

SWISS EPHEMERIS for the year 1980
heliocentric

JANUARY 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|---------|-----------------------|--------------------|--------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| T 1 | 6 39 15 | 9 ⁵⁶ 42'54 | 9 ⁵⁶ 40 | 2 ⁵⁷ 18 | 26 ⁴⁷ 47 | 11 ³¹ 11 | 1 ¹⁷ 2 | 21 ¹⁷ 8 | 21 ¹⁶ 54 | 20 ²⁷ 20 | 19 ⁴² 42 | 12 ³¹ 10 |
| W 2 | 6 43 11 | 10°44'02 | 10°43 | 5° 5 | 28°23 | 11°57 | 1° 7 | 21°10 | 21°55 | 20°20 | 19°42 | 12°11 |
| T 3 | 6 47 8 | 11°45'10 | 11°46 | 7°51 | 29°58 | 12°24 | 1°12 | 21°12 | 21°55 | 20°20 | 19°43 | 12°11 |
| F 4 | 6 51 5 | 12°46'18 | 12°49 | 10°36 | 1 ¹⁷ 34 | 12°51 | 1°16 | 21°14 | 21°56 | 20°21 | 19°43 | 12°12 |
| S 5 | 6 55 1 | 13°47'27 | 13°52 | 13°21 | 3° 9 | 13°17 | 1°21 | 21°17 | 21°57 | 20°21 | 19°44 | 12°13 |
| S 6 | 6 58 58 | 14°48'35 | 14°55 | 16° 5 | 4°45 | 13°44 | 1°26 | 21°19 | 21°58 | 20°22 | 19°44 | 12°13 |
| M 7 | 7 2 54 | 15°49'43 | 15°57 | 18°50 | 6°20 | 14°10 | 1°30 | 21°21 | 21°58 | 20°22 | 19°44 | 12°14 |
| T 8 | 7 6 51 | 16°50'52 | 16°59 | 21°35 | 7°56 | 14°37 | 1°35 | 21°23 | 21°59 | 20°22 | 19°45 | 12°15 |
| W 9 | 7 10 47 | 17°52'00 | 18° 1 | 24°20 | 9°31 | 15° 4 | 1°40 | 21°25 | 22° 0 | 20°23 | 19°45 | 12°15 |
| T 10 | 7 14 44 | 18°53'09 | 19° 3 | 27° 6 | 11° 7 | 15°30 | 1°44 | 21°27 | 22° 1 | 20°23 | 19°46 | 12°16 |
| F 11 | 7 18 40 | 19°54'18 | 20° 4 | 29°53 | 12°43 | 15°57 | 1°49 | 21°29 | 22° 1 | 20°23 | 19°46 | 12°17 |
| S 12 | 7 22 37 | 20°55'26 | 21° 4 | 2 ³ 41 | 14°18 | 16°23 | 1°54 | 21°31 | 22° 2 | 20°24 | 19°46 | 12°17 |
| S 13 | 7 26 34 | 21°56'35 | 22° 5 | 5°30 | 15°54 | 16°50 | 1°58 | 21°33 | 22° 3 | 20°24 | 19°47 | 12°18 |
| M14 | 7 30 30 | 22°57'44 | 23° 5 | 8°21 | 17°29 | 17°16 | 2° 3 | 21°35 | 22° 4 | 20°24 | 19°47 | 12°19 |
| T 15 | 7 34 27 | 23°58'52 | 24° 4 | 11°13 | 19° 5 | 17°43 | 2° 8 | 21°37 | 22° 4 | 20°25 | 19°48 | 12°20 |
| W16 | 7 38 23 | 25° 0'00 | 25° 4 | 14° 8 | 20°41 | 18° 9 | 2°12 | 21°39 | 22° 5 | 20°25 | 19°48 | 12°20 |
| T 17 | 7 42 20 | 26° 1'08 | 26° 3 | 17° 4 | 22°17 | 18°36 | 2°17 | 21°41 | 22° 6 | 20°25 | 19°49 | 12°21 |
| F 18 | 7 46 16 | 27° 2'16 | 27° 2 | 20° 3 | 23°52 | 19° 2 | 2°22 | 21°43 | 22° 7 | 20°26 | 19°49 | 12°22 |
| S 19 | 7 50 13 | 28° 3'23 | 28° 1 | 23° 5 | 25°28 | 19°28 | 2°26 | 21°45 | 22° 7 | 20°26 | 19°49 | 12°22 |
| S 20 | 7 54 9 | 29° 4'29 | 29° 0 | 26° 9 | 27° 4 | 19°55 | 2°31 | 21°47 | 22° 8 | 20°27 | 19°50 | 12°23 |
| M21 | 7 58 6 | 0 ⁰ 5'34 | 29°59 | 29°17 | 28°40 | 20°21 | 2°36 | 21°50 | 22° 9 | 20°27 | 19°50 | 12°24 |
| T 22 | 8 2 3 | 1° 6'39 | 1 ⁰ 0 | 2 ² 28 | 0 ⁸ 16 | 20°48 | 2°40 | 21°52 | 22°10 | 20°27 | 19°51 | 12°24 |
| W23 | 8 5 59 | 2° 7'42 | 2° 0 | 5°43 | 1°52 | 21°14 | 2°45 | 21°54 | 22°10 | 20°28 | 19°51 | 12°25 |
| T 24 | 8 9 56 | 3° 8'45 | 3° 0 | 9° 3 | 3°28 | 21°40 | 2°50 | 21°56 | 22°11 | 20°28 | 19°51 | 12°26 |
| F 25 | 8 13 52 | 4° 9'47 | 4° 1 | 12°26 | 5° 4 | 22° 7 | 2°54 | 21°58 | 22°12 | 20°28 | 19°52 | 12°26 |
| S 26 | 8 17 49 | 5°10'47 | 5° 2 | 15°54 | 6°40 | 22°33 | 2°59 | 22° 0 | 22°12 | 20°29 | 19°52 | 12°27 |
| S 27 | 8 21 45 | 6°11'46 | 6° 4 | 19°28 | 8°16 | 22°59 | 3° 4 | 22° 2 | 22°13 | 20°29 | 19°53 | 12°28 |
| M28 | 8 25 42 | 7°12'45 | 7° 6 | 23° 6 | 9°52 | 23°26 | 3° 8 | 22° 4 | 22°14 | 20°29 | 19°53 | 12°29 |
| T 29 | 8 29 38 | 8°13'42 | 8° 8 | 26°51 | 11°28 | 23°52 | 3°13 | 22° 6 | 22°15 | 20°30 | 19°54 | 12°29 |
| W30 | 8 33 35 | 9°14'38 | 9°11 | 0 ⁸ 41 | 13° 4 | 24°18 | 3°17 | 22° 8 | 22°15 | 20°30 | 19°54 | 12°30 |
| T 31 | 8 37 32 | 10 ⁰ 15'33 | 10 ⁰ 14 | 4 ⁸ 38 | 14 ⁸ 40 | 24 ⁰ 45 | 3 ¹⁷ 22 | 22 ¹⁰ 10 | 22 ¹⁶ 16 | 20 ²⁷ 30 | 19 ⁴² 54 | 12 ³¹ 31 |

