

SWISS EPHEMERIS for the year 689 BCE

JANUARY 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | |
|------|---------|-----------|-----------|---------|--------|--------|--------|--------|--------|----------|-------|--------|-------|--------|------|---|---|---|---|---|---|---|---|--|
| F 1 | 6 9 28 | 3°44'44" | 26°19' | 20°18' | 20°24' | 2°32' | 29°R13 | 6°53' | 13°31' | 5°R56' | 7°13' | 5°17' | 5°24' | 22°23' | n.a. | | | | | | | | | |
| S 2 | 6 13 25 | 4°45'34" | 10°10'50" | 20°R28' | 21°26' | 2°49' | 29°12' | 7°01' | 13°04' | 5°10'55" | 7°15' | 5°18' | 5°21' | 22°30' | n.a. | | | | | | | | | |
| S 3 | 6 17 21 | 5°46'23" | 25°06' | 20°26' | 22°28' | 3°36' | 29°09' | 7°08' | 13°08' | 5°55' | 7°17' | 5°R18' | 5°18' | 22°37' | n.a. | | | | | | | | | |
| M 4 | 6 21 18 | 6°47'11" | 9°15' | 20°13' | 23°30' | 4°24' | 29°07' | 7°15' | 13°11' | 5°54' | 7°19' | 5°D17' | 5°15' | 22°43' | n.a. | | | | | | | | | |
| T 5 | 6 25 14 | 7°47'58" | 22°46' | 19°50' | 24°31' | 5°11' | 29°05' | 7°22' | 13°15' | 5°53' | 7°21' | 5°18' | 5°12' | 22°50' | n.a. | | | | | | | | | |
| W 6 | 6 29 11 | 8°48'43" | 6°11'10" | 19°16' | 25°32' | 5°58' | 29°02' | 7°30' | 13°18' | 5°53' | 7°22' | 5°18' | 5°09' | 22°57' | n.a. | | | | | | | | | |
| T 7 | 6 33 7 | 9°49'28" | 19°18' | 18°33' | 26°33' | 6°46' | 28°59' | 7°37' | 13°22' | 5°52' | 7°24' | 5°18' | 5°05' | 23°03' | n.a. | | | | | | | | | |
| F 8 | 6 37 4 | 10°50'11" | 2°11' | 17°41' | 27°33' | 7°33' | 28°56' | 7°44' | 13°25' | 5°51' | 7°26' | 5°19' | 5°02' | 23°10' | n.a. | | | | | | | | | |
| S 9 | 6 41 1 | 11°50'53" | 14°51' | 16°42' | 28°33' | 8°20' | 28°53' | 7°51' | 13°29' | 5°50' | 7°28' | 5°19' | 4°59' | 23°17' | n.a. | | | | | | | | | |
| S 10 | 6 44 57 | 12°51'33" | 27°19' | 15°38' | 29°32' | 9°08' | 28°49' | 7°59' | 13°32' | 5°50' | 7°30' | 5°20' | 4°56' | 23°23' | n.a. | | | | | | | | | |
| M11 | 6 48 54 | 13°52'12" | 9°36' | 14°31' | 0°31' | 9°55' | 28°46' | 8°06' | 13°36' | 5°49' | 7°32' | 5°R20' | 4°53' | 23°30' | n.a. | | | | | | | | | |
| T 12 | 6 52 50 | 14°52'50" | 21°44' | 13°22' | 1°29' | 10°43' | 28°42' | 8°13' | 13°39' | 5°48' | 7°33' | 5°19' | 4°50' | 23°37' | n.a. | | | | | | | | | |
| W13 | 6 56 47 | 15°53'25" | 3°44' | 12°13' | 2°27' | 11°30' | 28°38' | 8°20' | 13°43' | 5°47' | 7°35' | 5°18' | 4°46' | 23°44' | n.a. | | | | | | | | | |
| T 14 | 7 0 43 | 16°53'59" | 15°38' | 11°06' | 3°24' | 12°17' | 28°34' | 8°28' | 13°46' | 5°46' | 7°37' | 5°17' | 4°43' | 23°50' | n.a. | | | | | | | | | |
| F 15 | 7 4 40 | 17°54'31" | 27°29' | 10°02' | 4°20' | 13°05' | 28°30' | 8°35' | 13°50' | 5°45' | 7°39' | 5°15' | 4°40' | 23°57' | n.a. | | | | | | | | | |
| S 16 | 7 8 37 | 18°55'00" | 9°18' | 9°03' | 5°17' | 13°52' | 28°25' | 8°42' | 13°53' | 5°44' | 7°41' | 5°13' | 4°37' | 24°04' | n.a. | | | | | | | | | |
| S 17 | 7 12 33 | 19°55'28" | 21°11' | 8°10' | 6°12' | 14°39' | 28°21' | 8°49' | 13°56' | 5°43' | 7°42' | 5°11' | 4°34' | 24°10' | n.a. | | | | | | | | | |
| M18 | 7 16 30 | 20°55'54" | 3°11'09" | 7°23' | 7°07' | 15°26' | 28°16' | 8°56' | 14°00' | 5°42' | 7°44' | 5°09' | 4°30' | 24°17' | n.a. | | | | | | | | | |
| T 19 | 7 20 26 | 21°56'18" | 15°18' | 6°44' | 8°01' | 16°14' | 28°11' | 9°03' | 14°03' | 5°41' | 7°46' | 5°09' | 4°27' | 24°24' | n.a. | | | | | | | | | |
| W20 | 7 24 23 | 22°56'40" | 27°41' | 6°12' | 8°54' | 17°01' | 28°06' | 9°11' | 14°07' | 5°40' | 7°48' | 5°D08' | 4°24' | 24°30' | n.a. | | | | | | | | | |
| T 21 | 7 28 19 | 23°56'59" | 10°24' | 5°47' | 9°47' | 17°48' | 28°01' | 9°18' | 14°10' | 5°39' | 7°50' | 5°09' | 4°21' | 24°37' | n.a. | | | | | | | | | |
| F 22 | 7 32 16 | 24°57'17" | 23°30' | 5°29' | 10°39' | 18°36' | 27°55' | 9°25' | 14°14' | 5°38' | 7°51' | 5°10' | 4°18' | 24°44' | n.a. | | | | | | | | | |
| S 23 | 7 36 12 | 25°57'32" | 7°11' | 5°19' | 11°31' | 19°23' | 27°50' | 9°32' | 14°17' | 5°37' | 7°53' | 5°12' | 4°15' | 24°50' | n.a. | | | | | | | | | |
| S 24 | 7 40 9 | 26°57'46" | 21°01' | 5°D16' | 12°21' | 20°10' | 27°44' | 9°39' | 14°21' | 5°35' | 7°55' | 5°13' | 4°11' | 24°57' | n.a. | | | | | | | | | |
| M25 | 7 44 6 | 27°57'57" | 5°27' | 5°19' | 13°11' | 20°57' | 27°38' | 9°46' | 14°24' | 5°34' | 7°57' | 5°R14' | 4°08' | 25°04' | n.a. | | | | | | | | | |
| T 26 | 7 48 2 | 28°58'06" | 20°14' | 5°29' | 14°00' | 21°45' | 27°32' | 9°53' | 14°27' | 5°33' | 7°58' | 5°13' | 4°05' | 25°11' | n.a. | | | | | | | | | |
| W27 | 7 51 59 | 29°58'13" | 5°17' | 5°44' | 14°48' | 22°32' | 27°26' | 10°00' | 14°31' | 5°32' | 8°00' | 5°11' | 4°02' | 25°17' | n.a. | | | | | | | | | |
| T 28 | 7 55 55 | 0°58'18" | 20°27' | 6°05' | 15°35' | 23°19' | 27°20' | 10°07' | 14°34' | 5°30' | 8°02' | 5°08' | 3°59' | 25°24' | n.a. | | | | | | | | | |
| F 29 | 7 59 52 | 1°58'21" | 5°10'33" | 6°31' | 16°21' | 24°06' | 27°14' | 10°14' | 14°38' | 5°29' | 8°03' | 5°04' | 3°56' | 25°31' | n.a. | | | | | | | | | |
| S 30 | 8 3 48 | 2°58'23" | 20°27' | 7°02' | 17°06' | 24°53' | 27°07' | 10°21' | 14°41' | 5°28' | 8°05' | 5°01' | 3°52' | 25°37' | n.a. | | | | | | | | | |
| S 31 | 8 7 45 | 3°58'22" | 5°12' | 7°38' | 17°50' | 25°41' | 27°11' | 10°28' | 14°44' | 5°10'27" | 8°07' | 4°57' | 3°49' | 25°44' | n.a. | | | | | | | | | |

Delta T = 05h39m20s Julian Calendar 1 Jan. 689 BCE == Greg. Calendar 25 Dec. 690 BCE
 The year -688 astronomical counting style corresponds to year 689 B.C.E historical counting style.

FEBRUARY 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | |
|------|---------|-----------|-----------|--------|--------|--------|-----------|--------|--------|----------|-------|--------|-------|--------|------|---|---|---|---|---|---|---|---|--|
| M 1 | 8 11 41 | 4°58'20" | 19°12' | 8°17' | 18°33' | 26°28' | 26°R54' | 10°35' | 14°38' | 5°R25' | 8°09' | 4°R55' | 3°46' | 25°51' | n.a. | | | | | | | | | |
| T 2 | 8 15 38 | 5°58'16" | 2°11'57" | 9°01' | 19°15' | 27°15' | 26°14'47" | 10°41' | 14°51' | 5°10'24" | 8°10' | 4°D54' | 3°43' | 25°57' | n.a. | | | | | | | | | |
| W 3 | 8 19 35 | 6°58'10" | 16°18' | 9°48' | 19°56' | 28°02' | 26°41' | 10°48' | 14°54' | 5°22' | 8°12' | 4°35' | 3°40' | 26°04' | n.a. | | | | | | | | | |
| T 4 | 8 23 31 | 7°58'03" | 29°16' | 10°39' | 20°36' | 28°49' | 26°34' | 10°55' | 14°57' | 5°21' | 8°13' | 4°56' | 3°36' | 26°11' | n.a. | | | | | | | | | |
| F 5 | 8 27 28 | 8°57'54" | 11°15' | 11°33' | 21°14' | 29°36' | 26°27' | 11°02' | 15°01' | 5°20' | 8°15' | 4°57' | 3°33' | 26°18' | n.a. | | | | | | | | | |
| S 6 | 8 31 24 | 9°57'42" | 24°50' | 12°30' | 21°52' | 0°23' | 26°19' | 11°08' | 15°04' | 5°18' | 8°17' | 4°59' | 3°30' | 26°24' | n.a. | | | | | | | | | |
| S 7 | 8 35 21 | 10°57'29" | 6°32' | 13°29' | 22°28' | 1°10' | 26°12' | 11°15' | 15°07' | 5°17' | 8°18' | 4°R59' | 3°27' | 26°31' | n.a. | | | | | | | | | |
| M 8 | 8 39 17 | 11°57'15" | 18°36' | 14°32' | 23°02' | 1°57' | 26°05' | 11°22' | 15°10' | 5°15' | 8°20' | 4°58' | 3°24' | 26°38' | n.a. | | | | | | | | | |
| T 9 | 8 43 14 | 12°56'58" | 0°33' | 15°36' | 23°35' | 2°44' | 25°58' | 11°28' | 15°14' | 5°14' | 8°21' | 4°55' | 3°21' | 26°44' | n.a. | | | | | | | | | |
| W10 | 8 47 10 | 13°56'38" | 12°26' | 16°43' | 24°07' | 3°31' | 25°50' | 11°35' | 15°17' | 5°12' | 8°23' | 4°50' | 3°17' | 26°51' | n.a. | | | | | | | | | |
| T 11 | 8 51 7 | 14°56'17" | 24°17' | 17°53' | 24°37' | 4°18' | 25°43' | 11°41' | 15°20' | 5°11' | 8°25' | 4°44' | 3°14' | 26°58' | n.a. | | | | | | | | | |
| F 12 | 8 55 4 | 15°55'54" | 6°11'07" | 19°04' | 25°06' | 5°05' | 25°35' | 11°48' | 15°23' | 5°09' | 8°26' | 4°36' | 3°11' | 27°04' | n.a. | | | | | | | | | |
| S 13 | 8 59 0 | 16°55'28" | 17°59' | 20°17' | 25°33' | 5°52' | 25°28' | 11°54' | 15°26' | 5°08' | 8°28' | 4°28' | 3°08' | 27°11' | n.a. | | | | | | | | | |
| S 14 | 9 2 57 | 17°55'00" | 29°54' | 21°33' | 25°58' | 6°39' | 25°20' | 12°01' | 15°29' | 5°06' | 8°29' | 4°20' | 3°05' | 27°18' | n.a. | | | | | | | | | |
| M15 | 9 6 53 | 18°54'29" | 11°15'55" | 22°50' | 26°21' | 7°26' | 25°12' | 12°07' | 15°32' | 5°05' | 8°31' | 4°13' | 3°02' | 27°24' | n.a. | | | | | | | | | |
| T 16 | 9 10 50 | 19°53'56" | 24°05' | 24°08' | 26°43' | 8°12' | 25°05' | 12°13' | 15°35' | 5°03' | 8°32' | 4°08' | 2°58' | 27°31' | n.a. | | | | | | | | | |
| W17 | 9 14 46 | 20°53'21" | 6°26' | 25°29' | 27°03' | 8°59' | 24°57' | 12°19' | 15°38' | 5°01' | 8°33' | 4°04' | 2°55' | 27°38' | n.a. | | | | | | | | | |
| T 18 | 9 18 43 | 21°52'44" | 19°05' | 26°51' | 27°20' | 9°46' | 24°49' | 12°26' | 15°41' | 5°00' | 8°35' | 4°D03' | 2°52' | 27°45' | n.a. | | | | | | | | | |
| F 19 | 9 22 39 | 22°52'04" | 2°11'03" | 28°15' | 27°36' | 10°33' | 24°41' | 12°32' | 15°44' | 4°58' | 8°36' | 4°04' | 2°49' | 27°51' | n.a. | | | | | | | | | |
| S 20 | 9 26 36 | 23°51'21" | 15°26' | 29°40' | 27°50' | 11°19' | 24°34' | 12°38' | 15°47' | 4°57' | 8°38' | 4°05' | 2°46' | 27°58' | n.a. | | | | | | | | | |
| S 21 | 9 30 33 | 24°50'37" | 29°15' | 1°27' | 28°01' | 12°06' | 24°26' | 12°44' | 15°50' | 4°55' | 8°39' | 4°R06' | 2°42' | 28°05' | n.a. | | | | | | | | | |
| M22 | 9 34 29 | 25°49'49" | 13°33' | 2°36' | | | | | | | | | | | | | | | | | | | | |

