

# SWISS EPHEMERIS for the year 1972

## JANUARY 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	6 39 1	9°39'46	11°38'	17°8'	10°47'	3°23'	22°21'	0°R25	18°5'	4°7'	2°3'	5°R19	6°38'	23°56'	9°24'
S 2	6 42 58	10°40'54	25°19'	18°8'	12°1'	4°2'	22°34'	0°II22	18°7'	4°8'	2°3'	5°R18	6°35'	24°2'	9°25'
M 3	6 46 55	11°42'03	8°39'	19°11'	13°15'	4°40'	22°48'	0°19'	18°8'	4°10'	2°3'	5°D17	6°32'	24°9'	9°26'
T 4	6 50 51	12°43'11	21°37'	20°17'	14°29'	5°19'	23°1'	0°16'	18°9'	4°12'	2°3'	5°18	6°28'	24°16'	9°26'
W 5	6 54 48	13°44'20	4°16'	21°26'	15°43'	5°58'	23°14'	0°13'	18°10'	4°13'	2°R 3	5°20	6°25'	24°23'	9°27'
T 6	6 58 44	14°45'29	16°37'	22°37'	16°57'	6°37'	23°27'	0°11'	18°11'	4°15'	2°3'	5°21	6°22'	24°29'	9°28'
F 7	7 2 41	15°46'38	28°43'	23°50'	18°11'	7°16'	23°40'	0°8'	18°12'	4°17'	2°3'	5°23	6°19'	24°36'	9°29'
S 8	7 6 37	16°47'47	10°41'	25°5'	19°25'	7°55'	23°53'	0°5'	18°13'	4°19'	2°3'	5°24	6°16'	24°43'	9°30'
S 9	7 10 34	17°48'57	22°33'	26°21'	20°39'	8°34'	24°6'	0°3'	18°14'	4°21'	2°3'	5°R24	6°13'	24°49'	9°31'
M10	7 14 30	18°50'06	4°26'	27°39'	21°52'	9°13'	24°19'	0°0'	18°14'	4°22'	2°3'	5°23	6°9'	24°56'	9°32'
T 11	7 18 27	19°51'15	16°23'	28°59'	23°6'	9°53'	24°32'	29°58'	18°15'	4°24'	2°2'	5°22	6°6'	25°3'	9°33'
W12	7 22 24	20°52'25	28°30'	0°19'	24°20'	10°32'	24°45'	29°56'	18°16'	4°26'	2°2'	5°20	6°3'	25°10'	9°34'
T 13	7 26 20	21°53'34	10°49'	1°41'	25°33'	11°11'	24°58'	29°54'	18°16'	4°28'	2°2'	5°17	6°0'	25°16'	9°35'
F 14	7 30 17	22°54'44	23°23'	3°4'	26°47'	11°50'	25°11'	29°52'	18°17'	4°29'	2°2'	5°15	5°57'	25°23'	9°36'
S 15	7 34 13	23°55'53	6°31'	4°27'	28°1'	12°29'	25°24'	29°50'	18°17'	4°31'	2°1'	5°14	5°54'	25°30'	9°38'
S 16	7 38 10	24°57'01	19°22'	5°52'	29°14'	13°9'	25°37'	29°48'	18°18'	4°32'	2°1'	5°13	5°50'	25°36'	9°39'
M17	7 42 6	25°58'09	2°47'	7°17'	0°27'	13°48'	25°49'	29°46'	18°18'	4°34'	2°1'	5°D13	5°47'	25°43'	9°41'
T 18	7 46 3	26°59'17	16°27'	8°43'	1°41'	14°28'	26°2'	29°45'	18°19'	4°36'	2°0'	5°13	5°44'	25°50'	9°42'
W19	7 49 59	28°0'24	0°19'	10°10'	2°54'	15°7'	26°15'	29°43'	18°19'	4°37'	2°0'	5°13	5°41'	25°57'	9°44'
T 20	7 53 56	29°1'30	14°20'	11°38'	4°7'	15°46'	26°27'	29°42'	18°19'	4°39'	1°59'	5°14	5°38'	26°3'	9°45'
F 21	7 57 53	0°2'35	28°28'	13°6'	5°21'	16°26'	26°40'	29°41'	18°19'	4°40'	1°59'	5°14	5°34'	26°10'	9°47'
S 22	8 1 49	1°3'40	12°40'	14°35'	6°34'	17°5'	26°52'	29°40'	18°19'	4°42'	1°58'	5°15	5°31'	26°17'	9°48'
S 23	8 5 46	2°4'43	26°52'	16°5'	7°47'	17°45'	27°5'	29°39'	18°R19	4°43'	1°57'	5°R15	5°28'	26°24'	9°50'
M24	8 9 42	3°5'45	11°3'	17°35'	9°0'	18°24'	27°17'	29°38'	18°19'	4°44'	1°57'	5°15	5°25'	26°30'	9°52'
T 25	8 13 39	4°6'47	25°11'	19°6'	10°13'	19°4'	27°29'	29°37'	18°19'	4°46'	1°56'	5°15	5°22'	26°37'	9°54'
W26	8 17 35	5°7'47	9°12'	20°38'	11°26'	19°43'	27°41'	29°36'	18°19'	4°47'	1°55'	5°D15	5°19'	26°44'	9°55'
T 27	8 21 32	6°8'46	23°6'	22°10'	12°39'	20°23'	27°53'	29°36'	18°19'	4°48'	1°55'	5°15	5°15'	26°50'	9°57'
F 28	8 25 28	7°9'45	6°50'	23°43'	13°51'	21°2'	28°5'	29°35'	18°19'	4°50'	1°54'	5°15	5°12'	26°57'	9°59'
S 29	8 29 25	8°10'42	20°21'	25°16'	15°4'	21°42'	28°17'	29°35'	18°18'	4°51'	1°53'	5°15	5°9'	27°4'	10°1'
S30	8 33 22	9°11'38	3°40'	26°51'	16°17'	22°21'	28°29'	29°35'	18°18'	4°52'	1°52'	5°R15	5°6'	27°11'	10°3'
M31	8 37 18	10°12'33	16°43'	28°25'	17°29'	23°1'	28°41'	29°D35	18°18'	4°53'	1°52'	5°R15	5°3'	27°17'	10°5'

Delta T = 42.23 sec.

## FEBRUARY 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	8 41 15	11°13'27	29°31'	0°1'	18°42'	23°40'	28°53'	29°35'	18°R17	4°55'	1°R51	5°R15	5°0'	27°24'	10°7'
W 2	8 45 11	12°14'20	12°13'	1°37'	19°54'	24°20'	29°5'	29°35'	18°17'	4°56'	1°D50	5°R14	4°56'	27°31'	10°10'
T 3	8 49 8	13°15'12	24°22'	3°14'	21°6'	25°0'	29°16'	29°35'	18°16'	4°57'	1°49'	5°13	4°53'	27°37'	10°12'
F 4	8 53 4	14°16'03	6°29'	4°52'	22°18'	25°39'	29°28'	29°35'	18°16'	4°58'	1°48'	5°12	4°50'	27°44'	10°14'
S 5	8 57 1	15°16'53	18°28'	6°30'	23°31'	26°19'	29°39'	29°36'	18°15'	4°59'	1°47'	5°10	4°47'	27°51'	10°16'
S 6	9 0 57	16°17'43	0°12'	8°9'	24°43'	26°58'	29°51'	29°36'	18°14'	5°0'	1°46'	5°9'	4°44'	27°58'	10°19'
M 7	9 4 54	17°18'31	12°14'	9°49'	25°54'	27°38'	0°2'	29°37'	18°13'	5°1'	1°45'	5°D 9	4°40'	28°4'	10°21'
T 8	9 8 51	18°19'19	24°10'	11°30'	27°6'	28°18'	0°13'	29°38'	18°13'	5°2'	1°44'	5°9'	4°37'	28°11'	10°23'
W 9	9 12 47	19°20'05	6°15'	13°11'	28°18'	28°57'	0°24'	29°39'	18°12'	5°3'	1°43'	5°10	4°34'	28°18'	10°26'
T 10	9 16 44	20°20'51	18°33'	14°53'	29°30'	29°37'	0°36'	29°40'	18°11'	5°4'	1°42'	5°11	4°31'	28°25'	10°28'
F 11	9 20 40	21°21'36	1°3'	16°36'	0°41'	0°16'	0°46'	29°41'	18°10'	5°5'	1°41'	5°12	4°28'	28°31'	10°31'
S 12	9 24 37	22°22'19	14°5'	18°20'	1°53'	0°56'	0°57'	29°42'	18°9'	5°5'	1°39'	5°13	4°25'	28°38'	10°33'
S 13	9 28 33	23°23'01	27°24'	20°5'	3°4'	1°36'	1°8'	29°44'	18°8'	5°6'	1°38'	5°14	4°21'	28°45'	10°36'
M14	9 32 30	24°23'42	11°6'	21°51'	4°15'	2°15'	1°19'	29°45'	18°6'	5°7'	1°37'	5°R14	4°18'	28°51'	10°39'
T 15	9 36 26	25°24'22	25°9'	23°37'	5°27'	2°55'	1°29'	29°47'	18°5'	5°8'	1°36'	5°13	4°15'	28°58'	10°41'
W16	9 40 23	26°25'00	9°29'	25°24'	6°38'	3°35'	1°40'	29°48'	18°4'	5°8'	1°34'	5°11	4°12'	29°5'	10°44'
T 17	9 44 20	27°25'36	24°0'	27°12'	7°49'	4°14'	1°50'	29°50'	18°3'	5°9'	1°33'	5°8'	4°9'	29°12'	10°47'
F 18	9 48 16	28°26'11	8°38'	29°1'	8°59'	4°54'	2°1'	29°52'	18°1'	5°10'	1°32'	5°5'	4°6'	29°18'	10°49'
S 19	9 52 13	29°26'44	23°14'	0°51'	10°10'	5°33'	2°11'	29°54'	18°0'	5°10'	1°31'	5°2'	4°2'	29°25'	10°52'
S 20	9 56 9	0°27'15	7°43'	2°41'	11°21'	6°13'	2°21'	29°56'	17°59'	5°11'	1°29'	4°59'	3°59'	29°32'	10°55'
M21	10 0 6	1°27'45	22°0'	4°32'	12°31'	6°53'	2°31'	29°59'	17°57'	5°11'	1°28'	4°58'	3°56'	29°38'	10°58'
T 22	10 4 2	2°28'13	6°11'	6°24'	13°41'	7°32'	2°41'	0°II 1	17°56'	5°12'	1°27'	4°D58	3°53'	29°45'	11°1'
W23	10 7 59	3°28'38	19°53'	8°17'	14°52'	8°12'	2°51'	0°3'	17°54'	5°12'	1°25'	4°58'	3°50'	29°52'	11°4'
T 24	10 11 55	4°29'02	3°27'	10°10'	16°2'	8°51'	3°0'	0°6'	17°52'	5°13'	1°24'	5°0'	3°46'	29°59'	11°7'
F 25	10 15 52	5°29'24	16°46'	12°3'	17°12'	9°31'	3°10'	0°9'	17°51'	5°13'	1°22'	5°2'	3°43'	0°II 5	11°10'
S 26	10 19 49	6°29'44	29°52'	13°56'	18°21'	10°11'	3°19'	0°11'	17°49'	5°14'	1°21'	5°R 3	3°40'	0°12'	11°13'
S 27	10 23 45	7°30'02	12°46'	15°50'	19°31'	10°50'	3°29'	0°14'	17°47'	5°14'	1°19'	5°2'	3°37'	0°19'	11°16'
M28	10 27 42	8°30'18	17°43'	17°43'	20°40'	11°30'	3°38'	0°17'	17°46'	5°14'	1°18'	5°1'	3°34'	0°26'	11°19'
T 29	10 31 38	9°30'32	7°59'	19°37'	21°50'	12°8'	3°47'	0°II20	17°44'	5°14'	1°16'	4°R57	3°31'	0°II32	11°22'

