| conjunction | 11601 Feb 26 09:47 | 13°) 41′06 | -0°45'19 | | 11605 Nov 26 09:15 | 0° M | |
|---------------------|--|----------------------------|----------------|-----------------------|--|---|-------------|
| minimum elong | 11601 Feb 26 08:43 | 13° ¥ 39′23 | 0°45'02 | | 11606 Jan 06 13:27 | 0° ∡ ¹ | |
| | 11601 Mar 23 22:10 | $0^{\circ}\mathbf{Y}$ | | | 11606 Feb 20 15:09 | 0°ರ | |
| morning rise | 11601 Apr 10 18:15 | 11° Υ 30'47 | | | 11606 Apr 17 02:47 | 0° ≈ | |
| morning rise | • | | | 4 1- | • | | |
| | 11601 May 09 01:25 | 0° B | | retrograde | 11606 Jun 04 08:38 | 11°≈56'48 | 0.65064.477 |
| | 11601 Jun 22 23:36 | Π °0 | | min. Earth dist. | 11606 Jul 12 00:59 | 3° ≈ 07'19 | 0.65864 AU |
| | 11601 Aug 05 15:08 | 0 \circ | | opposition | 11606 Jul 14 22:47 | 1° ≈ 57'51 | 0°10'57 |
| | 11601 Sep 17 03:53 | 0 \circ Ω | | greatest brilliancy | 11606 Jul 14 22:24 | 1° ≈ 58'13 | -1.4m |
| | 11601 Oct 29 03:17 | 0° m) | | desc. node | 11606 Jul 19 22:16 | 0° ≈ 00'37 | |
| asc. node | 11601 Nov 27 17:39 | 20° mp 49'11 | | | 11606 Jul 19 22:55 | 30°Ŗる | |
| | 11601 Dec 11 05:58 | 0∘ <u>v</u> | | direct | 11606 Aug 23 17:28 | 22° る 36'25 | |
| | 11602 Jan 31 10:48 | 0° M , | | | 11606 Oct 01 12:14 | 0° ≈ | |
| ratra ara da | | 10°M36'00 | | | 11606 Dec 05 10:35 | 0° ∺ | |
| retrograde | 11602 Mar 13 10:55 | | 0.42520.433 | | | | |
| min. Earth dist. | 11602 Apr 09 02:02 | 5°M42'34 | | | 11607 Jan 25 16:46 | 0° Υ | |
| greatest brilliancy | 11602 Apr 15 17:09 | 3°M30'15 | -2.5m | | 11607 Mar 13 01:11 | 0° 8 | |
| opposition | 11602 Apr 17 11:07 | 2°M54'58 | 6°08'43 | | 11607 Apr 25 02:03 | Π \circ 0 | |
| | 11602 Apr 26 17:39 | 30° ₹ Ω | | evening set | 11607 May 12 06:20 | 12° Ⅲ 31′03 | |
| direct | 11602 May 19 08:09 | 26° ₽ 39'04 | | max. Earth dist. | 11607 May 30 22:48 | 26° Ⅲ 27′05 | 2.39967 AU |
| | 11602 Jun 12 00:56 | 0° M | | | 11607 Jun 04 15:26 | 0ಂತಾ | |
| | 11602 Aug 19 00:41 | 0° ⊼ 7 | | | 11007 3411 01 13.20 | ů O | |
| | 11602 Aug 19 00:41 11602 Oct 10 16:00 | % ਨ | | : | 11/07 I-1 12 07-17 | 200602112 | 0005126 |
| | | | | conjunction | 11607 Jul 12 07:16 | 29°503'13 | |
| desc. node | 11602 Oct 14 08:16 | 2° る 10'05 | | minimum elong | 11607 Jul 12 07:50 | 29° 5 04'20 | 0°06'07 |
| | 11602 Nov 29 18:33 | 0° ≈ | | behind sun begin | 11607 Jul 11 05:12 | 28° © 12'15 | |
| | 11603 Jan 17 12:47 | 0° ∀ | | behind sun end | 11607 Jul 13 10:29 | 29° 9 56'27 | |
| evening set | 11603 Feb 17 14:52 | 19°) 35′55 | | | 11607 Jul 13 12:17 | $0^{\circ}\Omega$ | |
| • | 11603 Mar 05 20:06 | $0^{\circ}\Upsilon$ | | asc. node | 11607 Jul 19 19:24 | 4° Ω 56′25 | |
