

SWISS EPHEMERIS for the year 1993

JANUARY 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	6 42 38	10♌35'11	8♃55	27♂33	26♁41	20°R25	13♂29	16♁21	17♌40	18♌21	24♎36	21♂19	20♂26	8♃30	23°R 0
S 2	6 46 34	11°36'20	21° 2	29° 4	27°48	20♁ 2	13°34	16°27	17°44	18°24	24°38	21°19	20°22	8♃37	22♌58
S 3	6 50 31	12°37'29	3♄22	0♃35	28°54	19°38	13°39	16°34	17°47	18°26	24°40	21°21	20°19	8°44	22°55
M 4	6 54 27	13°38'38	16° 2	2° 7	0♃ 0	19°14	13°43	16°40	17°51	18°28	24°42	21°22	20°16	8°51	22°52
T 5	6 58 24	14°39'46	29° 4	3°39	1° 6	18°50	13°48	16°47	17°54	18°30	24°43	21°24	20°13	8°57	22°49
W 6	7 2 21	15°40'54	12♂30	5°12	2°12	18°26	13°52	16°53	17°58	18°33	24°45	21°25	20°10	9° 4	22°46
T 7	7 6 17	16°42'02	26°22	6°44	3°17	18° 3	13°56	17° 0	18° 2	18°35	24°47	21°R25	20° 6	9°11	22°43
F 8	7 10 14	17°43'10	10♁38	8°18	4°23	17°39	14° 0	17° 6	18° 5	18°37	24°49	21°24	20° 3	9°18	22°40
S 9	7 14 10	18°44'18	25°12	9°51	5°28	17°15	14° 4	17°13	18° 9	18°40	24°50	21°21	20° 0	9°24	22°37
S 10	7 18 7	19°45'25	9♎59	11°26	6°32	16°51	14° 8	17°20	18°12	18°42	24°52	21°18	19°57	9°31	22°33
M11	7 22 3	20°46'32	24°51	13° 0	7°37	16°27	14°11	17°26	18°16	18°44	24°53	21°13	19°54	9°38	22°30
T 12	7 26 0	21°47'39	9♎39	14°35	8°41	16° 4	14°14	17°33	18°19	18°46	24°55	21° 9	19°51	9°44	22°26
W13	7 29 57	22°48'46	24°17	16°11	9°44	15°41	14°18	17°40	18°23	18°49	24°56	21° 5	19°47	9°51	22°23
T 14	7 33 53	23°49'52	8♌39	17°47	10°48	15°18	14°20	17°47	18°27	18°51	24°58	21° 3	19°44	9°58	22°19
F 15	7 37 50	24°50'59	22°42	19°23	11°51	14°56	14°23	17°53	18°30	18°53	24°59	21°D 2	19°41	10° 5	22°16
S 16	7 41 46	25°52'05	6♎26	21° 0	12°53	14°34	14°26	18° 0	18°34	18°55	25° 1	21° 2	19°38	10°11	22°12
S 17	7 45 43	26°53'12	19°51	22°37	13°56	14°12	14°28	18° 7	18°37	18°58	25° 2	21° 4	19°35	10°18	22° 8
M18	7 49 39	27°54'18	2♂59	24°15	14°58	13°51	14°30	18°14	18°41	19° 0	25° 4	21° 5	19°32	10°25	22° 4
T 19	7 53 36	28°55'24	15°52	25°54	15°59	13°30	14°32	18°21	18°44	19° 2	25° 5	21°R 6	19°28	10°31	22° 0
W20	7 57 32	29°56'29	28°33	27°33	17° 0	13°10	14°34	18°28	18°48	19° 4	25° 6	21° 6	19°25	10°38	21°56
T 21	8 1 29	0♁57'34	11♌ 3	29°12	18° 1	12°50	14°36	18°35	18°51	19° 7	25° 8	21° 4	19°22	10°45	21°52
F 22	8 5 26	1°58'39	23°23	0♁53	19° 1	12°31	14°37	18°42	18°55	19° 9	25° 9	21° 0	19°19	10°52	21°48
S 23	8 9 22	2°59'42	5♁34	2°33	20° 1	12°13	14°38	18°49	18°58	19°11	25°10	20°54	19°16	10°58	21°44
S 24	8 13 19	4° 0'45	17°38	4°15	21° 1	11°55	14°39	18°56	19° 2	19°13	25°11	20°46	19°12	11° 5	21°40
M25	8 17 15	5° 1'47	29°37	5°57	22° 0	11°38	14°40	19° 3	19° 5	19°16	25°12	20°37	19° 9	11°12	21°35
T 26	8 21 12	6° 2'48	11♃30	7°39	22°58	11°22	14°41	19°10	19° 9	19°18	25°14	20°28	19° 6	11°19	21°31
W27	8 25 8	7° 3'48	23°21	9°23	23°56	11° 7	14°41	19°17	19°12	19°20	25°15	20°19	19° 3	11°25	21°27
T 28	8 29 5	8° 4'47	5♃13	11° 6	24°53	10°52	14°42	19°25	19°16	19°22	25°16	20°12	19° 0	11°32	21°22
F 29	8 33 1	9° 5'45	17° 8	12°51	25°50	10°38	14°R42	19°32	19°19	19°24	25°17	20° 8	18°57	11°39	21°18
S 30	8 36 58	10° 6'42	29°11	14°35	26°47	10°24	14°42	19°39	19°22	19°27	25°18	20° 5	18°53	11°45	21°13
S 31	8 40 55	11♁ 7'37	11♃27	16♁21	27♂42	10♁12	14♂41	19♁46	19♌26	19♌29	25♎19	20°D 4	18♂50	11♃52	21♌ 9

Delta T = 59.12 sec.

FEBRUARY 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	8 44 51	12♁ 8'31	24♄ 0	18♁ 7	28♂37	10°R 0	14°R41	19♁53	19♌29	19♌31	25♎20	20♂ 5	18♂47	11♃59	21°R 5
T 2	8 48 48	13° 9'24	6♂55	19°53	29°32	9♁49	14♂40	20° 0	19°33	19°33	25°21	20° 6	18°44	12° 6	21♌ 0
W 3	8 52 44	14°10'16	20°17	21°40	0♃25	9°39	14°39	20° 8	19°36	19°35	25°21	20°R 6	18°41	12°12	20°55
T 4	8 56 41	15°11'06	4♁ 7	23°26	1°18	9°30	14°38	20°15	19°39	19°37	25°22	20° 5	18°38	12°19	20°51
F 5	9 0 37	16°11'55	18°27	25°14	2°11	9°22	14°37	20°22	19°42	19°39	25°23	20° 2	18°34	12°26	20°46
S 6	9 4 34	17°12'43	3♎12	27° 1	3° 2	9°14	14°36	20°29	19°46	19°41	25°24	19°57	18°31	12°33	20°42
S 7	9 8 30	18°13'29	18°16	28°47	3°53	9° 7	14°34	20°37	19°49	19°43	25°24	19°49	18°28	12°39	20°37
M 8	9 12 27	19°14'14	3♎30	0♃34	4°43	9° 1	14°32	20°44	19°52	19°45	25°25	19°40	18°25	12°46	20°33
T 9	9 16 24	20°14'57	18°44	2°20	5°32	8°56	14°30	20°51	19°55	19°47	25°26	19°30	18°22	12°53	20°28
W10	9 20 20	21°15'40	3♌45	4° 5	6°20	8°51	14°28	20°58	19°59	19°49	25°26	19°22	18°18	12°59	20°23
T 11	9 24 17	22°16'21	18°26	5°49	7° 8	8°48	14°26	21° 5	20° 2	19°51	25°27	19°15	18°15	13° 6	20°19
F 12	9 28 13	23°17'02	2♎42	7°32	7°54	8°45	14°23	21°13	20° 5	19°53	25°28	19°11	18°12	13°13	20°14
S 13	9 32 10	24°17'41	16°32	9°13	8°39	8°43	14°20	21°20	20° 8	19°55	25°28	19° 9	18° 9	13°20	20° 9
S 14	9 36 6	25°18'19	29°56	10°51	9°24	8°41	14°17	21°27	20°11	19°57	25°29	19°D 9	18° 6	13°26	20° 5
M15	9 40 3	26°18'57	12♂57	12°27	10° 7	8°D41	14°14	21°34	20°14	19°59	25°29	19°R 9	18° 3	13°33	20° 0
T 16	9 43 59	27°19'33	25°39	13°59	10°50	8°41	14°11	21°42	20°17	20° 1	25°29	19° 9	17°59	13°40	19°56
W17	9 47 56	28°20'08	8♃ 6	15°27	11°31	8°42	14° 8	21°49	20°20	20° 3	25°30	19° 8	17°56	13°46	19°51
T 18	9 51 53	29°20'41	20°21	16°50	12°11	8°43	14° 4	21°56	20°23	20° 5	25°30	19° 3	17°53	13°53	19°47
F 19	9 55 49	0♃21'13	2♁28	18° 9	12°49	8°46	14° 0	22° 3	20°26	20° 7	25°30	18°56	17°50	14° 0	19°42
S 20	9 59 46	1°21'44	14°29	19°21	13°27	8°49	13°56	22°10	20°29	20° 9	25°31	18°46	17°47	14° 7	19°38
S 21	10 3 42	2°22'13	26°26	20°27	14° 3	8°52	13°52	22°18	20°32	20°11	25°31	18°33	17°44	14°13	19°33
M22	10 7 39	3°22'40	8♃20	21°25	14°38	8°57	13°48	22°25	20°35	20°12	25°31	18°19	17°40	14°20	19°29
T 23	10 11 35	4°23'06	20°12	22°16	15°11	9° 2	13°43	22°32	20°38	20°14	25°31	18° 5	17°37	14°27	19°24
W24	10 15 32	5°23'30	2♃ 4	22°58	15°43	9° 8	13°39	22°39	20°40	20°16	25°31	17°51	17°34	14°34	19°20
T 25	10 19 28	6°23'52	13°57	23°31	16°14	9°14	13°34	22°46	20°43	20°18	25°31	17°39	17°31	14°40	19°16
F 26	10 23 25	7°24'13	25°54	23°54	16°42	9°21	13°29	22°53	20°46	20°19	25°31	17°30	17°28	14°47	19°11
S 27	10 27 21	8°24'32	7♄58	24° 9	17° 9	9°29	13°24	23° 0	20°49	20°21	25°R31	17°24	17°24	14°54	19° 7
S 28	10 31 18	9♃24'48	20♄12	24°R13	17♃35	9♁37	13♂19	23♁ 7	20♌51	20♌23	25♎31	17♂21	17♂21	15♃ 0	19♌ 3