SWISS EPHEMERIS for the year 689 BCE

MARCH 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|----------|----------|-------|-------|--------|-------|--------|-------|-------|-------|------|-------|------|-------|------|---|---|---|---|---|---|---|---|
| T 1 | 10 6 2 | 3☿42'10 | 12♁17 | 15♁16 | 27°R59 | 19☿4 | 23°R17 | 13♁36 | 16♁15 | 4°R40 | 8♁51 | 3°R16 | 2♁14 | 29☿5 | n.a. | | | | | | | | |
| W 2 | 10 9 58 | 4°41'04 | 25°43 | 16°58 | 27☿46 | 19°51 | 23♁9 | 13°41 | 16°17 | 4♁39 | 8°52 | 3♁14 | 2°11 | 29°12 | n.a. | | | | | | | | |
| T 3 | 10 13 55 | 5°39'56 | 8♁42 | 18°41 | 27°31 | 20°37 | 23°2 | 13°46 | 16°20 | 4°37 | 8°53 | 3°D14 | 2°7 | 29°18 | n.a. | | | | | | | | |
| F 4 | 10 17 51 | 6°38'46 | 21°19 | 20°26 | 27°14 | 21°23 | 22°55 | 13°52 | 16°22 | 4°35 | 8°54 | 3°14 | 2°4 | 29°25 | n.a. | | | | | | | | |
| S 5 | 10 21 48 | 7°37'34 | 3♁37 | 22°12 | 26°54 | 22°9 | 22°47 | 13°57 | 16°25 | 4°34 | 8°55 | 3°R15 | 2°1 | 29°32 | n.a. | | | | | | | | |
| S 6 | 10 25 44 | 8°36'21 | 15°42 | 23°59 | 26°32 | 22°56 | 22°40 | 14°2 | 16°27 | 4°32 | 8°56 | 3°14 | 1°58 | 29°38 | n.a. | | | | | | | | |
| M 7 | 10 29 41 | 9°35'05 | 27°38 | 25°48 | 26°7 | 23°42 | 22°33 | 14°8 | 16°30 | 4°30 | 8°57 | 3°11 | 1°55 | 29°45 | n.a. | | | | | | | | |
| T 8 | 10 33 37 | 10°33'48 | 9☿30 | 27°39 | 25°41 | 24°28 | 22°26 | 14°13 | 16°32 | 4°29 | 8°58 | 3°6 | 1°52 | 29°52 | n.a. | | | | | | | | |
| W 9 | 10 37 34 | 11°32'28 | 21°19 | 29°31 | 25°13 | 25°14 | 22°19 | 14°18 | 16°35 | 4°27 | 8°59 | 2°57 | 1°48 | 29°59 | n.a. | | | | | | | | |
| T 10 | 10 41 31 | 12°31'07 | 3☿9 | 1☿24 | 24°42 | 26°0 | 22°12 | 14°23 | 16°37 | 4°26 | 9°0 | 2°47 | 1°45 | 0☿5 | n.a. | | | | | | | | |
| F 11 | 10 45 27 | 13°29'43 | 15°1 | 3°20 | 24°10 | 26°46 | 22°5 | 14°27 | 16°39 | 4°24 | 9°1 | 2°34 | 1°42 | 0°12 | n.a. | | | | | | | | |
| S 12 | 10 49 24 | 14°28'17 | 26°58 | 5°16 | 23°37 | 27°32 | 21°58 | 14°32 | 16°41 | 4°22 | 9°2 | 2°21 | 1°39 | 0°19 | n.a. | | | | | | | | |
| S 13 | 10 53 20 | 15°26'50 | 8☿59 | 7°14 | 23°2 | 28°18 | 21°52 | 14°37 | 16°44 | 4°21 | 9°3 | 2°8 | 1°36 | 0°25 | n.a. | | | | | | | | |
| M14 | 10 57 17 | 16°25'20 | 21°7 | 9°14 | 22°26 | 29°4 | 21°45 | 14°42 | 16°46 | 4°19 | 9°4 | 1°56 | 1°33 | 0°32 | n.a. | | | | | | | | |
| T 15 | 11 1 13 | 17°23'48 | 3♁24 | 11°15 | 21°49 | 29°49 | 21°39 | 14°46 | 16°48 | 4°18 | 9°5 | 1°47 | 1°29 | 0°39 | n.a. | | | | | | | | |
| W16 | 11 5 10 | 18°22'14 | 15°51 | 13°17 | 21°12 | 0☿35 | 21°32 | 14°51 | 16°50 | 4°16 | 9°6 | 1°40 | 1°26 | 0°46 | n.a. | | | | | | | | |
| T 17 | 11 9 6 | 19°20'38 | 28°31 | 15°20 | 20°34 | 1°21 | 21°26 | 14°55 | 16°52 | 4°14 | 9°7 | 1°36 | 1°23 | 0°52 | n.a. | | | | | | | | |
| F 18 | 11 13 3 | 20°18'59 | 11♁28 | 17°25 | 19°56 | 2°7 | 21°20 | 15°0 | 16°54 | 4°13 | 9°7 | 1°35 | 1°20 | 0°59 | n.a. | | | | | | | | |
| S 19 | 11 16 59 | 21°17'18 | 24°45 | 19°31 | 19°18 | 2°52 | 21°14 | 15°4 | 16°56 | 4°11 | 9°8 | 1°35 | 1°17 | 1°6 | n.a. | | | | | | | | |
| S 20 | 11 20 56 | 22°15'36 | 8♁25 | 21°38 | 18°40 | 3°38 | 21°8 | 15°8 | 16°58 | 4°10 | 9°9 | 1°35 | 1°13 | 1°12 | n.a. | | | | | | | | |
| M21 | 11 24 53 | 23°13'50 | 22°30 | 23°45 | 18°3 | 4°23 | 21°3 | 15°12 | 17°0 | 4°8 | 9°10 | 1°34 | 1°10 | 1°19 | n.a. | | | | | | | | |
| T 22 | 11 28 49 | 24°12'03 | 7♁0 | 25°53 | 17°26 | 5°9 | 20°57 | 15°16 | 17°1 | 4°7 | 9°10 | 1°30 | 1°7 | 1°26 | n.a. | | | | | | | | |
| W23 | 11 32 46 | 25°10'14 | 21°51 | 28°2 | 16°51 | 5°54 | 20°52 | 15°20 | 17°3 | 4°5 | 9°11 | 1°24 | 1°4 | 1°32 | n.a. | | | | | | | | |
| T 24 | 11 36 42 | 26°8'22 | 6♁58 | 0☿10 | 16°17 | 6°40 | 20°47 | 15°24 | 17°5 | 4°4 | 9°12 | 1°16 | 1°1 | 1°39 | n.a. | | | | | | | | |
| F 25 | 11 40 39 | 27°6'28 | 22°12 | 2°19 | 15°44 | 7°25 | 20°42 | 15°28 | 17°7 | 4°2 | 9°12 | 1°6 | 0°58 | 1°46 | n.a. | | | | | | | | |
| S 26 | 11 44 35 | 28°4'33 | 7♁21 | 4°27 | 15°13 | 8°10 | 20°37 | 15°32 | 17°8 | 4°1 | 9°13 | 0°54 | 0°54 | 1°53 | n.a. | | | | | | | | |
| S 27 | 11 48 32 | 29°2'36 | 22°15 | 6°34 | 14°44 | 8°55 | 20°32 | 15°35 | 17°10 | 3°59 | 9°13 | 0°44 | 0°51 | 1°59 | n.a. | | | | | | | | |
| M28 | 11 52 28 | 0☿0'37 | 6♁45 | 8°40 | 14°17 | 9°41 | 20°27 | 15°39 | 17°11 | 3°58 | 9°14 | 0°35 | 0°48 | 2°6 | n.a. | | | | | | | | |
| T 29 | 11 56 25 | 0°58'36 | 20°48 | 10°45 | 13°52 | 10°26 | 20°23 | 15°42 | 17°13 | 3°56 | 9°14 | 0°29 | 0°45 | 2°13 | n.a. | | | | | | | | |
| W30 | 12 0 22 | 1°56'35 | 4☿21 | 12°49 | 13°29 | 11°11 | 20°18 | 15°46 | 17°14 | 3°55 | 9°15 | 0°25 | 0°42 | 2°19 | n.a. | | | | | | | | |
| T 31 | 12 4 18 | 2☿54'31 | 17♁25 | 14☿50 | 13☿8 | 11☿56 | 20♁14 | 15♁49 | 17♁16 | 3♁53 | 9♁15 | 0♁23 | 0♁38 | 2☿26 | n.a. | | | | | | | | |

Delta T = 05h39m18s Julian Calendar 1 March 689 BCE == Greg. Calendar 23 Feb. 689 BCE
 The year -688 astronomical counting style corresponds to year 689 B.C.E historical counting style.

