

# SWISS EPHEMERIS for the year 2047

## JANUARY 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	6 42 19	10°28'08"	4°58'	13°20'	29°23'	25°8'	10°23'	27°22'	6°13'	16°44'	3°37'	25°16'	26°1'	15°43'	23°10'
W 2	6 46 16	11°29'17"	17° 9'	14°57'	0°38'	25°55'	10°29'	27°29'	6°12'	16°44'	3°38'	25°17'	25°58'	15°50'	23°14'
T 3	6 50 12	12°30'27"	29° 9'	16°35'	1°53'	26°42'	10°34'	27°36'	6°10'	16°43'	3°39'	25°18'	25°55'	15°57'	23°18'
F 4	6 54 9	13°31'36"	11°2'	18°12'	3° 8'	27°28'	10°40'	27°43'	6° 9'	16°42'	3°41'	25°18'	25°52'	16° 4'	23°22'
S 5	6 58 5	14°32'45"	22°55'	19°51'	4°23'	28°15'	10°46'	27°50'	6° 8'	16°41'	3°42'	25°18'	25°48'	16°10'	23°26'
S 6	7 2 2	15°33'54"	4°50'	21°29'	5°38'	29° 2'	10°53'	27°57'	6° 7'	16°41'	3°43'	25°17'	25°45'	16°17'	23°30'
M 7	7 5 59	16°35'02"	16°54'	23° 8'	6°53'	29°49'	10°59'	28° 4'	6° 5'	16°40'	3°44'	25°17'	25°42'	16°24'	23°33'
T 8	7 9 55	17°36'11"	29° 9'	24°47'	8° 8'	0°36'	11° 6'	28°11'	6° 4'	16°39'	3°45'	25°15'	25°39'	16°30'	23°37'
W 9	7 13 52	18°37'18"	11°40'	26°26'	9°23'	1°22'	11°13'	28°17'	6° 2'	16°39'	3°47'	25°14'	25°36'	16°37'	23°40'
T 10	7 17 48	19°38'26"	24°28'	28° 6'	10°38'	2° 9'	11°20'	28°24'	6° 1'	16°38'	3°48'	25°14'	25°33'	16°44'	23°44'
F 11	7 21 45	20°39'33"	7°34'	29°45'	11°53'	2°56'	11°27'	28°31'	5°59'	16°37'	3°49'	25°13'	25°29'	16°51'	23°47'
S 12	7 25 41	21°40'40"	20°59'	1°25'	13° 8'	3°43'	11°34'	28°38'	5°58'	16°37'	3°50'	25°D13	25°26'	16°57'	23°50'
S 13	7 29 38	22°41'47"	4°40'	3° 5'	14°23'	4°29'	11°42'	28°44'	5°56'	16°36'	3°52'	25°13'	25°23'	17° 4'	23°53'
M14	7 33 35	23°42'53"	18°35'	4°45'	15°38'	5°16'	11°49'	28°51'	5°54'	16°36'	3°53'	25°13'	25°20'	17°11'	23°56'
T 15	7 37 31	24°43'59"	2°40'	6°25'	16°52'	6° 3'	11°57'	28°58'	5°53'	16°36'	3°54'	25°R13	25°17'	17°18'	23°59'
W16	7 41 28	25°45'05"	16°53'	8° 4'	18° 7'	6°49'	12° 5'	29° 4'	5°51'	16°35'	3°56'	25°13'	25°13'	17°24'	24° 1'
T 17	7 45 24	26°46'10"	1° 9'	9°44'	19°22'	7°36'	12°13'	29°11'	5°49'	16°35'	3°57'	25°13'	25°10'	17°31'	24° 4'
F 18	7 49 21	27°47'15"	15°24'	11°22'	20°37'	8°23'	12°21'	29°17'	5°47'	16°35'	3°59'	25°13'	25° 7'	17°38'	24° 6'
S 19	7 53 17	28°48'21"	29°37'	13° 0'	21°52'	9° 9'	12°30'	29°24'	5°45'	16°34'	4° 0'	25°D13	25° 4'	17°44'	24° 9'
S 20	7 57 14	29°49'26"	13°44'	14°37'	23° 6'	9°56'	12°38'	29°30'	5°43'	16°34'	4° 1'	25°13'	25° 1'	17°51'	24°11'
M21	8 1 10	0°50'30"	27°44'	16°13'	24°21'	10°43'	12°47'	29°37'	5°41'	16°34'	4° 3'	25°13'	24°58'	17°58'	24°13'
T 22	8 5 7	1°51'35"	11°45'	17°47'	25°36'	11°29'	12°55'	29°43'	5°39'	16°34'	4° 4'	25°14'	24°54'	18° 5'	24°15'
W23	8 9 4	2°52'39"	25°16'	19°19'	26°51'	12°16'	13° 4'	29°50'	5°37'	16°34'	4° 6'	25°15'	24°51'	18°11'	24°17'
T 24	8 13 0	3°53'42"	8°35'	20°49'	28° 5'	13° 2'	13°13'	29°56'	5°35'	16°33'	4° 7'	25°15'	24°48'	18°18'	24°18'
F 25	8 16 57	4°54'45"	22° 2'	22°16'	29°20'	13°49'	13°23'	0°2'	5°33'	16°33'	4° 9'	25°R16	24°45'	18°25'	24°20'
S 26	8 20 53	5°55'47"	5° 5'	23°39'	0°35'	14°35'	13°32'	0° 8'	5°31'	16°33'	4°10'	25°16'	24°42'	18°31'	24°22'
S 27	8 24 50	6°56'49"	17°53'	24°59'	1°49'	15°22'	13°41'	0°15'	5°29'	16°D33	4°12'	25°15'	24°39'	18°38'	24°23'
M28	8 28 46	7°57'49"	0°28'	26°13'	3° 4'	16° 9'	13°51'	0°21'	5°26'	16°33'	4°13'	25°13'	24°35'	18°45'	24°24'
T 29	8 32 43	8°58'48"	12°48'	27°22'	4°18'	16°55'	14° 1'	0°27'	5°24'	16°33'	4°15'	25°11'	24°32'	18°52'	24°25'
W30	8 36 39	9°59'47"	24°58'	28°25'	5°33'	17°41'	14°11'	0°33'	5°22'	16°33'	4°16'	25° 9'	24°29'	18°58'	24°26'
T 31	8 40 36	11°0'44"	6°58'	29°21'	6°47'	18°28'	14°21'	0°39'	5°20'	16°34'	4°18'	25° 7'	24°26'	19° 5'	24°27'

Delta T = 116.15 sec.

