

# SWISS EPHEMERIS for the year 1982

JANUARY 1982

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Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	6 41 16	10°14'31	13°18'18	22°31'31	8°R54	7°23'3	6°11'4	21°27'21	2°27'41	25°27'9	26°24'1	22°28'28	23°28'11	11°27'2	18°R15
S 2	6 45 13	11°15'40	26°23'24	24°8'8	8°52'5	7°28'28	6°13'13	21°30'21	2°45'25	25°11'26	26°42'22	22°29'23	23°8'8	11°9'9	18°R14
S 3	6 49 9	12°16'50	9°47'25	25°44'8	8°48'7	7°52'6	6°22'21	21°33'20	2°48'25	25°13'26	26°43'22	22°R29	23°5'5	11°16'18	18°12
M 4	6 53 6	13°17'59	23°33'27	27°19'8	8°41'8	8°16'6	6°30'21	21°36'20	2°51'25	25°15'26	26°44'22	22°29'23	23°2'2	11°23'18	18°11
T 5	6 57 3	14°19'08	7°41'28	28°54'8	8°32'8	8°39'6	6°38'21	21°39'20	2°54'25	25°18'26	26°45'22	22°29'23	22°58'11	11°29'18	18°9
W 6	7 0 59	15°20'16	22°9'0	0°28'8	8°20'9	9°3'6	6°47'21	21°41'20	2°57'25	25°20'26	26°46'22	22°28'22	22°55'11	11°36'18	18°8
T 7	7 4 56	16°21'24	6°11'25	2°1'8	8°6'9	9°25'6	6°55'21	21°44'30	3°0'25	25°22'26	26°47'22	22°27'22	22°52'11	11°43'18	18°7
F 8	7 8 52	17°22'32	21°52'3	3°33'7	9°49'9	9°48'7	7°3'21	21°46'30	3°3'25	25°24'26	26°48'22	22°27'22	22°49'11	11°49'18	18°5
S 9	7 12 49	18°23'40	6°52'5	5°4'7	7°30'10	10°10'7	7°10'21	21°49'30	3°5'25	25°26'26	26°48'22	22°26'22	22°46'11	11°56'18	18°4
S 10	7 16 45	19°24'47	21°47'6	6°32'7	7°9'10	10°32'7	7°18'21	21°51'30	3°8'25	25°28'26	26°49'22	22°D26	22°43'12	12°3'18	18°3
M 11	7 20 42	20°25'54	6°29'7	7°59'6	6°45'10	10°54'7	7°26'21	21°53'30	3°11'25	25°30'26	26°50'22	22°26'22	22°39'12	12°9'18	18°2
T 12	7 24 38	21°27'01	20°52'9	9°23'6	6°19'11	11°15'7	7°33'21	21°55'30	3°14'25	25°33'26	26°50'22	22°26'22	22°36'12	12°16'18	18°1
W 13	7 28 35	22°28'07	4°10'10	10°43'5	5°51'11	11°36'7	7°40'21	21°57'30	3°17'25	25°35'26	26°51'22	22°R26	22°33'12	12°23'18	18°0
T 14	7 32 32	23°29'14	18°22'12	0'5'21	11°57'5	11°57'5	7°47'21	21°59'30	3°19'25	25°37'26	26°52'22	22°26'22	22°30'12	12°29'17	17°59
F 15	7 36 28	24°30'20	1°28'13	1°12'4	4°50'12	12°17'7	7°54'22	2°1'30	3°22'25	25°39'26	26°52'22	22°26'22	22°27'12	12°36'17	17°58
S 16	7 40 25	25°31'26	14°11'14	2°0'12	4°17'12	12°37'8	8°1'22	2°3'30	3°25'25	25°41'26	26°53'22	22°26'22	22°23'12	12°43'17	17°58
S 17	7 44 21	26°32'31	26°33'15	2°21'3	3°43'12	12°57'8	8°8'22	2°4'30	3°27'25	25°43'26	26°53'22	22°D26	22°20'12	12°49'17	17°57
M 18	7 48 18	27°33'37	8°11'16	3°8'13	13°16'8	13°16'8	8°14'22	2°6'30	3°30'25	25°45'26	26°54'22	22°26'22	22°17'12	12°56'17	17°56
T 19	7 52 14	28°34'42	20°37'17	3'23'13	13°35'8	13°35'8	8°21'22	2°7'30	3°32'25	25°47'26	26°54'22	22°26'22	22°14'13	13°3'17	17°56
W 20	7 56 11	29°35'47	2°28'17	4°1'15	13°53'8	13°53'8	8°27'22	2°8'30	3°35'25	25°49'26	26°54'22	22°27'22	22°11'13	13°9'17	17°55
T 21	8 0 7	0°36'52	14°16'18	1°18'14	14°11'8	14°11'8	8°33'22	2°9'30	3°37'25	25°51'26	26°55'22	22°28'22	22°8'13	13°16'17	17°55
F 22	8 4 4	1°37'56	26°7'18	3°0'14	14°29'8	14°29'8	8°39'22	2°10'30	3°40'25	25°53'26	26°55'22	22°29'22	22°4'13	13°23'17	17°55
S 23	8 8 1	2°38'59	8°3'18	0°4'14	14°46'8	14°46'8	8°45'22	2°11'30	3°42'25	25°55'26	26°55'22	22°30'22	22°1'13	13°29'17	17°54
S 24	8 11 57	3°40'02	20°7'18	18°35'29	15°3'8	8°50'22	12°12'30	3°44'25	25°57'26	26°55'22	22°R30	21°58'13	13°36'17	17°54	
M 25	8 15 54	4°41'05	2°21'18	18°21'28	15°19'8	8°56'22	12°13'30	3°47'25	25°58'26	26°56'22	22°30'22	21°55'13	13°43'17	17°54	
T 26	8 19 50	5°42'06	14°47'17	17°55'28	18°15'9	9°1'22	12°13'30	3°49'26	26°0'25	26°56'22	22°29'22	21°52'13	13°49'17	17°54	
W 27	8 23 47	6°43'06	27°26'17	17°18'27	15°50'9	9°6'22	12°14'30	3°51'26	26°2'25	26°56'22	22°27'22	21°48'13	13°56'17	17°D54	
T 28	8 27 43	7°44'06	10°18'16	16°31'27	16°5'9	9°11'22	12°14'30	3°53'26	26°4'25	26°56'22	22°25'22	21°45'14	14°3'17	17°54	
F 29	8 31 40	8°45'04	23°23'15	15°35'26	16°19'9	9°16'22	12°15'30	3°55'26	26°6'25	26°R56	22°23'22	21°42'14	14°9'17	17°54	
S 30	8 35 36	9°46'02	6°42'14	14°31'26	16°33'9	9°21'22	12°15'30	3°57'26	26°7'25	26°56'22	22°21'22	21°39'14	14°16'17	17°54	
S 31	8 39 33	10°46'58	20°14'13	13°22'25	16°46'16	9°25'22	12°R15	3°59'26	26°27'9	26°56'22	22°19'22	21°36'14	14°23'17	17°54	

Delta T = 52.17 sec.

FEBRUARY 1982

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	8 43 30	11°47'52	4°8'0	12°R9	25°R21	16°25'9	9°11'30	22°R15	4°27'1	26°27'11	26°R56	22°R18	21°23'33	14°27'29	17°R55
T 2	8 47 26	12°48'46	18°0'10	10°55'24	24°25'9	17°11'9	9°34'22	22°15'21	4°3'26	26°13'26	26°56'22	22°D18	21°29'14	14°36'17	17°55
W 3	8 51 23	13°49'38	2°11'9	9°42'24	24°38'17	17°23'9	9°38'22	22°14'40	4°5'26	26°14'26	26°56'22	22°18'21	21°26'14	14°43'17	17°55
T 4	8 55 19	14°50'28	16°33'8	8°31'24	24°20'17	17°34'9	9°42'22	22°14'40	4°7'26	26°16'26	26°55'22	22°20'21	21°23'14	14°49'17	17°56
F 5	8 59 16	15°51'18	1°2'7	7°25'24	24°4'17	17°45'9	9°45'22	22°14'40	4°9'26	26°18'26	26°55'22	22°21'22	21°20'14	14°56'17	17°56
S 6	9 3 12	16°52'06	15°35'6	6°24'23	23°51'17	17°55'9	9°49'22	22°13'40	4°10'26	26°19'26	26°55'22	22°R22	21°17'15	15°3'17	17°57
S 7	9 7 9	17°52'52	0°6'5	5°30'23	23°40'18	18°5'9	9°52'22	22°12'40	4°12'26	26°21'26	26°55'22	22°22'21	21°14'15	15°10'17	17°58
M 8	9 11 6	18°53'38	14°30'4	4°44'23	23°32'18	18°14'9	9°55'22	22°12'40	4°14'26	26°22'26	26°54'22	22°21'21	21°10'15	15°16'17	17°58
T 9	9 15 2	19°54'21	28°41'4	4°6'23	23°26'18	18°22'9	9°58'22	22°11'40	4°15'26	26°24'26	26°54'22	22°18'21	21°7'15	15°23'17	17°59
W 10	9 18 59	20°55'04	12°10'3	3°37'23	23°23'18	18°30'10	1°1'22	22°10'40	4°17'26	26°25'26	26°53'22	22°14'21	21°4'15	15°30'18	18°0
T 11	9 22 55	21°55'45	26°6'3	3°15'23	23°D22	18°37'10	1°3'22	22°9'40	4°18'26	26°27'26	26°53'22	22°9'21	21°1'15	15°36'18	18°1
F 12	9 26 52	22°56'25	9°16'3	3°1'23	23°23'18	18°43'10	1°6'22	22°7'40	4°20'26	26°28'26	26°53'22	22°4'20	20°58'15	15°43'18	18°2
S 13	9 30 48	23°57'04	22°3'2	2°D56	23°27'18	18°49'10	1°8'22	22°6'40	4°21'26	26°30'26	26°52'22	21°59'20	20°54'15	15°50'18	18°3
S 14	9 34 45	24°57'42	4°11'30	2°57'23	23°33'18	18°54'10	1°10'22	22°5'40	4°22'26	26°31'26	26°52'22	21°56'20	20°51'15	15°56'18	18°4
M 15	9 38 41	25°58'19	16°40'3	3°5'23	23°42'18	18°59'10	1°12'22	22°3'40	4°23'26	26°33'26	26°51'22	21°54'20	20°48'16	16°3'18	18°5
T 16	9 42 38	26°58'55	28°38'3	3°20'23	23°53'19	19°2'10	1°13'22	22°2'40	4°25'26	26°34'26	26°50'22	21°D54	20°45'16	16°10'18	18°7
W 17	9 46 34	27°59'29	10°29'3	3°41'24	24°6'19	19°6'10	1°15'22	22°0'40	4°26'26	26°35'26	26°50'22	21°54'20	20°42'16	16°16'18	18°8
T 18	9 50 31	29°0'02	22°18'4	4°7'24	24°21'19	19°8'10	1°16'22	21°58'40	4°27'26	26°37'26	26°49'22	21°56'20	20°39'16	16°23'18	18°9
F 19	9 54 28	0°1'34	4°10'4	4°38'24	24°38'19	19°10'10	1°17'22	21°56'40	4°28'26	26°38'26	26°48'22	21°58'20	20°35'16	16°30'18	18°11
S 20	9 58 24	1°1'05	16°9'5	5°14'24	24°57'19	19°11'10	1°18'22	21°54'40	4°29'26	26°39'26	26°48'22	21°R59	20°32'16	16°36'18	18°12
S 21	10 2 21	2°1'34	28°20'5	5°55'25	25°18'19	19°R11	1°19'22	21°52'40	4°30'26	26°40'26	26°47'22	21°59'20	20°29'16	16°43'18	18°14
M 22	10 6 17	3°2'01	10°46'6	6°39'25	25°41'19	19°10'10	1°19'22	21°50'40	4°31'26	26°42'26	26°46'22	21°57'20	20°26'16	16°50'18	18°15
T 23	10 10 14	4°2'28	23°28'7	7°27'26	26°6'19	19°9'10	1°20'22	21°48'40	4°32'26	26°43'26	26°45'22	21°53'20	20°23'16	16°56'18	18°17
W 24	10 14 10	5°2'52	6°27'8	8°19'26	26°32'19	19°7'10	1°R20	21°45'40	4°32'26	26°44'26	26°45'22	21°47'20	20°20'17	17°3'18	18°19
T 25	10 18 7	6°3'15	19°43'9	9°14'27	27°0'19	19°4'10	1°20'22	21°43'40	4°33'26	26°45'26	26°44'22	21°40'20	20°16'17	17°10'18	18°20
F 26	10 22 3	7°3'36	3°14'10	10°11'27	27°30'19	19°1'10	1°19'22	21°40'40	4°34'26	26°46'26	26°43'22	21°32'20	20°13'17	17°16'18	18°22
S 27	10 26 0	8°3'55	16°58'11	1°12'28	28°1'18	18°56'10	1°19'22	21°38'40	4°34'26	26°47'26	26°42'22	21°24'20	20°10'17	17°23'18	18°24
S 28	10 29 57	9°4'13	0°51'12	1°15'28	28°33'18	18°51'10	1°R18	21°35'40	4°35'26	26°48'26	26°41'22	21°18'20	20°7'17	17°30'18	18°26