| max. Earth dist. | 11603 Mar 15 08:20 | 6° ℃ 09'47 | 2.63268 AU | | 11607 Aug 20 12:34 | 0° m) | |
| max. Latin dist. | 11005 Widi 15 00.20 | 0 10747 | 2.03200710 | morning rise | 11607 Rug 20 12:34 11607 Sep 22 22:12 | 26° m) 22'29 | |
| | 11602 4 02 00 25 | 10000027140 | 1007121 | morning rise | • | | |
| conjunction | 11603 Apr 03 08:25 | 18° Y ′37'48 | | | 11607 Sep 27 13:12 | 0∘ ⊽ | |
| minimum elong | 11603 Apr 03 07:49 | 18° Ƴ 36'48 | 1°07'42 | | 11607 Nov 05 11:22 | 0° M | |
| | 11603 Apr 20 09:36 | 9° 8 | | | 11607 Dec 16 03:36 | 0° ∡ ¹ | |
| morning rise | 11603 May 19 12:24 | 19° 8 51'07 | | | 11608 Jan 28 11:01 | 0°₹ | |
| | 11603 Jun 03 02:04 | $\Pi^{\circ}0$ | | | 11608 Mar 15 18:54 | 0° ≈ | |
| | 11603 Jul 14 23:11 | 0 \circ \odot | | | 11608 May 11 05:09 | 0° ₩ | |
| | 11603 Aug 24 07:58 | $0^{\circ}\Omega$ | | desc. node | 11608 Jun 05 22:41 | 9°) 47′29 | |
| | 11603 Oct 02 16:50 | 0° m) | | retrograde | 11608 Jul 07 10:26 | 15°) 01'48 | |
| aca mada | | | | · · | | 5°\(\frac{15}{25}\)'09 | 2024112 |
| asc. node | 11603 Oct 15 11:21 | 9° m 47'58 | | opposition | 11608 Aug 16 20:10 | | |
| | 11603 Nov 10 21:48 | 0∘ ⊽ | | greatest brilliancy | 11608 Aug 16 20:50 | 5° ¥ 24'30 | |
| | 11603 Dec 21 06:48 | 0° M | | min. Earth dist. | 11608 Aug 17 17:26 | 5° ∺ 04'07 | 0.68325 AU |
| | 11604 Feb 03 09:15 | 0° ∡ ¹ | | | 11608 Aug 31 10:31 | 30° R ≈ | |
| | 11604 Apr 04 07:51 | 0°ರ | | direct | 11608 Sep 27 04:49 | 25° ≈ 29'54 | |
| retrograde | 11604 Apr 28 14:02 | 3° る 45'35 | | | 11608 Oct 26 10:51 | 0° ∀ | |
| • | 11604 May 21 14:18 | 30°R <i>⊀</i> | | | 11609 Jan 01 09:10 | $0^{\circ}\mathbf{Y}$ | |
| min. Earth dist. | 11604 May 31 07:24 | 26° ∡ ³34'15 | 0.56990 AU | | 11609 Feb 19 13:08 | 0°8 | |
| opposition | 11604 Jun 06 20:06 | 24° ₹ '01'55 | 3°18'46 | | 11609 Apr 04 06:53 | 0°II | |
| • • | | | | | • | 0ಂ ತಾ | |
| greatest brilliancy | 11604 Jun 06 02:08 | 24° 🗷 19'24 | -1.8m | | 11609 May 14 20:52 | | |
| direct | 11604 Jul 13 11:04 | 15° ∡ ¹45'50 | | asc. node | 11609 Jun 05 17:04 | 16°5548'08 | |
| desc. node | 11604 Aug 31 15:59 | 27° ∡ 14'34 | | | 11609 Jun 22 13:53 | 0 \circ Ω | |
| | 11604 Sep 07 08:51 | 0°₹ | | evening set | 11609 Jul 17 02:11 | 19° £ 23′02 | |
| | 11604 Nov 06 06:51 | 0° ≈ | | | 11609 Jul 30 11:16 | 0° m | |
| | 11604 Dec 28 02:06 | 0° ∀ | | | 11609 Sep 06 12:13 | 0∘ ত | |
| | 11605 Feb 14 09:41 | $0^{\circ}\Upsilon$ | | | ī | | |
| evening set | 11605 Mar 26 11:16 | 26° Y 17'10 | | conjunction | 11609 Sep 27 01:30 | 15° ≏ 55'12 | 1°02'37 |
| evening set | 11605 Mar 31 23:18 | 0°8 | | v | • | 15° ⊆ 50'57 | |
