

SWISS EPHEMERIS for the year 2013

JANUARY 2013

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	6 43 15	10°34'48"	20°46'	0°38'	19°46'	4°41'	7°46'	9°33'	4°46'	1°4'	9°19'	25°R 0	23°36'	12°17'	6°2'
W 2	6 47 11	11°44'56"	3°17'24"	2°11'	21°1'	5°28'	7°41'	9°37'	4°47'	1°6'	9°21'	24°53'	23°33'	12°24'	6°5'
T 3	6 51 8	12°46'05"	16°15'	3°44'	22°16'	6°15'	7°35'	9°42'	4°48'	1°8'	9°24'	24°48'	23°30'	12°30'	6°8'
F 4	6 55 4	13°47'14"	29°21'	5°18'	23°31'	7°2'	7°30'	9°46'	4°49'	1°9'	9°26'	24°44'	23°26'	12°37'	6°10'
S 5	6 59 1	14°48'23"	12°44'	6°51'	24°46'	7°50'	7°25'	9°51'	4°50'	1°11'	9°28'	24°D43	23°23'	12°44'	6°13'
S 6	7 2 57	15°49'32"	26°26'	8°26'	26°1'	8°37'	7°20'	9°55'	4°51'	1°13'	9°30'	24°44'	23°20'	12°50'	6°16'
M 7	7 6 54	16°50'42"	10°11'29"	10°0'	27°17'	9°24'	7°15'	9°59'	4°52'	1°14'	9°32'	24°45'	23°17'	12°57'	6°19'
T 8	7 10 50	17°51'52"	24°51'	11°35'	28°32'	10°11'	7°11'	10°3'	4°54'	1°16'	9°34'	24°R45	23°14'	13°4'	6°21'
W 9	7 14 47	18°53'02"	9°32'	13°10'	29°47'	10°59'	7°6'	10°7'	4°55'	1°18'	9°36'	24°44'	23°10'	13°10'	6°24'
T 10	7 18 44	19°54'12"	24°26'	14°46'	1°32'	11°46'	7°2'	10°11'	4°56'	1°20'	9°38'	24°41'	23°7'	13°17'	6°27'
F 11	7 22 40	20°55'21"	9°32'	16°22'	2°17'	12°33'	6°58'	10°15'	4°58'	1°22'	9°40'	24°35'	23°4'	13°24'	6°30'
S 12	7 26 37	21°56'31"	24°25'	17°59'	3°32'	13°21'	6°54'	10°19'	4°59'	1°23'	9°43'	24°27'	23°1'	13°30'	6°33'
S 13	7 30 33	22°57'40"	9°11'	19°36'	4°48'	14°8'	6°51'	10°23'	5°1'	1°25'	9°45'	24°18'	22°58'	13°37'	6°36'
M14	7 34 30	23°58'49"	23°38'	21°14'	6°3'	14°55'	6°47'	10°26'	5°2'	1°27'	9°47'	24°8'	22°55'	13°44'	6°39'
T 15	7 38 26	24°59'57"	7°38'	22°52'	7°18'	15°43'	6°44'	10°30'	5°4'	1°29'	9°49'	23°58'	22°51'	13°50'	6°42'
W16	7 42 23	26°1'05"	21°10'	24°30'	8°33'	16°30'	6°41'	10°33'	5°5'	1°31'	9°51'	23°51'	22°48'	13°57'	6°46'
T 17	7 46 20	27°2'11"	4°15'	26°9'	9°48'	17°17'	6°38'	10°37'	5°7'	1°33'	9°53'	23°46'	22°45'	14°4'	6°49'
F 18	7 50 16	28°3'17"	16°53'	27°49'	11°4'	18°5'	6°36'	10°40'	5°9'	1°35'	9°55'	23°44'	22°42'	14°10'	6°52'
S 19	7 54 13	29°4'22"	29°11'	29°29'	12°19'	18°52'	6°33'	10°43'	5°11'	1°37'	9°57'	23°D43	22°39'	14°17'	6°55'
S 20	7 58 9	0°5'26"	11°13'	1°10'	13°34'	19°40'	6°31'	10°46'	5°12'	1°39'	9°59'	23°43'	22°35'	14°24'	6°59'
M21	8 2 6	1°6'30"	23°5'	2°51'	14°49'	20°27'	6°29'	10°49'	5°14'	1°41'	10°1'	23°R44	22°32'	14°30'	7°2'
T 22	8 6 2	2°7'32"	4°15'	4°33'	16°4'	21°15'	6°27'	10°52'	5°16'	1°43'	10°3'	23°43'	22°29'	14°37'	7°5'
W23	8 9 59	3°8'34"	16°39'	6°15'	17°20'	22°2'	6°25'	10°55'	5°18'	1°45'	10°5'	23°40'	22°26'	14°44'	7°9'
T 24	8 13 55	4°9'35"	4°9'35"	7°58'	18°35'	22°49'	6°24'	10°57'	5°20'	1°47'	10°7'	23°35'	22°23'	14°50'	7°12'
F 25	8 17 52	5°10'34"	10°30'	9°41'	19°50'	23°37'	6°23'	11°0'	5°22'	1°49'	10°9'	23°27'	22°20'	14°57'	7°15'
S 26	8 21 49	6°11'33"	22°39'	11°25'	21°5'	24°24'	6°22'	11°2'	5°24'	1°51'	10°11'	23°16'	22°16'	15°4'	7°19'
S 27	8 25 45	7°12'31"	5°0'	13°9'	22°20'	25°12'	6°21'	11°5'	5°26'	1°53'	10°13'	23°3'	22°13'	15°10'	7°22'
M28	8 29 42	8°13'28"	17°33'	14°54'	23°35'	25°59'	6°20'	11°7'	5°29'	1°55'	10°15'	22°50'	22°10'	15°17'	7°26'
T 29	8 33 38	9°14'24"	0°18'	16°39'	24°51'	26°47'	6°20'	11°9'	5°31'	1°58'	10°17'	22°36'	22°7'	15°24'	7°29'
W30	8 37 35	10°15'19"	13°14'	18°24'	26°6'	27°34'	6°D20	11°11'	5°33'	2°0'	10°19'	22°25'	22°4'	15°30'	7°33'
T 31	8 41 31	11°16'13"	26°12'	20°10'	27°32'	28°21'	6°I20	11°13'	5°35'	2°2'	10°21'	22°15'	22°1'	15°37'	7°36'

Delta T = 66.91 sec.

