



Astrodienst Ephemeris Tables for the year 1520

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 1520

geocentric

JANUARY 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	7 16 22	19°35'20	1°11'59	19°35'50	19°R45	10°36	17°11	23°35'56	12°R39	27°27	8°32	19°R44	18°17	23°11'21	7°33'33	S 1
M 2	7 20 19	20°36'25	15°17	21°31	19°38	10°52	17°28	24°3	12°38	27°29	8°4	19°41	18°14	23°28	7°37	M 2
T 3	7 24 15	21°37'30	28°25	23°11	18°31	11°38	17°37	24°10	12°38	27°31	8°6	19°35	18°11	23°34	7°42	T 3
W 4	7 28 12	22°38'34	11°22	24°52	17°55	12°24	17°46	24°18	12°38	27°33	8°8	19°26	18°7	23°41	7°46	W 4
T 5	7 32 9	23°39'37	24°8	26°34	17°20	13°10	17°55	24°25	12°37	27°35	8°10	19°16	18°4	23°48	7°51	T 5
F 6	7 36 5	24°40'40	6°41	28°16	16°45	13°56	18°3	24°32	12°37	27°37	8°12	19°3	18°1	23°55	7°56	F 6
S 7	7 40 2	25°41'42	19°2	29°59	16°12	14°42	18°12	24°39	12°37	27°39	8°14	18°50	17°58	24°1	8°0	S 7
S 8	7 43 58	26°42'43	1°12	1°42	15°40	15°29	18°20	24°46	12°36	27°41	8°16	18°38	17°55	24°8	8°5	S 8
M 9	7 47 55	27°43'43	13°13	3°26	15°10	16°15	18°29	24°53	12°36	27°43	8°18	18°28	17°51	24°15	8°10	M 9
T 10	7 51 51	28°44'43	25°6	5°10	14°42	17°1	18°37	25°0	12°36	27°45	8°20	18°20	17°48	24°21	8°14	T 10
W 11	7 55 48	29°45'42	6°55	6°55	14°16	17°48	18°45	25°7	12°36	27°47	8°22	18°15	17°45	24°28	8°19	W 11
T 12	7 59 44	0°46'40	18°45	8°40	13°52	18°34	18°52	25°14	12°D36	27°49	8°24	18°13	17°42	24°35	8°24	T 12
F 13	8 3 41	1°47'38	0°41	10°25	13°30	19°20	19°0	25°22	12°36	27°51	8°26	18°D12	17°39	24°41	8°28	F 13
S 14	8 7 38	2°48'35	12°48	12°10	13°10	20°7	19°8	25°29	12°36	27°53	8°28	18°R12	17°36	24°48	8°33	S 14
S 15	8 11 34	3°49'31	25°12	13°55	12°53	20°53	19°15	25°36	12°36	27°55	8°30	18°12	17°32	24°55	8°38	S 15
M 16	8 15 31	4°50'27	7°57	15°40	12°38	21°40	19°22	25°43	12°37	27°57	8°32	18°11	17°29	25°1	8°42	M 16
T 17	8 19 27	5°51'21	21°9	17°25	12°26	22°26	19°30	25°50	12°37	27°59	8°34	18°7	17°26	25°8	8°47	T 17
W 18	8 23 24	6°52'15	4°38	19°10	12°16	23°13	19°37	25°57	12°37	28°1	8°36	18°0	17°23	25°15	8°52	W 18
T 19	8 27 20	7°53'08	18°54	20°53	12°9	24°0	19°43	26°4	12°37	28°4	8°37	17°51	17°20	25°22	8°56	T 19
F 20	8 31 17	8°54'00	3°24	22°36	12°4	24°46	19°50	26°11	12°38	28°6	8°39	17°40	17°17	25°28	9°1	F 20
S 21	8 35 13	9°54'51	18°12	24°17	12°D 2	25°33	19°57	26°18	12°38	28°8	8°41	17°27	17°13	25°35	9°6	S 21
S 22	8 39 10	10°55'40	3°9	25°57	12°2	26°20	20°3	26°25	12°39	28°10	8°43	17°16	17°10	25°42	9°10	S 22
M 23	8 43 7	11°56'28	18°4	27°34	12°5	27°6	20°9	26°32	12°39	28°12	8°45	17°6	17°7	25°48	9°15	M 23
T 24	8 47 3	12°57'14	2°9	29°9	12°9	27°53	20°16	26°39	12°40	28°15	8°47	16°59	17°4	25°55	9°20	T 24
W 25	8 51 0	13°57'59	17°22	0°40	12°17	28°40	20°22	26°46	12°41	28°17	8°48	16°55	17°1	26°2	9°24	W 25
T 26	8 54 56	14°58'42	1°33	2°8	12°26	29°26	20°27	26°53	12°41	28°19	8°50	16°53	16°57	26°8	9°29	T 26
F 27	8 58 53	15°59'23	15°25	3°31	12°38	0°13	20°33	26°59	12°42	28°21	8°52	16°53	16°54	26°15	9°34	F 27
S 28	9 2 49	17°0'03	28°58	4°50	12°51	1°0	20°38	27°6	12°43	28°23	8°54	16°53	16°51	26°22	9°38	S 28
S 29	9 6 46	18°0'41	12°14	6°2	13°7	1°47	20°44	27°13	12°44	28°26	8°55	16°51	16°48	26°28	9°43	S 29
M 30	9 10 42	19°1'17	25°15	7°8	13°25	2°34	20°49	27°20	12°45	28°28	8°57	16°48	16°45	26°35	9°48	M 30
T 31	9 14 39	20°1'52	8°4	8°7	13°45	3°20	20°54	27°27	12°46	28°30	8°59	16°41	16°42	26°42	9°52	T 31

Delta T = 247.16 sec

Julian Calendar 1 Jan. 1520 == Greg. Calendar 11 Jan. 1520

FEBRUARY 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	9 18 36	21°22'24	20°41	8°58	14°36	4°54	20°11	27°33	12°47	28°32	9°30	16°R31	16°38	26°11'49	9°55'57	W 1
T 2	9 22 32	22°2'56	3°48	9°40	14°30	4°54	21°4	27°40	12°48	28°35	9°2	16°19	16°35	26°55	10°2	T 2
F 3	9 26 29	23°3'25	15°27	10°14	14°55	5°41	21°8	27°47	12°49	28°37	9°4	16°5	16°32	27°2	10°6	F 3
S 4	9 30 25	24°3'53	27°37	10°37	15°22	6°28	21°12	27°53	12°50	28°39	9°5	15°50	16°29	27°9	10°11	S 4
S 5	9 34 22	25°4'19	9°39	10°51	15°50	7°15	21°17	28°0	12°52	28°42	9°7	15°37	16°26	27°15	10°15	S 5
M 6	9 38 18	26°4'43	21°34	10°R55	16°21	8°2	21°21	28°7	12°53	28°44	9°8	15°25	16°22	27°22	10°20	M 6
T 7	9 42 15	27°5'06	3°25	10°49	16°52	8°49	21°24	28°13	12°54	28°46	9°10	15°15	16°19	27°29	10°25	T 7
W 8	9 46 11	28°5'28	15°14	10°32	17°25	9°36	21°28	28°20	12°56	28°48	9°11	15°9	16°16	27°35	10°29	W 8
T 9	9 50 8	29°5'48	27°3	10°7	18°0	10°23	21°32	28°26	12°57	28°51	9°13	15°5	16°13	27°42	10°34	T 9
F 10	9 54 5	0°5'06	8°58	9°32	18°36	11°10	21°35	28°33	12°59	28°53	9°14	15°3	16°10	27°49	10°38	F 10
S 11	9 58 1	1°6'23	21°3	8°50	19°13	11°57	21°38	28°39	13°0	28°55	9°16	15°D 3	16°7	27°55	10°42	S 11
S 12	10 1 58	2°6'39	3°23	8°1	19°51	12°44	21°41	28°45	13°2	28°57	9°17	15°R 4	16°3	28°2	10°47	S 12
M 13	10 5 54	3°6'53	16°4	7°6	20°31	13°31	21°44	28°52	13°3	29°0	9°19	15°3	16°0	28°9	10°51	M 13
T 14	10 9 51	4°7'05	29°10	6°8	21°12	14°18	21°46	28°58	13°5	29°2	9°20	15°0	15°57	28°16	10°56	T 14
W 15	10 13 47	5°7'16	12°46	5°6	21°54	15°5	21°49	29°4	13°7	29°4	9°21	14°55	15°54	28°22	11°0	W 15
T 16	10 17 44	6°7'26	26°51	4°4	22°37	15°52	21°51	29°10	13°8	29°7	9°23	14°48	15°51	28°29	11°5	T 16
F 17	10 21 40	7°7'34	11°25	3°2	23°21	16°39	21°53	29°16	13°10	29°9	9°24	14°38	15°48	28°36	11°9	F 17
S 18	10 25 37	8°7'40	26°21	2°1	24°5	17°26	21°55	29°22	13°12	29°11	9°25	14°28	15°44	28°42	11°13	S 18
S 19	10 29 34	9°7'44	11°32	1°4	24°51	18°13	21°57	29°29	13°14	29°13	9°27	14°18	15°41	28°49	11°17	S 19
M 20	10 33 30	10°7'46	26°46	0°11	25°38	19°0	21°58	29°34	13°16	29°16	9°28	14°9	15°38	28°56	11°22	M 20
T 21	10 37 27	11°7'46	11°53	29°22	26°25	19°47	21°59	29°40	13°18	29°18	9°29	14°3	15°35	29°2	11°26	T 21
W 22	10 41 23	12°7'44	26°44	28°40	27°14	20°34	22°1	29°46	13°20	29°20	9°30	14°0	15°32	29°9	11°30	W 22
T 23	10 45 20	13°7'40	11°13	28°3	28°3	21°21	22°1	29°52	13°22	29°22	9°31	13°D58	15°28	29°16	11°34	T 23
F 24	10 49 16	14°7'34	25°17	27°32	28°53	22°8	22°2	29°58	13°24	29°25	9°32	13°59	15°25	29°22	11°38	F 24
S 25	10 53 13	15°7'25	8°56	27°8	29°43	22°55	22°3	0°4	13°26	29°27	9°34	13°R59	15°22	29°29	11°42	S 25
S 26	10 57 9	16°7'15	22°12	26°51	0°35	23°42	22°3	0°9	13°28	29°29	9°35	13°59	15°19	29°36	11°47	S 26
M 27	11 1 6	17°7'02	5°7	26°40	1°27	24°29	22°R 3	0°15	13°31	29°31	9°36	13°58	15°16	29°42	11°51	M 27
T 28	11 5 3	18°6'46	17°46	26°D35	2°19	25°16	22°3	0°20	13°33	29°33	9°37	13°54	15°13	29°49	11°55	T 28
W 29	11 8 59	19°6'29	0°11	26°37	3°13	26°3	22°11	0°26	13°35	29°36	9°38	13°47	15°9	29°56	11°59	W 29

