



Astrodienst Ephemeris Tables for the year 1580

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 1580
geocentric

JANUARY 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	7 18 14	20° 15' 57"	7° 57' 57"	0° 39' 39"	24° 50' 50"	16° 56' 56"	5° 54' 54"	5° 36' 36"	9° 54' 54"	12° 5' 5"	0° 48' 48"	26° 6' 6"	27° 48' 48"	4° 49' 49"	29° 8' 8"	F 1
S 2	7 22 10	21° 3' 03"	19° 49' 49"	2° 20' 20"	26° 5' 5"	17° 39' 39"	6° 6' 6"	5° 43' 43"	9° 58' 58"	12° 4' 4"	0° 48' 48"	26° 0' 0"	27° 44' 44"	4° 56' 56"	29° 10' 10"	S 2
S 3	7 26 7	22° 4' 07"	18° 43' 43"	4° 1' 1"	27° 20' 20"	18° 23' 23"	6° 17' 17"	5° 50' 50"	10° 1' 1"	12° 2' 2"	0° 49' 49"	25° 56' 56"	27° 41' 41"	5° 3' 3"	29° 12' 12"	S 3
M 4	7 30 3	23° 5' 12"	13° 42' 42"	5° 42' 42"	28° 36' 36"	19° 6' 6"	6° 28' 28"	5° 57' 57"	10° 4' 4"	12° 0' 0"	0° 50' 50"	25° 53' 53"	27° 38' 38"	5° 9' 9"	29° 14' 14"	M 4
T 5	7 34 0	24° 6' 15"	25° 47' 47"	7° 22' 22"	29° 51' 51"	19° 49' 49"	6° 39' 39"	6° 4' 4"	10° 8' 8"	11° 59' 59"	0° 50' 50"	25° 52' 52"	27° 35' 35"	5° 16' 16"	29° 16' 16"	T 5
W 6	7 37 57	25° 7' 18"	8° 11' 11"	9° 1' 1"	1° 6' 6"	20° 33' 33"	6° 50' 50"	6° 11' 11"	10° 11' 11"	11° 57' 57"	0° 51' 51"	25° 53' 53"	27° 32' 32"	5° 23' 23"	29° 18' 18"	W 6
T 7	7 41 53	26° 8' 21"	20° 25' 25"	10° 39' 39"	2° 22' 22"	21° 16' 16"	7° 1' 1"	6° 18' 18"	10° 15' 15"	11° 55' 55"	0° 52' 52"	25° 54' 54"	27° 29' 29"	5° 29' 29"	29° 20' 20"	T 7
F 8	7 45 50	27° 9' 22"	3° 5' 5"	12° 16' 16"	3° 37' 37"	22° 0' 0"	7° 12' 12"	6° 25' 25"	10° 18' 18"	11° 54' 54"	0° 52' 52"	25° 56' 56"	27° 25' 25"	5° 36' 36"	29° 22' 22"	F 8
S 9	7 49 46	28° 10' 24"	16° 2' 2"	13° 51' 51"	4° 52' 52"	22° 43' 43"	7° 23' 23"	6° 32' 32"	10° 21' 21"	11° 52' 52"	0° 53' 53"	25° 58' 58"	27° 22' 22"	5° 43' 43"	29° 24' 24"	S 9
S 10	7 53 43	29° 11' 25"	29° 21' 21"	15° 25' 25"	6° 8' 8"	23° 27' 27"	7° 33' 33"	6° 39' 39"	10° 25' 25"	11° 51' 51"	0° 54' 54"	25° 58' 58"	27° 19' 19"	5° 50' 50"	29° 26' 26"	S 10
M 11	7 57 39	0° 12' 25"	13° 11' 11"	16° 56' 56"	7° 23' 23"	24° 10' 10"	7° 44' 44"	6° 46' 46"	10° 28' 28"	11° 49' 49"	0° 55' 55"	25° 58' 58"	27° 16' 16"	5° 56' 56"	29° 28' 28"	M 11
T 12	8 1 36	1° 13' 25"	27° 10' 10"	18° 24' 24"	8° 38' 38"	24° 54' 54"	7° 54' 54"	6° 54' 54"	10° 32' 32"	11° 47' 47"	0° 56' 56"	25° 56' 56"	27° 13' 13"	6° 3' 3"	29° 31' 31"	T 12
W 13	8 5 32	2° 14' 24"	11° 40' 40"	19° 48' 48"	9° 54' 54"	25° 38' 38"	8° 5' 5"	7° 1' 1"	10° 35' 35"	11° 46' 46"	0° 56' 56"	25° 53' 53"	27° 10' 10"	6° 10' 10"	29° 33' 33"	W 13
T 14	8 9 29	3° 15' 23"	26° 29' 29"	21° 9' 9"	11° 9' 9"	26° 21' 21"	8° 15' 15"	7° 8' 8"	10° 39' 39"	11° 44' 44"	0° 57' 57"	25° 50' 50"	27° 6' 6"	6° 16' 16"	29° 35' 35"	T 14
F 15	8 13 26	4° 16' 21"	11° 33' 33"	22° 24' 24"	12° 24' 24"	27° 5' 5"	8° 25' 25"	7° 15' 15"	10° 42' 42"	11° 43' 43"	0° 58' 58"	25° 47' 47"	27° 3' 3"	6° 23' 23"	29° 38' 38"	F 15
S 16	8 17 22	5° 17' 17"	26° 39' 39"	23° 35' 35"	13° 39' 39"	27° 49' 49"	8° 35' 35"	7° 22' 22"	10° 46' 46"	11° 41' 41"	0° 59' 59"	25° 44' 44"	27° 0' 0"	6° 30' 30"	29° 40' 40"	S 16
S 17	8 21 19	6° 18' 13"	11° 41' 41"	24° 38' 38"	14° 55' 55"	28° 33' 33"	8° 45' 45"	7° 29' 29"	10° 49' 49"	11° 40' 40"	1° 0' 0"	25° 43' 43"	26° 57' 57"	6° 36' 36"	29° 43' 43"	S 17
M 18	8 25 15	7° 19' 08"	26° 29' 29"	25° 35' 35"	16° 10' 10"	29° 16' 16"	8° 55' 55"	7° 37' 37"	10° 53' 53"	11° 38' 38"	1° 1' 1"	25° 42' 42"	26° 54' 54"	6° 43' 43"	29° 45' 45"	M 18
T 19	8 29 12	8° 20' 01"	10° 56' 56"	26° 24' 24"	17° 25' 25"	0° 3' 3"	9° 5' 5"	7° 44' 44"	10° 56' 56"	11° 37' 37"	1° 2' 2"	25° 43' 43"	26° 50' 50"	6° 50' 50"	29° 48' 48"	T 19
W 20	8 33 8	9° 20' 53"	24° 58' 58"	27° 4' 4"	18° 40' 40"	0° 44' 44"	9° 15' 15"	7° 51' 51"	11° 0' 0"	11° 35' 35"	1° 3' 3"	25° 44' 44"	26° 47' 47"	6° 56' 56"	29° 50' 50"	W 20
T 21	8 37 5	10° 21' 43"	8° 32' 32"	27° 35' 35"	19° 56' 56"	1° 28' 28"	9° 24' 24"	7° 58' 58"	11° 3' 3"	11° 34' 34"	1° 4' 4"	25° 45' 45"	26° 44' 44"	7° 3' 3"	29° 53' 53"	T 21
F 22	8 41 1	11° 22' 32"	21° 41' 41"	27° 55' 55"	21° 11' 11"	2° 12' 12"	9° 34' 34"	8° 5' 5"	11° 7' 7"	11° 32' 32"	1° 5' 5"	25° 46' 46"	26° 41' 41"	7° 10' 10"	29° 55' 55"	F 22
S 23	8 44 58	12° 23' 20"	4° 26' 26"	28° 5' 5"	22° 26' 26"	2° 56' 56"	9° 43' 43"	8° 12' 12"	11° 10' 10"	11° 31' 31"	1° 6' 6"	25° 47' 47"	26° 38' 38"	7° 17' 17"	29° 58' 58"	S 23
S 24	8 48 55	13° 24' 06"	16° 51' 51"	28° 5' 5"	23° 41' 41"	3° 40' 40"	9° 52' 52"	8° 20' 20"	11° 14' 14"	11° 29' 29"	1° 7' 7"	25° 47' 47"	26° 35' 35"	7° 23' 23"	0° 1' 1"	S 24
M 25	8 52 51	14° 24' 50"	29° 1' 1"	27° 53' 53"	24° 56' 56"	4° 24' 24"	10° 1' 1"	8° 27' 27"	11° 17' 17"	11° 28' 28"	1° 8' 8"	25° 47' 47"	26° 31' 31"	7° 30' 30"	0° 4' 4"	M 25
T 26	8 56 48	15° 25' 33"	10° 11' 11"	26° 11' 11"	5° 8' 8"	10° 10' 10"	8° 34' 34"	8° 27' 27"	11° 21' 21"	11° 27' 27"	1° 9' 9"	25° 46' 46"	26° 28' 28"	7° 37' 37"	0° 7' 7"	T 26
W 27	9 0 44	16° 26' 15"	22° 52' 52"	26° 58' 58"	27° 26' 26"	5° 52' 52"	10° 19' 19"	8° 41' 41"	11° 24' 24"	11° 25' 25"	1° 10' 10"	25° 45' 45"	26° 25' 25"	7° 43' 43"	0° 9' 9"	W 27
T 28	9 4 41	17° 26' 54"	4° 42' 42"	26° 16' 16"	28° 41' 41"	6° 36' 36"	10° 28' 28"	8° 48' 48"	11° 28' 28"	11° 24' 24"	1° 11' 11"	25° 43' 43"	26° 22' 22"	7° 50' 50"	0° 12' 12"	T 28
F 29	9 8 37	18° 27' 32"	16° 32' 32"	25° 26' 26"	29° 56' 56"	7° 20' 20"	10° 36' 36"	8° 55' 55"	11° 31' 31"	11° 23' 23"	1° 12' 12"	25° 42' 42"	26° 19' 19"	7° 57' 57"	0° 15' 15"	F 29
S 30	9 12 34	19° 28' 09"	28° 27' 27"	24° 29' 29"	1° 11' 11"	8° 5' 5"	10° 45' 45"	9° 2' 2"	11° 35' 35"	11° 22' 22"	1° 14' 14"	25° 41' 41"	26° 16' 16"	8° 3' 3"	0° 18' 18"	S 30
S 31	9 16 30	20° 28' 44"	10° 27' 27"	23° 26' 26"	2° 11' 11"	8° 49' 49"	10° 53' 53"	9° 9' 9"	11° 38' 38"	11° 20' 20"	1° 15' 15"	25° 41' 41"	26° 12' 12"	8° 10' 10"	0° 21' 21"	S 31