| T 4 11 4 | | _ | 2 522 62 4 1 1 | minimum elong | 11609 Sep 26 23:17 | | 1 02 44 |
| max. Earth dist. | 11605 Apr 11 14:36 | /°015/10 | 2.53362 AU | | 11609 Oct 15 13:42 | 0° M , | |
| | | | | max. Earth dist. | 11609 Nov 17 21:25 | 24°M36'56 | 2.43838 AU |
| conjunction | 11605 May 14 14:19 | 0° Ⅲ 22'16 | -1°01'03 | | 11609 Nov 25 08:51 | 0° ∡ ¹ | |
| minimum elong | 11605 May 14 15:45 | 0° Ⅲ 24'51 | 1°01'39 | morning rise | 11609 Dec 01 03:59 | 4° ₰ ¹08'26 | |
| | 11605 May 14 01:51 | Π $^{\circ}0$ | | | 11610 Jan 07 10:11 | ರ°0 | |
| | 11605 Jun 24 01:33 | 0ಂತಾ | | | 11610 Feb 22 04:06 | 0° ≈ | |
| morning rise | 11605 Jul 09 02:25 | 11°520'01 | | | 11610 Apr 12 10:54 | 0°) € | |
| | 11605 Aug 02 10:47 | 0°Ω | | desc. node | 11610 Apr 12 16:04 11610 Apr 23 16:06 | 6° ∺ 24'50 | |
| 000 mc J- | • | | | uese. Hour | - | 0° Υ 24'30 | |
| asc. node | 11605 Sep 01 01:52 | 23° Ω 05′05 | | | 11610 Jun 08 05:00 | | |
| | - | 00 200 | | , 1 | 11/10 4 10 15 20 | 100001100 | |
| | 11605 Sep 09 21:34 | 0° m/y | | retrograde | 11610 Aug 12 17:20 | 18° Y 16'37 | |
| | - | 0 ்⊽ 0 ்™ | | retrograde opposition | 11610 Aug 12 17:20 11610 Sep 20 16:09 | 18° Y 16'37 9° Y 24'41 | -4°22'54 |

| greatest brilliancy | 11610 Sep 21 08:12 | 9° Y '09'08 | -1.4m | desc. node | 11615 Dec 13 16:28 | 21° る 22'06 | |
|------------------------------------|--|----------------------------|------------|--------------------------------|--|--|---------------------|
| min. Earth dist. | 11610 Sep 25 09:11 | 7° Ƴ 35'16 | 0.64101 AU | | 11615 Dec 27 05:26 | 0° ≈ | |
| | 11610 Oct 22 10:25 | 30° ₹ | | evening set | 11615 Dec 30 22:41 | 2° ≈ 21'57 | |
| direct | 11610 Nov 01 01:36 | 29°) €23'31 | | | 11616 Feb 12 12:34 | 0°) | |
| | 11610 Nov 11 01:05 | 0° Y | | | | | |
| | 11611 Jan 25 05:22 | 0° 8 | | conjunction | 11616 Feb 13 21:16 | 0° 米 51'49 | |
| | 11611 Mar 13 04:42 | Π °0 | | minimum elong | 11616 Feb 13 20:24 | 0° 米 50′26 | |
| asc. node | 11611 Apr 23 19:24 | 0° ട്ട 03'43 | | max. Earth dist. | 11616 Feb 12 15:19 | | 2.68357 AU |
| | 11611 Apr 23 17:25 | 0 | | morning rise | 11616 Mar 28 03:55 | 28° ∺ 23'05 | |
| | 11611 Jun 01 18:30 | 0 ° Ω | | | 11616 Mar 30 16:35 | 0° Y | |
| | 11611 Jul 09 21:33 | 0° m) | | | 11616 May 16 06:06 | 0°8 | |
| | 11611 Aug 17 06:17 | 0∘ ⊽ | | | 11616 Jun 30 23:36 | Π °0 | |
| | 11611 Sep 25 18:36 | 0°M₊ | | | 11616 Aug 14 21:09 | 0 \circ | |
| evening set | 11611 Sep 29 08:23 | 2°M39'13 | | | 11616 Sep 28 05:59 | $0^{\circ}\Omega$ | |
| | 11611 Nov 06 01:42 | 0° ∡ ¹ | | | 11616 Nov 12 06:19 | 0° ™ | |