Delta T = 246.97 sec

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1520

geocentric

MARCH 1520 JC

00:00 UT

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

Delta T = 246.79 sec

Julian Calendar 1 March 1520 == Greg. Calendar 11 March 1520

APRIL 1520 JC

00:00 UT

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

ASTRODIENST EPHEMERIS for the year 1520
geocentric

MAY 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	15 13 25	19♂44'21	29♂38	28♂49	8♂56	14♂4	16♂R51	3♂37	16♂49	1♂14	9♂R41	12♂7	11♂52	6♂50	14♂29	T 1
W 2	15 17 22	20°42'05	11♂40	0♂II54	10° 5	14°49	16♂M44	3°37	16°52	1°15	9♂R40	12°R 8	11°49	6°56	14°30	W 2
T 3	15 21 19	21°39'47	23°51	2°58	11°14	15°34	16°36	3°37	16°56	1°15	9°40	12° 7	11°46	7° 3	14°30	T 3
F 4	15 25 15	22°37'28	6♂13	4°59	12°23	16°20	16°28	3°R37	16°59	1°16	9°39	12° 7	11°43	7°10	14°30	F 4
S 5	15 29 12	23°35'08	18°47	6°59	13°32	17° 5	16°21	3°37	17° 3	1°17	9°38	12° 6	11°40	7°16	14°31	S 5
S 6	15 33 8	24°32'46	1♂35	8°56	14°41	17°50	16°13	3°37	17° 6	1°17	9°37	12° 4	11°37	7°23	14°31	S 6
M 7	15 37 5	25°30'23	14°36	10°50	15°50	18°35	16° 6	3°37	17°10	1°18	9°36	12° 2	11°33	7°30	14°31	M 7
T 8	15 41 1	26°28'00	27°52	12°42	17° 0	19°20	15°58	3°37	17°13	1°19	9°35	12° 1	11°30	7°37	14°31	T 8
W 9	15 44 58	27°25'35	11♂24	14°31	18° 9	20° 5	15°51	3°36	17°16	1°19	9°34	11°59	11°27	7°43	14°32	W 9
T 10	15 48 54	28°23'09	25°10	16°18	19°18	20°50	15°44	3°36	17°20	1°20	9°33	11°D59	11°24	7°50	14°R32	T 10
F 11	15 52 51	29°20'43	9♂13	18° 1	20°28	21°35	15°36	3°35	17°23	1°20	9°32	11°59	11°21	7°57	14°31	F 11
S 12	15 56 48	0♂II18'15	23°29	19°42	21°38	22°20	15°29	3°34	17°27	1°20	9°31	12° 0	11°17	8° 3	14°31	S 12
S 13	16 0 44	1°15'47	7♂56	21°20	22°47	23° 5	15°22	3°33	17°30	1°21	9°30	12° 1	11°14	8°10	14°31	S 13
M14	16 4 41	2°13'18	22°32	22°55	23°57	23°50	15°15	3°33	17°34	1°21	9°29	12° 2	11°11	8°17	14°31	M14
T 15	16 8 37	3°10'48	7♂12	24°27	25° 7	24°35	15° 8	3°31	17°37	1°22	9°28	12°R 3	11° 8	8°23	14°31	T 15
W16	16 12 34	4° 8'17	21°49	25°55	26°17	25°19	15° 1	3°30	17°40	1°22	9°26	12° 3	11° 5	8°30	14°30	W16
T 17	16 16 30	5° 5'46	6♂II17	27°21	27°27	26° 4	14°54	3°29	17°44	1°22	9°25	12° 1	11° 2	8°37	14°30	T 17
F 18	16 20 27	6° 3'13	20°30	28°44	28°37	26°49	14°48	3°28	17°47	1°22	9°24	11°59	10°58	8°43	14°29	F 18
S 19	16 24 23	7° 0'39	4♂25	0♂3	29°47	27°33	14°41	3°26	17°50	1°23	9°23	11°56	10°55	8°50	14°29	S 19
S 20	16 28 20	7°58'05	17°57	1°20	0♂57	28°18	14°34	3°25	17°54	1°23	9°22	11°52	10°52	8°57	14°28	S 20
M21	16 32 17	8°55'29	1♂5	2°33	2° 7	29° 2	14°28	3°23	17°57	1°23	9°20	11°48	10°49	9° 3	14°27	M21
T 22	16 36 13	9°52'52	13°51	3°43	3°17	29°46	14°22	3°22	18° 0	1°23	9°19	11°45	10°46	9°10	14°27	T 22
W23	16 40 10	10°50'14	26°18	4°49	4°27	0♂31	14°15	3°20	18° 4	1°23	9°18	11°43	10°43	9°17	14°26	W23
T 24	16 44 6	11°47'35	8♂28	5°52	5°38	1°15	14° 9	3°18	18° 7	1°23	9°17	11°D42	10°39	9°23	14°25	T 24
F 25	16 48 3	12°44'55	20°26	6°52	6°48	1°59	14° 3	3°16	18°10	1°R23	9°15	11°42	10°36	9°30	14°24	F 25
S 26	16 51 59	13°42'14	2♂18	7°48	7°59	2°43	13°58	3°14	18°13	1°23	9°14	11°43	10°33	9°37	14°23	S 26
S 27	16 55 56	14°39'31	14° 7	8°40	9° 9	3°27	13°52	3°12	18°17	1°23	9°13	11°45	10°30	9°43	14°22	S 27
M28	16 59 53	15°36'48	25°59	9°29	10°20	4°11	13°46	3°10	18°20	1°23	9°12	11°47	10°27	9°50	14°21	M28
T 29	17 3 49	16°34'04	7♂M58	10°13	11°30	4°55	13°41	3° 8	18°23	1°23	9°10	11°R47	10°23	9°57	14°20	T 29
W30	17 7 46	17°31'20	20° 8	10°54	12°41	5°39	13°36	3° 5	18°26	1°23	9° 9	11°47	10°20	10° 3	14°18	W30
T 31	17 11 42	18♂II28'35	2♂31	11♂31	13♂51	6♂23	13♂M30	3♂3	18♂29	1♂23	9♂7	11♂45	10♂17	10♂10	14♂17	T 31

