

# SWISS EPHEMERIS for the year 1964

JANUARY 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	6 38 45	9°35'30	0°23'1	17°R44	10°28'10	20°26	10°Y44	20°25	9°R57	17°M11	14°R10	11°21	11°21	28°M34	11°K 0
T 2	6 42 41	10°36'38	14°41	16°33'7	11°24	21°13	10°50	20°31	9°M56	17°13	14°M10	11°11	11°18	28°40	11° 2
F 3	6 46 38	11°37'47	28°26	15°22	12°38	22° 0	10°55	20°37	9°55	17°14	14° 9	11°R12	11°15	28°47	11° 4
S 4	6 50 34	12°38'55	11°M45	14° 3	13°52	22°46	11° 1	20°43	9°54	17°16	14° 9	11°11	11°12	28°54	11° 7
S 5	6 54 31	13°40'04	24°39	12°42	15° 6	23°33	11° 7	20°50	9°53	17°17	14° 8	11°11	11° 9	29° 0	11° 9
M 6	6 58 28	14°41'13	7°21	11°22	16°20	24°20	11°13	20°56	9°52	17°18	14° 7	11°11	11° 5	29° 7	11°12
T 7	7 2 24	15°42'22	19°26	10° 4	17°34	25° 6	11°19	21° 2	9°51	17°20	14° 7	11°D11	11° 2	29°14	11°14
W 8	7 6 21	16°43'31	1°M28	8°52	18°48	25°53	11°25	21° 9	9°50	17°21	14° 6	11°11	10°59	29°20	11°17
T 9	7 10 17	17°44'41	13°21	7°47	20° 2	26°40	11°32	21°15	9°49	17°23	14° 6	11°12	10°56	29°27	11°19
F 10	7 14 14	18°45'50	25°10	6°50	21°15	27°27	11°39	21°22	9°47	17°24	14° 5	11°12	10°53	29°34	11°22
S 11	7 18 10	19°47'00	6°M59	6° 3	22°29	28°14	11°46	21°28	9°46	17°25	14° 4	11°13	10°50	29°41	11°24
S 12	7 22 7	20°48'09	18°53	5°25	23°43	29° 1	11°53	21°35	9°45	17°26	14° 3	11°14	10°46	29°47	11°27
M13	7 26 3	21°49'19	0°354	4°58	24°57	29°48	12° 0	21°41	9°43	17°28	14° 2	11°15	10°43	29°54	11°30
T 14	7 30 0	22°50'28	13° 4	4°40	26°10	0°35	12° 7	21°48	9°42	17°29	14° 2	11°R15	10°40	0°M 1	11°32
W15	7 33 57	23°51'36	25°25	4°D31	27°24	1°22	12°15	21°54	9°40	17°30	14° 1	11°15	10°37	0° 7	11°35
T 16	7 37 53	24°52'45	7°M59	4°31	28°38	2° 9	12°23	22° 1	9°39	17°31	14° 0	11°14	10°34	0°14	11°38
F 17	7 41 50	25°53'52	20°46	4°39	29°51	2°56	12°31	22° 8	9°37	17°32	13°59	11°12	10°31	0°21	11°41
S 18	7 45 46	26°54'59	3°K47	4°55	1°K 5	3°43	12°39	22°15	9°35	17°33	13°58	11°10	10°27	0°27	11°44
S 19	7 49 43	27°56'06	17° 1	5°18	2°18	4°30	12°47	22°21	9°33	17°34	13°57	11° 7	10°24	0°34	11°47
M20	7 53 39	28°57'11	0°Y28	5°47	3°31	5°17	12°55	22°28	9°32	17°35	13°56	11° 5	10°21	0°41	11°50
T 21	7 57 36	29°58'16	14° 8	6°21	4°45	6° 4	13° 4	22°35	9°30	17°36	13°55	11° 3	10°18	0°47	11°53
W22	8 1 32	0°M59'19	28° 1	7° 1	5°58	6°52	13°12	22°42	9°28	17°37	13°54	11°D 3	10°15	0°54	11°56
T 23	8 5 29	2° 0'22	12°B 6	7°46	7°11	7°39	13°21	22°49	9°26	17°38	13°53	11° 3	10°11	1° 1	11°59
F 24	8 9 26	3° 1'24	26°22	8°35	8°24	8°26	13°30	22°56	9°24	17°39	13°52	11° 4	10° 8	1° 7	12° 2
S 25	8 13 22	4° 2'24	10°II46	9°27	9°37	9°13	13°39	23° 3	9°22	17°40	13°51	11° 5	10° 5	1°14	12° 5
S 26	8 17 19	5° 3'24	25°15	10°23	10°50	10° 1	13°48	23°10	9°20	17°41	13°50	11° 7	10° 2	1°21	12° 8
M27	8 21 15	6° 4'23	9°245	11°22	12° 3	10°48	13°57	23°17	9°18	17°41	13°48	11°R 7	9°59	1°27	12°11
T 28	8 25 12	7° 5'20	24°11	12°24	13°16	11°35	14° 7	23°24	9°16	17°42	13°47	11° 7	9°56	1°34	12°15
W29	8 29 8	8° 6'17	8°Q27	13°29	14°29	12°22	14°16	23°31	9°14	17°43	13°46	11° 5	9°52	1°41	12°18
T 30	8 33 5	9° 7'13	22°27	14°36	15°42	13°10	14°26	23°38	9°12	17°44	13°45	11° 2	9°49	1°47	12°21
F 31	8 37 1	10°M 8'07	6°M 9	15°345	16°K54	13°M57	14°Y36	23°M45	9°M10	17°M44	13°M44	10°257	9°246	1°M54	12°K24

Delta T = 35.03 sec.

FEBRUARY 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	8 40 58	11°M 9'01	19°M29	16°356	18°K 7	14°M44	14°Y46	23°M52	9°R 8	17°M45	13°R42	10°R52	9°243	2°M 1	12°K28
S 2	8 44 55	12° 9'54	2°227	18° 9	19°20	15°32	14°56	23°59	9°M 5	17°45	13°M41	10°247	9°40	2° 7	12°31
M 3	8 48 51	13°10'46	15° 3	19°23	20°32	16°19	15° 6	24° 7	9° 3	17°46	13°40	10°43	9°37	2°14	12°34
T 4	8 52 48	14°11'38	27°22	20°39	21°44	17° 6	15°16	24°14	9° 1	17°47	13°39	10°40	9°33	2°21	12°38
W 5	8 56 44	15°12'28	9°M26	21°57	22°57	17°54	15°27	24°21	8°59	17°47	13°37	10°38	9°30	2°27	12°41
T 6	9 0 41	16°13'18	21°20	23°16	24° 9	18°41	15°37	24°28	8°56	17°47	13°36	10°D38	9°27	2°34	12°45
F 7	9 4 37	17°14'06	3°M 9	24°36	25°21	19°28	15°48	24°35	8°54	17°48	13°34	10°39	9°24	2°41	12°48
S 8	9 8 34	18°14'54	14°59	25°58	26°33	20°16	15°58	24°43	8°51	17°48	13°33	10°41	9°21	2°47	12°52
S 9	9 12 30	19°15'41	26°54	27°20	27°45	21° 3	16° 9	24°50	8°49	17°49	13°32	10°43	9°17	2°54	12°55
M10	9 16 27	20°16'27	9°B 0	28°44	28°57	21°51	16°20	24°57	8°47	17°49	13°30	10°R44	9°14	3° 1	12°59
T 11	9 20 24	21°17'11	21°18	0°M 9	0°Y 8	22°38	16°31	25° 4	8°44	17°49	13°29	10°43	9°11	3° 7	13° 2
W12	9 24 20	22°17'55	3°M53	1°35	1°20	23°26	16°42	25°12	8°42	17°49	13°27	10°40	9° 8	3°14	13° 6
T 13	9 28 17	23°18'37	16°45	3° 2	2°32	24°13	16°54	25°19	8°39	17°50	13°26	10°36	9° 5	3°21	13°10
F 14	9 32 13	24°19'18	29°55	4°30	3°43	25° 0	17° 5	25°26	8°37	17°50	13°25	10°29	9° 2	3°28	13°13
S 15	9 36 10	25°19'57	13°K22	5°58	4°55	25°48	17°16	25°33	8°34	17°50	13°23	10°22	8°58	3°34	13°17
S 16	9 40 6	26°20'34	27° 2	7°28	6° 6	26°35	17°28	25°41	8°32	17°50	13°22	10°14	8°55	3°41	13°20
M17	9 44 3	27°21'10	10°Y53	8°59	7°17	27°23	17°40	25°48	8°29	17°50	13°20	10° 6	8°52	3°48	13°24
T 18	9 47 59	28°21'45	24°53	10°31	8°28	28°10	17°51	25°55	8°26	17°50	13°19	10° 0	8°49	3°54	13°28
W19	9 51 56	29°22'17	8°B57	12° 3	9°39	28°58	18° 3	26° 2	8°24	17°R50	13°17	9°56	8°46	4° 1	13°31
T 20	9 55 53	0°K22'48	23° 3	13°37	10°50	29°45	18°15	26°10	8°21	17°50	13°16	9°54	8°42	4° 8	13°35
F 21	9 59 49	1°23'17	7°II11	15°11	12° 0	0°K33	18°27	26°17	8°19	17°50	13°14	9°D54	8°39	4°14	13°39
S 22	10 3 46	2°23'44	21°18	16°47	13°11	1°20	18°39	26°24	8°16	17°50	13°12	9°55	8°36	4°21	13°42
S 23	10 7 42	3°24'09	5°223	18°23	14°21	2° 7	18°51	26°31	8°13	17°50	13°11	9°R56	8°33	4°28	13°46
M24	10 11 39	4°24'33	19°25	20° 1	15°32	2°55	19° 4	26°38	8°11	17°50	13° 9	9°55	8°30	4°34	13°50
T 25	10 15 35	5°24'54	3°Q22	21°39	16°42	3°42	19°16	26°46	8° 8	17°50	13° 8	9°53	8°27	4°41	13°54
W26	10 19 32	6°25'14	17°12	23°18	17°52	4°30	19°28	26°53	8° 6	17°49	13° 6	9°48	8°23	4°48	13°57
T 27	10 23 28	7°25'31	0°M51	24°58	19° 2	5°17	19°41	27° 0	8° 3	17°49	13° 5	9°41	8°20	4°54	14° 1
F 28	10 27 25	8°25'47	18°16	26°40	20°12	6° 4	19°53	27° 7	8° 0	17°49	13° 3	9°31	8°17	5° 1	14° 5
S 29	10 31 22	9°K26'01	27°M25	28°M22	21°Y21	6°K52	20°Y 6	27°M14	7°M58	17°M48	13°M 2	9°20	8°24	5°M 8	14°K 9