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FEBRUARY 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| F 1 | 8 41 28 | 11 ⁰ 16'27 | 11 ⁰ 16 | 8 ⁴ 42 | 16 ⁸ 16 | 25 ⁰ 11 | 3 ¹⁷ 27 | 22 ¹² 12 | 22 ¹⁶ 17 | 20 ²⁷ 31 | 19 ⁴² 55 | 12 ³¹ 31 |
| S 2 | 8 45 25 | 12°17'20 | 12°19 | 12°54 | 17°52 | 25°37 | 3°31 | 22°14 | 22°18 | 20°31 | 19°55 | 12°32 |
| S 3 | 8 49 21 | 13°18'12 | 13°22 | 17°12 | 19°29 | 26° 3 | 3°36 | 22°16 | 22°18 | 20°31 | 19°56 | 12°33 |
| M 4 | 8 53 18 | 14°19'03 | 14°24 | 21°39 | 21° 5 | 26°30 | 3°41 | 22°18 | 22°19 | 20°32 | 19°56 | 12°33 |
| T 5 | 8 57 14 | 15°19'53 | 15°26 | 26°14 | 22°41 | 26°56 | 3°45 | 22°20 | 22°20 | 20°32 | 19°56 | 12°34 |
| W 6 | 9 1 11 | 16°20'41 | 16°28 | 0 ⁷ 58 | 24°17 | 27°22 | 3°50 | 22°22 | 22°21 | 20°33 | 19°57 | 12°35 |
| T 7 | 9 5 7 | 17°21'29 | 17°30 | 5°51 | 25°54 | 27°49 | 3°55 | 22°25 | 22°21 | 20°33 | 19°57 | 12°35 |
| F 8 | 9 9 4 | 18°22'16 | 18°31 | 10°52 | 27°30 | 28°15 | 3°59 | 22°27 | 22°22 | 20°33 | 19°58 | 12°36 |
| S 9 | 9 13 1 | 19°23'02 | 19°32 | 16° 3 | 29° 6 | 28°41 | 4° 4 | 22°29 | 22°23 | 20°34 | 19°58 | 12°37 |
| S 10 | 9 16 57 | 20°23'47 | 20°33 | 21°23 | 0 ¹¹ 43 | 29° 7 | 4° 9 | 22°31 | 22°24 | 20°34 | 19°59 | 12°38 |
| M11 | 9 20 54 | 21°24'31 | 21°33 | 26°52 | 2°19 | 29°33 | 4°13 | 22°33 | 22°24 | 20°34 | 19°59 | 12°38 |
| T 12 | 9 24 50 | 22°25'14 | 22°33 | 2 ⁸ 29 | 3°56 | 29°59 | 4°18 | 22°35 | 22°25 | 20°35 | 19°59 | 12°39 |
| W13 | 9 28 47 | 23°25'56 | 23°32 | 8°15 | 5°32 | 0 ¹⁷ 26 | 4°23 | 22°37 | 22°26 | 20°35 | 20° 0 | 12°40 |
| T 14 | 9 32 43 | 24°26'37 | 24°31 | 14° 9 | 7° 9 | 0°52 | 4°27 | 22°39 | 22°27 | 20°35 | 20° 0 | 12°40 |
| F 15 | 9 36 40 | 25°27'17 | 25°30 | 20°10 | 8°45 | 1°18 | 4°32 | 22°41 | 22°27 | 20°36 | 20° 1 | 12°41 |
| S 16 | 9 40 36 | 26°27'55 | 26°29 | 26°17 | 10°22 | 1°45 | 4°36 | 22°43 | 22°28 | 20°36 | 20° 1 | 12°42 |
| S 17 | 9 44 33 | 27°28'31 | 27°27 | 2 ¹¹ 29 | 11°59 | 2°11 | 4°41 | 22°45 | 22°29 | 20°36 | 20° 1 | 12°42 |
| M18 | 9 48 30 | 28°29'06 | 28°26 | 8°45 | 13°35 | 2°37 | 4°46 | 22°47 | 22°30 | 20°37 | 20° 2 | 12°43 |
| T 19 | 9 52 26 | 29°29'40 | 29°25 | 15° 3 | 15°12 | 3° 3 | 4°50 | 22°49 | 22°30 | 20°37 | 20° 2 | 12°44 |
| W20 | 9 56 23 | 0 ¹⁷ 30'11 | 0 ¹⁷ 24 | 21°23 | 16°49 | 3°29 | 4°55 | 22°51 | 22°31 | 20°38 | 20° 3 | 12°44 |
| T 21 | 10 0 19 | 1°30'41 | 1°23 | 27°41 | 18°25 | 3°56 | 5° 0 | 22°53 | 22°32 | 20°38 | 20° 3 | 12°45 |
| F 22 | 10 4 16 | 2°31'09 | 2°23 | 3 ⁵ 58 | 20° 2 | 4°22 | 5° 4 | 22°55 | 22°32 | 20°38 | 20° 4 | 12°46 |
| S 23 | 10 8 12 | 3°31'35 | 3°23 | 10°11 | 21°39 | 4°48 | 5° 9 | 22°57 | 22°33 | 20°39 | 20° 4 | 12°47 |
| S 24 | 10 12 9 | 4°32'00 | 4°23 | 16°20 | 23°16 | 5°14 | 5°14 | 22°59 | 22°34 | 20°39 | 20° 4 | 12°47 |
| M25 | 10 16 5 | 5°32'22 | 5°24 | 22°22 | 24°53 | 5°40 | 5°18 | 23° 2 | 22°35 | 20°39 | 20° 5 | 12°48 |
| T 26 | 10 20 2 | 6°32'42 | 6°25 | 28°17 | 26°29 | 6° 7 | 5°23 | 23° 4 | 22°35 | 20°40 | 20° 5 | 12°49 |
| W27 | 10 23 58 | 7°33'01 | 7°27 | 4 ⁰ 4 | 28° 6 | 6°33 | 5°28 | 23° 6 | 22°36 | 20°40 | 20° 6 | 12°49 |
| T 28 | 10 27 55 | 8°33'17 | 8°28 | 9°43 | 29°43 | 6°59 | 5°32 | 23° 8 | 22°37 | 20°40 | 20° 6 | 12°50 |
| F 29 | 10 31 52 | 9 ¹⁷ 33'32 | 9 ¹⁷ 30 | 15 ⁰ 12 | 1 ⁵ 20 | 7 ¹⁷ 25 | 5 ¹⁷ 37 | 23 ¹⁰ 10 | 22 ³⁸ 38 | 20 ²⁷ 41 | 20 ⁴ 6 | 12 ⁵¹ 51 |

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SWISS EPHEMERIS for the year 1980
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MARCH 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---|---|---|
| S 1 | 10 35 48 | 10 ^h 33'44 | 10 ^h 32 | 20 ^h 31 | 2 ^h 57 | 7 ^h 51 | 5 ^h 41 | 23 ^h 12 | 22 ^h 38 | 20 ^h 41 | 20° 7 | 12 ^h 51 | | | |
| S 2 | 10 39 45 | 11°33'55 | 11°34 | 25°41 | 4°34 | 8°18 | 5°46 | 23°14 | 22°39 | 20°41 | 20° 7 | 12°52 | | | |
| M 3 | 10 43 41 | 12°34'04 | 12°36 | 0 ^h 42 | 6°11 | 8°44 | 5°51 | 23°16 | 22°40 | 20°42 | 20° 8 | 12°53 | | | |
| T 4 | 10 47 38 | 13°34'11 | 13°38 | 5°33 | 7°48 | 9°10 | 5°55 | 23°18 | 22°41 | 20°42 | 20° 8 | 12°53 | | | |
| W 5 | 10 51 34 | 14°34'17 | 14°39 | 10°14 | 9°26 | 9°36 | 6° 0 | 23°20 | 22°41 | 20°42 | 20° 9 | 12°54 | | | |
| T 6 | 10 55 31 | 15°34'21 | 15°41 | 14°46 | 11° 3 | 10° 2 | 6° 5 | 23°22 | 22°42 | 20°43 | 20° 9 | 12°55 | | | |
| F 7 | 10 59 27 | 16°34'23 | 16°42 | 19°10 | 12°40 | 10°29 | 6° 9 | 23°24 | 22°43 | 20°43 | 20° 9 | 12°56 | | | |
| S 8 | 11 3 24 | 17°34'23 | 17°43 | 23°25 | 14°17 | 10°55 | 6°14 | 23°26 | 22°44 | 20°44 | 20°10 | 12°56 | | | |
| S 9 | 11 7 21 | 18°34'22 | 18°43 | 27°33 | 15°54 | 11°21 | 6°19 | 23°28 | 22°44 | 20°44 | 20°10 | 12°57 | | | |
| M10 | 11 11 17 | 19°34'20 | 19°43 | 1 ^h 33 | 17°32 | 11°47 | 6°23 | 23°30 | 22°45 | 20°44 | 20°11 | 12°58 | | | |
| T 11 | 11 15 14 | 20°34'15 | 20°43 | 5°26 | 19° 9 | 12°14 | 6°28 | 23°32 | 22°46 | 20°45 | 20°11 | 12°58 | | | |
| W12 | 11 19 10 | 21°34'10 | 21°42 | 9°12 | 20°46 | 12°40 | 6°32 | 23°34 | 22°47 | 20°45 | 20°11 | 12°59 | | | |
| T 13 | 11 23 7 | 22°34'02 | 22°41 | 12°52 | 22°23 | 13° 6 | 6°37 | 23°36 | 22°47 | 20°45 | 20°12 | 13° 0 | | | |
| F 14 | 11 27 3 | 23°33'53 | 23°39 | 16°26 | 24° 1 | 13°32 | 6°42 | 23°39 | 22°48 | 20°46 | 20°12 | 13° 0 | | | |
| S 15 | 11 31 0 | 24°33'42 | 24°37 | 19°55 | 25°38 | 13°58 | 6°46 | 23°41 | 22°49 | 20°46 | 20°13 | 13° 1 | | | |
| S 16 | 11 34 56 | 25°33'29 | 25°35 | 23°19 | 27°15 | 14°25 | 6°51 | 23°43 | 22°49 | 20°46 | 20°13 | 13° 2 | | | |
| M17 | 11 38 53 | 26°33'14 | 26°33 | 26°38 | 28°53 | 14°51 | 6°56 | 23°45 | 22°50 | 20°47 | 20°14 | 13° 2 | | | |
| T 18 | 11 42 50 | 27°32'57 | 27°31 | 29°53 | 0 ^h 30 | 15°17 | 7° 0 | 23°47 | 22°51 | 20°47 | 20°14 | 13° 3 | | | |
| W19 | 11 46 46 | 28°32'38 | 28°28 | 3 ^h 4 | 2° 8 | 15°44 | 7° 5 | 23°49 | 22°52 | 20°47 | 20°14 | 13° 4 | | | |
| T 20 | 11 50 43 | 29°32'16 | 29°26 | 6°12 | 3°45 | 16°10 | 7° 9 | 23°51 | 22°52 | 20°48 | 20°15 | 13° 5 | | | |
| F 21 | 11 54 39 | 0 ^h 31'53 | 0 ^h 25 | 9°16 | 5°23 | 16°36 | 7°14 | 23°53 | 22°53 | 20°48 | 20°15 | 13° 5 | | | |
| S 22 | 11 58 36 | 1°31'27 | 1°23 | 12°17 | 7° 0 | 17° 2 | 7°19 | 23°55 | 22°54 | 20°49 | 20°16 | 13° 6 | | | |
| S 23 | 12 2 32 | 2°30'59 | 2°22 | 15°15 | 8°37 | 17°29 | 7°23 | 23°57 | 22°55 | 20°49 | 20°16 | 13° 7 | | | |
| M24 | 12 6 29 | 3°30'29 | 3°22 | 18°11 | 10°15 | 17°55 | 7°28 | 23°59 | 22°55 | 20°49 | 20°16 | 13° 7 | | | |
| T 25 | 12 10 25 | 4°29'57 | 4°21 | 21° 5 | 11°52 | 18°21 | 7°33 | 24° 1 | 22°56 | 20°50 | 20°17 | 13° 8 | | | |
| W26 | 12 14 22 | 5°29'22 | 5°21 | 23°57 | 13°30 | 18°48 | 7°37 | 24° 3 | 22°57 | 20°50 | 20°17 | 13° 9 | | | |
| T 27 | 12 18 19 | 6°28'44 | 6°22 | 26°47 | 15° 7 | 19°14 | 7°42 | 24° 5 | 22°58 | 20°50 | 20°18 | 13° 9 | | | |
| F 28 | 12 22 15 | 7°28'05 | 7°22 | 29°36 | 16°45 | 19°40 | 7°46 | 24° 7 | 22°58 | 20°51 | 20°18 | 13°10 | | | |
| S 29 | 12 26 12 | 8°27'23 | 8°23 | 2 ^h 24 | 18°23 | 20° 7 | 7°51 | 24° 9 | 22°59 | 20°51 | 20°19 | 13°11 | | | |
| S 30 | 12 30 8 | 9°26'39 | 9°24 | 5°10 | 20° 0 | 20°33 | 7°56 | 24°11 | 23° 0 | 20°51 | 20°19 | 13°12 | | | |
| MB1 | 12 34 5 | 10 ^h 25'53 | 10 ^h 25 | 7 ^h 56 | 21 ^h 38 | 20 ^h 59 | 8 ^h 0 | 24 ^h 13 | 23 ^h 1 | 20 ^h 52 | 20 ^h 19 | 13 ^h 12 | | | |