FEBRUARY 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	8 45 28	12°17'07"	9°40'	21°55'	28°36'	29°59'	6°I20	11°15'	5°38'	2°4'	10°22'	22°R 9	21°57'	15°43'	7°40'
S 2	8 49 24	13°18'00"	23°10'	23°41'	29°51'	29°56'	6°20'	11°17'	5°40'	2°6'	10°24'	22°5'	21°54'	15°50'	7°44'
S 3	8 53 21	14°18'52"	6°15'	25°26'	1°6'	0°44'	6°21'	11°19'	5°42'	2°8'	10°26'	22°4'	21°51'	15°57'	7°47'
M 4	8 57 18	15°19'43"	20°45'	27°11'	2°22'	1°31'	6°22'	11°20'	5°45'	2°11'	10°28'	22°4'	21°48'	16°3'	7°51'
T 5	9 1 14	16°20'33"	4°52'	28°56'	3°37'	2°18'	6°23'	11°22'	5°47'	2°13'	10°30'	22°4'	21°45'	16°10'	7°55'
W 6	9 5 11	17°21'23"	19°12'	0°39'	4°52'	3°6'	6°24'	11°23'	5°50'	2°15'	10°32'	22°2'	21°41'	16°17'	7°58'
T 7	9 9 7	18°22'12"	3°41'	2°21'	6°7'	3°53'	6°25'	11°24'	5°52'	2°17'	10°33'	21°57'	21°38'	16°23'	8°2'
F 8	9 13 4	19°23'00"	18°17'	4°2'	7°22'	4°41'	6°27'	11°26'	5°55'	2°19'	10°35'	21°50'	21°35'	16°30'	8°6'
S 9	9 17 0	20°23'46"	2°52'	5°41'	8°37'	5°28'	6°29'	11°27'	5°58'	2°22'	10°37'	21°40'	21°32'	16°37'	8°9'
S 10	9 20 57	21°24'32"	17°20'	7°17'	9°53'	6°15'	6°31'	11°28'	6°0'	2°24'	10°39'	21°28'	21°29'	16°43'	8°13'
M11	9 24 53	22°25'16"	1°34'	8°51'	11°8'	7°3'	6°33'	11°28'	6°3'	2°26'	10°40'	21°15'	21°26'	16°50'	8°17'
T 12	9 28 50	23°25'58"	15°28'	10°21'	12°23'	7°50'	6°36'	11°29'	6°6'	2°28'	10°42'	21°3'	21°22'	16°57'	8°21'
W13	9 32 47	24°26'39"	28°58'	11°46'	13°38'	8°37'	6°38'	11°30'	6°8'	2°31'	10°44'	20°53'	21°19'	17°3'	8°25'
T 14	9 36 43	25°27'19"	12°4'	13°7'	14°53'	9°25'	6°41'	11°30'	6°11'	2°33'	10°45'	20°45'	21°16'	17°10'	8°28'
F 15	9 40 40	26°27'57"	24°45'	14°23'	16°8'	10°12'	6°44'	11°31'	6°14'	2°35'	10°47'	20°41'	21°13'	17°17'	8°32'
S 16	9 44 36	27°28'33"	7°6'	15°32'	17°23'	10°59'	6°47'	11°31'	6°17'	2°37'	10°49'	20°38'	21°10'	17°23'	8°36'
S 17	9 48 33	28°29'07"	19°10'	16°35'	18°38'	11°47'	6°51'	11°31'	6°20'	2°40'	10°50'	20°D38	21°7'	17°30'	8°40'
M18	9 52 29	29°29'40"	1°4'	17°30'	19°53'	12°34'	6°54'	11°32'	6°22'	2°42'	10°52'	20°R38	21°3'	17°37'	8°44'
T 19	9 56 26	0°30'11"	12°53'	18°17'	21°8'	13°21'	6°58'	11°R32	6°25'	2°44'	10°53'	20°37'	21°0'	17°43'	8°48'
W20	10 0 22	1°30'40"	24°41'	18°55'	22°24'	14°8'	7°2'	11°31'	6°28'	2°47'	10°55'	20°35'	20°57'	17°50'	8°51'
T 21	10 4 19	2°31'08"	6°35'	19°24'	23°39'	14°56'	7°6'	11°31'	6°31'	2°49'	10°56'	20°31'	20°54'	17°57'	8°55'
F 22	10 8 16	3°31'33"	18°39'	19°43'	24°54'	15°43'	7°10'	11°31'	6°34'	2°51'	10°58'	20°23'	20°51'	18°3'	8°59'
S 23	10 12 12	4°31'57"	0°56'	19°R52	26°9'	16°30'	7°15'	11°31'	6°37'	2°53'	10°59'	20°13'	20°47'	18°10'	9°3'
S 24	10 16 9	5°32'19"	13°28'	19°51'	27°24'	17°17'	7°19'	11°30'	6°40'	2°56'	11°0'	20°1'	20°44'	18°17'	9°7'
M25	10 20 5	6°32'39"	26°17'	19°40'	28°39'	18°4'	7°24'	11°30'	6°43'	2°58'	11°2'	19°49'	20°41'	18°23'	9°11'
T 26	10 24 2	7°32'57"	9°12'	19°19'	29°54'	18°51'	7°29'	11°29'	6°46'	3°0'	11°3'	19°36'	20°38'	18°30'	9°15'
W27	10 27 58	8°33'14"	22°41'	18°50'	1°9'	19°38'	7°35'	11°28'	6°49'	3°3'	11°5'	19°25'	20°35'	18°37'	9°19'
T 28	10 31 55	9°33'29"	6°12'	18°12'	2°24'	20°25'	7°40'	11°27'	6°53'	3°5'	11°6'	19°16'	20°32'	18°43'	9°22'

Delta T = 66.93 sec.

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SWISS EPHEMERIS for the year 2013

MARCH 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	10 35 51	10 ^h 33'42"	19 ^h 54'	17°R27	3 ^h 38'	21 ^h 12'	7 ^h 45'	11°R26	6 ^h 56'	3 ^h 7'	11 ^h 7'	19°R10	20 ^h 28'	18 ^h 50'	9 ^h 26'
S 2	10 39 48	11°33'54"	3 ^h 43'	16 ^h 35'	4°53'	21°59'	7°51'	11 ^h 25'	6°59'	3°9'	11°8'	19 ^h 7'	20°25'	18°57'	9°30'
S 3	10 43 44	12°34'04"	17°39'	15°39'	6°8'	22°46'	7°57'	11°24'	7°2'	3°12'	11°10'	19°D 6	20°22'	19°3'	9°34'
M 4	10 47 41	13°34'13"	1 ^h 39'	14°40'	7°23'	23°33'	8°3'	11°22'	7°5'	3°14'	11°11'	19°6'	20°19'	19°10'	9°38'
T 5	10 51 38	14°34'20"	15°44'	13°38'	8°38'	24°20'	8°9'	11°21'	7°9'	3°16'	11°12'	19°R 6	20°16'	19°17'	9°42'
W 6	10 55 34	15°34'26"	29°52'	12°36'	9°53'	25°7'	8°16'	11°20'	7°12'	3°18'	11°13'	19°5'	20°13'	19°23'	9°46'
T 7	10 59 31	16°34'30"	14 ^h 32'	11°36'	11°8'	25°54'	8°22'	11°18'	7°15'	3°21'	11°14'	19°2'	20°9'	19°30'	9°50'
F 8	11 3 27	17°34'33"	28°13'	10°37'	12°23'	26°41'	8°29'	11°16'	7°18'	3°23'	11°15'	18°57'	20°6'	19°37'	9°53'
S 9	11 7 24	18°34'34"	12 ^h 20'	9°42'	13°38'	27°27'	8°36'	11°14'	7°22'	3°25'	11°17'	18°49'	20°3'	19°43'	9°57'
S 10	11 11 20	19°34'33"	26°21'	8°51'	14°53'	28°14'	8°43'	11°13'	7°25'	3°27'	11°18'	18°39'	20°0'	19°50'	10°1'
M 11	11 15 17	20°34'31"	10 ^h 10'	8°5'	16°8'	29°1'	8°50'	11°11'	7°28'	3°29'	11°19'	18°29'	19°57'	19°57'	10°5'
T 12	11 19 13	21°34'26"	23°44'	7°25'	17°22'	29°47'	8°57'	11°9'	7°31'	3°32'	11°20'	18°20'	19°53'	20°3'	10°9'
W 13	11 23 10	22°34'20"	6 ^h 59'	6°51'	18°37'	0 ^h 34'	9°4'	11°6'	7°35'	3°34'	11°21'	18°11'	19°50'	20°10'	10°13'
T 14	11 27 7	23°34'11"	19°55'	6°24'	19°52'	1°21'	9°12'	11°4'	7°38'	3°36'	11°21'	18°5'	19°47'	20°17'	10°16'
F 15	11 31 3	24°34'01"	2 ^h 32'	6°3'	21°7'	2°7'	9°20'	11°2'	7°41'	3°38'	11°22'	18°2'	19°44'	20°23'	10°20'
S 16	11 35 0	25°33'48"	14°51'	5°48'	22°22'	2°54'	9°28'	10°59'	7°45'	3°40'	11°23'	18°D 0	19°41'	20°30'	10°24'
S 17	11 38 56	26°33'33"	26°56'	5°40'	23°36'	3°40'	9°36'	10°57'	7°48'	3°42'	11°24'	18°1'	19°38'	20°37'	10°28'
M 18	11 42 53	27°33'16"	8 ^h 51'	5°D38	24°51'	4°27'	9°44'	10°54'	7°52'	3°45'	11°25'	18°2'	19°34'	20°43'	10°31'
T 19	11 46 49	28°32'57"	20°41'	5°42'	26°6'	5°13'	9°52'	10°51'	7°55'	3°47'	11°26'	18°3'	19°31'	20°50'	10°35'
W 20	11 50 46	29°32'36"	2 ^h 31'	5°52'	27°21'	6°0'	10°0'	10°49'	7°58'	3°49'	11°26'	18°R 3	19°28'	20°57'	10°39'
T 21	11 54 42	0 ^h 32'12"	14°26'	6°7'	28°35'	6°46'	10°9'	10°46'	8°2'	3°51'	11°27'	18°2'	19°25'	21°3'	10°43'
F 22	11 58 39	1°31'46"	26°31'	6°27'	29°50'	7°33'	10°18'	10°43'	8°5'	3°53'	11°28'	17°59'	19°22'	21°10'	10°46'
S 23	12 2 36	2°31'18"	8 ^h 51'	6°52'	1°Y 5	8°19'	10°26'	10°40'	8°9'	3°55'	11°28'	17°54'	19°18'	21°17'	10°50'
S 24	12 6 32	3°30'47"	21°29'	7°22'	2°19'	9°5'	10°35'	10°37'	8°12'	3°57'	11°29'	17°47'	19°15'	21°23'	10°54'
M 25	12 10 29	4°30'14"	4 ^h 28'	7°56'	3°34'	9°51'	10°44'	10°34'	8°15'	3°59'	11°30'	17°40'	19°12'	21°30'	10°57'
T 26	12 14 25	5°29'39"	17°47'	8°35'	4°48'	10°37'	10°54'	10°30'	8°19'	4°1'	11°30'	17°32'	19°9'	21°37'	11°1'
W 27	12 18 22	6°29'02"	1 ^h 25'	9°17'	6°3'	11°24'	11°3'	10°27'	8°22'	4°3'	11°31'	17°26'	19°6'	21°43'	11°4'
T 28	12 22 18	7°28'23"	15°20'	10°3'	7°18'	12°10'	11°12'	10°24'	8°26'	4°5'	11°31'	17°21'	19°3'	21°50'	11°8'
F 29	12 26 15	8°27'42"	29°28'	10°52'	8°32'	12°56'	11°22'	10°20'	8°29'	4°7'	11°32'	17°17'	18°59'	21°57'	11°12'
S 30	12 30 11	9°26'59"	13 ^h 45'	11°44'	9°47'	13°42'	11°31'	10°17'	8°33'	4°9'	11°32'	17°D16	18°56'	22°3'	11°15'
S 31	12 34 8	10 ^h 26'14"	28 ^h 5'	12 ^h 40'	11 ^h Y 1	14 ^h Y28	11 ^h II41	10 ^h II13	8 ^h Y36	4 ^h Y11	11 ^h Y33	17 ^h Y17	18 ^h Y53	22 ^h Y10	11 ^h Y19