Delta T = 59.19 sec.

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SWISS EPHEMERIS for the year 1993

MARCH 1993

00:00 UT

Table with 17 columns: Day, Sid.t, ☉, ☽, ♀, ♁, ♂, ♃, ♅, ♁, ♃, ♄, ♆, ♇, ♈, ♉. Rows correspond to days of the month from M 1 to W 31.

Delta T = 59.26 sec.

APRIL 1993

00:00 UT

Table with 17 columns: Day, Sid.t, ☉, ☽, ♀, ♁, ♂, ♃, ♅, ♁, ♃, ♄, ♆, ♇, ♈, ♉. Rows correspond to days of the month from T 1 to F 30.

Delta T = 59.33 sec.

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SWISS EPHEMERIS for the year 1993

MAY 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	14 35 44	10♉38'13	0♐0	24♊34	5♊3	1♈27	6♁R11	29♁2	22♁R11	21♁R 8	24♁R31	12♁R36	14♁4	21♁57	17♁22
S 2	14 39 41	11°36'26	14°29	26°24	5°22	1°56	6♁ 5	29° 6	22♁11	21♁ 8	24♁30	12♁33	14° 1	22° 4	17°23
M 3	14 43 37	12°34'37	29°11	28°16	5°43	2°25	6° 0	29° 9	22°10	21° 8	24°28	12°30	13°58	22°11	17°25
T 4	14 47 34	13°32'46	14♉0	0♉10	6° 5	2°54	5°55	29°13	22°10	21° 7	24°27	12°25	13°55	22°17	17°27
W 5	14 51 31	14°30'53	28°48	2° 6	6°29	3°24	5°51	29°16	22°10	21° 7	24°25	12°22	13°52	22°24	17°29
T 6	14 55 27	15°28'58	13♉28	4° 3	6°55	3°54	5°46	29°20	22° 9	21° 6	24°23	12°18	13°48	22°31	17°31
F 7	14 59 24	16°27'02	27°53	6° 2	7°23	4°23	5°42	29°23	22° 9	21° 6	24°22	12°17	13°45	22°38	17°33
S 8	15 3 20	17°25'04	11♉57	8° 3	7°52	4°53	5°37	29°26	22° 8	21° 5	24°20	12°D16	13°42	22°44	17°35
S 9	15 7 17	18°23'05	25°37	10° 5	8°23	5°24	5°33	29°29	22° 8	21° 5	24°18	12°16	13°39	22°51	17°37
M10	15 11 13	19°21'05	8♉53	12° 9	8°55	5°54	5°29	29°32	22° 7	21° 4	24°17	12°18	13°36	22°58	17°40
T 11	15 15 10	20°19'03	21°45	14°15	9°28	6°24	5°25	29°35	22° 6	21° 4	24°15	12°19	13°32	23° 4	17°42
W12	15 19 6	21°16'59	4♉17	16°22	10° 3	6°55	5°22	29°38	22° 5	21° 3	24°13	12°21	13°29	23°11	17°45
T 13	15 23 3	22°14'54	16°32	18°30	10°39	7°25	5°18	29°41	22° 5	21° 3	24°12	12°21	13°26	23°18	17°47
F 14	15 27 0	23°12'48	28°35	20°39	11°16	7°56	5°15	29°43	22° 4	21° 2	24°10	12°R21	13°23	23°25	17°50
S 15	15 30 56	24°10'41	10♉30	22°49	11°54	8°27	5°12	29°46	22° 3	21° 1	24° 8	12°21	13°20	23°31	17°53
S 16	15 34 53	25° 8'32	22°23	25° 0	12°34	8°58	5° 9	29°49	22° 2	21° 1	24° 7	12°19	13°17	23°38	17°56
M17	15 38 49	26° 6'23	4♊16	27°11	13°14	9°29	5° 6	29°51	22° 1	21° 0	24° 5	12°17	13°13	23°45	17°59
T 18	15 42 46	27° 4'12	16°14	29°22	13°56	10° 0	5° 3	29°53	22° 0	20°59	24° 3	12°15	13°10	23°52	18° 2
W19	15 46 42	28° 2'00	28°20	1♉34	14°38	10°31	5° 1	29°55	21°59	20°58	24° 2	12°12	13° 7	23°58	18° 6
T 20	15 50 39	28°59'46	10♉37	3°44	15°22	11° 3	4°59	29°58	21°58	20°58	24° 0	12°11	13° 4	24° 5	18° 9
F 21	15 54 35	29°57'31	23° 5	5°55	16° 6	11°34	4°57	0♉ 0	21°57	20°57	23°58	12° 9	13° 1	24°12	18°12
S 22	15 58 32	0♐55'16	5♐47	8° 4	16°52	12° 6	4°55	0° 2	21°56	20°56	23°57	12°D 9	12°58	24°18	18°16
S 23	16 2 29	1°52'58	18°42	10°12	17°38	12°38	4°53	0° 3	21°54	20°55	23°55	12° 9	12°54	24°25	18°20
M24	16 6 25	2°50'40	1♉52	12°19	18°25	13°10	4°51	0° 5	21°53	20°54	23°53	12° 9	12°51	24°32	18°23
T 25	16 10 22	3°48'20	15°14	14°24	19°13	13°42	4°50	0° 7	21°52	20°53	23°52	12°10	12°48	24°39	18°27
W26	16 14 18	4°45'58	28°50	16°27	20° 1	14°14	4°49	0° 8	21°50	20°52	23°50	12°11	12°45	24°45	18°31
T 27	16 18 15	5°43'36	12♉38	18°28	20°50	14°46	4°48	0°10	21°49	20°51	23°48	12°11	12°42	24°52	18°35
F 28	16 22 11	6°41'11	26°37	20°26	21°40	15°18	4°47	0°11	21°48	20°50	23°47	12°12	12°38	24°59	18°39
S 29	16 26 8	7°38'45	10♐46	22°23	22°31	15°51	4°46	0°12	21°46	20°49	23°45	12°R12	12°35	25° 5	18°43
S 30	16 30 4	8°36'18	25° 2	24°17	23°22	16°23	4°46	0°13	21°45	20°48	23°44	12°11	12°32	25°12	18°48
M31	16 34 1	9♐33'49	9♐24	26♐ 8	24♐14	16♁56	4♁46	0♁15	21♁43	20♁47	23♁42	12♁11	12♁29	25♁19	18♁52

Delta T = 59.40 sec.