Delta T = 246.41 sec

Julian Calendar 1 May 1520 == Greg. Calendar 11 May 1520

JUNE 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	17 15 39	19♂II25'49	15♂10	12♂4	15♂8	7♂8	13°R25	3°R 0	18♂32	1°R22	9°R 6	11°R42	10♂14	10♂17	14°R16	F 1
S 2	17 19 35	20°23'02	28° 4	12°32	16°13	7°50	13♂M20	2♂58	18°36	1♂22	9♂5	11♂37	10°11	10°23	14♂14	S 2
S 3	17 23 32	21°20'15	11♂34	12°56	17°24	8°34	13°16	2°55	18°39	1°22	9° 3	11°31	10° 8	10°30	14°13	S 3
M 4	17 27 28	22°17'28	24°38	13°16	18°35	9°17	13°11	2°52	18°42	1°22	9° 2	11°24	10° 4	10°37	14°11	M 4
T 5	17 31 25	23°14'41	8♂15	13°31	19°46	10° 1	13° 7	2°49	18°45	1°21	9° 1	11°18	10° 1	10°43	14° 9	T 5
W 6	17 35 22	24°11'53	22° 3	13°42	20°57	10°44	13° 2	2°47	18°48	1°21	8°59	11°13	9°58	10°50	14° 8	W 6
T 7	17 39 18	25° 9'05	6♂8	13°48	22° 8	11°28	12°58	2°44	18°51	1°21	8°58	11° 9	9°55	10°57	14° 6	T 7
F 8	17 43 15	26° 6'17	20° 3	13°R49	23°19	12°11	12°54	2°41	18°54	1°20	8°56	11°D 8	9°52	11° 3	14° 4	F 8
S 9	17 47 11	27° 3'29	4♂Y12	13°46	24°30	12°54	12°51	2°37	18°57	1°20	8°55	11° 8	9°49	11°10	14° 2	S 9
S 10	17 51 8	28° 0'41	18°25	13°39	25°41	13°37	12°47	2°34	18°59	1°19	8°53	11° 9	9°45	11°17	14° 1	S 10
M11	17 55 4	28°57'54	2♂39	13°27	26°52	14°21	12°44	2°31	19° 2	1°19	8°52	11°10	9°42	11°23	13°59	M11
T 12	17 59 1	29°55'06	16°54	13°11	28° 3	15° 4	12°40	2°28	19° 5	1°18	8°50	11°R10	9°39	11°30	13°57	T 12
W13	18 2 57	0♂52'18	1♂15	12°50	29°15	15°47	12°37	2°24	19° 8	1°17	8°49	11° 8	9°36	11°36	13°55	W13
T 14	18 6 54	1°49'31	1♂10	12°26	0♂II26	16°30	12°34	2°21	19°11	1°17	8°47	11° 5	9°33	11°43	13°52	T 14
F 15	18 10 51	2°46'43	29° 4	11°59	1°37	17°12	12°31	2°17	19°14	1°16	8°46	10°58	9°29	11°50	13°50	F 15
S 16	18 14 47	3°43'56	12♂43	11°29	2°49	17°55	12°29	2°14	19°16	1°16	8°45	10°51	9°26	11°56	13°48	S 16
S 17	18 18 44	4°41'08	26° 5	10°56	4° 0	18°38	12°26	2°10	19°19	1°15	8°43	10°42	9°23	12° 3	13°46	S 17
M18	18 22 40	5°38'20	9♂8	10°21	5°12	19°20	12°24	2° 6	19°22	1°14	8°42	10°32	9°20	12°10	13°44	M18
T 19	18 26 37	6°35'32	21°51	9°45	6°24	20° 3	12°22	2° 3	19°24	1°13	8°40	10°24	9°17	12°16	13°41	T 19
W20	18 30 33	7°32'44	4♂16	9° 7	7°35	20°45	12°20	1°59	19°27	1°13	8°39	10°17	9°14	12°23	13°39	W20
T 21	18 34 30	8°29'56	16°26	8°30	8°47	21°28	12°18	1°55	19°29	1°12	8°37	10°13	9°10	12°30	13°36	T 21
F 22	18 38 26	9°27'07	28°24	7°52	9°59	22°10	12°17	1°51	19°32	1°11	8°36	10°10	9° 7	12°36	13°34	F 22
S 23	18 42 23	10°24'19	10♂15	7°16	11°10	22°52	12°16	1°47	19°34	1°10	8°34	10°D10	9° 4	12°43	13°31	S 23
S 24	18 46 20	11°21'30	22° 4	6°42	12°22	23°35	12°14	1°43	19°37	1° 9	8°33	10°10	9° 1	12°50	13°29	S 24
M25	18 50 16	12°18'41	3♂M57	6°10	13°34	24°17	12°13	1°39	19°39	1° 8	8°31	10°R11	8°58	12°56	13°26	M25
T 26	18 54 13	13°15'53	15°59	5°40	14°46	24°59	12°13	1°35	19°42	1° 7	8°30	10°11	8°55	13° 3	13°24	T 26
W27	18 58 9	14°13'04	28°15	5°14	15°58	25°41	12°12	1°31	19°44	1° 6	8°28	10° 9	8°51	13°10	13°21	W27
T 28	19 2 6	15°10'16	10♂47	4°52	17°10	26°23	12°12	1°27	19°46	1° 5	8°27	10° 5	8°48	13°16	13°18	T 28
F 29	19 6 2	16° 7'28	23°39	4°34	18°22	27° 4	12°11	1°23	19°49	1° 4	8°25	9°59	8°45	13°23	13°16	F 29
S 30	19 9 59	17♂4'40	6♂52	4♂21	19♂II34	27♂46	12°D11	1♂18	19♂51	1♂3	8♂24	9♂51	8♂42	13♂30	13♂13	S 30

Delta T = 246.22 sec

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1520

geocentric

JULY 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	19 13 56	18°52'15"	20°25'25"	4°R13	20°II46	28°828	12°11	1°R14	19°853	1°R 2	8°R22	9°R41	8°839	13°36	13°R10	S 1
M 2	19 17 52	18°59'05"	4°15	4°D10	21°58	29° 9	12°12	1°10	19°55	1°1 1	8°21	9°30	8°35	13°43	13°7	M 2
T 3	19 21 49	19°56'19"	18°18	4°13	23°10	29°51	12°12	1° 6	19°57	1° 0	8°19	9°20	8°32	13°50	13° 4	T 3
W 4	19 25 45	20°53'33"	2°30	4°21	24°22	0°II32	12°13	1° 1	20° 0	0°59	8°18	9°11	8°29	13°56	13° 1	W 4
T 5	19 29 42	21°50'48"	16°46	4°35	25°34	1°14	12°14	0°57	20° 2	0°58	8°17	9° 5	8°26	14° 3	12°58	T 5
F 6	19 33 38	22°48'03"	1°Y 1	4°55	26°47	1°55	12°15	0°53	20° 4	0°56	8°15	9° 1	8°23	14°10	12°56	F 6
S 7	19 37 35	23°45'20"	15°14	5°20	27°59	2°36	12°16	0°48	20° 6	0°55	8°14	8°59	8°20	14°16	12°53	S 7
S 8	19 41 31	24°42'37"	29°21	5°51	29°11	3°17	12°17	0°44	20° 7	0°54	8°12	8°D59	8°16	14°23	12°50	S 8
M 9	19 45 28	25°39'56"	13°23	6°29	0°24	3°58	12°19	0°39	20° 9	0°53	8°11	8°R59	8°13	14°30	12°47	M 9
T 10	19 49 25	26°37'15"	27°19	7°12	1°36	4°39	12°20	0°35	20°11	0°52	8° 9	8°58	8°10	14°36	12°43	T 10
W11	19 53 21	27°34'36"	11°II 7	8° 0	2°49	5°20	12°22	0°30	20°13	0°50	8° 8	8°55	8° 7	14°43	12°40	W11
T 12	19 57 18	28°31'58"	24°47	8°55	4° 1	6° 1	12°24	0°26	20°15	0°49	8° 7	8°49	8° 4	14°50	12°37	T 12
F 13	20 1 14	29°29'20"	8°16	9°55	5°14	6°42	12°27	0°22	20°16	0°48	8° 5	8°41	8° 1	14°56	12°34	F 13
S 14	20 5 11	0°26'44"	21°34	11° 0	6°27	7°22	12°29	0°17	20°18	0°46	8° 4	8°30	7°57	15° 3	12°31	S 14
S 15	20 9 7	1°24'08"	4°39	12°11	7°39	8° 3	12°32	0°13	20°20	0°45	8° 3	8°17	7°54	15°10	12°28	S 15
M16	20 13 4	2°21'33"	17°28	13°27	8°52	8°43	12°34	0° 8	20°21	0°43	8° 1	8° 4	7°51	15°16	12°25	M16
T 17	20 17 0	3°18'59"	0°12	14°48	10° 5	9°24	12°37	0° 4	20°23	0°42	8° 0	7°52	7°48	15°23	12°22	T 17
W18	20 20 57	4°16'26"	12°20	16°14	11°18	10° 4	12°41	29°359	20°24	0°41	7°59	7°42	7°45	15°30	12°18	W18
T 19	20 24 54	5°13'54"	24°26	17°45	12°31	10°44	12°44	29°55	20°26	0°39	7°57	7°35	7°41	15°36	12°15	T 19
F 20	20 28 50	6°11'22"	6°21	19°20	13°44	11°24	12°47	29°50	20°27	0°38	7°56	7°30	7°38	15°43	12°12	F 20
S 21	20 32 47	7° 8'51"	18°11	20°59	14°57	12° 4	12°51	29°46	20°29	0°36	7°55	7°27	7°35	15°50	12° 9	S 21
S 22	20 36 43	8° 6'21"	29°59	22°42	16°10	12°44	12°55	29°42	20°30	0°35	7°54	7°26	7°32	15°56	12° 6	S 22
M23	20 40 40	9° 3'52"	11°11	24°29	17°23	13°24	12°59	29°37	20°31	0°33	7°52	7°26	7°29	16° 3	12° 2	M23
T 24	20 44 36	10° 1'23"	23°53	26°18	18°36	14° 4	13° 3	29°33	20°32	0°32	7°51	7°26	7°26	16°10	11°59	T 24
W25	20 48 33	10°58'56"	6°10	28°11	19°49	14°43	13° 7	29°29	20°34	0°30	7°50	7°24	7°22	16°16	11°56	W25
T 26	20 52 29	11°56'30"	18°46	0°12	21° 2	15°23	13°12	29°24	20°35	0°29	7°49	7°20	7°19	16°23	11°53	T 26
F 27	20 56 26	12°54'04"	1°34	2° 3	22°15	16° 2	13°16	29°20	20°36	0°27	7°48	7°14	7°16	16°29	11°49	F 27
S 28	21 0 23	13°51'40"	15°10	4° 1	23°28	16°42	13°21	29°16	20°37	0°26	7°47	7° 5	7°13	16°36	11°46	S 28
S 29	21 4 19	14°49'17"	28°59	6° 1	24°42	17°21	13°26	29°12	20°38	0°24	7°45	6°54	7°10	16°43	11°43	S 29
M30	21 8 16	15°46'54"	13°10	8° 2	25°55	18° 0	13°31	29° 7	20°39	0°23	7°44	6°43	7° 7	16°49	11°40	M30
T 31	21 12 12	16°44'34"	27°38	10°14	27° 8	18°II39	13°16	29°3	20°40	0°21	7°43	6°32	7° 3	16°56	11°37	T 31