Delta T = 52.23 sec.

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# SWISS EPHEMERIS for the year 1982

MARCH 1982

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Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	10 33 53	10°42'28"	14°51'51"	13°20'29"	29°37'18"	18°R45	10°R18	21°R32	4°33'26"	26°49'26"	26°R40	21°R13	20°28'4"	17°36'18"	18°28'28"
T 2	10 37 50	11°44'11"	28°56'14"	29°43'18"	18°39'10"	18°39'10"	10°M17	21°29'21"	4°36'26"	26°50'26"	26°39'21"	21°10'19"	20°0'17"	17°43'18"	18°30'18"
W 3	10 41 46	12°45'13"	5'02'27"	10°16'49"	0°57'18"	18°23'10"	10°15'	21°26'4°36'	26°51'26°38'	26°51'26°38'	21°D 9'	19°57'17°50'	17°50'18°32'	18°32'18°32'	
T 4	10 45 43	13°5'02'	11°58'18"	18°3'1°36'	18°14'	10°13'	21°20'4°37'	26°52'26°36'	21°11'19°51'	19°51'18°3'	18°37'18°39'				
F 5	10 49 39	14°5'09'	15°5'14'	25°24'19°18'	2°16'18°4'	10°11'	21°17'4°37'	26°53'26°34'	21°R11'	19°48'18°10'	18°39'18°41'				
S 6	10 53 36	16°5'17'	17°5'18'	23°24'21°54'	3°40'17°42'	10°7'	21°10'4°37'	26°55'26°32'	21°6'19°41'	18°23'18°43'					
S 7	10 57 32	17°5'18'	7°12'23°14'	4°24'17°30'	10°4'	21°7'4°38'	26°55'26°31'	20°59'19°38'	18°30'18°46'						
M 8	11 1 29	18°5'16'	19°5'13'	20°47'24°36'	5°8'17°18'	10°2'	21°3'4°38'	26°56'26°30'	20°51'19°35'	18°36'18°48'					
T 9	11 5 26	20°5'08'	4°6'26°0'	5°53'17°4'	9°59'21°0'	4°37'26°57'	26°57'26°28'	20°40'19°32'	18°43'18°51'						
W10	11 9 22	21°5'01'	17°8'27°24'	6°40'16°50'	9°57'20°56'	4°37'26°57'	26°27'20°29'	19°29'18°50'	18°53'18°53'						
T 11	11 13 19	22°4'52'	29°51'28°50'	7°27'16°35'	9°53'20°52'	4°37'26°58'	26°26'20°19'	19°25'18°56'	18°56'18°56'						
F 12	11 17 15	23°4'41'	12°17'0°18'	8°15'16°19'	9°50'20°49'	4°37'26°58'	26°25'20°10'	19°22'19°3'	18°59'18°59'						
S 13	11 21 12	24°28'1°46'	9°3'16°3'	9°47'20°45'	4°37'26°59'	26°23'20°4'	19°19'19°10'	19°1'19°1'							
S 14	11 25 8	25°4'15'	18°18'4°48'	10°43'15°29'	9°40'20°37'	4°36'27°0'	26°20'19°58'	19°13'19°23'	19°7'19°7'						
M15	11 29 5	26°3'59'	0°3'6'21'	11°34'15°10'	9°36'20°33'	4°36'27°0'	26°19'19°D57'	19°10'19°30'	19°10'19°10'						
T 16	11 33 1	27°3'42'	11°58'7°55'	12°26'14°52'	9°32'20°29'	4°35'27°1'	26°18'19°58'	19°6'19°36'	19°13'19°13'						
W17	11 36 58	28°3'23'	23°59'9°30'	13°19'14°32'	9°28'20°25'	4°35'27°1'	26°16'19°R58'	19°3'19°43'	19°16'19°16'						
T 18	11 40 55	29°3'02'	0°2'39'	6°13'11°6'	14°12'14°12'	9°23'20°21'	4°34'27°1'	26°15'19°57'	19°0'19°50'	19°19'19°19'					
F 19	11 44 51	0°2'39'	1°2'15'	18°44'12°44'	15°5'13°52'	9°19'20°16'	4°34'27°2'	26°13'19°53'	18°57'19°56'	19°22'19°22'					
S 20	11 48 48	1°2'15'	2°1'49'	1°13'14°23'	15°59'13°31'	9°14'20°12'	4°33'27°2'	26°12'19°47'	18°54'20°3'	19°25'19°25'					
S 21	11 52 44	2°1'49'	3°1'20'	14°52'16°4'	16°54'13°10'	9°9'20°8'	4°32'27°2'	26°10'19°38'	18°51'20°10'	19°28'19°28'					
M22	11 56 41	3°1'20'	4°0'50'	28°30'17°45'	17°50'12°48'	9°4'20°4'	4°31'27°2'	26°9'19°28'	18°47'20°16'	19°31'19°31'					
T 23	12 0 37	4°0'50'	5°0'18'	12°26'19°28'	18°45'12°26'	8°59'19°59'	4°31'27°2'	26°7'19°16'	18°44'20°23'	19°34'19°34'					
W24	12 4 34	5°0'18'	5°59'44'	26°38'21°12'	19°42'12°4'	8°54'19°55'	4°30'27°3'	26°6'19°4'	18°41'20°29'	19°37'19°37'					
T 25	12 8 30	5°59'44'	10°58'22°58'	20°39'11°41'	8°48'19°50'	4°29'27°3'	26°4'18°54'	18°38'20°36'	19°41'19°41'						
F 26	12 12 27	7°58'29'	25°22'24°45'	21°36'11°18'	8°43'19°46'	4°28'27°3'	26°3'18°46'	18°35'20°43'	19°44'19°44'						
S 27	12 16 23	8°57'48'	9°11'44'	26°33'22°34'	10°55'8°37'	19°41'4°27'	27°R 3'	26°1'18°41'	18°31'20°49'	19°47'19°47'					
S 28	12 20 20	9°11'44'	24°11'0'	28°13'23°33'	10°55'8°37'	19°41'4°27'	27°R 3'	25°59'18°53'	18°52'20°56'	19°51'19°51'					
M29	12 24 17	9°11'44'	24°11'0'	28°13'23°33'	10°55'8°37'	19°41'4°27'	27°R 3'	25°59'18°53'	18°52'20°56'	19°51'19°51'					
T 30	12 28 13	9°11'44'	24°11'0'	28°13'23°33'	10°55'8°37'	19°41'4°27'	27°R 3'	25°59'18°53'	18°52'20°56'	19°51'19°51'					
W31	12 32 10	9°11'44'	24°11'0'	28°13'23°33'	10°55'8°37'	19°41'4°27'	27°R 3'	25°59'18°53'	18°52'20°56'	19°51'19°51'					

Delta T = 52.29 sec.

APRIL 1982

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Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	12 36 6	10°56'20	8°29 9	0°14	24°30	10°R 9	8°R25	19°R32	4°R25	27°R 3	25°R58	18°R38	18°25	21°R 3	19°54
F 2	12 40 3	11°55'32	22° 8	2° 6	25°29	9°46	8°19	19°28	4°24	27°2	25°56	18°38	18°22	21° 9	19°57
S 3	12 43 59	12°54'42	5°158	4° 0	26°29	9°22	8°13	19°23	4°22	27° 2	25°54	18°37	18°19	21°16	20° 1
S 4	12 47 56	13°53'50	19°40	5°55	27°28	8°59	8° 7	19°19	4°21	27° 2	25°53	18°34	18°16	21°23	20° 4
M 5	12 51 52	14°52'55	3°12	7°52	28°28	8°36	8° 0	19°14	4°20	27° 2	25°51	18°29	18°12	21°29	20° 8
T 6	12 55 49	15°51'58	16°34	9°50	29°29	8°13	7°54	19° 9	4°19	27° 2	25°50	18°21	18° 9	21°36	20°11
W 7	12 59 46	16°50'59	29°46	11°49	0°30	7°50	7°47	19° 5	4°17	27° 1	25°48	18°10	18° 6	21°43	20°15
T 8	13 3 42	17°49'57	12°45	13°49	1°31	7°28	7°40	19° 0	4°16	27° 1	25°46	17°57	18° 3	21°49	20°19
F 9	13 7 39	18°48'54	25°31	15°51	2°32	7° 6	7°33	18°56	4°14	27° 1	25°45	17°44	18° 0	21°56	20°22
S 10	13 11 35	19°47'49	8°11	17°54	3°34	6°44	7°27	18°51	4°13	27° 1	25°43	17°31	17°57	22° 3	20°26
S 11	13 15 32	20°46'41	20°21	19°57	4°36	6°22	7°20	18°46	4°11	27° 0	25°41	17°19	17°53	22° 9	20°30
M12	13 19 28	21°45'32	2°12	22° 2	5°38	6° 1	7°12	18°42	4°10	27° 0	25°39	17°10	17°50	22°16	20°33
T 13	13 23 25	22°44'21	14°23	24° 8	6°41	5°40	7° 5	18°37	4° 8	26°59	25°38	17° 4	17°47	22°23	20°37
W14	13 27 21	23°43'09	26°13	26°14	7°44	5°19	6°58	18°32	4° 6	26°59	25°36	17° 0	17°44	22°29	20°41
T 15	13 31 18	24°41'54	8°3	28°20	8°47	4°59	6°51	18°28	4° 5	26°58	25°34	16°59	17°41	22°36	20°45
F 16	13 35 15	25°40'38	19°52	0°27	9°50	4°40	6°43	18°23	4° 3	26°58	25°33	16°59	17°37	22°43	20°49
S 17	13 39 11	26°39'21	1°52	2°34	10°54	4°21	6°36	18°19	4° 1	26°57	25°31	16°59	17°34	22°49	20°53
S 18	13 43 8	27°38'01	14° 5	4°40	11°58	4° 3	6°29	18°14	3°59	26°57	25°29	16°58	17°31	22°56	20°56
M19	13 47 4	28°36'40	26°38	6°45	13° 2	3°45	6°21	18°10	3°57	26°56	25°28	16°55	17°28	23° 3	21° 0
T 20	13 51 1	29°35'17	9°34	8°50	14° 6	3°28	6°13	18° 5	3°56	26°55	25°26	16°50	17°25	23° 9	21° 4
W21	13 54 57	0°33'52	22°56	10°53	15°10	3°12	6° 6	18° 1	3°54	26°55	25°24	16°42	17°22	23°16	21° 8
T 22	13 58 54	1°32'26	6°14	12°55	16°15	2°56	5°58	17°56	3°52	26°54	25°23	16°32	17°18	23°23	21°12
F 23	14 2 50	2°30'58	20°57	14°54	17°20	2°41	5°51	17°52	3°50	26°53	25°21	16°21	17°15	23°29	21°16
S 24	14 6 47	3°29'28	5°30	16°52	18°25	2°27	5°43	17°47	3°48	26°52	25°19	16°10	17°12	23°36	21°20
S 25	14 10 44	4°27'56	20°15	18°47	19°31	2°13	5°35	17°43	3°46	26°52	25°18	16° 0	17° 9	23°43	21°24
M26	14 14 40	5°26'22	5°11	20°39	20°36	2° 0	5°28	17°39	3°44	26°51	25°16	15°52	17° 6	23°49	21°28
T 27	14 18 37	6°24'47	19°49	22°28	21°42	1°48	5°20	17°34	3°42	26°50	25°14	15°48	17° 2	23°56	21°32
W28	14 22 33	7°23'09	4°24	24°13	22°47	1°37	5°12	17°30	3°39	26°49	25°13	15°45	16°59	24° 3	21°36
T 29	14 26 30	8°21'29	18°45	25°55	23°53	1°26	5° 5	17°26	3°37	26°48	25°11	15°D45	16°56	24° 9	21°40
F 30	14 30 26	9°19'47	2°49	27°34	24°59	1°17	4°M57	17°22	3°35	26°47	25°9	15°R45	16°53	24°16	21°44