APRIL 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|----------|----------|-------|-------|--------|-------|--------|-------|--------|-------|-------|--------|-------|------|------|---|---|---|---|---|---|---|---|
| F 1 | 12 8 15 | 3☿52'27 | 0♁5 | 16☿49 | 12°R50 | 12☿41 | 20°R10 | 15♁52 | 17♁17 | 3°R52 | 9♁16 | 0°R23 | 0♁35 | 2☿33 | n.a. | | | | | | | | |
| S 2 | 12 12 11 | 4°50'20 | 12°24 | 18°46 | 12☿34 | 13°26 | 20♁6 | 15°55 | 17°19 | 3♁51 | 9°16 | 0♁23 | 0°32 | 2°39 | n.a. | | | | | | | | |
| S 3 | 12 16 8 | 5°48'13 | 24°29 | 20°41 | 12°20 | 14°11 | 20°3 | 15°58 | 17°20 | 3°49 | 9°17 | 0°22 | 0°29 | 2°46 | n.a. | | | | | | | | |
| M 4 | 12 20 4 | 6°46'04 | 6☿24 | 22°32 | 12°9 | 14°56 | 19°59 | 16°1 | 17°21 | 3°48 | 9°17 | 0°19 | 0°26 | 2°53 | n.a. | | | | | | | | |
| T 5 | 12 24 1 | 7°43'54 | 18°14 | 24°20 | 12°0 | 15°40 | 19°56 | 16°4 | 17°22 | 3°47 | 9°17 | 0°14 | 0°23 | 3°0 | n.a. | | | | | | | | |
| W 6 | 12 27 57 | 8°41'42 | 0☿3 | 26°6 | 11°54 | 16°25 | 19°53 | 16°7 | 17°24 | 3°45 | 9°18 | 0°5 | 0°19 | 3°6 | n.a. | | | | | | | | |
| T 7 | 12 31 54 | 9°39'29 | 11°55 | 27°48 | 11°50 | 17°10 | 19°50 | 16°10 | 17°25 | 3°44 | 9°18 | 29♁55 | 0°16 | 3°13 | n.a. | | | | | | | | |
| F 8 | 12 35 51 | 10°37'14 | 23°52 | 29°27 | 11°D49 | 17°54 | 19°47 | 16°12 | 17°26 | 3°43 | 9°18 | 29°42 | 0°13 | 3°20 | n.a. | | | | | | | | |
| S 9 | 12 39 47 | 11°34'58 | 5☿55 | 1♁2 | 11°50 | 18°39 | 19°44 | 16°15 | 17°27 | 3°42 | 9°18 | 29°28 | 0°10 | 3°26 | n.a. | | | | | | | | |
| S 10 | 12 43 44 | 12°32'41 | 18°7 | 2°34 | 11°53 | 19°24 | 19°42 | 16°17 | 17°28 | 3°40 | 9°19 | 29°15 | 0°7 | 3°33 | n.a. | | | | | | | | |
| M11 | 12 47 40 | 13°30'22 | 0♁27 | 4°2 | 11°59 | 20°8 | 19°39 | 16°20 | 17°29 | 3°39 | 9°19 | 29°4 | 0°4 | 3°40 | n.a. | | | | | | | | |
| T 12 | 12 51 37 | 14°28'01 | 12°56 | 5°27 | 12°6 | 20°53 | 19°37 | 16°22 | 17°29 | 3°38 | 9°19 | 28°54 | 0°0 | 3°47 | n.a. | | | | | | | | |
| W13 | 12 55 33 | 15°25'39 | 25°36 | 6°48 | 12°16 | 21°37 | 19°35 | 16°24 | 17°30 | 3°37 | 9°19 | 28°47 | 29♁57 | 3°53 | n.a. | | | | | | | | |
| T 14 | 12 59 30 | 16°23'16 | 8♁28 | 8°5 | 12°28 | 22°21 | 19°34 | 16°26 | 17°31 | 3°36 | 9°19 | 28°43 | 29°54 | 4°0 | n.a. | | | | | | | | |
| F 15 | 13 3 26 | 17°20'51 | 21°33 | 9°19 | 12°42 | 23°6 | 19°32 | 16°28 | 17°32 | 3°35 | 9°19 | 28°42 | 29°51 | 4°7 | n.a. | | | | | | | | |
| S 16 | 13 7 23 | 18°18'24 | 4♁54 | 10°28 | 12°58 | 23°50 | 19°31 | 16°30 | 17°32 | 3°34 | 9°19 | 28°D42 | 29°48 | 4°13 | n.a. | | | | | | | | |
| S 17 | 13 11 20 | 19°15'56 | 18°32 | 11°34 | 13°16 | 24°34 | 19°29 | 16°32 | 17°33 | 3°33 | 9°R19 | 28°R42 | 29°44 | 4°20 | n.a. | | | | | | | | |
| M18 | 13 15 16 | 20°13'26 | 2♁29 | 12°36 | 13°35 | 25°18 | 19°28 | 16°33 | 17°34 | 3°32 | 9°19 | 28°41 | 29°41 | 4°27 | n.a. | | | | | | | | |
| T 19 | 13 19 13 | 21°10'55 | 16°45 | 13°34 | 13°57 | 26°2 | 19°28 | 16°35 | 17°34 | 3°31 | 9°19 | 28°39 | 29°38 | 4°34 | n.a. | | | | | | | | |
| W20 | 13 23 9 | 22°8'22 | 1♁19 | 14°27 | 14°20 | 26°46 | 19°27 | 16°36 | 17°35 | 3°30 | 9°19 | 28°34 | 29°35 | 4°40 | n.a. | | | | | | | | |
| T 21 | 13 27 6 | 23°5'48 | 16°5 | 15°17 | 14°45 | 27°30 | 19°26 | 16°38 | 17°35 | 3°29 | 9°19 | 28°27 | 29°32 | 4°47 | n.a. | | | | | | | | |
| F 22 | 13 31 2 | 24°3'12 | 0♁59 | 16°2 | 15°11 | 28°14 | 19°26 | 16°39 | 17°35 | 3°28 | 9°19 | 28°19 | 29°29 | 4°54 | n.a. | | | | | | | | |
| S 23 | 13 34 59 | 25°0'35 | 15°51 | 16°44 | 15°39 | 28°58 | 19°D26 | 16°40 | 17°36 | 3°27 | 9°19 | 28°9 | 29°25 | 5°0 | n.a. | | | | | | | | |
| S 24 | 13 38 55 | 25°57'57 | 0♁32 | 17°20 | 16°9 | 29°41 | 19°26 | 16°41 | 17°36 | 3°26 | 9°19 | 28°0 | 29°22 | 5°7 | n.a. | | | | | | | | |
| M25 | 13 42 52 | 26°55'17 | 14°55 | 17°53 | 16°40 | 0☿25 | 19°26 | 16°42 | 17°36 | 3°25 | 9°18 | 27°53 | 29°19 | 5°14 | n.a. | | | | | | | | |
| T 26 | 13 46 48 | 27°52'37 | 28°54 | 18°20 | 17°12 | 1°9 | 19°27 | 16°43 | 17°36 | 3°24 | 9°18 | 27°47 | 29°16 | 5°21 | n.a. | | | | | | | | |
| W27 | 13 50 45 | 28°49'57 | 12♁27 | 18°44 | 17°46 | 1°52 | 19°27 | 16°44 | 17°37 | 3°24 | 9°18 | 27°44 | 29°13 | 5°27 | n.a. | | | | | | | | |
| T 28 | 13 54 42 | 29°47'15 | 25°34 | 19°2 | 18°21 | 2°36 | 19°28 | 16°44 | 17°37 | 3°23 | 9°18 | 27°D43 | 29°10 | 5°34 | n.a. | | | | | | | | |
| F 29 | 13 58 38 | 0♁44'33 | 8♁16 | 19°16 | 18°57 | 3°19 | 19°29 | 16°45 | 17°R37 | 3°22 | 9°17 | 27°43 | 29°6 | 5°41 | n.a. | | | | | | | | |
| S 30 | 14 2 35 | 1♁41'50 | 20♁39 | 19♁26 | 19♁35 | 4☿3 | 19♁30 | 16♁45 | 17♁37 | 3♁21 | 9♁17 | 27♁44 | 29♁3 | 5♁47 | n.a. | | | | | | | | |

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SWISS EPHEMERIS for the year 689 BCE

MAY 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|----------|-----------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|--------|-------|------|---|---|---|---|---|---|---|---|
| S 1 | 14 6 31 | 28°39'06 | 28°46 | 19°31 | 20°13 | 4°46 | 19°32 | 16°36 | 17°37 | 3°21 | 9°17 | 27°R45 | 29°0 | 5°54 | n.a. | | | | | | | | |
| M 2 | 14 10 28 | 3°36'22 | 14°44 | 19°R31 | 20°53 | 5°29 | 19°33 | 16°46 | 17°37 | 3°20 | 9°16 | 27°R44 | 28°57 | 6°1 | n.a. | | | | | | | | |
| T 3 | 14 14 24 | 4°33'37 | 26°35 | 19°27 | 21°34 | 6°13 | 19°35 | 16°46 | 17°36 | 3°20 | 9°16 | 27°41 | 28°54 | 6°8 | n.a. | | | | | | | | |
| W 4 | 14 18 21 | 5°30'52 | 8°X27 | 19°18 | 22°16 | 6°56 | 19°37 | 16°R46 | 17°36 | 3°19 | 9°16 | 27°37 | 28°50 | 6°14 | n.a. | | | | | | | | |
| T 5 | 14 22 17 | 6°28'06 | 20°21 | 19°6 | 22°58 | 7°39 | 19°39 | 16°46 | 17°36 | 3°18 | 9°15 | 27°30 | 28°47 | 6°21 | n.a. | | | | | | | | |
| F 6 | 14 26 14 | 7°25'19 | 2°Y23 | 18°49 | 23°42 | 8°22 | 19°41 | 16°46 | 17°36 | 3°18 | 9°15 | 27°22 | 28°44 | 6°28 | n.a. | | | | | | | | |
| S 7 | 14 30 11 | 8°22'32 | 14°35 | 18°29 | 24°27 | 9°5 | 19°43 | 16°46 | 17°35 | 3°17 | 9°14 | 27°13 | 28°41 | 6°34 | n.a. | | | | | | | | |
| S 8 | 14 34 7 | 9°19'45 | 26°57 | 18°5 | 25°12 | 9°48 | 19°46 | 16°46 | 17°35 | 3°17 | 9°14 | 27°4 | 28°38 | 6°41 | n.a. | | | | | | | | |
| M 9 | 14 38 4 | 10°16'57 | 9°X31 | 17°38 | 25°58 | 10°31 | 19°49 | 16°45 | 17°35 | 3°16 | 9°13 | 26°57 | 28°35 | 6°48 | n.a. | | | | | | | | |
| T 10 | 14 42 0 | 11°14'08 | 22°18 | 17°9 | 26°45 | 11°14 | 19°51 | 16°45 | 17°34 | 3°16 | 9°13 | 26°50 | 28°31 | 6°54 | n.a. | | | | | | | | |
| W11 | 14 45 57 | 12°11'19 | 5°II17 | 16°38 | 27°33 | 11°57 | 19°55 | 16°44 | 17°33 | 3°16 | 9°12 | 26°46 | 28°28 | 7°1 | n.a. | | | | | | | | |
| T 12 | 14 49 53 | 13°8'29 | 18°29 | 16°5 | 28°22 | 12°39 | 19°58 | 16°44 | 17°33 | 3°15 | 9°11 | 26°44 | 28°25 | 7°8 | n.a. | | | | | | | | |
| F 13 | 14 53 50 | 14°5'39 | 18°52 | 15°32 | 29°11 | 13°22 | 20°1 | 16°43 | 17°32 | 3°15 | 9°11 | 26°D44 | 28°22 | 7°15 | n.a. | | | | | | | | |
| S 14 | 14 57 46 | 15°2'47 | 15°27 | 14°58 | 0°Y1 | 14°5 | 20°5 | 16°42 | 17°32 | 3°15 | 9°10 | 26°45 | 28°19 | 7°21 | n.a. | | | | | | | | |
| S 15 | 15 1 43 | 15°59'56 | 29°14 | 14°24 | 0°52 | 14°47 | 20°8 | 16°41 | 17°31 | 3°15 | 9°9 | 26°46 | 28°15 | 7°28 | n.a. | | | | | | | | |
| M16 | 15 5 40 | 16°57'03 | 13°Ω12 | 13°50 | 1°43 | 15°30 | 20°12 | 16°40 | 17°30 | 3°14 | 9°9 | 26°R47 | 28°12 | 7°35 | n.a. | | | | | | | | |
| T 17 | 15 9 36 | 17°54'10 | 27°22 | 13°18 | 2°35 | 16°12 | 20°16 | 16°39 | 17°29 | 3°14 | 9°8 | 26°47 | 28°9 | 7°41 | n.a. | | | | | | | | |
| W18 | 15 13 33 | 18°51'16 | 11°Π42 | 12°48 | 3°27 | 16°54 | 20°21 | 16°37 | 17°28 | 3°14 | 9°7 | 26°45 | 28°6 | 7°48 | n.a. | | | | | | | | |
| T 19 | 15 17 29 | 19°48'21 | 26°8 | 12°21 | 4°20 | 17°37 | 20°25 | 16°36 | 17°28 | 3°14 | 9°6 | 26°42 | 28°3 | 7°55 | n.a. | | | | | | | | |
| F 20 | 15 21 26 | 20°45'26 | 10°Ω36 | 11°56 | 5°14 | 18°19 | 20°29 | 16°34 | 17°27 | 3°14 | 9°6 | 26°37 | 28°0 | 8°2 | n.a. | | | | | | | | |
| S 21 | 15 25 22 | 21°42'31 | 2°5 | 11°34 | 6°8 | 19°1 | 20°34 | 16°33 | 17°26 | 3°14 | 9°5 | 26°32 | 27°56 | 8°8 | n.a. | | | | | | | | |
| S 22 | 15 29 19 | 22°39'35 | 9°M19 | 11°17 | 7°2 | 19°43 | 20°39 | 16°31 | 17°25 | 3°D14 | 9°4 | 26°27 | 27°53 | 8°15 | n.a. | | | | | | | | |
| M23 | 15 33 15 | 23°36'39 | 23°21 | 11°3 | 7°57 | 20°25 | 20°44 | 16°30 | 17°23 | 3°14 | 9°3 | 26°23 | 27°50 | 8°22 | n.a. | | | | | | | | |
| T 24 | 15 37 12 | 24°33'43 | 7°X5 | 10°53 | 8°53 | 21°7 | 20°49 | 16°28 | 17°22 | 3°14 | 9°2 | 26°20 | 27°47 | 8°29 | n.a. | | | | | | | | |
| W25 | 15 41 9 | 25°30'47 | 20°29 | 10°48 | 9°49 | 21°49 | 20°54 | 16°26 | 17°21 | 3°14 | 9°1 | 26°D19 | 27°44 | 8°35 | n.a. | | | | | | | | |
| T 26 | 15 45 5 | 26°27'51 | 3°Ω31 | 10°D48 | 10°46 | 22°31 | 21°0 | 16°24 | 17°20 | 3°14 | 9°0 | 26°19 | 27°41 | 8°42 | n.a. | | | | | | | | |
| F 27 | 15 49 2 | 27°24'56 | 16°12 | 10°52 | 11°43 | 23°13 | 21°5 | 16°22 | 17°19 | 3°14 | 9°0 | 26°20 | 27°37 | 8°49 | n.a. | | | | | | | | |
| S 28 | 15 52 58 | 28°22'00 | 28°35 | 11°1 | 12°40 | 23°54 | 21°11 | 16°19 | 17°17 | 3°14 | 8°59 | 26°22 | 27°34 | 8°55 | n.a. | | | | | | | | |
| S 29 | 15 56 55 | 29°19'05 | 10°Ω45 | 11°15 | 13°38 | 24°36 | 21°17 | 16°17 | 17°16 | 3°15 | 8°58 | 26°23 | 27°31 | 9°2 | n.a. | | | | | | | | |
| M30 | 16 0 51 | 0°II16'10 | 22°44 | 11°35 | 14°36 | 25°18 | 21°23 | 16°15 | 17°15 | 3°15 | 8°57 | 26°24 | 27°28 | 9°9 | n.a. | | | | | | | | |
| T 31 | 16 4 48 | 1°II13'15 | 4°X37 | 11°Ω59 | 15°Y35 | 25°Y59 | 21°Ω29 | 16°Ω12 | 17°Ω13 | 3°Π15 | 8°Ω56 | 26°R24 | 27°R25 | 9°X16 | n.a. | | | | | | | | |