Delta T = 66.95 sec.

APRIL 2013

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	12 38 4	11 ^h 25'27"	12 ^h 25'	13 ^h 38'	12 ^h Y16	15 ^h Y14	11 ^h II51	10°R 9	8 ^h Y39	4 ^h Y13	11 ^h Y33	17 ^h Y18	18 ^h Y50	22 ^h Y17	11 ^h Y22
T 2	12 42 1	12°24'39"	26°41'	14°40'	13°30'	16°0'	12°1'	10 ^h Y 6	8°43'	4°15'	11°33'	17°19'	18°47'	22°23'	11°25'
W 3	12 45 58	13°23'49"	10 ^h 52'	15°43'	14°45'	16°45'	12°11'	10°2'	8°46'	4°17'	11°34'	17°R20	18°44'	22°30'	11°29'
T 4	12 49 54	14°22'57"	24°56'	16°50'	15°59'	17°31'	12°21'	9°58'	8°50'	4°19'	11°34'	17°20'	18°40'	22°37'	11°32'
F 5	12 53 51	15°22'04"	8 ^h 55'	17°59'	17°14'	18°17'	12°31'	9°54'	8°53'	4°20'	11°34'	17°18'	18°37'	22°43'	11°36'
S 6	12 57 47	16°21'08"	22°37'	19°10'	18°28'	19°3'	12°42'	9°50'	8°57'	4°22'	11°34'	17°14'	18°34'	22°50'	11°39'
S 7	13 1 44	17°20'11"	6 ^h 12'	20°23'	19°42'	19°48'	12°52'	9°46'	9°0'	4°24'	11°35'	17°10'	18°31'	22°57'	11°42'
M 8	13 5 40	18°19'12"	19°34'	21°38'	20°57'	20°34'	13°3'	9°42'	9°3'	4°26'	11°35'	17°5'	18°28'	23°3'	11°46'
T 9	13 9 37	19°18'11"	2 ^h Y42	22°55'	22°11'	21°20'	13°13'	9°38'	9°7'	4°28'	11°35'	17°1'	18°24'	23°10'	11°49'
W 10	13 13 33	20°17'08"	15°36'	24°15'	23°26'	22°5'	13°24'	9°34'	9°10'	4°29'	11°35'	16°57'	18°21'	23°17'	11°52'
T 11	13 17 30	21°16'03"	28°15'	25°36'	24°40'	22°51'	13°35'	9°30'	9°13'	4°31'	11°35'	16°55'	18°18'	23°23'	11°55'
F 12	13 21 27	22°14'56"	10 ^h Y40	26°59'	25°54'	23°36'	13°46'	9°26'	9°17'	4°33'	11°35'	16°53'	18°15'	23°30'	11°58'
S 13	13 25 23	23°13'48"	22°52'	28°24'	27°9'	24°21'	13°57'	9°21'	9°20'	4°34'	11°R35	16°D53	18°12'	23°37'	12°2'
S 14	13 29 20	24°12'37"	4 ^h Y53	29°50'	28°23'	25°7'	14°8'	9°17'	9°24'	4°36'	11°35'	16°54'	18°9'	23°43'	12°5'
M 15	13 33 16	25°11'23"	16°47'	1°Y19	29°37'	25°52'	14°19'	9°13'	9°27'	4°38'	11°35'	16°56'	18°5'	23°50'	12°8'
T 16	13 37 13	26°10'08"	28°37'	2°49'	0 ^h Y51	26°37'	14°31'	9°8'	9°30'	4°39'	11°35'	16°58'	18°2'	23°57'	12°11'
W 17	13 41 9	27°8'51"	10 ^h Y27	4°21'	2°6'	27°23'	14°42'	9°4'	9°34'	4°41'	11°35'	16°59'	17°59'	24°3'	12°14'
T 18	13 45 6	28°7'31"	22°22'	5°54'	3°20'	28°8'	14°54'	9°0'	9°37'	4°42'	11°35'	17°0'	17°56'	24°10'	12°17'
F 19	13 49 2	29°6'09"	4 ^h Y26	7°30'	4°34'	28°53'	15°5'	8°55'	9°40'	4°44'	11°35'	17°R 0	17°53'	24°17'	12°20'
S 20	13 52 59	0 ^h Y45	16°46'	9°7'	5°48'	29°38'	15°17'	8°51'	9°43'	4°45'	11°34'	16°59'	17°49'	24°23'	12°23'
S 21	13 56 56	1°3'19"	29°23'	10°45'	7°2'	0 ^h Y23	15°28'	8°46'	9°47'	4°47'	11°34'	16°58'	17°46'	24°30'	12°25'
M 22	14 0 52	2°1'50"	12 ^h Y23	12°25'	8°16'	1°8'	15°40'	8°42'	9°50'	4°48'	11°34'	16°56'	17°43'	24°37'	12°28'
T 23	14 4 49	3°0'19"	25°47'	14°7'	9°30'	1°53'	15°52'	8°37'	9°53'	4°50'	11°34'	16°54'	17°40'	24°43'	12°31'
W 24	14 8 45	3°58'46"	9 ^h Y35	15°51'	10°45'	2°38'	16°4'	8°33'	9°56'	4°51'	11°33'	16°52'	17°37'	24°50'	12°34'
T 25	14 12 42	4°57'12"	23°45'	17°36'	11°59'	3°22'	16°16'	8°28'	9°59'	4°52'	11°33'	16°51'	17°34'	24°57'	12°36'
F 26	14 16 38	5°55'35"	8 ^h Y13	19°23'	13°13'	4°7'	16°28'	8°24'	10°3'	4°54'	11°33'	16°50'	17°30'	25°3'	12°39'
S 27	14 20 35	6°53'57"	22°54'	21°12'	14°27'	4°52'	16°40'	8°19'	10°6'	4°55'	11°32'	16°D50	17°27'	25°10'	12°42'
S 28	14 24 31	7°52'17"	7 ^h Y41	23°2'	15°41'	5°36'	16°52'	8°14'	10°9'	4°56'	11°32'	16°51'	17°24'	25°17'	12°44'
M 29	14 28 28	8°50'35"	22°27'	24°54'	16°55'	6°21'	17°5'	8°10'	10°12'	4°58'	11°31'	16°51'	17°21'	25°23'	12°47'
T 30	14 32 25	9 ^h Y48'52"	7 ^h Y5	26 ^h Y48	18 ^h Y9	7 ^h Y6	17 ^h Y17	8 ^h Y5	10 ^h Y15	4 ^h Y59	11 ^h Y31	16 ^h Y52	17 ^h Y18	25 ^h Y30	12 ^h Y49

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SWISS EPHEMERIS for the year 2013

