏24	21°46	9°2	14°10	2°56	9°13	8°54	7°37	28°48	12°2	T 29
F 30	0 36 14	7♏7'20	7♏2	5♏50	8♏28	0♏59	21♏54	8♏59	14♏11	2♏58	9♏12	8♏51	7♏34	28♏55	12♏1	F 30

Delta T = 69.73 sec

Greg. Calendar

OCTOBER 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	0 40 10	8♏6'31	20♏3	7♏35	9♏43	1♏33	22♏2	8°R55	14♏12	3♏0	9°R11	8°R48	7♏31	29♏2	11°R59	S 1
S 2	0 44 7	9°5'45	2♏41	9°19	10°58	2°7	22°10	8♏51	14°13	3°2	9♏10	8♏46	7°28	29°8	11°58	S 2
M 3	0 48 3	10°5'02	14°59	11°3	12°13	2°42	22°18	8°47	14°14	3°5	9°9	8°D46	7°25	29°15	11°57	M 3
T 4	0 52 0	11°4'20	27°1	12°46	13°28	3°16	22°26	8°43	14°15	3°7	9°9	8°47	7°22	29°22	11°56	T 4
W 5	0 55 56	12°3'41	8♏54	14°28	14°43	3°50	22°34	8°39	14°16	3°9	9°8	8°49	7°18	29°28	11°55	W 5
T 6	0 59 53	13°3'05	20°42	16°10	15°58	4°24	22°43	8°35	14°16	3°11	9°7	8°51	7°15	29°35	11°54	T 6
F 7	1 3 50	14°2'30	2♏29	17°50	17°13	4°57	22°52	8°31	14°17	3°14	9°6	8°52	7°12	29°42	11°53	F 7
S 8	1 7 46	15°1'58	14°19	19°30	18°28	5°31	23°0	8°27	14°18	3°16	9°5	8°R52	7°9	29°48	11°52	S 8
S 9	1 11 43	16°1'28	26°17	21°10	19°43	6°4	23°9	8°23	14°18	3°18	9°4	8°51	7°6	29°55	11°51	S 9
M10	1 15 39	17°1'00	8♏23	22°48	20°58	6°38	23°18	8°18	14°19	3°20	9°2	8°47	7°2	0♏2	11°50	M10
T 11	1 19 36	18°0'34	20°41	24°26	22°13	7°11	23°27	8°14	14°19	3°22	9°1	8°42	6°59	0°8	11°50	T 11
W12	1 23 32	19°0'10	3♏11	26°4	23°29	7°44	23°36	8°10	14°20	3°25	9°0	8°35	6°56	0°15	11°49	W12
T 13	1 27 29	19°59'48	15°54	27°40	24°44	8°17	23°46	8°5	14°20	3°27	8°59	8°28	6°53	0°21	11°48	T 13
F 14	1 31 25	20°59'28	28°49	29°16	25°59	8°50	23°55	8°1	14°21	3°29	8°58	8°20	6°50	0°28	11°48	F 14