Delta T = 42.32 sec.

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# SWISS EPHEMERIS for the year 1972

MARCH 1972

00:00 UT

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

Delta T = 42.41 sec.

APRIL 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	12 37 48	11°22'02	5° 3'	10°28'	27° 0'	3°11'	7°26'	2°14'	16°30'	5°15'	0°25'	2°31'	1°49'	4°11'	13°10'
S 2	12 41 44	12°21'12	16°55'	9°38'	28° 1'	3°48'	7°30'	2°52'	16°28'	5°15'	0°23'	2°19'	1°46'	4°14'	13°13'
M 3	12 45 41	13°20'20	28°47'	8°48'	29° 2'	4°27'	7°34'	2°58'	16°25'	5° 4'	0°22'	2° 9'	1°43'	4°21'	13°17'
T 4	12 49 38	14°19'26	10°42'	8° 1'	0°11'	5° 6'	7°38'	3° 4'	16°23'	5° 3'	0°20'	2° 1'	1°39'	4°28'	13°20'
W 5	12 53 34	15°18'30	22°44'	7°15'	1° 3'	5°45'	7°42'	3°10'	16°20'	5° 2'	0°19'	1°57'	1°36'	4°34'	13°24'
T 6	12 57 31	16°17'33	4°36'	6°33'	2° 3'	6°24'	7°46'	3°16'	16°18'	5° 1'	0°17'	1°55'	1°33'	4°41'	13°27'
F 7	13 1 27	17°16'34	17°24'	5°55'	3° 3'	7° 3'	7°49'	3°22'	16°15'	5° 0'	0°15'	1°54'	1°30'	4°48'	13°31'
S 8	13 5 24	18°15'33	0°12'	5°21'	4° 1'	7°42'	7°52'	3°28'	16°12'	4°59'	0°14'	1°54'	1°27'	4°55'	13°35'
S 9	13 9 20	19°14'30	13°25'	4°51'	5° 0'	8°21'	7°55'	3°35'	16°10'	4°58'	0°12'	1°54'	1°23'	5° 1'	13°38'
M10	13 13 17	20°13'26	27° 7'	4°27'	5°58'	9° 0'	7°58'	3°41'	16° 7'	4°57'	0°11'	1°52'	1°20'	5° 8'	13°42'
T 11	13 17 13	21°12'19	11°17'	4° 7'	6°56'	9°39'	8° 1'	3°48'	16° 5'	4°56'	0° 9'	1°47'	1°17'	5°15'	13°45'
W12	13 21 10	22°11'11	25°56'	3°53'	7°53'	10°18'	8° 4'	3°54'	16° 2'	4°55'	0° 8'	1°40'	1°14'	5°21'	13°49'
T 13	13 25 7	23°10'01	10°58'	3°44'	8°50'	10°57'	8° 6'	4° 0'	15°59'	4°54'	0° 6'	1°31'	1°11'	5°28'	13°52'
F 14	13 29 3	24° 8'49	26°14'	3°D41	9°46'	11°36'	8° 8'	4° 7'	15°57'	4°53'	0° 5'	1°20'	1° 8'	5°35'	13°56'
S 15	13 33 0	25° 7'36	11°32'	3°43'	10°41'	12°14'	8°10'	4°14'	15°54'	4°52'	0° 3'	1° 9'	1° 4'	5°42'	13°59'
S 16	13 36 56	26° 6'20	26°42'	3°50'	11°36'	12°53'	8°12'	4°20'	15°52'	4°51'	0° 2'	0°59'	1° 1'	5°48'	14° 2'
M17	13 40 53	27° 5'02	11°34'	4° 2'	12°31'	13°32'	8°13'	4°27'	15°49'	4°49'	0° 0'	0°51'	0°58'	5°55'	14° 6'
T 18	13 44 49	28° 3'42	26° 1'	4°19'	13°25'	14°11'	8°15'	4°34'	15°47'	4°48'	29°59'	0°46'	0°55'	6° 2'	14° 9'
W19	13 48 46	29° 2'20	10°00'	4°40'	14°18'	14°50'	8°16'	4°41'	15°44'	4°47'	29°58'	0°44'	0°52'	6° 8'	14°13'
T 20	13 52 42	0° 0'55	23°31'	5° 6'	15°10'	15°29'	8°17'	4°48'	15°42'	4°46'	29°56'	0°43'	0°48'	6°15'	14°16'
F 21	13 56 39	0°59'28	6°23'	5°36'	16° 2'	16° 8'	8°18'	4°54'	15°39'	4°44'	29°55'	0°43'	0°45'	6°22'	14°20'
S 22	14 0 36	1°57'59	19°23'	6°11'	16°54'	16°46'	8°19'	5° 1'	15°37'	4°43'	29°54'	0°42'	0°42'	6°29'	14°23'
S 23	14 4 32	2°56'28	1°15'	6°49'	17°44'	17°25'	8°19'	5° 8'	15°34'	4°42'	29°52'	0°40'	0°39'	6°35'	14°26'
M24	14 8 29	3°54'55	14° 6'	7°31'	18°34'	18° 4'	8°19'	5°15'	15°32'	4°41'	29°51'	0°35'	0°36'	6°42'	14°30'
T 25	14 12 25	4°53'19	26°12'	8°17'	19°23'	18°43'	8°19'	5°22'	15°30'	4°39'	29°50'	0°27'	0°33'	6°49'	14°33'
W26	14 16 22	5°51'42	8°12'	9° 6'	20°11'	19°21'	8°19'	5°30'	15°27'	4°38'	29°48'	0°17'	0°29'	6°56'	14°37'
T 27	14 20 18	6°50'02	20° 8'	9°58'	20°58'	20° 0'	8°19'	5°37'	15°25'	4°36'	29°47'	0° 4'	0°26'	7° 2'	14°40'
F 28	14 24 15	7°48'21	2° 1'	10°54'	21°45'	20°39'	8°19'	5°44'	15°23'	4°35'	29°46'	29°50'	0°23'	7° 9'	14°43'
S 29	14 28 11	8°46'38	13°54'	11°53'	22°30'	21°17'	8°18'	5°51'	15°20'	4°34'	29°45'	29°36'	0°20'	7°16'	14°46'
S 30	14 32 8	9°44'53	25°47'	12°54'	23°15'	21°15'	8°17'	5°58'	15°18'	4°32'	29°44'	29°34'	0°17'	7°11'	14°49'

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# SWISS EPHEMERIS for the year 1972