## FEBRUARY 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	8 44 33	12°1'40"	18°51'	0°8'	8°2'	19°14'	14°31'	0°45'	5°R17	16°34'	4°19'	25°R 5	24°23'	19°12'	24°28'
S 2	8 48 29	13° 2'35"	0°43'	0°47'	9°16'	20° 1'	14°41'	0°51'	5°15'	16°34'	4°21'	25°R 3	24°19'	19°19'	24°29'
S 3	8 52 26	14° 3'28"	12°38'	1°17'	10°30'	20°47'	14°51'	0°56'	5°13'	16°34'	4°23'	25°D 3	24°16'	19°25'	24°29'
M 4	8 56 22	15° 4'20"	24°39'	1°36'	11°45'	21°33'	15° 2'	1° 2'	5°10'	16°35'	4°24'	25° 3	24°13'	19°32'	24°30'
T 5	9 0 19	16° 5'11"	6°52'	1°R45	12°59'	22°20'	15°12'	1° 8'	5° 8'	16°35'	4°26'	25° 4	24°10'	19°39'	24°30'
W 6	9 4 15	17° 6'01"	19°22'	1°42'	14°13'	23° 6'	15°23'	1°14'	5° 5'	16°35'	4°27'	25° 6	24° 7'	19°45'	24°30'
T 7	9 8 12	18° 6'49"	2°12'	1°29'	15°28'	23°52'	15°34'	1°19'	5° 3'	16°36'	4°29'	25° 7	24° 4'	19°52'	24°R30
F 8	9 12 8	19° 7'36"	15°25'	1° 5'	16°42'	24°39'	15°45'	1°25'	5° 0'	16°36'	4°31'	25° 9	24° 0'	19°59'	24°30'
S 9	9 16 5	20° 8'21"	29° 2'	0°30'	17°56'	25°25'	15°56'	1°30'	4°58'	16°36'	4°32'	25°R 9	23°57'	20° 6'	24°30'
S 10	9 20 2	21° 9'05"	13° 3'	29°46'	19°10'	26°11'	16° 7'	1°36'	4°55'	16°37'	4°34'	25° 8	23°54'	20°12'	24°29'
M11	9 23 58	22° 9'47"	27°23'	28°53'	20°24'	26°57'	16°18'	1°41'	4°53'	16°37'	4°36'	25° 5	23°51'	20°19'	24°29'
T 12	9 27 55	23°10'28"	11°59'	27°54'	21°38'	27°43'	16°29'	1°46'	4°50'	16°38'	4°37'	25° 2	23°48'	20°26'	24°29'
W13	9 31 51	24°11'08"	26°42'	26°49'	22°52'	28°29'	16°40'	1°52'	4°48'	16°39'	4°39'	24°58'	23°45'	20°33'	24°28'
T 14	9 35 48	25°11'47"	11°25'	25°41'	24° 6'	29°15'	16°52'	1°57'	4°45'	16°39'	4°41'	24°53'	23°41'	20°39'	24°27'
F 15	9 39 44	26°12'24"	26° 2'	24°31'	25°20'	0°1'	17° 4'	2° 2'	4°42'	16°40'	4°42'	24°49'	23°38'	20°46'	24°26'
S 16	9 43 41	27°13'01"	10°27'	23°22'	26°34'	0°47'	17°15'	2° 7'	4°40'	16°41'	4°44'	24°47'	23°35'	20°53'	24°25'
S 17	9 47 37	28°13'36"	24°36'	22°14'	27°47'	1°33'	17°27'	2°12'	4°37'	16°41'	4°46'	24°D46	23°32'	20°59'	24°24'
M18	9 51 34	29°14'11"	8°29'	21°11'	29° 1'	2°19'	17°39'	2°17'	4°35'	16°42'	4°47'	24°46'	23°29'	21° 6'	24°23'
T 19	9 55 31	0°14'44"	22° 5'	20°12'	0°15'	3° 5'	17°51'	2°22'	4°32'	16°43'	4°49'	24°47'	23°25'	21°13'	24°22'
W20	9 59 27	1°15'16"	5°25'	19°19'	1°28'	3°51'	18° 3'	2°26'	4°29'	16°44'	4°51'	24°49'	23°22'	21°20'	24°20'
T 21	10 3 24	2°15'46"	18°30'	18°33'	2°42'	4°37'	18°15'	2°31'	4°27'	16°44'	4°52'	24°R50	23°19'	21°26'	24°18'
F 22	10 7 20	3°16'15"	1°23'	17°54'	3°56'	5°22'	18°27'	2°36'	4°24'	16°45'	4°54'	24°50'	23°16'	21°33'	24°17'
S 23	10 11 17	4°16'43"	14° 4'	17°22'	5° 9'	6° 8'	18°39'	2°40'	4°22'	16°46'	4°56'	24°48'	23°13'	21°40'	24°15'
S 24	10 15 13	5°17'09"	26°34'	16°58'	6°22'	6°54'	18°52'	2°45'	4°19'	16°47'	4°57'	24°44'	23°10'	21°46'	24°13'
M25	10 19 10	6°17'33"	8°55'	16°41'	7°36'	7°39'	19° 4'	2°49'	4°16'	16°48'	4°59'	24°38'	23° 6'	21°53'	24°11'
T 26	10 23 6	7°17'56"	21° 7'	16°31'	8°49'	8°25'	19°17'	2°53'	4°14'	16°49'	5° 1'	24°31'	23° 3'	22° 0'	24° 9'
W27	10 27 3	8°18'17"	3°10'	16°D29	10° 2'	9°11'	19°29'	2°58'	4°11'	16°50'	5° 2'	24°22'	23° 0'	22° 7'	24° 7'
T 28	10 31 0	9°18'36"	15° 7'	16°33'	11°16'	9°56'	19°42'	3° 2'	4°10'	16°51'	5° 4'	24°23'	22°57'	22°13'	24° 4'

Delta T = 116.30 sec.

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# SWISS EPHEMERIS for the year 2047