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APRIL 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---|---|---|
| T 1 | 12 38 1 | 11 ^h 25'05 | 11 ^h 26 | 10 ^h 41 | 23 ^h 15 | 21 ^h 26 | 8 ^h 5 | 24 ^h 15 | 23 ^h 1 | 20 ^h 52 | 20 ^h 20 | 13 ^h 13 | | | |
| W 2 | 12 41 58 | 12°24'15 | 12°27 | 13°26 | 24°53 | 21°52 | 8°10 | 24°17 | 23° 2 | 20°52 | 20°20 | 13°14 | | | |
| T 3 | 12 45 54 | 13°23'23 | 13°27 | 16°11 | 26°30 | 22°19 | 8°14 | 24°20 | 23° 3 | 20°53 | 20°21 | 13°14 | | | |
| F 4 | 12 49 51 | 14°22'29 | 14°28 | 18°55 | 28° 8 | 22°45 | 8°19 | 24°22 | 23° 4 | 20°53 | 20°21 | 13°15 | | | |
| S 5 | 12 53 47 | 15°21'33 | 15°28 | 21°40 | 29°45 | 23°12 | 8°23 | 24°24 | 23° 4 | 20°54 | 20°21 | 13°16 | | | |
| S 6 | 12 57 44 | 16°20'35 | 16°28 | 24°26 | 1 ^h 23 | 23°38 | 8°28 | 24°26 | 23° 5 | 20°54 | 20°22 | 13°16 | | | |
| M 7 | 13 1 41 | 17°19'36 | 17°28 | 27°12 | 3° 0 | 24° 4 | 8°33 | 24°28 | 23° 6 | 20°54 | 20°22 | 13°17 | | | |
| T 8 | 13 5 37 | 18°18'34 | 18°27 | 29°59 | 4°38 | 24°31 | 8°37 | 24°30 | 23° 6 | 20°55 | 20°23 | 13°18 | | | |
| W 9 | 13 9 34 | 19°17'31 | 19°26 | 2 ^h 47 | 6°15 | 24°57 | 8°42 | 24°32 | 23° 7 | 20°55 | 20°23 | 13°18 | | | |
| T 10 | 13 13 30 | 20°16'27 | 20°25 | 5°36 | 7°53 | 25°24 | 8°47 | 24°34 | 23° 8 | 20°55 | 20°23 | 13°19 | | | |
| F 11 | 13 17 27 | 21°15'20 | 21°22 | 8°27 | 9°30 | 25°50 | 8°51 | 24°36 | 23° 9 | 20°56 | 20°24 | 13°20 | | | |
| S 12 | 13 21 23 | 22°14'12 | 22°20 | 11°19 | 11° 8 | 26°17 | 8°56 | 24°38 | 23° 9 | 20°56 | 20°24 | 13°21 | | | |
| S 13 | 13 25 20 | 23°13'02 | 23°17 | 14°13 | 12°45 | 26°43 | 9° 0 | 24°40 | 23°10 | 20°56 | 20°25 | 13°21 | | | |
| M14 | 13 29 16 | 24°11'50 | 24°14 | 17°10 | 14°22 | 27°10 | 9° 5 | 24°42 | 23°11 | 20°57 | 20°25 | 13°22 | | | |
| T 15 | 13 33 13 | 25°10'36 | 25°11 | 20° 9 | 16° 0 | 27°37 | 9°10 | 24°44 | 23°12 | 20°57 | 20°26 | 13°23 | | | |
| W16 | 13 37 10 | 26° 9'21 | 26° 8 | 23°11 | 17°37 | 28° 3 | 9°14 | 24°46 | 23°12 | 20°57 | 20°26 | 13°23 | | | |
| T 17 | 13 41 6 | 27° 8'03 | 27° 4 | 26°15 | 19°14 | 28°30 | 9°19 | 24°48 | 23°13 | 20°58 | 20°26 | 13°24 | | | |
| F 18 | 13 45 3 | 28° 6'43 | 28° 1 | 29°23 | 20°52 | 28°56 | 9°24 | 24°50 | 23°14 | 20°58 | 20°27 | 13°25 | | | |
| S 19 | 13 48 59 | 29° 5'22 | 28°59 | 2 ^h 35 | 22°29 | 29°23 | 9°28 | 24°52 | 23°15 | 20°58 | 20°27 | 13°25 | | | |
| S 20 | 13 52 56 | 0 ^h 3'58 | 29°56 | 5°50 | 24° 6 | 29°50 | 9°33 | 24°54 | 23°15 | 20°59 | 20°28 | 13°26 | | | |
| M21 | 13 56 52 | 1° 2'31 | 0 ^h 54 | 9° 9 | 25°44 | 0 ^h 16 | 9°37 | 24°56 | 23°16 | 20°59 | 20°28 | 13°27 | | | |
| T 22 | 14 0 49 | 2° 1'03 | 1°52 | 12°33 | 27°21 | 0°43 | 9°42 | 24°58 | 23°17 | 21° 0 | 20°29 | 13°28 | | | |
| W23 | 14 4 45 | 2°59'32 | 2°51 | 16° 1 | 28°58 | 1°10 | 9°47 | 25° 1 | 23°18 | 21° 0 | 20°29 | 13°28 | | | |
| T 24 | 14 8 42 | 3°58'00 | 3°49 | 19°34 | 0 ^h 35 | 1°36 | 9°51 | 25° 3 | 23°18 | 21° 0 | 20°29 | 13°29 | | | |
| F 25 | 14 12 39 | 4°56'25 | 4°49 | 23°13 | 2°12 | 2° 3 | 9°56 | 25° 5 | 23°19 | 21° 1 | 20°30 | 13°30 | | | |
| S 26 | 14 16 35 | 5°54'48 | 5°48 | 26°58 | 3°49 | 2°30 | 10° 1 | 25° 7 | 23°20 | 21° 1 | 20°30 | 13°30 | | | |
| S 27 | 14 20 32 | 6°53'08 | 6°48 | 0 ^h 49 | 5°26 | 2°57 | 10° 5 | 25° 9 | 23°21 | 21° 1 | 20°31 | 13°31 | | | |
| M28 | 14 24 28 | 7°51'27 | 7°47 | 4°46 | 7° 3 | 3°24 | 10°10 | 25°11 | 23°21 | 21° 2 | 20°31 | 13°32 | | | |
| T 29 | 14 28 25 | 8°49'44 | 8°47 | 8°50 | 8°40 | 3°50 | 10°14 | 25°13 | 23°22 | 21° 2 | 20°31 | 13°32 | | | |
| W30 | 14 32 21 | 9 ^h 48'00 | 9 ^h 47 | 13 ^h 2 | 10 ^h 17 | 4 ^h 17 | 10 ^h 19 | 25 ^h 15 | 23 ^h 23 | 21 ^h 2 | 20 ^h 32 | 13 ^h 33 | | | |

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SWISS EPHEMERIS for the year 1980
heliocentric