MAY 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
M 1	14 36 5	10♈43'06	7♌42	13♍58	23♎58	22♏35	8♐16	6♑6	15♒16	4♓31	29♓42	29♓13	0♈14	7♎29	14♏53
T 2	14 40 1	11♈41'18	19♌41	15° 6	24♎41	23♏13	8♐15	6♑13	15♒13	4♓29	29♓41	29♓4	0°10	7♎36	14♏56
W 3	14 43 58	12♈39'29	1♌47	16°15	25♎23	23♏52	8♐13	6♑20	15°11	4♓28	29♓40	28°59	0° 7	7♎43	14°59
T 4	14 47 54	13♈37'37	14° 3	17°27	26° 3	24♎31	8♐12	6♑28	15° 9	4♓26	29°39	28°56	0° 4	7°49	15° 3
F 5	14 51 51	14♈35'45	26°32	18°42	26°43	25° 9	8♐10	6♑35	15° 7	4♓25	29°38	28°D55	0° 1	7°56	15° 6
S 6	14 55 47	15♈33'50	9♌18	19°59	27°21	25°48	8° 8	6♑43	15° 5	4♓23	29°37	28°R55	29♓58	8° 3	15° 9
S 7	14 59 44	16°31'55	22°27	21°18	27°58	26°26	8° 6	6°50	15° 3	4°22	29°36	28°55	29°54	8° 9	15°12
M 8	15 3 40	17°29'58	6♌1	22°40	28°34	27° 5	8° 4	6°58	15° 1	4°20	29°35	28°54	29°51	8°16	15°15
T 9	15 7 37	18°28'00	20° 2	24° 4	29° 8	27°43	8° 1	7° 5	14°59	4°19	29°34	28°51	29°48	8°23	15°18
W10	15 11 34	19°26'00	4♌31	25°30	29°41	28°22	7°58	7°13	14°57	4°17	29°33	28°45	29°45	8°30	15°21
T 11	15 15 30	20°23'59	19°25	26°58	0♎13	29° 0	7°56	7°20	14°55	4°16	29°32	28°37	29°42	8°36	15°24
F 12	15 19 27	21°21'57	4♌35	28°28	0°44	29°39	7°53	7°28	14°53	4°14	29°31	28°27	29°39	8°43	15°27
S 13	15 23 23	22°19'53	19°52	0♎1	1°12	0♎17	7°49	7°35	14°51	4°13	29°30	28°18	29°35	8°50	15°30
S 14	15 27 20	23°17'48	5♌5	1°36	1°40	0°56	7°46	7°43	14°49	4°11	29°30	28° 9	29°32	8°57	15°33
M15	15 31 16	24°15'41	20° 4	3°12	2° 5	1°34	7°42	7°51	14°47	4° 9	29°29	28° 2	29°29	9° 3	15°36
T 16	15 35 13	25°13'33	4♌39	4°51	2°29	2°13	7°39	7°58	14°45	4° 8	29°28	27°57	29°26	9°10	15°39
W17	15 39 9	26°11'23	18°48	6°32	2°52	2°51	7°35	8° 6	14°44	4° 6	29°27	27°55	29°23	9°17	15°42
T 18	15 43 6	27° 9'11	2♌27	8°15	3°12	3°29	7°31	8°14	14°42	4° 5	29°27	27°D55	29°20	9°23	15°45
F 19	15 47 3	28° 6'58	15°39	10° 0	3°31	4° 8	7°26	8°21	14°40	4° 3	29°26	27°56	29°16	9°30	15°48
S 20	15 50 59	29° 4'42	28°28	11°48	3°47	4°46	7°22	8°29	14°39	4° 1	29°25	27°R56	29°13	9°37	15°50
S 21	15 54 56	0♌2'26	10♌56	13°37	4° 2	5°25	7°17	8°37	14°37	4° 0	29°25	27°56	29°10	9°44	15°53
M22	15 58 52	1° 0'07	23° 9	15°28	4°14	6° 3	7°13	8°45	14°36	3°58	29°24	27°53	29° 7	9°50	15°56
T 23	16 2 49	1°57'47	5♌12	17°22	4°25	6°41	7° 8	8°52	14°34	3°57	29°23	27°48	29° 4	9°57	15°59
W24	16 6 45	2°55'26	17° 8	19°18	4°33	7°20	7° 3	9° 0	14°33	3°55	29°23	27°41	29° 0	10° 4	16° 1
T 25	16 10 42	3°53'03	29° 0	21°15	4°39	7°58	6°58	9° 8	14°31	3°53	29°22	27°33	28°57	10°10	16° 4
F 26	16 14 38	4°50'38	10♌52	23°15	4°43	8°36	6°52	9°16	14°30	3°52	29°22	27°23	28°54	10°17	16° 6
S 27	16 18 35	5°48'13	22°46	25°16	4°R45	9°14	6°47	9°24	14°29	3°50	29°22	27°13	28°51	10°24	16° 9
S 28	16 22 32	6°45'46	4♌43	27°19	4°44	9°53	6°41	9°31	14°27	3°48	29°21	27° 4	28°48	10°31	16°11
M29	16 26 28	7°43'19	16°45	29°24	4°40	10°31	6°36	9°39	14°26	3°47	29°21	26°56	28°45	10°37	16°14
T 30	16 30 25	8°40'50	28°53	1♌31	4°35	11° 9	6°30	9°47	14°25	3°45	29°20	26°51	28°41	10°44	16°16
W31	16 34 21	9♌38'20	11♌9	3♌39	4♌27	11♌47	6♌24	9♌55	14♌24	3♌44	29♌20	26♌47	28♌38	10♌51	16♌19

Delta T = 42.60 sec.

JUNE 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	16 38 18	10♌35'49	23♌35	5♌48	4°R16	12♎26	6°R18	10♏3	14°R23	3°R42	29°R20	26°D46	28♌35	10♌58	16♏21
F 2	16 42 14	11°33'17	6♌13	7°59	4♌3	13° 4	6♌11	10°10	14♌22	3♌40	29♌20	26♌46	28°32	11° 4	16°23
S 3	16 46 11	12°30'45	19° 6	10°10	3°48	13°42	6° 5	10°18	14°21	3°39	29°19	26°48	28°29	11°11	16°26
S 4	16 50 7	13°28'12	2♌18	12°22	3°30	14°20	5°59	10°26	14°20	3°37	29°19	26°49	28°26	11°18	16°28
M 5	16 54 4	14°25'38	15°50	14°34	3°10	14°58	5°52	10°34	14°19	3°36	29°19	26°R49	28°22	11°24	16°30
T 6	16 58 1	15°23'03	29°44	16°46	2°48	15°37	5°45	10°41	14°18	3°34	29°19	26°48	28°19	11°31	16°32
W 7	17 1 57	16°20'28	14♌0	18°58	2°24	16°15	5°39	10°49	14°17	3°32	29°19	26°46	28°16	11°38	16°34
T 8	17 5 54	17°17'52	28°37	21° 9	1°58	16°53	5°32	10°57	14°17	3°31	29°19	26°42	28°13	11°45	16°36
F 9	17 9 50	18°15'16	13♌29	23°20	1°29	17°31	5°25	11° 5	14°16	3°29	29°D19	26°37	28°10	11°51	16°39
S 10	17 13 47	19°12'39	28°30	25°29	0°59	18° 9	5°18	11°13	14°15	3°28	29°19	26°31	28° 6	11°58	16°41
S 11	17 17 43	20°10'02	13♌29	27°38	0°28	18°47	5°11	11°20	14°15	3°26	29°19	26°26	28° 3	12° 5	16°42
M12	17 21 40	21° 7'24	28°19	29°45	29♌55	19°25	5° 4	11°28	14°14	3°25	29°19	26°22	28° 0	12°11	16°44
T 13	17 25 37	22° 4'45	12♌52	1♌50	29°20	20° 4	4°56	11°36	14°14	3°23	29°19	26°20	27°57	12°18	16°46
W14	17 29 33	23° 2'05	27° 1	3°53	28°45	20°42	4°49	11°43	14°13	3°22	29°19	26°D19	27°54	12°25	16°48
T 15	17 33 30	23°59'25	10♌44	5°55	28° 8	21°20	4°42	11°51	14°13	3°20	29°19	26°20	27°51	12°32	16°50
F 16	17 37 26	24°56'43	24° 1	7°55	27°31	21°58	4°34	11°59	14°12	3°19	29°19	26°21	27°47	12°38	16°52
S 17	17 41 23	25°54'01	6♌54	9°52	26°54	22°36	4°27	12° 7	14°12	3°17	29°20	26°23	27°44	12°45	16°53
S 18	17 45 19	26°51'18	19°26	11°48	26°16	23°14	4°19	12°14	14°12	3°16	29°20	26°24	27°41	12°52	16°55
M19	17 49 16	27°48'34	1♌42	13°41	25°39	23°52	4°12	12°22	14°12	3°14	29°20	26°R24	27°38	12°58	16°57
T 20	17 53 12	28°45'49	13°45	15°32	25° 2	24°30	4° 4	12°29	14°12	3°13	29°21	26°23	27°35	13° 5	16°58
W21	17 57 9	29°43'04	25°41	17°20	24°25	25° 8	3°56	12°37	14°12	3°11	29°21	26°21	27°32	13°12	17° 0
T 22	18 1 6	0♌40'18	7♌34	19° 7	23°49	25°46	3°49	12°45	14°D12	3°10	29°21	26°18	27°28	13°19	17° 1
F 23	18 5 2	1°37'31	19°26	20°51	23°14	26°24	3°41	12°52	14°12	3° 9	29°22	26°14	27°25	13°25	17° 2
S 24	18 8 59	2°34'44	1♌23	22°33	22°40	27° 2	3°33	13° 0	14°12	3° 7	29°22	26°10	27°22	13°32	17° 4
S 25	18 12 55	3°31'56	13°25	24°12	22° 8	27°40	3°26	13° 7	14°12	3° 6	29°23	26° 6	27°19	13°39	17° 5
M26	18 16 52	4°29'09	25°36	25°49	21°38	28°18	3°18	13°15	14°12	3° 5	29°23	26° 4	27°16	13°46	17° 6
T 27	18 20 48	5°26'20	7♌56	27°24	21° 9	28°56	3°10	13°22	14°12	3° 3	29°24	26° 2	27°12	13°52	17° 8
W28	18 24 45	6°23'32	20°27	28°56	20°42	29°34	3° 3	13°29	14°13	3° 2	29°24	26°D 1	27° 9	13°59	17° 9
T 29	18 28 41	7°20'43	3♌11	0♌27	20°17	0♌12	2°55	13°37	14°13	3° 1	29°25	26° 1	27° 6	14° 6	17°10
F 30	18 32 38	8♌17'54	16♌7	1♌54	19♌54	0♌50	2♌48	13♌44	14♌13	2♌59	29♌26	26♌3	27♌3	14♌12	17♌11

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# SWISS EPHEMERIS for the year 1972

