

SWISS EPHEMERIS for the year 712

JANUARY 712 C.E.JC

00:00 UT

| Day  | Sid.t   | ☉         | ☽      | ♀      | ♂     | ♂      | ♂      | ♂      | ♂     | ♂      | ♂     | ♂      | ♂      | ♂      | ♂      |
|------|---------|-----------|--------|--------|-------|--------|--------|--------|-------|--------|-------|--------|--------|--------|--------|
| F 1  | 6 51 43 | 13°34'00  | 7°53   | 26°47  | 26°39 | 29°53  | 28°35  | 21°R21 | 2°42  | 20°H 7 | 0°R46 | 16°R19 | 16°24  | 24°B 4 | 29°R51 |
| S 2  | 6 55 39 | 14°44'01  | 20°44  | 28°27  | 27°55 | 0°B16  | 28°37  | 21°N17 | 2°42  | 20° 8  | 0°L45 | 16°A 8 | 16°21  | 24°10  | 29°B47 |
| S 3  | 6 59 36 | 15°45'02  | 3°M47  | 0°A 6  | 29°10 | 0°39   | 28°38  | 21°14  | 2°42  | 20° 9  | 0°44  | 16° 0  | 16°17  | 24°17  | 29°43  |
| M 4  | 7 3 33  | 16°46'03  | 17° 1  | 1°44   | 0°A25 | 1° 3   | 28°40  | 21°10  | 2°R42 | 20°10  | 0°42  | 15°56  | 16°14  | 24°24  | 29°39  |
| T 5  | 7 7 29  | 17°47'02  | 0°A27  | 3°20   | 1°40  | 1°27   | 28°41  | 21° 7  | 2°42  | 20°11  | 0°41  | 15°54  | 16°11  | 24°30  | 29°35  |
| W 6  | 7 11 26 | 18°48'01  | 14° 6  | 4°54   | 2°55  | 1°51   | 28°42  | 21° 3  | 2°42  | 20°13  | 0°39  | 15°53  | 16° 8  | 24°37  | 29°31  |
| T 7  | 7 15 22 | 19°48'59  | 28° 0  | 6°26   | 4°10  | 2°15   | 28°42  | 21° 0  | 2°42  | 20°14  | 0°38  | 15°53  | 16° 5  | 24°44  | 29°27  |
| F 8  | 7 19 19 | 20°49'56  | 12°M10 | 7°55   | 5°25  | 2°40   | 28°43  | 20°56  | 2°42  | 20°15  | 0°37  | 15°52  | 16° 2  | 24°50  | 29°23  |
| S 9  | 7 23 15 | 21°50'53  | 26°34  | 9°20   | 6°40  | 3° 5   | 28°43  | 20°52  | 2°41  | 20°17  | 0°35  | 15°49  | 15°58  | 24°57  | 29°19  |
| S 10 | 7 27 12 | 22°51'49  | 11°A 9 | 10°41  | 7°55  | 3°30   | 28°R44 | 20°48  | 2°41  | 20°18  | 0°34  | 15°42  | 15°55  | 25° 4  | 29°15  |
| M11  | 7 31 8  | 23°52'44  | 25°51  | 11°57  | 9°10  | 3°55   | 28°44  | 20°44  | 2°41  | 20°19  | 0°32  | 15°34  | 15°52  | 25°10  | 29°11  |
| T 12 | 7 35 5  | 24°53'38  | 10°B32 | 13° 7  | 10°25 | 4°21   | 28°43  | 20°40  | 2°40  | 20°21  | 0°31  | 15°22  | 15°49  | 25°17  | 29° 7  |
| W13  | 7 39 2  | 25°54'31  | 25° 5  | 14°11  | 11°40 | 4°47   | 28°43  | 20°36  | 2°40  | 20°22  | 0°29  | 15°10  | 15°46  | 25°24  | 29° 3  |
| T 14 | 7 42 58 | 26°55'22  | 9°A22  | 15° 8  | 12°55 | 5°13   | 28°42  | 20°32  | 2°39  | 20°24  | 0°28  | 14°58  | 15°43  | 25°30  | 28°59  |
| F 15 | 7 46 55 | 27°56'12  | 23°17  | 15°57  | 14°10 | 5°40   | 28°42  | 20°28  | 2°39  | 20°25  | 0°27  | 14°48  | 15°39  | 25°37  | 28°54  |
| S 16 | 7 50 51 | 28°57'01  | 6°A48  | 16°37  | 15°25 | 6° 7   | 28°41  | 20°23  | 2°38  | 20°27  | 0°25  | 14°40  | 15°36  | 25°44  | 28°50  |
| S 17 | 7 54 48 | 29°57'48  | 19°52  | 17° 8  | 16°40 | 6°34   | 28°39  | 20°19  | 2°38  | 20°28  | 0°24  | 14°35  | 15°33  | 25°50  | 28°46  |
| M18  | 7 58 44 | 0°A58'33  | 2°Y32  | 17°29  | 17°55 | 7° 1   | 28°38  | 20°15  | 2°37  | 20°30  | 0°22  | 14°33  | 15°30  | 25°57  | 28°42  |
| T 19 | 8 2 41  | 1°59'17   | 14°52  | 17°R39 | 19°10 | 7°28   | 28°36  | 20°10  | 2°36  | 20°32  | 0°21  | 14°D32 | 15°27  | 26° 4  | 28°38  |
| W20  | 8 6 37  | 2°59'59   | 26°56  | 17°38  | 20°25 | 7°56   | 28°35  | 20° 6  | 2°35  | 20°33  | 0°19  | 14°R32 | 15°23  | 26°11  | 28°34  |
| T 21 | 8 10 34 | 4° 0'39   | 8°B50  | 17°27  | 21°39 | 8°24   | 28°33  | 20° 1  | 2°34  | 20°35  | 0°18  | 14°32  | 15°20  | 26°17  | 28°30  |
| F 22 | 8 14 31 | 5° 1'18   | 20°39  | 17° 6  | 22°54 | 8°52   | 28°31  | 19°57  | 2°33  | 20°37  | 0°16  | 14°31  | 15°17  | 26°24  | 28°25  |
| S 23 | 8 18 27 | 6° 1'55   | 2°II29 | 16°34  | 24° 9 | 9°20   | 28°28  | 19°52  | 2°32  | 20°38  | 0°15  | 14°27  | 15°14  | 26°31  | 28°21  |
| S 24 | 8 22 24 | 7° 2'30   | 14°24  | 15°53  | 25°24 | 9°48   | 28°26  | 19°48  | 2°31  | 20°40  | 0°14  | 14°21  | 15°11  | 26°37  | 28°17  |
| M25  | 8 26 20 | 8° 3'03   | 26°28  | 15° 4  | 26°38 | 10°17  | 28°23  | 19°43  | 2°30  | 20°42  | 0°12  | 14°13  | 15° 8  | 26°44  | 28°13  |
| T 26 | 8 30 17 | 9° 3'35   | 8°B44  | 14° 8  | 27°53 | 10°46  | 28°20  | 19°38  | 2°29  | 20°44  | 0°11  | 14° 2  | 15° 4  | 26°51  | 28° 9  |
| W27  | 8 34 13 | 10° 4'04  | 21°15  | 13° 7  | 29° 8 | 11°15  | 28°17  | 19°34  | 2°28  | 20°46  | 0° 9  | 13°51  | 15° 1  | 26°57  | 28° 5  |
| T 28 | 8 38 10 | 11° 4'33  | 4°L 1  | 12° 2  | 0°A22 | 11°44  | 28°14  | 19°29  | 2°27  | 20°47  | 0° 8  | 13°39  | 14°58  | 27° 4  | 28° 1  |
| F 29 | 8 42 6  | 12° 4'59  | 17° 1  | 10°55  | 1°37  | 12°13  | 28°11  | 19°24  | 2°25  | 20°49  | 0° 7  | 13°28  | 14°55  | 27°11  | 27°57  |
| S 30 | 8 46 3  | 13° 5'23  | 0°M15  | 9°48   | 2°51  | 12°42  | 28° 7  | 19°19  | 2°24  | 20°51  | 0° 5  | 13°19  | 14°52  | 27°17  | 27°53  |
| S 31 | 8 50 0  | 14°A 5'46 | 13°M41 | 8°A43  | 4°A 6 | 13°B12 | 28°M 4 | 19°L15 | 2°A23 | 20°A53 | 0°L 4 | 13°A13 | 14°A48 | 27°B24 | 27°A49 |

Delta T = 01h01m06s Julian Calendar 1 Jan. 712 == Greg. Calendar 5 Jan. 712

FEBRUARY 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉         | ☽       | ♀      | ♂     | ♂      | ♂      | ♂      | ♂     | ♂      | ♂      | ♂      | ♂      | ♂      | ♂      |
|------|----------|-----------|---------|--------|-------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|
| M 1  | 8 53 56  | 15°A 6'08 | 27°M16  | 7°R40  | 5°A20 | 13°B42 | 28°R 0 | 19°R10 | 2°R21 | 20°A55 | 0°R 2  | 13°R 9 | 14°A45 | 27°B31 | 27°R45 |
| T 2  | 8 57 53  | 16° 6'27  | 11°A 1  | 6°A42  | 6°35  | 14°12  | 27°M56 | 19°L 5 | 2°A20 | 20°57  | 0°L 1  | 13°D 8 | 14°42  | 27°37  | 27°B42 |
| W 3  | 9 1 49   | 17° 6'46  | 24°53   | 5°48   | 7°49  | 14°42  | 27°51  | 19° 0  | 2°18  | 20°59  | 0° 0   | 13°A 8 | 14°39  | 27°44  | 27°38  |
| T 4  | 9 5 46   | 18° 7'03  | 8°M52   | 5° 1   | 9° 4  | 15°12  | 27°47  | 18°55  | 2°17  | 21° 1  | 29°B58 | 13° 9  | 14°36  | 27°51  | 27°34  |
| F 5  | 9 9 42   | 19° 7'18  | 22°57   | 4°21   | 10°18 | 15°42  | 27°42  | 18°51  | 2°15  | 21° 3  | 29°57  | 13°R 9 | 14°33  | 27°57  | 27°30  |
| S 6  | 9 13 39  | 20° 7'32  | 7°A 8   | 3°47   | 11°32 | 16°13  | 27°38  | 18°46  | 2°13  | 21° 5  | 29°56  | 13° 8  | 14°29  | 28° 4  | 27°26  |
| S 7  | 9 17 35  | 21° 7'44  | 21°22   | 3°21   | 12°47 | 16°43  | 27°33  | 18°41  | 2°12  | 21° 7  | 29°54  | 13° 5  | 14°26  | 28°11  | 27°23  |
| M 8  | 9 21 32  | 22° 7'55  | 5°B38   | 3° 1   | 14° 1 | 17°14  | 27°28  | 18°36  | 2°10  | 21° 9  | 29°53  | 12°59  | 14°23  | 28°17  | 27°19  |
| T 9  | 9 25 29  | 23° 8'04  | 19°51   | 2°49   | 15°15 | 17°45  | 27°23  | 18°31  | 2° 8  | 21°11  | 29°52  | 12°51  | 14°20  | 28°24  | 27°16  |
| W10  | 9 29 25  | 24° 8'11  | 3°A56   | 2°D43  | 16°29 | 18°16  | 27°17  | 18°27  | 2° 6  | 21°13  | 29°50  | 12°43  | 14°17  | 28°31  | 27°12  |
| T 11 | 9 33 22  | 25° 8'17  | 17°49   | 2°44   | 17°43 | 18°47  | 27°12  | 18°22  | 2° 4  | 21°15  | 29°49  | 12°35  | 14°14  | 28°38  | 27° 9  |
| F 12 | 9 37 18  | 26° 8'21  | 1°A25   | 2°51   | 18°58 | 19°18  | 27° 6  | 18°17  | 2° 3  | 21°17  | 29°48  | 12°28  | 14°10  | 28°44  | 27° 5  |
| S 13 | 9 41 15  | 27° 8'22  | 14°42   | 3° 4   | 20°12 | 19°49  | 27° 0  | 18°12  | 2° 1  | 21°19  | 29°46  | 12°23  | 14° 7  | 28°51  | 27° 2  |
| S 14 | 9 45 11  | 28° 8'22  | 27°39   | 3°23   | 21°26 | 20°21  | 26°55  | 18° 8  | 1°59  | 21°21  | 29°45  | 12°19  | 14° 4  | 28°58  | 26°58  |
| M15  | 9 49 8   | 29° 8'19  | 10°Y17  | 3°46   | 22°40 | 20°53  | 26°49  | 18° 3  | 1°57  | 21°23  | 29°44  | 12°D18 | 14° 1  | 29° 4  | 26°55  |
| T 16 | 9 53 4   | 0°A 8'14  | 22°36   | 4°15   | 23°54 | 21°24  | 26°42  | 17°58  | 1°55  | 21°25  | 29°43  | 12°19  | 13°58  | 29°11  | 26°52  |
| W17  | 9 57 1   | 1° 8'07   | 4°B42   | 4°48   | 25° 8 | 21°56  | 26°36  | 17°54  | 1°53  | 21°28  | 29°42  | 12°20  | 13°54  | 29°18  | 26°49  |
| T 18 | 10 0 58  | 2° 7'58   | 16°38   | 5°26   | 26°22 | 22°28  | 26°30  | 17°49  | 1°51  | 21°30  | 29°40  | 12°22  | 13°51  | 29°24  | 26°46  |
| F 19 | 10 4 54  | 3° 7'46   | 28°29   | 6° 8   | 27°35 | 23° 0  | 26°23  | 17°44  | 1°48  | 21°32  | 29°39  | 12°R23 | 13°48  | 29°31  | 26°43  |
| S 20 | 10 8 51  | 4° 7'33   | 10°II20 | 6°53   | 28°49 | 23°32  | 26°17  | 17°40  | 1°46  | 21°34  | 29°38  | 12°23  | 13°45  | 29°38  | 26°40  |
| S 21 | 10 12 47 | 5° 7'16   | 22°16   | 7°42   | 0°Y 3 | 24° 4  | 26°10  | 17°35  | 1°44  | 21°36  | 29°37  | 12°21  | 13°42  | 29°44  | 26°37  |
| M22  | 10 16 44 | 6° 6'58   | 4°B22   | 8°34   | 1°17  | 24°37  | 26° 3  | 17°31  | 1°42  | 21°39  | 29°36  | 12°18  | 13°39  | 29°51  | 26°34  |
| T 23 | 10 20 40 | 7° 6'37   | 16°42   | 9°29   | 2°30  | 25° 9  | 25°56  | 17°27  | 1°40  | 21°41  | 29°35  | 12°13  | 13°35  | 29°58  | 26°32  |
| W24  | 10 24 37 | 8° 6'15   | 29°19   | 10°27  | 3°44  | 25°41  | 25°49  | 17°22  | 1°37  | 21°43  | 29°34  | 12° 8  | 13°32  | 0°II 4 | 26°29  |
| T 25 | 10 28 33 | 9° 5'49   | 12°L15  | 11°28  | 4°58  | 26°14  | 25°42  | 17°18  | 1°35  | 21°45  | 29°33  | 12° 2  | 13°29  | 0°11   | 26°26  |
| F 26 | 10 32 30 | 10° 5'22  | 25°31   | 12°31  | 6°11  | 26°47  | 25°35  | 17°14  | 1°33  | 21°47  | 29°32  | 11°56  | 13°26  | 0°18   | 26°24  |
| S 27 | 10 36 27 | 11° 4'52  | 9°M 5   | 13°37  | 7°25  | 27°19  | 25°28  | 17°10  | 1°30  | 21°50  | 29°30  | 11°52  | 13°23  | 0°24   | 26°21  |
| S 28 | 10 40 23 | 12° 4'20  | 22°55   | 14°45  | 8°38  | 27°52  | 25°21  | 17° 5  | 1°28  | 21°52  | 29°29  | 11°49  | 13°20  | 0°31   | 26°19  |
| M29  | 10 44 20 | 13°A 3'47 | 6°A57   | 15°A55 | 9°Y51 | 28°B25 | 25°M13 | 17°L 1 | 1°A26 | 21°A54 | 29°B28 | 11°D48 | 13°A16 | 0°II38 | 26°B17 |