Delta T = 246.03 sec

Julian Calendar 1 July 1520 == Greg. Calendar 11 July 1520

AUGUST 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	21 16 9	17°42'14"	12°16	12°12	28°22	19°II18	13°14	28°R59	20°40	0°R19	7°R42	6°R22	7°8 0	17°13	11°R33	W 1
T 2	21 20 5	18°39'56"	26°56	14° 7	29°35	19°57	13°47	28°35	20°41	0°18	7°41	6°15	6°57	17° 9	11°30	T 2
F 3	21 24 2	19°37'39"	11°Y32	16° 8	0°148	20°36	13°53	28°51	20°42	0°16	7°40	6°11	6°54	17°16	11°27	F 3
S 4	21 27 58	20°35'24"	25°58	18°10	2° 2	21°15	13°59	28°47	20°43	0°15	7°39	6° 9	6°51	17°23	11°24	S 4
S 5	21 31 55	21°33'11"	10°12	20°10	3°16	21°53	14° 5	28°43	20°43	0°13	7°38	6°D 9	6°47	17°29	11°21	S 5
M 6	21 35 52	22°31'00"	24°13	22°10	4°29	22°32	14°11	28°39	20°44	0°11	7°37	6°R 9	6°44	17°36	11°17	M 6
T 7	21 39 48	23°28'51"	7°II59	24° 8	5°43	23°10	14°17	28°36	20°44	0°10	7°36	6° 9	6°41	17°43	11°14	T 7
W 8	21 43 45	24°26'43"	21°32	26° 6	6°56	23°48	14°24	28°32	20°45	0° 8	7°35	6° 6	6°38	17°49	11°11	W 8
T 9	21 47 41	25°24'37"	4°53	28° 3	8°10	24°27	14°30	28°28	20°45	0° 6	7°35	6° 1	6°35	17°56	11° 8	T 9
F 10	21 51 38	26°22'33"	18° 1	29°58	9°24	25° 5	14°37	28°24	20°46	0° 5	7°34	5°53	6°32	18° 3	11° 5	F 10
S 11	21 55 34	27°20'31"	0°158	1°153	10°38	25°43	14°44	28°21	20°46	0° 3	7°33	5°43	6°28	18° 9	11° 2	S 11
S 12	21 59 31	28°18'30"	13°42	3°46	11°52	26°21	14°51	28°17	20°46	0° 2	7°32	5°31	6°25	18°16	10°59	S 12
M13	22 3 27	29°16'31"	26°14	5°38	13° 6	26°58	14°58	28°14	20°46	29°59	7°31	5°19	6°22	18°23	10°56	M13
T 14	22 7 24	0°14'34"	8°134	7°28	14°19	27°36	15° 5	28°10	20°47	29°58	7°30	5° 8	6°19	18°29	10°53	T 14
W15	22 11 21	1°12'38"	20°43	9°18	15°33	28°14	15°13	28° 7	20°47	29°57	7°30	4°59	6°16	18°36	10°50	W15
T 16	22 15 17	2°10'43"	2°42	11° 6	16°47	28°51	15°20	28° 4	20°47	29°55	7°29	4°51	6°12	18°43	10°47	T 16
F 17	22 19 14	3° 8'51"	14°34	12°53	18° 1	29°28	15°28	28° 0	20°R47	29°53	7°28	4°47	6° 9	18°49	10°44	F 17
S 18	22 23 10	4° 7'00"	26°21	14°39	19°15	0°6	15°36	27°57	20°47	29°52	7°28	4°45	6° 6	18°56	10°41	S 18
S 19	22 27 7	5° 5'10"	8°11	16°23	20°30	0°43	15°44	27°54	20°47	29°50	7°27	4°D44	6° 3	19° 3	10°38	S 19
M20	22 31 3	6° 3'22"	19°58	18° 6	21°44	1°20	15°52	27°51	20°47	29°48	7°26	4°45	6° 0	19° 9	10°36	M20
T 21	22 35 0	7° 1'35"	1°159	19°48	22°58	1°57	16° 0	27°48	20°46	29°47	7°26	4°R46	5°57	19°16	10°33	T 21
W22	22 38 56	7°59'50"	14°13	21°29	24°12	2°33	16° 8	27°45	20°46	29°45	7°25	4°46	5°53	19°22	10°30	W22
T 23	22 42 53	8°58'07"	26°48	23° 9	25°26	3°10	16°17	27°42	20°46	29°43	7°25	4°44	5°50	19°29	10°27	T 23
F 24	22 46 50	9°56'25"	9°347	24°47	26°40	3°46	16°25	27°40	20°46	29°42	7°24	4°40	5°47	19°36	10°25	F 24
S 25	22 50 46	10°54'45"	23°13	26°25	27°55	4°23	16°34	27°37	20°45	29°40	7°24	4°35	5°44	19°42	10°22	S 25
S 26	22 54 43	11°53'06"	7°8	28° 1	29° 9	4°59	16°43	27°35	20°45	29°39	7°23	4°27	5°41	19°49	10°20	S 26
M27	22 58 39	12°51'29"	21°28	29°36	0°123	5°35	16°52	27°32	20°44	29°37	7°23	4°19	5°38	19°56	10°17	M27
T 28	23 2 36	13°49'54"	6°11	1°10	1°38	6°11	17° 1	27°30	20°44	29°35	7°22	4°11	5°34	20° 2	10°15	T 28
W29	23 6 32	14°48'21"	21° 8	2°43	2°52	6°47	17°10	27°27	20°43	29°34	7°22	4° 4	5°31	20° 9	10°12	W29
T 30	23 10 29	15°46'49"	6°Y 9	4°15	4° 7	7°23	17°19	27°25	20°43	29°32	7°22	4° 0	5°28	20°16	10°10	T 30
F 31	23 14 25	16°45'19"	21°Y 8	5°46	5°121	7°58	17°16	27°23	20°42	29°31	7°21	3°57	5°25	20°12	10°7	F 31