JULY 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	18 36 35	9°51'06	29°17	3°20	19°R33	1°28	2°R40	13°52	14°14	2°R58	29°26	26°3	27°0	14°19	17°12
S 2	18 40 31	10°12'17	12°41	4°42	19°15	2°6	2°32	13°59	14°14	2°57	29°27	26°4	26°57	14°26	17°13
M 3	18 44 28	11°9'29	26°20	6°3	18°59	2°44	2°25	14°6	14°15	2°56	29°28	26°5	26°53	14°33	17°14
T 4	18 48 24	12°6'40	10°15	7°21	18°45	3°22	2°17	14°13	14°16	2°55	29°29	26°R 5	26°50	14°39	17°15
W 5	18 52 21	13°3'52	24°24	8°36	18°34	4°0	2°10	14°20	14°16	2°53	29°29	26°5	26°47	14°46	17°16
T 6	18 56 17	14°1'05	8°45	9°49	18°25	4°38	2°2	14°28	14°17	2°52	29°30	26°4	26°44	14°53	17°16
F 7	19 0 14	14°58'18	23°16	10°59	18°19	5°16	1°55	14°35	14°18	2°51	29°31	26°3	26°41	14°59	17°17
S 8	19 4 10	15°55'31	7°52	12°6	18°15	5°54	1°48	14°42	14°19	2°50	29°32	26°2	26°38	15°6	17°18
S 9	19 8 7	16°52'45	22°27	13°11	18°D13	6°32	1°41	14°49	14°19	2°49	29°33	26°1	26°34	15°13	17°18
M10	19 12 4	17°49'59	6°55	14°12	18°14	7°10	1°33	14°56	14°20	2°48	29°34	26°0	26°31	15°20	17°19
T 11	19 16 0	18°47'13	21°11	15°11	18°17	7°48	1°26	15°3	14°21	2°47	29°35	26°D 0	26°28	15°26	17°20
W12	19 19 57	19°44'27	5°9	16°6	18°22	8°26	1°19	15°10	14°22	2°46	29°36	26°0	26°25	15°33	17°20
T 13	19 23 53	20°41'41	18°47	16°58	18°29	9°4	1°13	15°17	14°24	2°45	29°37	26°0	26°22	15°40	17°20
F 14	19 27 50	21°38'56	2°27	17°47	18°39	9°42	1°6	15°23	14°25	2°44	29°38	26°1	26°18	15°46	17°21
S 15	19 31 46	22°36'10	14°56	18°33	18°50	10°20	0°59	15°30	14°26	2°43	29°39	26°1	26°15	15°53	17°21
S 16	19 35 43	23°33'25	27°31	19°14	19°4	10°58	0°52	15°37	14°27	2°42	29°40	26°1	26°12	16°0	17°21
M17	19 39 39	24°30'40	9°49	19°52	19°20	11°36	0°46	15°44	14°28	2°41	29°42	26°1	26°9	16°7	17°22
T 18	19 43 36	25°27'55	21°54	20°26	19°37	12°14	0°40	15°50	14°30	2°41	29°43	26°1	26°6	16°13	17°22
W19	19 47 33	26°25'10	3°15	20°56	19°56	12°52	0°33	15°57	14°31	2°40	29°44	26°1	26°3	16°20	17°22
T 20	19 51 29	27°22'25	15°44	21°22	20°17	13°30	0°27	16°3	14°33	2°39	29°45	26°2	25°59	16°27	17°R22
F 21	19 55 26	28°19'41	27°38	21°43	20°40	14°8	0°21	16°10	14°34	2°38	29°47	26°2	25°56	16°33	17°22
S 22	19 59 22	29°16'57	9°36	22°0	21°5	14°46	0°15	16°16	14°36	2°38	29°48	26°2	25°53	16°40	17°22
S 23	20 3 19	0°14'13	21°44	22°12	21°31	15°24	0°9	16°23	14°37	2°37	29°49	26°2	25°50	16°47	17°22
M24	20 7 15	1°11'30	4°3	22°19	21°58	16°2	0°4	16°29	14°39	2°36	29°51	26°3	25°47	16°54	17°22
T 25	20 11 12	2°8'47	16°36	22°R21	22°28	16°40	29°58	16°35	14°40	2°36	29°52	26°3	25°44	17°0	17°21
W26	20 15 9	3°6'05	29°24	22°19	22°58	17°18	29°53	16°42	14°42	2°35	29°53	26°R 3	25°40	17°7	17°21
T 27	20 19 5	4°3'24	12°28	22°11	23°30	17°56	29°48	16°48	14°44	2°34	29°55	26°3	25°37	17°14	17°21
F 28	20 23 2	5°0'43	25°48	21°58	24°4	18°34	29°43	16°54	14°46	2°34	29°56	26°2	25°34	17°20	17°20
S 29	20 26 58	5°58'03	9°42	21°40	24°38	19°12	29°38	17°0	14°48	2°33	29°58	26°1	25°31	17°27	17°20
S 30	20 30 55	6°55'24	23°8	21°18	25°14	19°50	29°33	17°6	14°50	2°33	29°59	26°0	25°28	17°34	17°20
M31	20 34 51	7°52'46	7°9	20°50	25°15	20°28	29°28	17°12	14°52	2°32	0°1	25°59	25°24	17°41	17°19

Delta T = 42.79 sec.

AUGUST 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
T 1	20 38 48	8°50'09	21°10	20°R18	26°30	21°6	29°R24	17°18	14°54	2°R32	0°2	25°R58	25°21	17°47	17°R19
W 2	20 42 44	9°47'33	5°21	19°43	27°9	21°44	29°20	17°23	14°56	2°32	0°4	25°D57	25°18	17°54	17°18
T 3	20 46 41	10°44'59	19°35	19°3	27°50	22°22	29°15	17°29	14°58	2°31	0°6	25°57	25°15	18°1	17°17
F 4	20 50 38	11°42'26	3°49	18°21	28°31	23°0	29°12	17°35	15°0	2°31	0°7	25°58	25°12	18°7	17°16
S 5	20 54 34	12°39'54	18°2	17°36	29°14	23°38	29°8	17°40	15°2	2°31	0°9	25°59	25°9	18°14	17°16
S 6	20 58 31	13°37'23	2°11	16°50	29°57	24°16	29°4	17°46	15°4	2°30	0°11	26°0	25°5	18°21	17°15
M 7	21 2 27	14°34'54	16°12	16°2	0°42	24°54	29°1	17°51	15°7	2°30	0°12	26°1	25°2	18°28	17°14
T 8	21 6 24	15°32'25	0°2	15°15	1°27	25°32	28°57	17°57	15°9	2°30	0°14	26°R 1	24°59	18°34	17°13
W 9	21 10 20	16°29'58	13°40	14°29	2°13	26°10	28°54	18°2	15°11	2°30	0°16	26°0	24°56	18°41	17°12
T 10	21 14 17	17°27'32	27°2	13°44	3°0	26°48	28°51	18°7	15°14	2°29	0°17	25°59	24°53	18°48	17°11
F 11	21 18 13	18°25'07	10°8	13°3	3°48	27°26	28°49	18°12	15°16	2°29	0°19	25°56	24°50	18°54	17°10
S 12	21 22 10	19°22'43	22°57	12°24	4°37	28°4	28°46	18°17	15°19	2°29	0°21	25°52	24°46	19°1	17°9
S 13	21 26 7	20°20'20	5°28	11°50	5°26	28°42	28°44	18°22	15°21	2°29	0°23	25°49	24°43	19°8	17°8
M14	21 30 3	21°17'58	17°45	11°21	6°16	29°20	28°41	18°27	15°24	2°D29	0°25	25°45	24°40	19°15	17°7
T 15	21 34 0	22°15'37	29°50	10°58	7°7	29°58	28°39	18°32	15°26	2°29	0°27	25°42	24°37	19°21	17°5
W16	21 37 56	23°13'17	11°47	10°41	7°58	0°37	28°37	18°37	15°29	2°29	0°29	25°40	24°34	19°28	17°4
T 17	21 41 53	24°10'58	23°40	10°31	8°50	1°15	28°36	18°42	15°31	2°29	0°30	25°D40	24°30	19°35	17°3
F 18	21 45 49	25°8'40	5°33	10°D28	9°42	1°53	28°34	18°46	15°34	2°29	0°32	25°40	24°27	19°41	17°1
S 19	21 49 46	26°6'23	17°32	10°32	10°36	2°31	28°33	18°51	15°37	2°30	0°34	25°41	24°24	19°48	17°0
S 20	21 53 42	27°4'08	29°41	10°43	11°29	3°9	28°32	18°55	15°40	2°30	0°36	25°43	24°21	19°55	16°58
M21	21 57 39	28°1'53	12°3	11°3	12°24	3°47	28°31	19°0	15°43	2°30	0°38	25°45	24°18	20°2	16°57
T 22	22 1 36	28°59'40	24°46	11°30	13°19	4°25	28°30	19°4	15°45	2°30	0°40	25°R45	24°15	20°8	16°55
W23	22 5 32	29°57'28	7°48	12°4	14°14	5°3	28°30	19°8	15°48	2°30	0°42	25°45	24°11	20°15	16°54
T 24	22 9 29	0°55'18	21°11	12°46	15°10	5°42	28°29	19°12	15°51	2°31	0°44	25°43	24°8	20°22	16°52
F 25	22 13 25	1°53'08	4°55	13°36	16°6	6°20	28°D29	19°16	15°54	2°31	0°46	25°39	24°5	20°28	16°50
S 26	22 17 22	2°51'00	18°56	14°32	17°3	6°58	28°29	19°20	15°57	2°31	0°48	25°34	24°2	20°35	16°48
S 27	22 21 18	3°48'54	3°11	15°35	18°1	7°36	28°30	19°24	16°0	2°32	0°50	25°28	23°59	20°42	16°47
M28	22 25 15	4°46'50	17°33	16°45	18°59	8°14	28°30	19°28	16°3	2°32	0°52	25°22	23°55	20°48	16°45
T 29	22 29 11	5°44'47	18°59	18°1	19°57	8°52	28°31	19°31	16°6	2°33	0°55	25°17	23°52	20°55	16°43
W30	22 33 8	6°42'46	16°21	19°23	20°56	9°31	28°31	19°35	16°9	2°33	0°57	25°14	23°49	21°2	16°41
T 31	22 37 4	7°40'47	0°38	20°50	21°55	10°9	28°32	19°38	16°12	2°34	0°59	25°12	23°46	21°9	16°39

Delta T = 42.89 sec.