Delta T = 01h01m06s Julian Calendar created from Swiss Ephemeris, Copyright Astrodienst AG [10.1.2003]

SWISS EPHEMERIS for the year 712

MARCH 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉                     | ☽                  | ♀                 | ♁                  | ♂                  | ♃                  | ♅                  | ♁                 | ♁                  | ♁                  | ♁                  | ♁                  | ♁                 | ♁                  | ♁ |
|------|----------|-----------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|---|
| T 1  | 10 48 16 | 14 <sup>♁</sup> 3'11  | 21 <sup>♁</sup> 8  | 17 <sup>♁</sup> 7 | 11 <sup>♁</sup> 5  | 28 <sup>♁</sup> 58 | 25°R 6             | 16°R57             | 1°R23             | 21 <sup>♁</sup> 56 | 29°R28             | 11 <sup>♁</sup> 48 | 13 <sup>♁</sup> 13 | 0 <sup>♁</sup> 45 | 26°R14             |   |
| W 2  | 10 52 13 | 15° 2'33              | 5 <sup>♁</sup> 24  | 18°22             | 12°18              | 29°31              | 24 <sup>♁</sup> 58 | 16 <sup>♁</sup> 53 | 1 <sup>♁</sup> 21 | 21°59              | 29 <sup>♁</sup> 27 | 11°50              | 13°10              | 0°51              | 26 <sup>♁</sup> 12 |   |
| T 3  | 10 56 9  | 16° 1'54              | 19°42              | 19°38             | 13°31              | 0 <sup>♁</sup> 4   | 24°51              | 16°49              | 1°18              | 22° 1              | 29°26              | 11°51              | 13° 7              | 0°58              | 26°10              |   |
| F 4  | 11 0 6   | 17° 1'12              | 3 <sup>♁</sup> 58  | 20°56             | 14°44              | 0°37               | 24°43              | 16°46              | 1°16              | 22° 3              | 29°25              | 11°52              | 13° 4              | 1° 5              | 26° 8              |   |
| S 5  | 11 4 2   | 18° 0'29              | 18° 9              | 22°16             | 15°57              | 1°11               | 24°36              | 16°42              | 1°13              | 22° 5              | 29°24              | 11°R53             | 13° 0              | 1°11              | 26° 6              |   |
| S 6  | 11 7 59  | 18°59'45              | 2 <sup>♁</sup> 15  | 23°38             | 17°11              | 1°44               | 24°28              | 16°38              | 1°11              | 22° 8              | 29°23              | 11°52              | 12°57              | 1°18              | 26° 5              |   |
| M 7  | 11 11 55 | 19°58'58              | 16°13              | 25° 2             | 18°24              | 2°17               | 24°20              | 16°35              | 1° 9              | 22°10              | 29°22              | 11°51              | 12°54              | 1°25              | 26° 3              |   |
| T 8  | 11 15 52 | 20°58'10              | 0 <sup>♁</sup> 2   | 26°27             | 19°37              | 2°51               | 24°13              | 16°31              | 1° 6              | 22°12              | 29°21              | 11°48              | 12°51              | 1°31              | 26° 1              |   |
| W 9  | 11 19 49 | 21°57'19              | 13°39              | 27°54             | 20°49              | 3°24               | 24° 5              | 16°28              | 1° 3              | 22°14              | 29°21              | 11°45              | 12°48              | 1°38              | 26° 0              |   |
| T 10 | 11 23 45 | 22°56'27              | 27° 4              | 29°22             | 22° 2              | 3°58               | 23°57              | 16°24              | 1° 1              | 22°17              | 29°20              | 11°43              | 12°45              | 1°45              | 25°58              |   |
| F 11 | 11 27 42 | 23°55'33              | 10 <sup>♁</sup> 15 | 0 <sup>♁</sup> 52 | 23°15              | 4°32               | 23°50              | 16°21              | 0°58              | 22°19              | 29°19              | 11°40              | 12°41              | 1°51              | 25°57              |   |
| S 12 | 11 31 38 | 24°54'36              | 23°11              | 2°23              | 24°28              | 5° 5               | 23°42              | 16°18              | 0°56              | 22°21              | 29°18              | 11°38              | 12°38              | 1°58              | 25°56              |   |
| S 13 | 11 35 35 | 25°53'38              | 5 <sup>♁</sup> 52  | 3°56              | 25°41              | 5°39               | 23°34              | 16°14              | 0°53              | 22°24              | 29°18              | 11°D38             | 12°35              | 2° 5              | 25°54              |   |
| M14  | 11 39 31 | 26°52'37              | 18°19              | 5°31              | 26°53              | 6°13               | 23°26              | 16°11              | 0°51              | 22°26              | 29°17              | 11°38              | 12°32              | 2°11              | 25°53              |   |
| T 15 | 11 43 28 | 27°51'34              | 0 <sup>♁</sup> 33  | 7° 7              | 28° 6              | 6°47               | 23°19              | 16° 8              | 0°48              | 22°28              | 29°16              | 11°38              | 12°29              | 2°18              | 25°52              |   |
| W16  | 11 47 24 | 28°50'29              | 12°36              | 8°44              | 29°18              | 7°21               | 23°11              | 16° 5              | 0°46              | 22°30              | 29°16              | 11°39              | 12°25              | 2°25              | 25°51              |   |
| T 17 | 11 51 21 | 29°49'22              | 24°31              | 10°23             | 0 <sup>♁</sup> 31  | 7°55               | 23° 3              | 16° 3              | 0°43              | 22°33              | 29°15              | 11°41              | 12°22              | 2°32              | 25°51              |   |
| F 18 | 11 55 18 | 0 <sup>♁</sup> 48'13  | 6 <sup>♁</sup> 23  | 12° 4             | 1°43               | 8°29               | 22°56              | 16° 0              | 0°40              | 22°35              | 29°15              | 11°42              | 12°19              | 2°38              | 25°50              |   |
| S 19 | 11 59 14 | 1°47'01               | 18°14              | 13°46             | 2°56               | 9° 3               | 22°48              | 15°57              | 0°38              | 22°37              | 29°14              | 11°42              | 12°16              | 2°45              | 25°49              |   |
| S 20 | 12 3 11  | 2°45'47               | 0 <sup>♁</sup> 10  | 15°30             | 4° 8               | 9°37               | 22°41              | 15°55              | 0°35              | 22°39              | 29°14              | 11°R43             | 12°13              | 2°52              | 25°49              |   |
| M21  | 12 7 7   | 3°44'31               | 12°15              | 17°15             | 5°20               | 10°12              | 22°33              | 15°52              | 0°33              | 22°42              | 29°13              | 11°43              | 12°10              | 2°58              | 25°48              |   |
| T 22 | 12 11 4  | 4°43'12               | 24°35              | 19° 2             | 6°32               | 10°46              | 22°26              | 15°50              | 0°30              | 22°44              | 29°13              | 11°42              | 12° 6              | 3° 5              | 25°48              |   |
| W23  | 12 15 0  | 5°41'52               | 7 <sup>♁</sup> 12  | 20°50             | 7°44               | 11°20              | 22°18              | 15°48              | 0°28              | 22°46              | 29°12              | 11°42              | 12° 3              | 3°12              | 25°48              |   |
| T 24 | 12 18 57 | 6°40'28               | 20°10              | 22°40             | 8°56               | 11°55              | 22°11              | 15°46              | 0°25              | 22°48              | 29°12              | 11°41              | 12° 0              | 3°18              | 25°47              |   |
| F 25 | 12 22 53 | 7°39'03               | 3 <sup>♁</sup> 32  | 24°31             | 10° 8              | 12°29              | 22° 4              | 15°44              | 0°22              | 22°50              | 29°11              | 11°40              | 11°57              | 3°25              | 25°47              |   |
| S 26 | 12 26 50 | 8°37'35               | 17°17              | 26°24             | 11°20              | 13° 4              | 21°57              | 15°42              | 0°20              | 22°53              | 29°11              | 11°40              | 11°54              | 3°32              | 25°D47             |   |
| S 27 | 12 30 47 | 9°36'06               | 1 <sup>♁</sup> 24  | 28°18             | 12°32              | 13°38              | 21°50              | 15°40              | 0°17              | 22°55              | 29°11              | 11°40              | 11°51              | 3°38              | 25°47              |   |
| M28  | 12 34 43 | 10°34'34              | 15°49              | 0 <sup>♁</sup> 15 | 13°44              | 14°13              | 21°43              | 15°38              | 0°15              | 22°57              | 29°10              | 11°D40             | 11°47              | 3°45              | 25°47              |   |
| T 29 | 12 38 40 | 11°33'00              | 0 <sup>♁</sup> 27  | 2°12              | 14°55              | 14°47              | 21°36              | 15°36              | 0°12              | 22°59              | 29°10              | 11°R40             | 11°44              | 3°52              | 25°48              |   |
| W30  | 12 42 36 | 12°31'25              | 15°11              | 4°11              | 16° 7              | 15°22              | 21°29              | 15°35              | 0°10              | 23° 1              | 29°10              | 11°40              | 11°41              | 3°59              | 25°48              |   |
| T 31 | 12 46 33 | 13 <sup>♁</sup> 29'48 | 29 <sup>♁</sup> 54 | 6 <sup>♁</sup> 12 | 17 <sup>♁</sup> 18 | 15 <sup>♁</sup> 57 | 21 <sup>♁</sup> 22 | 15 <sup>♁</sup> 33 | 0 <sup>♁</sup> 7  | 23 <sup>♁</sup> 4  | 29 <sup>♁</sup> 10 | 11 <sup>♁</sup> 40 | 11 <sup>♁</sup> 38 | 4 <sup>♁</sup> 5  | 25 <sup>♁</sup> 49 |   |