Delta T = 245.84 sec

Julian Calendar

ASTRODIENST EPHEMERIS for the year 1520

geocentric

SEPTEMBER 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	23 18 22	17 ^h 43' ^m 52"	5 ^h 54'	7 ^h 16'	6 ^h 36'	8 ^h 34'	17 ^h 38'	27 ^h 21'	20 ^h 41'	29 ^h 29'	7 ^h 21'	3 ^h 56'	5 ^h 22'	20 ^h 29'	10 ^h 05'	S 1
S 2	23 22 18	18 ^h 42' ^m 27"	20 ^h 24'	8 ^h 44'	7 ^h 50'	9 ^h 9'	17 ^h 47'	27 ^h 19'	20 ^h 40'	29 ^h 28'	7 ^h 21'	3 ^h 57'	5 ^h 18'	20 ^h 36'	10 ^h 03'	S 2
M 3	23 26 15	19 ^h 41' ^m 04"	4 ^h 34'	10 ^h 12'	9 ^h 5'	9 ^h 44'	17 ^h 57'	27 ^h 17'	20 ^h 40'	29 ^h 26'	7 ^h 21'	3 ^h 58'	5 ^h 15'	20 ^h 42'	10 ^h 1'	M 3
T 4	23 30 12	20 ^h 39' ^m 44"	18 ^h 23'	11 ^h 38'	10 ^h 19'	10 ^h 19'	18 ^h 7'	27 ^h 15'	20 ^h 39'	29 ^h 25'	7 ^h 21'	3 ^h 59'	5 ^h 12'	20 ^h 49'	9 ^h 58'	T 4
W 5	23 34 8	21 ^h 38' ^m 25"	1 ^h 52'	13 ^h 4'	11 ^h 34'	10 ^h 54'	18 ^h 17'	27 ^h 14'	20 ^h 38'	29 ^h 23'	7 ^h 20'	3 ^h 59'	5 ^h 9'	20 ^h 56'	9 ^h 56'	W 5
T 6	23 38 5	22 ^h 37' ^m 09"	15 ^h 3'	14 ^h 28'	12 ^h 48'	11 ^h 29'	18 ^h 27'	27 ^h 12'	20 ^h 37'	29 ^h 22'	7 ^h 20'	3 ^h 56'	5 ^h 6'	21 ^h 2'	9 ^h 54'	T 6
F 7	23 42 1	23 ^h 35' ^m 56"	27 ^h 57'	15 ^h 51'	14 ^h 3'	12 ^h 4'	18 ^h 37'	27 ^h 11'	20 ^h 36'	29 ^h 20'	7 ^h 20'	3 ^h 52'	5 ^h 3'	21 ^h 9'	9 ^h 52'	F 7
S 8	23 45 58	24 ^h 34' ^m 44"	10 ^h 37'	17 ^h 13'	15 ^h 18'	12 ^h 38'	18 ^h 47'	27 ^h 9'	20 ^h 35'	29 ^h 19'	7 ^h 20'	3 ^h 47'	4 ^h 59'	21 ^h 16'	9 ^h 50'	S 8
S 9	23 49 54	25 ^h 33' ^m 35"	23 ^h 4'	18 ^h 33'	16 ^h 33'	13 ^h 13'	18 ^h 57'	27 ^h 8'	20 ^h 34'	29 ^h 17'	7 ^h 20'	3 ^h 40'	4 ^h 56'	21 ^h 22'	9 ^h 48'	S 9
M10	23 53 51	26 ^h 32' ^m 28"	5 ^h 20'	19 ^h 53'	17 ^h 47'	13 ^h 47'	19 ^h 7'	27 ^h 7'	20 ^h 33'	29 ^h 16'	7 ^h 20'	3 ^h 33'	4 ^h 53'	21 ^h 29'	9 ^h 46'	M10
T 11	23 57 48	27 ^h 31' ^m 23"	17 ^h 27'	21 ^h 11'	19 ^h 2'	14 ^h 21'	19 ^h 18'	27 ^h 6'	20 ^h 31'	29 ^h 14'	7 ^h 20'	3 ^h 27'	4 ^h 50'	21 ^h 35'	9 ^h 45'	T 11
W12	0 1 44	28 ^h 30' ^m 20"	29 ^h 26'	22 ^h 28'	20 ^h 17'	14 ^h 55'	19 ^h 28'	27 ^h 5'	20 ^h 30'	29 ^h 13'	7 ^h 20'	3 ^h 21'	4 ^h 47'	21 ^h 42'	9 ^h 43'	W12
T 13	0 5 41	29 ^h 29' ^m 19"	11 ^h 19'	23 ^h 43'	21 ^h 32'	15 ^h 29'	19 ^h 39'	27 ^h 4'	20 ^h 29'	29 ^h 12'	7 ^h 20'	3 ^h 17'	4 ^h 44'	21 ^h 49'	9 ^h 41'	T 13
F 14	0 9 37	0 ^h 28' ^m 20"	23 ^h 7'	24 ^h 56'	22 ^h 47'	16 ^h 2'	19 ^h 50'	27 ^h 3'	20 ^h 28'	29 ^h 10'	7 ^h 20'	3 ^h 15'	4 ^h 40'	21 ^h 55'	9 ^h 39'	F 14
S 15	0 13 34	1 ^h 27' ^m 23"	4 ^h 35'	26 ^h 8'	24 ^h 1'	16 ^h 35'	20 ^h 1'	27 ^h 2'	20 ^h 26'	29 ^h 9'	7 ^h 20'	3 ^h 15'	4 ^h 37'	22 ^h 2'	9 ^h 38'	S 15
S 16	0 17 30	2 ^h 26' ^m 27"	16 ^h 40'	27 ^h 19'	25 ^h 16'	17 ^h 9'	20 ^h 11'	27 ^h 1'	20 ^h 25'	29 ^h 8'	7 ^h 21'	3 ^h 15'	4 ^h 34'	22 ^h 9'	9 ^h 36'	S 16
M17	0 21 27	3 ^h 25' ^m 34"	28 ^h 32'	28 ^h 27'	26 ^h 31'	17 ^h 42'	20 ^h 22'	27 ^h 1'	20 ^h 23'	29 ^h 6'	7 ^h 21'	3 ^h 17'	4 ^h 31'	22 ^h 15'	9 ^h 35'	M17
T 18	0 25 23	4 ^h 24' ^m 43"	10 ^h 32'	29 ^h 34'	27 ^h 46'	18 ^h 15'	20 ^h 33'	27 ^h 0'	20 ^h 22'	29 ^h 5'	7 ^h 21'	3 ^h 19'	4 ^h 28'	22 ^h 22'	9 ^h 34'	T 18
W19	0 29 20	5 ^h 23' ^m 54"	22 ^h 46'	0 ^h 38'	29 ^h 1'	18 ^h 47'	20 ^h 45'	27 ^h 0'	20 ^h 20'	29 ^h 4'	7 ^h 21'	3 ^h 20'	4 ^h 24'	22 ^h 29'	9 ^h 32'	W19
T 20	0 33 16	6 ^h 23' ^m 06"	5 ^h 18'	1 ^h 40'	0 ^h 16'	19 ^h 20'	20 ^h 56'	27 ^h 0'	20 ^h 19'	29 ^h 3'	7 ^h 22'	3 ^h 21'	4 ^h 21'	22 ^h 35'	9 ^h 31'	T 20
F 21	0 37 13	7 ^h 22' ^m 20"	18 ^h 11'	2 ^h 40'	1 ^h 31'	19 ^h 52'	21 ^h 7'	27 ^h 0'	20 ^h 17'	29 ^h 1'	7 ^h 22'	3 ^h 20'	4 ^h 18'	22 ^h 42'	9 ^h 30'	F 21
S 22	0 41 10	8 ^h 21' ^m 36"	1 ^h 31'	3 ^h 36'	2 ^h 46'	20 ^h 24'	21 ^h 19'	27 ^h 0'	20 ^h 15'	29 ^h 0'	7 ^h 22'	3 ^h 19'	4 ^h 15'	22 ^h 49'	9 ^h 29'	S 22
S 23	0 45 6	9 ^h 20' ^m 54"	15 ^h 19'	4 ^h 30'	4 ^h 1'	20 ^h 56'	21 ^h 30'	27 ^h 0'	20 ^h 14'	28 ^h 59'	7 ^h 23'	3 ^h 16'	4 ^h 12'	22 ^h 55'	9 ^h 27'	S 23
M24	0 49 3	10 ^h 20' ^m 13"	29 ^h 35'	5 ^h 21'	5 ^h 16'	21 ^h 28'	21 ^h 42'	27 ^h 0'	20 ^h 12'	28 ^h 58'	7 ^h 23'	3 ^h 13'	4 ^h 9'	23 ^h 2'	9 ^h 26'	M24
T 25	0 52 59	11 ^h 19' ^m 35"	14 ^h 37'	6 ^h 8'	6 ^h 31'	22 ^h 0'	21 ^h 53'	27 ^h 0'	20 ^h 10'	28 ^h 57'	7 ^h 24'	3 ^h 10'	4 ^h 5'	23 ^h 9'	9 ^h 25'	T 25
W26	0 56 56	12 ^h 18' ^m 58"	29 ^h 17'	6 ^h 51'	7 ^h 46'	22 ^h 31'	22 ^h 5'	27 ^h 1'	20 ^h 8'	28 ^h 56'	7 ^h 24'	3 ^h 7'	4 ^h 2'	23 ^h 15'	9 ^h 25'	W26
T 27	1 0 52	13 ^h 18' ^m 23"	14 ^h 29'	7 ^h 29'	9 ^h 1'	23 ^h 2'	22 ^h 17'	27 ^h 1'	20 ^h 7'	28 ^h 55'	7 ^h 25'	3 ^h 6'	3 ^h 59'	23 ^h 22'	9 ^h 24'	T 27
F 28	1 4 49	14 ^h 17' ^m 50"	29 ^h 42'	8 ^h 3'	10 ^h 16'	23 ^h 33'	22 ^h 28'	27 ^h 2'	20 ^h 5'	28 ^h 54'	7 ^h 25'	3 ^h 5'	3 ^h 56'	23 ^h 28'	9 ^h 23'	F 28
S 29	1 8 45	15 ^h 17' ^m 20"	14 ^h 34'	8 ^h 32'	11 ^h 31'	24 ^h 4'	22 ^h 40'	27 ^h 2'	20 ^h 3'	28 ^h 53'	7 ^h 26'	3 ^h 5'	3 ^h 53'	23 ^h 35'	9 ^h 22'	S 29
S 30	1 12 42	16 ^h 16' ^m 51"	29 ^h 35'	8 ^h 35'	12 ^h 46'	24 ^h 35'	22 ^h 52'	27 ^h 3'	20 ^h 1'	28 ^h 52'	7 ^h 26'	3 ^h 6'	3 ^h 49'	23 ^h 42'	9 ^h 22'	S 30

