

SWISS EPHEMERIS for the year 1248

JANUARY 1248 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|---------|----------|--------|--------|-------|--------|------|-------|-------|-------|-------|--------|-------|-------|-------|---|---|---|---|---|---|---|---|
| W 1 | 7 8 4 | 17°36'35 | 23°8'8 | 24°7'5 | 4°14 | 28°9'9 | 4°52 | 10°16 | 21°1 | 1°R40 | 10°27 | 0°R 0 | 29°13 | 25°12 | 27°27 | | | | | | | | |
| T 2 | 7 12 1 | 18°37'41 | 5°32 | 25°16 | 5°18 | 28°37 | 5° 4 | 10°20 | 21° 4 | 1°39 | 10°28 | 29°57 | 29° 9 | 25°19 | 27°27 | | | | | | | | |
| F 3 | 7 15 57 | 19°38'47 | 18°10 | 26°28 | 6°22 | 29° 4 | 5°15 | 10°24 | 21° 7 | 1°37 | 10°29 | 29°54 | 29° 6 | 25°26 | 27°27 | | | | | | | | |
| S 4 | 7 19 54 | 20°39'52 | 1°9'3 | 27°42 | 7°26 | 29°32 | 5°26 | 10°28 | 21°10 | 1°36 | 10°30 | 29°52 | 29° 3 | 25°32 | 27°27 | | | | | | | | |
| S 5 | 7 23 50 | 21°40'56 | 14°14 | 28°58 | 8°30 | 0°8'0 | 5°38 | 10°31 | 21°13 | 1°34 | 10°31 | 29°51 | 29° 0 | 25°39 | 27°28 | | | | | | | | |
| M 6 | 7 27 47 | 22°41'58 | 27°45 | 0°16 | 9°33 | 0°29 | 5°49 | 10°35 | 21°16 | 1°33 | 10°32 | 29°D51 | 28°57 | 25°46 | 27°28 | | | | | | | | |
| T 7 | 7 31 43 | 23°43'00 | 11°37 | 1°34 | 10°36 | 0°57 | 6° 0 | 10°39 | 21°19 | 1°31 | 10°33 | 29°52 | 28°53 | 25°52 | 27°29 | | | | | | | | |
| W 8 | 7 35 40 | 24°44'00 | 25°50 | 2°54 | 11°38 | 1°26 | 6°11 | 10°42 | 21°23 | 1°29 | 10°34 | 29°53 | 28°50 | 25°59 | 27°29 | | | | | | | | |
| T 9 | 7 39 37 | 25°45'00 | 10°24 | 4°15 | 12°40 | 1°55 | 6°22 | 10°46 | 21°26 | 1°28 | 10°35 | 29°55 | 28°47 | 26° 6 | 27°30 | | | | | | | | |
| F 10 | 7 43 33 | 26°45'58 | 25°15 | 5°38 | 13°42 | 2°24 | 6°33 | 10°49 | 21°29 | 1°26 | 10°36 | 29°R56 | 28°44 | 26°12 | 27°30 | | | | | | | | |
| S 11 | 7 47 30 | 27°46'55 | 10°15 | 7° 1 | 14°43 | 2°54 | 6°44 | 10°52 | 21°32 | 1°25 | 10°37 | 29°55 | 28°41 | 26°19 | 27°31 | | | | | | | | |
| S 12 | 7 51 26 | 28°47'50 | 25°18 | 8°25 | 15°44 | 3°23 | 6°54 | 10°55 | 21°35 | 1°23 | 10°38 | 29°54 | 28°38 | 26°26 | 27°31 | | | | | | | | |
| M13 | 7 55 23 | 29°48'45 | 10°15 | 9°51 | 16°44 | 3°53 | 7° 5 | 10°58 | 21°39 | 1°22 | 10°39 | 29°50 | 28°34 | 26°32 | 27°32 | | | | | | | | |
| T 14 | 7 59 19 | 0°49'39 | 24°56 | 11°17 | 17°44 | 4°22 | 7°16 | 11° 1 | 21°42 | 1°20 | 10°40 | 29°46 | 28°31 | 26°39 | 27°33 | | | | | | | | |
| W15 | 8 3 16 | 1°50'31 | 9°16 | 12°44 | 18°44 | 4°52 | 7°26 | 11° 4 | 21°45 | 1°19 | 10°41 | 29°41 | 28°28 | 26°45 | 27°34 | | | | | | | | |
| T 16 | 8 7 12 | 2°51'23 | 23° 9 | 14°12 | 19°43 | 5°23 | 7°36 | 11° 7 | 21°49 | 1°18 | 10°41 | 29°36 | 28°25 | 26°52 | 27°35 | | | | | | | | |
| F 17 | 8 11 9 | 3°52'13 | 6°34 | 15°40 | 20°41 | 5°53 | 7°46 | 11°10 | 21°52 | 1°16 | 10°42 | 29°32 | 28°22 | 26°59 | 27°36 | | | | | | | | |
| S 18 | 8 15 6 | 4°53'03 | 19°32 | 17°10 | 21°39 | 6°23 | 7°57 | 11°12 | 21°55 | 1°15 | 10°43 | 29°29 | 28°19 | 27° 5 | 27°37 | | | | | | | | |
| S 19 | 8 19 2 | 5°53'52 | 2°6 | 18°40 | 22°37 | 6°54 | 8° 7 | 11°15 | 21°59 | 1°14 | 10°43 | 29°D28 | 28°15 | 27°12 | 27°38 | | | | | | | | |
| M20 | 8 22 59 | 6°54'40 | 14°21 | 20°12 | 23°34 | 7°25 | 8°16 | 11°17 | 22° 2 | 1°12 | 10°44 | 29°28 | 28°12 | 27°19 | 27°39 | | | | | | | | |
| T 21 | 8 26 55 | 7°55'26 | 26°21 | 21°44 | 24°30 | 7°56 | 8°26 | 11°19 | 22° 5 | 1°11 | 10°45 | 29°29 | 28° 9 | 27°25 | 27°41 | | | | | | | | |
| W22 | 8 30 52 | 8°56'12 | 8°12 | 23°17 | 25°26 | 8°27 | 8°36 | 11°22 | 22° 9 | 1°10 | 10°45 | 29°31 | 28° 6 | 27°32 | 27°42 | | | | | | | | |
| T 23 | 8 34 48 | 9°56'57 | 19°58 | 24°50 | 26°21 | 8°58 | 8°46 | 11°24 | 22°12 | 1° 8 | 10°46 | 29°32 | 28° 3 | 27°39 | 27°43 | | | | | | | | |
| F 24 | 8 38 45 | 10°57'40 | 1°345 | 26°25 | 27°16 | 9°29 | 8°55 | 11°26 | 22°15 | 1° 7 | 10°46 | 29°R33 | 27°59 | 27°45 | 27°45 | | | | | | | | |
| S 25 | 8 42 41 | 11°58'22 | 13°35 | 28° 0 | 28° 9 | 10° 1 | 9° 4 | 11°28 | 22°19 | 1° 6 | 10°46 | 29°32 | 27°56 | 27°52 | 27°46 | | | | | | | | |
| S 26 | 8 46 38 | 12°59'03 | 25°33 | 29°36 | 29° 3 | 10°32 | 9°14 | 11°30 | 22°22 | 1° 5 | 10°47 | 29°28 | 27°53 | 27°59 | 27°48 | | | | | | | | |
| M27 | 8 50 35 | 13°59'43 | 7°40 | 1°13 | 29°55 | 11° 4 | 9°23 | 11°31 | 22°26 | 1° 4 | 10°47 | 29°23 | 27°50 | 28° 5 | 27°49 | | | | | | | | |
| T 28 | 8 54 31 | 15° 0'20 | 19°58 | 2°51 | 0°47 | 11°36 | 9°32 | 11°33 | 22°29 | 1° 2 | 10°48 | 29°16 | 27°47 | 28°12 | 27°51 | | | | | | | | |
| W29 | 8 58 28 | 16° 0'57 | 2°28 | 4°30 | 1°38 | 12° 8 | 9°41 | 11°34 | 22°33 | 1° 1 | 10°48 | 29° 7 | 27°44 | 28°19 | 27°53 | | | | | | | | |
| T 30 | 9 2 24 | 17° 1'31 | 15°10 | 6°10 | 2°28 | 12°40 | 9°49 | 11°36 | 22°36 | 1° 0 | 10°48 | 28°58 | 27°40 | 28°25 | 27°55 | | | | | | | | |
| F 31 | 9 6 21 | 18° 2'04 | 28°5 | 7°50 | 3°18 | 13°12 | 9°58 | 11°37 | 22°40 | 0°59 | 10°48 | 28°49 | 27°37 | 28°32 | 27°56 | | | | | | | | |

