

# Astrodienst Ephemeris Tables for the year 1553

tropical geocentric zodiac

contains Sun, Moon, Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto, True Node, Moon's Node, Lilith, Chiron

Programming
Dieter Koch and Alois Treindl
based on Swiss Ephemeris
Code D5EPH

JANUARY 1553 JC 00:00 UT

| Day  | Sid.t   | 0                 | D              | ğ              | φ              | ď              | 4             | ħ              | )∤(            | 卉      | В     | ß             | ß             | Ç              | ę,              | Day  |
|------|---------|-------------------|----------------|----------------|----------------|----------------|---------------|----------------|----------------|--------|-------|---------------|---------------|----------------|-----------------|------|
| S 1  | 7 20 20 | 20 <b>ට</b> 35'13 | 1 <b>Ω</b> 34  | 22 <b>궁</b> 49 | 12≈ 5          | 21°R27         | 3°R57         | 1 <b>)</b> (11 | 17 <b>≏</b> 31 | 10°R22 | 29≈13 | 8°R50         | 9 <b>Ω</b> 58 | 16 <b>Ⅱ</b> 14 | 18°R30          | S 1  |
| M 2  | 7 24 17 | 21°36'18          | 13°49          | 24°30          | 13°19          | 21 <b>Ω</b> 13 | 3 <b>m</b> 53 | 1°17           | 17°32          | 10822  | 29°15 | 8°D49         | 9°55          | 16°21          | $18\Omega_{26}$ | M 2  |
| T 3  | 7 28 13 | 22°37'22          | 26°15          | 26°11          | 14°34          | 20°58          | 3°49          | 1°23           | 17°32          | 10°21  | 29°16 | $8\Omega$ 50  | 9°52          | 16°28          | 18°22           | T 3  |
| W 4  | 7 32 10 | 23°38'26          | 8 <b>m</b> 53  | 27°53          | 15°49          | 20°42          | 3°44          | 1°30           | 17°33          | 10°21  | 29°17 | 8°51          | 9°49          | 16°35          | 18°18           | W 4  |
| T 5  | 7 36 6  | 24°39'29          | 21°45          | 29°36          | 17° 4          | 20°26          | 3°40          | 1°36           | 17°33          | 10°21  | 29°19 | 8°53          | 9°45          | 16°41          | 18°14           | T 5  |
| F 6  | 7 40 3  | 25°40'32          | 4 <b>≏</b> 52  | 1≈19           | 18°19          | 20° 9          | 3°35          | 1°42           | 17°34          | 10°21  | 29°20 | 8°54          | 9°42          | 16°48          | 18°10           | F 6  |
| S 7  | 7 44 0  | 26°41'34          | 18°18          | 3° 2           | 19°33          | 19°51          | 3°30          | 1°49           | 17°34          | 10°21  | 29°22 | 8°55          | 9°39          | 16°55          | 18° 6           | S 7  |
| S 8  | 7 47 56 | 27°42'36          | 2 <b>m</b> 3   | 4°46           | 20°48          | 19°32          | 3°25          | 1°55           | 17°34          | 10°20  | 29°23 | 8°R55         | 9°36          | 17° 1          | 18° 2           | S 8  |
| M 9  | 7 51 53 | 28°43'38          | 16° 7          | 6°30           | 22° 3          | 19°13          | 3°19          | 2° 2           | 17°34          | 10°20  | 29°24 | 8°54          | 9°33          | 17° 8          | 17°58           | M 9  |
| T 10 | 7 55 49 | 29°44'39          | 0 <b>₮</b> 30  | 8°14           | 23°17          | 18°54          | 3°14          | 2° 8           | 17°34          | 10°20  | 29°26 | 8°53          | 9°30          | 17°15          | 17°53           | T 10 |
| W11  | 7 59 46 | 0≈45'39           | 15° 8          | 9°59           | 24°32          | 18°33          | 3° 8          | 2°15           | 17°35          | 10°D20 | 29°27 | 8°52          | 9°26          | 17°21          | 17°49           | W11  |
| T 12 | 8 3 42  | 1°46'39           | 2 <u>9</u> °57 | 11°44          | 25°47          | 18°13          | 3° 3          | 2°22           | 17°R35         | 10°20  | 29°29 | 8°51          | 9°23          | 17°28          | 17°45           | T 12 |
| F 13 | 8 7 39  | 2°47'38           | 14 <b>궁</b> 49 | 13°28          | 27° 1          | 17°51          | 2°57          | 2°28           | 17°35          | 10°20  | 29°30 | 8°51          | 9°20          | 17°35          | 17°40           | F 13 |
| S 14 | 8 11 35 | 3°48'36           | 29°37          | 15°12          | 28°16          | 17°29          | 2°51          | 2°35           | 17°34          | 10°20  | 29°32 | 8°50          | 9°17          | 17°41          | 17°36           | S 14 |
| S 15 | 8 15 32 | 4°49'33           | 14≈14          | 16°56          | 29°30          | 17° 7          | 2°45          | 2°42           | 17°34          | 10°21  | 29°33 | 8°D50         | 9°14          | 17°48          | 17°31           | S 15 |
| M16  | 8 19 29 | 5°50'29           | 28°32          | 18°40          | 0 <b>)</b> 45  | 16°45          | 2°38          | 2°49           | 17°34          | 10°21  | 29°35 | 8°51          | 9°11          | 17°55          | 17°27           | M16  |
| T 17 | 8 23 25 | 6°51'23           | 12 <b>米</b> 28 | 20°22          | 1°59           | 16°22          | 2°32          | 2°55           | 17°34          | 10°21  | 29°37 | 8°51          | 9° 7          | 18° 2          | 17°22           | T 17 |
| W18  | 8 27 22 | 7°52'16           | 25°58          | 22° 3          | 3°14           | 15°59          | 2°25          | 3° 2           | 17°34          | 10°21  | 29°38 | 8°51          | 9° 4          | 18° 8          | 17°18           | W18  |
| T 19 | 8 31 18 | 8°53'08           | 9 <b>Υ</b> 4   | 23°43          | 4°28           | 15°35          | 2°19          | 3° 9           | 17°33          | 10°21  | 29°40 | 8°R51         | 9° 1          | 18°15          | 17°13           | T 19 |
| F 20 | 8 35 15 | 9°53'58           | 21°47          | 25°21          | 5°43           | 15°12          | 2°12          | 3°16           | 17°33          | 10°22  | 29°41 | 8°51          | 8°58          | 18°22          | 17° 9           | F 20 |
| S 21 | 8 39 11 | 10°54'47          | 4811           | 26°56          | 6°57           | 14°48          | 2° 5          | 3°23           | 17°32          | 10°22  | 29°43 | 8°51          | 8°55          | 18°28          | 17° 4           | S 21 |
| S 22 | 8 43 8  | 11°55'35          | 16°19          | 28°29          | 8°11           | 14°24          | 1°58          | 3°30           | 17°32          | 10°23  | 29°44 | 8°D51         | 8°51          | 18°35          | 16°59           | S 22 |
| M23  | 8 47 4  | 12°56'21          | 28°17          | 29°58          | 9°26           | 14° 0          | 1°51          | 3°37           | 17°31          | 10°23  | 29°46 | 8°51          | 8°48          | 18°42          | 16°55           | M23  |
| T 24 | 8 51 1  | 13°57'05          | 10耳 8          | 1 <b>)</b> 23  | 10°40          | 13°36          | 1°44          | 3°44           | 17°30          | 10°23  | 29°48 | 8°51          | 8°45          | 18°48          | 16°50           | T 24 |
| W25  | 8 54 58 | 14°57'48          | 21°58          | 2°43           | 11°54          | 13°12          | 1°37          | 3°51           | 17°30          | 10°24  | 29°49 | 8°52          | 8°42          | 18°55          | 16°45           | W25  |
| T 26 | 8 58 54 | 15°58'29          | 3951           | 3°58           | 13° 8          | 12°48          | 1°30          | 3°58           | 17°29          | 10°24  | 29°51 | 8°53          | 8°39          | 19° 2          | 16°40           | T 26 |
| F 27 | 9 2 51  | 16°59'09          | 15°50          | 5° 6           | 14°22          | 12°24          | 1°22          | 4° 6           | 17°28          | 10°25  | 29°52 | 8°54          | 8°36          | 19° 8          | 16°36           | F 27 |
| S 28 | 9 6 47  | 17°59'47          | 27°57          | 6° 8           | 15°36          | 12° 1          | 1°15          | 4°13           | 17°27          | 10°26  | 29°54 | 8°54          | 8°32          | 19°15          | 16°31           | S 28 |
| S 29 | 9 10 44 | 19° 0'23          | 10 <b>Ω</b> 17 | 7° 2           | 16°50          | 11°37          | 1° 7          | 4°20           | 17°27          | 10°26  | 29°56 | 8°R54         | 8°29          | 19°22          | 16°26           | S 29 |
| M30  | 9 14 40 | 20° 0'58          | 22°49          | 7°48           | 18° 4          | 11°14          | 1° 0          | 4°27           | 17°26          | 10°27  | 29°57 | 8°54          | 8°26          | 19°29          | 16°22           | M30  |
| T 31 | 9 18 37 | 21≈ 1'32          | 5 <b>m</b> 35  | 8 <b>∺</b> 25  | 19 <b>米</b> 18 | 10 <b>Ω</b> 51 | 0 <b>m</b> 52 | 4 <b>∺</b> 34  | 17 <b>≙</b> 25 | 10827  | 29≈59 | 8 <b>Ω</b> 53 | 8 <b>Ω</b> 23 | 19 <b>Ⅱ</b> 35 | 16 <b>Ω</b> 17  | T 31 |

Delta T = 173.38 sec

Julian Calendar 1 Jan. 1553 == Greg. Calendar 11 Jan. 1553

#### FEBRUARY 1553 JC 00:00 UT

| Day  | Sid.t    | 0                | Ŋ               | φ             | Q              | δ             | 4              | ħ               | ፟፞፞፠           | ¥     | 2             | T.           | Ω             | ţ               | Š              | Day  |
|------|----------|------------------|-----------------|---------------|----------------|---------------|----------------|-----------------|----------------|-------|---------------|--------------|---------------|-----------------|----------------|------|
| W 1  | 9 22 33  | 22≈ 2'04         | 18 <b>m</b> /34 | 8 <b>¥</b> 52 | 20 <b>)</b> 32 | 10°R29        | 0°R44          | 4 <b>) (</b> 41 | 17°R23         | 10828 | 0 <b>∺</b> 1  | 8°R52        | 8 <b>Q</b> 20 | 19 <b>∏</b> 42  | 16°R12         | W 1  |
| T 2  | 9 26 30  | 23° 2'34         | 1 <b>≏</b> 48   | 9° 9          | 21°46          | 10 <b>Ω</b> 7 | 0 <b>m</b> 37  | 4°49            | 17 <b>≏</b> 22 | 10°29 | 0° 2          | $8\Omega50$  | 8°17          | 19°49           | 16 <b>Ω</b> 8  | T 2  |
| F 3  | 9 30 27  | 24° 3'03         | 15°14           | 9°R17         | 23° 0          | 9°45          | 0°29           | 4°56            | 17°21          | 10°30 | 0° 4          | 8°48         | 8°13          | 19°55           | 16° 3          | F 3  |
| S 4  | 9 34 23  | 25° 3'31         | 28°53           | 9°14          | 24°13          | 9°23          | 0°21           | 5° 3            | 17°20          | 10°31 | 0° 6          | 8°46         | 8°10          | 20° 2           | 15°58          | S 4  |
| S 5  | 9 38 20  | 26° 3'57         | 12 <b>M</b> 43  | 9° 1          | 25°27          | 9° 3          | 0°13           | 5°11            | 17°19          | 10°31 | 0° 7          | 8°44         | 8° 7          | 20° 9           | 15°54          | S 5  |
| M 6  | 9 42 16  | 27° 4'23         | 26°44           | 8°38          | 26°41          | 8°42          | 0° 5           | 5°18            | 17°17          | 10°32 | 0° 9          | 8°D44        | 8° 4          | 20°15           | 15°49          | M 6  |
| T 7  | 9 46 13  | 28° 4'46         | 10 <b>∡</b> 754 | 8° 6          | 27°54          | 8°22          | 29 <b>Ω</b> 57 | 5°25            | 17°16          | 10°33 | 0°11          | 8°44         | 8° 1          | 20°22           | 15°44          | T 7  |
| W 8  | 9 50 9   | 29° 5'09         | 25°12           | 7°26          | 29° 8          | 8° 3          | 29°50          | 5°32            | 17°15          | 10°34 | 0°12          | 8°45         | 7°57          | 20°29           | 15°40          | W 8  |
| T 9  | 9 54 6   | 0 <b>米</b> 5'30  | 9 <b>궁</b> 34   | 6°39          | 0 <b>Υ</b> 21  | 7°45          | 29°42          | 5°40            | 17°13          | 10°35 | 0°14          | 8°47         | 7°54          | 20°35           | 15°35          | T 9  |
| F 10 | 9 58 2   | 1° 5'50          | 23°57           | 5°45          | 1°35           | 7°27          | 29°34          | 5°47            | 17°12          | 10°36 | 0°16          | 8°48         | 7°51          | 20°42           | 15°31          | F 10 |
| S 11 | 10 1 59  | 2° 6'08          | 8≈18            | 4°46          | 2°48           | 7° 9          | 29°26          | 5°54            | 17°10          | 10°37 | 0°17          | 8°R49        | 7°48          | 20°49           | 15°27          | S 11 |
| S 12 | 10 5 56  | 3° 6'24          | 22°32           | 3°45          | 4° 1           | 6°53          | 29°18          | 6° 2            | 17° 9          | 10°38 | 0°19          | 8°48         | 7°45          | 20°55           | 15°22          | S 12 |
| M13  | 10 9 52  | 4° 6'38          | 6 <b>∺</b> 33   | 2°42          | 5°15           | 6°37          | 29°10          | 6° 9            | 17° 7          | 10°39 | 0°21          | 8°46         | 7°42          | 21° 2           | 15°18          | M13  |
| T 14 | 10 13 49 | 5° 6'51          | 20°18           | 1°38          | 6°28           | 6°21          | 29° 2          | 6°17            | 17° 5          | 10°40 | 0°22          | 8°43         | 7°38          | 21° 9           | 15°13          | T 14 |
| W15  | 10 17 45 | 6° 7'02          | 3 <b>Υ</b> 45   | 0°37          | 7°41           | 6° 7          | 28°55          | 6°24            | 17° 4          | 10°42 | 0°24          | 8°39         | 7°35          | 21°16           | 15° 9          | W15  |
| T 16 | 10 21 42 | 7° 7'10          | 16°50           | 29≈37         | 8°54           | 5°53          | 28°47          | 6°31            | 17° 2          | 10°43 | 0°26          | 8°34         | 7°32          | 21°22           | 15° 5          | T 16 |
| F 17 | 10 25 38 | 8° 7'17          | 29°36           | 28°42         | 10° 7          | 5°40          | 28°39          | 6°39            | 17° 0          | 10°44 | 0°27          | 8°29         | 7°29          | 21°29           | 15° 1          | F 17 |
| S 18 | 10 29 35 | 9° 7'22          | 128 2           | 27°51         | 11°20          | 5°28          | 28°31          | 6°46            | 16°58          | 10°45 | 0°29          | 8°26         | 7°26          | 21°36           | 14°57          | S 18 |
| S 19 | 10 33 31 | 10° 7'24         | 24°13           | 27° 6         | 12°33          | 5°16          | 28°24          | 6°53            | 16°57          | 10°47 | 0°30          | 8°23         | 7°22          | 21°42           | 14°53          | S 19 |
| M20  | 10 37 28 | 11° 7'25         | 6 <b>Ⅱ</b> 12   | 26°27         | 13°46          | 5° 6          | 28°16          | 7° 1            | 16°55          | 10°48 | 0°32          | 8°D22        | 7°19          | 21°49           | 14°49          | M20  |
| T 21 | 10 41 25 | 12° 7'23         | 18° 4           | 25°55         | 14°59          | 4°56          | 28° 9          | 7° 8            | 16°53          | 10°49 | 0°34          | 8°22         | 7°16          | 21°56           | 14°45          | T 21 |
| W22  | 10 45 21 | 13° 7'19         | 29°54           | 25°29         | 16°11          | 4°47          | 28° 1          | 7°15            | 16°51          | 10°51 | 0°35          | 8°23         | 7°13          | 22° 2           | 14°41          | W22  |
| T 23 | 10 49 18 | 14° 7'13         | 119547          | 25° 9         | 17°24          | 4°39          | 27°54          | 7°23            | 16°49          | 10°52 | 0°37          | 8°24         | 7°10          | 22° 9           | 14°37          | T 23 |
| F 24 | 10 53 14 | 15° 7'04         | 23°48           | 24°57         | 18°37          | 4°31          | 27°47          | 7°30            | 16°47          | 10°53 | 0°39          | 8°26         | 7° 7          | 22°16           | 14°34          | F 24 |
| S 25 | 10 57 11 | 16° 6'54         | 6 <b>Ω</b> 2    | 24°50         | 19°49          | 4°24          | 27°40          | 7°37            | 16°45          | 10°55 | 0°40          | 8°R27        | 7° 3          | 22°22           | 14°30          | S 25 |
| S 26 | 11 1 7   | 17° 6'41         | 18°30           | 24°D50        | 21° 1          | 4°19          | 27°32          | 7°45            | 16°43          | 10°56 | 0°42          | 8°27         | 7° 0          | 22°29           | 14°26          | S 26 |
| M27  | 11 5 4   | 18° 6'26         | 1 <b>m</b> ) 17 | 24°56         | 22°14          | 4°13          | 27°25          | 7°52            | 16°40          | 10°58 | 0°43          | 8°24         | 6°57          | 22°36           | 14°23          | M27  |
| T 28 | 11 9 0   | 19 <b>米</b> 6'09 | 14 Mp 22        | 25≈ 8         | 23 <b>Y</b> 26 | 4 <b>Ω</b> 9  | 27 <b>Ω</b> 19 | 7 <b>∺</b> 59   | 16 <b>≏</b> 38 | 10859 | 0 <b>)</b> 45 | $8\Omega 20$ | $6\Omega$ 54  | 22 <b>II</b> 42 | 14 <b>Ω</b> 19 | T 28 |

