



Astrodienst Ephemeris Tables for the year 1865

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 1865

geocentric

JANUARY 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	6 42 38	10°39'39	22° 8	25°R 0	20°56	1°R41	15°26	29° 6	26°R54	5°Y37	11°R25	7°R 2	6°M 4	20°M25	11°K 8	S 1
M 2	6 46 34	11°40'50	6°36	24°33	22° 8	1°I37	15°38	29°10	26°I51	5°37	11°B24	6°M55	6° 1	20°32	11°10	M 2
T 3	6 50 31	12°42'01	20°58	23°54	23°20	1°35	15°51	29°13	26°49	5°38	11°24	6°51	5°58	20°39	11°12	T 3
W 4	6 54 27	13°43'11	5°Y11	23° 3	24°31	1°33	16° 4	29°17	26°46	5°38	11°23	6°49	5°55	20°45	11°15	W 4
T 5	6 58 24	14°44'21	19°13	22° 3	25°43	1°D33	16°17	29°20	26°44	5°39	11°23	6°D49	5°51	20°52	11°17	T 5
F 6	7 2 20	15°45'30	3° 3	20°54	26°54	1°33	16°29	29°24	26°41	5°40	11°23	6°R49	5°48	20°59	11°19	F 6
S 7	7 6 17	16°46'39	16°42	19°39	28° 6	1°33	16°42	29°27	26°39	5°40	11°22	6°49	5°45	21° 6	11°22	S 7
S 8	7 10 13	17°47'48	0°I11	18°20	29°17	1°35	16°54	29°30	26°37	5°41	11°22	6°47	5°42	21°12	11°25	S 8
M 9	7 14 10	18°48'56	13°30	17° 0	0°K28	1°37	17° 7	29°33	26°34	5°42	11°21	6°42	5°39	21°19	11°27	M 9
T 10	7 18 7	19°50'03	26°38	15°41	1°39	1°40	17°19	29°36	26°32	5°43	11°21	6°34	5°36	21°26	11°30	T 10
W11	7 22 3	20°51'10	9°B36	14°26	2°50	1°44	17°32	29°39	26°30	5°44	11°21	6°23	5°32	21°32	11°33	W11
T 12	7 26 0	21°52'17	22°21	13°17	4° 1	1°49	17°44	29°42	26°28	5°45	11°20	6°10	5°29	21°39	11°35	T 12
F 13	7 29 56	22°53'23	4°J55	12°14	5°12	1°54	17°56	29°45	26°25	5°46	11°20	5°56	5°26	21°46	11°38	F 13
S 14	7 33 53	23°54'29	17°16	11°20	6°22	2° 0	18° 9	29°47	26°23	5°46	11°20	5°43	5°23	21°52	11°41	S 14
S 15	7 37 49	24°55'34	29°25	10°36	7°33	2° 6	18°21	29°50	26°21	5°47	11°20	5°30	5°20	21°59	11°44	S 15
M16	7 41 46	25°56'39	11°M24	10° 0	8°43	2°13	18°33	29°52	26°19	5°48	11°20	5°20	5°16	22° 6	11°47	M16
T 17	7 45 43	26°57'44	23°16	9°34	9°53	2°21	18°45	29°55	26°17	5°50	11°19	5°13	5°13	22°12	11°50	T 17
W18	7 49 39	27°58'48	5° 4	9°18	11° 3	2°30	18°57	29°57	26°15	5°51	11°19	5° 9	5°10	22°19	11°53	W18
T 19	7 53 36	28°59'52	16°54	9°D10	12°13	2°39	19° 9	29°59	26°12	5°52	11°19	5° 7	5° 7	22°26	11°56	T 19
F 20	7 57 32	0° 0'55	28°49	9°11	13°23	2°49	19°21	0°M 1	26°10	5°53	11°19	5° 6	5° 4	22°32	11°59	F 20
S 21	8 1 29	1° 1'58	10°M56	9°20	14°32	2°59	19°32	0° 3	26° 8	5°54	11°19	5° 6	5° 1	22°39	12° 2	S 21
S 22	8 5 25	2° 3'00	23°21	9°36	15°42	3°10	19°44	0° 5	26° 6	5°55	11°19	5° 6	4°57	22°46	12° 5	S 22
M23	8 9 22	3° 4'02	6° 8	9°58	16°51	3°22	19°56	0° 7	26° 5	5°56	11°19	5° 3	4°54	22°52	12° 8	M23
T 24	8 13 18	4° 5'04	19°21	10°27	18° 0	3°34	20° 7	0° 8	26° 3	5°58	11°19	4°57	4°51	22°59	12°11	T 24
W25	8 17 15	5° 6'05	3° 2	11° 1	19° 9	3°46	20°19	0°10	26° 1	5°59	11°D19	4°49	4°48	23° 6	12°14	W25
T 26	8 21 12	6° 7'05	17°10	11°40	20°18	4° 0	20°30	0°11	25°59	6° 0	11°19	4°39	4°45	23°13	12°18	T 26
F 27	8 25 8	7° 8'04	1°42	12°24	21°27	4°13	20°41	0°12	25°57	6° 2	11°19	4°27	4°42	23°19	12°21	F 27
S 28	8 29 5	8° 9'02	16°30	13°12	22°35	4°28	20°52	0°14	25°56	6° 3	11°19	4°14	4°38	23°26	12°24	S 28
S 29	8 33 1	9° 9'59	1°K26	14° 4	23°44	4°42	21° 4	0°15	25°54	6° 4	11°19	4° 3	4°35	23°33	12°27	S 29
M30	8 36 58	10°10'55	16°21	14°59	24°52	4°58	21°15	0°16	25°52	6° 6	11°19	3°55	4°32	23°39	12°31	M30
T 31	8 40 54	11°11'50	1°Y 6	15°57	26°K 0	5°I14	21°26	0°M17	25°I51	6°Y 7	11°B19	3°M49	4°M29	23°M46	12°K34	T 31

Delta T = 8.22 sec

FEBRUARY 1865

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	8 44 51	12°12'43	15°Y36	16°58	27°K 7	5°I30	21°236	0°M17	25°R49	6°Y 9	11°B19	3°R46	4°M26	23°M53	12°K38	W 1
T 2	8 48 47	13°13'35	29°47	18° 2	28°15	5°47	21°47	0°18	25°I47	6°10	11°19	3°D45	4°22	23°59	12°41	T 2
F 3	8 52 44	14°14'26	13°B38	19° 8	29°22	6° 4	21°58	0°18	25°46	6°12	11°20	3°R45	4°19	24° 6	12°44	F 3
S 4	8 56 41	15°15'15	27°11	20°16	0°Y29	6°21	22° 8	0°19	25°45	6°13	11°20	3°M44	4°16	24°13	12°48	S 4
S 5	9 0 37	16°16'02	10°I27	21°26	1°36	6°39	22°19	0°19	25°43	6°15	11°20	3°42	4°13	24°19	12°51	S 5
M 6	9 4 34	17°16'48	23°28	22°38	2°43	6°58	22°29	0°20	25°42	6°17	11°20	3°38	4°10	24°26	12°55	M 6
T 7	9 8 30	18°17'33	6°B17	23°52	3°49	7°17	22°40	0°20	25°41	6°18	11°21	3°30	4° 7	24°33	12°58	T 7
W 8	9 12 27	19°18'16	18°55	25° 7	4°55	7°36	22°50	0°R20	25°39	6°20	11°21	3°20	4° 3	24°39	13° 2	W 8
T 9	9 16 23	20°18'58	1°J22	26°24	6° 1	7°56	23° 0	0°20	25°38	6°22	11°21	3° 7	4° 0	24°46	13° 6	T 9
F 10	9 20 20	21°19'38	13°40	27°43	7° 7	8°16	23°10	0°19	25°37	6°23	11°22	2°54	3°57	24°53	13° 9	F 10
S 11	9 24 16	22°20'16	25°50	29° 3	8°12	8°36	23°20	0°19	25°36	6°25	11°22	2°40	3°54	24°59	13°13	S 11
S 12	9 28 13	23°20'53	7°M51	0°K24	9°17	8°57	23°30	0°19	25°35	6°27	11°22	2°28	3°51	25° 6	13°16	S 12
M13	9 32 10	24°21'29	19°45	1°46	10°22	9°18	23°39	0°18	25°34	6°29	11°23	2°18	3°48	25°13	13°20	M13
T 14	9 36 6	25°22'04	1°B35	3°10	11°27	9°40	23°49	0°18	25°33	6°30	11°23	2°11	3°44	25°19	13°24	T 14
W15	9 40 3	26°22'37	13°23	4°34	12°31	10° 1	23°58	0°17	25°32	6°32	11°24	2° 6	3°41	25°26	13°27	W15
T 16	9 43 59	27°23'08	25°12	6° 0	13°35	10°23	24° 8	0°16	25°31	6°34	11°24	2° 5	3°38	25°33	13°31	T 16
F 17	9 47 56	28°23'39	7°M 6	7°27	14°38	10°46	24°17	0°15	25°30	6°36	11°25	2°D 4	3°35	25°39	13°35	F 17
S 18	9 51 52	29°24'08	19°12	8°55	15°41	11° 9	24°26	0°14	25°30	6°38	11°25	2° 5	3°32	25°46	13°39	S 18
S 19	9 55 49	0°K24'36	1°J33	10°24	16°44	11°32	24°35	0°13	25°29	6°40	11°26	2°R 5	3°28	25°53	13°42	S 19
M20	9 59 45	1°25'02	14°15	11°54	17°47	11°55	24°44	0°12	25°28	6°42	11°26	2° 5	3°25	25°59	13°46	M20
T 21	10 3 42	2°25'27	27°23	13°25	18°49	12°19	24°53	0°11	25°28	6°44	11°27	2° 2	3°22	26° 6	13°50	T 21
W22	10 7 38	3°25'51	11°B 0	14°57	19°51	12°43	25° 1	0° 9	25°27	6°46	11°27	1°56	3°19	26°13	13°54	W22
T 23	10 11 35	4°26'14	25° 6	16°30	20°52	13° 7	25°10	0° 8	25°27	6°48	11°28	1°49	3°16	26°19	13°57	T 23
F 24	10 15 32	5°26'34	9°K41	18° 5	21°53	13°31	25°18	0° 6	25°26	6°50	11°28	1°41	3°13	26°26	14° 1	F 24
S 25	10 19 28	6°26'54	24°37	19°40	22°54	13°56	25°26	0° 4	25°26	6°52	11°29	1°31	3° 9	26°33	14° 5	S 25
S 26	10 23 25	7°27'11	9°K48	21°16	23°54	14°21	25°35	0° 3	25°25	6°54	11°30	1°23	3° 6	26°39	14° 9	S 26
M27	10 27 21	8°27'27	25° 1	22°53	24°54	14°46	25°43	0° 1	25°25	6°56	11°30	1°17	3° 3	26°46	14°13	M27
T 28	10 31 18	9°K27'40	10°Y 7	24°31	25°Y53	15°I12	25°K50	29° 59	25°I25	6°Y58	11°B31	1°M13	3°M 0	26°M53	14°K16	T 28