Delta T = 35.08 sec.

created from Swiss Ephemeris, Copyright Astrodienst AG [11.2.2014]

# SWISS EPHEMERIS for the year 1964

MARCH 1964

00:00 UT

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

Delta T = 35.13 sec.

APRIL 1964

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	12 37 31	11°17'31	25°12'12	28°24'24	26°47'47	1°58'58	27°19'19	0°49'49	6°41'41	17°22'22	12°13'13	5°48'48	6°32'32	8°41'41	16°7'7
T 2	12 41 28	12°16'41	7°4'4	29°56'56	27°49'49	2°45'45	27°33'33	0°55'55	6°39'39	17°21'21	12°12'12	5°43'43	6°29'29	8°47'47	16°10'10
F 3	12 45 24	13°15'49	18°53'53	1°24'24	28°51'51	3°31'31	27°47'47	1°1'1	6°37'37	17°20'20	12°11'11	5°40'40	6°26'26	8°54'54	16°13'13
S 4	12 49 21	14°14'56	0°34'41	2°46'46	29°52'52	4°18'18	28°1'1	1°7'7	6°35'35	17°18'18	12°9'9	5°39'39	6°23'23	9°1'1	16°17'17
S 5	12 53 17	15°14'01	12°36'36	4°3'3	0°11'53	5°4'4	28°16'16	1°13'13	6°33'33	17°17'17	12°8'8	5°39'39	6°19'19	9°7'7	16°20'20
M 6	12 57 14	16°13'04	24°41'41	5°15'15	1°54'54	5°51'51	28°30'30	1°19'19	6°31'31	17°16'16	12°7'7	5°39'39	6°16'16	9°14'14	16°24'24
T 7	13 1 11	17°12'05	7°22'2	6°20'20	2°54'54	6°37'37	28°44'44	1°25'25	6°29'29	17°14'14	12°6'6	5°38'38	6°13'13	9°21'21	16°27'27
W 8	13 5 7	18°11'05	19°46'46	7°20'20	3°54'54	7°24'24	28°59'59	1°30'30	6°27'27	17°13'13	12°4'4	5°34'34	6°10'10	9°27'27	16°30'30
T 9	13 9 4	19°10'03	2°45'54	8°13'13	4°54'54	8°10'10	29°13'13	1°36'36	6°26'26	17°12'12	12°3'3	5°28'28	6°7'7	9°34'34	16°34'34
F 10	13 13 0	20°8'59	16°29'9	9°0'0	5°53'53	8°56'56	29°27'27	1°42'42	6°24'24	17°10'10	12°2'2	5°19'19	6°4'4	9°41'41	16°37'37
S 11	13 16 57	21°7'53	0°17'31	9°41'41	6°52'52	9°43'43	29°42'42	1°47'47	6°22'22	17°9'9	12°1'1	5°9'9	6°0'0	9°47'47	16°40'40
S 12	13 20 53	22°6'45	14°56'56	10°16'16	7°50'50	10°29'29	29°56'56	1°53'53	6°21'21	17°7'7	12°0'0	4°58'58	5°57'57	9°54'54	16°43'43
M13	13 24 50	23°5'35	29°37'37	10°44'44	8°47'47	11°15'15	0°10'10	1°58'58	6°19'19	17°6'6	11°59'59	4°47'47	5°54'54	10°1'1	16°47'47
T 14	13 28 46	24°4'23	14°28'28	11°5'5	9°45'45	12°2'2	0°25'25	2°4'4	6°18'18	17°4'4	11°57'57	4°38'38	5°51'51	10°7'7	16°50'50
W15	13 32 43	25°3'09	29°19'19	11°20'20	10°42'42	12°48'48	0°39'39	2°9'9	6°16'16	17°3'3	11°56'56	4°31'31	5°48'48	10°14'14	16°53'53
T 16	13 36 40	26°1'53	14°11'11	11°29'29	11°38'38	13°34'34	0°53'53	2°14'14	6°15'15	17°2'2	11°55'55	4°28'28	5°45'45	10°21'21	16°56'56
F 17	13 40 36	27°0'35	28°34'34	11°R31	12°34'34	14°20'20	1°8'8	2°19'19	6°13'13	17°0'0	11°54'54	4°D26	5°41'41	10°27'27	16°59'59
S 18	13 44 33	27°59'15	12°26'26	11°28'28	13°29'29	15°6'6	1°22'22	2°25'25	6°12'12	16°59'59	11°53'53	4°26'26	5°38'38	10°34'34	17°2'2
S 19	13 48 29	28°57'52	26°45'45	11°18'18	14°23'23	15°52'52	1°37'37	2°30'30	6°11'11	16°57'57	11°52'52	4°R27	5°35'35	10°41'41	17°5'5
M20	13 52 26	29°56'27	25°56'27	10°12'12	11°4'4	15°17'17	16°38'38	1°51'51	2°35'35	6°9'9	16°55'55	11°51'51	4°26'26	5°32'32	10°47'47
T 21	13 56 22	0°55'00	23°47'47	10°44'44	16°11'11	17°24'24	2°5'5	2°40'40	6°8'8	16°54'54	11°50'50	4°24'24	5°29'29	10°54'54	17°11'11
W22	14 0 19	1°53'31	6°17'17	10°19'19	17°3'3	18°10'10	2°20'20	2°44'44	6°7'7	16°52'52	11°50'50	4°19'19	5°25'25	11°1'1	17°14'14
T 23	14 4 15	2°51'59	19°51'51	9°51'51	17°55'55	18°56'56	2°34'34	2°49'49	6°6'6	16°51'51	11°49'49	4°12'12	5°22'22	11°7'7	17°17'17
F 24	14 8 12	3°50'26	2°23'23	9°18'18	18°47'47	19°41'41	2°49'49	2°54'54	6°5'5	16°49'49	11°48'48	4°3'3	5°19'19	11°14'14	17°20'20
S 25	14 12 9	4°48'50	15°6'6	8°43'43	19°37'37	20°27'27	3°3'3	2°59'59	6°4'4	16°48'48	11°47'47	3°52'52	5°16'16	11°21'21	17°22'22
S 26	14 16 5	5°47'12	27°27'27	8°6'6	20°27'27	21°13'13	3°17'17	3°3'3	6°3'3	16°46'46	11°46'46	3°41'41	5°13'13	11°27'27	17°25'25
M27	14 20 2	6°45'33	9°11'11	7°27'27	21°16'16	21°58'58	3°32'32	3°8'8	6°2'2	16°44'44	11°45'45	3°31'31	5°10'10	11°34'34	17°28'28
T 28	14 23 58	7°43'52	21°40'40	6°47'47	22°5'5	22°44'44	3°46'46	3°12'12	6°1'1	16°43'43	11°45'45	3°22'22	5°6'6	11°41'41	17°31'31
W29	14 27 55	8°42'09	3°21'21	6°8'8	22°52'52	23°30'30	4°1'1	3°16'16	6°1'1	16°41'41	11°44'44	3°16'16	5°3'3	11°47'47	17°33'33
T 30	14 31 51	9°40'24	15°27'27	5°28'28	23°11'11	24°15'15	4°15'15	3°17'17	6°0'0	16°40'40	11°43'43	3°12'12	5°0'0	11°54'54	17°36'36