MAY 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	14 36 21	10♈47'07	21♊31	28♋44	19♌23	7♍50	17♎29	8♏1	10♐18	5♑0	11♑30	16♒52	17♓15	25♐37	12♋52
T 2	14 40 18	11°45'21	5♈41	0♈41	20°37	8°35	17°42	7♎56	10°21	5°1	11♊30	16°53	17°11	25°43	12°54
F 3	14 44 14	12°43'33	19°33	2°40	21°50	9°19	17°54	7°52	10°24	5°2	11°29	16°R53	17°8	25°50	12°56
S 4	14 48 11	13°41'44	3♈8	4°41	23°4	10°3	18°7	7°47	10°27	5°3	11°28	16°52	17°5	25°57	12°59
S 5	14 52 7	14°39'53	16°25	6°43	24°18	10°48	18°19	7°43	10°30	5°4	11°28	16°52	17°2	26°3	13°1
M 6	14 56 4	15°38'01	29°26	8°47	25°32	11°32	18°32	7°38	10°33	5°6	11°27	16°52	16°59	26°10	13°3
T 7	15 0 0	16°36'07	12♋12	10°52	26°46	12°16	18°45	7°34	10°36	5°7	11°26	16°D52	16°55	26°17	13°5
W 8	15 3 57	17°34'12	24°45	12°58	28°0	13°0	18°57	7°29	10°39	5°8	11°26	16°52	16°52	26°23	13°7
T 9	15 7 53	18°32'16	7♈6	15°6	29°14	13°44	19°10	7°25	10°42	5°8	11°25	16°52	16°49	26°30	13°10
F 10	15 11 50	19°30'18	19°17	17°15	0♐28	14°28	19°23	7°20	10°45	5°9	11°24	16°R52	16°46	26°37	13°12
S 11	15 15 47	20°28'18	1♐19	19°25	1°41	15°12	19°36	7°16	10°48	5°10	11°23	16°52	16°43	26°43	13°14
S 12	15 19 43	21°26'17	13°15	21°35	2°55	15°56	19°49	7°12	10°50	5°11	11°23	16°52	16°40	26°50	13°16
M13	15 23 40	22°24'14	25°6	23°46	4°9	16°40	20°2	7°7	10°53	5°12	11°22	16°51	16°36	26°57	13°17
T 14	15 27 36	23°22'10	6♈55	25°57	5°23	17°24	20°15	7°3	10°56	5°13	11°21	16°50	16°33	27°4	13°19
W15	15 31 33	24°20'03	18°46	28°7	6°36	18°8	20°28	6°59	10°59	5°14	11°20	16°49	16°30	27°10	13°21
T 16	15 35 29	25°17'55	0♐41	0♐18	7°50	18°52	20°41	6°54	11°1	5°14	11°19	16°48	16°27	27°17	13°23
F 17	15 39 26	26°15'46	12°45	2°28	9°4	19°35	20°54	6°50	11°4	5°15	11°18	16°48	16°24	27°24	13°24
S 18	15 43 23	27°13'34	25°2	4°37	10°17	20°19	21°8	6°46	11°7	5°16	11°17	16°D47	16°21	27°30	13°26
S 19	15 47 19	28°11'21	7♎37	6°45	11°31	21°2	21°21	6°42	11°9	5°16	11°16	16°47	16°17	27°37	13°28
M20	15 51 16	29°9'06	20°32	8°51	12°45	21°46	21°34	6°38	11°12	5°17	11°15	16°48	16°14	27°44	13°29
T 21	15 55 12	0♐6'50	3♏52	10°55	13°58	22°29	21°47	6°34	11°14	5°18	11°14	16°49	16°11	27°50	13°31
W22	15 59 9	1°43'2	17°38	12°58	15°12	23°13	22°1	6°30	11°17	5°18	11°13	16°50	16°8	27°57	13°32
T 23	16 3 5	2°2'13	1♎51	14°59	16°25	23°56	22°14	6°26	11°19	5°19	11°12	16°51	16°5	28°4	13°33
F 24	16 7 2	2°59'52	16°57	16°57	17°39	24°39	22°28	6°22	11°22	5°19	11°11	16°R51	16°1	28°10	13°35
S 25	16 10 58	3°57'29	1♊22	18°53	18°52	25°23	22°41	6°19	11°24	5°20	11°10	16°51	15°58	28°17	13°36
S 26	16 14 55	4°55'06	16°28	20°46	20°6	26°6	22°54	6°15	11°26	5°20	11°9	16°50	15°55	28°24	13°37
M27	16 18 52	5°52'42	1♊35	22°36	21°19	26°49	23°8	6°11	11°29	5°20	11°8	16°48	15°52	28°30	13°38
T 28	16 22 48	6°50'16	16°36	24°24	22°33	27°32	23°21	6°8	11°31	5°21	11°6	16°45	15°49	28°37	13°40
W29	16 26 45	7°47'49	1♎20	26°9	23°46	28°15	23°35	6°4	11°33	5°21	11°5	16°43	15°46	28°44	13°41
T 30	16 30 41	8°45'22	15°44	27°52	25°0	28°58	23°49	6°1	11°36	5°21	11°4	16°41	15°42	28°50	13°42
F 31	16 34 38	9♐42'54	29♈43	29♐31	26♐13	29♋41	24♐2	5♎57	11♋38	5♈22	11♊3	16♒39	15♓39	28♐57	13♋43

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JUNE 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	16 38 34	10♐40'24	13♈17	1♊8	27♐26	0♐24	24♐16	5°R54	11♋40	5♈22	11°R 2	16°D39	15♓36	29♐4	13♋43
S 2	16 42 31	11°37'55	26°28	2°41	28°40	1°7	24°29	5♎51	11°42	5°22	11♊0	16♒40	15°33	29°10	13°44
M 3	16 46 27	12°35'24	9♋18	4°12	29°53	1°49	24°43	5°47	11°44	5°22	10°59	16°41	15°30	29°17	13°45
T 4	16 50 24	13°32'53	21°50	5°39	1♊7	2°32	24°57	5°44	11°46	5°22	10°58	16°43	15°27	29°24	13°46
W 5	16 54 21	14°30'20	4♋8	7°4	2°20	3°15	25°10	5°41	11°48	5°22	10°56	16°44	15°23	29°30	13°46
T 6	16 58 17	15°27'48	16°15	8°25	3°33	3°57	25°24	5°38	11°50	5°22	10°55	16°R45	15°20	29°37	13°47
F 7	17 2 14	16°25'14	28°15	9°43	4°47	4°40	25°38	5°35	11°52	5°R22	10°54	16°44	15°17	29°44	13°48
S 8	17 6 10	17°22'40	10♐9	10°59	6°0	5°23	25°51	5°33	11°54	5°22	10°52	16°42	15°14	29°51	13°48
S 9	17 10 7	18°20'05	21°59	12°11	7°13	6°5	26°5	5°30	11°56	5°22	10°51	16°38	15°11	29°57	13°49
M10	17 14 3	19°17'29	3♏49	13°19	8°26	6°47	26°19	5°27	11°57	5°22	10°50	16°34	15°7	0♐4	13°49
T 11	17 18 0	20°14'52	15°39	14°25	9°40	7°30	26°33	5°25	11°59	5°22	10°48	16°28	15°4	0°11	13°49
W12	17 21 56	21°12'14	27°32	15°27	10°53	8°12	26°46	5°22	12°1	5°22	10°47	16°22	15°1	0°17	13°50
T 13	17 25 53	22°9'36	9♐30	16°25	12°6	8°54	27°0	5°20	12°2	5°22	10°46	16°16	14°58	0°24	13°50
F 14	17 29 50	23°6'56	21°37	17°20	13°19	9°36	27°14	5°17	12°4	5°22	10°44	16°11	14°55	0°31	13°50
S 15	17 33 46	24°4'16	3♎54	18°11	14°32	10°19	27°28	5°15	12°6	5°22	10°43	16°7	14°52	0°37	13°50
S 16	17 37 43	25°1'34	16°26	18°59	15°45	11°1	27°41	5°13	12°7	5°21	10°41	16°5	14°48	0°44	13°R50
M17	17 41 39	25°58'52	29°17	19°42	16°59	11°43	27°55	5°11	12°9	5°21	10°40	16°D 5	14°45	0°51	13°50
T 18	17 45 36	26°56'09	12♏30	20°22	18°12	12°25	28°9	5°9	12°10	5°21	10°38	16°6	14°42	0°57	13°50
W19	17 49 32	27°53'25	26°9	20°58	19°25	13°7	28°23	5°7	12°11	5°20	10°37	16°7	14°39	1°4	13°50
T 20	17 53 29	28°50'40	10♎14	21°29	20°38	13°48	28°36	5°5	12°13	5°20	10°35	16°R 8	14°36	1°11	13°50
F 21	17 57 25	29°47'55	24°45	21°57	21°51	14°30	28°50	5°4	12°14	5°19	10°34	16°8	14°33	1°17	13°49
S 22	18 1 22	0♐45'09	9♊39	22°20	23°4	15°12	29°4	5°2	12°15	5°19	10°33	16°6	14°29	1°24	13°49
S 23	18 5 19	1°42'23	24°49	22°38	24°17	15°54	29°18	5°0	12°17	5°19	10°31	16°2	14°26	1°31	13°49
M24	18 9 15	2°39'36	10♊6	22°52	25°30	16°35	29°32	4°59	12°18	5°18	10°30	15°57	14°23	1°38	13°48
T 25	18 13 12	3°36'49	25°19	23°1	26°42	17°17	29°45	4°58	12°19	5°17	10°28	15°50	14°20	1°44	13°48
W26	18 17 8	4°34'02	10♎18	23°6	27°55	17°59	29°59	4°56	12°20	5°17	10°27	15°43	14°17	1°51	13°48
T 27	18 21 5	5°31'14	24°55	23°R 6	29°8	18°40	0♐13	4°55	12°21	5°16	10°25	15°37	14°13	1°58	13°47
F 28	18 25 1	6°28'26	9♈4	23°2	0♐21	19°22	0°26	4°54	12°22	5°16	10°24	15°32	14°10	2°4	13°46
S 29	18 28 58	7°25'39	22°44	22°53	1°34	20°3	0°40	4°53	12°23	5°15	10°22	15°29	14°7	2°11	13°46
S 30	18 32 54	8♐22'51	5♋56	22♏40	2♐47	20♐44	0♐54	4♎52	12♋24	5♈14	10♊21	15°D28	14♎4	2♏18	13♋45