MAY 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| T 1 | 14 36 18 | 10M46'13 | 10M47 | 17♂21 | 11♂54 | 4♂44 | 10M24 | 25M17 | 23M23 | 21♂3 | 20♂32 | 13♂34 |
| F 2 | 14 40 14 | 11°44'25 | 11°47 | 21°48 | 13°31 | 5°11 | 10°28 | 25°19 | 23°24 | 21°3 | 20°33 | 13°35 |
| S 3 | 14 44 11 | 12°42'35 | 12°47 | 26°23 | 15°8 | 5°38 | 10°33 | 25°21 | 23°25 | 21°3 | 20°33 | 13°35 |
| S 4 | 14 48 7 | 13°40'43 | 13°47 | 1♂7 | 16°45 | 6°5 | 10°37 | 25°23 | 23°26 | 21°4 | 20°34 | 13°36 |
| M 5 | 14 52 4 | 14°38'50 | 14°46 | 6°0 | 18°21 | 6°32 | 10°42 | 25°25 | 23°26 | 21°4 | 20°34 | 13°37 |
| T 6 | 14 56 1 | 15°36'56 | 15°45 | 11°2 | 19°58 | 6°59 | 10°47 | 25°27 | 23°27 | 21°5 | 20°34 | 13°37 |
| W 7 | 14 59 57 | 16°35'00 | 16°43 | 16°13 | 21°35 | 7°26 | 10°51 | 25°29 | 23°28 | 21°5 | 20°35 | 13°38 |
| T 8 | 15 3 54 | 17°33'03 | 17°42 | 21°33 | 23°11 | 7°53 | 10°56 | 25°31 | 23°29 | 21°5 | 20°35 | 13°39 |
| F 9 | 15 7 50 | 18°31'04 | 18°39 | 27°2 | 24°48 | 8°20 | 11°1 | 25°33 | 23°29 | 21°6 | 20°36 | 13°39 |
| S 10 | 15 11 47 | 19°29'04 | 19°36 | 2♂40 | 26°24 | 8°47 | 11°5 | 25°35 | 23°30 | 21°6 | 20°36 | 13°40 |
| S 11 | 15 15 43 | 20°27'03 | 20°33 | 8°27 | 28°1 | 9°14 | 11°10 | 25°37 | 23°31 | 21°6 | 20°36 | 13°41 |
| M12 | 15 19 40 | 21°25'00 | 21°30 | 14°21 | 29°37 | 9°41 | 11°14 | 25°39 | 23°32 | 21°7 | 20°37 | 13°42 |
| T 13 | 15 23 36 | 22°22'57 | 22°26 | 20°22 | 1M.14 | 10°8 | 11°19 | 25°41 | 23°32 | 21°7 | 20°37 | 13°42 |
| W14 | 15 27 33 | 23°20'51 | 23°22 | 26°29 | 2°50 | 10°35 | 11°24 | 25°43 | 23°33 | 21°7 | 20°38 | 13°43 |
| T 15 | 15 31 30 | 24°18'45 | 24°18 | 2II41 | 4°26 | 11°2 | 11°28 | 25°46 | 23°34 | 21°8 | 20°38 | 13°44 |
| F 16 | 15 35 26 | 25°16'36 | 25°14 | 8°57 | 6°3 | 11°30 | 11°33 | 25°48 | 23°35 | 21°8 | 20°39 | 13°44 |
| S 17 | 15 39 23 | 26°14'27 | 26°10 | 15°15 | 7°39 | 11°57 | 11°37 | 25°50 | 23°35 | 21°8 | 20°39 | 13°45 |
| S 18 | 15 43 19 | 27°12'16 | 27°6 | 21°35 | 9°15 | 12°24 | 11°42 | 25°52 | 23°36 | 21°9 | 20°39 | 13°46 |
| M19 | 15 47 16 | 28°10'03 | 28°3 | 27°53 | 10°51 | 12°51 | 11°47 | 25°54 | 23°37 | 21°9 | 20°40 | 13°46 |
| T 20 | 15 51 12 | 29°7'48 | 28°59 | 4♂10 | 12°27 | 13°19 | 11°51 | 25°56 | 23°38 | 21°10 | 20°40 | 13°47 |
| W21 | 15 55 9 | 0♂5'32 | 29°57 | 10°23 | 14°3 | 13°46 | 11°56 | 25°58 | 23°38 | 21°10 | 20°41 | 13°48 |
| T 22 | 15 59 6 | 1°3'14 | 0♂54 | 16°31 | 15°39 | 14°13 | 12°0 | 26°0 | 23°39 | 21°10 | 20°41 | 13°49 |
| F 23 | 16 3 2 | 2°0'54 | 1°52 | 22°33 | 17°15 | 14°41 | 12°5 | 26°2 | 23°40 | 21°11 | 20°41 | 13°49 |
| S 24 | 16 6 59 | 2°58'33 | 2°50 | 28°28 | 18°51 | 15°8 | 12°10 | 26°4 | 23°40 | 21°11 | 20°42 | 13°50 |
| S 25 | 16 10 55 | 3°56'11 | 3°49 | 4♂15 | 20°27 | 15°35 | 12°14 | 26°6 | 23°41 | 21°11 | 20°42 | 13°51 |
| M26 | 16 14 52 | 4°53'47 | 4°47 | 9°53 | 22°3 | 16°3 | 12°19 | 26°8 | 23°42 | 21°12 | 20°43 | 13°51 |
| T 27 | 16 18 48 | 5°51'22 | 5°46 | 15°22 | 23°38 | 16°30 | 12°23 | 26°10 | 23°43 | 21°12 | 20°43 | 13°52 |
| W28 | 16 22 45 | 6°48'55 | 6°46 | 20°41 | 25°14 | 16°58 | 12°28 | 26°12 | 23°43 | 21°12 | 20°44 | 13°53 |
| T 29 | 16 26 41 | 7°46'27 | 7°45 | 25°51 | 26°50 | 17°26 | 12°33 | 26°14 | 23°44 | 21°13 | 20°44 | 13°53 |
| F 30 | 16 30 38 | 8°43'58 | 8°44 | 0M51 | 28°26 | 17°53 | 12°37 | 26°16 | 23°45 | 21°13 | 20°44 | 13°54 |
| S 31 | 16 34 34 | 9♂41'28 | 9♂43 | 5M42 | 0♂1 | 18♂21 | 12M42 | 26M18 | 23M46 | 21♂13 | 20♂45 | 13♂55 |

Delta T = 50.83 sec.

JUNE 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| S 1 | 16 38 31 | 10♂38'57 | 10♂43 | 10M23 | 1♂37 | 18♂48 | 12M47 | 26M20 | 23M46 | 21♂14 | 20♂45 | 13♂56 |
| M 2 | 16 42 28 | 11°36'25 | 11°42 | 14°55 | 3°12 | 19°16 | 12°51 | 26°22 | 23°47 | 21°14 | 20°46 | 13°56 |
| T 3 | 16 46 24 | 12°33'53 | 12°40 | 19°18 | 4°48 | 19°44 | 12°56 | 26°24 | 23°48 | 21°15 | 20°46 | 13°57 |
| W 4 | 16 50 21 | 13°31'19 | 13°39 | 23°33 | 6°23 | 20°11 | 13°0 | 26°26 | 23°49 | 21°15 | 20°46 | 13°58 |
| T 5 | 16 54 17 | 14°28'45 | 14°37 | 27°41 | 7°59 | 20°39 | 13°5 | 26°28 | 23°49 | 21°15 | 20°47 | 13°58 |
| F 6 | 16 58 14 | 15°26'10 | 15°35 | 1♂40 | 9°34 | 21°7 | 13°10 | 26°31 | 23°50 | 21°16 | 20°47 | 13°59 |
| S 7 | 17 2 10 | 16°23'34 | 16°32 | 5°33 | 11°9 | 21°35 | 13°14 | 26°33 | 23°51 | 21°16 | 20°48 | 14°0 |
| S 8 | 17 6 7 | 17°20'58 | 17°29 | 9°19 | 12°45 | 22°3 | 13°19 | 26°35 | 23°52 | 21°16 | 20°48 | 14°0 |
| M 9 | 17 10 3 | 18°18'22 | 18°25 | 12°59 | 14°20 | 22°31 | 13°23 | 26°37 | 23°52 | 21°17 | 20°49 | 14°1 |
| T 10 | 17 14 0 | 19°15'45 | 19°21 | 16°33 | 15°55 | 22°58 | 13°28 | 26°39 | 23°53 | 21°17 | 20°49 | 14°2 |
| W11 | 17 17 57 | 20°13'07 | 20°17 | 20°2 | 17°30 | 23°26 | 13°33 | 26°41 | 23°54 | 21°17 | 20°49 | 14°3 |
| T 12 | 17 21 53 | 21°10'29 | 21°12 | 23°25 | 19°5 | 23°54 | 13°37 | 26°43 | 23°55 | 21°18 | 20°50 | 14°3 |
| F 13 | 17 25 50 | 22°7'50 | 22°8 | 26°44 | 20°41 | 24°22 | 13°42 | 26°45 | 23°55 | 21°18 | 20°50 | 14°4 |
| S 14 | 17 29 46 | 23°5'11 | 23°3 | 29°59 | 22°16 | 24°51 | 13°46 | 26°47 | 23°56 | 21°18 | 20°51 | 14°5 |
| S 15 | 17 33 43 | 24°2'30 | 23°59 | 3M10 | 23°51 | 25°19 | 13°51 | 26°49 | 23°57 | 21°19 | 20°51 | 14°5 |
| M16 | 17 37 39 | 24°59'49 | 24°54 | 6°18 | 25°26 | 25°47 | 13°56 | 26°51 | 23°58 | 21°19 | 20°51 | 14°6 |
| T 17 | 17 41 36 | 25°57'07 | 25°50 | 9°22 | 27°1 | 26°15 | 14°0 | 26°53 | 23°58 | 21°20 | 20°52 | 14°7 |
| W18 | 17 45 33 | 26°54'25 | 26°46 | 12°23 | 28°36 | 26°43 | 14°5 | 26°55 | 23°59 | 21°20 | 20°52 | 14°8 |
| T 19 | 17 49 29 | 27°51'41 | 27°43 | 15°21 | 0♂11 | 27°11 | 14°9 | 26°57 | 24°0 | 21°20 | 20°53 | 14°8 |
| F 20 | 17 53 26 | 28°48'57 | 28°40 | 18°17 | 1°46 | 27°40 | 14°14 | 26°59 | 24°0 | 21°21 | 20°53 | 14°9 |
| S 21 | 17 57 22 | 29°46'12 | 29°37 | 21°11 | 3°21 | 28°8 | 14°19 | 27°1 | 24°1 | 21°21 | 20°54 | 14°10 |
| S 22 | 18 1 19 | 0♂43'27 | 0♂35 | 24°3 | 4°56 | 28°36 | 14°23 | 27°3 | 24°2 | 21°21 | 20°54 | 14°10 |
| M23 | 18 5 15 | 1°40'40 | 1°33 | 26°53 | 6°31 | 29°5 | 14°28 | 27°5 | 24°3 | 21°22 | 20°54 | 14°11 |
| T 24 | 18 9 12 | 2°37'54 | 2°31 | 29°41 | 8°6 | 29°33 | 14°32 | 27°7 | 24°3 | 21°22 | 20°55 | 14°12 |
| W25 | 18 13 8 | 3°35'06 | 3°29 | 2♂29 | 9°41 | 0M1 | 14°37 | 27°9 | 24°4 | 21°22 | 20°55 | 14°12 |
| T 26 | 18 17 5 | 4°32'19 | 4°28 | 5°15 | 11°16 | 0°30 | 14°42 | 27°11 | 24°5 | 21°23 | 20°56 | 14°13 |
| F 27 | 18 21 2 | 5°29'30 | 5°27 | 8°1 | 12°51 | 0°58 | 14°46 | 27°13 | 24°6 | 21°23 | 20°56 | 14°14 |
| S 28 | 18 24 58 | 6°26'42 | 6°26 | 10°46 | 14°26 | 1°27 | 14°51 | 27°15 | 24°6 | 21°23 | 20°57 | 14°15 |
| S 29 | 18 28 55 | 7°23'53 | 7°25 | 13°31 | 16°0 | 1°56 | 14°55 | 27°17 | 24°7 | 21°24 | 20°57 | 14°15 |
| M30 | 18 32 51 | 8♂21'05 | 8♂24 | 16♂16 | 17♂35 | 2M24 | 15M0 | 27M20 | 24M8 | 21♂24 | 20♂57 | 14♂16 |

