

SWISS EPHEMERIS for the year 1677

JANUARY 1677GC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅      | ♁    | ♁     | ♁     | ♁      | ♁     | ♁     | ♁    | ♁ |
|------|---------|----------|-------|-------|-------|-------|-------|--------|------|-------|-------|--------|-------|-------|------|---|
| F 1  | 6 44 44 | 11♁18'56 | 2♁18  | 26♁27 | 28♁40 | 3°R17 | 29♁16 | 19°R13 | 0♁20 | 12♁47 | 8°R49 | 13♁28  | 12♁10 | 20♁40 | 1♁45 |   |
| S 2  | 6 48 41 | 12°20'08 | 17°14 | 27°57 | 29°51 | 2♁55  | 29°30 | 19♁11  | 0°21 | 12°49 | 8♁48  | 13°R28 | 12° 6 | 20°47 | 1°46 |   |
| S 3  | 6 52 38 | 13°21'19 | 2♁21  | 29°28 | 1♁ 2  | 2°33  | 29°44 | 19° 9  | 0°23 | 12°51 | 8°46  | 13°27  | 12° 3 | 20°53 | 1°48 |   |
| M 4  | 6 56 34 | 14°22'31 | 17°30 | 0♁59  | 2°13  | 2°11  | 29°58 | 19° 7  | 0°24 | 12°53 | 8°45  | 13°25  | 12° 0 | 21° 0 | 1°49 |   |
| T 5  | 7 0 31  | 15°23'42 | 2♁30  | 2°30  | 3°24  | 1°50  | 0♁12  | 19° 6  | 0°25 | 12°55 | 8°44  | 13°20  | 11°57 | 21° 6 | 1°50 |   |
| W 6  | 7 4 27  | 16°24'53 | 17°14 | 4° 2  | 4°35  | 1°29  | 0°26  | 19° 4  | 0°27 | 12°57 | 8°43  | 13°15  | 11°54 | 21°13 | 1°52 |   |
| T 7  | 7 8 24  | 17°26'03 | 1♁33  | 5°34  | 5°46  | 1° 9  | 0°40  | 19° 3  | 0°28 | 12°59 | 8°41  | 13°10  | 11°50 | 21°20 | 1°53 |   |
| F 8  | 7 12 20 | 18°27'13 | 15°24 | 7° 7  | 6°57  | 0°49  | 0°54  | 19° 1  | 0°30 | 13° 1 | 8°40  | 13° 5  | 11°47 | 21°26 | 1°54 |   |
| S 9  | 7 16 17 | 19°28'22 | 28°47 | 8°40  | 8° 9  | 0°31  | 1° 8  | 19° 0  | 0°31 | 13° 4 | 8°39  | 13° 2  | 11°44 | 21°33 | 1°56 |   |
| S 10 | 7 20 13 | 20°29'30 | 11♁43 | 10°13 | 9°20  | 0°12  | 1°22  | 18°59  | 0°33 | 13° 6 | 8°38  | 13° 0  | 11°41 | 21°40 | 1°58 |   |
| M11  | 7 24 10 | 21°30'37 | 24°15 | 11°48 | 10°32 | 29♁55 | 1°37  | 18°58  | 0°34 | 13° 8 | 8°36  | 12°D59 | 11°38 | 21°46 | 1°59 |   |
| T 12 | 7 28 7  | 22°31'44 | 6♁29  | 13°22 | 11°44 | 29°38 | 1°51  | 18°57  | 0°36 | 13°10 | 8°35  | 13° 0  | 11°35 | 21°53 | 2° 1 |   |
| W13  | 7 32 3  | 23°32'50 | 18°28 | 14°58 | 12°55 | 29°22 | 2° 5  | 18°56  | 0°38 | 13°12 | 8°34  | 13° 2  | 11°31 | 22° 0 | 2° 3 |   |
| T 14 | 7 36 0  | 24°33'55 | 0♁19  | 16°33 | 14° 7 | 29° 6 | 2°19  | 18°56  | 0°40 | 13°14 | 8°33  | 13° 3  | 11°28 | 22° 6 | 2° 4 |   |
| F 15 | 7 39 56 | 25°34'59 | 12° 5 | 18°10 | 15°19 | 28°51 | 2°33  | 18°55  | 0°42 | 13°16 | 8°32  | 13°R 4 | 11°25 | 22°13 | 2° 6 |   |
| S 16 | 7 43 53 | 26°36'02 | 23°52 | 19°46 | 16°31 | 28°37 | 2°47  | 18°55  | 0°43 | 13°19 | 8°30  | 13° 3  | 11°22 | 22°20 | 2° 8 |   |
| S 17 | 7 47 49 | 27°37'05 | 5♁42  | 21°24 | 17°43 | 28°24 | 3° 2  | 18°55  | 0°45 | 13°21 | 8°29  | 13° 1  | 11°19 | 22°26 | 2°10 |   |
| M18  | 7 51 46 | 28°38'07 | 17°39 | 23° 2 | 18°55 | 28°12 | 3°16  | 18°54  | 0°47 | 13°23 | 8°28  | 12°56  | 11°16 | 22°33 | 2°12 |   |
| T 19 | 7 55 42 | 29°39'07 | 29°44 | 24°40 | 20° 7 | 28° 0 | 3°30  | 18°D54 | 0°49 | 13°25 | 8°27  | 12°49  | 11°12 | 22°40 | 2°14 |   |
| W20  | 7 59 39 | 0♁40'07  | 11♁58 | 26°20 | 21°19 | 27°49 | 3°44  | 18°54  | 0°51 | 13°28 | 8°26  | 12°40  | 11° 9 | 22°46 | 2°16 |   |
| T 21 | 8 3 36  | 1°41'07  | 24°23 | 27°59 | 22°31 | 27°39 | 3°59  | 18°54  | 0°53 | 13°30 | 8°25  | 12°30  | 11° 6 | 22°53 | 2°18 |   |
| F 22 | 8 7 32  | 2°42'05  | 6♁59  | 29°40 | 23°44 | 27°30 | 4°13  | 18°55  | 0°56 | 13°32 | 8°24  | 12°21  | 11° 3 | 23° 0 | 2°21 |   |
| S 23 | 8 11 29 | 3°43'02  | 19°47 | 1♁21  | 24°56 | 27°22 | 4°27  | 18°55  | 0°58 | 13°34 | 8°22  | 12°13  | 11° 0 | 23° 6 | 2°23 |   |
| S 24 | 8 15 25 | 4°43'59  | 2♁47  | 3° 3  | 26° 8 | 27°14 | 4°41  | 18°56  | 1° 0 | 13°37 | 8°21  | 12° 6  | 10°56 | 23°13 | 2°25 |   |
| M25  | 8 19 22 | 5°44'55  | 16° 1 | 4°45  | 27°21 | 27° 7 | 4°56  | 18°56  | 1° 2 | 13°39 | 8°20  | 12° 2  | 10°53 | 23°19 | 2°27 |   |
| T 26 | 8 23 18 | 6°45'50  | 29°30 | 6°29  | 28°33 | 27° 1 | 5°10  | 18°57  | 1° 4 | 13°41 | 8°19  | 12° 0  | 10°50 | 23°26 | 2°30 |   |
| W27  | 8 27 15 | 7°46'45  | 13♁14 | 8°12  | 29°46 | 26°56 | 5°24  | 18°58  | 1° 7 | 13°43 | 8°18  | 12°D 0 | 10°47 | 23°33 | 2°32 |   |
| T 28 | 8 31 11 | 8°47'39  | 27°16 | 9°57  | 0♁59  | 26°52 | 5°38  | 18°59  | 1° 9 | 13°46 | 8°17  | 12° 0  | 10°44 | 23°39 | 2°34 |   |
| F 29 | 8 35 8  | 9°48'32  | 11♁34 | 11°42 | 2°11  | 26°48 | 5°53  | 19° 0  | 1°12 | 13°48 | 8°16  | 12°R 1 | 10°41 | 23°46 | 2°37 |   |
| S 30 | 8 39 5  | 10°49'24 | 26° 8 | 13°28 | 3°24  | 26°45 | 6° 7  | 19° 1  | 1°14 | 13°50 | 8°15  | 12° 0  | 10°37 | 23°53 | 2°39 |   |
| S 31 | 8 43 1  | 11♁50'16 | 10♁53 | 15♁15 | 4♁37  | 26♁43 | 6♁21  | 19♁ 2  | 1♁16 | 13♁52 | 8♁14  | 11♁57  | 10♁34 | 23♁59 | 2♁42 |   |

Delta T = 17.15 sec.

Greg. Calendar

FEBRUARY 1677GC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♁     | ♂      | ♃     | ♅     | ♁    | ♁     | ♁     | ♁      | ♁     | ♁     | ♁    | ♁ |
|------|----------|----------|-------|-------|-------|--------|-------|-------|------|-------|-------|--------|-------|-------|------|---|
| M 1  | 8 46 58  | 12♁51'06 | 25♁43 | 17♁ 2 | 5♁50  | 26°R42 | 6♁35  | 19♁ 3 | 1♁19 | 13♁55 | 8°R13 | 11°R51 | 10♁31 | 24♁ 6 | 2♁45 |   |
| T 2  | 8 50 54  | 13°51'55 | 10♁30 | 18°50 | 7° 2  | 26°D41 | 6°50  | 19° 5 | 1°21 | 13°57 | 8♁12  | 11♁43  | 10°28 | 24°13 | 2°47 |   |
| W 3  | 8 54 51  | 14°52'43 | 25° 6 | 20°38 | 8°15  | 26♁42  | 7° 4  | 19° 7 | 1°24 | 13°59 | 8°11  | 11°33  | 10°25 | 24°19 | 2°50 |   |
| T 4  | 8 58 47  | 15°53'29 | 9♁25  | 22°26 | 9°28  | 26°43  | 7°18  | 19° 8 | 1°27 | 14° 2 | 8°10  | 11°22  | 10°22 | 24°26 | 2°53 |   |
| F 5  | 9 2 44   | 16°54'14 | 23°19 | 24°15 | 10°41 | 26°44  | 7°32  | 19°10 | 1°29 | 14° 4 | 8° 9  | 11°12  | 10°18 | 24°33 | 2°55 |   |
| S 6  | 9 6 40   | 17°54'57 | 6♁47  | 26° 5 | 11°54 | 26°47  | 7°46  | 19°12 | 1°32 | 14° 6 | 8° 8  | 11° 3  | 10°15 | 24°39 | 2°58 |   |
| S 7  | 9 10 37  | 18°55'39 | 19°48 | 27°54 | 13° 7 | 26°50  | 8° 1  | 19°14 | 1°35 | 14° 8 | 8° 7  | 10°57  | 10°12 | 24°46 | 3° 1 |   |
| M 8  | 9 14 34  | 19°56'19 | 2♁24  | 29°43 | 14°20 | 26°54  | 8°15  | 19°16 | 1°37 | 14°11 | 8° 6  | 10°53  | 10° 9 | 24°53 | 3° 4 |   |
| T 9  | 9 18 30  | 20°56'57 | 14°40 | 1♁32  | 15°33 | 26°59  | 8°29  | 19°19 | 1°40 | 14°13 | 8° 5  | 10°52  | 10° 6 | 24°59 | 3° 7 |   |
| W10  | 9 22 27  | 21°57'34 | 26°41 | 3°21  | 16°46 | 27° 4  | 8°43  | 19°21 | 1°43 | 14°15 | 8° 4  | 10°D51 | 10° 2 | 25° 6 | 3°10 |   |
| T 11 | 9 26 23  | 22°58'09 | 8♁32  | 5° 9  | 17°59 | 27°10  | 8°57  | 19°23 | 1°46 | 14°17 | 8° 4  | 10°R52 | 9°59  | 25°12 | 3°13 |   |
| F 12 | 9 30 20  | 23°58'42 | 20°19 | 6°55  | 19°12 | 27°17  | 9°11  | 19°26 | 1°49 | 14°20 | 8° 3  | 10°51  | 9°56  | 25°19 | 3°16 |   |
| S 13 | 9 34 16  | 24°59'13 | 2♁ 7  | 8°41  | 20°25 | 27°24  | 9°25  | 19°29 | 1°52 | 14°22 | 8° 2  | 10°49  | 9°53  | 25°26 | 3°19 |   |
| S 14 | 9 38 13  | 25°59'43 | 14° 1 | 10°24 | 21°39 | 27°32  | 9°39  | 19°31 | 1°54 | 14°24 | 8° 1  | 10°45  | 9°50  | 25°32 | 3°22 |   |
| M15  | 9 42 9   | 27° 0'11 | 26° 3 | 12° 5 | 22°52 | 27°40  | 9°53  | 19°34 | 1°57 | 14°26 | 8° 0  | 10°37  | 9°47  | 25°39 | 3°25 |   |
| T 16 | 9 46 6   | 28° 0'37 | 8♁18  | 13°44 | 24° 5 | 27°49  | 10° 7 | 19°37 | 2° 0 | 14°29 | 8° 0  | 10°27  | 9°43  | 25°46 | 3°28 |   |
| W17  | 9 50 3   | 29° 1'01 | 20°47 | 15°19 | 25°18 | 27°59  | 10°21 | 19°40 | 2° 3 | 14°31 | 7°59  | 10°15  | 9°40  | 25°52 | 3°31 |   |
| T 18 | 9 53 59  | 0♁ 1'23  | 3♁30  | 16°51 | 26°31 | 28°10  | 10°35 | 19°44 | 2° 6 | 14°33 | 7°58  | 10° 2  | 9°37  | 25°59 | 3°34 |   |
| F 19 | 9 57 56  | 1° 1'44  | 16°26 | 18°18 | 27°45 | 28°20  | 10°49 | 19°47 | 2° 9 | 14°35 | 7°58  | 9°48   | 9°34  | 26° 6 | 3°37 |   |
| S 20 | 10 1 52  | 2° 2'03  | 29°36 | 19°39 | 28°58 | 28°32  | 11° 2 | 19°50 | 2°12 | 14°38 | 7°57  | 9°36   | 9°31  | 26°12 | 3°41 |   |
| S 21 | 10 5 49  | 3° 2'21  | 12♁56 | 20°56 | 0♁11  | 28°44  | 11°16 | 19°54 | 2°16 | 14°40 | 7°56  | 9°26   | 9°28  | 26°19 | 3°44 |   |
| M22  | 10 9 45  | 4° 2'37  | 26°27 | 22° 5 | 1°25  | 28°56  | 11°30 | 19°57 | 2°19 | 14°42 | 7°56  | 9°19   | 9°24  | 26°26 | 3°47 |   |
| T 23 | 10 13 42 | 5° 2'51  | 10♁ 7 | 23° 8 | 2°38  | 29° 9  | 11°44 | 20° 1 | 2°22 | 14°44 | 7°55  | 9°15   | 9°21  | 26°32 | 3°50 |   |
| W24  | 10 17 38 | 6° 3'04  | 23°55 | 24° 4 | 3°51  | 29°23  | 11°57 | 20° 5 | 2°25 | 14°46 | 7°54  | 9°13   | 9°18  | 26°39 | 3°54 |   |
| T 25 | 10 21 35 | 7° 3'16  | 7♁53  | 24°51 | 5° 5  | 29°37  | 12°11 | 20° 9 | 2°28 | 14°48 | 7°54  | 9°13   | 9°15  | 26°46 | 3°57 |   |
| F 26 | 10 25 32 | 8° 3'26  | 21°59 | 25°30 | 6°18  | 29°51  | 12°24 | 20°13 | 2°31 | 14°51 | 7°53  | 9°13   | 9°12  | 26°52 | 4° 0 |   |
| S 27 | 10 29 28 | 9° 3'34  | 6♁13  | 26° 0 | 7°32  | 0♁ 6   | 12°38 | 20°17 | 2°34 | 14°53 | 7°53  | 9°11   | 9° 8  | 26°59 | 4° 4 |   |
| S 28 | 10 33 25 | 10♁ 3'41 | 20♁33 | 26♁22 | 8♁45  | 0♁22   | 12♁52 | 20♁21 | 2♁38 | 14♁55 | 7♁52  | 9♁ 7   | 9♁ 5  | 27♁ 6 | 4♁ 7 |   |