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SWISS EPHEMERIS for the year 2013

JULY 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	18 36 51	9°20'04"	18°44'	22°R23	3♂59	21♂26	1♂8	4°R52	12°V25	5°R14	10°R19	15°M28	14°M1	2♂24	13°R44
T 2	18 40 48	10°17'17"	18°10'	22°1	5°12	22°7	1°21	4°M51	12°25	5°H13	10°R18	15°29	13°58	2°31	13°H43
W 3	18 44 44	11°14'30"	13°22'	21°36	6°25	22°48	1°35	4°50	12°26	5°12	10°16	15°R30	13°54	2°38	13°42
T 4	18 48 41	12°11'43"	25°21'	21°8	7°38	23°29	1°49	4°50	12°27	5°11	10°14	15°29	13°51	2°44	13°42
F 5	18 52 37	13°8'56"	7°II14	20°36	8°50	24°10	2°2	4°50	12°27	5°10	10°13	15°27	13°48	2°51	13°41
S 6	18 56 34	14°6'10"	19°4	20°3	10°3	24°51	2°16	4°49	12°28	5°10	10°11	15°22	13°45	2°58	13°40
S 7	19 0 30	15°3'24"	0°52	19°27	11°16	25°32	2°29	4°49	12°29	5°9	10°10	15°15	13°42	3°4	13°38
M 8	19 4 27	16°0'37"	12°43	18°50	12°28	26°13	2°43	4°D49	12°29	5°8	10°8	15°5	13°39	3°11	13°37
T 9	19 8 23	16°57'51"	24°37	18°12	13°41	26°54	2°56	4°49	12°29	5°7	10°7	14°54	13°35	3°18	13°36
W10	19 12 20	17°55'05"	6°J36	17°34	14°53	27°35	3°10	4°49	12°30	5°6	10°5	14°42	13°32	3°25	13°35
T 11	19 16 17	18°52'19"	18°42	16°57	16°6	28°16	3°24	4°49	12°30	5°5	10°4	14°31	13°29	3°31	13°34
F 12	19 20 13	19°49'33"	0°M55	16°20	17°19	28°57	3°37	4°50	12°31	5°4	10°2	14°21	13°26	3°38	13°32
S 13	19 24 10	20°46'48"	13°19	15°46	18°31	29°37	3°50	4°50	12°31	5°3	10°1	14°14	13°23	3°45	13°31
S 14	19 28 6	21°44'02"	25°55	15°14	19°43	0°518	4°4	4°51	12°31	5°2	10°0	14°8	13°19	3°51	13°29
M15	19 32 3	22°41'16"	8°A46	14°45	20°56	0°59	4°17	4°51	12°31	5°1	9°58	14°6	13°16	3°58	13°28
T 16	19 35 59	23°38'30"	21°56	14°20	22°8	1°39	4°31	4°52	12°31	5°0	9°57	14°D5	13°13	4°5	13°26
W17	19 39 56	24°35'44"	5°M27	13°59	23°21	2°20	4°44	4°53	12°31	4°58	9°55	14°5	13°10	4°11	13°25
T 18	19 43 52	25°32'59"	19°22	13°42	24°33	3°0	4°57	4°54	12°R31	4°57	9°54	14°R5	13°7	4°18	13°23
F 19	19 47 49	26°30'13"	3°J40	13°30	25°45	3°40	5°10	4°55	12°31	4°56	9°52	14°4	13°4	4°25	13°21
S 20	19 51 46	27°27'28"	18°22	13°23	26°57	4°21	5°24	4°56	12°31	4°55	9°51	14°0	13°0	4°31	13°20
S 21	19 55 42	28°24'44"	3°Z22	13°D22	28°10	5°1	5°37	4°57	12°31	4°54	9°49	13°54	12°57	4°38	13°18
M22	19 59 39	29°21'59"	18°32	13°26	29°22	5°41	5°50	4°58	12°31	4°52	9°48	13°46	12°54	4°45	13°16
T 23	20 3 35	0°J19'15"	3°A43	13°36	0°M34	6°22	6°3	5°0	12°31	4°51	9°47	13°36	12°51	4°52	13°14
W24	20 7 32	1°16'31"	18°43	13°51	1°46	7°2	6°16	5°1	12°30	4°50	9°45	13°25	12°48	4°58	13°12
T 25	20 11 28	2°13'49"	3°H25	14°13	2°58	7°42	6°29	5°3	12°30	4°49	9°44	13°16	12°45	5°5	13°10
F 26	20 15 25	3°11'06"	17°40	14°40	4°10	8°22	6°42	5°5	12°30	4°47	9°42	13°8	12°41	5°12	13°8
S 27	20 19 21	4°8'25"	1°V25	15°14	5°22	9°2	6°55	5°6	12°29	4°46	9°41	13°2	12°38	5°18	13°6
S 28	20 23 18	5°5'45"	14°42	15°53	6°34	9°42	7°8	5°8	12°29	4°45	9°40	12°59	12°35	5°25	13°4
M29	20 27 15	6°3'06"	27°32	16°38	7°46	10°22	7°21	5°10	12°28	4°43	9°38	12°58	12°32	5°32	13°2
T 30	20 31 11	7°0'27"	9°B59	17°29	8°58	11°2	7°33	5°12	12°28	4°42	9°37	12°57	12°29	5°38	13°0
W31	20 35 8	7°J57'50"	22°B9	18°26	10°M10	11°41	7°46	5°M14	12°V27	4°H40	9°Z36	12°M57	12°M25	5°45	12°H58

Delta T = 67.06 sec.