S 15	1 35 22	21°59'10	11♏57	0♏52	27°14	9°22	24°5	7°56	14°21	3°31	8°57	8°13	6°47	0°35	11°47	S 15
S 16	1 39 19	22°58'54	25°18	2°26	28°29	9°55	24°15	7°51	14°21	3°33	8°56	8°8	6°43	0°41	11°47	S 16
M17	1 43 15	23°58'39	8♏52	4°1	29°44	10°27	24°24	7°47	14°21	3°35	8°55	8°5	6°40	0°48	11°47	M17
T 18	1 47 12	24°58'27	22°39	5°34	0♏59	10°59	24°34	7°42	14°22	3°37	8°54	8°D4	6°37	0°55	11°47	T 18
W19	1 51 8	25°58'16	6♏39	7°7	2°14	11°31	24°44	7°37	14°22	3°39	8°53	8°5	6°34	1°1	11°46	W19
T 20	1 55 5	26°58'06	20°52	8°40	3°29	12°3	24°54	7°33	14°R22	3°42	8°52	8°6	6°31	1°8	11°46	T 20
F 21	1 59 1	27°57'58	5♏16	10°12	4°44	12°34	25°5	7°28	14°22	3°44	8°51	8°R6	6°28	1°15	11°D46	F 21
S 22	2 2 58	28°57'52	19°49	11°44	6°0	13°6	25°15	7°23	14°22	3°46	8°50	8°6	6°24	1°21	11°46	S 22
S 23	2 6 54	29°57'48	4♏26	13°15	7°15	13°37	25°25	7°18	14°21	3°48	8°48	8°3	6°21	1°28	11°46	S 23
M24	2 10 51	0♏57'45	19°1	14°45	8°30	14°8	25°36	7°14	14°21	3°50	8°47	7°58	6°18	1°35	11°47	M24
T 25	2 14 48	1°57'44	3♏28	16°15	9°45	14°39	25°47	7°9	14°21	3°52	8°46	7°51	6°15	1°41	11°47	T 25
W26	2 18 44	2°57'45	17°40	17°45	11°0	15°10	25°57	7°4	14°21	3°54	8°45	7°42	6°12	1°48	11°47	W26
T 27	2 22 41	3°57'49	1♏31	19°14	12°15	15°41	26°8	6°59	14°20	3°56	8°44	7°32	6°8	1°55	11°47	T 27
F 28	2 26 37	4°57'54	14°59	20°42	13°30	16°11	26°19	6°54	14°20	3°58	8°43	7°23	6°5	2°1	11°48	F 28
S 29	2 30 34	5°58'01	28°2	22°10	14°45	16°42	26°30	6°49	14°19	4°0	8°42	7°15	6°2	2°8	11°48	S 29
S 30	2 34 30	6°58'11	10♏42	23°37	16°1	17°12	26°41	6°44	14°19	4°2	8°41	7°9	5°59	2°14	11°49	S 30
M31	2 38 27	7♏58'22	23♏2	25♏4	17♏16	17♏42	26♏53	6♏40	14♏18	4♏4	8♏40	7♏6	5♏56	2♏21	11°50	M31