Delta T = 120.00 sec

Julian Calendar 1 Jan. 1580 == Greg. Calendar 11 Jan. 1580

FEBRUARY 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	9 20 27	21°29'17	22°36	22°R20	3°41	9°33	11°1	9°16	11°41	11°R19	1°16	25°D41	26°9	8°17	0°Y24	M 1
T 2	9 24 24	22°29'49	4°55	21°12	4°56	10°17	11°10	9°23	11°45	11°18	1°17	25°41	26°6	8°23	0°27	T 2
W 3	9 28 20	23°30'19	17°25	20°3	6°11	11°2	11°18	9°30	11°48	11°17	1°18	25°41	26°3	8°30	0°30	W 3
T 4	9 32 17	24°30'47	0°7	18°57	7°26	11°46	11°25	9°38	11°52	11°16	1°20	25°41	26°0	8°37	0°33	T 4
F 5	9 36 13	25°31'15	13°2	17°54	8°41	12°30	11°33	9°45	11°55	11°14	1°21	25°R41	25°56	8°44	0°37	F 5
S 6	9 40 10	26°31'40	26°12	16°55	9°56	13°15	11°41	9°51	11°59	11°13	1°22	25°41	25°53	8°50	0°40	S 6
S 7	9 44 6	27°32'05	9°137	16°1	11°11	13°59	11°48	9°58	12°2	11°12	1°23	25°41	25°50	8°57	0°43	S 7
M 8	9 48 3	28°32'28	23°19	15°14	12°26	14°44	11°55	10°5	12°5	11°11	1°24	25°D41	25°47	9°4	0°46	M 8
T 9	9 51 59	29°32'50	7°16	14°34	13°40	15°28	12°3	10°12	12°9	11°10	1°26	25°41	25°44	9°10	0°49	T 9
W10	9 55 56	0°33'10	21°30	14°1	14°55	16°13	12°10	10°19	12°12	11°9	1°27	25°41	25°41	9°17	0°53	W10
T 11	9 59 53	1°33'29	5°56	13°35	16°10	16°57	12°16	10°26	12°15	11°8	1°28	25°41	25°37	9°24	0°56	T 11
F 12	10 3 49	2°33'47	20°33	13°16	17°25	17°42	12°23	10°33	12°19	11°7	1°30	25°42	25°34	9°30	0°59	F 12
S 13	10 7 46	3°34'03	5°15	13°5	18°39	18°26	12°30	10°40	12°22	11°6	1°31	25°43	25°31	9°37	1°3	S 13
S 14	10 11 42	4°34'17	19°55	13°D 0	19°54	19°11	12°36	10°46	12°25	11°5	1°32	25°R43	25°28	9°44	1°6	S 14
M15	10 15 39	5°34'30	4°27	13°2	21°9	19°56	12°42	10°53	12°29	11°5	1°34	25°43	25°25	9°50	1°9	M15
T 16	10 19 35	6°34'40	18°46	13°11	22°23	20°40	12°49	11°0	12°32	11°4	1°35	25°42	25°22	9°57	1°13	T 16
W17	10 23 32	7°34'49	2°45	13°25	23°38	21°25	12°55	11°7	12°35	11°3	1°36	25°41	25°18	10°4	1°16	W17
T 18	10 27 28	8°34'56	16°22	13°45	24°53	22°10	13°0	11°13	12°38	11°2	1°38	25°39	25°15	10°10	1°20	T 18
F 19	10 31 25	9°35'00	29°35	14°9	26°7	22°55	13°6	11°20	12°42	11°1	1°39	25°38	25°12	10°17	1°23	F 19
S 20	10 35 22	10°35'03	12°26	14°39	27°22	23°39	13°12	11°26	12°45	11°1	1°40	25°36	25°9	10°24	1°27	S 20
S 21	10 39 18	11°35'03	24°56	15°14	28°36	24°24	13°17	11°33	12°48	11°0	1°42	25°34	25°6	10°30	1°30	S 21
M22	10 43 15	12°35'02	7°11 9	15°52	29°51	25°9	13°22	11°40	12°51	10°59	1°43	25°D33	25°2	10°37	1°34	M22
T 23	10 47 11	13°34'58	19°9	16°35	1°15 5	25°54	13°27	11°46	12°54	10°59	1°45	25°33	24°59	10°44	1°37	T 23
W24	10 51 8	14°34'52	1°2	17°21	2°20	26°39	13°32	11°52	12°57	10°58	1°46	25°34	24°56	10°51	1°41	W24
T 25	10 55 4	15°34'43	12°52	18°11	3°34	27°24	13°37	11°59	13°1	10°58	1°48	25°36	24°53	10°57	1°44	T 25
F 26	10 59 1	16°34'33	24°43	19°4	4°48	28°8	13°41	12°5	13°4	10°57	1°49	25°37	24°50	11°4	1°48	F 26
S 27	11 2 57	17°34'20	6°141	20°0	6°3	28°53	13°45	12°11	13°7	10°57	1°50	25°39	24°47	11°11	1°52	S 27
S 28	11 6 54	18°34'05	18°48	20°59	7°17	29°38	13°50	12°18	13°10	10°56	1°52	25°40	24°43	11°17	1°55	S 28
M29	11 10 51	19°33'48	1°17 7	22°1	8°1731	0°23	13°154	12°24	13°13	10°56	1°53	25°R40	24°40	11°24	1°59	M29

ASTRODIENST EPHEMERIS for the year 1580

geocentric

MARCH 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	11 14 47	20 ^h 33'29"	13 ^h 41'	23 ^h 55'	9 ^h 45'	1 ^h 58'	13 ^h 57'	12 ^h 30'	13 ^h 16'	10 ^h 55'	1 ^h 55'	25 ^h R39	24 ^h 37'	11 ^h 31'	2 ^h 02'	T 1
W 2	11 18 44	21 ^h 33'07"	26 ^h 30'	24 ^h 11'	10 ^h 59'	1 ^h 53'	14 ^h 1'	12 ^h 36'	13 ^h 19'	10 ^h 55'	1 ^h 56'	25 ^h 36'	24 ^h 34'	11 ^h 37'	2 ^h 6'	W 2
T 3	11 22 40	22 ^h 32'44"	9 ^h 35'	25 ^h 20'	12 ^h 14'	2 ^h 38'	14 ^h 4'	12 ^h 42'	13 ^h 21'	10 ^h 55'	1 ^h 58'	25 ^h 33'	24 ^h 31'	11 ^h 44'	2 ^h 10'	T 3
F 4	11 26 37	23 ^h 32'19"	22 ^h 55'	26 ^h 31'	13 ^h 28'	3 ^h 23'	14 ^h 8'	12 ^h 48'	13 ^h 24'	10 ^h 55'	1 ^h 59'	25 ^h 29'	24 ^h 27'	11 ^h 51'	2 ^h 13'	F 4
S 5	11 30 33	24 ^h 31'52"	6 ^h 28'	27 ^h 43'	14 ^h 42'	4 ^h 8'	14 ^h 11'	12 ^h 54'	13 ^h 27'	10 ^h 54'	2 ^h 1'	25 ^h 24'	24 ^h 24'	11 ^h 57'	2 ^h 17'	S 5
S 6	11 34 30	25 ^h 31'23"	20 ^h 12'	28 ^h 58'	15 ^h 56'	4 ^h 53'	14 ^h 14'	13 ^h 0'	13 ^h 30'	10 ^h 54'	2 ^h 2'	25 ^h 20'	24 ^h 21'	12 ^h 4'	2 ^h 21'	S 6
M 7	11 38 26	26 ^h 30'52"	4 ^h 6'	0 ^h 15'	17 ^h 10'	5 ^h 38'	14 ^h 17'	13 ^h 6'	13 ^h 33'	10 ^h 54'	2 ^h 3'	25 ^h 17'	24 ^h 18'	12 ^h 11'	2 ^h 24'	M 7
T 8	11 42 23	27 ^h 30'20"	18 ^h 7'	1 ^h 34'	18 ^h 24'	6 ^h 24'	14 ^h 19'	13 ^h 12'	13 ^h 35'	10 ^h 54'	2 ^h 5'	25 ^h 15'	24 ^h 15'	12 ^h 17'	2 ^h 28'	T 8
W 9	11 46 20	28 ^h 29'46"	2 ^h 15'	2 ^h 54'	19 ^h 38'	7 ^h 9'	14 ^h 22'	13 ^h 18'	13 ^h 38'	10 ^h 54'	2 ^h 6'	25 ^h D15	24 ^h 12'	12 ^h 24'	2 ^h 32'	W 9
T 10	11 50 16	29 ^h 29'10"	16 ^h 26'	4 ^h 16'	20 ^h 52'	7 ^h 54'	14 ^h 24'	13 ^h 23'	13 ^h 41'	10 ^h 54'	2 ^h 8'	25 ^h 16'	24 ^h 8'	12 ^h 31'	2 ^h 35'	T 10
F 11	11 54 13	0 ^h 28'32"	0 ^h 41'	5 ^h 40'	22 ^h 5'	8 ^h 39'	14 ^h 26'	13 ^h 29'	13 ^h 44'	10 ^h 53'	2 ^h 9'	25 ^h 17'	24 ^h 5'	12 ^h 37'	2 ^h 39'	F 11
S 12	11 58 9	1 ^h 27'53"	14 ^h 55'	7 ^h 5'	23 ^h 19'	9 ^h 24'	14 ^h 28'	13 ^h 35'	13 ^h 46'	10 ^h D53	2 ^h 11'	25 ^h 18'	24 ^h 2'	12 ^h 44'	2 ^h 43'	S 12
S 13	12 2 6	2 ^h 27'12"	29 ^h 7'	8 ^h 32'	24 ^h 33'	10 ^h 9'	14 ^h 29'	13 ^h 40'	13 ^h 49'	10 ^h 53'	2 ^h 12'	25 ^h R19	23 ^h 59'	12 ^h 51'	2 ^h 46'	S 13
M14	12 6 2	3 ^h 26'28"	13 ^h 13'	10 ^h 0'	25 ^h 47'	10 ^h 55'	14 ^h 31'	13 ^h 46'	13 ^h 51'	10 ^h 54'	2 ^h 14'	25 ^h 17'	23 ^h 56'	12 ^h 57'	2 ^h 50'	M14
T 15	12 9 59	4 ^h 25'43"	27 ^h 10'	11 ^h 30'	27 ^h 1'	11 ^h 40'	14 ^h 32'	13 ^h 51'	13 ^h 54'	10 ^h 54'	2 ^h 15'	25 ^h 14'	23 ^h 53'	13 ^h 4'	2 ^h 54'	T 15
W16	12 13 55	5 ^h 24'56"	10 ^h 53'	13 ^h 2'	28 ^h 14'	12 ^h 25'	14 ^h 33'	13 ^h 56'	13 ^h 56'	10 ^h 54'	2 ^h 17'	25 ^h 9'	23 ^h 49'	13 ^h 11'	2 ^h 58'	W16
T 17	12 17 52	6 ^h 24'07"	24 ^h 19'	14 ^h 35'	29 ^h 28'	13 ^h 10'	14 ^h 34'	14 ^h 2'	13 ^h 59'	10 ^h 54'	2 ^h 18'	25 ^h 2'	23 ^h 46'	13 ^h 18'	3 ^h 1'	T 17
F 18	12 21 48	7 ^h 23'15"	7 ^h 27'	16 ^h 9'	0 ^h 41'	13 ^h 55'	14 ^h 35'	14 ^h 7'	14 ^h 1'	10 ^h 54'	2 ^h 20'	24 ^h 55'	23 ^h 43'	13 ^h 24'	3 ^h 5'	F 18
S 19	12 25 45	8 ^h 22'22"	20 ^h 16'	17 ^h 45'	1 ^h 55'	14 ^h 41'	14 ^h 35'	14 ^h 12'	14 ^h 4'	10 ^h 54'	2 ^h 21'	24 ^h 47'	23 ^h 40'	13 ^h 31'	3 ^h 9'	S 19
S 20	12 29 42	9 ^h 21'26"	2 ^h 46'	19 ^h 22'	3 ^h 9'	15 ^h 26'	14 ^h 36'	14 ^h 17'	14 ^h 6'	10 ^h 55'	2 ^h 23'	24 ^h 41'	23 ^h 37'	13 ^h 38'	3 ^h 12'	S 20
M21	12 33 38	10 ^h 20'28"	15 ^h 0'	21 ^h 1'	4 ^h 22'	16 ^h 11'	14 ^h R36	14 ^h 22'	14 ^h 8'	10 ^h 55'	2 ^h 24'	24 ^h 36'	23 ^h 33'	13 ^h 44'	3 ^h 16'	M21
T 22	12 37 35	11 ^h 19'27"	27 ^h 2'	22 ^h 41'	5 ^h 35'	16 ^h 56'	14 ^h 36'	14 ^h 27'	14 ^h 11'	10 ^h 55'	2 ^h 26'	24 ^h 33'	23 ^h 30'	13 ^h 51'	3 ^h 20'	T 22
W23	12 41 31	12 ^h 18'25"	8 ^h 35'	24 ^h 23'	6 ^h 49'	17 ^h 42'	14 ^h 36'	14 ^h 32'	14 ^h 13'	10 ^h 55'	2 ^h 27'	24 ^h D31	23 ^h 27'	13 ^h 58'	3 ^h 23'	W23
T 24	12 45 28	13 ^h 17'20"	20 ^h 45'	26 ^h 7'	8 ^h 2'	18 ^h 27'	14 ^h 35'	14 ^h 37'	14 ^h 15'	10 ^h 56'	2 ^h 28'	24 ^h 32'	23 ^h 24'	14 ^h 4'	3 ^h 27'	T 24
F 25	12 49 24	14 ^h 16'13"	2 ^h 36'	27 ^h 51'	9 ^h 15'	19 ^h 12'	14 ^h 35'	14 ^h 42'	14 ^h 17'	10 ^h 56'	2 ^h 30'	24 ^h 33'	23 ^h 21'	14 ^h 11'	3 ^h 31'	F 25
S 26	12 53 21	15 ^h 15'03"	14 ^h 35'	29 ^h 38'	10 ^h 29'	19 ^h 57'	14 ^h 34'	14 ^h 46'	14 ^h 19'	10 ^h 57'	2 ^h 31'	24 ^h 34'	23 ^h 18'	14 ^h 18'	3 ^h 34'	S 26
S 27	12 57 17	16 ^h 13'51"	26 ^h 46'	1 ^h 25'	11 ^h 42'	20 ^h 43'	14 ^h 33'	14 ^h 51'	14 ^h 21'	10 ^h 57'	2 ^h 33'	24 ^h R34	23 ^h 14'	14 ^h 24'	3 ^h 38'	S 27
M28	13 1 14	17 ^h 12'37"	9 ^h 12'	3 ^h 15'	12 ^h 55'	21 ^h 28'	14 ^h 32'	14 ^h 56'	14 ^h 23'	10 ^h 58'	2 ^h 34'	24 ^h 33'	23 ^h 11'	14 ^h 31'	3 ^h 41'	M28
T 29	13 5 11	18 ^h 11'21"	21 ^h 58'	5 ^h 6'	14 ^h 8'	22 ^h 13'	14 ^h 31'	15 ^h 0'	14 ^h 25'	10 ^h 58'	2 ^h 36'	24 ^h 30'	23 ^h 8'	14 ^h 38'	3 ^h 45'	T 29
W30	13 9 7	19 ^h 10'02"	5 ^h 4'	6 ^h 58'	15 ^h 21'	22 ^h 59'	14 ^h 29'	15 ^h 4'	14 ^h 27'	10 ^h 59'	2 ^h 37'	24 ^h 24'	23 ^h 5'	14 ^h 44'	3 ^h 49'	W30
T 31	13 13 4	20 ^h 1 ^h 8'42"	18 ^h 31'	8 ^h 52'	16 ^h 34'	23 ^h 44'	14 ^h 27'	15 ^h 9'	14 ^h 29'	11 ^h 0 ^h	2 ^h 39'	24 ^h 17'	23 ^h 2'	14 ^h 51'	3 ^h 52'	T 31