Delta T = 8.16 sec

ASTRODIENST EPHEMERIS for the year 1865

geocentric

MARCH 1865

00:00 UT

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

Delta T = 8.10 sec

APRIL 1865

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	12 37 27	11°17'20	16°11'	25°1'	21°20'	0°27'	28°41'	28°R13	25°11'46	8°17'8	12°2'8	0°10'10	1°11'18	0°26'26	16°16'16	S 1
S 2	12 41 24	12°16'28	29°36'	26°52'	21°50'	0°58'	28°44'	28°4'8	25°47'	8°11'	12°4'	0°11'	1°15'	0°33'	16°19'	S 2
M 3	12 45 21	13°15'34	12°37'	28°39'	22°19'	1°29'	28°46'	28°4'	25°49'	8°13'	12°5'	0°R11	1°12'	0°40'	16°23'	M 3
T 4	12 49 17	14°14'37	25°16'	0°23'23	22°46'	2°0'	28°49'	28°0'	25°50'	8°15'	12°6'	0°11'	1°9'	0°46'	16°26'	T 4
W 5	12 53 14	15°13'38	7°23'	2°3'	23°12'	2°32'	28°51'	27°55'	25°52'	8°17'	12°7'	0°10'	1°5'	0°53'	16°30'	W 5
T 6	12 57 10	16°12'36	19°46'	3°40'	23°35'	3°3'	28°52'	27°51'	25°54'	8°20'	12°8'	0°8'	1°2'	0°59'	16°33'	T 6
F 7	13 1 7	17°11'32	1°45'	5°11'	23°57'	3°35'	28°54'	27°46'	25°55'	8°22'	12°10'	0°6'	0°59'	1°6'	16°37'	F 7
S 8	13 5 3	18°10'26	13°37'	6°38'	24°17'	4°6'	28°56'	27°42'	25°57'	8°24'	12°11'	0°4'	0°56'	1°13'	16°40'	S 8
S 9	13 9 0	19°9'18	25°26'	8°0'	24°35'	4°38'	28°57'	27°37'	25°59'	8°26'	12°12'	0°3'	0°53'	1°19'	16°43'	S 9
M10	13 12 56	20°8'08	7°15'	9°17'	24°51'	5°10'	28°58'	27°33'	26°1'	8°29'	12°13'	0°1'	0°50'	1°26'	16°47'	M10
T 11	13 16 53	21°6'55	19°5'	10°29'	25°5'	5°42'	28°59'	27°28'	26°3'	8°31'	12°15'	0°1'	0°46'	1°33'	16°50'	T 11
W12	13 20 50	22°5'41	1°0'	11°35'	25°17'	6°14'	29°0'	27°24'	26°5'	8°33'	12°16'	0°D 1	0°43'	1°39'	16°53'	W12
T 13	13 24 46	23°4'24	13°0'	12°35'	25°27'	6°46'	29°0'	27°19'	26°7'	8°35'	12°17'	0°1'	0°40'	1°46'	16°56'	T 13
F 14	13 28 43	24°3'06	25°9'	13°30'	25°34'	7°18'	29°1'	27°15'	26°9'	8°38'	12°19'	0°1'	0°37'	1°53'	17°0'	F 14
S 15	13 32 39	25°1'46	7°28'	14°19'	25°39'	7°51'	29°R 1	27°10'	26°11'	8°40'	12°20'	0°2'	0°34'	1°59'	17°3'	S 15
S 16	13 36 36	26°0'25	19°59'	15°2'	25°42'	8°23'	29°1'	27°5'	26°13'	8°42'	12°21'	0°2'	0°30'	2°6'	17°6'	S 16
M17	13 40 32	26°59'01	2°46'	15°38'	25°R43	8°55'	29°0'	27°1'	26°15'	8°44'	12°23'	0°3'	0°27'	2°13'	17°9'	M17
T 18	13 44 29	27°57'36	15°52'	16°9'	25°41'	9°28'	29°0'	26°56'	26°17'	8°46'	12°24'	0°3'	0°24'	2°19'	17°12'	T 18
W19	13 48 25	28°56'09	29°17'	16°34'	25°36'	10°0'	28°59'	26°52'	26°20'	8°48'	12°25'	0°R 3	0°21'	2°26'	17°15'	W19
T 20	13 52 22	29°54'41	13°5'	16°53'	25°30'	10°33'	28°59'	26°47'	26°22'	8°51'	12°26'	0°D 3	0°18'	2°33'	17°18'	T 20
F 21	13 56 19	0°53'11	27°14'	17°5'	25°21'	11°6'	28°58'	26°42'	26°24'	8°53'	12°28'	0°3'	0°15'	2°39'	17°21'	F 21
S 22	14 0 15	1°51'39	11°44'	17°12'	25°9'	11°39'	28°57'	26°38'	26°27'	8°55'	12°29'	0°3'	0°11'	2°46'	17°24'	S 22
S 23	14 4 12	2°50'06	26°31'	17°R13	24°55'	12°12'	28°55'	26°33'	26°29'	8°57'	12°31'	0°3'	0°8'	2°53'	17°27'	S 23
M24	14 8 8	3°48'31	11°17'28	17°9'	24°38'	12°45'	28°54'	26°29'	26°32'	8°59'	12°32'	0°3'	0°5'	2°59'	17°30'	M24
T 25	14 12 5	4°46'54	26°29'	16°59'	24°20'	13°18'	28°52'	26°24'	26°34'	9°1'	12°33'	0°R 4	0°2'	3°6'	17°33'	T 25
W26	14 16 1	5°45'16	11°25'	16°44'	23°59'	13°51'	28°50'	26°20'	26°37'	9°3'	12°35'	0°4'	29°59'	3°13'	17°36'	W26
T 27	14 19 58	6°43'36	26°8'	16°25'	23°35'	14°24'	28°48'	26°15'	26°39'	9°5'	12°36'	0°3'	29°56'	3°19'	17°38'	T 27
F 28	14 23 54	7°41'53	10°13'31	16°1'	23°10'	14°57'	28°46'	26°11'	26°42'	9°7'	12°37'	0°2'	29°52'	3°26'	17°41'	F 28
S 29	14 27 51	8°40'09	24°30'	15°34'	22°42'	15°31'	28°43'	26°6'	26°44'	9°9'	12°39'	0°1'	29°49'	3°33'	17°44'	S 29
S 30	14 31 47	9°38'23	8°2'3	15°3'3	22°13'13	16°2'4	28°41'	26°2'2	26°11'47	9°12'	12°40'	0°0'0	29°46'	3°39'	17°47'	S 30

