

SWISS EPHEMERIS for the year 1999

JANUARY 1999

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | |
|------|---------|-----------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|---|---|---|---|---|---|---|--|
| F 1 | 6 40 49 | 10♋ 6'21 | 24♏ 58 | 21♌ 16 | 25♎ 23 | 18♊ 23 | 21♏ 56 | 26♍ 46 | 10♌ 57 | 1♌ 4 | 9♌ 7 | 22°R52 | 24♏ 24 | 12♎ 35 | 29♎ 18 | | | | | | | | |
| S 2 | 6 44 46 | 11° 7'28 | 9♎ 33 | 22°40 | 26°38 | 18°53 | 22° 5 | 26°47 | 11° 1 | 1° 6 | 9° 9 | 22♏ 45 | 24°21 | 12°42 | 29°25 | | | | | | | | |
| S 3 | 6 48 42 | 12° 8'36 | 23°51 | 24° 5 | 27°53 | 19°22 | 22°14 | 26°47 | 11° 4 | 1° 8 | 9°11 | 22°40 | 24°17 | 12°49 | 29°31 | | | | | | | | |
| M 4 | 6 52 39 | 13° 9'44 | 7♏ 47 | 25°31 | 29° 9 | 19°51 | 22°23 | 26°48 | 11° 7 | 1°10 | 9°13 | 22°37 | 24°14 | 12°55 | 29°38 | | | | | | | | |
| T 5 | 6 56 35 | 14°10'52 | 21°19 | 26°58 | 0♌ 24 | 20°21 | 22°33 | 26°48 | 11°10 | 1°12 | 9°15 | 22°D36 | 24°11 | 13° 2 | 29°44 | | | | | | | | |
| W 6 | 7 0 32 | 15°12'01 | 4♏ 26 | 28°25 | 1°39 | 20°50 | 22°42 | 26°49 | 11°13 | 1°14 | 9°17 | 22°37 | 24° 8 | 13° 9 | 29°51 | | | | | | | | |
| T 7 | 7 4 28 | 16°13'09 | 17° 9 | 29°52 | 2°54 | 21°18 | 22°52 | 26°50 | 11°17 | 1°17 | 9°19 | 22°38 | 24° 5 | 13°16 | 29°57 | | | | | | | | |
| F 8 | 7 8 25 | 17°14'17 | 29°33 | 1♎ 21 | 4° 9 | 21°47 | 23° 1 | 26°51 | 11°20 | 1°19 | 9°21 | 22°40 | 24° 2 | 13°22 | 0♌ 4 | | | | | | | | |
| S 9 | 7 12 21 | 18°15'26 | 11♌ 42 | 2°50 | 5°24 | 22°15 | 23°11 | 26°52 | 11°23 | 1°21 | 9°23 | 22°41 | 23°58 | 13°29 | 0°10 | | | | | | | | |
| S 10 | 7 16 18 | 19°16'34 | 23°39 | 4°19 | 6°39 | 22°44 | 23°21 | 26°53 | 11°26 | 1°23 | 9°25 | 22°R42 | 23°55 | 13°36 | 0°16 | | | | | | | | |
| M 11 | 7 20 15 | 20°17'43 | 5♎ 32 | 5°49 | 7°55 | 23°12 | 23°31 | 26°55 | 11°30 | 1°26 | 9°27 | 22°40 | 23°52 | 13°42 | 0°22 | | | | | | | | |
| T 12 | 7 24 11 | 21°18'51 | 17°23 | 7°20 | 9°10 | 23°40 | 23°41 | 26°56 | 11°33 | 1°28 | 9°29 | 22°37 | 23°49 | 13°49 | 0°28 | | | | | | | | |
| W 13 | 7 28 8 | 22°20'00 | 29°19 | 8°51 | 10°25 | 24° 7 | 23°51 | 26°57 | 11°36 | 1°30 | 9°31 | 22°33 | 23°46 | 13°56 | 0°34 | | | | | | | | |
| T 14 | 7 32 4 | 23°21'08 | 11♌ 21 | 10°22 | 11°40 | 24°35 | 24° 2 | 26°59 | 11°40 | 1°32 | 9°32 | 22°28 | 23°42 | 14° 3 | 0°40 | | | | | | | | |
| F 15 | 7 36 1 | 24°22'17 | 23°34 | 11°54 | 12°55 | 25° 2 | 24°12 | 27° 1 | 11°43 | 1°35 | 9°34 | 22°23 | 23°39 | 14° 9 | 0°46 | | | | | | | | |
| S 16 | 7 39 57 | 25°23'25 | 6♎ 0 | 13°27 | 14°10 | 25°29 | 24°23 | 27° 3 | 11°46 | 1°37 | 9°36 | 22°18 | 23°36 | 14°16 | 0°52 | | | | | | | | |
| S 17 | 7 43 54 | 26°24'32 | 18°39 | 15° 0 | 15°25 | 25°56 | 24°34 | 27° 5 | 11°50 | 1°39 | 9°38 | 22°14 | 23°33 | 14°23 | 0°57 | | | | | | | | |
| M 18 | 7 47 50 | 27°25'40 | 1♌ 31 | 16°33 | 16°40 | 26°23 | 24°44 | 27° 7 | 11°53 | 1°41 | 9°40 | 22°11 | 23°30 | 14°29 | 1° 3 | | | | | | | | |
| T 19 | 7 51 47 | 28°26'46 | 14°38 | 18° 7 | 17°55 | 26°49 | 24°55 | 27° 9 | 11°57 | 1°44 | 9°41 | 22°10 | 23°27 | 14°36 | 1° 9 | | | | | | | | |
| W 20 | 7 55 44 | 29°27'52 | 27°57 | 19°42 | 19°10 | 27°16 | 25° 7 | 27°11 | 12° 0 | 1°46 | 9°43 | 22°D10 | 23°23 | 14°43 | 1°14 | | | | | | | | |
| T 21 | 7 59 40 | 0♌ 28'57 | 11♏ 28 | 21°17 | 20°25 | 27°42 | 25°18 | 27°14 | 12° 4 | 1°48 | 9°45 | 22°11 | 23°20 | 14°50 | 1°20 | | | | | | | | |
| F 22 | 8 3 37 | 1°30'02 | 25°10 | 22°52 | 21°40 | 28° 7 | 25°29 | 27°16 | 12° 7 | 1°51 | 9°46 | 22°12 | 23°17 | 14°56 | 1°25 | | | | | | | | |
| S 23 | 8 7 33 | 2°31'05 | 9♍ 1 | 24°29 | 22°55 | 28°33 | 25°40 | 27°19 | 12°11 | 1°53 | 9°48 | 22°14 | 23°14 | 15° 3 | 1°30 | | | | | | | | |
| S 24 | 8 11 30 | 3°32'07 | 23° 2 | 26° 6 | 24°10 | 28°58 | 25°52 | 27°21 | 12°14 | 1°55 | 9°50 | 22°15 | 23°11 | 15°10 | 1°35 | | | | | | | | |
| M 25 | 8 15 26 | 4°33'09 | 7♎ 9 | 27°43 | 25°25 | 29°23 | 26° 3 | 27°24 | 12°17 | 1°57 | 9°51 | 22°R15 | 23° 8 | 15°17 | 1°40 | | | | | | | | |
| T 26 | 8 19 23 | 5°34'09 | 21°23 | 29°21 | 26°40 | 29°48 | 26°15 | 27°27 | 12°21 | 2° 0 | 9°53 | 22°14 | 23° 4 | 15°23 | 1°45 | | | | | | | | |
| W 27 | 8 23 19 | 6°35'08 | 5♏ 40 | 1♌ 0 | 27°54 | 0♎ 12 | 26°27 | 27°30 | 12°24 | 2° 2 | 9°54 | 22°13 | 23° 1 | 15°30 | 1°50 | | | | | | | | |
| T 28 | 8 27 16 | 7°36'06 | 19°57 | 2°39 | 29° 9 | 0°36 | 26°39 | 27°33 | 12°28 | 2° 4 | 9°56 | 22°11 | 22°58 | 15°37 | 1°55 | | | | | | | | |
| F 29 | 8 31 13 | 8°37'03 | 4♎ 10 | 4°19 | 0♏ 24 | 1° 0 | 26°51 | 27°36 | 12°31 | 2° 6 | 9°57 | 22° 9 | 22°55 | 15°43 | 2° 0 | | | | | | | | |
| S 30 | 8 35 9 | 9°37'59 | 18°16 | 5°59 | 1°39 | 1°24 | 27° 3 | 27°40 | 12°35 | 2° 9 | 9°59 | 22° 8 | 22°52 | 15°50 | 2° 5 | | | | | | | | |
| S 31 | 8 39 6 | 10♌ 38'54 | 2♏ 9 | 7♌ 41 | 2♏ 54 | 1♎ 47 | 27♏ 15 | 27♍ 43 | 12♌ 38 | 2♌ 11 | 10♌ 0 | 22♏ 6 | 22♏ 48 | 15♎ 57 | 2♌ 9 | | | | | | | | |

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | |
|------|---------|-----------|--------|-------|-------|-------|--------|--------|--------|-------|-------|--------|--------|-------|-------|---|---|---|---|---|---|---|--|
| M 1 | 8 43 2 | 11♌ 39'48 | 15♏ 47 | 9♌ 23 | 4♏ 8 | 2♎ 11 | 27♏ 27 | 27♍ 47 | 12♌ 42 | 2♌ 13 | 10♌ 1 | 22°D 6 | 22♏ 45 | 16♎ 4 | 2♌ 14 | | | | | | | | |
| T 2 | 8 46 59 | 12°40'40 | 29° 7 | 11° 5 | 5°23 | 2°33 | 27°39 | 27°50 | 12°45 | 2°15 | 10° 3 | 22♏ 6 | 22°42 | 16°10 | 2°18 | | | | | | | | |
| W 3 | 8 50 55 | 13°41'32 | 12♏ 8 | 12°49 | 6°38 | 2°56 | 27°52 | 27°54 | 12°49 | 2°18 | 10° 4 | 22° 6 | 22°39 | 16°17 | 2°22 | | | | | | | | |
| T 4 | 8 54 52 | 14°42'23 | 24°50 | 14°33 | 7°52 | 3°18 | 28° 4 | 27°58 | 12°52 | 2°20 | 10° 5 | 22° 7 | 22°36 | 16°24 | 2°27 | | | | | | | | |
| F 5 | 8 58 48 | 15°43'13 | 7♌ 15 | 16°17 | 9° 7 | 3°40 | 28°16 | 28° 2 | 12°56 | 2°22 | 10° 7 | 22° 8 | 22°33 | 16°30 | 2°31 | | | | | | | | |
| S 6 | 9 2 45 | 16°44'01 | 19°26 | 18° 3 | 10°21 | 4° 1 | 28°29 | 28° 6 | 12°59 | 2°24 | 10° 8 | 22° 8 | 22°29 | 16°37 | 2°35 | | | | | | | | |
| S 7 | 9 6 42 | 17°44'49 | 1♎ 27 | 19°49 | 11°36 | 4°23 | 28°42 | 28°10 | 13° 3 | 2°27 | 10° 9 | 22° 9 | 22°26 | 16°44 | 2°39 | | | | | | | | |
| M 8 | 9 10 38 | 18°45'36 | 13°21 | 21°36 | 12°50 | 4°43 | 28°54 | 28°14 | 13° 6 | 2°29 | 10°10 | 22° 9 | 22°23 | 16°51 | 2°43 | | | | | | | | |
| T 9 | 9 14 35 | 19°46'22 | 25°13 | 23°24 | 14° 5 | 5° 4 | 29° 7 | 28°18 | 13°10 | 2°31 | 10°11 | 22°R 9 | 22°20 | 16°57 | 2°46 | | | | | | | | |
| W 10 | 9 18 31 | 20°47'08 | 7♌ 9 | 25°12 | 15°19 | 5°24 | 29°20 | 28°22 | 13°13 | 2°33 | 10°12 | 22° 9 | 22°17 | 17° 4 | 2°50 | | | | | | | | |
| T 11 | 9 22 28 | 21°47'52 | 19°12 | 27° 0 | 16°34 | 5°44 | 29°33 | 28°27 | 13°17 | 2°35 | 10°13 | 22°D 9 | 22°14 | 17°11 | 2°54 | | | | | | | | |
| F 12 | 9 26 24 | 22°48'35 | 1♎ 28 | 28°49 | 17°48 | 6° 3 | 29°46 | 28°31 | 13°20 | 2°38 | 10°14 | 22° 9 | 22°10 | 17°18 | 2°57 | | | | | | | | |
| S 13 | 9 30 21 | 23°49'16 | 13°58 | 0♏ 39 | 19° 2 | 6°22 | 29°59 | 28°36 | 13°24 | 2°40 | 10°15 | 22° 9 | 22° 7 | 17°24 | 3° 0 | | | | | | | | |
| S 14 | 9 34 17 | 24°49'57 | 26°47 | 2°29 | 20°17 | 6°41 | 0♍ 12 | 28°40 | 13°27 | 2°42 | 10°16 | 22° 9 | 22° 4 | 17°31 | 3° 4 | | | | | | | | |
| M 15 | 9 38 14 | 25°50'37 | 9♌ 54 | 4°19 | 21°31 | 6°59 | 0°26 | 28°45 | 13°31 | 2°44 | 10°17 | 22°10 | 22° 1 | 17°38 | 3° 7 | | | | | | | | |
| T 16 | 9 42 11 | 26°51'14 | 23°21 | 6° 9 | 22°45 | 7°17 | 0°39 | 28°50 | 13°34 | 2°46 | 10°18 | 22°R10 | 21°58 | 17°44 | 3°10 | | | | | | | | |
| W 17 | 9 46 7 | 27°51'51 | 7♏ 6 | 7°59 | 23°59 | 7°35 | 0°52 | 28°55 | 13°38 | 2°48 | 10°19 | 22°10 | 21°54 | 17°51 | 3°13 | | | | | | | | |
| T 18 | 9 50 4 | 28°52'26 | 21° 6 | 9°48 | 25°14 | 7°51 | 1° 6 | 29° 0 | 13°41 | 2°50 | 10°20 | 22° 9 | 21°51 | 17°58 | 3°16 | | | | | | | | |
| F 19 | 9 54 0 | 29°52'59 | 5♍ 16 | 11°37 | 26°28 | 8° 8 | 1°19 | 29° 5 | 13°44 | 2°53 | 10°21 | 22° 8 | 21°48 | 18° 5 | 3°18 | | | | | | | | |
| S 20 | 9 57 57 | 0♏ 53'31 | 19°34 | 13°25 | 27°42 | 8°24 | 1°33 | 29°10 | 13°48 | 2°55 | 10°22 | 22° 7 | 21°45 | 18°11 | 3°21 | | | | | | | | |
| S 21 | 10 1 53 | 1°54'01 | 3♌ 54 | 15°12 | 28°56 | 8°40 | 1°46 | 29°15 | 13°51 | 2°57 | 10°22 | 22° 6 | 21°42 | 18°18 | 3°24 | | | | | | | | |