| | | _ | | asc. node | 11616 Dec 14 10:09 | 19° m 47'42 | |
| conjunction | 11611 Nov 27 03:10 | 14° ∡ ¹44'54 | 0°51'25 | | 11617 Jan 02 17:01 | 0∘ ⊽ | |
| minimum elong | 11611 Nov 27 04:57 | 14° ∡¹ 47'57 | 0°52'06 | retrograde | 11617 Feb 16 21:22 | 12° ≏ 22'59 | |
| | 11611 Dec 19 10:58 | 0°ಕ | | min. Earth dist. | 11617 Mar 14 17:28 | 8° ≏ 05'28 | 0.38836 AU |
| max. Earth dist. | 11611 Dec 27 01:16 | 5° ට 06'15 | 2.57028 AU | greatest brilliancy | 11617 Mar 19 18:35 | 6° ≏ 36'17 | -2.8m |
| morning rise | 11612 Jan 17 14:37 | 19° る 22'40 | | opposition | 11617 Mar 21 03:49 | 6° ≏ 11'41 | 5°55'13 |
| | 11612 Feb 02 22:50 | 0° ≈ | | direct | 11617 Apr 19 23:55 | 0° ჲ 53'02 | |
| desc. node | 11612 Mar 10 06:22 | 23° ≈ 02'42 | | | 11617 Jul 10 13:51 | 0° M | |
| | 11612 Mar 21 11:10 | 0° ∀ | | | 11617 Aug 31 05:29 | 0° ∡ ″ | |
| | 11612 May 10 07:50 | 0° Υ | | | 11617 Oct 19 12:38 | 0°ಕ | |
| | 11612 Jul 03 20:01 | 0°8 | | desc. node | 11617 Oct 30 19:17 | 6° る 55'09 | |
| retrograde | 11612 Sep 25 08:32 | 27° 8 06'03 | | | 11617 Dec 07 06:00 | 0° ≈ | |
| opposition | 11612 Oct 31 06:26 | 19° 8 31'32 | | | 11618 Jan 24 09:51 | 0° ∀ | |
| greatest brilliancy | 11612 Nov 01 19:15 | 18° 8 58'00 | | evening set | 11618 Feb 03 18:56 | 6°) 32′17 | |
| min. Earth dist. | 11612 Nov 08 09:40 | 16° 8 34'40 | 0.53434 AU | max. Earth dist. | 11618 Mar 05 22:12 | 25°) 43′29 | 2.65760 AU |
| direct | 11612 Dec 09 11:21 | 10° 8 19'17 | | | 11618 Mar 12 13:36 | 0° Υ ′ | |
| | 11613 Feb 08 17:17 | 0°П | | | | | |
| asc. node | 11613 Mar 11 03:01 | 18° Ⅱ 25'33 | | conjunction | 11618 Mar 19 23:33 | 4° Υ 47'40 | |
| | 11613 Mar 28 04:27 | 0°© | | minimum elong | 11618 Mar 19 22:35 | 4° Υ 46'06 | 1°01'27 |
| | 11613 May 08 05:36 | 0° N | | | 11618 Apr 27 07:11 | 0° 8 | |
| | 11613 Jun 16 11:55 | 0° Mp | | morning rise | 11618 May 03 12:36 | 4° 8 10'08 | |
| | 11613 Jul 25 19:44 | 0∘ 亚 | | | 11618 Jun 10 09:11 | 0°II | |
| | 11613 Sep 04 07:13 | 0° M ○○ T | | | 11618 Jul 22 19:34 | 0°99 | |
| | 11613 Oct 16 12:58 | 0° ∡¹ | | | 11618 Sep 01 19:15 | 0° N | |
| evening set | 11613 Nov 20 12:48 | 23° ∡ ′52′29 | | 1 | 11618 Oct 11 19:54 | 0° m) | |
| | 11613 Nov 29 16:48 | 0°ಕ | | asc. node | 11618 Nov 01 06:04 | 15° Th 23'00 | |
| | 116141 00 12 25 | 260707140 | 0000122 | | 11618 Nov 20 19:32 | 0∘ 亚 | |
| conjunction | 11614 Jan 08 13:25 | 26° る 07'48 | 0°09'23 | | 11619 Jan 01 13:38 | 0°M. | |
| minimum elong | 11614 Jan 08 13:46 | 26°る08'23 | 0°10'06 | | 11619 Feb 19 08:44 | 0° √ 15°√ 7 51101 | |
| behind sun begin behind sun end | 11614 Jan 07 22:28 | 25°₹43'39 | | retrograde min. Earth dist. | 11619 Apr 13 01:54 | 15° 🗷 51'01 | 0.52022.411 |