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# SWISS EPHEMERIS for the year 1972

SEPTEMBER 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	22 41 1	8 <sup>h</sup> 38'50	14 <sup>h</sup> 46	22 <sup>h</sup> 22	22 <sup>h</sup> 54	10 <sup>h</sup> 47	28 <sup>h</sup> 33	19 <sup>h</sup> 42	16 <sup>h</sup> 16	2 <sup>h</sup> 34	1 <sup>h</sup> 1	25 <sup>h</sup> D12	23 <sup>h</sup> 43	21 <sup>h</sup> 15	16 <sup>h</sup> R37
S 2	22 44 58	9 <sup>h</sup> 36'56	28 <sup>h</sup> 44	23 <sup>h</sup> 58	23 <sup>h</sup> 54	11 <sup>h</sup> 25	28 <sup>h</sup> 35	19 <sup>h</sup> 45	16 <sup>h</sup> 19	2 <sup>h</sup> 35	1 <sup>h</sup> 3	25 <sup>h</sup> 13	23 <sup>h</sup> 40	21 <sup>h</sup> 22	16 <sup>h</sup> Y35
S 3	22 48 54	10 <sup>h</sup> 35'03	12 <sup>h</sup> 31	25 <sup>h</sup> 38	24 <sup>h</sup> 55	12 <sup>h</sup> 4	28 <sup>h</sup> 36	19 <sup>h</sup> 48	16 <sup>h</sup> 22	2 <sup>h</sup> 36	1 <sup>h</sup> 5	25 <sup>h</sup> 14	23 <sup>h</sup> 36	21 <sup>h</sup> 29	16 <sup>h</sup> 33
M 4	22 52 51	11 <sup>h</sup> 33'12	26 <sup>h</sup> 8	27 <sup>h</sup> 22	25 <sup>h</sup> 55	12 <sup>h</sup> 42	28 <sup>h</sup> 38	19 <sup>h</sup> 51	16 <sup>h</sup> 25	2 <sup>h</sup> 36	1 <sup>h</sup> 7	25 <sup>h</sup> R15	23 <sup>h</sup> 33	21 <sup>h</sup> 35	16 <sup>h</sup> 31
T 5	22 56 47	12 <sup>h</sup> 31'23	9 <sup>h</sup> 23	29 <sup>h</sup> 8	26 <sup>h</sup> 56	13 <sup>h</sup> 20	28 <sup>h</sup> 40	19 <sup>h</sup> 54	16 <sup>h</sup> 29	2 <sup>h</sup> 37	1 <sup>h</sup> 10	25 <sup>h</sup> 14	23 <sup>h</sup> 30	21 <sup>h</sup> 42	16 <sup>h</sup> 29
W 6	23 0 44	13 <sup>h</sup> 29'35	22 <sup>h</sup> 47	0 <sup>h</sup> 56	27 <sup>h</sup> 58	13 <sup>h</sup> 59	28 <sup>h</sup> 42	19 <sup>h</sup> 57	16 <sup>h</sup> 32	2 <sup>h</sup> 38	1 <sup>h</sup> 12	25 <sup>h</sup> 11	23 <sup>h</sup> 27	21 <sup>h</sup> 49	16 <sup>h</sup> 27
T 7	23 4 40	14 <sup>h</sup> 27'50	5 <sup>h</sup> 49	2 <sup>h</sup> 47	28 <sup>h</sup> 59	14 <sup>h</sup> 37	28 <sup>h</sup> 44	20 <sup>h</sup> 0	16 <sup>h</sup> 35	2 <sup>h</sup> 38	1 <sup>h</sup> 14	25 <sup>h</sup> 5	23 <sup>h</sup> 24	21 <sup>h</sup> 56	16 <sup>h</sup> 25
F 8	23 8 37	15 <sup>h</sup> 26'06	18 <sup>h</sup> 38	4 <sup>h</sup> 39	0 <sup>h</sup> 1	15 <sup>h</sup> 15	28 <sup>h</sup> 47	20 <sup>h</sup> 3	16 <sup>h</sup> 39	2 <sup>h</sup> 39	1 <sup>h</sup> 16	24 <sup>h</sup> 58	23 <sup>h</sup> 21	22 <sup>h</sup> 2	16 <sup>h</sup> 22
S 9	23 12 33	16 <sup>h</sup> 24'24	1 <sup>h</sup> 15	6 <sup>h</sup> 32	1 <sup>h</sup> 4	15 <sup>h</sup> 54	28 <sup>h</sup> 49	20 <sup>h</sup> 5	16 <sup>h</sup> 42	2 <sup>h</sup> 40	1 <sup>h</sup> 18	24 <sup>h</sup> 49	23 <sup>h</sup> 17	22 <sup>h</sup> 9	16 <sup>h</sup> 20
S 10	23 16 30	17 <sup>h</sup> 22'44	13 <sup>h</sup> 39	8 <sup>h</sup> 26	2 <sup>h</sup> 6	16 <sup>h</sup> 32	28 <sup>h</sup> 52	20 <sup>h</sup> 8	16 <sup>h</sup> 45	2 <sup>h</sup> 41	1 <sup>h</sup> 21	24 <sup>h</sup> 39	23 <sup>h</sup> 14	22 <sup>h</sup> 16	16 <sup>h</sup> 18
M 11	23 20 27	18 <sup>h</sup> 21'05	25 <sup>h</sup> 51	10 <sup>h</sup> 20	3 <sup>h</sup> 9	17 <sup>h</sup> 10	28 <sup>h</sup> 55	20 <sup>h</sup> 10	16 <sup>h</sup> 49	2 <sup>h</sup> 42	1 <sup>h</sup> 23	24 <sup>h</sup> 30	23 <sup>h</sup> 11	22 <sup>h</sup> 22	16 <sup>h</sup> 15
T 12	23 24 23	19 <sup>h</sup> 19'29	7 <sup>h</sup> 53	12 <sup>h</sup> 14	4 <sup>h</sup> 13	17 <sup>h</sup> 49	28 <sup>h</sup> 58	20 <sup>h</sup> 12	16 <sup>h</sup> 52	2 <sup>h</sup> 43	1 <sup>h</sup> 25	24 <sup>h</sup> 21	23 <sup>h</sup> 8	22 <sup>h</sup> 29	16 <sup>h</sup> 13
W 13	23 28 20	20 <sup>h</sup> 17'53	19 <sup>h</sup> 47	14 <sup>h</sup> 9	5 <sup>h</sup> 16	18 <sup>h</sup> 27	29 <sup>h</sup> 2	20 <sup>h</sup> 15	16 <sup>h</sup> 56	2 <sup>h</sup> 44	1 <sup>h</sup> 27	24 <sup>h</sup> 15	23 <sup>h</sup> 5	22 <sup>h</sup> 36	16 <sup>h</sup> 11
T 14	23 32 16	21 <sup>h</sup> 16'20	1 <sup>h</sup> 38	16 <sup>h</sup> 3	6 <sup>h</sup> 20	19 <sup>h</sup> 6	29 <sup>h</sup> 5	20 <sup>h</sup> 17	16 <sup>h</sup> 59	2 <sup>h</sup> 45	1 <sup>h</sup> 29	24 <sup>h</sup> 10	23 <sup>h</sup> 1	22 <sup>h</sup> 42	16 <sup>h</sup> 8
F 15	23 36 13	22 <sup>h</sup> 14'48	13 <sup>h</sup> 29	17 <sup>h</sup> 57	7 <sup>h</sup> 24	19 <sup>h</sup> 44	29 <sup>h</sup> 9	20 <sup>h</sup> 19	17 <sup>h</sup> 3	2 <sup>h</sup> 46	1 <sup>h</sup> 32	24 <sup>h</sup> 8	22 <sup>h</sup> 58	22 <sup>h</sup> 49	16 <sup>h</sup> 6
S 16	23 40 9	23 <sup>h</sup> 13'18	25 <sup>h</sup> 25	19 <sup>h</sup> 50	8 <sup>h</sup> 29	20 <sup>h</sup> 22	29 <sup>h</sup> 13	20 <sup>h</sup> 21	17 <sup>h</sup> 6	2 <sup>h</sup> 47	1 <sup>h</sup> 34	24 <sup>h</sup> D 8	22 <sup>h</sup> 55	22 <sup>h</sup> 56	16 <sup>h</sup> 4
S 17	23 44 6	24 <sup>h</sup> 11'49	7 <sup>h</sup> 32	21 <sup>h</sup> 43	9 <sup>h</sup> 33	21 <sup>h</sup> 1	29 <sup>h</sup> 17	20 <sup>h</sup> 22	17 <sup>h</sup> 10	2 <sup>h</sup> 48	1 <sup>h</sup> 36	24 <sup>h</sup> 8	22 <sup>h</sup> 52	23 <sup>h</sup> 3	16 <sup>h</sup> 1
M 18	23 48 2	25 <sup>h</sup> 10'23	19 <sup>h</sup> 55	23 <sup>h</sup> 34	10 <sup>h</sup> 38	21 <sup>h</sup> 39	29 <sup>h</sup> 21	20 <sup>h</sup> 24	17 <sup>h</sup> 13	2 <sup>h</sup> 49	1 <sup>h</sup> 39	24 <sup>h</sup> R 9	22 <sup>h</sup> 49	23 <sup>h</sup> 9	15 <sup>h</sup> 59
T 19	23 51 59	26 <sup>h</sup> 8'57	2 <sup>h</sup> 39	25 <sup>h</sup> 25	11 <sup>h</sup> 43	22 <sup>h</sup> 18	29 <sup>h</sup> 26	20 <sup>h</sup> 26	17 <sup>h</sup> 17	2 <sup>h</sup> 50	1 <sup>h</sup> 41	24 <sup>h</sup> 9	22 <sup>h</sup> 46	23 <sup>h</sup> 16	15 <sup>h</sup> 56
W 20	23 55 56	27 <sup>h</sup> 7'34	15 <sup>h</sup> 46	27 <sup>h</sup> 16	12 <sup>h</sup> 49	22 <sup>h</sup> 56	29 <sup>h</sup> 30	20 <sup>h</sup> 27	17 <sup>h</sup> 21	2 <sup>h</sup> 51	1 <sup>h</sup> 43	24 <sup>h</sup> 7	22 <sup>h</sup> 42	23 <sup>h</sup> 23	15 <sup>h</sup> 54
T 21	23 59 52	28 <sup>h</sup> 6'12	29 <sup>h</sup> 20	29 <sup>h</sup> 5	13 <sup>h</sup> 54	23 <sup>h</sup> 35	29 <sup>h</sup> 35	20 <sup>h</sup> 28	17 <sup>h</sup> 24	2 <sup>h</sup> 52	1 <sup>h</sup> 45	24 <sup>h</sup> 2	22 <sup>h</sup> 39	23 <sup>h</sup> 29	15 <sup>h</sup> 51
F 22	0 3 49	29 <sup>h</sup> 4'52	13 <sup>h</sup> 21	0 <sup>h</sup> 53	15 <sup>h</sup> 0	24 <sup>h</sup> 13	29 <sup>h</sup> 40	20 <sup>h</sup> 30	17 <sup>h</sup> 28	2 <sup>h</sup> 53	1 <sup>h</sup> 48	23 <sup>h</sup> 55	22 <sup>h</sup> 36	23 <sup>h</sup> 36	15 <sup>h</sup> 48
S 23	0 7 45	0 <sup>h</sup> 3'33	27 <sup>h</sup> 44	2 <sup>h</sup> 41	16 <sup>h</sup> 6	24 <sup>h</sup> 52	29 <sup>h</sup> 45	20 <sup>h</sup> 31	17 <sup>h</sup> 31	2 <sup>h</sup> 55	1 <sup>h</sup> 50	23 <sup>h</sup> 46	22 <sup>h</sup> 33	23 <sup>h</sup> 43	15 <sup>h</sup> 46
S 24	0 11 42	1 <sup>h</sup> 2'17	12 <sup>h</sup> Y24	4 <sup>h</sup> 27	17 <sup>h</sup> 12	25 <sup>h</sup> 31	29 <sup>h</sup> 50	20 <sup>h</sup> 32	17 <sup>h</sup> 35	2 <sup>h</sup> 56	1 <sup>h</sup> 52	23 <sup>h</sup> 36	22 <sup>h</sup> 30	23 <sup>h</sup> 49	15 <sup>h</sup> 43
M 25	0 15 38	2 <sup>h</sup> 1'03	2 <sup>h</sup> 14	6 <sup>h</sup> 13	18 <sup>h</sup> 19	26 <sup>h</sup> 9	29 <sup>h</sup> 56	20 <sup>h</sup> 33	17 <sup>h</sup> 39	2 <sup>h</sup> 57	1 <sup>h</sup> 54	23 <sup>h</sup> 26	22 <sup>h</sup> 27	23 <sup>h</sup> 56	15 <sup>h</sup> 41
T 26	0 19 35	2 <sup>h</sup> 59'51	12 <sup>h</sup> 8	7 <sup>h</sup> 57	19 <sup>h</sup> 26	26 <sup>h</sup> 48	0 <sup>h</sup> 3	20 <sup>h</sup> 33	17 <sup>h</sup> 42	2 <sup>h</sup> 58	1 <sup>h</sup> 57	23 <sup>h</sup> 17	22 <sup>h</sup> 23	24 <sup>h</sup> 3	15 <sup>h</sup> 38
W 27	0 23 31	3 <sup>h</sup> 58'41	26 <sup>h</sup> 49	9 <sup>h</sup> 41	20 <sup>h</sup> 33	27 <sup>h</sup> 26	0 <sup>h</sup> 7	20 <sup>h</sup> 34	17 <sup>h</sup> 46	3 <sup>h</sup> 0	1 <sup>h</sup> 59	23 <sup>h</sup> 10	22 <sup>h</sup> 20	24 <sup>h</sup> 10	15 <sup>h</sup> 35
T 28	0 27 28	4 <sup>h</sup> 57'34	11 <sup>h</sup> 11	11 <sup>h</sup> 23	21 <sup>h</sup> 40	28 <sup>h</sup> 5	0 <sup>h</sup> 13	20 <sup>h</sup> 35	17 <sup>h</sup> 50	3 <sup>h</sup> 1	2 <sup>h</sup> 1	23 <sup>h</sup> 6	22 <sup>h</sup> 17	24 <sup>h</sup> 16	15 <sup>h</sup> 33
F 29	0 31 25	5 <sup>h</sup> 56'29	25 <sup>h</sup> 32	13 <sup>h</sup> 5	22 <sup>h</sup> 47	28 <sup>h</sup> 44	0 <sup>h</sup> 19	20 <sup>h</sup> 35	17 <sup>h</sup> 54	3 <sup>h</sup> 3	2 <sup>h</sup> 4	23 <sup>h</sup> 4	22 <sup>h</sup> 14	24 <sup>h</sup> 23	15 <sup>h</sup> 30
S 30	0 35 21	6 <sup>h</sup> 55'26	9 <sup>h</sup> 27	14 <sup>h</sup> 46	23 <sup>h</sup> 55	29 <sup>h</sup> 22	0 <sup>h</sup> 25	20 <sup>h</sup> 35	17 <sup>h</sup> 57	3 <sup>h</sup> 4	2 <sup>h</sup> 5	23 <sup>h</sup> D 3	22 <sup>h</sup> 11	24 <sup>h</sup> 30	15 <sup>h</sup> Y27