Delta T = 173.19 sec

MARCH 1553 JC 00:00 UT

| Day  | Sid.t    | 0                 | D               | ğ              | ·              | ð             | 4               | ħ              | ) <b>f</b> (   | ¥              | Р              | Ŗ             | Ω             | Ç     | ę,             | Day  |
|------|----------|-------------------|-----------------|----------------|----------------|---------------|-----------------|----------------|----------------|----------------|----------------|---------------|---------------|-------|----------------|------|
| W 1  | 11 12 57 | 20₩ 5'50          | 27 <b>m</b> /46 | 25≈25          | 24 <b>Y</b> 38 | 4°R 5         | 27°R12          | 8 <b>∺</b> 6   | 16°R36         | 118 1          | 0 <b>)</b> €47 | 8°R14         | 6 <b>N</b> 51 | 22∏49 | 14°R16         | W 1  |
| T 2  | 11 16 53 | 21° 5'29          | 11 <b>≏</b> 27  | 25°47          | 25°50          | 4 <b>Ω</b> 3  | $27\Omega$ 5    | 8°14           | 16 <b>≏</b> 34 | 11° 2          | 0°48           | 8 <b>N</b> 7  | 6°48          | 22°56 | 14 <b>Ω</b> 13 | T 2  |
| F 3  | 11 20 50 | 22° 5'06          | 25°20           | 26°14          | 27° 2          | 4° 1          | 26°58           | 8°21           | 16°32          | 11° 4          | 0°50           | 8° 0          | 6°44          | 23° 2 | 14°10          | F 3  |
| S 4  | 11 24 47 | 23° 4'41          | 9 <b>M</b> 24   | 26°46          | 28°14          | 3°59          | 26°52           | 8°28           | 16°29          | 11° 6          | 0°51           | 7°53          | 6°41          | 23° 9 | 14° 7          | S 4  |
| S 5  | 11 28 43 | 24° 4'14          | 23°33           | 27°22          | 29°26          | 3°D59         | 26°46           | 8°35           | 16°27          | 11° 7          | 0°53           | 7°48          | 6°38          | 23°16 | 14° 3          | S 5  |
| M 6  | 11 32 40 | 25° 3'46          | 7 <b>.₹</b> 144 | 28° 2          | 0 <b>8</b> 38  | 3°59          | 26°39           | 8°42           | 16°25          | 11° 9          | 0°54           | 7°44          | 6°35          | 23°23 | 14° 1          | M 6  |
| T 7  | 11 36 36 | 26° 3'16          | 21°54           | 28°45          | 1°49           | 4° 0          | 26°33           | 8°50           | 16°22          | 11°11          | 0°56           | 7°D43         | 6°32          | 23°29 | 13°58          | T 7  |
| W 8  | 11 40 33 | 27° 2'44          | 6 <b>ප</b> 3    | 29°33          | 3° 1           | 4° 1          | 26°27           | 8°57           | 16°20          | 11°12          | 0°57           | 7°43          | 6°28          | 23°36 | 13°55          | W 8  |
| T 9  | 11 44 29 | 28° 2'11          | 20° 7           | 0 <b>∺</b> 23  | 4°13           | 4° 4          | 26°22           | 9° 4           | 16°18          | 11°14          | 0°59           | 7°44          | 6°25          | 23°43 | 13°52          | T 9  |
| F 10 | 11 48 26 | 29° 1'35          | 4≈ 7            | 1°17           | 5°24           | 4° 7          | 26°16           | 9°11           | 16°15          | 11°16          | 1° 1           | 7°R45         | 6°22          | 23°49 | 13°50          | F 10 |
| S 11 | 11 52 22 | 0 <b>Υ</b> 0'58   | 18° 0           | 2°14           | 6°35           | 4°10          | 26°10           | 9°18           | 16°13          | 11°18          | 1° 2           | 7°45          | 6°19          | 23°56 | 13°47          | S 11 |
| S 12 | 11 56 19 | 1° 0'19           | 1 <b>)</b> 46   | 3°14           | 7°47           | 4°15          | 26° 5           | 9°25           | 16°10          | 11°19          | 1° 3           | 7°42          | 6°16          | 24° 3 | 13°45          | S 12 |
| M13  | 12 0 16  | 1°59'38           | 15°22           | 4°16           | 8°58           | 4°20          | 26° 0           | 9°32           | 16° 8          | 11°21          | 1° 5           | 7°37          | 6°13          | 24° 9 | 13°43          | M13  |
| T 14 | 12 4 12  | 2°58'55           | 28°47           | 5°21           | 10° 9          | 4°25          | 25°55           | 9°39           | 16° 6          | 11°23          | 1° 6           | 7°30          | 6° 9          | 24°16 | 13°40          | T 14 |
| W15  | 12 8 9   | 3°58'10           | 11 <b>Y</b> 57  | 6°29           | 11°20          | 4°32          | 25°50           | 9°46           | 16° 3          | 11°25          | 1°8            | 7°21          | 6° 6          | 24°23 | 13°38          | W15  |
| T 16 | 12 12 5  | 4°57'23           | 24°52           | 7°38           | 12°31          | 4°39          | 25°45           | 9°53           | 16° 1          | 11°27          | 1° 9           | 7°10          | 6° 3          | 24°29 | 13°36          | T 16 |
| F 17 | 12 16 2  | 5°56'33           | 7 <b>8</b> 31   | 8°50           | 13°41          | 4°46          | 25°40           | 10° 0          | 15°58          | 11°29          | 1°11           | 6°59          | 6° 0          | 24°36 | 13°35          | F 17 |
| S 18 | 12 19 58 | 6°55'42           | 19°54           | 10° 4          | 14°52          | 4°55          | 25°36           | 10° 7          | 15°55          | 11°31          | 1°12           | 6°50          | 5°57          | 24°43 | 13°33          | S 18 |
| S 19 | 12 23 55 | 7°54'48           | 2 <b>I</b> I 4  | 11°20          | 16° 3          | 5° 4          | 25°31           | 10°13          | 15°53          | 11°33          | 1°14           | 6°42          | 5°54          | 24°49 | 13°31          | S 19 |
| M20  | 12 27 51 | 8°53'52           | 14° 2           | 12°38          | 17°13          | 5°13          | 25°27           | 10°20          | 15°50          | 11°35          | 1°15           | 6°37          | 5°50          | 24°56 | 13°30          | M20  |
| T 21 | 12 31 48 | 9°52'54           | 25°54           | 13°58          | 18°23          | 5°23          | 25°23           | 10°27          | 15°48          | 11°37          | 1°16           | 6°33          | 5°47          | 25° 3 | 13°28          | T 21 |
| W22  | 12 35 45 | 10°51'53          | 79543           | 15°19          | 19°34          | 5°34          | 25°19           | 10°34          | 15°45          | 11°39          | 1°18           | 6°D32         | 5°44          | 25° 9 | 13°27          | W22  |
| T 23 | 12 39 41 | 11°50'50          | 19°36           | 16°43          | 20°44          | 5°45          | 25°16           | 10°40          | 15°43          | 11°41          | 1°19           | 6°32          | 5°41          | 25°16 | 13°25          | T 23 |
| F 24 | 12 43 38 | 12°49'45          | 1 <b>Ω</b> 37   | 18° 8          | 21°54          | 5°57          | 25°12           | 10°47          | 15°40          | 11°43          | 1°20           | 6°R33         | 5°38          | 25°23 | 13°24          | F 24 |
| S 25 | 12 47 34 | 13°48'38          | 13°51           | 19°35          | 23° 4          | 6° 9          | 25° 9           | 10°54          | 15°38          | 11°45          | 1°22           | 6°33          | 5°34          | 25°29 | 13°23          | S 25 |
| S 26 | 12 51 31 | 14°47'28          | 26°24           | 21° 4          | 24°13          | 6°22          | 25° 6           | 11° 0          | 15°35          | 11°47          | 1°23           | 6°31          | 5°31          | 25°36 | 13°22          | S 26 |
| M27  | 12 55 27 | 15°46'16          | 9 <b>m</b> 19   | 22°34          | 25°23          | 6°35          | 25° 3           | 11° 7          | 15°32          | 11°49          | 1°24           | 6°27          | 5°28          | 25°43 | 13°22          | M27  |
| T 28 | 12 59 24 | 16°45'02          | 22°38           | 24° 6          | 26°32          | 6°49          | 25° 0           | 11°13          | 15°30          | 11°51          | 1°25           | 6°20          | 5°25          | 25°49 | 13°21          | T 28 |
| W29  | 13 3 20  | 17°43'45          | 6 <u>₽</u> 20   | 25°40          | 27°42          | 7° 3          | 24°58           | 11°19          | 15°27          | 11°53          | 1°27           | 6°11          | 5°22          | 25°56 | 13°20          | W29  |
| T 30 | 13 7 17  | 18°42'27          | 20°24           | 27°15          | 28°51          | 7°18          | 24°55           | 11°26          | 15°25          | 11°55          | 1°28           | 6° 1          | 5°19          | 26° 3 | 13°20          | T 30 |
| F 31 | 13 11 13 | 19 <b>Y</b> 41'06 | 4 <b>M</b> .45  | 28 <b>米</b> 52 | 0 <b>I</b> 0   | 7 <b>Ω</b> 33 | 24 <b>\O</b> 53 | 11 <b>)</b> 32 | 15 <b>≏</b> 22 | 11 <b>8</b> 57 | 1 <b>∺</b> 29  | 5 <b>Ω</b> 49 | 5 <b>Ω</b> 15 | 26耳 9 | 13 <b>Ω</b> 19 | F 31 |