ASTRODIENST EPHEMERIS for the year 1865

geocentric

MAY 1865

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
M 1	14 35 44	10°36'35	21°10'	14°R29	21°R42	16°38	28°R38	25°R58	26°II50	9°V14	12°R41	29°R59	29°43	3°46	17°49	M 1
T 2	14 39 41	11°34'45	3°15'	13°54	21°8 9	17°11	28°35	25°53	26°53	9°16	12°43	29°59	29°40	3°53	17°52	T 2
W 3	14 43 37	12°32'53	16°17	13°17	20°35	17°45	28°32	25°49	26°55	9°17	12°44	29°D59	29°36	3°59	17°54	W 3
T 4	14 47 34	13°30'59	28°25	12°39	19°59	18°19	28°28	25°45	26°58	9°19	12°45	29°59	29°33	4° 6	17°57	T 4
F 5	14 51 30	14°29'03	10°22	12° 2	19°23	18°52	28°25	25°40	27° 1	9°21	12°47	0° 0	29°30	4°13	17°59	F 5
S 6	14 55 27	15°27'05	22°13	11°25	18°46	19°26	28°21	25°36	27° 4	9°23	12°48	0° 2	29°27	4°19	18° 2	S 6
S 7	14 59 23	16°25'05	4° 1	10°49	18° 8	20° 0	28°17	25°32	27° 7	9°25	12°49	0° 3	29°24	4°26	18° 4	S 7
M 8	15 3 20	17°23'04	15°50	10°15	17°31	20°34	28°13	25°28	27°10	9°27	12°51	0° 4	29°21	4°33	18° 6	M 8
T 9	15 7 16	18°21'01	27°45	9°44	16°53	21° 8	28° 9	25°24	27°13	9°29	12°52	0°R 5	29°17	4°39	18° 9	T 9
W10	15 11 13	19°18'56	9°47	9°15	16°15	21°42	28° 5	25°20	27°16	9°31	12°54	0° 4	29°14	4°46	18°11	W10
T 11	15 15 10	20°16'49	21°59	8°50	15°38	22°16	28° 0	25°16	27°19	9°33	12°55	0° 3	29°11	4°53	18°13	T 11
F 12	15 19 6	21°14'41	4°22	8°28	15° 2	22°50	27°56	25°12	27°22	9°35	12°56	0° 1	29° 8	4°59	18°15	F 12
S 13	15 23 3	22°12'32	16°58	8°11	14°26	23°24	27°51	25° 8	27°25	9°36	12°58	29°58	29° 5	5° 6	18°17	S 13
S 14	15 26 59	23°10'21	29°47	7°57	13°52	23°58	27°46	25° 4	27°28	9°38	12°59	29°54	29° 2	5°13	18°19	S 14
M15	15 30 56	24° 8'09	12°50	7°48	13°19	24°33	27°41	25° 1	27°31	9°40	13° 0	29°51	28°58	5°19	18°21	M15
T 16	15 34 52	25° 5'56	26° 7	7°44	12°48	25° 7	27°36	24°57	27°34	9°42	13° 2	29°48	28°55	5°26	18°23	T 16
W17	15 38 49	26° 3'42	9°39	7°D44	12°18	25°41	27°30	24°53	27°37	9°43	13° 3	29°46	28°52	5°33	18°25	W17
T 18	15 42 45	27° 1'26	23°26	7°48	11°51	26°16	27°25	24°50	27°40	9°45	13° 4	29°D45	28°49	5°39	18°27	T 18
F 19	15 46 42	27°59'10	7°26	7°57	11°25	26°50	27°19	24°46	27°44	9°47	13° 6	29°45	28°46	5°46	18°29	F 19
S 20	15 50 39	28°56'52	21°41	8°11	11° 1	27°25	27°13	24°43	27°47	9°48	13° 7	29°46	28°42	5°53	18°31	S 20
S 21	15 54 35	29°54'33	6° 7	8°29	10°40	28° 0	27° 7	24°40	27°50	9°50	13° 8	29°48	28°39	5°59	18°33	S 21
M22	15 58 32	0°II52'14	20°41	8°51	10°21	28°34	27° 1	24°36	27°53	9°51	13°10	29°49	28°36	6° 6	18°34	M22
T 23	16 2 28	1°49'53	5°20	9°18	10° 4	29° 9	26°55	24°33	27°57	9°53	13°11	29°R49	28°33	6°12	18°36	T 23
W24	16 6 25	2°47'31	19°56	9°49	9°50	29°44	26°49	24°30	28° 0	9°55	13°12	29°48	28°30	6°19	18°37	W24
T 25	16 10 21	3°45'09	4°II25	10°24	9°38	0°II18	26°43	24°27	28° 3	9°56	13°13	29°45	28°27	6°26	18°39	T 25
F 26	16 14 18	4°42'45	18°39	11° 3	9°29	0°53	26°36	24°24	28° 7	9°58	13°15	29°40	28°23	6°32	18°40	F 26
S 27	16 18 14	5°40'19	2°34	11°46	9°22	1°28	26°29	24°21	28°10	9°59	13°16	29°35	28°20	6°39	18°42	S 27
S 28	16 22 11	6°37'53	16° 7	12°32	9°17	2° 3	26°23	24°18	28°13	10° 1	13°17	29°29	28°17	6°46	18°43	S 28
M29	16 26 8	7°35'25	29°16	13°22	9°D15	2°38	26°16	24°16	28°17	10° 2	13°19	29°24	28°14	6°52	18°45	M29
T 30	16 30 4	8°32'56	12°12	14°16	9°15	3°13	26° 9	24°13	28°20	10° 3	13°20	29°19	28°11	6°59	18°46	T 30
W31	16 34 1	9°II30'26	24°II28	15°13	9°R17	3°II48	26°2 2	24°11	28°II24	10°V 5	13°R21	29°16	28° 8	7° 6	18°47	W31

Delta T = 7.97 sec

JUNE 1865

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	16 37 57	10°II27'54	6°II37	16°R14	9°R22	4°II23	25°R55	24°R 8	28°II27	10°V 6	13°R22	29°D15	28° 4	7°12	18°48	T 1
F 2	16 41 54	11°25'21	18°34	17°18	9°29	4°58	25°48	24° 6	28°31	10° 7	13°24	29°15	28° 1	7°19	18°49	F 2
S 3	16 45 50	12°22'47	0°25	18°25	9°38	5°34	25°41	24° 3	28°34	10° 9	13°25	29°16	27°58	7°26	18°50	S 3
S 4	16 49 47	13°20'12	12°13	19°35	9°49	6° 9	25°33	24° 1	28°38	10°10	13°26	29°18	27°55	7°32	18°51	S 4
M 5	16 53 43	14°17'35	24° 5	20°48	10° 2	6°44	25°26	23°59	28°41	10°11	13°27	29°R19	27°52	7°39	18°52	M 5
T 6	16 57 40	15°14'58	6°II 4	22° 4	10°17	7°19	25°19	23°57	28°45	10°12	13°28	29°19	27°48	7°46	18°53	T 6
W 7	17 1 37	16°12'19	18°15	23°24	10°34	7°55	25°11	23°55	28°48	10°14	13°29	29°17	27°45	7°52	18°54	W 7
T 8	17 5 33	17° 9'40	0°39	24°46	10°53	8°30	25° 4	23°53	28°52	10°15	13°31	29°13	27°42	7°59	18°55	T 8
F 9	17 9 30	18° 7'00	13°19	26°11	11°14	9° 6	24°56	23°52	28°55	10°16	13°32	29° 7	27°39	8° 6	18°56	F 9
S 10	17 13 26	19° 4'19	26°15	27°39	11°36	9°41	24°49	23°50	28°59	10°17	13°33	29° 0	27°36	8°12	18°56	S 10
S 11	17 17 23	20° 1'37	9°32	29°10	12° 0	10°17	24°41	23°48	29° 2	10°18	13°34	28°51	27°33	8°19	18°57	S 11
M12	17 21 19	20°58'55	22°52	0°II44	12°26	10°52	24°33	23°47	29° 6	10°19	13°35	28°43	27°29	8°26	18°58	M12
T 13	17 25 16	21°56'12	6°30	2°21	12°54	11°28	24°26	23°45	29° 9	10°20	13°36	28°35	27°26	8°32	18°58	T 13
W14	17 29 13	22°53'29	20°19	4° 1	13°23	12° 3	24°18	23°44	29°13	10°21	13°37	28°29	27°23	8°39	18°58	W14
T 15	17 33 9	23°50'45	4°15	5°43	13°53	12°39	24°10	23°43	29°17	10°22	13°39	28°25	27°20	8°46	18°59	T 15
F 16	17 37 6	24°48'01	18°17	7°28	14°25	13°15	24° 3	23°42	29°20	10°23	13°40	28°24	27°17	8°52	18°59	F 16
S 17	17 41 2	25°45'17	2°V25	9°16	14°58	13°51	23°55	23°41	29°24	10°24	13°41	28°D24	27°14	8°59	19° 0	S 17
S 18	17 44 59	26°42'33	16°36	11° 7	15°32	14°26	23°47	23°40	29°27	10°25	13°42	28°24	27°10	9° 6	19° 0	S 18
M19	17 48 55	27°39'48	0°50	13° 0	16° 8	15° 2	23°40	23°39	29°31	10°25	13°43	28°R25	27° 7	9°12	19° 0	M19
T 20	17 52 52	28°37'04	15° 4	14°56	16°45	15°38	23°32	23°38	29°34	10°26	13°44	28°24	27° 4	9°19	19° 0	T 20
W21	17 56 48	29°34'19	29°15	16°54	17°23	16°14	23°25	23°38	29°38	10°27	13°45	28°20	27° 1	9°25	19° 0	W21
T 22	18 0 45	0°31'34	13°II20	18°54	18° 2	16°50	23°17	23°37	29°42	10°28	13°46	28°14	26°58	9°32	19°R 0	T 22
F 23	18 4 42	1°28'49	27°14	20°57	18°43	17°26	23° 9	23°37	29°45	10°28	13°47	28° 6	26°54	9°39	19° 0	F 23
S 24	18 8 38	2°26'04	10°54	23° 1	19°24	18° 2	23° 2	23°37	29°49	10°29	13°48	27°56	26°51	9°45	19° 0	S 24
S 25	18 12 35	3°23'18	24°16	25° 7	20° 6	18°38	22°55	23°36	29°52	10°30	13°49	27°45	26°48	9°52	19° 0	S 25
M26	18 16 31	4°20'32	7°II19	27°15	20°50	19°14	22°47	23°36	29°56	10°30	13°50	27°35	26°45	9°59	19° 0	M26
T 27	18 20 28	5°17'46	20° 1	29°24	21°34	19°50	22°40	23°D36	29°59	10°31	13°51	27°26	26°42	10° 5	18°59	T 27
W28	18 24 24	6°14'59	2°II25	1°33	22°19	20°27	22°32	23°36	0° 3	10°31	13°51	27°19	26°39	10°12	18°59	W28
T 29	18 28 21	7°12'11	14°34	3°44	23° 5	21° 3	22°25	23°37	0° 7	10°32	13°52	27°15	26°35	10°19	18°59	T 29
F 30	18 32 17	8° 9'24	26°II31	5°54	23°R51	21°II39	22°18	23°37	0°10	10°V32	13°R53	27°12	26°32	10°25	18°58	F 30