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# SWISS EPHEMERIS for the year 1982

MAY 1982

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	14 34 23	10♈18'03	16♊37	29♈9	26♈6	1°R 8	4°R49	17°R18	3°R33	26°R46	25°R 8	15°R45	16♊50	24♈23	21♈48
S 2	14 38 19	11°16'17	0♈8	0♈39	27°12	1°0	4♈42	17°14	3°31	26°45	25°6	15°44	16°47	24°29	21°53
M 3	14 42 16	12°14'29	13°25	2°6	28°19	0°53	4°34	17°10	3°28	26°44	25°4	15°40	16°43	24°36	21°57
T 4	14 46 13	13°12'39	26°29	3°28	29°25	0°46	4°27	17°6	3°26	26°43	25°3	15°34	16°40	24°43	22°1
W 5	14 50 9	14°10'46	9♈20	4°47	0°32	0°40	4°19	17°2	3°24	26°42	25°1	15°25	16°37	24°49	22°5
T 6	14 54 6	15°8'52	21°59	6°1	1°39	0°36	4°12	16°58	3°21	26°41	25°0	15°15	16°34	24°56	22°9
F 7	14 58 2	16°6'57	4♈27	7°10	2°46	0°32	4°4	16°54	3°19	26°40	24°58	15°4	16°31	25°2	22°13
S 8	15 1 59	17°4'59	16°44	8°15	3°53	0°28	3°57	16°51	3°17	26°39	24°57	14°53	16°28	25°9	22°17
S 9	15 5 55	18°3'00	28°51	9°16	5°1	0°26	3°50	16°47	3°14	26°38	24°55	14°44	16°24	25°16	22°21
M10	15 9 52	19°1'00	10♈50	10°12	6°8	0°24	3°43	16°44	3°12	26°36	24°54	14°37	16°21	25°22	22°26
T 11	15 13 48	19°58'58	22°42	11°3	7°16	0°23	3°36	16°40	3°10	26°35	24°52	14°32	16°18	25°29	22°30
W12	15 17 45	20°56'54	4♈30	11°50	8°24	0°23	3°28	16°37	3°7	26°34	24°51	14°30	16°15	25°36	22°34
T 13	15 21 42	21°54'49	16°18	12°32	9°31	0°23	3°21	16°33	3°5	26°33	24°49	14°29	16°12	25°42	22°38
F 14	15 25 38	22°52'43	28°9	13°9	10°39	0°25	3°15	16°30	3°2	26°31	24°48	14°30	16°8	25°49	22°42
S 15	15 29 35	23°50'36	10♈8	13°41	11°47	0°27	3°8	16°27	3°0	26°30	24°46	14°31	16°5	25°56	22°46
S 16	15 33 31	24°48'27	22°20	14°8	12°56	0°29	3°1	16°24	2°58	26°29	24°45	14°R32	16°2	26°2	22°51
M17	15 37 28	25°46'17	4♈51	14°30	14°4	0°33	2°54	16°21	2°55	26°28	24°43	14°31	15°59	26°9	22°55
T 18	15 41 24	26°44'06	17°45	14°48	15°12	0°37	2°48	16°18	2°53	26°26	24°42	14°29	15°56	26°16	22°59
W19	15 45 21	27°41'54	1°5	15°0	16°21	0°42	2°42	16°15	2°50	26°25	24°41	14°25	15°53	26°22	23°3
T 20	15 49 17	28°39'40	14°54	15°8	17°29	0°48	2°35	16°12	2°48	26°24	24°39	14°20	15°49	26°29	23°7
F 21	15 53 14	29°37'26	29°11	15°R11	18°38	0°54	2°29	16°9	2°45	26°22	24°38	14°13	15°46	26°36	23°11
S 22	15 57 10	0♈35'10	13♈51	15°9	19°47	1°1	2°23	16°7	2°43	26°21	24°37	14°6	15°43	26°42	23°16
S 23	16 1 7	1°32'53	28°48	15°2	20°55	1°9	2°17	16°4	2°40	26°19	24°36	14°0	15°40	26°49	23°20
M24	16 5 4	2°30'35	13♈54	14°51	22°4	1°17	2°11	16°2	2°38	26°18	24°34	13°56	15°37	26°56	23°24
T 25	16 9 0	3°28'16	28°59	14°36	23°13	1°26	2°6	15°59	2°35	26°16	24°33	13°53	15°34	27°2	23°28
W26	16 12 57	4°25'55	13♈53	14°17	24°22	1°35	2°0	15°57	2°33	26°15	24°32	13°D52	15°30	27°9	23°32
T 27	16 16 53	5°23'33	28°32	13°55	25°31	1°46	1°55	15°55	2°30	26°13	24°31	13°53	15°27	27°16	23°36
F 28	16 20 50	6°21'09	12♈49	13°30	26°41	1°57	1°49	15°52	2°28	26°12	24°30	13°54	15°24	27°22	23°40
S 29	16 24 46	7°18'44	26°44	13°2	27°50	2°8	1°44	15°50	2°25	26°10	24°28	13°56	15°21	27°29	23°44
S30	16 28 43	8°16'17	10♈17	12°31	28°59	2°20	1°39	15°49	2°23	26°9	24°27	13°R56	15°18	27°36	23°48
M31	16 32 40	9♈13'49	23♈30	11♈59	0♈9	2°33	1°34	15°47	2°20	26°7	24°26	13°55	15°14	27°42	23°53

Delta T = 52.42 sec.

JUNE 1982

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	16 36 36	10♈11'20	6♈24	11°R26	1♈18	2°46	1°R30	15°R45	2°R18	26°R 6	24°R25	13°R53	15°11	27°49	23♈57
W 2	16 40 33	11°8'49	19°2	10♈52	2°28	3°0	1°R25	15°43	2°15	26°4	24°24	13°49	15°8	27°55	24°1
T 3	16 44 29	12°6'17	1♈26	10°19	3°37	3°14	1°21	15°42	2°13	26°3	24°23	13°44	15°5	28°2	24°5
F 4	16 48 26	13°3'44	13°40	9°46	4°47	3°29	1°16	15°40	2°10	26°1	24°22	13°39	15°2	28°9	24°9
S 5	16 52 22	14°1'09	25°45	9°14	5°57	3°44	1°12	15°39	2°8	26°0	24°21	13°34	14°59	28°15	24°13
S 6	16 56 19	14°58'34	7♈42	8°44	7°6	4°0	1°9	15°38	2°6	25°58	24°20	13°29	14°55	28°22	24°17
M 7	17 0 15	15°55'58	19°34	8°17	8°16	4°16	1°5	15°36	2°3	25°57	24°19	13°26	14°52	28°29	24°21
T 8	17 4 12	16°53'21	1♈23	7°51	9°26	4°33	1°1	15°35	2°1	25°55	24°19	13°24	14°49	28°35	24°25
W 9	17 8 9	17°50'43	13°10	7°30	10°36	4°51	0°58	15°34	1°58	25°53	24°18	13°D23	14°46	28°42	24°29
T 10	17 12 5	18°48'05	24°59	7°11	11°46	5°8	0°55	15°33	1°56	25°52	24°17	13°24	14°43	28°49	24°32
F 11	17 16 2	19°45'26	6♈53	6°56	12°56	5°27	0°51	15°33	1°54	25°50	24°16	13°25	14°40	28°55	24°36
S 12	17 19 58	20°42'46	18°56	6°46	14°7	5°45	0°49	15°32	1°51	25°49	24°15	13°27	14°36	29°2	24°40
S 13	17 23 55	21°40'06	1♈10	6°39	15°17	6°5	0°46	15°31	1°49	25°47	24°15	13°28	14°33	29°9	24°44
M14	17 27 51	22°37'25	13°41	6°D37	16°27	6°24	0°43	15°31	1°47	25°45	24°14	13°29	14°30	29°15	24°48
T 15	17 31 48	23°34'44	26°32	6°39	17°37	6°44	0°41	15°30	1°45	25°44	24°13	13°R29	14°27	29°22	24°52
W16	17 35 44	24°32'02	9♈48	6°46	18°48	7°5	0°39	15°30	1°42	25°42	24°13	13°29	14°24	29°29	24°55
T 17	17 39 41	25°29'21	23°30	6°58	19°58	7°26	0°37	15°30	1°40	25°40	24°12	13°27	14°20	29°35	24°59
F 18	17 43 38	26°26'39	7♈39	7°14	21°9	7°47	0°35	15°D30	1°38	25°39	24°12	13°26	14°17	29°42	25°3
S 19	17 47 34	27°23'56	22°14	7°35	22°19	8°9	0°33	15°30	1°36	25°37	24°11	13°23	14°14	29°49	25°7
S 20	17 51 31	28°21'14	7♈8	8°0	23°30	8°31	0°32	15°30	1°34	25°36	24°10	13°22	14°11	29°55	25°10
M21	17 55 27	29°18'31	22°16	8°30	24°41	8°53	0°30	15°30	1°31	25°34	24°10	13°20	14°8	0°2	25°14
T 22	17 59 24	0♈15'47	7♈28	9°4	25°51	9°16	0°29	15°30	1°29	25°32	24°10	13°D20	14°5	0°8	25°18
W23	18 3 20	1°13'04	22°34	9°43	27°2	9°39	0°28	15°31	1°27	25°31	24°9	13°20	14°1	0°15	25°21
T 24	18 7 17	2°10'19	7♈26	10°26	28°13	10°3	0°27	15°31	1°25	25°29	24°9	13°20	13°58	0°22	25°25
F 25	18 11 13	3°7'35	21°57	11°13	29°24	10°27	0°27	15°32	1°23	25°28	24°8	13°21	13°55	0°28	25°28
S 26	18 15 10	4°4'49	6♈4	12°4	0♈35	10°51	0°26	15°33	1°21	25°26	24°8	13°22	13°52	0°35	25°32
S 27	18 19 7	5°2'03	19°45	13°0	1°46	11°16	0°26	15°34	1°19	25°24	24°8	13°23	13°49	0°42	25°35
M28	18 23 3	5°59'16	3♈0	14°0	2°57	11°41	0°D26	15°34	1°17	25°23	24°8	13°R23	13°46	0°48	25°39
T 29	18 27 0	6°56'29	15°53	15°3	4°8	12°6	0°26	15°35	1°16	25°21	24°7	13°23	13°42	0°55	25°42
W30	18 30 56	7°53'41	28♈26	16♈11	5♈19	12°32	0♈27	15°37	1°14	25°20	24°7	13°22	13°39	1°2	25°45