AUGUST 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	20 39 4	8°J55'14"	4°II7	19°28	11°M22	12°21	7°59	5°M17	12°R26	4°R39	9°R35	12°R56	12°M22	5°52	12°R56
F 2	20 43 1	9°52'39"	15°59	20°36	12°33	13°1	8°12	5°19	12°V26	4°H38	9°Z33	12°M53	12°19	5°58	12°H54
S 3	20 46 57	10°50'06"	27°47	21°49	13°45	13°41	8°24	5°21	12°25	4°36	9°32	12°47	12°16	6°5	12°51
S 4	20 50 54	11°47'33"	9°537	23°7	14°57	14°20	8°37	5°24	12°24	4°35	9°31	12°38	12°13	6°12	12°49
M 5	20 54 50	12°45'01"	21°32	24°31	16°8	15°0	8°49	5°27	12°23	4°33	9°30	12°27	12°10	6°19	12°47
T 6	20 58 47	13°42'31"	3°J32	25°59	17°20	15°39	9°2	5°29	12°22	4°32	9°28	12°14	12°6	6°25	12°44
W 7	21 2 44	14°40'01"	15°41	27°32	18°32	16°19	9°14	5°32	12°22	4°30	9°27	12°0	12°3	6°32	12°42
T 8	21 6 40	15°37'32"	27°58	29°9	19°43	16°58	9°26	5°35	12°21	4°29	9°26	11°47	12°0	6°39	12°39
F 9	21 10 37	16°35'05"	10°M25	0°J50	20°55	17°38	9°39	5°38	12°20	4°27	9°25	11°35	11°57	6°45	12°37
S 10	21 14 33	17°32'38"	23°1	2°35	22°6	18°17	9°51	5°41	12°18	4°25	9°24	11°25	11°54	6°52	12°34
S 11	21 18 30	18°30'12"	5°A49	4°23	23°18	18°56	10°3	5°44	12°17	4°24	9°23	11°19	11°50	6°59	12°32
M12	21 22 26	19°27'47"	18°49	6°14	24°29	19°35	10°15	5°47	12°16	4°22	9°22	11°15	11°47	7°5	12°29
T 13	21 26 23	20°25'23"	2°M4	8°8	25°40	20°15	10°27	5°51	12°15	4°21	9°21	11°14	11°44	7°12	12°27
W14	21 30 19	21°23'00"	15°34	10°4	26°51	20°54	10°39	5°54	12°14	4°19	9°20	11°14	11°41	7°19	12°24
T 15	21 34 16	22°20'38"	29°23	12°2	28°3	21°33	10°51	5°58	12°13	4°18	9°19	11°13	11°38	7°26	12°22
F 16	21 38 13	23°18'17"	13°J30	14°1	29°14	22°12	11°2	6°1	12°11	4°16	9°18	11°12	11°35	7°32	12°19
S 17	21 42 9	24°15'57"	27°55	16°1	0°A25	22°51	11°14	6°5	12°10	4°14	9°17	11°9	11°31	7°39	12°16
S 18	21 46 6	25°13'38"	12°Z36	18°2	1°36	23°30	11°26	6°9	12°8	4°13	9°16	11°3	11°28	7°46	12°14
M19	21 50 2	26°11'20"	27°27	20°3	2°47	24°9	11°37	6°12	12°7	4°11	9°15	10°55	11°25	7°52	12°11
T 20	21 53 59	27°9'03"	12°A20	22°5	3°58	24°48	11°49	6°16	12°6	4°9	9°14	10°45	11°22	7°59	12°8
W21	21 57 55	28°6'48"	27°7	24°6	5°9	25°26	12°0	6°20	12°4	4°8	9°13	10°34	11°19	8°6	12°5
T 22	22 1 52	29°4'33"	11°H39	26°7	6°19	26°5	12°11	6°24	12°2	4°6	9°12	10°24	11°16	8°12	12°3
F 23	22 5 48	0°M220	25°49	28°7	7°30	26°44	12°23	6°28	12°1	4°5	9°11	10°16	11°12	8°19	12°0
S 24	22 9 45	1°0'09"	9°V34	0°M7	8°41	27°22	12°34	6°33	11°59	4°3	9°11	10°10	11°9	8°26	11°57
S 25	22 13 42	1°58'00"	22°52	2°6	9°51	28°1	12°45	6°37	11°58	4°1	9°10	10°7	11°6	8°33	11°54
M26	22 17 38	2°55'52"	5°B44	4°4	11°2	28°40	12°56	6°41	11°56	4°0	9°9	10°D5	11°3	8°39	11°51
T 27	22 21 35	3°53'46"	18°14	6°0	12°12	29°18	13°7	6°46	11°54	3°58	9°8	10°6	11°0	8°46	11°49
W28	22 25 31	4°51'41"	0°II26	7°56	13°23	29°57	13°18	6°50	11°52	3°56	9°8	10°R6	10°56	8°53	11°46
T 29	22 29 28	5°49'39"	12°26	9°51	14°33	0°J35	13°28	6°55	11°51	3°55	9°7	10°6	10°53	8°59	11°43
F 30	22 33 24	6°47'38"	24°18	11°44	15°44	1°13	13°39	6°59	11°49	3°53	9°6	10°4	10°50	9°6	11°40
S 31	22 37 21	7°M45'40"	6°5	13°M36	16°A54	1°J52	13°50	7°M4	11°V47	3°H51	9°Z6	10°M0	10°M47	9°513	11°H37

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SWISS EPHEMERIS for the year 2013

SEPTEMBER 2013

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

Delta T = 67.12 sec.