# SWISS EPHEMERIS for the year 1964

MAY 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	14 35 48	10°38'38"	27°12'	4°R51	24°II25	25°Y 1	4°29	3°25	5°R59	16°R38	11°R43	3°R10	4°57	12°1	17°39
S 2	14 39 44	11°36'51"	9°30'	4°R15	25°10	25°46	4°44	3°29	5°R58	16°R36	11°R42	3°D10	4°54	12°7	17°41
S 3	14 43 41	12°35'01"	20°55'	3°41	25°54	26°31	4°58	3°33	5°58	16°35	11°41	3°E11	4°51	12°14	17°44
M 4	14 47 38	13°33'11"	2°59'	3°11	26°36	27°17	5°12	3°37	5°57	16°33	11°41	3°12	4°47	12°21	17°46
T 5	14 51 34	14°31'18"	15°19'	2°44	27°18	28°2	5°27	3°41	5°57	16°31	11°40	3°R13	4°44	12°27	17°48
W 6	14 55 31	15°29'25"	28°0'	2°21	27°59	28°47	5°41	3°45	5°56	16°30	11°40	3°12	4°41	12°34	17°51
T 7	14 59 27	16°27'30"	11°5'	2°2	28°39	29°32	5°55	3°48	5°56	16°28	11°39	3°9	4°38	12°40	17°53
F 8	15 3 24	17°25'33"	24°39'	1°48	29°18	0°18	6°9	3°52	5°56	16°27	11°39	3°5	4°35	12°47	17°55
S 9	15 7 20	18°23'35"	8°Y40	1°38	29°55	1°3	6°24	3°56	5°55	16°25	11°38	2°59	4°31	12°54	17°58
S 10	15 11 17	19°21'36"	23°9'	1°32	0°E31	1°48	6°38	3°59	5°55	16°23	11°38	2°52	4°28	13°0	18°0
M11	15 15 13	20°19'35"	7°59'	1°D31	1°6	2°33	6°52	4°2	5°55	16°22	11°38	2°46	4°25	13°7	18°2
T 12	15 19 10	21°17'33"	23°3'	1°35	1°40	3°18	7°6	4°6	5°55	16°20	11°37	2°40	4°22	13°14	18°4
W13	15 23 6	22°15'30"	8°II11	1°44	2°12	4°2	7°20	4°9	5°D55	16°18	11°37	2°36	4°19	13°20	18°6
T 14	15 27 3	23°13'25"	23°14'	1°57	2°43	4°47	7°34	4°12	5°55	16°17	11°37	2°35	4°16	13°27	18°8
F 15	15 31 0	24°11'18"	8°E4	2°14	3°12	5°32	7°48	4°15	5°55	16°15	11°36	2°D34	4°12	13°34	18°10
S 16	15 34 56	25°9'09"	22°35'	2°36	3°40	6°17	8°3	4°18	5°55	16°14	11°36	2°35	4°9	13°40	18°12
S 17	15 38 53	26°6'59"	6°E43	3°3	4°6	7°1	8°17	4°21	5°55	16°12	11°36	2°37	4°6	13°47	18°14
M18	15 42 49	27°4'47"	20°28'	3°33	4°30	7°46	8°31	4°24	5°55	16°10	11°36	2°38	4°3	13°54	18°16
T 19	15 46 46	28°2'33"	3°II51	4°7	4°53	8°31	8°45	4°26	5°56	16°9	11°36	2°R38	4°0	14°0	18°18
W20	15 50 42	29°0'18"	16°53'	4°46	5°14	9°15	8°58	4°29	5°56	16°7	11°36	2°36	3°57	14°7	18°19
T 21	15 54 39	29°58'00"	29°38'	5°28	5°33	10°0	9°12	4°31	5°56	16°6	11°35	2°34	3°53	14°14	18°21
F 22	15 58 36	0°II55'42"	12°9'	6°14	5°50	10°44	9°26	4°34	5°57	16°4	11°35	2°29	3°50	14°20	18°23
S 23	16 2 32	1°53'21"	24°26'	7°3	6°6	11°28	9°40	4°36	5°57	16°2	11°D35	2°24	3°47	14°27	18°24
S 24	16 6 29	2°51'00"	6°II34	7°56	6°19	12°13	9°54	4°38	5°58	16°1	11°35	2°19	3°44	14°34	18°26
M25	16 10 25	3°48'37"	18°34'	8°53	6°30	12°57	10°8	4°40	5°58	15°59	11°35	2°15	3°41	14°40	18°27
T 26	16 14 22	4°46'12"	0°R28	9°52	6°39	13°41	10°21	4°42	5°59	15°58	11°36	2°11	3°37	14°47	18°29
W27	16 18 18	5°43'47"	12°18'	10°55	6°46	14°25	10°35	4°44	6°0	15°56	11°36	2°8	3°34	14°54	18°30
T 28	16 22 15	6°41'20"	2°6	12°1	6°50	15°9	10°49	4°46	6°1	15°55	11°36	2°6	3°31	15°0	18°32
F 29	16 26 11	7°38'53"	5°E54	13°10	6°R52	15°53	11°2	4°48	6°1	15°53	11°36	2°D6	3°28	15°7	18°33
S 30	16 30 8	8°36'24"	17°46'	14°21	6°52	16°37	11°16	4°49	6°2	15°52	11°36	2°7	3°25	15°14	18°34
S 31	16 34 5	9°II33'55"	29°E44	15°R36	6°E50	17°R21	11°R29	4°R51	6°R3	15°R50	11°R36	2°E8	3°E22	15°R20	18°R35

Delta T = 35.25 sec.