Delta T = 05h39m15s Julian Calendar 1 May 689 BCE == Greg. Calendar 24 Apr. 689 BCE
 The year -688 astronomical counting style corresponds to year 689 B.C.E historical counting style.

JUNE 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ |
|------|----------|------------|--------|---------|--------|--------|--------|--------|--------|-------|-------|--------|--------|--------|------|---|---|---|---|---|---|---|---|
| W 1 | 16 8 44 | 2°II10'21 | 16°X30 | 12°Ω28 | 16°Y34 | 26°Y41 | 21°Ω35 | 16°R10 | 17°R12 | 3°Π15 | 8°R55 | 26°R24 | 27°R21 | 9°X22 | n.a. | | | | | | | | |
| T 2 | 16 12 41 | 3°7'27 | 28°27 | 13°2 | 17°33 | 27°22 | 21°42 | 16°Ω7 | 17°Ω10 | 3°16 | 8°Ω54 | 26°R22 | 27°18 | 9°29 | n.a. | | | | | | | | |
| F 3 | 16 16 38 | 4°4'34 | 10°Y33 | 13°41 | 18°33 | 28°4 | 21°48 | 16°5 | 17°9 | 3°16 | 8°53 | 26°19 | 27°15 | 9°36 | n.a. | | | | | | | | |
| S 4 | 16 20 34 | 5°1'41 | 22°49 | 14°25 | 19°33 | 28°45 | 21°55 | 16°2 | 17°7 | 3°16 | 8°51 | 26°16 | 27°12 | 9°42 | n.a. | | | | | | | | |
| S 5 | 16 24 31 | 5°58'48 | 5°Ω21 | 15°13 | 20°33 | 29°26 | 22°2 | 15°59 | 17°6 | 3°17 | 8°50 | 26°13 | 27°9 | 9°49 | n.a. | | | | | | | | |
| M 6 | 16 28 27 | 6°55'56 | 18°8 | 16°7 | 21°34 | 0°Ω7 | 22°9 | 15°56 | 17°4 | 3°17 | 8°49 | 26°10 | 27°6 | 9°56 | n.a. | | | | | | | | |
| T 7 | 16 32 24 | 7°53'05 | 1°II12 | 17°5 | 22°35 | 0°48 | 22°16 | 15°53 | 17°3 | 3°18 | 8°48 | 26°8 | 27°2 | 10°3 | n.a. | | | | | | | | |
| W 8 | 16 36 20 | 8°50'14 | 14°32 | 18°7 | 23°36 | 1°30 | 22°23 | 15°50 | 17°1 | 3°18 | 8°47 | 26°7 | 26°59 | 10°9 | n.a. | | | | | | | | |
| T 9 | 16 40 17 | 9°47'24 | 28°7 | 19°15 | 24°38 | 2°11 | 22°31 | 15°47 | 16°59 | 3°19 | 8°46 | 26°D6 | 26°56 | 10°16 | n.a. | | | | | | | | |
| F 10 | 16 44 13 | 10°44'34 | 11°Ω55 | 20°26 | 25°40 | 2°51 | 22°38 | 15°44 | 16°57 | 3°20 | 8°45 | 26°7 | 26°53 | 10°23 | n.a. | | | | | | | | |
| S 11 | 16 48 10 | 11°41'44 | 25°53 | 21°42 | 26°42 | 3°32 | 22°46 | 15°40 | 16°56 | 3°20 | 8°44 | 26°8 | 26°50 | 10°29 | n.a. | | | | | | | | |
| S 12 | 16 52 7 | 12°38'54 | 10°Ω0 | 23°3 | 27°44 | 4°13 | 22°54 | 15°37 | 16°54 | 3°21 | 8°42 | 26°9 | 26°47 | 10°36 | n.a. | | | | | | | | |
| M13 | 16 56 3 | 13°36'05 | 24°11 | 24°28 | 28°47 | 4°54 | 23°1 | 15°34 | 16°52 | 3°21 | 8°41 | 26°10 | 26°43 | 10°43 | n.a. | | | | | | | | |
| T 14 | 17 0 0 | 14°33'16 | 8°Π25 | 25°57 | 29°50 | 5°34 | 23°9 | 15°30 | 16°50 | 3°22 | 8°40 | 26°R10 | 26°40 | 10°50 | n.a. | | | | | | | | |
| W15 | 17 3 56 | 15°30'27 | 22°40 | 27°30 | 0°Ω53 | 6°15 | 23°18 | 15°26 | 16°48 | 3°23 | 8°39 | 26°10 | 26°37 | 10°56 | n.a. | | | | | | | | |
| T 16 | 17 7 53 | 16°27'39 | 6°Ω52 | 29°7 | 1°56 | 6°56 | 23°26 | 15°23 | 16°46 | 3°24 | 8°38 | 26°10 | 26°34 | 11°3 | n.a. | | | | | | | | |
| F 17 | 17 11 49 | 17°24'51 | 20°58 | 0°II47 | 3°0 | 7°36 | 23°34 | 15°19 | 16°44 | 3°25 | 8°36 | 26°9 | 26°31 | 11°10 | n.a. | | | | | | | | |
| S 18 | 17 15 46 | 18°22'03 | 4°M57 | 2°32 | 4°4 | 8°16 | 23°43 | 15°15 | 16°42 | 3°25 | 8°35 | 26°8 | 26°27 | 11°16 | n.a. | | | | | | | | |
| S 19 | 17 19 42 | 19°19'16 | 18°46 | 4°19 | 5°8 | 8°57 | 23°51 | 15°12 | 16°40 | 3°26 | 8°34 | 26°7 | 26°24 | 11°23 | n.a. | | | | | | | | |
| M20 | 17 23 39 | 20°16'30 | 2°X22 | 6°10 | 6°12 | 9°37 | 24°0 | 15°8 | 16°38 | 3°27 | 8°32 | 26°7 | 26°21 | 11°30 | n.a. | | | | | | | | |
| T 21 | 17 27 36 | 21°13'45 | 15°44 | 8°4 | 7°17 | 10°17 | 24°9 | 15°4 | 16°36 | 3°28 | 8°31 | 26°6 | 26°18 | 11°37 | n.a. | | | | | | | | |
| W22 | 17 31 32 | 22°11'00 | 28°50 | 10°0 | 8°21 | 10°57 | 24°17 | 15°0 | 16°34 | 3°29 | 8°30 | 26°D6 | 26°15 | 11°43 | n.a. | | | | | | | | |
| T 23 | 17 35 29 | 23°8'16 | 11°Ω39 | 11°58 | 9°26 | 11°37 | 24°26 | 14°56 | 16°32 | 3°30 | 8°29 | 26°6 | 26°12 | 11°50 | n.a. | | | | | | | | |
| F 24 | 17 39 25 | 24°5'33 | 24°13 | 13°59 | 10°32 | 12°17 | 24°36 | 14°52 | 16°30 | 3°31 | 8°27 | 26°7 | 26°8 | 11°57 | n.a. | | | | | | | | |
| S 25 | 17 43 22 | 25°2'52 | 6°Ω33 | 16°1 | 11°37 | 12°57 | 24°45 | 14°48 | 16°28 | 3°32 | 8°26 | 26°7 | 26°5 | 12°4 | n.a. | | | | | | | | |
| S 26 | 17 47 18 | 26°0'11 | 18°40 | 18°4 | 12°42 | 13°37 | 24°54 | 14°44 | 16°25 | 3°33 | 8°25 | 26°R7 | 26°2 | 12°10 | n.a. | | | | | | | | |
| M27 | 17 51 15 | 26°57'32 | 0°X39 | 20°8 | 13°48 | 14°17 | 25°3 | 14°39 | 16°23 | 3°34 | 8°23 | 26°7 | 25°59 | 12°17 | n.a. | | | | | | | | |
| T 28 | 17 55 12 | 27°54'54 | 12°33 | 22°13 | 14°54 | 14°57 | 25°13 | 14°35 | 16°21 | 3°35 | 8°22 | 26°7 | 25°56 | 12°24 | n.a. | | | | | | | | |
| W29 | 17 59 8 | 28°52'17 | 24°27 | 24°18 | 16°0 | 15°37 | 25°23 | 14°31 | 16°19 | 3°37 | 8°21 | 26°D7 | 25°53 | 12°30 | n.a. | | | | | | | | |
| T 30 | 18 3 5 | 29°II49'41 | 6°Y24 | 26°II24 | 17°Ω6 | 16°Ω16 | 25°Ω32 | 14°Ω27 | 16°Ω16 | 3°Π38 | 8°Ω19 | 26°R7 | 25°R49 | 12°X37 | n.a. | | | | | | | | |