Delta T = 09m53s Julian Calendar 1 Jan. 1248 == Greg. Calendar 8 Jan. 1248

FEBRUARY 1248 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|----------|----------|-------|-------|--------|-------|--------|--------|-------|-------|--------|--------|-------|-------|-------|---|---|---|---|---|---|---|---|
| S 1 | 9 10 17 | 19° 2'35 | 11°12 | 9°32 | 4°9'6 | 13°45 | 10°7'7 | 11°38 | 22°43 | 0°R58 | 10°48 | 28°R42 | 27°34 | 28°38 | 27°58 | | | | | | | | |
| S 2 | 9 14 14 | 20° 3'05 | 24°32 | 11°14 | 4°54 | 14°17 | 10°15 | 11°39 | 22°46 | 0°57 | 10°49 | 28°37 | 27°31 | 28°45 | 28° 0 | | | | | | | | |
| M 3 | 9 18 10 | 21° 3'32 | 8° 5 | 12°57 | 5°41 | 14°49 | 10°23 | 11°40 | 22°50 | 0°56 | 10°49 | 28°34 | 27°28 | 28°52 | 28° 2 | | | | | | | | |
| T 4 | 9 22 7 | 22° 3'58 | 21°51 | 14°41 | 6°26 | 15°22 | 10°31 | 11°41 | 22°53 | 0°55 | 10°49 | 28°D33 | 27°24 | 28°58 | 28° 4 | | | | | | | | |
| W 5 | 9 26 4 | 23° 4'21 | 5°11 | 16°27 | 7°11 | 15°55 | 10°39 | 11°42 | 22°57 | 0°54 | 10°R49 | 28°33 | 27°21 | 29° 5 | 28° 6 | | | | | | | | |
| T 6 | 9 30 0 | 24° 4'43 | 20° 5 | 18°13 | 7°55 | 16°28 | 10°47 | 11°43 | 23° 0 | 0°53 | 10°49 | 28°34 | 27°18 | 29°12 | 28° 8 | | | | | | | | |
| F 7 | 9 33 57 | 25° 5'02 | 4°32 | 20° 0 | 8°38 | 17° 1 | 10°55 | 11°43 | 23° 4 | 0°53 | 10°49 | 28°R34 | 27°15 | 29°18 | 28°11 | | | | | | | | |
| S 8 | 9 37 53 | 26° 5'20 | 19° 7 | 21°48 | 9°19 | 17°34 | 11° 3 | 11°44 | 23° 7 | 0°52 | 10°49 | 28°33 | 27°12 | 29°25 | 28°13 | | | | | | | | |
| S 9 | 9 41 50 | 27° 5'35 | 3°47 | 23°37 | 10° 0 | 18° 7 | 11°10 | 11°44 | 23°11 | 0°51 | 10°49 | 28°29 | 27° 9 | 29°32 | 28°15 | | | | | | | | |
| M10 | 9 45 46 | 28° 5'48 | 18°25 | 25°27 | 10°39 | 18°40 | 11°17 | 11°45 | 23°14 | 0°50 | 10°48 | 28°22 | 27° 5 | 29°38 | 28°17 | | | | | | | | |
| T 11 | 9 49 43 | 29° 6'00 | 2°54 | 27°18 | 11°17 | 19°13 | 11°25 | 11°45 | 23°18 | 0°49 | 10°48 | 28°13 | 27° 2 | 29°45 | 28°20 | | | | | | | | |
| W12 | 9 53 39 | 0°6'10 | 17° 7 | 29°10 | 11°53 | 19°46 | 11°32 | 11°R45 | 23°21 | 0°49 | 10°48 | 28° 2 | 26°59 | 29°52 | 28°22 | | | | | | | | |
| T 13 | 9 57 36 | 1° 6'18 | 0°59 | 1°3 | 12°28 | 20°20 | 11°38 | 11°45 | 23°24 | 0°48 | 10°48 | 27°52 | 26°56 | 29°58 | 28°25 | | | | | | | | |
| F 14 | 10 1 33 | 2° 6'24 | 14°26 | 2°57 | 13° 2 | 20°53 | 11°45 | 11°45 | 23°28 | 0°47 | 10°47 | 27°43 | 26°53 | 0°3 | 28°27 | | | | | | | | |
| S 15 | 10 5 29 | 3° 6'28 | 27°27 | 4°51 | 13°34 | 21°27 | 11°52 | 11°44 | 23°31 | 0°47 | 10°47 | 27°35 | 26°50 | 0°11 | 28°30 | | | | | | | | |
| S 16 | 10 9 26 | 4° 6'31 | 10°5 | 6°47 | 14° 5 | 22° 1 | 11°58 | 11°44 | 23°35 | 0°46 | 10°47 | 27°30 | 26°46 | 0°18 | 28°32 | | | | | | | | |
| M17 | 10 13 22 | 5° 6'32 | 22°23 | 8°43 | 14°35 | 22°34 | 12° 5 | 11°44 | 23°38 | 0°46 | 10°46 | 27°27 | 26°43 | 0°25 | 28°35 | | | | | | | | |
| T 18 | 10 17 19 | 6° 6'32 | 4°26 | 10°40 | 15° 2 | 23° 8 | 12°11 | 11°43 | 23°42 | 0°45 | 10°46 | 27°D26 | 26°40 | 0°31 | 28°38 | | | | | | | | |
| W19 | 10 21 15 | 7° 6'30 | 16°18 | 12°37 | 15°28 | 23°42 | 12°17 | 11°43 | 23°45 | 0°45 | 10°45 | 27°26 | 26°37 | 0°38 | 28°41 | | | | | | | | |
| T 20 | 10 25 12 | 8° 6'26 | 28° 5 | 14°34 | 15°52 | 24°16 | 12°23 | 11°42 | 23°48 | 0°44 | 10°45 | 27°R27 | 26°34 | 0°45 | 28°43 | | | | | | | | |
| F 21 | 10 29 8 | 9° 6'21 | 9°53 | 16°32 | 16°15 | 24°50 | 12°28 | 11°41 | 23°52 | 0°44 | 10°44 | 27°26 | 26°30 | 0°51 | 28°46 | | | | | | | | |
| S 22 | 10 33 5 | 10° 6'14 | 21°46 | 18°29 | 16°35 | 25°24 | 12°34 | 11°40 | 23°55 | 0°43 | 10°44 | 27°23 | 26°27 | 0°58 | 28°49 | | | | | | | | |
| S 23 | 10 37 2 | 11° 6'05 | 3°50 | 20°26 | 16°54 | 25°58 | 12°39 | 11°39 | 23°58 | 0°43 | 10°43 | 27°18 | 26°24 | 1° 5 | 28°52 | | | | | | | | |
| M24 | 10 40 58 | 12° 5'54 | 16° 6 | 22°23 | 17°10 | 26°32 | 12°44 | 11°38 | 24° 2 | 0°43 | 10°43 | 27°10 | 26°21 | 1°11 | 28°55 | | | | | | | | |
| T 25 | 10 44 55 | 13° 5'41 | 28°38 | 24°18 | 17°25 | 27° 6 | 12°49 | 11°37 | 24° 5 | 0°42 | 10°42 | 26°59 | 26°18 | 1°18 | 28°58 | | | | | | | | |
| W26 | 10 48 51 | 14° 5'26 | 11°26 | 26°12 | 17°37 | 27°41 | 12°54 | 11°35 | 24° 8 | 0°42 | 10°41 | 26°47 | 26°15 | 1°25 | 29° 1 | | | | | | | | |
| T 27 | 10 52 48 | 15° 5'09 | 24°30 | 28° 5 | 17°48 | 28°15 | 12°59 | 11°34 | 24°12 | 0°42 | 10°41 | 26°34 | 26°11 | 1°31 | 29° 4 | | | | | | | | |
| F 28 | 10 56 44 | 16° 4'51 | 7°48 | 29°55 | 17°56 | 28°50 | 13° 3 | 11°32 | 24°15 | 0°42 | 10°40 | 26°21 | 26° 8 | 1°38 | 29° 7 | | | | | | | | |
| S 29 | 11 0 41 | 17° 4'30 | 21°18 | 1°43 | 18°9'1 | 29°24 | 13° 8 | 11°31 | 24°18 | 0°41 | 10°39 | 26°10 | 26° 5 | 1°34 | 29°10 | | | | | | | | |

Delta T = 09m53s Julian Calendar created from Swiss Ephemeris, Copyright Astrodienst AG [10.1.2003]

SWISS EPHEMERIS for the year 1248

MARCH 1248 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ |
|------|----------|-----------|---------|--------|--------|---------|--------|--------|-------|-------|--------|--------|-------|------|-------|
| S 1 | 11 4 37 | 18°4'06 | 4°58 | 3°27 | 18°5 | 29°59 | 13°12 | 11°R29 | 24°21 | 0°R41 | 10°R38 | 26°R 2 | 26°2 | 1°51 | 29°14 |
| M 2 | 11 8 34 | 19°3'41 | 18°46 | 5°8 | 18°R 5 | 0°II33 | 13°16 | 11°M27 | 24°25 | 0°541 | 10°M37 | 25°57 | 25°59 | 1°58 | 29°17 |
| T 3 | 11 12 30 | 20°3'13 | 2°II40 | 6°45 | 18°4 | 1°8 | 13°20 | 11°25 | 24°28 | 0°41 | 10°37 | 25°54 | 25°56 | 2°4 | 29°20 |
| W 4 | 11 16 27 | 21°2'43 | 16°40 | 8°18 | 18°0 | 1°43 | 13°23 | 11°23 | 24°31 | 0°D41 | 10°36 | 25°53 | 25°52 | 2°11 | 29°23 |
| T 5 | 11 20 24 | 22°2'11 | 0°545 | 9°46 | 17°54 | 2°17 | 13°27 | 11°21 | 24°34 | 0°41 | 10°35 | 25°53 | 25°49 | 2°18 | 29°27 |
| F 6 | 11 24 20 | 23°1'36 | 14°55 | 11°8 | 17°45 | 2°52 | 13°30 | 11°19 | 24°37 | 0°41 | 10°34 | 25°53 | 25°46 | 2°24 | 29°30 |
| S 7 | 11 28 17 | 24°0'58 | 29°8 | 12°25 | 17°33 | 3°27 | 13°33 | 11°17 | 24°40 | 0°41 | 10°33 | 25°50 | 25°43 | 2°31 | 29°33 |
| S 8 | 11 32 13 | 25°0'19 | 13°Ω22 | 13°36 | 17°19 | 4°2 | 13°36 | 11°15 | 24°44 | 0°41 | 10°32 | 25°45 | 25°40 | 2°38 | 29°37 |
| M 9 | 11 36 10 | 25°59'37 | 27°33 | 14°41 | 17°3 | 4°37 | 13°39 | 11°12 | 24°47 | 0°42 | 10°31 | 25°37 | 25°36 | 2°44 | 29°40 |
| T 10 | 11 40 6 | 26°58'53 | 11°II37 | 15°39 | 16°44 | 5°12 | 13°42 | 11°10 | 24°50 | 0°42 | 10°30 | 25°26 | 25°33 | 2°51 | 29°44 |
| W11 | 11 44 3 | 27°58'06 | 25°29 | 16°30 | 16°22 | 5°47 | 13°44 | 11°7 | 24°53 | 0°42 | 10°29 | 25°14 | 25°30 | 2°58 | 29°47 |
| T 12 | 11 47 59 | 28°57'18 | 9°Ω 5 | 17°15 | 15°59 | 6°22 | 13°46 | 11°5 | 24°56 | 0°42 | 10°28 | 25°1 | 25°27 | 3°4 | 29°51 |
| F 13 | 11 51 56 | 29°56'27 | 22°22 | 17°52 | 15°33 | 6°57 | 13°48 | 11°2 | 24°59 | 0°42 | 10°26 | 24°49 | 25°24 | 3°11 | 29°54 |
| S 14 | 11 55 53 | 0°V55'34 | 5°M18 | 18°22 | 15°5 | 7°32 | 13°50 | 10°59 | 25°2 | 0°43 | 10°25 | 24°39 | 25°21 | 3°18 | 29°58 |
| S 15 | 11 59 49 | 1°54'40 | 17°54 | 18°46 | 14°36 | 8°7 | 13°52 | 10°56 | 25°5 | 0°43 | 10°24 | 24°32 | 25°17 | 3°24 | 0°1 |
| M16 | 12 3 46 | 2°53'44 | 0°2'11 | 19°1 | 14°4 | 8°42 | 13°54 | 10°53 | 25°8 | 0°44 | 10°23 | 24°28 | 25°14 | 3°31 | 0°5 |
| T 17 | 12 7 42 | 3°52'46 | 12°14 | 19°10 | 13°31 | 9°17 | 13°55 | 10°50 | 25°10 | 0°44 | 10°22 | 24°26 | 25°11 | 3°37 | 0°9 |
| W18 | 12 11 39 | 4°51'46 | 24°8 | 19°R12 | 12°57 | 9°53 | 13°56 | 10°47 | 25°13 | 0°44 | 10°20 | 24°D25 | 25°8 | 3°44 | 0°12 |
| T 19 | 12 15 35 | 5°50'44 | 5°53'56 | 19°7 | 12°21 | 10°28 | 13°57 | 10°44 | 25°16 | 0°45 | 10°19 | 24°R25 | 25°5 | 3°51 | 0°16 |
| F 20 | 12 19 32 | 6°49'41 | 17°45 | 18°56 | 11°45 | 11°3 | 13°58 | 10°40 | 25°19 | 0°45 | 10°18 | 24°25 | 25°1 | 3°57 | 0°20 |
| S 21 | 12 23 28 | 7°48'36 | 29°41 | 18°39 | 11°8 | 11°39 | 13°58 | 10°37 | 25°22 | 0°46 | 10°16 | 24°23 | 24°58 | 4°4 | 0°24 |
| S 22 | 12 27 25 | 8°47'29 | 11°Ω48 | 18°16 | 10°30 | 12°14 | 13°59 | 10°34 | 25°24 | 0°47 | 10°15 | 24°19 | 24°55 | 4°11 | 0°27 |
| M23 | 12 31 22 | 9°46'20 | 24°10 | 17°48 | 9°52 | 12°50 | 13°59 | 10°30 | 25°27 | 0°47 | 10°14 | 24°12 | 24°52 | 4°17 | 0°31 |
| T 24 | 12 35 18 | 10°45'09 | 6°X52 | 17°15 | 9°14 | 13°25 | 13°R59 | 10°27 | 25°30 | 0°48 | 10°12 | 24°3 | 24°49 | 4°24 | 0°35 |
| W25 | 12 39 15 | 11°43'56 | 19°53 | 16°39 | 8°37 | 14°0 | 13°59 | 10°23 | 25°33 | 0°48 | 10°11 | 23°52 | 24°46 | 4°31 | 0°39 |
| T 26 | 12 43 11 | 12°42'42 | 3°V15 | 15°59 | 8°0 | 14°36 | 13°58 | 10°19 | 25°35 | 0°49 | 10°9 | 23°40 | 24°42 | 4°37 | 0°42 |
| F 27 | 12 47 8 | 13°41'25 | 16°55 | 15°18 | 7°24 | 15°12 | 13°58 | 10°16 | 25°38 | 0°50 | 10°8 | 23°28 | 24°39 | 4°44 | 0°46 |
| S 28 | 12 51 4 | 14°40'07 | 0°50 | 14°34 | 6°48 | 15°47 | 13°57 | 10°12 | 25°40 | 0°51 | 10°7 | 23°19 | 24°36 | 4°51 | 0°50 |
| S 29 | 12 55 1 | 15°38'46 | 14°56 | 13°51 | 6°14 | 16°23 | 13°56 | 10°8 | 25°43 | 0°51 | 10°5 | 23°11 | 24°33 | 4°57 | 0°54 |
| M30 | 12 58 57 | 16°37'24 | 29°7 | 13°7 | 5°41 | 16°58 | 13°55 | 10°4 | 25°45 | 0°52 | 10°4 | 23°6 | 24°30 | 5°4 | 0°58 |
| T 31 | 13 2 54 | 17°V35'59 | 13°II22 | 12°V25 | 5°V10 | 17°II34 | 13°54 | 10°M 0 | 25°48 | 0°53 | 10°M 2 | 23°24 | 24°27 | 5°11 | 1°2 |