| bening sun eng | 11614 Jan 09 05:05 11614 Jan 14 13:15 | 26° る 33'06 0°≈ | | greatest brilliancy | 11619 May 13 10:52 | 9° х ⁷ 29'54 7° х ⁷ 03'27 | 0.52033 AU -2.0m |
| may Earth dist | | 0°≈ 4°≈04'31 | 2.65440 AU | • | 11619 May 19 22:42 11619 May 21 03:52 | 6° x ¹ 35'57 | |
| max. Earth dist. desc. node | 11614 Jan 20 21:16 11614 Jan 25 21:05 | 7°≈16'40 | 2.03440 AU | opposition | 11619 Jun 12 18:18 | 30°RM | 4 3001 |
| morning rise | 11614 Feb 22 20:30 | 7 ≈1040 25°≈05'18 | | direct | 11619 Jun 25 02:24 | 28°M58'46 | |
| morning rise | 11614 Mar 02 15:01 | 25 ≈ 05 18 | | direct | 11619 Jul 08 02:41 | 20 11630 40 0° ⊼ 1 | |
| | 11614 Apr 19 11:31 | 0° Υ | | desc. node | 11619 Sep 18 03:18 | 27° ∡ ¹23'51 | |
| | 11614 Jun 07 00:58 | 0°8 | | desc. flode | 11619 Sep 23 04:23 | 0°る | |
| | 11614 Jul 26 23:20 | 0°II | | | 11619 Nov 16 07:04 | 0° ≈ | |
| | 11614 Sep 19 08:23 | 0ಂಣ ೧ π | | | 11620 Jan 05 13:12 | 0 ≈ 0° ∺ | |
| retrograde | 11614 Nov 29 04:15 | 22° © 10'49 | | | 11620 Feb 22 08:34 | 0°Υ | |
| opposition | 11614 Dec 30 01:40 | 16°945'06 | -2°00'29 | evening set | 11620 Mar 11 02:56 | 11° Υ 31'49 | |
| greatest brilliancy | 11614 Dec 30 16:56 | 16°933'52 | | max. Earth dist. | 11620 Mar 30 15:45 | 24° Υ 28'07 | 2.57818 AU |
| min. Earth dist. | 11615 Jan 05 17:33 | 10 933 32 14°947'50 | 0.39703 AU | max. Lattii Uist. | 11620 Mai 30 13:43 11620 Apr 07 21:03 | 0° 8 | 2.37010 AU |
| asc. node | 11615 Jan 27 09:12 | 10°936'28 | 0.57705 AU | | 11020 Apr 0/ 21.03 | v O | |
| direct | 11615 Feb 01 00:12 | 10 \$30 28 10°\$27'21 | | conjunction | 11620 Apr 26 21:32 | 12° 8 59'44 | -1°08'11 |
| anoci | 11615 Mar 31 18:43 | 0°Ω | | minimum elong | 11620 Apr 26 22:02 | 13° 8 00'36 | |
| | 11615 May 18 03:37 | 0° m) | | Clong | 11620 Apr 20 22:02 11620 May 21 04:08 | 0°Ⅱ | 1 00 37 |
| | 11615 Jun 30 08:52 | 0∘ ত اللا | | morning rise | 11620 Jun 16 14:24 | 19° Ⅱ 02'50 | |
| | 11615 Aug 12 12:25 | 0° ™ | | 21101111115 1150 | 11620 Jul 01 11:13 | 0°95 | |
| | 11615 Sep 25 19:03 | 0° ⊼ ¹ | | | 11620 Aug 10 04:14 | 0° U | |
| | 11615 Nov 10 10:52 | 0°ਤੇ | | asc. node | 11620 Sep 17 22:32 | 0° mp 01'25 | |
| | 10.02 | | | | | 0123 | |

| | 11/20 0 17 21 40 | 00 m - | | | 11/25 D 11 15 00 | 0° Υ | |
|---------------------|--|-------------------------------------|-------------|----------------------------|--|--|---------------------|
| | 11620 Sep 17 21:49 | 0° െ 0°ആ | | | 11625 Dec 11 15:08 | 0°₽ | |
| | 11620 Oct 26 11:08 11620 Dec 04 21:07 | 0° ™ | | | 11626 Feb 04 21:00 11626 Mar 22 00:29 | 0°U | |