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SWISS EPHEMERIS for the year 689 BCE

JULY 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | | |
|------|----------|------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---|---|---|---|---|---|---|---|---|------|------|
| F 1 | 18 7 1 | 05 ^h 47'07" | 18 ^h 29' | 28 ^h 29' | 18 ^h 13' | 16 ^h 56' | 25 ^h 42' | 14 ^h R22 | 16 ^h R14 | 3 ^h 39' | 8 ^h R18 | 26 ^h 7' | 25 ^h 46' | 12 ^h 44' | | | | | | | | | | n.a. | |
| S 2 | 18 10 58 | 1 ^h 44'34" | 0 ^h 47' | 0 ^h 33' | 19 ^h 20' | 17 ^h 35' | 25 ^h 52' | 14 ^h 18' | 16 ^h 12' | 3 ^h 40' | 8 ^h 17' | 26 ^h 7' | 25 ^h 43' | 12 ^h 51' | | | | | | | | | | | n.a. |
| S 3 | 18 14 54 | 2 ^h 42'03" | 13 ^h 22' | 2 ^h 37' | 20 ^h 26' | 18 ^h 15' | 26 ^h 2' | 14 ^h 14' | 16 ^h 10' | 3 ^h 41' | 8 ^h 15' | 26 ^h 8' | 25 ^h 40' | 12 ^h 57' | | | | | | | | | | | n.a. |
| M 4 | 18 18 51 | 3 ^h 39'33" | 26 ^h 16' | 4 ^h 41' | 21 ^h 33' | 18 ^h 54' | 26 ^h 12' | 14 ^h 9' | 16 ^h 7' | 3 ^h 43' | 8 ^h 14' | 26 ^h 8' | 25 ^h 37' | 13 ^h 4' | | | | | | | | | | | n.a. |
| T 5 | 18 22 47 | 4 ^h 37'05" | 9 ^h 31' | 6 ^h 43' | 22 ^h 40' | 19 ^h 33' | 26 ^h 22' | 14 ^h 5' | 16 ^h 5' | 3 ^h 44' | 8 ^h 13' | 26 ^h 9' | 25 ^h 33' | 13 ^h 11' | | | | | | | | | | | n.a. |
| W 6 | 18 26 44 | 5 ^h 34'38" | 23 ^h 8' | 8 ^h 44' | 23 ^h 48' | 20 ^h 12' | 26 ^h 32' | 14 ^h 0' | 16 ^h 3' | 3 ^h 45' | 8 ^h 11' | 26 ^h R9 | 25 ^h 30' | 13 ^h 17' | | | | | | | | | | | n.a. |
| T 7 | 18 30 41 | 6 ^h 32'13" | 7 ^h 5 | 10 ^h 44' | 24 ^h 55' | 20 ^h 52' | 26 ^h 43' | 13 ^h 56' | 16 ^h 0' | 3 ^h 47' | 8 ^h 10' | 26 ^h 9' | 25 ^h 27' | 13 ^h 24' | | | | | | | | | | | n.a. |
| F 8 | 18 34 37 | 7 ^h 29'49" | 21 ^h 20' | 12 ^h 42' | 26 ^h 3' | 21 ^h 31' | 26 ^h 53' | 13 ^h 51' | 15 ^h 58' | 3 ^h 48' | 8 ^h 9' | 26 ^h 9' | 25 ^h 24' | 13 ^h 31' | | | | | | | | | | | n.a. |
| S 9 | 18 38 34 | 8 ^h 27'26" | 5 ^h 46' | 14 ^h 40' | 27 ^h 10' | 22 ^h 10' | 27 ^h 4' | 13 ^h 47' | 15 ^h 55' | 3 ^h 50' | 8 ^h 7' | 26 ^h 7' | 25 ^h 21' | 13 ^h 38' | | | | | | | | | | | n.a. |
| S 10 | 18 42 30 | 9 ^h 25'04" | 20 ^h 19' | 16 ^h 36' | 28 ^h 18' | 22 ^h 49' | 27 ^h 14' | 13 ^h 42' | 15 ^h 53' | 3 ^h 51' | 8 ^h 6' | 26 ^h 6' | 25 ^h 18' | 13 ^h 44' | | | | | | | | | | | n.a. |
| M11 | 18 46 27 | 10 ^h 22'43" | 4 ^h 52' | 18 ^h 30' | 29 ^h 26' | 23 ^h 27' | 27 ^h 25' | 13 ^h 38' | 15 ^h 51' | 3 ^h 53' | 8 ^h 4' | 26 ^h 4' | 25 ^h 14' | 13 ^h 51' | | | | | | | | | | | n.a. |
| T12 | 18 50 23 | 11 ^h 20'24" | 19 ^h 21' | 20 ^h 24' | 0 ^h 34' | 24 ^h 6' | 27 ^h 36' | 13 ^h 33' | 15 ^h 48' | 3 ^h 54' | 8 ^h 3' | 26 ^h 3' | 25 ^h 11' | 13 ^h 58' | | | | | | | | | | | n.a. |
| W13 | 18 54 20 | 12 ^h 18'06" | 3 ^h 40' | 22 ^h 15' | 1 ^h 43' | 24 ^h 45' | 27 ^h 46' | 13 ^h 29' | 15 ^h 46' | 3 ^h 56' | 8 ^h 2' | 26 ^h 2' | 25 ^h 8' | 14 ^h 5' | | | | | | | | | | | n.a. |
| T14 | 18 58 16 | 13 ^h 15'49" | 17 ^h 48' | 24 ^h 6' | 2 ^h 51' | 25 ^h 23' | 27 ^h 57' | 13 ^h 24' | 15 ^h 44' | 3 ^h 57' | 8 ^h 0' | 26 ^h D2 | 25 ^h 5' | 14 ^h 11' | | | | | | | | | | | n.a. |
| F15 | 19 2 13 | 14 ^h 13'33" | 1 ^h 41' | 25 ^h 55' | 4 ^h 0' | 26 ^h 2' | 28 ^h 8' | 13 ^h 20' | 15 ^h 41' | 3 ^h 59' | 7 ^h 59' | 26 ^h 2' | 25 ^h 2' | 14 ^h 18' | | | | | | | | | | | n.a. |
| S16 | 19 6 10 | 15 ^h 11'18" | 15 ^h 21' | 27 ^h 42' | 5 ^h 8' | 26 ^h 41' | 28 ^h 19' | 13 ^h 15' | 15 ^h 39' | 4 ^h 0' | 7 ^h 58' | 26 ^h 4' | 24 ^h 59' | 14 ^h 25' | | | | | | | | | | | n.a. |
| S17 | 19 10 6 | 16 ^h 9'05" | 28 ^h 46' | 29 ^h 28' | 6 ^h 17' | 27 ^h 19' | 28 ^h 31' | 13 ^h 11' | 15 ^h 36' | 4 ^h 2' | 7 ^h 56' | 26 ^h 5' | 24 ^h 55' | 14 ^h 31' | | | | | | | | | | | n.a. |
| M18 | 19 14 3 | 17 ^h 6'53" | 11 ^h 57' | 14 ^h 13' | 7 ^h 26' | 27 ^h 57' | 28 ^h 42' | 13 ^h 6' | 15 ^h 34' | 4 ^h 4' | 7 ^h 55' | 26 ^h 6' | 24 ^h 52' | 14 ^h 38' | | | | | | | | | | | n.a. |
| T19 | 19 17 59 | 18 ^h 4'43" | 24 ^h 55' | 2 ^h 56' | 8 ^h 35' | 28 ^h 36' | 28 ^h 53' | 13 ^h 2' | 15 ^h 32' | 4 ^h 5' | 7 ^h 54' | 26 ^h R7 | 24 ^h 49' | 14 ^h 45' | | | | | | | | | | | n.a. |
| W20 | 19 21 56 | 19 ^h 2'34" | 7 ^h 34' | 4 ^h 38' | 9 ^h 44' | 29 ^h 14' | 29 ^h 4' | 12 ^h 57' | 15 ^h 29' | 4 ^h 7' | 7 ^h 52' | 26 ^h 6' | 24 ^h 46' | 14 ^h 52' | | | | | | | | | | | n.a. |
| T21 | 19 25 52 | 20 ^h 0'27" | 20 ^h 14' | 6 ^h 19' | 10 ^h 54' | 29 ^h 52' | 29 ^h 16' | 12 ^h 53' | 15 ^h 27' | 4 ^h 9' | 7 ^h 51' | 26 ^h 5' | 24 ^h 43' | 14 ^h 58' | | | | | | | | | | | n.a. |
| F22 | 19 29 49 | 20 ^h 58'21" | 2 ^h 36' | 7 ^h 58' | 12 ^h 3' | 0 ^h 30' | 29 ^h 27' | 12 ^h 48' | 15 ^h 24' | 4 ^h 10' | 7 ^h 50' | 26 ^h 2' | 24 ^h 39' | 15 ^h 5' | | | | | | | | | | | n.a. |
| S23 | 19 33 45 | 21 ^h 56'17" | 14 ^h 48' | 9 ^h 36' | 13 ^h 12' | 1 ^h 8' | 29 ^h 39' | 12 ^h 44' | 15 ^h 22' | 4 ^h 12' | 7 ^h 48' | 25 ^h 58' | 24 ^h 36' | 15 ^h 12' | | | | | | | | | | | n.a. |
| S24 | 19 37 42 | 22 ^h 54'15" | 26 ^h 51' | 11 ^h 13' | 14 ^h 22' | 1 ^h 46' | 29 ^h 50' | 12 ^h 39' | 15 ^h 20' | 4 ^h 14' | 7 ^h 47' | 25 ^h 54' | 24 ^h 33' | 15 ^h 18' | | | | | | | | | | | n.a. |
| M25 | 19 41 39 | 23 ^h 52'15" | 8 ^h 48' | 12 ^h 48' | 15 ^h 32' | 2 ^h 24' | 0 ^h 22' | 12 ^h 35' | 15 ^h 17' | 4 ^h 16' | 7 ^h 46' | 25 ^h 49' | 24 ^h 30' | 15 ^h 25' | | | | | | | | | | | n.a. |
| T26 | 19 45 35 | 24 ^h 50'16" | 20 ^h 40' | 14 ^h 22' | 16 ^h 42' | 3 ^h 1' | 0 ^h 14' | 12 ^h 30' | 15 ^h 15' | 4 ^h 17' | 7 ^h 44' | 25 ^h 45' | 24 ^h 27' | 15 ^h 32' | | | | | | | | | | | n.a. |
| W27 | 19 49 32 | 25 ^h 48'20" | 2 ^h 32' | 15 ^h 55' | 17 ^h 52' | 3 ^h 39' | 0 ^h 25' | 12 ^h 26' | 15 ^h 13' | 4 ^h 19' | 7 ^h 43' | 25 ^h 41' | 24 ^h 24' | 15 ^h 39' | | | | | | | | | | | n.a. |
| T28 | 19 53 28 | 26 ^h 46'26" | 14 ^h 28' | 17 ^h 26' | 19 ^h 2' | 4 ^h 16' | 0 ^h 37' | 12 ^h 22' | 15 ^h 10' | 4 ^h 21' | 7 ^h 42' | 25 ^h 39' | 24 ^h 20' | 15 ^h 45' | | | | | | | | | | | n.a. |
| F29 | 19 57 25 | 27 ^h 44'34" | 26 ^h 31' | 18 ^h 56' | 20 ^h 12' | 4 ^h 54' | 0 ^h 49' | 12 ^h 17' | 15 ^h 8' | 4 ^h 23' | 7 ^h 41' | 25 ^h D38 | 24 ^h 17' | 15 ^h 52' | | | | | | | | | | | n.a. |
| S30 | 20 1 21 | 28 ^h 42'43" | 8 ^h 46' | 20 ^h 25' | 21 ^h 23' | 5 ^h 31' | 1 ^h 1' | 12 ^h 13' | 15 ^h 6' | 4 ^h 25' | 7 ^h 39' | 25 ^h 39' | 24 ^h 14' | 15 ^h 59' | | | | | | | | | | | n.a. |
| S31 | 20 5 18 | 29 ^h 40'56" | 21 ^h 19' | 21 ^h 53' | 22 ^h 33' | 6 ^h 11' | 1 ^h 13' | 12 ^h 8' | 15 ^h 3' | 4 ^h 27' | 7 ^h 38' | 25 ^h 40' | 24 ^h 11' | 16 ^h 6' | | | | | | | | | | | n.a. |

Delta T = 05h39m12s Julian Calendar 1 July 689 BCE == Greg. Calendar 24 June 689 BCE
 The year -688 astronomical counting style corresponds to year 689 B.C.E historical counting style.