JUNE 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	16 37 58	10♐31'19	23♐47	27♐57	25♐6	17♁28	4♁45	0♁15	21°R41	20°R46	23°R40	12°R11	12°26	25°26	18°57
W 2	16 41 54	11°28'48	8♐ 8	29°43	25°59	18° 1	4°46	0°16	21°40	20°45	23°39	12°11	12°23	25°32	19° 1
T 3	16 45 51	12°26'15	22°22	1♉26	26°53	18°34	4°46	0°17	21°38	20°43	23°37	12°D11	12°19	25°39	19° 6
F 4	16 49 47	13°23'42	6♉24	3° 7	27°47	19° 7	4°46	0°18	21°36	20°42	23°36	12°R11	12°16	25°46	19°10
S 5	16 53 44	14°21'07	20°10	4°45	28°42	19°40	4°47	0°18	21°35	20°41	23°34	12°11	12°13	25°53	19°15
S 6	16 57 40	15°18'32	3♉39	6°20	29°37	20°13	4°48	0°19	21°33	20°40	23°33	12°11	12°10	25°59	19°20
M 7	17 1 37	16°15'55	16°49	7°52	0♉32	20°46	4°49	0°19	21°31	20°39	23°31	12°10	12° 7	26° 6	19°25
T 8	17 5 33	17°13'19	29°39	9°21	1°29	21°20	4°50	0°19	21°29	20°37	23°30	12°10	12° 4	26°13	19°30
W 9	17 9 30	18°10'41	12♉11	10°48	2°25	21°53	4°51	0°20	21°27	20°36	23°28	12° 9	12° 0	26°19	19°35
T 10	17 13 27	19° 8'03	24°28	12°11	3°22	22°26	4°53	0°R20	21°26	20°35	23°27	12° 9	11°57	26°26	19°40
F 11	17 17 23	20° 5'24	6♉33	13°32	4°20	23° 0	4°54	0°20	21°24	20°33	23°25	12° 8	11°54	26°33	19°46
S 12	17 21 20	21° 2'44	18°30	14°49	5°17	23°34	4°56	0°20	21°22	20°32	23°24	12°D 8	11°51	26°40	19°51
S 13	17 25 16	22° 0'05	0♊23	16° 4	6°16	24° 7	4°58	0°19	21°20	20°31	23°22	12° 8	11°48	26°46	19°56
M14	17 29 13	22°57'24	12°17	17°15	7°14	24°41	5° 0	0°19	21°18	20°29	23°21	12° 8	11°44	26°53	20° 2
T 15	17 33 9	23°54'44	24°17	18°23	8°13	25°15	5° 3	0°19	21°16	20°28	23°20	12° 9	11°41	27° 0	20° 7
W16	17 37 6	24°52'03	6♉27	19°28	9°13	25°49	5° 5	0°18	21°14	20°27	23°18	12°10	11°38	27° 6	20°13
T 17	17 41 2	25°49'21	18°50	20°30	10°12	26°23	5° 8	0°17	21°12	20°25	23°17	12°11	11°35	27°13	20°19
F 18	17 44 59	26°46'39	1♐30	21°28	11°12	26°57	5°11	0°17	21° 9	20°24	23°16	12°12	11°32	27°20	20°24
S 19	17 48 56	27°43'57	14°27	22°23	12°13	27°31	5°14	0°16	21° 7	20°22	23°14	12°R13	11°29	27°27	20°30
S 20	17 52 52	28°41'15	27°43	23°15	13°13	28° 6	5°17	0°15	21° 5	20°21	23°13	12°12	11°25	27°33	20°36
M21	17 56 49	29°38'32	11♉16	24° 2	14°14	28°40	5°21	0°14	21° 3	20°19	23°12	12°11	11°22	27°40	20°42
T 22	18 0 45	0♉35'48	25° 5	24°46	15°15	29°14	5°24	0°13	21° 1	20°18	23°11	12° 9	11°19	27°47	20°48
W23	18 4 42	1°33'04	9♉ 7	25°26	16°17	29°49	5°28	0°12	20°59	20°16	23° 9	12° 6	11°16	27°53	20°54
T 24	18 8 38	2°30'20	23°18	26° 2	17°19	0♐23	5°32	0°10	20°56	20°15	23° 8	12° 3	11°13	28° 0	21° 0
F 25	18 12 35	3°27'34	7♐33	26°34	18°21	0°58	5°36	0° 9	20°54	20°13	23° 7	12° 1	11°10	28° 7	21° 6
S 26	18 16 32	4°24'48	21°50	27° 2	19°23	1°33	5°40	0° 8	20°52	20°12	23° 6	12° 0	11° 6	28°14	21°13
S 27	18 20 28	5°22'02	6♁ 4	27°26	20°26	2° 8	5°44	0° 6	20°50	20°10	23° 5	11°D59	11° 3	28°20	21°19
M28	18 24 25	6°19'15	20°15	27°45	21°29	2°43	5°49	0° 4	20°47	20° 9	23° 4	12° 0	11° 0	28°27	21°25
T 29	18 28 21	7°16'27	4♐19	27°59	22°32	3°17	5°54	0° 3	20°45	20° 7	23° 3	12° 1	10°57	28°34	21°32
W30	18 32 18	8♉13'39	18♐15	28♉ 9	23♉35	3♐52	5♁58	0♁ 1	20♁43	20♁ 5	23♁ 2	12♁ 3	10♁54	28♁40	21♁38

Delta T = 59.48 sec.

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# SWISS EPHEMERIS for the year 1993

## JULY 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	18 36 14	9°10'51	2♂ 1	28♂14	24♂38	4♂28	6♂ 3	29°R59	20°R40	20°R 4	23°R 0	12♂ 4	10♂50	28♂47	21♂45	
F 2	18 40 11	10° 8'02	15°37	28°R15	25°42	5° 3	6° 9	29°≈57	20°≈38	20°≈ 2	22♂59	12°R 4	10°47	28°54	21°52	
S 3	18 44 7	11° 5'13	29° 0	28°11	26°46	5°38	6°14	29°55	20°35	20° 1	22°59	12° 3	10°44	29° 1	21°58	
S 4	18 48 4	12° 2'24	12♂10	28° 3	27°50	6°13	6°19	29°52	20°33	19°59	22°58	12° 0	10°41	29° 7	22° 5	
M 5	18 52 1	12°59'35	25° 5	27°50	28°54	6°48	6°25	29°50	20°31	19°57	22°57	11°57	10°38	29°14	22°12	
T 6	18 55 57	13°56'47	7≈46	27°32	29°59	7°24	6°31	29°48	20°28	19°56	22°56	11°52	10°35	29°21	22°19	
W 7	18 59 54	14°53'58	20°13	27°11	1♂ 4	7°59	6°36	29°45	20°26	19°54	22°55	11°46	10°31	29°27	22°25	
T 8	19 3 50	15°51'09	2♂27	26°45	2° 9	8°35	6°42	29°43	20°24	19°53	22°54	11°41	10°28	29°34	22°32	
F 9	19 7 47	16°48'21	14°31	26°16	3°14	9°10	6°49	29°40	20°21	19°51	22°53	11°36	10°25	29°41	22°39	
S 10	19 11 43	17°45'33	26°27	25°44	4°19	9°46	6°55	29°37	20°19	19°49	22°53	11°32	10°22	29°48	22°46	
S 11	19 15 40	18°42'45	8♂19	25°10	5°25	10°22	7° 1	29°35	20°16	19°48	22°52	11°30	10°19	29°54	22°53	
M12	19 19 36	19°39'58	20°13	24°33	6°30	10°58	7° 8	29°32	20°14	19°46	22°51	11°D30	10°16	0♂ 1	23° 0	
T 13	19 23 33	20°37'11	2♂12	23°55	7°36	11°33	7°15	29°29	20°11	19°45	22°50	11°30	10°12	0° 8	23° 8	
W14	19 27 30	21°34'25	14°22	23°16	8°42	12° 9	7°21	29°26	20° 9	19°43	22°50	11°32	10° 9	0°15	23°15	
T 15	19 31 26	22°31'40	26°47	22°36	9°49	12°45	7°28	29°23	20° 7	19°41	22°49	11°33	10° 6	0°21	23°22	
F 16	19 35 23	23°28'55	9♂32	21°57	10°55	13°21	7°35	29°20	20° 4	19°40	22°48	11°R34	10° 3	0°28	23°29	
S 17	19 39 19	24°26'11	22°39	21°19	12° 1	13°58	7°43	29°16	20° 2	19°38	22°48	11°33	10° 0	0°35	23°37	
S 18	19 43 16	25°23'27	6♂10	20°43	13° 8	14°34	7°50	29°13	19°59	19°36	22°47	11°31	9°56	0°41	23°44	
M19	19 47 12	26°20'44	20° 4	20°10	14°15	15°10	7°57	29°10	19°57	19°35	22°47	11°27	9°53	0°48	23°51	
T 20	19 51 9	27°18'01	4♂19	19°39	15°22	15°46	8° 5	29° 6	19°55	19°33	22°46	11°21	9°50	0°55	23°59	
W21	19 55 5	28°15'19	18°48	19°13	16°29	16°23	8°13	29° 3	19°52	19°32	22°46	11°14	9°47	1° 2	24° 6	
T 22	19 59 2	29°12'37	3♂25	18°50	17°36	16°59	8°21	28°59	19°50	19°30	22°46	11° 6	9°44	1° 8	24°14	
F 23	20 2 59	0♂ 9'55	18° 4	18°32	18°43	17°36	8°29	28°56	19°48	19°28	22°45	11° 0	9°41	1°15	24°21	
S 24	20 6 55	1° 7'14	2♂37	18°19	19°51	18°12	8°37	28°52	19°45	19°27	22°45	10°55	9°37	1°22	24°29	
S 25	20 10 52	2° 4'33	17° 1	18°11	20°59	18°49	8°45	28°48	19°43	19°25	22°45	10°52	9°34	1°28	24°36	
M26	20 14 48	3° 1'52	1♂10	18°D 9	22° 6	19°25	8°53	28°44	19°40	19°24	22°44	10°D51	9°31	1°35	24°44	
T 27	20 18 45	3°59'12	15° 5	18°13	23°14	20° 2	9° 2	28°41	19°38	19°22	22°44	10°52	9°28	1°42	24°52	
W28	20 22 41	4°56'32	28°45	18°22	24°22	20°39	9°10	28°37	19°36	19°21	22°44	10°53	9°25	1°48	24°59	
T 29	20 26 38	5°53'53	12♂11	18°38	25°30	21°16	9°19	28°33	19°34	19°19	22°44	10°R53	9°21	1°55	25° 7	
F 30	20 30 34	6°51'14	25°24	19° 0	26°38	21°53	9°28	28°29	19°31	19°18	22°43	10°52	9°18	2° 2	25°15	
S 31	20 34 31	7♂48'36	8♂25	19♂28	27♂47	22♂30	9♂37	28°≈25	19♂29	19♂16	22♂43	10♂49	9♂15	2♂ 9	25♂23	