Delta T = 42.99 sec.

OCTOBER 1972

00:00 UT

Day	Sid.t	☉	☽	♂	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
S 1	0 39 18	7 <sup>h</sup> 54'25	23 <sup>h</sup> 4	16 <sup>h</sup> 26	25 <sup>h</sup> 3	0 <sup>h</sup> 1	0 <sup>h</sup> 32	20 <sup>h</sup> 36	18 <sup>h</sup> 1	3 <sup>h</sup> 5	2 <sup>h</sup> 8	23 <sup>h</sup> R 4	22 <sup>h</sup> 7	24 <sup>h</sup> 36	15 <sup>h</sup> R25
M 2	0 43 14	8 <sup>h</sup> 53'27	6 <sup>h</sup> 24	18 <sup>h</sup> 5	26 <sup>h</sup> 11	0 <sup>h</sup> 40	0 <sup>h</sup> 38	20 <sup>h</sup> 36	18 <sup>h</sup> 5	3 <sup>h</sup> 7	2 <sup>h</sup> 10	23 <sup>h</sup> 3	22 <sup>h</sup> 4	24 <sup>h</sup> 43	15 <sup>h</sup> Y22
T 3	0 47 11	9 <sup>h</sup> 52'31	19 <sup>h</sup> 30	19 <sup>h</sup> 44	27 <sup>h</sup> 19	1 <sup>h</sup> 18	0 <sup>h</sup> 45	20 <sup>h</sup> R36	18 <sup>h</sup> 8	3 <sup>h</sup> 8	2 <sup>h</sup> 13	23 <sup>h</sup> 1	22 <sup>h</sup> 1	24 <sup>h</sup> 50	15 <sup>h</sup> 19
W 4	0 51 7	10 <sup>h</sup> 51'38	2 <sup>h</sup> 24	21 <sup>h</sup> 21	28 <sup>h</sup> 27	1 <sup>h</sup> 57	0 <sup>h</sup> 52	20 <sup>h</sup> 36	18 <sup>h</sup> 12	3 <sup>h</sup> 10	2 <sup>h</sup> 15	22 <sup>h</sup> 55	21 <sup>h</sup> 58	24 <sup>h</sup> 56	15 <sup>h</sup> 17
T 5	0 55 4	11 <sup>h</sup> 50'46	15 <sup>h</sup> 6	22 <sup>h</sup> 58	29 <sup>h</sup> 36	2 <sup>h</sup> 36	0 <sup>h</sup> 59	20 <sup>h</sup> 36	18 <sup>h</sup> 16	3 <sup>h</sup> 12	2 <sup>h</sup> 17	22 <sup>h</sup> 47	21 <sup>h</sup> 55	25 <sup>h</sup> 3	15 <sup>h</sup> 14
F 6	0 59 0	12 <sup>h</sup> 49'57	27 <sup>h</sup> 38	24 <sup>h</sup> 34	0 <sup>h</sup> 44	3 <sup>h</sup> 15	1 <sup>h</sup> 6	20 <sup>h</sup> 35	18 <sup>h</sup> 20	3 <sup>h</sup> 13	2 <sup>h</sup> 19	22 <sup>h</sup> 36	21 <sup>h</sup> 52	25 <sup>h</sup> 10	15 <sup>h</sup> 11
S 7	1 2 57	13 <sup>h</sup> 49'09	10 <sup>h</sup> 0	26 <sup>h</sup> 9	1 <sup>h</sup> 53	3 <sup>h</sup> 54	1 <sup>h</sup> 13	20 <sup>h</sup> 35	18 <sup>h</sup> 24	3 <sup>h</sup> 15	2 <sup>h</sup> 22	22 <sup>h</sup> 23	21 <sup>h</sup> 48	25 <sup>h</sup> 17	15 <sup>h</sup> 8
S 8	1 6 54	14 <sup>h</sup> 48'24	22 <sup>h</sup> 13	27 <sup>h</sup> 43	3 <sup>h</sup> 2	4 <sup>h</sup> 32	1 <sup>h</sup> 20	20 <sup>h</sup> 34	18 <sup>h</sup> 27	3 <sup>h</sup> 16	2 <sup>h</sup> 24	22 <sup>h</sup> 9	21 <sup>h</sup> 45	25 <sup>h</sup> 23	15 <sup>h</sup> 6
M 9	1 10 50	15 <sup>h</sup> 47'41	4 <sup>h</sup> 17	29 <sup>h</sup> 17	4 <sup>h</sup> 11	5 <sup>h</sup> 11	1 <sup>h</sup> 28	20 <sup>h</sup> 34	18 <sup>h</sup> 31	3 <sup>h</sup> 18	2 <sup>h</sup> 26	21 <sup>h</sup> 55	21 <sup>h</sup> 42	25 <sup>h</sup> 30	15 <sup>h</sup> 3
T 10	1 14 47	16 <sup>h</sup> 47'00	16 <sup>h</sup> 14	0 <sup>h</sup> 50	5 <sup>h</sup> 21	5 <sup>h</sup> 50	1 <sup>h</sup> 36	20 <sup>h</sup> 33	18 <sup>h</sup> 35	3 <sup>h</sup> 20	2 <sup>h</sup> 28	21 <sup>h</sup> 42	21 <sup>h</sup> 39	25 <sup>h</sup> 37	15 <sup>h</sup> 0
W 11	1 18 43	17 <sup>h</sup> 46'21	28 <sup>h</sup> 6	2 <sup>h</sup> 22	6 <sup>h</sup> 30	6 <sup>h</sup> 29	1 <sup>h</sup> 43	20 <sup>h</sup> 32	18 <sup>h</sup> 39	3 <sup>h</sup> 21	2 <sup>h</sup> 31	21 <sup>h</sup> 32	21 <sup>h</sup> 36	25 <sup>h</sup> 43	14 <sup>h</sup> 57
T 12	1 22 40	18 <sup>h</sup> 45'44	9 <sup>h</sup> 54	3 <sup>h</sup> 53	7 <sup>h</sup> 40	7 <sup>h</sup> 8	1 <sup>h</sup> 51	20 <sup>h</sup> 31	18 <sup>h</sup> 42	3 <sup>h</sup> 23	2 <sup>h</sup> 33	21 <sup>h</sup> 24	21 <sup>h</sup> 32	25 <sup>h</sup> 50	14 <sup>h</sup> 55
F 13	1 26 36	19 <sup>h</sup> 45'08	21 <sup>h</sup> 43	5 <sup>h</sup> 24	8 <sup>h</sup> 49	7 <sup>h</sup> 47	2 <sup>h</sup> 0	20 <sup>h</sup> 30	18 <sup>h</sup> 46	3 <sup>h</sup> 25	2 <sup>h</sup> 35	21 <sup>h</sup> 19	21 <sup>h</sup> 29	25 <sup>h</sup> 57	14 <sup>h</sup> 52
S 14	1 30 33	20 <sup>h</sup> 44'35	3 <sup>h</sup> 37	6 <sup>h</sup> 54	9 <sup>h</sup> 59	8 <sup>h</sup> 26	2 <sup>h</sup> 8	20 <sup>h</sup> 29	18 <sup>h</sup> 50	3 <sup>h</sup> 27	2 <sup>h</sup> 37	21 <sup>h</sup> 17	21 <sup>h</sup> 26	26 <sup>h</sup> 3	14 <sup>h</sup> 49
S 15	1 34 29	21 <sup>h</sup> 44'03	15 <sup>h</sup> 41	8 <sup>h</sup> 23	11 <sup>h</sup> 9	9 <sup>h</sup> 5	2 <sup>h</sup> 16	20 <sup>h</sup> 27	18 <sup>h</sup> 54	3 <sup>h</sup> 28	2 <sup>h</sup> 39	21 <sup>h</sup> 16	21 <sup>h</sup> 23	26 <sup>h</sup> 10	14 <sup>h</sup> 47