Delta T = 173.03 sec

Julian Calendar 1 March 1553 == Greg. Calendar 11 March 1553

#### APRIL 1553 JC 00:00 UT

| Day  | Sid.t    | 0                 | D                | ğ              | φ            | ð             | 4              | ħ              | )ұ(            | ¥     | Р              | r             | Ω             | Ç               | Š              | Day  |
|------|----------|-------------------|------------------|----------------|--------------|---------------|----------------|----------------|----------------|-------|----------------|---------------|---------------|-----------------|----------------|------|
| S 1  | 13 15 10 | 20 <b>Y</b> 39'44 | 19 <b>M</b> .16  | 0 <b>Υ</b> 31  | 1 <b>П</b> 9 | 7 <b>Ω</b> 48 | 24°R51         | 11 <b>)</b> 38 | 15°R20         | 11859 | 1 <b>)</b> (30 | 5°R39         | 5 <b>Ω</b> 12 | 26 <b>I</b> I16 | 13°R19         | S 1  |
| S 2  | 13 19 7  | 21°38'20          | 3 <b>√</b> 51    | 2°11           | 2°18         | 8° 4          | 24Ω49          | 11°45          | 15 <b>≏</b> 17 | 12° 1 | 1°31           | 5 <b>Ω</b> 30 | 5° 9          | 26°23           | 13 <b>Ω</b> 19 | S 2  |
| M 3  | 13 23 3  | 22°36'54          | 18°23            | 3°53           | 3°27         | 8°21          | 24°48          | 11°51          | 15°14          | 12° 3 | 1°33           | 5°24          | 5° 6          | 26°30           | 13°D19         | M 3  |
| T 4  | 13 27 0  | 23°35'27          | 2 <b>ප</b> 46    | 5°36           | 4°35         | 8°38          | 24°46          | 11°57          | 15°12          | 12° 6 | 1°34           | 5°21          | 5° 3          | 26°36           | 13°19          | T 4  |
| W 5  | 13 30 56 | 24°33'58          | 16°59            | 7°21           | 5°44         | 8°55          | 24°45          | 12° 3          | 15° 9          | 12° 8 | 1°35           | 5°19          | 4°59          | 26°43           | 13°19          | W 5  |
| T 6  | 13 34 53 | 25°32'28          | 0≈59             | 9° 8           | 6°52         | 9°13          | 24°44          | 12° 9          | 15° 7          | 12°10 | 1°36           | 5°19          | 4°56          | 26°50           | 13°19          | T 6  |
| F 7  | 13 38 49 | 26°30'55          | 14°46            | 10°57          | 8° 0         | 9°31          | 24°43          | 12°15          | 15° 4          | 12°12 | 1°37           | 5°19          | 4°53          | 26°56           | 13°20          | F 7  |
| S 8  | 13 42 46 | 27°29'21          | 28°22            | 12°47          | 9° 8         | 9°50          | 24°42          | 12°21          | 15° 2          | 12°14 | 1°38           | 5°18          | 4°50          | 27° 3           | 13°20          | S 8  |
| S 9  | 13 46 42 | 28°27'46          | 11 <b>) (</b> 45 | 14°39          | 10°16        | 10° 9         | 24°42          | 12°27          | 14°59          | 12°16 | 1°39           | 5°14          | 4°47          | 27°10           | 13°21          | S 9  |
| M10  | 13 50 39 | 29°26'09          | 24°58            | 16°32          | 11°23        | 10°28         | 24°42          | 12°33          | 14°57          | 12°19 | 1°40           | 5° 7          | 4°44          | 27°16           | 13°21          | M10  |
| T 11 | 13 54 36 | 0824'30           | 8 <b>℃</b> 0     | 18°27          | 12°31        | 10°48         | 24°D41         | 12°39          | 14°54          | 12°21 | 1°41           | 4°57          | 4°40          | 27°23           | 13°22          | T 11 |
| W12  | 13 58 32 | 1°22'49           | 20°50            | 20°24          | 13°38        | 11° 8         | 24°41          | 12°44          | 14°52          | 12°23 | 1°42           | 4°45          | 4°37          | 27°30           | 13°23          | W12  |
| T 13 | 14 2 29  | 2°21'07           | 3 <b>8</b> 28    | 22°23          | 14°45        | 11°28         | 24°42          | 12°50          | 14°50          | 12°25 | 1°43           | 4°32          | 4°34          | 27°36           | 13°24          | T 13 |
| F 14 | 14 6 25  | 3°19'22           | 15°55            | 24°23          | 15°52        | 11°49         | 24°42          | 12°55          | 14°47          | 12°28 | 1°44           | 4°18          | 4°31          | 27°43           | 13°25          | F 14 |
| S 15 | 14 10 22 | 4°17'37           | 28° 9            | 26°24          | 16°59        | 12°10         | 24°43          | 13° 1          | 14°45          | 12°30 | 1°45           | 4° 6          | 4°28          | 27°50           | 13°27          | S 15 |
| S 16 | 14 14 18 | 5°15'49           | 10 <b>I</b> I13  | 28°27          | 18° 6        | 12°32         | 24°43          | 13° 6          | 14°42          | 12°32 | 1°46           | 3°55          | 4°25          | 27°56           | 13°28          | S 16 |
| M17  | 14 18 15 | 6°13'59           | 22° 8            | 0 <b>8</b> 32  | 19°12        | 12°54         | 24°44          | 13°12          | 14°40          | 12°34 | 1°47           | 3°47          | 4°21          | 28° 3           | 13°30          | M17  |
| T 18 | 14 22 11 | 7°12'07           | 3957             | 2°38           | 20°18        | 13°16         | 24°45          | 13°17          | 14°38          | 12°37 | 1°47           | 3°42          | 4°18          | 28°10           | 13°31          | T 18 |
| W19  | 14 26 8  | 8°10'14           | 15°45            | 4°45           | 21°24        | 13°38         | 24°47          | 13°22          | 14°35          | 12°39 | 1°48           | 3°39          | 4°15          | 28°16           | 13°33          | W19  |
| T 20 | 14 30 5  | 9° 8'19           | 27°36            | 6°53           | 22°30        | 14° 1         | 24°48          | 13°28          | 14°33          | 12°41 | 1°49           | 3°38          | 4°12          | 28°23           | 13°35          | T 20 |
| F 21 | 14 34 1  | 10° 6'21          | 9 <b>Ω</b> 36    | 9° 2           | 23°36        | 14°24         | 24°50          | 13°33          | 14°31          | 12°43 | 1°50           | 3°38          | 4° 9          | 28°30           | 13°37          | F 21 |
| S 22 | 14 37 58 | 11° 4'22          | 21°49            | 11°12          | 24°41        | 14°47         | 24°52          | 13°38          | 14°29          | 12°46 | 1°51           | 3°38          | 4° 5          | 28°36           | 13°39          | S 22 |
| S 23 | 14 41 54 | 12° 2'21          | 4 <b>m</b> ) 21  | 13°23          | 25°46        | 15°11         | 24°54          | 13°43          | 14°27          | 12°48 | 1°51           | 3°36          | 4° 2          | 28°43           | 13°41          | S 23 |
| M24  | 14 45 51 | 13° 0'17          | 17°17            | 15°33          | 26°51        | 15°35         | 24°56          | 13°48          | 14°24          | 12°50 | 1°52           | 3°32          | 3°59          | 28°50           | 13°43          | M24  |
| T 25 | 14 49 47 | 13°58'12          | 0 <b>ჲ</b> 40    | 17°44          | 27°56        | 15°59         | 24°58          | 13°53          | 14°22          | 12°52 | 1°53           | 3°26          | 3°56          | 28°56           | 13°45          | T 25 |
| W26  | 14 53 44 | 14°56'06          | 14°31            | 19°54          | 29° 0        | 16°24         | 25° 1          | 13°57          | 14°20          | 12°55 | 1°53           | 3°18          | 3°53          | 29° 3           | 13°48          | W26  |
| T 27 | 14 57 40 | 15°53'57          | 28°48            | 22° 3          | 0 <b>9</b> 5 | 16°48         | 25° 4          | 14° 2          | 14°18          | 12°57 | 1°54           | 3° 7          | 3°50          | 29°10           | 13°50          | T 27 |
| F 28 | 15 1 37  | 16°51'47          | 13 <b>M</b> 27   | 24°12          | 1° 9         | 17°13         | 25° 7          | 14° 7          | 14°16          | 12°59 | 1°55           | 2°56          | 3°46          | 29°16           | 13°53          | F 28 |
| S 29 | 15 5 34  | 17°49'36          | 28°20            | 26°20          | 2°12         | 17°39         | 25°10          | 14°11          | 14°14          | 13° 1 | 1°55           | 2°46          | 3°43          | 29°23           | 13°56          | S 29 |
| S 30 | 15 9 30  | 18 <b>8</b> 47'23 | 13 <b>~</b> 18   | 28 <b>8</b> 26 | 39916        | 18 <b>Ω</b> 4 | 25 <b>Ω</b> 13 | 14 <b>)</b> 16 | 14 <b>♀</b> 12 | 138 4 | 1 <b>米</b> 56  | 2 <b>Ω</b> 38 | 3 <b>Ω</b> 40 | 29Ⅲ30           | 13 <b>Ω</b> 59 | S 30 |

Delta T = 172.85 sec

MAY 1553 JC 00:00 UT

| Day  | Sid.t    | 0                 | D              | ğ     | ·            | ð              | 4              | ħ               | )f(            | ¥             | Р             | v             | S             | Ç     | ę,             | Day  |
|------|----------|-------------------|----------------|-------|--------------|----------------|----------------|-----------------|----------------|---------------|---------------|---------------|---------------|-------|----------------|------|
| M 1  | 15 13 27 | 19845'09          | 28 <b>×</b> 13 | 0Д30  | 49519        | 18 <b>Ω</b> 30 | 25 <b>Ω</b> 16 | 14 <b>)</b> (20 | 14°R10         | 13 <b>8</b> 6 | 1 <b>)</b> 56 | 2°R31         | 3 <b>Ω</b> 37 | 29∏36 | 14 <b>Ω</b> 1  | M 1  |
| T 2  | 15 17 23 | 20°42'53          | 12 <b>る</b> 56 | 2°33  | 5°22         | 18°56          | 25°20          | 14°25           | 14 <b>♀</b> 8  | 13° 8         | 1°57          | 2 <b>Ω</b> 28 | 3°34          | 29°43 | 14° 5          | T 2  |
| W 3  | 15 21 20 | 21°40'37          | 27°22          | 4°34  | 6°24         | 19°22          | 25°24          | 14°29           | 14° 6          | 13°10         | 1°57          | 2°D27         | 3°31          | 29°50 | 14° 8          | W 3  |
| T 4  | 15 25 16 | 22°38'19          | 11≈30          | 6°32  | 7°27         | 19°49          | 25°28          | 14°33           | 14° 5          | 13°13         | 1°58          | 2°27          | 3°27          | 29°56 | 14°11          | T 4  |
| F 5  | 15 29 13 | 23°36'01          | 25°17          | 8°27  | 8°29         | 20°15          | 25°32          | 14°37           | 14° 3          | 13°15         | 1°58          | 2°R27         | 3°24          | 099 3 | 14°14          | F 5  |
| S 6  | 15 33 9  | 24°33'41          | 8 <b>)</b> 46  | 10°21 | 9°30         | 20°42          | 25°36          | 14°41           | 14° 1          | 13°17         | 1°59          | 2°26          | 3°21          | 0°10  | 14°18          | S 6  |
| S 7  | 15 37 6  | 25°31'20          | 21°58          | 12°11 | 10°32        | 21° 9          | 25°40          | 14°45           | 13°59          | 13°19         | 1°59          | 2°23          | 3°18          | 0°16  | 14°21          | S 7  |
| M 8  | 15 41 3  | 26°28'58          | 4 <b>Υ</b> 56  | 13°59 | 11°33        | 21°36          | 25°45          | 14°49           | 13°58          | 13°21         | 2° 0          | 2°18          | 3°15          | 0°23  | 14°25          | M 8  |
| T 9  | 15 44 59 | 27°26'35          | 17°40          | 15°44 | 12°33        | 22° 4          | 25°50          | 14°53           | 13°56          | 13°24         | 2° 0          | 2°10          | 3°11          | 0°30  | 14°29          | T 9  |
| W10  | 15 48 56 | 28°24'12          | 0812           | 17°25 | 13°34        | 22°32          | 25°54          | 14°56           | 13°54          | 13°26         | 2° 0          | 2° 0          | 3° 8          | 0°36  | 14°32          | W10  |
| T 11 | 15 52 52 | 29°21'47          | 12°34          | 19° 4 | 14°34        | 23° 0          | 25°59          | 15° 0           | 13°53          | 13°28         | 2° 1          | 1°49          | 3° 5          | 0°43  | 14°36          | T 11 |
| F 12 | 15 56 49 | 0耳19'21           | 24°46          | 20°40 | 15°33        | 23°28          | 26° 5          | 15° 4           | 13°51          | 13°30         | 2° 1          | 1°38          | 3° 2          | 0°50  | 14°40          | F 12 |
| S 13 | 16 0 45  | 1°16'54           | 6 <b>耳</b> 50  | 22°13 | 16°33        | 23°56          | 26°10          | 15° 7           | 13°50          | 13°32         | 2° 1          | 1°27          | 2°59          | 0°56  | 14°44          | S 13 |
| S 14 | 16 4 42  | 2°14'26           | 18°46          | 23°43 | 17°31        | 24°25          | 26°15          | 15°10           | 13°48          | 13°35         | 2° 1          | 1°18          | 2°56          | 1° 3  | 14°49          | S 14 |
| M15  | 16 8 38  | 3°11'56           | 0937           | 25°10 | 18°30        | 24°53          | 26°21          | 15°14           | 13°47          | 13°37         | 2° 2          | 1°11          | 2°52          | 1°10  | 14°53          | M15  |
| T 16 | 16 12 35 | 4° 9'26           | 12°24          | 26°33 | 19°28        | 25°22          | 26°27          | 15°17           | 13°46          | 13°39         | 2° 2          | 1° 7          | 2°49          | 1°16  | 14°57          | T 16 |
| W17  | 16 16 32 | 5° 6'54           | 24°11          | 27°53 | 20°26        | 25°51          | 26°33          | 15°20           | 13°44          | 13°41         | 2° 2          | 1° 5          | 2°46          | 1°23  | 15° 2          | W17  |
| T 18 | 16 20 28 | 6° 4'21           | $6\Omega$ 2    | 29°10 | 21°23        | 26°21          | 26°39          | 15°23           | 13°43          | 13°43         | 2° 2          | 1°D 5         | 2°43          | 1°30  | 15° 6          | T 18 |
| F 19 | 16 24 25 | 7° 1'47           | 18° 2          | 09524 | 22°19        | 26°50          | 26°45          | 15°26           | 13°42          | 13°45         | 2° 2          | 1° 6          | 2°40          | 1°36  | 15°11          | F 19 |
| S 20 | 16 28 21 | 7°59'12           | 0 <b>m</b> 14  | 1°35  | 23°16        | 27°20          | 26°51          | 15°29           | 13°41          | 13°47         | 2° 2          | 1° 7          | 2°37          | 1°43  | 15°16          | S 20 |
| S 21 | 16 32 18 | 8°56'36           | 12°44          | 2°42  | 24°11        | 27°50          | 26°58          | 15°31           | 13°40          | 13°49         | 2° 2          | 1°R 7         | 2°33          | 1°50  | 15°21          | S 21 |
| M22  | 16 36 14 | 9°53'58           | 25°37          | 3°45  | 25° 6        | 28°20          | 27° 4          | 15°34           | 13°38          | 13°51         | 2° 2          | 1° 6          | 2°30          | 1°56  | 15°25          | M22  |
| T 23 | 16 40 11 | 10°51'19          | 8 <b>≏</b> 57  | 4°45  | 26° 1        | 28°50          | 27°11          | 15°37           | 13°37          | 13°54         | 2°R 2         | 1° 3          | 2°27          | 2° 3  | 15°30          | T 23 |
| W24  | 16 44 7  | 11°48'39          | 22°46          | 5°42  | 26°55        | 29°20          | 27°18          | 15°39           | 13°36          | 13°56         | 2° 2          | 0°58          | 2°24          | 2°10  | 15°35          | W24  |
| T 25 | 16 48 4  | 12°45'59          | 7 <b>™</b> 3   | 6°35  | 27°49        | 29°51          | 27°25          | 15°41           | 13°36          | 13°58         | 2° 2          | 0°51          | 2°21          | 2°16  | 15°41          | T 25 |
| F 26 | 16 52 1  | 13°43'17          | 21°46          | 7°24  | 28°42        | 0 <b>m</b> 21  | 27°32          | 15°44           | 13°35          | 14° 0         | 2° 2          | 0°44          | 2°17          | 2°23  | 15°46          | F 26 |
| S 27 | 16 55 57 | 14°40'34          | 6 <b>₹</b> 47  | 8° 9  | 29°34        | 0°52           | 27°40          | 15°46           | 13°34          | 14° 2         | 2° 2          | 0°38          | 2°14          | 2°30  | 15°51          | S 27 |
| S 28 | 16 59 54 | 15°37'51          | 21°59          | 8°50  | $0\Omega 25$ | 1°23           | 27°47          | 15°48           | 13°33          | 14° 4         | 2° 2          | 0°32          | 2°11          | 2°36  | 15°56          | S 28 |
| M29  | 17 3 50  | 16°35'07          | 7 <b>る</b> 9   | 9°27  | 1°16         | 1°54           | 27°54          | 15°50           | 13°32          | 14° 6         | 2° 2          | 0°28          | 2° 8          | 2°43  | 16° 2          | M29  |
| T 30 | 17 7 47  | 17°32'23          | 22°10          | 10° 0 | 2° 7         | 2°25           | 28° 2          | 15°52           | 13°32          | 14° 8         | 2° 2          | 0°26          | 2° 5          | 2°50  | 16° 7          | T 30 |
| W31  | 17 11 43 | 18 <b>Ⅱ</b> 29'38 | 6≈53           | 10929 | $2\Omega$ 56 | 2 <b>m</b> 57  | 28 <b>Ω</b> 10 | 15 <b>)</b> 54  | 13 <b>≏</b> 31 | 148 9         | 2 <b>∺</b> 2  | 0°D26         | 2 <b>N</b> 2  | 2956  | 16 <b>Ω</b> 13 | W31  |