Delta T = 09m53s Julian Calendar 1 March 1248 == Greg. Calendar 8 March 1248

APRIL 1248 JC

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| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ |
|------|----------|-----------|---------|--------|-------|---------|--------|-------|-------|------|--------|--------|-------|------|------|
| W 1 | 13 6 51 | 18°V34'32 | 27°II35 | 11°R44 | 4°R41 | 18°II10 | 13°R52 | 9°R56 | 25°50 | 0°54 | 10°R 1 | 23°24 | 24°23 | 5°17 | 1°6 |
| T 2 | 13 10 47 | 19°33'03 | 11°545 | 11°V 5 | 4°V13 | 18°46 | 13°50 | 9°M52 | 25°53 | 0°55 | 9°M59 | 23°4 | 24°20 | 5°24 | 1°10 |
| F 3 | 13 14 44 | 20°31'32 | 25°51 | 10°30 | 3°48 | 19°21 | 13°48 | 9°48 | 25°55 | 0°56 | 9°58 | 23°R 5 | 24°17 | 5°30 | 1°14 |
| S 4 | 13 18 40 | 21°29'58 | 9°Ω52 | 9°58 | 3°25 | 19°57 | 13°46 | 9°44 | 25°57 | 0°57 | 9°56 | 23°3 | 24°14 | 5°37 | 1°18 |
| S 5 | 13 22 37 | 22°28'22 | 23°47 | 9°30 | 3°4 | 20°33 | 13°44 | 9°40 | 25°59 | 0°58 | 9°54 | 22°59 | 24°11 | 5°44 | 1°22 |
| M 6 | 13 26 33 | 23°26'44 | 7°II37 | 9°6 | 2°45 | 21°9 | 13°42 | 9°36 | 26°2 | 0°59 | 9°53 | 22°53 | 24°7 | 5°50 | 1°26 |
| T 7 | 13 30 30 | 24°25'04 | 21°12 | 8°47 | 2°28 | 21°45 | 13°39 | 9°31 | 26°4 | 1°0 | 9°51 | 22°45 | 24°4 | 5°57 | 1°29 |
| W 8 | 13 34 26 | 25°23'21 | 4°Ω38 | 8°32 | 2°14 | 22°20 | 13°36 | 9°27 | 26°6 | 1°1 | 9°50 | 22°36 | 24°1 | 6°4 | 1°33 |
| T 9 | 13 38 23 | 26°21'37 | 17°51 | 8°23 | 2°3 | 22°56 | 13°33 | 9°23 | 26°8 | 1°2 | 9°48 | 22°26 | 23°58 | 6°10 | 1°37 |
| F 10 | 13 42 19 | 27°19'51 | 0°M48 | 8°D18 | 1°54 | 23°32 | 13°30 | 9°19 | 26°10 | 1°4 | 9°46 | 22°17 | 23°55 | 6°17 | 1°41 |
| S 11 | 13 46 16 | 28°18'04 | 13°30 | 8°18 | 1°47 | 24°8 | 13°27 | 9°14 | 26°12 | 1°5 | 9°45 | 22°9 | 23°52 | 6°24 | 1°45 |
| S 12 | 13 50 13 | 29°16'14 | 25°56 | 8°23 | 1°43 | 24°44 | 13°24 | 9°10 | 26°14 | 1°6 | 9°43 | 22°4 | 23°48 | 6°30 | 1°49 |
| M13 | 13 54 9 | 0°B14'23 | 8°2'8 | 8°33 | 1°D41 | 25°20 | 13°20 | 9°5 | 26°16 | 1°7 | 9°41 | 22°1 | 23°45 | 6°37 | 1°53 |
| T 14 | 13 58 6 | 1°12'31 | 20°9 | 8°47 | 1°41 | 25°56 | 13°16 | 9°1 | 26°18 | 1°9 | 9°40 | 21°D59 | 23°42 | 6°44 | 1°57 |
| W15 | 14 2 2 | 2°10'37 | 2°3 1 | 9°6 | 1°44 | 26°32 | 13°12 | 8°57 | 26°20 | 1°10 | 9°38 | 22°0 | 23°39 | 6°50 | 2°1 |
| T 16 | 14 5 59 | 3°8'41 | 13°50 | 9°30 | 1°50 | 27°8 | 13°8 | 8°52 | 26°22 | 1°11 | 9°36 | 22°1 | 23°36 | 6°57 | 2°5 |
| F 17 | 14 9 55 | 4°6'44 | 25°39 | 9°58 | 1°57 | 27°44 | 13°4 | 8°48 | 26°24 | 1°13 | 9°35 | 22°2 | 23°33 | 7°4 | 2°9 |
| S 18 | 14 13 52 | 5°4'46 | 7°Ω36 | 10°30 | 2°7 | 28°20 | 12°59 | 8°43 | 26°25 | 1°14 | 9°33 | 22°R 3 | 23°29 | 7°10 | 2°13 |
| S 19 | 14 17 48 | 6°2'46 | 19°43 | 11°6 | 2°18 | 28°56 | 12°55 | 8°39 | 26°27 | 1°15 | 9°31 | 22°1 | 23°26 | 7°17 | 2°17 |
| M20 | 14 21 45 | 7°0'44 | 2°X 7 | 11°46 | 2°32 | 29°33 | 12°50 | 8°34 | 26°29 | 1°17 | 9°30 | 21°59 | 23°23 | 7°23 | 2°21 |
| T 21 | 14 25 42 | 7°58'42 | 14°51 | 12°29 | 2°48 | 0°5 9 | 12°45 | 8°30 | 26°30 | 1°18 | 9°28 | 21°54 | 23°20 | 7°30 | 2°25 |
| W22 | 14 29 38 | 8°56'38 | 27°58 | 13°16 | 3°6 | 0°45 | 12°40 | 8°25 | 26°32 | 1°20 | 9°26 | 21°48 | 23°17 | 7°37 | 2°29 |
| T 23 | 14 33 35 | 9°54'32 | 11°V30 | 14°7 | 3°26 | 1°21 | 12°35 | 8°21 | 26°33 | 1°21 | 9°25 | 21°41 | 23°13 | 7°43 | 2°33 |
| F 24 | 14 37 31 | 10°52'25 | 25°24 | 15°1 | 3°47 | 1°57 | 12°29 | 8°16 | 26°35 | 1°23 | 9°23 | 21°35 | 23°10 | 7°50 | 2°37 |
| S 25 | 14 41 28 | 11°50'17 | 9°B38 | 15°58 | 4°10 | 2°34 | 12°24 | 8°12 | 26°36 | 1°24 | 9°21 | 21°29 | 23°7 | 7°57 | 2°41 |
| S 26 | 14 45 24 | 12°48'08 | 24°7 | 16°58 | 4°35 | 3°10 | 12°18 | 8°7 | 26°38 | 1°26 | 9°20 | 21°25 | 23°4 | 8°3 | 2°45 |
| M27 | 14 49 21 | 13°45'57 | 8°II44 | 18°1 | 5°2 | 3°46 | 12°12 | 8°3 | 26°39 | 1°28 | 9°18 | 21°22 | 23°1 | 8°10 | 2°49 |
| T 28 | 14 53 17 | 14°43'44 | 23°23 | 19°8 | 5°30 | 4°22 | 12°6 | 7°58 | 26°40 | 1°29 | 9°16 | 21°D22 | 22°58 | 8°17 | 2°53 |
| W29 | 14 57 14 | 15°41'30 | 7°58 | 20°17 | 5°59 | 4°59 | 12°0 | 7°54 | 26°42 | 1°31 | 9°15 | 21°22 | 22°54 | 8°23 | 2°57 |
| T 30 | 15 1 11 | 16°39'14 | 22°525 | 21°V28 | 6°V30 | 5°535 | 11°54 | 7°M 0 | 26°43 | 1°33 | 9°M 13 | 21°24 | 22°51 | 8°30 | 3°1 |

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SWISS EPHEMERIS for the year 1248

MAY 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ |
|------|----------|----------|-------|-------|-------|-------|--------|-------|--------|------|-------|--------|-------|-------|------|---|
| F 1 | 15 5 7 | 17♁36'56 | 6♁39 | 22♁43 | 7♁ 2 | 6♁11 | 11°R48 | 7°R45 | 26°44 | 1♁34 | 9°R11 | 21°25 | 22°48 | 8♁37 | 3♁ 5 | |
| S 2 | 15 9 4 | 18°34'37 | 20°40 | 24° 0 | 7°36 | 6°48 | 11°42 | 7♁41 | 26°45 | 1°36 | 9♁10 | 21°R25 | 22°45 | 8°43 | 3° 9 | |
| S 3 | 15 13 0 | 19°32'16 | 4♁27 | 25°19 | 8°11 | 7°24 | 11°35 | 7°36 | 26°46 | 1°38 | 9° 8 | 21°25 | 22°42 | 8°50 | 3°13 | |
| M 4 | 15 16 57 | 20°29'54 | 17°59 | 26°41 | 8°47 | 8° 0 | 11°28 | 7°32 | 26°47 | 1°39 | 9° 6 | 21°22 | 22°38 | 8°57 | 3°17 | |
| T 5 | 15 20 53 | 21°27'29 | 1♁17 | 28° 6 | 9°25 | 8°37 | 11°22 | 7°28 | 26°48 | 1°41 | 9° 5 | 21°19 | 22°35 | 9° 3 | 3°20 | |
| W 6 | 15 24 50 | 22°25'04 | 14°21 | 29°33 | 10° 3 | 9°13 | 11°15 | 7°24 | 26°49 | 1°43 | 9° 3 | 21°14 | 22°32 | 9°10 | 3°24 | |
| T 7 | 15 28 46 | 23°22'37 | 27°11 | 1♁ 2 | 10°43 | 9°50 | 11° 8 | 7°19 | 26°50 | 1°45 | 9° 2 | 21°10 | 22°29 | 9°17 | 3°28 | |
| F 8 | 15 32 43 | 24°20'09 | 9♁48 | 2°34 | 11°24 | 10°26 | 11° 1 | 7°15 | 26°51 | 1°47 | 9° 0 | 21° 6 | 22°26 | 9°23 | 3°32 | |
| S 9 | 15 36 40 | 25°17'39 | 22°12 | 4° 9 | 12° 5 | 11° 3 | 10°54 | 7°11 | 26°52 | 1°49 | 8°58 | 21° 2 | 22°23 | 9°30 | 3°36 | |
| S 10 | 15 40 36 | 26°15'09 | 4♁25 | 5°46 | 12°48 | 11°39 | 10°47 | 7° 7 | 26°52 | 1°50 | 8°57 | 21° 0 | 22°19 | 9°36 | 3°39 | |
| M11 | 15 44 33 | 27°12'37 | 16°29 | 7°25 | 13°32 | 12°16 | 10°40 | 7° 3 | 26°53 | 1°52 | 8°55 | 20°D59 | 22°16 | 9°43 | 3°43 | |
| T 12 | 15 48 29 | 28°10'05 | 28°24 | 9° 6 | 14°16 | 12°52 | 10°33 | 6°59 | 26°54 | 1°54 | 8°54 | 20°59 | 22°13 | 9°50 | 3°47 | |
| W13 | 15 52 26 | 29° 7'31 | 10♁14 | 10°50 | 15° 2 | 13°29 | 10°25 | 6°55 | 26°54 | 1°56 | 8°52 | 21° 0 | 22°10 | 9°56 | 3°51 | |
| T 14 | 15 56 22 | 0♁ 4'57 | 22° 2 | 12°37 | 15°48 | 14° 5 | 10°18 | 6°51 | 26°55 | 1°58 | 8°51 | 21° 2 | 22° 7 | 10° 3 | 3°54 | |
| F 15 | 16 0 19 | 1° 2'22 | 3♁52 | 14°25 | 16°35 | 14°42 | 10°11 | 6°47 | 26°55 | 2° 0 | 8°49 | 21° 3 | 22° 4 | 10°10 | 3°58 | |
| S 16 | 16 4 15 | 1°59'46 | 15°48 | 16°16 | 17°23 | 15°18 | 10° 3 | 6°43 | 26°56 | 2° 2 | 8°48 | 21° 5 | 22° 0 | 10°16 | 4° 2 | |
| S 17 | 16 8 12 | 2°57'09 | 27°56 | 18°10 | 18°12 | 15°55 | 9°56 | 6°39 | 26°56 | 2° 4 | 8°46 | 21°R 5 | 21°57 | 10°23 | 4° 5 | |
| M18 | 16 12 9 | 3°54'32 | 10♁18 | 20° 5 | 19° 1 | 16°32 | 9°48 | 6°36 | 26°56 | 2° 6 | 8°45 | 21° 5 | 21°54 | 10°30 | 4° 9 | |
| T 19 | 16 16 5 | 4°51'54 | 23° 0 | 22° 3 | 19°51 | 17° 8 | 9°40 | 6°32 | 26°57 | 2° 8 | 8°43 | 21° 4 | 21°51 | 10°36 | 4°13 | |
| W20 | 16 20 2 | 5°49'16 | 6♁ 6 | 24° 3 | 20°42 | 17°45 | 9°33 | 6°28 | 26°57 | 2°10 | 8°42 | 21° 3 | 21°48 | 10°43 | 4°16 | |
| T 21 | 16 23 58 | 6°46'37 | 19°38 | 26° 5 | 21°33 | 18°21 | 9°25 | 6°25 | 26°57 | 2°12 | 8°40 | 21° 1 | 21°44 | 10°50 | 4°20 | |
| F 22 | 16 27 55 | 7°43'57 | 3♁35 | 28° 9 | 22°25 | 18°58 | 9°18 | 6°21 | 26°57 | 2°14 | 8°39 | 21° 0 | 21°41 | 10°56 | 4°23 | |
| S 23 | 16 31 51 | 8°41'17 | 17°57 | 0♁15 | 23°18 | 19°35 | 9°10 | 6°18 | 26°58 | 2°16 | 8°37 | 20°58 | 21°38 | 11° 3 | 4°27 | |
| S 24 | 16 35 48 | 9°38'36 | 2♁38 | 2°22 | 24°11 | 20°12 | 9° 2 | 6°14 | 26°58 | 2°18 | 8°36 | 20°57 | 21°35 | 11°10 | 4°30 | |
| M25 | 16 39 44 | 10°35'55 | 17°33 | 4°30 | 25° 5 | 20°48 | 8°55 | 6°11 | 26°R58 | 2°20 | 8°35 | 20°D57 | 21°32 | 11°16 | 4°34 | |
| T 26 | 16 43 41 | 11°33'13 | 2♁33 | 6°40 | 25°59 | 21°25 | 8°47 | 6° 8 | 26°58 | 2°23 | 8°33 | 20°57 | 21°29 | 11°23 | 4°37 | |
| W27 | 16 47 38 | 12°30'31 | 17°31 | 8°51 | 26°53 | 22° 2 | 8°39 | 6° 5 | 26°57 | 2°25 | 8°32 | 20°57 | 21°25 | 11°30 | 4°40 | |
| T 28 | 16 51 34 | 13°27'47 | 2♁17 | 11° 2 | 27°49 | 22°39 | 8°32 | 6° 1 | 26°57 | 2°27 | 8°31 | 20°58 | 21°22 | 11°36 | 4°44 | |
| F 29 | 16 55 31 | 14°25'03 | 16°48 | 13°14 | 28°44 | 23°16 | 8°24 | 5°58 | 26°57 | 2°29 | 8°29 | 20°59 | 21°19 | 11°43 | 4°47 | |
| S 30 | 16 59 27 | 15°22'18 | 0♁59 | 15°25 | 29°41 | 23°52 | 8°16 | 5°55 | 26°57 | 2°31 | 8°28 | 20°59 | 21°16 | 11°50 | 4°50 | |
| S 31 | 17 3 24 | 16♁19'32 | 14♁48 | 17♁37 | 0♁37 | 24♁29 | 8♁ 9 | 5♁53 | 26°57 | 2°33 | 8♁27 | 20°R59 | 21°13 | 11♁56 | 4♁54 | |