MARCH 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	10 34 56	10 <sup>h</sup> 18'54"	27 <sup>h</sup> 0'	16 <sup>h</sup> 43'	12 <sup>h</sup> 29'	10 <sup>h</sup> 42'	19 <sup>h</sup> 55'	3 <sup>h</sup> 6'	4 <sup>h</sup> R 6'	16 <sup>h</sup> 52'	5 <sup>h</sup> 6'	24 <sup>h</sup> R 5'	22 <sup>h</sup> 54'	22 <sup>h</sup> 20'	24 <sup>h</sup> R 2'
S 2	10 38 53	11 <sup>h</sup> 19'09"	8 <sup>h</sup> 51'	17° 0'	13°42'	11°27'	20° 7'	3°10'	4 <sup>h</sup> 3'	16°54'	5° 7'	23 <sup>h</sup> 58'	22°50'	22°27'	24 <sup>h</sup> 0'
S 3	10 42 49	12°19'22"	20°44'	17°21'	14°55'	12°13'	20°20'	3°14'	4° 1'	16°55'	5° 9'	23°54'	22°47'	22°34'	23°57'
M 4	10 46 46	13°19'34"	21 <sup>h</sup> 43'	17°48'	16° 8'	12°58'	20°33'	3°18'	3°58'	16°56'	5°11'	23°51'	22°44'	22°40'	23°54'
T 5	10 50 42	14°19'43"	14°52'	18°20'	17°21'	13°43'	20°46'	3°21'	3°55'	16°57'	5°12'	23°D50'	22°41'	22°47'	23°51'
W 6	10 54 39	15°19'51"	27°17'	18°56'	18°33'	14°29'	20°59'	3°25'	3°53'	16°58'	5°14'	23°51'	22°38'	22°54'	23°49'
T 7	10 58 35	16°19'56"	10 <sup>h</sup> 52'	19°37'	19°46'	15°14'	21°12'	3°29'	3°50'	17° 0'	5°16'	23°52'	22°35'	23° 0'	23°46'
F 8	11 2 32	17°19'59"	23°12'	20°21'	20°59'	15°59'	21°26'	3°32'	3°48'	17° 1'	5°17'	23°R53'	22°31'	23° 7'	23°42'
S 9	11 6 29	18°20'00"	6 <sup>h</sup> 50'	21° 9'	22°11'	16°44'	21°39'	3°36'	3°45'	17° 2'	5°19'	23°52'	22°28'	23°14'	23°39'
S 10	11 10 25	19°19'59"	20°57'	22° 0'	23°24'	17°29'	21°52'	3°39'	3°43'	17° 4'	5°21'	23°49'	22°25'	23°21'	23°36'
M11	11 14 22	20°19'56"	5 <sup>h</sup> 30'	22°55'	24°36'	18°14'	22° 5'	3°42'	3°40'	17° 5'	5°22'	23°44'	22°22'	23°27'	23°33'
T 12	11 18 18	21°19'50"	20°24'	23°52'	25°49'	18°59'	22°19'	3°45'	3°38'	17° 6'	5°24'	23°36'	22°19'	23°34'	23°29'
W13	11 22 15	22°19'43"	5 <sup>h</sup> 43'	24°52'	27° 1'	19°44'	22°32'	3°48'	3°35'	17° 8'	5°25'	23°27'	22°16'	23°41'	23°26'
T 14	11 26 11	23°19'34"	20°39'	25°55'	28°13'	20°29'	22°46'	3°51'	3°33'	17° 9'	5°27'	23°18'	22°12'	23°47'	23°22'
F 15	11 30 8	24°19'23"	5 <sup>h</sup> 41'	27° 0'	29°25'	21°14'	22°59'	3°54'	3°30'	17°11'	5°29'	23°10'	22° 9'	23°54'	23°19'
S 16	11 34 4	25°19'11"	20°26'	28° 7'	0 <sup>h</sup> 37'	21°59'	23°13'	3°57'	3°28'	17°12'	5°30'	23° 3'	22° 6'	24° 1'	23°15'
S 17	11 38 1	26°18'57"	4 <sup>h</sup> 49'	29°17'	1°49'	22°44'	23°27'	4° 0'	3°26'	17°14'	5°32'	22°59'	22° 3'	24° 8'	23°11'
M18	11 41 57	27°18'41"	18°48'	0 <sup>h</sup> 29'	3° 1'	23°29'	23°40'	4° 2'	3°23'	17°16'	5°33'	22°57'	22° 0'	24°14'	23° 7'
T 19	11 45 54	28°18'24"	2 <sup>h</sup> 32'	1°42'	4°13'	24°13'	23°54'	4° 5'	3°21'	17°17'	5°35'	22°D57'	21°56'	24°21'	23° 3'
W20	11 49 51	29°18'04"	15°34'	2°58'	5°25'	24°58'	24° 8'	4° 7'	3°19'	17°19'	5°37'	22°57'	21°53'	24°28'	22°59'
T 21	11 53 47	0 <sup>h</sup> 17'44"	28°27'	4°15'	6°36'	25°43'	24°22'	4°10'	3°16'	17°20'	5°38'	22°R57'	21°50'	24°35'	22°55'
F 22	11 57 44	1°17'21"	11 <sup>h</sup> 48'	5°35'	7°48'	26°27'	24°35'	4°12'	3°14'	17°22'	5°40'	22°56'	21°47'	24°41'	22°51'
S 23	12 1 40	2°16'57"	23°29'	6°56'	8°59'	27°12'	24°49'	4°14'	3°12'	17°24'	5°41'	22°52'	21°44'	24°48'	22°47'
S 24	12 5 37	3°16'30"	5 <sup>h</sup> 44'	8°18'	10°11'	27°56'	25° 3'	4°16'	3°10'	17°26'	5°43'	22°45'	21°41'	24°55'	22°43'
M25	12 9 33	4°16'02"	17°52'	9°42'	11°22'	28°41'	25°17'	4°18'	3° 8'	17°27'	5°44'	22°35'	21°37'	25° 1'	22°38'
T 26	12 13 30	5°15'32"	29°54'	11° 8'	12°33'	29°25'	25°31'	4°20'	3° 5'	17°29'	5°46'	22°23'	21°34'	25° 8'	22°34'
W27	12 17 26	6°14'59"	11 <sup>h</sup> 51'	12°35'	13°44'	0 <sup>h</sup> 10'	25°45'	4°22'	3° 3'	17°31'	5°47'	22° 9'	21°31'	25°15'	22°30'
T 28	12 21 23	7°14'25"	23°45'	14° 4'	14°55'	0°54'	25°59'	4°23'	3° 1'	17°33'	5°49'	21°55'	21°28'	25°22'	22°25'
F 29	12 25 20	8°13'49"	5 <sup>h</sup> 36'	15°34'	16° 6'	1°38'	26°13'	4°25'	2°59'	17°34'	5°50'	21°42'	21°25'	25°28'	22°21'
S 30	12 29 16	9°13'10"	17°27'	17° 5'	17°17'	2°22'	26°27'	4°27'	2°57'	17°36'	5°52'	21°31'	21°22'	25°35'	22°16'
S 31	12 33 13	10 <sup>h</sup> 12'29"	29 <sup>h</sup> 21'	18 <sup>h</sup> 38'	18 <sup>h</sup> 28'	3 <sup>h</sup> 7'	26 <sup>h</sup> 42'	4 <sup>h</sup> 28'	2 <sup>h</sup> 55'	17 <sup>h</sup> 38'	5 <sup>h</sup> 53'	21 <sup>h</sup> 22'	21 <sup>h</sup> 18'	25 <sup>h</sup> 42'	22 <sup>h</sup> 12'

Delta T = 116.43 sec.

APRIL 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	12 37 9	11 <sup>h</sup> 11'47"	11 <sup>h</sup> 20'	20 <sup>h</sup> 13'	19 <sup>h</sup> 38'	3 <sup>h</sup> 51'	26 <sup>h</sup> 56'	4 <sup>h</sup> 29'	2°R54'	17 <sup>h</sup> 40'	5 <sup>h</sup> 54'	21°R16'	21 <sup>h</sup> 15'	25 <sup>h</sup> 49'	22°R 7'
T 2	12 41 6	12°11'01"	23°28'	21°49'	20°49'	4°35'	27°10'	4°30'	2 <sup>h</sup> 52'	17°42'	5°56'	21 <sup>h</sup> 13'	21°12'	25°55'	22 <sup>h</sup> 3'
W 3	12 45 2	13°10'14"	5 <sup>h</sup> 50'	23°26'	21°59'	5°19'	27°24'	4°31'	2°50'	17°44'	5°57'	21°11'	21° 9'	26° 2'	21°58'
T 4	12 48 59	14° 9'24"	18°30'	25° 5'	23° 9'	6° 3'	27°38'	4°32'	2°48'	17°46'	5°59'	21°11'	21° 6'	26° 9'	21°54'
F 5	12 52 55	15° 8'32"	1 <sup>h</sup> 53'	26°45'	24°20'	6°47'	27°53'	4°33'	2°46'	17°48'	6° 0'	21°11'	21° 2'	26°15'	21°49'
S 6	12 56 52	16° 7'38"	15° 4'	28°27'	25°30'	7°31'	28° 7'	4°34'	2°45'	17°50'	6° 1'	21°10'	20°59'	26°22'	21°44'
S 7	13 0 49	17° 6'41"	29° 5'	0 <sup>h</sup> 10'	26°39'	8°14'	28°21'	4°35'	2°43'	17°52'	6° 3'	21° 6'	20°56'	26°29'	21°39'
M 8	13 4 45	18° 5'42"	13 <sup>h</sup> 35'	1°54'	27°49'	8°58'	28°36'	4°35'	2°41'	17°54'	6° 4'	20°59'	20°53'	26°36'	21°35'
T 9	13 8 42	19° 4'41"	28°30'	3°40'	28°59'	9°42'	28°50'	4°36'	2°40'	17°56'	6° 5'	20°51'	20°50'	26°42'	21°30'
W10	13 12 38	20° 3'37"	13 <sup>h</sup> 44'	5°28'	0 <sup>h</sup> 11'	10°25'	29° 4'	4°36'	2°38'	17°58'	6° 7'	20°40'	20°47'	26°49'	21°25'
T 11	13 16 35	21° 2'32"	29° 5'	7°17'	1°18'	11° 9'	29°19'	4°37'	2°37'	18° 0'	6° 8'	20°29'	20°43'	26°56'	21°21'
F 12	13 20 31	22° 1'24"	14 <sup>h</sup> 22'	9° 7'	2°27'	11°53'	29°33'	4°37'	2°35'	18° 2'	6° 9'	20°18'	20°40'	27° 2'	21°16'
S 13	13 24 28	23° 0'15"	29°24'	10°59'	3°36'	12°36'	29°47'	4°R37'	2°34'	18° 4'	6°10'	20°10'	20°37'	27° 9'	21°11'
S 14	13 28 24	23°59'04"	14 <sup>h</sup> 2'	12°52'	4°45'	13°20'	0 <sup>h</sup> 2'	4°37'	2°33'	18° 6'	6°12'	20° 4'	20°34'	27°16'	21° 7'
M15	13 32 21	24°57'51"	28°13'	14°47'	5°54'	14° 3'	0°16'	4°37'	2°31'	18° 8'	6°13'	20° 1'	20°31'	27°23'	21° 2'
T 16	13 36 18	25°56'37"	11 <sup>h</sup> 55'	16°44'	7° 2'	14°46'	0°31'	4°37'	2°30'	18°10'	6°14'	19°59'	20°27'	27°29'	20°57'
W17	13 40 14	26°55'21"	25°10'	18°42'	8°11'	15°30'	0°45'	4°36'	2°29'	18°12'	6°15'	19°59'	20°24'	27°36'	20°52'
T 18	13 44 11	27°54'03"	8 <sup>h</sup> 22'	20°41'	9°19'	16°13'	0°59'	4°36'	2°28'	18°14'	6°16'	19°59'	20°21'	27°43'	20°48'
F 19	13 48 7	28°52'44"	20°34'	22°42'	10°27'	16°56'	1°14'	4°35'	2°26'	18°17'	6°17'	19°58'	20°18'	27°50'	20°43'
S 20	13 52 4	29°51'22"	2 <sup>h</sup> 52'	24°44'	11°36'	17°40'	1°28'	4°35'	2°25'	18°19'	6°19'	19°54'	20°15'	27°56'	20°39'
S 21	13 56 0	0 <sup>h</sup> 49'59"	14°59'	26°47'	12°43'	18°23'	1°43'	4°34'	2°24'	18°21'	6°20'	19°47'	20°12'	28° 3'	20°34'
M22	13 59 57	1°48'35"	26°58'	28°52'	13°51'	19° 6'	1°57'	4°33'	2°23'	18°23'	6°21'	19°38'	20° 8'	28°10'	20°29'
T 23	14 3 53	2°47'08"	8 <sup>h</sup> 53'	0 <sup>h</sup> 58'	14°59'	19°49'	2°11'	4°32'	2°23'	18°25'	6°22'	19°26'	20° 5'	28°16'	20°25'
W24	14 7 50	3°45'40"	20°46'	3° 5'	16° 6'	20°32'	2°26'	4°31'	2°22'	18°27'	6°23'	19°13'	20° 2'	28°23'	20°20'
T 25	14 11 46	4°44'10"	2 <sup>h</sup> 38'	5°12'	17°13'	21°15'	2°40'	4°30'	2°21'	18°30'	6°24'	18°59'	19°59'	28°30'	20°16'
F 26	14 15 43	5°42'38"	14°30'	7°20'	18°21'	21°58'	2°55'	4°29'	2°20'	18°32'	6°25'	18°46'	19°56'	28°37'	20°11'
S 27	14 19 40	6°41'04"	26°24'	9°29'	19°27'	22°41'	3° 9'	4°28'	2°19'	18°34'	6°26'	18°34'	19°53'	28°43'	20° 7'
S 28	14 23 36	7°39'29"	8 <sup>h</sup> 23'	11°38'	20°34'	23°23'	3°24'	4°27'	2°19'	18°36'	6°27'	18°25'	19°49'	28°50'	20° 3'
M29	14 27 33	8°37'51"	20°27'	13°46'	21°41'	24° 6'	3°38'	4°25'	2°18'	18°39'	6°28'	18°19'	19°46'	28°57'	19°58'
T 30	14 31 29	9 <sup>h</sup> 36'11"	2 <sup>h</sup> 40'	15 <sup>h</sup> 55'	22 <sup>h</sup> 47'	24 <sup>h</sup> 49'	3 <sup>h</sup> 52'	4 <sup>h</sup> 24'	2 <sup>h</sup> 18'	18 <sup>h</sup> 41'	6 <sup>h</sup> 29'	18 <sup>h</sup> 16'	19 <sup>h</sup> 43'	29 <sup>h</sup> 3'	19 <sup>h</sup> 54'