Delta T = 172.67 sec

Julian Calendar 1 May 1553 == Greg. Calendar 11 May 1553

#### JUNE 1553 JC 00:00 UT | Day | Sid t | Ω | Δ | ∇ | Δ | 4 | 5 | Μ | Ψ | P | Ω | Ω | € | E | Day |

| Day  | Sid.t    | $\odot$           | 2)               | Q      | Ŷ               | σ                | 4              | ħ              | ₩.             | #              | Е               | 8 <sub>⊥</sub> y | 83             | \$             | δ              | Day  |
|------|----------|-------------------|------------------|--------|-----------------|------------------|----------------|----------------|----------------|----------------|-----------------|------------------|----------------|----------------|----------------|------|
| T 1  | 17 15 40 | 19 <b>Ⅲ</b> 26'53 | 21≈14            | 10953  | 3 <b>Ω</b> 45   | 3 Mp 28          | 28 <b>Ω</b> 18 | 15 <b>)</b> 55 | 13°R30         | 14811          | 2°R 2           | 0 <b>Ω</b> 27    | 1 <b>Q</b> 58  | 3 <b>9</b> 5 3 | 16 <b>Ω</b> 19 | T 1  |
| F 2  | 17 19 36 | 20°24'08          | 5 <b>)</b> 11    | 11°13  | 4°33            | 4° 0             | 28°26          | 15°57          | 13 <b>≏</b> 30 | 14°13          | 2 <b>米</b> 1    | 0°28             | 1°55           | 3°10           | 16°24          | F 2  |
| S 3  | 17 23 33 | 21°21'22          | 18°43            | 11°28  | 5°21            | 4°31             | 28°34          | 15°58          | 13°29          | 14°15          | 2° 1            | 0°R29            | 1°52           | 3°16           | 16°30          | S 3  |
| S 4  | 17 27 30 | 22°18'36          | 1 <b>Y</b> 53    | 11°39  | 6° 7            | 5° 3             | 28°42          | 16° 0          | 13°29          | 14°17          | 2° 1            | 0°29             | 1°49           | 3°23           | 16°36          | S 4  |
| M 5  | 17 31 26 | 23°15'50          | 14°44            | 11°46  | 6°53            | 5°35             | 28°51          | 16° 1          | 13°29          | 14°19          | 2° 1            | 0°27             | 1°46           | 3°30           | 16°42          | M 5  |
| T 6  | 17 35 23 | 24°13'04          | 27°19            | 11°R48 | 7°38            | 6° 8             | 28°59          | 16° 2          | 13°28          | 14°21          | 2° 0            | 0°23             | 1°42           | 3°36           | 16°48          | T 6  |
| W 7  | 17 39 19 | 25°10'17          | 9839             | 11°45  | 8°22            | 6°40             | 29° 8          | 16° 3          | 13°28          | 14°23          | 2° 0            | 0°18             | 1°39           | 3°43           | 16°54          | W 7  |
| T 8  | 17 43 16 | 26° 7'31          | 21°49            | 11°38  | 9° 5            | 7°12             | 29°16          | 16° 4          | 13°28          | 14°24          | 1°59            | 0°13             | 1°36           | 3°50           | 17° 0          | T 8  |
| F 9  | 17 47 12 | 27° 4'44          | 3 <b>II</b> 50   | 11°26  | 9°47            | 7°45             | 29°25          | 16° 5          | 13°28          | 14°26          | 1°59            | 0° 7             | 1°33           | 3°56           | 17° 7          | F 9  |
| S 10 | 17 51 9  | 28° 1'57          | 15°45            | 11°10  | 10°27           | 8°18             | 29°34          | 16° 6          | 13°28          | 14°28          | 1°59            | 0° 1             | 1°30           | 4° 3           | 17°13          | S 10 |
| S 11 | 17 55 5  | 28°59'11          | 27°36            | 10°51  | 11° 7           | 8°51             | 29°43          | 16° 7          | 13°27          | 14°30          | 1°58            | 29957            | 1°27           | 4°10           | 17°19          | S 11 |
| M12  | 17 59 2  | 29°56'23          | 99524            | 10°27  | 11°46           | 9°24             | 29°52          | 16° 7          | 13°D27         | 14°31          | 1°58            | 29°54            | 1°23           | 4°16           | 17°26          | M12  |
| T 13 | 18 2 59  | 0953'36           | 21°11            | 10° 0  | 12°24           | 9°57             | 0 Mp 1         | 16° 8          | 13°28          | 14°33          | 1°57            | 29°52            | 1°20           | 4°23           | 17°32          | T 13 |
| W14  | 18 6 55  | 1°50'49           | 3 <b>Ω</b> 1     | 9°30   | 13° 0           | 10°30            | 0°11           | 16° 8          | 13°28          | 14°35          | 1°57            | 29°D52           | 1°17           | 4°30           | 17°39          | W14  |
| T 15 | 18 10 52 | 2°48'01           | 14°56            | 8°58   | 13°36           | 11° 3            | 0°20           | 16° 9          | 13°28          | 14°36          | 1°56            | 29°52            | 1°14           | 4°36           | 17°45          | T 15 |
| F 16 | 18 14 48 | 3°45'13           | 26°59            | 8°24   | 14°10           | 11°37            | 0°30           | 16° 9          | 13°28          | 14°38          | 1°56            | 29°54            | 1°11           | 4°43           | 17°52          | F 16 |
| S 17 | 18 18 45 | 4°42'24           | 9 <b>m</b> )14   | 7°48   | 14°42           | 12°10            | 0°39           | 16°R 9         | 13°28          | 14°40          | 1°55            | 29°56            | 1° 8           | 4°50           | 17°59          | S 17 |
| S 18 | 18 22 41 | 5°39'35           | 21°46            | 7°11   | 15°14           | 12°44            | 0°49           | 16° 9          | 13°29          | 14°41          | 1°55            | 29°57            | 1° 4           | 4°56           | 18° 5          | S 18 |
| M19  | 18 26 38 | 6°36'46           | 4 <b>≏</b> 37    | 6°34   | 15°43           | 13°18            | 0°59           | 16° 9          | 13°29          | 14°43          | 1°54            | 29°R57           | 1° 1           | 5° 3           | 18°12          | M19  |
| T 20 | 18 30 34 | 7°33'57           | 17°52            | 5°57   | 16°12           | 13°52            | 1° 9           | 16° 9          | 13°29          | 14°44          | 1°53            | 29°57            | 0°58           | 5°10           | 18°19          | T 20 |
| W21  | 18 34 31 | 8°31'08           | 1 <b>M</b> J34   | 5°22   | 16°39           | 14°26            | 1°19           | 16° 8          | 13°30          | 14°46          | 1°53            | 29°56            | 0°55           | 5°16           | 18°26          | W21  |
| T 22 | 18 38 28 | 9°28'18           | 15°42            | 4°48   | 17° 4           | 15° 0            | 1°29           | 16° 8          | 13°30          | 14°47          | 1°52            | 29°54            | 0°52           | 5°23           | 18°33          | T 22 |
| F 23 | 18 42 24 | 10°25'28          | 0 <b>₹</b> 16    | 4°16   | 17°27           | 15°35            | 1°39           | 16° 7          | 13°31          | 14°49          | 1°51            | 29°51            | 0°48           | 5°30           | 18°40          | F 23 |
| S 24 | 18 46 21 | 11°22'39          | 15°11            | 3°47   | 17°49           | 16° 9            | 1°49           | 16° 7          | 13°31          | 14°50          | 1°51            | 29°49            | 0°45           | 5°36           | 18°47          | S 24 |
| S 25 | 18 50 17 | 12°19'49          | 0 <b>궁</b> 20    | 3°21   | 18° 9           | 16°43            | 1°59           | 16° 6          | 13°32          | 14°52          | 1°50            | 29°47            | 0°42           | 5°43           | 18°54          | S 25 |
| M26  | 18 54 14 | 13°17'00          | 15°32            | 2°59   | 18°27           | 17°18            | 2°10           | 16° 5          | 13°33          | 14°53          | 1°49            | 29°46            | 0°39           | 5°50           | 19° 1          | M26  |
| T 27 | 18 58 10 | 14°14'11          | 0≈40             | 2°42   | 18°43           | 17°53            | 2°20           | 16° 4          | 13°34          | 14°54          | 1°48            | 29°D46           | 0°36           | 5°56           | 19° 9          | T 27 |
| W28  | 19 2 7   | 15°11'22          | 15°34            | 2°29   | 18°58           | 18°28            | 2°31           | 16° 3          | 13°34          | 14°56          | 1°48            | 29°46            | 0°33           | 6° 3           | 19°16          | W28  |
| T 29 | 19 6 4   | 16° 8'34          | 0 <b>米</b> 6     | 2°20   | 19°10           | 19° 2            | 2°42           | 16° 2          | 13°35          | 14°57          | 1°47            | 29°47            | 0°29           | 6°10           | 19°23          | T 29 |
| F 30 | 19 10 0  | 1795 5'46         | 14 <b>) (</b> 14 | 2°D17  | $19\Omega_{20}$ | 19 <b>11)</b> 37 | 2 <b>m</b> 52  | 16 <b>米</b> 1  | 13 <b>≏</b> 36 | 14 <b>8</b> 58 | 1 <b>) (</b> 46 | 299548           | $0\Omega_{26}$ | 6 <b>9</b> 16  | 19 <b>Ω</b> 31 | F 30 |