AUGUST 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ | ♎ | ♏ | ♐ | ♑ | ♒ | ♓ | | |
|-----|----------|------------------------|---------------------|---------------------|---------------------|---------------------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|---------------------|---------------------|---|---|---|---|---|---|---|---|---|--|------|
| M 1 | 20 9 14 | 04 ^h 39'10" | 4 ^h 12' | 23 ^h 19' | 23 ^h 44' | 6 ^h 46' | 1 ^h 25' | 12 ^h R5 | 15 ^h R1 | 4 ^h 29' | 7 ^h R37 | 25 ^h 42' | 24 ^h 8' | 16 ^h 12' | | | | | | | | | | | n.a. |
| T 2 | 20 13 11 | 1 ^h 37'26" | 17 ^h 30' | 24 ^h 44' | 24 ^h 54' | 7 ^h 23' | 1 ^h 37' | 12 ^h 1 | 14 ^h 59' | 4 ^h 31' | 7 ^h 36' | 25 ^h 43' | 24 ^h 5' | 16 ^h 19' | | | | | | | | | | | n.a. |
| W 3 | 20 17 8 | 2 ^h 35'45" | 1 ^h 14' | 26 ^h 7' | 26 ^h 5' | 8 ^h 0' | 1 ^h 49' | 11 ^h 56' | 14 ^h 56' | 4 ^h 33' | 7 ^h 34' | 25 ^h R43 | 24 ^h 1' | 16 ^h 26' | | | | | | | | | | | n.a. |
| T 4 | 20 21 4 | 3 ^h 34'06" | 15 ^h 25' | 27 ^h 29' | 27 ^h 16' | 8 ^h 37' | 2 ^h 1' | 11 ^h 52' | 14 ^h 54' | 4 ^h 35' | 7 ^h 33' | 25 ^h 41' | 23 ^h 58' | 16 ^h 32' | | | | | | | | | | | n.a. |
| F 5 | 20 25 1 | 4 ^h 32'29" | 29 ^h 58' | 28 ^h 49' | 28 ^h 27' | 9 ^h 14' | 2 ^h 14' | 11 ^h 48' | 14 ^h 52' | 4 ^h 37' | 7 ^h 32' | 25 ^h 38' | 23 ^h 55' | 16 ^h 39' | | | | | | | | | | | n.a. |
| S 6 | 20 28 57 | 5 ^h 30'53" | 14 ^h 48' | 0 ^h 8' | 29 ^h 38' | 9 ^h 51' | 2 ^h 26' | 11 ^h 44' | 14 ^h 50' | 4 ^h 39' | 7 ^h 31' | 25 ^h 33' | 23 ^h 52' | 16 ^h 46' | | | | | | | | | | | n.a. |
| S 7 | 20 32 54 | 6 ^h 29'20" | 29 ^h 47' | 1 ^h 26' | 0 ^h 54' | 10 ^h 28' | 2 ^h 38' | 11 ^h 40' | 14 ^h 48' | 4 ^h 41' | 7 ^h 30' | 25 ^h 27' | 23 ^h 49' | 16 ^h 53' | | | | | | | | | | | n.a. |
| M 8 | 20 36 50 | 7 ^h | | | | | | | | | | | | | | | | | | | | | | | |

SWISS EPHEMERIS for the year 689 BCE

SEPTEMBER 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ |
|------|----------|----------|-------|--------|-------|-------|-------|--------|--------|------|-------|--------|--------|--------|------|---|---|
| T 1 | 22 11 28 | 1♎ 0'59 | 23♌28 | 18°R31 | 0♄58 | 25♂17 | 7♎57 | 10°R25 | 14°R 2 | 5♎34 | 7°R 6 | 23°R49 | 22♌29 | 19♋41 | n.a. | | |
| F 2 | 22 15 24 | 2° 0'20 | 8♌ 6 | 18♎ 5 | 2°11 | 25°51 | 8°11 | 10♌23 | 14♌ 1 | 5°37 | 7♌ 6 | 23♌43 | 22°26 | 19°47 | n.a. | | |
| S 3 | 22 19 21 | 2°59'44 | 23° 6 | 17°30 | 3°25 | 26°25 | 8°24 | 10°21 | 13°59 | 5°39 | 7° 5 | 23°35 | 22°23 | 19°54 | n.a. | | |
| S 4 | 22 23 17 | 3°59'10 | 8♎21 | 16°48 | 4°38 | 26°59 | 8°37 | 10°19 | 13°58 | 5°41 | 7° 4 | 23°25 | 22°20 | 20° 1 | n.a. | | |
| M 5 | 22 27 14 | 4°58'38 | 23°39 | 15°58 | 5°52 | 27°33 | 8°50 | 10°17 | 13°57 | 5°43 | 7° 4 | 23°14 | 22°16 | 20° 8 | n.a. | | |
| T 6 | 22 31 10 | 5°58'08 | 8♌48 | 15° 1 | 7° 5 | 28° 6 | 9° 3 | 10°16 | 13°56 | 5°46 | 7° 3 | 23° 5 | 22°13 | 20°14 | n.a. | | |
| W 7 | 22 35 7 | 6°57'40 | 23°40 | 13°57 | 8°19 | 28°40 | 9°16 | 10°14 | 13°55 | 5°48 | 7° 3 | 22°56 | 22°10 | 20°21 | n.a. | | |
| T 8 | 22 39 4 | 7°57'14 | 8♎ 7 | 12°49 | 9°33 | 29°13 | 9°29 | 10°13 | 13°53 | 5°50 | 7° 2 | 22°51 | 22° 7 | 20°28 | n.a. | | |
| F 9 | 22 43 0 | 8°56'50 | 22° 6 | 11°38 | 10°47 | 29°47 | 9°42 | 10°12 | 13°52 | 5°52 | 7° 2 | 22°48 | 22° 4 | 20°34 | n.a. | | |
| S 10 | 22 46 57 | 9°56'27 | 5♌38 | 10°25 | 12° 0 | 0♌20 | 9°55 | 10°10 | 13°51 | 5°55 | 7° 1 | 22°D47 | 22° 1 | 20°41 | n.a. | | |
| S 11 | 22 50 53 | 10°56'07 | 18°46 | 9°13 | 13°14 | 0°53 | 10° 9 | 10° 9 | 13°50 | 5°57 | 7° 1 | 22°R47 | 21°57 | 20°48 | n.a. | | |
| M12 | 22 54 50 | 11°55'48 | 1♌32 | 8° 3 | 14°28 | 1°26 | 10°22 | 10° 8 | 13°50 | 5°59 | 7° 0 | 22°47 | 21°54 | 20°55 | n.a. | | |
| T 13 | 22 58 46 | 12°55'32 | 14° 1 | 6°58 | 15°42 | 1°59 | 10°35 | 10° 7 | 13°49 | 6° 1 | 7° 0 | 22°45 | 21°51 | 21° 1 | n.a. | | |
| W14 | 23 2 43 | 13°55'17 | 26°17 | 5°59 | 16°56 | 2°32 | 10°48 | 10° 7 | 13°48 | 6° 3 | 7° 0 | 22°41 | 21°48 | 21° 8 | n.a. | | |
| T 15 | 23 6 39 | 14°55'04 | 8♌23 | 5° 9 | 18°11 | 3° 4 | 11° 1 | 10° 6 | 13°47 | 6° 6 | 6°59 | 22°34 | 21°45 | 21°15 | n.a. | | |
| F 16 | 23 10 36 | 15°54'53 | 20°24 | 4°28 | 19°25 | 3°36 | 11°14 | 10° 5 | 13°46 | 6° 8 | 6°59 | 22°25 | 21°42 | 21°22 | n.a. | | |
| S 17 | 23 14 33 | 16°54'43 | 2♎20 | 3°58 | 20°39 | 4° 9 | 11°27 | 10° 5 | 13°46 | 6°10 | 6°59 | 22°12 | 21°38 | 21°28 | n.a. | | |
| S 18 | 23 18 29 | 17°54'36 | 14°14 | 3°39 | 21°53 | 4°41 | 11°40 | 10° 5 | 13°45 | 6°12 | 6°58 | 21°58 | 21°35 | 21°35 | n.a. | | |
| M19 | 23 22 26 | 18°54'31 | 26° 6 | 3°D32 | 23° 8 | 5°13 | 11°53 | 10° 4 | 13°44 | 6°14 | 6°58 | 21°43 | 21°32 | 21°42 | n.a. | | |
| T 20 | 23 26 22 | 19°54'28 | 7♎59 | 3°35 | 24°22 | 5°45 | 12° 6 | 10° 4 | 13°44 | 6°17 | 6°58 | 21°29 | 21°29 | 21°48 | n.a. | | |
| W21 | 23 30 19 | 20°54'27 | 19°54 | 3°50 | 25°37 | 6°16 | 12°19 | 10°D 4 | 13°43 | 6°19 | 6°58 | 21°16 | 21°26 | 21°55 | n.a. | | |
| T 22 | 23 34 15 | 21°54'28 | 1♌52 | 4°15 | 26°51 | 6°48 | 12°33 | 10° 4 | 13°43 | 6°21 | 6°58 | 21° 6 | 21°22 | 22° 2 | n.a. | | |
| F 23 | 23 38 12 | 22°54'32 | 13°56 | 4°49 | 28° 6 | 7°19 | 12°46 | 10° 4 | 13°42 | 6°23 | 6°57 | 20°59 | 21°19 | 22° 9 | n.a. | | |
| S 24 | 23 42 8 | 23°54'37 | 26° 9 | 5°32 | 29°20 | 7°50 | 12°59 | 10° 4 | 13°42 | 6°25 | 6°57 | 20°55 | 21°16 | 22°15 | n.a. | | |
| S 25 | 23 46 5 | 24°54'45 | 8♂35 | 6°23 | 0♎35 | 8°22 | 13°12 | 10° 5 | 13°42 | 6°28 | 6°57 | 20°53 | 21°13 | 22°22 | n.a. | | |
| M26 | 23 50 1 | 25°54'55 | 21°19 | 7°22 | 1°50 | 8°52 | 13°25 | 10° 5 | 13°41 | 6°30 | 6°57 | 20°53 | 21°10 | 22°29 | n.a. | | |
| T 27 | 23 53 58 | 26°55'08 | 4♌24 | 8°26 | 3° 4 | 9°23 | 13°38 | 10° 6 | 13°41 | 6°32 | 6°D57 | 20°53 | 21° 7 | 22°36 | n.a. | | |
| W28 | 23 57 55 | 27°55'22 | 17°55 | 9°36 | 4°19 | 9°54 | 13°50 | 10° 6 | 13°41 | 6°34 | 6°57 | 20°52 | 21° 3 | 22°42 | n.a. | | |
| T 29 | 0 1 51 | 28°55'39 | 1♌55 | 10°50 | 5°34 | 10°24 | 14° 3 | 10° 7 | 13°41 | 6°36 | 6°57 | 20°48 | 21° 0 | 22°49 | n.a. | | |
| F 30 | 0 5 48 | 29♎55'58 | 16♌23 | 12♎ 9 | 6♎49 | 10♌54 | 14♎16 | 10♌ 8 | 13°D41 | 6♎38 | 6♌57 | 20°A42 | 20°A57 | 22°A56 | n.a. | | |

Delta T = 05h39m09s Julian Calendar 1 Sept. 689 BCE == Greg. Calendar 25 Aug. 689 BCE
 The year -688 astronomical counting style corresponds to year 689 B.C.E historical counting style.