Delta T = 69.65 sec

Greg. Calendar

ASTRODIENST EPHEMERIS for the year 1616

geocentric

NOVEMBER 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	2 42 23	8♂58'36	5♂ 6	26♂31	18♂31	18♂11	27♂ 4	6°R35	14°R18	4♂ 6	8°R38	7°D 5	5♂53	2♂28	11♂50	T 1
W 2	2 46 20	9°58'51	16°59	27°56	19°46	18°41	27°15	6♂30	14♂17	4° 8	8♂37	7♂ 5	5°49	2°34	11°51	W 2
T 3	2 50 17	10°59'09	28°47	29°21	21° 1	19°10	27°27	6°25	14°16	4° 9	8°36	7° 5	5°46	2°41	11°52	T 3
F 4	2 54 13	11°59'28	10♂35	0♂45	22°16	19°39	27°38	6°20	14°16	4°11	8°35	7°R 6	5°43	2°48	11°53	F 4
S 5	2 58 10	12°59'50	22°28	2° 9	23°31	20° 8	27°50	6°15	14°15	4°13	8°34	7° 4	5°40	2°54	11°54	S 5
S 6	3 2 6	14° 0'13	4♂31	3°31	24°47	20°37	28° 2	6°11	14°14	4°15	8°33	7° 1	5°37	3° 1	11°55	S 6
M 7	3 6 3	15° 0'38	16°47	4°53	26° 2	21° 6	28°13	6° 6	14°13	4°17	8°32	6°55	5°34	3° 8	11°56	M 7
T 8	3 9 59	16° 1'05	29°18	6°13	27°17	21°34	28°25	6° 1	14°12	4°19	8°31	6°46	5°30	3°14	11°57	T 8
W 9	3 13 56	17° 1'34	12♂ 6	7°32	28°32	22° 2	28°37	5°56	14°11	4°20	8°29	6°34	5°27	3°21	11°58	W 9
T 10	3 17 52	18° 2'04	25°11	8°50	29°47	22°30	28°49	5°52	14°10	4°22	8°28	6°22	5°24	3°28	11°59	T 10
F 11	3 21 49	19° 2'37	8♂30	10° 7	1♂ 2	22°57	29° 1	5°47	14° 9	4°24	8°27	6° 9	5°21	3°34	12° 1	F 11
S 12	3 25 46	20° 3'10	22° 2	11°21	2°18	23°24	29°14	5°42	14° 8	4°26	8°26	5°58	5°18	3°41	12° 2	S 12
S 13	3 29 42	21° 3'45	5♂44	12°34	3°33	23°52	29°26	5°38	14° 6	4°27	8°25	5°49	5°14	3°47	12° 4	S 13
M14	3 33 39	22° 4'22	19°34	13°45	4°48	24°18	29°38	5°33	14° 5	4°29	8°24	5°42	5°11	3°54	12° 5	M14
T 15	3 37 35	23° 4'59	3♂29	14°53	6° 3	24°45	29°51	5°29	14° 4	4°30	8°23	5°39	5° 8	4° 1	12° 7	T 15
W16	3 41 32	24° 5'38	17°30	15°59	7°18	25°11	0♂ 3	5°24	14° 2	4°32	8°22	5°38	5° 5	4° 7	12° 9	W16
T 17	3 45 28	25° 6'18	1♂34	17° 1	8°33	25°37	0°16	5°20	14° 1	4°34	8°21	5°37	5° 2	4°14	12°10	T 17
F 18	3 49 25	26° 6'58	15°41	18° 0	9°49	26° 3	0°28	5°15	14° 0	4°35	8°20	5°37	4°59	4°21	12°12	F 18
S 19	3 53 21	27° 7'40	29°51	18°54	11° 4	26°28	0°41	5°11	13°58	4°37	8°19	5°36	4°55	4°27	12°14	S 19
S 20	3 57 18	28° 8'23	14°Y 1	19°44	12°19	26°54	0°54	5° 7	13°57	4°38	8°17	5°31	4°52	4°34	12°16	S 20
M21	4 1 15	29° 9'07	28° 9	20°29	13°34	27°18	1° 6	5° 2	13°55	4°40	8°16	5°24	4°49	4°41	12°18	M21
T 22	4 5 11	0♂ 9'53	12♂11	21° 8	14°49	27°43	1°19	4°58	13°53	4°41	8°15	5°14	4°46	4°47	12°20	T 22
W23	4 9 8	1°10'39	26° 1	21°40	16° 4	28° 7	1°32	4°54	13°52	4°43	8°14	5° 2	4°43	4°54	12°22	W23
T 24	4 13 4	2°11'27	9♂37	22° 4	17°19	28°31	1°45	4°50	13°50	4°44	8°13	4°49	4°40	5° 1	12°24	T 24
F 25	4 17 1	3°12'16	22°55	22°21	18°35	28°55	1°58	4°46	13°48	4°45	8°12	4°36	4°36	5° 7	12°26	F 25
S 26	4 20 57	4°13'06	5♂52	22°R28	19°50	29°19	2°11	4°42	13°46	4°47	8°11	4°24	4°33	5°14	12°28	S 26
S 27	4 24 54	5°13'58	18°30	22°25	21° 5	29°42	2°24	4°38	13°45	4°48	8°10	4°15	4°30	5°21	12°31	S 27
M28	4 28 51	6°14'51	0♂49	22°12	22°20	0♂ 4	2°37	4°35	13°43	4°49	8° 9	4° 9	4°27	5°27	12°33	M28
T 29	4 32 47	7°15'45	12°53	21°47	23°35	0°27	2°50	4°31	13°41	4°51	8° 8	4° 6	4°24	5°34	12°36	T 29
W30	4 36 44	8♂16'40	24♂46	21♂12	24♂50	0♂49	3♂ 4	4♂27	13♂39	4♂52	8♂ 7	4♂ 4	4♂20	5♂40	12♂38	W30