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SWISS EPHEMERIS for the year 1980
heliocentric

JULY 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♄ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| T 1 | 18 36 48 | 9♁18'16 | 9♁23 | 19♁ 1 | 19♁10 | 2♁53 | 15♁ 5 | 27♁22 | 24♁ 9 | 21♁24 | 20♁58 | 14♁17 |
| W 2 | 18 40 44 | 10°15'27 | 10°22 | 21°46 | 20°45 | 3°22 | 15° 9 | 27°24 | 24° 9 | 21°25 | 20°58 | 14°17 |
| T 3 | 18 44 41 | 11°12'38 | 11°20 | 24°31 | 22°20 | 3°50 | 15°14 | 27°26 | 24°10 | 21°25 | 20°59 | 14°18 |
| F 4 | 18 48 37 | 12° 9'50 | 12°18 | 27°17 | 23°55 | 4°19 | 15°18 | 27°28 | 24°11 | 21°26 | 20°59 | 14°19 |
| S 5 | 18 52 34 | 13° 7'01 | 13°15 | 0♁ 4 | 25°30 | 4°48 | 15°23 | 27°30 | 24°12 | 21°26 | 20°59 | 14°20 |
| S 6 | 18 56 31 | 14° 4'13 | 14°12 | 2°52 | 27° 4 | 5°17 | 15°28 | 27°32 | 24°12 | 21°26 | 21° 0 | 14°20 |
| M 7 | 19 0 27 | 15° 1'26 | 15° 9 | 5°41 | 28°39 | 5°46 | 15°32 | 27°34 | 24°13 | 21°27 | 21° 0 | 14°21 |
| T 8 | 19 4 24 | 15°58'39 | 16° 5 | 8°32 | 0♁14 | 6°15 | 15°37 | 27°36 | 24°14 | 21°27 | 21° 1 | 14°22 |
| W 9 | 19 8 20 | 16°55'52 | 17° 1 | 11°25 | 1°49 | 6°44 | 15°41 | 27°38 | 24°15 | 21°27 | 21° 1 | 14°22 |
| T 10 | 19 12 17 | 17°53'06 | 17°57 | 14°19 | 3°24 | 7°13 | 15°46 | 27°40 | 24°15 | 21°28 | 21° 2 | 14°23 |
| F 11 | 19 16 13 | 18°50'20 | 18°53 | 17°16 | 4°59 | 7°42 | 15°50 | 27°42 | 24°16 | 21°28 | 21° 2 | 14°24 |
| S 12 | 19 20 10 | 19°47'34 | 19°48 | 20°15 | 6°34 | 8°11 | 15°55 | 27°44 | 24°17 | 21°28 | 21° 2 | 14°24 |
| S 13 | 19 24 6 | 20°44'49 | 20°43 | 23°17 | 8° 8 | 8°40 | 16° 0 | 27°46 | 24°17 | 21°29 | 21° 3 | 14°25 |
| M14 | 19 28 3 | 21°42'04 | 21°39 | 26°21 | 9°43 | 9°10 | 16° 4 | 27°48 | 24°18 | 21°29 | 21° 3 | 14°26 |
| T 15 | 19 32 0 | 22°39'19 | 22°35 | 29°29 | 11°18 | 9°39 | 16° 9 | 27°50 | 24°19 | 21°29 | 21° 4 | 14°27 |
| W16 | 19 35 56 | 23°36'34 | 23°30 | 2♁41 | 12°53 | 10° 8 | 16°13 | 27°52 | 24°20 | 21°30 | 21° 4 | 14°27 |
| T 17 | 19 39 53 | 24°33'49 | 24°26 | 5°56 | 14°28 | 10°37 | 16°18 | 27°54 | 24°20 | 21°30 | 21° 4 | 14°28 |
| F 18 | 19 43 49 | 25°31'04 | 25°23 | 9°15 | 16° 3 | 11° 7 | 16°23 | 27°56 | 24°21 | 21°31 | 21° 5 | 14°29 |
| S 19 | 19 47 46 | 26°28'20 | 26°19 | 12°39 | 17°38 | 11°36 | 16°27 | 27°58 | 24°22 | 21°31 | 21° 5 | 14°29 |
| S 20 | 19 51 42 | 27°25'36 | 27°17 | 16° 8 | 19°13 | 12° 6 | 16°32 | 28° 0 | 24°23 | 21°31 | 21° 6 | 14°30 |
| M21 | 19 55 39 | 28°22'52 | 28°14 | 19°41 | 20°48 | 12°35 | 16°36 | 28° 2 | 24°23 | 21°32 | 21° 6 | 14°31 |
| T 22 | 19 59 35 | 29°20'09 | 29°12 | 23°20 | 22°23 | 13° 5 | 16°41 | 28° 4 | 24°24 | 21°32 | 21° 7 | 14°32 |
| W23 | 20 3 32 | 0♁17'25 | 0♁10 | 27° 5 | 23°58 | 13°34 | 16°46 | 28° 6 | 24°25 | 21°32 | 21° 7 | 14°32 |
| T 24 | 20 7 29 | 1°14'43 | 1° 8 | 0♁56 | 25°33 | 14° 4 | 16°50 | 28° 8 | 24°26 | 21°33 | 21° 7 | 14°33 |
| F 25 | 20 11 25 | 2°12'00 | 2° 7 | 4°54 | 27° 8 | 14°34 | 16°55 | 28°10 | 24°26 | 21°33 | 21° 8 | 14°34 |
| S 26 | 20 15 22 | 3° 9'18 | 3° 6 | 8°58 | 28°43 | 15° 4 | 16°59 | 28°13 | 24°27 | 21°33 | 21° 8 | 14°34 |
| S 27 | 20 19 18 | 4° 6'37 | 4° 5 | 13°10 | 0♁18 | 15°33 | 17° 4 | 28°15 | 24°28 | 21°34 | 21° 9 | 14°35 |
| M28 | 20 23 15 | 5° 3'57 | 5° 4 | 17°29 | 1°53 | 16° 3 | 17° 9 | 28°17 | 24°29 | 21°34 | 21° 9 | 14°36 |
| T 29 | 20 27 11 | 6° 1'17 | 6° 4 | 21°57 | 3°28 | 16°33 | 17°13 | 28°19 | 24°29 | 21°34 | 21° 9 | 14°36 |
| W30 | 20 31 8 | 6°58'38 | 7° 3 | 26°32 | 5° 3 | 17° 3 | 17°18 | 28°21 | 24°30 | 21°35 | 21°10 | 14°37 |
| T 31 | 20 35 4 | 7♁55'59 | 8♁ 2 | 1♁17 | 6♁38 | 17♁33 | 17♁22 | 28♁23 | 24♁31 | 21♁35 | 21♁10 | 14♁38 |

Delta T = 50.97 sec.