Delta T = 245.65 sec

Julian Calendar 1 Sept. 1520 == Greg. Calendar 11 Sept. 1520

OCTOBER 1520 JC

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	1 16 39	17♂16'25	14♂ 1	9♂12	14♂ 2	25♂ 5	23♂ 4	27♂ 4	19°R59	28°R51	7♂27	3♂ 7	3♂46	23♂48	9°R21	M 1
T 2	1 20 35	18°16'02	28° 1	9°22	15°17	25°35	23°16	27° 5	19♂57	28♂50	7°28	3° 8	3°43	23°55	9♂20	T 2
W 3	1 24 32	19°15'40	11♂37	9°R25	16°32	26° 5	23°28	27° 6	19°55	28°49	7°28	3° 9	3°40	24° 2	9°20	W 3
T 4	1 28 28	20°15'22	24°48	9°21	17°47	26°35	23°40	27° 7	19°53	28°48	7°29	3°R 9	3°37	24° 8	9°20	T 4
F 5	1 32 25	21°15'05	7♂37	9° 7	19° 2	27° 4	23°53	27° 8	19°51	28°47	7°30	3° 9	3°34	24°15	9°19	F 5
S 6	1 36 21	22°14'50	20° 8	8°46	20°17	27°34	24° 5	27°10	19°49	28°46	7°31	3° 8	3°30	24°22	9°19	S 6
S 7	1 40 18	23°14'38	2♂25	8°15	21°33	28° 3	24°17	27°11	19°46	28°45	7°31	3° 6	3°27	24°28	9°19	S 7
M 8	1 44 14	24°14'28	14°30	7°35	22°48	28°32	24°30	27°13	19°44	28°45	7°32	3° 5	3°24	24°35	9°19	M 8
T 9	1 48 11	25°14'20	26°27	6°47	24° 3	29° 0	24°42	27°14	19°42	28°44	7°33	3° 4	3°21	24°42	9°D19	T 9
W10	1 52 8	26°14'14	8♂18	5°50	25°18	29°28	24°55	27°16	19°40	28°43	7°34	3° 3	3°18	24°48	9°19	W10
T 11	1 56 4	27°14'10	20° 6	4°46	26°34	29°56	25° 7	27°18	19°38	28°42	7°35	3° 2	3°15	24°55	9°19	T 11
F 12	2 0 1	28°14'08	1♂53	3°35	27°49	0♂24	25°20	27°20	19°35	28°42	7°36	3°D 2	3°11	25° 2	9°19	F 12
S 13	2 3 57	29°14'08	13°41	2°21	29° 4	0°52	25°33	27°22	19°33	28°41	7°37	3° 2	3° 8	25° 8	9°19	S 13
S 14	2 7 54	0♂14'10	25°33	1° 4	0♂19	1°19	25°45	27°24	19°31	28°41	7°38	3° 2	3° 5	25°15	9°20	S 14
M15	2 11 50	1°14'14	7♂31	29♂46	1°35	1°46	25°58	27°26	19°28	28°40	7°39	3° 3	3° 2	25°21	9°20	M15
T 16	2 15 47	2°14'20	19°38	28°31	2°50	2°13	26°11	27°29	19°26	28°40	7°40	3° 3	2°59	25°28	9°20	T 16
W17	2 19 43	3°14'27	1♂56	27°21	4° 5	2°39	26°24	27°31	19°24	28°39	7°41	3°R 3	2°55	25°35	9°21	W17
T 18	2 23 40	4°14'36	14°29	26°18	5°21	3° 5	26°37	27°34	19°21	28°39	7°42	3° 3	2°52	25°41	9°21	T 18
F 19	2 27 37	5°14'47	27°20	25°23	6°36	3°31	26°50	27°36	19°19	28°38	7°43	3° 3	2°49	25°48	9°22	F 19
S 20	2 31 33	6°14'59	10♂33	24°39	7°51	3°56	27° 3	27°39	19°16	28°38	7°44	3°D 3	2°46	25°55	9°23	S 20
S 21	2 35 30	7°15'12	24°10	24° 5	9° 7	4°21	27°16	27°42	19°14	28°37	7°46	3° 3	2°43	26° 1	9°24	S 21
M22	2 39 26	8°15'27	8♂12	23°44	10°22	4°46	27°29	27°45	19°12	28°37	7°47	3° 3	2°40	26° 8	9°24	M22
T 23	2 43 23	9°15'43	22°38	23°D33	11°37	5°11	27°42	27°48	19° 9	28°37	7°48	3° 4	2°36	26°15	9°25	T 23
W24	2 47 19	10°16'01	7♂26	23°35	12°53	5°35	27°55	27°51	19° 7	28°37	7°49	3° 4	2°33	26°21	9°26	W24
T 25	2 51 16	11°16'21	22°29	23°47	14° 8	5°59	28° 8	27°54	19° 4	28°36	7°51	3° 5	2°30	26°28	9°27	T 25
F 26	2 55 12	12°16'42	7♂40	24° 9	15°23	6°22	28°21	27°57	19° 2	28°36	7°52	3°R 5	2°27	26°35	9°28	F 26
S 27	2 59 9	13°17'05	22°50	24°41	16°38	6°45	28°34	28° 1	18°59	28°36	7°53	3° 4	2°24	26°41	9°30	S 27
S 28	3 3 6	14°17'29	7♂48	25°21	17°54	7° 8	28°47	28° 4	18°57	28°36	7°55	3° 3	2°21	26°48	9°31	S 28
M29	3 7 2	15°17'56	22°26	26° 8	19° 9	7°30	29° 1	28° 8	18°54	28°36	7°56	3° 2	2°17	26°54	9°32	M29
T 30	3 10 59	16°18'24	6♂40	27° 3	20°25	7°53	29°14	28°11	18°52	28°36	7°57	3° 0	2°14	27° 1	9°33	T 30
W31	3 14 55	17♂18'54	20♂27	28♂ 3	21♂40	8♂14	29♂27	28♂15	18♂49	28°D36	7♂59	2♂59	2♂11	27♂ 8	9♂35	W31

