

SWISS EPHEMERIS for the year 1693
heliocentric

JANUARY 1693 GC

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|---------|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|
| T 1 | 6 45 14 | 11 ²⁵ 55'55 | 11 ³⁴ | 28 ⁴⁶ | 23 ⁴⁷ | 22 ³⁰ | 18 ³³ | 15 ⁵ | 8 ¹⁶ | 19 ⁸ | 29 ²⁹ | 23 ⁴⁸ |
| F 2 | 6 49 10 | 12 ²⁷ 06 | 12 ³⁴ | 3 ⁴³ | 25 ²⁴ | 23 ⁵ | 18 ³⁸ | 15 ⁷ | 8 ¹⁷ | 19 ⁸ | 29 ²⁹ | 23 ⁵⁰ |
| S 3 | 6 53 7 | 13 ²⁸ 16 | 13 ³⁴ | 8 ⁴⁹ | 27 ² | 23 ³⁹ | 18 ⁴³ | 15 ⁹ | 8 ¹⁷ | 19 ⁹ | 29 ³⁰ | 23 ⁵¹ |
| S 4 | 6 57 3 | 14 ²⁹ 27 | 14 ³⁴ | 14 ⁴ | 28 ³⁹ | 24 ¹³ | 18 ⁴⁸ | 15 ¹¹ | 8 ¹⁸ | 19 ⁹ | 29 ³⁰ | 23 ⁵³ |
| M 5 | 7 1 0 | 15 ³⁰ 38 | 15 ³⁴ | 19 ²⁸ | 0 ¹⁶ | 24 ⁴⁷ | 18 ⁵⁴ | 15 ¹³ | 8 ¹⁹ | 19 ⁹ | 29 ³⁰ | 23 ⁵⁴ |
| T 6 | 7 4 57 | 16 ³¹ 49 | 16 ³³ | 25 ¹ | 1 ⁵³ | 25 ²² | 18 ⁵⁹ | 15 ¹⁴ | 8 ²⁰ | 19 ¹⁰ | 29 ³⁰ | 23 ⁵⁵ |
| W 7 | 7 8 53 | 17 ³² 59 | 17 ³² | 0 ⁴³ | 3 ³⁰ | 25 ⁵⁶ | 19 ⁴ | 15 ¹⁶ | 8 ²⁰ | 19 ¹⁰ | 29 ³¹ | 23 ⁵⁷ |
| T 8 | 7 12 50 | 18 ³⁴ 09 | 18 ³¹ | 6 ³² | 5 ⁷ | 26 ³¹ | 19 ⁹ | 15 ¹⁸ | 8 ²¹ | 19 ¹¹ | 29 ³¹ | 23 ⁵⁸ |
| F 9 | 7 16 46 | 19 ³⁵ 18 | 19 ³¹ | 12 ²⁹ | 6 ⁴⁴ | 27 ⁵ | 19 ¹⁴ | 15 ²⁰ | 8 ²² | 19 ¹¹ | 29 ³¹ | 23 ⁵⁹ |
| S 10 | 7 20 43 | 20 ³⁶ 27 | 20 ³⁰ | 18 ³³ | 8 ²¹ | 27 ⁴⁰ | 19 ¹⁹ | 15 ²² | 8 ²² | 19 ¹¹ | 29 ³¹ | 24 ¹ |
| S 11 | 7 24 39 | 21 ³⁷ 35 | 21 ³⁰ | 24 ⁴³ | 9 ⁵⁸ | 28 ¹⁵ | 19 ²⁵ | 15 ²³ | 8 ²³ | 19 ¹² | 29 ³² | 24 ² |
| M 12 | 7 28 36 | 22 ³⁸ 42 | 22 ³⁰ | 0 ⁵⁷ | 11 ³⁴ | 28 ⁴⁹ | 19 ³⁰ | 15 ²⁵ | 8 ²⁴ | 19 ¹² | 29 ³² | 24 ⁴ |
| T 13 | 7 32 32 | 23 ³⁹ 49 | 23 ³¹ | 7 ¹⁴ | 13 ¹¹ | 29 ²⁴ | 19 ³⁵ | 15 ²⁷ | 8 ²⁵ | 19 ¹² | 29 ³² | 24 ⁵ |
| W 14 | 7 36 29 | 24 ⁴⁰ 54 | 24 ³² | 13 ³² | 14 ⁴⁸ | 29 ⁵⁹ | 19 ⁴⁰ | 15 ²⁹ | 8 ²⁵ | 19 ¹³ | 29 ³² | 24 ⁶ |
| T 15 | 7 40 26 | 25 ⁴¹ 59 | 25 ³³ | 19 ⁵² | 16 ²⁵ | 0 ³⁴ | 19 ⁴⁵ | 15 ³¹ | 8 ²⁶ | 19 ¹³ | 29 ³² | 24 ⁸ |
| F 16 | 7 44 22 | 26 ⁴³ 03 | 26 ³⁴ | 26 ⁹ | 18 ¹ | 1 ⁹ | 19 ⁵¹ | 15 ³² | 8 ²⁷ | 19 ¹³ | 29 ³³ | 24 ⁹ |
| S 17 | 7 48 19 | 27 ⁴⁴ 06 | 27 ³⁶ | 2 ²⁵ | 19 ³⁸ | 1 ⁴⁴ | 19 ⁵⁶ | 15 ³⁴ | 8 ²⁷ | 19 ¹⁴ | 29 ³³ | 24 ¹⁰ |
| S 18 | 7 52 15 | 28 ⁴⁵ 08 | 28 ³⁸ | 8 ³⁶ | 21 ¹⁵ | 2 ¹⁹ | 20 ¹ | 15 ³⁶ | 8 ²⁸ | 19 ¹⁴ | 29 ³³ | 24 ¹² |
| M 19 | 7 56 12 | 29 ⁴⁶ 09 | 29 ⁴⁰ | 14 ⁴¹ | 22 ⁵¹ | 2 ⁵⁴ | 20 ⁶ | 15 ³⁸ | 8 ²⁹ | 19 ¹⁵ | 29 ³³ | 24 ¹³ |
| T 20 | 8 0 8 | 0 ⁴⁷ 09 | 0 ⁴³ | 20 ⁴⁰ | 24 ²⁸ | 3 ²⁹ | 20 ¹¹ | 15 ⁴⁰ | 8 ²⁹ | 19 ¹⁵ | 29 ³⁴ | 24 ¹⁵ |
| W 21 | 8 4 5 | 1 ⁴⁸ 08 | 1 ⁴⁶ | 26 ³¹ | 26 ⁴ | 4 ⁴ | 20 ¹⁶ | 15 ⁴¹ | 8 ³⁰ | 19 ¹⁵ | 29 ³⁴ | 24 ¹⁶ |
| T 22 | 8 8 1 | 2 ⁴⁹ 06 | 2 ⁴⁹ | 2 ¹⁴ | 27 ⁴⁰ | 4 ⁴⁰ | 20 ²² | 15 ⁴³ | 8 ³¹ | 19 ¹⁶ | 29 ³⁴ | 24 ¹⁷ |
| F 23 | 8 11 58 | 3 ⁵⁰ 03 | 3 ⁵² | 7 ⁴⁸ | 29 ¹⁷ | 5 ¹⁵ | 20 ²⁷ | 15 ⁴⁵ | 8 ³² | 19 ¹⁶ | 29 ³⁴ | 24 ¹⁹ |
| S 24 | 8 15 55 | 4 ⁵⁰ 59 | 4 ⁵⁴ | 13 ¹³ | 0 ⁵³ | 5 ⁵⁰ | 20 ³² | 15 ⁴⁷ | 8 ³² | 19 ¹⁶ | 29 ³⁵ | 24 ²⁰ |
| S 25 | 8 19 51 | 5 ⁵¹ 54 | 5 ⁵⁷ | 18 ²⁸ | 2 ²⁹ | 6 ²⁶ | 20 ³⁷ | 15 ⁴⁹ | 8 ³³ | 19 ¹⁷ | 29 ³⁵ | 24 ²² |
| M 26 | 8 23 48 | 6 ⁵² 48 | 6 ⁵⁹ | 23 ³⁴ | 4 ⁶ | 7 ¹ | 20 ⁴² | 15 ⁵⁰ | 8 ³⁴ | 19 ¹⁷ | 29 ³⁵ | 24 ²³ |
| T 27 | 8 27 44 | 7 ⁵³ 42 | 8 ¹ | 28 ³⁰ | 5 ⁴² | 7 ³⁷ | 20 ⁴⁷ | 15 ⁵² | 8 ³⁴ | 19 ¹⁸ | 29 ³⁵ | 24 ²⁴ |
| W 28 | 8 31 41 | 8 ⁵⁴ 34 | 9 ³ | 3 ¹⁶ | 7 ¹⁸ | 8 ¹² | 20 ⁵³ | 15 ⁵⁴ | 8 ³⁵ | 19 ¹⁸ | 29 ³⁶ | 24 ²⁶ |
| T 29 | 8 35 37 | 9 ⁵⁵ 26 | 10 ⁴ | 7 ⁵⁴ | 8 ⁵⁴ | 8 ⁴⁸ | 20 ⁵⁸ | 15 ⁵⁶ | 8 ³⁶ | 19 ¹⁸ | 29 ³⁶ | 24 ²⁷ |
| F 30 | 8 39 34 | 10 ⁵⁶ 18 | 11 ⁵ | 12 ²² | 10 ³⁰ | 9 ²⁴ | 21 ³ | 15 ⁵⁸ | 8 ³⁶ | 19 ¹⁹ | 29 ³⁶ | 24 ²⁸ |
| S 31 | 8 43 30 | 11 ⁵⁷ 08 | 12 ⁵ | 16 ⁴² | 12 ⁶ | 9 ⁵⁹ | 21 ⁸ | 15 ⁵⁹ | 8 ³⁷ | 19 ¹⁹ | 29 ³⁶ | 24 ³⁰ |