SWISS EPHEMERIS for the year 1999

MARCH 1999

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|------|----------|------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| M 1 | 10 33 26 | 9 ^h 56 ^m 50 | 24 ^h Ω31 | 27 ^h κ44 | 8 ^h Υ46 | 10 ^h ♁27 | 3 ^h Υ36 | 29 ^h Υ59 | 14 ^h ♁18 | 3 ^h ♁13 | 10 ^h ♁27 | 22 ^h ♁10 | 21 ^h Ω16 | 19 ^h ♁12 | 3 ^h ♁40 |
| T 2 | 10 37 22 | 10 ^h 57 ^m 03 | 7 ^h ♁31 | 28 ^h 57 | 10 ^h 0 | 10 ^h 38 | 3 ^h 50 | 0 ^h ♁ 5 | 14 ^h 21 | 3 ^h 14 | 10 ^h 27 | 22 ^h Ω 9 | 21 ^h 13 | 19 ^h 19 | 3 ^h 42 |
| W 3 | 10 41 19 | 11 ^h 57 ^m 14 | 20 ^h 17 | 0 ^h Υ 3 | 11 ^h 13 | 10 ^h 49 | 4 ^h 4 | 0 ^h 11 | 14 ^h 24 | 3 ^h 16 | 10 ^h 28 | 22 ^h 7 | 21 ^h 10 | 19 ^h 25 | 3 ^h 43 |
| T 4 | 10 45 15 | 12 ^h 57 ^m 23 | 2 ^h ♁49 | 1 ^h 2 | 12 ^h 27 | 10 ^h 59 | 4 ^h 18 | 0 ^h 17 | 14 ^h 27 | 3 ^h 18 | 10 ^h 28 | 22 ^h 5 | 21 ^h 7 | 19 ^h 32 | 3 ^h 45 |
| F 5 | 10 49 12 | 13 ^h 57 ^m 30 | 15 ^h 9 | 1 ^h 54 | 13 ^h 40 | 11 ^h 8 | 4 ^h 32 | 0 ^h 23 | 14 ^h 30 | 3 ^h 20 | 10 ^h 28 | 22 ^h 1 | 21 ^h 4 | 19 ^h 39 | 3 ^h 46 |
| S 6 | 10 53 8 | 14 ^h 57 ^m 36 | 27 ^h 18 | 2 ^h 37 | 14 ^h 54 | 11 ^h 17 | 4 ^h 46 | 0 ^h 30 | 14 ^h 33 | 3 ^h 22 | 10 ^h 29 | 21 ^h 57 | 21 ^h 0 | 19 ^h 45 | 3 ^h 47 |
| S 7 | 10 57 5 | 15 ^h 57 ^m 40 | 9 ^h ♁18 | 3 ^h 12 | 16 ^h 7 | 11 ^h 25 | 5 ^h 1 | 0 ^h 36 | 14 ^h 37 | 3 ^h 24 | 10 ^h 29 | 21 ^h 53 | 20 ^h 57 | 19 ^h 52 | 3 ^h 48 |
| M 8 | 11 1 2 | 16 ^h 57 ^m 42 | 21 ^h 13 | 3 ^h 38 | 17 ^h 20 | 11 ^h 33 | 5 ^h 15 | 0 ^h 42 | 14 ^h 40 | 3 ^h 25 | 10 ^h 29 | 21 ^h 50 | 20 ^h 54 | 19 ^h 59 | 3 ^h 49 |
| T 9 | 11 4 58 | 17 ^h 57 ^m 43 | 3 ^h ♁ 5 | 3 ^h 55 | 18 ^h 34 | 11 ^h 40 | 5 ^h 29 | 0 ^h 48 | 14 ^h 43 | 3 ^h 27 | 10 ^h 29 | 21 ^h 48 | 20 ^h 51 | 20 ^h 6 | 3 ^h 50 |
| W10 | 11 8 55 | 18 ^h 57 ^m 42 | 15 ^h 0 | 4 ^h ♁ 3 | 19 ^h 47 | 11 ^h 46 | 5 ^h 43 | 0 ^h 54 | 14 ^h 46 | 3 ^h 29 | 10 ^h 30 | 21 ^h D47 | 20 ^h 48 | 20 ^h 12 | 3 ^h 51 |
| T 11 | 11 12 51 | 19 ^h 57 ^m 39 | 27 ^h 1 | 4 ^h 2 | 21 ^h 0 | 11 ^h 52 | 5 ^h 57 | 1 ^h 1 | 14 ^h 49 | 3 ^h 31 | 10 ^h 30 | 21 ^h 47 | 20 ^h 45 | 20 ^h 19 | 3 ^h 52 |
| F 12 | 11 16 48 | 20 ^h 57 ^m 35 | 9 ^h ♁15 | 3 ^h 52 | 22 ^h 13 | 11 ^h 57 | 6 ^h 12 | 1 ^h 7 | 14 ^h 52 | 3 ^h 32 | 10 ^h 30 | 21 ^h 48 | 20 ^h 41 | 20 ^h 26 | 3 ^h 52 |
| S 13 | 11 20 44 | 21 ^h 57 ^m 29 | 21 ^h 44 | 3 ^h 34 | 23 ^h 26 | 12 ^h 1 | 6 ^h 26 | 1 ^h 14 | 14 ^h 55 | 3 ^h 34 | 10 ^h 30 | 21 ^h 50 | 20 ^h 38 | 20 ^h 33 | 3 ^h 53 |
| S 14 | 11 24 41 | 22 ^h 57 ^m 22 | 4 ^h ♁34 | 3 ^h 8 | 24 ^h 39 | 12 ^h 5 | 6 ^h 40 | 1 ^h 20 | 14 ^h 58 | 3 ^h 36 | 10 ^h 30 | 21 ^h 52 | 20 ^h 35 | 20 ^h 39 | 3 ^h 53 |
| M15 | 11 28 37 | 23 ^h 57 ^m 13 | 17 ^h 48 | 2 ^h 34 | 25 ^h 52 | 12 ^h 8 | 6 ^h 55 | 1 ^h 27 | 15 ^h 1 | 3 ^h 37 | 10 ^h 30 | 21 ^h R52 | 20 ^h 32 | 20 ^h 46 | 3 ^h 53 |
| T 16 | 11 32 34 | 24 ^h 57 ^m 02 | 1 ^h κ26 | 1 ^h 55 | 27 ^h 4 | 12 ^h 10 | 7 ^h 9 | 1 ^h 34 | 15 ^h 4 | 3 ^h 39 | 10 ^h 30 | 21 ^h 52 | 20 ^h 29 | 20 ^h 53 | 3 ^h R53 |
| W17 | 11 36 31 | 25 ^h 56 ^m 49 | 15 ^h 29 | 1 ^h 10 | 28 ^h 17 | 12 ^h 11 | 7 ^h 23 | 1 ^h 40 | 15 ^h 6 | 3 ^h 41 | 10 ^h 30 | 21 ^h 50 | 20 ^h 25 | 20 ^h 59 | 3 ^h 53 |
| T 18 | 11 40 27 | 26 ^h 56 ^m 34 | 29 ^h 52 | 0 ^h 20 | 29 ^h 30 | 12 ^h 12 | 7 ^h 38 | 1 ^h 47 | 15 ^h 9 | 3 ^h 42 | 10 ^h 30 | 21 ^h 47 | 20 ^h 22 | 21 ^h 6 | 3 ^h 53 |
| F 19 | 11 44 24 | 27 ^h 56 ^m 17 | 14 ^h Υ31 | 29 ^h κ28 | 0 ^h 42 | 12 ^h R12 | 7 ^h 52 | 1 ^h 54 | 15 ^h 12 | 3 ^h 44 | 10 ^h 29 | 21 ^h 42 | 20 ^h 19 | 21 ^h 13 | 3 ^h 53 |
| S 20 | 11 48 20 | 28 ^h 55 ^m 58 | 29 ^h 18 | 28 ^h 33 | 1 ^h 55 | 12 ^h 11 | 8 ^h 7 | 2 ^h 1 | 15 ^h 15 | 3 ^h 45 | 10 ^h 29 | 21 ^h 36 | 20 ^h 16 | 21 ^h 20 | 3 ^h 53 |
| S 21 | 11 52 17 | 29 ^h 55 ^m 37 | 14 ^h ♁ 5 | 27 ^h 38 | 3 ^h 7 | 12 ^h 10 | 8 ^h 21 | 2 ^h 7 | 15 ^h 18 | 3 ^h 47 | 10 ^h 29 | 21 ^h 30 | 20 ^h 13 | 21 ^h 26 | 3 ^h 52 |
| M22 | 11 56 13 | 0 ^h Υ55 ^m 14 | 28 ^h 44 | 26 ^h 43 | 4 ^h 20 | 12 ^h 8 | 8 ^h 36 | 2 ^h 14 | 15 ^h 20 | 3 ^h 48 | 10 ^h 29 | 21 ^h 26 | 20 ^h 10 | 21 ^h 33 | 3 ^h 52 |
| T 23 | 12 0 10 | 1 ^h 54 ^m 48 | 13 ^h II1 | 25 ^h 50 | 5 ^h 32 | 12 ^h 5 | 8 ^h 50 | 2 ^h 21 | 15 ^h 23 | 3 ^h 49 | 10 ^h 28 | 21 ^h 22 | 20 ^h 6 | 21 ^h 40 | 3 ^h 51 |
| W24 | 12 4 6 | 2 ^h 54 ^m 21 | 27 ^h 21 | 24 ^h 59 | 6 ^h 44 | 12 ^h 1 | 9 ^h 5 | 2 ^h 28 | 15 ^h 26 | 3 ^h 51 | 10 ^h 28 | 21 ^h D21 | 20 ^h 3 | 21 ^h 46 | 3 ^h 50 |
| T 25 | 12 8 3 | 3 ^h 53 ^m 50 | 11 ^h ♁13 | 24 ^h 11 | 7 ^h 57 | 11 ^h 57 | 9 ^h 19 | 2 ^h 35 | 15 ^h 28 | 3 ^h 52 | 10 ^h 28 | 21 ^h 21 | 20 ^h 0 | 21 ^h 53 | 3 ^h 49 |
| F 26 | 12 12 0 | 4 ^h 53 ^m 18 | 24 ^h 47 | 23 ^h 28 | 9 ^h 9 | 11 ^h 52 | 9 ^h 34 | 2 ^h 42 | 15 ^h 31 | 3 ^h 54 | 10 ^h 27 | 21 ^h 22 | 19 ^h 57 | 22 ^h 0 | 3 ^h 48 |
| S 27 | 12 15 56 | 5 ^h 52 ^m 43 | 8 ^h Ω 4 | 22 ^h 49 | 10 ^h 21 | 11 ^h 46 | 9 ^h 48 | 2 ^h 50 | 15 ^h 33 | 3 ^h 55 | 10 ^h 27 | 21 ^h 23 | 19 ^h 54 | 22 ^h 7 | 3 ^h 47 |
| S 28 | 12 19 53 | 6 ^h 52 ^m 06 | 21 ^h 7 | 22 ^h 15 | 11 ^h 33 | 11 ^h 39 | 10 ^h 3 | 2 ^h 57 | 15 ^h 36 | 3 ^h 56 | 10 ^h 26 | 21 ^h R24 | 19 ^h 51 | 22 ^h 13 | 3 ^h 46 |
| M29 | 12 23 49 | 7 ^h 51 ^m 27 | 3 ^h ♁ 5 | 21 ^h 47 | 12 ^h 44 | 11 ^h 31 | 10 ^h 17 | 3 ^h 4 | 15 ^h 38 | 3 ^h 57 | 10 ^h 26 | 21 ^h 23 | 19 ^h 47 | 22 ^h 20 | 3 ^h 45 |
| T 30 | 12 27 46 | 8 ^h 50 ^m 45 | 16 ^h 35 | 21 ^h 25 | 13 ^h 56 | 11 ^h 23 | 10 ^h 32 | 3 ^h 11 | 15 ^h 41 | 3 ^h 59 | 10 ^h 25 | 21 ^h 20 | 19 ^h 44 | 22 ^h 27 | 3 ^h 44 |
| W31 | 12 31 42 | 9 ^h Υ50 ^m 01 | 29 ^h ♁ 4 | 21 ^h κ 8 | 15 ^h ♁ 8 | 11 ^h ♁14 | 10 ^h Υ46 | 3 ^h ♁18 | 15 ^h ♁43 | 4 ^h 0 | 10 ^h ♁25 | 21 ^h Ω15 | 19 ^h Ω41 | 22 ^h ♁34 | 3 ^h ♁42 |