ASTRODIENST EPHEMERIS for the year 1520

geocentric

NOVEMBER 1520 JC

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	3 18 52	18 ¹¹ 19'26	3 ⁰ 45	29 ² 8	22 ¹¹ 55	8 ⁰ 36	29 ¹¹ 41	28 ³ 19	18 ¹⁸ 47	28 ²⁸ 36	8 ³ 0	2 ⁰ R58	2 ⁸ 8	27 ²¹ 14	9 ²⁸ 36	T 1
F 2	3 22 48	19 ⁰ 20'00	16 ⁰ 38	0 ¹¹ 18	24 ⁰ 11	8 ⁰ 56	29 ⁰ 54	28 ⁰ 23	18 ¹⁸ 44	28 ⁰ 36	8 ⁰ 2	2 ⁰ D57	2 ⁰ 5	27 ⁰ 21	9 ⁰ 38	F 2
S 3	3 26 45	20 ⁰ 20'35	29 ⁰ 9	1 ⁰ 31	25 ⁰ 26	9 ⁰ 17	0 ² 7	28 ⁰ 27	18 ⁰ 42	28 ⁰ 36	8 ⁰ 3	2 ⁰ B57	2 ⁰ 1	27 ⁰ 28	9 ⁰ 40	S 3
S 4	3 30 41	21 ⁰ 21'12	11 ¹¹ 22	2 ⁰ 48	26 ⁰ 41	9 ⁰ 37	0 ⁰ 21	28 ⁰ 31	18 ⁰ 39	28 ⁰ 36	8 ⁰ 5	2 ⁰ 58	1 ⁰ 58	27 ⁰ 34	9 ⁰ 41	S 4
M 5	3 34 38	22 ⁰ 21'51	23 ⁰ 23	4 ⁰ 7	27 ⁰ 57	9 ⁰ 57	0 ⁰ 34	28 ⁰ 35	18 ⁰ 37	28 ⁰ 36	8 ⁰ 6	3 ⁰ 0	1 ⁰ 55	27 ⁰ 41	9 ⁰ 43	M 5
T 6	3 38 35	23 ⁰ 22'32	5 ⁰ 14	5 ⁰ 29	29 ⁰ 12	10 ⁰ 16	0 ⁰ 48	28 ⁰ 39	18 ⁰ 34	28 ⁰ 36	8 ⁰ 8	3 ⁰ 1	1 ⁰ 52	27 ⁰ 48	9 ⁰ 45	T 6
W 7	3 42 31	24 ⁰ 23'14	17 ⁰ 1	6 ⁰ 52	0 ² 27	10 ⁰ 34	1 ⁰ 1	28 ⁰ 43	18 ⁰ 32	28 ⁰ 36	8 ⁰ 10	3 ⁰ 3	1 ⁰ 49	27 ⁰ 54	9 ⁰ 47	W 7
T 8	3 46 28	25 ⁰ 23'58	28 ⁰ 48	8 ⁰ 18	1 ⁰ 43	10 ⁰ 53	1 ⁰ 14	28 ⁰ 48	18 ⁰ 29	28 ⁰ 37	8 ⁰ 11	3 ⁰ R 4	1 ⁰ 46	28 ⁰ 1	9 ⁰ 49	T 8
F 9	3 50 24	26 ⁰ 24'43	10 ¹¹ 37	9 ⁰ 44	2 ⁰ 58	11 ⁰ 11	1 ⁰ 28	28 ⁰ 52	18 ⁰ 27	28 ⁰ 37	8 ⁰ 13	3 ⁰ 4	1 ⁰ 42	28 ⁰ 8	9 ⁰ 51	F 9
S 10	3 54 21	27 ⁰ 25'29	22 ⁰ 31	11 ⁰ 12	4 ⁰ 14	11 ⁰ 28	1 ⁰ 41	28 ⁰ 57	18 ⁰ 24	28 ⁰ 37	8 ⁰ 14	3 ⁰ 2	1 ⁰ 39	28 ⁰ 14	9 ⁰ 53	S 10
S 11	3 58 17	28 ⁰ 26'18	4 ² 32	12 ⁰ 41	5 ⁰ 29	11 ⁰ 45	1 ⁰ 55	29 ⁰ 1	18 ⁰ 22	28 ⁰ 38	8 ⁰ 16	2 ⁰ 59	1 ⁰ 36	28 ⁰ 21	9 ⁰ 55	S 11
M 12	4 2 14	29 ⁰ 27'07	16 ⁰ 41	14 ⁰ 11	6 ⁰ 44	12 ⁰ 1	2 ⁰ 8	29 ⁰ 6	18 ⁰ 19	28 ⁰ 38	8 ⁰ 18	2 ⁰ 55	1 ⁰ 33	28 ⁰ 28	9 ⁰ 57	M 12
T 13	4 6 10	0 ² 27'57	29 ⁰ 1	15 ⁰ 41	8 ⁰ 0	12 ⁰ 17	2 ⁰ 22	29 ⁰ 11	18 ⁰ 17	28 ⁰ 38	8 ⁰ 20	2 ⁰ 51	1 ⁰ 30	28 ⁰ 34	9 ⁰ 59	T 13
W 14	4 10 7	1 ⁰ 28'49	11 ⁰ 32	17 ⁰ 12	9 ⁰ 15	12 ⁰ 32	2 ⁰ 35	29 ⁰ 15	18 ⁰ 14	28 ⁰ 39	8 ⁰ 21	2 ⁰ 46	1 ⁰ 27	28 ⁰ 41	10 ⁰ 1	W 14
T 15	4 14 4	2 ⁰ 29'42	24 ⁰ 16	18 ⁰ 43	10 ⁰ 30	12 ⁰ 47	2 ⁰ 49	29 ⁰ 20	18 ⁰ 12	28 ⁰ 39	8 ⁰ 23	2 ⁰ 41	1 ⁰ 23	28 ⁰ 47	10 ⁰ 4	T 15
F 16	4 18 0	3 ⁰ 30'35	7 ² 14	20 ⁰ 15	11 ⁰ 46	13 ⁰ 1	3 ⁰ 2	29 ⁰ 25	18 ⁰ 10	28 ⁰ 40	8 ⁰ 25	2 ⁰ 37	1 ⁰ 20	28 ⁰ 54	10 ⁰ 6	F 16
S 17	4 21 57	4 ⁰ 31'30	20 ⁰ 27	21 ⁰ 47	13 ⁰ 1	13 ⁰ 15	3 ⁰ 16	29 ⁰ 30	18 ⁰ 7	28 ⁰ 40	8 ⁰ 27	2 ⁰ 35	1 ⁰ 17	29 ⁰ 1	10 ⁰ 9	S 17
S 18	4 25 53	5 ⁰ 32'25	3 ¹ 58	23 ⁰ 19	14 ⁰ 17	13 ⁰ 28	3 ⁰ 29	29 ⁰ 35	18 ⁰ 5	28 ⁰ 41	8 ⁰ 28	2 ⁰ D34	1 ⁰ 14	29 ⁰ 7	10 ⁰ 11	S 18
M 19	4 29 50	6 ⁰ 33'20	17 ⁰ 47	24 ⁰ 51	15 ⁰ 32	13 ⁰ 41	3 ⁰ 43	29 ⁰ 40	18 ⁰ 2	28 ⁰ 42	8 ⁰ 30	2 ⁰ 34	1 ⁰ 11	29 ⁰ 14	10 ⁰ 14	M 19
T 20	4 33 46	7 ⁰ 34'17	1 ¹ 55	26 ⁰ 24	16 ⁰ 47	13 ⁰ 52	3 ⁰ 56	29 ⁰ 46	18 ⁰ 0	28 ⁰ 42	8 ⁰ 32	2 ⁰ 36	1 ⁰ 7	29 ⁰ 21	10 ⁰ 16	T 20
W 21	4 37 43	8 ⁰ 35'14	16 ⁰ 22	27 ⁰ 57	18 ⁰ 3	14 ⁰ 4	4 ⁰ 10	29 ⁰ 51	17 ⁰ 58	28 ⁰ 43	8 ⁰ 34	2 ⁰ 37	1 ⁰ 4	29 ⁰ 27	10 ⁰ 19	W 21
T 22	4 41 39	9 ⁰ 36'12	1 ⁸ 3	29 ⁰ 29	19 ⁰ 18	14 ⁰ 15	4 ⁰ 23	29 ⁰ 56	17 ⁰ 55	28 ⁰ 44	8 ⁰ 36	2 ⁰ R38	1 ⁰ 1	29 ⁰ 34	10 ⁰ 22	T 22
F 23	4 45 36	10 ⁰ 37'11	15 ⁰ 54	1 ² 2	20 ⁰ 33	14 ⁰ 25	4 ⁰ 37	0 ² 2	17 ⁰ 53	28 ⁰ 45	8 ⁰ 38	2 ⁰ 37	0 ⁰ 58	29 ⁰ 41	10 ⁰ 25	F 23
S 24	4 49 33	11 ⁰ 38'10	0 ¹¹ 50	2 ⁰ 35	21 ⁰ 49	14 ⁰ 34	4 ⁰ 50	0 ⁰ 7	17 ⁰ 51	28 ⁰ 45	8 ⁰ 39	2 ⁰ 35	0 ⁰ 55	29 ⁰ 47	10 ⁰ 28	S 24
S 25	4 53 29	12 ⁰ 39'10	15 ⁰ 40	4 ⁰ 9	23 ⁰ 4	14 ⁰ 43	5 ⁰ 4	0 ⁰ 13	17 ⁰ 49	28 ⁰ 46	8 ⁰ 41	2 ⁰ 30	0 ⁰ 52	29 ⁰ 54	10 ⁰ 30	S 25
M 26	4 57 26	13 ⁰ 40'12	0 ⁰ 18	5 ⁰ 42	24 ⁰ 19	14 ⁰ 52	5 ⁰ 17	0 ⁰ 18	17 ⁰ 47	28 ⁰ 47	8 ⁰ 43	2 ⁰ 24	0 ⁰ 48	0 ¹¹ 1	10 ⁰ 33	M 26
T 27	5 1 22	14 ⁰ 41'14	14 ⁰ 36	7 ⁰ 15	25 ⁰ 35	14 ⁰ 59	5 ⁰ 31	0 ⁰ 24	17 ⁰ 44	28 ⁰ 48	8 ⁰ 45	2 ⁰ 17	0 ⁰ 45	0 ⁰ 7	10 ⁰ 36	T 27
W 28	5 5 19	15 ⁰ 42'17	28 ⁰ 29	8 ⁰ 49	26 ⁰ 50	15 ⁰ 6	5 ⁰ 44	0 ⁰ 30	17 ⁰ 42	28 ⁰ 49	8 ⁰ 47	2 ⁰ 10	0 ⁰ 42	0 ⁰ 14	10 ⁰ 39	W 28
T 29	5 9 15	16 ⁰ 43'20	11 ⁰ 54	10 ⁰ 22	28 ⁰ 5	15 ⁰ 12	5 ⁰ 57	0 ⁰ 35	17 ⁰ 40	28 ⁰ 50	8 ⁰ 49	2 ⁰ 4	0 ⁰ 39	0 ⁰ 21	10 ⁰ 43	T 29
F 30	5 13 12	17 ⁰ 44'25	24 ⁰ 54	11 ² 56	29 ² 21	15 ⁰ 18	6 ² 11	0 ² 41	17 ⁰ 38	28 ² 51	8 ² 51	1 ⁸ 59	0 ⁸ 36	0 ¹¹ 27	10 ² 46	F 30