Delta T = 7.90 sec

ASTRODIENST EPHEMERIS for the year 1865

geocentric

JULY 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	18 36 14	9 ⁵⁵ 6'35	8 ⁵² 21	8 ⁵⁵ 5	24 ⁴⁸ 39	22 ⁰¹ 15	22 ⁰¹ R11	23 ⁵³ 37	0 ⁵⁸ 14	10 ⁰⁷ 33	13 ⁰⁸ 54	27 ⁰¹ D12	26 ⁵² 29	10 ⁵³ 32	18 ⁰¹ R58	S 1
S 2	18 40 11	10 ⁰ 3'47	20 ¹⁰ 10	10 ¹⁵ 25	25 ²⁷ 22	22 ⁵² 22	22 ⁵⁷ 4	23 ³⁸ 0	0 ¹⁷ 10	10 ³³ 13	13 ⁵⁵ 27	27 ¹² 26	26 ²⁶ 10	10 ³⁹ 18	18 ⁵⁷ 57	S 2
M 3	18 44 7	11 ⁰ 0'59	2 ¹¹ 3	12 ²⁵ 26	26 ¹⁶ 23	23 ²⁸ 21	21 ⁵⁷ 23	23 ³⁸ 0	0 ²¹ 10	10 ³⁴ 13	13 ⁵⁶ 27	27 ¹² R12	26 ²³ 26	10 ⁴⁵ 18	18 ⁵⁷ 57	M 3
T 4	18 48 4	11 ⁵⁸ 10	14 ⁰ 5	14 ³⁵ 27	27 ⁰ 24	24 ⁰ 21	21 ⁵⁰ 23	23 ³⁹ 0	0 ²⁵ 10	10 ³⁴ 13	13 ⁵⁷ 27	27 ¹¹ 26	26 ¹⁹ 10	10 ⁵² 18	18 ⁵⁶ 56	T 4
W 5	18 52 0	12 ⁵⁵ 21	26 ²¹ 16	16 ⁴³ 27	27 ⁵⁶ 24	24 ⁴¹ 21	21 ⁴⁴ 23	23 ⁴⁰ 0	0 ²⁸ 10	10 ³⁴ 13	13 ⁵⁷ 27	27 ⁰ 8	26 ¹⁶ 10	10 ⁵⁹ 18	18 ⁵⁵ 55	W 5
T 6	18 55 57	13 ⁵² 32	8 ⁵⁷ 55	18 ⁵⁰ 28	28 ⁴⁷ 25	25 ¹⁸ 21	21 ³⁷ 23	23 ⁴¹ 0	0 ³² 10	10 ³⁴ 13	13 ⁵⁸ 27	27 ² 26	26 ¹³ 11	11 ⁰ 5	18 ⁵⁵ 55	T 6
F 7	18 59 53	14 ⁴⁹ 43	21 ⁴⁹ 20	20 ⁵⁶ 29	29 ³⁸ 25	25 ⁵⁴ 21	21 ³⁰ 23	23 ⁴² 0	0 ³⁵ 10	10 ³⁵ 13	13 ⁵⁹ 26	26 ⁵⁴ 26	26 ¹⁰ 11	11 ¹² 18	18 ⁵⁴ 54	F 7
S 8	19 3 50	15 ⁴⁶ 54	5 ³ 3	23 ⁰ 1	0 ¹¹ 30	26 ³¹ 21	21 ²⁴ 23	23 ⁴³ 0	0 ³⁹ 10	10 ³⁵ 14	14 ⁰ 26	26 ⁴³ 26	26 ⁰ 11	11 ¹⁹ 18	18 ⁵³ 53	S 8
S 9	19 7 46	16 ⁴⁴ 05	18 ³⁷ 25	25 ⁰ 4	1 ²³ 27	27 ⁰ 21	21 ¹⁸ 23	23 ⁴⁴ 0	0 ⁴² 10	10 ³⁵ 14	14 ⁰ 26	26 ³² 26	26 ⁰ 11	11 ²⁵ 18	18 ⁵² 52	S 9
M10	19 11 43	17 ⁴¹ 16	2 ⁵⁸ 28	27 ⁰ 6	2 ¹⁶ 27	27 ⁴⁴ 21	21 ¹² 23	23 ⁴⁵ 0	0 ⁴⁶ 10	10 ³⁵ 14	14 ¹ 26	26 ²⁰ 26	26 ⁰ 11	11 ³² 18	18 ⁵¹ 51	M10
T 11	19 15 40	18 ³⁸ 28	16 ³² 29	29 ⁰ 5	3 ¹⁰ 28	28 ²¹ 21	21 ⁰ 23	23 ⁴⁷ 0	0 ⁴⁹ 10	10 ³⁵ 14	14 ² 26	26 ¹⁰ 25	25 ⁵⁷ 11	11 ³⁸ 18	18 ⁵⁰ 50	T 11
W12	19 19 36	19 ³⁵ 40	0 ⁴⁴ 14	4 ⁰ 5	28 ⁵⁷ 21	21 ⁰ 23	23 ⁴⁸ 0	0 ⁵³ 10	0 ⁵³ 10	10 ³⁵ 14	14 ² 26	26 ⁰ 1	25 ⁵⁴ 11	11 ⁴⁵ 18	18 ⁴⁹ 49	W12
T 13	19 23 33	20 ³² 52	14 ⁵⁹ 3 ⁰	0 ⁰ 5	29 ³⁴ 20	20 ⁵⁴ 23	23 ⁵⁰ 0	0 ⁵⁶ 10	0 ⁵⁶ 10	10 ³⁵ 14	14 ³ 25	25 ⁵⁶ 25	25 ⁵¹ 11	11 ⁵² 18	18 ⁴⁸ 48	T 13
F 14	19 27 29	21 ³⁰ 05	29 ¹⁴ 4 ⁵⁴	5 ⁵⁵ 0	0 ¹¹ 20	20 ⁴⁸ 23	23 ⁵¹ 0	0 ⁵⁹ 10	0 ⁵⁹ 10	10 ³⁵ 14	14 ⁴ 25	25 ⁵² 25	25 ⁴⁸ 11	11 ⁵⁸ 18	18 ⁴⁷ 47	F 14
S 15	19 31 26	22 ²⁷ 19	13 ⁰⁷ 26	6 ⁴⁷ 6	5 ⁵¹ 0	0 ⁴⁸ 20	20 ⁴² 23	23 ⁵³ 1 ⁰	1 ⁰ 10	10 ³⁵ 14	14 ⁵ 25	25 ⁵¹ 25	25 ⁴⁵ 12	12 ⁰ 5	18 ⁴⁶ 46	S 15
S 16	19 35 22	23 ²⁴ 33	27 ³³ 8 ³⁸	7 ⁴⁸ 7	1 ²⁴ 20	20 ³⁷ 23	23 ⁵⁵ 1 ⁰	1 ⁰ 10	10 ³⁵ 14	14 ⁵ 25	25 ⁵¹ 25	25 ⁴¹ 12	12 ¹² 18	18 ⁴⁴ 44	18 ⁴⁴ 44	S 16
M17	19 39 19	24 ²¹ 48	11 ⁰³ 35	10 ²⁷ 8 ⁴⁴	2 ⁰ 1	20 ³² 23	23 ⁵⁷ 1 ¹⁰	1 ¹⁰ 10	10 ³⁵ 14	14 ⁵ 25	25 ⁵¹ 25	25 ³⁸ 12	12 ¹⁸ 18	18 ⁴³ 43	18 ⁴³ 43	M17
T 18	19 43 15	25 ¹⁹ 04	25 ³⁰ 12	14 ⁰ 9	9 ⁴² 2	2 ³⁸ 20	20 ²⁷ 23	23 ⁵⁹ 1 ¹³	1 ¹³ 10	10 ³⁵ 14	14 ⁶ 25	25 ⁴⁹ 25	25 ³⁵ 12	12 ²⁵ 18	18 ⁴² 42	T 18
W19	19 47 12	26 ¹⁶ 21	9 ¹¹ 19	13 ⁵⁹ 10	10 ³⁹ 3	1 ¹⁵ 20	20 ²² 24	24 ⁰ 1	1 ¹⁶ 10	10 ³⁵ 14	14 ⁷ 25	25 ⁴⁵ 25	25 ³² 12	12 ³² 18	18 ⁴⁰ 40	W19
T 20	19 51 9	27 ¹³ 38	22 ⁵⁹ 15	14 ³ 11	11 ³⁸ 3	3 ⁵² 20	20 ¹⁷ 24	24 ⁰ 3	1 ²⁰ 10	10 ³⁵ 14	14 ⁷ 25	25 ³⁷ 25	25 ²⁹ 12	12 ³⁸ 18	18 ³⁹ 39	T 20
F 21	19 55 5	28 ¹⁰ 57	6 ⁵² 29	17 ²⁵ 12	12 ³⁶ 4	4 ²⁹ 20	20 ¹² 24	24 ⁰ 5	1 ²³ 10	10 ³⁵ 14	14 ⁸ 25	25 ²⁸ 25	25 ²⁵ 12	12 ⁴⁵ 18	18 ³⁷ 37	F 21
S 22	19 59 2	29 ⁰ 8'16	19 ⁴⁷ 19	19 ⁰ 5	13 ³⁵ 5	5 ⁰ 20	20 ⁰ 8	24 ⁰ 8	1 ²⁶ 10	10 ³⁴ 14	14 ⁸ 25	25 ¹⁶ 25	25 ²² 12	12 ⁵² 18	18 ³⁶ 36	S 22
S 23	20 2 58	0 ⁰ 5'35	2 ⁰ 51	20 ⁴³ 14	14 ³⁴ 5	5 ⁴⁴ 20	20 ⁰ 3	24 ¹⁰ 1	1 ³⁰ 10	10 ³⁴ 14	14 ⁸ 25	25 ⁰ 25	25 ¹⁹ 12	12 ⁵⁸ 18	18 ³⁴ 34	S 23
M24	20 6 55	1 ⁰ 2'55	15 ³⁹ 22	19 ¹⁵ 15	15 ³⁴ 6	6 ²¹ 19	19 ⁵⁹ 24	24 ¹³ 1	1 ³³ 10	10 ³⁴ 14	14 ⁹ 24	24 ⁵¹ 25	25 ¹⁶ 13	13 ⁰ 5	18 ³² 32	M24
T 25	20 10 51	2 ⁰ 0'16	28 ¹² 23	16 ³⁴ 16	6 ⁵⁸ 19	19 ⁵⁵ 24	24 ¹⁶ 1	1 ³⁶ 10	1 ³⁶ 10	10 ³³ 14	14 ⁹ 24	24 ⁴⁰ 25	25 ¹³ 13	13 ¹² 18	18 ³¹ 31	T 25
W26	20 14 48	2 ⁵⁷ 37	10 ¹⁰ 29	25 ²⁶ 17	17 ³⁴ 7	7 ³⁵ 19	19 ⁵¹ 24	24 ¹⁸ 1	1 ³⁹ 10	10 ³³ 14	14 ¹⁰ 24	24 ³¹ 25	25 ¹⁰ 13	13 ¹⁸ 18	18 ²⁹ 29	W26
T 27	20 18 44	3 ⁵⁴ 59	22 ³⁴ 26	18 ³⁵ 8	8 ¹² 19	19 ⁴⁷ 24	24 ²¹ 1	1 ⁴² 10	1 ⁴² 10	10 ³³ 14	14 ¹⁰ 24	24 ²⁵ 25	25 ⁰ 13	13 ²⁵ 18	18 ²⁷ 27	T 27
F 28	20 22 41	4 ⁵² 22	4 ⁵² 28	28 ²⁶ 19	19 ³⁶ 8	8 ⁵⁰ 19	19 ⁴⁴ 24	24 ²⁴ 1	1 ⁴⁶ 10	10 ³² 14	14 ¹⁰ 24	24 ²¹ 25	25 ⁰ 13	13 ³² 18	18 ²⁵ 25	F 28
S 29	20 26 38	5 ⁴⁹ 45	16 ¹⁷ 29	29 ⁵³ 20	20 ³⁷ 9	9 ²⁷ 19	19 ⁴⁰ 24	24 ²⁷ 1	1 ⁴⁹ 10	10 ³² 14	14 ¹¹ 24	24 ²⁰ 25	25 ⁰ 13	13 ³⁸ 18	18 ²⁴ 24	S 29
S 30	20 30 34	6 ⁴⁷ 08	28 ⁰ 5	1 ¹⁰ 19	21 ³⁹ 10	10 ⁰ 5	19 ³⁷ 24	24 ³⁰ 1	1 ⁵² 10	10 ³¹ 14	14 ¹¹ 24	24 ^{D20} 24	24 ⁵⁷ 13	13 ⁴⁵ 18	18 ²² 22	S 30
M31	20 34 31	7 ⁰ 44'33	9 ¹¹ 58	2 ¹⁰ 42	22 ¹¹ 40	10 ¹⁰ 42	19 ³⁷ 24	24 ³⁴ 1	1 ⁵⁵ 10	10 ³¹ 14	14 ¹¹ 24	24 ^{R20} 24	24 ⁵⁴ 13	13 ⁵¹ 18	18 ²⁰ 20	M31