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# SWISS EPHEMERIS for the year 1982

JULY 1982

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Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	18 34 53	8°50'53	10°44'	17°23'	6°30'	12°58'	0°27'	15°38'	1°12'	25°18'	24°R 7	13°R22	13°36'	1°38'	25°49'
F 2	18 38 49	9°48'05	22°49'	18°38'	7°41'	13°24'	0°28'	15°39'	1°10'	25°16'	24°D 7	13°22'	13°33'	1°15'	25°52'
S 3	18 42 46	10°45'16	4°45'	19°58'	8°53'	13°51'	0°29'	15°40'	1° 8'	25°15'	24° 7	13°21'	13°30'	1°22'	25°55'
S 4	18 46 42	11°42'27	16°36'	21°21'	10° 4'	14°18'	0°30'	15°42'	1° 7'	25°13'	24° 7	13°21'	13°26'	1°28'	25°59'
M 5	18 50 39	12°39'38	28°24'	22°47'	11°15'	14°45'	0°31'	15°44'	1° 5'	25°12'	24°D 7	13°21'	13°23'	1°35'	26° 2'
T 6	18 54 36	13°36'49	10°32'	24°18'	12°27'	15°13'	0°32'	15°45'	1° 3'	25°10'	24° 7	13°21'	13°20'	1°42'	26° 5'
W 7	18 58 32	14°34'00	22° 3'	25°52'	13°38'	15°40'	0°34'	15°47'	1° 2'	25° 9'	24° 7	13°21'	13°17'	1°48'	26° 8'
T 8	19 2 29	15°31'11	3°58'	27°30'	14°49'	16° 8'	0°36'	15°49'	1° 0'	25° 7'	24° 7	13°21'	13°14'	1°55'	26°11'
F 9	19 6 25	16°28'23	15°59'	29°11'	16° 1'	16°37'	0°38'	15°51'	0°59'	25° 6'	24° 7	13°20'	13°11'	2° 2'	26°14'
S 10	19 10 22	17°25'34	28°10'	0°55'	17°13'	17° 5'	0°40'	15°53'	0°57'	25° 4'	24° 7	13°20'	13° 7'	2° 8'	26°17'
S 11	19 14 18	18°22'46	10°32'	2°43'	18°24'	17°34'	0°42'	15°55'	0°56'	25° 3'	24° 8	13°19'	13° 4'	2°15'	26°20'
M 12	19 18 15	19°19'58	23° 9'	4°33'	19°36'	18° 3'	0°44'	15°57'	0°54'	25° 1'	24° 8	13°19'	13° 1'	2°21'	26°23'
T 13	19 22 11	20°17'11	6°3'	6°27'	20°48'	18°33'	0°47'	16° 0'	0°53'	25° 0'	24° 8	13°18'	12°58'	2°28'	26°26'
W 14	19 26 8	21°14'24	19°16'	8°23'	21°59'	19° 2'	0°50'	16° 2'	0°52'	24°59'	24° 8	13°D18	12°55'	2°35'	26°29'
T 15	19 30 5	22°11'37	2°52'	10°22'	23°11'	19°32'	0°53'	16° 5'	0°51'	24°57'	24° 9	13°18'	12°52'	2°41'	26°31'
F 16	19 34 1	23° 8'52	16°50'	12°23'	24°23'	20° 2'	0°56'	16° 7'	0°49'	24°56'	24° 9	13°19'	12°48'	2°48'	26°34'
S 17	19 37 58	24° 6'07	1°11'	14°26'	25°35'	20°33'	0°59'	16°10'	0°48'	24°54'	24°10	13°20'	12°45'	2°55'	26°37'
S 18	19 41 54	25° 3'23	15°51'	16°30'	26°47'	21° 3'	1° 2'	16°13'	0°47'	24°53'	24°10	13°20'	12°42'	3° 1'	26°40'
M 19	19 45 51	26° 0'39	0°46'	18°36'	27°59'	21°34'	1° 6'	16°16'	0°46'	24°52'	24°10	13°21'	12°39'	3° 8'	26°42'
T 20	19 49 47	26°57'56	15°50'	20°43'	29°11'	22° 5'	1°10'	16°19'	0°45'	24°50'	24°11	13°R21	12°36'	3°15'	26°45'
W 21	19 53 44	27°55'14	0°53'	22°50'	0°23'	22°37'	1°14'	16°22'	0°44'	24°49'	24°12	13°21'	12°32'	3°21'	26°47'
T 22	19 57 41	28°52'32	15°47'	24°58'	1°35'	23° 8'	1°18'	16°25'	0°43'	24°48'	24°12	13°20'	12°29'	3°28'	26°50'
F 23	20 1 37	29°49'50	0°47'	27° 6'	2°47'	23°40'	1°22'	16°28'	0°42'	24°47'	24°13	13°18'	12°26'	3°35'	26°52'
S 24	20 5 34	0°47'09	14°39'	29°13'	4° 0'	24°12'	1°27'	16°32'	0°41'	24°45'	24°13	13°16'	12°23'	3°41'	26°54'
S 25	20 9 30	1°44'28	28°27'	1°20'	5°12'	24°44'	1°31'	16°35'	0°41'	24°44'	24°14	13°13'	12°20'	3°48'	26°57'
M 26	20 13 27	2°41'47	11°48'	3°27'	6°24'	25°17'	1°36'	16°39'	0°40'	24°43'	24°15	13°12'	12°17'	3°55'	26°59'
T 27	20 17 23	3°39'07	24°44'	5°33'	7°36'	25°49'	1°41'	16°42'	0°39'	24°42'	24°15	13°10'	12°13'	4° 1'	27° 1'
W 28	20 21 20	4°36'28	7°18'	7°37'	8°49'	26°22'	1°46'	16°46'	0°38'	24°41'	24°16	13°D10	12°10'	4° 8'	27° 3'
T 29	20 25 16	5°33'49	19°34'	9°41'	10° 1'	26°55'	1°51'	16°50'	0°38'	24°39'	24°17	13°11'	12° 7'	4°14'	27° 6'
F 30	20 29 13	6°31'10	1°36'	11°43'	11°14'	27°28'	1°56'	16°53'	0°37'	24°38'	24°18	13°12'	12° 4'	4°21'	27° 8'
S 31	20 33 10	7°28'32	13°29'	13°44'	12°26'	28° 2'	2°11'	16°57'	0°37'	24°37'	24°19	13°14'	12° 1'	4°28'	27°10'

Delta T = 52.55 sec.

AUGUST 1982

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	20 37 6	8°25'54	25°17'	15°44'	13°39'	28°35'	2°11'	17°11'	0°36'	24°R36	24°R36	24°20	13°15'	11°58'	4°34'
M 2	20 41 3	9°23'18	7°5'	17°42'	14°51'	29° 9'	2°13'	17° 5'	0°36'	24°36'	24°35	24°21	13°16'	11°54'	4°41'
T 3	20 44 59	10°20'42	18°55'	19°38'	16° 4'	29°43'	2°19'	17°10'	0°36'	24°34'	24°22	13°R16	11°51'	4°48'	27°15'
W 4	20 48 56	11°18'06	0°51'	21°33'	17°17'	0°17'	2°25'	17°14'	0°35'	24°33'	24°23	13°15'	11°48'	4°54'	27°17'
T 5	20 52 52	12°15'32	12°56'	23°26'	18°29'	0°52'	2°32'	17°18'	0°35'	24°32'	24°24	13°13'	11°45'	5° 1'	27°19'
F 6	20 56 49	13°12'59	25°10'	25°18'	19°42'	1°26'	2°38'	17°23'	0°35'	24°31'	24°25	13° 9'	11°42'	5° 8'	27°20'
S 7	21 0 45	14°10'26	7°35'	27° 8'	20°55'	2° 1'	2°45'	17°27'	0°35'	24°30'	24°26	13° 4'	11°38'	5°14'	27°22'
S 8	21 4 42	15° 7'55	20°12'	28°57'	22° 8'	2°36'	2°51'	17°32'	0°35'	24°29'	24°27	12°59'	11°35'	5°21'	27°24'
M 9	21 8 39	16° 5'25	3°3'	0°44'	23°21'	3°11'	2°58'	17°36'	0°D35	24°29'	24°28	12°53'	11°32'	5°28'	27°25'
T 10	21 12 35	17° 2'56	16° 7'	2°29'	24°34'	3°46'	3° 5'	17°41'	0°35'	24°28'	24°29	12°49'	11°29'	5°34'	27°27'
W 11	21 16 32	18° 0'28	29°26'	4°13'	25°47'	4°22'	3°12'	17°46'	0°35'	24°27'	24°30	12°46'	11°26'	5°41'	27°28'
T 12	21 20 28	18°58'02	13° 1'	5°56'	27° 0'	4°57'	3°19'	17°50'	0°35'	24°26'	24°32	12°D45	11°23'	5°47'	27°29'
F 13	21 24 25	19°55'38	26°52'	7°37'	28°13'	5°33'	3°26'	17°55'	0°35'	24°25'	24°33	12°45'	11°19'	5°54'	27°31'
S 14	21 28 21	20°53'15	10°15'	9°16'	29°26'	6° 9'	3°34'	18° 0'	0°35'	24°25'	24°34	12°46'	11°16'	6° 1'	27°32'
S 15	21 32 18	21°50'53	25°21'	10°54'	0°39'	6°45'	3°41'	18° 5'	0°35'	24°24'	24°36	12°47'	11°13'	6° 7'	27°33'
M 16	21 36 14	22°48'34	9°56'	12°30'	1°52'	7°21'	3°49'	18°10'	0°36'	24°23'	24°37	12°R48	11°10'	6°14'	27°34'
T 17	21 40 11	23°46'15	24°40'	14° 5'	3° 6'	7°58'	3°57'	18°16'	0°36'	24°23'	24°38	12°48'	11° 7'	6°21'	27°35'
W 18	21 44 8	24°43'58	9°26'	15°39'	4°19'	8°34'	4° 5'	18°21'	0°36'	24°22'	24°40	12°45'	11° 4'	6°27'	27°36'
T 19	21 48 4	25°41'43	24° 8'	17°11'	5°32'	9°11'	4°13'	18°26'	0°37'	24°22'	24°41	12°41'	11° 0'	6°34'	27°37'
F 20	21 52 1	26°39'28	8°48'	18°41'	6°46'	9°48'	4°21'	18°31'	0°37'	24°21'	24°43	12°35'	10°57'	6°41'	27°38'
S 21	21 55 57	27°37'15	22°50'	20°10'	7°59'	10°25'	4°29'	18°37'	0°38'	24°20'	24°44	12°28'	10°54'	6°47'	27°39'
S 22	21 59 54	28°35'03	6°39'	21°38'	9°13'	11° 2'	4°38'	18°42'	0°39'	24°20'	24°46	12°21'	10°51'	6°54'	27°40'
M 23	22 3 50	29°32'53	20° 3'	23° 3'	10°26'	11°39'	4°46'	18°48'	0°39'	24°20'	24°47	12°14'	10°48'	7° 1'	27°40'
T 24	22 7 47	0°30'43	3°11'	24°28'	11°40'	12°17'	4°55'	18°54'	0°40'	24°19'	24°49	12° 9'	10°44'	7° 7'	27°41'
W 25	22 11 43	1°28'35	15°37'	25°51'	12°53'	12°54'	5° 4'	18°59'	0°41'	24°19'	24°50	12° 6'	10°41'	7°14'	27°41'
T 26	22 15 40	2°26'28	27°53'	27°12'	14° 7'	13°32'	5°13'	19° 5'	0°42'	24°18'	24°52	12°D 4	10°38'	7°21'	27°42'
F 27	22 19 36	3°24'23	9°55'	28°31'	15°21'	14°10'	5°22'	19°11'	0°43'	24°18'	24°54	12° 4'	10°35'	7°27'	27°42'
S 28	22 23 33	4°22'19	21°47'	29°49'	16°34'	14°48'	5°31'	19°17'	0°44'	24°18'	24°55	12° 5'	10°32'	7°34'	27°43'
S 29	22 27 30	5°20'16	3°35'	1° 5'	17°48'	15°26'	5°40'	19°22'	0°44'	24°17'	24°57	12° 6'	10°29'	7°40'	27°43'
M 30	22 31 26	6°18'14	15°24'	2°20'	19° 2'	16° 4'	5°49'	19°28'	0°46'	24°17'	24°59	12°R 7	10°25'	7°47'	27°43'
T 31	22 35 23	7°16'14	27°18'	3°42'	20°16'	16°14'	5°58'	19°34'	0°47'	24°17'	25° 1	12° 5'	10°22'	7°54'	27°44'