Delta T = 119.71 sec

Julian Calendar 1 March 1580 == Greg. Calendar 11 March 1580

APRIL 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	13 17 0	21 ^h 7'20	2 ^h 16'16	10 ^h 48'48	17 ^h 47'47	24 ^h 29'29	14 ^h R25'25	15 ^h 13'13	14 ^h 31'31	11 ^h 00'00	2 ^h 40'40	24 ^h R 8'08	22 ^h 59'59	14 ^h 58'58	3 ^h 56'56	F 1
S 2	13 20 57	22° 5'55	16°17'	12°45'	19° 0'	25°14'	14 ^h 23'23	15°17'	14°33'	11° 1'	2°41'	23 ^h 58'58	22°55'	15° 4'	3°59'	S 2
S 3	13 24 53	23° 4'29	0 ^h 28'28	14°43'	20°13'	26° 0'	14°21'	15°21'	14°35'	11° 2'	2°43'	23°49'	22°52'	15°11'	4° 3'	S 3
M 4	13 28 50	24° 3'02	14°44'	16°43'	21°26'	26°45'	14°19'	15°25'	14°36'	11° 2'	2°44'	23°42'	22°49'	15°18'	4° 6'	M 4
T 5	13 32 46	25° 1'32	29° 1'	18°45'	22°39'	27°30'	14°16'	15°29'	14°38'	11° 3'	2°46'	23°37'	22°46'	15°24'	4°10'	T 5
W 6	13 36 43	26° 0'01	13 ^h 31'16	20°47'	23°51'	28°16'	14°13'	15°33'	14°40'	11° 4'	2°47'	23°34'	22°43'	15°31'	4°13'	W 6
T 7	13 40 40	26°58'29	27°26'	22°52'	25° 4'	29° 1'	14°10'	15°37'	14°41'	11° 5'	2°48'	23°D34'	22°39'	15°38'	4°17'	T 7
F 8	13 44 36	27°56'55	11 ^h 29'29	24°57'	26°17'	29°46'	14° 7'	15°41'	14°43'	11° 6'	2°50'	23°34'	22°36'	15°44'	4°20'	F 8
S 9	13 48 33	28°55'19	25°25'	27° 3'	27°29'	0 ^h 31'31	14° 4'	15°44'	14°44'	11° 7'	2°51'	23°R34'	22°33'	15°51'	4°24'	S 9
S 10	13 52 29	29°53'41	9 ^h 14'14	29°11'	28°42'	1°17'17	14° 0'	15°48'	14°46'	11° 7'	2°52'	23°33'	22°30'	15°58'	4°27'	S 10
M11	13 56 26	0 ^h 52'02	22°54'24	1 ^h 19'19	29°54'54	2° 2'22	13°57'57	15°51'51	14°47'47	11° 8'08	2°54'54	23°30'30	22°27'27	16° 4'04	4°31'31	M11
T 12	14 0 22	1°50'22	6 ^h 25'25	3°28'28	1 ^h 11'11	7° 2'27	13°53'53	15°54'54	14°49'49	11° 9'09	2°55'55	23°24'24	22°24'24	16°11'11	4°34'34	T 12
W13	14 4 19	2°48'39	19°45'45	5°37'37	2°19'19	3°32'32	13°49'49	15°58'58	14°50'50	11°10'10	2°56'56	23°16'16	22°20'20	16°18'18	4°37'37	W13
T 14	14 8 15	3°46'55	2 ^h 52'52	7°46'46	3°31'31	4°17'17	13°45'45	16° 1'01	14°51'51	11°11'11	2°58'58	23° 5'05	22°17'17	16°24'24	4°41'41	T 14
F 15	14 12 12	4°45'09	15°45'45	9°55'55	4°44'44	5° 3'03	13°40'40	16° 4'04	14°52'52	11°13'13	2°59'59	22°53'53	22°14'14	16°31'31	4°44'44	F 15
S 16	14 16 9	5°43'22	28°24'24	12° 4'04	5°56'56	5°48'48	13°36'36	16° 7'07	14°54'54	11°14'14	3° 0'00	22°40'40	22°11'11	16°38'38	4°47'47	S 16
S 17	14 20 5	6°41'32	10 ^h 11'47	14°12'12	7° 8'08	6°33'33	13°31'31	16°10'10	14°55'55	11°15'15	3° 1'01	22°29'29	22° 8'08	16°44'44	4°50'50	S 17
M18	14 24 2	7°39'41	22°58'58	16°18'18	8°20'20	7°18'18	13°27'27	16°13'13	14°56'56	11°16'16	3° 3'03	22°20'20	22° 4'04	16°51'51	4°54'54	M18
T 19	14 27 58	8°37'48	4 ^h 55'57	18°24'24	9°32'32	8° 3'03	13°22'22	16°16'16	14°57'57	11°17'17	3° 4'04	22°13'13	22° 1'01	16°58'58	4°57'57	T 19
W20	14 31 55	9°35'53	16°49'49	20°28'28	10°44'44	8°48'48	13°17'17	16°18'18	14°58'58	11°18'18	3° 5'05	22° 8'08	21°58'58	17° 4'04	5° 0'00	W20
T 21	14 35 51	10°33'56	28°38'38	22°30'30	11°56'56	9°33'33	13°11'11	16°21'21	14°59'59	11°20'20	3° 6'06	22° 6'06	21°55'55	17°11'11	5° 3'03	T 21
F 22	14 39 48	11°31'57	10 ^h 28'28	24°29'29	13° 8'08	10°19'19	13° 6'06	16°23'23	15° 0'00	11°21'21	3° 8'08	22°D 6'06	21°52'52	17°18'18	5° 6'06	F 22
S 23	14 43 44	12°29'56	22°27'27	26°27'27	14°20'20	11° 4'04	13° 0'00	16°26'26	15° 1'01	11°22'22	3° 9'09	22°R 6'06	21°49'49	17°24'24	5° 9'09	S 23
S 24	14 47 41	13°27'54	4 ^h 38'38	28°22'22	15°32'32	11°49'49	12°55'55	16°28'28	15° 1'01	11°24'24	3°10'10	22° 5'05	21°45'45	17°31'31	5°13'13	S 24
M25	14 51 38	14°25'49	17° 6'06	0 ^h 11'11	16°43'43	12°34'34	12°49'49	16°30'30	15° 2'02	11°25'25	3°11'11	22° 3'03	21°42'42	17°38'38	5°16'16	M25
T 26	14 55 34	15°23'43	29°57'57	2° 3'03	17°55'55	13°19'19	12°43'43	16°32'32	15° 3'03	11°26'26	3°12'12	21°59'59	21°39'39	17°44'44	5°19'19	T 26
W27	14 59 31	16°21'35	13 ^h 11'13	3°49'49	19° 6'06	14° 3'03	12°37'37	16°34'34	15° 3'03	11°28'28	3°13'13	21°52'52	21°36'36	17°51'51	5°22'22	W27
T 28	15 3 27	17°19'25	26°54'54	5°32'32	20°18'18	14°48'48	12°31'31	16°36'36	15° 4'04	11°29'29	3°15'15	21°43'43	21°33'33	17°58'58	5°25'25	T 28
F 29	15 7 24	18°17'13	10 ^h 16'59	7°11'11	21°29'29	15°43'43	12°25'25	16°38'38	15° 5'05	11°31'31	3°16'16	21°32'32	21°30'30	18° 4'04	5°27'27	F 29
S 30	15 11 20	19 ^h 15'01	25 ^h 12'24	8 ^h 11'48	22 ^h 11'41	16 ^h 11'18	12 ^h 18'18	16 ^h 40'40	15 ^h 5'05	11 ^h 32'32	3 ^h 17'17	21 ^h 22'20	21 ^h 26'26	18 ^h 11'11	5 ^h 30'30	S 30