Delta T = 01h01m05s Julian Calendar 1 March 712 == Greg. Calendar 5 March 712

APRIL 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉                     | ☽                  | ♀                 | ♁                  | ♂                  | ♃                 | ♅                  | ♁                  | ♁                 | ♁                  | ♁                  | ♁                  | ♁                 | ♁                  | ♁ |
|------|----------|-----------------------|--------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|---|
| F 1  | 12 50 29 | 14 <sup>♁</sup> 28'09 | 14 <sup>♁</sup> 30 | 8 <sup>♁</sup> 14 | 18 <sup>♁</sup> 30 | 16 <sup>♁</sup> 31 | 21°R15            | 15°R32             | 0°R 5              | 23 <sup>♁</sup> 6 | 29°R 9             | 11°R40             | 11 <sup>♁</sup> 35 | 4 <sup>♁</sup> 12 | 25 <sup>♁</sup> 49 |   |
| S 2  | 12 54 26 | 15°26'29              | 28°55              | 10°18             | 19°41              | 17° 6              | 21 <sup>♁</sup> 9 | 15 <sup>♁</sup> 31 | 0 <sup>♁</sup> 2   | 23° 8             | 29 <sup>♁</sup> 9  | 11 <sup>♁</sup> 39 | 11°31              | 4°19              | 25°50              |   |
| S 3  | 12 58 22 | 16°24'47              | 13 <sup>♁</sup> 4  | 12°23             | 20°53              | 17°41              | 21° 2             | 15°29              | 0° 0               | 23°10             | 29° 9              | 11°D39             | 11°28              | 4°25              | 25°50              |   |
| M 4  | 13 2 19  | 17°23'04              | 26°57              | 14°29             | 22° 4              | 18°16              | 20°56             | 15°28              | 29 <sup>♁</sup> 58 | 23°12             | 29° 9              | 11°39              | 11°25              | 4°32              | 25°51              |   |
| T 5  | 13 6 15  | 18°21'19              | 10 <sup>♁</sup> 32 | 16°36             | 23°15              | 18°51              | 20°50             | 15°27              | 29°55              | 23°14             | 29° 9              | 11°40              | 11°22              | 4°39              | 25°52              |   |
| W 6  | 13 10 12 | 19°19'32              | 23°50              | 18°44             | 24°26              | 19°26              | 20°44             | 15°27              | 29°53              | 23°16             | 29° 9              | 11°40              | 11°19              | 4°45              | 25°53              |   |
| T 7  | 13 14 9  | 20°17'44              | 6 <sup>♁</sup> 52  | 20°52             | 25°37              | 20° 1              | 20°38             | 15°26              | 29°50              | 23°18             | 29° 9              | 11°41              | 11°16              | 4°52              | 25°54              |   |
| F 8  | 13 18 5  | 21°15'54              | 19°41              | 23° 1             | 26°48              | 20°36              | 20°32             | 15°25              | 29°48              | 23°20             | 29°D 9             | 11°42              | 11°12              | 4°59              | 25°55              |   |
| S 9  | 13 22 2  | 22°14'03              | 2 <sup>♁</sup> 16  | 25°11             | 27°59              | 21°11              | 20°26             | 15°25              | 29°46              | 23°22             | 29° 9              | 11°42              | 11° 9              | 5° 6              | 25°57              |   |
| S 10 | 13 25 58 | 23°12'10              | 14°39              | 27°20             | 29° 9              | 21°46              | 20°21             | 15°24              | 29°43              | 23°25             | 29° 9              | 11°R42             | 11° 6              | 5°12              | 25°58              |   |
| M11  | 13 29 55 | 24°10'15              | 26°52              | 29°30             | 0 <sup>♁</sup> 20  | 22°21              | 20°15             | 15°24              | 29°41              | 23°27             | 29° 9              | 11°42              | 11° 3              | 5°19              | 26° 0              |   |
| T 12 | 13 33 51 | 25° 8'19              | 8 <sup>♁</sup> 57  | 1 <sup>♁</sup> 38 | 1°31               | 22°56              | 20°10             | 15°24              | 29°39              | 23°29             | 29° 9              | 11°41              | 11° 0              | 5°26              | 26° 1              |   |
| W13  | 13 37 48 | 26° 6'20              | 20°54              | 3°46              | 2°41               | 23°31              | 20° 5             | 15°23              | 29°37              | 23°31             | 29° 9              | 11°39              | 10°56              | 5°32              | 26° 3              |   |
| T 14 | 13 41 44 | 27° 4'21              | 2 <sup>♁</sup> 47  | 5°53              | 3°51               | 24° 7              | 20° 0             | 15°D23             | 29°34              | 23°32             | 29° 9              | 11°37              | 10°53              | 5°39              | 26° 4              |   |
| F 15 | 13 45 41 | 28° 2'19              | 14°38              | 7°58              | 5° 2               | 24°42              | 19°55             | 15°24              | 29°32              | 23°34             | 29°10              | 11°34              | 10°50              | 5°46              | 26° 6              |   |
| S 16 | 13 49 38 | 29° 0'15              | 26°29              | 10° 2             | 6°12               | 25°17              | 19°50             | 15°24              | 29°30              | 23°36             | 29°10              | 11°32              | 10°47              | 5°52              | 26° 8              |   |
| S 17 | 13 53 34 | 29°58'10              | 8 <sup>♁</sup> 25  | 12° 4             | 7°22               | 25°53              | 19°46             | 15°24              | 29°28              | 23°38             | 29°10              | 11°30              | 10°44              | 5°59              | 26°10              |   |
| M18  | 13 57 31 | 0 <sup>♁</sup> 56'03  | 20°29              | 14° 3             | 8°32               | 26°28              | 19°42             | 15°24              | 29°26              | 23°40             | 29°10              | 11°29              | 10°41              | 6° 6              | 26°12              |   |
| T 19 | 14 1 27  | 1°53'54               | 2 <sup>♁</sup> 46  | 16° 0             | 9°42               | 27° 3              | 19°37             | 15°25              | 29°24              | 23°42             | 29°11              | 11°D28             | 10°37              | 6°12              | 26°14              |   |
| W20  | 14 5 24  | 2°51'43               | 15°19              | 17°55             | 10°52              | 27°39              | 19°33             | 15°26              | 29°22              | 23°44             | 29°11              | 11°29              | 10°34              | 6°19              | 26°17              |   |
| T 21 | 14 9 20  | 3°49'30               | 28°14              | 19°46             | 12° 1              | 28°14              | 19°29             | 15°26              | 29°20              | 23°46             | 29°11              | 11°30              | 10°31              | 6°26              | 26°19              |   |
| F 22 | 14 13 17 | 4°47'16               | 11 <sup>♁</sup> 33 | 21°35             | 13°11              | 28°50              | 19°26             | 15°27              | 29°18              | 23°48             | 29°12              | 11°32              | 10°28              | 6°33              | 26°21              |   |
| S 23 | 14 17 13 | 5°45'00               | 25°19              | 23°21             | 14°21              | 29°25              | 19°22             | 15°28              | 29°16              | 23°49             | 29°12              | 11°33              | 10°25              | 6°39              | 26°24              |   |
| S 24 | 14 21 10 | 6°42'42               | 9 <sup>♁</sup> 31  | 25° 4             | 15°30              | 0 <sup>♁</sup> 1   | 19°19             | 15°29              | 29°14              | 23°51             | 29°13              | 11°R33             | 10°22              | 6°46              | 26°27              |   |
| M25  | 14 25 7  | 7°40'23               | 24° 7              | 26°43             | 16°39              | 0°37               | 19°16             | 15°30              | 29°12              | 23°53             | 29°13              | 11°33              | 10°18              | 6°53              | 26°29              |   |
| T 26 | 14 29 3  | 8°38'02               | 9 <sup>♁</sup> 1   | 28°20             | 17°48              | 1°12               | 19°12             | 15°31              | 29°11              | 23°55             | 29°14              | 11°31              | 10°15              | 6°59              | 26°32              |   |
| W27  | 14 33 0  | 9°35'40               | 24° 6              | 29°53             | 18°57              | 1°48               | 19°10             | 15°33              | 29° 9              | 23°56             | 29°14              | 11°28              | 10°12              | 7° 6              | 26°35              |   |
| T 28 | 14 36 56 | 10°33'17              | 9 <sup>♁</sup> 13  | 1 <sup>♁</sup> 22 | 20° 6              | 2°24               | 19° 7             | 15°34              | 29° 7              | 23°58             | 29°15              | 11°25              | 10° 9              | 7°13              | 26°38              |   |
| F 29 | 14 40 53 | 11°30'52              | 24°12              | 2°48              | 21°15              | 2°59               | 19° 4             | 15°36              | 29° 5              | 24° 0             | 29°15              | 11°21              | 10° 6              | 7°19              | 26°41              |   |
| S 30 | 14 44 49 | 12 <sup>♁</sup> 28'27 | 8 <sup>♁</sup> 55  | 4 <sup>♁</sup> 11 | 22 <sup>♁</sup> 24 | 3 <sup>♁</sup> 35  | 19 <sup>♁</sup> 2 | 15 <sup>♁</sup> 37 | 29 <sup>♁</sup> 4  | 24 <sup>♁</sup> 1 | 29 <sup>♁</sup> 16 | 11 <sup>♁</sup> 17 | 10 <sup>♁</sup> 2  | 7 <sup>♁</sup> 26 | 26 <sup>♁</sup> 44 |   |

Delta T = 01h01m04s Julian Calendar created from Swiss Ephemeris, Copyright Astrodiest AG [10.1.2003]