Delta T = 7.75 sec. Greg. Calendar

FEBRUARY 1693 GC

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|----------------------|-------------------|------------------|------------------|------------------|------------------|------------------|-----------------|------------------|------------------|------------------|
| S 1 | 8 47 27 | 12 ⁵⁷ 58 | 13 ⁵ | 20 ⁵³ | 13 ⁴² | 10 ³⁵ | 21 ¹³ | 16 ¹ | 8 ³⁸ | 19 ¹⁹ | 29 ³⁶ | 24 ³¹ |
| M 2 | 8 51 24 | 13 ⁵⁸ 46 | 14 ⁴ | 24 ⁵⁷ | 15 ¹⁸ | 11 ¹¹ | 21 ¹⁸ | 16 ³ | 8 ³⁹ | 19 ²⁰ | 29 ³⁷ | 24 ³³ |
| T 3 | 8 55 20 | 14 ⁵⁹ 34 | 15 ⁴ | 28 ⁵⁴ | 16 ⁵⁴ | 11 ⁴⁷ | 21 ²⁴ | 16 ⁵ | 8 ³⁹ | 19 ²⁰ | 29 ³⁷ | 24 ³⁴ |
| W 4 | 8 59 17 | 16 ⁰ 20 | 16 ³ | 2 ⁴⁴ | 18 ²⁹ | 12 ²³ | 21 ²⁹ | 16 ⁷ | 8 ⁴⁰ | 19 ²⁰ | 29 ³⁷ | 24 ³⁵ |
| T 5 | 9 3 13 | 17 ¹ 05 | 17 ² | 6 ²⁷ | 20 ⁵ | 12 ⁵⁹ | 21 ³⁴ | 16 ⁸ | 8 ⁴¹ | 19 ²¹ | 29 ³⁷ | 24 ³⁷ |
| F 6 | 9 7 10 | 18 ¹ 48 | 18 ⁰ | 10 ⁵ | 21 ⁴¹ | 13 ³⁵ | 21 ³⁹ | 16 ¹⁰ | 8 ⁴¹ | 19 ²¹ | 29 ³⁸ | 24 ³⁸ |
| S 7 | 9 11 6 | 19 ² 30 | 18 ⁵⁹ | 13 ³⁶ | 23 ¹⁷ | 14 ¹¹ | 21 ⁴⁴ | 16 ¹² | 8 ⁴² | 19 ²² | 29 ³⁸ | 24 ⁴⁰ |
| S 8 | 9 15 3 | 20 ³ 10 | 19 ⁵⁸ | 17 ³ | 24 ⁵² | 14 ⁴⁷ | 21 ⁴⁹ | 16 ¹⁴ | 8 ⁴³ | 19 ²² | 29 ³⁸ | 24 ⁴¹ |
| M 9 | 9 18 59 | 21 ³ 49 | 20 ⁵⁸ | 20 ²⁵ | 26 ²⁸ | 15 ²³ | 21 ⁵⁵ | 16 ¹⁶ | 8 ⁴³ | 19 ²² | 29 ³⁸ | 24 ⁴² |
| T 10 | 9 22 56 | 22 ⁴ 26 | 21 ⁵⁷ | 23 ⁴² | 28 ³ | 15 ⁵⁹ | 22 ⁰ | 16 ¹⁷ | 8 ⁴⁴ | 19 ²³ | 29 ³⁹ | 24 ⁴⁴ |
| W 11 | 9 26 53 | 23 ⁵ 02 | 22 ⁵⁷ | 26 ⁵⁵ | 29 ³⁹ | 16 ³⁶ | 22 ⁵ | 16 ¹⁹ | 8 ⁴⁵ | 19 ²³ | 29 ³⁹ | 24 ⁴⁵ |
| T 12 | 9 30 49 | 24 ⁵ 36 | 23 ⁵⁷ | 0 ⁴ | 1 ¹⁴ | 17 ¹² | 22 ¹⁰ | 16 ²¹ | 8 ⁴⁶ | 19 ²³ | 29 ³⁹ | 24 ⁴⁷ |
| F 13 | 9 34 46 | 25 ⁶ 08 | 24 ⁵⁷ | 3 ¹⁰ | 2 ⁵⁰ | 17 ⁴⁸ | 22 ¹⁵ | 16 ²³ | 8 ⁴⁶ | 19 ²⁴ | 29 ³⁹ | 24 ⁴⁸ |
| S 14 | 9 38 42 | 26 ⁶ 38 | 25 ⁵⁷ | 6 ¹³ | 4 ²⁵ | 18 ²⁵ | 22 ²⁰ | 16 ²⁵ | 8 ⁴⁷ | 19 ²⁴ | 29 ³⁹ | 24 ⁴⁹ |
| S 15 | 9 42 39 | 27 ⁷ 07 | 26 ⁵⁸ | 9 ¹³ | 6 ⁰ | 19 ¹ | 22 ²⁵ | 16 ²⁶ | 8 ⁴⁸ | 19 ²⁴ | 29 ⁴⁰ | 24 ⁵¹ |
| M 16 | 9 46 35 | 28 ⁷ 33 | 28 ⁰ | 12 ¹⁰ | 7 ³⁶ | 19 ³⁸ | 22 ³¹ | 16 ²⁸ | 8 ⁴⁸ | 19 ²⁵ | 29 ⁴⁰ | 24 ⁵² |
| T 17 | 9 50 32 | 29 ⁷ 58 | 29 ¹ | 15 ⁵ | 9 ¹¹ | 20 ¹⁴ | 22 ³⁶ | 16 ³⁰ | 8 ⁴⁹ | 19 ²⁵ | 29 ⁴⁰ | 24 ⁵³ |
| W 18 | 9 54 28 | 0 ¹¹ 8'21 | 0 ¹¹ 3 | 17 ⁵⁸ | 10 ⁴⁶ | 20 ⁵¹ | 22 ⁴¹ | 16 ³² | 8 ⁵⁰ | 19 ²⁶ | 29 ⁴⁰ | 24 ⁵⁵ |
| T 19 | 9 58 25 | 1 ⁸ 41 | 1 ⁵ | 20 ⁴⁹ | 12 ²² | 21 ²⁷ | 22 ⁴⁶ | 16 ³⁴ | 8 ⁵⁰ | 19 ²⁶ | 29 ⁴¹ | 24 ⁵⁶ |
| F 20 | 10 2 22 | 2 ⁹ 00 | 2 ⁸ | 23 ³⁹ | 13 ⁵⁷ | 22 ⁴ | 22 ⁵¹ | 16 ³⁵ | 8 ⁵¹ | 19 ²⁶ | 29 ⁴¹ | 24 ⁵⁸ |
| S 21 | 10 6 18 | 3 ⁹ 18 | 3 ¹⁰ | 26 ²⁷ | 15 ³² | 22 ⁴¹ | 22 ⁵⁶ | 16 ³⁷ | 8 ⁵² | 19 ²⁷ | 29 ⁴¹ | 24 ⁵⁹ |
| S 22 | 10 10 15 | 4 ⁹ 33 | 4 ¹² | 29 ¹⁴ | 17 ⁷ | 23 ¹⁸ | 23 ² | 16 ³⁹ | 8 ⁵³ | 19 ²⁷ | 29 ⁴¹ | 25 ⁰ |
| M 23 | 10 14 11 | 5 ⁹ 47 | 5 ¹⁴ | 2 ¹ 0 | 18 ⁴² | 23 ⁵⁴ | 23 ⁷ | 16 ⁴¹ | 8 ⁵³ | 19 ²⁷ | 29 ⁴² | 25 ² |
| T 24 | 10 18 8 | 6 ⁹ 59 | 6 ¹⁶ | 4 ⁴⁶ | 20 ¹⁷ | 24 ³¹ | 23 ¹² | 16 ⁴³ | 8 ⁵⁴ | 19 ²⁸ | 29 ⁴² | 25 ³ |
| W 25 | 10 22 4 | 7 ¹⁰ 09 | 7 ¹⁷ | 7 ³¹ | 21 ⁵² | 25 ⁸ | 23 ¹⁷ | 16 ⁴⁴ | 8 ⁵⁵ | 19 ²⁸ | 29 ⁴² | 25 ⁵ |
| T 26 | 10 26 1 | 8 ¹⁰ 19 | 8 ¹⁸ | 10 ¹⁵ | 23 ²⁷ | 25 ⁴⁵ | 23 ²² | 16 ⁴⁶ | 8 ⁵⁵ | 19 ²⁸ | 29 ⁴² | 25 ⁶ |
| F 27 | 10 29 57 | 9 ¹⁰ 26 | 9 ¹⁹ | 13 ⁰ | 25 ² | 26 ²² | 23 ²⁷ | 16 ⁴⁸ | 8 ⁵⁶ | 19 ²⁹ | 29 ⁴³ | 25 ⁷ |
| S 28 | 10 33 54 | 10 ¹¹ 32 | 10 ¹⁹ | 15 ⁴⁵ | 26 ³⁷ | 26 ⁵⁹ | 23 ³² | 16 ⁵⁰ | 8 ⁵⁷ | 19 ²⁹ | 29 ⁴³ | 25 ⁹ |