JUNE 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	16 38 1	10°II31'24"	11°52'	16°R54	6°R45	18°R5	11°R43	4°R52	6°R4	15°R49	11°R37	2°E10	3°E18	15°R27	18°R36
T 2	16 41 58	11°28'53"	24°14'	18°14	6°E37	18°49	11°56	4°54	6°5	15°R48	11°37	2°11	3°15	15°33	18°37
W 3	16 45 54	12°26'21"	6°R54	19°37	6°28	19°33	12°9	4°55	6°6	15°46	11°37	2°R12	3°12	15°40	18°38
T 4	16 49 51	13°23'48"	19°56'	21°3	6°16	20°16	12°23	4°56	6°7	15°45	11°38	2°12	3°9	15°47	18°39
F 5	16 53 47	14°21'15"	3°Y23	22°32	6°1	21°0	12°36	4°57	6°8	15°43	11°38	2°11	3°6	15°53	18°40
S 6	16 57 44	15°18'41"	17°17'	24°3	5°44	21°43	12°49	4°58	6°10	15°42	11°38	2°10	3°2	16°0	18°41
S 7	17 1 40	16°16'06"	1°R37	25°37	5°25	22°27	13°2	4°59	6°11	15°41	11°39	2°8	2°59	16°7	18°42
M 8	17 5 37	17°13'31"	16°21'	27°14	5°4	23°10	13°15	5°0	6°12	15°39	11°39	2°6	2°56	16°13	18°43
T 9	17 9 34	18°10'55"	1°II22	28°53	4°40	23°54	13°28	5°0	6°14	15°38	11°40	2°4	2°53	16°20	18°44
W10	17 13 30	19°8'18"	16°33'	0°II35	4°14	24°37	13°41	5°1	6°15	15°37	11°40	2°3	2°50	16°27	18°44
T 11	17 17 27	20°5'41"	1°E43	2°20	3°47	25°21	13°54	5°1	6°16	15°35	11°41	2°D3	2°47	16°33	18°45
F 12	17 21 23	21°3'03"	16°44'	4°7	3°17	26°4	14°7	5°2	6°18	15°34	11°42	2°3	2°43	16°40	18°45
S 13	17 25 20	22°0'24"	1°E28	5°57	2°46	26°47	14°20	5°2	6°20	15°33	11°42	2°4	2°40	16°47	18°46
S 14	17 29 16	22°57'44"	15°49'	7°49	2°13	27°30	14°33	5°2	6°21	15°32	11°43	2°5	2°37	16°53	18°46
M15	17 33 13	23°55'03"	29°45'	9°44	1°39	28°13	14°45	5°R2	6°23	15°30	11°44	2°5	2°34	17°0	18°47
T 16	17 37 9	24°52'21"	13°II14	11°41	1°4	28°56	14°58	5°2	6°25	15°29	11°44	2°6	2°31	17°7	18°47
W17	17 41 6	25°49'39"	26°19'	13°40	0°28	29°39	15°11	5°2	6°26	15°28	11°45	2°R6	2°28	17°13	18°47
T 18	17 45 3	26°46'55"	9°E2	15°42	29°II51	0°II22	15°23	5°2	6°28	15°27	11°46	2°6	2°24	17°20	18°47
F 19	17 48 59	27°44'11"	21°27'	17°45	29°14	1°5	15°35	5°2	6°30	15°26	11°47	2°6	2°21	17°27	18°48
S 20	17 52 56	28°41'26"	3°II37	19°51	28°36	1°48	15°48	5°1	6°32	15°25	11°48	2°5	2°18	17°33	18°48
S 21	17 56 52	29°38'40"	15°37'	21°58	27°59	2°30	16°0	5°1	6°34	15°24	11°48	2°5	2°15	17°40	18°R48
M22	18 0 49	0°E35'54"	27°30'	24°6	27°21	3°13	16°12	5°0	6°36	15°23	11°49	2°5	2°12	17°47	18°48
T 23	18 4 45	1°33'07"	9°R20	26°15	26°44	3°55	16°24	4°59	6°38	15°22	11°50	2°4	2°8	17°53	18°48
W24	18 8 42	2°30'20"	21°7'	28°26	26°8	4°38	16°36	4°59	6°40	15°21	11°51	2°D4	2°5	18°0	18°48
T 25	18 12 38	3°27'32"	2°E57	0°E37	25°33	5°20	16°48	4°58	6°42	15°20	11°52	2°R5	2°2	18°6	18°47
F 26	18 16 35	4°24'44"	14°50'	2°48	24°59	6°3	17°0	4°57	6°44	15°19	11°53	2°4	1°59	18°13	18°47
S 27	18 20 32	5°21'56"	26°48'	4°59	24°26	6°45	17°12	4°55	6°46	15°18	11°54	2°4	1°56	18°20	18°47
S 28	18 24 28	6°19'08"	8°E55	7°10	23°55	7°27	17°23	4°54	6°49	15°17	11°55	2°4	1°53	18°26	18°47
M29	18 28 25	7°16'19"	21°12'	9°21	23°25	8°10	17°35	4°53	6°51	15°16	11°56	2°3	1°49	18°33	18°46
T 30	18 32 21	8°E13'31"	3°R42	11°E30	22°II58	8°II52	17°R47	4°R52	6°R53	15°R15	11°R57	2°E3	1°E46	18°R40	18°R46

Delta T = 35.30 sec.

created from Swiss Ephemeris, Copyright Astrodienst AG [11.2.2014]

# SWISS EPHEMERIS for the year 1964

JULY 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	18 36 18	9°51'43	16°48'28	13°39'39	22°R32	9°II34	17°58'58	4°R50	6°56'56	15°R14	11°59'59	2°R 2	1°54'43	18°47'46	18°R45
T 2	18 40 14	10° 7'54	29°31'15	15°47'22	22°II 9	10°16'18	18° 9'49	4°49'58	6°58'15	15°14'12	12° 0'25	2° 1'40	18°53'18	18°48'45	18°48'45
F 3	18 44 11	11° 5'06	12°55'55	17°53'21	21°47'10	10°58'18	18°21'47	4°47'21	7° 0'15	15°13'12	12° 1'20	2°D 1	1°37'19	19° 0'18	18°44'18
S 4	18 48 7	12° 2'19	26°40'19	19°58'21	21°28'11	11°40'18	18°32'45	4°45'7	7° 3'15	15°12'12	12° 2'2	2° 2'13	19° 6'19	18°44'18	18°44'18
S 5	18 52 4	12°59'31	10°48'22	22° 1'21	21°12'12	12°22'18	18°43'44	4°43'7	7° 6'15	15°11'12	12° 3'2	2° 2'13	19°13'19	18°43'18	18°43'18
M 6	18 56 1	13°56'44	25°17'24	24° 3'20	20°57'13	13° 4'18	18°54'44	4°41'7	7° 8'15	15°11'12	12° 5'2	2° 3'13	19°20'19	18°42'18	18°42'18
T 7	18 59 57	14°53'57	10°II 3	26° 3'20	20°46'13	14°6'19	19° 5'49	4°39'7	7°11'15	15°10'12	12° 6'2	2° 4'13	19°26'19	18°41'18	18°41'18
W 8	19 3 54	15°51'11	25° 1'28	28° 1'20	20°36'14	14°27'19	19°16'43	4°37'7	7°13'15	15° 9'12	12° 7'2	2°R 5	1°21'19	19°33'18	18°40'18
T 9	19 7 50	16°48'25	10°58'4	29°57'20	20°29'15	9'19	19°26'43	4°35'7	7°16'15	15° 9'12	12° 9'2	2° 4'13	1°18'19	19°40'18	18°40'18
F 10	19 11 47	17°45'39	25° 2'18	18°51'20	20°24'15	50'19	19°37'43	4°33'7	7°19'15	15° 8'12	12°10'2	2° 4'13	1°14'19	19°46'18	18°39'18
S 11	19 15 43	18°42'53	9°49'3	44'20	20°22'16	32'16	19°47'43	4°30'7	7°22'15	15° 8'12	12°11'2	2° 2'13	1°11'19	19°53'18	18°38'18
S 12	19 19 40	19°40'07	24°15'5	34'20	20°D22	17°13'19	19°58'42	4°28'7	7°24'15	15° 7'12	12°13'2	2° 0'13	1° 8'20	20° 0'18	18°36'18
M13	19 23 37	20°37'21	8°18'7	23'20	24'17	55'20	20° 8'42	4°25'7	7°27'15	15° 7'12	12°14'1	1°58'5	20° 6'18	18°35'18	18°35'18
T 14	19 27 33	21°34'35	12°54'9	10'20	20°28'18	36'20	20°18'42	4°23'7	7°30'15	15° 6'12	12°16'1	1°55'5	20°13'20	18°34'18	18°34'18
W15	19 31 30	22°31'50	5°4'10	54'20	20°35'19	17'20	20°28'42	4°20'7	7°33'15	15° 6'12	12°17'1	1°54'5	20°19'20	18°33'18	18°33'18
T 16	19 35 26	23°29'04	17°49'12	37'20	20°44'19	59'20	20°38'41	4°17'7	7°36'15	15° 6'12	12°19'1	1°D53	20°26'18	18°32'18	18°32'18
F 17	19 39 23	24°26'18	0°14'14	14'18	20°54'20	40'20	20°48'41	4°14'7	7°39'15	15° 5'12	12°20'1	1°53'5	20°33'18	18°30'18	18°30'18
S 18	19 43 19	25°23'33	12°23'15	57'21	21° 7'21	21'21	20°58'41	4°11'7	7°42'15	15° 5'12	12°22'1	1°54'5	20°39'20	18°29'18	18°29'18
S 19	19 47 16	26°20'48	24°20'17	34'17	21°22'22	2' 2'21	21° 7'4	4° 8'7	7°45'15	15° 5'12	12°23'1	1°55'5	20°46'20	18°28'18	18°28'18
M20	19 51 12	27°18'03	6°10'19	9'21	21°39'22	43'21	21°17'4	4° 5'7	7°48'15	15° 4'12	12°25'1	1°57'5	20°53'20	18°26'18	18°26'18
T 21	19 55 9	28°15'18	17°58'20	43'21	21°58'23	24'21	21°26'4	4° 2'7	7°51'15	15° 4'12	12°26'1	1°58'5	20°59'20	18°25'18	18°25'18
W22	19 59 6	29°12'34	29°47'22	14'22	22°18'24	5'21	21°35'3	3°59'7	7°54'15	15° 4'12	12°28'1	1°R59	21° 6'18	18°23'18	18°23'18
T 23	20 3 2	0°9'50	11°34'23	44'22	22°41'24	45'21	21°44'3	3°56'7	7°57'15	15° 4'12	12°30'1	1°59'5	21°13'18	18°22'18	18°22'18
F 24	20 6 59	1° 7'07	23°41'25	11'23	23° 4'25	26'21	21°53'3	3°52'8	8° 0'15	15° 4'12	12°31'1	1°57'5	21°19'18	18°20'18	18°20'18
S 25	20 10 55	2° 4'24	5°51'26	36'23	23°30'26	7'22	22° 2'3	3°49'8	8° 4'15	15° 4'12	12°33'1	1°54'5	21°26'20	18°18'18	18°18'18
S 26	20 14 52	3° 1'42	18°12'28	0'23	23°57'26	47'22	22°11'3	3°45'8	8° 7'15	15° 4'12	12°35'1	1°49'5	21°33'20	18°17'18	18°17'18
M27	20 18 48	3°59'01	0°44'29	21'24	24°26'27	28'22	22°20'3	3°42'8	8°10'15	15°D 4	12°36'1	1°44'5	21°39'20	18°15'18	18°15'18
T 28	20 22 45	4°56'20	13°30'0	41'24	24°56'28	8'22	22°28'3	3°38'8	8°13'15	15° 4'12	12°38'1	1°39'5	21°46'20	18°13'18	18°13'18
W29	20 26 41	5°53'41	26°29'1	58'25	25°28'28	49'22	22°36'3	3°34'8	8°17'15	15° 4'12	12°40'1	1°34'5	21°53'20	18°11'18	18°11'18
T 30	20 30 38	6°51'02	9°42'3	13'26	26° 1'29	29'22	22°45'3	3°31'8	8°20'15	15° 4'12	12°42'1	1°30'5	21°59'20	18° 9'18	18° 9'18
F 31	20 34 35	7°48'24	23°10'4	26'26	26°II35	09'9	22°53'3	3°27'8	8°23'15	15°L 4	12°44'1	1°27'5	22°7'22	18°8'7	18°8'7