Delta T = 52.62 sec.

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# SWISS EPHEMERIS for the year 1982

SEPTEMBER 1982

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	22 39 19	8 <sup>h</sup> 14'15	9 <sup>h</sup> 22	4 <sup>h</sup> 43	21 <sup>h</sup> 29	17 <sup>h</sup> 21	6 <sup>h</sup> 8	19 <sup>h</sup> 40	0 <sup>h</sup> 48	24 <sup>h</sup> 17	25 <sup>h</sup> 2	12 <sup>h</sup> 2	10 <sup>h</sup> 19	8 <sup>h</sup> 0	27 <sup>h</sup> 44
T 2	22 43 16	9 <sup>h</sup> 12'18	21 <sup>h</sup> 37	5 <sup>h</sup> 51	22 <sup>h</sup> 43	18 <sup>h</sup> 0	6 <sup>h</sup> 18	19 <sup>h</sup> 46	0 <sup>h</sup> 49	24 <sup>h</sup> 17	25 <sup>h</sup> 4	11 <sup>h</sup> 56	10 <sup>h</sup> 16	8 <sup>h</sup> 7	27 <sup>h</sup> 44
F 3	22 47 12	10 <sup>h</sup> 10'22	4 <sup>h</sup> 6	6 <sup>h</sup> 57	23 <sup>h</sup> 57	18 <sup>h</sup> 39	6 <sup>h</sup> 28	19 <sup>h</sup> 53	0 <sup>h</sup> 50	24 <sup>h</sup> 17	25 <sup>h</sup> 6	11 <sup>h</sup> 48	10 <sup>h</sup> 13	8 <sup>h</sup> 14	27 <sup>h</sup> 44
S 4	22 51 9	11 <sup>h</sup> 8'28	16 <sup>h</sup> 49	8 <sup>h</sup> 2	25 <sup>h</sup> 11	19 <sup>h</sup> 18	6 <sup>h</sup> 37	19 <sup>h</sup> 59	0 <sup>h</sup> 51	24 <sup>h</sup> 16	25 <sup>h</sup> 8	11 <sup>h</sup> 38	10 <sup>h</sup> 9	8 <sup>h</sup> 20	27 <sup>h</sup> 44
S 5	22 55 5	12 <sup>h</sup> 6'35	29 <sup>h</sup> 47	9 <sup>h</sup> 3	26 <sup>h</sup> 25	19 <sup>h</sup> 57	6 <sup>h</sup> 47	20 <sup>h</sup> 5	0 <sup>h</sup> 53	24 <sup>h</sup> 16	25 <sup>h</sup> 10	11 <sup>h</sup> 28	10 <sup>h</sup> 6	8 <sup>h</sup> 27	27 <sup>h</sup> 44
M 6	22 59 2	13 <sup>h</sup> 4'44	12 <sup>h</sup> 59	10 <sup>h</sup> 3	27 <sup>h</sup> 39	20 <sup>h</sup> 36	6 <sup>h</sup> 57	20 <sup>h</sup> 11	0 <sup>h</sup> 54	24 <sup>h</sup> 16	25 <sup>h</sup> 12	11 <sup>h</sup> 17	10 <sup>h</sup> 3	8 <sup>h</sup> 34	27 <sup>h</sup> 43
T 7	23 2 59	14 <sup>h</sup> 2'56	26 <sup>h</sup> 22	10 <sup>h</sup> 59	28 <sup>h</sup> 53	21 <sup>h</sup> 15	7 <sup>h</sup> 7	20 <sup>h</sup> 18	0 <sup>h</sup> 56	24 <sup>h</sup> 16	25 <sup>h</sup> 14	11 <sup>h</sup> 8	10 <sup>h</sup> 0	8 <sup>h</sup> 40	27 <sup>h</sup> 43
W 8	23 6 55	15 <sup>h</sup> 1'09	9 <sup>h</sup> 57	11 <sup>h</sup> 53	0 <sup>h</sup> 7	21 <sup>h</sup> 55	7 <sup>h</sup> 18	20 <sup>h</sup> 24	0 <sup>h</sup> 57	24 <sup>h</sup> 16	25 <sup>h</sup> 16	11 <sup>h</sup> 2	9 <sup>h</sup> 57	8 <sup>h</sup> 47	27 <sup>h</sup> 43
T 9	23 10 52	15 <sup>h</sup> 59'24	23 <sup>h</sup> 41	12 <sup>h</sup> 44	1 <sup>h</sup> 21	22 <sup>h</sup> 34	7 <sup>h</sup> 28	20 <sup>h</sup> 30	0 <sup>h</sup> 59	24 <sup>h</sup> 17	25 <sup>h</sup> 18	10 <sup>h</sup> 57	9 <sup>h</sup> 54	8 <sup>h</sup> 54	27 <sup>h</sup> 42
F 10	23 14 48	16 <sup>h</sup> 57'41	7 <sup>h</sup> 34	13 <sup>h</sup> 31	2 <sup>h</sup> 36	23 <sup>h</sup> 14	7 <sup>h</sup> 38	20 <sup>h</sup> 37	1 <sup>h</sup> 0	24 <sup>h</sup> 17	25 <sup>h</sup> 20	10 <sup>h</sup> 55	9 <sup>h</sup> 50	9 <sup>h</sup> 0	27 <sup>h</sup> 42
S 11	23 18 45	17 <sup>h</sup> 56'01	21 <sup>h</sup> 35	14 <sup>h</sup> 15	3 <sup>h</sup> 50	23 <sup>h</sup> 54	7 <sup>h</sup> 49	20 <sup>h</sup> 43	1 <sup>h</sup> 2	24 <sup>h</sup> 17	25 <sup>h</sup> 22	10 <sup>h</sup> 55	9 <sup>h</sup> 47	9 <sup>h</sup> 7	27 <sup>h</sup> 41
S 12	23 22 41	18 <sup>h</sup> 54'22	5 <sup>h</sup> 44	14 <sup>h</sup> 56	5 <sup>h</sup> 4	24 <sup>h</sup> 34	7 <sup>h</sup> 59	20 <sup>h</sup> 50	1 <sup>h</sup> 3	24 <sup>h</sup> 17	25 <sup>h</sup> 24	10 <sup>h</sup> 55	9 <sup>h</sup> 44	9 <sup>h</sup> 13	27 <sup>h</sup> 41
M13	23 26 38	19 <sup>h</sup> 52'46	19 <sup>h</sup> 59	15 <sup>h</sup> 32	6 <sup>h</sup> 18	25 <sup>h</sup> 14	8 <sup>h</sup> 10	20 <sup>h</sup> 57	1 <sup>h</sup> 5	24 <sup>h</sup> 17	25 <sup>h</sup> 26	10 <sup>h</sup> 55	9 <sup>h</sup> 41	9 <sup>h</sup> 20	27 <sup>h</sup> 40
T 14	23 30 34	20 <sup>h</sup> 51'12	4 <sup>h</sup> 20	16 <sup>h</sup> 5	7 <sup>h</sup> 33	25 <sup>h</sup> 54	8 <sup>h</sup> 21	21 <sup>h</sup> 3	1 <sup>h</sup> 7	24 <sup>h</sup> 17	25 <sup>h</sup> 28	10 <sup>h</sup> 53	9 <sup>h</sup> 38	9 <sup>h</sup> 27	27 <sup>h</sup> 40
W15	23 34 31	21 <sup>h</sup> 49'40	18 <sup>h</sup> 41	16 <sup>h</sup> 32	8 <sup>h</sup> 47	26 <sup>h</sup> 34	8 <sup>h</sup> 31	21 <sup>h</sup> 10	1 <sup>h</sup> 9	24 <sup>h</sup> 18	25 <sup>h</sup> 30	10 <sup>h</sup> 49	9 <sup>h</sup> 35	9 <sup>h</sup> 33	27 <sup>h</sup> 39
T 16	23 38 28	22 <sup>h</sup> 48'10	3 <sup>h</sup> 7	16 <sup>h</sup> 55	10 <sup>h</sup> 1	27 <sup>h</sup> 15	8 <sup>h</sup> 42	21 <sup>h</sup> 16	1 <sup>h</sup> 11	24 <sup>h</sup> 18	25 <sup>h</sup> 32	10 <sup>h</sup> 41	9 <sup>h</sup> 31	9 <sup>h</sup> 40	27 <sup>h</sup> 38
F 17	23 42 24	23 <sup>h</sup> 46'42	17 <sup>h</sup> 11	17 <sup>h</sup> 13	11 <sup>h</sup> 16	27 <sup>h</sup> 55	8 <sup>h</sup> 53	21 <sup>h</sup> 23	1 <sup>h</sup> 13	24 <sup>h</sup> 18	25 <sup>h</sup> 34	10 <sup>h</sup> 32	9 <sup>h</sup> 28	9 <sup>h</sup> 47	27 <sup>h</sup> 37
S 18	23 46 21	24 <sup>h</sup> 45'16	1 <sup>h</sup> 8	17 <sup>h</sup> 25	12 <sup>h</sup> 30	28 <sup>h</sup> 36	9 <sup>h</sup> 4	21 <sup>h</sup> 30	1 <sup>h</sup> 15	24 <sup>h</sup> 19	25 <sup>h</sup> 36	10 <sup>h</sup> 20	9 <sup>h</sup> 25	9 <sup>h</sup> 53	27 <sup>h</sup> 36
S 19	23 50 17	25 <sup>h</sup> 43'51	14 <sup>h</sup> 46	17 <sup>h</sup> 31	13 <sup>h</sup> 45	29 <sup>h</sup> 17	9 <sup>h</sup> 15	21 <sup>h</sup> 37	1 <sup>h</sup> 17	24 <sup>h</sup> 19	25 <sup>h</sup> 38	10 <sup>h</sup> 8	9 <sup>h</sup> 22	10 <sup>h</sup> 0	27 <sup>h</sup> 35
M20	23 54 14	26 <sup>h</sup> 42'29	28 <sup>h</sup> 4	17 <sup>h</sup> 30	14 <sup>h</sup> 59	29 <sup>h</sup> 58	9 <sup>h</sup> 27	21 <sup>h</sup> 44	1 <sup>h</sup> 19	24 <sup>h</sup> 20	25 <sup>h</sup> 40	9 <sup>h</sup> 57	9 <sup>h</sup> 19	10 <sup>h</sup> 7	27 <sup>h</sup> 34
T 21	23 58 10	27 <sup>h</sup> 41'08	11 <sup>h</sup> 0	17 <sup>h</sup> 23	16 <sup>h</sup> 14	0 <sup>h</sup> 39	9 <sup>h</sup> 38	21 <sup>h</sup> 50	1 <sup>h</sup> 21	24 <sup>h</sup> 20	25 <sup>h</sup> 43	9 <sup>h</sup> 48	9 <sup>h</sup> 15	10 <sup>h</sup> 13	27 <sup>h</sup> 33
W22	0 2 7	28 <sup>h</sup> 39'49	23 <sup>h</sup> 34	17 <sup>h</sup> 10	17 <sup>h</sup> 28	1 <sup>h</sup> 20	9 <sup>h</sup> 49	21 <sup>h</sup> 57	1 <sup>h</sup> 23	24 <sup>h</sup> 21	25 <sup>h</sup> 45	9 <sup>h</sup> 41	9 <sup>h</sup> 12	10 <sup>h</sup> 20	27 <sup>h</sup> 32
T 23	0 6 3	29 <sup>h</sup> 38'32	5 <sup>h</sup> 51	16 <sup>h</sup> 49	18 <sup>h</sup> 43	2 <sup>h</sup> 1	10 <sup>h</sup> 1	22 <sup>h</sup> 4	1 <sup>h</sup> 25	24 <sup>h</sup> 21	25 <sup>h</sup> 47	9 <sup>h</sup> 36	9 <sup>h</sup> 9	10 <sup>h</sup> 27	27 <sup>h</sup> 31
F 24	0 10 0	0 <sup>h</sup> 37'17	17 <sup>h</sup> 52	16 <sup>h</sup> 21	19 <sup>h</sup> 58	2 <sup>h</sup> 42	10 <sup>h</sup> 12	22 <sup>h</sup> 11	1 <sup>h</sup> 27	24 <sup>h</sup> 22	25 <sup>h</sup> 49	9 <sup>h</sup> 34	9 <sup>h</sup> 6	10 <sup>h</sup> 33	27 <sup>h</sup> 29
S 25	0 13 57	1 <sup>h</sup> 36'03	29 <sup>h</sup> 45	15 <sup>h</sup> 45	21 <sup>h</sup> 12	3 <sup>h</sup> 24	10 <sup>h</sup> 24	22 <sup>h</sup> 18	1 <sup>h</sup> 29	24 <sup>h</sup> 22	25 <sup>h</sup> 51	9 <sup>h</sup> 34	9 <sup>h</sup> 3	10 <sup>h</sup> 40	27 <sup>h</sup> 28
S 26	0 17 53	2 <sup>h</sup> 34'51	11 <sup>h</sup> 33	15 <sup>h</sup> 3	22 <sup>h</sup> 27	4 <sup>h</sup> 5	10 <sup>h</sup> 35	22 <sup>h</sup> 25	1 <sup>h</sup> 32	24 <sup>h</sup> 23	25 <sup>h</sup> 54	9 <sup>h</sup> 34	9 <sup>h</sup> 0	10 <sup>h</sup> 46	27 <sup>h</sup> 27
M27	0 21 50	3 <sup>h</sup> 33'41	23 <sup>h</sup> 22	14 <sup>h</sup> 13	23 <sup>h</sup> 41	4 <sup>h</sup> 47	10 <sup>h</sup> 47	22 <sup>h</sup> 32	1 <sup>h</sup> 34	24 <sup>h</sup> 24	25 <sup>h</sup> 56	9 <sup>h</sup> 33	8 <sup>h</sup> 56	10 <sup>h</sup> 53	27 <sup>h</sup> 25
T 28	0 25 46	4 <sup>h</sup> 32'33	5 <sup>h</sup> 49	13 <sup>h</sup> 18	24 <sup>h</sup> 56	5 <sup>h</sup> 29	10 <sup>h</sup> 59	22 <sup>h</sup> 39	1 <sup>h</sup> 36	24 <sup>h</sup> 24	25 <sup>h</sup> 58	9 <sup>h</sup> 31	8 <sup>h</sup> 53	11 <sup>h</sup> 0	27 <sup>h</sup> 24
W29	0 29 43	5 <sup>h</sup> 31'26	17 <sup>h</sup> 27	12 <sup>h</sup> 18	26 <sup>h</sup> 11	6 <sup>h</sup> 11	11 <sup>h</sup> 10	22 <sup>h</sup> 46	1 <sup>h</sup> 39	24 <sup>h</sup> 25	26 <sup>h</sup> 0	9 <sup>h</sup> 27	8 <sup>h</sup> 50	11 <sup>h</sup> 6	27 <sup>h</sup> 22
T 30	0 33 39	6 <sup>h</sup> 30'21	29 <sup>h</sup> 50	11 <sup>h</sup> 13	27 <sup>h</sup> 26	6 <sup>h</sup> 52	11 <sup>h</sup> 22	22 <sup>h</sup> 53	1 <sup>h</sup> 41	24 <sup>h</sup> 26	26 <sup>h</sup> 3	9 <sup>h</sup> 20	8 <sup>h</sup> 47	11 <sup>h</sup> 13	27 <sup>h</sup> 21