OCTOBER 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♁ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♈ | ♉ | ♊ | ♋ | ♌ | ♍ |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|--------|--------|------|---|---|
| S 1 | 0 9 44 | 0♌56'19 | 1♎16 | 13♎30 | 8♎ 4 | 11♌24 | 14♎29 | 10♌ 9 | 13♌41 | 6♎40 | 6♌57 | 20°R34 | 20°A54 | 23♋ 2 | n.a. | | |
| S 2 | 0 13 41 | 1°56'42 | 16°28 | 14°55 | 9°19 | 11°54 | 14°42 | 10°10 | 13°41 | 6°42 | 6°57 | 20°A23 | 20°51 | 23° 9 | n.a. | | |
| M 3 | 0 17 37 | 2°57'07 | 1♌49 | 16°22 | 10°34 | 12°24 | 14°55 | 10°11 | 13°41 | 6°44 | 6°58 | 20°12 | 20°47 | 23°16 | n.a. | | |
| T 4 | 0 21 34 | 3°57'33 | 17° 6 | 17°51 | 11°49 | 12°53 | 15° 8 | 10°13 | 13°41 | 6°46 | 6°58 | 20° 1 | 20°44 | 23°23 | n.a. | | |
| W 5 | 0 25 30 | 4°58'02 | 2♎ 8 | 19°22 | 13° 4 | 13°22 | 15°20 | 10°14 | 13°42 | 6°48 | 6°58 | 19°52 | 20°41 | 23°29 | n.a. | | |
| T 6 | 0 29 27 | 5°58'32 | 16°47 | 20°54 | 14°19 | 13°51 | 15°33 | 10°15 | 13°42 | 6°50 | 6°58 | 19°46 | 20°38 | 23°36 | n.a. | | |
| F 7 | 0 33 24 | 6°59'04 | 0♌58 | 22°27 | 15°34 | 14°20 | 15°46 | 10°17 | 13°42 | 6°52 | 6°58 | 19°42 | 20°35 | 23°43 | n.a. | | |
| S 8 | 0 37 20 | 7°59'37 | 14°39 | 24° 1 | 16°49 | 14°49 | 15°59 | 10°19 | 13°42 | 6°54 | 6°59 | 19°D41 | 20°32 | 23°49 | n.a. | | |
| S 9 | 0 41 17 | 9° 0'11 | 27°52 | 25°35 | 18° 4 | 15°17 | 16°11 | 10°20 | 13°43 | 6°56 | 6°59 | 19°41 | 20°28 | 23°56 | n.a. | | |
| M10 | 0 45 13 | 10° 0'47 | 10♌40 | 27°10 | 19°19 | 15°45 | 16°24 | 10°22 | 13°43 | 6°58 | 6°59 | 19°R41 | 20°25 | 24° 3 | n.a. | | |
| T 11 | 0 49 10 | 11° 1'25 | 23° 8 | 28°46 | 20°34 | 16°13 | 16°36 | 10°24 | 13°44 | 7° 0 | 7° 0 | 19°41 | 20°22 | 24°10 | n.a. | | |
| W12 | 0 53 6 | 12° 2'03 | 5♌21 | 0♌21 | 21°50 | 16°41 | 16°49 | 10°26 | 13°44 | 7° 2 | 7° 0 | 19°38 | 20°19 | 24°16 | n.a. | | |
| T 13 | 0 57 3 | 13° 2'43 | 17°23 | 1°57 | 23° 5 | 17° 9 | 17° 1 | 10°29 | 13°45 | 7° 4 | 7° 1 | 19°33 | 20°16 | 24°23 | n.a. | | |
| F 14 | 1 0 59 | 14° 3'24 | 29°18 | 3°33 | 24°20 | 17°36 | 17°14 | 10°31 | 13°46 | 7° 6 | 7° 1 | 19°25 | 20°13 | 24°30 | n.a. | | |
| S 15 | 1 4 56 | 15° 4'07 | 11♋11 | 5° 9 | 25°35 | 18° 3 | 17°26 | 10°33 | 13°46 | 7° 8 | 7° 1 | 19°14 | 20° 9 | 24°37 | n.a. | | |
| S 16 | 1 8 53 | 16° 4'50 | 23° 3 | 6°45 | 26°51 | 18°30 | 17°38 | 10°36 | 13°47 | 7°10 | 7° 2 | 19° 2 | 20° 6 | 24°43 | n.a. | | |
| M17 | 1 12 49 | 17° 5'36 | 4♎56 | 8°21 | 28° 6 | 18°56 | 17°51 | 10°38 | 13°48 | 7°12 | 7° 2 | 18°50 | 20° 3 | 24°50 | n.a. | | |
| T 18 | 1 16 46 | 18° 6'22 | 16°53 | 9°56 | 29°21 | 19°23 | 18° 3 | 10°41 | 13°49 | 7°13 | 7° 3 | 18°37 | 20° 0 | 24°57 | n.a. | | |
| W19 | 1 20 42 | 19° 7'10 | 28°54 | 11°32 | 0♌37 | 19°49 | 18°15 | 10°44 | 13°50 | 7°15 | 7° 4 | 18°27 | 19°57 | 25° 3 | n.a. | | |
| T 20 | 1 24 39 | 20° 8'00 | 11♌ 1 | 13° 7 | 1°52 | 20°14 | 18°27 | 10°47 | 13°51 | 7°17 | 7° 4 | 18°18 | 19°53 | 25°10 | n.a. | | |
| F 21 | 1 28 35 | 21° 8'51 | 23°15 | 14°43 | 3° 7 | 20°40 | 18°39 | 10°50 | 13°52 | 7°19 | 7° 5 | 18°12 | 19°50 | 25°17 | n.a. | | |
| S 22 | 1 32 32 | 22° 9'43 | 5♂38 | 16°18 | 4°23 | 21° 5 | 18°51 | 10°53 | 13°53 | 7°20 | 7° 6 | 18° 9 | 19°47 | 25°24 | n.a. | | |
| S 23 | 1 36 28 | 23°10'37 | 18°11 | 17°53 | 5°38 | 21°30 | 19° 3 | 10°56 | 13°54 | 7°22 | 7° 6 | 18°D 8 | 19°44 | 25°30 | n.a. | | |
| M24 | 1 40 25 | 24°11'33 | 0♌59 | 19°28 | 6°54 | 21°55 | 19°15 | 10°59 | 13°55 | 7°24 | 7° 7 | 18° 9 | 19°41 | 25°37 | n.a. | | |
| T 25 | 1 44 22 | 25°12'30 | 14° 5 | 21° 3 | 8° 9 | 22°19 | 19°27 | 11° 3 | 13°56 | 7°25 | 7° 8 | 18°10 | 19°38 | 25°44 | n.a. | | |
| W26 | 1 48 18 | 26°13'28 | 27°31 | 22°38 | 9°25 | 22°43 | 19°39 | 11° 6 | 13°58 | 7°27 | 7° 8 | 18°R11 | 19°34 | 25°51 | n.a. | | |
| T 27 | 1 52 15 | 27°14'28 | 11♌19 | 24°13 | 10°40 | 23° 7 | 19°51 | 11°10 | 13°59 | 7°29 | 7° 9 | 18°10 | 19°31 | 25°57 | n.a. | | |
| F 28 | 1 56 11 | 28°15'29 | 25°31 | 25°47 | 11°55 | 23°31 | 20° 2 | 11°13 | 14° 0 | 7°30 | 7°10 | 18° 7 | 19°28 | 26° 4 | n.a. | | |
| S 29 | 2 0 8 | 29°16'32 | 10♎ 6 | 27°22 | 13°11 | 23°54 | 20°14 | 11°17 | 14° 2 | 7°32 | 7°11 | 18° 1 | 19°25 | 26°11 | n.a. | | |
| S 30 | 2 4 4 | 0♎17'36 | 24°59 | 28°56 | 14°27 | 24°17 | 20°25 | 11°21 | 14° 3 | 7°33 | 7°12 | 17°55 | 19°22 | 26°17 | n.a. | | |
| M31 | 2 8 1 | 1♎18'41 | 10♌ 2 | 0♎31 | 15♌42 | 24♌39 | 20♎37 | 11♌25 | 14♌ 5 | 7♎35 | 7♌13 | 17°A47 | 19°A19 | 26°A24 | n.a. | | |

Delta T = 05h39m08s Julian Calendar created from Swiss Ephemeris, Copyright Astrodiens AG [10.1.2003]

SWISS EPHEMERIS for the year 689 BCE

NOVEMBER 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ |
|------|---------|----------|-------|-------|-------|-------|-------|-------|-------|------|------|--------|-------|-------|------|
| T 1 | 2 11 57 | 2M19'47 | 25♂ 7 | 2M 5 | 16♂58 | 25♂ 1 | 20M48 | 11♂29 | 14♂ 6 | 7M36 | 7♂14 | 17°R40 | 19♂15 | 26♂31 | n.a. |
| W 2 | 2 15 54 | 3°20'54 | 10M 3 | 3°39 | 18°13 | 25°23 | 20°59 | 11°33 | 14° 8 | 7°38 | 7°15 | 17°R34 | 19°12 | 26°38 | n.a. |
| T 3 | 2 19 50 | 4°22'02 | 24°42 | 5°14 | 19°29 | 25°45 | 21°11 | 11°37 | 14°10 | 7°39 | 7°16 | 17°29 | 19° 9 | 26°44 | n.a. |
| F 4 | 2 23 47 | 5°23'11 | 8♂58 | 6°48 | 20°44 | 26° 6 | 21°22 | 11°41 | 14°11 | 7°41 | 7°17 | 17°27 | 19° 6 | 26°51 | n.a. |
| S 5 | 2 27 44 | 6°24'21 | 22°46 | 8°23 | 22° 0 | 26°26 | 21°33 | 11°45 | 14°13 | 7°42 | 7°18 | 17°D27 | 19° 3 | 26°58 | n.a. |
| S 6 | 2 31 40 | 7°25'31 | 6♂ 7 | 9°57 | 23°15 | 26°47 | 21°44 | 11°50 | 14°15 | 7°43 | 7°19 | 17°28 | 18°59 | 27° 4 | n.a. |
| M 7 | 2 35 37 | 8°26'42 | 19° 2 | 11°32 | 24°31 | 27° 7 | 21°55 | 11°54 | 14°17 | 7°45 | 7°20 | 17°30 | 18°56 | 27°11 | n.a. |
| T 8 | 2 39 33 | 9°27'53 | 1♂35 | 13° 6 | 25°46 | 27°26 | 22° 6 | 11°59 | 14°19 | 7°46 | 7°21 | 17°31 | 18°53 | 27°18 | n.a. |
| W 9 | 2 43 30 | 10°29'04 | 13°51 | 14°41 | 27° 2 | 27°45 | 22°17 | 12° 3 | 14°20 | 7°47 | 7°22 | 17°R31 | 18°50 | 27°25 | n.a. |
| T 10 | 2 47 26 | 11°30'16 | 25°54 | 16°16 | 28°18 | 28° 4 | 22°27 | 12° 8 | 14°22 | 7°48 | 7°23 | 17°30 | 18°47 | 27°31 | n.a. |
| F 11 | 2 51 23 | 12°31'28 | 7♂49 | 17°51 | 29°33 | 28°23 | 22°38 | 12°13 | 14°24 | 7°50 | 7°24 | 17°27 | 18°44 | 27°38 | n.a. |
| S 12 | 2 55 19 | 13°32'41 | 19°41 | 19°25 | 0M49 | 28°40 | 22°48 | 12°18 | 14°27 | 7°51 | 7°25 | 17°23 | 18°40 | 27°45 | n.a. |
| S 13 | 2 59 16 | 14°33'54 | 1Y33 | 21° 1 | 2° 4 | 28°58 | 22°59 | 12°23 | 14°29 | 7°52 | 7°27 | 17°17 | 18°37 | 27°52 | n.a. |
| M14 | 3 3 13 | 15°35'07 | 13°28 | 22°36 | 3°20 | 29°15 | 23° 9 | 12°28 | 14°31 | 7°53 | 7°28 | 17°11 | 18°34 | 27°58 | n.a. |
| T 15 | 3 7 9 | 16°36'20 | 25°30 | 24°11 | 4°35 | 29°31 | 23°19 | 12°33 | 14°33 | 7°54 | 7°29 | 17° 5 | 18°31 | 28° 5 | n.a. |
| W16 | 3 11 6 | 17°37'34 | 7♂40 | 25°47 | 5°51 | 29°48 | 23°29 | 12°38 | 14°35 | 7°55 | 7°30 | 17° 0 | 18°28 | 28°12 | n.a. |
| T 17 | 3 15 2 | 18°38'48 | 19°59 | 27°22 | 7° 6 | 0♂ 3 | 23°39 | 12°43 | 14°37 | 7°56 | 7°32 | 16°56 | 18°24 | 28°18 | n.a. |
| F 18 | 3 18 59 | 19°40'02 | 2II29 | 28°58 | 8°22 | 0°18 | 23°49 | 12°48 | 14°40 | 7°57 | 7°33 | 16°54 | 18°21 | 28°25 | n.a. |
| S 19 | 3 22 55 | 20°41'17 | 15° 9 | 0♂34 | 9°37 | 0°33 | 23°59 | 12°54 | 14°42 | 7°58 | 7°34 | 16°D53 | 18°18 | 28°32 | n.a. |
| S 20 | 3 26 52 | 21°42'32 | 28° 1 | 2° 9 | 10°53 | 0°47 | 24° 9 | 12°59 | 14°44 | 7°59 | 7°36 | 16°53 | 18°15 | 28°39 | n.a. |
| M21 | 3 30 48 | 22°43'48 | 11♂ 5 | 3°45 | 12° 9 | 1° 1 | 24°18 | 13° 5 | 14°47 | 8° 0 | 7°37 | 16°55 | 18°12 | 28°45 | n.a. |
| T 22 | 3 34 45 | 23°45'04 | 24°23 | 5°21 | 13°24 | 1°14 | 24°28 | 13°10 | 14°49 | 8° 1 | 7°38 | 16°56 | 18° 9 | 28°52 | n.a. |
| W23 | 3 38 42 | 24°46'20 | 7♂56 | 6°57 | 14°40 | 1°26 | 24°37 | 13°16 | 14°52 | 8° 2 | 7°40 | 16°58 | 18° 5 | 28°59 | n.a. |
| T 24 | 3 42 38 | 25°47'37 | 21°43 | 8°32 | 15°55 | 1°38 | 24°47 | 13°22 | 14°54 | 8° 3 | 7°41 | 16°R58 | 18° 2 | 29° 5 | n.a. |
| F 25 | 3 46 35 | 26°48'54 | 5M46 | 10° 7 | 17°11 | 1°50 | 24°56 | 13°27 | 14°57 | 8° 3 | 7°43 | 16°58 | 17°59 | 29°12 | n.a. |
| S 26 | 3 50 31 | 27°50'11 | 20° 3 | 11°42 | 18°26 | 2° 1 | 25° 5 | 13°33 | 14°59 | 8° 4 | 7°44 | 16°57 | 17°56 | 29°19 | n.a. |
| S 27 | 3 54 28 | 28°51'29 | 4♂31 | 13°17 | 19°42 | 2°11 | 25°14 | 13°39 | 15° 2 | 8° 5 | 7°46 | 16°55 | 17°53 | 29°26 | n.a. |
| M28 | 3 58 24 | 29°52'46 | 19° 7 | 14°51 | 20°57 | 2°21 | 25°23 | 13°45 | 15° 5 | 8° 5 | 7°47 | 16°53 | 17°50 | 29°32 | n.a. |
| T 29 | 4 2 21 | 0♂54'04 | 3M45 | 16°24 | 22°13 | 2°30 | 25°31 | 13°51 | 15° 7 | 8° 6 | 7°49 | 16°51 | 17°46 | 29°39 | n.a. |
| W30 | 4 6 17 | 1♂55'22 | 18M17 | 17♂56 | 23M28 | 2♂38 | 25M40 | 13♂57 | 15♂10 | 8M 7 | 7♂50 | 16♂49 | 17♂43 | 29♂46 | n.a. |