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SWISS EPHEMERIS for the year 1693
heliocentric

MARCH 1693 GC

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ |
|------|----------|-----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|
| S 1 | 10 37 51 | 11 ^h 10'37 | 11 ^h 19 | 18 ^h 30 | 28 ^h 12 | 27 ^h 36 | 23 ^h 38 | 16 ^h 52 | 8 ^h 58 | 19 ^h 30 | 29 ^h 43 | 25 ^h 10 |
| M 2 | 10 41 47 | 12°10'40 | 12°18 | 21°15 | 29°47 | 28°13 | 23°43 | 16°53 | 8°58 | 19°30 | 29°43 | 25°12 |
| T 3 | 10 45 44 | 13°10'41 | 13°17 | 24° 2 | 1 ^h 22 | 28°50 | 23°48 | 16°55 | 8°59 | 19°30 | 29°43 | 25°13 |
| W 4 | 10 49 40 | 14°10'41 | 14°16 | 26°49 | 2°57 | 29°27 | 23°53 | 16°57 | 9° 0 | 19°31 | 29°44 | 25°14 |
| T 5 | 10 53 37 | 15°10'38 | 15°14 | 29°38 | 4°32 | 0 ^h 5 | 23°58 | 16°59 | 9° 0 | 19°31 | 29°44 | 25°16 |
| F 6 | 10 57 33 | 16°10'34 | 16°12 | 2 ^h 27 | 6° 7 | 0°42 | 24° 3 | 17° 1 | 9° 1 | 19°31 | 29°44 | 25°17 |
| S 7 | 11 1 30 | 17°10'28 | 17°10 | 5°19 | 7°42 | 1°19 | 24° 8 | 17° 2 | 9° 2 | 19°32 | 29°44 | 25°19 |
| S 8 | 11 5 26 | 18°10'20 | 18° 8 | 8°12 | 9°17 | 1°56 | 24°14 | 17° 4 | 9° 2 | 19°32 | 29°45 | 25°20 |
| M 9 | 11 9 23 | 19°10'10 | 19° 7 | 11° 8 | 10°52 | 2°34 | 24°19 | 17° 6 | 9° 3 | 19°32 | 29°45 | 25°21 |
| T 10 | 11 13 20 | 20° 9'58 | 20° 5 | 14° 5 | 12°27 | 3°11 | 24°24 | 17° 8 | 9° 4 | 19°33 | 29°45 | 25°23 |
| W11 | 11 17 16 | 21° 9'43 | 21° 3 | 17° 6 | 14° 1 | 3°48 | 24°29 | 17°10 | 9° 5 | 19°33 | 29°45 | 25°24 |
| T 12 | 11 21 13 | 22° 9'27 | 22° 2 | 20° 9 | 15°36 | 4°26 | 24°34 | 17°11 | 9° 5 | 19°34 | 29°46 | 25°26 |
| F 13 | 11 25 9 | 23° 9'08 | 23° 1 | 23°15 | 17°11 | 5° 3 | 24°39 | 17°13 | 9° 6 | 19°34 | 29°46 | 25°27 |
| S 14 | 11 29 6 | 24° 8'47 | 24° 0 | 26°24 | 18°46 | 5°41 | 24°44 | 17°15 | 9° 7 | 19°34 | 29°46 | 25°28 |
| S 15 | 11 33 2 | 25° 8'24 | 24°59 | 29°37 | 20°21 | 6°18 | 24°49 | 17°17 | 9° 7 | 19°35 | 29°46 | 25°30 |
| M16 | 11 36 59 | 26° 7'59 | 25°59 | 2 ^h 54 | 21°56 | 6°56 | 24°55 | 17°19 | 9° 8 | 19°35 | 29°47 | 25°31 |
| T 17 | 11 40 55 | 27° 7'31 | 26°59 | 6°15 | 23°30 | 7°33 | 25° 0 | 17°20 | 9° 9 | 19°35 | 29°47 | 25°33 |
| W18 | 11 44 52 | 28° 7'01 | 28° 0 | 9°41 | 25° 5 | 8°11 | 25° 5 | 17°22 | 9° 9 | 19°36 | 29°47 | 25°34 |
| T 19 | 11 48 49 | 29° 6'29 | 29° 1 | 13°12 | 26°40 | 8°49 | 25°10 | 17°24 | 9°10 | 19°36 | 29°47 | 25°35 |
| F 20 | 11 52 45 | 0 ^h 5'54 | 0 ^h 2 | 16°48 | 28°15 | 9°26 | 25°15 | 17°26 | 9°11 | 19°36 | 29°47 | 25°37 |
| S 21 | 11 56 42 | 1° 5'17 | 1° 3 | 20°29 | 29°50 | 10° 4 | 25°20 | 17°28 | 9°12 | 19°37 | 29°48 | 25°38 |
| S 22 | 12 0 38 | 2° 4'38 | 2° 4 | 24°17 | 1 ^h 24 | 10°42 | 25°25 | 17°29 | 9°12 | 19°37 | 29°48 | 25°40 |
| M23 | 12 4 35 | 3° 3'56 | 3° 6 | 28°11 | 2°59 | 11°19 | 25°30 | 17°31 | 9°13 | 19°38 | 29°48 | 25°41 |
| T 24 | 12 8 31 | 4° 3'13 | 4° 7 | 2 ^h 11 | 4°34 | 11°57 | 25°36 | 17°33 | 9°14 | 19°38 | 29°48 | 25°43 |
| W25 | 12 12 28 | 5° 2'28 | 5° 8 | 6°19 | 6° 9 | 12°35 | 25°41 | 17°35 | 9°14 | 19°38 | 29°49 | 25°44 |
| T 26 | 12 16 24 | 6° 1'42 | 6° 9 | 10°34 | 7°44 | 13°13 | 25°46 | 17°37 | 9°15 | 19°39 | 29°49 | 25°45 |
| F 27 | 12 20 21 | 7° 0'53 | 7° 9 | 14°57 | 9°19 | 13°50 | 25°51 | 17°38 | 9°16 | 19°39 | 29°49 | 25°47 |
| S 28 | 12 24 18 | 8° 0'03 | 8° 9 | 19°28 | 10°54 | 14°28 | 25°56 | 17°40 | 9°16 | 19°39 | 29°49 | 25°48 |
| S 29 | 12 28 14 | 8°59'11 | 9° 8 | 24° 7 | 12°29 | 15° 6 | 26° 1 | 17°42 | 9°17 | 19°40 | 29°50 | 25°50 |
| M30 | 12 32 11 | 9°58'17 | 10° 7 | 28°55 | 14° 3 | 15°44 | 26° 6 | 17°44 | 9°18 | 19°40 | 29°50 | 25°51 |
| T 31 | 12 36 7 | 10 ^h 57'21 | 11 ^h 5 | 3 ^h 52 | 15 ^h 38 | 16 ^h 22 | 26 ^h 11 | 17 ^h 46 | 9 ^h 19 | 19 ^h 40 | 29 ^h 50 | 25 ^h 52 |