Delta T = 52.69 sec.

OCTOBER 1982

00:00 UT

Day	Sid.t	☉	☽	♀	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	0 37 36	7 <sup>h</sup> 29'18	12 <sup>h</sup> 32	10 <sup>h</sup> R 6	28 <sup>h</sup> 40	7 <sup>h</sup> 34	11 <sup>h</sup> 34	23 <sup>h</sup> 1	1 <sup>h</sup> 44	24 <sup>h</sup> 27	26 <sup>h</sup> 5	9 <sup>h</sup> R10	8 <sup>h</sup> 44	11 <sup>h</sup> 20	27 <sup>h</sup> R19
S 2	0 41 32	8 <sup>h</sup> 28'17	25 <sup>h</sup> 32	8 <sup>h</sup> 57	29 <sup>h</sup> 55	8 <sup>h</sup> 17	11 <sup>h</sup> 46	23 <sup>h</sup> 8	1 <sup>h</sup> 46	24 <sup>h</sup> 28	26 <sup>h</sup> 7	8 <sup>h</sup> 58	8 <sup>h</sup> 40	11 <sup>h</sup> 26	27 <sup>h</sup> R17
S 3	0 45 29	9 <sup>h</sup> 27'18	8 <sup>h</sup> Y52	7 <sup>h</sup> 49	1 <sup>h</sup> 10	8 <sup>h</sup> 59	11 <sup>h</sup> 58	23 <sup>h</sup> 15	1 <sup>h</sup> 49	24 <sup>h</sup> 28	26 <sup>h</sup> 10	8 <sup>h</sup> 45	8 <sup>h</sup> 37	11 <sup>h</sup> 33	27 <sup>h</sup> 15
M 4	0 49 25	10 <sup>h</sup> 26'20	22 <sup>h</sup> 27	6 <sup>h</sup> 44	2 <sup>h</sup> 25	9 <sup>h</sup> 41	12 <sup>h</sup> 10	23 <sup>h</sup> 22	1 <sup>h</sup> 51	24 <sup>h</sup> 29	26 <sup>h</sup> 12	8 <sup>h</sup> 33	8 <sup>h</sup> 34	11 <sup>h</sup> 40	27 <sup>h</sup> 13
T 5	0 53 22	11 <sup>h</sup> 25'25	6 <sup>h</sup> 16	5 <sup>h</sup> 43	3 <sup>h</sup> 40	10 <sup>h</sup> 24	12 <sup>h</sup> 22	23 <sup>h</sup> 29	1 <sup>h</sup> 54	24 <sup>h</sup> 30	26 <sup>h</sup> 14	8 <sup>h</sup> 21	8 <sup>h</sup> 31	11 <sup>h</sup> 46	27 <sup>h</sup> 12
W 6	0 57 19	12 <sup>h</sup> 24'33	20 <sup>h</sup> 15	4 <sup>h</sup> 48	4 <sup>h</sup> 55	11 <sup>h</sup> 6	12 <sup>h</sup> 35	23 <sup>h</sup> 36	1 <sup>h</sup> 57	24 <sup>h</sup> 31	26 <sup>h</sup> 17	8 <sup>h</sup> 13	8 <sup>h</sup> 28	11 <sup>h</sup> 53	27 <sup>h</sup> 10
T 7	1 1 15	13 <sup>h</sup> 23'42	4 <sup>h</sup> II19	4 <sup>h</sup> 0	6 <sup>h</sup> 9	11 <sup>h</sup> 49	12 <sup>h</sup> 47	23 <sup>h</sup> 44	2 <sup>h</sup> 0	24 <sup>h</sup> 32	26 <sup>h</sup> 19	8 <sup>h</sup> 7	8 <sup>h</sup> 25	12 <sup>h</sup> 0	27 <sup>h</sup> 8
F 8	1 5 12	14 <sup>h</sup> 22'54	18 <sup>h</sup> 26	3 <sup>h</sup> 21	7 <sup>h</sup> 24	12 <sup>h</sup> 31	12 <sup>h</sup> 59	23 <sup>h</sup> 51	2 <sup>h</sup> 2	24 <sup>h</sup> 33	26 <sup>h</sup> 21	8 <sup>h</sup> 4	8 <sup>h</sup> 21	12 <sup>h</sup> 6	27 <sup>h</sup> 6
S 9	1 9 8	15 <sup>h</sup> 22'08	2 <sup>h</sup> 33	2 <sup>h</sup> 52	8 <sup>h</sup> 39	13 <sup>h</sup> 14	13 <sup>h</sup> 11	23 <sup>h</sup> 58	2 <sup>h</sup> 5	24 <sup>h</sup> 34	26 <sup>h</sup> 24	8 <sup>h</sup> 3	8 <sup>h</sup> 18	12 <sup>h</sup> 13	27 <sup>h</sup> 4
S 10	1 13 5	16 <sup>h</sup> 21'24	16 <sup>h</sup> 40	2 <sup>h</sup> 33	9 <sup>h</sup> 54	13 <sup>h</sup> 57	13 <sup>h</sup> 24	24 <sup>h</sup> 5	2 <sup>h</sup> 8	24 <sup>h</sup> 35	26 <sup>h</sup> 26	8 <sup>h</sup> 3	8 <sup>h</sup> 15	12 <sup>h</sup> 19	27 <sup>h</sup> 1
M11	1 17 1	17 <sup>h</sup> 20'43	0 <sup>h</sup> 45	2 <sup>h</sup> D25	11 <sup>h</sup> 9	14 <sup>h</sup> 40	13 <sup>h</sup> 36	24 <sup>h</sup> 13	2 <sup>h</sup> 11	24 <sup>h</sup> 36	26 <sup>h</sup> 29	8 <sup>h</sup> 3	8 <sup>h</sup> 12	12 <sup>h</sup> 26	26 <sup>h</sup> 59
T 12	1 20 58	18 <sup>h</sup> 20'04	14 <sup>h</sup> 47	2 <sup>h</sup> 28	12 <sup>h</sup> 24	15 <sup>h</sup> 23	13 <sup>h</sup> 49	24 <sup>h</sup> 20	2 <sup>h</sup> 14	24 <sup>h</sup> 38	26 <sup>h</sup> 31	8 <sup>h</sup> 0	8 <sup>h</sup> 9	12 <sup>h</sup> 33	26 <sup>h</sup> 57
W13	1 24 54	19 <sup>h</sup> 19'28	28 <sup>h</sup> 45	2 <sup>h</sup> 42	13 <sup>h</sup> 39	16 <sup>h</sup> 6	14 <sup>h</sup> 1	24 <sup>h</sup> 27	2 <sup>h</sup> 17	24 <sup>h</sup> 39	26 <sup>h</sup> 33	7 <sup>h</sup> 56	8 <sup>h</sup> 6	12 <sup>h</sup> 39	26 <sup>h</sup> 55
T 14	1 28 51	20 <sup>h</sup> 18'53	12 <sup>h</sup> 38	3 <sup>h</sup> 6	14 <sup>h</sup> 54	16 <sup>h</sup> 49	14 <sup>h</sup> 14	24 <sup>h</sup> 34	2 <sup>h</sup> 20	24 <sup>h</sup> 40	26 <sup>h</sup> 36	7 <sup>h</sup> 48	8 <sup>h</sup> 2	12 <sup>h</sup> 46	26 <sup>h</sup> 52
F 15	1 32 48	21 <sup>h</sup> 18'21	26 <sup>h</sup> 23	3 <sup>h</sup> 40	16 <sup>h</sup> 9	17 <sup>h</sup> 33	14 <sup>h</sup> 26	24 <sup>h</sup> 42	2 <sup>h</sup> 23	24 <sup>h</sup> 41	26 <sup>h</sup> 38	7 <sup>h</sup> 38	7 <sup>h</sup> 59	12 <sup>h</sup> 53	26 <sup>h</sup> 50