Delta T = 63.54 sec.

APRIL 1999

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ |
|------|----------|-------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| T 1 | 12 35 39 | 10 ^h Υ49 ^m 15 | 11 ^h Ω23 | 20 ^h R58 | 16 ^h ♁19 | 11 ^h R 4 | 11 ^h Υ 1 | 3 ^h ♁26 | 15 ^h ♁45 | 4 ^h 1 | 10 ^h R24 | 21 ^h R 8 | 19 ^h Ω38 | 22 ^h ♁40 | 3 ^h R41 |
| F 2 | 12 39 35 | 11 ^h 48 ^m 27 | 23 ^h 33 | 20 ^h D53 | 17 ^h 31 | 10 ^h ♁54 | 11 ^h 15 | 3 ^h 33 | 15 ^h 48 | 4 ^h 2 | 10 ^h ♁24 | 20 ^h Ω59 | 19 ^h 35 | 22 ^h 47 | 3 ^h ♁39 |
| S 3 | 12 43 32 | 12 ^h 47 ^m 37 | 5 ^h ♁36 | 20 ^h κ53 | 18 ^h 42 | 10 ^h 42 | 11 ^h 30 | 3 ^h 40 | 15 ^h 50 | 4 ^h 3 | 10 ^h 23 | 20 ^h 49 | 19 ^h 31 | 22 ^h 54 | 3 ^h 37 |
| S 4 | 12 47 28 | 13 ^h 46 ^m 45 | 17 ^h 34 | 20 ^h 59 | 19 ^h 54 | 10 ^h 30 | 11 ^h 44 | 3 ^h 48 | 15 ^h 52 | 4 ^h 4 | 10 ^h 22 | 20 ^h 39 | 19 ^h 28 | 23 ^h 0 | 3 ^h 35 |
| M 5 | 12 51 25 | 14 ^h 45 ^m 52 | 29 ^h 27 | 21 ^h 11 | 21 ^h 5 | 10 ^h 18 | 11 ^h 59 | 3 ^h 55 | 15 ^h 54 | 4 ^h 5 | 10 ^h 22 | 20 ^h 29 | 19 ^h 25 | 23 ^h 7 | 3 ^h 33 |
| T 6 | 12 55 22 | 15 ^h 44 ^m 56 | 11 ^h ♁18 | 21 ^h 27 | 22 ^h 16 | 10 ^h 4 | 12 ^h 13 | 4 ^h 2 | 15 ^h 57 | 4 ^h 6 | 10 ^h 21 | 20 ^h 22 | 19 ^h 22 | 23 ^h 14 | 3 ^h 31 |
| W 7 | 12 59 18 | 16 ^h 43 ^m 59 | 23 ^h 12 | 21 ^h 49 | 23 ^h 27 | 9 ^h 50 | 12 ^h 28 | 4 ^h 10 | 15 ^h 59 | 4 ^h 7 | 10 ^h 20 | 20 ^h 17 | 19 ^h 19 | 23 ^h 21 | 3 ^h 29 |
| T 8 | 13 3 15 | 17 ^h 43 ^m 00 | 5 ^h ♁11 | 22 ^h 15 | 24 ^h 38 | 9 ^h 35 | 12 ^h 42 | 4 ^h 17 | 16 ^h 1 | 4 ^h 8 | 10 ^h 19 | 20 ^h 14 | 19 ^h 16 | 23 ^h 27 | 3 ^h 27 |
| F 9 | 13 7 11 | 18 ^h 41 ^m 59 | 17 ^h 22 | 22 ^h 45 | 25 ^h 49 | 9 ^h 19 | 12 ^h 57 | 4 ^h 25 | 16 ^h 3 | 4 ^h 9 | 10 ^h 19 | 20 ^h D13 | 19 ^h 12 | 23 ^h 34 | 3 ^h 25 |
| S 10 | 13 11 8 | 19 ^h 40 ^m 56 | 29 ^h 47 | 23 ^h 20 | 27 ^h 0 | 9 ^h 3 | 13 ^h 11 | 4 ^h 32 | 16 ^h 5 | 4 ^h 10 | 10 ^h 18 | 20 ^h 13 | 19 ^h 9 | 23 ^h 41 | 3 ^h 22 |
| S 11 | 13 15 4 | 20 ^h 39 ^m 52 | 12 ^h ♁33 | 23 ^h 58 | 28 ^h 10 | 8 ^h 46 | 13 ^h 26 | 4 ^h 40 | 16 ^h 7 | 4 ^h 11 | 10 ^h 17 | 20 ^h 14 | 19 ^h 6 | 23 ^h 47 | 3 ^h 20 |
| M12 | 13 19 1 | 21 ^h 38 ^m 46 | 25 ^h 45 | 24 ^h 41 | 29 ^h 21 | 8 ^h 29 | 13 ^h 40 | 4 ^h 47 | 16 ^h 9 | 4 ^h 12 | 10 ^h 16 | 20 ^h R14 | 19 ^h 3 | 23 ^h 54 | 3 ^h 17 |
| T 13 | 13 22 57 | 22 ^h 37 ^m 38 | 9 ^h κ23 | 25 ^h 27 | 0 ^h II31 | 8 ^h 11 | 13 ^h 55 | 4 ^h 55 | 16 ^h 11 | 4 ^h 13 | 10 ^h 15 | 20 ^h 12 | 19 ^h 0 | 24 ^h 1 | 3 ^h 15 |
| W14 | 13 26 54 | 23 ^h 36 ^m 28 | 23 ^h 31 | 26 ^h 16 | 1 ^h 42 | 7 ^h 52 | 14 ^h 9 | 5 ^h 2 | 16 ^h 13 | 4 ^h 13 | 10 ^h 14 | 20 ^h 9 | 18 ^h 56 | 24 ^h 8 | 3 ^h 12 |
| T 15 | 13 30 51 | 24 ^h 35 ^m 16 | 8 ^h Υ 5 | 27 ^h 9 | 2 ^h 52 | 7 ^h 33 | 14 ^h 23 | 5 ^h 10 | 16 ^h 14 | 4 ^h 14 | 10 ^h 13 | 20 ^h 2 | 18 ^h 53 | 24 ^h 14 | 3 ^h 9 |
| F 16 | 13 34 47 | 25 ^h 34 ^m 03 | | | | | | | | | | | | | |