Delta T = 7.76 sec. Greg. Calendar

APRIL 1693 GC

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ |
|------|----------|-----------------------|--------------------|-------------------|--------------------|-------------------|--------------------|--------------------|-------------------|--------------------|--------------------|--------------------|
| W 1 | 12 40 4 | 11 ^h 56'24 | 12 ^h 4 | 8 ^h 58 | 17 ^h 13 | 17 ^h 0 | 26 ^h 17 | 17 ^h 47 | 9 ^h 19 | 19 ^h 41 | 29 ^h 50 | 25 ^h 54 |
| T 2 | 12 44 0 | 12°55'24 | 13° 1 | 14°14 | 18°48 | 17°38 | 26°22 | 17°49 | 9°20 | 19°41 | 29°51 | 25°55 |
| F 3 | 12 47 57 | 13°54'23 | 13°59 | 19°38 | 20°23 | 18°16 | 26°27 | 17°51 | 9°21 | 19°42 | 29°51 | 25°57 |
| S 4 | 12 51 53 | 14°53'20 | 14°56 | 25°11 | 21°58 | 18°54 | 26°32 | 17°53 | 9°21 | 19°42 | 29°51 | 25°58 |
| S 5 | 12 55 50 | 15°52'15 | 15°53 | 0 ^h 53 | 23°33 | 19°31 | 26°37 | 17°55 | 9°22 | 19°42 | 29°51 | 25°59 |
| M 6 | 12 59 46 | 16°51'08 | 16°51 | 6°43 | 25° 8 | 20° 9 | 26°42 | 17°56 | 9°23 | 19°43 | 29°51 | 26° 1 |
| T 7 | 13 3 43 | 17°49'58 | 17°48 | 12°40 | 26°43 | 20°47 | 26°47 | 17°58 | 9°23 | 19°43 | 29°52 | 26° 2 |
| W 8 | 13 7 40 | 18°48'47 | 18°45 | 18°44 | 28°18 | 21°25 | 26°52 | 18° 0 | 9°24 | 19°43 | 29°52 | 26° 4 |
| T 9 | 13 11 36 | 19°47'34 | 19°42 | 24°54 | 29°53 | 22° 3 | 26°58 | 18° 2 | 9°25 | 19°44 | 29°52 | 26° 5 |
| F 10 | 13 15 33 | 20°46'19 | 20°40 | 1 ^h 11 | 1 ^h 28 | 22°41 | 27° 3 | 18° 4 | 9°26 | 19°44 | 29°52 | 26° 7 |
| S 11 | 13 19 29 | 21°45'01 | 21°37 | 7°25 | 3° 3 | 23°19 | 27° 8 | 18° 5 | 9°26 | 19°44 | 29°53 | 26° 8 |
| S 12 | 13 23 26 | 22°43'42 | 22°35 | 13°44 | 4°39 | 23°58 | 27°13 | 18° 7 | 9°27 | 19°45 | 29°53 | 26° 9 |
| M13 | 13 27 22 | 23°42'20 | 23°34 | 20° 3 | 6°14 | 24°36 | 27°18 | 18° 9 | 9°28 | 19°45 | 29°53 | 26°11 |
| T 14 | 13 31 19 | 24°40'56 | 24°32 | 26°21 | 7°49 | 25°14 | 27°23 | 18°11 | 9°28 | 19°46 | 29°53 | 26°12 |
| W15 | 13 35 15 | 25°39'29 | 25°31 | 2 ^h 36 | 9°24 | 25°52 | 27°28 | 18°13 | 9°29 | 19°46 | 29°54 | 26°14 |
| T 16 | 13 39 12 | 26°38'01 | 26°31 | 8°47 | 10°59 | 26°30 | 27°33 | 18°14 | 9°30 | 19°46 | 29°54 | 26°15 |
| F 17 | 13 43 9 | 27°36'30 | 27°30 | 14°52 | 12°34 | 27° 8 | 27°38 | 18°16 | 9°30 | 19°47 | 29°54 | 26°16 |
| S 18 | 13 47 5 | 28°34'57 | 28°30 | 20°51 | 14°10 | 27°46 | 27°44 | 18°18 | 9°31 | 19°47 | 29°54 | 26°18 |
| S 19 | 13 51 2 | 29°33'22 | 29°31 | 26°42 | 15°45 | 28°24 | 27°49 | 18°20 | 9°32 | 19°47 | 29°54 | 26°19 |
| M20 | 13 54 58 | 0 ^h 31'45 | 0 ^h 31 | 2 ^h 25 | 17°20 | 29° 2 | 27°54 | 18°22 | 9°33 | 19°48 | 29°55 | 26°21 |
| T 21 | 13 58 55 | 1°30'06 | 1°31 | 7°59 | 18°55 | 29°40 | 27°59 | 18°23 | 9°33 | 19°48 | 29°55 | 26°22 |
| W22 | 14 2 51 | 2°28'25 | 2°32 | 13°23 | 20°31 | 0 ^h 18 | 28° 4 | 18°25 | 9°34 | 19°48 | 29°55 | 26°24 |
| T 23 | 14 6 48 | 3°26'43 | 3°32 | 18°38 | 22° 6 | 0°56 | 28° 9 | 18°27 | 9°35 | 19°49 | 29°55 | 26°25 |
| F 24 | 14 10 44 | 4°24'59 | 4°31 | 23°43 | 23°41 | 1°34 | 28°14 | 18°29 | 9°35 | 19°49 | 29°56 | 26°26 |
| S 25 | 14 14 41 | 5°23'13 | 5°31 | 28°39 | 25°17 | 2°12 | 28°19 | 18°31 | 9°36 | 19°50 | 29°56 | 26°28 |
| S 26 | 14 18 38 | 6°21'26 | 6°30 | 3 ^h 25 | 26°52 | 2°51 | 28°24 | 18°32 | 9°37 | 19°50 | 29°56 | 26°29 |
| M27 | 14 22 34 | 7°19'38 | 7°28 | 8° 2 | 28°28 | 3°29 | 28°30 | 18°34 | 9°38 | 19°50 | 29°56 | 26°31 |
| T 28 | 14 26 31 | 8°17'48 | 8°27 | 12°30 | 0 ^h 3 | 4° 7 | 28°35 | 18°36 | 9°38 | 19°51 | 29°57 | 26°32 |
| W29 | 14 30 27 | 9°15'57 | 9°24 | 16°50 | 1°39 | 4°45 | 28°40 | 18°38 | 9°39 | 19°51 | 29°57 | 26°34 |
| T 30 | 14 34 24 | 10 ^h 14'04 | 10 ^h 22 | 21 ^h 1 | 3 ^h 14 | 5 ^h 23 | 28 ^h 45 | 18 ^h 40 | 9 ^h 40 | 19 ^h 51 | 29 ^h 57 | 26 ^h 35 |

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MAY 1693 GC

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| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| F 1 | 14 38 20 | 11♈12°09 | 11♈19 | 25♈5 | 4♃50 | 6♄1 | 28♁50 | 18♂41 | 9♂40 | 19♃52 | 29♅57 | 26♁36 |
| S 2 | 14 42 17 | 12°10'13 | 12°16 | 29° 1 | 6°25 | 6°39 | 28°55 | 18°43 | 9°41 | 19°52 | 29°58 | 26°38 |
| S 3 | 14 46 13 | 13° 8'16 | 13°12 | 2♂51 | 8° 1 | 7°17 | 29° 0 | 18°45 | 9°42 | 19°53 | 29°58 | 26°39 |
| M 4 | 14 50 10 | 14° 6'17 | 14° 9 | 6°34 | 9°36 | 7°55 | 29° 5 | 18°47 | 9°42 | 19°53 | 29°58 | 26°41 |
| T 5 | 14 54 7 | 15° 4'17 | 15° 5 | 10°11 | 11°12 | 8°33 | 29°10 | 18°49 | 9°43 | 19°53 | 29°58 | 26°42 |
| W 6 | 14 58 3 | 16° 2'15 | 16° 1 | 13°43 | 12°48 | 9°11 | 29°15 | 18°50 | 9°44 | 19°54 | 29°58 | 26°44 |
| T 7 | 15 2 0 | 17° 0'11 | 16°57 | 17° 9 | 14°23 | 9°49 | 29°21 | 18°52 | 9°45 | 19°54 | 29°59 | 26°45 |
| F 8 | 15 5 56 | 17°58'06 | 17°54 | 20°31 | 15°59 | 10°27 | 29°26 | 18°54 | 9°45 | 19°54 | 29°59 | 26°46 |
| S 9 | 15 9 53 | 18°56'00 | 18°50 | 23°48 | 17°35 | 11° 5 | 29°31 | 18°56 | 9°46 | 19°55 | 29°59 | 26°48 |
| S 10 | 15 13 49 | 19°53'51 | 19°47 | 27° 1 | 19°11 | 11°43 | 29°36 | 18°58 | 9°47 | 19°55 | 29°59 | 26°49 |
| M 11 | 15 17 46 | 20°51'41 | 20°44 | 0♈10 | 20°46 | 12°21 | 29°41 | 18°59 | 9°47 | 19°55 | 29°59 | 26°51 |
| T 12 | 15 21 42 | 21°49'29 | 21°41 | 3°16 | 22°22 | 12°59 | 29°46 | 19° 1 | 9°48 | 19°56 | 29°59 | 26°52 |
| W 13 | 15 25 39 | 22°47'16 | 22°39 | 6°19 | 23°58 | 13°37 | 29°51 | 19° 3 | 9°49 | 19°56 | 0♈0 | 26°54 |
| T 14 | 15 29 36 | 23°45'01 | 23°37 | 9°19 | 25°34 | 14°15 | 29°56 | 19° 5 | 9°49 | 19°57 | 0° 0 | 26°55 |
| F 15 | 15 33 32 | 24°42'44 | 24°35 | 12°16 | 27°10 | 14°52 | 0♁1 | 19° 7 | 9°50 | 19°57 | 0° 1 | 26°56 |
| S 16 | 15 37 29 | 25°40'25 | 25°34 | 15°11 | 28°46 | 15°30 | 0° 6 | 19° 8 | 9°51 | 19°57 | 0° 1 | 26°58 |
| S 17 | 15 41 25 | 26°38'05 | 26°33 | 18° 4 | 0♁22 | 16° 8 | 0°11 | 19°10 | 9°52 | 19°58 | 0° 1 | 26°59 |
| M 18 | 15 45 22 | 27°35'43 | 27°32 | 20°55 | 1°58 | 16°46 | 0°17 | 19°12 | 9°52 | 19°58 | 0° 1 | 27° 1 |
| T 19 | 15 49 18 | 28°33'20 | 28°32 | 23°44 | 3°34 | 17°24 | 0°22 | 19°14 | 9°53 | 19°58 | 0° 2 | 27° 2 |
| W 20 | 15 53 15 | 29°30'56 | 29°31 | 26°32 | 5°10 | 18° 2 | 0°27 | 19°16 | 9°54 | 19°59 | 0° 2 | 27° 4 |
| T 21 | 15 57 11 | 0♁28'31 | 0♁31 | 29°19 | 6°46 | 18°39 | 0°32 | 19°17 | 9°54 | 19°59 | 0° 2 | 27° 5 |
| F 22 | 16 1 8 | 1°26'04 | 1°30 | 2♁5 | 8°22 | 19°17 | 0°37 | 19°19 | 9°55 | 19°59 | 0° 2 | 27° 6 |
| S 23 | 16 5 5 | 2°23'37 | 2°30 | 4°51 | 9°58 | 19°55 | 0°42 | 19°21 | 9°56 | 20° 0 | 0° 3 | 27° 8 |
| S 24 | 16 9 1 | 3°21'08 | 3°28 | 7°36 | 11°34 | 20°32 | 0°47 | 19°23 | 9°56 | 20° 0 | 0° 3 | 27° 9 |
| M 25 | 16 12 58 | 4°18'39 | 4°27 | 10°20 | 13°10 | 21°10 | 0°52 | 19°25 | 9°57 | 20° 1 | 0° 3 | 27°11 |
| T 26 | 16 16 54 | 5°16'09 | 5°25 | 13° 5 | 14°47 | 21°48 | 0°57 | 19°26 | 9°58 | 20° 1 | 0° 3 | 27°12 |
| W 27 | 16 20 51 | 6°13'37 | 6°23 | 15°50 | 16°23 | 22°25 | 1° 2 | 19°28 | 9°59 | 20° 1 | 0° 3 | 27°14 |
| T 28 | 16 24 47 | 7°11'06 | 7°20 | 18°35 | 17°59 | 23° 3 | 1° 7 | 19°30 | 9°59 | 20° 2 | 0° 4 | 27°15 |
| F 29 | 16 28 44 | 8° 8'33 | 8°17 | 21°21 | 19°35 | 23°40 | 1°12 | 19°32 | 10° 0 | 20° 2 | 0° 4 | 27°17 |
| S 30 | 16 32 40 | 9° 6'00 | 9°13 | 24° 7 | 21°12 | 24°18 | 1°18 | 19°34 | 10° 1 | 20° 2 | 0° 4 | 27°18 |
| S 31 | 16 36 37 | 10♁3'26 | 10♁10 | 26♁54 | 22♁48 | 24♁55 | 1♁23 | 19♁35 | 10♁1 | 20♁3 | 0♁4 | 27♁19 |