Delta T = 7.83 sec

AUGUST 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
T 1	20 38 27	8 ⁰¹ 41'58	22 ¹¹ 0	4 ¹⁰ 3	23 ¹¹ 43	11 ¹⁰ 19	19 ⁰ R31	24 ⁵³ 37	1 ⁵⁸ 2	10 ⁰ R30	14 ¹² 14	24 ⁰ R19	24 ⁵¹ 24	13 ⁵⁸ 13	18 ⁰ R18	T 1
W 2	20 42 24	9 ³⁹ 23	4 ⁵⁷ 18	5 ²³ 24	24 ⁴⁵ 11	11 ⁵⁷ 19	19 ²⁷ 29	24 ⁴⁰ 2	2 ⁰ 1	10 ⁰⁷ 30	14 ¹² 24	24 ¹⁷ 24	24 ⁴⁷ 14	14 ⁰ 5	18 ¹⁶ 16	W 2
T 3	20 46 20	10 ³⁶ 49	16 ⁵⁵ 6	6 ⁴⁰ 25	25 ⁴⁸ 12	12 ³⁵ 19	19 ²⁶ 24	24 ⁴⁴ 2	2 ⁰ 4	10 ²⁹ 14	14 ¹² 24	24 ¹² 24	24 ⁴⁴ 14	14 ¹¹ 18	18 ¹⁴ 14	T 3
F 4	20 50 17	11 ³⁴ 17	29 ⁵⁶ 7	7 ⁵⁶ 26	26 ⁵¹ 13	13 ¹² 19	19 ²⁴ 24	24 ⁴⁷ 2	2 ⁰ 7	10 ²⁸ 14	14 ¹² 24	24 ⁰ 5	24 ⁴¹ 14	14 ¹⁸ 18	18 ¹² 12	F 4
S 5	20 54 13	12 ³¹ 45	13 ³ 21	9 ⁰ 9	27 ⁵⁴ 13	13 ⁵⁰ 19	19 ²² 24	24 ⁵¹ 2	2 ¹⁰ 10	10 ²⁸ 14	14 ¹³ 23	23 ⁵⁶ 24	24 ³⁸ 14	14 ²⁵ 18	18 ⁰ 9	S 5
S 6	20 58 10	13 ²⁹ 13	27 ¹¹ 10	10 ²⁰ 28	28 ⁵⁷ 14	14 ²⁷ 19	19 ²⁰ 24	24 ⁵⁵ 2	2 ¹³ 10	10 ²⁷ 14	14 ¹³ 23	23 ⁴⁵ 24	24 ³⁵ 14	14 ³¹ 18	18 ⁰ 7	S 6
M 7	21 2 7	14 ²⁶ 43	11 ⁵⁸ 11	11 ²⁹ 0	1 ⁵ 15	15 ⁰ 19	19 ¹⁸ 24	24 ⁵⁸ 2	2 ¹⁶ 10	10 ²⁶ 14	14 ¹³ 23	23 ³⁵ 24	24 ³¹ 14	14 ³⁸ 18	18 ⁰ 5	M 7
T 8	21 6 3	15 ²⁴ 14	25 ⁵⁰ 12	12 ³⁵ 1 ⁰	1 ⁵ 15	15 ⁴³ 19	19 ¹⁶ 25	2 ⁰ 2	2 ¹⁹ 10	10 ²⁵ 14	14 ¹³ 23	23 ²⁵ 24	24 ²⁸ 14	14 ⁴⁵ 18	18 ⁰ 3	T 8
W 9	21 10 0	16 ²¹ 46	10 ⁴⁷ 13	13 ³⁹ 2 ⁰	16 ²¹ 19	19 ¹⁵ 25	2 ⁰ 6	2 ²¹ 10	2 ²¹ 10	10 ²⁵ 14	14 ¹³ 23	23 ¹⁷ 24	24 ²⁵ 14	14 ⁵¹ 18	18 ⁰ 0	W 9
T 10	21 13 56	17 ¹⁹ 19	25 ⁰ 7	14 ⁴¹ 3	16 ⁵⁸ 19	19 ¹⁴ 25	10 ¹⁴ 25	2 ²⁴ 10	2 ²⁴ 10	10 ²⁴ 14	14 ¹³ 23	23 ¹² 24	24 ²² 14	14 ⁵⁸ 17	17 ⁵⁸ 58	T 10
F 11	21 17 53	18 ¹⁶ 53	9 ⁰⁷ 42	15 ³⁹ 4	18 ¹⁷ 17	17 ³⁶ 19	19 ¹³ 25	2 ²⁷ 10	2 ²⁷ 10	10 ²³ 14	14 ¹³ 23	23 ⁰ 9	24 ¹⁹ 15	15 ⁰ 5	17 ⁵⁶ 56	F 11
S 12	21 21 49	19 ¹⁴ 29	24 ⁰ 8	16 ³⁵ 5	23 ¹⁸ 18	18 ¹⁴ 19	19 ¹² 25	2 ³⁰ 19	2 ³⁰ 19	10 ²² 14	14 ¹³ 23	23 ⁰ 9	24 ¹⁶ 15	15 ¹¹ 17	17 ⁵³ 53	S 12
S 13	21 25 46	20 ¹² 07	8 ⁰⁸ 23	17 ²⁸ 6	28 ⁵² 18	18 ⁵² 19	19 ¹¹ 25	2 ²³ 32	2 ³² 32	10 ²¹ 14	14 ¹³ 23	23 ⁰ 9	24 ¹² 15	15 ¹⁸ 17	17 ⁵¹ 51	S 13
M14	21 29 42	21 ⁰ 9'46	22 ²⁴ 18	18 ¹⁸ 7	7 ³³ 19	19 ³⁰ 19	19 ¹¹ 25	2 ²⁷ 35	2 ³⁵ 35	10 ²⁰ 14	14 ¹³ 23	23 ⁰ 9	24 ⁰ 9	15 ²⁵ 17	17 ⁴⁹ 49	M14
T 15	21 33 39	22 ⁰ 7'27	6 ¹¹ 12	19 ⁰ 5	8 ³⁹ 9	8 ³⁹ 20	20 ⁰ 8	19 ¹⁰ 25	2 ³² 38	10 ¹⁹ 14	14 ¹³ 23	23 ⁰ 9	24 ⁰ 6	15 ³¹ 17	17 ⁴⁶ 46	T 15
W16	21 37 36	23 ⁰ 5'09	19 ⁴⁶ 19	19 ⁴⁸ 9	9 ⁴⁵ 20	20 ⁴⁶ 19	19 ¹⁰ 25	2 ³⁶ 40	2 ⁴⁰ 40	10 ¹⁸ 14	14 ¹³ 23	23 ⁰ 6	24 ⁰ 3	15 ³⁸ 17	17 ⁴⁴ 44	W16
T 17	21 41 32	24 ⁰ 2'53	3 ³ 7	20 ²⁸ 10	10 ⁵¹ 21	21 ²⁴ 19	19 ¹⁰ 25	2 ⁴³ 41	2 ⁴³ 41	10 ¹⁷ 14	14 ¹³ 23	23 ⁰ 0	24 ⁰ 0	15 ⁴⁴ 17	17 ⁴¹ 41	T 17
F 18	21 45 29	25 ⁰ 0'39	16 ¹⁵ 21	21 ⁰ 3	11 ⁵⁷ 22	22 ⁰ 2	19 ¹¹ 25	2 ⁴⁵ 45	2 ⁴⁵ 45	10 ¹⁶ 14	14 ¹³ 22	22 ⁵³ 23	23 ⁵⁷ 15	15 ⁵¹ 17	17 ³⁹ 39	F 18
S 19	21 49 25	25 ⁵⁸ 26	29 ¹² 21	21 ³⁵ 13	13 ⁰ 3	22 ⁴¹ 19	19 ¹¹ 25	2 ⁴⁸ 48	2 ⁴⁸ 48	10 ¹⁵ 14	14 ¹³ 22	22 ⁴⁴ 23	23 ⁵³ 15	15 ⁵⁸ 17	17 ³⁶ 36	S 19
S 20	21 53 22	26 ⁵⁶ 14	11 ⁰⁵ 25	22 ⁰ 2	14 ¹⁰ 23	23 ¹⁹ 19	19 ¹² 25	2 ⁵⁵ 50	2 ⁵⁰ 50	10 ¹⁴ 14	14 ¹³ 22	22 ³⁴ 23	23 ⁵⁰ 16	16 ⁰ 4	17 ³³ 33	S 20
M21	21 57 18	27 ⁵⁴ 05	24 ²⁶ 22	22 ²⁵ 15	15 ¹⁶ 23	23 ⁵⁷ 19	19 ¹³ 26	2 ⁰ 53	2 ⁵³ 53	10 ¹³ 14	14 ¹³ 22	22 ²⁴ 23	23 ⁴⁷ 16	16 ¹¹ 17	17 ³¹ 31	M21
T 22	22 1 15	28 ⁵¹ 56	6 ¹⁰ 45	22 ⁴³ 16	23 ²³ 24	24 ³⁵ 19	19 ¹⁴ 26	2 ⁵ 55	2 ⁵⁵ 55	10 ¹² 14	14 ¹³ 22	22 ¹⁵ 23	23 ⁴⁴ 16	16 ¹⁸ 17	17 ²⁸ 28	T 22
W23	22 5 11	29 ⁴⁹ 49	18 ⁵² 22	22 ⁵⁶ 17	17 ³⁰ 25	25 ¹⁴ 19	19 ¹⁵ 26	2 ⁵⁷ 50	2 ⁵⁷ 50	10 ¹¹ 14	14 ¹³ 22	22 ⁰ 8	23 ⁴¹ 16	16 ²⁴ 17	17 ²⁵ 25	W23
T 24	22 9 8	0 ¹⁰ 47'43	0 ⁰⁵ 50	23 ⁰ 4	18 ³⁷ 25	25 ⁵² 19	19 ¹⁶ 26	2 ¹⁵ 3	2 ⁰ 10	10 ¹⁰ 14	14 ¹² 22	22 ⁰ 3	23 ³⁷ 16	16 ³¹ 17	17 ²³ 23	T 24
F 25	22 13 4	1 ⁴⁵ 39	12 ⁴¹ 23	R 6	19 ⁴⁵ 26	26 ³¹ 19	19 ¹⁸ 26	2 ²⁰ 3	2 ² 10	10 ⁰ 8	14 ¹² 22	22 ⁰ 1	23 ³⁴ 16	16 ³⁸ 17	17 ²⁰ 20	F 25
S 26	22 17 1	2 ⁴³ 36	24 ²⁸ 23	2 ⁰ 20	20 ⁵² 27	27 ⁰ 9	19 ¹⁹ 26	2 ²⁵ 3	2 ⁴ 10	10 ⁰ 7	14 ¹² 22	22 ⁰ 1	23 ³¹ 16	16 ⁴⁴ 17	17 ¹⁷ 17	S 26
S 27	22 20 58	3 ⁴¹ 35	6 ¹¹ 15	22 ⁵² 22	22 ⁰ 14	27 ⁴⁷ 19	19 ²¹ 26	2 ³⁰ 3	2 ⁶ 10	10 ⁰ 6	14 ¹² 22	22 ⁰ 1	23 ²⁸ 16	16 ⁵¹ 17	17 ¹⁵ 15	S 27
M28	22 24 54	4 ³⁹ 34	18 ⁰ 6	22 ³⁷ 23	23 ⁰ 8	28 ²⁶ 19	19 ²⁴ 26	2 ³⁶ 3	2 ⁸ 10	10 ⁰ 5	14 ¹¹ 22	22 ⁰ 3	23 ²⁵ 16	16 ⁵⁸ 17	17 ¹² 12	M28
T 29	22 28 51	5 ³⁷ 36	0 ⁰⁷ 7	22 ¹⁵ 24	24 ¹⁶ 29	29 ⁰ 5	19 ²⁶ 26	2 ⁴¹ 3	2 ¹¹ 10	10 ⁰ 3	14 ¹¹ 22	22 ⁰ 4	23 ²² 17	17 ⁰ 9	17 ⁰ 9	T 29
W30	22 32 47	6 ³⁵ 38	12 ²³ 21	21 ⁴⁷ 25	25 ²⁴ 29	29 ⁴³ 19	19 ²⁸ 26	2 ⁴⁶ 3	2 ¹³ 10	10 ⁰ 2	14 ¹¹ 22	22 ⁰ 4	23 ¹⁸ 17	17 ¹¹ 17	17 ⁰ 6	W30
T 31	22 36 44	7 ¹⁰ 33'42	24 ²⁷ 59	21 ¹⁰ 13	26 ⁰² 32	0 ⁰⁵ 22	19 ²⁷ 31	26 ⁰⁵ 22	3 ⁰⁵ 15	10 ⁰⁷ 1	14 ⁰⁸ 10	22 ⁰² 23	23 ⁰⁵ 15	17 ⁰⁵ 17	17 ⁰⁵ 17	T 31