Delta T = 172.49 sec

JULY 1553 JC 00:00 UT

| Day  | Sid.t    | $\odot$           | D               | φ              | φ              | ð              | 4             | ħ               | )f(            | ¥              | Р               | ₽.     | ß             | Ç             | ę,             | Day  |
|------|----------|-------------------|-----------------|----------------|----------------|----------------|---------------|-----------------|----------------|----------------|-----------------|--------|---------------|---------------|----------------|------|
| S 1  | 19 13 57 | 189 2'59          | 27 <b>米</b> 55  | 2920           | 19 <b>Ω</b> 28 | 20 <b>M</b> 13 | 3 Mg 3        | 16°R 0          | 13 <b>≏</b> 37 | 14859          | 1°R45           | 295649 | 0 <b>Ω</b> 23 | 6923          | 19 <b>Ω</b> 38 | S 1  |
| S 2  | 19 17 53 | 19° 0'12          | 11 <b>Y</b> 10  | 2°27           | 19°34          | 20°48          | 3°14          | 15 <b>¥</b> 58  | 13°38          | 15° 1          | 1 <b>) (</b> 44 | 29°49  | 0°20          | 6°29          | 19°45          | S 2  |
| M 3  | 19 21 50 | 19°57'27          | 24° 2           | 2°41           | 19°38          | 21°23          | 3°25          | 15°57           | 13°39          | 15° 2          | 1°44            | 29°R49 | 0°17          | 6°36          | 19°53          | M 3  |
| T 4  | 19 25 46 | 20°54'42          | 6 <b>8</b> 34   | 3° 0           | 19°R39         | 21°59          | 3°36          | 15°55           | 13°41          | 15° 3          | 1°43            | 29°49  | 0°14          | 6°43          | 20° 0          | T 4  |
| W 5  | 19 29 43 | 21°51'58          | 18°50           | 3°25           | 19°38          | 22°34          | 3°47          | 15°54           | 13°42          | 15° 4          | 1°42            | 29°48  | 0°10          | 6°49          | 20° 8          | W 5  |
| T 6  | 19 33 39 | 22°49'15          | 0 <b>Ⅱ</b> 54   | 3°55           | 19°35          | 23°10          | 3°58          | 15°52           | 13°43          | 15° 5          | 1°41            | 29°47  | 0° 7          | 6°56          | 20°16          | T 6  |
| F 7  | 19 37 36 | 23°46'32          | 12°48           | 4°31           | 19°30          | 23°46          | 4° 9          | 15°50           | 13°44          | 15° 6          | 1°40            | 29°47  | 0° 4          | 7° 3          | 20°23          | F 7  |
| S 8  | 19 41 33 | 24°43'51          | 24°38           | 5°13           | 19°22          | 24°21          | 4°21          | 15°48           | 13°46          | 15° 7          | 1°39            | 29°46  | 0° 1          | 7° 9          | 20°31          | S 8  |
| S 9  | 19 45 29 | 25°41'10          | 6926            | 6° 0           | 19°12          | 24°57          | 4°32          | 15°46           | 13°47          | 15° 8          | 1°38            | 29°45  | 29958         | 7°16          | 20°39          | S 9  |
| M10  | 19 49 26 | 26°38'30          | 18°14           | 6°53           | 18°59          | 25°33          | 4°43          | 15°44           | 13°48          | 15° 9          | 1°37            | 29°45  | 29°54         | 7°23          | 20°46          | M10  |
| T 11 | 19 53 22 | 27°35'51          | 0 <b>N</b> 6    | 7°52           | 18°44          | 26° 9          | 4°55          | 15°42           | 13°50          | 15°10          | 1°36            | 29°D45 | 29°51         | 7°29          | 20°54          | T 11 |
| W12  | 19 57 19 | 28°33'12          | 12° 2           | 8°56           | 18°27          | 26°46          | 5° 6          | 15°39           | 13°51          | 15°11          | 1°35            | 29°45  | 29°48         | 7°36          | 21° 2          | W12  |
| _    | 20 1 15  | 29°30'34          | 24° 6           | 10° 5          | 18° 7          | 27°22          | 5°18          | 15°37           | 13°53          | 15°12          | 1°34            | 29°R45 | 29°45         | 7°43          | 21°10          | T 13 |
| F 14 | 20 5 12  | $0\Omega 27'57$   | 6 <b>M</b> p19  | 11°19          | 17°45          | 27°58          | 5°30          | 15°35           | 13°55          | 15°13          | 1°33            | 29°45  | 29°42         | 7°49          | 21°18          | F 14 |
| S 15 | 20 9 8   | 1°25'21           | 18°44           | 12°38          | 17°21          | 28°35          | 5°41          | 15°32           | 13°56          | 15°14          | 1°32            | 29°45  | 29°39         | 7°56          | 21°26          | S 15 |
| S 16 | 20 13 5  | 2°22'45           | 1 <b>≏</b> 24   | 14° 3          | 16°55          | 29°12          | 5°53          | 15°29           | 13°58          | 15°15          | 1°31            | 29°45  | 29°35         | 8° 3          | 21°34          | S 16 |
|      | 20 17 2  | 3°20'09           | 14°20           | 15°31          | 16°27          | 29°48          | 6° 5          | 15°27           | 14° 0          | 15°15          | 1°30            | 29°44  | 29°32         | 8° 9          | 21°42          | M17  |
| T 18 | 20 20 58 | 4°17'35           | 27°35           | 17° 5          | 15°58          | 0 <b>ჲ</b> 25  | 6°17          | 15°24           | 14° 2          | 15°16          | 1°29            | 29°44  | 29°29         | 8°16          | 21°50          | T 18 |
|      | 20 24 55 | 5°15'01           | 11 <b>M</b> .11 | 18°42          | 15°26          | 1° 2           | 6°29          | 15°21           | 14° 4          | 15°17          | 1°27            | 29°D44 | 29°26         | 8°23          | 21°58          | W19  |
| T 20 | 20 28 51 | 6°12'28           | 25° 8           | 20°24          | 14°53          | 1°39           | 6°41          | 15°18           | 14° 5          | 15°18          | 1°26            | 29°45  | 29°23         | 8°29          | 22° 6          | T 20 |
| F 21 | 20 32 48 | 7° 9'56           | 9 <b>.7</b> 27  | 22° 9          | 14°19          | 2°16           | 6°53          | 15°15           | 14° 7          | 15°18          | 1°25            | 29°45  | 29°20         | 8°36          | 22°14          | F 21 |
| S 22 | 20 36 44 | 8° 7'24           | 24° 5           | 23°58          | 13°44          | 2°53           | 7° 5          | 15°12           | 14° 9          | 15°19          | 1°24            | 29°46  | 29°16         | 8°43          | 22°22          | S 22 |
| S 23 | 20 40 41 | 9° 4'53           | 8 <b>궁</b> 57   | 25°49          | 13° 8          | 3°30           | 7°17          | 15° 9           | 14°12          | 15°19          | 1°23            | 29°46  | 29°13         | 8°49          | 22°30          | S 23 |
| M24  | 20 44 37 | 10° 2'24          | 23°57           | 27°43          | 12°31          | 4° 8           | 7°29          | 15° 5           | 14°14          | 15°20          | 1°22            | 29°R47 | 29°10         | 8°56          | 22°38          | M24  |
| T 25 | 20 48 34 | 10°59'55          | 8≈57            | 29°40          | 11°54          | 4°45           | 7°41          | 15° 2           | 14°16          | 15°20          | 1°21            | 29°47  | 29° 7         | 9° 3          | 22°46          | T 25 |
|      | 20 52 31 | 11°57'27          | 23°48           | 1 <b>N</b> 38  | 11°16          | 5°23           | 7°54          | 14°59           | 14°18          | 15°21          | 1°19            | 29°46  | 29° 4         | 9° 9          | 22°54          | W26  |
|      | 20 56 27 | 12°55'01          | 8 <b>∺</b> 23   | 3°38           | 10°39          | 6° 0           | 8° 6          | 14°55           | 14°20          | 15°21          | 1°18            | 29°45  | 29° 0         | 9°16          | 23° 2          | T 27 |
| -    | 21 0 24  | 13°52'36          | 22°36           | 5°38           | 10° 2          | 6°38           | 8°18          | 14°51           | 14°22          | 15°22          | 1°17            | 29°43  | 28°57         | 9°23          | 23°11          | F 28 |
| S 29 | 21 4 20  | 14°50'12          | 6 <b>Ƴ</b> 24   | 7°40           | 9°25           | 7°16           | 8°31          | 14°48           | 14°25          | 15°22          | 1°16            | 29°41  | 28°54         | 9°29          | 23°19          | S 29 |
| S 30 | 21 8 17  | 15°47'50          | 19°45           | 9°42           | 8°50           | 7°53           | 8°43          | 14°44           | 14°27          | 15°23          | 1°15            | 29°40  | 28°51         | 9°36          | 23°27          | S 30 |
| M31  | 21 12 13 | 16 <b>Ω</b> 45'29 | 2 <b>8</b> 41   | 11 <b>Ω</b> 44 | 8 <b>Ω</b> 15  | 8 <b>亞</b> 31  | 8 <b>m</b> 55 | 14 <b>)</b> (40 | 14 <b>≏</b> 29 | 15 <b>8</b> 23 | 1 <b>∺</b> 13   | 29938  | 289648        | 9 <b>9</b> 42 | 23 <b>Ω</b> 35 | M31  |

Delta T = 172.31 sec

Julian Calendar 1 July 1553 == Greg. Calendar 11 July 1553

#### AUGUST 1553 JC Day Sid.t Ο Σ Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q Q

| Day  | Sia.t    | 0                 | 2)              | ¥              | ¥            | σ.             | 4              | υ                | η.             | #              | E               | 9.9    | 9.6    | <b>\$</b> | δ               | Day  |
|------|----------|-------------------|-----------------|----------------|--------------|----------------|----------------|------------------|----------------|----------------|-----------------|--------|--------|-----------|-----------------|------|
| T 1  | 21 16 10 | 17 <b>Ω</b> 43'10 | 15 <b>8</b> 15  | 13 <b>Ω</b> 47 | 7°R42        | 9 <b>亞</b> 9   | 9 <b>m</b> ) 8 | 14°R37           | 14 <b>₽</b> 32 | 15 <b>8</b> 23 | 1°R12           | 29°D38 | 289345 | 99549     | 23 <b>Ω</b> 43  | T 1  |
| W 2  | 21 20 6  | 18°40'53          | 27°31           | 15°48          | $7\Omega 10$ | 9°47           | 9°20           | 14 <b>) (</b> 33 | 14°34          | 15°23          | 1 <b>) (</b> 11 | 29938  | 28°41  | 9°56      | 23°52           | W 2  |
| T 3  | 21 24 3  | 19°38'37          | 9 <b>Ⅲ</b> 33   | 17°50          | 6°39         | 10°26          | 9°33           | 14°29            | 14°37          | 15°24          | 1°10            | 29°39  | 28°38  | 10° 2     | 24° 0           | T 3  |
| F 4  | 21 28 0  | 20°36'23          | 21°25           | 19°50          | 6°11         | 11° 4          | 9°46           | 14°25            | 14°39          | 15°24          | 1°8             | 29°40  | 28°35  | 10° 9     | 24° 8           | F 4  |
| S 5  | 21 31 56 | 21°34'10          | 39914           | 21°50          | 5°44         | 11°42          | 9°58           | 14°21            | 14°42          | 15°24          | 1° 7            | 29°42  | 28°32  | 10°16     | 24°16           | S 5  |
| S 6  | 21 35 53 | 22°32'00          | 15° 2           | 23°49          | 5°19         | 12°21          | 10°11          | 14°17            | 14°45          | 15°24          | 1° 6            | 29°43  | 28°29  | 10°22     | 24°25           | S 6  |
| M 7  | 21 39 49 | 23°29'50          | 26°53           | 25°47          | 4°57         | 12°59          | 10°24          | 14°13            | 14°47          | 15°24          | 1° 5            | 29°R44 | 28°26  | 10°29     | 24°33           | M 7  |
| T 8  | 21 43 46 | 24°27'43          | 8 <b>Ω</b> 50   | 27°43          | 4°36         | 13°38          | 10°36          | 14° 8            | 14°50          | 15°24          | 1° 3            | 29°44  | 28°22  | 10°36     | 24°41           | T 8  |
| W 9  | 21 47 42 | 25°25'37          | 20°57           | 29°39          | 4°18         | 14°16          | 10°49          | 14° 4            | 14°53          | 15°R24         | 1° 2            | 29°42  | 28°19  | 10°42     | 24°50           | W 9  |
| T 10 | 21 51 39 | 26°23'32          | 3 <b>m</b> ) 14 | 1 <b>m</b> 33  | 4° 2         | 14°55          | 11° 2          | 14° 0            | 14°56          | 15°24          | 1° 1            | 29°39  | 28°16  | 10°49     | 24°58           | T 10 |
| F 11 | 21 55 35 | 27°21'29          | 15°44           | 3°26           | 3°49         | 15°34          | 11°15          | 13°56            | 14°58          | 15°24          | 1° 0            | 29°36  | 28°13  | 10°56     | 25° 6           | F 11 |
| S 12 | 21 59 32 | 28°19'28          | 28°26           | 5°18           | 3°38         | 16°13          | 11°27          | 13°51            | 15° 1          | 15°24          | 0°58            | 29°31  | 28°10  | 11° 2     | 25°14           | S 12 |
| S 13 | 22 3 29  | 29°17'28          | 11 <b>≏</b> 22  | 7° 8           | 3°29         | 16°52          | 11°40          | 13°47            | 15° 4          | 15°24          | 0°57            | 29°26  | 28° 6  | 11° 9     | 25°23           | S 13 |
| M14  | 22 7 25  | 0 <b>m</b> 15'29  | 24°31           | 8°57           | 3°23         | 17°31          | 11°53          | 13°43            | 15° 7          | 15°24          | 0°56            | 29°22  | 28° 3  | 11°16     | 25°31           | M14  |
| T 15 | 22 11 22 | 1°13'32           | 7 <b>M</b> 55   | 10°45          | 3°19         | 18°10          | 12° 6          | 13°38            | 15°10          | 15°24          | 0°54            | 29°19  | 28° 0  | 11°22     | 25°39           | T 15 |
| W16  | 22 15 18 | 2°11'36           | 21°32           | 12°32          | 3°D17        | 18°50          | 12°19          | 13°34            | 15°13          | 15°23          | 0°53            | 29°17  | 27°57  | 11°29     | 25°47           | W16  |
| T 17 | 22 19 15 | 3° 9'42           | 5 <b>₹</b> 25   | 14°17          | 3°18         | 19°29          | 12°32          | 13°29            | 15°16          | 15°23          | 0°52            | 29°D16 | 27°54  | 11°36     | 25°56           | T 17 |
| F 18 | 22 23 11 | 4° 7'49           | 19°31           | 16° 1          | 3°21         | 20° 8          | 12°45          | 13°25            | 15°19          | 15°23          | 0°51            | 29°17  | 27°51  | 11°42     | 26° 4           | F 18 |
| S 19 | 22 27 8  | 5° 5'58           | 3 <b>ප</b> 50   | 17°44          | 3°26         | 20°48          | 12°57          | 13°20            | 15°22          | 15°23          | 0°49            | 29°19  | 27°47  | 11°49     | 26°12           | S 19 |
| S 20 | 22 31 4  | 6° 4'08           | 18°20           | 19°26          | 3°34         | 21°27          | 13°10          | 13°16            | 15°25          | 15°22          | 0°48            | 29°20  | 27°44  | 11°56     | 26°20           | S 20 |
| M21  | 22 35 1  | 7° 2'19           | 2≈57            | 21° 6          | 3°44         | 22° 7          | 13°23          | 13°11            | 15°28          | 15°22          | 0°47            | 29°R20 | 27°41  | 12° 2     | 26°29           | M21  |
| T 22 | 22 38 58 | 8° 0'32           | 17°36           | 22°46          | 3°56         | 22°47          | 13°36          | 13° 6            | 15°31          | 15°22          | 0°46            | 29°19  | 27°38  | 12° 9     | 26°37           | T 22 |
| W23  | 22 42 54 | 8°58'47           | 2 <b>)</b> 10   | 24°24          | 4° 9         | 23°27          | 13°49          | 13° 2            | 15°35          | 15°21          | 0°44            | 29°16  | 27°35  | 12°15     | 26°45           | W23  |
| T 24 | 22 46 51 | 9°57'03           | 16°34           | 26° 1          | 4°25         | 24° 6          | 14° 2          | 12°57            | 15°38          | 15°21          | 0°43            | 29°11  | 27°32  | 12°22     | 26°53           | T 24 |
| F 25 | 22 50 47 | 10°55'22          | 0 <b>Υ</b> 41   | 27°37          | 4°43         | 24°46          | 14°15          | 12°53            | 15°41          | 15°20          | 0°42            | 29° 5  | 27°28  | 12°29     | 27° 1           | F 25 |
| S 26 | 22 54 44 | 11°53'42          | 14°28           | 29°11          | 5° 3         | 25°26          | 14°28          | 12°48            | 15°44          | 15°20          | 0°41            | 28°58  | 27°25  | 12°35     | 27°10           | S 26 |
| S 27 | 22 58 40 | 12°52'04          | 27°50           | 0 <b>ჲ</b> 45  | 5°25         | 26° 7          | 14°41          | 12°43            | 15°48          | 15°19          | 0°39            | 28°51  | 27°22  | 12°42     | 27°18           | S 27 |
| M28  | 23 2 37  | 13°50'28          | 10848           | 2°17           | 5°48         | 26°47          | 14°54          | 12°39            | 15°51          | 15°18          | 0°38            | 28°45  | 27°19  | 12°49     | 27°26           | M28  |
| T 29 | 23 6 33  | 14°48'55          | 23°24           | 3°49           | 6°13         | 27°27          | 15° 7          | 12°34            | 15°54          | 15°18          | 0°37            | 28°41  | 27°16  | 12°55     | 27°34           | T 29 |
| W30  | 23 10 30 | 15°47'24          | 5 <b>∐</b> 41   | 5°19           | 6°40         | 28° 7          | 15°20          | 12°29            | 15°58          | 15°17          | 0°36            | 28°39  | 27°12  | 13° 2     | 27°42           | W30  |
| T 31 | 23 14 26 | 16 <b>m</b> 45'54 | 17 <b>Ⅱ</b> 44  | 6 <b>≏</b> 48  | 7 <b>Ω</b> 8 | 28 <b>≏</b> 48 | 15 <b>m</b> 33 | 12 <b>米</b> 25   | 16 <b>₽</b> 1  | 15 <b>8</b> 16 | 0 <b>∺</b> 34   | 28°D38 | 2795 9 | 1399 9    | 27 <b>\O</b> 50 | T 31 |