Delta T = 7.76 sec.

Greg. Calendar

JUNE 1693 GC

00:00 UT

| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♁ |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|
| M 1 | 16 40 34 | 11♁0'51 | 11♁6 | 29♁43 | 24♁24 | 25♁33 | 1♁28 | 19♁37 | 10♁2 | 20♁3 | 0♁5 | 27♁21 |
| T 2 | 16 44 30 | 11°58'16 | 12° 2 | 2♁33 | 26° 1 | 26°10 | 1°33 | 19°39 | 10° 3 | 20° 3 | 0° 5 | 27°22 |
| W 3 | 16 48 27 | 12°55'40 | 12°57 | 5°24 | 27°37 | 26°48 | 1°38 | 19°41 | 10° 4 | 20° 4 | 0° 5 | 27°24 |
| T 4 | 16 52 23 | 13°53'03 | 13°53 | 8°18 | 29°14 | 27°25 | 1°43 | 19°43 | 10° 4 | 20° 4 | 0° 5 | 27°25 |
| F 5 | 16 56 20 | 14°50'25 | 14°49 | 11°13 | 0♁50 | 28° 3 | 1°48 | 19°44 | 10° 5 | 20° 5 | 0° 6 | 27°27 |
| S 6 | 17 0 16 | 15°47'47 | 15°44 | 14°11 | 2°27 | 28°40 | 1°53 | 19°46 | 10° 6 | 20° 5 | 0° 6 | 27°28 |
| S 7 | 17 4 13 | 16°45'07 | 16°40 | 17°11 | 4° 3 | 29°17 | 1°58 | 19°48 | 10° 6 | 20° 5 | 0° 6 | 27°30 |
| M 8 | 17 8 10 | 17°42'27 | 17°36 | 20°14 | 5°40 | 29°54 | 2° 3 | 19°50 | 10° 7 | 20° 6 | 0° 6 | 27°31 |
| T 9 | 17 12 6 | 18°39'46 | 18°32 | 23°21 | 7°17 | 0♁32 | 2° 8 | 19°52 | 10° 8 | 20° 6 | 0° 7 | 27°32 |
| W 10 | 17 16 3 | 19°37'04 | 19°29 | 26°30 | 8°53 | 1° 9 | 2°13 | 19°53 | 10° 8 | 20° 6 | 0° 7 | 27°34 |
| T 11 | 17 19 59 | 20°34'21 | 20°26 | 29°43 | 10°30 | 1°46 | 2°18 | 19°55 | 10° 9 | 20° 7 | 0° 7 | 27°35 |
| F 12 | 17 23 56 | 21°31'37 | 21°23 | 3♁0 | 12° 7 | 2°23 | 2°23 | 19°57 | 10°10 | 20° 7 | 0° 7 | 27°37 |
| S 13 | 17 27 52 | 22°28'52 | 22°21 | 6°22 | 13°43 | 3° 0 | 2°29 | 19°59 | 10°11 | 20° 7 | 0° 7 | 27°38 |
| S 14 | 17 31 49 | 23°26'07 | 23°19 | 9°48 | 15°20 | 3°37 | 2°34 | 20° 1 | 10°11 | 20° 8 | 0° 8 | 27°40 |
| M 15 | 17 35 45 | 24°23'21 | 24°18 | 13°19 | 16°57 | 4°14 | 2°39 | 20° 2 | 10°12 | 20° 8 | 0° 8 | 27°41 |
| T 16 | 17 39 42 | 25°20'34 | 25°17 | 16°55 | 18°34 | 4°51 | 2°44 | 20° 4 | 10°13 | 20° 9 | 0° 8 | 27°43 |
| W 17 | 17 43 39 | 26°17'47 | 26°16 | 20°36 | 20°11 | 5°28 | 2°49 | 20° 6 | 10°13 | 20° 9 | 0° 8 | 27°44 |
| T 18 | 17 47 35 | 27°14'59 | 27°15 | 24°24 | 21°47 | 6° 5 | 2°54 | 20° 8 | 10°14 | 20° 9 | 0° 9 | 27°45 |
| F 19 | 17 51 32 | 28°12'11 | 28°14 | 28°18 | 23°24 | 6°42 | 2°59 | 20°10 | 10°15 | 20°10 | 0° 9 | 27°47 |
| S 20 | 17 55 28 | 29° 9'23 | 29°13 | 2♁19 | 25° 1 | 7°18 | 3° 4 | 20°11 | 10°15 | 20°10 | 0° 9 | 27°48 |
| S 21 | 17 59 25 | 0♁6'34 | 0♁12 | 6°27 | 26°38 | 7°55 | 3° 9 | 20°13 | 10°16 | 20°10 | 0° 9 | 27°50 |
| M 22 | 18 3 21 | 1° 3'45 | 1°10 | 10°42 | 28°15 | 8°32 | 3°14 | 20°15 | 10°17 | 20°11 | 0°10 | 27°51 |
| T 23 | 18 7 18 | 2° 0'57 | 2° 9 | 15° 5 | 29°52 | 9° 9 | 3°19 | 20°17 | 10°18 | 20°11 | 0°10 | 27°53 |
| W 24 | 18 11 14 | 2°58'08 | 3° 7 | 19°36 | 1♁29 | 9°45 | 3°24 | 20°18 | 10°18 | 20°12 | 0°10 | 27°54 |
| T 25 | 18 15 11 | 3°55'19 | 4° 4 | 24°16 | 3° 6 | 10°22 | 3°29 | 20°20 | 10°19 | 20°12 | 0°10 | 27°56 |
| F 26 | 18 19 8 | 4°52'31 | 5° 2 | 29° 4 | 4°44 | 10°58 | 3°34 | 20°22 | 10°20 | 20°12 | 0°11 | 27°57 |
| S 27 | 18 23 4 | 5°49'42 | 5°58 | 4♁2 | 6°21 | 11°35 | 3°39 | 20°24 | 10°20 | 20°13 | 0°11 | 27°59 |
| S 28 | 18 27 1 | 6°46'54 | 6°55 | 9° 8 | 7°58 | 12°11 | 3°45 | 20°26 | 10°21 | 20°13 | 0°11 | 28° 0 |
| M 29 | 18 30 57 | 7°44'06 | 7°51 | 14°24 | 9°35 | 12°48 | 3°50 | 20°27 | 10°22 | 20°13 | 0°11 | 28° 1 |
| T 30 | 18 34 54 | 8♁41'19 | 8♁47 | 19♁48 | 11♁12 | 13♁24 | 3♁55 | 20♁29 | 10♁23 | 20♁14 | 0♁11 | 28♁3 |