ASTRODIENST EPHEMERIS for the year 1580
geocentric

MAY 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	15 15 17	20 ⁸ 12'47	10 [♂] 1	10 [♂] 21	23 [♂] 52	17 [♂] 3	12 [♂] R12	16 [♂] 41	15 [♂] 6	11 [♂] 34	3 [♂] 18	21 [♂] R 9	21 [♂] 23	18 [♂] 18	5 [♂] 33	S 1
M 2	15 19 13	21 [♂] 10'31	24 [♂] 43	11 [♂] 50	25 [♂] 3	17 [♂] 48	12 [♂] ♂ 5	16 [♂] 43	15 [♂] 6	11 [♂] 35	3 [♂] 19	21 [♂] 20	18 [♂] 24	5 [♂] 36	M 2	
T 3	15 23 10	22 [♂] 8'15	9 [♂] 23	13 [♂] 16	26 [♂] 14	18 [♂] 33	11 [♂] 58	16 [♂] 44	15 [♂] 6	11 [♂] 37	3 [♂] 20	20 [♂] 54	21 [♂] 17	18 [♂] 31	5 [♂] 39	T 3
W 4	15 27 7	23 [♂] 5'57	23 [♂] 55	14 [♂] 39	27 [♂] 25	19 [♂] 17	11 [♂] 52	16 [♂] 46	15 [♂] 7	11 [♂] 38	3 [♂] 21	20 [♂] 50	21 [♂] 14	18 [♂] 38	5 [♂] 42	W 4
T 5	15 31 3	24 [♂] 3'38	8 [♂] 14	15 [♂] 57	28 [♂] 36	20 [♂] 2	11 [♂] 45	16 [♂] 47	15 [♂] 7	11 [♂] 40	3 [♂] 22	20 [♂] 48	21 [♂] 10	18 [♂] 44	5 [♂] 44	T 5
F 6	15 35 0	25 [♂] 1'18	22 [♂] 19	17 [♂] 13	29 [♂] 47	20 [♂] 47	11 [♂] 38	16 [♂] 48	15 [♂] 7	11 [♂] 42	3 [♂] 23	20 [♂] 48	21 [♂] 7	18 [♂] 51	5 [♂] 47	F 6
S 7	15 38 56	25 [♂] 58'57	6 [♂] ♂ 9	18 [♂] 24	0 [♂] 58	21 [♂] 31	11 [♂] 31	16 [♂] 49	15 [♂] 7	11 [♂] 43	3 [♂] 24	20 [♂] 48	21 [♂] 4	18 [♂] 58	5 [♂] 50	S 7
S 8	15 42 53	26 [♂] 56'35	19 [♂] 45	19 [♂] 32	2 [♂] 9	22 [♂] 16	11 [♂] 24	16 [♂] 50	15 [♂] 7	11 [♂] 45	3 [♂] 25	20 [♂] 46	21 [♂] 1	19 [♂] 4	5 [♂] 52	S 8
M 9	15 46 49	27 [♂] 54'12	3 [♂] ♂ 7	20 [♂] 36	3 [♂] 20	23 [♂] 1	11 [♂] 17	16 [♂] 51	15 [♂] 8	11 [♂] 47	3 [♂] 26	20 [♂] 43	20 [♂] 58	19 [♂] 11	5 [♂] 55	M 9
T 10	15 50 46	28 [♂] 51'48	16 [♂] 17	21 [♂] 36	4 [♂] 30	23 [♂] 45	11 [♂] 9	16 [♂] 52	15 [♂] R 8	11 [♂] 48	3 [♂] 27	20 [♂] 37	20 [♂] 55	19 [♂] 18	5 [♂] 57	T 10
W11	15 54 42	29 [♂] 49'24	29 [♂] 15	22 [♂] 32	5 [♂] 41	24 [♂] 30	11 [♂] 2	16 [♂] 52	15 [♂] 8	11 [♂] 50	3 [♂] 28	20 [♂] 27	20 [♂] 51	19 [♂] 24	6 [♂] 0	W11
T 12	15 58 39	0 [♂] 11'46'58	12 [♂] ♂ 2	23 [♂] 24	6 [♂] 52	25 [♂] 14	10 [♂] 55	16 [♂] 53	15 [♂] 7	11 [♂] 52	3 [♂] 29	20 [♂] 16	20 [♂] 48	19 [♂] 31	6 [♂] 2	T 12
F 13	16 2 36	1 [♂] 44'31	24 [♂] 37	24 [♂] 12	8 [♂] 2	25 [♂] 59	10 [♂] 47	16 [♂] 53	15 [♂] 7	11 [♂] 54	3 [♂] 30	20 [♂] 3	20 [♂] 45	19 [♂] 38	6 [♂] 5	F 13
S 14	16 6 32	2 [♂] 42'03	7 [♂] ♂ 1	24 [♂] 56	9 [♂] 12	26 [♂] 43	10 [♂] 40	16 [♂] 54	15 [♂] 7	11 [♂] 55	3 [♂] 30	19 [♂] 50	20 [♂] 42	19 [♂] 44	6 [♂] 7	S 14
S 15	16 10 29	3 [♂] 39'34	19 [♂] 14	25 [♂] 35	10 [♂] 23	27 [♂] 27	10 [♂] 32	16 [♂] 54	15 [♂] 7	11 [♂] 57	3 [♂] 31	19 [♂] 38	20 [♂] 39	19 [♂] 51	6 [♂] 9	S 15
M16	16 14 25	4 [♂] 37'04	1 [♂] ♂17	26 [♂] 10	11 [♂] 33	28 [♂] 12	10 [♂] 25	16 [♂] 54	15 [♂] 7	11 [♂] 59	3 [♂] 32	19 [♂] 28	20 [♂] 36	19 [♂] 58	6 [♂] 12	M16
T 17	16 18 22	5 [♂] 34'33	13 [♂] 12	26 [♂] 41	12 [♂] 43	28 [♂] 56	10 [♂] 17	16 [♂] R54	15 [♂] 6	12 [♂] 1	3 [♂] 33	19 [♂] 20	20 [♂] 32	20 [♂] 4	6 [♂] 14	T 17
W18	16 22 18	6 [♂] 32'00	25 [♂] 1	27 [♂] 8	13 [♂] 53	29 [♂] 40	10 [♂] 9	16 [♂] 54	15 [♂] 6	12 [♂] 3	3 [♂] 34	19 [♂] 15	20 [♂] 29	20 [♂] 11	6 [♂] 16	W18
T 19	16 26 15	7 [♂] 29'27	6 [♂] ♂48	27 [♂] 30	15 [♂] 3	0 [♂] ♂24	10 [♂] 2	16 [♂] 54	15 [♂] 6	12 [♂] 5	3 [♂] 34	19 [♂] 13	20 [♂] 26	20 [♂] 18	6 [♂] 18	T 19
F 20	16 30 11	8 [♂] 26'52	18 [♂] 37	27 [♂] 47	16 [♂] 13	1 [♂] 8	9 [♂] 54	16 [♂] 54	15 [♂] 5	12 [♂] 7	3 [♂] 35	19 [♂] D12	20 [♂] 23	20 [♂] 24	6 [♂] 20	F 20
S 21	16 34 8	9 [♂] 24'16	0 [♂] ♂34	28 [♂] 0	17 [♂] 22	1 [♂] 52	9 [♂] 46	16 [♂] 54	15 [♂] 5	12 [♂] 9	3 [♂] 36	19 [♂] 12	20 [♂] 20	20 [♂] 31	6 [♂] 22	S 21
S 22	16 38 5	10 [♂] 21'39	12 [♂] 44	28 [♂] 8	18 [♂] 32	2 [♂] 36	9 [♂] 39	16 [♂] 53	15 [♂] 4	12 [♂] 11	3 [♂] 37	19 [♂] R13	20 [♂] 16	20 [♂] 38	6 [♂] 25	S 22
M23	16 42 1	11 [♂] 19'01	25 [♂] 12	28 [♂] R11	19 [♂] 42	3 [♂] 20	9 [♂] 31	16 [♂] 53	15 [♂] 3	12 [♂] 13	3 [♂] 37	19 [♂] 12	20 [♂] 13	20 [♂] 44	6 [♂] 26	M23
T 24	16 45 58	12 [♂] 16'22	8 [♂] ♂ 2	28 [♂] 10	20 [♂] 51	4 [♂] 4	9 [♂] 24	16 [♂] 52	15 [♂] 3	12 [♂] 14	3 [♂] 38	19 [♂] 9	20 [♂] 10	20 [♂] 51	6 [♂] 28	T 24
W25	16 49 54	13 [♂] 13'41	21 [♂] 19	28 [♂] 5	22 [♂] 0	4 [♂] 48	9 [♂] 16	16 [♂] 51	15 [♂] 2	12 [♂] 16	3 [♂] 39	19 [♂] 4	20 [♂] 7	20 [♂] 58	6 [♂] 30	W25
T 26	16 53 51	14 [♂] 11'00	5 [♂] ♂ 4	27 [♂] 55	23 [♂] 10	5 [♂] 31	9 [♂] 8	16 [♂] 51	15 [♂] 1	12 [♂] 18	3 [♂] 39	18 [♂] 57	20 [♂] 4	21 [♂] 4	6 [♂] 32	T 26
F 27	16 57 47	15 [♂] 8'18	19 [♂] 17	27 [♂] 41	24 [♂] 19	6 [♂] 15	9 [♂] 1	16 [♂] 50	15 [♂] 0	12 [♂] 20	3 [♂] 40	18 [♂] 48	20 [♂] 1	21 [♂] 11	6 [♂] 34	F 27
S 28	17 1 44	16 [♂] 5'35	3 [♂] ♂54	27 [♂] 23	25 [♂] 28	6 [♂] 58	8 [♂] 53	16 [♂] 49	15 [♂] 0	12 [♂] 23	3 [♂] 40	18 [♂] 38	19 [♂] 57	21 [♂] 18	6 [♂] 36	S 28
S 29	17 5 41	17 [♂] 2'51	18 [♂] 48	27 [♂] 2	26 [♂] 37	7 [♂] 42	8 [♂] 46	16 [♂] 48	14 [♂] 59	12 [♂] 25	3 [♂] 41	18 [♂] 30	19 [♂] 54	21 [♂] 24	6 [♂] 37	S 29
M30	17 9 37	18 [♂] 0'07	3 [♂] ♂51	26 [♂] 37	27 [♂] 46	8 [♂] 25	8 [♂] 38	16 [♂] 46	14 [♂] 58	12 [♂] 27	3 [♂] 42	18 [♂] 22	19 [♂] 51	21 [♂] 31	6 [♂] 39	M30
T 31	17 13 34	18 [♂] 11'57'22	18 [♂] ♂53	26 [♂] II 9	28 [♂] 54	9 [♂] ♂ 9	8 [♂] ♂31	16 [♂] 45	14 [♂] 57	12 [♂] 29	3 [♂] ♂42	18 [♂] 17	19 [♂] 48	21 [♂] 38	6 [♂] ♂41	T 31