AUGUST 1980

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♄ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| F 1 | 20 39 1 | 8♁53'22 | 9♁ 0 | 6♁10 | 8♁13 | 18♁ 3 | 17♁27 | 28♁25 | 24♁32 | 21♁36 | 21♁11 | 14♁39 |
| S 2 | 20 42 58 | 9°50'46 | 9°59 | 11°12 | 9°48 | 18°33 | 17°31 | 28°27 | 24°32 | 21°36 | 21°11 | 14°39 |
| S 3 | 20 46 54 | 10°48'11 | 10°56 | 16°23 | 11°24 | 19° 3 | 17°36 | 28°29 | 24°33 | 21°36 | 21°12 | 14°40 |
| M 4 | 20 50 51 | 11°45'38 | 11°54 | 21°44 | 12°59 | 19°33 | 17°41 | 28°31 | 24°34 | 21°37 | 21°12 | 14°41 |
| T 5 | 20 54 47 | 12°43'06 | 12°51 | 27°13 | 14°34 | 20° 4 | 17°45 | 28°33 | 24°34 | 21°37 | 21°12 | 14°41 |
| W 6 | 20 58 44 | 13°40'35 | 13°48 | 2♁51 | 16° 9 | 20°34 | 17°50 | 28°35 | 24°35 | 21°37 | 21°13 | 14°42 |
| T 7 | 21 2 40 | 14°38'05 | 14°44 | 8°38 | 17°44 | 21° 4 | 17°54 | 28°37 | 24°36 | 21°38 | 21°13 | 14°43 |
| F 8 | 21 6 37 | 15°35'37 | 15°40 | 14°32 | 19°20 | 21°35 | 17°59 | 28°39 | 24°37 | 21°38 | 21°14 | 14°44 |
| S 9 | 21 10 33 | 16°33'10 | 16°36 | 20°33 | 20°55 | 22° 5 | 18° 4 | 28°41 | 24°37 | 21°38 | 21°14 | 14°44 |
| S 10 | 21 14 30 | 17°30'44 | 17°32 | 26°40 | 22°30 | 22°36 | 18° 8 | 28°43 | 24°38 | 21°39 | 21°15 | 14°45 |
| M11 | 21 18 27 | 18°28'19 | 18°28 | 2♁53 | 24° 6 | 23° 6 | 18°13 | 28°45 | 24°39 | 21°39 | 21°15 | 14°46 |
| T 12 | 21 22 23 | 19°25'55 | 19°24 | 9° 9 | 25°41 | 23°37 | 18°17 | 28°47 | 24°40 | 21°39 | 21°15 | 14°46 |
| W13 | 21 26 20 | 20°23'33 | 20°20 | 15°27 | 27°16 | 24° 7 | 18°22 | 28°49 | 24°40 | 21°40 | 21°16 | 14°47 |
| T 14 | 21 30 16 | 21°21'11 | 21°16 | 21°46 | 28°52 | 24°38 | 18°26 | 28°51 | 24°41 | 21°40 | 21°16 | 14°48 |
| F 15 | 21 34 13 | 22°18'51 | 22°12 | 28° 5 | 0♁27 | 25° 9 | 18°31 | 28°53 | 24°42 | 21°41 | 21°17 | 14°49 |
| S 16 | 21 38 9 | 23°16'31 | 23° 9 | 4♁22 | 2° 3 | 25°40 | 18°36 | 28°55 | 24°43 | 21°41 | 21°17 | 14°49 |
| S 17 | 21 42 6 | 24°14'13 | 24° 6 | 10°35 | 3°38 | 26°10 | 18°40 | 28°57 | 24°43 | 21°41 | 21°17 | 14°50 |
| M18 | 21 46 2 | 25°11'56 | 25° 3 | 16°43 | 5°14 | 26°41 | 18°45 | 28°59 | 24°44 | 21°42 | 21°18 | 14°51 |
| T 19 | 21 49 59 | 26° 9'40 | 26° 1 | 22°44 | 6°49 | 27°12 | 18°49 | 29° 1 | 24°45 | 21°42 | 21°18 | 14°51 |
| W20 | 21 53 56 | 27° 7'25 | 26°59 | 28°39 | 8°25 | 27°43 | 18°54 | 29° 3 | 24°46 | 21°42 | 21°19 | 14°52 |
| T 21 | 21 57 52 | 28° 5'11 | 27°57 | 4♁26 | 10° 0 | 28°14 | 18°59 | 29° 5 | 24°46 | 21°43 | 21°19 | 14°53 |
| F 22 | 22 1 49 | 29° 2'58 | 28°56 | 10° 3 | 11°36 | 28°45 | 19° 3 | 29° 7 | 24°47 | 21°43 | 21°20 | 14°54 |
| S 23 | 22 5 45 | 0♁ 0'47 | 29°55 | 15°32 | 13°11 | 29°17 | 19° 8 | 29° 9 | 24°48 | 21°43 | 21°20 | 14°54 |
| S 24 | 22 9 42 | 0♁58'36 | 0♁55 | 20°51 | 14°47 | 29°48 | 19°12 | 29°11 | 24°48 | 21°44 | 21°20 | 14°55 |
| M25 | 22 13 38 | 1°56'27 | 1°54 | 26° 1 | 16°23 | 0♁19 | 19°17 | 29°14 | 24°49 | 21°44 | 21°21 | 14°56 |
| T 26 | 22 17 35 | 2°54'20 | 2°54 | 1♁ 0 | 17°58 | 0°50 | 19°21 | 29°16 | 24°50 | 21°44 | 21°21 | 14°56 |
| W27 | 22 21 31 | 3°52'14 | 3°54 | 5°50 | 19°34 | 1°22 | 19°26 | 29°18 | 24°51 | 21°45 | 21°22 | 14°57 |
| T 28 | 22 25 28 | 4°50'09 | 4°54 | 10°31 | 21°10 | 1°53 | 19°31 | 29°20 | 24°51 | 21°45 | 21°22 | 14°58 |
| F 29 | 22 29 25 | 5°48'06 | 5°53 | 15° 3 | 22°46 | 2°25 | 19°35 | 29°22 | 24°52 | 21°46 | 21°22 | 14°58 |
| S 30 | 22 33 21 | 6°46'05 | 6°53 | 19°26 | 24°21 | 2°56 | 19°40 | 29°24 | 24°53 | 21°46 | 21°23 | 14°59 |
| S 31 | 22 37 18 | 7♁44'06 | 7♁52 | 23♁41 | 25♁57 | 3♁28 | 19♁44 | 29♁26 | 24♁54 | 21♁46 | 21♁23 | 15♁ 0 |

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SWISS EPHEMERIS for the year 1980
heliocentric

SEPTEMBER 1980

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| Day | Sid.t | Terra | ☾ | ♁ | ♂ | ♄ | ♃ | ♅ | ♁ | ♆ | ♁ | ♁ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| M 1 | 22 41 14 | 8♄42'09 | 8♄50 | 27♄48 | 27♄33 | 3♄59 | 19♄49 | 29♄28 | 24♄54 | 21♄47 | 21♄24 | 15♄1 |
| T 2 | 22 45 11 | 9°40'14 | 9°49 | 1♄48 | 29° 9 | 4°31 | 19°54 | 29°30 | 24°55 | 21°47 | 21°24 | 15° 1 |
| W 3 | 22 49 7 | 10°38'21 | 10°47 | 5°40 | 0♄45 | 5° 3 | 19°58 | 29°32 | 24°56 | 21°47 | 21°25 | 15° 2 |
| T 4 | 22 53 4 | 11°36'30 | 11°44 | 9°26 | 2°21 | 5°35 | 20° 3 | 29°34 | 24°57 | 21°48 | 21°25 | 15° 3 |
| F 5 | 22 57 0 | 12°34'41 | 12°42 | 13° 6 | 3°57 | 6° 6 | 20° 7 | 29°36 | 24°57 | 21°48 | 21°25 | 15° 3 |
| S 6 | 23 0 57 | 13°32'53 | 13°38 | 16°40 | 5°33 | 6°38 | 20°12 | 29°38 | 24°58 | 21°48 | 21°26 | 15° 4 |
| S 7 | 23 4 53 | 14°31'08 | 14°35 | 20° 8 | 7° 9 | 7°10 | 20°16 | 29°40 | 24°59 | 21°49 | 21°26 | 15° 5 |
| M 8 | 23 8 50 | 15°29'24 | 15°32 | 23°32 | 8°45 | 7°42 | 20°21 | 29°42 | 25° 0 | 21°49 | 21°27 | 15° 6 |
| T 9 | 23 12 47 | 16°27'43 | 16°28 | 26°51 | 10°21 | 8°14 | 20°26 | 29°44 | 25° 0 | 21°49 | 21°27 | 15° 6 |
| W10 | 23 16 43 | 17°26'03 | 17°25 | 0♄ 5 | 11°57 | 8°47 | 20°30 | 29°46 | 25° 1 | 21°50 | 21°27 | 15° 7 |
| T 11 | 23 20 40 | 18°24'24 | 18°22 | 3°16 | 13°33 | 9°19 | 20°35 | 29°48 | 25° 2 | 21°50 | 21°28 | 15° 8 |
| F 12 | 23 24 36 | 19°22'48 | 19°18 | 6°23 | 15° 9 | 9°51 | 20°39 | 29°50 | 25° 3 | 21°50 | 21°28 | 15° 8 |
| S 13 | 23 28 33 | 20°21'13 | 20°15 | 9°27 | 16°45 | 10°23 | 20°44 | 29°52 | 25° 3 | 21°51 | 21°29 | 15° 9 |
| S 14 | 23 32 29 | 21°19'40 | 21°13 | 12°28 | 18°21 | 10°56 | 20°48 | 29°54 | 25° 4 | 21°51 | 21°29 | 15°10 |
| M15 | 23 36 26 | 22°18'09 | 22°10 | 15°27 | 19°57 | 11°28 | 20°53 | 29°56 | 25° 5 | 21°52 | 21°30 | 15°11 |
| T 16 | 23 40 22 | 23°16'40 | 23° 8 | 18°22 | 21°34 | 12° 0 | 20°58 | 29°58 | 25° 5 | 21°52 | 21°30 | 15°11 |
| W17 | 23 44 19 | 24°15'12 | 24° 6 | 21°16 | 23°10 | 12°33 | 21° 2 | 0♄ 0 | 25° 6 | 21°52 | 21°30 | 15°12 |
| T 18 | 23 48 16 | 25°13'45 | 25° 5 | 24° 8 | 24°46 | 13° 6 | 21° 7 | 0° 2 | 25° 7 | 21°53 | 21°31 | 15°13 |
| F 19 | 23 52 12 | 26°12'21 | 26° 4 | 26°58 | 26°23 | 13°38 | 21°11 | 0° 4 | 25° 8 | 21°53 | 21°31 | 15°13 |
| S 20 | 23 56 9 | 27°10'58 | 27° 3 | 29°47 | 27°59 | 14°11 | 21°16 | 0° 6 | 25° 8 | 21°53 | 21°32 | 15°14 |
| S 21 | 0 0 5 | 28° 9'37 | 28° 3 | 2♄34 | 29°35 | 14°44 | 21°20 | 0° 8 | 25° 9 | 21°54 | 21°32 | 15°15 |
| M22 | 0 4 2 | 29° 8'17 | 29° 3 | 5°21 | 1♄12 | 15°17 | 21°25 | 0°10 | 25°10 | 21°54 | 21°32 | 15°16 |
| T 23 | 0 7 58 | 0♄6'59 | 0♄ 4 | 8° 6 | 2°48 | 15°49 | 21°30 | 0°12 | 25°11 | 21°54 | 21°33 | 15°16 |
| W24 | 0 11 55 | 1° 5'43 | 1° 5 | 10°52 | 4°25 | 16°22 | 21°34 | 0°14 | 25°11 | 21°55 | 21°33 | 15°17 |
| T 25 | 0 15 51 | 2° 4'29 | 2° 5 | 13°36 | 6° 1 | 16°55 | 21°39 | 0°16 | 25°12 | 21°55 | 21°34 | 15°18 |
| F 26 | 0 19 48 | 3° 3'17 | 3° 6 | 16°21 | 7°38 | 17°28 | 21°43 | 0°18 | 25°13 | 21°55 | 21°34 | 15°18 |
| S 27 | 0 23 45 | 4° 2'07 | 4° 7 | 19° 6 | 9°14 | 18° 1 | 21°48 | 0°20 | 25°14 | 21°56 | 21°35 | 15°19 |
| S 28 | 0 27 41 | 5° 0'59 | 5° 7 | 21°51 | 10°51 | 18°35 | 21°52 | 0°23 | 25°14 | 21°56 | 21°35 | 15°20 |
| M29 | 0 31 38 | 5°59'54 | 6° 7 | 24°36 | 12°27 | 19° 8 | 21°57 | 0°25 | 25°15 | 21°57 | 21°35 | 15°21 |
| T 30 | 0 35 34 | 6♄58'51 | 7♄ 7 | 27♄22 | 14♄ 4 | 19♄41 | 22♄ 2 | 0♄27 | 25♄16 | 21♄57 | 21♄36 | 15♄21 |

Delta T = 51.11 sec.