SWISS EPHEMERIS for the year 712

MAY 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀      | ♁     | ♂     | ♃      | ♅     | ♁      | ♁     | ♁     | ♁      | ♁    | ♁     | ♁     | ♁ |
|------|----------|----------|-------|--------|-------|-------|--------|-------|--------|-------|-------|--------|------|-------|-------|---|
| S 1  | 14 48 46 | 13♌26'00 | 23♌16 | 5♀31   | 23♀32 | 4♁11  | 19°R 0 | 15♂39 | 29°R 2 | 24♃3  | 29♁16 | 11°R14 | 9♂59 | 7♀33  | 26♁47 |   |
| M 2  | 14 52 42 | 14°23'33 | 7♁13  | 6°46   | 24°41 | 4°47  | 18♃58  | 15°41 | 29♃1   | 24° 5 | 29°17 | 11♁13  | 9°56 | 7°40  | 26°50 |   |
| T 3  | 14 56 39 | 15°21'04 | 20°46 | 7°59   | 25°49 | 5°22  | 18°56  | 15°43 | 28°59  | 24° 6 | 29°18 | 11°D13 | 9°53 | 7°46  | 26°54 |   |
| W 4  | 15 0 36  | 16°18'35 | 3♃56  | 9° 7   | 26°57 | 5°58  | 18°54  | 15°45 | 28°58  | 24° 8 | 29°19 | 11°14  | 9°50 | 7°53  | 26°57 |   |
| T 5  | 15 4 32  | 17°16'05 | 16°45 | 10°12  | 28° 5 | 6°34  | 18°53  | 15°47 | 28°56  | 24° 9 | 29°19 | 11°15  | 9°47 | 8° 0  | 27° 0 |   |
| F 6  | 15 8 29  | 18°13'34 | 29°18 | 11°13  | 29°13 | 7°10  | 18°52  | 15°49 | 28°55  | 24°11 | 29°20 | 11°17  | 9°43 | 8° 6  | 27° 4 |   |
| S 7  | 15 12 25 | 19°11'02 | 11♃38 | 12°11  | 0♁21  | 7°46  | 18°51  | 15°52 | 28°53  | 24°12 | 29°21 | 11°R17 | 9°40 | 8°13  | 27° 8 |   |
| S 8  | 15 16 22 | 20° 8'29 | 23°47 | 13° 4  | 1°29  | 8°22  | 18°50  | 15°54 | 28°52  | 24°14 | 29°22 | 11°16  | 9°37 | 8°20  | 27°11 |   |
| M 9  | 15 20 18 | 21° 5'55 | 5♃48  | 13°53  | 2°36  | 8°58  | 18°49  | 15°57 | 28°51  | 24°15 | 29°22 | 11°14  | 9°34 | 8°26  | 27°15 |   |
| T 10 | 15 24 15 | 22° 3'21 | 17°45 | 14°39  | 3°43  | 9°34  | 18°48  | 15°59 | 28°50  | 24°17 | 29°23 | 11° 9  | 9°31 | 8°33  | 27°19 |   |
| W11  | 15 28 11 | 23° 0'45 | 29°37 | 15°20  | 4°51  | 10°10 | 18°48  | 16° 2 | 28°48  | 24°18 | 29°24 | 11° 3  | 9°28 | 8°40  | 27°23 |   |
| T 12 | 15 32 8  | 23°58'09 | 11♀28 | 15°57  | 5°58  | 10°46 | 18°48  | 16° 5 | 28°47  | 24°19 | 29°25 | 10°55  | 9°24 | 8°47  | 27°27 |   |
| F 13 | 15 36 5  | 24°55'31 | 23°19 | 16°30  | 7° 5  | 11°22 | 18°D48 | 16° 8 | 28°46  | 24°21 | 29°26 | 10°47  | 9°21 | 8°53  | 27°31 |   |
| S 14 | 15 40 1  | 25°52'53 | 5♁12  | 16°58  | 8°11  | 11°58 | 18°48  | 16°11 | 28°45  | 24°22 | 29°27 | 10°39  | 9°18 | 9° 0  | 27°35 |   |
| S 15 | 15 43 58 | 26°50'13 | 17°10 | 17°22  | 9°18  | 12°35 | 18°48  | 16°14 | 28°44  | 24°23 | 29°28 | 10°32  | 9°15 | 9° 7  | 27°39 |   |
| M16  | 15 47 54 | 27°47'33 | 29°15 | 17°42  | 10°24 | 13°11 | 18°49  | 16°17 | 28°43  | 24°25 | 29°29 | 10°26  | 9°12 | 9°13  | 27°43 |   |
| T 17 | 15 51 51 | 28°44'51 | 11♂31 | 17°57  | 11°30 | 13°47 | 18°50  | 16°20 | 28°42  | 24°26 | 29°30 | 10°23  | 9° 8 | 9°20  | 27°48 |   |
| W18  | 15 55 47 | 29°42'09 | 24° 2 | 18° 7  | 12°37 | 14°23 | 18°50  | 16°24 | 28°42  | 24°27 | 29°31 | 10°D21 | 9° 5 | 9°27  | 27°52 |   |
| T 19 | 15 59 44 | 0♀39'25  | 6♃52  | 18°13  | 13°42 | 15° 0 | 18°52  | 16°27 | 28°41  | 24°28 | 29°32 | 10°21  | 9° 2 | 9°34  | 27°57 |   |
| F 20 | 16 3 40  | 1°36'40  | 20° 4 | 18°R14 | 14°48 | 15°36 | 18°53  | 16°31 | 28°40  | 24°29 | 29°33 | 10°22  | 8°59 | 9°40  | 28° 1 |   |
| S 21 | 16 7 37  | 2°33'55  | 3♁43  | 18°11  | 15°54 | 16°12 | 18°54  | 16°34 | 28°39  | 24°30 | 29°34 | 10°R23 | 8°56 | 9°47  | 28° 6 |   |
| S 22 | 16 11 34 | 3°31'08  | 17°49 | 18° 3  | 16°59 | 16°49 | 18°56  | 16°38 | 28°39  | 24°32 | 29°35 | 10°23  | 8°53 | 9°54  | 28°10 |   |
| M23  | 16 15 30 | 4°28'21  | 2♀23  | 17°51  | 18° 4 | 17°25 | 18°58  | 16°42 | 28°38  | 24°33 | 29°37 | 10°21  | 8°49 | 10° 0 | 28°15 |   |
| T 24 | 16 19 27 | 5°25'33  | 17°19 | 17°35  | 19° 9 | 18° 1 | 19° 0  | 16°46 | 28°38  | 24°34 | 29°38 | 10°17  | 8°46 | 10° 7 | 28°20 |   |
| W25  | 16 23 23 | 6°22'44  | 2♃72  | 17°15  | 20°13 | 18°38 | 19° 2  | 16°50 | 28°37  | 24°35 | 29°39 | 10°11  | 8°43 | 10°14 | 28°25 |   |
| T 26 | 16 27 20 | 7°19'55  | 17°50 | 16°52  | 21°18 | 19°14 | 19° 4  | 16°54 | 28°37  | 24°36 | 29°40 | 10° 3  | 8°40 | 10°20 | 28°30 |   |
| F 27 | 16 31 16 | 8°17'06  | 3♁ 4  | 16°26  | 22°22 | 19°51 | 19° 6  | 16°58 | 28°36  | 24°37 | 29°41 | 9°55   | 8°37 | 10°27 | 28°35 |   |
| S 28 | 16 35 13 | 9°14'16  | 18° 2 | 15°56  | 23°26 | 20°27 | 19° 9  | 17° 2 | 28°36  | 24°37 | 29°43 | 9°47   | 8°33 | 10°34 | 28°40 |   |
| S 29 | 16 39 9  | 10°11'26 | 2♁36  | 15°25  | 24°30 | 21° 4 | 19°12  | 17° 7 | 28°36  | 24°38 | 29°44 | 9°40   | 8°30 | 10°41 | 28°45 |   |
| M30  | 16 43 6  | 11° 8'36 | 16°43 | 14°52  | 25°33 | 21°40 | 19°15  | 17°11 | 28°36  | 24°39 | 29°45 | 9°36   | 8°27 | 10°47 | 28°50 |   |
| T 31 | 16 47 3  | 12♀5'46  | 0♃20  | 14♀17  | 26♁36 | 22♁17 | 19♃18  | 17♂15 | 28♃35  | 24♃40 | 29♁47 | 9♂33   | 8♂24 | 10♀54 | 28♁55 |   |

Delta T = 01h01m04s Julian Calendar 1 May 712 == Greg. Calendar 5 May 712

JUNE 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀      | ♁     | ♂     | ♃     | ♅     | ♁      | ♁      | ♁     | ♁     | ♁    | ♁     | ♁     | ♁ |
|------|----------|----------|-------|--------|-------|-------|-------|-------|--------|--------|-------|-------|------|-------|-------|---|
| W 1  | 16 50 59 | 13♀2'56  | 13♃30 | 13°R42 | 27♁39 | 22♁53 | 19♃21 | 17♂20 | 28°R35 | 24♃41  | 29♁48 | 9♂32  | 8♂21 | 11♀1  | 29♁0  |   |
| T 2  | 16 54 56 | 14° 0'05 | 26°16 | 13♀ 7  | 28°42 | 23°30 | 19°25 | 17°25 | 28♃35  | 24°41  | 29°49 | 9°33  | 8°18 | 11° 7 | 29° 5 |   |
| F 3  | 16 58 52 | 14°57'15 | 8♃43  | 12°33  | 29°44 | 24° 7 | 19°28 | 17°29 | 28°D35 | 24°42  | 29°51 | 9°R33 | 8°14 | 11°14 | 29°11 |   |
| S 4  | 17 2 49  | 15°54'25 | 20°55 | 12° 0  | 0♁47  | 24°43 | 19°32 | 17°34 | 28°35  | 24°43  | 29°52 | 9°33  | 8°11 | 11°21 | 29°16 |   |
| S 5  | 17 6 45  | 16°51'35 | 2♃56  | 11°28  | 1°48  | 25°20 | 19°36 | 17°39 | 28°35  | 24°44  | 29°54 | 9°30  | 8° 8 | 11°28 | 29°22 |   |
| M 6  | 17 10 42 | 17°48'45 | 14°50 | 10°59  | 2°50  | 25°57 | 19°40 | 17°44 | 28°35  | 24°44  | 29°55 | 9°25  | 8° 5 | 11°34 | 29°27 |   |
| T 7  | 17 14 38 | 18°45'54 | 26°41 | 10°33  | 3°51  | 26°34 | 19°45 | 17°49 | 28°36  | 24°45  | 29°56 | 9°18  | 8° 2 | 11°41 | 29°33 |   |
| W 8  | 17 18 35 | 19°43'05 | 8♀32  | 10°10  | 4°52  | 27°10 | 19°49 | 17°54 | 28°36  | 24°45  | 29°58 | 9° 7  | 7°59 | 11°48 | 29°38 |   |
| T 9  | 17 22 32 | 20°40'15 | 20°23 | 9°50   | 5°53  | 27°47 | 19°54 | 17°59 | 28°36  | 24°46  | 29°59 | 8°55  | 7°55 | 11°54 | 29°44 |   |
| F 10 | 17 26 28 | 21°37'25 | 2♁17  | 9°35   | 6°53  | 28°24 | 19°58 | 18° 4 | 28°37  | 24°46  | 0♁ 1  | 8°42  | 7°52 | 12° 1 | 29°50 |   |
| S 11 | 17 30 25 | 22°34'35 | 14°15 | 9°24   | 7°53  | 29° 1 | 20° 3 | 18° 9 | 28°37  | 24°47  | 0° 2  | 8°30  | 7°49 | 12° 8 | 29°55 |   |
| S 12 | 17 34 21 | 23°31'45 | 26°19 | 9°17   | 8°53  | 29°38 | 20° 8 | 18°15 | 28°37  | 24°47  | 0° 4  | 8°18  | 7°46 | 12°15 | 0♁ 1  |   |
| M13  | 17 38 18 | 24°28'55 | 8♂30  | 9°D16  | 9°52  | 0♁15  | 20°14 | 18°20 | 28°38  | 24°48  | 0° 5  | 8° 9  | 7°43 | 12°21 | 0° 7  |   |
| T 14 | 17 42 14 | 25°26'04 | 20°50 | 9°19   | 10°51 | 0°52  | 20°19 | 18°26 | 28°38  | 24°48  | 0° 7  | 8° 2  | 7°39 | 12°28 | 0°13  |   |
| W15  | 17 46 11 | 26°23'14 | 3♃24  | 9°27   | 11°50 | 1°29  | 20°24 | 18°31 | 28°39  | 24°48  | 0° 9  | 7°58  | 7°36 | 12°35 | 0°19  |   |
| T 16 | 17 50 7  | 27°20'24 | 16°13 | 9°41   | 12°48 | 2° 6  | 20°30 | 18°37 | 28°40  | 24°49  | 0°10  | 7°56  | 7°33 | 12°41 | 0°25  |   |
| F 17 | 17 54 4  | 28°17'33 | 29°21 | 9°59   | 13°46 | 2°43  | 20°36 | 18°42 | 28°40  | 24°49  | 0°12  | 7°D55 | 7°30 | 12°48 | 0°31  |   |
| S 18 | 17 58 1  | 29°14'43 | 12♁53 | 10°23  | 14°43 | 3°20  | 20°42 | 18°48 | 28°41  | 24°49  | 0°13  | 7°R55 | 7°27 | 12°55 | 0°37  |   |
| S 19 | 18 1 57  | 0♁11'52  | 26°49 | 10°52  | 15°40 | 3°57  | 20°48 | 18°54 | 28°42  | 24°49  | 0°15  | 7°55  | 7°24 | 13° 2 | 0°43  |   |
| M20  | 18 5 54  | 1° 9'02  | 11♀12 | 11°27  | 16°36 | 4°34  | 20°54 | 19° 0 | 28°43  | 24°49  | 0°17  | 7°52  | 7°20 | 13° 8 | 0°49  |   |
| T 21 | 18 9 50  | 2° 6'12  | 25°58 | 12° 6  | 17°32 | 5°11  | 21° 0 | 19° 6 | 28°44  | 24°50  | 0°18  | 7°47  | 7°17 | 13°15 | 0°55  |   |
| W22  | 18 13 47 | 3° 3'22  | 11♃7  | 12°51  | 18°27 | 5°48  | 21° 7 | 19°12 | 28°45  | 24°50  | 0°20  | 7°39  | 7°14 | 13°22 | 1° 1  |   |
| T 23 | 18 17 43 | 4° 0'32  | 26°16 | 13°40  | 19°22 | 6°26  | 21°14 | 19°18 | 28°46  | 24°50  | 0°22  | 7°29  | 7°11 | 13°28 | 1° 7  |   |
| F 24 | 18 21 40 | 4°57'43  | 11♁30 | 14°35  | 20°17 | 7° 3  | 21°20 | 19°24 | 28°47  | 24°50  | 0°23  | 7°18  | 7° 8 | 13°35 | 1°13  |   |
| S 25 | 18 25 36 | 5°54'54  | 26°31 | 15°35  | 21°11 | 7°40  | 21°27 | 19°30 | 28°48  | 24°R50 | 0°25  | 7° 8  | 7° 5 | 13°42 | 1°20  |   |
| S 26 | 18 29 33 | 6°52'06  | 11♁11 | 16°40  | 22° 4 | 8°17  | 21°34 | 19°36 | 28°49  | 24°50  | 0°27  | 6°59  | 7° 1 | 13°48 | 1°26  |   |
| M27  | 18 33 30 | 7°49'18  | 25°24 | 17°49  | 22°56 | 8°55  | 21°41 | 19°42 | 28°51  | 24°50  | 0°29  | 6°52  | 6°58 | 13°55 | 1°32  |   |
| T 28 | 18 37 26 | 8°46'32  | 9♃ 8  | 19° 4  | 23°49 | 9°32  | 21°49 | 19°48 | 28°52  | 24°50  | 0°30  | 6°48  | 6°55 | 14° 2 | 1°39  |   |
| W29  | 18 41 23 | 9°43'46  | 22°22 | 20°23  | 24°40 | 10° 9 | 21°56 | 19°55 | 28°53  | 24°50  | 0°32  | 6°46  | 6°52 | 14° 9 | 1°45  |   |
| T 30 | 18 45 19 | 10♁41'01 | 5♃11  | 21♀46  | 25♂31 | 10♂47 | 22♃ 4 | 20♂ 1 | 28♃55  | 24♃49  | 0♁34  | 6♁46  | 6♁49 | 14♀15 | 1♁51  |   |