ASTRODIENST EPHEMERIS for the year 1865
geocentric

SEPTEMBER 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	22 40 40	8 ^h 31'48	7 ^h 59	20°R33	27 ^h 540	1 ^h 1	19 ^h 34	26 ^h 58	3 ^h 17	9°R59	14°R10	21°R59	23 ^h 12	17 ^h 24	17°R 1	F 1
S 2	22 44 37	9°29'55	21°26	19 ^h 48	28°49	1°39	19°37	27° 3	3°18	9°Y58	14°R10	21 ^h 54	23° 9	17°31	16°K58	S 2
S 3	22 48 33	10°28'03	5 ^h 20	18°58	29°58	2°18	19°40	27° 9	3°20	9°57	14° 9	21°48	23° 6	17°37	16°55	S 3
M 4	22 52 30	11°26'13	19°40	18° 5	1 ^h 7	2°57	19°44	27°15	3°22	9°55	14° 9	21°41	23° 2	17°44	16°52	M 4
T 5	22 56 27	12°24'24	4 ^h 22	17° 8	2°16	3°36	19°47	27°20	3°24	9°54	14° 8	21°36	22°59	17°51	16°50	T 5
W 6	23 0 23	13°22'38	19°17	16° 9	3°25	4°15	19°51	27°26	3°26	9°52	14° 8	21°31	22°56	17°57	16°47	W 6
T 7	23 4 20	14°20'52	4 ^h Y18	15° 9	4°34	4°54	19°55	27°32	3°27	9°51	14° 7	21°28	22°53	18° 4	16°44	T 7
F 8	23 8 16	15°19'09	19°16	14° 9	5°43	5°33	19°59	27°38	3°29	9°49	14° 7	21°D27	22°50	18°11	16°41	F 8
S 9	23 12 13	16°17'28	4 ^h 8	13°12	6°53	6°12	20° 3	27°44	3°31	9°48	14° 6	21°28	22°47	18°17	16°38	S 9
S 10	23 16 9	17°15'49	18°34	12°17	8° 3	6°51	20° 7	27°50	3°32	9°46	14° 6	21°29	22°43	18°24	16°35	S 10
M 11	23 20 6	18°14'12	2 ^h 45	11°27	9°12	7°30	20°12	27°56	3°34	9°45	14° 5	21°30	22°40	18°31	16°33	M 11
T 12	23 24 2	19°12'38	16°36	10°43	10°22	8° 9	20°17	28° 2	3°35	9°43	14° 5	21°R31	22°37	18°37	16°30	T 12
W 13	23 27 59	20°11'05	0 ^h 6	10° 6	11°32	8°49	20°22	28° 8	3°37	9°42	14° 4	21°31	22°34	18°44	16°27	W 13
T 14	23 31 56	21° 9'35	13°17	9°37	12°43	9°28	20°27	28°15	3°38	9°40	14° 4	21°29	22°31	18°51	16°24	T 14
F 15	23 35 52	22° 8'07	26°11	9°16	13°53	10° 7	20°32	28°21	3°39	9°39	14° 3	21°26	22°28	18°57	16°21	F 15
S 16	23 39 49	23° 6'41	8 ^h 51	9° 5	15° 3	10°47	20°37	28°27	3°40	9°37	14° 2	21°22	22°24	19° 4	16°18	S 16
S 17	23 43 45	24° 5'17	21°17	9°D 2	16°14	11°26	20°43	28°34	3°42	9°35	14° 2	21°17	22°21	19°10	16°16	S 17
M 18	23 47 42	25° 3'55	3 ^h 32	9°10	17°24	12° 5	20°49	28°40	3°43	9°34	14° 1	21°13	22°18	19°17	16°13	M 18
T 19	23 51 38	26° 2'35	15°37	9°27	18°35	12°45	20°55	28°47	3°44	9°32	14° 0	21° 9	22°15	19°24	16°10	T 19
W 20	23 55 35	27° 1'17	27°35	9°54	19°46	13°25	21° 1	28°53	3°45	9°31	14° 0	21° 6	22°12	19°30	16° 7	W 20
T 21	23 59 31	28° 0'01	9 ^h 27	10°30	20°57	14° 4	21° 7	29° 0	3°46	9°29	13°59	21° 4	22° 8	19°37	16° 4	T 21
F 22	0 3 28	28°58'47	21°14	11°15	22° 8	14°44	21°13	29° 6	3°47	9°27	13°58	21°D 3	22° 5	19°44	16° 2	F 22
S 23	0 7 24	29°57'35	3 ^h 0	12° 8	23°19	15°23	21°20	29°13	3°48	9°26	13°57	21° 4	22° 2	19°50	15°59	S 23
S 24	0 11 21	0 ^h 56'24	14°48	13° 8	24°31	16° 3	21°26	29°20	3°49	9°24	13°57	21° 5	21°59	19°57	15°56	S 24
M 25	0 15 18	1°55'16	26°41	14°16	25°42	16°43	21°33	29°26	3°50	9°22	13°56	21° 7	21°56	20° 4	15°54	M 25
T 26	0 19 14	2°54'10	8 ^h 42	15°29	26°54	17°23	21°40	29°33	3°50	9°21	13°55	21° 8	21°53	20°10	15°51	T 26
W 27	0 23 11	3°53'05	20°58	16°49	28° 5	18° 3	21°47	29°40	3°51	9°19	13°54	21° 9	21°49	20°17	15°48	W 27
T 28	0 27 7	4°52'02	3 ^h 30	18°13	29°17	18°43	21°54	29°46	3°52	9°17	13°53	21°R10	21°46	20°24	15°46	T 28
F 29	0 31 4	5°51'01	16°25	19°42	0 ^h 29	19°23	22° 2	29°53	3°52	9°16	13°53	21°10	21°43	20°30	15°43	F 29
S 30	0 35 0	6 ^h 50'01	29 ^h 45	21 ^h 14	1 ^h 40	20 ^h 3	22 ^h 9	0 ^h 0	3 ^h 53	9°Y14	13°D52	21 ^h 9	21 ^h 40	20 ^h 37	15°K40	S 30