Delta T = 05h39m06s Julian Calendar 1 Nov. 689 BCE == Greg. Calendar 25 Oct. 689 BCE

The year -688 astronomical counting style corresponds to year 689 B.C.E historical counting style.

DECEMBER 689 BCE (-688) JC

00:00 UT

| Day | Sid.t | ☉ | ☽ | ♀ | ♂ | ♃ | ♄ | ♅ | ♆ | ♇ | ♁ | ♂ | ♁ | ♃ | ♄ |
|------|---------|----------|--------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|-------|------|
| T 1 | 4 10 14 | 2♂56'40 | 2♂39 | 19♂27 | 24M44 | 2♂46 | 25M48 | 14♂ 3 | 15♂13 | 8M 7 | 7♂52 | 16°R48 | 17♂40 | 29♂53 | n.a. |
| F 2 | 4 14 11 | 3°57'58 | 16°44 | 20°56 | 25°59 | 2°53 | 25°57 | 14° 9 | 15°16 | 8° 8 | 7°53 | 16°D47 | 17°37 | 29°59 | n.a. |
| S 3 | 4 18 7 | 4°59'15 | 0♂29 | 22°24 | 27°15 | 3° 0 | 26° 5 | 14°15 | 15°18 | 8° 8 | 7°55 | 16♂48 | 17°34 | 0Y 6 | n.a. |
| S 4 | 4 22 4 | 6° 0'32 | 13°50 | 23°49 | 28°30 | 3° 5 | 26°13 | 14°22 | 15°21 | 8° 9 | 7°56 | 16°48 | 17°30 | 0°13 | n.a. |
| M 5 | 4 26 0 | 7° 1'48 | 26°49 | 25°12 | 29°46 | 3°11 | 26°21 | 14°28 | 15°24 | 8° 9 | 7°58 | 16°49 | 17°27 | 0°19 | n.a. |
| T 6 | 4 29 57 | 8° 3'04 | 9♂27 | 26°31 | 1♂ 1 | 3°15 | 26°29 | 14°34 | 15°27 | 8° 9 | 7°59 | 16°50 | 17°24 | 0°26 | n.a. |
| W 7 | 4 33 53 | 9° 4'19 | 21°48 | 27°47 | 2°17 | 3°19 | 26°36 | 14°41 | 15°30 | 8°10 | 8° 1 | 16°51 | 17°21 | 0°33 | n.a. |
| T 8 | 4 37 50 | 10° 5'33 | 3♂54 | 28°58 | 3°32 | 3°22 | 26°44 | 14°47 | 15°33 | 8°10 | 8° 3 | 16°51 | 17°18 | 0°40 | n.a. |
| F 9 | 4 41 47 | 11° 6'46 | 15°51 | 0♂ 4 | 4°47 | 3°24 | 26°51 | 14°54 | 15°36 | 8°10 | 8° 4 | 16°R51 | 17°15 | 0°46 | n.a. |
| S 10 | 4 45 43 | 12° 7'59 | 27°43 | 1° 4 | 6° 3 | 3°26 | 26°59 | 15° 0 | 15°39 | 8°11 | 8° 6 | 16°51 | 17°11 | 0°53 | n.a. |
| S 11 | 4 49 40 | 13° 9'10 | 9Y36 | 1°57 | 7°18 | 3°27 | 27° 6 | 15° 7 | 15°42 | 8°11 | 8° 8 | 16°51 | 17° 8 | 1° 0 | n.a. |
| M12 | 4 53 36 | 14°10'21 | 21°33 | 2°43 | 8°34 | 3°R27 | 27°13 | 15°13 | 15°45 | 8°11 | 8° 9 | 16°50 | 17° 5 | 1° 6 | n.a. |
| T 13 | 4 57 33 | 15°11'31 | 3♂38 | 3°21 | 9°49 | 3°26 | 27°20 | 15°20 | 15°48 | 8°11 | 8°11 | 16°50 | 17° 2 | 1°13 | n.a. |
| W14 | 5 1 29 | 16°12'40 | 15°55 | 3°49 | 11° 4 | 3°25 | 27°26 | 15°27 | 15°51 | 8°11 | 8°13 | 16°50 | 16°59 | 1°20 | n.a. |
| T 15 | 5 5 26 | 17°13'48 | 28°25 | 4° 6 | 12°20 | 3°23 | 27°33 | 15°33 | 15°54 | 8°11 | 8°15 | 16°D50 | 16°56 | 1°27 | n.a. |
| F 16 | 5 9 22 | 18°14'55 | 11II11 | 4°R13 | 13°35 | 3°20 | 27°39 | 15°40 | 15°58 | 8°11 | 8°16 | 16°R50 | 16°52 | 1°33 | n.a. |
| S 17 | 5 13 19 | 19°16'02 | 24°12 | 4° 9 | 14°51 | 3°16 | 27°45 | 15°47 | 16° 1 | 8°R11 | 8°18 | 16°50 | 16°49 | 1°40 | n.a. |
| S 18 | 5 17 16 | 20°17'08 | 7♂29 | 3°53 | 16° 6 | 3°11 | 27°52 | 15°54 | 16° 4 | 8°11 | 8°20 | 16°50 | 16°46 | 1°47 | n.a. |
| M19 | 5 21 12 | 21°18'12 | 20°59 | 3°25 | 17°21 | 3° 6 | 27°57 | 16° 1 | 16° 7 | 8°11 | 8°21 | 16°49 | 16°43 | 1°54 | n.a. |
| T 20 | 5 25 9 | 22°19'16 | 4♂42 | 2°46 | 18°36 | 3° 0 | 28° 3 | 16° 8 | 16°10 | 8°11 | 8°23 | 16°49 | 16°40 | 2° 0 | n.a. |
| W21 | 5 29 5 | 23°20'20 | 18°35 | 1°57 | 19°52 | 2°53 | 28° 9 | 16°15 | 16°14 | 8°11 | 8°25 | 16°48 | 16°36 | 2° 7 | n.a. |
| T 22 | 5 33 2 | 24°21'22 | 2M36 | 0°59 | 21° 7 | 2°46 | 28°14 | 16°22 | 16°17 | 8°11 | 8°27 | 16°47 | 16°33 | 2°14 | n.a. |
| F 23 | 5 36 58 | 25°22'24 | 16°43 | 29♂54 | 22°22 | 2°37 | 28°20 | 16°29 | 16°20 | 8°11 | 8°29 | 16°47 | 16°30 | 2°20 | n.a. |
| S 24 | 5 40 55 | 26°23'24 | 0♂54 | 28°43 | 23°38 | 2°28 | 28°25 | 16°36 | 16°24 | 8°11 | 8°30 | 16°D47 | 16°27 | 2°27 | n.a. |
| S 25 | 5 44 51 | 27°24'25 | 15° 6 | 27°29 | 24°53 | 2°18 | 28°30 | 16°43 | 16°27 | 8°10 | 8°32 | 16°47 | 16°24 | 2°34 | n.a. |
| M26 | 5 48 48 | 28°25'24 | 29°17 | 26°14 | 26° 8 | 2° 7 | 28°35 | 16°50 | 16°30 | 8°10 | 8°34 | 16°48 | 16°21 | 2°41 | n.a. |
| T 27 | 5 52 45 | 29°26'22 | 13M26 | 25° 0 | 27°23 | 1°55 | 28°39 | 16°57 | 16°34 | 8°10 | 8°36 | 16°49 | 16°17 | 2°47 | n.a. |
| W28 | 5 56 41 | 0♂27'20 | 27°28 | 23°49 | 28°39 | 1°43 | 28°44 | 17° 4 | 16°37 | 8° 9 | 8°37 | 16°50 | 16°14 | 2°54 | n.a. |
| T 29 | 6 0 38 | 1°28'16 | 11♂21 | 22°43 | 29°54 | 1°30 | 28°48 | 17°11 | 16°40 | 8° 9 | 8°39 | 16°R51 | 16°11 | 3° 1 | n.a. |
| F 30 | 6 4 34 | 2°29'11 | 25° 3 | 21°44 | 1♂ 9 | 1°16 | 28°52 | 17°18 | 16°44 | 8° 9 | 8°41 | 16°51 | 16° 8 | 3° 7 | n.a. |
| S 31 | 6 8 31 | 3♂30'05 | 8♂30 | 20♂51 | 2♂24 | 1♂ 1 | 28M56 | 17♂26 | 16♂47 | 8M 8 | 8♂43 | 16♂50 | 16♂ 5 | 3Y14 | n.a. |

Delta T = 05h39m05s

Julian Calendar

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