Delta T = 7.77 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1693
heliocentric

JULY 1693 GC

00:00 UT

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

Delta T = 7.77 sec. Greg. Calendar

AUGUST 1693 GC

00:00 UT

| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|----------|-------|-------|-------|-------|------|-------|-------|-------|------|-------|
| S 1 | 20 41 4 | 9♁14'40 | 9♁17 | 10♄18 | 3♂11 | 2♃21 | 6♄36 | 21♁27 | 10♂45 | 20♃25 | 0♄19 | 28♂50 |
| S 2 | 20 45 0 | 10°12'11 | 10°12 | 13°49 | 4°49 | 2°56 | 6°41 | 21°29 | 10°46 | 20°26 | 0°19 | 28°51 |
| M 3 | 20 48 57 | 11°9'42 | 11°8 | 17°16 | 6°26 | 3°30 | 6°46 | 21°30 | 10°46 | 20°26 | 0°20 | 28°53 |
| T 4 | 20 52 53 | 12°7'15 | 12°4 | 20°37 | 8°4 | 4°5 | 6°51 | 21°32 | 10°47 | 20°26 | 0°20 | 28°54 |
| W 5 | 20 56 50 | 13°4'49 | 13°0 | 23°54 | 9°41 | 4°39 | 6°56 | 21°34 | 10°48 | 20°27 | 0°20 | 28°56 |
| T 6 | 21 0 46 | 14°2'23 | 13°56 | 27°7 | 11°18 | 5°14 | 7°1 | 21°36 | 10°49 | 20°27 | 0°20 | 28°57 |
| F 7 | 21 4 43 | 14°59'59 | 14°52 | 0♂16 | 12°56 | 5°48 | 7°6 | 21°38 | 10°49 | 20°28 | 0°20 | 28°59 |
| S 8 | 21 8 40 | 15°57'35 | 15°49 | 3°22 | 14°33 | 6°23 | 7°11 | 21°39 | 10°50 | 20°28 | 0°21 | 29°0 |
| S 9 | 21 12 36 | 16°55'12 | 16°47 | 6°25 | 16°11 | 6°57 | 7°16 | 21°41 | 10°51 | 20°28 | 0°21 | 29°1 |
| M10 | 21 16 33 | 17°52'51 | 17°45 | 9°24 | 17°48 | 7°31 | 7°21 | 21°43 | 10°51 | 20°29 | 0°21 | 29°3 |
| T 11 | 21 20 29 | 18°50'30 | 18°43 | 12°21 | 19°25 | 8°5 | 7°26 | 21°45 | 10°52 | 20°29 | 0°21 | 29°4 |
| W12 | 21 24 26 | 19°48'11 | 19°42 | 15°16 | 21°2 | 8°39 | 7°31 | 21°47 | 10°53 | 20°29 | 0°22 | 29°6 |
| T 13 | 21 28 22 | 20°45'52 | 20°41 | 18°9 | 22°40 | 9°13 | 7°36 | 21°48 | 10°54 | 20°30 | 0°22 | 29°7 |
| F 14 | 21 32 19 | 21°43'35 | 21°40 | 21°0 | 24°17 | 9°47 | 7°41 | 21°50 | 10°54 | 20°30 | 0°22 | 29°9 |
| S 15 | 21 36 15 | 22°41'19 | 22°40 | 23°49 | 25°54 | 10°21 | 7°47 | 21°52 | 10°55 | 20°31 | 0°22 | 29°10 |
| S 16 | 21 40 12 | 23°39'04 | 23°39 | 26°38 | 27°31 | 10°55 | 7°52 | 21°54 | 10°56 | 20°31 | 0°23 | 29°12 |
| M17 | 21 44 9 | 24°36'50 | 24°39 | 29°25 | 29°8 | 11°29 | 7°57 | 21°56 | 10°56 | 20°31 | 0°23 | 29°13 |
| T 18 | 21 48 5 | 25°34'38 | 25°38 | 2♁11 | 0♄45 | 12°3 | 8°2 | 21°57 | 10°57 | 20°32 | 0°23 | 29°15 |
| W19 | 21 52 2 | 26°32'28 | 26°38 | 4°56 | 2°23 | 12°36 | 8°7 | 21°59 | 10°58 | 20°32 | 0°23 | 29°16 |
| T 20 | 21 55 58 | 27°30'19 | 27°37 | 7°41 | 4°0 | 13°10 | 8°12 | 22°1 | 10°58 | 20°32 | 0°24 | 29°18 |
| F 21 | 21 59 55 | 28°28'12 | 28°36 | 10°26 | 5°37 | 13°44 | 8°17 | 22°3 | 10°59 | 20°33 | 0°24 | 29°19 |
| S 22 | 22 3 51 | 29°26'07 | 29°35 | 13°10 | 7°13 | 14°17 | 8°22 | 22°5 | 11°0 | 20°33 | 0°24 | 29°21 |
| S 23 | 22 7 48 | 0♁24'04 | 0♁33 | 15°55 | 8°50 | 14°51 | 8°27 | 22°6 | 11°1 | 20°33 | 0°24 | 29°22 |
| M24 | 22 11 44 | 1°22'02 | 1°31 | 18°40 | 10°27 | 15°24 | 8°32 | 22°8 | 11°1 | 20°34 | 0°24 | 29°24 |
| T 25 | 22 15 41 | 2°20'03 | 2°29 | 21°26 | 12°4 | 15°57 | 8°37 | 22°10 | 11°2 | 20°34 | 0°25 | 29°25 |
| W26 | 22 19 38 | 3°18'05 | 3°26 | 24°12 | 13°41 | 16°31 | 8°42 | 22°12 | 11°3 | 20°35 | 0°25 | 29°27 |
| T 27 | 22 23 34 | 4°16'09 | 4°23 | 27°0 | 15°18 | 17°4 | 8°47 | 22°14 | 11°3 | 20°35 | 0°25 | 29°28 |
| F 28 | 22 27 31 | 5°14'16 | 5°20 | 29°48 | 16°54 | 17°37 | 8°52 | 22°15 | 11°4 | 20°35 | 0°25 | 29°30 |
| S 29 | 22 31 27 | 6°12'24 | 6°17 | 2♃38 | 18°31 | 18°10 | 8°57 | 22°17 | 11°5 | 20°36 | 0°26 | 29°31 |
| S 30 | 22 35 24 | 7°10'33 | 7°13 | 5°30 | 20°8 | 18°43 | 9°2 | 22°19 | 11°5 | 20°36 | 0°26 | 29°33 |
| M31 | 22 39 20 | 8♁8'45 | 8♁10 | 8♃23 | 21♄44 | 19♃16 | 9♄7 | 22♁21 | 11♂6 | 20♃36 | 0♄26 | 29♂34 |

Delta T = 7.77 sec. Greg. Calendar created from Swiss Ephemeris, Copyright Astrodienst AG [13.11.2015]