S 16	1 36 44	22 <sup>h</sup> 17'51	9 <sup>h</sup> 56	4 <sup>h</sup> 22	17 <sup>h</sup> 24	18 <sup>h</sup> 16	14 <sup>h</sup> 39	24 <sup>h</sup> 49	2 <sup>h</sup> 26	24 <sup>h</sup> 42	26 <sup>h</sup> 41	7 <sup>h</sup> 26	7 <sup>h</sup> 56	12 <sup>h</sup> 59	26 <sup>h</sup> 48
S 17	1 40 41	23 <sup>h</sup> 17'23	23 <sup>h</sup> 15	5 <sup>h</sup> 13	18 <sup>h</sup> 40	19 <sup>h</sup> 0	14 <sup>h</sup> 52	24 <sup>h</sup> 56	2 <sup>h</sup> 29	24 <sup>h</sup> 44	26 <sup>h</sup> 43	7 <sup>h</sup> 14	7 <sup>h</sup> 53	13 <sup>h</sup> 6	26 <sup>h</sup> 45
M18	1 44 37	24 <sup>h</sup> 16'57	6 <sup>h</sup> 18	6 <sup>h</sup> 12	19 <sup>h</sup> 55	19 <sup>h</sup> 43	15 <sup>h</sup> 5	25 <sup>h</sup> 4	2 <sup>h</sup> 32	24 <sup>h</sup> 45	26 <sup>h</sup> 45	7 <sup>h</sup> 2	7 <sup>h</sup> 50	13 <sup>h</sup> 13	26 <sup>h</sup> 43
T 19	1 48 34	25 <sup>h</sup> 16'33	19 <sup>h</sup> 3	7 <sup>h</sup> 17	21 <sup>h</sup> 10	20 <sup>h</sup> 27	15 <sup>h</sup> 17	25 <sup>h</sup> 11	2 <sup>h</sup> 35	24 <sup>h</sup> 46	26 <sup>h</sup> 48	6 <sup>h</sup> 52	7 <sup>h</sup> 46	13 <sup>h</sup> 19	26 <sup>h</sup> 40
W20	1 52 30	26 <sup>h</sup> 16'11	1 <sup>h</sup> 31	8 <sup>h</sup> 28	22 <sup>h</sup> 25	21 <sup>h</sup> 11	15 <sup>h</sup> 30	25 <sup>h</sup> 18	2 <sup>h</sup> 38	24 <sup>h</sup> 48	26 <sup>h</sup> 50	6 <sup>h</sup> 44	7 <sup>h</sup> 43	13 <sup>h</sup> 26	26 <sup>h</sup> 37
T 21	1 56 27	27 <sup>h</sup> 15'51	13 <sup>h</sup> 44	9 <sup>h</sup> 44	23 <sup>h</sup> 40	21 <sup>h</sup> 54	15 <sup>h</sup> 43	25 <sup>h</sup> 26	2 <sup>h</sup> 41	24 <sup>h</sup> 49	26 <sup>h</sup> 53	6 <sup>h</sup> 39	7 <sup>h</sup> 40	13 <sup>h</sup> 33	26 <sup>h</sup> 35
F 22	2 0 23	28 <sup>h</sup> 15'33	25 <sup>h</sup> 44	11 <sup>h</sup> 4	24 <sup>h</sup> 55	22 <sup>h</sup> 38	15 <sup>h</sup> 56	25 <sup>h</sup> 33	2 <sup>h</sup> 44	24 <sup>h</sup> 51	26 <sup>h</sup> 55	6 <sup>h</sup> 36	7 <sup>h</sup> 37	13 <sup>h</sup> 39	26 <sup>h</sup> 32
S 23	2 4 20	29 <sup>h</sup> 15'17	7 <sup>h</sup> 35	12 <sup>h</sup> 29	26 <sup>h</sup> 10	23 <sup>h</sup> 22	16 <sup>h</sup> 9	25 <sup>h</sup> 40	2 <sup>h</sup> 48	24 <sup>h</sup> 52	26 <sup>h</sup> 57	6 <sup>h</sup> D36	7 <sup>h</sup> 34	13 <sup>h</sup> 46	26 <sup>h</sup> 30
S 24	2 8 17	0 <sup>h</sup> 15'02	19 <sup>h</sup> 22	13 <sup>h</sup> 56	27 <sup>h</sup> 26	24 <sup>h</sup> 6	16 <sup>h</sup> 22	25 <sup>h</sup> 47	2 <sup>h</sup> 51	24 <sup>h</sup> 53	27 <sup>h</sup> 0	6 <sup>h</sup> 36	7 <sup>h</sup> 31	13 <sup>h</sup> 53	26 <sup>h</sup> 27
M25	2 12 13	1 <sup>h</sup> 14'49	1 <sup>h</sup> 11	15 <sup>h</sup> 26	28 <sup>h</sup> 41	24 <sup>h</sup> 51	16 <sup>h</sup> 35	25 <sup>h</sup> 55	2 <sup>h</sup> 54	24 <sup>h</sup> 55	27 <sup>h</sup> 2	6 <sup>h</sup> R36	7 <sup>h</sup> 27	13 <sup>h</sup> 59	26 <sup>h</sup> 24
T 26	2 16 10	2 <sup>h</sup> 14'38	13 <sup>h</sup> 7	16 <sup>h</sup> 58	29 <sup>h</sup> 56	25 <sup>h</sup> 35	16 <sup>h</sup> 48	26 <sup>h</sup> 2	2 <sup>h</sup> 57	24 <sup>h</sup> 56	27 <sup>h</sup> 5	6 <sup>h</sup> 36	7 <sup>h</sup> 24	14 <sup>h</sup> 6	26 <sup>h</sup> 21
W27	2 20 6	3 <sup>h</sup> 14'28	25 <sup>h</sup> 16	18 <sup>h</sup> 32	1 <sup>h</sup> 11	26 <sup>h</sup> 19	17 <sup>h</sup> 1	26 <sup>h</sup> 9	3 <sup>h</sup> 1	24 <sup>h</sup> 58	27 <sup>h</sup> 7	6 <sup>h</sup> 33	7 <sup>h</sup> 21	14 <sup>h</sup> 12	26 <sup>h</sup> 18
T 28	2 24 3	4 <sup>h</sup> 14'20	7 <sup>h</sup> 42	20 <sup>h</sup> 8	2 <sup>h</sup> 26	27 <sup>h</sup> 4	17 <sup>h</sup> 14	26 <sup>h</sup> 16	3 <sup>h</sup> 4	25 <sup>h</sup> 0	27 <sup>h</sup> 9	6 <sup>h</sup> 28	7 <sup>h</sup> 18	14 <sup>h</sup> 19	26 <sup>h</sup> 16
F 29	2 27 59	5 <sup>h</sup> 14'14	20 <sup>h</sup> 29	21 <sup>h</sup> 44	3 <sup>h</sup> 41	27 <sup>h</sup> 48	17 <sup>h</sup> 27	26 <sup>h</sup> 24	3 <sup>h</sup> 7	25 <sup>h</sup> 1	27 <sup>h</sup> 12	6 <sup>h</sup> 21	7 <sup>h</sup> 15	14 <sup>h</sup> 26	26 <sup>h</sup> 13
S 30	2 31 56	6 <sup>h</sup> 14'09	3 <sup>h</sup> Y39	23 <sup>h</sup> 21	4 <sup>h</sup> 57	28 <sup>h</sup> 32	17 <sup>h</sup> 40	26 <sup>h</sup> 31	3 <sup>h</sup> 11	25 <sup>h</sup> 3	27 <sup>h</sup> 14	6 <sup>h</sup> 12	7 <sup>h</sup> 12	14 <sup>h</sup> 32	26 <sup>h</sup> 10
S 31	2 35 52	7 <sup>h</sup> 14'06	17 <sup>h</sup> Y13	24 <sup>h</sup> 59	6 <sup>h</sup> 12	29 <sup>h</sup> 17	17 <sup>h</sup> 53	26 <sup>h</sup> 38	3 <sup>h</sup> 14	25 <sup>h</sup> 14	27 <sup>h</sup> 17	6 <sup>h</sup> 2	7 <sup>h</sup> 2	14 <sup>h</sup> 39	26 <sup>h</sup> 8