Delta T = 59.55 sec.

## AUGUST 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	20 38 28	8♂45'59	21♂14	20♂ 3	28♂55	23♂ 7	9♂45	28°R21	19°R27	19°R14	22°R43	10°R43	9♂12	2♂15	25♂30	
M 2	20 42 24	9°43'22	3≈52	20°43	0♂ 4	23°44	9°55	28°≈16	19°≈25	19°≈13	22♂43	10♂35	9° 9	2°22	25°38	
T 3	20 46 21	10°40'46	16°20	21°30	1°13	24°21	10° 4	28°12	19°22	19°11	22°D43	10°25	9° 6	2°29	25°46	
W 4	20 50 17	11°38'11	28°37	22°22	2°21	24°58	10°13	28° 8	19°20	19°10	22°43	10°14	9° 2	2°35	25°54	
T 5	20 54 14	12°35'37	10♂44	23°21	3°30	25°36	10°22	28° 4	19°18	19° 9	22°43	10° 3	8°59	2°42	26° 2	
F 6	20 58 10	13°33'04	22°44	24°26	4°39	26°13	10°32	28° 0	19°16	19° 7	22°43	9°53	8°56	2°49	26°10	
S 7	21 2 7	14°30'32	4♂37	25°36	5°49	26°50	10°41	27°55	19°14	19° 6	22°44	9°44	8°53	2°56	26°18	
S 8	21 6 3	15°28'02	16°28	26°51	6°58	27°28	10°51	27°51	19°12	19° 4	22°44	9°38	8°50	3° 2	26°25	
M 9	21 10 0	16°25'33	28°20	28°12	8° 7	28° 5	11° 1	27°46	19°10	19° 3	22°44	9°34	8°47	3° 9	26°33	
T 10	21 13 57	17°23'05	10♂17	29°38	9°17	28°43	11°11	27°42	19° 8	19° 1	22°44	9°33	8°43	3°16	26°41	
W11	21 17 53	18°20'38	22°24	1♂ 9	10°26	29°20	11°21	27°38	19° 6	19° 0	22°44	9°D33	8°40	3°22	26°49	
T 12	21 21 50	19°18'13	4♂48	2°44	11°36	29°58	11°31	27°33	19° 4	18°59	22°45	9°R33	8°37	3°29	26°57	
F 13	21 25 46	20°15'50	17°32	4°24	12°46	0♂36	11°41	27°29	19° 2	18°57	22°45	9°33	8°34	3°36	27° 5	
S 14	21 29 43	21°13'28	0♂41	6° 7	13°56	1°14	11°51	27°24	19° 0	18°56	22°45	9°31	8°31	3°43	27°13	
S 15	21 33 39	22°11'07	14°18	7°54	15° 6	1°52	12° 1	27°20	18°58	18°55	22°46	9°27	8°27	3°49	27°21	
M16	21 37 36	23° 8'48	28°22	9°44	16°16	2°30	12°12	27°15	18°56	18°54	22°46	9°21	8°24	3°56	27°29	
T 17	21 41 32	24° 6'30	12♂53	11°36	17°26	3° 8	12°22	27°11	18°54	18°52	22°47	9°12	8°21	4° 3	27°37	
W18	21 45 29	25° 4'14	27°42	13°31	18°36	3°46	12°33	27° 6	18°52	18°51	22°47	9° 1	8°18	4° 9	27°45	
T 19	21 49 26	26° 1'58	12♂43	15°27	19°47	4°24	12°43	27° 2	18°51	18°50	22°48	8°51	8°15	4°16	27°54	
F 20	21 53 22	26°59'44	27°46	17°25	20°57	5° 2	12°54	26°57	18°49	18°49	22°48	8°41	8°12	4°23	28° 2	
S 21	21 57 19	27°57'32	12♂40	19°24	22° 8	5°40	13° 5	26°53	18°47	18°47	22°49	8°33	8° 8	4°30	28°10	
S 22	22 1 15	28°55'20	27°19	21°24	23°19	6°18	13°16	26°48	18°45	18°46	22°49	8°28	8° 5	4°36	28°18	
M23	22 5 12	29°53'10	11♂38	23°24	24°29	6°57	13°27	26°44	18°44	18°45	22°50	8°25	8° 2	4°43	28°26	
T 24	22 9 8	0♂51'00	25°34	25°25	25°40	7°35	13°38	26°39	18°42	18°44	22°51	8°24	7°59	4°50	28°34	
W25	22 13 5	1°48'52	9♂10	27°25	26°51	8°14	13°49	26°35	18°41	18°43	22°52	8°24	7°56	4°56	28°42	
T 26	22 17 1	2°46'46	22°25	29°25	28° 2	8°52	14° 0	26°30	18°39	18°42	22°52	8°24	7°53	5° 3	28°50	
F 27	22 20 58	3°44'40	5♂24	1♂24	29°13	9°31	14°11	26°26	18°38	18°41	22°53	8°22	7°49	5°10	28°58	
S 28	22 24 55	4°42'36	18° 8	3°23	0♂24	10° 9	14°22	26°21	18°36	18°40	22°54	8°17	7°46	5°17	29° 6	
S 29	22 28 51	5°40'33	0≈41	5°20	1°36	10°48	14°34	26°17	18°35	18°39	22°55	8°10	7°43	5°23	29°14	
M30	22 32 48	6°38'31	13° 3	7°17	2°47	11°27	14°45	26°12	18°33	18°38	22°56	8° 0	7°40	5°30	29°22	
T 31	22 36 44	7♂36'31	25≈17	9♂13	3♂58	12♂ 6	14°≈57	26≈ 8	18°≈32	18°≈37	22♂57	7♂47	7♂37	5♂37	29♂30	

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SWISS EPHEMERIS for the year 1993