Delta T = 7.68 sec

OCTOBER 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
S 1	0 38 57	7 ^h 49'03	13 ^h 33	22 ^h 50	2 ^h 52	20 ^h 43	22 ^h 17	0 ^h 0	3 ^h 53	9°R12	13°R51	21°R 7	21 ^h 37	20 ^h 43	15°R38	S 1
M 2	0 42 53	8°48'07	27°48	24°28	4° 4	21°23	22°25	0°14	3°54	9°Y11	13°D50	21 ^h 6	21°34	20°50	15°K35	M 2
T 3	0 46 50	9°47'13	12 ^h 28	26° 8	5°16	22° 3	22°33	0°21	3°54	9° 9	13°49	21° 4	21°30	20°57	15°33	T 3
W 4	0 50 47	10°46'21	27°27	27°50	6°29	22°43	22°41	0°28	3°54	9° 7	13°48	21° 3	21°27	21° 3	15°30	W 4
T 5	0 54 43	11°45'30	12 ^h Y38	29°33	7°41	23°23	22°49	0°35	3°55	9° 6	13°47	21° 3	21°24	21°10	15°28	T 5
F 6	0 58 40	12°44'42	27°51	1 ^h 17	8°53	24° 4	22°57	0°42	3°55	9° 4	13°46	21°D 3	21°21	21°17	15°25	F 6
S 7	1 2 36	13°43'56	12 ^h 55	3° 2	10° 6	24°44	23° 6	0°49	3°55	9° 2	13°45	21° 3	21°18	21°23	15°23	S 7
S 8	1 6 33	14°43'12	27°45	4°47	11°18	25°24	23°14	0°56	3°55	9° 1	13°44	21° 3	21°14	21°30	15°20	S 8
M 9	1 10 29	15°42'31	12 ^h 12	6°32	12°31	26° 5	23°23	1° 3	3°55	8°59	13°43	21° 4	21°11	21°37	15°18	M 9
T 10	1 14 26	16°41'51	26°14	8°17	13°44	26°45	23°32	1°10	3°R55	8°57	13°42	21° 4	21° 8	21°43	15°16	T 10
W 11	1 18 22	17°41'14	9 ^h 50	10° 3	14°57	27°26	23°41	1°17	3°55	8°56	13°41	21° 5	21° 5	21°50	15°14	W 11
T 12	1 22 19	18°40'40	23° 1	11°48	16° 9	28° 6	23°50	1°24	3°55	8°54	13°40	21°R 5	21° 2	21°57	15°11	T 12
F 13	1 26 16	19°40'08	5 ^h 51	13°32	17°22	28°47	23°59	1°31	3°55	8°53	13°39	21° 5	20°59	22° 3	15° 9	F 13
S 14	1 30 12	20°39'38	18°21	15°17	18°35	29°28	24° 8	1°39	3°55	8°51	13°38	21°D 5	20°55	22°10	15° 7	S 14
S 15	1 34 9	21°39'10	0 ^h 37	17° 1	19°49	0 ^h 8	24°18	1°46	3°55	8°49	13°37	21° 5	20°52	22°16	15° 5	S 15
M 16	1 38 5	22°38'44	12°41	18°44	21° 2	0°49	24°27	1°53	3°54	8°48	13°36	21° 5	20°49	22°23	15° 3	M 16
T 17	1 42 2	23°38'21	24°36	20°27	22°15	1°30	24°37	2° 0	3°54	8°46	13°35	21° 5	20°46	22°30	15° 1	T 17
W 18	1 45 58	24°38'00	6 ^h 26	22° 9	23°28	2°11	24°47	2° 7	3°53	8°44	13°34	21° 5	20°43	22°36	14°59	W 18
T 19	1 49 55	25°37'41	18°14	23°51	24°42	2°52	24°57	2°15	3°53	8°43	13°33	21°R 5	20°39	22°43	14°57	T 19
F 20	1 53 51	26°37'24	0 ^h 1	25°32	25°55	3°33	25° 7	2°22	3°52	8°41	13°32	21° 5	20°36	22°50	14°55	F 20
S 21	1 57 48	27°37'09	11°50	27°13	27° 9	4°14	25°17	2°29	3°52	8°40	13°31	21° 5	20°33	22°56	14°53	S 21
S 22	2 1 45	28°36'56	23°43	28°53	28°22	4°55	25°27	2°36	3°51	8°38	13°30	21° 4	20°30	23° 3	14°51	S 22
M 23	2 5 41	29°36'45	5 ^h 42	0 ^h 32	29°36	5°36	25°37	2°44	3°51	8°37	13°29	21° 3	20°27	23°10	14°49	M 23
T 24	2 9 38	0 ^h 36'35	17°49	2°11	0 ^h 50	6°17	25°48	2°51	3°50	8°35	13°28	21° 2	20°24	23°16	14°47	T 24
W 25	2 13 34	1°36'28	0 ^h 9	3°50	2° 3	6°58	25°58	2°58	3°49	8°34	13°27	21° 0	20°20	23°23	14°46	W 25
T 26	2 17 31	2°36'22	12°43	5°27	3°17	7°39	26° 9	3° 5	3°48	8°32	13°26	20°59	20°17	23°30	14°44	T 26
F 27	2 21 27	3°36'18	25°35	7° 5	4°31	8°21	26°20	3°13	3°47	8°31	13°25	20°58	20°14	23°36	14°42	F 27
S 28	2 25 24	4°36'15	8 ^h 48	8°41	5°45	9° 2	26°30	3°20	3°46	8°29	13°23	20°D58	20°11	23°43	14°41	S 28
S 29	2 29 20	5°36'14	22°25	10°18	6°59	9°44	26°41	3°27	3°46	8°28	13°22	20°59	20° 8	23°49	14°39	S 29
M 30	2 33 17	6°36'15	6 ^h 26	11°54	8°13	10°25	26°52	3°34	3°44	8°26	13°21	21° 0	20° 5	23°56	14°38	M 30
T 31	2 37 13	7 ^h 36'17	20 ^h 51	13 ^h 29	9 ^h 27	11 ^h 6	27 ^h 3	3 ^h 42	3 ^h 43	8°Y25	13°D20	21 ^h 1	20 ^h 1	24 ^h 3	14°K36	T 31