Delta T = 172.13 sec

SEPTEMBER 1553 JC 00:00 UT

| Day          | Sid.t             | 0                             | D                                 | φ                     | P              | ♂                        | 4              | ħ                       | )ұ(                     | ¥                       | Р                    | P.                      | v                       | ţ                       | o<br>k                  | Day          |
|--------------|-------------------|-------------------------------|-----------------------------------|-----------------------|----------------|--------------------------|----------------|-------------------------|-------------------------|-------------------------|----------------------|-------------------------|-------------------------|-------------------------|-------------------------|--------------|
| F 1          | 23 18 23          | 17 mg 44'27                   | 29∏36                             | 8 <b>₽</b> 16         | 7 <b>Ω</b> 38  | 29 <b>≏</b> 28           | 15 <b>M</b> 46 | 12°R20                  | 16 <b>♀</b> 5           | 15°R16                  | 0°R33                | 28939                   | 2795 6                  | 139915                  | 27 <b>Ω</b> 58          | F 1          |
| S 2          | 23 22 20          | 18°43'03                      | 119524                            | 9°43                  | 8°10           | OM 9                     | 15°59          | 12 <b>)</b> 16          | 16° 8                   | 15 <b>8</b> 15          | 0 <b>)</b> €32       | 28°40                   | 27° 3                   | 13°22                   | 28° 6                   | S 2          |
| S 3          | 23 26 16          | 19°41'40                      | 23°13                             | 11° 9                 | 8°42           | 0°50                     | 16°12          | 12°11                   | 16°11                   | 15°14                   | 0°31                 | 28°R41                  | 27° 0                   | 13°29                   | 28°14                   | S 3          |
| M 4          | 23 30 13          | 20°40'20                      | 5 <b>Ω</b> 8                      | 12°33                 | 9°17           | 1°30                     | 16°25          | 12° 6                   | 16°15                   | 15°13                   | 0°30                 | 28°41                   | 26°57                   | 13°35                   | 28°22                   | M 4          |
| T 5          | 23 34 9           | 21°39'02                      | 17°12                             | 13°57                 | 9°52           | 2°11                     | 16°38          | 12° 2                   | 16°18                   | 15°13                   | 0°28                 | 28°39                   | 26°53                   | 13°42                   | 28°30                   | T 5          |
| W 6          | 23 38 6           | 22°37'46                      | 29°29                             | 15°19                 | 10°29          | 2°52                     | 16°51          | 11°57                   | 16°22                   | 15°12                   | 0°27                 | 28°35                   | 26°50                   | 13°49                   | 28°38                   | W 6          |
| T 7          | 23 42 2           | 23°36'32                      | 12 Mg 2                           | 16°40                 | 11° 7          | 3°33                     | 17° 4          | 11°53                   | 16°25                   | 15°11                   | 0°26                 | 28°28                   | 26°47                   | 13°55                   | 28°46                   | T 7          |
| F 8          | 23 45 59          | 24°35'20                      | 24°50                             | 18° 0                 | 11°46          | 4°14                     | 17°17          | 11°48                   | 16°29                   | 15°10                   | 0°25                 | 28°20                   | 26°44                   | 14° 2                   | 28°54                   | F 8          |
| S 9          | 23 49 55          | 25°34'10                      | 7 <b>≙</b> 54                     | 19°18                 | 12°27          | 4°55                     | 17°30          | 11°44                   | 16°33                   | 15° 9                   | 0°24                 | 28°10                   | 26°41                   | 14° 8                   | 29° 2                   | S 9          |
| S 10         | 23 53 52          | 26°33'02                      | 21°13                             | 20°35                 | 13° 8          | 5°36                     | 17°43          | 11°40                   | 16°36                   | 15° 8                   | 0°23                 | 28° 0                   | 26°37                   | 14°15                   | 29° 9                   | S 10         |
| M11          | 23 57 49          | 27°31'55                      | 4 <b>M</b> .45                    | 21°51                 | 13°51          | 6°18                     | 17°56          | 11°35                   | 16°40                   | 15° 7                   | 0°22                 | 27°50                   | 26°34                   | 14°22                   | 29°17                   | M11          |
| T 12         | 0 1 45            | 28°30'51                      | 18°27                             | 23° 5                 | 14°34          | 6°59                     | 18° 9          | 11°31                   | 16°43                   | 15° 6                   | 0°20                 | 27°42                   | 26°31                   | 14°28                   | 29°25                   | T 12         |
| W13          | 0 5 42            | 29°29'49                      | 2 <b>,7</b> 17                    | 24°17                 | 15°19          | 7°40                     | 18°22          | 11°27                   | 16°47                   | 15° 5                   | 0°19                 | 27°37                   | 26°28                   | 14°35                   | 29°32                   | W13          |
| T 14         | 0 9 38            | 0₾28'48                       | 16°15                             | 25°28                 | 16° 5          | 8°22                     | 18°35          | 11°22                   | 16°51                   | 15° 4                   | 0°18                 | 27°34                   | 26°25                   | 14°42                   | 29°40                   | T 14         |
| F 15         | 0 13 35           | 1°27'50                       | 0중18                              | 26°37                 | 16°51          | 9° 4                     | 18°47          | 11°18                   | 16°54                   | 15° 3                   | 0°17                 | 27°D33                  | 26°22                   | 14°48                   | 29°48                   | F 15         |
| S 16         | 0 17 31           | 2°26'53                       | 14°25                             | 27°43                 | 17°38          | 9°45                     | 19° 0          | 11°14                   | 16°58                   | 15° 2                   | 0°16                 | 27°33                   | 26°18                   | 14°55                   | 29°55                   | S 16         |
| S 17         | 0 21 28           | 3°25'57                       | 28°36                             | 28°48                 | 18°26          | 10°27                    | 19°13          | 11°10                   | 17° 2                   | 15° 0                   | 0°15                 | 27°R34                  | 26°15                   | 15° 2                   | 0 Mp 3                  | S 17         |
| M18          | 0 25 24           | 4°25'04                       | 12 <b>≈</b> 49                    | 29°51                 | 19°15          | 11° 9                    | 19°26          | 11° 6                   | 17° 5                   | 14°59                   | 0°14                 | 27°33                   | 26°12                   | 15° 8                   | 0°10                    | M18          |
| T 19         | 0 29 21           | 5°24'12                       | 27° 2                             | 0 <b>M</b> .51        | 20° 5          | 11°51                    | 19°39          | 11° 2                   | 17° 9                   | 14°58                   | 0°13                 | 27°30                   | 26° 9                   | 15°15                   | 0°18                    | T 19         |
| W20          | 0 33 18           | 6°23'22                       | 11 <b>)</b> 11                    | 1°48                  | 20°56          | 12°32                    | 19°51          | 10°58                   | 17°13                   | 14°57                   | 0°12                 | 27°24                   | 26° 6                   | 15°22                   | 0°25                    | W20          |
| T 21         | 0 37 14           | 7°22'34                       | 25°13                             | 2°42                  | 21°47          | 13°14                    | 20° 4          | 10°54                   | 17°17                   | 14°56                   | 0°11                 | 27°16                   | 26° 3                   | 15°28                   | 0°32                    | T 21         |
| F 22         | 0 41 11 0 45 7    | 8°21'48                       | 9 <b>Υ</b> 2                      | 3°34                  | 22°39          | 13°57                    | 20°17          | 10°50                   | 17°20                   | 14°54                   | 0°10<br>0° 9         | 27° 5                   | 25°59                   | 15°35                   | 0°40                    | F 22         |
| S 23         | 0 45 7            | 9°21'04                       | 22°35                             | 4°22                  | 23°32          | 14°39                    | 20°29          | 10°46                   | 17°24                   | 14°53                   | 0° 9                 | 26°53                   | 25°56                   | 15°42                   | 0°47                    | S 23         |
| S 24         | 0 49 4            | 10°20'22                      | 5 <b>8</b> 50                     | 5° 6                  | 24°25          | 15°21                    | 20°42          | 10°43                   | 17°28                   | 14°52                   | 0°8                  | 26°41                   | 25°53                   | 15°48                   | 0°54                    | S 24         |
| M25          | 0 53 0            | 11°19'42                      | 18°43                             | 5°45                  | 25°19          | 16° 3                    | 20°55          | 10°39                   | 17°32                   | 14°50                   | 0° 7                 | 26°30                   | 25°50                   | 15°55                   | 1° 1                    | M25          |
| T 26         | 0 56 57           | 12°19'05                      | 1 <b>П</b> 17                     | 6°21                  | 26°14          | 16°46                    | 21° 7          | 10°35                   | 17°35                   | 14°49                   | 0° 7                 | 26°22                   | 25°47                   | 16° 1                   | 1° 8                    | T 26         |
| W27          | 1 0 53            | 13°18'30                      | 13°34                             | 6°51                  | 27° 9          | 17°28                    | 21°20          | 10°32                   | 17°39                   | 14°48                   | 0° 6                 | 26°16                   | 25°43                   | 16° 8                   | 1°15                    | W27          |
| T 28         | 1 4 50            | 14°17'57                      | 25°36                             | 7°16                  | 28° 5          | 18°10                    | 21°32          | 10°29                   | 17°43                   | 14°46                   | 0° 5                 | 26°12                   | 25°40                   | 16°15                   | 1°22                    | T 28         |
| F 29<br>S 30 | 1 8 46<br>1 12 43 | 15°17'27<br>16 <b>Ω</b> 16'58 | 7 <b>9</b> 528<br>19 <b>9</b> 516 | 7°35<br>7 <b>ጤ</b> 47 | 29° 1          | 18°53<br>19 <b>M</b> .36 | 21°45          | 10°25<br>10 <b>¥</b> 22 | 17°47<br>17 <b>Ω</b> 50 | 14°45<br>14 <b>8</b> 43 | 0° 4<br>0 <b>∺</b> 3 | 26°11<br>26 <b>©</b> 11 | 25°37<br>25 <b>©</b> 34 | 16°21<br>16 <b>©</b> 28 | 1°29<br>1 <b>m</b> ) 36 | F 29<br>S 30 |
| 5 30         | 1 12 43           | 10==10:38                     | 195910                            | / III.4 /             | 29 <b>Ω</b> 58 | 1911636                  | 21 Mp 57       | 1U <b>T</b> 22          | 1/==30                  | 14043                   | υ <b>π</b> 3         | 11وڪ12                  | 23 عن 4                 | 100028                  | 1 111/36                | 3 30         |

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Julian Calendar 1 Sept. 1553 == Greg. Calendar 11 Sept. 1553