Delta T = 119.41 sec

Julian Calendar 1 May 1580 == Greg. Calendar 11 May 1580

JUNE 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	17 17 30	19 ^{II} 54'37	3 [≈] 44	25 ^R 39	0 [♂] 3	9 ^Y 52	8 ^R 23	16 ^R 44	14 ^R 56	12 [☾] 31	3 ^Y 43	18 ^R 14	19 [≈] 45	21 [☾] 44	6 ^Y 42	W 1
T 2	17 21 27	20°51'52	18°20	25 ^{II} 7	1°11	10°35	8 [♂] 16	16 [≈] 42	14 [≈] 55	12°33	3°43	18°D13	19°42	21°51	6°44	T 2
F 3	17 25 23	21°49'06	2 [♂] 36	24°34	2°20	11°19	8° 9	16°41	14°54	12°35	3°44	18 [≈] 14	19°38	21°58	6°45	F 3
S 4	17 29 20	22°46'20	16°31	23°59	3°28	12° 2	8° 1	16°39	14°53	12°37	3°44	18°R14	19°35	22° 4	6°47	S 4
S 5	17 33 16	23°43'33	0 ^Y 5	23°25	4°36	12°45	7°54	16°37	14°51	12°39	3°44	18°14	19°32	22°11	6°48	S 5
M 6	17 37 13	24°40'47	13°20	22°51	5°44	13°28	7°47	16°36	14°50	12°41	3°45	18°13	19°29	22°18	6°49	M 6
T 7	17 41 10	25°38'01	26°18	22°17	6°52	14°11	7°40	16°34	14°49	12°43	3°45	18° 9	19°26	22°24	6°51	T 7
W 8	17 45 6	26°35'14	9 [♂] 1	21°46	7°59	14°54	7°33	16°32	14°48	12°46	3°46	18° 3	19°22	22°31	6°52	W 8
T 9	17 49 3	27°32'28	21°32	21°16	9° 7	15°36	7°27	16°30	14°46	12°48	3°46	17°55	19°19	22°38	6°53	T 9
F 10	17 52 59	28°29'41	3 ^{II} 51	20°48	10°14	16°19	7°20	16°27	14°45	12°50	3°46	17°47	19°16	22°44	6°54	F 10
S 11	17 56 56	29°26'54	16° 1	20°24	11°22	17° 1	7°13	16°25	14°43	12°52	3°47	17°38	19°13	22°51	6°55	S 11
S 12	18 0 52	0 [☾] 24'07	28° 3	20° 3	12°29	17°44	7° 7	16°23	14°42	12°54	3°47	17°29	19°10	22°58	6°56	S 12
M13	18 4 49	1°21'20	9 [☾] 58	19°46	13°36	18°26	7° 0	16°20	14°40	12°57	3°47	17°22	19° 7	23° 4	6°57	M13
T 14	18 8 45	2°18'33	21°48	19°33	14°43	19° 9	6°54	16°18	14°39	12°59	3°47	17°17	19° 3	23°11	6°58	T 14
W15	18 12 42	3°15'46	3 [♂] 35	19°25	15°50	19°51	6°48	16°15	14°37	13° 1	3°48	17°14	19° 0	23°18	6°59	W15
T 16	18 16 39	4°12'58	15°22	19°D21	16°56	20°33	6°42	16°13	14°36	13° 3	3°48	17°D13	18°57	23°24	7° 0	T 16
F 17	18 20 35	5°10'10	27°13	19°22	18° 3	21°15	6°36	16°10	14°34	13° 5	3°48	17°13	18°54	23°31	7° 1	F 17
S 18	18 24 32	6° 7'22	9 [♂] 11	19°28	19° 9	21°57	6°30	16° 7	14°32	13° 8	3°48	17°15	18°51	23°38	7° 1	S 18
S 19	18 28 28	7° 4'33	3 [♂] 21	19°38	20°15	22°39	6°24	16° 4	14°31	13°10	3°48	17°16	18°48	23°44	7° 2	S 19
M20	18 32 25	8° 1'44	3 [♂] 47	19°54	21°21	23°20	6°19	16° 1	14°29	13°12	3°48	17°R17	18°44	23°51	7° 2	M20
T 21	18 36 21	8°58'55	16°35	20°15	22°26	24° 2	6°13	15°58	14°27	13°14	3°48	17°17	18°41	23°58	7° 3	T 21
W22	18 40 18	9°56'06	29°48	20°41	23°32	24°43	6° 8	15°55	14°25	13°16	3°48	17°15	18°38	24° 4	7° 3	W22
T 23	18 44 14	10°53'17	13 [♂] 28	21°12	24°37	25°25	6° 3	15°52	14°24	13°19	3°48	17°12	18°35	24°11	7° 4	T 23
F 24	18 48 11	11°50'28	27°38	21°48	25°42	26° 6	5°58	15°49	14°22	13°21	3°R48	17° 8	18°32	24°18	7° 4	F 24
S 25	18 52 8	12°47'39	12 [♂] 14	22°29	26°47	26°47	5°53	15°45	14°20	13°23	3°48	17° 3	18°28	24°24	7° 5	S 25
S 26	18 56 4	13°44'50	27°11	23°15	27°52	27°28	5°48	15°42	14°18	13°25	3°48	16°58	18°25	24°31	7° 5	S 26
M27	19 0 1	14°42'01	12 [☾] 21	24° 7	28°56	28° 9	5°44	15°38	14°16	13°28	3°48	16°54	18°22	24°38	7° 5	M27
T 28	19 3 57	15°39'12	27°34	25° 2	0 [♂] 1	28°50	5°39	15°35	14°14	13°30	3°48	16°52	18°19	24°44	7° 5	T 28
W29	19 7 54	16°36'24	12 [≈] 40	26° 3	1° 5	29°31	5°35	15°31	14°12	13°32	3°48	16°D51	18°16	24°51	7° 5	W29
T 30	19 11 50	17 [☾] 33'36	27 [≈] 32	27 ^{II} 9	2 [♂] 9	0 [♂] 11	5 [♂] 31	15 [≈] 28	14 [≈] 10	13 [☾] 34	3 ^Y 48	16 [≈] 51	18 [≈] 13	24 [☾] 58	7°R 5	T 30

ASTRODIENST EPHEMERIS for the year 1580

geocentric

JULY 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	19 15 47	18°30'49	12°28' 2	28°11'19	3°12'12	0°52'52	5°R27	15°R24	14°R 8	13°37	3°R48	16°52	18° 9	25°54	7°R 5	F 1
S 2	19 19 44	19°28'02	26° 8	29°34	4°16	1°32	5°23	15°20	14° 6	13°39	3°48	16°54	18° 6	25°11	7°Y 5	S 2
S 3	19 23 40	20°25'16	9°Y49	0°53	5°19	2°12	5°20	15°17	14° 4	13°41	3°47	16°55	18° 3	25°18	7° 5	S 3
M 4	19 27 37	21°22'31	23° 5	2°17	6°21	2°52	5°16	15°13	14° 1	13°43	3°47	16°R55	18° 0	25°24	7° 5	M 4
T 5	19 31 33	22°19'47	6°8 0	3°45	7°24	3°32	5°13	15° 9	13°59	13°45	3°47	16°54	17°57	25°31	7° 5	T 5
W 6	19 35 30	23°17'03	18°37	5°18	8°26	4°12	5°10	15° 5	13°57	13°48	3°47	16°53	17°54	25°38	7° 5	W 6
T 7	19 39 26	24°14'21	0°II58	6°54	9°28	4°52	5° 7	15° 1	13°55	13°50	3°47	16°50	17°50	25°44	7° 4	T 7
F 8	19 43 23	25°11'39	13° 7	8°34	10°30	5°31	5° 4	14°57	13°53	13°52	3°46	16°47	17°47	25°51	7° 4	F 8
S 9	19 47 19	26° 8'58	25° 7	10°18	11°32	6°10	5° 2	14°53	13°50	13°54	3°46	16°43	17°44	25°57	7° 3	S 9
S 10	19 51 16	27° 6'19	7°5 1	12° 5	12°33	6°50	4°59	14°49	13°48	13°56	3°46	16°40	17°41	26° 4	7° 3	S 10
M 11	19 55 13	28° 3'39	18°50	13°56	13°34	7°29	4°57	14°44	13°46	13°59	3°45	16°38	17°38	26°11	7° 2	M 11
T 12	19 59 9	29° 1'01	0°II38	15°49	14°34	8° 8	4°55	14°40	13°44	14° 1	3°45	16°36	17°34	26°17	7° 2	T 12
W 13	20 3 6	29°58'23	12°26	17°45	15°35	8°46	4°53	14°36	13°41	14° 3	3°44	16°D35	17°31	26°24	7° 1	W 13
T 14	20 7 2	0°II55'46	24°16	19°44	16°35	9°25	4°52	14°32	13°39	14° 5	3°44	16°35	17°28	26°31	7° 0	T 14
F 15	20 10 59	1°53'10	6°II12	21°44	17°34	10° 4	4°50	14°27	13°37	14° 7	3°44	16°36	17°25	26°37	7° 0	F 15
S 16	20 14 55	2°50'34	18°16	23°46	18°33	10°42	4°49	14°23	13°34	14° 9	3°43	16°37	17°22	26°44	6°59	S 16
S 17	20 18 52	3°47'59	0°II31	25°49	19°32	11°20	4°48	14°19	13°32	14°11	3°43	16°39	17°19	26°51	6°58	S 17
M 18	20 22 48	4°45'25	13° 0	27°53	20°31	11°58	4°47	14°14	13°30	14°14	3°42	16°40	17°15	26°57	6°57	M 18
T 19	20 26 45	5°42'52	25°48	29°57	21°29	12°36	4°46	14°10	13°27	14°16	3°42	16°40	17°12	27° 4	6°56	T 19
W 20	20 30 42	6°40'19	8°II58	2°II 2	22°26	13°13	4°46	14° 5	13°25	14°18	3°41	16°R40	17° 9	27°11	6°55	W 20
T 21	20 34 38	7°37'47	22°32	4° 7	23°24	13°51	4°45	14° 1	13°23	14°20	3°40	16°40	17° 6	27°17	6°54	T 21
F 22	20 38 35	8°35'16	6°Y31	6°12	24°20	14°28	4°D45	13°57	13°20	14°22	3°40	16°39	17° 3	27°24	6°53	F 22
S 23	20 42 31	9°32'45	20°55	8°16	25°17	15° 5	4°45	13°52	13°18	14°24	3°39	16°39	17° 0	27°31	6°52	S 23
S 24	20 46 28	10°30'16	5°II41	10°19	26°13	15°42	4°45	13°48	13°16	14°26	3°39	16°38	16°56	27°37	6°51	S 24
M 25	20 50 24	11°27'47	20°42	12°22	27° 8	16°18	4°46	13°43	13°13	14°28	3°38	16°37	16°53	27°44	6°49	M 25
T 26	20 54 21	12°25'20	5°II52	14°23	28° 3	16°55	4°46	13°39	13°11	14°30	3°37	16°37	16°50	27°51	6°48	T 26
W 27	20 58 17	13°22'53	21° 0	16°24	28°57	17°31	4°47	13°34	13° 8	14°32	3°37	16°D37	16°47	27°57	6°47	W 27
T 28	21 2 14	14°20'28	5°II58	18°23	29°51	18° 7	4°48	13°30	13° 6	14°34	3°36	16°37	16°44	28° 4	6°45	T 28
F 29	21 6 11	15°18'04	20°38	20°21	0°II44	18°43	4°49	13°25	13° 4	14°36	3°35	16°37	16°40	28°11	6°44	F 29
S 30	21 10 7	16°15'41	4°Y55	22°18	1°37	19°19	4°51	13°21	13° 1	14°38	3°35	16°R37	16°37	28°17	6°42	S 30
S 31	21 14 4	17°II13'20	18°Y45	24°II13	2°II29	19°Y54	4°Y52	13°II16	12°II59	14°II40	3°Y34	16°II37	16°II34	28°II24	6°Y41	S 31