Delta T = 09m52s Julian Calendar 1 May 1248 == Greg. Calendar 8 May 1248

JUNE 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♅ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ | ♁ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|--------|------|-------|--------|-------|-------|------|---|
| M 1 | 17 7 20 | 17♁16'45 | 28♁15 | 19♁48 | 1♁34 | 25♁ 6 | 8°R 1 | 5°R50 | 26°R56 | 2♁35 | 8°R26 | 20°R59 | 21°10 | 12♁ 3 | 4♁57 | |
| T 2 | 17 11 17 | 18°13'58 | 11♁23 | 21°59 | 2°32 | 25°43 | 7°54 | 5♁47 | 26°56 | 2°38 | 8♁25 | 20°59 | 21° 6 | 12°10 | 5° 0 | |
| W 3 | 17 15 13 | 19°11'09 | 24°12 | 24° 8 | 3°29 | 26°20 | 7°47 | 5°44 | 26°55 | 2°40 | 8°23 | 20°59 | 21° 3 | 12°16 | 5° 3 | |
| T 4 | 17 19 10 | 20° 8'21 | 6♁45 | 26°16 | 4°28 | 26°57 | 7°39 | 5°42 | 26°55 | 2°42 | 8°22 | 20°59 | 21° 0 | 12°23 | 5° 6 | |
| F 5 | 17 23 7 | 21° 5'31 | 19° 5 | 28°23 | 5°26 | 27°34 | 7°32 | 5°39 | 26°54 | 2°44 | 8°21 | 20°D59 | 20°57 | 12°29 | 5° 9 | |
| S 6 | 17 27 3 | 22° 2'42 | 1♁15 | 0♁29 | 6°25 | 28°11 | 7°25 | 5°37 | 26°54 | 2°46 | 8°20 | 20°59 | 20°54 | 12°36 | 5°12 | |
| S 7 | 17 31 0 | 22°59'52 | 13°16 | 2°33 | 7°24 | 28°48 | 7°18 | 5°35 | 26°53 | 2°48 | 8°19 | 20°59 | 20°50 | 12°43 | 5°15 | |
| M 8 | 17 34 56 | 23°57'02 | 25°11 | 4°35 | 8°24 | 29°25 | 7°11 | 5°32 | 26°53 | 2°51 | 8°18 | 20°R59 | 20°47 | 12°49 | 5°18 | |
| T 9 | 17 38 53 | 24°54'11 | 7♁ 1 | 6°36 | 9°24 | 0♁ 2 | 7° 4 | 5°30 | 26°52 | 2°53 | 8°17 | 20°59 | 20°44 | 12°56 | 5°21 | |
| W10 | 17 42 49 | 25°51'21 | 18°49 | 8°34 | 10°24 | 0°39 | 6°57 | 5°28 | 26°51 | 2°55 | 8°16 | 20°58 | 20°41 | 13° 3 | 5°24 | |
| T 11 | 17 46 46 | 26°48'30 | 0♁39 | 10°31 | 11°25 | 1°16 | 6°50 | 5°26 | 26°50 | 2°57 | 8°15 | 20°58 | 20°38 | 13° 9 | 5°27 | |
| F 12 | 17 50 43 | 27°45'39 | 12°31 | 12°25 | 12°26 | 1°53 | 6°43 | 5°24 | 26°50 | 3° 0 | 8°14 | 20°57 | 20°35 | 13°16 | 5°30 | |
| S 13 | 17 54 39 | 28°42'49 | 24°30 | 14°18 | 13°27 | 2°30 | 6°36 | 5°22 | 26°49 | 3° 2 | 8°13 | 20°56 | 20°31 | 13°23 | 5°32 | |
| S 14 | 17 58 36 | 29°39'58 | 6♁38 | 16° 8 | 14°29 | 3° 7 | 6°30 | 5°21 | 26°48 | 3° 4 | 8°12 | 20°55 | 20°28 | 13°29 | 5°35 | |
| M15 | 18 2 32 | 0♁37'08 | 19° 1 | 17°57 | 15°31 | 3°44 | 6°23 | 5°19 | 26°47 | 3° 6 | 8°11 | 20°54 | 20°25 | 13°36 | 5°38 | |
| T 16 | 18 6 29 | 1°34'18 | 1♁40 | 19°43 | 16°33 | 4°21 | 6°17 | 5°18 | 26°46 | 3° 8 | 8°11 | 20°D54 | 20°22 | 13°43 | 5°41 | |
| W17 | 18 10 25 | 2°31'29 | 14°41 | 21°27 | 17°35 | 4°58 | 6°11 | 5°16 | 26°45 | 3°11 | 8°10 | 20°54 | 20°19 | 13°49 | 5°43 | |
| T 18 | 18 14 22 | 3°28'39 | 28° 6 | 23°10 | 18°38 | 5°35 | 6° 5 | 5°15 | 26°44 | 3°13 | 8° 9 | 20°55 | 20°16 | 13°56 | 5°46 | |
| F 19 | 18 18 18 | 4°25'51 | 11♁58 | 24°50 | 19°41 | 6°12 | 5°59 | 5°14 | 26°42 | 3°15 | 8° 8 | 20°56 | 20°12 | 14° 3 | 5°48 | |
| S 20 | 18 22 15 | 5°23'02 | 26°15 | 26°28 | 20°44 | 6°50 | 5°53 | 5°12 | 26°41 | 3°17 | 8° 8 | 20°57 | 20° 9 | 14° 9 | 5°51 | |
| S 21 | 18 26 12 | 6°20'15 | 10♁55 | 28° 4 | 21°47 | 7°27 | 5°47 | 5°11 | 26°40 | 3°20 | 8° 7 | 20°58 | 20° 6 | 14°16 | 5°53 | |
| M22 | 18 30 8 | 7°17'27 | 25°54 | 29°38 | 22°51 | 8° 4 | 5°42 | 5°10 | 26°39 | 3°22 | 8° 6 | 20°R58 | 20° 3 | 14°23 | 5°55 | |
| T 23 | 18 34 5 | 8°14'40 | 11♁ 4 | 1♁10 | 23°55 | 8°41 | 5°36 | 5° 9 | 26°37 | 3°24 | 8° 6 | 20°57 | 20° 0 | 14°29 | 5°58 | |
| W24 | 18 38 1 | 9°11'53 | 26°16 | 2°40 | 24°59 | 9°19 | 5°31 | 5° 9 | 26°36 | 3°26 | 8° 5 | 20°56 | 19°56 | 14°36 | 6° 0 | |
| T 25 | 18 41 58 | 10° 9'06 | 11♁19 | 4° 8 | 26° 3 | 9°56 | 5°26 | 5° 8 | 26°35 | 3°29 | 8° 4 | 20°53 | 19°53 | 14°43 | 6° 2 | |
| F 26 | 18 45 54 | 11° 6'20 | 26° 5 | 5°33 | 27° 7 | 10°33 | 5°21 | 5° 7 | 26°33 | 3°31 | 8° 4 | 20°51 | 19°50 | 14°49 | 6° 4 | |
| S 27 | 18 49 51 | 12° 3'33 | 10♁29 | 6°57 | 28°12 | 11°11 | 5°16 | 5° 7 | 26°32 | 3°33 | 8° 3 | 20°49 | 19°47 | 14°56 | 6° 7 | |
| S 28 | 18 53 47 | 13° 0'47 | 24°26 | 8°18 | 29°17 | 11°48 | 5°11 | 5° 6 | 26°30 | 3°35 | 8° 3 | 20°47 | 19°44 | 15° 3 | 6° 9 | |
| M29 | 18 57 44 | 13°58'00 | 7♁57 | 9°37 | 0♁22 | 12°25 | 5° 7 | 5° 6 | 26°29 | 3°37 | 8° 3 | 20°D46 | 19°41 | 15° 9 | 6°11 | |
| T 30 | 19 1 41 | 14♁55'14 | 21♁ 2 | 10♁53 | 1♁27 | 13♁ 3 | 5♁ 2 | 5♁ 6 | 26°27 | 3♁40 | 8♁ 2 | 20°46 | 19°37 | 15♁16 | 6♁13 | |

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SWISS EPHEMERIS for the year 1248