Delta T = 35.36 sec.

AUGUST 1964

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	20 38 31	8♌45'48	6♋53	5♎37	27♏11	0♌50	23♏1	3°R23	8♎27	15♎4	12♎45	1°D27	0♌5	22♏12	18°R 5
S 2	20 42 28	9°43'13	20°52	6°45	27°48	1°30	23° 8	3♋19	8°30	15° 4	12°47	1♌27	0° 1	22°19	18♋ 3
M 3	20 46 24	10°40'39	5♏5	7°51	28°26	2°10	23°16	3°15	8°34	15° 4	12°49	1°28	29♏58	22°26	18° 1
T 4	20 50 21	11°38'06	19°32	8°54	29° 5	2°50	23°24	3°11	8°37	15° 5	12°51	1°29	29°55	22°32	17°59
W 5	20 54 17	12°35'35	4♋9	9°54	29°45	3°30	23°31	3° 7	8°40	15° 5	12°53	1°R30	29°52	22°39	17°57
T 6	20 58 14	13°33'05	18°51	10°52	0♌26	4°10	23°38	3° 3	8°44	15° 5	12°55	1°29	29°49	22°46	17°55
F 7	21 2 10	14°30'35	3♌33	11°47	1° 8	4°50	23°45	2°59	8°47	15° 5	12°57	1°26	29°46	22°52	17°53
S 8	21 6 7	15°28'07	18° 8	12°39	1°52	5°30	23°52	2°54	8°51	15° 6	12°58	1°21	29°42	22°59	17°50
S 9	21 10 4	16°25'40	2♎28	13°27	2°36	6° 9	23°59	2°50	8°55	15° 6	13° 0	1°14	29°39	23° 6	17°48
M10	21 14 0	17°23'14	16°28	14°13	3°21	6°49	24° 6	2°46	8°58	15° 7	13° 2	1° 7	29°36	23°12	17°46
T 11	21 17 57	18°20'49	0♋5	14°55	4° 7	7°29	24°12	2°42	9° 2	15° 7	13° 4	0°59	29°33	23°19	17°44
W12	21 21 53	19°18'25	13°16	15°33	4°53	8° 8	24°18	2°37	9° 5	15° 8	13° 6	0°53	29°30	23°26	17°41
T 13	21 25 50	20°16'02	26° 4	16° 7	5°41	8°48	24°25	2°33	9° 9	15° 8	13° 8	0°48	29°26	23°32	17°39
F 14	21 29 46	21°13'39	8♏30	16°37	6°29	9°27	24°31	2°29	9°12	15° 9	13°10	0°46	29°23	23°39	17°36
S 15	21 33 43	22°11'18	20°40	17° 2	7°18	10° 6	24°36	2°24	9°16	15° 9	13°12	0°D45	29°20	23°45	17°34
S 16	21 37 39	23° 8'58	2♏36	17°23	8° 8	10°46	24°42	2°20	9°20	15°10	13°14	0°45	29°17	23°52	17°32
M17	21 41 36	24° 6'39	14°26	17°40	8°59	11°25	24°47	2°15	9°23	15°11	13°16	0°46	29°14	23°59	17°29
T 18	21 45 33	25° 4'21	26°14	17°51	9°50	12° 4	24°53	2°11	9°27	15°11	13°18	0°R47	29°11	24° 5	17°27
W19	21 49 29	26° 2'04	8♋5	17°57	10°41	12°43	24°58	2° 6	9°31	15°12	13°20	0°47	29° 7	24°12	17°24
T 20	21 53 26	26°59'48	20° 4	17°R57	11°34	13°22	25° 3	2° 2	9°34	15°13	13°22	0°45	29° 4	24°19	17°21
F 21	21 57 22	27°57'33	2♏13	17°52	12°27	14° 1	25° 8	1°57	9°38	15°13	13°24	0°41	29° 1	24°25	17°19
S 22	22 1 19	28°55'20	14°36	17°41	13°21	14°40	25°12	1°53	9°42	15°14	13°26	0°34	28°58	24°32	17°16
S 23	22 5 15	29°53'08	27°13	17°25	14°15	15°18	25°17	1°48	9°46	15°15	13°28	0°25	28°55	24°39	17°14
M24	22 9 12	0♎50'57	10♋6	17° 2	15°10	15°57	25°21	1°44	9°49	15°16	13°31	0°15	28°52	24°45	17°11
T 25	22 13 8	1°48'48	23°13	16°34	16° 5	16°36	25°25	1°39	9°53	15°17	13°33	0° 5	28°48	24°52	17° 8
W26	22 17 5	2°46'41	6♏Y33	16° 0	17° 1	17°14	25°29	1°35	9°57	15°18	13°35	29♏55	28°45	24°59	17° 6
T 27	22 21 1	3°44'35	20° 5	15°20	17°57	17°53	25°33	1°30	10° 1	15°19	13°37	29°47	28°42	25° 5	17° 3
F 28	22 24 58	4°42'31	3♋47	14°36	18°54	18°31	25°36	1°26	10° 4	15°20	13°39	29°41	28°39	25°12	17° 0
S 29	22 28 55	5°40'29	17°38	13°47	19°51	19°10	25°40	1°21	10° 8	15°21	13°41	29°37	28°36	25°18	16°57
S 30	22 32 51	6°38'29	1♏II36	12°55	20°49	19°48	25°43	1°17	10°12	15°22	13°43	29°D36	28°32	25°25	16°55
M31	22 36 48	7♎36'30	15♏II41	12♎0	21♌47	20♌26	25♋46	1♋12	10♎16	15♎23	13♎45	29♏II36	28♏II29	25♏32	16♋52