OCTOBER 1980

00:00 UT

| Day | Sid.t | Terra | ☾ | ♁ | ♂ | ♄ | ♃ | ♅ | ♁ | ♆ | ♁ | ♁ |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| W 1 | 0 39 31 | 7♄57'50 | 8♄ 7 | 0♄ 9 | 15♄41 | 20♄14 | 22♄ 6 | 0♄29 | 25♄17 | 21♄57 | 21♄36 | 15♄22 |
| T 2 | 0 43 27 | 8°56'51 | 9° 6 | 2°57 | 17°18 | 20°48 | 22°11 | 0°31 | 25°17 | 21°58 | 21°37 | 15°23 |
| F 3 | 0 47 24 | 9°55'55 | 10° 4 | 5°47 | 18°54 | 21°21 | 22°15 | 0°33 | 25°18 | 21°58 | 21°37 | 15°23 |
| S 4 | 0 51 20 | 10°55'01 | 11° 3 | 8°37 | 20°31 | 21°55 | 22°20 | 0°35 | 25°19 | 21°58 | 21°37 | 15°24 |
| S 5 | 0 55 17 | 11°54'10 | 12° 1 | 11°30 | 22° 8 | 22°28 | 22°24 | 0°37 | 25°19 | 21°59 | 21°38 | 15°25 |
| M 6 | 0 59 14 | 12°53'20 | 12°59 | 14°25 | 23°45 | 23° 2 | 22°29 | 0°39 | 25°20 | 21°59 | 21°38 | 15°26 |
| T 7 | 1 3 10 | 13°52'33 | 13°56 | 17°21 | 25°22 | 23°36 | 22°34 | 0°41 | 25°21 | 21°59 | 21°39 | 15°26 |
| W 8 | 1 7 7 | 14°51'48 | 14°54 | 20°21 | 26°58 | 24° 9 | 22°38 | 0°43 | 25°22 | 22° 0 | 21°39 | 15°27 |
| T 9 | 1 11 3 | 15°51'05 | 15°51 | 23°22 | 28°35 | 24°43 | 22°43 | 0°45 | 25°22 | 22° 0 | 21°40 | 15°28 |
| F 10 | 1 15 0 | 16°50'24 | 16°49 | 26°27 | 0♄12 | 25°17 | 22°47 | 0°47 | 25°23 | 22° 0 | 21°40 | 15°28 |
| S 11 | 1 18 56 | 17°49'45 | 17°46 | 29°35 | 1°49 | 25°51 | 22°52 | 0°49 | 25°24 | 22° 1 | 21°40 | 15°29 |
| S 12 | 1 22 53 | 18°49'08 | 18°44 | 2♄47 | 3°26 | 26°25 | 22°56 | 0°51 | 25°25 | 22° 1 | 21°41 | 15°30 |
| M13 | 1 26 49 | 19°48'33 | 19°42 | 6° 2 | 5° 3 | 26°59 | 23° 1 | 0°53 | 25°25 | 22° 1 | 21°41 | 15°31 |
| T 14 | 1 30 46 | 20°48'00 | 20°41 | 9°22 | 6°40 | 27°33 | 23° 6 | 0°55 | 25°26 | 22° 2 | 21°42 | 15°31 |
| W15 | 1 34 42 | 21°47'28 | 21°39 | 12°46 | 8°18 | 28° 7 | 23°10 | 0°57 | 25°27 | 22° 2 | 21°42 | 15°32 |
| T 16 | 1 38 39 | 22°46'59 | 22°38 | 16°14 | 9°55 | 28°41 | 23°15 | 0°59 | 25°28 | 22° 3 | 21°43 | 15°33 |
| F 17 | 1 42 36 | 23°46'31 | 23°38 | 19°48 | 11°32 | 29°16 | 23°19 | 1° 1 | 25°28 | 22° 3 | 21°43 | 15°33 |
| S 18 | 1 46 32 | 24°46'05 | 24°37 | 23°27 | 13° 9 | 29°50 | 23°24 | 1° 3 | 25°29 | 22° 3 | 21°43 | 15°34 |
| S 19 | 1 50 29 | 25°45'41 | 25°38 | 27°12 | 14°46 | 0♄24 | 23°28 | 1° 5 | 25°30 | 22° 4 | 21°44 | 15°35 |
| M20 | 1 54 25 | 26°45'18 | 26°38 | 1♄ 4 | 16°23 | 0°59 | 23°33 | 1° 7 | 25°31 | 22° 4 | 21°44 | 15°36 |
| T 21 | 1 58 22 | 27°44'57 | 27°40 | 5° 1 | 18° 1 | 1°33 | 23°38 | 1° 9 | 25°31 | 22° 4 | 21°45 | 15°36 |
| W22 | 2 2 18 | 28°44'38 | 28°41 | 9° 6 | 19°38 | 2° 8 | 23°42 | 1°11 | 25°32 | 22° 5 | 21°45 | 15°37 |
| T 23 | 2 6 15 | 29°44'20 | 29°43 | 13°18 | 21°15 | 2°42 | 23°47 | 1°13 | 25°33 | 22° 5 | 21°45 | 15°38 |
| F 24 | 2 10 11 | 0♄44'05 | 0♄44 | 17°37 | 22°53 | 3°17 | 23°51 | 1°15 | 25°33 | 22° 5 | 21°46 | 15°38 |
| S 25 | 2 14 8 | 1°43'52 | 1°46 | 22° 5 | 24°30 | 3°52 | 23°56 | 1°17 | 25°34 | 22° 6 | 21°46 | 15°39 |
| S 26 | 2 18 5 | 2°43'40 | 2°48 | 26°41 | 26° 7 | 4°26 | 24° 0 | 1°19 | 25°35 | 22° 6 | 21°47 | 15°40 |
| M27 | 2 22 1 | 3°43'31 | 3°49 | 1♄26 | 27°45 | 5° 1 | 24° 5 | 1°21 | 25°36 | 22° 6 | 21°47 | 15°41 |
| T 28 | 2 25 58 | 4°43'24 | 4°51 | 6°19 | 29°22 | 5°36 | 24°10 | 1°23 | 25°36 | 22° 7 | 21°48 | 15°41 |
| W29 | 2 29 54 | 5°43'19 | 5°52 | 11°21 | 0♄59 | 6°11 | 24°14 | 1°25 | 25°37 | 22° 7 | 21°48 | 15°42 |
| T 30 | 2 33 51 | 6°43'17 | 6°52 | 16°33 | 2°37 | 6°46 | 24°19 | 1°27 | 25°38 | 22° 8 | 21°48 | 15°43 |
| F 31 | 2 37 47 | 7♄43'16 | 7♄52 | 21♄54 | 4♄14 | 7♄21 | 24♄23 | 1♄29 | 25♄39 | 22♄ 8 | 21♄49 | 15♄43 |

Delta T = 51.18 sec.

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SWISS EPHEMERIS for the year 1980
heliocentric