Delta T = 7.60 sec

ASTRODIENST EPHEMERIS for the year 1865
geocentric

NOVEMBER 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
W 1	2 41 10	8♉36°21	5♊37	15♉4	10♉41	11♉48	27♊15	3♉49	3°R42	8°R23	13°R19	21♉2	19♉58	24♉9	14°R35	W 1
T 2	2 45 7	9°36'26	20°40	16°38	11°55	12°30	27°26	3°56	3♉41	8°Y22	13♉18	21°R 3	19°55	24°16	14°R34	T 2
F 3	2 49 3	10°36'34	5♉51	18°12	13°9	13°11	27°37	4°3	3°40	8°21	13°17	21°2	19°52	24°23	14°33	F 3
S 4	2 53 0	11°36'43	21°1	19°46	14°24	13°53	27°49	4°10	3°39	8°19	13°16	21°1	19°49	24°29	14°31	S 4
S 5	2 56 56	12°36'54	5♉59	21°19	15°38	14°35	28°0	4°18	3°37	8°18	13°14	20°58	19°45	24°36	14°30	S 5
M 6	3 0 53	13°37'07	20°39	22°52	16°52	15°16	28°12	4°25	3°36	8°17	13°13	20°55	19°42	24°43	14°29	M 6
T 7	3 4 49	14°37'21	4♉54	24°24	18°7	15°58	28°23	4°32	3°35	8°15	13°12	20°52	19°39	24°49	14°28	T 7
W 8	3 8 46	15°37'38	18°40	25°57	19°21	16°40	28°35	4°39	3°33	8°14	13°11	20°49	19°36	24°56	14°27	W 8
T 9	3 12 42	16°37'57	1♉59	27°29	20°35	17°22	28°47	4°46	3°32	8°13	13°10	20°47	19°33	25°3	14°26	T 9
F 10	3 16 39	17°38'18	14°51	29°0	21°50	18°4	28°59	4°54	3°30	8°12	13°9	20°D46	19°30	25°9	14°25	F 10
S 11	3 20 36	18°38'41	27°21	0♉31	23°5	18°46	29°11	5°1	3°29	8°11	13°8	20°46	19°26	25°16	14°24	S 11
S 12	3 24 32	19°39'05	9♉33	2°2	24°19	19°28	29°23	5°8	3°27	8°9	13°7	20°47	19°23	25°22	14°24	S 12
M13	3 28 29	20°39'32	21°32	3°33	25°34	20°10	29°35	5°15	3°25	8°8	13°5	20°49	19°20	25°29	14°23	M13
T 14	3 32 25	21°40'00	3♉23	5°3	26°48	20°53	29°47	5°22	3°24	8°7	13°4	20°51	19°17	25°36	14°22	T 14
W15	3 36 22	22°40'30	15°9	6°33	28°3	21°35	29°59	5°29	3°22	8°6	13°3	20°R52	19°14	25°42	14°22	W15
T 16	3 40 18	23°41'02	26°56	8°2	29°18	22°17	0♉12	5°36	3°20	8°5	13°2	20°52	19°11	25°49	14°21	T 16
F 17	3 44 15	24°41'36	8♉45	9°31	0♉33	22°59	0°24	5°43	3°18	8°4	13°1	20°51	19°7	25°56	14°20	F 17
S 18	3 48 11	25°42'11	20°40	11°0	1°47	23°42	0°37	5°50	3°16	8°3	13°0	20°47	19°4	26°2	14°20	S 18
S 19	3 52 8	26°42'48	2♉42	12°29	3°2	24°24	0°49	5°57	3°14	8°2	12°59	20°42	19°1	26°9	14°20	S 19
M20	3 56 5	27°43'26	14°53	13°56	4°17	25°7	1°2	6°4	3°12	8°1	12°58	20°35	18°58	26°16	14°19	M20
T 21	4 0 1	28°44'06	27°15	15°24	5°32	25°49	1°15	6°11	3°11	8°0	12°57	20°28	18°55	26°22	14°19	T 21
W22	4 3 58	29°44'47	9♉47	16°50	6°47	26°32	1°27	6°18	3°8	7°59	12°56	20°21	18°51	26°29	14°19	W22
T 23	4 7 54	0♉45'29	22°31	18°17	8°2	27°15	1°40	6°25	3°6	7°58	12°55	20°15	18°48	26°36	14°19	T 23
F 24	4 11 51	1°46'13	5♉30	19°42	9°17	27°57	1°53	6°31	3°4	7°58	12°53	20°10	18°45	26°42	14°19	F 24
S 25	4 15 47	2°46'57	18°43	21°7	10°32	28°40	2°6	6°38	3°2	7°57	12°52	20°7	18°42	26°49	14°D19	S 25
S 26	4 19 44	3°47'42	2♉13	22°30	11°47	29°23	2°19	6°45	3°0	7°56	12°51	20°D 6	18°39	26°56	14°19	S 26
M27	4 23 40	4°48'28	16°2	23°53	13°2	0♉6	2°32	6°52	2°58	7°55	12°50	20°6	18°36	27°2	14°19	M27
T 28	4 27 37	5°49'16	0♉9	25°14	14°17	0°48	2°45	6°58	2°56	7°54	12°49	20°8	18°32	27°9	14°19	T 28
W29	4 31 34	6°50'04	14°34	26°34	15°32	1°31	2°58	7°5	2°54	7°54	12°48	20°R 9	18°29	27°15	14°19	W29
T 30	4 35 30	7♉50'53	29°Y15	27♉52	16♉47	2♉14	3♉11	7♉12	2♉51	7Y53	12♉47	20♉8	18♉26	27♉22	14♉19	T 30

Delta T = 7.51 sec

DECEMBER 1865

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	Day
F 1	4 39 27	8♉51°43	14♉7	29♉9	18♉2	2♉57	3♉24	7♉18	2°R49	7°R52	12°R46	20°R 6	18♉23	27♉29	14°R20	F 1
S 2	4 43 23	9°52'34	29°3	0♉23	19°17	3°40	3°37	7°25	2♉47	7Y52	12♉45	20♉2	18°20	27°35	14°20	S 2
S 3	4 47 20	10°53'26	13♉55	1°35	20°32	4°24	3°51	7°31	2°44	7°51	12°44	19°55	18°16	27°42	14°20	S 3
M 4	4 51 16	11°54'19	28°33	2°44	21°47	5°7	4°4	7°38	2°42	7°51	12°43	19°46	18°13	27°49	14°21	M 4
T 5	4 55 13	12°55'14	12♉51	3°49	23°2	5°50	4°17	7°44	2°40	7°50	12°42	19°37	18°10	27°55	14°21	T 5
W 6	4 59 10	13°56'09	26°43	4°51	24°18	6°33	4°31	7°50	2°37	7°50	12°41	19°29	18°7	28°2	14°22	W 6
T 7	5 3 6	14°57'06	10♉8	5°48	25°33	7°17	4°44	7°57	2°35	7°49	12°41	19°22	18°4	28°9	14°23	T 7
F 8	5 7 3	15°58'04	23°6	6°41	26°48	8°0	4°58	8°3	2°32	7°49	12°40	19°17	18°1	28°15	14°23	F 8
S 9	5 10 59	16°59'03	5♉40	7°27	28°3	8°43	5°11	8°9	2°30	7°49	12°39	19°14	17°57	28°22	14°24	S 9
S 10	5 14 56	18°0'02	17°54	8°8	29°19	9°27	5°25	8°15	2°28	7°48	12°38	19°D13	17°54	28°29	14°25	S 10
M11	5 18 52	19°1'04	29°53	8°40	0♉34	10°10	5°38	8°21	2°25	7°48	12°37	19°14	17°51	28°35	14°26	M11
T 12	5 22 49	20°2'06	11♉43	9°5	1°49	10°54	5°52	8°27	2°23	7°48	12°36	19°15	17°48	28°42	14°27	T 12
W13	5 26 45	21°3'09	23°30	9°21	3°4	11°37	6°5	8°33	2°20	7°48	12°35	19°R15	17°45	28°49	14°28	W13
T 14	5 30 42	22°4'13	5♉17	9°R27	4°20	12°21	6°19	8°39	2°18	7°47	12°34	19°13	17°42	28°55	14°29	T 14
F 15	5 34 38	23°5'18	17°10	9°22	5°35	13°5	6°33	8°45	2°15	7°47	12°33	19°9	17°38	29°2	14°30	F 15
S 16	5 38 35	24°6'24	29°12	9°5	6°50	13°49	6°46	8°51	2°12	7°47	12°33	19°3	17°35	29°8	14°31	S 16
S 17	5 42 32	25°7'31	11♉25	8°38	8°6	14°32	7°0	8°57	2°10	7°47	12°32	18°53	17°32	29°15	14°32	S 17
M18	5 46 28	26°8'38	23°51	7°58	9°21	15°16	7°14	9°2	2°7	7°47	12°31	18°42	17°29	29°22	14°34	M18
T 19	5 50 25	27°9'46	6♉31	7°7	10°36	16°0	7°28	9°8	2°5	7°D47	12°30	18°29	17°26	29°28	14°35	T 19
W20	5 54 21	28°10'54	19°23	6°6	11°52	16°44	7°41	9°14	2°2	7°47	12°30	18°16	17°22	29°35	14°36	W20
T 21	5 58 18	29°12'03	2♉28	4°57	13°7	17°28	7°55	9°19	2°0	7°47	12°29	18°5	17°19	29°42	14°38	T 21
F 22	6 2 14	0♉13'11	15°43	3°40	14°22	18°12	8°9	9°25	1°57	7°47	12°28	17°55	17°16	29°48	14°39	F 22
S 23	6 6 11	1°14'20	29°10	2°19	15°38	18°56	8°23	9°30	1°54	7°47	12°27	17°48	17°13	29°55	14°41	S 23
S 24	6 10 8	2°15'29	12♉46	0°57	16°53	19°40	8°37	9°35	1°52	7°47	12°27	17°45	17°10	0♉2	14°43	S 24
M25	6 14 4	3°16'39	26°33	29♉36	18°8	20°24	8°50	9°41	1°49	7°48	12°26	17°43	17°7	0°8	14°44	M25
T 26	6 18 1	4°17'48	10Y31	28°18	19°24	21°9	9°4	9°46	1°47	7°48	12°25	17°43	17°3	0°15	14°46	T 26
W27	6 21 57	5°18'56	24°39	27°7	20°39	21°53	9°18	9°51	1°44	7°48	12°25	17°43	17°0	0°22	14°48	W27
T 28	6 25 54	6°20'05	8♉57	26°3	21°54	22°37	9°32	9°56	1°41	7°48	12°24	17°42	16°57	0°28	14°50	T 28
F 29	6 29 50	7°21'14	23°23	25°9	23°10	23°21	9°46	10°1	1°39	7°49	12°24	17°38	16°54	0°35	14°51	F 29
S 30	6 33 47	8°22'23	7♉53	24°24	24°25	24°6	10°0	10°6	1°36	7°49	12°23	17°31	16°51	0°42	14°53	S 30
S 31	6 37 43	9♉23'32	22♉21	23♉50	25♉41	24♉50	10♉14	10♉11	1♉34	7Y49	12♉22	17♉21	16♉48	0♉48	14♉55	S 31

Delta T = 7.43 sec