Delta T = 17.06 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1677

MARCH 1677GC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀      | ♁     | ♂     | ♃     | ♅     | ♁    | ♁     | ♁     | ♁     | ♁    | ♁     | ♁    | ♁ |
|------|----------|----------|-------|--------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|------|---|
| M 1  | 10 37 21 | 11♋ 3'46 | 4♌57  | 26♋34  | 9♌58  | 0♍38  | 13♎ 5 | 20♏25 | 2♐41 | 14♑57 | 7°R52 | 9°R 1 | 9♒ 2 | 27♓12 | 4♈11 |   |
| T 2  | 10 41 18 | 12° 3'50 | 19°18 | 26°R36 | 11°12 | 0°54  | 13°18 | 20°29 | 2°44 | 14°59 | 7♌51  | 8♌51  | 8°59 | 27°19 | 4°14 |   |
| W 3  | 10 45 14 | 13° 3'52 | 3♋32  | 26°30  | 12°25 | 1°11  | 13°32 | 20°34 | 2°47 | 15° 1 | 7°51  | 8°39  | 8°56 | 27°26 | 4°18 |   |
| T 4  | 10 49 11 | 14° 3'52 | 17°33 | 26°15  | 13°39 | 1°28  | 13°45 | 20°38 | 2°51 | 15° 3 | 7°50  | 8°26  | 8°53 | 27°32 | 4°21 |   |
| F 5  | 10 53 7  | 15° 3'49 | 1♎16  | 25°52  | 14°52 | 1°46  | 13°58 | 20°43 | 2°54 | 15° 5 | 7°50  | 8°14  | 8°49 | 27°39 | 4°24 |   |
| S 6  | 10 57 4  | 16° 3'45 | 14°37 | 25°20  | 16° 6 | 2° 4  | 14°12 | 20°48 | 2°57 | 15° 7 | 7°50  | 8° 4  | 8°46 | 27°45 | 4°28 |   |
| S 7  | 11 1 0   | 17° 3'39 | 27°35 | 24°42  | 17°19 | 2°22  | 14°25 | 20°52 | 3° 1 | 15° 9 | 7°49  | 7°55  | 8°43 | 27°52 | 4°32 |   |
| M 8  | 11 4 57  | 18° 3'30 | 10♌12 | 23°58  | 18°33 | 2°41  | 14°38 | 20°57 | 3° 4 | 15°11 | 7°49  | 7°50  | 8°40 | 27°59 | 4°35 |   |
| T 9  | 11 8 54  | 19° 3'20 | 22°29 | 23°10  | 19°46 | 3° 0  | 14°51 | 21° 2 | 3° 7 | 15°13 | 7°49  | 7°47  | 8°37 | 28° 5 | 4°39 |   |
| W10  | 11 12 50 | 20° 3'07 | 4♓32  | 22°17  | 21° 0 | 3°20  | 15° 4 | 21° 7 | 3°11 | 15°15 | 7°48  | 7°D46 | 8°33 | 28°12 | 4°42 |   |
| T 11 | 11 16 47 | 21° 2'52 | 16°25 | 21°22  | 22°14 | 3°40  | 15°17 | 21°12 | 3°14 | 15°17 | 7°48  | 7°R46 | 8°30 | 28°19 | 4°46 |   |
| F 12 | 11 20 43 | 22° 2'35 | 28°13 | 20°26  | 23°27 | 4° 0  | 15°30 | 21°17 | 3°17 | 15°19 | 7°48  | 7°46  | 8°27 | 28°25 | 4°49 |   |
| S 13 | 11 24 40 | 23° 2'15 | 10♌ 3 | 19°29  | 24°41 | 4°21  | 15°42 | 21°23 | 3°21 | 15°21 | 7°48  | 7°45  | 8°24 | 28°32 | 4°53 |   |
| S 14 | 11 28 36 | 24° 1'54 | 21°58 | 18°34  | 25°54 | 4°42  | 15°55 | 21°28 | 3°24 | 15°23 | 7°48  | 7°42  | 8°21 | 28°39 | 4°57 |   |
| M15  | 11 32 33 | 25° 1'29 | 4♌ 5  | 17°41  | 27° 8 | 5° 3  | 16° 8 | 21°33 | 3°28 | 15°25 | 7°47  | 7°36  | 8°18 | 28°45 | 5° 0 |   |
| T 16 | 11 36 29 | 26° 1'03 | 16°27 | 16°51  | 28°21 | 5°25  | 16°20 | 21°39 | 3°31 | 15°27 | 7°47  | 7°27  | 8°14 | 28°52 | 5° 4 |   |
| W17  | 11 40 26 | 27° 0'34 | 29° 6 | 16° 6  | 29°35 | 5°46  | 16°33 | 21°44 | 3°34 | 15°28 | 7°47  | 7°17  | 8°11 | 28°59 | 5° 7 |   |
| T 18 | 11 44 23 | 28° 0'03 | 12♎ 4 | 15°24  | 0♋48  | 6° 9  | 16°45 | 21°50 | 3°38 | 15°30 | 7°47  | 7° 5  | 8° 8 | 29° 5 | 5°11 |   |
| F 19 | 11 48 19 | 28°59'30 | 25°20 | 14°48  | 2° 2  | 6°31  | 16°58 | 21°56 | 3°41 | 15°32 | 7°47  | 6°53  | 8° 5 | 29°12 | 5°15 |   |
| S 20 | 11 52 16 | 29°58'55 | 8♌53  | 14°18  | 3°16  | 6°54  | 17°10 | 22° 1 | 3°45 | 15°34 | 7°47  | 6°42  | 8° 2 | 29°19 | 5°18 |   |
| S 21 | 11 56 12 | 0♎58'18  | 22°38 | 13°53  | 4°29  | 7°17  | 17°22 | 22° 7 | 3°48 | 15°35 | 7°D47 | 6°34  | 7°59 | 29°25 | 5°22 |   |
| M22  | 12 0 9   | 1°57'39  | 6♌34  | 13°35  | 5°43  | 7°41  | 17°34 | 22°13 | 3°52 | 15°37 | 7°47  | 6°28  | 7°55 | 29°32 | 5°26 |   |
| T 23 | 12 4 5   | 2°56'58  | 20°36 | 13°22  | 6°56  | 8° 4  | 17°47 | 22°19 | 3°55 | 15°39 | 7°47  | 6°24  | 7°52 | 29°39 | 5°29 |   |
| W24  | 12 8 2   | 3°56'16  | 4♌42  | 13°15  | 8°10  | 8°28  | 17°59 | 22°25 | 3°58 | 15°41 | 7°47  | 6°D23 | 7°49 | 29°45 | 5°33 |   |
| T 25 | 12 11 58 | 4°55'31  | 18°50 | 13°D14 | 9°23  | 8°52  | 18°11 | 22°31 | 4° 2 | 15°42 | 7°47  | 6°24  | 7°46 | 29°52 | 5°37 |   |
| F 26 | 12 15 55 | 5°54'45  | 2♌58  | 13°18  | 10°37 | 9°17  | 18°22 | 22°37 | 4° 5 | 15°44 | 7°47  | 6°R24 | 7°43 | 29°59 | 5°40 |   |
| S 27 | 12 19 52 | 6°53'57  | 17° 5 | 13°28  | 11°51 | 9°41  | 18°34 | 22°43 | 4° 9 | 15°45 | 7°47  | 6°24  | 7°39 | 0♌ 5  | 5°44 |   |
| S 28 | 12 23 48 | 7°53'07  | 1♌ 9  | 13°43  | 13° 4 | 10° 6 | 18°46 | 22°50 | 4°12 | 15°47 | 7°47  | 6°22  | 7°36 | 0°12  | 5°48 |   |
| M29  | 12 27 45 | 8°52'16  | 15°10 | 14° 3  | 14°18 | 10°32 | 18°57 | 22°56 | 4°16 | 15°49 | 7°48  | 6°17  | 7°33 | 0°19  | 5°51 |   |
| T 30 | 12 31 41 | 9°51'23  | 29° 6 | 14°27  | 15°32 | 10°57 | 19° 9 | 23° 2 | 4°19 | 15°50 | 7°48  | 6°10  | 7°30 | 0°25  | 5°55 |   |
| W31  | 12 35 38 | 10♎50'27 | 12♋52 | 14♋57  | 16♋45 | 11♌23 | 19°20 | 23♌ 9 | 4♎22 | 15°52 | 7♌48  | 6♌ 1  | 7♌27 | 0♌32  | 5♎59 |   |