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# SWISS EPHEMERIS for the year 2047

MAY 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	14 35 26	10♈34'30	15♉4	18♊2	23♋53	25♌31	4♍7	4♎22	2♏17	18♐43	6♑29	18♒15	19♓40	29♈10	19♉50
T 2	14 39 22	11°32'46	27°45	20°9	24°59	26°14	4°21	4♎20	2♏17	18°45	6°30	18♒15	19°37	29°17	19♉46
F 3	14 43 19	12°31'01	10♈46	22°14	26°5	26°57	4°35	4°18	2°16	18°48	6°31	18♒16	19°33	29°24	19°42
S 4	14 47 16	13°29'13	24°11	24°18	27°10	27°39	4°50	4°16	2°16	18°50	6°32	18°15	19°30	29°30	19°38
S 5	14 51 12	14°27'23	8♏2	26°20	28°16	28°22	5°4	4°14	2°16	18°52	6°33	18°13	19°27	29°37	19°34
M 6	14 55 9	15°25'31	22°20	28°20	29°21	29°4	5°18	4°12	2°15	18°54	6°34	18°8	19°24	29°44	19°30
T 7	14 59 5	16°23'37	7♎4	0♏17	0♏25	29°46	5°33	4°10	2°15	18°57	6°34	18°2	19°21	29°51	19°26
W 8	15 3 2	17°21'41	22°7	2°12	1°30	0♏29	5°47	4°8	2°15	18°59	6°35	17°53	19°18	29°57	19°22
T 9	15 6 58	18°19'44	7♏22	4°4	2°34	1°11	6°1	4°6	2°15	19°1	6°36	17°45	19°14	0♏4	19°18
F 10	15 10 55	19°17'45	22°37	5°53	3°38	1°53	6°15	4°3	2°D15	19°3	6°36	17°36	19°11	0°11	19°15
S 11	15 14 51	20°15'44	7♎42	7°38	4°42	2°35	6°29	4°1	2°15	19°6	6°37	17°29	19°8	0°17	19°11
S 12	15 18 48	21°13'42	22°27	9°21	5°46	3°17	6°44	3°58	2°15	19°8	6°38	17°25	19°5	0°24	19°8
M13	15 22 45	22°11'39	6♎46	11°0	6°49	3°59	6°58	3°55	2°15	19°10	6°38	17°22	19°2	0°31	19°4
T 14	15 26 41	23°9'34	20°37	12°36	7°52	4°42	7°12	3°53	2°15	19°12	6°39	17°D22	18°59	0°38	19°1
W15	15 30 38	24°7'28	4♎0	14°8	8°55	5°24	7°26	3°50	2°16	19°15	6°40	17°23	18°55	0°44	18°58
T 16	15 34 34	25°5'20	16°57	15°37	9°57	6°5	7°40	3°47	2°16	19°17	6°40	17°24	18°52	0°51	18°54
F 17	15 38 31	26°3'12	29°32	17°2	10°59	6°47	7°54	3°44	2°16	19°19	6°41	17°R24	18°49	0°58	18°51
S 18	15 42 27	27°1'02	11♎50	18°23	12°1	7°29	8°8	3°41	2°17	19°21	6°41	17°23	18°46	1°4	18°48
S 19	15 46 24	27°58'51	23°55	19°41	13°2	8°11	8°22	3°38	2°17	19°24	6°42	17°19	18°43	1°11	18°45
M20	15 50 20	28°56'38	5♏52	20°54	14°3	8°53	8°36	3°35	2°18	19°26	6°42	17°14	18°39	1°18	18°43
T 21	15 54 17	29°54'25	17°44	22°4	15°4	9°34	8°50	3°31	2°18	19°28	6°42	17°7	18°36	1°25	18°40
W22	15 58 14	0♏52'10	29°35	23°10	16°5	10°16	9°4	3°28	2°19	19°30	6°43	16°59	18°33	1°31	18°37
T 23	16 2 10	1°49'54	11♎28	24°12	17°5	10°58	9°18	3°25	2°20	19°32	6°43	16°50	18°30	1°38	18°35
F 24	16 6 7	2°47'37	23°23	25°10	18°4	11°39	9°31	3°21	2°20	19°35	6°44	16°42	18°27	1°45	18°32
S 25	16 10 3	3°45'19	5♏24	26°4	19°4	12°21	9°45	3°18	2°21	19°37	6°44	16°35	18°24	1°51	18°30
S 26	16 14 0	4°43'00	17°31	26°54	20°3	13°2	9°59	3°14	2°22	19°39	6°44	16°29	18°20	1°58	18°28
M27	16 17 56	5°40'39	29°46	27°39	21°1	13°44	10°12	3°11	2°23	19°41	6°44	16°26	18°17	2°5	18°25
T 28	16 21 53	6°38'17	12♎11	28°21	21°59	14°25	10°26	3°7	2°24	19°43	6°45	16°D25	18°14	2°12	18°23
W29	16 25 49	7°35'54	24°47	28°57	22°57	15°7	10°40	3°3	2°25	19°46	6°45	16°25	18°11	2°18	18°21
T 30	16 29 46	8°33'29	7♏38	29°30	23°54	15°48	10°53	2°59	2°26	19°48	6°45	16°26	18°8	2°25	18°19
F 31	16 33 43	9♏31'03	20♏44	29♏57	24♏51	16♏29	11♎7	2♎56	2♏27	19♎50	6♏45	16♎28	18♎5	2♎32	18♎18

Delta T = 116.72 sec.