SEPTEMBER 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♁	♂	♃	♄
W 1	22 40 41	8 <sup>h</sup> 34'32	7 <sup>h</sup> 24'	11 <sup>h</sup> 08'	5 <sup>h</sup> 01'	12 <sup>h</sup> 45'	15 <sup>h</sup> 08'	26 <sup>h</sup> R 3	18 <sup>h</sup> R31	18 <sup>h</sup> R36	22 <sup>h</sup> 58'	7 <sup>h</sup> R33	7 <sup>h</sup> 33'	5 <sup>h</sup> Y43	29 <sup>h</sup> 038
T 2	22 44 37	9 <sup>h</sup> 32'35	19 <sup>h</sup> 24'	13 <sup>h</sup> 2'	6 <sup>h</sup> 21'	13 <sup>h</sup> 24'	15 <sup>h</sup> 20'	25 <sup>h</sup> 59'	18 <sup>h</sup> 30'	18 <sup>h</sup> 35'	22 <sup>h</sup> 59'	7 <sup>h</sup> 19'	7 <sup>h</sup> 30'	5 <sup>h</sup> 50'	29 <sup>h</sup> 46'
F 3	22 48 34	10 <sup>h</sup> 30'40	1 <sup>h</sup> Y19	14 <sup>h</sup> 54'	7 <sup>h</sup> 33'	14 <sup>h</sup> 3'	15 <sup>h</sup> 31'	25 <sup>h</sup> 55'	18 <sup>h</sup> 28'	18 <sup>h</sup> 34'	23 <sup>h</sup> 0'	7 <sup>h</sup> 7'	7 <sup>h</sup> 27'	5 <sup>h</sup> 57'	29 <sup>h</sup> 54'
S 4	22 52 30	11 <sup>h</sup> 28'47	13 <sup>h</sup> 10'	16 <sup>h</sup> 45'	8 <sup>h</sup> 45'	14 <sup>h</sup> 42'	15 <sup>h</sup> 43'	25 <sup>h</sup> 51'	18 <sup>h</sup> 27'	18 <sup>h</sup> 34'	23 <sup>h</sup> 1'	6 <sup>h</sup> 55'	7 <sup>h</sup> 24'	6 <sup>h</sup> 3'	0 <sup>h</sup> 0 <sup>m</sup> 2'
S 5	22 56 27	12 <sup>h</sup> 26'55	25 <sup>h</sup> 0'	18 <sup>h</sup> 36'	9 <sup>h</sup> 57'	15 <sup>h</sup> 21'	15 <sup>h</sup> 55'	25 <sup>h</sup> 46'	18 <sup>h</sup> 26'	18 <sup>h</sup> 33'	23 <sup>h</sup> 2'	6 <sup>h</sup> 47'	7 <sup>h</sup> 21'	6 <sup>h</sup> 10'	0 <sup>h</sup> 10'
M 6	23  0 23	13 <sup>h</sup> 25'05	6 <sup>h</sup> 8'51	20 <sup>h</sup> 25'	11 <sup>h</sup> 9'	16 <sup>h</sup> 0'	16 <sup>h</sup> 7'	25 <sup>h</sup> 42'	18 <sup>h</sup> 25'	18 <sup>h</sup> 32'	23 <sup>h</sup> 3'	6 <sup>h</sup> 41'	7 <sup>h</sup> 18'	6 <sup>h</sup> 17'	0 <sup>h</sup> 18'
T 7	23  4 20	14 <sup>h</sup> 23'17	18 <sup>h</sup> 47'	22 <sup>h</sup> 12'	12 <sup>h</sup> 21'	16 <sup>h</sup> 39'	16 <sup>h</sup> 19'	25 <sup>h</sup> 38'	18 <sup>h</sup> 24'	18 <sup>h</sup> 31'	23 <sup>h</sup> 4'	6 <sup>h</sup> 38'	7 <sup>h</sup> 14'	6 <sup>h</sup> 24'	0 <sup>h</sup> 26'
W 8	23  8 17	15 <sup>h</sup> 21'32	0 <sup>h</sup> II53	23 <sup>h</sup> 59'	13 <sup>h</sup> 33'	17 <sup>h</sup> 18'	16 <sup>h</sup> 31'	25 <sup>h</sup> 34'	18 <sup>h</sup> 23'	18 <sup>h</sup> 30'	23 <sup>h</sup> 5'	6 <sup>h</sup> 37'	7 <sup>h</sup> 11'	6 <sup>h</sup> 30'	0 <sup>h</sup> 34'
T 9	23 12 13	16 <sup>h</sup> 19'48	13 <sup>h</sup> 14'	25 <sup>h</sup> 44'	14 <sup>h</sup> 45'	17 <sup>h</sup> 58'	16 <sup>h</sup> 43'	25 <sup>h</sup> 30'	18 <sup>h</sup> 22'	18 <sup>h</sup> 30'	23 <sup>h</sup> 6'	6 <sup>h</sup> 37'	7 <sup>h</sup> 8'	6 <sup>h</sup> 37'	0 <sup>h</sup> 42'
F 10	23 16 10	17 <sup>h</sup> 18'06	25 <sup>h</sup> 54'	27 <sup>h</sup> 29'	15 <sup>h</sup> 57'	18 <sup>h</sup> 37'	16 <sup>h</sup> 55'	25 <sup>h</sup> 26'	18 <sup>h</sup> 21'	18 <sup>h</sup> 29'	23 <sup>h</sup> 8'	6 <sup>h</sup> 37'	7 <sup>h</sup> 5'	6 <sup>h</sup> 44'	0 <sup>h</sup> 50'
S 11	23 20  6	18 <sup>h</sup> 16'27	8 <sup>h</sup> 35'9	29 <sup>h</sup> 12'	17 <sup>h</sup> 9'	19 <sup>h</sup> 17'	17 <sup>h</sup> 7'	25 <sup>h</sup> 22'	18 <sup>h</sup> 20'	18 <sup>h</sup> 29'	23 <sup>h</sup> 9'	6 <sup>h</sup> 36'	7 <sup>h</sup> 2'	6 <sup>h</sup> 50'	0 <sup>h</sup> 58'
S 12	23 24  3	19 <sup>h</sup> 14'50	22 <sup>h</sup> 32'	0 <sup>h</sup> 54'	18 <sup>h</sup> 22'	19 <sup>h</sup> 56'	17 <sup>h</sup> 19'	25 <sup>h</sup> 18'	18 <sup>h</sup> 20'	18 <sup>h</sup> 28'	23 <sup>h</sup> 10'	6 <sup>h</sup> 32'	6 <sup>h</sup> 59'	6 <sup>h</sup> 57'	1 <sup>h</sup> 6'
M13	23 27 59	20 <sup>h</sup> 13'14	6 <sup>h</sup> 03'5	2 <sup>h</sup> 35'	19 <sup>h</sup> 34'	20 <sup>h</sup> 36'	17 <sup>h</sup> 31'	25 <sup>h</sup> 14'	18 <sup>h</sup> 19'	18 <sup>h</sup> 27'	23 <sup>h</sup> 12'	6 <sup>h</sup> 26'	6 <sup>h</sup> 55'	7 <sup>h</sup> 4'	1 <sup>h</sup> 13'
T 14	23 31 56	21 <sup>h</sup> 11'41	21 <sup>h</sup> 7'	4 <sup>h</sup> 15'	20 <sup>h</sup> 47'	21 <sup>h</sup> 15'	17 <sup>h</sup> 43'	25 <sup>h</sup> 10'	18 <sup>h</sup> 18'	18 <sup>h</sup> 27'	23 <sup>h</sup> 13'	6 <sup>h</sup> 18'	6 <sup>h</sup> 52'	7 <sup>h</sup> 10'	1 <sup>h</sup> 21'
W15	23 35 52	22 <sup>h</sup> 10'10	6 <sup>h</sup> 1 <sup>m</sup> 3'	5 <sup>h</sup> 53'	21 <sup>h</sup> 59'	21 <sup>h</sup> 55'	17 <sup>h</sup> 56'	25 <sup>h</sup> 6'	18 <sup>h</sup> 18'	18 <sup>h</sup> 26'	23 <sup>h</sup> 14'	6 <sup>h</sup> 8'	6 <sup>h</sup> 49'	7 <sup>h</sup> 17'	1 <sup>h</sup> 29'