Delta T = 16.99 sec. Greg. Calendar

APRIL 1677GC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅     | ♁    | ♁     | ♁    | ♁     | ♁    | ♁    | ♁    | ♁ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|------|-------|------|-------|------|------|------|---|
| T 1  | 12 39 34 | 11♎49'30 | 26♋27 | 15♋30 | 17♋59 | 11♌48 | 19°32 | 23♌15 | 4♎26 | 15°53 | 7♌48 | 5°R52 | 7♌24 | 0♌38 | 6♎ 2 |   |
| F 2  | 12 43 31 | 12°48'31 | 9♎47  | 16° 8 | 19°12 | 12°15 | 19°43 | 23°22 | 4°29 | 15°55 | 7°49 | 5♌43  | 7°20 | 0°45 | 6° 6 |   |
| S 3  | 12 47 27 | 13°47'30 | 22°51 | 16°49 | 20°26 | 12°41 | 19°54 | 23°28 | 4°33 | 15°56 | 7°49 | 5°35  | 7°17 | 0°52 | 6°10 |   |
| S 4  | 12 51 24 | 14°46'26 | 5♌37  | 17°34 | 21°40 | 13° 7 | 20° 5 | 23°35 | 4°36 | 15°57 | 7°49 | 5°29  | 7°14 | 0°58 | 6°13 |   |
| M 5  | 12 55 21 | 15°45'21 | 18° 6 | 18°23 | 22°53 | 13°34 | 20°16 | 23°42 | 4°39 | 15°59 | 7°50 | 5°25  | 7°11 | 1° 5 | 6°17 |   |
| T 6  | 12 59 17 | 16°44'14 | 0♓12  | 19°15 | 24° 7 | 14° 1 | 20°27 | 23°48 | 4°43 | 16° 0 | 7°50 | 5°D23 | 7° 8 | 1°12 | 6°20 |   |
| W 7  | 13 3 14  | 17°43'04 | 12°21 | 20° 9 | 25°20 | 14°28 | 20°38 | 23°55 | 4°46 | 16° 1 | 7°50 | 5°23  | 7° 4 | 1°18 | 6°24 |   |
| T 8  | 13 7 10  | 18°41'52 | 24°14 | 21° 7 | 26°34 | 14°55 | 20°49 | 24° 2 | 4°50 | 16° 3 | 7°51 | 5°24  | 7° 1 | 1°25 | 6°28 |   |
| F 9  | 13 11 7  | 19°40'38 | 6♌ 3  | 22° 8 | 27°48 | 15°23 | 20°59 | 24° 9 | 4°53 | 16° 4 | 7°51 | 5°26  | 6°58 | 1°32 | 6°31 |   |
| S 10 | 13 15 3  | 20°39'22 | 17°53 | 23°12 | 29° 1 | 15°51 | 21°10 | 24°16 | 4°56 | 16° 5 | 7°52 | 5°R27 | 6°55 | 1°38 | 6°35 |   |
| S 11 | 13 19 0  | 21°38'03 | 29°50 | 24°18 | 0♎15  | 16°18 | 21°20 | 24°23 | 5° 0 | 16° 6 | 7°52 | 5°26  | 6°52 | 1°45 | 6°38 |   |
| M12  | 13 22 56 | 22°36'42 | 11♌58 | 25°26 | 1°28  | 16°46 | 21°30 | 24°30 | 5° 3 | 16° 8 | 7°53 | 5°24  | 6°49 | 1°52 | 6°42 |   |
| T 13 | 13 26 53 | 23°35'19 | 24°21 | 26°37 | 2°42  | 17°15 | 21°40 | 24°37 | 5° 6 | 16° 9 | 7°53 | 5°21  | 6°45 | 1°58 | 6°46 |   |
| W14  | 13 30 50 | 24°33'53 | 7♎ 5  | 27°50 | 3°56  | 17°43 | 21°50 | 24°44 | 5° 9 | 16°10 | 7°54 | 5°15  | 6°42 | 2° 5 | 6°49 |   |
| T 15 | 13 34 46 | 25°32'26 | 20°10 | 29° 6 | 5° 9  | 18°12 | 22° 0 | 24°51 | 5°13 | 16°11 | 7°54 | 5° 9  | 6°39 | 2°12 | 6°53 |   |
| F 16 | 13 38 43 | 26°30'56 | 3♌38  | 0♎23  | 6°23  | 18°40 | 22°10 | 24°58 | 5°16 | 16°12 | 7°55 | 5° 3  | 6°36 | 2°18 | 6°56 |   |
| S 17 | 13 42 39 | 27°29'25 | 17°28 | 1°43  | 7°36  | 19° 9 | 22°20 | 25° 5 | 5°19 | 16°13 | 7°55 | 4°57  | 6°33 | 2°25 | 7° 0 |   |
| S 18 | 13 46 36 | 28°27'51 | 1♌35  | 3° 5  | 8°50  | 19°38 | 22°29 | 25°13 | 5°22 | 16°14 | 7°56 | 4°52  | 6°30 | 2°32 | 7° 3 |   |
| M19  | 13 50 32 | 29°26'15 | 15°56 | 4°29  | 10° 3 | 20° 7 | 22°39 | 25°20 | 5°26 | 16°15 | 7°57 | 4°49  | 6°26 | 2°38 | 7° 6 |   |
| T 20 | 13 54 29 | 0♌24'38  | 0♌25  | 5°54  | 11°17 | 20°37 | 22°48 | 25°27 | 5°29 | 16°16 | 7°57 | 4°D48 | 6°23 | 2°45 | 7°10 |   |
| W21  | 13 58 25 | 1°22'59  | 14°56 | 7°22  | 12°31 | 21° 6 | 22°57 | 25°35 | 5°32 | 16°17 | 7°58 | 4°48  | 6°20 | 2°52 | 7°13 |   |
| T 22 | 14 2 22  | 2°21'19  | 29°25 | 8°52  | 13°44 | 21°36 | 23° 6 | 25°42 | 5°35 | 16°18 | 7°59 | 4°49  | 6°17 | 2°58 | 7°17 |   |
| F 23 | 14 6 18  | 3°19'37  | 13♌47 | 10°23 | 14°58 | 22° 5 | 23°15 | 25°49 | 5°38 | 16°19 | 8° 0 | 4°51  | 6°14 | 3° 5 | 7°20 |   |
| S 24 | 14 10 15 | 4°17'53  | 28° 0 | 11°57 | 16°11 | 22°35 | 23°24 | 25°57 | 5°41 | 16°19 | 8° 0 | 4°R51 | 6°10 | 3°12 | 7°23 |   |
| S 25 | 14 14 12 | 5°16'08  | 12♌ 2 | 13°32 | 17°25 | 23° 5 | 23°33 | 26° 4 | 5°45 | 16°20 | 8° 1 | 4°51  | 6° 7 | 3°18 | 7°27 |   |
| M26  | 14 18 8  | 6°14'22  | 25°52 | 15° 9 | 18°38 | 23°35 | 23°41 | 26°12 | 5°48 | 16°21 | 8° 2 | 4°50  | 6° 4 | 3°25 | 7°30 |   |
| T 27 | 14 22 5  | 7°12'34  | 9♌29  | 16°48 | 19°52 | 24° 5 | 23°50 | 26°19 | 5°51 | 16°22 | 8° 3 | 4°48  | 6° 1 | 3°32 | 7°33 |   |
| W28  | 14 26 1  | 8°10'44  | 22°52 | 18°29 | 21° 6 | 24°36 | 23°58 | 26°27 | 5°54 | 16°22 | 8° 4 | 4°44  | 5°58 | 3°38 | 7°37 |   |
| T 29 | 14 29 58 | 9° 8'53  | 6♎ 2  | 20°12 | 22°19 | 25° 6 | 24° 6 | 26°34 | 5°57 | 16°23 | 8° 4 | 4°40  | 5°55 | 3°45 | 7°40 |   |
| F 30 | 14 33 54 | 10♌ 7'00 | 18♎58 | 21♎56 | 23♎33 | 25♏37 | 24°14 | 26♏42 | 6♎ 0 | 16°24 | 8♌ 5 | 4♌36  | 5♌51 | 3♌52 | 7♎43 |   |

Delta T = 16.90 sec. Greg. Calendar created from Swiss Ephemeris, Copyright Astrodiens AG [5.1.2003]

SWISS EPHEMERIS for the year 1677

MAY 1677GC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♁     | ♂     | ♃     | ♅     | ♁    | ♁      | ♁    | ♁     | ♁    | ♁    | ♁    | ♁ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|------|--------|------|-------|------|------|------|---|
| S 1  | 14 37 51 | 11♈ 5°06 | 1♉40  | 23♋43 | 24♋46 | 26♌8  | 24♌22 | 26♌50 | 6♍3  | 16♍24  | 8♎6  | 4°R33 | 5♏48 | 3♐58 | 7♑46 |   |
| S 2  | 14 41 47 | 12° 3'10 | 14° 9 | 25°31 | 26° 0 | 26°39 | 24°30 | 26°57 | 6° 6 | 16°25  | 8° 7 | 4♎30  | 5°45 | 4° 5 | 7°50 |   |
| M 3  | 14 45 44 | 13° 1'13 | 26°26 | 27°21 | 27°13 | 27°10 | 24°38 | 27° 5 | 6° 9 | 16°25  | 8° 8 | 4°29  | 5°42 | 4°12 | 7°53 |   |
| T 4  | 14 49 41 | 13°59'13 | 8♌31  | 29°13 | 28°27 | 27°41 | 24°45 | 27°13 | 6°11 | 16°26  | 8° 9 | 4°D29 | 5°39 | 4°18 | 7°56 |   |
| W 5  | 14 53 37 | 14°57'13 | 20°28 | 1♌7   | 29°41 | 28°12 | 24°53 | 27°20 | 6°14 | 16°26  | 8°10 | 4°30  | 5°36 | 4°25 | 7°59 |   |
| T 6  | 14 57 34 | 15°55'10 | 2♌19  | 3° 3  | 0♌54  | 28°43 | 25° 0 | 27°28 | 6°17 | 16°27  | 8°11 | 4°31  | 5°32 | 4°32 | 8° 2 |   |
| F 7  | 15 1 30  | 16°53'06 | 14° 8 | 5° 1  | 2° 8  | 29°15 | 25° 7 | 27°36 | 6°20 | 16°27  | 8°12 | 4°33  | 5°29 | 4°38 | 8° 5 |   |
| S 8  | 15 5 27  | 17°51'00 | 25°58 | 7° 0  | 3°21  | 29°46 | 25°14 | 27°43 | 6°23 | 16°27  | 8°13 | 4°34  | 5°26 | 4°45 | 8° 8 |   |
| S 9  | 15 9 23  | 18°48'52 | 7♌54  | 9° 1  | 4°35  | 0♌18  | 25°20 | 27°51 | 6°25 | 16°28  | 8°14 | 4°35  | 5°23 | 4°52 | 8°11 |   |
| M10  | 15 13 20 | 19°46'42 | 20° 1 | 11° 4 | 5°48  | 0°50  | 25°27 | 27°59 | 6°28 | 16°28  | 8°15 | 4°R35 | 5°20 | 4°58 | 8°14 |   |
| T 11 | 15 17 16 | 20°44'30 | 2♌24  | 13° 9 | 7° 2  | 1°22  | 25°33 | 28° 7 | 6°31 | 16°28  | 8°16 | 4°35  | 5°16 | 5° 5 | 8°17 |   |
| W12  | 15 21 13 | 21°42'17 | 15° 6 | 15°15 | 8°15  | 1°54  | 25°40 | 28°14 | 6°34 | 16°29  | 8°17 | 4°34  | 5°13 | 5°12 | 8°20 |   |
| T 13 | 15 25 10 | 22°40'02 | 28°11 | 17°22 | 9°29  | 2°26  | 25°46 | 28°22 | 6°36 | 16°29  | 8°19 | 4°33  | 5°10 | 5°18 | 8°23 |   |
| F 14 | 15 29 6  | 23°37'46 | 11♌41 | 19°31 | 10°42 | 2°58  | 25°52 | 28°30 | 6°39 | 16°29  | 8°20 | 4°31  | 5° 7 | 5°25 | 8°25 |   |
| S 15 | 15 33 3  | 24°35'28 | 25°36 | 21°40 | 11°56 | 3°30  | 25°58 | 28°38 | 6°41 | 16°29  | 8°21 | 4°30  | 5° 4 | 5°32 | 8°28 |   |
| S 16 | 15 36 59 | 25°33'08 | 9♌55  | 23°51 | 13° 9 | 4° 3  | 26° 3 | 28°45 | 6°44 | 16°29  | 8°22 | 4°29  | 5° 1 | 5°38 | 8°31 |   |
| M17  | 15 40 56 | 26°30'47 | 24°33 | 26° 2 | 14°23 | 4°35  | 26° 9 | 28°53 | 6°46 | 16°29  | 8°23 | 4°29  | 4°57 | 5°45 | 8°34 |   |
| T 18 | 15 44 52 | 27°28'25 | 9♎23  | 28°14 | 15°37 | 5° 8  | 26°14 | 29° 1 | 6°49 | 16°29  | 8°24 | 4°D29 | 4°54 | 5°52 | 8°36 |   |
| W19  | 15 48 49 | 28°26'02 | 24°19 | 0♌25  | 16°50 | 5°40  | 26°19 | 29° 9 | 6°51 | 16°R29 | 8°26 | 4°29  | 4°51 | 5°58 | 8°39 |   |
| T 20 | 15 52 45 | 29°23'37 | 9♌12  | 2°37  | 18° 4 | 6°13  | 26°24 | 29°17 | 6°54 | 16°29  | 8°27 | 4°29  | 4°48 | 6° 5 | 8°42 |   |
| F 21 | 15 56 42 | 0♌21'12  | 23°56 | 4°48  | 19°17 | 6°46  | 26°29 | 29°24 | 6°56 | 16°29  | 8°28 | 4°30  | 4°45 | 6°12 | 8°44 |   |
| S 22 | 16 0 39  | 1°18'46  | 8♌24  | 6°58  | 20°31 | 7°19  | 26°34 | 29°32 | 6°58 | 16°29  | 8°29 | 4°30  | 4°42 | 6°18 | 8°47 |   |
| S 23 | 16 4 35  | 2°16'18  | 2°34  | 9° 8  | 21°44 | 7°52  | 26°38 | 29°40 | 7° 1 | 16°29  | 8°30 | 4°30  | 4°38 | 6°25 | 8°49 |   |
| M24  | 16 8 32  | 3°13'50  | 6♎23  | 11°16 | 22°58 | 8°25  | 26°42 | 29°48 | 7° 3 | 16°29  | 8°32 | 4°R30 | 4°35 | 6°32 | 8°52 |   |
| T 25 | 16 12 28 | 4°11'21  | 19°52 | 13°23 | 24°11 | 8°58  | 26°46 | 29°56 | 7° 5 | 16°29  | 8°33 | 4°D30 | 4°32 | 6°38 | 8°54 |   |
| W26  | 16 16 25 | 5° 8'51  | 3♋2   | 15°28 | 25°25 | 9°31  | 26°50 | 0♌3   | 7° 7 | 16°28  | 8°34 | 4°30  | 4°29 | 6°45 | 8°56 |   |
| T 27 | 16 20 21 | 6° 6'20  | 15°54 | 17°31 | 26°38 | 10° 4 | 26°54 | 0°11  | 7° 9 | 16°28  | 8°36 | 4°30  | 4°26 | 6°52 | 8°59 |   |
| F 28 | 16 24 18 | 7° 3'49  | 28°31 | 19°33 | 27°52 | 10°38 | 26°58 | 0°19  | 7°12 | 16°28  | 8°37 | 4°30  | 4°22 | 6°58 | 9° 1 |   |
| S 29 | 16 28 14 | 8° 1'17  | 10♌55 | 21°32 | 29° 5 | 11°11 | 27° 1 | 0°27  | 7°14 | 16°28  | 8°38 | 4°31  | 4°19 | 7° 5 | 9° 3 |   |
| S 30 | 16 32 11 | 8°58'44  | 23° 7 | 23°29 | 0♌19  | 11°45 | 27° 4 | 0°35  | 7°16 | 16°27  | 8°40 | 4°31  | 4°16 | 7°12 | 9° 6 |   |
| M31  | 16 36 8  | 9♌56'10  | 5♌11  | 25♌23 | 1♌33  | 12♌18 | 27° 7 | 0♌42  | 7♋18 | 16°27  | 8°41 | 4°R31 | 4♎13 | 7°18 | 9♋8  |   |