SWISS EPHEMERIS for the year 1999

MAY 1999

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-------|-------|-------|
| S 1 | 14 33 55 | 10♈11'30 | 14♋21 | 16♌59 | 21♍20 | 1°R46 | 18♎11 | 7♏12 | 16♐37 | 4♑22 | 9°R54 | 18°R20 | 18♋2 | 26♌2 | 2°R14 |
| S 2 | 14 37 52 | 11° 9'44 | 26°14 | 18°31 | 22°29 | 1♋23 | 18°25 | 7°20 | 16°38 | 4°22 | 9♌53 | 18♋6 | 17°59 | 26° 9 | 2♌11 |
| M 3 | 14 41 49 | 12° 7'56 | 8♌6 | 20° 6 | 23°37 | 1° 2 | 18°39 | 7°28 | 16°39 | 4°22 | 9°51 | 17°53 | 17°56 | 26°15 | 2° 7 |
| T 4 | 14 45 45 | 13° 6'06 | 19°59 | 21°42 | 24°44 | 0°40 | 18°52 | 7°35 | 16°40 | 4°22 | 9°50 | 17°42 | 17°53 | 26°22 | 2° 3 |
| W 5 | 14 49 42 | 14° 4'15 | 1♌54 | 23°20 | 25°52 | 0°19 | 19° 6 | 7°43 | 16°40 | 4°22 | 9°49 | 17°34 | 17°50 | 26°29 | 1°58 |
| T 6 | 14 53 38 | 15° 2'23 | 13°54 | 25° 0 | 27° 0 | 29♌58 | 19°20 | 7°51 | 16°41 | 4°22 | 9°47 | 17°29 | 17°47 | 26°36 | 1°54 |
| F 7 | 14 57 35 | 16° 0'29 | 26° 4 | 26°42 | 28° 7 | 29°37 | 19°34 | 7°58 | 16°42 | 4°R22 | 9°46 | 17°26 | 17°43 | 26°42 | 1°50 |
| S 8 | 15 1 31 | 16°58'33 | 8♌28 | 28°26 | 29°14 | 29°17 | 19°47 | 8° 6 | 16°43 | 4°22 | 9°44 | 17°25 | 17°40 | 26°49 | 1°46 |
| S 9 | 15 5 28 | 17°56'37 | 21°10 | 0♌12 | 0♌21 | 28°58 | 20° 1 | 8°13 | 16°43 | 4°22 | 9°43 | 17°25 | 17°37 | 26°56 | 1°42 |
| M10 | 15 9 24 | 18°54'38 | 4♌16 | 1°59 | 1°28 | 28°38 | 20°15 | 8°21 | 16°44 | 4°22 | 9°41 | 17°25 | 17°34 | 27° 2 | 1°38 |
| T 11 | 15 13 21 | 19°52'39 | 17°49 | 3°49 | 2°34 | 28°20 | 20°28 | 8°29 | 16°45 | 4°22 | 9°40 | 17°23 | 17°31 | 27° 9 | 1°33 |
| W12 | 15 17 18 | 20°50'38 | 1♌51 | 5°40 | 3°41 | 28° 2 | 20°42 | 8°36 | 16°45 | 4°22 | 9°38 | 17°18 | 17°28 | 27°16 | 1°29 |
| T 13 | 15 21 14 | 21°48'36 | 16°22 | 7°34 | 4°47 | 27°44 | 20°55 | 8°44 | 16°46 | 4°22 | 9°37 | 17°12 | 17°24 | 27°23 | 1°25 |
| F 14 | 15 25 11 | 22°46'32 | 1♌18 | 9°29 | 5°53 | 27°27 | 21° 9 | 8°51 | 16°46 | 4°21 | 9°35 | 17° 3 | 17°21 | 27°29 | 1°21 |
| S 15 | 15 29 7 | 23°44'27 | 16°31 | 11°26 | 6°59 | 27°11 | 21°22 | 8°59 | 16°46 | 4°21 | 9°34 | 16°52 | 17°18 | 27°36 | 1°16 |
| S 16 | 15 33 4 | 24°42'21 | 1♋50 | 13°25 | 8° 5 | 26°55 | 21°35 | 9° 6 | 16°47 | 4°21 | 9°32 | 16°41 | 17°15 | 27°43 | 1°12 |
| M17 | 15 37 0 | 25°40'13 | 17° 5 | 15°26 | 9°10 | 26°41 | 21°48 | 9°14 | 16°47 | 4°20 | 9°30 | 16°31 | 17°12 | 27°49 | 1° 7 |
| T 18 | 15 40 57 | 26°38'04 | 2♌4 | 17°29 | 10°16 | 26°26 | 22° 2 | 9°21 | 16°47 | 4°20 | 9°29 | 16°24 | 17° 8 | 27°56 | 1° 3 |
| W19 | 15 44 53 | 27°35'53 | 16°40 | 19°33 | 11°21 | 26°13 | 22°15 | 9°29 | 16°47 | 4°20 | 9°27 | 16°19 | 17° 5 | 28° 3 | 0°59 |
| T 20 | 15 48 50 | 28°33'40 | 0♌48 | 21°39 | 12°26 | 26° 0 | 22°28 | 9°36 | 16°48 | 4°19 | 9°26 | 16°16 | 17° 2 | 28°10 | 0°54 |
| F 21 | 15 52 47 | 29°31'26 | 14°28 | 23°46 | 13°30 | 25°49 | 22°41 | 9°43 | 16°48 | 4°19 | 9°24 | 16°D15 | 16°59 | 28°16 | 0°50 |
| S 22 | 15 56 43 | 0♋29'10 | 27°42 | 25°54 | 14°35 | 25°37 | 22°54 | 9°51 | 16°R48 | 4°18 | 9°23 | 16°R15 | 16°56 | 28°23 | 0°45 |
| S 23 | 16 0 40 | 1°26'52 | 10♋33 | 28° 4 | 15°39 | 25°27 | 23° 7 | 9°58 | 16°48 | 4°18 | 9°21 | 16°15 | 16°53 | 28°30 | 0°41 |
| M24 | 16 4 36 | 2°24'33 | 23° 4 | 0♋14 | 16°43 | 25°18 | 23°19 | 10° 5 | 16°47 | 4°17 | 9°19 | 16°13 | 16°49 | 28°37 | 0°37 |
| T 25 | 16 8 33 | 3°22'12 | 5♌22 | 2°26 | 17°46 | 25° 9 | 23°32 | 10°13 | 16°47 | 4°17 | 9°18 | 16° 9 | 16°46 | 28°43 | 0°32 |
| W26 | 16 12 29 | 4°19'50 | 17°28 | 4°37 | 18°50 | 25° 1 | 23°45 | 10°20 | 16°47 | 4°16 | 9°16 | 16° 3 | 16°43 | 28°50 | 0°28 |
| T 27 | 16 16 26 | 5°17'26 | 29°28 | 6°49 | 19°53 | 24°54 | 23°58 | 10°27 | 16°47 | 4°16 | 9°14 | 15°54 | 16°40 | 28°57 | 0°23 |
| F 28 | 16 20 22 | 6°15'01 | 11♋23 | 9° 1 | 20°55 | 24°48 | 24°10 | 10°34 | 16°47 | 4°15 | 9°13 | 15°43 | 16°37 | 29° 3 | 0°19 |
| S 29 | 16 24 19 | 7°12'35 | 23°16 | 11°12 | 21°58 | 24°42 | 24°23 | 10°42 | 16°46 | 4°14 | 9°11 | 15°30 | 16°33 | 29°10 | 0°15 |
| S 30 | 16 28 16 | 8°10'07 | 5♌8 | 13°23 | 23° 0 | 24°38 | 24°35 | 10°49 | 16°46 | 4°14 | 9°10 | 15°18 | 16°30 | 29°17 | 0°10 |
| M31 | 16 32 12 | 9♋7'39 | 17♌2 | 15♋33 | 24♌2 | 24♌34 | 24♌47 | 10♌56 | 16♌46 | 4♌13 | 9♌8 | 15♋6 | 16♋27 | 29♌24 | 0♌6 |

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|------|----------|----------|-------|-------|-------|--------|-------|-------|--------|-------|-------|--------|-------|-------|-------|
| T 1 | 16 36 9 | 10♋5'09 | 28♌57 | 17♋42 | 25♌4 | 24°R31 | 24♌59 | 11♌3 | 16°R45 | 4°R12 | 9°R 6 | 14°R56 | 16♋24 | 29♌30 | 0°R 2 |
| W 2 | 16 40 5 | 11° 2'38 | 10♌58 | 19°49 | 26° 5 | 24♌29 | 25°12 | 11°10 | 16°R45 | 4°R11 | 9°R 5 | 14°R49 | 16°21 | 29°37 | 29♌57 |
| T 3 | 16 44 2 | 12° 0'07 | 23° 4 | 21°55 | 27° 6 | 24°27 | 25°24 | 11°17 | 16°44 | 4°11 | 9° 3 | 14°44 | 16°18 | 29°44 | 29°53 |
| F 4 | 16 47 58 | 12°57'35 | 5♌20 | 23°59 | 28° 6 | 24°D27 | 25°36 | 11°24 | 16°43 | 4°10 | 9° 1 | 14°42 | 16°14 | 29°50 | 29°49 |
| S 5 | 16 51 55 | 13°55'01 | 17°48 | 26° 1 | 29° 7 | 24°27 | 25°48 | 11°31 | 16°43 | 4° 9 | 9° 0 | 14°D42 | 16°11 | 29°57 | 29°45 |
| S 6 | 16 55 51 | 14°52'27 | 0♌32 | 28° 1 | 0♌6 | 24°28 | 26° 0 | 11°38 | 16°42 | 4° 8 | 8°58 | 14°42 | 16° 8 | 0♌4 | 29°41 |
| M 7 | 16 59 48 | 15°49'53 | 13°36 | 29°59 | 1° 6 | 24°30 | 26°11 | 11°44 | 16°41 | 4° 7 | 8°56 | 14°R43 | 16° 5 | 0°11 | 29°37 |
| T 8 | 17 3 45 | 16°47'18 | 27° 4 | 1♌54 | 2° 5 | 24°32 | 26°23 | 11°51 | 16°41 | 4° 6 | 8°55 | 14°43 | 16° 2 | 0°17 | 29°33 |
| W 9 | 17 7 41 | 17°44'42 | 10♌58 | 3°47 | 3° 4 | 24°36 | 26°35 | 11°58 | 16°40 | 4° 5 | 8°53 | 14°40 | 15°59 | 0°24 | 29°28 |
| T 10 | 17 11 38 | 18°42'06 | 25°18 | 5°38 | 4° 2 | 24°40 | 26°46 | 12° 5 | 16°39 | 4° 4 | 8°52 | 14°36 | 15°55 | 0°31 | 29°24 |
| F 11 | 17 15 34 | 19°39'29 | 10♌8 | 7°26 | 5° 0 | 24°44 | 26°57 | 12°11 | 16°38 | 4° 3 | 8°50 | 14°30 | 15°52 | 0°37 | 29°21 |
| S 12 | 17 19 31 | 20°36'51 | 25° 4 | 9°12 | 5°58 | 24°50 | 27° 9 | 12°18 | 16°37 | 4° 2 | 8°48 | 14°22 | 15°49 | 0°44 | 29°17 |
| S 13 | 17 23 27 | 21°34'13 | 10♋16 | 10°55 | 6°55 | 24°56 | 27°20 | 12°24 | 16°36 | 4° 1 | 8°47 | 14°14 | 15°46 | 0°51 | 29°13 |
| M14 | 17 27 24 | 22°31'35 | 25°27 | 12°36 | 7°51 | 25° 3 | 27°31 | 12°31 | 16°35 | 4° 0 | 8°45 | 14° 7 | 15°43 | 0°58 | 29° 9 |
| T 15 | 17 31 20 | 23°28'56 | 10♌27 | 14°14 | 8°47 | 25°11 | 27°42 | 12°37 | 16°34 | 3°59 | 8°44 | 14° 2 | 15°39 | 1° 4 | 29° 5 |
| W16 | 17 35 17 | 24°26'16 | 25° 8 | 15°49 | 9°43 | 25°19 | 27°53 | 12°44 | 16°33 | 3°58 | 8°42 | 13°58 | 15°36 | 1°11 | 29° 2 |
| T 17 | 17 39 14 | 25°23'35 | 9♋23 | 17°22 | 10°38 | 25°28 | 28° 4 | 12°50 | 16°32 | 3°57 | 8°41 | 13°D57 | 15°33 | 1°18 | 28°58 |
| F 18 | 17 43 10 | 26°20'53 | 23°10 | 18°53 | 11°33 | 25°38 | 28°15 | 12°57 | 16°30 | 3°55 | 8°39 | 13°57 | 15°30 | 1°25 | 28°54 |
| S 19 | 17 47 7 | 27°18'11 | 6♋30 | 20°20 | 12°27 | 25°49 | 28°25 | 13° 3 | 16°29 | 3°54 | 8°38 | 13°58 | 15°27 | 1°31 | 28°51 |
| S 20 | 17 51 3 | 28°15'27 | 19°25 | 21°45 | 13°20 | 26° 0 | 28°36 | 13° 9 | 16°28 | 3°53 | 8°36 | 13°59 | 15°24 | 1°38 | 28°47 |
| M21 | 17 55 0 | 29°12'43 | 1♌59 | 23° 8 | 14°13 | 26°11 | 28°46 | 13°15 | 16°26 | 3°52 | 8°35 | 13°R59 | 15°20 | 1°45 | 28°44 |
| T 22 | 17 58 56 | 0♌9'58 | 14°16 | 24°27 | 15° 5 | 26°24 | 28°57 | 13°21 | 16°25 | 3°50 | 8°33 | 13°58 | 15°17 | 1°51 | 28°41 |
| W23 | 18 2 53 | 1° 7'13 | 26°21 | 25°44 | 15°57 | 26°37 | 29° 7 | 13°27 | 16°24 | 3°49 | 8°32 | 13°55 | 15°14 | 1°58 | 28°37 |
| T 24 | 18 6 49 | 2° 4'27 | 8♋18 | 26°58 | 16°48 | 26°50 | 29°17 | 13°33 | 16°22 | 3°48 | 8°30 | 13°51 | 15°11 | 2° 5 | 28°34 |
| F 25 | 18 10 46 | 3° 1'40 | 20°11 | 28° 9 | 17°38 | 27° 4 | 29°27 | 13°39 | 16°21 | 3°46 | 8°29 | 13°44 | 15° 8 | 2°12 | 28°31 |
| S 26 | 18 14 43 | 3°58'53 | 2♌3 | 29°17 | 18°27 | 27°19 | 29°37 | 13°45 | 16°19 | 3°45 | 8°27 | 13°38 | 15° 5 | 2°18 | 28°28 |
| S 27 | 18 18 39 | 4°56'05 | 13°57 | 0♋22 | 19°16 | 27°35 | 29°47 | 13°51 | 16°17 | 3°44 | 8°26 | 13°30 | 15° 1 | 2°25 | 28°25 |
| M28 | 18 22 36 | 5°53'17 | 25°54 | 1°24 | 20° 4 | 27°51 | 29°56 | 13°56 | 16°16 | 3°42 | 8°24 | 13°24 | 14°58 | 2°32 | 28°22 |
| T 29 | 18 26 32 | 6°50'29 | 7♌57 | 2°23 | 20°52 | 28° 7 | 0♌6 | 14° 2 | 16°14 | 3°41 | 8°23 | 13°18 | 14°55 | 2°38 | 28°19 |
| W30 | 18 30 29 | 7♌47'40 | 20♌6 | 3♋19 | 21♋38 | 28♌24 | 0♌15 | 14♌8 | 16♌13 | 3♌40 | 8♌22 | 13♋14 | 14♋52 | 2♌45 | 28♌17 |