NOVEMBER 1980

00:00 UT

| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♄ |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| S 1 | 2 41 44 | 8♃43'18 | 8♃52 | 27♃23 | 5♁52 | 7♃56 | 24♃28 | 1♁31 | 25♁39 | 22♃8 | 21♁49 | 15♃44 |
| S 2 | 2 45 40 | 9°43'21 | 9°52 | 3♃ 2 | 7°29 | 8°31 | 24°32 | 1°33 | 25°40 | 22° 9 | 21°50 | 15°45 |
| M 3 | 2 49 37 | 10°43'27 | 10°51 | 8°48 | 9° 7 | 9° 6 | 24°37 | 1°35 | 25°41 | 22° 9 | 21°50 | 15°46 |
| T 4 | 2 53 34 | 11°43'35 | 11°50 | 14°43 | 10°44 | 9°42 | 24°41 | 1°37 | 25°42 | 22° 9 | 21°50 | 15°46 |
| W 5 | 2 57 30 | 12°43'45 | 12°49 | 20°44 | 12°22 | 10°17 | 24°46 | 1°39 | 25°42 | 22°10 | 21°51 | 15°47 |
| T 6 | 3 1 127 | 13°43'57 | 13°47 | 26°52 | 13°59 | 10°52 | 24°51 | 1°41 | 25°43 | 22°10 | 21°51 | 15°48 |
| F 7 | 3 5 23 | 14°44'10 | 14°46 | 3♁ 4 | 15°37 | 11°28 | 24°55 | 1°43 | 25°44 | 22°10 | 21°52 | 15°48 |
| S 8 | 3 9 20 | 15°44'26 | 15°44 | 9°20 | 17°14 | 12° 3 | 25° 0 | 1°46 | 25°45 | 22°11 | 21°52 | 15°49 |
| S 9 | 3 13 16 | 16°44'43 | 16°43 | 15°39 | 18°52 | 12°39 | 25° 4 | 1°48 | 25°45 | 22°11 | 21°53 | 15°50 |
| M10 | 3 17 13 | 17°45'02 | 17°41 | 21°58 | 20°29 | 13°14 | 25° 9 | 1°50 | 25°46 | 22°11 | 21°53 | 15°51 |
| T 11 | 3 21 9 | 18°45'23 | 18°40 | 28°17 | 22° 7 | 13°50 | 25°13 | 1°52 | 25°47 | 22°12 | 21°53 | 15°51 |
| W12 | 3 25 6 | 19°45'45 | 19°39 | 4♁33 | 23°44 | 14°26 | 25°18 | 1°54 | 25°47 | 22°12 | 21°54 | 15°52 |
| T 13 | 3 29 3 | 20°46'09 | 20°38 | 10°46 | 25°22 | 15° 1 | 25°23 | 1°56 | 25°48 | 22°13 | 21°54 | 15°53 |
| F 14 | 3 32 59 | 21°46'34 | 21°38 | 16°54 | 27° 0 | 15°37 | 25°27 | 1°58 | 25°49 | 22°13 | 21°55 | 15°53 |
| S 15 | 3 36 56 | 22°47'01 | 22°38 | 22°56 | 28°37 | 16°13 | 25°32 | 2° 0 | 25°50 | 22°13 | 21°55 | 15°54 |
| S 16 | 3 40 52 | 23°47'28 | 23°39 | 28°50 | 0♁15 | 16°49 | 25°36 | 2° 2 | 25°50 | 22°14 | 21°55 | 15°55 |
| M17 | 3 44 49 | 24°47'57 | 24°40 | 4♁36 | 1°52 | 17°25 | 25°41 | 2° 4 | 25°51 | 22°14 | 21°56 | 15°56 |
| T 18 | 3 48 45 | 25°48'27 | 25°41 | 10°14 | 3°30 | 18° 1 | 25°45 | 2° 6 | 25°52 | 22°14 | 21°56 | 15°56 |
| W19 | 3 52 42 | 26°48'59 | 26°43 | 15°42 | 5° 7 | 18°37 | 25°50 | 2° 8 | 25°53 | 22°15 | 21°57 | 15°57 |
| T 20 | 3 56 38 | 27°49'31 | 27°45 | 21° 1 | 6°45 | 19°13 | 25°54 | 2°10 | 25°53 | 22°15 | 21°57 | 15°58 |
| F 21 | 4 0 35 | 28°50'05 | 28°48 | 26°10 | 8°22 | 19°49 | 25°59 | 2°12 | 25°54 | 22°15 | 21°58 | 15°58 |
| S 22 | 4 4 32 | 29°50'41 | 29°50 | 1♁ 9 | 10° 0 | 20°25 | 26° 4 | 2°14 | 25°55 | 22°16 | 21°58 | 15°59 |
| S 23 | 4 8 28 | 0♁51'18 | 0♁53 | 5°59 | 11°37 | 21° 1 | 26° 8 | 2°16 | 25°56 | 22°16 | 21°58 | 16° 0 |
| M24 | 4 12 25 | 1°51'56 | 1°55 | 10°40 | 13°14 | 21°38 | 26°13 | 2°18 | 25°56 | 22°16 | 21°59 | 16° 1 |
| T 25 | 4 16 21 | 2°52'36 | 2°58 | 15°12 | 14°52 | 22°14 | 26°17 | 2°20 | 25°57 | 22°17 | 21°59 | 16° 1 |
| W26 | 4 20 18 | 3°53'18 | 4° 0 | 19°34 | 16°29 | 22°50 | 26°22 | 2°22 | 25°58 | 22°17 | 22° 0 | 16° 2 |
| T 27 | 4 24 14 | 4°54'01 | 5° 2 | 23°49 | 18° 7 | 23°27 | 26°26 | 2°24 | 25°59 | 22°18 | 22° 0 | 16° 3 |
| F 28 | 4 28 11 | 5°54'45 | 6° 3 | 27°56 | 19°44 | 24° 3 | 26°31 | 2°26 | 25°59 | 22°18 | 22° 1 | 16° 4 |
| S 29 | 4 32 7 | 6°55'31 | 7° 5 | 1♁55 | 21°21 | 24°40 | 26°36 | 2°28 | 26° 0 | 22°18 | 22° 1 | 16° 4 |
| S 30 | 4 36 4 | 7♁56'19 | 8♁ 6 | 5♁47 | 22♁59 | 25♁16 | 26♁40 | 2♁30 | 26♁ 1 | 22♁19 | 22♁ 1 | 16♁ 5 |

Delta T = 51.25 sec.

DECEMBER 1980

00:00 UT

| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♄ |
|------|---------|----------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|
| M 1 | 4 40 1 | 8♁57'07 | 9♁ 6 | 9♁33 | 24♁36 | 25♁53 | 26♁45 | 2♁32 | 26♁ 1 | 22♁19 | 22♁ 2 | 16♁ 6 |
| T 2 | 4 43 57 | 9°57'58 | 10° 6 | 13°12 | 26°13 | 26°29 | 26°49 | 2°34 | 26° 2 | 22°19 | 22° 2 | 16° 6 |
| W 3 | 4 47 54 | 10°58'50 | 11° 6 | 10°46 | 27°50 | 27° 6 | 26°54 | 2°36 | 26° 3 | 22°20 | 22° 3 | 16° 7 |
| T 4 | 4 51 50 | 11°59'43 | 12° 6 | 20°15 | 29°28 | 27°43 | 26°58 | 2°38 | 26° 4 | 22°20 | 22° 3 | 16° 8 |
| F 5 | 4 55 47 | 13° 0'37 | 13° 5 | 23°38 | 1♁ 5 | 28°19 | 27° 3 | 2°40 | 26° 4 | 22°20 | 22° 3 | 16° 9 |
| S 6 | 4 59 43 | 14° 1'33 | 14° 4 | 26°57 | 2°42 | 28°56 | 27° 7 | 2°42 | 26° 5 | 22°21 | 22° 4 | 16° 9 |
| S 7 | 5 3 40 | 15° 2'29 | 15° 4 | 0♁11 | 4°19 | 29°33 | 27°12 | 2°44 | 26° 6 | 22°21 | 22° 4 | 16°10 |
| M 8 | 5 7 36 | 16° 3'27 | 16° 3 | 3°22 | 5°56 | 0♁10 | 27°17 | 2°46 | 26° 7 | 22°21 | 22° 5 | 16°11 |
| T 9 | 5 11 33 | 17° 4'26 | 17° 2 | 6°29 | 7°33 | 0°47 | 27°21 | 2°48 | 26° 7 | 22°22 | 22° 5 | 16°11 |
| W10 | 5 15 30 | 18° 5'25 | 18° 1 | 9°33 | 9°10 | 1°24 | 27°26 | 2°50 | 26° 8 | 22°22 | 22° 6 | 16°12 |
| T 11 | 5 19 26 | 19° 6'25 | 19° 1 | 12°34 | 10°47 | 2° 1 | 27°30 | 2°52 | 26° 9 | 22°23 | 22° 6 | 16°13 |
| F 12 | 5 23 23 | 20° 7'26 | 20° 0 | 15°32 | 12°24 | 2°38 | 27°35 | 2°54 | 26°10 | 22°23 | 22° 6 | 16°14 |
| S 13 | 5 27 19 | 21° 8'28 | 21° 1 | 18°28 | 14° 1 | 3°15 | 27°39 | 2°56 | 26°10 | 22°23 | 22° 7 | 16°14 |
| S 14 | 5 31 16 | 22° 9'30 | 22° 1 | 21°22 | 15°37 | 3°52 | 27°44 | 2°58 | 26°11 | 22°24 | 22° 7 | 16°15 |
| M15 | 5 35 12 | 23°10'32 | 23° 2 | 24°13 | 17°14 | 4°29 | 27°48 | 3° 0 | 26°12 | 22°24 | 22° 8 | 16°16 |
| T 16 | 5 39 9 | 24°11'35 | 24° 3 | 27° 3 | 18°51 | 5° 6 | 27°53 | 3° 2 | 26°13 | 22°24 | 22° 8 | 16°16 |
| W17 | 5 43 5 | 25°12'38 | 25° 5 | 29°52 | 20°28 | 5°44 | 27°58 | 3° 4 | 26°13 | 22°25 | 22° 9 | 16°17 |
| T 18 | 5 47 2 | 26°13'41 | 26° 7 | 2♁40 | 22° 4 | 6°21 | 28° 2 | 3° 6 | 26°14 | 22°25 | 22° 9 | 16°18 |
| F 19 | 5 50 59 | 27°14'45 | 27°10 | 5°26 | 23°41 | 6°58 | 28° 7 | 3° 8 | 26°15 | 22°25 | 22° 9 | 16°19 |
| S 20 | 5 54 55 | 28°15'49 | 28°12 | 8°12 | 25°17 | 7°36 | 28°11 | 3°10 | 26°15 | 22°26 | 22°10 | 16°19 |
| S 21 | 5 58 52 | 29°16'54 | 29°15 | 10°57 | 26°54 | 8°13 | 28°16 | 3°12 | 26°16 | 22°26 | 22°10 | 16°20 |
| M22 | 6 2 48 | 0♁17'59 | 0♁18 | 13°42 | 28°30 | 8°50 | 28°20 | 3°14 | 26°17 | 22°26 | 22°11 | 16°21 |
| T 23 | 6 6 45 | 1°19'05 | 1°22 | 16°26 | 0♁ 7 | 9°28 | 28°25 | 3°16 | 26°18 | 22°27 | 22°11 | 16°22 |
| W24 | 6 10 41 | 2°20'11 | 2°24 | 19°11 | 1°43 | 10° 5 | 28°29 | 3°18 | 26°18 | 22°27 | 22°11 | 16°22 |
| T 25 | 6 14 38 | 3°21'17 | 3°27 | 21°56 | 3°20 | 10°43 | 28°34 | 3°20 | 26°19 | 22°28 | 22°12 | 16°23 |
| F 26 | 6 18 34 | 4°22'24 | 4°30 | 24°41 | 4°56 | 11°20 | 28°39 | 3°22 | 26°20 | 22°28 | 22°12 | 16°24 |
| S 27 | 6 22 31 | 5°23'32 | 5°32 | 27°28 | 6°32 | 11°58 | 28°43 | 3°24 | 26°21 | 22°28 | 22°13 | 16°24 |
| S 28 | 6 26 28 | 6°24'40 | 6°34 | 0♁15 | 8° 8 | 12°35 | 28°48 | 3°27 | 26°21 | 22°29 | 22°13 | 16°25 |
| M29 | 6 30 24 | 7°25'48 | 7°35 | 3° 3 | 9°44 | 13°13 | 28°52 | 3°29 | 26°22 | 22°29 | 22°14 | 16°26 |
| T 30 | 6 34 21 | 8°26'57 | 8°36 | 5°52 | 11°21 | 13°51 | 28°57 | 3°31 | 26°23 | 22°29 | 22°14 | 16°27 |
| W31 | 6 38 17 | 9♁28'07 | 9♁37 | 8♁43 | 12♁57 | 14♁28 | 29♁ 1 | 3♁33 | 26♁24 | 22♁30 | 22♁14 | 16♁27 |

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