Delta T = 245.27 sec

Julian Calendar 1 Nov. 1520 == Greg. Calendar 11 Nov. 1520

DECEMBER 1520 JC

00:00 UT

Day	Sid.t	☉	☾	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	5 17 9	18 ¹¹ 45'30	7 ¹¹ 29	13 ² 29	0 ³ 36	15 ⁰ 23	6 ² 24	0 ² 47	17 ⁰ R36	28 ²⁸ 52	8 ³ 53	1 ⁰ R56	0 ⁸ 33	0 ¹¹ 34	10 ²⁸ 49	S 1
S 2	5 21 5	19 ⁰ 46'37	19 ⁰ 44	15 ⁰ 3	1 ⁰ 51	15 ⁰ 27	6 ⁰ 37	0 ⁰ 53	17 ⁰ B34	28 ⁰ 53	8 ⁰ 55	1 ⁰ D55	0 ⁰ 29	0 ⁰ 40	10 ⁰ 52	S 2
M 3	5 25 2	20 ⁰ 47'44	1 ¹ 44	16 ⁰ 37	3 ⁰ 7	15 ⁰ 30	6 ⁰ 51	0 ⁰ 59	17 ⁰ 32	28 ⁰ 54	8 ⁰ 57	1 ⁰ B56	0 ⁰ 26	0 ⁰ 47	10 ⁰ 55	M 3
T 4	5 28 58	21 ⁰ 48'52	13 ⁰ 35	18 ⁰ 12	4 ⁰ 22	15 ⁰ 33	7 ⁰ 4	1 ⁰ 5	17 ⁰ 30	28 ⁰ 55	8 ⁰ 59	1 ⁰ 57	0 ⁰ 23	0 ⁰ 54	10 ⁰ 59	T 4
W 5	5 32 55	22 ⁰ 50'01	25 ⁰ 22	19 ⁰ 46	5 ⁰ 37	15 ⁰ 35	7 ⁰ 17	1 ⁰ 11	17 ⁰ 28	28 ⁰ 56	9 ⁰ 1	1 ⁰ 59	0 ⁰ 20	1 ⁰ 0	11 ⁰ 2	W 5
T 6	5 36 51	23 ⁰ 51'10	7 ¹¹ 9	21 ⁰ 21	6 ⁰ 52	15 ⁰ 36	7 ⁰ 31	1 ⁰ 17	17 ⁰ 26	28 ⁰ 57	9 ⁰ 3	1 ⁰ R59	0 ⁰ 17	1 ⁰ 7	11 ⁰ 5	T 6
F 7	5 40 48	24 ⁰ 52'20	19 ⁰ 1	22 ⁰ 55	8 ⁰ 8	15 ⁰ R36	7 ⁰ 44	1 ⁰ 23	17 ⁰ 24	28 ⁰ 59	9 ⁰ 5	1 ⁰ 57	0 ⁰ 13	1 ⁰ 14	11 ⁰ 9	F 7
S 8	5 44 44	25 ⁰ 53'30	1 ² 2	24 ⁰ 31	9 ⁰ 23	15 ⁰ 36	7 ⁰ 57	1 ⁰ 30	17 ⁰ 23	29 ⁰ 0	9 ⁰ 7	1 ⁰ 53	0 ⁰ 10	1 ⁰ 20	11 ⁰ 12	S 8
S 9	5 48 41	26 ⁰ 54'42	13 ⁰ 13	26 ⁰ 6	10 ⁰ 38	15 ⁰ 34	8 ⁰ 10	1 ⁰ 36	17 ⁰ 21	29 ⁰ 1	9 ⁰ 9	1 ⁰ 46	0 ⁰ 7	1 ⁰ 27	11 ⁰ 16	S 9
M10	5 52 38	27 ⁰ 55'53	25 ⁰ 38	27 ⁰ 41	11 ⁰ 54	15 ⁰ 32	8 ⁰ 24	1 ⁰ 42	17 ⁰ 19	29 ⁰ 2	9 ⁰ 11	1 ⁰ 37	0 ⁰ 4	1 ⁰ 34	11 ⁰ 20	M10
T 11	5 56 34	28 ⁰ 57'05	8 ³ 16	29 ⁰ 17	13 ⁰ 9	15 ⁰ 30	8 ⁰ 37	1 ⁰ 49	17 ⁰ 17	29 ⁰ 4	9 ⁰ 13	1 ⁰ 26	0 ⁰ 1	1 ⁰ 40	11 ⁰ 23	T 11
W12	6 0 31	29 ⁰ 58'17	21 ⁰ 8	0 ³ 53	14 ⁰ 24	15 ⁰ 26	8 ⁰ 50	1 ⁰ 55	17 ⁰ 16	29 ⁰ 5	9 ⁰ 15	1 ⁰ 15	29 ⁰ Y58	1 ⁰ 47	11 ⁰ 27	W12
T 13	6 4 27	0 ³ 59'29	4 ² 12	2 ⁰ 30	15 ⁰ 39	15 ⁰ 21	9 ⁰ 3	2 ⁰ 2	17 ⁰ 14	29 ⁰ 6	9 ⁰ 17	1 ⁰ 4	29 ⁰ 54	1 ⁰ 54	11 ⁰ 31	T 13
F 14	6 8 24	2 ⁰ 0'41	17 ⁰ 27	4 ⁰ 6	16 ⁰ 55	15 ⁰ 16	9 ⁰ 16	2 ⁰ 8	17 ⁰ 12	29 ⁰ 8	9 ⁰ 19	0 ⁰ 55	29 ⁰ 51	2 ⁰ 0	11 ⁰ 34	F 14
S 15	6 12 20	3 ⁰ 1'52	0 ⁸ 54	5 ⁰ 43	18 ⁰ 10	15 ⁰ 10	9 ⁰ 29	2 ⁰ 15	17 ⁰ 11	29 ⁰ 9	9 ⁰ 21	0 ⁰ 48	29 ⁰ 48	2 ⁰ 7	11 ⁰ 38	S 15
S 16	6 16 17	4 ⁰ 3'04	14 ⁰ 31	7 ⁰ 20	19 ⁰ 25	15 ⁰ 3	9 ⁰ 42	2 ⁰ 21	17 ⁰ 9	29 ⁰ 11	9 ⁰ 23	0 ⁰ 44	29 ⁰ 45	2 ⁰ 13	11 ⁰ 42	S 16
M17	6 20 13	5 ⁰ 4'15	28 ⁰ 19	8 ⁰ 58	20 ⁰ 40	14 ⁰ 55	9 ⁰ 55	2 ⁰ 28	17 ⁰ 8	29 ⁰ 12	9 ⁰ 25	0 ⁰ 42	29 ⁰ 42	2 ⁰ 20	11 ⁰ 46	M17
T 18	6 24 10	6 ⁰ 5'26	12 ⁰ Y17	10 ⁰ 36	21 ⁰ 56	14 ⁰ 47	10 ⁰ 7	2 ⁰ 34	17 ⁰ 6	29 ⁰ 14	9 ⁰ 27	0 ⁰ D42	29 ⁰ 39	2 ⁰ 27	11 ⁰ 50	T 18
W19	6 28 7	7 ⁰ 6'36	26 ⁰ 25	12 ⁰ 14	23 ⁰ 11	14 ⁰ 37	10 ⁰ 20	2 ⁰ 41	17 ⁰ 5	29 ⁰ 15	9 ⁰ 29	0 ⁰ R43	29 ⁰ 35	2 ⁰ 33	11 ⁰ 54	W19
T 20	6 32 3	8 ⁰ 7'47	10 ⁰ B43	13 ⁰ 53	24 ⁰ 26	14 ⁰ 27	10 ⁰ 33	2 ⁰ 48	17 ⁰ 4	29 ⁰ 17	9 ⁰ 32	0 ⁰ 42	29 ⁰ 32	2 ⁰ 40	11 ⁰ 58	T 20
F 21	6 36 0	9 ⁰ 8'56	25 ⁰ 8	15 ⁰ 32	25 ⁰ 41	14 ⁰ 16	10 ⁰ 46	2 ⁰ 54	17 ⁰ 2	29 ⁰ 19	9 ⁰ 34	0 ⁰ 40	29 ⁰ 29	2 ⁰ 47	12 ⁰ 1	F 21
S 22	6 39 56	10 ⁰ 10'06	9 ¹¹ 37	17 ⁰ 11	26 ⁰ 56	14 ⁰ 4	10 ⁰ 58	3 ⁰ 1	17 ⁰ 1	29 ⁰ 20	9 ⁰ 36	0 ⁰ 35	29 ⁰ 26	2 ⁰ 53	12 ⁰ 5	S 22
S 23	6 43 53	11 ⁰ 11'15	24 ⁰ 5	18 ⁰ 50	28 ⁰ 11	13 ⁰ 52	11 ⁰ 11	3 ⁰ 8	17 ⁰ 0	29 ⁰ 22	9 ⁰ 38	0 ⁰ 27	29 ⁰ 23	3 ⁰ 0	12 ⁰ 10	S 23
M24	6 47 49	12 ⁰ 12'24	8 ² 24	20 ⁰ 30	29 ⁰ 26	13 ⁰ 38	11 ⁰ 24	3 ⁰ 15	16 ⁰ 59	29 ⁰ 23	9 ⁰ 40	0 ⁰ 17	29 ⁰ 19	3 ⁰ 7	12 ⁰ 14	M24
T 25	6 51 46	13 ⁰ 13'32	22 ⁰ 30	22 ⁰ 10	0 ² 42	13 ⁰ 24	11 ⁰ 36	3 ⁰ 22	16 ⁰ 58	29 ⁰ 25	9 ⁰ 42	0 ⁰ 5	29 ⁰ 16	3 ⁰ 13	12 ⁰ 18	T 25
W26	6 55 43	14 ⁰ 14'41	6 ¹ 26	23 ⁰ 50	1 ⁰ 57	13 ⁰ 9	11 ⁰ 49	3 ⁰ 29	16 ⁰ 57	29 ⁰ 27	9 ⁰ 44	29 ⁰ Y53	29 ⁰ 13	3 ⁰ 20	12 ⁰ 22	W26
T 27	6 59 39	15 ⁰ 15'48	19 ⁰ 40	25 ⁰ 30	3 ⁰ 12	12 ⁰ 54	12 ⁰ 1	3 ⁰ 36	16 ⁰ 56	29 ⁰ 29	9 ⁰ 46	29 ⁰ 42	29 ⁰ 10	3 ⁰ 27	12 ⁰ 26	T 27
F 28	7 3 36	16 ⁰ 16'56	2 ¹¹ 41	27 ⁰ 11	4 ⁰ 27	12 ⁰ 37	12 ⁰ 13	3 ⁰ 42	16 ⁰ 55	29 ⁰ 30	9 ⁰ 48	29 ⁰ 32	29 ⁰ 7	3 ⁰ 33	12 ⁰ 30	F 28
S 29	7 7 32	17 ⁰ 18'03	15 ⁰ 18	28 ⁰ 51	5 ⁰ 42	12 ⁰ 20	12 ⁰ 26	3 ⁰ 49	16 ⁰ 54	29 ⁰ 32	9 ⁰ 50	29 ⁰ 26	29 ⁰ 4	3 ⁰ 40	12 ⁰ 34	S 29
S 30	7 11 29	18 ⁰ 19'10	27 ⁰ 36	0 ² 31	6 ⁰ 57	12 ⁰ 3	12 ⁰ 38	3 ⁰ 56	16 ⁰ 53	29 ⁰ 34	9 ⁰ 52	29 ⁰ 22	29 ⁰ 0	3 ⁰ 47	12 ⁰ 39	S 30
M31	7 15 25	19 ⁰ 20'17	9 ² 38	2 ² 10	8 ² 12	11 ⁰ 44	12 ⁰ Y50	4 ² 3	16 ⁰ B52	29 ⁰ 36	9 ⁰ 54	29 ⁰ Y20	28 ⁰ Y57	3 ¹ 53	12 ⁰ 43	M31