JUNE 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	16 37 39	10♏28'35	4♏10	0♏20	25♏47	17♏10	11♎20	2°R52	2♏28	19♎52	6♏46	16°R29	18♎1	2♎39	18°R16
S 2	16 41 36	11°26'06	17°57	0°39	26°43	17°52	11°34	2♎48	2°29	19°54	6°46	16♎29	17°58	2°45	18♎15
M 3	16 45 32	12°23'35	2♎4	0°53	27°38	18°33	11°47	2°44	2°31	19°56	6°46	16°27	17°55	2°52	18°13
T 4	16 49 29	13°21'04	16°32	1°2	28°33	19°14	12°0	2°40	2°32	19°58	6°46	16°24	17°52	2°59	18°12
W 5	16 53 25	14°18'31	1♏16	1°7	29°27	19°55	12°13	2°36	2°33	20°1	6°46	16°21	17°49	3°5	18°11
T 6	16 57 22	15°15'57	16°11	1°R7	0♏20	20°36	12°27	2°32	2°35	20°3	6°46	16°16	17°45	3°12	18°9
F 7	17 1 18	16°13'22	1♎8	1°2	1°13	21°17	12°40	2°27	2°36	20°5	6°R46	16°12	17°42	3°19	18°8
S 8	17 5 15	17°10'45	15°59	0°53	2°5	21°58	12°53	2°23	2°38	20°7	6°46	16°9	17°39	3°26	18°7
S 9	17 9 12	18°8'09	0♎36	0°40	2°57	22°39	13°6	2°19	2°39	20°9	6°46	16°7	17°36	3°32	18°7
M10	17 13 8	19°5'31	14°53	0°23	3°48	23°19	13°19	2°15	2°41	20°11	6°46	16°D6	17°33	3°39	18°6
T 11	17 17 5	20°2'52	28°45	0°3	4°38	24°0	13°32	2°11	2°42	20°13	6°46	16°6	17°30	3°46	18°5
W12	17 21 1	21°0'13	12♎12	29♏39	5°28	24°41	13°45	2°6	2°44	20°15	6°46	16°8	17°26	3°52	18°5
T 13	17 24 58	21°57'34	25°14	29°12	6°17	25°22	13°57	2°2	2°46	20°17	6°45	16°9	17°23	3°59	18°5
F 14	17 28 54	22°54'53	7♎53	28°43	7°5	26°2	14°10	1°58	2°48	20°19	6°45	16°10	17°20	4°6	18°4
S 15	17 32 51	23°52'13	20°15	28°12	7°52	26°43	14°23	1°53	2°49	20°21	6°45	16°R11	17°17	4°13	18°4
S 16	17 36 47	24°49'32	2♏22	27°39	8°39	27°24	14°35	1°49	2°51	20°23	6°45	16°11	17°14	4°19	18°D4
M17	17 40 44	25°46'50	14°20	27°5	9°24	28°4	14°48	1°45	2°53	20°25	6°45	16°10	17°11	4°26	18°4
T 18	17 44 41	26°44'08	26°13	26°31	10°9	28°45	15°0	1°40	2°55	20°27	6°44	16°8	17°7	4°33	18°4
W19	17 48 37	27°41'26	8♎5	25°57	10°53	29°25	15°13	1°36	2°57	20°29	6°44	16°6	17°4	4°39	18°5
T 20	17 52 34	28°38'44	19°59	25°24	11°36	0♏6	15°25	1°31	2°59	20°30	6°44	16°3	17°1	4°46	18°5
F 21	17 56 30	29°36'01	1♏59	24°53	12°18	0°46	15°37	1°27	3°1	20°32	6°43	16°0	16°58	4°53	18°6
S 22	18 0 27	0♏33'18	14°8	24°23	12°59	1°26	15°49	1°23	3°3	20°34	6°43	15°58	16°55	5°0	18°6
S 23	18 4 23	1°30'35	26°27	23°56	13°38	2°7	16°1	1°18	3°6	20°36	6°43	15°57	16°51	5°6	18°7
M24	18 8 20	2°27'51	8♏57	23°31	14°17	2°47	16°13	1°14	3°8	20°38	6°42	15°56	16°48	5°13	18°8
T 25	18 12 16	3°25'07	21°39	23°10	14°55	3°27	16°25	1°9	3°10	20°39	6°42	15°D56	16°45	5°20	18°9
W26	18 16 13	4°22'22	4♏34	22°53	15°31	4°7	16°37	1°5	3°13	20°41	6°41	15°56	16°42	5°26	18°10
T 27	18 20 10	5°19'37	17°44	22°39	16°6	4°48	16°49	1°0	3°15	20°43	6°41	15°57	16°39	5°33	18°11
F 28	18 24 6	6°16'51	1♏7	22°30	16°40	5°28	17°1	0°56	3°17	20°45	6°41	15°58	16°36	5°40	18°13
S 29	18 28 3	7°14'05	14°44	22°25	17°13	6°8	17°12	0°52	3°20	20°46	6°40	15°59	16°32	5°47	18°14
S 30	18 31 59	8♏11'18	28♏35	22°D25	17♏44	6♏48	17♎24	0♎47	3♏22	20♎48	6♏39	15♎59	16♎29	5♎53	18♎16

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# SWISS EPHEMERIS for the year 2047