JULY 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ |
|------|----------|-----------------------|--------------------|--------|-------------------|-------------------|-------------------|-------|--------------------|-------------------|-------|--------------------|--------------------|--------------------|------|---|---|
| W 1 | 19 5 37 | 15 [☾] 52'29 | 3♂45 | 12♂ 8 | 2♂33 | 13♂40 | 4°R58 | 5°R 6 | 26°R26 | 3 [☾] 42 | 8°R 2 | 20 [♂] 47 | 19 [♂] 34 | 15 [☾] 23 | 6♂15 | | |
| T 2 | 19 9 34 | 16°49'43 | 16°10 | 13°19 | 3°38 | 14°18 | 4 [♂] 54 | 5°D 6 | 26 [♂] 24 | 3°44 | 8♂ 2 | 20°48 | 19°31 | 15°29 | 6°17 | | |
| F 3 | 19 13 30 | 17°46'58 | 28°20 | 14°29 | 4°44 | 14°55 | 4°50 | 5♂ 6 | 26°22 | 3°46 | 8° 1 | 20°50 | 19°28 | 15°36 | 6°18 | | |
| S 4 | 19 17 27 | 18°44'13 | 10 [♂] 20 | 15°36 | 5°50 | 15°33 | 4°46 | 5° 6 | 26°21 | 3°48 | 8° 1 | 20°51 | 19°25 | 15°43 | 6°20 | | |
| S 5 | 19 21 23 | 19°41'29 | 22°13 | 16°40 | 6°56 | 16°10 | 4°43 | 5° 6 | 26°19 | 3°50 | 8° 1 | 20°R51 | 19°22 | 15°49 | 6°22 | | |
| M 6 | 19 25 20 | 20°38'45 | 4♂ 2 | 17°41 | 8° 2 | 16°48 | 4°39 | 5° 7 | 26°17 | 3°53 | 8° 1 | 20°51 | 19°18 | 15°56 | 6°24 | | |
| T 7 | 19 29 16 | 21°36'02 | 15°50 | 18°40 | 9° 9 | 17°25 | 4°36 | 5° 7 | 26°15 | 3°55 | 8° 0 | 20°48 | 19°15 | 16° 3 | 6°25 | | |
| W 8 | 19 33 13 | 22°33'20 | 27°40 | 19°35 | 10°15 | 18° 3 | 4°33 | 5° 8 | 26°13 | 3°57 | 8° 0 | 20°45 | 19°12 | 16° 9 | 6°27 | | |
| T 9 | 19 37 10 | 23°30'38 | 9 [♂] 33 | 20°28 | 11°22 | 18°40 | 4°30 | 5° 8 | 26°12 | 3°59 | 8° 0 | 20°40 | 19° 9 | 16°16 | 6°28 | | |
| F 10 | 19 41 6 | 24°27'57 | 21°31 | 21°17 | 12°29 | 19°18 | 4°27 | 5° 9 | 26°10 | 4° 1 | 8° 0 | 20°34 | 19° 6 | 16°23 | 6°30 | | |
| S 11 | 19 45 3 | 25°25'18 | 3 [♂] 37 | 22° 3 | 13°36 | 19°56 | 4°25 | 5°10 | 26° 8 | 4° 3 | 8°D 0 | 20°28 | 19° 2 | 16°29 | 6°31 | | |
| S 12 | 19 48 59 | 26°22'39 | 15°52 | 22°45 | 14°43 | 20°33 | 4°22 | 5°11 | 26° 6 | 4° 5 | 8° 0 | 20°22 | 18°59 | 16°36 | 6°33 | | |
| M 13 | 19 52 56 | 27°20'01 | 28°19 | 23°24 | 15°50 | 21°11 | 4°20 | 5°12 | 26° 4 | 4° 8 | 8° 0 | 20°18 | 18°56 | 16°43 | 6°34 | | |
| T 14 | 19 56 52 | 28°17'24 | 11 [♂] 0 | 23°59 | 16°58 | 21°49 | 4°18 | 5°13 | 26° 2 | 4°10 | 8° 0 | 20°15 | 18°53 | 16°49 | 6°35 | | |
| W 15 | 20 0 49 | 29°14'49 | 23°58 | 24°29 | 18° 6 | 22°26 | 4°16 | 5°14 | 26° 0 | 4°12 | 8° 0 | 20°D13 | 18°50 | 16°56 | 6°36 | | |
| T 16 | 20 4 45 | 0♂12'14 | 7♂17 | 24°56 | 19°13 | 23° 4 | 4°15 | 5°16 | 25°58 | 4°14 | 8° 0 | 20°13 | 18°47 | 17° 3 | 6°37 | | |
| F 17 | 20 8 42 | 1° 9'42 | 20°59 | 25°18 | 20°21 | 23°42 | 4°13 | 5°17 | 25°56 | 4°16 | 8° 1 | 20°14 | 18°43 | 17° 9 | 6°39 | | |
| S 18 | 20 12 39 | 2° 7'10 | 5♂ 5 | 25°35 | 21°29 | 24°20 | 4°12 | 5°19 | 25°53 | 4°18 | 8° 1 | 20°16 | 18°40 | 17°16 | 6°40 | | |
| S 19 | 20 16 35 | 3° 4'40 | 19°34 | 25°48 | 22°38 | 24°58 | 4°11 | 5°20 | 25°51 | 4°20 | 8° 1 | 20°R16 | 18°37 | 17°23 | 6°41 | | |
| M 20 | 20 20 32 | 4° 2'11 | 4 [☾] 23 | 25°55 | 23°46 | 25°35 | 4°10 | 5°22 | 25°49 | 4°22 | 8° 1 | 20°16 | 18°34 | 17°29 | 6°41 | | |
| T 21 | 20 24 28 | 4°59'44 | 19°27 | 25°R58 | 24°54 | 26°13 | 4° 9 | 5°24 | 25°47 | 4°24 | 8° 2 | 20°13 | 18°31 | 17°36 | 6°42 | | |
| W 22 | 20 28 25 | 5°57'17 | 4♂38 | 25°55 | 26° 3 | 26°51 | 4° 9 | 5°26 | 25°45 | 4°26 | 8° 2 | 20° 8 | 18°28 | 17°43 | 6°43 | | |
| T 23 | 20 32 21 | 6°54'52 | 19°45 | 25°47 | 27°12 | 27°29 | 4° 9 | 5°28 | 25°43 | 4°28 | 8° 2 | 20° 2 | 18°24 | 17°49 | 6°44 | | |
| F 24 | 20 36 18 | 7°52'28 | 4 [♂] 39 | 25°33 | 28°20 | 28° 7 | 4°D 8 | 5°30 | 25°40 | 4°30 | 8° 3 | 19°55 | 18°21 | 17°56 | 6°44 | | |
| S 25 | 20 40 14 | 8°50'05 | 19°11 | 25°14 | 29°29 | 28°45 | 4° 8 | 5°32 | 25°38 | 4°32 | 8° 3 | 19°48 | 18°18 | 18° 3 | 6°45 | | |
| S 26 | 20 44 11 | 9°47'43 | 3 [♂] 17 | 24°49 | 0 [☾] 38 | 29°23 | 4° 9 | 5°34 | 25°36 | 4°33 | 8° 4 | 19°42 | 18°15 | 18° 9 | 6°46 | | |
| M 27 | 20 48 8 | 10°45'22 | 16°53 | 24°19 | 1°48 | 0 [♂] 1 | 4° 9 | 5°37 | 25°34 | 4°35 | 8° 4 | 19°37 | 18°12 | 18°16 | 6°46 | | |
| T 28 | 20 52 4 | 11°43'02 | 0♂ 2 | 23°44 | 2°57 | 0°39 | 4°10 | 5°39 | 25°31 | 4°37 | 8° 5 | 19°35 | 18° 8 | 18°22 | 6°47 | | |
| W 29 | 20 56 1 | 12°40'43 | 12°45 | 23° 5 | 4° 6 | 1°17 | 4°10 | 5°42 | 25°29 | 4°39 | 8° 5 | 19°D34 | 18° 5 | 18°29 | 6°47 | | |
| T 30 | 20 59 57 | 13°38'25 | 25° 8 | 22°21 | 5°16 | 1°55 | 4°11 | 5°44 | 25°27 | 4°41 | 8° 6 | 19°34 | 18° 2 | 18°36 | 6°47 | | |
| F 31 | 21 3 54 | 14♂36'09 | 7♂14 | 21♂34 | 6 [☾] 25 | 2 [♂] 34 | 4 [♂] 13 | 5♂47 | 25 [♂] 24 | 4 [☾] 43 | 8♂ 7 | 19 [♂] 35 | 17 [♂] 59 | 18 [☾] 42 | 6♂48 | | |

Delta T = 09m52s Julian Calendar 1 July 1248 == Greg. Calendar 8 July 1248

AUGUST 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ |
|------|----------|-----------------------|--------------------|-------------------|-------------------|--------------------|-------------------|------|--------------------|-------------------|------|--------------------|--------------------|--------------------|-------|---|---|
| S 1 | 21 7 50 | 15♂33'53 | 19 [♂] 10 | 20°R44 | 7 [☾] 35 | 3 [♂] 12 | 4 [♂] 14 | 5♂50 | 25°R22 | 4 [☾] 45 | 8♂ 7 | 19°R36 | 17 [♂] 56 | 18 [☾] 49 | 6♂48 | | |
| S 2 | 21 11 47 | 16°31'39 | 0 [☾] 59 | 19♂52 | 8°45 | 3°50 | 4°15 | 5°53 | 25 [♂] 20 | 4°46 | 8° 8 | 19 [♂] 35 | 17°53 | 18°56 | 6°48 | | |
| M 3 | 21 15 43 | 17°29'26 | 12°47 | 18°59 | 9°55 | 4°28 | 4°17 | 5°56 | 25°17 | 4°48 | 8° 9 | 19°32 | 17°49 | 19° 2 | 6°48 | | |
| T 4 | 21 19 40 | 18°27'14 | 24°36 | 18° 6 | 11° 5 | 5° 6 | 4°19 | 5°59 | 25°15 | 4°50 | 8°10 | 19°27 | 17°46 | 19° 9 | 6°R48 | | |
| W 5 | 21 23 37 | 19°25'04 | 6 [♂] 30 | 17°15 | 12°15 | 5°45 | 4°21 | 6° 2 | 25°12 | 4°52 | 8°10 | 19°20 | 17°43 | 19°16 | 6°48 | | |
| T 6 | 21 27 33 | 20°22'55 | 18°31 | 16°25 | 13°25 | 6°23 | 4°23 | 6° 5 | 25°10 | 4°53 | 8°11 | 19°10 | 17°40 | 19°22 | 6°48 | | |
| F 7 | 21 31 30 | 21°20'48 | 0 [♂] 39 | 15°39 | 14°35 | 7° 1 | 4°26 | 6° 8 | 25° 8 | 4°55 | 8°12 | 18°59 | 17°37 | 19°29 | 6°48 | | |
| S 8 | 21 35 26 | 22°18'42 | 12°56 | 14°57 | 15°46 | 7°40 | 4°28 | 6°12 | 25° 5 | 4°57 | 8°13 | 18°47 | 17°34 | 19°36 | 6°47 | | |
| S 9 | 21 39 23 | 23°16'38 | 25°24 | 14°20 | 16°56 | 8°18 | 4°31 | 6°15 | 25° 3 | 4°58 | 8°14 | 18°37 | 17°30 | 19°42 | 6°47 | | |
| M 10 | 21 43 19 | 24°14'35 | 8 [♂] 2 | 13°49 | 18° 7 | 8°56 | 4°34 | 6°19 | 25° 1 | 5° 0 | 8°15 | 18°27 | 17°27 | 19°49 | 6°47 | | |
| T 11 | 21 47 16 | 25°12'35 | 20°52 | 13°25 | 19°18 | 9°35 | 4°37 | 6°23 | 24°58 | 5° 1 | 8°16 | 18°20 | 17°24 | 19°56 | 6°46 | | |
| W 12 | 21 51 12 | 26°10'36 | 3 [♂] 56 | 13° 9 | 20°29 | 10°13 | 4°41 | 6°26 | 24°56 | 5° 3 | 8°17 | 18°16 | 17°21 | 20° 2 | 6°46 | | |
| T 13 | 21 55 9 | 27° 8'40 | 17°15 | 13° 0 | 21°40 | 10°52 | 4°44 | 6°30 | 24°53 | 5° 4 | 8°18 | 18°14 | 17°18 | 20° 9 | 6°45 | | |
| F 14 | 21 59 6 | 28° 6'45 | 0 [♂] 51 | 13°D 0 | 22°51 | 11°30 | 4°48 | 6°34 | 24°51 | 5° 6 | 8°19 | 18°D13 | 17°14 | 20°16 | 6°45 | | |
| S 15 | 22 3 2 | 29° 4'53 | 14°46 | 13° 9 | 24° 2 | 12° 9 | 4°52 | 6°38 | 24°49 | 5° 7 | 8°20 | 18°R14 | 17°11 | 20°22 | 6°44 | | |
| S 16 | 22 6 59 | 0 [♂] 3'02 | 29° 0 | 13°26 | 25°13 | 12°48 | 4°56 | 6°42 | 24°46 | 5° 9 | 8°22 | 18°13 | 17° 8 | 20°29 | 6°44 | | |
| M 17 | 22 10 55 | 1° 1'14 | 13 [☾] 32 | 13°51 | 26°24 | 13°26 | 5° 0 | 6°46 | 24°44 | 5°10 | 8°23 | 18°11 | 17° 5 | 20°36 | 6°43 | | |
| T 18 | 22 14 52 | 1°59'27 | 28°18 | 14°25 | 27°36 | 14° 5 | 5° 4 | 6°50 | 24°41 | 5°12 | 8°24 | 18° 7 | 17° 2 | 20°42 | 6°42 | | |
| W 19 | 22 18 48 | 2°57'43 | 13♂13 | 15° 8 | 28°47 | 14°44 | 5° 9 | 6°55 | 24°39 | 5°13 | 8°25 | 17°59 | 16°59 | 20°49 | 6°41 | | |
| T 20 | 22 22 45 | 3°56'00 | 28° 9 | 15°58 | 29°59 | 15°22 | 5°13 | 6°59 | 24°37 | 5°14 | 8°27 | 17°50 | 16°55 | 20°56 | 6°40 | | |
| F 21 | 22 26 41 | 4°54'19 | 12 [♂] 55 | 16°55 | 1♂10 | 16° 1 | 5°18 | 7° 3 | 24°34 | 5°16 | 8°28 | 17°39 | 16°52 | 21° 3 | 6°39 | | |
| S 22 | 22 30 38 | 5°52'40 | 27°25 | 18° 0 | 2°22 | 16°40 | 5°23 | 7° 8 | 24°32 | 5°17 | 8°29 | 17°28 | 16°49 | 21° 9 | 6°38 | | |
| S 23 | 22 34 35 | 6°51'03 | 11 [♂] 31 | 19°12 | 3°34 | 17°19 | 5°28 | 7°13 | 24°30 | 5°18 | 8°31 | 17°18 | 16°46 | 21°16 | 6°37 | | |
| M 24 | 22 38 31 | 7°49'27 | 25°10 | 20°30 | 4°46 | 17°58 | 5°34 | 7°17 | 24°27 | 5°20 | 8°32 | 17°10 | 16°43 | 21°23 | 6°36 | | |
| T 25 | 22 42 28 | 8°47'54 | 8♂22 | 21°53 | 5°58 | 18°36 | 5°39 | 7°22 | 24°25 | 5°21 | 8°33 | 17° 4 | 16°39 | 21°29 | 6°35 | | |
| W 26 | 22 46 24 | 9°46'21 | 21° 7 | 23°21 | 7°10 | 19°15 | 5°45 | 7°27 | 24°23 | 5°22 | 8°35 | 17° 1 | 16°36 | 21°36 | 6°33 | | |
| T 27 | 22 50 21 | 10°44'51 | 3 [♂] 31 | 24°54 | 8°22 | 19°54 | 5°51 | 7°32 | 24°21 | 5°23 | 8°36 | 17° 0 | 16°33 | 21°43 | 6°32 | | |
| F 28 | 22 54 17 | 11°43'22 | 15°38 | 26°30 | 9°34 | 20°33 | 5°57 | 7°36 | 24°18 | 5°24 | 8°38 | 17° 0 | 16°30 | 21°49 | 6°31 | | |
| S 29 | 22 58 14 | 12°41'55 | 27°34 | 28°10 | 10°46 | 21°12 | 6° 3 | 7°41 | 24°16 | 5°25 | 8°39 | 17° 0 | 16°27 | 21°56 | 6°29 | | |
| S 30 | 23 2 10 | 13°40'29 | 9 [☾] 23 | 29°53 | 11°59 | 21°51 | 6° 9 | 7°46 | 24°14 | 5°26 | 8°41 | 16°58 | 16°24 | 22° 3 | 6°28 | | |
| M 31 | 23 6 7 | 14 [♂] 39'06 | 21 [☾] 12 | 1 [♂] 38 | 13♂11 | 22 [♂] 30 | 6 [♂] 15 | 7♂52 | 24 [♂] 12 | 5 [☾] 27 | 8♂43 | 16 [♂] 55 | 16 [♂] 20 | 22 [☾] 9 | 6♂26 | | |