Delta T = 01h01m03s Julian Calendar created from Swiss Ephemeris, Copyright Astrodiest AG [10.1.2003]

SWISS EPHEMERIS for the year 712

JULY 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅     | ♁     | ♁      | ♁    | ♁     | ♁    | ♁     | ♁    | ♁ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|--------|------|-------|------|-------|------|---|
| F 1  | 18 49 16 | 11☾38'17 | 17♃38 | 23♂14 | 26♁21 | 11♁24 | 22♂11 | 20♁ 7 | 28♂56 | 24°R49 | 0♁36 | 6°R46 | 6♁45 | 14♂22 | 1♁58 |   |
| S 2  | 18 53 12 | 12°35'34 | 29°48 | 24°46 | 27°10 | 12° 2 | 22°19 | 20°14 | 28°57 | 24♂49  | 0°37 | 6♁45  | 6°42 | 14°29 | 2° 4 |   |
| S 3  | 18 57 9  | 13°32'52 | 11♂47 | 26°23 | 27°59 | 12°39 | 22°27 | 20°20 | 28°59 | 24°49  | 0°39 | 6°42  | 6°39 | 14°35 | 2°11 |   |
| M 4  | 19 1 5   | 14°30'11 | 23°39 | 28° 3 | 28°47 | 13°17 | 22°35 | 20°27 | 29° 1 | 24°48  | 0°41 | 6°37  | 6°36 | 14°42 | 2°17 |   |
| T 5  | 19 5 2   | 15°27'31 | 5♂29  | 29°47 | 29°34 | 13°54 | 22°43 | 20°34 | 29° 2 | 24°48  | 0°43 | 6°29  | 6°33 | 14°49 | 2°24 |   |
| W 6  | 19 8 59  | 16°24'52 | 17°20 | 1☾34  | 0♂21  | 14°32 | 22°52 | 20°40 | 29° 4 | 24°48  | 0°45 | 6°19  | 6°30 | 14°56 | 2°30 |   |
| T 7  | 19 12 55 | 17°22'14 | 29°15 | 3°25  | 1° 6  | 15° 9 | 23° 0 | 20°47 | 29° 6 | 24°47  | 0°46 | 6° 7  | 6°26 | 15° 2 | 2°37 |   |
| F 8  | 19 16 52 | 18°19'38 | 11☾14 | 5°18  | 1°51  | 15°47 | 23° 8 | 20°54 | 29° 7 | 24°47  | 0°48 | 5°53  | 6°23 | 15° 9 | 2°43 |   |
| S 9  | 19 20 48 | 19°17'02 | 23°21 | 7°14  | 2°35  | 16°25 | 23°17 | 21° 0 | 29° 9 | 24°46  | 0°50 | 5°40  | 6°20 | 15°16 | 2°50 |   |
| S 10 | 19 24 45 | 20°14'27 | 5♁35  | 9°12  | 3°18  | 17° 2 | 23°26 | 21° 7 | 29°11 | 24°46  | 0°52 | 5°28  | 6°17 | 15°22 | 2°57 |   |
| M11  | 19 28 41 | 21°11'52 | 17°58 | 11°12 | 4° 0  | 17°40 | 23°35 | 21°14 | 29°13 | 24°46  | 0°54 | 5°18  | 6°14 | 15°29 | 3° 3 |   |
| T 12 | 19 32 38 | 22° 9'19 | 0♂30  | 13°14 | 4°41  | 18°18 | 23°44 | 21°21 | 29°15 | 24°45  | 0°55 | 5°11  | 6°11 | 15°36 | 3°10 |   |
| W13  | 19 36 34 | 23° 6'47 | 13°14 | 15°17 | 5°21  | 18°56 | 23°53 | 21°28 | 29°17 | 24°44  | 0°57 | 5° 7  | 6° 7 | 15°43 | 3°17 |   |
| T 14 | 19 40 31 | 24° 4'15 | 26°11 | 17°20 | 6° 0  | 19°33 | 24° 2 | 21°35 | 29°19 | 24°44  | 0°59 | 5° 5  | 6° 4 | 15°49 | 3°23 |   |
| F 15 | 19 44 28 | 25° 1'44 | 9♁23  | 19°24 | 6°37  | 20°11 | 24°11 | 21°42 | 29°21 | 24°43  | 1° 1 | 5°D 5 | 6° 1 | 15°56 | 3°30 |   |
| S 16 | 19 48 24 | 25°59'14 | 22°53 | 21°28 | 7°14  | 20°49 | 24°20 | 21°49 | 29°23 | 24°43  | 1° 3 | 5°R 5 | 5°58 | 16° 3 | 3°37 |   |
| S 17 | 19 52 21 | 26°56'45 | 6♂43  | 23°32 | 7°49  | 21°27 | 24°30 | 21°56 | 29°25 | 24°42  | 1° 5 | 5° 5  | 5°55 | 16° 9 | 3°44 |   |
| M18  | 19 56 17 | 27°54'17 | 20°53 | 25°36 | 8°23  | 22° 5 | 24°39 | 22° 3 | 29°28 | 24°41  | 1° 7 | 5° 3  | 5°51 | 16°16 | 3°50 |   |
| T 19 | 20 0 14  | 28°51'50 | 5♂23  | 27°39 | 8°56  | 22°43 | 24°49 | 22°10 | 29°30 | 24°40  | 1° 8 | 4°59  | 5°48 | 16°23 | 3°57 |   |
| W20  | 20 4 10  | 29°49'24 | 20° 9 | 29°42 | 9°27  | 23°21 | 24°59 | 22°17 | 29°32 | 24°40  | 1°10 | 4°52  | 5°45 | 16°30 | 4° 4 |   |
| T 21 | 20 8 7   | 0♁46'59  | 5♁ 5  | 1♁44  | 9°57  | 23°59 | 25° 9 | 22°24 | 29°35 | 24°39  | 1°12 | 4°44  | 5°42 | 16°36 | 4°11 |   |
| F 22 | 20 12 3  | 1°44'35  | 20° 2 | 3°44  | 10°25 | 24°37 | 25°19 | 22°32 | 29°37 | 24°38  | 1°14 | 4°34  | 5°39 | 16°43 | 4°17 |   |
| S 23 | 20 16 0  | 2°42'13  | 4♁52  | 5°44  | 10°52 | 25°15 | 25°29 | 22°39 | 29°39 | 24°37  | 1°16 | 4°25  | 5°36 | 16°50 | 4°24 |   |
| S 24 | 20 19 57 | 3°39'51  | 19°25 | 7°42  | 11°17 | 25°53 | 25°39 | 22°46 | 29°42 | 24°36  | 1°18 | 4°18  | 5°32 | 16°57 | 4°31 |   |
| M25  | 20 23 53 | 4°37'31  | 3♂35  | 9°39  | 11°41 | 26°31 | 25°49 | 22°53 | 29°44 | 24°35  | 1°20 | 4°12  | 5°29 | 17° 3 | 4°38 |   |
| T 26 | 20 27 50 | 5°35'13  | 17°19 | 11°35 | 12° 3 | 27°10 | 25°59 | 23° 1 | 29°47 | 24°34  | 1°21 | 4° 8  | 5°26 | 17°10 | 4°44 |   |
| W27  | 20 31 46 | 6°32'56  | 0♂36  | 13°30 | 12°23 | 27°48 | 26° 9 | 23° 8 | 29°49 | 24°33  | 1°23 | 4°D 7 | 5°23 | 17°17 | 4°51 |   |
| T 28 | 20 35 43 | 7°30'41  | 13°28 | 15°23 | 12°41 | 28°26 | 26°20 | 23°15 | 29°52 | 24°32  | 1°25 | 4° 7  | 5°20 | 17°23 | 4°58 |   |
| F 29 | 20 39 39 | 8°28'28  | 25°58 | 17°15 | 12°58 | 29° 4 | 26°30 | 23°23 | 29°55 | 24°31  | 1°27 | 4° 8  | 5°17 | 17°30 | 5° 5 |   |
| S 30 | 20 43 36 | 9°26'16  | 8♁10  | 19° 5 | 13°12 | 29°43 | 26°41 | 23°30 | 29°57 | 24°30  | 1°29 | 4°R 9 | 5°13 | 17°37 | 5°11 |   |
| S 31 | 20 47 32 | 10♁24'06 | 20♁11 | 20♁54 | 13♂25 | 0♂21  | 26♂52 | 23♁37 | 0♁ 0  | 24♂29  | 1♁31 | 4♁ 8  | 5♁10 | 17♂44 | 5♁18 |   |