| | 11620 Dec 04 21:07 11621 Jan 15 14:47 | 0 IIL 0° ∡ 7 | | | 11626 May 02 00:33 | 0. о п | |
| | 11621 Mar 03 15:30 | 0°る | | asc. node | 11626 May 10 11:16 | 6°\$25'25 | |
| retrograde | 11621 May 21 16:10 | 28°る15'56 | | asc. node | 11626 Jun 09 20:33 | 0°Ω | |
| min. Earth dist. | 11621 Jun 26 14:15 | 20°る00'32 | 0.63123 AU | | 11626 Jul 17 19:53 | 0°m) | |
| opposition | 11621 Jun 30 23:21 | 18°る16'17 | | | 11626 Aug 25 00:07 | 0∘ ت مار | |
| greatest brilliancy | 11621 Jun 30 18:30 | 18° る 21'06 | -1.5m | evening set | 11626 Sep 02 11:32 | o — 6° ≏ 34'04 | |
| desc. node | 11621 Aug 05 10:16 | 9° ට 19'47 | 1.5111 | evening sec | 11626 Oct 03 06:34 | 0° m | |
| direct | 11621 Aug 08 17:32 | 9° る 15'45 | | | 11020 001 03 00.31 | O IIV | |
| | 11621 Oct 18 19:56 | 0° ≈ | | conjunction | 11626 Nov 06 05:01 | 24°M55'01 | 1°02'41 |
| | 11621 Dec 14 13:27 | 0° \ | | minimum elong | 11626 Nov 06 06:25 | 24°M57'32 | |
| | 11622 Feb 02 07:06 | 0° Υ | | | 11626 Nov 13 07:22 | 0° ⊼ | |
| | 11622 Mar 20 05:43 | 0°8 | | max. Earth dist. | 11626 Dec 14 16:50 | | 2.52320 AU |
| evening set | 11622 Apr 22 08:08 | 22° 8 55'22 | | | 11626 Dec 26 11:40 | 0°₹ | |
| C | 11622 May 02 06:10 | 0°II | | morning rise | 11626 Dec 31 22:59 | 3° ප් 41'30 | |
| max. Earth dist. | 11622 May 06 06:40 | 2° Ⅱ 53'47 | 2.45329 AU | Ü | 11627 Feb 09 23:13 | 0° ≈ | |
| | 11622 Jun 11 22:55 | 0° © | | desc. node | 11627 Mar 27 23:26 | 28° ≈ 49'27 | |
| | | | | | 11627 Mar 29 21:49 | 0°) € | |
| conjunction | 11622 Jun 16 13:04 | 3° 5 28'21 | -0°33'50 | | 11627 May 20 08:11 | 0° Υ | |
| minimum elong | 11622 Jun 16 15:16 | 3° © 32'31 | 0°34'33 | | 11627 Jul 20 18:57 | 0°8 | |
| | 11622 Jul 20 23:55 | $0^{\circ}\Omega$ | | retrograde | 11627 Sep 07 10:28 | 11° 8 03'29 | |
| asc. node | 11622 Aug 05 13:18 | 12° Ω 11′02 | | opposition | 11627 Oct 14 18:08 | 2° 8 53'13 | -5°07'04 |
| morning rise | 11622 Aug 21 19:44 | 25° Ω 00′15 | | greatest brilliancy | 11627 Oct 15 23:34 | 2° 8 25'30 | -1.7m |
| - | 11622 Aug 28 03:35 | 0° m | | min. Earth dist. | 11627 Oct 21 16:17 | 0° 8 17'13 | 0.58317 AU |
| | 11622 Oct 05 06:04 | 0∘ ⊽ | | | 11627 Oct 22 11:01 | 30° ₹ Υ | |
| | 11622 Nov 13 04:49 | 0° M | | direct | 11627 Nov 24 04:10 | 23° Y 11'37 | |
| | 11622 Dec 23 22:38 | 0° ∡ ¹ | | | 11627 Dec 28 14:01 | 0° 8 | |
| | 11623 Feb 05 14:30 | ರ°ರ | | | 11628 Feb 24 04:53 | $\Pi^{\circ}0$ | |
| | 11623 Mar 26 10:34 | 0° ≈ | | asc. node | 11628 Mar 27 16:24 | 21° Ⅱ 56′17 | |
| | 11623 Jun 03 20:06 | 0° ∀ | | | 11628 Apr 07 21:24 | 0 \circ \odot | |