T 16	23 39 49	23 <sup>h</sup> 8'40	21 <sup>h</sup> 15'	7 <sup>h</sup> 31'	23 <sup>h</sup> 12'	22 <sup>h</sup> 35'	18 <sup>h</sup> 8'	25 <sup>h</sup> 2'	18 <sup>h</sup> 17'	18 <sup>h</sup> 26'	23 <sup>h</sup> 16'	5 <sup>h</sup> 57'	6 <sup>h</sup> 46'	7 <sup>h</sup> 24'	1 <sup>h</sup> 37'
F 17	23 43 46	24 <sup>h</sup> 7'13	6 <sup>h</sup> 32'	9 <sup>h</sup> 7'	24 <sup>h</sup> 25'	23 <sup>h</sup> 15'	18 <sup>h</sup> 20'	24 <sup>h</sup> 59'	18 <sup>h</sup> 16'	18 <sup>h</sup> 25'	23 <sup>h</sup> 17'	5 <sup>h</sup> 47'	6 <sup>h</sup> 43'	7 <sup>h</sup> 31'	1 <sup>h</sup> 45'
S 18	23 47 42	25 <sup>h</sup> 5'47	21 <sup>h</sup> 44'	10 <sup>h</sup> 43'	25 <sup>h</sup> 38'	23 <sup>h</sup> 55'	18 <sup>h</sup> 33'	24 <sup>h</sup> 55'	18 <sup>h</sup> 16'	18 <sup>h</sup> 25'	23 <sup>h</sup> 19'	5 <sup>h</sup> 39'	6 <sup>h</sup> 39'	7 <sup>h</sup> 37'	1 <sup>h</sup> 52'
S 19	23 51 39	26 <sup>h</sup> 4'23	6 <sup>h</sup> 03'9	12 <sup>h</sup> 18'	26 <sup>h</sup> 50'	24 <sup>h</sup> 34'	18 <sup>h</sup> 45'	24 <sup>h</sup> 52'	18 <sup>h</sup> 15'	18 <sup>h</sup> 25'	23 <sup>h</sup> 20'	5 <sup>h</sup> 34'	6 <sup>h</sup> 36'	7 <sup>h</sup> 44'	2 <sup>h</sup> 0'
M20	23 55 35	27 <sup>h</sup> 3'01	21 <sup>h</sup> 12'	13 <sup>h</sup> 51'	28 <sup>h</sup> 3'	25 <sup>h</sup> 15'	18 <sup>h</sup> 58'	24 <sup>h</sup> 48'	18 <sup>h</sup> 15'	18 <sup>h</sup> 24'	23 <sup>h</sup> 22'	5 <sup>h</sup> 31'	6 <sup>h</sup> 33'	7 <sup>h</sup> 51'	2 <sup>h</sup> 8'
T 21	23 59 32	28 <sup>h</sup> 1'41	5 <sup>h</sup> 18'8	15 <sup>h</sup> 24'	29 <sup>h</sup> 16'	25 <sup>h</sup> 55'	19 <sup>h</sup> 10'	24 <sup>h</sup> 45'	18 <sup>h</sup> 15'	18 <sup>h</sup> 24'	23 <sup>h</sup> 23'	5 <sup>h</sup> D30	6 <sup>h</sup> 30'	7 <sup>h</sup> 57'	2 <sup>h</sup> 15'
W22	0 3 28	29 <sup>h</sup> 0'22	18 <sup>h</sup> 59'	16 <sup>h</sup> 55'	0 <sup>h</sup> 0 <sup>m</sup> 29'	26 <sup>h</sup> 35'	19 <sup>h</sup> 23'	24 <sup>h</sup> 41'	18 <sup>h</sup> 14'	18 <sup>h</sup> 24'	23 <sup>h</sup> 25'	5 <sup>h</sup> 31'	6 <sup>h</sup> 27'	8 <sup>h</sup> 4'	2 <sup>h</sup> 23'
T 23	0 7 25	29 <sup>h</sup> 59'05	2 <sup>h</sup> 31'4	18 <sup>h</sup> 26'	1 <sup>h</sup> 42'	27 <sup>h</sup> 15'	19 <sup>h</sup> 35'	24 <sup>h</sup> 38'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 26'	5 <sup>h</sup> R31	6 <sup>h</sup> 24'	8 <sup>h</sup> 11'	2 <sup>h</sup> 30'
F 24	0 11 21	0 <sup>h</sup> 57'50	15 <sup>h</sup> 9'	19 <sup>h</sup> 55'	2 <sup>h</sup> 56'	27 <sup>h</sup> 55'	19 <sup>h</sup> 48'	24 <sup>h</sup> 35'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 28'	5 <sup>h</sup> 30'	6 <sup>h</sup> 20'	8 <sup>h</sup> 18'	2 <sup>h</sup> 38'
S 25	0 15 18	1 <sup>h</sup> 56'36	27 <sup>h</sup> 46'	21 <sup>h</sup> 24'	4 <sup>h</sup> 9'	28 <sup>h</sup> 35'	20 <sup>h</sup> 1'	24 <sup>h</sup> 32'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 30'	5 <sup>h</sup> 27'	6 <sup>h</sup> 17'	8 <sup>h</sup> 24'	2 <sup>h</sup> 46'
S 26	0 19 15	2 <sup>h</sup> 55'24	10 <sup>h</sup> 8' 8	22 <sup>h</sup> 51'	5 <sup>h</sup> 22'	29 <sup>h</sup> 16'	20 <sup>h</sup> 13'	24 <sup>h</sup> 29'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 31'	5 <sup>h</sup> 21'	6 <sup>h</sup> 14'	8 <sup>h</sup> 31'	2 <sup>h</sup> 53'
M27	0 23 11	3 <sup>h</sup> 54'14	22 <sup>h</sup> 20'	24 <sup>h</sup> 17'	6 <sup>h</sup> 35'	29 <sup>h</sup> 56'	20 <sup>h</sup> 26'	24 <sup>h</sup> 26'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 33'	5 <sup>h</sup> 13'	6 <sup>h</sup> 11'	8 <sup>h</sup> 38'	3 <sup>h</sup> 0'
T 28	0 27  8	4 <sup>h</sup> 53'05	4 <sup>h</sup> 24'	25 <sup>h</sup> 43'	7 <sup>h</sup> 49'	0 <sup>h</sup> 0 <sup>m</sup> 37'	20 <sup>h</sup> 39'	24 <sup>h</sup> 23'	18 <sup>h</sup> D14	18 <sup>h</sup> 23'	23 <sup>h</sup> 35'	5 <sup>h</sup> 3'	6 <sup>h</sup> 8'	8 <sup>h</sup> 44'	3 <sup>h</sup> 8'
W29	0 31  4	5 <sup>h</sup> 51'59	16 <sup>h</sup> 23'	27 <sup>h</sup> 7'	9 <sup>h</sup> 2'	1 <sup>h</sup> 17'	20 <sup>h</sup> 52'	24 <sup>h</sup> 20'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 37'	4 <sup>h</sup> 52'	6 <sup>h</sup> 4'	8 <sup>h</sup> 51'	3 <sup>h</sup> 15'
T 30	0 35  1	6 <sup>h</sup> 50'54	28 <sup>h</sup> 17'	28 <sup>h</sup> 31'	10 <sup>h</sup> 16'	1 <sup>h</sup> 58'	21 <sup>h</sup> 4'	24 <sup>h</sup> 17'	18 <sup>h</sup> 14'	18 <sup>h</sup> D23	23 <sup>h</sup> 38'	4 <sup>h</sup> 41'	6 <sup>h</sup> 1	8 <sup>h</sup> Y58	3 <sup>h</sup> 0 <sup>m</sup> 22'