Delta T = 01h01m02s

Julian Calendar 1 July 712 == Greg. Calendar 5 July 712

AUGUST 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♁      | ♂     | ♃     | ♅     | ♁    | ♁      | ♁    | ♁     | ♁    | ♁     | ♁    | ♁ |
|------|----------|----------|-------|-------|--------|-------|-------|-------|------|--------|------|-------|------|-------|------|---|
| M 1  | 20 51 29 | 11♁21'58 | 2♂ 4  | 22♁42 | 13♂35  | 0♂59  | 27♂ 3 | 23♁45 | 0♁ 3 | 24°R28 | 1♁32 | 4°R 6 | 5♁ 7 | 17♂50 | 5♁25 |   |
| T 2  | 20 55 26 | 12°19'52 | 13°56 | 24°28 | 13°43  | 1°38  | 27°13 | 23°52 | 0° 6 | 24♂27  | 1°34 | 4♁ 1  | 5° 4 | 17°57 | 5°32 |   |
| W 3  | 20 59 22 | 13°17'48 | 25°49 | 26°14 | 13°50  | 2°16  | 27°24 | 24° 0 | 0° 9 | 24°26  | 1°36 | 3°55  | 5° 1 | 18° 4 | 5°39 |   |
| T 4  | 21 3 19  | 14°15'46 | 7☾47  | 27°57 | 13°53  | 2°55  | 27°35 | 24° 7 | 0°11 | 24°25  | 1°38 | 3°47  | 4°57 | 18°10 | 5°45 |   |
| F 5  | 21 7 15  | 15°13'45 | 19°53 | 29°40 | 13°R55 | 3°33  | 27°46 | 24°15 | 0°14 | 24°24  | 1°40 | 3°38  | 4°54 | 18°17 | 5°52 |   |
| S 6  | 21 11 12 | 16°11'46 | 2♁10  | 1♂21  | 13°55  | 4°12  | 27°58 | 24°22 | 0°17 | 24°22  | 1°42 | 3°29  | 4°51 | 18°24 | 5°59 |   |
| S 7  | 21 15 8  | 17° 9'49 | 14°37 | 3° 1  | 13°52  | 4°51  | 28° 9 | 24°30 | 0°20 | 24°21  | 1°43 | 3°21  | 4°48 | 18°31 | 6° 6 |   |
| M 8  | 21 19 5  | 18° 7'53 | 27°16 | 4°39  | 13°46  | 5°29  | 28°20 | 24°37 | 0°23 | 24°20  | 1°45 | 3°14  | 4°45 | 18°37 | 6°12 |   |
| T 9  | 21 23 1  | 19° 5'59 | 10♂ 6 | 6°17  | 13°39  | 6° 8  | 28°31 | 24°45 | 0°26 | 24°19  | 1°47 | 3°10  | 4°42 | 18°44 | 6°19 |   |
| W10  | 21 26 58 | 20° 4'07 | 23° 9 | 7°53  | 13°29  | 6°47  | 28°43 | 24°52 | 0°29 | 24°17  | 1°49 | 3° 8  | 4°38 | 18°51 | 6°26 |   |
| T 11 | 21 30 55 | 21° 2'17 | 6♁23  | 9°27  | 13°16  | 7°25  | 28°54 | 25° 0 | 0°33 | 24°16  | 1°51 | 3°D 7 | 4°35 | 18°57 | 6°32 |   |
| F 12 | 21 34 51 | 22° 0'27 | 19°49 | 11° 1 | 13° 2  | 8° 4  | 29° 6 | 25° 7 | 0°36 | 24°15  | 1°52 | 3° 8  | 4°32 | 19° 4 | 6°39 |   |
| S 13 | 21 38 48 | 22°58'40 | 3♂29  | 12°33 | 12°45  | 8°43  | 29°18 | 25°15 | 0°39 | 24°13  | 1°54 | 3°10  | 4°29 | 19°11 | 6°46 |   |
| S 14 | 21 42 44 | 23°56'54 | 17°21 | 14° 5 | 12°25  | 9°22  | 29°29 | 25°22 | 0°42 | 24°12  | 1°56 | 3°R11 | 4°26 | 19°18 | 6°52 |   |
| M15  | 21 46 41 | 24°55'10 | 1♂26  | 15°34 | 12° 4  | 10° 1 | 29°41 | 25°30 | 0°45 | 24°10  | 1°58 | 3°11  | 4°22 | 19°24 | 6°59 |   |
| T 16 | 21 50 37 | 25°53'27 | 15°43 | 17° 3 | 11°40  | 10°40 | 29°53 | 25°37 | 0°48 | 24° 9  | 1°59 | 3° 9  | 4°19 | 19°31 | 7° 5 |   |
| W17  | 21 54 34 | 26°51'46 | 0♁ 9  | 18°31 | 11°14  | 11°19 | 30° 5 | 25°45 | 0°52 | 24° 8  | 2° 1 | 3° 6  | 4°16 | 19°38 | 7°12 |   |
| T 18 | 21 58 30 | 27°50'06 | 14°40 | 19°57 | 10°46  | 11°58 | 0°16  | 25°52 | 0°55 | 24° 6  | 2° 3 | 3° 2  | 4°13 | 19°44 | 7°19 |   |
| F 19 | 22 2 27  | 28°48'28 | 29°11 | 21°22 | 10°17  | 12°37 | 0°28  | 26° 0 | 0°58 | 24° 5  | 2° 4 | 2°56  | 4°10 | 19°51 | 7°25 |   |
| S 20 | 22 6 24  | 29°46'52 | 13♁36 | 22°45 | 9°45   | 13°16 | 0°40  | 26° 7 | 1° 2 | 24° 3  | 2° 6 | 2°51  | 4° 7 | 19°58 | 7°32 |   |
| S 21 | 22 10 20 | 0♂45'18  | 27°49 | 24° 7 | 9°13   | 13°55 | 0°52  | 26°15 | 1° 5 | 24° 2  | 2° 8 | 2°47  | 4° 3 | 20° 5 | 7°38 |   |
| M22  | 22 14 17 | 1°43'45  | 11♂44 | 25°28 | 8°39   | 14°34 | 1° 5  | 26°22 | 1° 8 | 24° 0  | 2° 9 | 2°44  | 4° 0 | 20°11 | 7°45 |   |
| T 23 | 22 18 13 | 2°42'15  | 25°19 | 26°48 | 8° 4   | 15°13 | 1°17  | 26°30 | 1°12 | 23°59  | 2°11 | 2°43  | 3°57 | 20°18 | 7°51 |   |
| W24  | 22 22 10 | 3°40'46  | 8♂31  | 28° 6 | 7°28   | 15°52 | 1°29  | 26°37 | 1°15 | 23°57  | 2°13 | 2°D43 | 3°54 | 20°25 | 7°57 |   |
| T 25 | 22 26 6  | 4°39'20  | 21°22 | 29°22 | 6°51   | 16°32 | 1°41  | 26°45 | 1°19 | 23°56  | 2°14 | 2°44  | 3°51 | 20°31 | 8° 4 |   |
| F 26 | 22 30 3  | 5°37'56  | 3♁53  | 0♁37  | 6°15   | 17°11 | 1°54  | 26°52 | 1°22 | 23°54  | 2°16 | 2°45  | 3°48 | 20°38 | 8°10 |   |
| S 27 | 22 33 59 | 6°36'34  | 16° 8 | 1°51  | 5°38   | 17°50 | 2° 6  | 27° 0 | 1°26 | 23°52  | 2°18 | 2°47  | 3°44 | 20°45 | 8°16 |   |
| S 28 | 22 37 56 | 7°35'14  | 28°11 | 3° 2  | 5° 1   | 18°30 | 2°18  | 27° 7 | 1°29 | 23°51  | 2°19 | 2°48  | 3°41 | 20°52 | 8°23 |   |
| M29  | 22 41 52 | 8°33'57  | 10♂ 6 | 4°12  | 4°24   | 19° 9 | 2°31  | 27°15 | 1°33 | 23°49  | 2°21 | 2°R49 | 3°38 | 20°58 | 8°29 |   |
| T 30 | 22 45 49 | 9°32'42  | 21°58 | 5°20  | 3°48   | 19°49 | 2°43  | 27°22 | 1°36 | 23°48  | 2°22 | 2°48  | 3°35 | 21° 5 | 8°35 |   |
| W31  | 22 49 46 | 10♂31'29 | 3☾53  | 6♁26  | 3♂13   | 20♂28 | 2♁56  | 27♁30 | 1♁40 | 23♂46  | 2♁24 | 2♁46  | 3♁32 | 21♂12 | 8♁41 |   |

Delta T = 01h01m02s

Julian Calendar

SWISS EPHEMERIS for the year 712

SEPTEMBER 712 C.E.JC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀      | ♁      | ♂     | ♃    | ♅     | ♁    | ♁      | ♁    | ♁     | ♁    | ♁     | ♁     |
|------|----------|----------|-------|--------|--------|-------|------|-------|------|--------|------|-------|------|-------|-------|
| T 1  | 22 53 42 | 11♐30'19 | 15♌54 | 7♄30   | 2°R39  | 21♐8  | 3♄8  | 27♌37 | 1♄44 | 23°R44 | 2♌25 | 2°R44 | 3♄28 | 21♐19 | 8♌48  |
| F 2  | 22 57 39 | 12°29'11 | 28°5  | 8°31   | 2♐7    | 21°47 | 3°21 | 27°44 | 1°47 | 23°H43 | 2°27 | 2♄41  | 3°25 | 21°25 | 8°54  |
| S 3  | 23 1 35  | 13°28'05 | 10♌28 | 9°30   | 1°35   | 22°27 | 3°33 | 27°52 | 1°51 | 23°41  | 2°28 | 2°37  | 3°22 | 21°32 | 9°0   |
| S 4  | 23 5 32  | 14°27'02 | 23°7  | 10°26  | 1°6    | 23°6  | 3°46 | 27°59 | 1°54 | 23°40  | 2°30 | 2°35  | 3°19 | 21°39 | 9°6   |
| M 5  | 23 9 28  | 15°26'00 | 6♐2   | 11°19  | 0°38   | 23°46 | 3°59 | 28°6  | 1°58 | 23°38  | 2°31 | 2°32  | 3°16 | 21°45 | 9°12  |
| T 6  | 23 13 25 | 16°25'01 | 19°13 | 12°9   | 0°12   | 24°26 | 4°11 | 28°14 | 2°2  | 23°36  | 2°33 | 2°31  | 3°13 | 21°52 | 9°18  |
| W 7  | 23 17 21 | 17°24'04 | 2♄39  | 12°56  | 29♌48  | 25°6  | 4°24 | 28°21 | 2°5  | 23°35  | 2°34 | 2°D31 | 3°9  | 21°59 | 9°24  |
| T 8  | 23 21 18 | 18°23'08 | 16°19 | 13°39  | 29°26  | 25°46 | 4°37 | 28°28 | 2°9  | 23°33  | 2°35 | 2°31  | 3°6  | 22°6  | 9°30  |
| F 9  | 23 25 15 | 19°22'15 | 0♐10  | 14°17  | 29°7   | 26°25 | 4°50 | 28°35 | 2°13 | 23°31  | 2°37 | 2°32  | 3°3  | 22°12 | 9°35  |
| S 10 | 23 29 11 | 20°21'24 | 14°9  | 14°52  | 28°49  | 27°5  | 5°3  | 28°43 | 2°17 | 23°30  | 2°38 | 2°33  | 3°0  | 22°19 | 9°41  |
| S 11 | 23 33 8  | 21°20'34 | 28°16 | 15°21  | 28°34  | 27°45 | 5°16 | 28°50 | 2°20 | 23°28  | 2°40 | 2°34  | 2°57 | 22°26 | 9°47  |
| M12  | 23 37 4  | 22°19'47 | 12♌7  | 15°46  | 28°22  | 28°25 | 5°28 | 28°57 | 2°24 | 23°26  | 2°41 | 2°35  | 2°54 | 22°32 | 9°53  |
| T 13 | 23 41 1  | 23°19'01 | 26°40 | 16°4   | 28°12  | 29°5  | 5°41 | 29°4  | 2°28 | 23°25  | 2°42 | 2°R35 | 2°50 | 22°39 | 9°58  |
| W14  | 23 44 57 | 24°18'17 | 10♌52 | 16°17  | 28°4   | 29°45 | 5°54 | 29°11 | 2°31 | 23°23  | 2°43 | 2°34  | 2°47 | 22°46 | 10°4  |
| T 15 | 23 48 54 | 25°17'35 | 25°2  | 16°R23 | 27°59  | 0♄25  | 6°7  | 29°18 | 2°35 | 23°21  | 2°45 | 2°34  | 2°44 | 22°53 | 10°9  |
| F 16 | 23 52 50 | 26°16'54 | 9♄6   | 16°22  | 27°56  | 1°6   | 6°20 | 29°25 | 2°39 | 23°20  | 2°46 | 2°33  | 2°41 | 22°59 | 10°15 |
| S 17 | 23 56 47 | 27°16'16 | 23°2  | 16°13  | 27°D56 | 1°46  | 6°33 | 29°32 | 2°43 | 23°18  | 2°47 | 2°32  | 2°38 | 23°6  | 10°20 |
| S 18 | 0 0 44   | 28°15'39 | 6♐47  | 15°56  | 27°57  | 2°26  | 6°46 | 29°39 | 2°46 | 23°16  | 2°48 | 2°32  | 2°34 | 23°13 | 10°26 |
| M19  | 0 4 40   | 29°15'05 | 20°18 | 15°31  | 28°2   | 3°6   | 6°59 | 29°46 | 2°50 | 23°14  | 2°49 | 2°32  | 2°31 | 23°19 | 10°31 |
| T 20 | 0 8 37   | 0♄14'32  | 3♐34  | 14°58  | 28°8   | 3°47  | 7°12 | 29°53 | 2°54 | 23°13  | 2°51 | 2°D31 | 2°28 | 23°26 | 10°36 |
| W21  | 0 12 33  | 1°14'01  | 16°34 | 14°17  | 28°17  | 4°27  | 7°25 | 0♐0   | 2°58 | 23°11  | 2°52 | 2°32  | 2°25 | 23°33 | 10°42 |
| T 22 | 0 16 30  | 2°13'33  | 29°17 | 13°27  | 28°28  | 5°7   | 7°38 | 0°6   | 3°2  | 23°10  | 2°53 | 2°R32 | 2°22 | 23°40 | 10°47 |
| F 23 | 0 20 26  | 3°13'07  | 11♌44 | 12°30  | 28°41  | 5°48  | 7°51 | 0°13  | 3°5  | 23°8   | 2°54 | 2°32  | 2°19 | 23°46 | 10°52 |
| S 24 | 0 24 23  | 4°12'43  | 23°58 | 11°26  | 28°57  | 6°28  | 8°4  | 0°20  | 3°9  | 23°6   | 2°55 | 2°31  | 2°15 | 23°53 | 10°57 |
| S 25 | 0 28 19  | 5°12'22  | 6♐1   | 10°17  | 29°14  | 7°9   | 8°18 | 0°27  | 3°13 | 23°5   | 2°56 | 2°31  | 2°12 | 24°0  | 11°2  |
| M26  | 0 32 16  | 6°12'03  | 17°57 | 9°5    | 29°33  | 7°49  | 8°31 | 0°33  | 3°17 | 23°3   | 2°57 | 2°31  | 2°9  | 24°7  | 11°7  |
| T 27 | 0 36 12  | 7°11'46  | 29°49 | 7°50   | 29°55  | 8°30  | 8°44 | 0°40  | 3°20 | 23°1   | 2°58 | 2°31  | 2°6  | 24°13 | 11°12 |
| W28  | 0 40 9   | 8°11'31  | 11♌43 | 6°36   | 0♐18   | 9°11  | 8°57 | 0°46  | 3°24 | 23°0   | 2°59 | 2°D31 | 2°3  | 24°20 | 11°16 |
| T 29 | 0 44 6   | 9°11'19  | 23°44 | 5°24   | 0°43   | 9°51  | 9°10 | 0°53  | 3°28 | 22°58  | 3°0  | 2°31  | 1°59 | 24°27 | 11°21 |
| F 30 | 0 48 2   | 10♄11'09 | 5♌54  | 4♄17   | 1♐9    | 10♄32 | 9♄23 | 0♐59  | 3♄32 | 22♐57  | 3♌1  | 2♄31  | 1♄56 | 24♐33 | 11♌26 |