# SWISS EPHEMERIS for the year 1964

## SEPTEMBER 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	22 40 44	8 <sup>h</sup> 34'34"	29 <sup>h</sup> 11'52"	11°R 4	22 <sup>h</sup> 28'46"	21 <sup>h</sup> 25' 5	25 <sup>h</sup> 25'49"	1°R 8	10 <sup>h</sup> 19'19"	15 <sup>h</sup> 11'24"	13 <sup>h</sup> 17'47"	29°R36	28 <sup>h</sup> 11'26"	25 <sup>h</sup> 27'38"	16°R49
W 2	22 44 41	9°32'40"	14 <sup>h</sup> 28' 8	10 <sup>h</sup> 19' 6	23°45'	21°43'	25°51'	1 <sup>h</sup> 3' 3	10°23'	15°25'	13°49'	29 <sup>h</sup> 11'35"	28°23'	25°45'	16 <sup>h</sup> 46"
T 3	22 48 37	10°30'48"	28 <sup>h</sup> 27' 9	9°10'	24°44'	22°21'	25°54'	0°59'	10°27'	15°26'	13°52'	29°33'	28°20'	25°52'	16°44'
F 4	22 52 34	11°28'57"	12 <sup>h</sup> 20'44"	8°15'	25°44'	22°59'	25°56'	0°54'	10°31'	15°28'	13°54'	29°27'	28°17'	25°58'	16°41'
S 5	22 56 30	12°27'08"	26°56'	7°23'	26°45'	23°37'	25°58'	0°50'	10°34'	15°29'	13°56'	29°19'	28°13'	26° 5'	16°38'
S 6	23 0 27	13°25'21"	10 <sup>h</sup> 19'58"	6°36'	27°45'	24°15'	26° 0'	0°45'	10°38'	15°30'	13°58'	29° 8'	28°10'	26°12'	16°35'
M 7	23 4 24	14°23'36"	24°44'	5°54'	28°46'	24°52'	26° 2'	0°41'	10°42'	15°31'	14° 0'	28°57'	28° 7'	26°18'	16°33'
T 8	23 8 20	15°21'53"	8 <sup>h</sup> 21'11"	5°19'	29°47'	25°30'	26° 3'	0°37'	10°46'	15°33'	14° 2'	28°45'	28° 4'	26°25'	16°30'
W 9	23 12 17	16°20'11"	21°18'	4°51'	0 <sup>h</sup> 14'49"	26° 8'	26° 4'	0°32'	10°50'	15°34'	14° 4'	28°34'	28° 1'	26°32'	16°27'
T 10	23 16 13	17°18'31"	4 <sup>h</sup> 11' 2	4°31'	1°51'	26°45'	26° 5'	0°28'	10°53'	15°35'	14° 6'	28°26'	27°58'	26°38'	16°24'
F 11	23 20 10	18°16'52"	16°27'	4°20'	2°53'	27°23'	26° 6'	0°24'	10°57'	15°37'	14° 9'	28°19'	27°54'	26°45'	16°21'
S 12	23 24 6	19°15'15"	28°36'	4°D18	3°56'	28° 0'	26° 7'	0°20'	11° 1'	15°38'	14°11'	28°16'	27°51'	26°52'	16°19'
S 13	23 28 3	20°13'40"	10 <sup>h</sup> 27'33"	4°25'	4°59'	28°37'	26° 7'	0°16'	11° 5'	15°39'	14°13'	28°14'	27°48'	26°58'	16°16'
M14	23 31 59	21°12'06"	22°23'	4°41'	6° 2'	29°15'	26° 8'	0°12'	11° 8'	15°41'	14°15'	28°14'	27°45'	27° 5'	16°13'
T 15	23 35 56	22°10'34"	4 <sup>h</sup> 31'11"	5° 7'	7° 6'	29°52'	26°R 8	0° 7'	11°12'	15°42'	14°17'	28°14'	27°42'	27°11'	16°10'
W16	23 39 53	23° 9'04"	16° 3'	5°41'	8°10'	0 <sup>h</sup> 29'29"	26° 8'	0° 3'	11°16'	15°44'	14°19'	28°13'	27°38'	27°18'	16° 7'
T 17	23 43 49	24° 7'35"	28° 5'	6°24'	9°14'	1° 6'	26° 7'	0° 0'	11°19'	15°45'	14°21'	28°10'	27°35'	27°25'	16° 5'
F 18	23 47 46	25° 6'08"	10 <sup>h</sup> 22'50"	7°15'	10°18'	1°43'	26° 7'	29 <sup>h</sup> 22'56"	11°23'	15°47'	14°23'	28° 5'	27°32'	27°31'	16° 2'
S 19	23 51 42	26° 4'43"	22°53'	8°14'	11°23'	2°20'	26° 6'	29°52'	11°27'	15°49'	14°25'	27°57'	27°29'	27°38'	15°59'
S 20	23 55 39	27° 3'19"	5 <sup>h</sup> 34'44"	9°20'	12°27'	2°56'	26° 5'	29°48'	11°30'	15°50'	14°27'	27°47'	27°26'	27°45'	15°56'
M21	23 59 35	28° 1'57"	18°56'	10°33'	13°33'	3°33'	26° 4'	29°44'	11°34'	15°52'	14°30'	27°35'	27°23'	27°51'	15°54'
T 22	0 3 32	29° 0'37"	2 <sup>h</sup> 27'25"	11°52'	14°38'	4°10'	26° 3'	29°41'	11°38'	15°53'	14°32'	27°22'	27°19'	27°58'	15°51'
W23	0 7 28	29°59'19"	16°11'	13°16'	15°44'	4°46'	26° 1'	29°37'	11°41'	15°55'	14°34'	27°10'	27°16'	28° 5'	15°48'
T 24	0 11 25	0 <sup>h</sup> 58'03"	0 <sup>h</sup> 8'	14°44'	16°49'	5°22'	25°59'	29°33'	11°45'	15°57'	14°36'	27° 0'	27°13'	28°11'	15°46'
F 25	0 15 22	1°56'50"	14°13'	16°17'	17°56'	5°59'	25°57'	29°30'	11°49'	15°59'	14°38'	26°52'	27°10'	28°18'	15°43'
S 26	0 19 18	2°55'38"	28°22'	17°53'	19° 2'	6°35'	25°55'	29°27'	11°52'	16° 0'	14°40'	26°47'	27° 7'	28°25'	15°40'
S 27	0 23 15	3°54'29"	12 <sup>h</sup> 11'32"	19°31'	20° 8'	7°11'	25°53'	29°23'	11°56'	16° 2'	14°42'	26°45'	27° 3'	28°31'	15°38'
M28	0 27 11	4°53'22"	26°40'	21°12'	21°15'	7°47'	25°50'	29°20'	11°59'	16° 4'	14°44'	26°45'	27° 0'	28°38'	15°35'
T 29	0 31 8	5°52'18"	10 <sup>h</sup> 22'46"	22°56'	22°22'	8°23'	25°48'	29°17'	12° 3'	16° 6'	14°46'	26°45'	27°57'	28°44'	15°33'
W30	0 35 4	6 <sup>h</sup> 51'16"	24 <sup>h</sup> 24'49"	24 <sup>h</sup> 19'40"	23 <sup>h</sup> 22'29"	8 <sup>h</sup> 25'59"	25 <sup>h</sup> 25'45"	29 <sup>h</sup> 22'14"	12 <sup>h</sup> 19' 6	16 <sup>h</sup> 11' 7	14 <sup>h</sup> 19'48"	26 <sup>h</sup> 11'44"	26 <sup>h</sup> 11'54"	28 <sup>h</sup> 27'51"	15 <sup>h</sup> 31'30"

Delta T = 35.48 sec.