M 16	1 38 26	22 <sup>h</sup> 43'33	28 <sup>h</sup> 0	9 <sup>h</sup> 51	12 <sup>h</sup> 19	9 <sup>h</sup> 44	2 <sup>h</sup> 25	20 <sup>h</sup> 26	18 <sup>h</sup> 58	3 <sup>h</sup> 30	2 <sup>h</sup> 42	21 <sup>h</sup> 16	21 <sup>h</sup> 20	26 <sup>h</sup> 17	14 <sup>h</sup> 44
T 17	1 42 23	23 <sup>h</sup> 43'04	10 <sup>h</sup> 39	11 <sup>h</sup> 19	13 <sup>h</sup> 30	10 <sup>h</sup> 23	2 <sup>h</sup> 33	20 <sup>h</sup> 25	19 <sup>h</sup> 1	3 <sup>h</sup> 32	2 <sup>h</sup> 44	21 <sup>h</sup> 16	21 <sup>h</sup> 17	26 <sup>h</sup> 24	14 <sup>h</sup> 41
W 18	1 46 19	24 <sup>h</sup> 42'38	23 <sup>h</sup> 44	12 <sup>h</sup> 46	14 <sup>h</sup> 40	11 <sup>h</sup> 2	2 <sup>h</sup> 42	20 <sup>h</sup> 23	19 <sup>h</sup> 5	3 <sup>h</sup> 34	2 <sup>h</sup> 46	21 <sup>h</sup> 13	21 <sup>h</sup> 13	26 <sup>h</sup> 30	14 <sup>h</sup> 39
T 19	1 50 16	25 <sup>h</sup> 42'13	7 <sup>h</sup> 17	14 <sup>h</sup> 12	15 <sup>h</sup> 51	11 <sup>h</sup> 41	2 <sup>h</sup> 51	20 <sup>h</sup> 21	19 <sup>h</sup> 9	3 <sup>h</sup> 36	2 <sup>h</sup> 48	21 <sup>h</sup> 9	21 <sup>h</sup> 10	26 <sup>h</sup> 37	14 <sup>h</sup> 36
F 20	1 54 12	26 <sup>h</sup> 41'50	21 <sup>h</sup> 21	15 <sup>h</sup> 38	17 <sup>h</sup> 1	12 <sup>h</sup> 20	3 <sup>h</sup> 0	20 <sup>h</sup> 19	19 <sup>h</sup> 13	3 <sup>h</sup> 38	2 <sup>h</sup> 50	21 <sup>h</sup> 1	21 <sup>h</sup> 7	26 <sup>h</sup> 44	14 <sup>h</sup> 33
S 21	1 58 9	27 <sup>h</sup> 41'28	5 <sup>h</sup> Y53	17 <sup>h</sup> 2	18 <sup>h</sup> 12	12 <sup>h</sup> 59	3 <sup>h</sup> 9	20 <sup>h</sup> 17	19 <sup>h</sup> 16	3 <sup>h</sup> 39	2 <sup>h</sup> 52	20 <sup>h</sup> 51	21 <sup>h</sup> 4	26 <sup>h</sup> 50	14 <sup>h</sup> 31
S 22	2 2 5	28 <sup>h</sup> 41'09	20 <sup>h</sup> 47	18 <sup>h</sup> 26	19 <sup>h</sup> 23	13 <sup>h</sup> 38	3 <sup>h</sup> 18	20 <sup>h</sup> 15	19 <sup>h</sup> 20	3 <sup>h</sup> 41	2 <sup>h</sup> 54	20 <sup>h</sup> 40	21 <sup>h</sup> 1	26 <sup>h</sup> 57	14 <sup>h</sup> 28
M 23	2 6 2	29 <sup>h</sup> 40'52	5 <sup>h</sup> 8	19 <sup>h</sup> 49	20 <sup>h</sup> 34	14 <sup>h</sup> 17	3 <sup>h</sup> 28	20 <sup>h</sup> 13	19 <sup>h</sup> 24	3 <sup>h</sup> 43	2 <sup>h</sup> 57	20 <sup>h</sup> 29	20 <sup>h</sup> 58	27 <sup>h</sup> 4	14 <sup>h</sup> 25
T 24	2 9 58	0 <sup>h</sup> 40'36	21 <sup>h</sup> 9	21 <sup>h</sup> 11	21 <sup>h</sup> 45	14 <sup>h</sup> 56	3 <sup>h</sup> 37	20 <sup>h</sup> 11	19 <sup>h</sup> 28	3 <sup>h</sup> 45	2 <sup>h</sup> 59	20 <sup>h</sup> 19	20 <sup>h</sup> 54	27 <sup>h</sup> 10	14 <sup>h</sup> 23
W 25	2 13 55	1 <sup>h</sup> 40'23	6 <sup>h</sup> II15	22 <sup>h</sup> 32	22 <sup>h</sup> 57	15 <sup>h</sup> 35	3 <sup>h</sup> 47	20 <sup>h</sup> 9	19 <sup>h</sup> 31	3 <sup>h</sup> 47	3 <sup>h</sup> 1	20 <sup>h</sup> 11	20 <sup>h</sup> 51	27 <sup>h</sup> 17	14 <sup>h</sup> 20
T 26	2 17 51	2 <sup>h</sup> 40'12	21 <sup>h</sup> 4	23 <sup>h</sup> 52	24 <sup>h</sup> 8	16 <sup>h</sup> 15	3 <sup>h</sup> 57	20 <sup>h</sup> 6	19 <sup>h</sup> 35	3 <sup>h</sup> 49	3 <sup>h</sup> 3	20 <sup>h</sup> 6	20 <sup>h</sup> 48	27 <sup>h</sup> 24	14 <sup>h</sup> 18
F 27	2 21 48	3 <sup>h</sup> 40'03	5 <sup>h</sup> 832	25 <sup>h</sup> 11	25 <sup>h</sup> 20	16 <sup>h</sup> 54	4 <sup>h</sup> 7	20 <sup>h</sup> 4	19 <sup>h</sup> 39	3 <sup>h</sup> 51	3 <sup>h</sup> 5	20 <sup>h</sup> 3	20 <sup>h</sup> 45	27 <sup>h</sup> 31	14 <sup>h</sup> 15
S 28	2 25 45	4 <sup>h</sup> 39'57	19 <sup>h</sup> 36	26 <sup>h</sup> 29	26 <sup>h</sup> 31	17 <sup>h</sup> 33	4 <sup>h</sup> 16	20 <sup>h</sup> 1	19 <sup>h</sup> 43	3 <sup>h</sup> 53	3 <sup>h</sup> 7	20 <sup>h</sup> D 2	20 <sup>h</sup> 42	27 <sup>h</sup> 37	14 <sup>h</sup> 13
S 29	2 29 41	5 <sup>h</sup> 39'52	3 <sup>h</sup> LI15	27 <sup>h</sup> 45	27 <sup>h</sup> 43	18 <sup>h</sup> 12	4 <sup>h</sup> 27	19 <sup>h</sup> 58	19 <sup>h</sup> 46	3 <sup>h</sup> 55	3 <sup>h</sup> 9	20 <sup>h</sup> R 2	20 <sup>h</sup> 38	27 <sup>h</sup> 44	14 <sup>h</sup> 10
M 30	2 33 38	6 <sup>h</sup> 39'50	16 <sup>h</sup> 31	29 <sup>h</sup> 0	28 <sup>h</sup> 55	18 <sup>h</sup> 52	4 <sup>h</sup> 37	19 <sup>h</sup> 56	19 <sup>h</sup> 50	3 <sup>h</sup> 57	3 <sup>h</sup> 11	20 <sup>h</sup> 2	20 <sup>h</sup> 35	27 <sup>h</sup> 51	14 <sup>h</sup> 8
T 31	2 37 34	7 <sup>h</sup> 39'50	29 <sup>h</sup> LI28	0 <sup>h</sup> 14	0 <sup>h</sup> 17	19 <sup>h</sup> LI31	4 <sup>h</sup> 37	19 <sup>h</sup> LI53	19 <sup>h</sup> LI54	3 <sup>h</sup> 5759	3 <sup>h</sup> LI13	20 <sup>h</sup> 3	20 <sup>h</sup> 32	27 <sup>h</sup> LI57	14 <sup>h</sup> Y5