JULY 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	18 35 56	9°58'31"	12°53'39"	22°11'30"	18°18'14"	7°58'28"	17°18'35"	0°R43	3°17'25"	20°58'50"	6°R39	15°R59	16°58'26"	6°58'00"	18°18'17"
T 2	18 39 52	10° 5'43"	26°56'56"	22°39'39"	18°42' 8"	8° 8' 8"	17°46' 0"	0°38'38"	3°27' 3"	20°51' 6"	6°38'38"	15°59'39"	16°23' 6"	6° 7' 7"	18°19' 7"
W 3	18 43 49	11° 2'55"	11°11'21"	22°54'19"	19° 8' 8"	8°48' 8"	17°58' 0"	0°34'30"	3°30'30"	20°53'30"	6°38'30"	15°59'30"	16°20'30"	6°13'30"	18°21'30"
T 4	18 47 45	12° 0'07"	25°51'23"	23°13'19"	19°33' 9"	9°28' 9"	18° 9' 9"	0°30'30"	3°33'30"	20°54'30"	6°37'30"	15°58'30"	16°17'30"	6°20'30"	18°23'30"
F 5	18 51 42	12°57'18"	10°57'22"	23°37'19"	19°57'10"	10° 8' 8"	18°20' 0"	0°26'30"	3°35'30"	20°56'30"	6°36'30"	15°58'30"	16°13'30"	6°27'30"	18°25'30"
S 6	18 55 39	13°54'29"	24°49'24"	24° 7' 7"	20°18'10"	10°47'18"	18°31' 0"	0°21'30"	3°38'30"	20°58'30"	6°36'30"	15°58'30"	16°10'30"	6°34'30"	18°27'30"
S 7	18 59 35	14°51'40"	9°58' 5"	24°41'20"	20°38'11"	11°27'18"	18°42' 0"	0°17'30"	3°41'30"	20°59'30"	6°35'30"	15°D58'	16° 7' 7"	6°40'30"	18°29'30"
M 8	19 3 32	15°48'51"	23° 6' 6"	25°20'20"	20°56'12"	12° 7' 7"	18°52' 0"	0°13'30"	3°43'30"	21° 1' 1"	6°34'30"	15°R58'	16° 4' 4"	6°47'30"	18°32'30"
T 9	19 7 28	16°46'02"	6°58'49"	26° 4' 4"	21°12'12"	12°47'19"	19° 3' 3"	0° 9' 9"	3°46'30"	21° 2' 2"	6°34'30"	15°58'30"	16° 1' 1"	6°54'30"	18°34'30"
W10	19 11 25	17°43'13"	20°11'20"	26°52'21"	21°26'13"	13°26'19"	19°14' 0"	0° 5' 5"	3°49'30"	21° 3' 3"	6°33'30"	15°57'30"	15°57'30"	7° 1' 1"	18°37'30"
T 11	19 15 21	18°40'25"	3°11'12"	27°46'21"	21°38'14"	14° 6' 6"	19°24' 0"	0° 1' 1"	3°52'30"	21° 5' 5"	6°32'30"	15°57'30"	15°54'30"	7° 7' 7"	18°40'30"
F 12	19 19 18	19°37'37"	15°53'28"	28°44'21"	21°48'14"	14°46'19"	19°34'29"	0°56'56"	3°55'30"	21° 6' 6"	6°31'30"	15°57'30"	15°51'30"	7°14'30"	18°42'30"
S 13	19 23 15	20°34'49"	28°17'29"	29°47'21"	21°56'15"	15°25'19"	19°45'29"	0°52'58"	3°58'30"	21° 8' 8"	6°31'30"	15°56'30"	15°48'30"	7°21'30"	18°45'30"
S 14	19 27 11	21°32'01"	10°17'26"	0°58'54"	22° 1' 1"	16° 5' 5"	19°55'29"	0°48'40"	4° 1' 1"	21° 9' 9"	6°30'30"	15°56'30"	15°45'30"	7°27'30"	18°48'30"
M15	19 31 8	22°29'15"	22°25'22"	2° 6' 6"	22° 5' 5"	16°44'20"	20° 5' 5"	29°45'40"	4° 4' 4"	21°10'10"	6°29'30"	15°D56'	15°42'30"	7°34'30"	18°52'30"
T 16	19 35 4	23°26'28"	4°18'19"	3°22'22"	22°R 6'	17°24'20"	20°15'29"	29°41'40"	4° 7' 7"	21°11'11"	6°28'30"	15°56'30"	15°38'30"	7°41'30"	18°55'30"
W17	19 39 1	24°23'43"	16°12'44"	4°42'22"	22° 5' 5"	18° 3' 3"	20°25'29"	29°37'40"	4°10'10"	21°13'13"	6°27'30"	15°57'30"	15°35'30"	7°48'30"	18°58'30"
T 18	19 42 57	25°20'58"	28° 8' 8"	6° 7' 7"	22° 1' 1"	18°43'20"	20°34'29"	29°33'40"	4°13'13"	21°14'14"	6°26'30"	15°57'30"	15°32'30"	7°54'30"	19° 2' 2"
F 19	19 46 54	26°18'13"	10°11'12"	7°36'21"	21°55'19"	19°22'20"	20°44'29"	29°29'40"	4°16'16"	21°15'15"	6°25'30"	15°58'30"	15°29'30"	8° 1' 1"	19° 5' 5"
S 20	19 50 50	27°15'30"	22°27'22"	9° 9' 9"	21°47'20"	20° 2' 2"	20°53'29"	29°26'40"	4°19'19"	21°16'16"	6°25'30"	15°59'30"	15°26'30"	8° 8' 8"	19° 9' 9"
S 21	19 54 47	28°12'47"	4°58'56"	10°46'21"	21°36'20"	20°41'21"	21° 3' 3"	29°22'40"	4°23'23"	21°17'17"	6°24'30"	16° 0' 0"	15°23'30"	8°14'30"	19°12'30"
M22	19 58 44	29°10'04"	17°42'27"	12°27'21"	21°23'21"	21°20'21"	21°12'29"	29°19'40"	4°26'26"	21°19'19"	6°23'30"	16°R 0'	15°19'30"	8°21'30"	19°16'30"
T 23	20 2 40	0°17'22"	0°14'44"	14°11'21"	21° 8' 8"	22° 0' 0"	21°21'29"	29°15'40"	4°29'29"	21°20'20"	6°22'30"	16° 0' 0"	15°16'30"	8°28'30"	19°20'30"
W24	20 6 37	1° 4'41"	14° 2' 2"	15°59'20"	20°50'22"	22°39'21"	21°30'29"	29°12'40"	4°32'32"	21°21'21"	6°21'30"	15°59'30"	15°13'30"	8°34'30"	19°24'30"
T 25	20 10 33	2° 2'00"	27°37'17"	17°50'20"	20°31'23"	23°18'21"	21°39'29"	29° 8' 8"	4°36'36"	21°22'22"	6°20'30"	15°57'30"	15°10'30"	8°41'30"	19°28'30"
F 26	20 14 30	2°59'19"	11°17'24"	19°43'20"	20° 8' 8"	23°57'21"	21°47'29"	29° 5' 5"	4°39'39"	21°23'23"	6°19'30"	15°55'30"	15° 7' 7"	8°48'30"	19°33'30"
S 27	20 18 26	3°56'39"	25°23'21"	21°40'19"	19°44'24"	24°36'21"	21°56'29"	29° 2' 2"	4°42'42"	21°24'24"	6°18'30"	15°52'30"	15° 3' 3"	8°55'30"	19°37'30"
S 28	20 22 23	4°53'59"	9°58'29"	23°38'19"	19°18'25"	25°16'22"	22° 4' 4"	28°59'44"	4°46'46"	21°25'25"	6°17'30"	15°51'30"	15° 0' 0"	9° 1' 1"	19°41'30"
M29	20 26 19	5°51'20"	23°40'25"	25°39'18"	18°50'25"	25°55'22"	22°13'28"	28°55'44"	4°49'49"	21°25'25"	6°16'30"	15°49'30"	14°57'30"	9° 8' 8"	19°46'30"
T 30	20 30 16	6°48'41"	7°11'54"	27°41'18"	18°20'26"	26°34'22"	22°21'28"	28°52'45"	4°52'52"	21°26'26"	6°14'30"	15°D49'	14°54'30"	9°15'30"	19°50'30"
W31	20 34 13	7°14'03"	22°11' 7"	29°58'45"	17°18'48"	27°58'13"	22°28'29"	28°57'49"	4°56'56"	21°28'28"	6°13'30"	15°58'30"	14°58'30"	9°21'30"	19°55'30"

Delta T = 117.01 sec.