Delta T = 01h01m01s Julian Calendar 1 Sept. 712 == Greg. Calendar 5 Sept. 712

OCTOBER 712 C.E.JC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅    | ♁    | ♁      | ♁    | ♁     | ♁    | ♁     | ♁     |
|------|---------|----------|-------|-------|-------|-------|-------|------|------|--------|------|-------|------|-------|-------|
| S 1  | 0 51 59 | 11♄11'01 | 18♌20 | 3°R17 | 1♐37  | 11♄13 | 9♄36  | 1♐6  | 3♄36 | 22°R55 | 3♌2  | 2♄32  | 1♄53 | 24♐40 | 11♌30 |
| S 2  | 0 55 55 | 12°10'56 | 1♐4   | 2♄25  | 2°7   | 11°54 | 9°49  | 1°12 | 3°39 | 22♐53  | 3°3  | 2°33  | 1°50 | 24°47 | 11°35 |
| M 3  | 0 59 52 | 13°10'52 | 14°9  | 1°43  | 2°39  | 12°35 | 10°2  | 1°18 | 3°43 | 22°52  | 3°3  | 2°34  | 1°47 | 24°54 | 11°39 |
| T 4  | 1 3 48  | 14°10'51 | 27°36 | 1°11  | 3°12  | 13°16 | 10°15 | 1°24 | 3°47 | 22°50  | 3°4  | 2°R34 | 1°44 | 25°0  | 11°44 |
| W 5  | 1 7 45  | 15°10'52 | 11♄23 | 0°52  | 3°46  | 13°57 | 10°29 | 1°31 | 3°50 | 22°49  | 3°5  | 2°34  | 1°40 | 25°7  | 11°48 |
| T 6  | 1 11 41 | 16°10'55 | 25°29 | 0°D43 | 4°22  | 14°38 | 10°42 | 1°37 | 3°54 | 22°47  | 3°6  | 2°34  | 1°37 | 25°14 | 11°52 |
| F 7  | 1 15 38 | 17°10'59 | 9♐49  | 0°46  | 4°59  | 15°19 | 10°55 | 1°43 | 3°58 | 22°46  | 3°6  | 2°32  | 1°34 | 25°20 | 11°57 |
| S 8  | 1 19 35 | 18°11'06 | 24°18 | 1°0   | 5°37  | 16°0  | 11°8  | 1°49 | 4°2  | 22°44  | 3°7  | 2°30  | 1°31 | 25°27 | 12°1  |
| S 9  | 1 23 31 | 19°11'14 | 8♌50  | 1°24  | 6°17  | 16°41 | 11°21 | 1°55 | 4°5  | 22°43  | 3°8  | 2°28  | 1°28 | 25°34 | 12°5  |
| M10  | 1 27 28 | 20°11'25 | 23°19 | 1°58  | 6°57  | 17°22 | 11°34 | 2°0  | 4°9  | 22°41  | 3°8  | 2°26  | 1°25 | 25°41 | 12°9  |
| T 11 | 1 31 24 | 21°11'36 | 7♌30  | 2°40  | 7°39  | 18°3  | 11°47 | 2°6  | 4°13 | 22°40  | 3°9  | 2°25  | 1°21 | 25°47 | 12°12 |
| W12  | 1 35 21 | 22°11'49 | 21°51 | 3°30  | 8°22  | 18°45 | 12°0  | 2°12 | 4°16 | 22°39  | 3°10 | 2°D24 | 1°18 | 25°54 | 12°16 |
| T 13 | 1 39 17 | 23°12'04 | 5♄50  | 4°27  | 9°6   | 19°26 | 12°13 | 2°18 | 4°20 | 22°37  | 3°10 | 2°25  | 1°15 | 26°1  | 12°20 |
| F 14 | 1 43 14 | 24°12'20 | 19°35 | 5°29  | 9°51  | 20°7  | 12°26 | 2°23 | 4°24 | 22°36  | 3°11 | 2°26  | 1°12 | 26°8  | 12°24 |
| S 15 | 1 47 10 | 25°12'38 | 3♐6   | 6°38  | 10°37 | 20°49 | 12°39 | 2°29 | 4°27 | 22°34  | 3°11 | 2°27  | 1°9  | 26°14 | 12°27 |
| S 16 | 1 51 7  | 26°12'57 | 16°25 | 7°50  | 11°24 | 21°30 | 12°52 | 2°34 | 4°31 | 22°33  | 3°12 | 2°29  | 1°5  | 26°21 | 12°31 |
| M17  | 1 55 4  | 27°13'18 | 29°31 | 9°7   | 12°12 | 22°12 | 13°5  | 2°40 | 4°34 | 22°32  | 3°12 | 2°R30 | 1°2  | 26°28 | 12°34 |
| T 18 | 1 59 0  | 28°13'40 | 12♐24 | 10°27 | 13°1  | 22°53 | 13°18 | 2°45 | 4°38 | 22°30  | 3°13 | 2°29  | 0°59 | 26°34 | 12°37 |
| W19  | 2 2 57  | 29°14'04 | 25°5  | 11°50 | 13°50 | 23°35 | 13°31 | 2°50 | 4°41 | 22°29  | 3°13 | 2°27  | 0°56 | 26°41 | 12°41 |
| T 20 | 2 6 53  | 0♐14'30  | 7♌35  | 13°15 | 14°41 | 24°16 | 13°43 | 2°55 | 4°45 | 22°28  | 3°13 | 2°24  | 0°53 | 26°48 | 12°44 |
| F 21 | 2 10 50 | 1°14'58  | 19°54 | 14°42 | 15°32 | 24°58 | 13°56 | 3°1  | 4°48 | 22°27  | 3°14 | 2°20  | 0°50 | 26°55 | 12°47 |
| S 22 | 2 14 46 | 2°15'27  | 2♐2   | 16°11 | 16°24 | 25°40 | 14°9  | 3°6  | 4°52 | 22°26  | 3°14 | 2°14  | 0°46 | 27°1  | 12°50 |
| S 23 | 2 18 43 | 3°15'58  | 14°3  | 17°41 | 17°17 | 26°21 | 14°22 | 3°11 | 4°55 | 22°24  | 3°14 | 2°9   | 0°43 | 27°8  | 12°53 |
| M24  | 2 22 39 | 4°16'31  | 25°57 | 19°12 | 18°10 | 27°3  | 14°35 | 3°15 | 4°59 | 22°23  | 3°14 | 2°3   | 0°40 | 27°15 | 12°55 |
| T 25 | 2 26 36 | 5°17'06  | 7♄49  | 20°44 | 19°4  | 27°45 | 14°47 | 3°20 | 5°2  | 22°22  | 3°15 | 1°59  | 0°37 | 27°22 | 12°58 |
| W26  | 2 30 33 | 6°17'42  | 19°41 | 22°17 | 19°59 | 28°27 | 15°0  | 3°25 | 5°6  | 22°21  | 3°15 | 1°56  | 0°34 | 27°28 | 13°1  |
| T 27 | 2 34 29 | 7°18'20  | 1♌39  | 23°50 | 20°55 | 29°9  | 15°13 | 3°30 | 5°9  | 22°20  | 3°15 | 1°54  | 0°30 | 27°35 | 13°3  |
| F 28 | 2 38 26 | 8°19'00  | 13°46 | 25°24 | 21°51 | 29°51 | 15°25 | 3°34 | 5°12 | 22°19  | 3°15 | 1°D54 | 0°27 | 27°42 | 13°6  |
| S 29 | 2 42 22 | 9°19'42  | 26°8  | 26°58 | 22°47 | 0♐33  | 15°38 | 3°39 | 5°16 | 22°18  | 3°15 | 1°55  | 0°24 | 27°48 | 13°8  |
| S 30 | 2 46 19 | 10°20'25 | 8♐49  | 28°32 | 23°45 | 1°15  | 15°50 | 3°43 | 5°19 | 22°17  | 3°15 | 1°57  | 0°21 | 27°55 | 13°10 |
| M31  | 2 50 15 | 11♌21'10 | 21♐54 | 0♐6   | 24♐43 | 1♐57  | 16♄3  | 3♐47 | 5♄22 | 22♐16  | 3♌15 | 1♄58  | 0♄18 | 28♐2  | 13♌12 |

Delta T = 01h01m00s Julian Calendar created from Swiss Ephemeris, Copyright Astrodiest AG [10.1.2003]