| desc. node | 11623 Jun 23 12:53 | 2°) 34′12 | | | 11628 May 17 18:31 | 0 $^{\circ}$ Ω | |
| retrograde | 11623 Jun 25 03:56 | 2°) 35′11 | | | 11628 Jun 25 09:37 | 0° ™ | |
| | 11623 Jul 15 01:38 | 30° R ≈ | | | 11628 Aug 03 05:13 | 0∘ ⊽ | |
| opposition | 11623 Aug 04 19:14 | 22° ≈ 46′50 | | | 11628 Sep 12 04:51 | 0° M | |
| min. Earth dist. | 11623 Aug 04 04:25 | 23° ≈ 01'33 | 0.68163 AU | | 11628 Oct 23 23:20 | 0° ∡ | |
| greatest brilliancy | 11623 Aug 04 17:41 | 22° ≈ 48′22 | -1.3m | evening set | 11628 Nov 01 22:26 | 6° ∡ 15′23 | |
| direct | 11623 Sep 14 17:38 | 13° ≈ 01'44 | | | 11628 Dec 06 17:47 | 0°ප | |
| | 11623 Nov 16 07:41 | 0° ∀ | | | | _ | |
| | 11624 Jan 11 21:26 | 0° Υ | | conjunction | 11628 Dec 23 22:07 | 11° る 25'39 | |
| | 11624 Feb 28 13:24 | 0°B | | minimum elong | 11628 Dec 23 23:08 | 11° る 27'20 | 0°27'16 |
| | 11624 Apr 11 21:48 | 0°Щ | | max. Earth dist. | 11629 Jan 11 12:46 | 23° る 37'24 | 2.62763 AU |
| | 11624 May 22 10:19 | 0°50 | | | 11629 Jan 21 08:54 | 0° ≈ | |
| evening set | 11624 Jun 18 01:29 | 20° © 31'24 | | morning rise | 11629 Feb 09 00:37 | 11° ≈ 58'35 | |
| asc. node | 11624 Jun 22 09:26 | 23° © 54'25 | | desc. node | 11629 Feb 11 13:08 | 13° ≈ 35'04 | |
| | 11624 Jun 30 03:51 | 0° N | | | 11629 Mar 09 12:03 | 0°) € | |
| | 11624 Aug 07 01:29 | 0° m) | | | 11629 Apr 26 21:34 | 0°Υ ••• | |
| i <i>(</i> * | 11/04 4 27 1/11 | 1 (0 m. 10171 | 0044100 | | 11629 Jun 15 22:09 | 0° Β | |
| conjunction | 11624 Aug 27 16:11 | 16° Mp 19'51 | 0°44'08 | | 11629 Aug 08 20:14 | 0°II | |
| minimum elong | 11624 Aug 27 12:14 | 16° Mp 12'03 | 0°43'50 | retrograde | 11629 Oct 31 11:17 | 27° ∏ 51'59 | 1000155 |
| Fauth diet | 11624 Sep 14 01:23 | 0° <u>ი</u> | 2 20240 ATT | opposition | 11629 Dec 03 12:06 | 21° ∏ 32'02 | |
| max. Earth dist. | 11624 Oct 17 00:34 | | 2.38349 AU | greatest brilliancy | 11629 Dec 04 22:56 | 21° П 03'31 18° П 42'36 | -2.4m 0.44787 AU |
| | 11624 Oct 23 00:25 | 0°ጤ 11°ጤ21'01 | | min. Earth dist. direct | 11629 Dec 12 04:23 | 18°Щ42′36 13°Щ49′22 | 0.44787 AU |
| morning rise | 11624 Nov 07 04:08 11624 Dec 02 16:53 | 0° √ | | asc. node | 11630 Jan 08 12:03 11630 Feb 12 22:29 | 13 Щ4922 21° Ц 46'29 | |
| | 11624 Dec 02 10.33 | 0°る | | asc. Houe | 11630 Mar 02 07:22 | 0°95 | |
| | 11625 Jan 14 17:55 11625 Mar 01 20:06 | 0° ≈ | | | 11630 Mar 02 07:22 11630 Apr 19 05:53 | 0°€ | |
| | 11625 Mar 01 20:06 11625 Apr 21 14:55 | 0° ∺ | | | 11630 Apr 19 05:33 11630 May 31 00:39 | 0° m y | |
| desc. node | 11625 Apr 21 14.33 11625 May 10 09:02 | 0 X 9° ¥ 55'37 | | | 11630 May 31 00.39 11630 Jul 10 22:03 | 0∘ ত اللا | |