#### OCTOBER 1553 JC 00:00 UT Day Sidt Θ Φ Φ Φ Φ Φ Φ Day

| Day  | Sia.t   | 0                 | 2)              | ¥              | ¥             | σ.              | 4              | υ              | ጥ              | <b>+</b>       | E            | 9.9    | 9.6   | <b>*</b> | 9              | Day  |
|------|---------|-------------------|-----------------|----------------|---------------|-----------------|----------------|----------------|----------------|----------------|--------------|--------|-------|----------|----------------|------|
| S 1  | 1 16 40 | 17 <b>≏</b> 16'33 | 1 <b>Ω</b> 6    | 7°R53          | 0 <b>m</b> 56 | 20 <b>M</b> 18  | 22 Mp 9        | 10°R19         | 17 <b>♀</b> 54 | 14°R42         | 0°R 2        | 26°R11 | 25931 | 16935    | 1 <b>M</b> 43  | S 1  |
| M 2  | 1 20 36 | 18°16'09          | 13° 2           | 7 <b>M</b> .51 | 1°54          | 21° 1           | 22°22          | 10 <b>米</b> 15 | 17°58          | 14841          | 0 <b>米</b> 2 | 269510 | 25°28 | 16°41    | 1°50           | M 2  |
| T 3  | 1 24 33 | 19°15'48          | 25° 9           | 7°41           | 2°52          | 21°44           | 22°34          | 10°12          | 18° 2          | 14°39          | 0° 1         | 26° 7  | 25°24 | 16°48    | 1°57           | T 3  |
| W 4  | 1 28 29 | 20°15'29          | 7 <b>m</b> 33   | 7°23           | 3°51          | 22°27           | 22°46          | 10° 9          | 18° 6          | 14°38          | 0° 0         | 26° 1  | 25°21 | 16°55    | 2° 3           | W 4  |
| T 5  | 1 32 26 | 21°15'12          | 20°16           | 6°55           | 4°51          | 23°10           | 22°58          | 10° 6          | 18° 9          | 14°36          | 29≈59        | 25°53  | 25°18 | 17° 1    | 2°10           | T 5  |
| F 6  | 1 36 22 | 22°14'57          | 3 <b>≏</b> 20   | 6°19           | 5°51          | 23°53           | 23°11          | 10° 4          | 18°13          | 14°35          | 29°59        | 25°42  | 25°15 | 17° 8    | 2°16           | F 6  |
| S 7  | 1 40 19 | 23°14'44          | 16°45           | 5°35           | 6°51          | 24°36           | 23°23          | 10° 1          | 18°17          | 14°33          | 29°58        | 25°30  | 25°12 | 17°15    | 2°23           | S 7  |
| S 8  | 1 44 15 | 24°14'34          | 0 <b>M</b> 29   | 4°41           | 7°52          | 25°19           | 23°35          | 9°58           | 18°21          | 14°31          | 29°57        | 25°17  | 25° 8 | 17°21    | 2°29           | S 8  |
| M 9  | 1 48 12 | 25°14'25          | 14°27           | 3°41           | 8°53          | 26° 3           | 23°47          | 9°56           | 18°24          | 14°30          | 29°57        | 25° 5  | 25° 5 | 17°28    | 2°35           | M 9  |
| T 10 | 1 52 9  | 26°14'18          | 28°35           | 2°33           | 9°55          | 26°46           | 23°59          | 9°53           | 18°28          | 14°28          | 29°56        | 24°55  | 25° 2 | 17°35    | 2°42           | T 10 |
| W11  | 1 56 5  | 27°14'14          | 12 <b>,7</b> 49 | 1°20           | 10°57         | 27°29           | 24°11          | 9°51           | 18°32          | 14°27          | 29°56        | 24°47  | 24°59 | 17°41    | 2°48           | W11  |
| T 12 | 2 0 2   | 28°14'10          | 2 <u>7</u> ° 4  | 0° 4           | 11°59         | 28°13           | 24°22          | 9°49           | 18°36          | 14°25          | 29°55        | 24°43  | 24°56 | 17°48    | 2°54           | T 12 |
| F 13 | 2 3 58  | 29°14'09          | 11 <b>궁</b> 16  | 28 <b>≏</b> 47 | 13° 2         | 28°56           | 24°34          | 9°46           | 18°39          | 14°23          | 29°54        | 24°41  | 24°53 | 17°54    | 3° 0           | F 13 |
| S 14 | 2 7 55  | 0 <b>M</b> .14'09 | 25°24           | 27°32          | 14° 5         | 29°40           | 24°46          | 9°44           | 18°43          | 14°22          | 29°54        | 24°41  | 24°49 | 18° 1    | 3° 6           | S 14 |
| S 15 | 2 11 51 | 1°14'11           | 9≈27            | 26°20          | 15° 8         | 0 <b>₹</b> 24   | 24°58          | 9°42           | 18°47          | 14°20          | 29°53        | 24°40  | 24°46 | 18° 8    | 3°12           | S 15 |
| M16  | 2 15 48 | 2°14'14           | 23°25           | 25°13          | 16°12         | 1° 7            | 25° 9          | 9°40           | 18°51          | 14°19          | 29°53        | 24°39  | 24°43 | 18°14    | 3°18           | M16  |
| T 17 | 2 19 44 | 3°14'19           | 7 <b>∺</b> 16   | 24°15          | 17°16         | 1°51            | 25°21          | 9°39           | 18°54          | 14°17          | 29°53        | 24°36  | 24°40 | 18°21    | 3°23           | T 17 |
| W18  | 2 23 41 | 4°14'26           | 21° 0           | 23°26          | 18°20         | 2°35            | 25°32          | 9°37           | 18°58          | 14°15          | 29°52        | 24°29  | 24°37 | 18°28    | 3°29           | W18  |
| T 19 | 2 27 38 | 5°14'34           | <b>4Υ</b> 35    | 22°48          | 19°25         | 3°19            | 25°44          | 9°35           | 19° 2          | 14°14          | 29°52        | 24°20  | 24°34 | 18°34    | 3°35           | T 19 |
| F 20 | 2 31 34 | 6°14'43           | 18° 0           | 22°21          | 20°30         | 4° 3            | 25°55          | 9°34           | 19° 5          | 14°12          | 29°51        | 24° 9  | 24°30 | 18°41    | 3°40           | F 20 |
| S 21 | 2 35 31 | 7°14'55           | 1812            | 22° 6          | 21°35         | 4°47            | 26° 6          | 9°32           | 19° 9          | 14°10          | 29°51        | 23°56  | 24°27 | 18°48    | 3°46           | S 21 |
| S 22 | 2 39 27 | 8°15'08           | 14° 9           | 22°D 3         | 22°40         | 5°31            | 26°17          | 9°31           | 19°12          | 14° 9          | 29°51        | 23°43  | 24°24 | 18°54    | 3°51           | S 22 |
| M23  | 2 43 24 | 9°15'23           | 26°51           | 22°10          | 23°46         | 6°15            | 26°29          | 9°30           | 19°16          | 14° 7          | 29°50        | 23°31  | 24°21 | 19° 1    | 3°56           | M23  |
| T 24 | 2 47 20 | 10°15'40          | 9 <b>Ⅱ</b> 17   | 22°29          | 24°52         | 6°59            | 26°40          | 9°29           | 19°20          | 14° 5          | 29°50        | 23°21  | 24°18 | 19° 8    | 4° 1           | T 24 |
| W25  | 2 51 17 | 11°15'59          | 21°29           | 22°56          | 25°59         | 7°44            | 26°51          | 9°28           | 19°23          | 14° 3          | 29°50        | 23°14  | 24°14 | 19°14    | 4° 6           | W25  |
| T 26 | 2 55 13 | 12°16'20          | 39528           | 23°33          | 27° 5         | 8°28            | 27° 2          | 9°27           | 19°27          | 14° 2          | 29°50        | 23°10  | 24°11 | 19°21    | 4°11           | T 26 |
| F 27 | 2 59 10 | 13°16'42          | 15°19           | 24°18          | 28°12         | 9°12            | 27°12          | 9°26           | 19°30          | 14° 0          | 29°49        | 23° 8  | 24° 8 | 19°28    | 4°16           | F 27 |
| S 28 | 3 3 7   | 14°17'07          | 27° 6           | 25°10          | 29°19         | 9°57            | 27°23          | 9°25           | 19°34          | 13°58          | 29°49        | 23°D 8 | 24° 5 | 19°34    | 4°21           | S 28 |
| S 29 | 3 7 3   | 15°17'33          | 8 <b>Ω</b> 55   | 26° 8          | 0 <b>ჲ</b> 26 | 10°41           | 27°34          | 9°25           | 19°37          | 13°57          | 29°49        | 23° 8  | 24° 2 | 19°41    | 4°26           | S 29 |
| M30  | 3 11 0  | 16°18'02          | 20°49           | 27°12          | 1°34          | 11°26           | 27°44          | 9°24           | 19°41          | 13°55          | 29°49        | 23°R 8 | 23°59 | 19°47    | 4°30           | M30  |
| T 31 | 3 14 56 | 17 <b>M</b> 18'32 | 2 Mp 56         | 28 <b>≏</b> 20 | 2 <b>≏</b> 42 | 12 <b>,7</b> 11 | 27 <b>m</b> 55 | 9 <b>∺</b> 24  | 19 <b>≏</b> 44 | 13 <b>8</b> 53 | 29≈49        | 2399 7 | 23955 | 19954    | 4 <b>m</b> /35 | T 31 |

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NOVEMBER 1553 JC 00:00 UT

| Day          | Sid.t              | 0                              | D                       | ğ                       | ·                      | ð                     | 4                     | ħ                     | )ұ(                     | 卉                      | В                       | ß                      | v                       | ţ              | ę,                   | Day          |
|--------------|--------------------|--------------------------------|-------------------------|-------------------------|------------------------|-----------------------|-----------------------|-----------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------|----------------|----------------------|--------------|
| W 1          | 3 18 53            | 18 <b>M</b> 19'04              | 15 <b>m</b> /21         | 29 <b>₾</b> 32          | 3 <b>≏</b> 50          | 12 <b>×</b> 755       | 28 Mp 5               | 9°R23                 | 19 <b>≏</b> 48          | 13°R52                 | 29°R49                  | 23°R 3                 | 23952                   | 20ණ 1          | 4 <b>m</b> /39       | W 1          |
| T 2          | 3 22 49            | 19°19'38                       | 28° 7                   | 0 <b>M</b> .48          | 4°58                   | 13°40                 | 28°15                 | 9 <b>∺</b> 23         | 19°51                   | 13850                  | 29≈49                   | 22957                  | 23°49                   | 20° 7          | 4°44                 | T 2          |
| F 3          | 3 26 46            | 20°20'13                       | 11 <b>≙</b> 17          | 2° 7                    | 6° 6                   | 14°25                 | 28°26                 | 9°D23                 | 19°55                   | 13°48                  | 29°49                   | 22°49                  | 23°46                   | 20°14          | 4°48                 | F 3          |
| S 4          | 3 30 42            | 21°20'50                       | 24°54                   | 3°28                    | 7°15                   | 15°10                 | 28°36                 | 9°23                  | 19°58                   | 13°47                  | 29°D49                  | 22°39                  | 23°43                   | 20°21          | 4°52                 | S 4          |
| S 5          | 3 34 39            | 22°21'29                       | 8 <b>M</b> 54           | 4°52                    | 8°23                   | 15°55                 | 28°46                 | 9°23                  | 20° 1                   | 13°45                  | 29°49                   | 22°29                  | 23°40                   | 20°27          | 4°56                 | S 5          |
| M 6          | 3 38 36            | 23°22'10                       | 23°14                   | 6°17                    | 9°32                   | 16°40                 | 28°56                 | 9°24                  | 20° 5                   | 13°43                  | 29°49                   | 22°19                  | 23°36                   | 20°34          | 5° 0                 | M 6          |
| T 7          | 3 42 32            | 24°22'52                       | 7 <b>.</b> ₹48          | 7°44                    | 10°41                  | 17°25                 | 29° 6                 | 9°24                  | 20° 8                   | 13°42                  | 29°49                   | 22°11                  | 23°33                   | 20°41          | 5° 4                 | T 7          |
| W 8          | 3 46 29            | 25°23'35                       | 2 <u>2</u> °29          | 9°12                    | 11°51                  | 18°10                 | 29°15                 | 9°24                  | 20°11                   | 13°40                  | 29°49                   | 22° 5                  | 23°30                   | 20°47          | 5°8                  | W 8          |
| T 9          | 3 50 25            | 26°24'20                       | 7 <b>る</b> 9            | 10°41                   | 13° 0                  | 18°55                 | 29°25                 | 9°25                  | 20°15                   | 13°38                  | 29°49                   | 22° 2                  | 23°27                   | 20°54          | 5°11                 | T 9          |
| F 10         | 3 54 22            | 27°25'05                       | 21°43                   | 12°11                   | 14°10                  | 19°41                 | 29°35                 | 9°26                  | 20°18                   | 13°37                  | 29°49                   | 22°D 1                 | 23°24                   | 21° 1          | 5°15                 | F 10         |
| S 11         | 3 58 18            | 28°25'52                       | 6≈ 6                    | 13°41                   | 15°19                  | 20°26                 | 29°44                 | 9°26                  | 20°21                   | 13°35                  | 29°49                   | 22° 1                  | 23°20                   | 21° 7          | 5°18                 | S 11         |
| S 12         | 4 2 15             | 29°26'40                       | 20°15                   | 15°12                   | 16°29                  | 21°11                 | 29°53                 | 9°27                  | 20°24                   | 13°33                  | 29°49                   | 22° 2                  | 23°17                   | 21°14          | 5°22                 | S 12         |
| M13          | 4 6 1 1            | 0 <b>∡</b> 27'28               | 4 <b>) (</b> 11         | 16°44                   | 17°39                  | 21°57                 | 0 <b>요</b> 2          | 9°28                  | 20°27                   | 13°32                  | 29°50                   | 22°R 2                 | 23°14                   | 21°20          | 5°25                 | M13          |
| T 14         | 4 10 8             | 1°28'18                        | 17°51                   | 18°16                   | 18°49                  | 22°42                 | 0°12                  | 9°29                  | 20°30                   | 13°30                  | 29°50                   | 22° 1                  | 23°11                   | 21°27          | 5°28                 | T 14         |
| W15          | 4 14 5             | 2°29'08                        | 1 <b>Υ</b> 19           | 19°48                   | 20° 0                  | 23°28                 | 0°21                  | 9°31                  | 20°33                   | 13°29                  | 29°50                   | 21°57                  | 23° 8                   | 21°34          | 5°31                 | W15          |
| T 16         | 4 18 1             | 3°29'59                        | 14°33                   | 21°21                   | 21°10                  | 24°13                 | 0°29                  | 9°32                  | 20°36                   | 13°27                  | 29°51                   | 21°52                  | 23° 5                   | 21°40          | 5°34                 | T 16         |
| F 17         | 4 21 58            | 4°30'51                        | 27°34                   | 22°53                   | 22°21                  | 24°59                 | 0°38                  | 9°33                  | 20°39                   | 13°25                  | 29°51                   | 21°44                  | 23° 1                   | 21°47          | 5°37                 | F 17         |
| S 18         | 4 25 54            | 5°31'45                        | 10824                   | 24°26                   | 23°31                  | 25°44                 | 0°47                  | 9°35                  | 20°42                   | 13°24                  | 29°51                   | 21°36                  | 22°58                   | 21°54          | 5°40                 | S 18         |
| S 19         | 4 29 51            | 6°32'39                        | 23° 1                   | 25°59                   | 24°42                  | 26°30                 | 0°55                  | 9°37                  | 20°45                   | 13°22                  | 29°52                   | 21°27                  | 22°55                   | 22° 0          | 5°42                 | S 19         |
| M20          | 4 33 47            | 7°33'34                        | 5 <b>Ⅱ</b> 26           | 27°32                   | 25°53                  | 27°16                 | 1° 4                  | 9°38                  | 20°48                   | 13°21                  | 29°52                   | 21°19                  | 22°52                   | 22° 7          | 5°45                 | M20          |
| T 21         | 4 37 44            | 8°34'30                        | 17°40                   | 29° 5                   | 27° 4                  | 28° 2                 | 1°12                  | 9°40                  | 20°51                   | 13°19                  | 29°52                   | 21°12                  | 22°49                   | 22°14          | 5°47                 | T 21         |
| W22          | 4 41 40            | 9°35'27                        | 29°43                   | 0 <b>₹</b> 39           | 28°16                  | 28°47                 | 1°20                  | 9°42                  | 20°54                   | 13°18                  | 29°53                   | 21° 8                  | 22°46                   | 22°20          | 5°49                 | W22          |
| T 23<br>F 24 | 4 45 37            | 10°36'25<br>11°37'24           | 11 <b>©</b> 38<br>23°27 | 2°12<br>3°45            | 29°27                  | 29°33                 | 1°28                  | 9°44                  | 20°57<br>20°59          | 13°16<br>13°15         | 29°53<br>29°54          | 21° 5<br>21°D 5        | 22°42<br>22°39          | 22°27<br>22°34 | 5°51<br>5°53         | T 23<br>F 24 |
| S 25         | 4 49 34<br>4 53 30 | 11°37′24<br>12°38′24           | 5 <b>Ω</b> 13           | 5°19                    | 0 <b>M</b> ₊38<br>1°50 | 0 <b>る</b> 19<br>1°5  | 1°36<br>1°44          | 9°46<br>9°49          | 20°39<br>21° 2          | 13°13                  | 29°54<br>29°54          | 21° 5                  | 22°36                   | 22°34<br>22°40 | 5°55                 | S 25         |
|              |                    |                                |                         |                         |                        | _                     |                       |                       |                         |                        |                         | -                      |                         | -              |                      |              |
| S 26         | 4 57 27            | 13°39'26                       | 17° 1                   | 6°52                    | 3° 1                   | 1°51                  | 1°51                  | 9°51                  | 21° 5                   | 13°12                  | 29°55                   | 21° 8                  | 22°33                   | 22°47          | 5°57                 | S 26         |
| M27          | 5 1 23             | 14°40'28                       | 28°55                   | 8°26                    | 4°13                   | 2°37                  | 1°59                  | 9°53                  | 21° 7                   | 13°11                  | 29°56                   | 21° 9                  | 22°30                   | 22°53          | 5°59                 | M27          |
| T 28         | 5 5 20             | 15°41'31                       | 10 10 59                | 10° 0                   | 5°25                   | 3°23                  | 2° 6                  | 9°56                  | 21°10                   | 13° 9                  | 29°56                   | 21°R10                 | 22°26                   | 23° 0          | 6° 0                 | T 28         |
| W29<br>T 30  | 5 9 16<br>5 13 13  | 16°42'35<br>17 <b>×</b> 743'40 | 23°20<br>6 <u>0</u> 2   | 11°34<br>13 <b>×7</b> 7 | 6°37<br>7 <b>Ո</b> L49 | 4°10<br>4 <b>⋜</b> 56 | 2°13<br>2 <u>•</u> 21 | 9°59<br>10 <b>米</b> 1 | 21°13<br>21 <b>Ω</b> 15 | 13° 8<br>13 <b>8</b> 7 | 29°57<br>29 <b>≈</b> 57 | 21°10<br>21 <b>©</b> 9 | 22°23<br>22 <b>©</b> 20 | 23° 7<br>23©13 | 6° 2<br>6 <b>m</b> 3 | W29<br>T 30  |
| 1 30         | 3 13 13            | 1/ <b>X</b> '45'40             | 0== 2                   | 13 <b>X</b> , /         | /IIL49                 | 4000                  | ∠ <b>≟</b> ∠1         | 10 <b>π</b> l         | ∠1 <b>≟</b> 13          | 130 /                  | ∠9 <b>≈</b> ×3 /        | ∠1 <b>≥9</b> 9         | 225970                  | 13 عاد 2       | O IIJ 3              | 1 30         |