AUGUST 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	20 38 9	8♠43'25	6♠18	1♠49	17°R15	27♠52	22♠37	28°R47	4♠59	21♠28	6°R12	15♠51	14♠48	9♠28	20♠0
F 2	20 42 6	9°40'48	20°24	3°55	16♠40	28°31	22°45	28♠44	5° 3	21°29	6♠11	15°52	14°44	9°35	20° 5
S 3	20 46 2	10°38'11	4♠23	6° 0	16° 5	29°10	22°52	28°41	5° 6	21°29	6°10	15°53	14°41	9°42	20°10
S 4	20 49 59	11°35'35	18°12	8° 6	15°28	29°49	23° 0	28°38	5°10	21°30	6° 9	15°R53	14°38	9°48	20°15
M 5	20 53 55	12°33'00	1♠50	10°11	14°52	0♠28	23° 7	28°36	5°13	21°31	6° 8	15°53	14°35	9°55	20°20
T 6	20 57 52	13°30'26	15°14	12°16	14°14	1° 6	23°14	28°33	5°17	21°31	6° 7	15°50	14°32	10° 2	20°25
W 7	21 1 48	14°27'52	28°23	14°20	13°37	1°45	23°21	28°31	5°20	21°32	6° 5	15°47	14°29	10° 8	20°30
T 8	21 5 45	15°25'20	11♠16	16°24	12°59	2°24	23°28	28°29	5°24	21°33	6° 4	15°42	14°25	10°15	20°36
F 9	21 9 42	16°22'49	23°52	18°26	12°22	3° 3	23°35	28°26	5°28	21°33	6° 3	15°37	14°22	10°22	20°41
S 10	21 13 38	17°20'19	6♠17	20°27	11°46	3°42	23°41	28°24	5°31	21°34	6° 2	15°33	14°19	10°29	20°47
S 11	21 17 35	18°17'50	18°22	22°28	11°10	4°20	23°48	28°22	5°35	21°34	6° 1	15°28	14°16	10°35	20°52
M12	21 21 31	19°15'22	0♠21	24°27	10°36	4°59	23°54	28°20	5°38	21°35	6° 0	15°25	14°13	10°42	20°58
T 13	21 25 28	20°12'56	12°14	26°24	10° 2	5°38	24° 0	28°18	5°42	21°35	5°58	15°23	14° 9	10°49	21° 4
W14	21 29 24	21°10'32	24° 6	28°20	9°30	6°16	24° 6	28°16	5°46	21°35	5°57	15°D23	14° 6	10°55	21°10
T 15	21 33 21	22° 8'09	6♠12	0♠15	9° 0	6°55	24°12	28°15	5°49	21°36	5°56	15°24	14° 3	11° 2	21°16
F 16	21 37 17	23° 5'47	18° 7	2° 8	8°32	7°34	24°17	28°13	5°53	21°36	5°55	15°25	14° 0	11° 9	21°22
S 17	21 41 14	24° 3'27	0♠25	4° 0	8° 5	8°12	24°23	28°11	5°57	21°36	5°53	15°27	13°57	11°16	21°28
S 18	21 45 11	25° 1'09	13° 1	5°51	7°41	8°51	24°28	28°10	6° 1	21°37	5°52	15°R28	13°54	11°22	21°34
M19	21 49 7	25°58'52	25°56	7°40	7°18	9°29	24°33	28° 9	6° 4	21°37	5°51	15°27	13°50	11°29	21°40
T 20	21 53 4	26°56'36	9♠15	9°27	6°58	10° 8	24°38	28° 7	6° 8	21°37	5°50	15°25	13°47	11°36	21°46
W21	21 57 0	27°54'22	22°55	11°14	6°40	10°46	24°43	28° 6	6°12	21°37	5°48	15°21	13°44	11°42	21°53
T 22	22 0 57	28°52'09	6♠55	12°58	6°24	11°25	24°48	28° 5	6°15	21°37	5°47	15°15	13°41	11°49	21°59
F 23	22 4 53	29°49'57	21°10	14°42	6°11	12° 3	24°52	28° 4	6°19	21°37	5°46	15° 8	13°38	11°56	22° 6
S 24	22 8 50	0♠47'47	5♠36	16°24	6° 0	12°42	24°56	28° 3	6°23	21°37	5°45	15° 1	13°34	12° 2	22°12
S 25	22 12 46	1°45'38	20° 6	18° 4	5°52	13°20	25° 0	28° 2	6°27	21°R37	5°43	14°55	13°31	12° 9	22°19
M26	22 16 43	2°43'30	4♠34	19°44	5°46	13°58	25° 4	28° 2	6°30	21°37	5°42	14°50	13°28	12°16	22°25
T 27	22 20 40	3°41'24	18°55	21°21	5°42	14°37	25° 8	28° 1	6°34	21°37	5°41	14°47	13°25	12°23	22°32
W28	22 24 36	4°39'18	3♠ 7	22°58	5°D41	15°15	25°11	28° 1	6°38	21°37	5°39	14°D46	13°22	12°29	22°39
T 29	22 28 33	5°37'15	17° 7	24°33	5°42	15°53	25°15	28° 0	6°42	21°37	5°38	14°47	13°19	12°36	22°46
F 30	22 32 29	6°35'12	0♠56	26° 7	5°45	16°32	25°18	28° 0	6°46	21°37	5°37	14°48	13°15	12°43	22°53
S 31	22 36 26	7♠33'10	14♠33	27♠40	5♠50	17♠10	25♠21	28♠ 0	6♠49	21♠37	5♠36	14°R48	13♠12	12♠49	23♠0

# SWISS EPHEMERIS for the year 2047

## SEPTEMBER 2047

00:00 UT

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

Delta T = 117.31 sec.

## OCTOBER 2047

00:00 UT

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

# SWISS EPHEMERIS for the year 2047

NOVEMBER 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	2 40 52	8♉29°14	19♊°50	20♈5	22♉50	25♊57	22♈14	0♉47	10♊14	20♈32	4♉35	8♈43	9♉55	19♈45	1♉25
S 2	2 44 49	9°29'13	1♉47	21°15	23°55	26°34	22♉6	0°52	10°16	20♈30	4♉35	8♉31	9°52	19°51	1°34
S 3	2 48 45	10°29'14	13°41	22°29	25° 0	27°11	21°58	0°57	10°18	20°29	4°34	8°20	9°49	19°58	1°42
M 4	2 52 42	11°29'17	25°31	23°47	26° 6	27°48	21°50	1° 2	10°21	20°27	4°34	8°10	9°46	20° 5	1°51
T 5	2 56 38	12°29'22	7♉21	25° 9	27°12	28°25	21°42	1° 8	10°23	20°25	4°34	8° 3	9°43	20°11	1°59
W 6	3 0 35	13°29'29	19°11	26°33	28°18	29° 1	21°34	1°13	10°25	20°24	4°33	7°59	9°39	20°18	2° 8
T 7	3 4 31	14°29'38	1♉6	28° 0	29°24	29°38	21°26	1°19	10°27	20°22	4°33	7°57	9°36	20°25	2°16
F 8	3 8 28	15°29'49	13° 8	29°29	0♉31	0♉15	21°18	1°24	10°29	20°20	4°33	7°D57	9°33	20°31	2°25
S 9	3 12 25	16°30'02	25°21	0♉59	1°38	0°51	21°10	1°30	10°31	20°18	4°33	7°58	9°30	20°38	2°33
S 10	3 16 21	17°30'17	7♉51	2°31	2°45	1°28	21° 2	1°36	10°33	20°17	4°32	7°59	9°27	20°45	2°42
M11	3 20 18	18°30'34	20°41	4° 4	3°52	2° 4	20°54	1°41	10°35	20°15	4°32	7°R59	9°23	20°52	2°50
T 12	3 24 14	19°30'53	3♉57	5°38	5° 0	2°41	20°46	1°47	10°37	20°13	4°32	7°58	9°20	20°58	2°58
W13	3 28 11	20°31'14	17°40	7°12	6° 8	3°18	20°37	1°53	10°39	20°12	4°32	7°55	9°17	21° 5	3° 7
T 14	3 32 7	21°31'36	1♉53	8°47	7°16	3°54	20°29	1°59	10°41	20°10	4°32	7°50	9°14	21°12	3°15
F 15	3 36 4	22°32'01	16°33	10°22	8°24	4°31	20°21	2° 5	10°43	20° 8	4°32	7°44	9°11	21°18	3°23
S 16	3 40 0	23°32'28	1♉34	11°58	9°33	5° 7	20°13	2°11	10°44	20° 7	4°32	7°37	9° 8	21°25	3°32
S 17	3 43 57	24°32'56	16°49	13°33	10°41	5°43	20° 5	2°17	10°46	20° 5	4°32	7°30	9° 4	21°32	3°40
M18	3 47 54	25°33'26	2♉7	15° 9	11°50	6°20	19°57	2°23	10°48	20° 3	4°D32	7°25	9° 1	21°38	3°48
T 19	3 51 50	26°33'58	17°17	16°45	12°59	6°56	19°49	2°29	10°49	20° 2	4°32	7°21	8°58	21°45	3°56
W20	3 55 47	27°34'31	2♉9	18°21	14° 8	7°33	19°41	2°36	10°51	20° 0	4°32	7°D19	8°55	21°52	4° 5
T 21	3 59 43	28°35'06	16°37	19°57	15°17	8° 9	19°33	2°42	10°52	19°58	4°32	7°20	8°52	21°58	4°13
F 22	4 3 40	29°35'41	0♉38	21°32	16°27	8°45	19°25	2°48	10°53	19°57	4°32	7°21	8°49	22° 5	4°21
S 23	4 7 36	0♉36'18	14°12	23° 8	17°36	9°21	19°17	2°55	10°55	19°55	4°32	7°22	8°45	22°12	4°29
S 24	4 11 33	1°36'56	27°20	24°43	18°46	9°57	19° 9	3° 1	10°56	19°53	4°32	7°R23	8°42	22°19	4°37
M25	4 15 29	2°37'35	10♉6	26°18	19°56	10°34	19° 1	3° 7	10°57	19°52	4°32	7°23	8°39	22°25	4°45
T 26	4 19 26	3°38'15	22°34	27°54	21° 6	11°10	18°54	3°14	10°59	19°50	4°32	7°21	8°36	22°32	4°53
W27	4 23 23	4°38'57	4♉47	29°29	22°16	11°46	18°46	3°20	11° 0	19°48	4°33	7°18	8°33	22°39	5° 1
T 28	4 27 19	5°39'39	16°50	1♉3	23°27	12°22	18°38	3°27	11° 1	19°47	4°33	7°13	8°29	22°45	5° 9
F 29	4 31 16	6°40'22	28°46	2°38	24°37	12°58	18°31	3°33	11° 2	19°45	4°33	7° 8	8°26	22°52	5°16
S 30	4 35 12	7♉41'07	10♉38	4♉13	25♉48	13♉34	18♉24	3♉40	11♉3	19♉44	4♉33	7♉2	8♉23	22♉59	5♉24