SWISS EPHEMERIS for the year 1693
heliocentric

SEPTEMBER 1693 GC

00:00 UT

| Day | Sid.t | Terra | ☾ | ♃ | ♄ | ♅ | ♆ | ♁ | ♂ | ♆ | ♁ | ♂ |
|------|----------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| T 1 | 22 43 17 | 9♄ 6'58 | 9♄ 6 | 11♂19 | 23♂21 | 19♂49 | 9♂12 | 22♂23 | 11♂ 7 | 20♂37 | 0♂26 | 29♂35 |
| W 2 | 22 47 13 | 10° 5'13 | 10° 2 | 14°17 | 24°57 | 20°22 | 9°17 | 22°24 | 11° 8 | 20°37 | 0°27 | 29°37 |
| T 3 | 22 51 10 | 11° 3'30 | 10°59 | 17°17 | 26°33 | 20°55 | 9°22 | 22°26 | 11° 8 | 20°37 | 0°27 | 29°38 |
| F 4 | 22 55 6 | 12° 1'48 | 11°56 | 20°20 | 28°10 | 21°28 | 9°27 | 22°28 | 11° 9 | 20°38 | 0°27 | 29°40 |
| S 5 | 22 59 3 | 13° 0'08 | 12°53 | 23°27 | 29°46 | 22° 1 | 9°32 | 22°30 | 11°10 | 20°38 | 0°27 | 29°41 |
| S 6 | 23 3 0 | 13°58'30 | 13°50 | 26°36 | 1♂22 | 22°33 | 9°37 | 22°31 | 11°10 | 20°39 | 0°28 | 29°43 |
| M 7 | 23 6 56 | 14°56'53 | 14°48 | 29°50 | 2°59 | 23° 6 | 9°42 | 22°33 | 11°11 | 20°39 | 0°28 | 29°44 |
| T 8 | 23 10 53 | 15°55'18 | 15°47 | 3♂ 7 | 4°35 | 23°38 | 9°47 | 22°35 | 11°12 | 20°39 | 0°28 | 29°46 |
| W 9 | 23 14 49 | 16°53'44 | 16°46 | 6°28 | 6°11 | 24°11 | 9°52 | 22°37 | 11°13 | 20°40 | 0°28 | 29°47 |
| T 10 | 23 18 46 | 17°52'12 | 17°45 | 9°54 | 7°47 | 24°43 | 9°57 | 22°39 | 11°13 | 20°40 | 0°28 | 29°49 |
| F 11 | 23 22 42 | 18°50'41 | 18°45 | 13°25 | 9°23 | 25°16 | 10° 2 | 22°40 | 11°14 | 20°40 | 0°29 | 29°50 |
| S 12 | 23 26 39 | 19°49'12 | 19°45 | 17° 2 | 10°59 | 25°48 | 10° 7 | 22°42 | 11°15 | 20°41 | 0°29 | 29°52 |
| S 13 | 23 30 35 | 20°47'45 | 20°45 | 20°43 | 12°35 | 26°20 | 10°12 | 22°44 | 11°15 | 20°41 | 0°29 | 29°53 |
| M14 | 23 34 32 | 21°46'20 | 21°45 | 24°31 | 14°11 | 26°53 | 10°17 | 22°46 | 11°16 | 20°41 | 0°29 | 29°55 |
| T 15 | 23 38 29 | 22°44'57 | 22°46 | 28°26 | 15°47 | 27°25 | 10°22 | 22°48 | 11°17 | 20°42 | 0°30 | 29°56 |
| W16 | 23 42 25 | 23°43'35 | 23°46 | 2♂26 | 17°23 | 27°57 | 10°27 | 22°49 | 11°17 | 20°42 | 0°30 | 29°58 |
| T 17 | 23 46 22 | 24°42'16 | 24°47 | 6°34 | 18°59 | 28°29 | 10°32 | 22°51 | 11°18 | 20°43 | 0°30 | 29°59 |
| F 18 | 23 50 18 | 25°40'59 | 25°47 | 10°50 | 20°34 | 29° 1 | 10°37 | 22°53 | 11°19 | 20°43 | 0°30 | 0♂ 1 |
| S 19 | 23 54 15 | 26°39'44 | 26°47 | 15°13 | 22°10 | 29°33 | 10°42 | 22°55 | 11°20 | 20°43 | 0°31 | 0° 2 |
| S 20 | 23 58 11 | 27°38'31 | 27°47 | 19°45 | 23°46 | 0♂ 5 | 10°47 | 22°57 | 11°20 | 20°44 | 0°31 | 0° 4 |
| M21 | 0 2 8 | 28°37'20 | 28°46 | 24°25 | 25°21 | 0°37 | 10°52 | 22°58 | 11°21 | 20°44 | 0°31 | 0° 5 |
| T 22 | 0 6 4 | 29°36'12 | 29°45 | 29°13 | 26°57 | 1° 9 | 10°57 | 23° 0 | 11°22 | 20°44 | 0°31 | 0° 7 |
| W23 | 0 10 1 | 0♂35'06 | 0♂44 | 4♂11 | 28°32 | 1°40 | 11° 2 | 23° 2 | 11°22 | 20°45 | 0°32 | 0° 8 |
| T 24 | 0 13 58 | 1°34'03 | 1°43 | 9°18 | 0♂ 8 | 2°12 | 11° 7 | 23° 4 | 11°23 | 20°45 | 0°32 | 0°10 |
| F 25 | 0 17 54 | 2°33'01 | 2°41 | 14°34 | 1°43 | 2°44 | 11°12 | 23° 6 | 11°24 | 20°45 | 0°32 | 0°11 |
| S 26 | 0 21 51 | 3°32'02 | 3°39 | 19°59 | 3°19 | 3°15 | 11°17 | 23° 7 | 11°24 | 20°46 | 0°32 | 0°13 |
| S 27 | 0 25 47 | 4°31'05 | 4°36 | 25°32 | 4°54 | 3°47 | 11°22 | 23° 9 | 11°25 | 20°46 | 0°33 | 0°14 |
| M28 | 0 29 44 | 5°30'11 | 5°34 | 1♂15 | 6°30 | 4°18 | 11°27 | 23°11 | 11°26 | 20°47 | 0°33 | 0°16 |
| T 29 | 0 33 40 | 6°29'18 | 6°31 | 7° 5 | 8° 5 | 4°50 | 11°32 | 23°13 | 11°27 | 20°47 | 0°33 | 0°17 |
| W30 | 0 37 37 | 7♂28'28 | 7♂28 | 13♂ 3 | 9♂40 | 5♂21 | 11♂37 | 23♂15 | 11♂27 | 20♂47 | 0♂33 | 0♂19 |

Delta T = 7.77 sec.

Greg. Calendar

OCTOBER 1693 GC

00:00 UT

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

Delta T = 7.77 sec.

Greg. Calendar

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SWISS EPHEMERIS for the year 1693
heliocentric

NOVEMBER 1693 GC

00:00 UT

| Day | Sid.t | Terra | ☾ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| S 1 | 2 43 47 | 9♁18'47 | 9♁13 | 24♌ 0 | 0♈19 | 21♁37 | 14♁16 | 24♎12 | 11♁50 | 20♁59 | 0♁41 | 1♁ 7 |
| M 2 | 2 47 43 | 10°19'01 | 10°12 | 27°13 | 1°53 | 22° 7 | 14°21 | 24°14 | 11°51 | 20°59 | 0°41 | 1° 8 |
| T 3 | 2 51 40 | 11°19'18 | 11°11 | 0♁22 | 3°28 | 22°37 | 14°26 | 24°16 | 11°51 | 21° 0 | 0°41 | 1°10 |
| W 4 | 2 55 36 | 12°19'36 | 12°11 | 3°28 | 5° 3 | 23° 6 | 14°31 | 24°17 | 11°52 | 21° 0 | 0°41 | 1°12 |
| T 5 | 2 59 33 | 13°19'55 | 13°11 | 6°30 | 6°38 | 23°36 | 14°36 | 24°19 | 11°53 | 21° 0 | 0°42 | 1°13 |
| F 6 | 3 3 29 | 14°20'15 | 14°11 | 9°30 | 8°13 | 24° 6 | 14°41 | 24°21 | 11°53 | 21° 1 | 0°42 | 1°15 |
| S 7 | 3 7 26 | 15°20'37 | 15°12 | 12°27 | 9°48 | 24°35 | 14°46 | 24°23 | 11°54 | 21° 1 | 0°42 | 1°16 |
| S 8 | 3 11 22 | 16°21'01 | 16°14 | 15°22 | 11°23 | 25° 5 | 14°51 | 24°25 | 11°55 | 21° 1 | 0°42 | 1°18 |
| M 9 | 3 15 19 | 17°21'25 | 17°15 | 18°14 | 12°57 | 25°34 | 14°56 | 24°26 | 11°55 | 21° 2 | 0°43 | 1°19 |
| T 10 | 3 19 16 | 18°21'52 | 18°17 | 21° 5 | 14°32 | 26° 3 | 15° 1 | 24°28 | 11°56 | 21° 2 | 0°43 | 1°21 |
| W 11 | 3 23 12 | 19°22'19 | 19°19 | 23°55 | 16° 7 | 26°33 | 15° 6 | 24°30 | 11°57 | 21° 3 | 0°43 | 1°22 |
| T 12 | 3 27 9 | 20°22'49 | 20°21 | 26°43 | 17°42 | 27° 2 | 15°11 | 24°32 | 11°58 | 21° 3 | 0°43 | 1°24 |
| F 13 | 3 31 5 | 21°23'19 | 21°23 | 29°30 | 19°17 | 27°31 | 15°16 | 24°34 | 11°58 | 21° 3 | 0°44 | 1°25 |
| S 14 | 3 35 2 | 22°23'52 | 22°26 | 2♁16 | 20°52 | 28° 0 | 15°21 | 24°35 | 11°59 | 21° 4 | 0°44 | 1°27 |
| S 15 | 3 38 58 | 23°24'26 | 23°28 | 5° 1 | 22°27 | 28°29 | 15°26 | 24°37 | 12° 0 | 21° 4 | 0°44 | 1°28 |
| M 16 | 3 42 55 | 24°25'02 | 24°30 | 7°46 | 24° 2 | 28°59 | 15°31 | 24°39 | 12° 0 | 21° 4 | 0°44 | 1°30 |
| T 17 | 3 46 51 | 25°25'39 | 25°32 | 10°31 | 25°37 | 29°28 | 15°36 | 24°41 | 12° 1 | 21° 5 | 0°45 | 1°31 |
| W 18 | 3 50 48 | 26°26'18 | 26°34 | 13°16 | 27°12 | 29°57 | 15°41 | 24°43 | 12° 2 | 21° 5 | 0°45 | 1°33 |
| T 19 | 3 54 45 | 27°26'58 | 27°35 | 16° 0 | 28°47 | 0♁26 | 15°46 | 24°44 | 12° 3 | 21° 5 | 0°45 | 1°34 |
| F 20 | 3 58 41 | 28°27'40 | 28°36 | 18°46 | 0♁22 | 0°55 | 15°50 | 24°46 | 12° 3 | 21° 6 | 0°45 | 1°36 |
| S 21 | 4 2 38 | 29°28'24 | 29°37 | 21°31 | 1°57 | 1°23 | 15°55 | 24°48 | 12° 4 | 21° 6 | 0°46 | 1°37 |
| S 22 | 4 6 34 | 0♁29'09 | 0♁38 | 24°18 | 3°32 | 1°52 | 16° 0 | 24°50 | 12° 5 | 21° 7 | 0°46 | 1°39 |
| M 23 | 4 10 31 | 1°29'56 | 1°38 | 27° 5 | 5° 8 | 2°21 | 16° 5 | 24°52 | 12° 5 | 21° 7 | 0°46 | 1°40 |
| T 24 | 4 14 27 | 2°30'44 | 2°37 | 29°54 | 6°43 | 2°50 | 16°10 | 24°53 | 12° 6 | 21° 7 | 0°46 | 1°42 |
| W 25 | 4 18 24 | 3°31'34 | 3°37 | 2♁44 | 8°18 | 3°19 | 16°15 | 24°55 | 12° 7 | 21° 8 | 0°46 | 1°43 |
| T 26 | 4 22 20 | 4°32'26 | 4°36 | 5°35 | 9°53 | 3°47 | 16°20 | 24°57 | 12° 7 | 21° 8 | 0°47 | 1°45 |
| F 27 | 4 26 17 | 5°33'18 | 5°35 | 8°29 | 11°28 | 4°16 | 16°25 | 24°59 | 12° 8 | 21° 8 | 0°47 | 1°47 |
| S 28 | 4 30 14 | 6°34'12 | 6°33 | 11°25 | 13° 3 | 4°45 | 16°30 | 25° 1 | 12° 9 | 21° 9 | 0°47 | 1°48 |
| S 29 | 4 34 10 | 7°35'08 | 7°32 | 14°22 | 14°39 | 5°13 | 16°35 | 25° 2 | 12°10 | 21° 9 | 0°47 | 1°50 |
| M 30 | 4 38 7 | 8♁36'04 | 8♁31 | 17♁23 | 16♁14 | 5♁42 | 16♁40 | 25♁ 4 | 12♁10 | 21♁10 | 0♁48 | 1♁51 |