Delta T = 09m52s Julian Calendar created from Swiss Ephemeris, Copyright Astrodiens AG [10.1.2003]

SWISS EPHEMERIS for the year 1248

SEPTEMBER 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|----------|-----------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|-------------------|-------------------|---------------------|---------------------|----------------------|---------------------|---|---|---|---|---|---|---|---|
| T 1 | 23 10 4 | 15 ^h 37'44 | 3 ^h 38'4 | 3 ^h 24 | 14 ^h 24 | 23 ^h 9 | 6 ^h 22 | 7 ^h 57 | 24 ^h R 9 | 5 ^h 28 | 8 ^h 44 | 16 ^h R48 | 16 ^h 17 | 22 ^h 16 | 6 ^h R25 | | | | | | | | |
| W 2 | 23 14 0 | 16 ^h 36'23 | 15 ^h 3 | 5 ^h 12 | 15 ^h 36 | 23 ^h 49 | 6 ^h 29 | 8 ^h 2 | 24 ^h 7 | 5 ^h 29 | 8 ^h 46 | 16 ^h R39 | 16 ^h 14 | 22 ^h 23 | 6 ^h R23 | | | | | | | | |
| T 3 | 23 17 57 | 17 ^h 35'05 | 27 ^h 12 | 7 ^h 1 | 16 ^h 49 | 24 ^h 28 | 6 ^h 36 | 8 ^h 7 | 24 ^h 5 | 5 ^h 30 | 8 ^h 48 | 16 ^h 28 | 16 ^h 11 | 22 ^h 29 | 6 ^h 21 | | | | | | | | |
| F 4 | 23 21 53 | 18 ^h 33'48 | 9 ^h 33 | 8 ^h 51 | 18 ^h 2 | 25 ^h 7 | 6 ^h 43 | 8 ^h 13 | 24 ^h 3 | 5 ^h 31 | 8 ^h 49 | 16 ^h 15 | 16 ^h 8 | 22 ^h 36 | 6 ^h 20 | | | | | | | | |
| S 5 | 23 25 50 | 19 ^h 32'34 | 22 ^h 5 | 10 ^h 42 | 19 ^h 15 | 25 ^h 46 | 6 ^h 50 | 8 ^h 18 | 24 ^h 1 | 5 ^h 32 | 8 ^h 51 | 16 ^h 1 | 16 ^h 5 | 22 ^h 43 | 6 ^h 18 | | | | | | | | |
| S 6 | 23 29 46 | 20 ^h 31'21 | 4 ^h 50 | 12 ^h 32 | 20 ^h 27 | 26 ^h 25 | 6 ^h 57 | 8 ^h 24 | 23 ^h 59 | 5 ^h 33 | 8 ^h 53 | 15 ^h 48 | 16 ^h 1 | 22 ^h 49 | 6 ^h 16 | | | | | | | | |
| M 7 | 23 33 43 | 21 ^h 30'11 | 17 ^h 47 | 14 ^h 22 | 21 ^h 40 | 27 ^h 5 | 7 ^h 4 | 8 ^h 29 | 23 ^h 57 | 5 ^h 34 | 8 ^h 55 | 15 ^h 37 | 15 ^h 58 | 22 ^h 56 | 6 ^h 14 | | | | | | | | |
| T 8 | 23 37 39 | 22 ^h 29'03 | 0 ^h 55 | 16 ^h 13 | 22 ^h 53 | 27 ^h 44 | 7 ^h 12 | 8 ^h 35 | 23 ^h 55 | 5 ^h 35 | 8 ^h 56 | 15 ^h 28 | 15 ^h 55 | 23 ^h 3 | 6 ^h 12 | | | | | | | | |
| W 9 | 23 41 36 | 23 ^h 27'57 | 14 ^h 14 | 18 ^h 3 | 24 ^h 7 | 28 ^h 23 | 7 ^h 20 | 8 ^h 40 | 23 ^h 53 | 5 ^h 35 | 8 ^h 58 | 15 ^h 23 | 15 ^h 52 | 23 ^h 9 | 6 ^h 10 | | | | | | | | |
| T 10 | 23 45 32 | 24 ^h 26'53 | 27 ^h 43 | 19 ^h 52 | 25 ^h 20 | 29 ^h 3 | 7 ^h 28 | 8 ^h 46 | 23 ^h 51 | 5 ^h 36 | 9 ^h 0 | 15 ^h 20 | 15 ^h 49 | 23 ^h 16 | 6 ^h 8 | | | | | | | | |
| F 11 | 23 49 29 | 25 ^h 25'52 | 11 ^h 24 | 21 ^h 41 | 26 ^h 33 | 29 ^h 42 | 7 ^h 36 | 8 ^h 52 | 23 ^h 49 | 5 ^h 37 | 9 ^h 2 | 15 ^h D19 | 15 ^h 45 | 23 ^h 23 | 6 ^h 6 | | | | | | | | |
| S 12 | 23 53 26 | 26 ^h 24'53 | 25 ^h 16 | 23 ^h 29 | 27 ^h 46 | 0 ^h 22 | 7 ^h 44 | 8 ^h 58 | 23 ^h 47 | 5 ^h 38 | 9 ^h 4 | 15 ^h R19 | 15 ^h 42 | 23 ^h 29 | 6 ^h 4 | | | | | | | | |
| S 13 | 23 57 22 | 27 ^h 23'56 | 9 ^h 20 | 25 ^h 17 | 29 ^h 0 | 1 ^h 1 | 7 ^h 52 | 9 ^h 3 | 23 ^h 45 | 5 ^h 38 | 9 ^h 6 | 15 ^h 19 | 15 ^h 39 | 23 ^h 36 | 6 ^h 2 | | | | | | | | |
| M14 | 0 1 19 | 28 ^h 23'02 | 23 ^h 36 | 27 ^h 4 | 0 ^h 13 | 1 ^h 41 | 8 ^h 0 | 9 ^h 9 | 23 ^h 43 | 5 ^h 39 | 9 ^h 8 | 15 ^h 17 | 15 ^h 36 | 23 ^h 43 | 6 ^h 0 | | | | | | | | |
| T 15 | 0 5 15 | 29 ^h 22'11 | 8 ^h 1 | 28 ^h 50 | 1 ^h 27 | 2 ^h 20 | 8 ^h 9 | 9 ^h 15 | 23 ^h 41 | 5 ^h 39 | 9 ^h 10 | 15 ^h 12 | 15 ^h 33 | 23 ^h 49 | 5 ^h 57 | | | | | | | | |
| W16 | 0 9 12 | 0 ^h 21'21 | 22 ^h 32 | 0 ^h 36 | 2 ^h 40 | 3 ^h 0 | 8 ^h 17 | 9 ^h 21 | 23 ^h 40 | 5 ^h 40 | 9 ^h 12 | 15 ^h 5 | 15 ^h 30 | 23 ^h 56 | 5 ^h 55 | | | | | | | | |
| T 17 | 0 13 8 | 1 ^h 20'34 | 7 ^h 4 | 2 ^h 20 | 3 ^h 54 | 3 ^h 40 | 8 ^h 26 | 9 ^h 27 | 23 ^h 38 | 5 ^h 40 | 9 ^h 14 | 14 ^h 55 | 15 ^h 26 | 24 ^h 3 | 5 ^h 53 | | | | | | | | |
| F 18 | 0 17 5 | 2 ^h 19'49 | 21 ^h 29 | 4 ^h 4 | 5 ^h 7 | 4 ^h 19 | 8 ^h 35 | 9 ^h 34 | 23 ^h 36 | 5 ^h 41 | 9 ^h 16 | 14 ^h 44 | 15 ^h 23 | 24 ^h 9 | 5 ^h 50 | | | | | | | | |
| S 19 | 0 21 1 | 3 ^h 19'06 | 5 ^h 42 | 5 ^h 47 | 6 ^h 21 | 4 ^h 59 | 8 ^h 44 | 9 ^h 40 | 23 ^h 34 | 5 ^h 41 | 9 ^h 18 | 14 ^h 33 | 15 ^h 20 | 24 ^h 16 | 5 ^h 48 | | | | | | | | |
| S 20 | 0 24 58 | 4 ^h 18'25 | 19 ^h 37 | 7 ^h 30 | 7 ^h 35 | 5 ^h 39 | 8 ^h 53 | 9 ^h 46 | 23 ^h 33 | 5 ^h 42 | 9 ^h 20 | 14 ^h 23 | 15 ^h 17 | 24 ^h 23 | 5 ^h 45 | | | | | | | | |
| M21 | 0 28 55 | 5 ^h 17'46 | 3 ^h 19 | 9 ^h 11 | 8 ^h 49 | 6 ^h 19 | 9 ^h 2 | 9 ^h 52 | 23 ^h 31 | 5 ^h 42 | 9 ^h 22 | 14 ^h 14 | 15 ^h 14 | 24 ^h 29 | 5 ^h 43 | | | | | | | | |
| T 22 | 0 32 51 | 6 ^h 17'09 | 16 ^h 8 | 10 ^h 52 | 10 ^h 3 | 6 ^h 59 | 9 ^h 12 | 9 ^h 58 | 23 ^h 30 | 5 ^h 42 | 9 ^h 24 | 14 ^h 8 | 15 ^h 11 | 24 ^h 36 | 5 ^h 40 | | | | | | | | |
| W23 | 0 36 48 | 7 ^h 16'34 | 29 ^h 3 | 12 ^h 32 | 11 ^h 17 | 7 ^h 39 | 9 ^h 21 | 10 ^h 5 | 23 ^h 28 | 5 ^h 43 | 9 ^h 26 | 14 ^h 5 | 15 ^h 7 | 24 ^h 43 | 5 ^h 38 | | | | | | | | |
| T 24 | 0 40 44 | 8 ^h 16'01 | 11 ^h 28 | 14 ^h 11 | 12 ^h 31 | 8 ^h 18 | 9 ^h 31 | 10 ^h 11 | 23 ^h 27 | 5 ^h 43 | 9 ^h 28 | 14 ^h D 4 | 15 ^h 4 | 24 ^h 49 | 5 ^h 35 | | | | | | | | |
| F 25 | 0 44 41 | 9 ^h 15'30 | 23 ^h 36 | 15 ^h 50 | 13 ^h 45 | 8 ^h 58 | 9 ^h 40 | 10 ^h 17 | 23 ^h 25 | 5 ^h 43 | 9 ^h 30 | 14 ^h 4 | 15 ^h 1 | 24 ^h 56 | 5 ^h 33 | | | | | | | | |
| S 26 | 0 48 37 | 10 ^h 15'00 | 5 ^h 33 | 17 ^h 28 | 14 ^h 59 | 9 ^h 38 | 9 ^h 50 | 10 ^h 24 | 23 ^h 24 | 5 ^h 43 | 9 ^h 33 | 14 ^h R 5 | 14 ^h 58 | 25 ^h 3 | 5 ^h 30 | | | | | | | | |
| S 27 | 0 52 34 | 11 ^h 14'33 | 17 ^h 24 | 19 ^h 5 | 16 ^h 13 | 10 ^h 18 | 10 ^h 0 | 10 ^h 30 | 23 ^h 22 | 5 ^h 44 | 9 ^h 35 | 14 ^h 5 | 14 ^h 55 | 25 ^h 9 | 5 ^h 27 | | | | | | | | |
| M28 | 0 56 30 | 12 ^h 14'07 | 29 ^h 13 | 20 ^h 41 | 17 ^h 27 | 10 ^h 59 | 10 ^h 10 | 10 ^h 37 | 23 ^h 21 | 5 ^h 44 | 9 ^h 37 | 14 ^h 3 | 14 ^h 51 | 25 ^h 16 | 5 ^h 24 | | | | | | | | |
| T 29 | 1 0 27 | 13 ^h 13'43 | 11 ^h 7 | 22 ^h 17 | 18 ^h 41 | 11 ^h 39 | 10 ^h 20 | 10 ^h 44 | 23 ^h 20 | 5 ^h 44 | 9 ^h 39 | 13 ^h 59 | 14 ^h 48 | 25 ^h 23 | 5 ^h 22 | | | | | | | | |
| W30 | 1 4 24 | 14 ^h 13'21 | 23 ^h 10 | 23 ^h 52 | 19 ^h 55 | 12 ^h 19 | 10 ^h 31 | 10 ^h 50 | 23 ^h 19 | 5 ^h 44 | 9 ^h 41 | 13 ^h R 5 | 14 ^h R 5 | 25 ^h R 29 | 5 ^h R 19 | | | | | | | | |