Delta T = 59.70 sec.

OCTOBER 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♁	♂	♃	♄	♅	♆	♇	♁	♂	♃	♄
F 1	0 38 57	7 <sup>h</sup> 49'51	10 <sup>h</sup> Y 9	29 <sup>h</sup> 53'	11 <sup>h</sup> 29'	2 <sup>h</sup> 03'8	21 <sup>h</sup> 17'	24 <sup>h</sup> R15	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 40'	4 <sup>h</sup> R30	5 <sup>h</sup> 25'8	9 <sup>h</sup> Y 4	3 <sup>h</sup> 0 <sup>m</sup> 30
S 2	0 42 54	8 <sup>h</sup> 48'51	21 <sup>h</sup> 59'	1 <sup>h</sup> 01'4	12 <sup>h</sup> 43'	3 <sup>h</sup> 19'	21 <sup>h</sup> 30'	24 <sup>h</sup> 12'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 42'	4 <sup>h</sup> 21'	5 <sup>h</sup> 55'	9 <sup>h</sup> 11'	3 <sup>h</sup> 37'
S 3	0 46 50	9 <sup>h</sup> 47'52	3 <sup>h</sup> 8'51	2 <sup>h</sup> 34'	13 <sup>h</sup> 57'	4 <sup>h</sup> 0'	21 <sup>h</sup> 43'	24 <sup>h</sup> 10'	18 <sup>h</sup> 14'	18 <sup>h</sup> 23'	23 <sup>h</sup> 44'	4 <sup>h</sup> 14'	5 <sup>h</sup> 52'	9 <sup>h</sup> 18'	3 <sup>h</sup> 44'
M 4	0 50 47	10 <sup>h</sup> 46'56	15 <sup>h</sup> 45'	3 <sup>h</sup> 52'	15 <sup>h</sup> 10'	4 <sup>h</sup> 41'	21 <sup>h</sup> 56'	24 <sup>h</sup> 7'	18 <sup>h</sup> 15'	18 <sup>h</sup> 23'	23 <sup>h</sup> 46'	4 <sup>h</sup> 10'	5 <sup>h</sup> 49'	9 <sup>h</sup> 24'	3 <sup>h</sup> 51'
T 5	0 54 44	11 <sup>h</sup> 46'01	27 <sup>h</sup> 46'	5 <sup>h</sup> 9'	16 <sup>h</sup> 24'	5 <sup>h</sup> 22'	22 <sup>h</sup> 9'	24 <sup>h</sup> 5'	18 <sup>h</sup> 15'	18 <sup>h</sup> 23'	23 <sup>h</sup> 48'	4 <sup>h</sup> 8'	5 <sup>h</sup> 45'	9 <sup>h</sup> 31'	3 <sup>h</sup> 58'
W 6	0 58 40	12 <sup>h</sup> 45'10	9 <sup>h</sup> II55	6 <sup>h</sup> 25'	17 <sup>h</sup> 38'	6 <sup>h</sup> 3'	22 <sup>h</sup> 22'	24 <sup>h</sup> 3'	18 <sup>h</sup> 16'	18 <sup>h</sup> 23'	23 <sup>h</sup> 50'	4 <sup>h</sup> D 8	5 <sup>h</sup> 42'	9 <sup>h</sup> 38'	4 <sup>h</sup> 5'
T 7	1  2 37	13 <sup>h</sup> 44'20	22 <sup>h</sup> 17'	7 <sup>h</sup> 40'	18 <sup>h</sup> 52'	6 <sup>h</sup> 44'	22 <sup>h</sup> 34'	24 <sup>h</sup> 1'	18 <sup>h</sup> 16'	18 <sup>h</sup> 23'	23 <sup>h</sup> 52'	4 <sup>h</sup> 9'	5 <sup>h</sup> 39'	9 <sup>h</sup> 45'	4 <sup>h</sup> 12'
F 8	1  6 33	14 <sup>h</sup> 43'33	4 <sup>h</sup> 56'5	8 <sup>h</sup> 53'	20 <sup>h</sup> 6'	7 <sup>h</sup> 25'	22 <sup>h</sup> 47'	23 <sup>h</sup> 59'	18 <sup>h</sup> 16'	18 <sup>h</sup> 24'	23 <sup>h</sup> 54'	4 <sup>h</sup> 10'	5 <sup>h</sup> 36'	9 <sup>h</sup> 51'	4 <sup>h</sup> 19'
S 9	1 10 30	15 <sup>h</sup> 42'48	17 <sup>h</sup> 57'	10 <sup>h</sup> 4'	21 <sup>h</sup> 20'	8 <sup>h</sup> 6'	23 <sup>h</sup> 0'	23 <sup>h</sup> 57'	18 <sup>h</sup> 17'	18 <sup>h</sup> 24'	23 <sup>h</sup> 56'	4 <sup>h</sup> R11	5 <sup>h</sup> 33'	9 <sup>h</sup> 58'	4 <sup>h</sup> 26'
S 10	1 14 26	16 <sup>h</sup> 42'05	1 <sup>h</sup> 02'3	11 <sup>h</sup> 13'	22 <sup>h</sup> 34'	8 <sup>h</sup> 47'	23 <sup>h</sup> 13'	23 <sup>h</sup> 55'	18 <sup>h</sup> 18'	18 <sup>h</sup> 24'	23 <sup>h</sup> 58'	4 <sup>h</sup> 10'	5 <sup>h</sup> 30'	10 <sup>h</sup> 5'	4 <sup>h</sup> 33'
M11	1 18 23	17 <sup>h</sup> 41'25	15 <sup>h</sup> 17'	12 <sup>h</sup> 21'	23 <sup>h</sup> 48'	9 <sup>h</sup> 28'	23 <sup>h</sup> 26'	23 <sup>h</sup> 53'	18 <sup>h</sup> 18'	18 <sup>h</sup> 25'	24 <sup>h</sup> 0'	4 <sup>h</sup> 7'	5 <sup>h</sup> 26'	10 <sup>h</sup> 11'	4 <sup>h</sup> 40'
T 12	1 22 19	18 <sup>h</sup> 40'47	29 <sup>h</sup> 38'	13 <sup>h</sup> 26'	25 <sup>h</sup> 2'	10 <sup>h</sup> 10'	23 <sup>h</sup> 39'	23 <sup>h</sup> 51'	18 <sup>h</sup> 19'	18 <sup>h</sup> 25'	24 <sup>h</sup> 2'	4 <sup>h</sup> 2'	5 <sup>h</sup> 23'	10 <sup>h</sup> 18'	4 <sup>h</sup> 47'
W13	1 26 16	19 <sup>h</sup> 40'11	14 <sup>h</sup> 0 <sup>m</sup> 25	14 <sup>h</sup> 30'	26 <sup>h</sup> 16'	10 <sup>h</sup> 51'	23 <sup>h</sup> 52'	23 <sup>h</sup> 50'	18 <sup>h</sup> 20'	18 <sup>h</sup> 25'	24 <sup>h</sup> 4'	3 <sup>h</sup> 56'	5 <sup>h</sup> 20'	10 <sup>h</sup> 25'	4 <sup>h</sup> 53'
T 14	1 30 12	20 <sup>h</sup> 39'37	29 <sup>h</sup> 30'	15 <sup>h</sup> 30'	27 <sup>h</sup> 31'	11 <sup>h</sup> 32'	24 <sup>h</sup> 5'	23 <sup>h</sup> 48'	18 <sup>h</sup> 21'	18 <sup>h</sup> 26'	24 <sup>h</sup> 6'	3 <sup>h</sup> 49'	5 <sup>h</sup> 17'	10 <sup>h</sup> 31'	5 <sup>h</sup> 0'
F 15	1 34  9	21 <sup>h</sup> 39'06	14 <sup>h</sup> 45'	16 <sup>h</sup> 29'	28 <sup>h</sup> 45'	12 <sup>h</sup> 14'	24 <sup>h</sup> 19'	23 <sup>h</sup> 47'	18 <sup>h</sup> 21'	18 <sup>h</sup> 26'	24 <sup>h</sup> 8'	3 <sup>h</sup> 42'	5 <sup>h</sup> 14'	10 <sup>h</sup> 38'	5 <sup>h</sup> 7'
S 16	1 38  6	22 <sup>h</sup> 38'36	0 <sup>h</sup> 0 <sup>m</sup> 3'	17 <sup>h</sup> 24'	29 <sup>h</sup> 59'	12 <sup>h</sup> 55'	24 <sup>h</sup> 32'	23 <sup>h</sup> 46'	18 <sup>h</sup> 22'	18 <sup>h</sup> 27'	24 <sup>h</sup> 10'	3 <sup>h</sup> 37'	5 <sup>h</sup> 10'	10 <sup>h</sup> 45'	5 <sup>h</sup> 13'
S 17	1 42  2	23 <sup>h</sup> 38'09	15 <sup>h</sup> 3'	18 <sup>h</sup> 16'	1 <sup>h</sup> 14'	13 <sup>h</sup> 37'	24 <sup>h</sup> 45'	23 <sup>h</sup> 44'	18 <sup>h</sup> 23'	18 <sup>h</sup> 27'	24 <sup>h</sup> 12'	3 <sup>h</sup> 34'	5 <sup>h</sup> 7'	10 <sup>h</sup> 52'	5 <sup>h</sup> 20'
M18															