Delta T = 16.82 sec.

Greg. Calendar

JUNE 1677GC

00:00 UT

| Day  | Sid.t    | ☉        | ☽     | ♀     | ♁     | ♂     | ♃      | ♅    | ♁    | ♁      | ♁    | ♁     | ♁    | ♁     | ♁    | ♁ |
|------|----------|----------|-------|-------|-------|-------|--------|------|------|--------|------|-------|------|-------|------|---|
| T 1  | 16 40 4  | 10♌53'35 | 17♌8  | 27♌16 | 2♌46  | 12♌52 | 27°10  | 0♌50 | 7♋20 | 16°R26 | 8°42 | 4°R31 | 4♎10 | 7°25  | 9♋10 |   |
| W 2  | 16 44 1  | 11°50'59 | 29° 0 | 29° 5 | 4° 0  | 13°26 | 27°13  | 0°58 | 7°21 | 16°26  | 8°44 | 4♎30  | 4° 7 | 7°32  | 9°12 |   |
| T 3  | 16 47 57 | 12°48'23 | 10♌49 | 0♌52  | 5°13  | 14° 0 | 27°15  | 1° 5 | 7°23 | 16°25  | 8°45 | 4°30  | 4° 3 | 7°38  | 9°14 |   |
| F 4  | 16 51 54 | 13°45'45 | 22°38 | 2°37  | 6°27  | 14°34 | 27°18  | 1°13 | 7°25 | 16°25  | 8°47 | 4°28  | 4° 0 | 7°45  | 9°16 |   |
| S 5  | 16 55 50 | 14°43'07 | 4♌29  | 4°19  | 7°41  | 15° 8 | 27°20  | 1°21 | 7°27 | 16°24  | 8°48 | 4°27  | 3°57 | 7°52  | 9°18 |   |
| S 6  | 16 59 47 | 15°40'27 | 16°26 | 5°59  | 8°54  | 15°42 | 27°22  | 1°29 | 7°29 | 16°24  | 8°49 | 4°26  | 3°54 | 7°58  | 9°20 |   |
| M 7  | 17 3 43  | 16°37'47 | 28°33 | 7°35  | 10° 8 | 16°16 | 27°24  | 1°36 | 7°30 | 16°23  | 8°51 | 4°25  | 3°51 | 8° 5  | 9°22 |   |
| T 8  | 17 7 40  | 17°35'05 | 10♌54 | 9°10  | 11°21 | 16°50 | 27°25  | 1°44 | 7°32 | 16°23  | 8°52 | 4°24  | 3°48 | 8°12  | 9°23 |   |
| W 9  | 17 11 37 | 18°32'23 | 23°32 | 10°41 | 12°35 | 17°24 | 27°26  | 1°51 | 7°34 | 16°22  | 8°54 | 4°D24 | 3°44 | 8°18  | 9°25 |   |
| T 10 | 17 15 33 | 19°29'39 | 6♌32  | 12°10 | 13°48 | 17°59 | 27°28  | 1°59 | 7°35 | 16°21  | 8°55 | 4°24  | 3°41 | 8°25  | 9°27 |   |
| F 11 | 17 19 30 | 20°26'55 | 19°57 | 13°36 | 15° 2 | 18°33 | 27°29  | 2° 7 | 7°37 | 16°21  | 8°57 | 4°25  | 3°38 | 8°32  | 9°29 |   |
| S 12 | 17 23 26 | 21°24'10 | 3♌48  | 14°59 | 16°16 | 19° 8 | 27°29  | 2°14 | 7°38 | 16°20  | 8°58 | 4°27  | 3°35 | 8°38  | 9°30 |   |
| S 13 | 17 27 23 | 22°21'25 | 18° 6 | 16°20 | 17°29 | 19°42 | 27°30  | 2°22 | 7°40 | 16°19  | 9° 0 | 4°28  | 3°32 | 8°45  | 9°32 |   |
| M14  | 17 31 19 | 23°18'38 | 2♎47  | 17°37 | 18°43 | 20°17 | 27°30  | 2°29 | 7°41 | 16°18  | 9° 1 | 4°R28 | 3°28 | 8°52  | 9°33 |   |
| T 15 | 17 35 16 | 24°15'51 | 17°47 | 18°52 | 19°57 | 20°52 | 27°31  | 2°37 | 7°42 | 16°17  | 9° 2 | 4°28  | 3°25 | 8°58  | 9°35 |   |
| W16  | 17 39 13 | 25°13'04 | 2♌57  | 20° 4 | 21°10 | 21°26 | 27°R31 | 2°44 | 7°44 | 16°17  | 9° 4 | 4°26  | 3°22 | 9° 5  | 9°36 |   |
| T 17 | 17 43 9  | 26°10'16 | 18° 8 | 21°13 | 22°24 | 22° 1 | 27°30  | 2°51 | 7°45 | 16°16  | 9° 5 | 4°24  | 3°19 | 9°12  | 9°38 |   |
| F 18 | 17 47 6  | 27° 7'28 | 3♌11  | 22°19 | 23°37 | 22°36 | 27°30  | 2°59 | 7°46 | 16°15  | 9° 7 | 4°21  | 3°16 | 9°18  | 9°39 |   |
| S 19 | 17 51 2  | 28° 4'40 | 17°56 | 23°22 | 24°51 | 23°11 | 27°30  | 3° 6 | 7°47 | 16°14  | 9° 8 | 4°18  | 3°13 | 9°25  | 9°40 |   |
| S 20 | 17 54 59 | 29° 1'52 | 2♎19  | 24°22 | 26° 5 | 23°46 | 27°29  | 3°13 | 7°48 | 16°13  | 9°10 | 4°16  | 3° 9 | 9°32  | 9°41 |   |
| M21  | 17 58 55 | 29°59'03 | 16°16 | 25°18 | 27°18 | 24°21 | 27°28  | 3°21 | 7°50 | 16°12  | 9°11 | 4°14  | 3° 6 | 9°38  | 9°43 |   |
| T 22 | 18 2 52  | 0♌56'15  | 29°46 | 26°11 | 28°32 | 24°56 | 27°27  | 3°28 | 7°51 | 16°11  | 9°13 | 4°D13 | 3° 3 | 9°45  | 9°44 |   |
| W23  | 18 6 48  | 1°53'26  | 12♋52 | 27° 0 | 29°46 | 25°32 | 27°25  | 3°35 | 7°52 | 16°10  | 9°15 | 4°14  | 3° 0 | 9°52  | 9°45 |   |
| T 24 | 18 10 45 | 2°50'38  | 25°36 | 27°46 | 1♌0   | 26° 7 | 27°24  | 3°42 | 7°52 | 16° 9  | 9°16 | 4°15  | 2°57 | 9°58  | 9°46 |   |
| F 25 | 18 14 42 | 3°47'50  | 8♌2   | 28°28 | 2°13  | 26°42 | 27°22  | 3°49 | 7°53 | 16° 8  | 9°18 | 4°17  | 2°53 | 10° 5 | 9°47 |   |
| S 26 | 18 18 38 | 4°45'02  | 20°14 | 29° 6 | 3°27  | 27°18 | 27°20  | 3°57 | 7°54 | 16° 7  | 9°19 | 4°18  | 2°50 | 10°12 | 9°48 |   |
| S 27 | 18 22 35 | 5°42'14  | 2♌15  | 29°41 | 4°41  | 27°53 | 27°18  | 4° 4 | 7°55 | 16° 6  | 9°21 | 4°R19 | 2°47 | 10°18 | 9°49 |   |
| M28  | 18 26 31 | 6°39'27  | 14°10 | 0♌11  | 5°54  | 28°29 | 27°16  | 4°11 | 7°56 | 16° 4  | 9°22 | 4°19  | 2°44 | 10°25 | 9°49 |   |
| T 29 | 18 30 28 | 7°36'39  | 26° 0 | 0°37  | 7° 8  | 29° 4 | 27°13  | 4°18 | 7°56 | 16° 3  | 9°24 | 4°17  | 2°41 | 10°32 | 9°50 |   |
| W30  | 18 34 24 | 8°33'52  | 7♌49  | 0♌58  | 8♌22  | 29♌40 | 27°11  | 4♌25 | 7♋57 | 16° 2  | 9°25 | 4♎13  | 2♎38 | 10°38 | 9♋51 |   |