Delta T = 09m51s Julian Calendar 1 Sept. 1248 == Greg. Calendar 8 Sept. 1248

OCTOBER 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|---------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---|---|---|---|---|---|---|---|
| T 1 | 1 8 20 | 15 ^h 13'00 | 5 ^h 26 | 25 ^h 27 | 21 ^h 10 | 12 ^h 59 | 10 ^h 41 | 10 ^h 57 | 23 ^h R17 | 5 ^h R44 | 9 ^h 44 | 13 ^h R44 | 14 ^h R42 | 25 ^h 36 | 5 ^h R16 | | | | | | | | |
| F 2 | 1 12 17 | 16 ^h 12'41 | 17 ^h 56 | 27 ^h 1 | 22 ^h 24 | 13 ^h 39 | 10 ^h 51 | 11 ^h 3 | 23 ^h 16 | 5 ^h 44 | 9 ^h 46 | 13 ^h R35 | 14 ^h 39 | 25 ^h 43 | 5 ^h R13 | | | | | | | | |
| S 3 | 1 16 13 | 17 ^h 12'25 | 0 ^h 43 | 28 ^h 34 | 23 ^h 39 | 14 ^h 19 | 11 ^h 2 | 11 ^h 10 | 23 ^h 15 | 5 ^h 44 | 9 ^h 48 | 13 ^h 24 | 14 ^h 36 | 25 ^h 49 | 5 ^h 10 | | | | | | | | |
| S 4 | 1 20 10 | 18 ^h 12'10 | 13 ^h 46 | 0 ^h 7 | 24 ^h 53 | 15 ^h 0 | 11 ^h 12 | 11 ^h 17 | 23 ^h 14 | 5 ^h 44 | 9 ^h 50 | 13 ^h 14 | 14 ^h 32 | 25 ^h 56 | 5 ^h 7 | | | | | | | | |
| M 5 | 1 24 6 | 19 ^h 11'57 | 27 ^h 5 | 1 ^h 40 | 26 ^h 7 | 15 ^h 40 | 11 ^h 23 | 11 ^h 24 | 23 ^h 13 | 5 ^h 44 | 9 ^h 53 | 13 ^h 6 | 14 ^h 29 | 26 ^h 3 | 5 ^h 5 | | | | | | | | |
| T 6 | 1 28 3 | 20 ^h 11'46 | 10 ^h 37 | 3 ^h 11 | 27 ^h 22 | 16 ^h 20 | 11 ^h 34 | 11 ^h 30 | 23 ^h 12 | 5 ^h 43 | 9 ^h 55 | 12 ^h 59 | 14 ^h 26 | 26 ^h 10 | 5 ^h 2 | | | | | | | | |
| W 7 | 1 31 59 | 21 ^h 11'38 | 24 ^h 19 | 4 ^h 42 | 28 ^h 37 | 17 ^h 1 | 11 ^h 45 | 11 ^h 37 | 23 ^h 11 | 5 ^h 43 | 9 ^h 57 | 12 ^h 55 | 14 ^h 23 | 26 ^h 16 | 4 ^h 59 | | | | | | | | |
| T 8 | 1 35 56 | 22 ^h 11'31 | 8 ^h 11 | 6 ^h 13 | 29 ^h 51 | 17 ^h 41 | 11 ^h 56 | 11 ^h 44 | 23 ^h 10 | 5 ^h 43 | 10 ^h 0 | 12 ^h D54 | 14 ^h 20 | 26 ^h 23 | 4 ^h 56 | | | | | | | | |
| F 9 | 1 39 53 | 23 ^h 11'27 | 22 ^h 8 | 7 ^h 43 | 1 ^h 6 | 18 ^h 22 | 12 ^h 7 | 11 ^h 51 | 23 ^h 9 | 5 ^h 43 | 10 ^h 2 | 12 ^h 54 | 14 ^h 16 | 26 ^h 30 | 4 ^h 53 | | | | | | | | |
| S 10 | 1 43 49 | 24 ^h 11'25 | 6 ^h 11 | 9 ^h 13 | 2 ^h 21 | 19 ^h 2 | 12 ^h 18 | 11 ^h 58 | 23 ^h 8 | 5 ^h 43 | 10 ^h 4 | 12 ^h 55 | 14 ^h 13 | 26 ^h 36 | 4 ^h 50 | | | | | | | | |
| S 11 | 1 47 46 | 25 ^h 11'25 | 20 ^h 17 | 10 ^h 42 | 3 ^h 35 | 19 ^h 43 | 12 ^h 29 | 12 ^h 5 | 23 ^h 8 | 5 ^h 42 | 10 ^h 7 | 12 ^h R56 | 14 ^h 10 | 26 ^h 43 | 4 ^h 47 | | | | | | | | |
| M12 | 1 51 42 | 26 ^h 11'28 | 4 ^h 25 | 12 ^h 10 | 4 ^h 50 | 20 ^h 23 | 12 ^h 41 | 12 ^h 11 | 23 ^h 7 | 5 ^h 42 | 10 ^h 9 | 12 ^h 56 | 14 ^h 7 | 26 ^h 50 | 4 ^h 44 | | | | | | | | |
| T 13 | 1 55 39 | 27 ^h 11'33 | 18 ^h 35 | 13 ^h 38 | 6 ^h 5 | 21 ^h 4 | 12 ^h 52 | 12 ^h 18 | 23 ^h 6 | 5 ^h 42 | 10 ^h 11 | 12 ^h 54 | 14 ^h 4 | 26 ^h 56 | 4 ^h 41 | | | | | | | | |
| W14 | 1 59 35 | 28 ^h 11'39 | 2 ^h 44 | 15 ^h 5 | 7 ^h 20 | 21 ^h 45 | 13 ^h 4 | 12 ^h 25 | 23 ^h 6 | 5 ^h 41 | 10 ^h 14 | 12 ^h 50 | 14 ^h 1 | 27 ^h 3 | 4 ^h 38 | | | | | | | | |
| T 15 | 2 3 32 | 29 ^h 11'48 | 16 ^h 48 | 16 ^h 32 | 8 ^h 35 | 22 ^h 26 | 13 ^h 15 | 12 ^h 32 | 23 ^h 5 | 5 ^h 41 | 10 ^h 16 | 12 ^h 44 | 13 ^h 57 | 27 ^h 10 | 4 ^h 35 | | | | | | | | |
| F 16 | 2 7 28 | 0 ^h 11'59 | 0 ^h 46 | 17 ^h 58 | 9 ^h 49 | 23 ^h 6 | 13 ^h 27 | 12 ^h 39 | 23 ^h 5 | 5 ^h 40 | 10 ^h 19 | 12 ^h 37 | 13 ^h 54 | 27 ^h 16 | 4 ^h 32 | | | | | | | | |
| S 17 | 2 11 25 | 1 ^h 12'12 | 14 ^h 32 | 19 ^h 23 | 11 ^h 4 | 23 ^h 47 | 13 ^h 39 | 12 ^h 46 | 23 ^h 4 | 5 ^h 40 | 10 ^h 21 | 12 ^h 30 | 13 ^h 51 | 27 ^h 23 | 4 ^h 29 | | | | | | | | |
| S 18 | 2 15 21 | 2 ^h 12'27 | 28 ^h 4 | 20 ^h 48 | 12 ^h 19 | 24 ^h 28 | 13 ^h 51 | 12 ^h 53 | | | | | | | | | | | | | | | |