## OCTOBER 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	0 39 1	7 <sup>h</sup> 50'16"	8 <sup>h</sup> 24'48"	26 <sup>h</sup> 19'26"	24 <sup>h</sup> 23'37"	9 <sup>h</sup> 23'35"	25°R41	29°R11	12 <sup>h</sup> 10'10"	16 <sup>h</sup> 11' 9	14 <sup>h</sup> 19'50"	26°R41	26 <sup>h</sup> 11'51"	28 <sup>h</sup> 27'58"	15°R27
F 2	0 42 57	8°49'18"	22°42'	28°12'	25°44'	10°11'	25°38'	29 <sup>h</sup> 22' 8	12°13'	16°11'	14°52'	26 <sup>h</sup> 11'35"	26°48'	29° 4'	15 <sup>h</sup> 25"
S 3	0 46 54	9°48'23"	6 <sup>h</sup> 19'28"	29°59'	26°52'	10°47'	25°35'	29° 5'	12°17'	16°13'	14°54'	26°27'	26°44'	29°11'	15°22'
S 4	0 50 51	10°47'30"	20° 4'	1 <sup>h</sup> 24'46"	28° 0'	11°22'	25°31'	29° 2'	12°20'	16°15'	14°56'	26°16'	26°41'	29°18'	15°20'
M 5	0 54 47	11°46'39"	3 <sup>h</sup> 24'28"	3°34'	29° 8'	11°58'	25°27'	28°59'	12°24'	16°17'	14°58'	26° 4'	26°38'	29°24'	15°18'
T 6	0 58 44	12°45'50"	16°37'	5°21'	0 <sup>h</sup> 19'17"	12°33'	25°23'	28°57'	12°27'	16°19'	15° 0'	25°51'	26°35'	29°31'	15°15'
W 7	1 2 40	13°45'03"	29°30'	7° 8'	1°25'	13° 8'	25°19'	28°54'	12°31'	16°21'	15° 2'	25°40'	26°32'	29°38'	15°13'
T 8	1 6 37	14°44'18"	12 <sup>h</sup> 11' 6	8°55'	2°34'	13°43'	25°14'	28°52'	12°34'	16°23'	15° 3'	25°31'	26°29'	29°44'	15°10'
F 9	1 10 33	15°43'35"	24°25'	10°41'	3°43'	14°19'	25°10'	28°49'	12°37'	16°25'	15° 5'	25°24'	26°25'	29°51'	15° 8'
S 10	1 14 30	16°42'54"	6 <sup>h</sup> 27'30"	12°27'	4°52'	14°54'	25° 5'	28°47'	12°40'	16°27'	15° 7'	25°20'	26°22'	29°58'	15° 6'
S 11	1 18 26	17°42'15"	18°25'	14°12'	6° 1'	15°28'	25° 0'	28°45'	12°44'	16°29'	15° 9'	25°18'	26°19'	0 <sup>h</sup> 3' 4	15° 4'
M12	1 22 23	18°41'37"	0 <sup>h</sup> 31'14"	15°57'	7°10'	16° 3'	24°55'	28°43'	12°47'	16°31'	15°11'	25°D18	26°16'	0°11'	15° 1'
T 13	1 26 19	19°41'02"	12° 1'	17°41'	8°20'	16°38'	24°49'	28°41'	12°50'	16°33'	15°13'	25°18'	26°13'	0°17'	14°59'
W14	1 30 16	20°40'28"	23°53'	19°24'	9°29'	17°12'	24°44'	28°39'	12°53'	16°35'	15°15'	25°R19	26° 9'	0°24'	14°57'
T 15	1 34 13	21°39'56"	5 <sup>h</sup> 25'11"	21° 7'	10°39'	17°47'	24°38'	28°37'	12°57'	16°37'	15°16'	25°17'	26° 6'	0°31'	14°55'
F 16	1 38 9	22°39'25"	18°11'	22°49'	11°49'	18°21'	24°33'	28°35'	13° 0'	16°39'	15°18'	25°14'	26° 3'	0°37'	14°53'
S 17	1 42 6	23°38'57"	0 <sup>h</sup> 34'46"	24°30'	12°59'	18°56'	24°27'	28°33'	13° 3'	16°41'	15°20'	25° 9'	26° 0'	0°44'	14°51'
S 18	1 46 2	24°38'30"	13°45'	26°11'	14° 9'	19°30'	24°21'	28°32'	13° 6'	16°43'	15°22'	25° 1'	25°57'	0°51'	14°49'
M19	1 49 59	25°38'05"	27° 7'	27°51'	15°19'	20° 4'	24°14'	28°30'	13° 9'	16°45'	15°23'	24°52'	25°54'	0°57'	14°47'
T 20	1 53 55	26°37'42"	10 <sup>h</sup> 27'53"	29°30'	16°30'	20°38'	24° 8'	28°29'	13°12'	16°47'	15°25'	24°42'	25°50'	1° 4'	14°45'
W21	1 57 52	27°37'21"	25° 0'	1 <sup>h</sup> 11' 9	17°41'	21°11'	24° 2'	28°28'	13°15'	16°50'	15°27'	24°32'	25°47'	1°11'	14°43'
T 22	2 1 48	28°37'02"	9 <sup>h</sup> 22'22"	2°47'	18°51'	21°45'	23°55'	28°27'	13°18'	16°52'	15°28'	24°24'	25°44'	1°17'	14°41'
F 23	2 5 45	29°36'44"	23°54'	4°25'	20° 2'	22°19'	23°48'	28°26'	13°21'	16°54'	15°30'	24°18'	25°41'	1°24'	14°40'
S 24	2 9 42	0 <sup>h</sup> 136'30"	8 <sup>h</sup> 11'28"	6° 2'	21°13'	22°52'	23°41'	28°25'	13°24'	16°56'	15°32'	24°15'	25°38'	1°31'	14°38'
S 25	2 13 38	1°36'17"	23° 0'	7°39'	22°24'	23°25'	23°34'	28°24'	13°26'	16°58'	15°33'	24°D14	25°34'	1°37'	14°36'
M26	2 17 35	2°36'06"	7 <sup>h</sup> 25'25"	9°14'	23°35'	23°59'	23°27'	28°23'	13°29'	17° 0'	15°35'	24°15'	25°31'	1°44'	14°35'
T 27	2 21 31	3°35'58"	21°39'	10°50'	24°47'	24°32'	23°20'	28°22'	13°32'	17° 3'	15°36'	24°16'	25°28'	1°51'	14°33'
W28	2 25 28	4°35'52"	5 <sup>h</sup> 24'41"	12°25'	25°58'	25° 5'	23°13'	28°22'	13°35'	17° 5'	15°38'	24°R16	25°25'	1°57'	14°32'
T 29	2 29 24	5°35'48"	19°31'	13°59'	27°10'	25°38'	23° 5'	28°21'	13°37'	17° 7'	15°40'	24°15'	25°22'	2° 4'	14°30'
F 30	2 33 21	6°35'47"	3 <sup>h</sup> 19' 9	15°33'	28°22'	26°10'	22°58'	28°21'	13°40'	17° 9'	15°41'	24°12'	25°19'	2°10'	14°29'
S 31	2 37 17	7 <sup>h</sup> 135'47"	16 <sup>h</sup> 19'34"	17 <sup>h</sup> 11' 7	29 <sup>h</sup> 19'33"	26 <sup>h</sup> 24'43"	22 <sup>h</sup> 28'50"	28 <sup>h</sup> 22'21"	13 <sup>h</sup> 19'43"	17 <sup>h</sup> 11'12"	15 <sup>h</sup> 19'43"	24 <sup>h</sup> 11' 7	25 <sup>h</sup> 11'15"	2 <sup>h</sup> 13'17"	14 <sup>h</sup> 27'27"

Delta T = 35.54 sec.

created from Swiss Ephemeris, Copyright Astrodienst AG [11.2.2014]