Delta T = 16.74 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1677

JULY 1677GC

00:00 UT

| Day  | Sid.t    | ☉                     | ☽                   | ♀                   | ♁                   | ♂                   | ♃                   | ♅                  | ♁                  | ♁                   | ♁                   | ♁                 | ♁                  | ♁                   | ♁                  |
|------|----------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|-------------------|--------------------|---------------------|--------------------|
| T 1  | 18 38 21 | 9 <sup>h</sup> 31'04" | 19 <sup>h</sup> 38' | 1 <sup>h</sup> 16'  | 9 <sup>h</sup> 36'  | 0 <sup>h</sup> 16'  | 27°R 8              | 4 <sup>h</sup> 32' | 7 <sup>h</sup> 58' | 16°R 1              | 9 <sup>h</sup> 27'  | 4°R 8             | 2 <sup>h</sup> 34' | 10 <sup>h</sup> 45' | 9 <sup>h</sup> 52' |
| F 2  | 18 42 17 | 10°28'17"             | 1 <sup>h</sup> 29'  | 1°28'               | 10°49'              | 0°51'               | 27 <sup>h</sup> 5   | 4°38'              | 7°58'              | 16 <sup>h</sup> 0   | 9°28'               | 4 <sup>h</sup> 2' | 2°31'              | 10°52'              | 9°52'              |
| S 3  | 18 46 14 | 11°25'29"             | 13°25'              | 1°36'               | 12° 3'              | 1°27'               | 27° 2               | 4°45'              | 7°59'              | 15°58'              | 9°30'               | 3°55'             | 2°28'              | 10°58'              | 9°53'              |
| S 4  | 18 50 11 | 12°22'41"             | 25°27'              | 1°R39               | 13°17'              | 2° 3'               | 26°58'              | 4°52'              | 7°59'              | 15°57'              | 9°31'               | 3°48'             | 2°25'              | 11° 5'              | 9°53'              |
| M 5  | 18 54 7  | 13°19'54"             | 7 <sup>h</sup> 38'  | 1°38'               | 14°31'              | 2°39'               | 26°55'              | 4°59'              | 8° 0'              | 15°56'              | 9°33'               | 3°43'             | 2°22'              | 11°12'              | 9°54'              |
| T 6  | 18 58 4  | 14°17'06"             | 20° 1'              | 1°32'               | 15°45'              | 3°15'               | 26°51'              | 5° 5'              | 8° 0'              | 15°54'              | 9°34'               | 3°38'             | 2°19'              | 11°18'              | 9°54'              |
| W 7  | 19 2 0   | 15°14'19"             | 2 <sup>h</sup> 39'  | 1°21'               | 16°58'              | 3°51'               | 26°47'              | 5°12'              | 8° 0'              | 15°53'              | 9°36'               | 3°36'             | 2°15'              | 11°25'              | 9°54'              |
| T 8  | 19 5 57  | 16°11'31"             | 15°35'              | 1° 5'               | 18°12'              | 4°27'               | 26°43'              | 5°19'              | 8° 1'              | 15°52'              | 9°37'               | 3°D35             | 2°12'              | 11°32'              | 9°55'              |
| F 9  | 19 9 53  | 17° 8'43"             | 28°52'              | 0°45'               | 19°26'              | 5° 3'               | 26°39'              | 5°25'              | 8° 1'              | 15°50'              | 9°39'               | 3°36'             | 2° 9'              | 11°38'              | 9°55'              |
| S 10 | 19 13 50 | 18° 5'56"             | 12 <sup>h</sup> 34' | 0°21'               | 20°40'              | 5°40'               | 26°34'              | 5°32'              | 8° 1'              | 15°49'              | 9°40'               | 3°37'             | 2° 6'              | 11°45'              | 9°55'              |
| S 11 | 19 17 46 | 19° 3'08"             | 26°42'              | 29 <sup>h</sup> 53' | 21°54'              | 6°16'               | 26°30'              | 5°38'              | 8° 1'              | 15°48'              | 9°42'               | 3°R38             | 2° 3'              | 11°52'              | 9°55'              |
| M12  | 19 21 43 | 20° 0'21"             | 11 <sup>h</sup> 14' | 29°21'              | 23° 8'              | 6°52'               | 26°25'              | 5°44'              | 8° 1'              | 15°46'              | 9°43'               | 3°38'             | 1°59'              | 11°58'              | 9°55'              |
| T 13 | 19 25 40 | 20°57'34"             | 26° 9'              | 28°46'              | 24°21'              | 7°29'               | 26°20'              | 5°51'              | 8°R 1              | 15°45'              | 9°45'               | 3°36'             | 1°56'              | 12° 5'              | 9°R55              |
| W14  | 19 29 36 | 21°54'48"             | 11 <sup>h</sup> 18' | 28° 8'              | 25°35'              | 8° 5'               | 26°15'              | 5°57'              | 8° 1'              | 15°43'              | 9°47'               | 3°32'             | 1°53'              | 12°12'              | 9°55'              |
| T 15 | 19 33 33 | 22°52'02"             | 26°34'              | 27°29'              | 26°49'              | 8°42'               | 26°10'              | 6° 3'              | 8° 1'              | 15°42'              | 9°48'               | 3°26'             | 1°50'              | 12°19'              | 9°55'              |
| F 16 | 19 37 29 | 23°49'16"             | 11 <sup>h</sup> 45' | 26°48'              | 28° 3'              | 9°18'               | 26° 4'              | 6° 9'              | 8° 1'              | 15°40'              | 9°50'               | 3°19'             | 1°47'              | 12°25'              | 9°55'              |
| S 17 | 19 41 26 | 24°46'31"             | 26°41'              | 26° 6'              | 29°17'              | 9°55'               | 25°59'              | 6°15'              | 8° 1'              | 15°39'              | 9°51'               | 3°12'             | 1°44'              | 12°32'              | 9°55'              |
| S 18 | 19 45 22 | 25°43'46"             | 11 <sup>h</sup> 14' | 25°24'              | 0 <sup>h</sup> 31'  | 10°32'              | 25°53'              | 6°21'              | 8° 0'              | 15°37'              | 9°52'               | 3° 5'             | 1°40'              | 12°39'              | 9°55'              |
| M19  | 19 49 19 | 26°41'03"             | 25°20'              | 24°43'              | 1°45'               | 11° 8'              | 25°47'              | 6°27'              | 8° 0'              | 15°36'              | 9°54'               | 2°59'             | 1°37'              | 12°45'              | 9°54'              |
| T 20 | 19 53 15 | 27°38'20"             | 8 <sup>h</sup> 56'  | 24° 3'              | 2°59'               | 11°45'              | 25°41'              | 6°33'              | 8° 0'              | 15°34'              | 9°55'               | 2°55'             | 1°34'              | 12°52'              | 9°54'              |
| W21  | 19 57 12 | 28°35'38"             | 22° 4'              | 23°26'              | 4°13'               | 12°22'              | 25°35'              | 6°39'              | 7°59'              | 15°33'              | 9°57'               | 2°54'             | 1°31'              | 12°59'              | 9°53'              |
| T 22 | 20 1 9   | 29°32'57"             | 4 <sup>h</sup> 47'  | 22°51'              | 5°27'               | 12°59'              | 25°29'              | 6°45'              | 7°59'              | 15°31'              | 9°58'               | 2°D54             | 1°28'              | 13° 5'              | 9°53'              |
| F 23 | 20 5 5   | 0 <sup>h</sup> 30'18" | 17°10'              | 22°20'              | 6°41'               | 13°36'              | 25°23'              | 6°50'              | 7°59'              | 15°30'              | 10° 0'              | 2°54'             | 1°25'              | 13°12'              | 9°52'              |
| S 24 | 20 9 2   | 1°27'39"              | 29°17'              | 21°54'              | 7°54'               | 14°13'              | 25°16'              | 6°56'              | 7°58'              | 15°28'              | 10° 1'              | 2°R55             | 1°21'              | 13°19'              | 9°52'              |
| S 25 | 20 12 58 | 2°25'02"              | 11 <sup>h</sup> 13' | 21°31'              | 9° 8'               | 14°50'              | 25°10'              | 7° 2'              | 7°58'              | 15°27'              | 10° 3'              | 2°55'             | 1°18'              | 13°25'              | 9°51'              |
| M26  | 20 16 55 | 3°22'25"              | 23° 3'              | 21°15'              | 10°22'              | 15°27'              | 25° 3'              | 7° 7'              | 7°57'              | 15°25'              | 10° 4'              | 2°53'             | 1°15'              | 13°32'              | 9°51'              |
| T 27 | 20 20 51 | 4°19'50"              | 4 <sup>h</sup> 51'  | 21° 3'              | 11°36'              | 16° 4'              | 24°56'              | 7°13'              | 7°56'              | 15°23'              | 10° 6'              | 2°48'             | 1°12'              | 13°39'              | 9°50'              |
| W28  | 20 24 48 | 5°17'15"              | 16°40'              | 20°D58              | 12°50'              | 16°42'              | 24°49'              | 7°18'              | 7°56'              | 15°22'              | 10° 7'              | 2°41'             | 1° 9'              | 13°45'              | 9°49'              |
| T 29 | 20 28 44 | 6°14'42"              | 28°32'              | 20°59'              | 14° 4'              | 17°19'              | 24°42'              | 7°23'              | 7°55'              | 15°20'              | 10° 8'              | 2°32'             | 1° 5'              | 13°52'              | 9°48'              |
| F 30 | 20 32 41 | 7°12'10"              | 10 <sup>h</sup> 29' | 21° 6'              | 15°18'              | 17°56'              | 24°35'              | 7°28'              | 7°54'              | 15°19'              | 10°10'              | 2°21'             | 1° 2'              | 13°59'              | 9°47'              |
| S 31 | 20 36 38 | 8 <sup>h</sup> 9'38"  | 22 <sup>h</sup> 33' | 21 <sup>h</sup> 20' | 16 <sup>h</sup> 32' | 18 <sup>h</sup> 34' | 24 <sup>h</sup> 28' | 7 <sup>h</sup> 34' | 7 <sup>h</sup> 53' | 15 <sup>h</sup> 17' | 10 <sup>h</sup> 11' | 2 <sup>h</sup> 9' | 0 <sup>h</sup> 59' | 14 <sup>h</sup> 5   | 9 <sup>h</sup> 46' |

Delta T = 16.66 sec.