SWISS EPHEMERIS for the year 1248

NOVEMBER 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|---|---|
| S 1 | 3 10 33 | 16♌18'41 | 21♍58 | 8♁26 | 29♂51 | 4♌ 4 | 16♁44 | 14♌33 | 23♋ 3 | 5°R28 | 10♌57 | 12°R 1 | 13♁ 3 | 29♂ 3 | 3°R43 | | |
| M 2 | 3 14 30 | 17°19'18 | 5♂34 | 9°25 | 1♌ 6 | 4°46 | 16°56 | 14°40 | 23° 4 | 5♂27 | 11° 0 | 11♁57 | 13° 0 | 29°10 | 3♂40 | | |
| T 3 | 3 18 26 | 18°19'57 | 19°28 | 10°21 | 2°22 | 5°27 | 17° 9 | 14°47 | 23° 4 | 5°26 | 11° 2 | 11°55 | 12°57 | 29°17 | 3°37 | | |
| W 4 | 3 22 23 | 19°20'37 | 3♌37 | 11°11 | 3°37 | 6° 9 | 17°22 | 14°54 | 23° 5 | 5°25 | 11° 4 | 11°53 | 12°54 | 29°23 | 3°34 | | |
| T 5 | 3 26 19 | 20°21'18 | 17°57 | 11°57 | 4°52 | 6°50 | 17°35 | 15° 1 | 23° 5 | 5°24 | 11° 7 | 11°D53 | 12°51 | 29°30 | 3°31 | | |
| F 6 | 3 30 16 | 21°22'02 | 2♂22 | 12°37 | 6° 8 | 7°32 | 17°48 | 15° 8 | 23° 6 | 5°23 | 11° 9 | 11°54 | 12°48 | 29°37 | 3°28 | | |
| S 7 | 3 34 13 | 22°22'46 | 16°48 | 13°11 | 7°23 | 8°13 | 18° 1 | 15°15 | 23° 6 | 5°22 | 11°12 | 11°55 | 12°44 | 29°43 | 3°25 | | |
| S 8 | 3 38 9 | 23°23'33 | 1♌10 | 13°38 | 8°38 | 8°55 | 18°14 | 15°22 | 23° 7 | 5°21 | 11°14 | 11°57 | 12°41 | 29°50 | 3°22 | | |
| M 9 | 3 42 6 | 24°24'20 | 15°25 | 13°56 | 9°54 | 9°37 | 18°27 | 15°29 | 23° 8 | 5°20 | 11°16 | 11°57 | 12°38 | 29°57 | 3°20 | | |
| T 10 | 3 46 2 | 25°25'10 | 29°32 | 14° 6 | 11° 9 | 10°19 | 18°41 | 15°36 | 23° 8 | 5°18 | 11°19 | 11°R58 | 12°35 | 0♁ 3 | 3°17 | | |
| W11 | 3 49 59 | 26°26'00 | 13♍28 | 14°R 7 | 12°25 | 11° 1 | 18°54 | 15°43 | 23° 9 | 5°17 | 11°21 | 11°57 | 12°32 | 0°10 | 3°14 | | |
| T 12 | 3 53 55 | 27°26'53 | 27°12 | 13°57 | 13°40 | 11°42 | 19° 7 | 15°50 | 23°10 | 5°16 | 11°23 | 11°56 | 12°28 | 0°17 | 3°11 | | |
| F 13 | 3 57 52 | 28°27'46 | 10♂44 | 13°37 | 14°55 | 12°24 | 19°20 | 15°57 | 23°11 | 5°15 | 11°26 | 11°54 | 12°25 | 0°24 | 3° 8 | | |
| S 14 | 4 1 48 | 29°28'42 | 24° 4 | 13° 5 | 16°11 | 13° 6 | 19°34 | 16° 4 | 23°12 | 5°13 | 11°28 | 11°52 | 12°22 | 0°30 | 3° 6 | | |
| S 15 | 4 5 45 | 0♁29'38 | 7♌ 9 | 12°22 | 17°26 | 13°48 | 19°47 | 16°11 | 23°13 | 5°12 | 11°30 | 11°50 | 12°19 | 0°37 | 3° 3 | | |
| M16 | 4 9 42 | 1°30'36 | 20° 2 | 11°29 | 18°42 | 14°30 | 20° 1 | 16°18 | 23°14 | 5°11 | 11°33 | 11°49 | 12°16 | 0°44 | 3° 1 | | |
| T 17 | 4 13 38 | 2°31'34 | 2♁40 | 10°26 | 19°57 | 15°12 | 20°14 | 16°25 | 23°15 | 5° 9 | 11°35 | 11°49 | 12°13 | 0°50 | 2°58 | | |
| W18 | 4 17 35 | 3°32'34 | 15° 6 | 9°14 | 21°13 | 15°55 | 20°28 | 16°32 | 23°16 | 5° 8 | 11°37 | 11°D48 | 12° 9 | 0°57 | 2°55 | | |
| T 19 | 4 21 31 | 4°33'35 | 27°19 | 7°56 | 22°28 | 16°37 | 20°41 | 16°39 | 23°18 | 5° 7 | 11°40 | 11°49 | 12° 6 | 1° 4 | 2°53 | | |
| F 20 | 4 25 28 | 5°34'37 | 9♂23 | 6°34 | 23°44 | 17°19 | 20°55 | 16°46 | 23°19 | 5° 5 | 11°42 | 11°49 | 12° 3 | 1°10 | 2°50 | | |
| S 21 | 4 29 24 | 6°35'39 | 21°18 | 5°11 | 24°59 | 18° 1 | 21° 8 | 16°53 | 23°20 | 5° 4 | 11°44 | 11°50 | 12° 0 | 1°17 | 2°48 | | |
| S 22 | 4 33 21 | 7°36'42 | 3♁ 9 | 3°50 | 26°15 | 18°43 | 21°22 | 17° 0 | 23°21 | 5° 2 | 11°46 | 11°51 | 11°57 | 1°24 | 2°46 | | |
| M23 | 4 37 18 | 8°37'45 | 14°58 | 2°33 | 27°30 | 19°26 | 21°35 | 17° 7 | 23°23 | 5° 1 | 11°49 | 11°51 | 11°54 | 1°30 | 2°43 | | |
| T 24 | 4 41 14 | 9°38'49 | 26°51 | 1°23 | 28°46 | 20° 8 | 21°49 | 17°13 | 23°24 | 4°59 | 11°51 | 11°51 | 11°50 | 1°37 | 2°41 | | |
| W25 | 4 45 11 | 10°39'54 | 8♁52 | 0°21 | 0♁ 1 | 20°51 | 22° 3 | 17°20 | 23°26 | 4°58 | 11°53 | 11°R51 | 11°47 | 1°44 | 2°39 | | |
| T 26 | 4 49 7 | 11°40'59 | 21° 5 | 29♌29 | 1°17 | 21°33 | 22°16 | 17°27 | 23°27 | 4°56 | 11°55 | 11°D51 | 11°44 | 1°50 | 2°36 | | |
| F 27 | 4 53 4 | 12°42'04 | 3♍35 | 28°48 | 2°32 | 22°16 | 22°30 | 17°33 | 23°29 | 4°55 | 11°57 | 11°51 | 11°41 | 1°57 | 2°34 | | |
| S 28 | 4 57 0 | 13°43'10 | 16°27 | 28°19 | 3°48 | 22°58 | 22°44 | 17°40 | 23°31 | 4°53 | 12° 0 | 11°51 | 11°38 | 2° 4 | 2°32 | | |
| S 29 | 5 0 57 | 14°44'16 | 29°42 | 28° 0 | 5° 3 | 23°41 | 22°58 | 17°47 | 23°32 | 4°52 | 12° 2 | 11°52 | 11°34 | 2°11 | 2°30 | | |
| M30 | 5 4 53 | 15°45'23 | 13♂23 | 27°D52 | 6♁19 | 24♌23 | 23♁11 | 17♌53 | 23♋34 | 4♂50 | 12♌ 4 | 11♁52 | 11♁31 | 2♁17 | 2♂28 | | |

Delta T = 09m51s Julian Calendar 1 Nov. 1248 == Greg. Calendar 8 Nov. 1248

DECEMBER 1248 JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|------|-------|---|---|
| T 1 | 5 8 50 | 16♁46'30 | 27♂28 | 27♌54 | 7♁34 | 25♌ 6 | 23♁25 | 18♌ 0 | 23♋36 | 4°R48 | 12♌ 6 | 11♁52 | 11♁28 | 2♁24 | 2°R26 | | |
| W 2 | 5 12 47 | 17°47'37 | 11♌56 | 28° 5 | 8°50 | 25°49 | 23°39 | 18° 6 | 23°38 | 4♂47 | 12° 8 | 11°R52 | 11°25 | 2°31 | 2♂24 | | |
| T 3 | 5 16 43 | 18°48'45 | 26°40 | 28°25 | 10° 5 | 26°31 | 23°53 | 18°13 | 23°40 | 4°45 | 12°10 | 11°52 | 11°22 | 2°37 | 2°22 | | |
| F 4 | 5 20 40 | 19°49'54 | 11♂33 | 28°52 | 11°21 | 27°14 | 24° 7 | 18°19 | 23°41 | 4°44 | 12°12 | 11°52 | 11°19 | 2°44 | 2°20 | | |
| S 5 | 5 24 36 | 20°51'02 | 26°27 | 29°27 | 12°36 | 27°57 | 24°20 | 18°26 | 23°43 | 4°42 | 12°14 | 11°51 | 11°15 | 2°51 | 2°19 | | |
| S 6 | 5 28 33 | 21°52'12 | 11♌16 | 0♁ 7 | 13°52 | 28°40 | 24°34 | 18°32 | 23°45 | 4°40 | 12°16 | 11°50 | 11°12 | 2°57 | 2°17 | | |
| M 7 | 5 32 29 | 22°53'22 | 25°51 | 0°54 | 15° 7 | 29°23 | 24°48 | 18°38 | 23°47 | 4°39 | 12°18 | 11°48 | 11° 9 | 3° 4 | 2°15 | | |
| T 8 | 5 36 26 | 23°54'32 | 10♍ 8 | 1°45 | 16°23 | 0♁ 6 | 25° 2 | 18°45 | 23°49 | 4°37 | 12°20 | 11°48 | 11° 6 | 3°11 | 2°13 | | |
| W 9 | 5 40 22 | 24°55'43 | 24° 6 | 2°40 | 17°38 | 0°49 | 25°16 | 18°51 | 23°52 | 4°35 | 12°22 | 11°D47 | 11° 3 | 3°18 | 2°12 | | |
| T 10 | 5 44 19 | 25°56'54 | 7♁43 | 3°40 | 18°54 | 1°32 | 25°30 | 18°57 | 23°54 | 4°34 | 12°24 | 11°47 | 11° 0 | 3°24 | 2°10 | | |
| F 11 | 5 48 16 | 26°58'06 | 21° 0 | 4°43 | 20° 9 | 2°15 | 25°43 | 19° 3 | 23°56 | 4°32 | 12°26 | 11°48 | 10°56 | 3°31 | 2° 9 | | |
| S 12 | 5 52 12 | 27°59'18 | 4♌ 0 | 5°48 | 21°25 | 2°58 | 25°57 | 19° 9 | 23°58 | 4°30 | 12°28 | 11°50 | 10°53 | 3°38 | 2° 8 | | |
| S 13 | 5 56 9 | 29° 0'31 | 16°45 | 6°57 | 22°40 | 3°41 | 26°11 | 19°15 | 24° 1 | 4°29 | 12°29 | 11°51 | 10°50 | 3°44 | 2° 6 | | |
| M14 | 6 0 5 | 0♂ 1'44 | 29°16 | 8° 8 | 23°56 | 4°24 | 26°25 | 19°21 | 24° 3 | 4°27 | 12°31 | 11°52 | 10°47 | 3°51 | 2° 5 | | |
| T 15 | 6 4 2 | 1° 2'57 | 11♁36 | 9°21 | 25°11 | 5° 7 | 26°39 | 19°27 | 24° 5 | 4°25 | 12°33 | 11°R53 | 10°44 | 3°58 | 2° 4 | | |
| W16 | 6 7 58 | 2° 4'10 | 23°47 | 10°35 | 26°27 | 5°51 | 26°53 | 19°33 | 24° 8 | 4°23 | 12°35 | 11°52 | 10°40 | 4° 4 | 2° 2 | | |
| T 17 | 6 11 55 | 3° 5'23 | 5♂50 | 11°52 | 27°42 | 6°34 | 27° 7 | 19°39 | 24°10 | 4°22 | 12°36 | 11°51 | 10°37 | 4°11 | 2° 1 | | |
| F 18 | 6 15 51 | 4° 6'36 | 17°47 | 13°10 | 28°58 | 7°17 | 27°20 | 19°45 | 24°12 | 4°20 | 12°38 | 11°48 | 10°34 | 4°18 | 2° 0 | | |
| S 19 | 6 19 48 | 5° 7'49 | 29°39 | 14°29 | 0♂13 | 8° 1 | 27°34 | 19°50 | 24°15 | 4°18 | 12°40 | 11°44 | 10°31 | 4°24 | 1°59 | | |
| S 20 | 6 23 45 | 6° 9'01 | 11♁29 | 15°50 | 1°29 | 8°44 | 27°48 | 19°56 | 24°18 | 4°17 | 12°42 | 11°40 | 10°28 | 4°31 | 1°58 | | |
| M21 | 6 27 41 | 7°10'13 | 23°20 | 17°12 | 2°44 | 9°27 | 28° 2 | 20° 2 | 24°20 | 4°15 | 12°43 | 11°35 | 10°25 | 4°38 | 1°58 | | |
| T 22 | 6 31 38 | 8°11'24 | 5♁13 | 18°34 | 4° 0 | 10°11 | 28°16 | 20° 7 | 24°23 | 4°13 | 12°45 | 11°31 | 10°21 | 4°45 | 1°57 | | |
| W23 | 6 35 34 | 9°12'35 | 17°12 | 19°58 | 5°15 | 10°55 | 28°29 | 20°13 | 24°25 | 4°12 | 12°46 | 11°28 | 10°18 | 4°51 | 1°56 | | |
| T 24 | 6 39 31 | 10°13'45 | 29°22 | 21°22 | 6°31 | 11°38 | 28°43 | 20°18 | 24°28 | 4°10 | 12°48 | 11°26 | 10°15 | 4°58 | 1°55 | | |
| F 25 | 6 43 27 | 11°14'55 | 11♁47 | 22°48 | 7°46 | 12°22 | 28°57 | 20°23 | 24°31 | 4° 8 | 12°49 | 11°D25 | 10°12 | 5° 5 | 1°55 | | |
| S 26 | 6 47 24 | 12°16'04 | 24°31 | 24°14 | 9° 2 | 13° 5 | 29°11 | 20°29 | 24°34 | 4° 6 | 12°51 | 11°26 | 10° 9 | 5°11 | 1°54 | | |
| S 27 | 6 51 20 | 13°17'12 | 7♂38 | 25°41 | 10°17 | 13°49 | 29°24 | 20°34 | 24°36 | 4° 5 | 12°52 | 11°27 | 10° 5 | 5°18 | 1°54 | | |
| M28 | 6 55 17 | 14°18'20 | 21°11 | 27° 8 | 11°32 | 14°33 | 29°38 | 20°39 | 24°39 | 4° 3 | 12°54 | 11°29 | 10° 2 | 5°25 | 1°53 | | |
| T 29 | 6 59 14 | 15°19'26 | 5♌13 | 28°36 | 12°48 | 15°16 | 29°51 | 20°44 | 24°42 | 4° 1 | 12°55 | 11°R30 | 9°59 | 5°31 | 1°53 | | |
| W30 | 7 3 10 | 16°20'32 | 19°42 | 0♂ 5 | 14° 3 | 16° 0 | 0♂ 5 | 20°49 | 24°45 | 4° 0 | 12°57 | 11°30 | 9°56 | 5°38 | 1°52 | | |
| T 31 | 7 7 7 | 17♂21'38 | 4♂34 | 1♂35 | 15♂19 | 16♁44 | 0♂19 | 20♌54 | 24♋48 | 3♂58 | 12♌58 | 11♁28 | 9♁53 | 5♁45 | 1♂52 | | |

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