Delta T = 171.59 sec

Julian Calendar 1 Nov. 1553 == Greg. Calendar 11 Nov. 1553

#### DECEMBER 1553 JC 00:00 UT

| Day  | Sid.t   | 0                  | D                 | φ               | φ              | ♂             | 4             | ħ              | )ұ(            | ¥              | Р             | ₽.     | Ω      | Ç      | <del>د</del> 0 | Day  |
|------|---------|--------------------|-------------------|-----------------|----------------|---------------|---------------|----------------|----------------|----------------|---------------|--------|--------|--------|----------------|------|
| F 1  | 5 17 9  | 18 <b>×</b> 144'46 | 19 <b>♀</b> 9     | 14 <b>×</b> 741 | 9 <b>™</b> 1   | 5 <b>る</b> 42 | 2 <b>ჲ</b> 27 | 10 <b>)</b> 4  | 21 <b>≏</b> 17 | 13°R 5         | 29≈58         | 21°R 6 | 229517 | 239520 | 6Mp 4          | F 1  |
| S 2  | 5 21 6  | 19°45'53           | 2 <b>M</b> .44    | 16°16           | 10°13          | 6°28          | 2°34          | 10° 7          | 21°20          | 138 4          | 29°59         | 2199 1 | 22°14  | 23°27  | 6° 5           | S 2  |
| S 3  | 5 25 3  | 20°47'01           | 16°46             | 17°50           | 11°26          | 7°15          | 2°41          | 10°10          | 21°22          | 13° 3          | 29°59         | 20°57  | 22°11  | 23°33  | 6° 6           | S 3  |
| M 4  | 5 28 59 | 21°48'10           | 13 <sup>-13</sup> | 19°24           | 12°38          | 8° 1          | 2°47          | 10°13          | 21°25          | 13° 1          | 0 <b>)</b> 0  | 20°52  | 22° 7  | 23°40  | 6° 7           | M 4  |
| T 5  | 5 32 56 | 22°49'19           | 16° 1             | 20°59           | 13°51          | 8°47          | 2°54          | 10°17          | 21°27          | 13° 0          | 0° 1          | 20°48  | 22° 4  | 23°47  | 6° 8           | T 5  |
| W 6  | 5 36 52 | 23°50'29           | 1ਰ 1              | 22°34           | 15° 3          | 9°34          | 3° 0          | 10°20          | 21°29          | 12°59          | 0° 2          | 20°45  | 22° 1  | 23°53  | 6° 9           | W 6  |
| T 7  | 5 40 49 | 24°51'39           | 16° 5             | 24° 9           | 16°16          | 10°20         | 3° 6          | 10°23          | 21°31          | 12°58          | 0° 3          | 20°D44 | 21°58  | 24° 0  | 6° 9           | T 7  |
| F 8  | 5 44 45 | 25°52'50           | 1≈ 4              | 25°44           | 17°28          | 11° 7         | 3°12          | 10°27          | 21°33          | 12°57          | 0° 4          | 20°45  | 21°55  | 24° 7  | 6°10           | F 8  |
| S 9  | 5 48 42 | 26°54'00           | 15°50             | 27°20           | 18°41          | 11°54         | 3°18          | 10°30          | 21°36          | 12°56          | 0° 4          | 20°46  | 21°52  | 24°13  | 6°10           | S 9  |
| S 10 | 5 52 38 | 27°55'11           | 0 <b>₩</b> 18     | 28°55           | 19°54          | 12°40         | 3°23          | 10°34          | 21°38          | 12°54          | 0° 5          | 20°47  | 21°48  | 24°20  | 6°10           | S 10 |
| M11  | 5 56 35 | 28°56'21           | 14°24             | 0 <b>궁</b> 31   | 21° 7          | 13°27         | 3°29          | 10°38          | 21°40          | 12°53          | 0° 6          | 20°48  | 21°45  | 24°27  | 6°R10          | M11  |
| T 12 | 6 0 32  | 29°57'32           | 28° 9             | 2° 8            | 22°20          | 14°13         | 3°34          | 10°42          | 21°42          | 12°52          | 0° 7          | 20°R49 | 21°42  | 24°33  | 6°10           | T 12 |
| W13  | 6 4 28  | 0중58'42            | 11 <b>Y</b> 32    | 3°44            | 23°33          | 15° 0         | 3°39          | 10°46          | 21°43          | 12°51          | 0° 8          | 20°49  | 21°39  | 24°40  | 6°10           | W13  |
| T 14 | 6 8 25  | 1°59'52            | 24°36             | 5°21            | 24°46          | 15°47         | 3°44          | 10°50          | 21°45          | 12°50          | 0° 9          | 20°47  | 21°36  | 24°46  | 6° 9           | T 14 |
| F 15 | 6 12 21 | 3° 1'02            | 7 <b>8</b> 23     | 6°58            | 25°59          | 16°34         | 3°49          | 10°54          | 21°47          | 12°49          | 0°10          | 20°45  | 21°32  | 24°53  | 6° 9           | F 15 |
| S 16 | 6 16 18 | 4° 2'12            | 19°55             | 8°35            | 27°12          | 17°21         | 3°53          | 10°58          | 21°49          | 12°48          | 0°11          | 20°43  | 21°29  | 25° 0  | 6° 8           | S 16 |
| S 17 | 6 20 14 | 5° 3'22            | 2 <b>Ⅱ</b> 15     | 10°13           | 28°25          | 18° 7         | 3°58          | 11° 3          | 21°51          | 12°48          | 0°12          | 20°40  | 21°26  | 25° 6  | 6° 8           | S 17 |
| M18  | 6 24 11 | 6° 4'31            | 14°24             | 11°51           | 29°38          | 18°54         | 4° 2          | 11° 7          | 21°52          | 12°47          | 0°13          | 20°38  | 21°23  | 25°13  | 6° 7           | M18  |
| T 19 | 6 28 8  | 7° 5'41            | 26°25             | 13°29           | 0 <b>才</b> 51  | 19°41         | 4° 6          | 11°11          | 21°54          | 12°46          | 0°14          | 20°36  | 21°20  | 25°20  | 6° 6           | T 19 |
| W20  | 6 32 4  | 8° 6'51            | 8920              | 15° 8           | 2° 5           | 20°28         | 4°10          | 11°16          | 21°55          | 12°45          | 0°15          | 20°35  | 21°17  | 25°26  | 6° 5           | W20  |
| T 21 | 6 36 1  | 9° 8'00            | 20°10             | 16°47           | 3°18           | 21°15         | 4°14          | 11°21          | 21°57          | 12°44          | 0°16          | 20°D35 | 21°13  | 25°33  | 6° 4           | T 21 |
| F 22 | 6 39 57 | 10° 9'09           | 1 <b>Q</b> 57     | 18°26           | 4°31           | 22° 2         | 4°17          | 11°25          | 21°58          | 12°43          | 0°18          | 20°35  | 21°10  | 25°40  | 6° 3           | F 22 |
| S 23 | 6 43 54 | 11°10'18           | 13°45             | 20° 5           | 5°45           | 22°49         | 4°21          | 11°30          | 22° 0          | 12°43          | 0°19          | 20°36  | 21° 7  | 25°46  | 6° 1           | S 23 |
| S 24 | 6 47 50 | 12°11'27           | 25°35             | 21°45           | 6°58           | 23°36         | 4°24          | 11°35          | 22° 1          | 12°42          | 0°20          | 20°36  | 21° 4  | 25°53  | 6° 0           | S 24 |
| M25  | 6 51 47 | 13°12'36           | 7 <b>m</b> 31     | 23°24           | 8°12           | 24°23         | 4°27          | 11°40          | 22° 2          | 12°41          | 0°21          | 20°37  | 21° 1  | 26° 0  | 5°58           | M25  |
| T 26 | 6 55 43 | 14°13'45           | 19°37             | 25° 4           | 9°26           | 25°10         | 4°30          | 11°45          | 22° 4          | 12°41          | 0°22          | 20°38  | 20°58  | 26° 6  | 5°57           | T 26 |
| W27  | 6 59 40 | 15°14'54           | 1 <b>≏</b> 57     | 26°43           | 10°39          | 25°57         | 4°33          | 11°50          | 22° 5          | 12°40          | 0°24          | 20°39  | 20°54  | 26°13  | 5°55           | W27  |
| T 28 | 7 3 3 7 | 16°16'02           | 14°35             | 28°23           | 11°53          | 26°44         | 4°35          | 11°55          | 22° 6          | 12°40          | 0°25          | 20°R39 | 20°51  | 26°20  | 5°53           | T 28 |
| F 29 | 7 7 33  | 17°17'11           | 27°34             | 0≈ 2            | 13° 6          | 27°32         | 4°37          | 12° 1          | 22° 7          | 12°39          | 0°26          | 20°39  | 20°48  | 26°26  | 5°51           | F 29 |
| S 30 | 7 11 30 | 18°18'19           | 10 <b>M</b> 59    | 1°40            | 14°20          | 28°19         | 4°40          | 12° 6          | 22° 8          | 12°39          | 0°27          | 20°38  | 20°45  | 26°33  | 5°49           | S 30 |
| S 31 | 7 15 26 | 19 <b>る</b> 19'27  | 24 <b>M</b> 50    | 3≈18            | 15 <b>%</b> 34 | 29ට 6         | 4 <b>≏</b> 41 | 12 <b>)</b> 11 | 22 <b>º</b> 9  | 12 <b>8</b> 38 | 0 <b>∺</b> 29 | 20938  | 209642 | 26939  | 5 <b>m</b> 47  | S 31 |

Delta T = 171.42 sec