Delta T = 69.57 sec

Greg. Calendar

DECEMBER 1616 GC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	4 40 40	9♂17'37	6♂34	20°R25	26♂ 5	1♂11	3♂17	4°R24	13°R37	4♂53	8°R 6	4°R 4	4♂17	5♂47	12♂41	T 1
F 2	4 44 37	10°18'35	18°22	19♂28	27°20	1°32	3°30	4♂20	13♂35	4°54	8° 6	4♂ 4	4°14	5°54	12°43	F 2
S 3	4 48 33	11°19'34	0♂16	18°21	28°35	1°53	3°44	4°17	13°33	4°55	8° 5	4° 3	4°11	6° 0	12°46	S 3
S 4	4 52 30	12°20'34	12°21	17° 7	29°50	2°13	3°57	4°14	13°31	4°57	8° 4	3°59	4° 8	6° 7	12°49	S 4
M 5	4 56 26	13°21'36	24°42	15°47	1♂ 6	2°34	4°11	4°10	13°29	4°58	8° 3	3°53	4° 5	6°14	12°51	M 5
T 6	5 0 23	14°22'38	7♂21	14°24	2°21	2°53	4°24	4° 7	13°26	4°59	8° 2	3°44	4° 1	6°20	12°54	T 6
W 7	5 4 20	15°23'42	20°23	13° 2	3°36	3°13	4°38	4° 4	13°24	5° 0	8° 1	3°33	3°58	6°27	12°57	W 7
T 8	5 8 16	16°24'46	3♂45	11°42	4°51	3°32	4°51	4° 1	13°22	5° 1	8° 0	3°21	3°55	6°34	13° 0	T 8
F 9	5 12 13	17°25'52	17°27	10°27	6° 6	3°50	5° 5	3°58	13°20	5° 2	7°59	3° 8	3°52	6°40	13° 3	F 9
S 10	5 16 9	18°26'58	1♂26	9°20	7°21	4° 8	5°18	3°56	13°17	5° 3	7°59	2°56	3°49	6°47	13° 6	S 10
S 11	5 20 6	19°28'05	15°35	8°22	8°36	4°26	5°32	3°53	13°15	5° 3	7°58	2°47	3°46	6°54	13° 9	S 11
M12	5 24 2	20°29'12	29°51	7°34	9°51	4°43	5°46	3°50	13°13	5° 4	7°57	2°40	3°42	7° 0	13°12	M12
T 13	5 27 59	21°30'19	14♂ 8	6°57	11° 6	5° 0	5°59	3°48	13°10	5° 5	7°56	2°36	3°39	7° 7	13°15	T 13
W14	5 31 55	22°31'27	28°23	6°31	12°21	5°16	6°13	3°46	13° 8	5° 6	7°55	2°D35	3°36	7°13	13°18	W14
T 15	5 35 52	23°32'35	12♂33	6°15	13°36	5°32	6°27	3°43	13° 6	5° 7	7°55	2°35	3°33	7°20	13°22	T 15
F 16	5 39 49	24°33'43	26°37	6°D11	14°51	5°48	6°41	3°41	13° 3	5° 7	7°54	2°R35	3°30	7°27	13°25	F 16
S 17	5 43 45	25°34'51	10°Y35	6°15	16° 6	6° 2	6°54	3°39	13° 1	5° 8	7°53	2°34	3°26	7°33	13°28	S 17
S 18	5 47 42	26°36'00	24°26	6°29	17°21	6°17	7° 8	3°37	12°58	5° 9	7°52	2°31	3°23	7°40	13°32	S 18
M19	5 51 38	27°37'08	8♂10	6°51	18°36	6°30	7°22	3°35	12°56	5° 9	7°52	2°25	3°20	7°47	13°35	M19
T 20	5 55 35	28°38'17	21°45	7°20	19°51	6°44	7°36	3°33	12°53	5°10	7°51	2°17	3°17	7°53	13°38	T 20
W21	5 59 31	29°39'26	5♂ 9	7°56	21° 6	6°56	7°50	3°32	12°51	5°11	7°50	2° 6	3°14	8° 0	13°42	W21
T 22	6 3 28	0♂40'35	18°21	8°38	22°21	7° 9	8° 4	3°30	12°48	5°11	7°50	1°55	3°11	8° 7	13°45	T 22
F 23	6 7 24	1°41'44	1♂19	9°26	23°36	7°20	8°18	3°29	12°46	5°12	7°49	1°44	3° 7	8°13	13°49	F 23
S 24	6 11 21	2°42'53	14° 2	10°18	24°51	7°31	8°32	3°28	12°43	5°12	7°49	1°34	3° 4	8°20	13°53	S 24
S 25	6 15 18	3°44'02	26°29	11°14	26° 6	7°42	8°46	3°26	12°41	5°13	7°48	1°26	3° 1	8°27	13°56	S 25
M26	6 19 14	4°45'12	8♂43	12°13	27°20	7°52	8°59	3°25	12°38	5°13	7°47	1°21	2°58	8°33	14° 0	M26
T 27	6 23 11	5°46'22	20°44	13°16	28°35	8° 1	9°13	3°24	12°36	5°13	7°47	1°18	2°55	8°40	14° 4	T 27
W28	6 27 7	6°47'32	2♂36	14°22	29°50	8°10	9°27	3°23	12°33	5°14	7°46	1°D17	2°52	8°47	14° 7	W28
T 29	6 31 4	7°48'42	14°24	15°31	1♂ 5	8°18	9°41	3°23	12°30	5°14	7°46	1°18	2°48	8°53	14°11	T 29
F 30	6 35 0	8°49'52	26°11	16°42	2°20	8°25	9°55	3°22	12°28	5°14	7°45	1°19	2°45	9° 0	14°15	F 30
S 31	6 38 57	9♂51'03	8♂ 4	17♂55	3♂35	8♂32	10♂ 9	3♂21	12♂25	5♂14	7♂45	1°R20	2♂42	9♂ 6	14♂19	S 31

Delta T = 69.49 sec

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