OCTOBER 2013

00:00 UT

Day	Sid.t	☉	☾	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	0 39 34	7 ^h 58'48"	20 ^h 15'	1 ^h 56'	22 ^h 30'	21 ^h 15'	18 ^h 20'	10 ^h 0'	10 ^h 38'	3 ^h 5'	9 ^h 1'	8 ^h 7'	9 ^h 8'	12 ^h 41'	10 ^h 13'
W 2	0 43 31	8 ^h 57'49"	2 ^h 41'	3 ^h 11'	23 ^h 37'	21 ^h 52'	18 ^h 27'	10 ^h 7'	10 ^h 36'	3 ^h 4'	9 ^h 1'	8 ^h 3'	9 ^h 5'	12 ^h 47'	10 ^h 10'
T 3	0 47 27	9 ^h 56'52"	15 ^h 23'	4 ^h 24'	24 ^h 44'	22 ^h 28'	18 ^h 33'	10 ^h 13'	10 ^h 33'	3 ^h 2'	9 ^h 2'	7 ^h 58'	9 ^h 2'	12 ^h 54'	10 ^h 8'
F 4	0 51 24	10 ^h 55'57"	28 ^h 22'	5 ^h 35'	25 ^h 51'	23 ^h 5'	18 ^h 40'	10 ^h 20'	10 ^h 31'	3 ^h 1'	9 ^h 2'	7 ^h 53'	8 ^h 59'	13 ^h 1'	10 ^h 6'
S 5	0 55 20	11 ^h 55'05"	11 ^h 37'	6 ^h 45'	26 ^h 58'	23 ^h 42'	18 ^h 46'	10 ^h 27'	10 ^h 28'	3 ^h 0'	9 ^h 3'	7 ^h 50'	8 ^h 56'	13 ^h 7'	10 ^h 3'
S 6	0 59 17	12 ^h 54'14"	25 ^h 8'	7 ^h 53'	28 ^h 4'	24 ^h 18'	18 ^h 52'	10 ^h 33'	10 ^h 26'	2 ^h 59'	9 ^h 3'	7 ^h 48'	8 ^h 53'	13 ^h 14'	10 ^h 1'
M 7	1 3 13	13 ^h 53'26"	8 ^h 52'	8 ^h 58'	29 ^h 11'	24 ^h 54'	18 ^h 58'	10 ^h 40'	10 ^h 24'	2 ^h 58'	9 ^h 4'	7 ^h D48	8 ^h 49'	13 ^h 21'	9 ^h 59'
T 8	1 7 10	14 ^h 52'39"	22 ^h 47'	10 ^h 2'	0 ^h 17'	25 ^h 31'	19 ^h 3'	10 ^h 47'	10 ^h 21'	2 ^h 56'	9 ^h 4'	7 ^h 49'	8 ^h 46'	13 ^h 28'	9 ^h 57'
W 9	1 11 6	15 ^h 51'55"	6 ^h 50'	11 ^h 3'	1 ^h 23'	26 ^h 7'	19 ^h 9'	10 ^h 53'	10 ^h 19'	2 ^h 55'	9 ^h 5'	7 ^h 50'	8 ^h 43'	13 ^h 34'	9 ^h 55'
T 10	1 15 3	16 ^h 51'12"	20 ^h 58'	12 ^h 2'	2 ^h 29'	26 ^h 43'	19 ^h 14'	11 ^h 0'	10 ^h 16'	2 ^h 54'	9 ^h 5'	7 ^h 51'	8 ^h 40'	13 ^h 41'	9 ^h 52'
F 11	1 18 59	17 ^h 50'31"	5 ^h 3'	12 ^h 57'	3 ^h 35'	27 ^h 19'	19 ^h 19'	11 ^h 7'	10 ^h 14'	2 ^h 53'	9 ^h 6'	7 ^h 52'	8 ^h 37'	13 ^h 48'	9 ^h 50'
S 12	1 22 56	18 ^h 49'52"	19 ^h 22'	13 ^h 50'	4 ^h 40'	27 ^h 56'	19 ^h 24'	11 ^h 14'	10 ^h 12'	2 ^h 52'	9 ^h 6'	7 ^h R53	8 ^h 33'	13 ^h 54'	9 ^h 48'
S 13	1 26 53	19 ^h 49'14"	3 ^h 33'	14 ^h 39'	5 ^h 46'	28 ^h 32'	19 ^h 29'	11 ^h 21'	10 ^h 9'	2 ^h 51'	9 ^h 7'	7 ^h 52'	8 ^h 30'	14 ^h 1'	9 ^h 46'
M 14	1 30 49	20 ^h 48'38"	17 ^h 40'	15 ^h 25'	6 ^h 51'	29 ^h 8'	19 ^h 34'	11 ^h 27'	10 ^h 7'	2 ^h 50'	9 ^h 8'	7 ^h 51'	8 ^h 27'	14 ^h 8'	9 ^h 44'
T 15	1 34 46	21 ^h 48'04"	1 ^h 42'	16 ^h 6'	7 ^h 56'	29 ^h 43'	19 ^h 38'	11 ^h 34'	10 ^h 4'	2 ^h 49'	9 ^h 9'	7 ^h 49'	8 ^h 24'	14 ^h 15'	9 ^h 43'
W 16	1 38 42	22 ^h 47'32"	15 ^h 34'	16 ^h 43'	9 ^h 1'	0 ^h 19'	19 ^h 43'	11 ^h 41'	10 ^h 2'	2 ^h 48'	9 ^h 9'	7 ^h 47'	8 ^h 21'	14 ^h 21'	9 ^h 41'
T 17	1 42 39	23 ^h 47'01"	29 ^h 16'	17 ^h 15'	10 ^h 5'	0 ^h 55'	19 ^h 47'	11 ^h 48'	10 ^h 0'	2 ^h 47'	9 ^h 10'	7 ^h 45'	8 ^h 18'	14 ^h 28'	9 ^h 39'
F 18	1 46 35	24 ^h 46'32"	12 ^h 44'	17 ^h 41'	11 ^h 9'	1 ^h 31'	19 ^h 51'	11 ^h 55'	9 ^h 57'	2 ^h 47'	9 ^h 11'	7 ^h 44'	8 ^h 14'	14 ^h 35'	9 ^h 37'
S 19	1 50 32	25 ^h 46'06"	25 ^h 57'	18 ^h 2'	12 ^h 13'	2 ^h 6'	19 ^h 54'	12 ^h 2'	9 ^h 55'	2 ^h 46'	9 ^h 12'	7 ^h 43'	8 ^h 11'	14 ^h 41'	9 ^h 35'
S 20	1 54 28	26 ^h 45'41"	8 ^h 54'	18 ^h 16'	13 ^h 17'	2 ^h 42'	19 ^h 58'	12 ^h 9'	9 ^h 53'	2 ^h 45'	9 ^h 13'	7 ^h D42	8 ^h 8'	14 ^h 48'	9 ^h 34'
M 21	1 58 25	27 ^h 45'18"	21 ^h 34'	18 ^h R23	14 ^h 21'	3 ^h 18'	20 ^h 1'	12 ^h 16'	9 ^h 51'	2 ^h 44'	9 ^h 14'	7 ^h 43'	8 ^h 5'	14 ^h 55'	9 ^h 32'
T 22	2 2 22	28 ^h 44'58"	4 ^h 11'	18 ^h 22'	15 ^h 24'	3 ^h 53'	20 ^h 5'	12 ^h 23'	9 ^h 48'	2 ^h 43'	9 ^h 15'	7 ^h 43'	8 ^h 2'	15 ^h 1'	9 ^h 30'
W 23	2 6 18	29 ^h 44'40"	16 ^h 11'	18 ^h 14'	16 ^h 27'	4 ^h 28'	20 ^h 8'	12 ^h 30'	9 ^h 46'	2 ^h 43'	9 ^h 15'	7 ^h 44'	7 ^h 58'	15 ^h 8'	9 ^h 29'
T 24	2 10 15	0 ^h 44'24"	28 ^h 13'	17 ^h 57'	17 ^h 30'	5 ^h 4'	20 ^h 11'	12 ^h 38'	9 ^h 44'	2 ^h 42'	9 ^h 16'	7 ^h 45'	7 ^h 55'	15 ^h 15'	9 ^h 27'
F 25	2 14 11	1 ^h 44'10"	10 ^h 8'	17 ^h 31'	18 ^h 33'	5 ^h 39'	20 ^h 13'	12 ^h 45'	9 ^h 42'	2 ^h 41'	9 ^h 17'	7 ^h 46'	7 ^h 52'	15 ^h 22'	9 ^h 26'
S 26	2 18 8	2 ^h 43'58"	21 ^h 59'	16 ^h 55'	19 ^h 35'	6 ^h 14'	20 ^h 16'	12 ^h 52'	9 ^h 39'	2 ^h 41'	9 ^h 19'	7 ^h 46'	7 ^h 49'	15 ^h 28'	9 ^h 24'
S 27	2 22 4	3 ^h 43'49"	3 ^h 53'	16 ^h 11'	20 ^h 37'	6 ^h 49'	20 ^h 18'	12 ^h 59'	9 ^h 37'	2 ^h 40'	9 ^h 20'	7 ^h R46	7 ^h 46'	15 ^h 35'	9 ^h 23'
M 28	2 26 1	4 ^h 43'41"	15 ^h 53'	15 ^h 19'	21 ^h 38'	7 ^h 24'	20 ^h 20'	13 ^h 6'	9 ^h 35'	2 ^h 39'	9 ^h 21'	7 ^h 46'	7 ^h 43'	15 ^h 42'	9 ^h 22'
T 29	2 29 57	5 ^h 43'36"	28 ^h 5'	14 ^h 18'	22 ^h 40'	7 ^h 59'	20 ^h 22'	13 ^h 13'	9 ^h 33'	2 ^h 39'	9 ^h 22'	7 ^h 46'	7 ^h 39'	15 ^h 48'	9 ^h 21'
W 30	2 33 54	6 ^h 43'33"	10 ^h 32'	13 ^h 10'	23 ^h 41'	8 ^h 34'	20 ^h 24'	13 ^h 20'	9 ^h 31'	2 ^h 38'	9 ^h 23'	7 ^h 46'	7 ^h 36'	15 ^h 55'	9 ^h 19'
T 31	2 37 51	7 ^h 43'32"	23 ^h 17'	11 ^h 57'	24 ^h 41'	9 ^h 19'	20 ^h 25'	13 ^h 28'	9 ^h 29'	2 ^h 38'	9 ^h 24'	7 ^h D46	7 ^h 43'	16 ^h 2'	9 ^h 18'