Delta T = 7.76 sec.

Greg. Calendar

DECEMBER 1693 GC

00:00 UT

| Day | Sid.t | Terra | ☾ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| T 1 | 4 42 3 | 9♁37'01 | 9♁31 | 20♁26 | 17♁49 | 6♁10 | 16♁45 | 25♁ 6 | 12♁11 | 21♁10 | 0♁48 | 1♁53 |
| W 2 | 4 46 0 | 10°37'58 | 10°30 | 23°33 | 19°25 | 6°39 | 16°50 | 25° 8 | 12°12 | 21°10 | 0°48 | 1°54 |
| T 3 | 4 49 56 | 11°38'57 | 11°30 | 26°42 | 21° 0 | 7° 7 | 16°55 | 25°10 | 12°12 | 21°11 | 0°48 | 1°56 |
| F 4 | 4 53 53 | 12°39'55 | 12°31 | 29°56 | 22°35 | 7°36 | 17° 0 | 25°11 | 12°13 | 21°11 | 0°49 | 1°57 |
| S 5 | 4 57 50 | 13°40'55 | 13°32 | 3♁13 | 24°11 | 8° 4 | 17° 5 | 25°13 | 12°14 | 21°11 | 0°49 | 1°59 |
| S 6 | 5 1 46 | 14°41'55 | 14°33 | 6°35 | 25°46 | 8°32 | 17°10 | 25°15 | 12°15 | 21°12 | 0°49 | 2° 0 |
| M 7 | 5 5 43 | 15°42'56 | 15°35 | 10° 1 | 27°21 | 9° 0 | 17°15 | 25°17 | 12°15 | 21°12 | 0°49 | 2° 2 |
| T 8 | 5 9 39 | 16°43'57 | 16°37 | 13°32 | 28°57 | 9°29 | 17°20 | 25°18 | 12°16 | 21°12 | 0°50 | 2° 3 |
| W 9 | 5 13 36 | 17°44'59 | 17°39 | 17° 9 | 0♁32 | 9°57 | 17°24 | 25°20 | 12°17 | 21°13 | 0°50 | 2° 5 |
| T 10 | 5 17 32 | 18°46'01 | 18°41 | 20°51 | 2° 8 | 10°25 | 17°29 | 25°22 | 12°17 | 21°13 | 0°50 | 2° 6 |
| F 11 | 5 21 29 | 19°47'05 | 19°44 | 24°39 | 3°43 | 10°53 | 17°34 | 25°24 | 12°18 | 21°14 | 0°50 | 2° 8 |
| S 12 | 5 25 25 | 20°48'08 | 20°47 | 28°33 | 5°19 | 11°21 | 17°39 | 25°26 | 12°19 | 21°14 | 0°51 | 2°10 |
| S 13 | 5 29 22 | 21°49'13 | 21°50 | 2♁34 | 6°54 | 11°49 | 17°44 | 25°27 | 12°19 | 21°14 | 0°51 | 2°11 |
| M 14 | 5 33 19 | 22°50'17 | 22°53 | 6°42 | 8°30 | 12°18 | 17°49 | 25°29 | 12°20 | 21°15 | 0°51 | 2°13 |
| T 15 | 5 37 15 | 23°51'23 | 23°55 | 10°58 | 10° 6 | 12°46 | 17°54 | 25°31 | 12°21 | 21°15 | 0°51 | 2°14 |
| W 16 | 5 41 12 | 24°52'29 | 24°58 | 15°22 | 11°41 | 13°13 | 17°59 | 25°33 | 12°22 | 21°15 | 0°51 | 2°16 |
| T 17 | 5 45 8 | 25°53'36 | 26° 0 | 19°54 | 13°17 | 13°41 | 18° 4 | 25°35 | 12°22 | 21°16 | 0°52 | 2°17 |
| F 18 | 5 49 5 | 26°54'43 | 27° 3 | 24°34 | 14°53 | 14° 9 | 18° 9 | 25°36 | 12°23 | 21°16 | 0°52 | 2°19 |
| S 19 | 5 53 1 | 27°55'51 | 28° 4 | 29°23 | 16°28 | 14°37 | 18°14 | 25°38 | 12°24 | 21°16 | 0°52 | 2°20 |
| S 20 | 5 56 58 | 28°57'00 | 29° 6 | 4♁21 | 18° 4 | 15° 5 | 18°19 | 25°40 | 12°24 | 21°17 | 0°52 | 2°22 |
| M 21 | 6 0 54 | 29°58'09 | 0♁ 7 | 9°28 | 19°40 | 15°33 | 18°24 | 25°42 | 12°25 | 21°17 | 0°53 | 2°23 |
| T 22 | 6 4 51 | 0♁59'19 | 1° 7 | 14°44 | 21°16 | 16° 1 | 18°29 | 25°44 | 12°26 | 21°18 | 0°53 | 2°25 |
| W 23 | 6 8 48 | 2° 0'29 | 2° 8 | 20° 9 | 22°52 | 16°28 | 18°34 | 25°45 | 12°27 | 21°18 | 0°53 | 2°26 |
| T 24 | 6 12 44 | 3° 1'40 | 3° 7 | 25°43 | 24°27 | 16°56 | 18°39 | 25°47 | 12°27 | 21°18 | 0°53 | 2°28 |
| F 25 | 6 16 41 | 4° 2'52 | 4° 7 | 1♁26 | 26° 3 | 17°24 | 18°43 | 25°49 | 12°28 | 21°19 | 0°54 | 2°30 |
| S 26 | 6 20 37 | 5° 4'04 | 5° 6 | 7°16 | 27°39 | 17°51 | 18°48 | 25°51 | 12°29 | 21°19 | 0°54 | 2°31 |
| S 27 | 6 24 34 | 6° 5'16 | 6° 5 | 13°14 | 29°15 | 18°19 | 18°53 | 25°53 | 12°29 | 21°19 | 0°54 | 2°33 |
| M 28 | 6 28 30 | 7° 6'28 | 7° 5 | 19°19 | 0♁51 | 18°47 | 18°58 | 25°54 | 12°30 | 21°20 | 0°54 | 2°34 |
| T 29 | 6 32 27 | 8° 7'40 | 8° 4 | 25°29 | 2°27 | 19°14 | 19° 3 | 25°56 | 12°31 | 21°20 | 0°55 | 2°36 |
| W 30 | 6 36 24 | 9° 8'52 | 9° 3 | 1♁43 | 4° 3 | 19°42 | 19° 8 | 25°58 | 12°32 | 21°20 | 0°55 | 2°37 |
| T 31 | 6 40 20 | 10♁10'03 | 10♁ 3 | 8♁ 1 | 5♁39 | 20♁ 9 | 19♁13 | 26♁ 0 | 12♁32 | 21♁21 | 0♁55 | 2♁39 |

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