Delta T = 119.12 sec

Julian Calendar 1 July 1580 == Greg. Calendar 11 July 1580

AUGUST 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	21 18 0	18°II11'01	2°8 8	26°II 7	3°II20	20°Y29	4°Y54	13°R12	12°R56	14°II42	3°R33	16°R37	16°II31	28°II31	6°R39	M 1
T 2	21 21 57	19° 8'43	15° 6	27°59	4°11	21° 4	4°56	13° 7	12°54	14°44	3°Y32	16°D37	16°28	28°37	6°Y37	T 2
W 3	21 25 53	20° 6'27	27°42	29°51	5° 1	21°39	4°58	13° 3	12°52	14°46	3°32	16°II37	16°25	28°44	6°36	W 3
T 4	21 29 50	21° 4'13	10°II 1	1°II40	5°50	22°14	5° 0	12°59	12°49	14°48	3°31	16°37	16°21	28°50	6°34	T 4
F 5	21 33 46	22° 2'00	22° 5	3°29	6°39	22°48	5° 2	12°54	12°47	14°50	3°30	16°38	16°18	28°57	6°32	F 5
S 6	21 37 43	22°59'49	4°5 0	5°16	7°27	23°22	5° 5	12°50	12°45	14°51	3°29	16°39	16°15	29° 4	6°30	S 6
S 7	21 41 40	23°57'40	15°49	7° 1	8°14	23°56	5° 8	12°45	12°42	14°53	3°28	16°39	16°12	29°10	6°29	S 7
M 8	21 45 36	24°55'32	27°37	8°46	9° 1	24°30	5°11	12°41	12°40	14°55	3°27	16°40	16° 9	29°17	6°27	M 8
T 9	21 49 33	25°53'26	9°II25	10°29	9°46	25° 3	5°14	12°37	12°38	14°57	3°27	16°40	16° 6	29°24	6°25	T 9
W 10	21 53 29	26°51'21	21°17	12°10	10°31	25°36	5°17	12°32	12°35	14°59	3°26	16°R40	16° 2	29°30	6°23	W 10
T 11	21 57 26	27°49'18	3°II15	13°50	11°15	26° 9	5°20	12°28	12°33	15° 0	3°25	16°40	15°59	29°37	6°21	T 11
F 12	22 1 22	28°47'16	15°21	15°29	11°58	26°41	5°24	12°24	12°31	15° 2	3°24	16°39	15°56	29°44	6°19	F 12
S 13	22 5 19	29°45'16	27°37	17° 7	12°39	27°14	5°28	12°20	12°28	15° 4	3°23	16°37	15°53	29°50	6°17	S 13
S 14	22 9 15	0°II43'18	10°II 5	18°43	13°20	27°45	5°32	12°16	12°26	15° 5	3°22	16°35	15°50	29°57	6°14	S 14
M 15	22 13 12	1°41'21	22°45	20°18	14° 0	28°17	5°36	12°11	12°24	15° 7	3°21	16°33	15°46	0°II 4	6°12	M 15
T 16	22 17 9	2°39'25	5°II41	21°52	14°39	28°48	5°40	12° 7	12°22	15° 9	3°20	16°31	15°43	0°10	6°10	T 16
W 17	22 21 5	3°37'31	18°53	23°25	15°17	29°19	5°45	12° 3	12°20	15°10	3°19	16°30	15°40	0°17	6° 8	W 17
T 18	22 25 2	4°35'38	2°Y24	24°56	15°53	29°50	5°49	11°59	12°17	15°12	3°18	16°D30	15°37	0°24	6° 5	T 18
F 19	22 28 58	5°33'47	16°14	26°26	16°28	0°II21	5°54	11°55	12°15	15°14	3°17	16°30	15°34	0°30	6° 3	F 19
S 20	22 32 55	6°31'57	0°Y23	27°55	17° 2	0°51	5°59	11°52	12°13	15°15	3°16	16°31	15°31	0°37	6° 1	S 20
S 21	22 36 51	7°30'09	14°51	29°22	17°35	1°21	6° 4	11°48	12°11	15°17	3°15	16°32	15°27	0°44	5°58	S 21
M 22	22 40 48	8°28'22	29°33	0°II48	18° 6	1°50	6°10	11°44	12° 9	15°18	3°14	16°33	15°24	0°50	5°56	M 22
T 23	22 44 44	9°26'37	14°II25	2°13	18°36	2°19	6°15	11°40	12° 7	15°20	3°13	16°R34	15°21	0°57	5°54	T 23
W 24	22 48 41	10°24'53	29°20	3°36	19° 4	2°48	6°21	11°37	12° 5	15°21	3°12	16°34	15°18	1° 4	5°51	W 24
T 25	22 52 38	11°23'11	14°II10	4°58	19°30	3°16	6°26	11°33	12° 3	15°23	3°11	16°32	15°15	1°10	5°49	T 25
F 26	22 56 34	12°21'31	28°47	6°19	19°55	3°45	6°32	11°30	12° 1	15°24	3°10	16°29	15°12	1°17	5°46	F 26
S 27	23 0 31	13°19'53	13°Y 5	7°38	20°19	4°12	6°38	11°26	11°59	15°25	3° 8	16°25	15° 8	1°23	5°44	S 27
S 28	23 4 27	14°18'17	27° 0	8°56	20°40	4°40	6°45	11°23	11°57	15°27	3° 7	16°21	15° 5	1°30	5°41	S 28
M 29	23 8 24	15°16'42	10°Y29	10°12	21° 0	5° 7	6°51	11°19	11°55	15°28	3° 6	16°17	15° 2	1°37	5°39	M 29
T 30	23 12 20	16°15'11	23°31	11°27	21°18	5°33	6°58	11°16	11°53	15°29	3° 5	16°14	14°59	1°43	5°36	T 30
W 31	23 16 17	17°II13'41	6°II11	12°II40	21°II34	5°II59	7°Y 4	11°II13	11°II52	15°II31	3°Y 4	16°II12	14°II56	1°II50	5°Y33	W 31

Delta T = 118.97 sec

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1580

geocentric

SEPTEMBER 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	23 20 13	18 ¹¹ 12'14	18 ¹¹ 30	13 ⁵¹ 51	21 ⁴⁹ 49	6 ¹¹ 25	7 ¹¹ 11	11 ¹⁰ R10	11 ¹⁰ R50	15 ⁵³ 32	3 ¹⁰ R 3	16 ¹⁰ D12	14 ⁴⁸ 52	1 ⁵⁷ 57	5 ¹⁰ R31	T 1
F 2	23 24 10	19 ¹⁰ 10'48	0 ⁵³ 34	15 ⁰ 0	22 ¹ 1	6 ⁵¹	7 ¹⁸	11 ⁸ 7	11 ⁸ 48	15 ³³	3 ¹⁰ Y 2	16 ⁸ 12	14 ⁴⁹	2 ³	5 ¹⁰ Y28	F 2
S 3	23 28 7	20 ⁹ 9'25	12 ²⁸	16 ⁸	22 ¹¹	7 ¹⁵	7 ²⁵	11 ⁴	11 ⁴⁶	15 ³⁴	3 ¹	16 ¹⁴	14 ⁴⁶	2 ¹⁰	5 ²⁵	S 3
S 4	23 32 3	21 ⁸ 8'05	24 ¹⁶	17 ¹³	22 ¹⁹	7 ⁴⁰	7 ³²	11 ¹	11 ⁴⁵	15 ³⁵	2 ⁵⁹	16 ¹⁶	14 ⁴³	2 ¹⁷	5 ²³	S 4
M 5	23 36 0	22 ⁶ 6'46	6 ¹⁰ 4	18 ¹⁶	22 ²⁴	8 ⁴	7 ⁴⁰	10 ⁵⁸	11 ⁴³	15 ³⁶	2 ⁵⁸	16 ¹⁷	14 ⁴⁰	2 ²³	5 ²⁰	M 5
T 6	23 39 56	23 ⁵ 5'29	17 ⁵⁵	19 ¹⁷	22 ²⁸	8 ²⁸	7 ⁴⁷	10 ⁵⁵	11 ⁴¹	15 ³⁸	2 ⁵⁷	16 ¹⁸ R18	14 ³⁷	2 ³⁰	5 ¹⁷	T 6
W 7	23 43 53	24 ⁴ 4'15	29 ⁵³	20 ¹⁵	22 ¹⁹ R29	8 ⁵¹	7 ⁵⁵	10 ⁵³	11 ⁴⁰	15 ³⁹	2 ⁵⁶	16 ¹⁷	14 ³³	2 ³⁷	5 ¹⁴	W 7
T 8	23 47 49	25 ³ 3'03	12 ¹¹ 1	21 ¹¹	22 ²⁸	9 ¹³	8 ³	10 ⁵⁰	11 ³⁸	15 ⁴⁰	2 ⁵⁵	16 ¹⁴	14 ³⁰	2 ⁴³	5 ¹²	T 8
F 9	23 51 46	26 ¹ 1'52	24 ²¹	22 ³	22 ²⁵	9 ³⁶	8 ¹¹	10 ⁴⁸	11 ³⁷	15 ⁴¹	2 ⁵⁴	16 ⁹	14 ²⁷	2 ⁵⁰	5 ⁹	F 9
S 10	23 55 42	27 ⁰ 0'44	6 ⁵⁴	22 ⁵²	22 ¹⁹	9 ⁵⁷	8 ¹⁹	10 ⁴⁵	11 ³⁵	15 ⁴²	2 ⁵³	16 ³	14 ²⁴	2 ⁵⁷	5 ⁶	S 10
S 11	23 59 39	27 ⁵⁹ 38	19 ⁴¹	23 ³⁸	22 ¹¹	10 ¹⁸	8 ²⁷	10 ⁴³	11 ³⁴	15 ⁴³	2 ⁵¹	15 ⁵⁵	14 ²¹	3 ³	5 ³	S 11
M12	0 3 35	28 ⁵⁸ 33	2 ¹¹ 40	24 ²⁰	22 ⁰	10 ³⁹	8 ³⁵	10 ⁴¹	11 ³³	15 ⁴³	2 ⁵⁰	15 ⁴⁸	14 ¹⁷	3 ¹⁰	5 ⁰	M12
T 13	0 7 32	29 ⁵⁷ 31	15 ⁵³	24 ⁵⁸	21 ⁴⁷	10 ⁵⁹	8 ⁴⁴	10 ³⁸	11 ³¹	15 ⁴⁴	2 ⁴⁹	15 ⁴¹	14 ¹⁴	3 ¹⁶	4 ⁵⁸	T 13
W14	0 11 29	0 ⁵⁶ 30	29 ¹⁸	25 ³²	21 ³²	11 ¹⁸	8 ⁵²	10 ³⁶	11 ³⁰	15 ⁴⁵	2 ⁴⁸	15 ³⁵	14 ¹¹	3 ²³	4 ⁵⁵	W14
T 15	0 15 25	1 ⁵⁵ 32	12 ¹¹ 56	26 ¹	21 ¹⁴	11 ³⁷	9 ¹	10 ³⁴	11 ²⁹	15 ⁴⁶	2 ⁴⁷	15 ³²	14 ⁸	3 ³⁰	4 ⁵²	T 15
F 16	0 19 22	2 ⁵⁴ 35	26 ⁴⁵	26 ²⁴	20 ⁵⁴	11 ⁵⁶	9 ¹⁰	10 ³²	11 ²⁷	15 ⁴⁷	2 ⁴⁵	15 ¹⁰ D30	14 ⁵	3 ³⁶	4 ⁴⁹	F 16
S 17	0 23 18	3 ⁵³ 40	10 ³ 45	26 ⁴²	20 ³²	12 ¹⁴	9 ¹⁹	10 ³¹	11 ²⁶	15 ⁴⁸	2 ⁴⁴	15 ³⁰	14 ²	3 ⁴³	4 ⁴⁶	S 17
S 18	0 27 15	4 ⁵² 46	24 ⁵⁶	26 ⁵⁴	20 ⁸	12 ³¹	9 ²⁸	10 ²⁹	11 ²⁵	15 ⁴⁸	2 ⁴³	15 ³¹	13 ⁵⁸	3 ⁵⁰	4 ⁴⁴	S 18
M19	0 31 11	5 ⁵¹ 55	9 ⁸ 16	26 ¹⁰ R59	19 ⁴¹	12 ⁴⁸	9 ³⁷	10 ²⁷	11 ²⁴	15 ⁴⁹	2 ⁴²	15 ¹⁰ R32	13 ⁵⁵	3 ⁵⁶	4 ⁴¹	M19
T 20	0 35 8	6 ⁵¹ 05	23 ⁴⁴	26 ⁵⁸	19 ¹³	13 ⁴	9 ⁴⁶	10 ²⁶	11 ²³	15 ⁵⁰	2 ⁴¹	15 ³²	13 ⁵²	4 ³	4 ³⁸	T 20
W21	0 39 4	7 ⁵⁰ 17	8 ¹¹ 14	26 ⁴⁹	18 ⁴³	13 ¹⁹	9 ⁵⁶	10 ²⁴	11 ²²	15 ⁵⁰	2 ⁴⁰	15 ³⁰	13 ⁴⁹	4 ¹⁰	4 ³⁵	W21
T 22	0 43 1	8 ⁴⁹ 30	22 ⁴³	26 ³²	18 ¹¹	13 ³⁴	10 ⁵	10 ²³	11 ²¹	15 ⁵¹	2 ³⁸	15 ²⁵	13 ⁴⁶	4 ¹⁶	4 ³²	T 22
F 23	0 46 58	9 ⁴⁸ 46	7 ¹⁰ 4	26 ⁷	17 ³⁸	13 ⁴⁸	10 ¹⁵	10 ²²	11 ²⁰	15 ⁵¹	2 ³⁷	15 ¹⁹	13 ⁴³	4 ²³	4 ²⁹	F 23
S 24	0 50 54	10 ⁴⁸ 04	21 ¹¹	25 ³⁴	17 ⁴	14 ²	10 ²⁵	10 ²¹	11 ¹⁹	15 ⁵²	2 ³⁶	15 ¹⁰	13 ³⁹	4 ³⁰	4 ²⁷	S 24
S 25	0 54 51	11 ⁴⁷ 23	5 ¹⁰ 8	24 ⁵³	16 ²⁹	14 ¹⁵	10 ³⁴	10 ²⁰	11 ¹⁸	15 ⁵²	2 ³⁵	15 ⁰	13 ³⁶	4 ³⁶	4 ²⁴	S 25
M26	0 58 47	12 ⁴⁶ 46	18 ²⁶	24 ⁴	15 ⁵³	14 ²⁷	10 ⁴⁴	10 ¹⁹	11 ¹⁸	15 ⁵³	2 ³⁴	14 ⁵¹	13 ³³	4 ⁴³	4 ²¹	M26
T 27	1 2 44	13 ⁴⁶ 10	1 ¹¹ 29	23 ⁷	15 ¹⁶	14 ³⁸	10 ⁵⁴	10 ¹⁸	11 ¹⁷	15 ⁵³	2 ³³	14 ⁴²	13 ³⁰	4 ⁵⁰	4 ¹⁸	T 27
W28	1 6 40	14 ⁴⁵ 37	14 ¹⁰	22 ⁴	14 ⁴⁰	14 ⁴⁹	11 ⁵	10 ¹⁷	11 ¹⁶	15 ⁵⁴	2 ³¹	14 ³⁶	13 ²⁷	4 ⁵⁶	4 ¹⁶	W28
T 29	1 10 37	15 ⁴⁵ 06	26 ³¹	20 ⁵⁶	14 ³	14 ⁵⁹	11 ¹⁵	10 ¹⁷	11 ¹⁶	15 ⁵⁴	2 ³⁰	14 ³²	13 ²³	5 ³	4 ¹³	T 29
F 30	1 14 33	16 ⁴⁴ 37	8 ³⁶	19 ⁴⁵	13 ²⁶	15 ¹¹ 8	11 ¹¹ 25	10 ¹⁶	11 ¹⁵	15 ⁵⁴	2 ¹⁰ Y29	14 ³⁰	13 ²⁰	5 ¹⁰ 9	4 ¹⁰ 10	F 30