SWISS EPHEMERIS for the year 2013

NOVEMBER 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	2 41 47	8♈43'34	6♈24	10°R40	25♈42	9♈44	20♈27	13♈35	9°R27	2°R37	9♈25	7♈46	7♈30	16♈9	9°R17
S 2	2 45 44	9°43'37	19°54	9♈22	26°41	10°18	20°28	13°42	9°Y25	2°Y37	9°27	7°46	7°27	16°15	9°Y16
S 3	2 49 40	10°43'42	3♈44	8° 6	27°41	10°53	20°29	13°49	9°23	2°37	9°28	7°R46	7°24	16°22	9°15
M 4	2 53 37	11°43'49	17°53	6°53	28°40	11°28	20°30	13°56	9°21	2°36	9°29	7°46	7°20	16°29	9°14
T 5	2 57 33	12°43'58	2♈16	5°45	29°39	12° 2	20°30	14° 3	9°19	2°36	9°31	7°46	7°17	16°35	9°13
W 6	3 1 30	13°44'09	16°48	4°46	0♈37	12°36	20°31	14°11	9°17	2°36	9°32	7°45	7°14	16°42	9°13
T 7	3 5 26	14°44'22	1♈23	3°56	1°35	13°11	20°R31	14°18	9°15	2°36	9°33	7°44	7°11	16°49	9°12
F 8	3 9 23	15°44'36	15°54	3°17	2°32	13°45	20°31	14°25	9°13	2°35	9°35	7°44	7° 8	16°56	9°11
S 9	3 13 20	16°44'51	0♈18	2°50	3°29	14°19	20°30	14°32	9°12	2°35	9°36	7°43	7° 4	17° 2	9°10
S 10	3 17 16	17°45'08	14°31	2°34	4°26	14°53	20°30	14°39	9°10	2°35	9°38	7°D43	7° 1	17° 9	9°10
M 11	3 21 13	18°45'26	28°30	2°D30	5°21	15°27	20°29	14°47	9° 8	2°35	9°39	7°43	6°58	17°16	9° 9
T 12	3 25 9	19°45'46	12♈14	2°36	6°17	16° 1	20°28	14°54	9° 7	2°35	9°40	7°43	6°55	17°22	9° 9
W 13	3 29 6	20°46'07	25°45	2°54	7°11	16°34	20°27	15° 1	9° 5	2°35	9°42	7°44	6°52	17°29	9° 8
T 14	3 33 2	21°46'29	9°Y 1	3°21	8° 5	17° 8	20°26	15° 8	9° 3	2°D35	9°43	7°46	6°49	17°36	9° 8
F 15	3 36 59	22°46'53	22° 3	3°56	8°59	17°42	20°25	15°15	9° 2	2°35	9°45	7°47	6°45	17°43	9° 8
S 16	3 40 55	23°47'19	4♈53	4°40	9°52	18°15	20°23	15°23	9° 0	2°35	9°47	7°R47	6°42	17°49	9° 8
S 17	3 44 52	24°47'45	17°31	5°31	10°44	18°48	20°21	15°30	8°59	2°35	9°48	7°47	6°39	17°56	9° 7
M 18	3 48 49	25°48'14	29°57	6°28	11°35	19°22	20°19	15°37	8°57	2°35	9°50	7°46	6°36	18° 3	9° 7
T 19	3 52 45	26°48'44	12♈12	7°30	12°26	19°55	20°17	15°44	8°56	2°35	9°51	7°43	6°33	18° 9	9° 7
W 20	3 56 42	27°49'16	24°18	8°37	13°16	20°28	20°14	15°51	8°55	2°35	9°53	7°40	6°30	18°16	9°D 7
T 21	4 0 38	28°49'49	6♈17	9°48	14° 5	21° 1	20°12	15°58	8°53	2°36	9°55	7°37	6°26	18°23	9° 7
F 22	4 4 35	29°50'24	18°11	11° 3	14°54	21°34	20° 9	16° 5	8°52	2°36	9°57	7°33	6°23	18°30	9° 7
S 23	4 8 31	0♈51'01	0♈ 2	12°21	15°41	22° 7	20° 6	16°12	8°51	2°36	9°58	7°30	6°20	18°36	9° 8
S 24	4 12 28	1°51'39	11°54	13°41	16°28	22°39	20° 3	16°19	8°50	2°37	10° 0	7°27	6°17	18°43	9° 8
M 25	4 16 24	2°52'19	23°52	15° 3	17°14	23°12	19°59	16°26	8°48	2°37	10° 2	7°26	6°14	18°50	9° 8
T 26	4 20 21	3°53'00	6♈ 0	16°27	17°58	23°44	19°56	16°33	8°47	2°37	10° 3	7°D25	6°10	18°57	9° 8
W 27	4 24 18	4°53'43	18°23	17°53	18°42	24°17	19°52	16°40	8°46	2°38	10° 5	7°26	6° 7	19° 3	9° 9
T 28	4 28 14	5°54'28	1♈ 5	19°20	19°25	24°49	19°48	16°47	8°45	2°38	10° 7	7°27	6° 4	19°10	9° 9
F 29	4 32 11	6°55'14	14°10	20°48	20° 6	25°21	19°44	16°54	8°44	2°39	10° 9	7°29	6° 1	19°17	9°10
S 30	4 36 7	7°56'01	27♈41	22♈16	20♈47	25°53	19°39	17°11	8°Y43	2°Y39	10°Y11	7°130	5°158	19°223	9°Y10

Delta T = 67.19 sec.

DECEMBER 2013

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	4 40 4	8♈56'51	11♈38	23♈46	21♈26	26♈25	19°R35	17°11	8°R42	2°Y40	10°Y13	7°R31	5°155	19°230	9°Y11
M 2	4 44 0	9°57'41	26° 2	25°16	22° 5	26°57	19°30	17°15	8°Y42	2°40	10°14	7°129	5°51	19°37	9°12
T 3	4 47 57	10°58'33	10♈46	26°47	22°41	27°28	19°25	17°22	8°41	2°41	10°16	7°27	5°48	19°44	9°13
W 4	4 51 53	11°59'26	25°43	28°18	23°17	28° 0	19°20	17°28	8°40	2°42	10°18	7°22	5°45	19°50	9°13
T 5	4 55 50	13° 0'20	10♈46	29°50	23°51	28°31	19°15	17°35	8°40	2°42	10°20	7°17	5°42	19°57	9°14
F 6	4 59 47	14° 1'15	25°44	1♈21	24°24	29° 2	19°10	17°42	8°39	2°43	10°22	7°11	5°39	20° 4	9°15
S 7	5 3 43	15° 2'11	10♈30	2°54	24°55	29°33	19° 4	17°49	8°38	2°44	10°24	7° 6	5°36	20°10	9°16
S 8	5 7 40	16° 3'07	24°56	4°26	25°25	0♈ 4	18°59	17°55	8°38	2°45	10°26	7° 3	5°32	20°17	9°17
M 9	5 11 36	17° 4'04	9♈ 0	5°58	25°53	0°35	18°53	18° 2	8°37	2°46	10°28	7° 1	5°29	20°24	9°18
T 10	5 15 33	18° 5'02	22°41	7°31	26°19	1° 6	18°47	18° 8	8°37	2°47	10°30	7°D 0	5°26	20°31	9°19
W 11	5 19 29	19° 6'00	6°Y 1	9° 3	26°44	1°36	18°41	18°15	8°37	2°47	10°32	7° 2	5°23	20°37	9°21
T 12	5 23 26	20° 6'59	19° 1	10°36	27° 6	2° 7	18°34	18°22	8°36	2°48	10°34	7° 3	5°20	20°44	9°22
F 13	5 27 22	21° 7'58	1♈45	12° 9	27°27	2°37	18°28	18°28	8°36	2°49	10°36	7°R 4	5°16	20°51	9°23
S 14	5 31 19	22° 8'58	14°16	13°42	27°46	3° 7	18°21	18°34	8°36	2°50	10°38	7° 4	5°13	20°57	9°25
S 15	5 35 16	23° 9'59	26°36	15°15	28° 3	3°37	18°15	18°41	8°36	2°51	10°40	7° 2	5°10	21° 4	9°26
M 16	5 39 12	24°11'00	8♈47	16°49	28°18	4° 7	18° 8	18°47	8°35	2°52	10°42	6°57	5° 7	21°11	9°28
T 17	5 43 9	25°12'02	20°52	18°22	28°30	4°36	18° 1	18°53	8°35	2°54	10°44	6°51	5° 4	21°18	9°29
W 18	5 47 5	26°13'04	2♈51	19°55	28°41	5° 6	17°54	19° 0	8°D35	2°55	10°46	6°42	5° 1	21°24	9°31
T 19	5 51 2	27°14'08	14°46	21°29	28°49	5°35	17°47	19° 6	8°35	2°56	10°48	6°32	4°57	21°31	9°32
F 20	5 54 58	28°15'11	26°39	23° 3	28°55	6° 4	17°40	19°12	8°35	2°57	10°50	6°21	4°54	21°38	9°34
S 21	5 58 55	29°16'16	8♈30	24°37	28°58	6°33	17°32	19°18	8°36	2°58	10°52	6°11	4°51	21°44	9°36
S 22	6 2 51	0♈17'21	20°23	26°11	28°R59	7° 2	17°25	19°24	8°36	3° 0	10°54	6° 2	4°48	21°51	9°38
M 23	6 6 48	1°18'27	2♈21	27°45	28°57	7°30	17°18	19°30	8°36	3° 1	10°56	5°56	4°45	21°58	9°39
T 24	6 10 45	2°19'33	14°26	29°20	28°54	7°59	17°10	19°36	8°36	3° 2	10°59	5°52	4°42	22° 5	9°41
W 25	6 14 41	3°20'40	26°44	0♈54	28°47	8°27	17° 2	19°42	8°37	3° 3	11° 1	5°50	4°38	22°11	9°43
T 26	6 18 38	4°21'48	9♈19	2°29	28°38	8°55	16°55	19°48	8°37	3° 5	11° 3	5°D49	4°35	22°18	9°45
F 27	6 22 34	5°22'56	22°16	4° 5	28°27	9°23	16°47	19°54	8°38	3° 6	11° 5	5°50	4°32	22°25	9°47
S 28	6 26 31	6°24'05	5♈39	5°40	28°13	9°50	16°39	19°59	8°38	3° 8	11° 7	5°R51	4°29	22°32	9°49
S 29	6 30 27	7°25'15	19°31	7°16	27°57	10°18	16°31	20° 5	8°39	3° 9	11° 9	5°50	4°26	22°38	9°52
M 30	6 34 24	8°26'25	3♈52	8°52	27°38	10°45	16°23	20°10	8°39	3°11	11°11	5°47	4°22	22°45	9°54
T 31	6 38 20	9°27'36	18♈40	10♈28	27♈17	11°12	16°15	20°16	8°Y40	3°Y12	11°Y13	5°141	4°19	22°52	9°Y56

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