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SWISS EPHEMERIS for the year 1999

JULY 1999

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|------|----------|----------|-------|-------|-------|-------|------|-------|--------|-------|-------|--------|-------|------|--------|
| T 1 | 18 34 25 | 8♂44'52 | 2♂25 | 4♂11 | 22♂24 | 28♂42 | 0♂24 | 14♂13 | 16°R11 | 3°R38 | 8°R20 | 13°R12 | 14♂49 | 2♂52 | 28°R14 |
| F 2 | 18 38 22 | 9°42'03 | 14°53 | 4°59 | 23° 8 | 29° 0 | 0°34 | 14°19 | 16♂ 9 | 3♂37 | 8♂19 | 13°D12 | 14°45 | 2°59 | 28♂11 |
| S 3 | 18 42 18 | 10°39'14 | 27°34 | 5°45 | 23°52 | 29°18 | 0°43 | 14°24 | 16° 7 | 3°35 | 8°18 | 13♂13 | 14°42 | 3° 5 | 28° 9 |
| S 4 | 18 46 15 | 11°36'26 | 10♂28 | 6°26 | 24°35 | 29°37 | 0°52 | 14°29 | 16° 6 | 3°34 | 8°16 | 13°14 | 14°39 | 3°12 | 28° 6 |
| M 5 | 18 50 12 | 12°33'37 | 23°39 | 7° 3 | 25°17 | 29°57 | 1° 0 | 14°35 | 16° 4 | 3°32 | 8°15 | 13°15 | 14°36 | 3°19 | 28° 4 |
| T 6 | 18 54 8 | 13°30'49 | 7°9 | 7°37 | 25°58 | 0♂17 | 1° 9 | 14°40 | 16° 2 | 3°31 | 8°14 | 13°R16 | 14°33 | 3°25 | 28° 2 |
| W 7 | 18 58 5 | 14°28'01 | 20°58 | 8° 6 | 26°37 | 0°37 | 1°18 | 14°45 | 16° 0 | 3°29 | 8°13 | 13°16 | 14°30 | 3°32 | 28° 0 |
| T 8 | 19 2 1 | 15°25'14 | 5♂ 8 | 8°31 | 27°16 | 0°58 | 1°26 | 14°50 | 15°58 | 3°28 | 8°11 | 13°15 | 14°26 | 3°39 | 27°58 |
| F 9 | 19 5 58 | 16°22'27 | 19°36 | 8°52 | 27°54 | 1°20 | 1°34 | 14°55 | 15°56 | 3°26 | 8°10 | 13°13 | 14°23 | 3°46 | 27°56 |
| S 10 | 19 9 54 | 17°19'40 | 4♂19 | 9° 8 | 28°30 | 1°41 | 1°42 | 15° 0 | 15°54 | 3°25 | 8° 9 | 13°10 | 14°20 | 3°52 | 27°54 |
| S 11 | 19 13 51 | 18°16'54 | 19°10 | 9°20 | 29° 5 | 2° 4 | 1°50 | 15° 5 | 15°52 | 3°23 | 8° 8 | 13° 6 | 14°17 | 3°59 | 27°52 |
| M12 | 19 17 47 | 19°14'08 | 4♂ 3 | 9°27 | 29°39 | 2°27 | 1°58 | 15° 9 | 15°50 | 3°22 | 8° 7 | 13° 3 | 14°14 | 4° 6 | 27°50 |
| T 13 | 19 21 44 | 20°11'22 | 18°49 | 9°R29 | 0♂12 | 2°50 | 2° 6 | 15°14 | 15°48 | 3°20 | 8° 6 | 13° 1 | 14°11 | 4°12 | 27°48 |
| W14 | 19 25 41 | 21° 8'37 | 3♂21 | 9°27 | 0°43 | 3°13 | 2°13 | 15°19 | 15°46 | 3°19 | 8° 5 | 13° 0 | 14° 7 | 4°19 | 27°47 |
| T 15 | 19 29 37 | 22° 5'52 | 17°32 | 9°20 | 1°13 | 3°37 | 2°21 | 15°23 | 15°44 | 3°17 | 8° 3 | 13°D 0 | 14° 4 | 4°26 | 27°45 |
| F 16 | 19 33 34 | 23° 3'07 | 1♂20 | 9° 8 | 1°41 | 4° 2 | 2°28 | 15°28 | 15°42 | 3°15 | 8° 2 | 13° 0 | 14° 1 | 4°33 | 27°44 |
| S 17 | 19 37 30 | 24° 0'22 | 14°43 | 8°51 | 2° 8 | 4°27 | 2°35 | 15°32 | 15°39 | 3°14 | 8° 1 | 13° 2 | 13°58 | 4°39 | 27°43 |
| S 18 | 19 41 27 | 24°57'37 | 27°42 | 8°30 | 2°33 | 4°52 | 2°42 | 15°36 | 15°37 | 3°12 | 8° 0 | 13° 3 | 13°55 | 4°46 | 27°42 |
| M19 | 19 45 23 | 25°54'52 | 10♂20 | 8° 5 | 2°56 | 5°17 | 2°49 | 15°40 | 15°35 | 3°11 | 7°59 | 13° 4 | 13°51 | 4°53 | 27°41 |
| T 20 | 19 49 20 | 26°52'08 | 22°40 | 7°35 | 3°18 | 5°43 | 2°56 | 15°44 | 15°33 | 3° 9 | 7°59 | 13°R 5 | 13°48 | 4°59 | 27°40 |
| W21 | 19 53 16 | 27°49'23 | 4♂46 | 7° 2 | 3°38 | 6°10 | 3° 2 | 15°48 | 15°31 | 3° 7 | 7°58 | 13° 5 | 13°45 | 5° 6 | 27°39 |
| T 22 | 19 57 13 | 28°46'39 | 16°44 | 6°26 | 3°56 | 6°36 | 3° 8 | 15°52 | 15°28 | 3° 6 | 7°57 | 13° 4 | 13°42 | 5°13 | 27°38 |
| F 23 | 20 1 10 | 29°43'56 | 28°37 | 5°47 | 4°12 | 7° 3 | 3°15 | 15°56 | 15°26 | 3° 4 | 7°56 | 13° 2 | 13°39 | 5°20 | 27°37 |
| S 24 | 20 5 6 | 0♂41'12 | 10♂29 | 5° 7 | 4°27 | 7°31 | 3°21 | 16° 0 | 15°24 | 3° 2 | 7°55 | 13° 1 | 13°36 | 5°26 | 27°37 |
| S 25 | 20 9 3 | 1°38'29 | 22°25 | 4°24 | 4°39 | 7°59 | 3°26 | 16° 4 | 15°22 | 3° 1 | 7°54 | 12°59 | 13°32 | 5°33 | 27°36 |
| M26 | 20 12 59 | 2°35'47 | 4♂28 | 3°42 | 4°49 | 8°27 | 3°32 | 16° 7 | 15°19 | 2°59 | 7°54 | 12°58 | 13°29 | 5°40 | 27°36 |
| T 27 | 20 16 56 | 3°33'05 | 16°39 | 2°59 | 4°57 | 8°55 | 3°38 | 16°11 | 15°17 | 2°58 | 7°53 | 12°57 | 13°26 | 5°46 | 27°36 |
| W28 | 20 20 52 | 4°30'23 | 29° 1 | 2°17 | 5° 3 | 9°24 | 3°43 | 16°14 | 15°15 | 2°56 | 7°52 | 12°56 | 13°23 | 5°53 | 27°36 |
| T 29 | 20 24 49 | 5°27'43 | 11♂35 | 1°37 | 5° 6 | 9°53 | 3°48 | 16°17 | 15°12 | 2°54 | 7°51 | 12°D56 | 13°20 | 6° 0 | 27°D36 |
| F 30 | 20 28 45 | 6°25'03 | 24°22 | 0°59 | 5°R 8 | 10°22 | 3°53 | 16°21 | 15°10 | 2°53 | 7°51 | 12°56 | 13°17 | 6° 7 | 27°36 |
| S 31 | 20 32 42 | 7♂22'23 | 7♂22 | 0♂24 | 5♂ 7 | 10♂52 | 3♂58 | 16♂24 | 15♂ 8 | 2♂51 | 7♂50 | 12♂56 | 13♂13 | 6♂13 | 27♂36 |