# SWISS EPHEMERIS for the year 1982

NOVEMBER 1982

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	2 39 49	8♠14°05	1♠8 8	26♠38	7♠27	0♠2 2	18♠6 6	26♠45	3♠18	25♠6 6	27♠19	5°R52	7♠5 5	14♠46	26°R 4
T 2	2 43 46	9°14'06	15°21	28°16	8°42	0°46	18°19	26°53	3°21	25° 8	27°21	5♠43	7° 2	14°52	26♠1 1
W 3	2 47 42	10°14'09	29°46	29°55	9°58	1°31	18°32	27° 0	3°24	25°10	27°24	5°37	6°59	14°59	25°58
T 4	2 51 39	11°14'13	14♠17	1♠34	11°13	2°16	18°45	27° 7	3°28	25°11	27°26	5°32	6°56	15° 6	25°55
F 5	2 55 35	12°14'20	28°48	3°13	12°28	3° 1	18°59	27°14	3°31	25°13	27°29	5°D30	6°52	15°12	25°52
S 6	2 59 32	13°14'29	13♠14	4°52	13°43	3°46	19°12	27°21	3°35	25°15	27°31	5°30	6°49	15°19	25°49
S 7	3 3 28	14°14'40	27°32	6°30	14°59	4°31	19°25	27°28	3°39	25°17	27°33	5°31	6°46	15°26	25°46
M 8	3 7 25	15°14'53	11♠29	8° 9	16°14	5°16	19°38	27°35	3°42	25°18	27°36	5°R32	6°43	15°32	25°43
T 9	3 11 21	16°15'08	25°36	9°47	17°29	6° 1	19°51	27°42	3°46	25°20	27°38	5°32	6°40	15°39	25°39
W10	3 15 18	17°15'25	9♠20	11°25	18°45	6°47	20° 5	27°50	3°49	25°22	27°40	5°30	6°37	15°46	25°36
T 11	3 19 15	18°15'44	22°53	13° 2	20° 0	7°32	20°18	27°57	3°53	25°24	27°42	5°25	6°33	15°52	25°33
F 12	3 23 11	19°16'05	6♠14	14°39	21°15	8°17	20°31	28° 4	3°56	25°26	27°45	5°19	6°30	15°59	25°30
S 13	3 27 8	20°16'28	19°22	16°17	22°31	9° 3	20°44	28°10	4° 0	25°28	27°47	5°11	6°27	16° 5	25°27
S 14	3 31 4	21°16'53	2♠18	17°53	23°46	9°48	20°58	28°17	4° 4	25°30	27°49	5° 3	6°24	16°12	25°24
M15	3 35 1	22°17'19	15° 1	19°30	25° 1	10°34	21°11	28°24	4° 7	25°32	27°52	4°55	6°21	16°19	25°20
T 16	3 38 57	23°17'48	27°30	21° 6	26°17	11°19	21°24	28°31	4°11	25°34	27°54	4°48	6°18	16°25	25°17
W17	3 42 54	24°18'17	9♠46	22°42	27°32	12° 5	21°37	28°38	4°15	25°36	27°56	4°43	6°14	16°32	25°14
T 18	3 46 50	25°18'49	21°51	24°17	28°47	12°51	21°51	28°45	4°18	25°38	27°58	4°40	6°11	16°39	25°11
F 19	3 50 47	26°19'21	3♠47	25°53	0♠3 3	13°36	22° 4	28°52	4°22	25°40	28° 0	4°D39	6° 8	16°45	25° 8
S 20	3 54 44	27°19'56	15°36	27°28	1°18	14°22	22°17	28°58	4°26	25°42	28° 3	4°40	6° 5	16°52	25° 5
S 21	3 58 40	28°20'31	27°23	29° 3	2°34	15° 8	22°30	29° 5	4°29	25°44	28° 5	4°42	6° 2	16°59	25° 1
M22	4 2 37	29°21'08	9♠11	0♠38	3°49	15°54	22°44	29°12	4°33	25°46	28° 7	4°43	5°58	17° 5	24°58
T 23	4 6 33	0♠21'45	21° 6	2°12	5° 4	16°40	22°57	29°18	4°37	25°48	28° 9	4°45	5°55	17°12	24°55
W24	4 10 30	1°22'24	3♠12	3°46	6°20	17°26	23°10	29°25	4°40	25°50	28°11	4°R45	5°52	17°19	24°52
T 25	4 14 26	2°23'04	15°35	5°21	7°35	18°12	23°23	29°32	4°44	25°52	28°13	4°44	5°49	17°25	24°49
F 26	4 18 23	3°23'46	28°19	6°55	8°50	18°58	23°37	29°38	4°48	25°54	28°15	4°42	5°46	17°32	24°46
S 27	4 22 19	4°24'28	11°V28	8°29	10° 6	19°44	23°50	29°44	4°52	25°56	28°17	4°38	5°43	17°39	24°42
S 28	4 26 16	5°25'11	25° 4	10° 2	11°21	20°31	24° 3	29°51	4°55	25°59	28°19	4°34	5°39	17°45	24°39
M29	4 30 13	6°25'55	9♠6 6	11°36	12°36	21°17	24°16	29°57	4°59	26° 1	28°21	4°29	5°36	17°52	24°36
T 30	4 34 9	7♠26'41	23♠32	13♠10	13♠52	22♠3 3	24♠29	0♠4 4	5♠3 3	26♠3 3	28♠23	4♠25	5♠33	17♠58	24♠33

Delta T = 52.82 sec.

DECEMBER 1982

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	4 38 6	8♠27'28	8♠16	14♠43	15♠7 7	22♠49	24♠42	0♠10	5♠6 6	26♠5 5	28♠25	4°R22	5♠30	18♠5 5	24°R30
T 2	4 42 2	9°28'16	23°10	16°17	16°22	23°36	24°55	0°16	5°10	26° 7	28°27	4♠21	5°27	18°12	24♠27
F 3	4 45 59	10°29'05	8♠7 7	17°50	17°38	24°22	25° 8	0°22	5°14	26°10	28°29	4°D20	5°23	18°18	24°24
S 4	4 49 55	11°29'56	22°59	19°23	18°53	25° 8	25°21	0°28	5°17	26°12	28°31	4°21	5°20	18°25	24°21
S 5	4 53 52	12°30'47	7♠29	20°57	20° 9	25°55	25°34	0°34	5°21	26°14	28°33	4°23	5°17	18°32	24°18
M 6	4 57 48	13°31'41	22° 2	22°30	21°24	26°41	25°47	0°40	5°25	26°16	28°35	4°24	5°14	18°38	24°15
T 7	5 1 45	14°32'35	6♠5 5	24° 3	22°39	27°28	26° 0	0°46	5°28	26°18	28°37	4°25	5°11	18°45	24°12
W 8	5 5 42	15°33'31	19°49	25°36	23°55	28°15	26°13	0°52	5°32	26°21	28°39	4°R25	5° 8	18°52	24° 9
T 9	5 9 38	16°34'28	3♠13	27° 9	25°10	29° 1	26°26	0°58	5°36	26°23	28°41	4°24	5° 4	18°58	24° 6
F 10	5 13 35	17°35'26	16°20	28°42	26°25	29°48	26°39	1° 4	5°39	26°25	28°42	4°23	5° 1	19° 5	24° 3
S 11	5 17 31	18°36'25	29°10	0♠15	27°41	0♠34	26°52	1°10	5°43	26°27	28°44	4°21	4°58	19°12	24° 1
S 12	5 21 28	19°37'25	11♠46	1°48	28°56	1°21	27° 5	1°15	5°47	26°30	28°46	4°18	4°55	19°18	23°58
M13	5 25 24	20°38'27	24° 9	3°21	0♠12	2° 8	27°17	1°21	5°50	26°32	28°47	4°16	4°52	19°25	23°55
T 14	5 29 21	21°39'29	6♠22	4°53	1°27	2°55	27°30	1°26	5°54	26°34	28°49	4°14	4°49	19°32	23°52
W15	5 33 17	22°40'33	18°26	6°26	2°42	3°41	27°43	1°32	5°58	26°36	28°51	4°13	4°45	19°38	23°49
T 16	5 37 14	23°41'37	0♠22	7°58	3°58	4°28	27°55	1°37	6° 1	26°39	28°52	4°D13	4°42	19°45	23°47
F 17	5 41 11	24°42'41	12°13	9°29	5°13	5°15	28° 8	1°43	6° 5	26°41	28°54	4°13	4°39	19°51	23°44
S 18	5 45 7	25°43'47	24° 1	11° 0	6°28	6° 2	28°20	1°48	6° 8	26°43	28°56	4°13	4°36	19°58	23°42
S 19	5 49 4	26°44'52	5♠48	12°31	7°44	6°49	28°33	1°53	6°12	26°45	28°57	4°14	4°33	20° 5	23°39
M20	5 53 0	27°45'59	17°37	14° 1	8°59	7°36	28°45	1°58	6°15	26°48	28°59	4°15	4°30	20°11	23°37
T 21	5 56 57	28°47'05	29°32	15°30	10°14	8°23	28°58	2° 3	6°19	26°50	29° 0	4°15	4°26	20°18	23°34
W22	6 0 53	29°48'12	11♠37	16°58	11°30	9°10	29°10	2° 8	6°22	26°52	29° 1	4°16	4°23	20°25	23°32
T 23	6 4 50	0♠49'19	23°57	18°24	12°45	9°57	29°22	2°13	6°26	26°55	29° 3	4°16	4°20	20°31	23°29
F 24	6 8 47	1°50'26	6♠35	19°50	14° 0	10°44	29°35	2°18	6°29	26°57	29° 4	4°R16	4°17	20°38	23°27
S 25	6 12 43	2°51'33	19°37	21°13	15°16	11°31	29°47	2°23	6°33	26°59	29° 6	4°16	4°14	20°45	23°25
S 26	6 16 40	3°52'40	3♠4 4	22°34	16°31	12°18	29°59	2°28	6°36	27° 1	29° 7	4°D16	4°10	20°51	23°22
M27	6 20 36	4°53'47	16°58	23°53	17°46	13° 5	0♠11	2°32	6°39	27° 4	29° 8	4°16	4° 7	20°58	23°20
T 28	6 24 33	5°54'55	11♠20	25° 9	19° 2	13°52	0°23	2°37	6°43	27° 6	29° 9	4°16	4° 4	21° 5	23°18
W29	6 28 29	6°56'02	16° 5	26°21	20°17	14°39	0°35	2°41	6°46	27° 8	29°11	4°16	4° 1	21°11	23°16
T 30	6 32 26	7°57'10	1♠8 8	27°29	21°32	15°26	0°47	2°46	6°49	27°10	29°12	4°R16	3°58	21°18	23°14
F 31	6 36 22	8♠58'18	16♠21	28♠32	22♠47	16♠13	0♠59	2♠50	6♠53	27♠13	29♠13	4♠16	3♠55	21♠25	23♠12

Delta T = 52.89 sec.

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