Delta T = 118.82 sec

Julian Calendar 1 Sept. 1580 == Greg. Calendar 11 Sept. 1580

OCTOBER 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	1 18 30	17 ⁴⁴ 11	20 ⁵² 29	18°R31	12°R50	15 ¹¹ 17	11 ¹¹ 36	10°R16	11°R15	15 ⁵⁵	2°R28	14°D29	13 ¹⁸ 17	5 ¹⁰ 16	4°R 7	S 1
S 2	1 22 27	18°43'47	2 ¹⁰ 18	17 ¹⁸	12 ¹⁵	15°25	11°46	10 ¹⁵	11 ¹⁴	15°55	2°Y27	14 ³⁰	13°14	5°23	4°Y 5	S 2
M 3	1 26 23	19°43'25	14° 6	16° 7	11°41	15°32	11°57	10°15	11°14	15°55	2°26	14°R30	13°11	5°29	4° 2	M 3
T 4	1 30 20	20°43'05	26° 0	15° 0	11° 7	15°38	12° 8	10°15	11°13	15°55	2°25	14°29	13° 8	5°36	3°59	T 4
W 5	1 34 16	21°42'48	8 ¹¹ 3	14° 0	10°35	15°43	12°18	10°D15	11°13	15°55	2°24	14°27	13° 4	5°43	3°57	W 5
T 6	1 38 13	22°42'33	20°20	13° 8	10° 5	15°48	12°29	10°15	11°13	15°56	2°22	14°22	13° 1	5°49	3°54	T 6
F 7	1 42 9	23°42'19	2 ¹⁵ 3	12°26	9°37	15°52	12°40	10°15	11°12	15°56	2°21	14°14	12°58	5°56	3°51	F 7
S 8	1 46 6	24°42'09	15°43	11°54	9°10	15°55	12°52	10°16	11°12	15°56	2°20	14° 3	12°55	6° 3	3°49	S 8
S 9	1 50 2	25°42'00	28°52	11°34	8°45	15°57	13° 3	10°16	11°12	15°R56	2°19	13°51	12°52	6° 9	3°46	S 9
M10	1 53 59	26°41'53	12 ¹¹ 16	11°D25	8°23	15°58	13°14	10°16	11°12	15°56	2°18	13°39	12°49	6°16	3°44	M10
T 11	1 57 56	27°41'48	25 ⁵³	11°27	8° 2	15°R58	13°25	10°17	11°D12	15°56	2°17	13°27	12°45	6°23	3°41	T 11
W12	2 1 52	28°41'45	9°41	11°40	7°44	15°58	13°37	10°18	11°12	15°56	2°16	13°18	12°42	6°29	3°39	W12
T 13	2 5 49	29°41'44	23°37	12° 4	7°29	15°56	13°48	10°19	11°12	15°55	2°15	13°11	12°39	6°36	3°36	T 13
F 14	2 9 45	0 ¹¹ 41'44	7 ³ 37	12°37	7°15	15°54	14° 0	10°19	11°12	15°55	2°14	13° 6	12°36	6°42	3°34	F 14
S 15	2 13 42	1°41'46	21°40	13°19	7° 4	15°51	14°12	10°20	11°12	15°55	2°13	13° 5	12°33	6°49	3°31	S 15
S 16	2 17 38	2°41'50	5 ⁸ 45	14° 8	6°56	15°47	14°24	10°22	11°13	15°55	2°12	13° 4	12°29	6°56	3°29	S 16
M17	2 21 35	3°41'55	19°51	15° 5	6°50	15°42	14°35	10°23	11°13	15°55	2°11	13° 4	12°26	7° 2	3°26	M17
T 18	2 25 31	4°42'01	3 ¹¹ 57	16° 8	6°46	15°36	14°47	10°24	11°13	15°54	2°10	13° 3	12°23	7° 9	3°24	T 18
W19	2 29 28	5°42'09	18° 3	17°17	6°D45	15°29	14°59	10°25	11°14	15°54	2° 9	13° 0	12°20	7°16	3°22	W19
T 20	2 33 25	6°42'19	2°Y 4	18°30	6°47	15°22	15°11	10°27	11°14	15°54	2° 8	12°53	12°17	7°22	3°20	T 20
F 21	2 37 21	7°42'30	16° 0	19°47	6°50	15°13	15°23	10°29	11°15	15°53	2° 7	12°44	12°14	7°29	3°17	F 21
S 22	2 41 18	8°42'43	29°45	21° 7	6°57	15° 4	15°36	10°30	11°15	15°53	2° 6	12°32	12°10	7°36	3°15	S 22
S 23	2 45 14	9°42'58	13 ⁸ 16	22°30	7° 5	14°54	15°48	10°32	11°16	15°52	2° 5	12°19	12° 7	7°42	3°13	S 23
M24	2 49 11	10°43'15	26°30	23°56	7°15	14°43	16° 0	10°34	11°16	15°52	2° 5	12° 6	12° 4	7°49	3°11	M24
T 25	2 53 7	11°43'34	9 ¹¹ 25	25°24	7°28	14°31	16°13	10°36	11°17	15°51	2° 4	11°54	12° 1	7°56	3° 9	T 25
W26	2 57 4	12°43'54	22° 1	26°53	7°43	14°19	16°25	10°38	11°18	15°51	2° 3	11°44	11°58	8° 2	3° 7	W26
T 27	3 1 0	13°44'16	4 ⁵ 20	28°24	8° 0	14° 5	16°38	10°40	11°19	15°50	2° 2	11°37	11°54	8° 9	3° 5	T 27
F 28	3 4 57	14°44'41	16°24	29°56	8°19	13°51	16°50	10°43	11°19	15°50	2° 1	11°33	11°51	8°16	3° 3	F 28
S 29	3 8 54	15°45'07	28°17	1 ¹¹ 29	8°40	13°36	17° 3	10°45	11°20	15°49	2° 0	11°31	11°48	8°22	3° 1	S 29
S 30	3 12 50	16°45'35	10 ¹⁰ 6	3° 2	9° 3	13°20	17°15	10°47	11°21	15°48	2° 0	11°30	11°45	8°29	2°59	S 30
M31	3 16 47	17 ¹¹ 46'04	21 ¹⁰ 54	4 ¹¹ 36	9 ¹² 28	13 ¹¹ 3	17 ¹¹ 28	10 ¹⁵ 50	11 ¹¹ 22	15 ⁵³ 48	1°Y59	11 ¹¹ 30	11 ¹¹ 42	8 ¹⁰ 35	2°Y57	M31