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AUGUST 1999

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|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|-------|-------|--------|-------|------|-------|
| S 1 | 20 36 39 | 8♂19'45 | 20♂37 | 29°R54 | 5°R 3 | 11♂21 | 4♂ 3 | 16♂27 | 15°R 5 | 2°R49 | 7°R50 | 12♂57 | 13♂10 | 6♂20 | 27♂36 |
| M 2 | 20 40 35 | 9°17'08 | 4°9 | 29♂27 | 4♂58 | 11°52 | 4° 7 | 16°30 | 15♂ 3 | 2♂48 | 7♂49 | 12°57 | 13° 7 | 6°27 | 27°36 |
| T 3 | 20 44 32 | 10°14'32 | 17°46 | 29° 6 | 4°50 | 12°22 | 4°12 | 16°33 | 15° 0 | 2°46 | 7°48 | 12°57 | 13° 4 | 6°33 | 27°37 |
| W 4 | 20 48 28 | 11°11'57 | 1♂40 | 28°49 | 4°39 | 12°53 | 4°16 | 16°35 | 14°58 | 2°45 | 7°48 | 12°57 | 13° 1 | 6°40 | 27°37 |
| T 5 | 20 52 25 | 12° 9'23 | 15°46 | 28°39 | 4°26 | 13°24 | 4°20 | 16°38 | 14°56 | 2°43 | 7°47 | 12°R57 | 12°57 | 6°47 | 27°38 |
| F 6 | 20 56 21 | 13° 6'51 | 0♂ 2 | 28°D35 | 4°11 | 13°55 | 4°23 | 16°40 | 14°53 | 2°41 | 7°47 | 12°D57 | 12°54 | 6°54 | 27°39 |
| S 7 | 21 0 18 | 14° 4'20 | 14°25 | 28°37 | 3°54 | 14°27 | 4°27 | 16°43 | 14°51 | 2°40 | 7°47 | 12°57 | 12°51 | 7° 0 | 27°39 |
| S 8 | 21 4 14 | 15° 1'50 | 28°52 | 28°46 | 3°34 | 14°59 | 4°30 | 16°45 | 14°48 | 2°38 | 7°46 | 12°58 | 12°48 | 7° 7 | 27°40 |
| M 9 | 21 8 11 | 15°59'22 | 13♂19 | 29° 2 | 3°12 | 15°31 | 4°34 | 16°47 | 14°46 | 2°37 | 7°46 | 12°58 | 12°45 | 7°14 | 27°41 |
| T 10 | 21 12 8 | 16°56'54 | 27°40 | 29°25 | 2°48 | 16° 3 | 4°37 | 16°50 | 14°44 | 2°35 | 7°46 | 12°58 | 12°42 | 7°20 | 27°42 |
| W11 | 21 16 4 | 17°54'28 | 11♂51 | 29°54 | 2°22 | 16°36 | 4°40 | 16°52 | 14°41 | 2°34 | 7°45 | 12°R58 | 12°38 | 7°27 | 27°44 |
| T 12 | 21 20 1 | 18°52'03 | 25°47 | 0♂30 | 1°54 | 17° 9 | 4°42 | 16°54 | 14°39 | 2°32 | 7°45 | 12°58 | 12°35 | 7°34 | 27°45 |
| F 13 | 21 23 57 | 19°49'39 | 9♂25 | 1°13 | 1°24 | 17°42 | 4°45 | 16°55 | 14°36 | 2°30 | 7°45 | 12°58 | 12°32 | 7°41 | 27°46 |
| S 14 | 21 27 54 | 20°47'16 | 22°43 | 2° 3 | 0°53 | 18°15 | 4°47 | 16°57 | 14°34 | 2°29 | 7°45 | 12°57 | 12°29 | 7°47 | 27°48 |
| S 15 | 21 31 50 | 21°44'55 | 5♂41 | 2°59 | 0°20 | 18°49 | 4°49 | 16°59 | 14°32 | 2°27 | 7°45 | 12°56 | 12°26 | 7°54 | 27°50 |
| M16 | 21 35 47 | 22°42'34 | 18°19 | 4° 1 | 29♂46 | 19°22 | 4°51 | 17° 0 | 14°29 | 2°26 | 7°44 | 12°55 | 12°23 | 8° 1 | 27°51 |
| T 17 | 21 39 43 | 23°40'14 | 0♂41 | 5°10 | 29°11 | 19°56 | 4°53 | 17° 2 | 14°27 | 2°24 | 7°44 | 12°53 | 12°19 | 8° 7 | 27°53 |
| W18 | 21 43 40 | 24°37'55 | 12°49 | 6°24 | 28°35 | 20°31 | 4°54 | 17° 3 | 14°25 | 2°23 | 7°44 | 12°53 | 12°16 | 8°14 | 27°55 |
| T 19 | 21 47 37 | 25°35'38 | 24°47 | 7°44 | 27°58 | 21° 5 | 4°56 | 17° 4 | 14°22 | 2°21 | 7°D44 | 12°D52 | 12°13 | 8°21 | 27°57 |
| F 20 | 21 51 33 | 26°33'21 | 6♂40 | 9°10 | 27°21 | 21°40 | 4°57 | 17° 5 | 14°20 | 2°20 | 7°44 | 12°53 | 12°10 | 8°27 | 27°59 |
| S 21 | 21 55 30 | 27°31'06 | 18°33 | 10°40 | 26°43 | 22°15 | 4°58 | 17° 6 | 14°18 | 2°19 | 7°44 | 12°53 | 12° 7 | 8°34 | 28° 1 |
| S 22 | 21 59 26 | 28°28'52 | 0♂30 | 12°15 | 26° 6 | 22°50 | 4°58 | 17° 7 | 14°15 | 2°17 | 7°44 | 12°55 | 12° 3 | 8°41 | 28° 4 |
| M23 | 22 3 23 | 29°26'39 | 12°36 | 13°54 | 25°29 | 23°25 | 4°59 | 17° 8 | 14°13 | 2°16 | 7°45 | 12°56 | 12° 0 | 8°48 | 28° 6 |
| T 24 | 22 7 19 | 0♂24'27 | 24°54 | 15°37 | 24°53 | 24° 1 | 4°59 | 17° 9 | 14°11 | 2°14 | 7°45 | 12°57 | 11°57 | 8°54 | 28° 9 |
| W25 | 22 11 16 | 1°22'16 | 7♂27 | 17°23 | 24°17 | 24°37 | 4°R59 | 17° 9 | 14° 9 | 2°13 | 7°45 | 12°R58 | 11°54 | 9° 1 | 28°11 |
| T 26 | 22 15 12 | 2°20'07 | 20°17 | 19°12 | 23°43 | 25°13 | 4°59 | 17°10 | 14° 6 | 2°12 | 7°45 | 12°58 | 11°51 | 9° 8 | 28°14 |
| F 27 | 22 19 9 | 3°17'59 | 3♂24 | 21° 4 | 23° 9 | 25°49 | 4°59 | 17°10 | 14° 4 | 2°10 | 7°45 | 12°57 | 11°48 | 9°14 | 28°17 |
| S 28 | 22 23 6 | 4°15'53 | 16°49 | 22°57 | 22°37 | 26°25 | 4°58 | 17°11 | 14° 2 | 2° 9 | 7°46 | 12°55 | 11°44 | 9°21 | 28°20 |
| S 29 | 22 27 2 | 5°13'48 | 0°9 | 24°52 | 22° 7 | 27° 2 | 4°58 | 17°11 | 14° 0 | 2° 8 | 7°46 | 12°52 | 11°41 | 9°28 | 28°23 |
| M30 | 22 30 59 | 6°11'45 | 14°22 | 26°48 | 21°38 | 27°38 | 4°57 | 17°R11 | 13°58 | 2° 6 | 7°46 | 12°49 | 11°38 | 9°35 | 28°26 |
| T 31 | 22 34 55 | 7♂ 9'44 | 28°9 | 28♂45 | 21♂11 | 28♂15 | 4♂56 | 17♂11 | 13♂55 | 2♂ 5 | 7♂47 | 12♂46 | 11♂35 | 9♂41 | 28♂29 |

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SWISS EPHEMERIS for the year 1999

SEPTEMBER 1999

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ |
|------|----------|----------|-------|-------|--------|-------|-------|--------|--------|-------|------|--------|-------|-------|-------|
| W 1 | 22 38 52 | 8♎7 44 | 12♋35 | 0♎43 | 20°R47 | 28♎52 | 4°R54 | 17°R11 | 13°R53 | 2°R 4 | 7♋47 | 12°R43 | 11♎32 | 9♋48 | 28♎32 |
| T 2 | 22 42 48 | 9° 5'47 | 26°48 | 2°41 | 20♎24 | 29°30 | 4♋53 | 17♋10 | 13♋51 | 2♋ 3 | 7°47 | 12♎41 | 11°28 | 9°55 | 28°35 |
| F 3 | 22 46 45 | 10° 3'52 | 11♎ 1 | 4°38 | 20° 4 | 0♋ 7 | 4°51 | 17°10 | 13°49 | 2° 1 | 7°48 | 12°D41 | 11°25 | 10° 1 | 28°39 |
| S 4 | 22 50 41 | 11° 1'58 | 25°12 | 6°36 | 19°46 | 0°45 | 4°49 | 17°10 | 13°47 | 2° 0 | 7°48 | 12°41 | 11°22 | 10° 8 | 28°42 |
| S 5 | 22 54 38 | 12° 0'07 | 9♎19 | 8°33 | 19°30 | 1°22 | 4°47 | 17° 9 | 13°45 | 1°59 | 7°49 | 12°43 | 11°19 | 10°15 | 28°46 |
| M 6 | 22 58 35 | 12°58'17 | 23°20 | 10°29 | 19°17 | 2° 0 | 4°45 | 17° 8 | 13°43 | 1°58 | 7°50 | 12°44 | 11°16 | 10°21 | 28°50 |
| T 7 | 23 2 31 | 13°56'30 | 7♎14 | 12°25 | 19° 6 | 2°38 | 4°43 | 17° 8 | 13°41 | 1°57 | 7°50 | 12°R45 | 11°13 | 10°28 | 28°53 |
| W 8 | 23 6 28 | 14°54'44 | 20°58 | 14°20 | 18°58 | 3°17 | 4°40 | 17° 7 | 13°39 | 1°56 | 7°51 | 12°45 | 11° 9 | 10°35 | 28°57 |
| T 9 | 23 10 24 | 15°53'01 | 4♎32 | 16°14 | 18°52 | 3°55 | 4°37 | 17° 6 | 13°37 | 1°55 | 7°52 | 12°43 | 11° 6 | 10°42 | 29° 1 |
| F 10 | 23 14 21 | 16°51'19 | 17°51 | 18° 7 | 18°48 | 4°34 | 4°34 | 17° 4 | 13°35 | 1°54 | 7°52 | 12°40 | 11° 3 | 10°48 | 29° 5 |
| S 11 | 23 18 17 | 17°49'39 | 0♎56 | 19°59 | 18°D47 | 5°13 | 4°31 | 17° 3 | 13°33 | 1°53 | 7°53 | 12°35 | 11° 0 | 10°55 | 29° 9 |
| S 12 | 23 22 14 | 18°48'00 | 13°45 | 21°50 | 18°48 | 5°52 | 4°27 | 17° 2 | 13°32 | 1°52 | 7°54 | 12°29 | 10°57 | 11° 2 | 29°13 |
| M13 | 23 26 10 | 19°46'24 | 26°19 | 23°40 | 18°52 | 6°31 | 4°24 | 17° 1 | 13°30 | 1°51 | 7°55 | 12°22 | 10°54 | 11° 8 | 29°18 |
| T 14 | 23 30 7 | 20°44'49 | 8♎38 | 25°29 | 18°58 | 7°10 | 4°20 | 16°59 | 13°28 | 1°50 | 7°55 | 12°16 | 10°50 | 11°15 | 29°22 |
| W15 | 23 34 3 | 21°43'15 | 20°44 | 27°16 | 19° 5 | 7°49 | 4°16 | 16°57 | 13°26 | 1°49 | 7°56 | 12°11 | 10°47 | 11°22 | 29°26 |
| T 16 | 23 38 0 | 22°41'44 | 2♎41 | 29° 3 | 19°15 | 8°29 | 4°12 | 16°56 | 13°25 | 1°48 | 7°57 | 12° 7 | 10°44 | 11°29 | 29°31 |
| F 17 | 23 41 57 | 23°40'14 | 14°34 | 0♎49 | 19°28 | 9° 8 | 4° 7 | 16°54 | 13°23 | 1°47 | 7°58 | 12° 5 | 10°41 | 11°35 | 29°35 |
| S 18 | 23 45 53 | 24°38'45 | 26°25 | 2°33 | 19°42 | 9°48 | 4° 3 | 16°52 | 13°21 | 1°46 | 7°59 | 12°D 4 | 10°38 | 11°42 | 29°40 |
| S 19 | 23 49 50 | 25°37'19 | 8♋21 | 4°17 | 19°58 | 10°28 | 3°58 | 16°50 | 13°20 | 1°45 | 8° 0 | 12° 5 | 10°34 | 11°49 | 29°45 |
| M20 | 23 53 46 | 26°35'54 | 20°27 | 5°59 | 20°16 | 11° 8 | 3°53 | 16°48 | 13°18 | 1°45 | 8° 1 | 12° 7 | 10°31 | 11°55 | 29°50 |
| T 21 | 23 57 43 | 27°34'30 | 2♎47 | 7°41 | 20°36 | 11°49 | 3°48 | 16°46 | 13°17 | 1°44 | 8° 2 | 12° 8 | 10°28 | 12° 2 | 29°55 |
| W22 | 0 1 39 | 28°33'09 | 15°25 | 9°21 | 20°58 | 12°29 | 3°43 | 16°43 | 13°15 | 1°43 | 8° 3 | 12°R 8 | 10°25 | 12° 9 | 29°59 |
| T 23 | 0 5 36 | 29°31'49 | 28°26 | 11° 0 | 21°22 | 13°10 | 3°38 | 16°41 | 13°14 | 1°43 | 8° 4 | 12° 7 | 10°22 | 12°15 | 0♋ 4 |
| F 24 | 0 9 32 | 0♎30'31 | 11♎49 | 12°39 | 21°47 | 13°50 | 3°32 | 16°38 | 13°12 | 1°42 | 8° 5 | 12° 3 | 10°19 | 12°22 | 0°10 |
| S 25 | 0 13 29 | 1°29'15 | 25°35 | 14°16 | 22°14 | 14°31 | 3°26 | 16°36 | 13°11 | 1°41 | 8° 7 | 11°58 | 10°15 | 12°29 | 0°15 |
| S 26 | 0 17 26 | 2°28'00 | 9♎42 | 15°53 | 22°43 | 15°12 | 3°21 | 16°33 | 13°10 | 1°41 | 8° 8 | 11°51 | 10°12 | 12°36 | 0°20 |
| M27 | 0 21 22 | 3°26'48 | 24° 3 | 17°28 | 23°13 | 15°53 | 3°15 | 16°30 | 13° 9 | 1°40 | 8° 9 | 11°43 | 10° 9 | 12°42 | 0°25 |
| T 28 | 0 25 19 | 4°25'38 | 8♋34 | 19° 3 | 23°45 | 16°34 | 3° 9 | 16°27 | 13° 7 | 1°40 | 8°10 | 11°34 | 10° 6 | 12°49 | 0°31 |
| W29 | 0 29 15 | 5°24'30 | 23° 8 | 20°37 | 24°18 | 17°15 | 3° 2 | 16°24 | 13° 6 | 1°39 | 8°12 | 11°27 | 10° 3 | 12°56 | 0°36 |
| T 30 | 0 33 12 | 6♎23'24 | 7♎38 | 22♎10 | 24♎53 | 17♎57 | 2♋56 | 16♋21 | 13♋ 5 | 1♋39 | 8♋13 | 11♎22 | 10♎ 0 | 13♋ 2 | 0♋42 |

Delta T = 63.72 sec.