Greg. Calendar

AUGUST 1677GC

00:00 UT

| Day  | Sid.t    | ☉                     | ☽                   | ♀                   | ♁                   | ♂                   | ♃                   | ♅                  | ♁                  | ♁                   | ♁                   | ♁                   | ♁                   | ♁                   | ♁                  |
|------|----------|-----------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|
| S 1  | 20 40 34 | 9 <sup>h</sup> 7'07"  | 4 <sup>h</sup> 45'  | 21 <sup>h</sup> 40' | 17 <sup>h</sup> 46' | 19 <sup>h</sup> 11' | 24°R21              | 7 <sup>h</sup> 39' | 7°R52              | 15°R15              | 10 <sup>h</sup> 13' | 1°R57               | 0 <sup>h</sup> 56'  | 14 <sup>h</sup> 12' | 9°R45              |
| M 2  | 20 44 31 | 10° 4'38"             | 17° 6'              | 22° 7'              | 19° 1'              | 19°49'              | 24 <sup>h</sup> 13' | 7°44'              | 7 <sup>h</sup> 51' | 15 <sup>h</sup> 14' | 10°14'              | 1 <sup>h</sup> 46'  | 0°53'               | 14°19'              | 9 <sup>h</sup> 44' |
| T 3  | 20 48 27 | 11° 2'09"             | 29°38'              | 22°41'              | 20°15'              | 20°26'              | 24° 6'              | 7°48'              | 7°50'              | 15°12'              | 10°15'              | 1°38'               | 0°50'               | 14°25'              | 9°43'              |
| W 4  | 20 52 24 | 11°59'41"             | 12 <sup>h</sup> 21' | 23°21'              | 21°29'              | 21° 4'              | 23°58'              | 7°53'              | 7°49'              | 15°10'              | 10°17'              | 1°32'               | 0°46'               | 14°32'              | 9°42'              |
| T 5  | 20 56 20 | 12°57'14"             | 25°20'              | 24° 8'              | 22°43'              | 21°42'              | 23°51'              | 7°58'              | 7°48'              | 15° 9'              | 10°18'              | 1°28'               | 0°43'               | 14°39'              | 9°41'              |
| F 6  | 21 0 17  | 13°54'48"             | 8 <sup>h</sup> 35'  | 25° 1'              | 23°57'              | 22°20'              | 23°43'              | 8° 3'              | 7°47'              | 15° 7'              | 10°19'              | 1°D27               | 0°40'               | 14°45'              | 9°40'              |
| S 7  | 21 4 13  | 14°52'22"             | 22°10'              | 26° 1'              | 25°11'              | 22°57'              | 23°35'              | 8° 7'              | 7°46'              | 15° 6'              | 10°21'              | 1°27'               | 0°37'               | 14°52'              | 9°38'              |
| S 8  | 21 8 10  | 15°49'58"             | 6 <sup>h</sup> 7'   | 27° 7'              | 26°25'              | 23°35'              | 23°28'              | 8°12'              | 7°45'              | 15° 4'              | 10°22'              | 1°R27               | 0°34'               | 14°59'              | 9°37'              |
| M 9  | 21 12 7  | 16°47'35"             | 20°25'              | 28°19'              | 27°39'              | 24°13'              | 23°20'              | 8°16'              | 7°44'              | 15° 2'              | 10°23'              | 1°26'               | 0°31'               | 15° 6'              | 9°36'              |
| T 10 | 21 16 3  | 17°45'12"             | 5 <sup>h</sup> 4    | 29°36'              | 28°53'              | 24°51'              | 23°12'              | 8°21'              | 7°42'              | 15° 1'              | 10°24'              | 1°23'               | 0°27'               | 15°12'              | 9°34'              |
| W11  | 21 20 0  | 18°42'51"             | 19°59'              | 0 <sup>h</sup> 59'  | 29°59'              | 25°29'              | 23° 4'              | 8°25'              | 7°41'              | 14°59'              | 10°26'              | 1°17'               | 0°24'               | 15°19'              | 9°33'              |
| T 12 | 21 23 56 | 19°40'31"             | 5 <sup>h</sup> 3    | 2°27'               | 1°21'               | 26° 7'              | 22°57'              | 8°29'              | 7°40'              | 14°57'              | 10°27'              | 1° 9'               | 0°21'               | 15°26'              | 9°31'              |
| F 13 | 21 27 53 | 20°38'12"             | 20° 6'              | 3°59'               | 2°35'               | 26°45'              | 22°49'              | 8°33'              | 7°38'              | 14°56'              | 10°28'              | 0°58'               | 0°18'               | 15°32'              | 9°30'              |
| S 14 | 21 31 49 | 21°35'54"             | 5 <sup>h</sup> 0    | 5°36'               | 3°49'               | 27°24'              | 22°41'              | 8°37'              | 7°37'              | 14°54'              | 10°29'              | 0°47'               | 0°15'               | 15°39'              | 9°28'              |
| S 15 | 21 35 46 | 22°33'38"             | 19°34'              | 7°17'               | 5° 3'               | 28° 2'              | 22°33'              | 8°41'              | 7°35'              | 14°53'              | 10°31'              | 0°37'               | 0°11'               | 15°46'              | 9°26'              |
| M16  | 21 39 42 | 23°31'23"             | 3 <sup>h</sup> 43'  | 9° 2'               | 6°17'               | 28°40'              | 22°25'              | 8°45'              | 7°34'              | 14°51'              | 10°32'              | 0°28'               | 0° 8'               | 15°52'              | 9°25'              |
| T 17 | 21 43 39 | 24°29'10"             | 17°23'              | 10°50'              | 7°31'               | 29°18'              | 22°17'              | 8°48'              | 7°32'              | 14°49'              | 10°33'              | 0°22'               | 0° 5'               | 15°59'              | 9°23'              |
| W18  | 21 47 36 | 25°26'59"             | 0 <sup>h</sup> 35'  | 12°40'              | 8°45'               | 29°57'              | 22° 9'              | 8°52'              | 7°31'              | 14°48'              | 10°34'              | 0°18'               | 0° 2'               | 16° 6'              | 9°21'              |
| T 19 | 21 51 32 | 26°24'49"             | 13°21'              | 14°33'              | 9°59'               | 0 <sup>h</sup> 35'  | 22° 2'              | 8°56'              | 7°29'              | 14°46'              | 10°35'              | 0°16'               | 29 <sup>h</sup> 59' | 16°12'              | 9°19'              |
| F 20 | 21 55 29 | 27°22'42"             | 25°44'              | 16°28'              | 11°14'              | 1°14'               | 21°54'              | 8°59'              | 7°28'              | 14°45'              | 10°36'              | 0°16'               | 29°56'              | 16°19'              | 9°17'              |
| S 21 | 21 59 25 | 28°20'36"             | 7 <sup>h</sup> 52'  | 18°24'              | 12°28'              | 1°52'               | 21°46'              | 9° 2'              | 7°26'              | 14°43'              | 10°37'              | 0°16'               | 29°52'              | 16°26'              | 9°16'              |
| S 22 | 22 3 22  | 29°18'32"             | 19°47'              | 20°21'              | 13°42'              | 2°31'               | 21°38'              | 9° 6'              | 7°24'              | 14°41'              | 10°38'              | 0°15'               | 29°49'              | 16°32'              | 9°14'              |
| M23  | 22 7 18  | 0 <sup>h</sup> 16'29" | 1 <sup>h</sup> 37'  | 22°19'              | 14°56'              | 3°10'               | 21°30'              | 9° 9'              | 7°22'              | 14°40'              | 10°40'              | 0°12'               | 29°46'              | 16°39'              | 9°12'              |
| T 24 | 22 11 15 | 1°14'29"              | 13°26'              | 24°17'              | 16°10'              | 3°48'               | 21°23'              | 9°12'              | 7°21'              | 14°38'              | 10°41'              | 0° 7'               | 29°43'              | 16°46'              | 9°10'              |
| W25  | 22 15 11 | 2°12'30"              | 25°17'              | 26°15'              | 17°24'              | 4°27'               | 21°15'              | 9°15'              | 7°19'              | 14°37'              | 10°42'              | 29 <sup>h</sup> 59' | 29°40'              | 16°53'              | 9° 7'              |
| T 26 | 22 19 8  | 3°10'33"              | 7 <sup>h</sup> 14'  | 28°14'              | 18°38'              | 5° 6'               | 21° 8'              | 9°18'              | 7°17'              | 14°35'              | 10°43'              | 29°48'              | 29°37'              | 16°59'              | 9° 5'              |
| F 27 | 22 23 5  | 4° 8'38"              | 19°20'              | 0 <sup>h</sup> 12'  | 19°52'              | 5°45'               | 21° 0'              | 9°20'              | 7°15'              | 14°34'              | 10°44'              | 29°36'              | 29°33'              | 17° 6'              | 9° 3'              |
| S 28 | 22 27 1  | 5° 6'45"              | 1 <sup>h</sup> 35'  | 2° 9'               | 21° 6'              | 6°24'               | 20°53'              | 9°23'              | 7°13'              | 14°32'              | 10°45'              | 29°22'              | 29°30'              | 17°13'              | 9° 1'              |
| S 29 | 22 30 58 | 6° 4'53"              | 14° 1'              | 4° 6'               | 22°20'              | 7° 3'               | 20°45'              | 9°26'              | 7°11'              | 14°31'              | 10°46'              | 29° 8'              | 29°27'              | 17°19'              | 8°59'              |
| M30  | 22 34 54 | 7° 3'03"              | 26°37'              | 6° 2'               | 23°35'              | 7°42'               | 20°38'              | 9°28'              | 7° 9'              | 14°29'              | 10°47'              | 28°56'              | 29°24'              | 17°26'              | 8°57'              |
| T 31 | 22 38 51 | 8 <sup>h</sup> 1'14"  | 9 <sup>h</sup> 25'  | 7 <sup>h</sup> 58'  | 24 <sup>h</sup> 49' | 8 <sup>h</sup> 21'  | 20 <sup>h</sup> 31' | 9 <sup>h</sup> 31' | 7 <sup>h</sup> 7'  | 14 <sup>h</sup> 28' | 10 <sup>h</sup> 47' | 28 <sup>h</sup> 46' | 29 <sup>h</sup> 21' | 17 <sup>h</sup> 33' | 8 <sup>h</sup> 54' |

Delta T = 16.57 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1677

SEPTEMBER 1677GC

00:00 UT

| Day  | Sid.t    | ☉        | ☽      | ♀     | ♂     | ♂     | ♂      | ♂     | ♂     | ♂      | ♂     | ♂      | ♂     | ♂     | ♂     |
|------|----------|----------|--------|-------|-------|-------|--------|-------|-------|--------|-------|--------|-------|-------|-------|
| W 1  | 22 42 47 | 8♍59'27  | 22♌23  | 9♎52  | 26♎3  | 9♏0   | 20°R24 | 9♏33  | 7°R 5 | 14°R26 | 10♌48 | 28°R39 | 29♎17 | 17♌39 | 8°R52 |
| T 2  | 22 46 44 | 9°57'42  | 5♎33   | 11°45 | 27°17 | 9°40  | 20♌17  | 9°35  | 7°Y 3 | 14♌25  | 10°49 | 28♎35  | 29°14 | 17°46 | 8°Y50 |
| F 3  | 22 50 40 | 10°55'58 | 18°56  | 13°37 | 28°31 | 10°19 | 20°10  | 9°37  | 7° 1  | 14°23  | 10°50 | 28°34  | 29°11 | 17°53 | 8°47  |
| S 4  | 22 54 37 | 11°54'16 | 2♌32   | 15°29 | 29°45 | 10°58 | 20° 3  | 9°39  | 6°59  | 14°22  | 10°51 | 28°D33 | 29° 8 | 17°59 | 8°45  |
| S 5  | 22 58 33 | 12°52'36 | 16°24  | 17°19 | 0♏59  | 11°38 | 19°56  | 9°41  | 6°57  | 14°21  | 10°52 | 28°R33 | 29° 5 | 18° 6 | 8°42  |
| M 6  | 23 2 30  | 13°50'57 | 0♌31   | 19° 8 | 2°13  | 12°17 | 19°50  | 9°43  | 6°55  | 14°19  | 10°53 | 28°33  | 29° 2 | 18°13 | 8°40  |
| T 7  | 23 6 27  | 14°49'19 | 14°53  | 20°56 | 3°27  | 12°57 | 19°43  | 9°44  | 6°52  | 14°18  | 10°53 | 28°30  | 28°58 | 18°19 | 8°37  |
| W 8  | 23 10 23 | 15°47'43 | 29°27  | 22°42 | 4°41  | 13°36 | 19°37  | 9°46  | 6°50  | 14°17  | 10°54 | 28°24  | 28°55 | 18°26 | 8°35  |
| T 9  | 23 14 20 | 16°46'09 | 14♌8   | 24°28 | 5°55  | 14°16 | 19°31  | 9°47  | 6°48  | 14°15  | 10°55 | 28°16  | 28°52 | 18°33 | 8°32  |
| F 10 | 23 18 16 | 17°44'36 | 28°50  | 26°12 | 7° 9  | 14°56 | 19°25  | 9°48  | 6°46  | 14°14  | 10°56 | 28° 6  | 28°49 | 18°40 | 8°30  |
| S 11 | 23 22 13 | 18°43'05 | 13♌26  | 27°56 | 8°23  | 15°35 | 19°19  | 9°50  | 6°43  | 14°13  | 10°56 | 27°56  | 28°46 | 18°46 | 8°27  |
| S 12 | 23 26 9  | 19°41'36 | 27°47  | 29°38 | 9°37  | 16°15 | 19°13  | 9°51  | 6°41  | 14°11  | 10°57 | 27°46  | 28°42 | 18°53 | 8°25  |
| M13  | 23 30 6  | 20°40'09 | 11°Y48 | 1♏20  | 10°51 | 16°55 | 19° 7  | 9°52  | 6°39  | 14°10  | 10°58 | 27°37  | 28°39 | 19° 0 | 8°22  |
| T 14 | 23 34 2  | 21°38'44 | 25°24  | 3° 0  | 12° 5 | 17°35 | 19° 2  | 9°53  | 6°37  | 14° 9  | 10°58 | 27°31  | 28°36 | 19° 6 | 8°19  |
| W15  | 23 37 59 | 22°37'21 | 8♌35   | 4°39  | 13°20 | 18°15 | 18°57  | 9°53  | 6°34  | 14° 8  | 10°59 | 27°27  | 28°33 | 19°13 | 8°17  |
| T 16 | 23 41 56 | 23°36'00 | 21°22  | 6°18  | 14°34 | 18°55 | 18°51  | 9°54  | 6°32  | 14° 7  | 11° 0 | 27°25  | 28°30 | 19°20 | 8°14  |
| F 17 | 23 45 52 | 24°34'42 | 3♏48   | 7°55  | 15°48 | 19°35 | 18°46  | 9°55  | 6°30  | 14° 5  | 11° 0 | 27°D25 | 28°27 | 19°26 | 8°11  |
| S 18 | 23 49 49 | 25°33'26 | 15°57  | 9°31  | 17° 2 | 20°15 | 18°41  | 9°55  | 6°27  | 14° 4  | 11° 1 | 27°26  | 28°23 | 19°33 | 8° 9  |
| S 19 | 23 53 45 | 26°32'12 | 27°55  | 11° 7 | 18°16 | 20°55 | 18°37  | 9°55  | 6°25  | 14° 3  | 11° 1 | 27°R26 | 28°20 | 19°40 | 8° 6  |
| M20  | 23 57 42 | 27°31'00 | 9♌46   | 12°41 | 19°30 | 21°36 | 18°32  | 9°56  | 6°23  | 14° 2  | 11° 2 | 27°25  | 28°17 | 19°46 | 8° 3  |
| T 21 | 0 1 38   | 28°29'51 | 21°36  | 14°15 | 20°44 | 22°16 | 18°28  | 9°R56 | 6°20  | 14° 1  | 11° 2 | 27°22  | 28°14 | 19°53 | 8° 0  |
| W22  | 0 5 35   | 29°28'44 | 3♏30   | 15°47 | 21°58 | 22°56 | 18°24  | 9°56  | 6°18  | 14° 0  | 11° 3 | 27°17  | 28°11 | 20° 0 | 7°58  |
| T 23 | 0 9 31   | 0♏27'39  | 15°32  | 17°19 | 23°11 | 23°37 | 18°20  | 9°56  | 6°15  | 13°59  | 11° 3 | 27°10  | 28° 8 | 20° 7 | 7°55  |
| F 24 | 0 13 28  | 1°26'36  | 27°45  | 18°50 | 24°25 | 24°17 | 18°16  | 9°55  | 6°13  | 13°58  | 11° 4 | 27° 1  | 28° 4 | 20°13 | 7°52  |
| S 25 | 0 17 25  | 2°25'35  | 10♎10  | 20°20 | 25°39 | 24°58 | 18°12  | 9°55  | 6°10  | 13°57  | 11° 4 | 26°51  | 28° 1 | 20°20 | 7°49  |
| S 26 | 0 21 21  | 3°24'37  | 22°51  | 21°49 | 26°53 | 25°38 | 18° 9  | 9°55  | 6° 8  | 13°56  | 11° 4 | 26°40  | 27°58 | 20°27 | 7°46  |
| M27  | 0 25 18  | 4°23'41  | 5♏45   | 23°17 | 28° 7 | 26°19 | 18° 5  | 9°54  | 6° 6  | 13°55  | 11° 5 | 26°31  | 27°55 | 20°33 | 7°44  |
| T 28 | 0 29 14  | 5°22'46  | 18°54  | 24°44 | 29°21 | 27° 0 | 18° 2  | 9°53  | 6° 3  | 13°54  | 11° 5 | 26°24  | 27°52 | 20°40 | 7°41  |
| W29  | 0 33 11  | 6°21'54  | 2♎14   | 26°10 | 0♎35  | 27°41 | 17°59  | 9°53  | 6° 1  | 13°53  | 11° 5 | 26°19  | 27°48 | 20°47 | 7°38  |
| T 30 | 0 37 7   | 7♏21'04  | 15♎46  | 27♏36 | 1♎49  | 28♏21 | 17♏57  | 9♏52  | 5°Y58 | 13♏53  | 11♌6  | 26♎17  | 27♎45 | 20♌53 | 7°Y35 |