ASTRODIENST EPHEMERIS for the year 1580
geocentric

NOVEMBER 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	3 20 43	18♌46°36	3♏47	6♍10	9♎54	12°R46	17♌41	10♏53	11♏23	15°R47	1°R58	11°R30	11♏39	8♏42	2°R56	T 1
W 2	3 24 40	19°47'09	15°52	7°45	10°23	12♏28	17°54	10°56	11°24	15♏46	1°Y57	11♏27	11°35	8°49	2°Y54	W 2
T 3	3 28 36	20°47'45	28°12	9°20	10°52	12° 9	18° 7	10°58	11°25	15°45	1°57	11°22	11°32	8°55	2°52	T 3
F 4	3 32 33	21°48'21	10♎52	10°55	11°24	11°50	18°20	11° 1	11°27	15°44	1°56	11°14	11°29	9° 2	2°51	F 4
S 5	3 36 29	22°49'00	23°55	12°30	11°57	11°30	18°33	11° 4	11°28	15°44	1°55	11° 4	11°26	9° 9	2°49	S 5
S 6	3 40 26	23°49'40	7♍20	14° 5	12°31	11°10	18°46	11° 8	11°29	15°43	1°54	10°52	11°23	9°15	2°48	S 6
M 7	3 44 23	24°50'22	21° 6	15°40	13° 7	10°49	18°59	11°11	11°30	15°42	1°54	10°40	11°20	9°22	2°46	M 7
T 8	3 48 19	25°51'06	5♌9	17°15	13°44	10°28	19°12	11°14	11°32	15°41	1°53	10°28	11°16	9°29	2°45	T 8
W 9	3 52 16	26°51'50	19°24	18°50	14°22	10° 6	19°25	11°18	11°33	15°40	1°53	10°18	11°13	9°35	2°43	W 9
T 10	3 56 12	27°52'36	3♏46	20°25	15° 2	9°44	19°38	11°21	11°35	15°39	1°52	10°10	11°10	9°42	2°42	T 10
F 11	4 0 9	28°53'23	18° 9	22° 0	15°43	9°22	19°52	11°25	11°36	15°38	1°51	10° 6	11° 7	9°49	2°41	F 11
S 12	4 4 5	29°54'12	2♏29	23°34	16°25	8°59	20° 5	11°28	11°38	15°37	1°51	10° 4	11° 4	9°55	2°39	S 12
S 13	4 8 2	0♏55°01	16°42	25° 9	17° 8	8°36	20°18	11°32	11°40	15°36	1°50	10°D 4	11° 0	10° 2	2°38	S 13
M14	4 11 58	1°55'51	0♏48	26°44	17°52	8°13	20°32	11°36	11°41	15°35	1°50	10°R 4	10°57	10° 8	2°37	M14
T 15	4 15 55	2°56'41	14°45	28°18	18°37	7°50	20°45	11°40	11°43	15°33	1°49	10° 4	10°54	10°15	2°36	T 15
W16	4 19 52	3°57'33	28°33	29°52	19°24	7°27	20°58	11°44	11°45	15°32	1°49	10° 1	10°51	10°22	2°35	W16
T 17	4 23 48	4°58'25	12°Y13	1♌27	20°11	7° 4	21°12	11°48	11°46	15°31	1°48	9°56	10°48	10°28	2°34	T 17
F 18	4 27 45	5°59'19	25°42	3° 1	20°59	6°41	21°25	11°52	11°48	15°30	1°48	9°48	10°45	10°35	2°33	F 18
S 19	4 31 41	7° 0'13	9♏2	4°35	21°48	6°18	21°39	11°56	11°50	15°29	1°48	9°38	10°41	10°42	2°32	S 19
S 20	4 35 38	8° 1'08	22° 9	6°10	22°38	5°55	21°52	12° 1	11°52	15°27	1°47	9°27	10°38	10°48	2°32	S 20
M21	4 39 34	9° 2'04	5♏2	7°44	23°28	5°32	22° 6	12° 5	11°54	15°26	1°47	9°16	10°35	10°55	2°31	M21
T 22	4 43 31	10° 3'01	17°42	9°18	24°20	5°10	22°19	12°10	11°56	15°25	1°47	9° 5	10°32	11° 2	2°30	T 22
W23	4 47 27	11° 4'00	0♏7	10°52	25°12	4°48	22°33	12°14	11°58	15°24	1°46	8°57	10°29	11° 8	2°29	W23
T 24	4 51 24	12° 4'59	12°19	12°27	26° 5	4°26	22°47	12°19	12° 0	15°22	1°46	8°50	10°26	11°15	2°29	T 24
F 25	4 55 21	13° 5'59	24°20	14° 1	26°58	4° 5	23° 0	12°24	12° 2	15°21	1°46	8°47	10°22	11°22	2°28	F 25
S 26	4 59 17	14° 7'00	6♏11	15°35	27°53	3°44	23°14	12°29	12° 5	15°19	1°46	8°D46	10°19	11°28	2°28	S 26
S 27	5 3 14	15° 8'02	17°59	17°10	28°48	3°23	23°28	12°33	12° 7	15°18	1°45	8°46	10°16	11°35	2°28	S 27
M28	5 7 10	16° 9'05	29°46	18°44	29°43	3° 3	23°41	12°38	12° 9	15°17	1°45	8°47	10°13	11°42	2°27	M28
T 29	5 11 7	17°10'09	11♏38	20°19	0♏40	2°44	23°55	12°43	12°11	15°15	1°45	8°R48	10°10	11°48	2°27	T 29
W30	5 15 3	18♌11°14	23♏41	21♌54	1♍36	2♏25	24♌9	12♏48	12♏14	15♏14	1°Y45	8♏48	10♏6	11♏25	2°Y27	W30

Delta T = 118.53 sec

Julian Calendar 1 Nov. 1580 == Greg. Calendar 11 Nov. 1580

DECEMBER 1580 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	5 19 0	19♌12°20	6♎0	23♌29	2♍34	2°R 6	24♌23	12♏54	12♏16	15°R12	1°R45	8°R46	10♏3	12♏1	2°R27	T 1
F 2	5 22 56	20°13'27	18°39	25° 4	3°32	1♏49	24°36	12°59	12°19	15♏11	1°Y45	8♏43	10° 0	12° 8	2°Y26	F 2
S 3	5 26 53	21°14'34	1♍43	26°39	4°30	1°32	24°50	13° 4	12°21	15° 9	1°44	8°37	9°57	12°15	2°D26	S 3
S 4	5 30 50	22°15'43	15°13	28°15	5°29	1°15	25° 4	13° 9	12°24	15° 8	1°44	8°30	9°54	12°21	2°26	S 4
M 5	5 34 46	23°16'52	29° 9	29°50	6°28	1° 0	25°18	13°15	12°26	15° 6	1°44	8°22	9°51	12°28	2°26	M 5
T 6	5 38 43	24°18'02	13♌28	1♏26	7°28	0°45	25°31	13°20	12°29	15° 5	1°D44	8°14	9°47	12°35	2°27	T 6
W 7	5 42 39	25°19'12	28° 5	3° 2	8°29	0°31	25°45	13°26	12°31	15° 3	1°44	8° 8	9°44	12°41	2°27	W 7
T 8	5 46 36	26°20'23	12♏53	4°38	9°29	0°17	25°59	13°32	12°34	15° 1	1°44	8° 3	9°41	12°48	2°27	T 8
F 9	5 50 32	27°21'34	27°42	6°14	10°31	0° 5	26°13	13°37	12°37	15° 0	1°44	8° 1	9°38	12°55	2°27	F 9
S 10	5 54 29	28°22'45	12♏28	7°51	11°32	29♏53	26°27	13°43	12°39	14°58	1°45	8°D 1	9°35	13° 1	2°28	S 10
S 11	5 58 26	29°23'56	27° 2	9°27	12°34	29°42	26°40	13°49	12°42	14°57	1°45	8° 2	9°32	13° 8	2°28	S 11
M12	6 2 22	0♏25°07	11♏21	11° 3	13°36	29°32	26°54	13°55	12°45	14°55	1°45	8° 3	9°28	13°15	2°28	M12
T 13	6 6 19	1°26'18	25°24	12°40	14°39	29°23	27° 8	14° 1	12°48	14°53	1°45	8°R 4	9°25	13°21	2°29	T 13
W14	6 10 15	2°27'29	9°Y10	14°16	15°42	29°14	27°22	14° 6	12°50	14°52	1°45	8° 4	9°22	13°28	2°30	W14
T 15	6 14 12	3°28'39	22°38	15°52	16°45	29° 6	27°36	14°13	12°53	14°50	1°45	8° 3	9°19	13°34	2°30	T 15
F 16	6 18 8	4°29'50	5♏51	17°28	17°49	29° 0	27°49	14°19	12°56	14°48	1°46	7°59	9°16	13°41	2°31	F 16
S 17	6 22 5	5°31'00	18°50	19° 4	18°53	28°54	28° 3	14°25	12°59	14°47	1°46	7°55	9°12	13°48	2°32	S 17
S 18	6 26 1	6°32'10	1♏35	20°39	19°57	28°49	28°17	14°31	13° 2	14°45	1°46	7°49	9° 9	13°54	2°32	S 18
M19	6 29 58	7°33'20	14° 8	22°14	21° 2	28°44	28°31	14°37	13° 5	14°43	1°46	7°44	9° 6	14° 1	2°33	M19
T 20	6 33 55	8°34'30	26°30	23°48	22° 7	28°41	28°44	14°43	13° 8	14°42	1°47	7°39	9° 3	14° 8	2°34	T 20
W21	6 37 51	9°35'39	8♏41	25°21	23°12	28°38	28°58	14°50	13°11	14°40	1°47	7°35	9° 0	14°14	2°35	W21
T 22	6 41 48	10°36'49	20°43	26°53	24°17	28°36	29°12	14°56	13°14	14°38	1°47	7°32	8°57	14°21	2°36	T 22
F 23	6 45 44	11°37'58	2♏37	28°23	25°23	28°35	29°25	15° 2	13°17	14°37	1°48	7°D31	8°53	14°28	2°37	F 23
S 24	6 49 41	12°39'07	14°27	29°51	26°29	28°D35	29°39	15° 9	13°20	14°35	1°48	7°31	8°50	14°34	2°38	S 24
S 25	6 53 37	13°40'16	26°14	1♏17	27°35	28°35	29°53	15°15	13°23	14°33	1°49	7°32	8°47	14°41	2°40	S 25
M26	6 57 34	14°41'25	8♏1	2°41	28°41	28°36	0♏6	15°22	13°26	14°32	1°49	7°33	8°44	14°48	2°41	M26
T 27	7 1 30	15°42'34	19°54	4° 1	29°48	28°38	0°20	15°28	13°30	14°30	1°50	7°35	8°41	14°54	2°42	T 27
W28	7 5 27	16°43'42	1♎56	5°17	0♏55	28°41	0°33	15°35	13°33	14°28	1°50	7°37	8°38	15° 1	2°44	W28
T 29	7 9 24	17°44'50	14°12	6°29	2° 2	28°44	0°47	15°42	13°36	14°26	1°51	7°R37	8°34	15° 8	2°45	T 29
F 30	7 13 20	18°45'59	26°46	7°36	3° 9	28°48	1° 0	15°48	13°39	14°25	1°51	7°37	8°31	15°14	2°46	F 30
S 31	7 17 17	19♏47°07	9♍44	8♏37	4♌17	28♏53	1♏14	15♏55	13♏42	14♏23	1°Y52	7♏36	8♏28	15♏21	2°Y48	S 31

Delta T = 118.38 sec

Julian Calendar