# SWISS EPHEMERIS for the year 1964

NOVEMBER 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	2 41 14	8♈35'50	29♏47	18♈40	0♈45	27♏15	22°R42	28°R21	13♏45	17♈14	15♏44	24°R 0	25♏12	2♈24	14°R26
M 2	2 45 11	9°35'54	12♏47	20°12	1°57	27°48	22°R35	28°D21	13°48	17°16	15°45	23♏52	25° 9	2°30	14°R25
T 3	2 49 7	10°36'01	25°34	21°44	3° 9	28°20	22°27	28°R21	13°50	17°18	15°47	23°44	25° 6	2°37	14°R23
W 4	2 53 4	11°36'10	8♈ 8	23°16	4°22	28°52	22°19	28°21	13°53	17°20	15°48	23°36	25° 3	2°44	14°R22
T 5	2 57 0	12°36'20	20°30	24°47	5°34	29°24	22°11	28°21	13°55	17°23	15°49	23°30	25° 0	2°50	14°R21
F 6	3 0 57	13°36'32	2♏40	26°18	6°46	29°56	22° 3	28°21	13°57	17°25	15°51	23°26	24°56	2°57	14°R20
S 7	3 4 53	14°36'46	14°39	27°49	7°59	0♏27	21°55	28°22	14° 0	17°27	15°52	23°24	24°53	3° 4	14°R19
S 8	3 8 50	15°37'02	26°31	29°19	9°11	0°59	21°47	28°23	14° 2	17°29	15°53	23°D24	24°50	3°10	14°R18
M 9	3 12 46	16°37'19	8♏18	0♏48	10°24	1°30	21°39	28°23	14° 4	17°32	15°55	23°25	24°47	3°17	14°R17
T 10	3 16 43	17°37'38	20° 4	2°18	11°37	2° 1	21°31	28°24	14° 6	17°34	15°56	23°26	24°44	3°24	14°R16
W 11	3 20 40	18°37'58	1♏55	3°46	12°49	2°32	21°22	28°25	14° 8	17°36	15°57	23°28	24°40	3°30	14°R15
T 12	3 24 36	19°38'20	13°54	5°15	14° 2	3° 3	21°14	28°26	14°10	17°38	15°58	23°R29	24°37	3°37	14°R15
F 13	3 28 33	20°38'43	26° 8	6°43	15°15	3°33	21° 6	28°27	14°12	17°41	15°59	23°29	24°34	3°43	14°R14
S 14	3 32 29	21°39'07	8♏41	8°10	16°28	4° 4	20°58	28°28	14°14	17°43	16° 0	23°28	24°31	3°50	14°R13
S 15	3 36 26	22°39'33	21°36	9°37	17°41	4°34	20°50	28°30	14°16	17°45	16° 2	23°25	24°28	3°57	14°R13
M 16	3 40 22	23°40'00	4♏58	11° 3	18°54	5° 4	20°42	28°31	14°18	17°47	16° 3	23°21	24°25	4° 3	14°R12
T 17	3 44 19	24°40'28	18°47	12°29	20° 8	5°34	20°33	28°33	14°20	17°50	16° 4	23°17	24°21	4°10	14°R12
W 18	3 48 15	25°40'58	3♏ 2	13°53	21°21	6° 4	20°25	28°34	14°22	17°52	16° 5	23°12	24°18	4°17	14°R11
T 19	3 52 12	26°41'30	17°39	15°18	22°34	6°34	20°17	28°36	14°24	17°54	16° 6	23° 9	24°15	4°23	14°R11
F 20	3 56 9	27°42'02	2♏30	16°41	23°48	7° 3	20° 9	28°38	14°25	17°56	16° 6	23° 6	24°12	4°30	14°R10
S 21	4 0 5	28°42'37	17°29	18° 3	25° 1	7°32	20° 1	28°40	14°27	17°59	16° 7	23°D 5	24° 9	4°37	14°R10
S 22	4 4 2	29°43'13	2♏27	19°24	26°15	8° 1	19°53	28°42	14°29	18° 1	16° 8	23° 5	24° 6	4°43	14°R10
M 23	4 7 58	0♏43'50	17°15	20°44	27°28	8°30	19°45	28°44	14°30	18° 3	16° 9	23° 6	24° 2	4°50	14°R10
T 24	4 11 55	1°44'29	1♏49	22° 3	28°42	8°59	19°38	28°46	14°32	18° 5	16°10	23° 8	23°59	4°57	14°R10
W 25	4 15 51	2°45'10	16° 4	23°19	29°56	9°27	19°30	28°48	14°33	18° 7	16°11	23° 9	23°56	5° 3	14°D10
T 26	4 19 48	3°45'53	29°59	24°34	1♈ 9	9°56	19°22	28°51	14°34	18°10	16°11	23°R10	23°53	5°10	14°R10
F 27	4 23 44	4°46'36	13♏33	25°47	2°23	10°24	19°14	28°53	14°36	18°12	16°12	23° 9	23°50	5°17	14°R10
S 28	4 27 41	5°47'22	26°47	26°58	3°37	10°51	19° 7	28°56	14°37	18°14	16°13	23° 8	23°46	5°23	14°R10
S 29	4 31 38	6°48'09	9♏45	28° 6	4°51	11°19	18°59	28°59	14°38	18°16	16°14	23° 7	23°43	5°30	14°R10
M 30	4 35 34	7♏48'58	22♏26	29♏10	6♈ 5	11♏46	18♏52	29♏ 1	14♏39	18♈18	16♏14	23♏ 4	23♏40	5♏36	14♏10

Delta T = 35.60 sec.

DECEMBER 1964

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	4 39 31	8♏49'48	4♈54	0♏11	7♈19	12♏13	18°R45	29♏ 4	14♏40	18♈20	16♏15	23°R 2	23♏37	5♏43	14°R11
W 2	4 43 27	9°50'39	17°11	1° 8	8°33	12°40	18°R38	29° 7	14°41	18°23	16°15	23♏ 0	23°34	5°50	14°R11
T 3	4 47 24	10°51'31	29°18	2° 0	9°47	13° 7	18°31	29°11	14°42	18°25	16°16	22°58	23°31	5°56	14°R12
F 4	4 51 20	11°52'25	11♏17	2°47	11° 2	13°33	18°24	29°14	14°43	18°27	16°16	22°57	23°27	6° 3	14°R12
S 5	4 55 17	12°53'20	23°10	3°27	12°16	14° 0	18°17	29°17	14°44	18°29	16°17	22°D57	23°24	6°10	14°R13
S 6	4 59 13	13°54'16	4♏58	4° 1	13°30	14°25	18°10	29°20	14°45	18°31	16°17	22°57	23°21	6°16	14°R13
M 7	5 3 10	14°55'13	16°45	4°27	14°44	14°51	18° 4	29°24	14°46	18°33	16°18	22°58	23°18	6°23	14°R14
T 8	5 7 7	15°56'11	28°33	4°45	15°59	15°16	17°58	29°27	14°47	18°35	16°18	22°59	23°15	6°30	14°R15
W 9	5 11 3	16°57'09	10♏25	4°R53	17°13	15°42	17°51	29°31	14°47	18°37	16°18	23° 0	23°12	6°36	14°R15
T 10	5 15 0	17°58'08	22°24	4°50	18°27	16° 6	17°45	29°35	14°48	18°39	16°19	23° 0	23° 8	6°43	14°R16
F 11	5 18 56	18°59'08	4♏36	4°37	19°42	16°31	17°39	29°39	14°48	18°41	16°19	23° 1	23° 5	6°50	14°R17
S 12	5 22 53	20° 0'08	17° 5	4°13	20°56	16°55	17°33	29°43	14°49	18°43	16°19	23°R 1	23° 2	6°56	14°R18
S 13	5 26 49	21° 1'09	29°53	3°37	22°11	17°19	17°28	29°47	14°49	18°45	16°19	23° 1	22°59	7° 3	14°R19
M 14	5 30 46	22° 2'10	13♏ 7	2°50	23°25	17°43	17°22	29°51	14°50	18°47	16°19	23° 1	22°56	7°10	14°R20
T 15	5 34 43	23° 3'11	26°47	1°52	24°40	18° 6	17°17	29°55	14°50	18°49	16°20	23°D 1	22°52	7°16	14°R21
W 16	5 38 39	24° 4'14	10♏54	0°44	25°54	18°29	17°12	29°59	14°50	18°51	16°20	23° 1	22°49	7°23	14°R22
T 17	5 42 36	25° 5'16	25°28	29♏30	27° 9	18°52	17° 7	0♏ 3	14°51	18°53	16°20	23° 1	22°46	7°30	14°R24
F 18	5 46 32	26° 6'19	10♏23	28°10	28°23	19°14	17° 2	0° 8	14°51	18°55	16°20	23° 1	22°43	7°36	14°R25
S 19	5 50 29	27° 7'23	25°32	26°47	29°38	19°36	16°58	0°12	14°51	18°57	16°R20	23°R 1	22°40	7°43	14°R26
S 20	5 54 25	28° 8'27	10♏46	25°24	0♏53	19°58	16°53	0°17	14°R51	18°59	16°20	23° 1	22°37	7°49	14°R27
M 21	5 58 22	29° 9'32	25°55	24° 5	2° 7	20°19	16°49	0°21	14°51	19° 0	16°20	23° 0	22°33	7°56	14°R29
T 22	6 2 18	0♏10'38	10♏51	22°51	3°22	20°40	16°45	0°26	14°51	19° 2	16°20	23° 0	22°30	8° 3	14°R30
W 23	6 6 15	1°11'44	25°25	21°44	4°37	21° 1	16°41	0°31	14°51	19° 4	16°20	22°59	22°27	8° 9	14°R32
T 24	6 10 12	2°12'50	9♏34	20°47	5°52	21°21	16°38	0°36	14°50	19° 6	16°19	22°58	22°24	8°16	14°R34
F 25	6 14 8	3°13'58	23°16	19°59	7° 6	21°41	16°34	0°41	14°50	19° 8	16°19	22°57	22°21	8°23	14°R35
S 26	6 18 5	4°15'06	6♏33	19°22	8°21	22° 1	16°31	0°46	14°50	19° 9	16°19	22°D57	22°18	8°29	14°R37
S 27	6 22 1	5°16'14	19°26	18°56	9°36	22°20	16°28	0°51	14°50	19°11	16°19	22°57	22°14	8°36	14°R39
M 28	6 25 58	6°17'23	1♈59	18°40	10°51	22°38	16°25	0°56	14°49	19°13	16°18	22°58	22°11	8°43	14°R40
T 29	6 29 54	7°18'33	14°15	18°D35	12° 6	22°57	16°22	1° 1	14°49	19°14	16°18	23° 0	22° 8	8°49	14°R42
W 30	6 33 51	8°19'43	26°20	18°38	13°21	23°15	16°20	1° 7	14°48	19°16	16°18	23° 1	22° 5	8°56	14°R44
T 31	6 37 47	9♏20'53	8♏16	18♏51	14♏36	23♏32	16♏18	1♏12	14♏48	19♈18	16♏17	23♏ 2	22♏ 2	9♏ 3	14♏46

Delta T = 35.67 sec.

created from Swiss Ephemeris, Copyright Astrodienst AG [11.2.2014]