# SWISS EPHEMERIS for the year 1972

NOVEMBER 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
W 1	2 41 31	8♉39°52	12♏10	1♈26	1♈19	20♉10	4♈57	19°R50	19♉57	4♈1	3♈15	19°R56	20♉29	28♉4	14°R 3
T 2	2 45 27	9°39'56	24°38	2°35	2°31	20°50	5° 8	19°II46	20° 1	4° 4	3°17	19°R48	20°26	28°11	14°V 0
F 3	2 49 24	10°40'02	6♈55	3°43	3°44	21°29	5°18	19°43	20° 4	4° 6	3°19	19°38	20°23	28°17	13°58
S 4	2 53 20	11°40'11	19° 5	4°48	4°56	22° 8	5°29	19°40	20° 8	4° 8	3°20	19°26	20°19	28°24	13°56
S 5	2 57 17	12°40'21	1♉ 7	5°51	6° 8	22°48	5°40	19°37	20°12	4°10	3°22	19°13	20°16	28°31	13°53
M 6	3 1 14	13°40'33	13° 4	6°51	7°21	23°27	5°51	19°33	20°15	4°12	3°24	19° 0	20°13	28°37	13°51
T 7	3 5 10	14°40'47	24°56	7°48	8°33	24° 7	6° 2	19°30	20°19	4°14	3°26	18°48	20°10	28°44	13°49
W 8	3 9 7	15°41'02	6♈46	8°41	9°46	24°46	6°13	19°26	20°22	4°16	3°28	18°39	20° 7	28°51	13°46
T 9	3 13 3	16°41'20	18°34	9°29	10°59	25°26	6°24	19°22	20°26	4°18	3°30	18°32	20° 4	28°58	13°44
F 10	3 17 0	17°41'39	0♉24	10°14	12°12	26° 5	6°35	19°19	20°29	4°21	3°31	18°27	20° 0	29° 4	13°42
S 11	3 20 56	18°41'59	12°19	10°53	13°25	26°45	6°47	19°15	20°33	4°23	3°33	18°25	19°57	29°11	13°40
S 12	3 24 53	19°42'21	24°23	11°26	14°38	27°24	6°58	19°11	20°36	4°25	3°35	18°D25	19°54	29°18	13°38
M13	3 28 49	20°42'45	6♈40	11°53	15°51	28° 4	7°10	19° 7	20°40	4°27	3°37	18°26	19°51	29°24	13°36
T 14	3 32 46	21°43'10	19°15	12°12	17° 4	28°44	7°21	19° 3	20°43	4°29	3°38	18°R27	19°48	29°31	13°34
W15	3 36 43	22°43'36	2♉14	12°24	18°17	29°23	7°33	18°59	20°46	4°32	3°40	18°26	19°44	29°38	13°32
T 16	3 40 39	23°44'03	15°39	12°R27	19°30	0♉ 3	7°45	18°54	20°50	4°34	3°42	18°24	19°41	29°44	13°30
F 17	3 44 36	24°44'32	29°34	12°21	20°44	0°43	7°57	18°50	20°53	4°36	3°43	18°20	19°38	29°51	13°28
S 18	3 48 32	25°45'02	13°V59	12° 5	21°57	1°22	8° 9	18°46	20°56	4°38	3°45	18°13	19°35	29°58	13°26
S 19	3 52 29	26°45'33	28°49	11°39	23°11	2° 2	8°21	18°42	21° 0	4°41	3°46	18° 5	19°32	0° 4	13°24
M20	3 56 25	27°46'06	13♉59	11° 2	24°24	2°42	8°33	18°37	21° 3	4°43	3°48	17°57	19°29	0°11	13°23
T 21	4 0 22	28°46'40	29°19	10°14	25°38	3°21	8°45	18°33	21° 6	4°45	3°49	17°50	19°25	0°18	13°21
W22	4 4 18	29°47'16	14°II36	9°17	26°51	4° 1	8°57	18°28	21° 9	4°47	3°51	17°44	19°22	0°25	13°19
T 23	4 8 15	0♈47'53	29°41	8°11	28° 5	4°41	9° 9	18°24	21°12	4°50	3°52	17°41	19°19	0°31	13°18
F 24	4 12 12	1°48'32	14♉25	6°57	29°19	5°21	9°22	18°19	21°15	4°52	3°54	17°D39	19°16	0°38	13°16
S 25	4 16 8	2°49'12	28°43	5°38	0♉33	6° 1	9°34	18°14	21°19	4°54	3°55	17°40	19°13	0°45	13°14
S 26	4 20 5	3°49'54	12♉33	4°17	1°47	6°41	9°47	18°10	21°22	4°56	3°57	17°41	19°10	0°51	13°13
M27	4 24 1	4°50'38	25°57	2°54	3° 0	7°21	9°59	18° 5	21°25	4°59	3°58	17°42	19° 6	0°58	13°11
T 28	4 27 58	5°51'23	8♏57	1°35	4°14	8° 1	10°12	18° 0	21°28	5° 1	3°59	17°R43	19° 3	1° 5	13°10
W29	4 31 54	6°52'10	21°36	0°21	5°28	8°41	10°25	17°55	21°31	5° 3	4° 1	17°41	19° 0	1°11	13° 9
T 30	4 35 51	7♈52'58	3♉58	29♉14	6♉43	9♉21	10♉37	17°II51	21°II33	5♈ 5	4♈ 2	17°R38	18°R57	1♈18	13°V 7

Delta T = 43.18 sec.

DECEMBER 1972

00:00 UT

Day	Sid.t	☉	☽	♀	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂	♂
F 1	4 39 48	8♈53'47	16♉ 8	28°R16	7♉57	10♉ 1	10♉50	17°R46	21°II36	5♈ 8	4♈ 3	17°R33	18°R54	1♈25	13°R 6
S 2	4 43 44	9°54'38	28° 9	27°II29	9°11	10°41	11° 3	17°II41	21°39	5°10	4° 4	17°R27	18°50	1°31	13°V 5
S 3	4 47 41	10°55'31	10♉ 4	26°54	10°25	11°21	11°16	17°36	21°42	5°12	4° 5	17°20	18°47	1°38	13° 4
M 4	4 51 37	11°56'24	21°56	26°30	11°39	12° 1	11°29	17°31	21°45	5°14	4° 7	17°13	18°44	1°45	13° 3
T 5	4 55 34	12°57'19	3♈46	26°17	12°54	12°41	11°42	17°26	21°47	5°17	4° 8	17° 6	18°41	1°52	13° 1
W 6	4 59 30	13°58'15	15°36	26°D15	14° 8	13°21	11°55	17°21	21°50	5°19	4° 9	17° 1	18°38	1°58	13° 0
T 7	5 3 27	14°59'12	27°28	26°23	15°22	14° 1	12° 8	17°16	21°53	5°21	4°10	16°57	18°35	2° 5	12°59
F 8	5 7 23	16° 0'10	9♉24	26°41	16°37	14°42	12°21	17°11	21°55	5°23	4°11	16°56	18°31	2°12	12°59
S 9	5 11 20	17° 1'09	21°27	27° 7	17°51	15°22	12°35	17° 6	21°58	5°26	4°12	16°D55	18°28	2°18	12°58
S 10	5 15 17	18° 2'09	3♈38	27°41	19° 6	16° 2	12°48	17° 1	22° 1	5°28	4°13	16°56	18°25	2°25	12°57
M11	5 19 13	19° 3'09	16° 1	28°22	20°20	16°42	13° 1	16°56	22° 3	5°30	4°14	16°58	18°22	2°32	12°56
T 12	5 23 10	20° 4'10	28°39	29° 9	21°35	17°23	13°15	16°51	22° 5	5°32	4°15	17° 0	18°19	2°38	12°55
W13	5 27 6	21° 5'11	11♈36	0♈ 2	22°49	18° 3	13°28	16°47	22° 8	5°34	4°15	17° 1	18°16	2°45	12°55
T 14	5 31 3	22° 6'13	24°55	0°59	24° 4	18°43	13°41	16°42	22°10	5°37	4°16	17°R 1	18°12	2°52	12°54
F 15	5 34 59	23° 7'15	8♏V38	2° 0	25°18	19°24	13°55	16°37	22°13	5°39	4°17	17° 1	18° 9	2°58	12°54
S 16	5 38 56	24° 8'18	22°47	3° 5	26°33	20° 4	14° 9	16°32	22°15	5°41	4°18	16°59	18° 6	3° 5	12°53
S 17	5 42 52	25° 9'21	7♉20	4°13	27°48	20°45	14°22	16°27	22°17	5°43	4°18	16°56	18° 3	3°12	12°53
M18	5 46 49	26°10'25	22°13	5°24	29° 2	21°25	14°36	16°22	22°19	5°45	4°19	16°53	18° 0	3°18	12°52
T 19	5 50 46	27°11'29	7♉19	6°38	0♈17	22° 6	14°49	16°17	22°21	5°47	4°20	16°50	17°56	3°25	12°52
W20	5 54 42	28°12'33	22°29	7°53	1°32	22°46	15° 3	16°12	22°23	5°50	4°20	16°48	17°53	3°32	12°52
T 21	5 58 39	29°13'38	7♉33	9°10	2°46	23°27	15°17	16° 8	22°25	5°52	4°21	16°47	17°50	3°38	12°52
F 22	6 2 35	0♉14'44	22°23	10°29	4° 1	24° 7	15°30	16° 3	22°27	5°54	4°22	16°D47	17°47	3°45	12°51
S 23	6 6 32	1°15'50	6♉50	11°50	5°16	24°48	15°44	15°58	22°29	5°56	4°22	16°48	17°44	3°52	12°51
S 24	6 10 28	2°16'56	20°52	13°12	6°31	25°28	15°58	15°54	22°31	5°58	4°23	16°49	17°41	3°59	12°D51
M25	6 14 25	3°18'03	4♏27	14°34	7°46	26° 9	16°12	15°49	22°33	6° 0	4°23	16°50	17°37	4° 5	12°51
T 26	6 18 21	4°19'11	17°36	15°58	9° 0	26°50	16°26	15°44	22°35	6° 2	4°23	16°51	17°34	4°12	12°51
W27	6 22 18	5°20'20	0♉20	17°23	10°15	27°30	16°39	15°40	22°37	6° 4	4°24	16°R52	17°31	4°19	12°52
T 28	6 26 15	6°21'28	12°45	18°49	11°30	28°11	16°53	15°35	22°38	6° 6	4°24	16°52	17°28	4°25	12°52
F 29	6 30 11	7°22'38	24°55	20°15	12°45	28°52	17° 7	15°31	22°40	6° 8	4°24	16°51	17°25	4°32	12°52
S 30	6 34 8	8°23'48	6♉53	21°42	14° 0	29°32	17°21	15°27	22°42	6°10	4°25	16°50	17°22	4°39	12°52
S 31	6 38 4	9♉24'58	18♉45	23♈ 9	15♈15	0♈13	17♉35	15°II22	22°II43	6♈12	4♈25	16♉49	17♉18	4♈45	12°V53

Delta T = 43.27 sec.

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