SWISS EPHEMERIS for the year 1993

NOVEMBER 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	2 41 10	8♈34'52	24♍50	19°R48	19♌53	24♈ 8	28♏ 0	23♎39	18♌44	18♌39	24♈46	3°R 3	4♌20	12♈32	6♈48
T 2	2 45 7	9°34'53	7♈ 1	18♈50	21° 8	24°51	28°13	23°39	18°45	18°40	24°48	3°D 3	4°16	12°39	6°54
W 3	2 49 4	10°34'57	19°21	17°44	22°23	25°33	28°26	23°40	18°47	18°41	24°50	3♌ 4	4°13	12°45	6°59
T 4	2 53 0	11°35'02	1♌53	16°31	23°38	26°16	28°39	23°40	18°49	18°43	24°53	3° 5	4°10	12°52	7° 4
F 5	2 56 57	12°35'10	14°40	15°15	24°53	26°59	28°52	23°41	18°51	18°44	24°55	3° 7	4° 7	12°59	7° 9
S 6	3 0 53	13°35'19	27°44	13°56	27°44	26° 8	27°41	29° 4	23°42	18°53	18°45	24°57	3° 8	4° 4	13° 5
S 7	3 4 50	14°35'31	11♈ 7	12°37	27°23	28°24	29°17	23°43	18°55	18°46	25° 0	3°R 9	4° 1	13°12	7°19
M 8	3 8 46	15°35'44	24°52	11°22	28°38	29° 7	29°30	23°44	18°57	18°47	25° 2	3° 9	3°57	13°19	7°24
T 9	3 12 43	16°36'00	8♈59	10°12	29°53	29°50	29°43	23°45	18°59	18°49	25° 5	3° 8	3°54	13°26	7°29
W10	3 16 39	17°36'18	23°27	9° 9	1♈ 9	0♌33	29°56	23°47	19° 1	18°50	25° 7	3° 6	3°51	13°32	7°33
T11	3 20 36	18°36'37	8♌12	8°15	2°24	1°16	0♈ 8	23°48	19° 3	18°51	25° 9	3° 4	3°48	13°39	7°38
F12	3 24 33	19°36'59	23° 8	7°32	3°39	1°59	0°21	23°49	19° 5	18°53	25°12	3° 2	3°45	13°46	7°42
S13	3 28 29	20°37'23	8♈ 7	7° 1	4°54	2°43	0°34	23°51	19° 8	18°54	25°14	3° 1	3°41	13°52	7°47
S14	3 32 26	21°37'48	23° 2	6°41	6° 9	3°26	0°46	23°53	19°10	18°55	25°17	3° 0	3°38	13°59	7°51
M15	3 36 22	22°38'15	7♌43	6°D32	7°24	4° 9	0°59	23°54	19°12	18°57	25°19	3°D 0	3°35	14° 6	7°55
T16	3 40 19	23°38'43	22° 4	6°35	8°40	4°53	1°12	23°56	19°14	18°58	25°21	3° 1	3°32	14°12	7°59
W17	3 44 15	24°39'13	6♌ 1	6°49	9°55	5°36	1°24	23°58	19°17	19° 0	25°24	3° 1	3°29	14°19	8° 3
T18	3 48 12	25°39'45	19°32	7°12	11°10	6°19	1°37	24° 0	19°19	19° 1	25°26	3° 2	3°26	14°26	8° 7
F19	3 52 8	26°40'17	2♎38	7°44	12°25	7° 3	1°49	24° 3	19°22	19° 3	25°29	3° 3	3°22	14°32	8°11
S20	3 56 5	27°40'51	15°20	8°25	13°41	7°47	2° 1	24° 5	19°24	19° 4	25°31	3° 3	3°19	14°39	8°15
S21	4 0 2	28°41'26	27°44	9°12	14°56	8°30	2°14	24° 7	19°27	19° 6	25°33	3°R 3	3°16	14°46	8°18
M22	4 3 58	29°42'02	9♌52	10° 6	16°11	9°14	2°26	24°10	19°29	19° 8	25°36	3° 3	3°13	14°53	8°22
T23	4 7 55	0♌42'39	21°50	11° 6	17°27	9°58	2°38	24°12	19°32	19° 9	25°38	3° 3	3°10	14°59	8°25
W24	4 11 51	1°43'18	3♈42	12°10	18°42	10°41	2°51	24°15	19°35	19°11	25°41	3° 3	3° 7	15° 6	8°29
T25	4 15 48	2°43'57	15°32	13°19	19°57	11°25	3° 3	24°18	19°37	19°13	25°43	3°D 3	3° 3	15°13	8°32
F26	4 19 44	3°44'38	27°24	14°31	21°13	12° 9	3°15	24°21	19°40	19°14	25°45	3° 3	3° 0	15°19	8°35
S27	4 23 41	4°45'20	9♌22	15°47	22°28	12°53	3°27	24°24	19°43	19°16	25°48	3° 3	2°57	15°26	8°38
S28	4 27 37	5°46'03	21°27	17° 5	23°43	13°37	3°39	24°27	19°45	19°18	25°50	3° 3	2°54	15°33	8°41
M29	4 31 34	6°46'48	3♈42	18°25	24°59	14°21	3°51	24°30	19°48	19°20	25°53	3°R 3	2°51	15°39	8°44
T30	4 35 31	7♌47'33	16♈ 8	19♈47	26♈14	15♌ 5	4♈ 3	24°33	19°51	19°21	25°55	3♌ 3	2♌47	15°46	8♈46

Delta T = 59.84 sec.

DECEMBER 1993

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	4 39 27	8♌48'20	28♈47	21♈11	27♈30	15♌50	4♈15	24°36	19°54	19°23	25°57	3°R 3	2♌44	15°53	8♈49
T 2	4 43 24	9°49'09	11♌39	22°36	28°45	16°34	4°27	24°40	19°57	19°25	26° 0	3♌ 2	2°41	15°59	8°52
F 3	4 47 20	10°49'58	24°44	24° 2	0♌ 0	17°18	4°38	24°43	20° 0	19°27	26° 2	3° 1	2°38	16° 6	8°54
S 4	4 51 17	11°50'49	8♈ 3	25°29	1°16	18° 2	4°50	24°47	20° 3	19°29	26° 4	3° 0	2°35	16°13	8°56
S 5	4 55 13	12°51'41	21°35	26°58	2°31	18°47	5° 2	24°51	20° 6	19°31	26° 7	2°59	2°32	16°19	8°58
M 6	4 59 10	13°52'35	5♈21	28°27	3°47	19°31	5°13	24°54	20° 9	19°33	26° 9	2°58	2°28	16°26	9° 0
T 7	5 3 6	14°53'30	19°20	29°56	5° 2	20°16	5°25	24°58	20°12	19°35	26°11	2°D58	2°25	16°33	9° 2
W 8	5 7 3	15°54'26	3♌32	1♌26	6°18	21° 0	5°36	25° 2	20°15	19°36	26°14	2°59	2°22	16°40	9° 4
T 9	5 11 0	16°55'23	17°54	2°56	7°33	21°45	5°48	25° 6	20°18	19°38	26°16	3° 0	2°19	16°46	9° 6
F10	5 14 56	17°56'21	2♈23	4°27	8°49	22°30	5°59	25°10	20°21	19°40	26°18	3° 1	2°16	16°53	9° 7
S11	5 18 53	18°57'21	16°55	5°58	10° 4	23°14	6°10	25°14	20°24	19°42	26°20	3° 2	2°13	17° 0	9° 9
S12	5 22 49	19°58'22	1♌25	7°30	11°20	23°59	6°21	25°19	20°27	19°44	26°23	3°R 2	2° 9	17° 6	9°10
M13	5 26 46	20°59'24	15°47	9° 1	12°35	24°44	6°32	25°23	20°31	19°47	26°25	3° 2	2° 6	17°13	9°12
T14	5 30 42	22° 0'27	29°57	10°33	13°51	25°29	6°43	25°28	20°34	19°49	26°27	3° 1	2° 3	17°20	9°13
W15	5 34 39	23° 1'30	13♌48	12° 5	15° 6	26°14	6°54	25°32	20°37	19°51	26°29	2°58	2° 0	17°26	9°14
T16	5 38 36	24° 2'34	27°19	13°38	16°22	26°59	7° 5	25°37	20°40	19°53	26°32	2°55	1°57	17°33	9°15
F17	5 42 32	25° 3'38	10♎27	15°10	17°37	27°44	7°16	25°41	20°44	19°55	26°34	2°52	1°53	17°40	9°15
S18	5 46 29	26° 4'43	23°14	16°43	18°53	28°29	7°26	25°46	20°47	19°57	26°36	2°48	1°50	17°46	9°16
S19	5 50 25	27° 5'48	5♌41	18°15	20° 8	29°14	7°37	25°51	20°50	19°59	26°38	2°46	1°47	17°53	9°17
M20	5 54 22	28° 6'54	17°52	19°48	21°24	29°59	7°47	25°56	20°54	20° 1	26°40	2°44	1°44	18° 0	9°17
T21	5 58 18	29° 7'59	29°51	21°21	22°39	0♌44	7°58	26° 1	20°57	20° 3	26°42	2°D43	1°41	18° 6	9°17
W22	6 2 15	0♌ 9'05	11♈43	22°55	23°55	1°29	8° 8	26° 6	21° 0	20° 6	26°44	2°44	1°38	18°13	9°18
T23	6 6 11	1°10'11	23°32	24°28	25°10	2°15	8°18	26°11	21° 4	20° 8	26°47	2°46	1°34	18°20	9°R18
F24	6 10 8	2°11'18	5♌25	26° 2	26°26	3° 0	8°28	26°16	21° 7	20°10	26°49	2°47	1°31	18°26	9°18
S25	6 14 5	3°12'24	17°25	27°36	27°41	3°45	8°38	26°21	21°10	20°12	26°51	2°49	1°28	18°33	9°18
S26	6 18 1	4°13'31	29°37	29°10	28°57	4°31	8°48	26°27	21°14	20°14	26°53	2°R50	1°25	18°40	9°17
M27	6 21 58	5°14'38	12♈ 2	0♌44	0♌12	5°16	8°58	26°32	21°17	20°16	26°55	2°50	1°22	18°47	9°17
T28	6 25 54	6°15'45	24°45	2°19	1°28	6° 2	9° 8	26°38	21°21	20°19	26°57	2°48	1°19	18°53	9°16
W29	6 29 51	7°16'53	7♌44	3°54	2°43	6°47	9°17	26°43	21°24	20°21	26°59	2°44	1°15	19° 0	9°16
T30	6 33 47	8°18'00	21° 1	5°29	3°59	7°33	9°27	26°49	21°28	20°23	27° 1	2°39	1°12	19° 7	9°15
F31	6 37 44	9♌19'08	4♈33	7♌ 4	5♌14	8♌19	9♈36	26°54	21°31	20°25	27° 3	2♌33	1♌ 9	19°13	9♈14

Delta T = 59.91 sec.

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