OCTOBER 1999

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| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♃ | ♄ |
|------|---------|----------|-------|-------|-------|-------|-------|--------|--------|-------|------|--------|------|-------|------|
| F 1 | 0 37 8 | 7♎22'21 | 21♎59 | 23♎42 | 25♎28 | 18♎38 | 2°R49 | 16°R18 | 13°R 4 | 1°R38 | 8♎14 | 11°R19 | 9♎56 | 13♎ 9 | 0♎47 |
| S 2 | 0 41 5 | 8°21'20 | 6♎10 | 25°13 | 26° 6 | 19°20 | 2♋43 | 16♋15 | 13♋ 3 | 1♋38 | 8°16 | 11°D18 | 9°53 | 13°16 | 0°53 |
| S 3 | 0 45 1 | 9°20'22 | 20° 7 | 26°43 | 26°44 | 20° 1 | 2°36 | 16°12 | 13° 2 | 1°37 | 8°17 | 11♎18 | 9°50 | 13°22 | 0°58 |
| M 4 | 0 48 58 | 10°19'25 | 3♎52 | 28°12 | 27°24 | 20°43 | 2°29 | 16° 8 | 13° 1 | 1°37 | 8°19 | 11°19 | 9°47 | 13°29 | 1° 4 |
| T 5 | 0 52 55 | 11°18'31 | 17°24 | 29°41 | 28° 4 | 21°25 | 2°22 | 16° 5 | 13° 0 | 1°37 | 8°20 | 11°R19 | 9°44 | 13°36 | 1°10 |
| W 6 | 0 56 51 | 12°17'40 | 0♎44 | 1♎ 9 | 28°46 | 22° 7 | 2°15 | 16° 1 | 12°59 | 1°36 | 8°22 | 11°17 | 9°40 | 13°43 | 1°16 |
| T 7 | 1 0 48 | 13°16'50 | 13°54 | 2°35 | 29°29 | 22°49 | 2° 7 | 15°58 | 12°58 | 1°36 | 8°23 | 11°13 | 9°37 | 13°49 | 1°22 |
| F 8 | 1 4 44 | 14°16'03 | 26°52 | 4° 1 | 0♎13 | 23°32 | 2° 0 | 15°54 | 12°58 | 1°36 | 8°25 | 11° 6 | 9°34 | 13°56 | 1°28 |
| S 9 | 1 8 41 | 15°15'18 | 9♎38 | 5°26 | 0°58 | 24°14 | 1°53 | 15°50 | 12°57 | 1°36 | 8°26 | 10°56 | 9°31 | 14° 3 | 1°34 |
| S 10 | 1 12 37 | 16°14'34 | 22°13 | 6°50 | 1°44 | 24°57 | 1°45 | 15°46 | 12°56 | 1°36 | 8°28 | 10°45 | 9°28 | 14° 9 | 1°40 |
| M11 | 1 16 34 | 17°13'53 | 4♎37 | 8°13 | 2°31 | 25°39 | 1°38 | 15°43 | 12°55 | 1°35 | 8°29 | 10°32 | 9°25 | 14°16 | 1°46 |
| T 12 | 1 20 30 | 18°13'14 | 16°49 | 9°35 | 3°19 | 26°22 | 1°30 | 15°39 | 12°55 | 1°35 | 8°31 | 10°20 | 9°21 | 14°23 | 1°52 |
| W13 | 1 24 27 | 19°12'37 | 28°51 | 10°56 | 4° 7 | 27° 5 | 1°22 | 15°35 | 12°54 | 1°35 | 8°33 | 10° 9 | 9°18 | 14°29 | 1°59 |
| T 14 | 1 28 23 | 20°12'02 | 10♎45 | 12°16 | 4°56 | 27°48 | 1°14 | 15°30 | 12°54 | 1°D35 | 8°34 | 10° 0 | 9°15 | 14°36 | 2° 5 |
| F 15 | 1 32 20 | 21°11'28 | 22°35 | 13°35 | 5°47 | 28°31 | 1° 6 | 15°26 | 12°53 | 1°35 | 8°36 | 9°54 | 9°12 | 14°43 | 2°11 |
| S 16 | 1 36 17 | 22°10'57 | 4♋24 | 14°52 | 6°37 | 29°14 | 0°58 | 15°22 | 12°53 | 1°35 | 8°38 | 9°50 | 9° 9 | 14°50 | 2°18 |
| S 17 | 1 40 13 | 23°10'27 | 16°18 | 16° 8 | 7°29 | 29°57 | 0°50 | 15°18 | 12°53 | 1°35 | 8°40 | 9°49 | 9° 5 | 14°56 | 2°24 |
| M18 | 1 44 10 | 24° 9'59 | 28°20 | 17°23 | 8°21 | 0♋40 | 0°42 | 15°14 | 12°52 | 1°36 | 8°41 | 9°D49 | 9° 2 | 15° 3 | 2°31 |
| T 19 | 1 48 6 | 25° 9'33 | 10♎37 | 18°36 | 9°14 | 1°24 | 0°34 | 15° 9 | 12°52 | 1°36 | 8°43 | 9°R49 | 8°59 | 15°10 | 2°37 |
| W20 | 1 52 3 | 26° 9'08 | 23°15 | 19°47 | 10° 8 | 2° 7 | 0°26 | 15° 5 | 12°52 | 1°36 | 8°45 | 9°48 | 8°56 | 15°16 | 2°44 |
| T 21 | 1 55 59 | 27° 8'45 | 6♎16 | 20°57 | 11° 3 | 2°51 | 0°18 | 15° 0 | 12°52 | 1°36 | 8°47 | 9°46 | 8°53 | 15°23 | 2°51 |
| F 22 | 1 59 56 | 28° 8'24 | 19°45 | 22° 5 | 11°57 | 3°35 | 0°10 | 14°56 | 12°52 | 1°36 | 8°49 | 9°41 | 8°50 | 15°30 | 2°57 |
| S 23 | 2 3 52 | 29° 8'05 | 3♎43 | 23°10 | 12°53 | 4°18 | 0° 2 | 14°51 | 12°D52 | 1°37 | 8°51 | 9°33 | 8°46 | 15°36 | 3° 4 |
| S 24 | 2 7 49 | 0♎ 7'47 | 18° 6 | 24°14 | 13°49 | 5° 2 | 29♎54 | 14°47 | 12°52 | 1°37 | 8°53 | 9°23 | 8°43 | 15°43 | 3°11 |
| M25 | 2 11 46 | 1° 7'32 | 2♋50 | 25°14 | 14°46 | 5°46 | 29°46 | 14°42 | 12°52 | 1°37 | 8°55 | 9°11 | 8°40 | 15°50 | 3°18 |
| T 26 | 2 15 42 | 2° 7'18 | 17°47 | 26°12 | 15°43 | 6°30 | 29°38 | 14°37 | 12°52 | 1°38 | 8°56 | 9° 0 | 8°37 | 15°56 | 3°24 |
| W27 | 2 19 39 | 3° 7'07 | 2♎46 | 27° 7 | 16°41 | 7°14 | 29°29 | 14°33 | 12°52 | 1°38 | 8°58 | 8°50 | 8°34 | 16° 3 | 3°31 |
| T 28 | 2 23 35 | 4° 6'58 | 17°40 | 27°58 | 17°39 | 7°58 | 29°21 | 14°28 | 12°52 | 1°39 | 9° 0 | 8°41 | 8°31 | 16°10 | 3°38 |
| F 29 | 2 27 32 | 5° 6'50 | 2♎20 | 28°45 | 18°38 | 8°42 | 29°13 | 14°23 | 12°53 | 1°39 | 9° 2 | 8°36 | 8°27 | 16°17 | 3°45 |
| S 30 | 2 31 28 | 6° 6'46 | 16°41 | 29°28 | 19°37 | 9°27 | 29° 5 | 14°19 | 12°53 | 1°40 | 9° 4 | 8°33 | 8°24 | 16°23 | 3°52 |
| S 31 | 2 35 25 | 7♎ 6'43 | 0♎42 | 0♎ 6 | 20♎37 | 10♎11 | 28♎57 | 14♎14 | 12♎53 | 1♎40 | 9♎ 7 | 8♎33 | 8♎21 | 16♎30 | 3♎59 |

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SWISS EPHEMERIS for the year 1999