SWISS EPHEMERIS for the year 712

NOVEMBER 712 C.E.JC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅    | ♁    | ♁      | ♁     | ♁      | ♁     | ♁     | ♁      |
|------|---------|----------|-------|-------|-------|-------|-------|------|------|--------|-------|--------|-------|-------|--------|
| T 1  | 2 54 12 | 12♌21'57 | 5♊25  | 1♌41  | 25♎41 | 2♌39  | 16♊15 | 3♎52 | 5♊25 | 22°R15 | 3°R15 | 1°R59  | 0♊15  | 28♌9  | 13♌14  |
| W 2  | 2 58 8  | 13°22'45 | 19°23 | 3°15  | 26°40 | 3°22  | 16°28 | 3°56 | 5°29 | 22°H14 | 3♌15  | 1♊57   | 0°11  | 28°15 | 13°16  |
| T 3  | 3 2 5   | 14°23'35 | 3♌46  | 4°50  | 27°39 | 4° 4  | 16°40 | 4° 0 | 5°32 | 22°13  | 3°15  | 1°54   | 0° 8  | 28°22 | 13°18  |
| F 4  | 3 6 1   | 15°24'26 | 18°29 | 6°24  | 28°39 | 4°46  | 16°52 | 4° 4 | 5°35 | 22°12  | 3°15  | 1°49   | 0° 5  | 28°29 | 13°20  |
| S 5  | 3 9 58  | 16°25'19 | 3♌26  | 7°59  | 29°39 | 5°29  | 17° 5 | 4° 8 | 5°38 | 22°11  | 3°15  | 1°42   | 0° 2  | 28°35 | 13°22  |
| S 6  | 3 13 55 | 17°26'12 | 18°26 | 9°33  | 0♊40  | 6°11  | 17°17 | 4°11 | 5°41 | 22°11  | 3°15  | 1°35   | 29♎59 | 28°42 | 13°23  |
| M 7  | 3 17 51 | 18°27'07 | 3♊20  | 11° 8 | 1°41  | 6°53  | 17°29 | 4°15 | 5°44 | 22°10  | 3°15  | 1°28   | 29°56 | 28°49 | 13°25  |
| T 8  | 3 21 48 | 19°28'03 | 18° 2 | 12°42 | 2°42  | 7°36  | 17°41 | 4°19 | 5°47 | 22° 9  | 3°15  | 1°22   | 29°52 | 28°56 | 13°26  |
| W 9  | 3 25 44 | 20°28'59 | 2♌24  | 14°17 | 3°44  | 8°18  | 17°53 | 4°22 | 5°50 | 22° 8  | 3°14  | 1°18   | 29°49 | 29° 2 | 13°28  |
| T 10 | 3 29 41 | 21°29'56 | 16°25 | 15°51 | 4°47  | 9° 1  | 18° 5 | 4°26 | 5°53 | 22° 8  | 3°14  | 1°D17  | 29°46 | 29° 9 | 13°29  |
| F 11 | 3 33 37 | 22°30'54 | 0♌ 4  | 17°25 | 5°49  | 9°44  | 18°17 | 4°29 | 5°56 | 22° 7  | 3°14  | 1°17   | 29°43 | 29°16 | 13°30  |
| S 12 | 3 37 34 | 23°31'53 | 13°23 | 19° 0 | 6°52  | 10°26 | 18°29 | 4°32 | 5°59 | 22° 6  | 3°14  | 1°18   | 29°40 | 29°23 | 13°31  |
| S 13 | 3 41 31 | 24°32'52 | 26°25 | 20°34 | 7°56  | 11° 9 | 18°41 | 4°35 | 6° 2 | 22° 6  | 3°13  | 1°R19  | 29°36 | 29°29 | 13°32  |
| M14  | 3 45 27 | 25°33'52 | 9♎11  | 22° 8 | 9° 0  | 11°52 | 18°53 | 4°38 | 6° 4 | 22° 5  | 3°13  | 1°19   | 29°33 | 29°36 | 13°33  |
| T 15 | 3 49 24 | 26°34'53 | 21°44 | 23°42 | 10° 4 | 12°35 | 19° 4 | 4°41 | 6° 7 | 22° 5  | 3°12  | 1°16   | 29°30 | 29°43 | 13°33  |
| W16  | 3 53 20 | 27°35'55 | 4♌ 8  | 25°16 | 11° 8 | 13°17 | 19°16 | 4°44 | 6°10 | 22° 4  | 3°12  | 1°12   | 29°27 | 29°49 | 13°34  |
| T 17 | 3 57 17 | 28°36'57 | 16°23 | 26°51 | 12°13 | 14° 0 | 19°28 | 4°47 | 6°12 | 22° 4  | 3°12  | 1° 4   | 29°24 | 29°56 | 13°34  |
| F 18 | 4 1 13  | 29°38'01 | 28°31 | 28°25 | 13°18 | 14°43 | 19°39 | 4°49 | 6°15 | 22° 3  | 3°11  | 0°54   | 29°21 | 0♌ 3  | 13°35  |
| S 19 | 4 5 10  | 0♌39'05  | 10♌32 | 29°59 | 14°23 | 15°26 | 19°51 | 4°52 | 6°18 | 22° 3  | 3°11  | 0°43   | 29°17 | 0°10  | 13°35  |
| S 20 | 4 9 6   | 1°40'09  | 22°29 | 1♌34  | 15°29 | 16° 9 | 20° 2 | 4°54 | 6°20 | 22° 3  | 3°10  | 0°30   | 29°14 | 0°16  | 13°35  |
| M21  | 4 13 3  | 2°41'15  | 4♌22  | 3° 8  | 16°34 | 16°52 | 20°13 | 4°57 | 6°23 | 22° 2  | 3°10  | 0°18   | 29°11 | 0°23  | 13°35  |
| T 22 | 4 17 0  | 3°42'22  | 16°13 | 4°43  | 17°41 | 17°35 | 20°24 | 4°59 | 6°25 | 22° 2  | 3° 9  | 0° 7   | 29° 8 | 0°30  | 13°R35 |
| W23  | 4 20 56 | 4°43'29  | 28° 5 | 6°18  | 18°47 | 18°19 | 20°36 | 5° 1 | 6°28 | 22° 2  | 3° 8  | 29♎59  | 29° 5 | 0°37  | 13°35  |
| T 24 | 4 24 53 | 5°44'37  | 10♌ 1 | 7°52  | 19°54 | 19° 2 | 20°47 | 5° 3 | 6°30 | 22° 2  | 3° 8  | 29°53  | 29° 2 | 0°43  | 13°35  |
| F 25 | 4 28 49 | 6°45'46  | 22° 5 | 9°27  | 21° 0 | 19°45 | 20°58 | 5° 5 | 6°32 | 22° 1  | 3° 7  | 29°49  | 28°58 | 0°50  | 13°35  |
| S 26 | 4 32 46 | 7°46'56  | 4♎22  | 11° 3 | 22° 8 | 20°28 | 21° 9 | 5° 7 | 6°35 | 22° 1  | 3° 6  | 29°D48 | 28°55 | 0°57  | 13°34  |
| S 27 | 4 36 42 | 8°48'06  | 16°57 | 12°38 | 23°15 | 21°12 | 21°19 | 5° 8 | 6°37 | 22° 1  | 3° 6  | 29°48  | 28°52 | 1° 3  | 13°34  |
| M28  | 4 40 39 | 9°49'17  | 29°54 | 14°13 | 24°22 | 21°55 | 21°30 | 5°10 | 6°39 | 22° 1  | 3° 5  | 29°R49 | 28°49 | 1°10  | 13°33  |
| T 29 | 4 44 35 | 10°50'29 | 13♊19 | 15°49 | 25°30 | 22°38 | 21°41 | 5°11 | 6°41 | 22° 1  | 3° 4  | 29°48  | 28°46 | 1°17  | 13°33  |
| W30  | 4 48 32 | 11°51'42 | 27♊13 | 17♌25 | 26♊38 | 23♌22 | 21♊51 | 5♎13 | 6♊43 | 22°D 1 | 3♌ 3  | 29♎45  | 28♎42 | 1♌24  | 13♌32  |

Delta T = 01h01m00s Julian Calendar 1 Nov. 712 == Greg. Calendar 5 Nov. 712

DECEMBER 712 C.E.JC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅     | ♁    | ♁      | ♁     | ♁      | ♁     | ♁    | ♁      |
|------|---------|----------|-------|-------|-------|-------|-------|-------|------|--------|-------|--------|-------|------|--------|
| T 1  | 4 52 28 | 12♌52'55 | 11♌37 | 19♌ 1 | 27♊46 | 24♌ 5 | 22♊ 2 | 5♎14  | 6♊45 | 22°H 1 | 3°R 3 | 29°R40 | 28♎39 | 1♌30 | 13°R31 |
| F 2  | 4 56 25 | 13°54'09 | 26°27 | 20°37 | 28°55 | 24°49 | 22°12 | 5°15  | 6°47 | 22° 1  | 3♌ 2  | 29♎31  | 28°36 | 1°37 | 13♌30  |
| S 3  | 5 0 22  | 14°55'23 | 11♌37 | 22°14 | 0♌ 3  | 25°32 | 22°23 | 5°16  | 6°49 | 22° 1  | 3° 1  | 29°21  | 28°33 | 1°44 | 13°29  |
| S 4  | 5 4 18  | 15°56'37 | 26°56 | 23°51 | 1°12  | 26°16 | 22°33 | 5°17  | 6°51 | 22° 1  | 3° 0  | 29° 9  | 28°30 | 1°50 | 13°28  |
| M 5  | 5 8 15  | 16°57'52 | 12♌31 | 25°28 | 2°21  | 27° 0 | 22°43 | 5°18  | 6°53 | 22° 2  | 2°59  | 28°58  | 28°27 | 1°57 | 13°27  |
| T 6  | 5 12 11 | 17°59'06 | 27°15 | 27° 5 | 3°30  | 27°43 | 22°53 | 5°19  | 6°55 | 22° 2  | 2°58  | 28°49  | 28°23 | 2° 4 | 13°25  |
| W 7  | 5 16 8  | 19° 0'21 | 11♌56 | 28°42 | 4°39  | 28°27 | 23° 3 | 5°19  | 6°57 | 22° 2  | 2°57  | 28°42  | 28°20 | 2°11 | 13°24  |
| T 8  | 5 20 4  | 20° 1'35 | 26°10 | 0♌19  | 5°48  | 29°11 | 23°13 | 5°20  | 6°59 | 22° 2  | 2°56  | 28°38  | 28°17 | 2°17 | 13°22  |
| F 9  | 5 24 1  | 21° 2'49 | 9♌56  | 1°56  | 6°58  | 29°55 | 23°22 | 5°20  | 7° 0 | 22° 3  | 2°55  | 28°36  | 28°14 | 2°24 | 13°21  |
| S 10 | 5 27 58 | 22° 4'02 | 23°16 | 3°33  | 8° 7  | 0♌39  | 23°32 | 5°20  | 7° 2 | 22° 3  | 2°54  | 28°36  | 28°11 | 2°31 | 13°19  |
| S 11 | 5 31 54 | 23° 5'15 | 6♎12  | 5°10  | 9°17  | 1°23  | 23°41 | 5°21  | 7° 3 | 22° 3  | 2°53  | 28°36  | 28° 8 | 2°38 | 13°17  |
| M12  | 5 35 51 | 24° 6'28 | 18°50 | 6°47  | 10°27 | 2° 7  | 23°51 | 5°R21 | 7° 5 | 22° 4  | 2°52  | 28°35  | 28° 4 | 2°44 | 13°15  |
| T 13 | 5 39 47 | 25° 7'40 | 1♌12  | 8°24  | 11°37 | 2°51  | 24° 0 | 5°21  | 7° 6 | 22° 4  | 2°51  | 28°31  | 28° 1 | 2°51 | 13°13  |
| W14  | 5 43 44 | 26° 8'52 | 13°24 | 10° 0 | 12°47 | 3°35  | 24° 9 | 5°20  | 7° 8 | 22° 5  | 2°50  | 28°25  | 27°58 | 2°58 | 13°11  |
| T 15 | 5 47 40 | 27°10'04 | 25°28 | 11°36 | 13°57 | 4°19  | 24°18 | 5°20  | 7° 9 | 22° 5  | 2°49  | 28°15  | 27°55 | 3° 4 | 13° 9  |
| F 16 | 5 51 37 | 28°11'15 | 7♌26  | 13°11 | 15° 8 | 5° 3  | 24°27 | 5°20  | 7°10 | 22° 6  | 2°48  | 28° 3  | 27°52 | 3°11 | 13° 7  |
| S 17 | 5 55 33 | 29°12'26 | 19°22 | 14°45 | 16°18 | 5°47  | 24°36 | 5°19  | 7°12 | 22° 6  | 2°47  | 27°49  | 27°48 | 3°18 | 13° 4  |
| S 18 | 5 59 30 | 0♌13'37  | 1♌15  | 16°17 | 17°29 | 6°31  | 24°45 | 5°19  | 7°13 | 22° 7  | 2°46  | 27°34  | 27°45 | 3°25 | 13° 2  |
| M19  | 6 3 27  | 1°14'47  | 13° 8 | 17°48 | 18°39 | 7°15  | 24°53 | 5°18  | 7°14 | 22° 8  | 2°44  | 27°19  | 27°42 | 3°31 | 12°59  |
| T 20 | 6 7 23  | 2°15'57  | 25° 1 | 19°18 | 19°50 | 8° 0  | 25° 2 | 5°17  | 7°15 | 22° 8  | 2°43  | 27° 5  | 27°39 | 3°38 | 12°57  |
| W21  | 6 11 20 | 3°17'07  | 6♌56  | 20°44 | 21° 1 | 8°44  | 25°10 | 5°16  | 7°16 | 22° 9  | 2°42  | 26°54  | 27°36 | 3°45 | 12°54  |
| T 22 | 6 15 16 | 4°18'16  | 18°55 | 22° 9 | 22°12 | 9°28  | 25°18 | 5°15  | 7°17 | 22°10  | 2°41  | 26°46  | 27°33 | 3°52 | 12°51  |
| F 23 | 6 19 13 | 5°19'25  | 1♎ 2  | 23°30 | 23°23 | 10°13 | 25°26 | 5°14  | 7°18 | 22°10  | 2°39  | 26°41  | 27°29 | 3°58 | 12°49  |
| S 24 | 6 23 9  | 6°20'33  | 13°19 | 24°47 | 24°34 | 10°57 | 25°34 | 5°13  | 7°19 | 22°11  | 2°38  | 26°38  | 27°26 | 4° 5 | 12°46  |
| S 25 | 6 27 6  | 7°21'41  | 25°51 | 25°59 | 25°46 | 11°42 | 25°42 | 5°11  | 7°20 | 22°12  | 2°37  | 26°D38 | 27°23 | 4°12 | 12°43  |
| M26  | 6 31 2  | 8°22'49  | 8♊43  | 27° 6 | 26°57 | 12°26 | 25°50 | 5°10  | 7°21 | 22°13  | 2°36  | 26°R38 | 27°20 | 4°18 | 12°40  |
| T 27 | 6 34 59 | 9°23'56  | 21°59 | 28° 9 | 28° 9 | 13°11 | 25°57 | 5° 8  | 7°21 | 22°14  | 2°34  | 26°37  | 27°17 | 4°25 | 12°37  |
| W28  | 6 38 56 | 10°25'03 | 5♌42  | 29° 2 | 29°20 | 13°55 | 26° 5 | 5° 7  | 7°22 | 22°15  | 2°33  | 26°35  | 27°14 | 4°32 | 12°33  |
| T 29 | 6 42 52 | 11°26'10 | 19°54 | 29°48 | 0♌32  | 14°40 | 26°12 | 5° 5  | 7°22 | 22°16  | 2°32  | 26°30  | 27°10 | 4°39 | 12°30  |
| F 30 | 6 46 49 | 12°27'16 | 4♌34  | 0♌26  | 1°44  | 15°25 | 26°19 | 5° 3  | 7°23 | 22°17  | 2°30  | 26°23  | 27° 7 | 4°45 | 12°27  |
| S 31 | 6 50 45 | 13°28'22 | 19♌36 | 0♌55  | 2♌55  | 16♌ 9 | 26♊26 | 5♎ 1  | 7°23 | 22°H18 | 2♌29  | 26♎13  | 27♎ 4 | 4♌52 | 12♌23  |

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