Delta T = 117.60 sec.

DECEMBER 2047

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	4 39 9	8♉41'53	22♉29	5♉47	26♉59	14♉10	18♈17	3♉47	11♉4	19♈42	4♉34	6♈57	8♉20	23♉5	5♉32
M 2	4 43 5	9°42'40	4♉20	7°22	28° 9	14°46	18♈9	3°53	11° 4	19♈40	4°34	6♈53	8°17	23°12	5°40
T 3	4 47 2	10°43'28	16°12	8°56	29°20	15°21	18° 2	4° 0	11° 5	19°39	4°34	6°50	8°14	23°19	5°47
W 4	4 50 58	11°44'17	28° 9	10°31	0♉32	15°57	17°56	4° 7	11° 6	19°37	4°35	6°48	8°10	23°25	5°55
T 5	4 54 55	12°45'08	10♉12	12° 5	1°43	16°33	17°49	4°13	11° 7	19°36	4°35	6°D48	8° 7	23°32	6° 2
F 6	4 58 52	13°46'00	13°39	2°54	17° 9	17°42	17°42	4°20	11° 7	19°34	4°36	6°49	8° 4	23°39	6°10
S 7	5 2 48	14°46'53	4♉45	15°13	4° 6	17°45	17°36	4°27	11° 8	19°33	4°36	6°50	8° 1	23°45	6°17
S 8	5 6 45	15°47'47	17°21	16°48	5°17	18°20	17°30	4°34	11° 8	19°31	4°37	6°52	7°58	23°52	6°25
M 9	5 10 41	16°48'42	0♉14	18°22	6°29	18°56	17°23	4°41	11° 9	19°30	4°37	6°53	7°55	23°59	6°32
T 10	5 14 38	17°49'39	13°26	19°56	7°41	19°31	17°17	4°48	11° 9	19°28	4°38	6°R54	7°51	24° 5	6°39
W11	5 18 34	18°50'36	27° 1	21°30	8°52	20° 7	17°11	4°54	11°10	19°27	4°38	6°54	7°48	24°12	6°47
T 12	5 22 31	19°51'35	11♉0	23° 5	10° 4	20°42	17° 6	5° 1	11°10	19°25	4°39	6°53	7°45	24°19	6°54
F 13	5 26 27	20°52'36	25°22	24°39	11°17	21°18	17° 0	5° 8	11°10	19°24	4°40	6°51	7°42	24°26	7° 1
S 14	5 30 24	21°53'37	10♉4	26°13	12°29	21°53	16°55	5°15	11°10	19°23	4°40	6°49	7°39	24°32	7° 8
S 15	5 34 21	22°54'39	25° 2	27°48	13°41	22°29	16°49	5°22	11°10	19°21	4°41	6°47	7°35	24°39	7°15
M16	5 38 17	23°55'43	10♉7	29°23	14°53	23° 4	16°44	5°29	11°11	19°20	4°42	6°46	7°32	24°46	7°22
T 17	5 42 14	24°56'47	25°10	0♉58	16° 6	23°39	16°39	5°36	11°R11	19°19	4°42	6°45	7°29	24°52	7°29
W18	5 46 10	25°57'52	10♉2	2°32	17°18	24°15	16°35	5°43	11°11	19°17	4°43	6°D45	7°26	24°59	7°35
T 19	5 50 7	26°58'58	24°36	4° 8	18°31	24°50	16°30	5°50	11°10	19°16	4°44	6°45	7°23	25° 6	7°42
F 20	5 54 3	28° 0'03	8♉47	5°43	19°43	25°25	16°26	5°57	11°10	19°15	4°45	6°46	7°20	25°12	7°49
S 21	5 58 0	29° 1'10	22°31	7°18	20°56	26° 0	16°22	6° 4	11°10	19°14	4°45	6°47	7°16	25°19	7°55
S 22	6 1 56	0♉2'16	5♉48	8°53	22° 9	26°35	16°18	6°12	11°10	19°12	4°46	6°47	7°13	25°26	8° 2
M23	6 5 53	1° 3'23	18°41	10°29	23°22	27°10	16°14	6°19	11° 9	19°11	4°47	6°48	7°10	25°32	8° 8
T 24	6 9 50	2° 4'30	1♉12	12° 4	24°34	27°45	16°10	6°26	11° 9	19°10	4°48	6°R48	7° 7	25°39	8°15
W25	6 13 46	3° 5'36	13°27	13°40	25°47	28°20	16° 7	6°33	11° 9	19° 9	4°49	6°48	7° 4	25°46	8°21
T 26	6 17 43	4° 6'44	25°28	15°15	27° 0	28°54	16° 4	6°40	11° 8	19° 8	4°50	6°48	7° 1	25°52	8°27
F 27	6 21 39	5° 7'51	7♉22	16°51	28°13	29°29	16° 1	6°47	11° 8	19° 7	4°51	6°47	6°57	25°59	8°33
S 28	6 25 36	6° 8'58	19°12	18°26	29°27	0♉4	15°58	6°54	11° 7	19° 6	4°52	6°47	6°54	26° 6	8°39
S 29	6 29 32	7°10'06	1♉1	20° 1	0♉40	0°38	15°55	7° 1	11° 6	19° 5	4°53	6°D47	6°51	26°12	8°45
M30	6 33 29	8°11'13	12°54	21°36	1°53	1°13	15°53	7° 8	11° 6	19° 4	4°54	6°47	6°48	26°19	8°51
T 31	6 37 26	9♉12'21	24♉53	23♉11	3♉6	1♉47	15♉51	7♉15	11♉5	19♉3	4♉55	6♉48	6♉45	26♉26	8♉57

Delta T = 117.74 sec.

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