Delta T = 16.49 sec. Greg. Calendar

OCTOBER 1677GC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀      | ♂     | ♂     | ♂      | ♂     | ♂     | ♂      | ♂      | ♂      | ♂     | ♂     | ♂     |
|------|---------|----------|-------|--------|-------|-------|--------|-------|-------|--------|--------|--------|-------|-------|-------|
| F 1  | 0 41 4  | 8♏20'15  | 29♎27 | 29♏0   | 3♎3   | 29♏2  | 17°R54 | 9°R51 | 5°R56 | 13°R52 | 11♌6   | 26♎16  | 27♎42 | 21♌0  | 7°R32 |
| S 2  | 0 45 0  | 9°19'29  | 13♌17 | 0♎23   | 4°17  | 29°43 | 17♏52  | 9♏50  | 5°Y54 | 13♏51  | 11° 6  | 26°17  | 27°39 | 21° 7 | 7°Y30 |
| S 3  | 0 48 57 | 10°18'44 | 27°15 | 1°46   | 5°31  | 0♎24  | 17°50  | 9°48  | 5°51  | 13°50  | 11° 6  | 26°18  | 27°36 | 21°13 | 7°27  |
| M 4  | 0 52 54 | 11°18'01 | 11♌20 | 3° 7   | 6°45  | 1° 5  | 17°48  | 9°47  | 5°49  | 13°50  | 11° 7  | 26°R19 | 27°33 | 21°20 | 7°24  |
| T 5  | 0 56 50 | 12°17'20 | 25°32 | 4°27   | 7°59  | 1°46  | 17°46  | 9°46  | 5°46  | 13°49  | 11° 7  | 26°18  | 27°29 | 21°27 | 7°21  |
| W 6  | 1 0 47  | 13°16'40 | 9♌48  | 5°46   | 9°13  | 2°28  | 17°44  | 9°44  | 5°44  | 13°48  | 11° 7  | 26°16  | 27°26 | 21°34 | 7°18  |
| T 7  | 1 4 43  | 14°16'02 | 24° 5 | 7° 4   | 10°26 | 3° 9  | 17°43  | 9°42  | 5°41  | 13°48  | 11° 7  | 26°11  | 27°23 | 21°40 | 7°16  |
| F 8  | 1 8 40  | 15°15'26 | 8♌20  | 8°20   | 11°40 | 3°50  | 17°42  | 9°41  | 5°39  | 13°47  | 11° 7  | 26° 5  | 27°20 | 21°47 | 7°13  |
| S 9  | 1 12 36 | 16°14'52 | 22°28 | 9°35   | 12°54 | 4°31  | 17°41  | 9°39  | 5°37  | 13°47  | 11° 7  | 25°59  | 27°17 | 21°54 | 7°10  |
| S 10 | 1 16 33 | 17°14'20 | 6°Y24 | 10°49  | 14° 8 | 5°13  | 17°40  | 9°37  | 5°34  | 13°46  | 11° 7  | 25°52  | 27°14 | 22° 0 | 7° 7  |
| M11  | 1 20 29 | 18°13'49 | 20° 5 | 12° 1  | 15°22 | 5°54  | 17°40  | 9°35  | 5°32  | 13°46  | 11°R 7 | 25°47  | 27°10 | 22° 7 | 7° 5  |
| T 12 | 1 24 26 | 19°13'21 | 3♌27  | 13°11  | 16°35 | 6°36  | 17°39  | 9°33  | 5°30  | 13°45  | 11° 7  | 25°43  | 27° 7 | 22°14 | 7° 2  |
| W13  | 1 28 22 | 20°12'55 | 16°29 | 14°19  | 17°49 | 7°17  | 17°D39 | 9°30  | 5°27  | 13°45  | 11° 7  | 25°41  | 27° 4 | 22°20 | 6°59  |
| T 14 | 1 32 19 | 21°12'31 | 29°12 | 15°25  | 19° 3 | 7°59  | 17°39  | 9°28  | 5°25  | 13°44  | 11° 7  | 25°D41 | 27° 1 | 22°27 | 6°56  |
| F 15 | 1 36 16 | 22°12'10 | 11♏36 | 16°29  | 20°17 | 8°41  | 17°40  | 9°26  | 5°23  | 13°44  | 11° 7  | 25°42  | 26°58 | 22°34 | 6°54  |
| S 16 | 1 40 12 | 23°11'50 | 23°46 | 17°30  | 21°31 | 9°22  | 17°40  | 9°23  | 5°20  | 13°44  | 11° 7  | 25°44  | 26°54 | 22°41 | 6°51  |
| S 17 | 1 44 9  | 24°11'33 | 5♌45  | 18°29  | 22°44 | 10° 4 | 17°41  | 9°20  | 5°18  | 13°43  | 11° 7  | 25°45  | 26°51 | 22°47 | 6°48  |
| M18  | 1 48 5  | 25°11'18 | 17°38 | 19°25  | 23°58 | 10°46 | 17°42  | 9°18  | 5°16  | 13°43  | 11° 7  | 25°47  | 26°48 | 22°54 | 6°46  |
| T 19 | 1 52 2  | 26°11'05 | 29°29 | 20°17  | 25°12 | 11°28 | 17°43  | 9°15  | 5°14  | 13°43  | 11° 6  | 25°R47 | 26°45 | 23° 1 | 6°43  |
| W20  | 1 55 58 | 27°10'55 | 11♏24 | 21° 6  | 26°25 | 12°10 | 17°44  | 9°12  | 5°12  | 13°43  | 11° 6  | 25°46  | 26°42 | 23° 7 | 6°40  |
| T 21 | 1 59 55 | 28°10'47 | 23°27 | 21°50  | 27°39 | 12°52 | 17°45  | 9° 9  | 5° 9  | 13°42  | 11° 6  | 25°44  | 26°39 | 23°14 | 6°38  |
| F 22 | 2 3 51  | 29°10'40 | 5♎42  | 22°30  | 28°53 | 13°34 | 17°47  | 9° 6  | 5° 7  | 13°42  | 11° 6  | 25°40  | 26°35 | 23°21 | 6°35  |
| S 23 | 2 7 48  | 0♎10'36  | 18°14 | 23° 5  | 0♌6   | 14°16 | 17°49  | 9° 3  | 5° 5  | 13°42  | 11° 6  | 25°36  | 26°32 | 23°27 | 6°33  |
| S 24 | 2 11 45 | 1°10'35  | 1♏4   | 23°34  | 1°20  | 14°58 | 17°51  | 8°59  | 5° 3  | 13°42  | 11° 5  | 25°32  | 26°29 | 23°34 | 6°30  |
| M25  | 2 15 41 | 2°10'35  | 14°13 | 23°57  | 2°34  | 15°41 | 17°53  | 8°56  | 5° 1  | 13°D42 | 11° 5  | 25°28  | 26°26 | 23°41 | 6°28  |
| T 26 | 2 19 38 | 3°10'37  | 27°40 | 24°14  | 3°47  | 16°23 | 17°56  | 8°52  | 4°59  | 13°42  | 11° 5  | 25°25  | 26°23 | 23°48 | 6°25  |
| W27  | 2 23 34 | 4°10'41  | 11♎25 | 24°23  | 5° 1  | 17° 5 | 17°58  | 8°49  | 4°57  | 13°42  | 11° 4  | 25°24  | 26°19 | 23°54 | 6°23  |
| T 28 | 2 27 31 | 5°10'47  | 25°23 | 24°R24 | 6°15  | 17°48 | 18° 1  | 8°45  | 4°55  | 13°42  | 11° 4  | 25°D23 | 26°16 | 24° 1 | 6°21  |
| F 29 | 2 31 27 | 6°10'55  | 9♌32  | 24°16  | 7°28  | 18°30 | 18° 4  | 8°42  | 4°53  | 13°42  | 11° 3  | 25°24  | 26°13 | 24° 8 | 6°18  |
| S 30 | 2 35 24 | 7°11'05  | 23°47 | 23°59  | 8°42  | 19°13 | 18° 7  | 8°38  | 4°51  | 13°43  | 11° 3  | 25°25  | 26°10 | 24°14 | 6°16  |
| S 31 | 2 39 20 | 8♎11'16  | 8♌4   | 23♎33  | 9♌55  | 19♎56 | 18♏11  | 8♏34  | 4°Y49 | 13♏43  | 11♌3   | 25♎26  | 26♎7  | 24♌21 | 6°Y14 |

Delta T = 16.41 sec. Greg. Calendar

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SWISS EPHEMERIS for the year 1677