NOVEMBER 1999

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ |
|------|---------|----------|--------|--------|-------|-------|--------|--------|-------|------|-------|-------|------|-------|------|
| M 1 | 2 39 21 | 8♁ 6'43 | 14♁23 | 0♁38 | 21♁37 | 10♁56 | 28°R49 | 14°R 9 | 12♁54 | 1♁41 | 9♁ 9 | 8°R33 | 8♁18 | 16♁37 | 4♁ 6 |
| T 2 | 2 43 18 | 9° 6'44 | 27°44 | 1° 5 | 22°38 | 11°40 | 28°Y42 | 14♁ 4 | 12°54 | 1°41 | 9°11 | 8♁32 | 8°15 | 16°43 | 4°13 |
| W 3 | 2 47 15 | 10° 6'48 | 10♁49 | 1°25 | 23°39 | 12°25 | 28°34 | 13°55 | 12°55 | 1°42 | 9°13 | 8°29 | 8°11 | 16°50 | 4°20 |
| T 4 | 2 51 11 | 11° 6'54 | 23°41 | 1°38 | 24°41 | 13° 9 | 28°26 | 13°55 | 12°55 | 1°43 | 9°15 | 8°24 | 8° 8 | 16°57 | 4°28 |
| F 5 | 2 55 8 | 12° 7'02 | 6♁20 | 1°R44 | 25°43 | 13°54 | 28°18 | 13°50 | 12°56 | 1°43 | 9°17 | 8°16 | 8° 5 | 17° 3 | 4°35 |
| S 6 | 2 59 4 | 13° 7'12 | 18°49 | 1°40 | 26°45 | 14°39 | 28°11 | 13°45 | 12°57 | 1°44 | 9°19 | 8° 5 | 8° 2 | 17°10 | 4°42 |
| S 7 | 3 3 1 | 14° 7'23 | 1♁ 9 | 1°28 | 27°48 | 15°24 | 28° 3 | 13°40 | 12°57 | 1°45 | 9°21 | 7°51 | 7°59 | 17°17 | 4°49 |
| M 8 | 3 6 57 | 15° 7'37 | 13°20 | 1° 6 | 28°51 | 16° 9 | 27°56 | 13°35 | 12°58 | 1°46 | 9°23 | 7°37 | 7°56 | 17°23 | 4°57 |
| T 9 | 3 10 54 | 16° 7'53 | 25°23 | 0°34 | 29°54 | 16°54 | 27°48 | 13°30 | 12°59 | 1°47 | 9°26 | 7°22 | 7°52 | 17°30 | 5° 4 |
| W10 | 3 14 50 | 17° 8'10 | 7♁20 | 29♁53 | 0♁58 | 17°39 | 27°41 | 13°25 | 13° 0 | 1°47 | 9°28 | 7° 9 | 7°49 | 17°37 | 5°11 |
| T 11 | 3 18 47 | 18° 8'29 | 19°11 | 29° 2 | 2° 2 | 18°24 | 27°34 | 13°21 | 13° 1 | 1°48 | 9°30 | 6°58 | 7°46 | 17°44 | 5°18 |
| F 12 | 3 22 44 | 19° 8'49 | 0♁59 | 28° 1 | 3° 6 | 19° 9 | 27°27 | 13°16 | 13° 2 | 1°49 | 9°32 | 6°50 | 7°43 | 17°50 | 5°26 |
| S 13 | 3 26 40 | 20° 9'12 | 12°47 | 26°53 | 4°10 | 19°54 | 27°20 | 13°11 | 13° 3 | 1°50 | 9°34 | 6°45 | 7°40 | 17°57 | 5°33 |
| S 14 | 3 30 37 | 21° 9'35 | 24°39 | 25°39 | 5°15 | 20°39 | 27°13 | 13° 6 | 13° 4 | 1°51 | 9°37 | 6°43 | 7°37 | 18° 4 | 5°41 |
| M15 | 3 34 33 | 22°10'00 | 6♁39 | 24°20 | 6°21 | 21°25 | 27° 6 | 13° 1 | 13° 5 | 1°52 | 9°39 | 6°D42 | 7°33 | 18°10 | 5°48 |
| T 16 | 3 38 30 | 23°10'26 | 18°52 | 22°59 | 7°26 | 22°10 | 27° 0 | 12°57 | 13° 6 | 1°53 | 9°41 | 6°R42 | 7°30 | 18°17 | 5°55 |
| W17 | 3 42 26 | 24°10'54 | 1♁24 | 21°39 | 8°32 | 22°56 | 26°54 | 12°52 | 13° 7 | 1°54 | 9°43 | 6°42 | 7°27 | 18°24 | 6° 3 |
| T 18 | 3 46 23 | 25°11'23 | 14°20 | 20°23 | 9°38 | 23°41 | 26°47 | 12°47 | 13° 9 | 1°56 | 9°46 | 6°41 | 7°24 | 18°30 | 6°10 |
| F 19 | 3 50 19 | 26°11'53 | 27°45 | 19°12 | 10°44 | 24°27 | 26°41 | 12°43 | 13°10 | 1°57 | 9°48 | 6°37 | 7°21 | 18°37 | 6°18 |
| S 20 | 3 54 16 | 27°12'24 | 11°Y39 | 18° 9 | 11°51 | 25°12 | 26°35 | 12°38 | 13°11 | 1°58 | 9°50 | 6°30 | 7°17 | 18°44 | 6°25 |
| S 21 | 3 58 13 | 28°12'57 | 26° 4 | 17°16 | 12°57 | 25°58 | 26°29 | 12°33 | 13°13 | 1°59 | 9°53 | 6°22 | 7°14 | 18°50 | 6°33 |
| M22 | 4 2 9 | 29°13'31 | 10♁54 | 16°34 | 14° 4 | 26°44 | 26°24 | 12°29 | 13°14 | 2° 0 | 9°55 | 6°12 | 7°11 | 18°57 | 6°40 |
| T 23 | 4 6 6 | 0♁14'06 | 26° 3 | 16° 4 | 15°11 | 27°29 | 26°18 | 12°24 | 13°16 | 2° 2 | 9°57 | 6° 1 | 7° 8 | 19° 4 | 6°48 |
| W24 | 4 10 2 | 1°14'43 | 11♁19 | 15°45 | 16°19 | 28°15 | 26°13 | 12°20 | 13°17 | 2° 3 | 10° 0 | 5°52 | 7° 5 | 19°11 | 6°55 |
| T 25 | 4 13 59 | 2°15'22 | 26°33 | 15°D37 | 17°27 | 29° 1 | 26° 8 | 12°15 | 13°19 | 2° 4 | 10° 2 | 5°44 | 7° 2 | 19°17 | 7° 3 |
| F 26 | 4 17 55 | 3°16'02 | 11♁33 | 15°41 | 18°34 | 29°47 | 26° 3 | 12°11 | 13°21 | 2° 6 | 10° 4 | 5°40 | 6°58 | 19°24 | 7°10 |
| S 27 | 4 21 52 | 4°16'43 | 26°13 | 15°55 | 19°43 | 0♁33 | 25°58 | 12° 7 | 13°22 | 2° 7 | 10° 7 | 5°37 | 6°55 | 19°31 | 7°18 |
| S 28 | 4 25 48 | 5°17'26 | 10♁27 | 16°18 | 20°51 | 1°19 | 25°53 | 12° 3 | 13°24 | 2° 9 | 10° 9 | 5°D37 | 6°52 | 19°37 | 7°25 |
| M29 | 4 29 45 | 6°18'11 | 24°16 | 16°50 | 21°59 | 2° 4 | 25°49 | 11°58 | 13°26 | 2°10 | 10°11 | 5°38 | 6°49 | 19°44 | 7°33 |
| T 30 | 4 33 42 | 7°18'57 | 7♁40 | 17♁30 | 23♁ 8 | 2♁50 | 25°Y45 | 11♁54 | 13♁28 | 2♁11 | 10♁14 | 5°R38 | 6♁46 | 19♁51 | 7♁40 |

Delta T = 63.78 sec.

DECEMBER 1999

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♄ | ♁ | ♁ | ♁ | ♁ | ♁ |
|------|---------|----------|-------|-------|-------|-------|--------|--------|-------|------|-------|-------|------|-------|-------|
| W 1 | 4 37 38 | 8♁19'44 | 20♁42 | 18♁16 | 24♁17 | 3♁37 | 25°R40 | 11°R50 | 13♁30 | 2♁13 | 10♁16 | 5°R37 | 6♁43 | 19♁57 | 7♁48 |
| T 2 | 4 41 35 | 9°20'33 | 3♁26 | 19° 9 | 25°26 | 4°23 | 25°Y37 | 11♁46 | 13°31 | 2°14 | 10°18 | 5♁34 | 6°39 | 20° 4 | 7°55 |
| F 3 | 4 45 31 | 10°21'24 | 15°54 | 20° 7 | 26°35 | 5° 9 | 25°33 | 11°42 | 13°33 | 2°16 | 10°21 | 5°29 | 6°36 | 20°11 | 8° 3 |
| S 4 | 4 49 28 | 11°22'16 | 28°11 | 21° 9 | 27°45 | 5°55 | 25°29 | 11°38 | 13°35 | 2°18 | 10°23 | 5°21 | 6°33 | 20°17 | 8°10 |
| S 5 | 4 53 24 | 12°23'09 | 10♁18 | 22°16 | 28°54 | 6°41 | 25°26 | 11°34 | 13°37 | 2°19 | 10°25 | 5°12 | 6°30 | 20°24 | 8°18 |
| M 6 | 4 57 21 | 13°24'03 | 22°19 | 23°26 | 0♁ 4 | 7°27 | 25°23 | 11°31 | 13°40 | 2°21 | 10°28 | 5° 1 | 6°27 | 20°31 | 8°25 |
| T 7 | 5 1 17 | 14°24'59 | 4♁14 | 24°38 | 1°14 | 8°13 | 25°20 | 11°27 | 13°42 | 2°22 | 10°30 | 4°51 | 6°23 | 20°37 | 8°33 |
| W 8 | 5 5 14 | 15°25'56 | 16° 6 | 25°54 | 2°24 | 9° 0 | 25°17 | 11°23 | 13°44 | 2°24 | 10°32 | 4°41 | 6°20 | 20°44 | 8°40 |
| T 9 | 5 9 11 | 16°26'53 | 27°55 | 27°12 | 3°34 | 9°46 | 25°15 | 11°20 | 13°46 | 2°26 | 10°35 | 4°33 | 6°17 | 20°51 | 8°48 |
| F 10 | 5 13 7 | 17°27'52 | 9♁44 | 28°31 | 4°44 | 10°32 | 25°12 | 11°16 | 13°48 | 2°28 | 10°37 | 4°28 | 6°14 | 20°58 | 8°55 |
| S 11 | 5 17 4 | 18°28'51 | 21°35 | 29°53 | 5°54 | 11°19 | 25°10 | 11°13 | 13°51 | 2°29 | 10°39 | 4°24 | 6°11 | 21° 4 | 9° 3 |
| S 12 | 5 21 0 | 19°29'52 | 3♁30 | 1♁15 | 7° 5 | 12° 5 | 25° 8 | 11°10 | 13°53 | 2°31 | 10°42 | 4°D23 | 6° 8 | 21°11 | 9°10 |
| M13 | 5 24 57 | 20°30'52 | 15°33 | 2°39 | 8°16 | 12°51 | 25° 7 | 11° 7 | 13°55 | 2°33 | 10°44 | 4°24 | 6° 4 | 21°18 | 9°17 |
| T 14 | 5 28 53 | 21°31'54 | 27°47 | 4° 4 | 9°26 | 13°38 | 25° 5 | 11° 4 | 13°58 | 2°35 | 10°46 | 4°25 | 6° 1 | 21°24 | 9°25 |
| W15 | 5 32 50 | 22°32'55 | 10♁18 | 5°30 | 10°37 | 14°24 | 25° 4 | 11° 1 | 14° 0 | 2°37 | 10°48 | 4°27 | 5°58 | 21°31 | 9°32 |
| T 16 | 5 36 47 | 23°33'58 | 23° 9 | 6°57 | 11°48 | 15°11 | 25° 3 | 10°58 | 14° 3 | 2°38 | 10°51 | 4°R28 | 5°55 | 21°38 | 9°39 |
| F 17 | 5 40 43 | 24°35'00 | 6°Y25 | 8°24 | 12°59 | 15°57 | 25° 2 | 10°55 | 14° 5 | 2°40 | 10°53 | 4°27 | 5°52 | 21°44 | 9°47 |
| S 18 | 5 44 40 | 25°36'03 | 20° 8 | 9°53 | 14°11 | 16°43 | 25° 1 | 10°52 | 14° 8 | 2°42 | 10°55 | 4°24 | 5°48 | 21°51 | 9°54 |
| S 19 | 5 48 36 | 26°37'07 | 4♁20 | 11°21 | 15°22 | 17°30 | 25° 1 | 10°49 | 14°10 | 2°44 | 10°58 | 4°20 | 5°45 | 21°58 | 10° 1 |
| M20 | 5 52 33 | 27°38'11 | 18°59 | 12°50 | 16°33 | 18°16 | 25° 1 | 10°47 | 14°13 | 2°46 | 11° 0 | 4°15 | 5°42 | 22° 4 | 10° 9 |
| T 21 | 5 56 29 | 28°39'15 | 4♁ 0 | 14°20 | 17°45 | 19° 3 | 25°D 1 | 10°44 | 14°16 | 2°48 | 11° 2 | 4° 9 | 5°39 | 22°11 | 10°16 |
| W22 | 6 0 26 | 29°40'20 | 19°15 | 15°50 | 18°57 | 19°49 | 25° 1 | 10°42 | 14°18 | 2°50 | 11° 4 | 4° 4 | 5°36 | 22°18 | 10°23 |
| T 23 | 6 4 22 | 0♁41'25 | 4♁32 | 17°20 | 20° 8 | 20°36 | 25° 1 | 10°40 | 14°21 | 2°52 | 11° 7 | 4° 0 | 5°33 | 22°24 | 10°30 |
| F 24 | 6 8 19 | 1°42'30 | 19°43 | 18°51 | 21°20 | 21°22 | 25° 2 | 10°38 | 14°24 | 2°54 | 11° 9 | 3°58 | 5°29 | 22°31 | 10°37 |
| S 25 | 6 12 16 | 2°43'36 | 4♁36 | 20°22 | 22°32 | 22° 9 | 25° 3 | 10°36 | 14°27 | 2°56 | 11°11 | 3°D57 | 5°26 | 22°38 | 10°45 |
| S 26 | 6 16 12 | 3°44'43 | 19° 6 | 21°53 | 23°44 | 22°55 | 25° 4 | 10°34 | 14°30 | 2°58 | 11°13 | 3°58 | 5°23 | 22°44 | 10°52 |
| M27 | 6 20 9 | 4°45'50 | 3♁ 8 | 23°24 | 24°56 | 23°42 | 25° 5 | 10°32 | 14°32 | 3° 0 | 11°15 | 3°59 | 5°20 | 22°51 | 10°59 |
| T 28 | 6 24 5 | 5°46'58 | 16°43 | 24°56 | 26° 8 | 24°28 | 25° 6 | 10°30 | 14°35 | 3° 2 | 11°18 | 4° 1 | 5°17 | 22°58 | 11° 6 |
| W29 | 6 28 2 | 6°48'06 | 29°52 | 26°28 | 27°20 | 25°15 | 25° 8 | 10°29 | 14°38 | 3° 4 | 11°20 | 4° 2 | 5°14 | 23° 4 | 11°13 |
| T 30 | 6 31 58 | 7°49'14 | 12♁38 | 28° 1 | 28°33 | 26° 1 | 25°10 | 10°27 | 14°41 | 3° 6 | 11°22 | 4°R 2 | 5°10 | 23°11 | 11°20 |
| F 31 | 6 35 55 | 8°50'24 | 25♁ 5 | 29♁34 | 29♁45 | 26♁48 | 25°Y12 | 10♁26 | 14♁44 | 3♁ 8 | 11♁24 | 4♁ 1 | 5♁ 7 | 23♁18 | 11♁27 |

Delta T = 63.80 sec.

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