NOVEMBER 1677GC

00:00 UT

| Day  | Sid.t   | ☉        | ☽     | ♀      | ♁     | ♂     | ♃     | ♅     | ♁     | ♁     | ♁      | ♁      | ♁     | ♁     | ♁     |
|------|---------|----------|-------|--------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|
| M 1  | 2 43 17 | 9♐11'29  | 22♋21 | 22°R57 | 11♊ 9 | 20♐38 | 18♏15 | 8°R30 | 4°R47 | 13♏43 | 11°R 2 | 25♐27  | 26♐ 4 | 24♋28 | 6°R11 |
| T 2  | 2 47 14 | 10°11'43 | 6♌34  | 22♐11  | 12°22 | 21°21 | 18°18 | 8♐26  | 4°Y45 | 13°43 | 11♋ 2  | 25°R28 | 26° 0 | 24°34 | 6°Y 9 |
| W 3  | 2 51 10 | 11°11'59 | 20°42 | 21°16  | 13°36 | 22° 4 | 18°22 | 8°22  | 4°43  | 13°43 | 11° 1  | 25°28  | 25°57 | 24°41 | 6° 7  |
| T 4  | 2 55 7  | 12°12'16 | 4♌42  | 20°12  | 14°49 | 22°46 | 18°27 | 8°18  | 4°42  | 13°44 | 11° 0  | 25°27  | 25°54 | 24°48 | 6° 5  |
| F 5  | 2 59 3  | 13°12'34 | 18°33 | 19° 1  | 16° 3 | 23°29 | 18°31 | 8°14  | 4°40  | 13°44 | 11° 0  | 25°25  | 25°51 | 24°55 | 6° 3  |
| S 6  | 3 3 0   | 14°12'54 | 2°Y13 | 17°45  | 17°16 | 24°12 | 18°36 | 8° 9  | 4°38  | 13°45 | 10°59  | 25°24  | 25°48 | 25° 1 | 6° 1  |
| S 7  | 3 6 56  | 15°13'16 | 15°42 | 16°25  | 18°30 | 24°55 | 18°40 | 8° 5  | 4°36  | 13°45 | 10°59  | 25°22  | 25°45 | 25° 8 | 5°59  |
| M 8  | 3 10 53 | 16°13'38 | 28°56 | 15° 5  | 19°43 | 25°38 | 18°45 | 8° 1  | 4°35  | 13°45 | 10°58  | 25°21  | 25°41 | 25°15 | 5°57  |
| T 9  | 3 14 49 | 17°14'03 | 11♋57 | 13°47  | 20°56 | 26°21 | 18°50 | 7°56  | 4°33  | 13°46 | 10°57  | 25°21  | 25°38 | 25°21 | 5°55  |
| W10  | 3 18 46 | 18°14'29 | 24°43 | 12°33  | 22°10 | 27° 5 | 18°56 | 7°52  | 4°32  | 13°46 | 10°57  | 25°D20 | 25°35 | 25°28 | 5°53  |
| T11  | 3 22 43 | 19°14'57 | 7♐14  | 11°25  | 23°23 | 27°48 | 19° 1 | 7°47  | 4°30  | 13°47 | 10°56  | 25°21  | 25°32 | 25°35 | 5°51  |
| F 12 | 3 26 39 | 20°15'27 | 19°33 | 10°27  | 24°36 | 28°31 | 19° 7 | 7°43  | 4°29  | 13°48 | 10°55  | 25°21  | 25°29 | 25°41 | 5°49  |
| S 13 | 3 30 36 | 21°15'58 | 1♋39  | 9°39   | 25°49 | 29°14 | 19°12 | 7°38  | 4°27  | 13°48 | 10°55  | 25°21  | 25°25 | 25°48 | 5°47  |
| S 14 | 3 34 32 | 22°16'31 | 13°37 | 9° 2   | 27° 3 | 29°58 | 19°18 | 7°34  | 4°26  | 13°49 | 10°54  | 25°22  | 25°22 | 25°55 | 5°46  |
| M15  | 3 38 29 | 23°17'06 | 25°30 | 8°36   | 28°16 | 0♊41  | 19°25 | 7°29  | 4°24  | 13°49 | 10°53  | 25°22  | 25°19 | 26° 2 | 5°44  |
| T 16 | 3 42 25 | 24°17'42 | 7♏21  | 8°23   | 29°29 | 1°25  | 19°31 | 7°24  | 4°23  | 13°50 | 10°52  | 25°22  | 25°16 | 26° 8 | 5°42  |
| W17  | 3 46 22 | 25°18'20 | 19°15 | 8°D20  | 0♋42  | 2° 8  | 19°37 | 7°19  | 4°22  | 13°51 | 10°51  | 25°22  | 25°13 | 26°15 | 5°41  |
| T 18 | 3 50 18 | 26°19'00 | 1♐16  | 8°29   | 1°55  | 2°52  | 19°44 | 7°15  | 4°21  | 13°52 | 10°51  | 25°22  | 25°10 | 26°22 | 5°39  |
| F 19 | 3 54 15 | 27°19'41 | 13°30 | 8°47   | 3° 8  | 3°35  | 19°51 | 7°10  | 4°19  | 13°53 | 10°50  | 25°22  | 25° 6 | 26°28 | 5°38  |
| S 20 | 3 58 12 | 28°20'24 | 26° 0 | 9°15   | 4°21  | 4°19  | 19°58 | 7° 5  | 4°18  | 13°53 | 10°49  | 25°23  | 25° 3 | 26°35 | 5°36  |
| S 21 | 4 2 8   | 29°21'09 | 8♌50  | 9°51   | 5°34  | 5° 3  | 20° 5 | 7° 0  | 4°17  | 13°54 | 10°48  | 25°23  | 25° 0 | 26°42 | 5°35  |
| M22  | 4 6 5   | 0♌21'55  | 22° 4 | 10°34  | 6°47  | 5°47  | 20°12 | 6°55  | 4°16  | 13°55 | 10°47  | 25°24  | 24°57 | 26°49 | 5°34  |
| T 23 | 4 10 1  | 1°22'43  | 5♐41  | 11°24  | 8° 0  | 6°31  | 20°20 | 6°50  | 4°15  | 13°56 | 10°46  | 25°24  | 24°54 | 26°55 | 5°32  |
| W24  | 4 13 58 | 2°23'32  | 19°42 | 12°19  | 9°13  | 7°15  | 20°27 | 6°45  | 4°14  | 13°57 | 10°45  | 25°R24 | 24°51 | 27° 2 | 5°31  |
| T 25 | 4 17 54 | 3°24'23  | 4♌ 3  | 13°20  | 10°26 | 7°59  | 20°35 | 6°40  | 4°13  | 13°58 | 10°44  | 25°24  | 24°47 | 27° 9 | 5°30  |
| F 26 | 4 21 51 | 4°25'15  | 18°39 | 14°25  | 11°39 | 8°43  | 20°43 | 6°35  | 4°12  | 13°59 | 10°43  | 25°24  | 24°44 | 27°15 | 5°29  |
| S 27 | 4 25 47 | 5°26'07  | 3♋23  | 15°34  | 12°52 | 9°27  | 20°51 | 6°31  | 4°12  | 14° 0 | 10°42  | 25°23  | 24°41 | 27°22 | 5°28  |
| S 28 | 4 29 44 | 6°27'01  | 18° 9 | 16°46  | 14° 4 | 10°11 | 20°59 | 6°26  | 4°11  | 14° 1 | 10°41  | 25°22  | 24°38 | 27°29 | 5°27  |
| M29  | 4 33 41 | 7°27'56  | 2♌49  | 18° 1  | 15°17 | 10°55 | 21° 8 | 6°21  | 4°10  | 14° 3 | 10°40  | 25°20  | 24°35 | 27°35 | 5°26  |
| T 30 | 4 37 37 | 8♌28'52  | 17♏18 | 19♐18  | 16♋30 | 11♊39 | 21♏16 | 6♐16  | 4°Y 9 | 14♏ 4 | 10♋39  | 25♐19  | 24♐31 | 27♋42 | 5°Y25 |

Delta T = 16.32 sec.

Greg. Calendar

DECEMBER 1677GC

00:00 UT

| Day  | Sid.t   | ☉        | ☽      | ♀     | ♁     | ♂     | ♃     | ♅     | ♁     | ♁     | ♁      | ♁      | ♁     | ♁     | ♁     |
|------|---------|----------|--------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|-------|-------|
| W 1  | 4 41 34 | 9♌29'48  | 1♌31   | 20♐37 | 17♋42 | 12♊24 | 21♏25 | 6°R11 | 4°R 9 | 14♏ 5 | 10°R38 | 25°R18 | 24♐28 | 27♋49 | 5°R24 |
| T 2  | 4 45 30 | 10°30'45 | 15°27  | 21°58 | 18°55 | 13° 8 | 21°34 | 6♐ 6  | 4°Y 8 | 14° 6 | 10♋37  | 25°D18 | 24°25 | 27°56 | 5°Y23 |
| F 3  | 4 49 27 | 11°31'42 | 29° 6  | 23°21 | 20° 7 | 13°52 | 21°42 | 6° 1  | 4° 8  | 14° 7 | 10°36  | 25♐19  | 24°22 | 28° 2 | 5°22  |
| S 4  | 4 53 23 | 12°32'40 | 12°Y27 | 24°45 | 21°20 | 14°37 | 21°51 | 5°56  | 4° 7  | 14° 9 | 10°35  | 25°20  | 24°19 | 28° 9 | 5°21  |
| S 5  | 4 57 20 | 13°33'39 | 25°32  | 26°10 | 22°32 | 15°21 | 22° 1 | 5°51  | 4° 7  | 14°10 | 10°34  | 25°21  | 24°16 | 28°16 | 5°21  |
| M 6  | 5 1 16  | 14°34'38 | 8♋23   | 27°36 | 23°45 | 16° 6 | 22°10 | 5°46  | 4° 6  | 14°11 | 10°33  | 25°23  | 24°12 | 28°22 | 5°20  |
| T 7  | 5 5 13  | 15°35'39 | 21° 1  | 29° 3 | 24°57 | 16°50 | 22°19 | 5°41  | 4° 6  | 14°13 | 10°32  | 25°R23 | 24° 9 | 28°29 | 5°20  |
| W 8  | 5 9 10  | 16°36'40 | 3♐28   | 0♊30  | 26° 9 | 17°35 | 22°29 | 5°37  | 4° 6  | 14°14 | 10°31  | 25°23  | 24° 6 | 28°36 | 5°19  |
| T 9  | 5 13 6  | 17°37'41 | 15°45  | 1°59  | 27°21 | 18°20 | 22°39 | 5°32  | 4° 6  | 14°15 | 10°30  | 25°22  | 24° 3 | 28°43 | 5°19  |
| F 10 | 5 17 3  | 18°38'44 | 27°54  | 3°27  | 28°33 | 19° 4 | 22°49 | 5°27  | 4° 5  | 14°17 | 10°28  | 25°19  | 24° 0 | 28°49 | 5°18  |
| S 11 | 5 20 59 | 19°39'47 | 9♋55   | 4°57  | 29°45 | 19°49 | 22°58 | 5°22  | 4° 5  | 14°18 | 10°27  | 25°16  | 23°57 | 28°56 | 5°18  |
| S 12 | 5 24 56 | 20°40'51 | 21°50  | 6°26  | 0♌57  | 20°34 | 23° 9 | 5°18  | 4° 5  | 14°20 | 10°26  | 25°11  | 23°53 | 29° 3 | 5°18  |
| M13  | 5 28 52 | 21°41'55 | 3♏42   | 7°57  | 2° 9  | 21°19 | 23°19 | 5°13  | 4°D 5 | 14°21 | 10°25  | 25° 6  | 23°50 | 29° 9 | 5°18  |
| T 14 | 5 32 49 | 22°43'01 | 15°33  | 9°27  | 3°21  | 22° 4 | 23°29 | 5° 8  | 4° 5  | 14°23 | 10°24  | 25° 2  | 23°47 | 29°16 | 5°18  |
| W15  | 5 36 45 | 23°44'07 | 27°26  | 10°58 | 4°32  | 22°49 | 23°39 | 5° 4  | 4° 5  | 14°25 | 10°23  | 24°58  | 23°44 | 29°23 | 5°17  |
| T 16 | 5 40 42 | 24°45'14 | 9♐25   | 12°29 | 5°44  | 23°34 | 23°50 | 4°59  | 4° 6  | 14°26 | 10°21  | 24°55  | 23°41 | 29°30 | 5°D17 |
| F 17 | 5 44 39 | 25°46'21 | 21°35  | 14° 0 | 6°56  | 24°19 | 24° 1 | 4°55  | 4° 6  | 14°28 | 10°20  | 24°D54 | 23°37 | 29°36 | 5°17  |
| S 18 | 5 48 35 | 26°47'29 | 4♌ 0   | 15°32 | 8° 7  | 25° 4 | 24°11 | 4°50  | 4° 6  | 14°30 | 10°19  | 24°54  | 23°34 | 29°43 | 5°18  |
| S 19 | 5 52 32 | 27°48'38 | 16°44  | 17° 4 | 9°19  | 25°49 | 24°22 | 4°46  | 4° 6  | 14°31 | 10°18  | 24°55  | 23°31 | 29°50 | 5°18  |
| M20  | 5 56 28 | 28°49'48 | 29°51  | 18°36 | 10°30 | 26°34 | 24°33 | 4°42  | 4° 7  | 14°33 | 10°17  | 24°57  | 23°28 | 29°56 | 5°18  |
| T 21 | 6 0 25  | 29°50'58 | 13♐28  | 20° 8 | 11°41 | 27°20 | 24°44 | 4°38  | 4° 7  | 14°35 | 10°15  | 24°59  | 23°25 | 0♏ 3  | 5°18  |
| W22  | 6 4 21  | 0♋52'09  | 27°29  | 21°41 | 12°52 | 28° 5 | 24°56 | 4°33  | 4° 7  | 14°36 | 10°14  | 24°R59 | 23°22 | 0°10  | 5°19  |
| T 23 | 6 8 18  | 1°53'20  | 11♊58  | 23°14 | 14° 3 | 28°50 | 25° 7 | 4°29  | 4° 8  | 14°38 | 10°13  | 24°58  | 23°18 | 0°17  | 5°19  |
| F 24 | 6 12 14 | 2°54'32  | 26°49  | 24°47 | 15°14 | 29°36 | 25°18 | 4°25  | 4° 9  | 14°40 | 10°12  | 24°55  | 23°15 | 0°23  | 5°19  |
| S 25 | 6 16 11 | 3°55'44  | 11♋55  | 26°21 | 16°25 | 0♋21  | 25°30 | 4°21  | 4° 9  | 14°42 | 10°10  | 24°50  | 23°12 | 0°30  | 5°20  |
| S 26 | 6 20 8  | 4°56'56  | 27° 6  | 27°55 | 17°36 | 1° 7  | 25°41 | 4°17  | 4°10  | 14°44 | 10° 9  | 24°44  | 23° 9 | 0°37  | 5°20  |
| M27  | 6 24 4  | 5°58'07  | 12♐12  | 29°29 | 18°46 | 1°52  | 25°53 | 4°14  | 4°11  | 14°46 | 10° 8  | 24°37  | 23° 6 | 0°43  | 5°21  |
| T 28 | 6 28 1  | 6°59'19  | 27° 3  | 1♋ 3  | 19°57 | 2°38  | 26° 5 | 4°10  | 4°11  | 14°47 | 10° 7  | 24°31  | 23° 3 | 0°50  | 5°22  |
| W29  | 6 31 57 | 8° 0'30  | 11♌33  | 2°38  | 21° 7 | 3°23  | 26°17 | 4° 6  | 4°12  | 14°49 | 10° 5  | 24°27  | 22°59 | 0°57  | 5°22  |
| T 30 | 6 35 54 | 9° 1'41  | 25°38  | 4°13  | 22°17 | 4° 9  | 26°29 | 4° 3  | 4°13  | 14°51 | 10° 4  | 24°24  | 22°56 | 1° 4  | 5°23  |
| F 31 | 6 39 50 | 10♋ 2'52 | 9°Y17  | 5♋49  | 23♏28 | 4♋55  | 26♏41 | 3♐59  | 4°Y14 | 14♏53 | 10♋ 3  | 24°D23 | 22♐53 | 1♏10  | 5°Y24 |

Delta T = 16.24 sec.

Greg. Calendar

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