| uese. Hout | 11625 May 10 09:02 11625 Jun 27 05:20 | 9° π 55′37 | | | 11630 Aug 21 14:44 | 0° ™ | |
| retrograde | 11625 Jul 29 00:17 | 5° Υ 13'22 | | | 11630 Aug 21 14.44 11630 Oct 03 20:30 | 0° ∕ 7 | |
| renograde | 11625 Aug 27 00:09 | 30°R ₩ | | | 11630 Nov 17 18:42 | 0°る | |
| opposition | 11625 Aug 27 00:09 11625 Sep 06 16:46 | 26° ∺ 00'56 | -3°42'01 | evening set | 11630 Nov 17 18.42 11630 Dec 16 01:24 | 0 8 18° る 24'06 | |
| greatest brilliancy | 11625 Sep 07 01:21 | 25°\(\frac{1}{152}\)'32 | | desc. node | 11630 Dec 10 01:24 11630 Dec 30 07:26 | 27° ප 34'16 | |
| min. Earth dist. | 11625 Sep 07 01:21 11625 Sep 09 21:39 | | 0.66572 AU | 2000. 11040 | 11631 Jan 03 02:22 | 0°≈ | |
| direct | 11625 Oct 18 06:57 | 15°) 58'02 | 3.000/2110 | | 11031 Juli 03 02.22 | Ŭ / Ŭ · | |
| | 000 10 00.07 | ,(0002 | | | | | |

11641 May 27 01:13

11641 Jun 17 15:19

asc. node

13°909'11

 $0^{\circ}\Omega$

0°る

13°**る**25'59

11636 Mar 18 17:07

11636 May 07 06:18

retrograde

| | 11(41) 1 25 12 06 | 00 m - | | | 1164634 02 12 51 | 201/52111 | |
|---|--|----------------------------------|---------------------|--------------------------------|--|---|-----------------------|
| | 11641 Jul 25 13:06 | 0° m/y | | morning rise | 11646 Mar 02 12:51 | 2°) 53'11 | |
| evening set | 11641 Aug 03 09:26 | 7° m/00'33 | | | 11646 Apr 14 14:24 | 0° Υ | |
| | 11641 Sep 01 14:48 | 0∘ 亚 | | | 11646 Jun 01 13:18 | 0°₽ | |
| | 11641 Oct 10 17:18 | 0° M | | | 11646 Jul 20 02:10 | Π °0 | |
| | | | | | 11646 Sep 08 12:34 | 0 \circ \odot | |
| conjunction | 11641 Oct 12 15:47 | 1°M27'21 | 1°06'10 | | 11646 Nov 07 09:00 | 0 $^{\circ}$ Ω | |
| minimum elong | 11641 Oct 12 15:16 | 1°M26'22 | 1°06'30 | retrograde | 11646 Dec 17 04:55 | 8° Ω 39'16 | |
| | 11641 Nov 20 13:26 | 0° ∡ ¹ | | opposition | 11647 Jan 16 06:10 | 3° Ω 37'14 | -0°06'39 |
| max. Earth dist. | 11641 Nov 29 03:39 | 6° ₮ 07'12 | 2.46982 AU | greatest brilliancy | 11647 Jan 16 06:56 | 3° Ω 36'42 | -3.0m |
| morning rise | 11641 Dec 13 02:04 | 15° ∡ 754'22 | | asc. node | 11647 Jan 17 17:02 | 3° Ω 13′09 | |
| | 11642 Jan 02 14:33 | 0°ಕ | | min. Earth dist. | 11647 Jan 20 13:02 | 2° Ω 26′30 | 0.37650 AU |
| | 11642 Feb 17 04:07 | 0° ≈ | | | 11647 Jan 30 10:35 | 30° ₹ 5 | |
| | 11642 Apr 06 19:08 | 0° ₩ | | direct | 11647 Feb 16 07:28 | 28°905'46 | |
| desc. node | 11642 Apr 13 17:13 | 4°) €04'30 | | | 11647 Mar 05 01:17 | $0^{\circ}\Omega$ | |
| dese. node | 11642 May 30 20:34 | 0° Υ | | | 11647 May 07 19:19 | 0° m) | |
| retrograde | 11642 Aug 21 14:26 | 26° Υ '34'00 | | | 11647 Jun 22 18:32 | 0∘ ⊽ | |
| opposition | 11642 Sep 29 01:11 | 17° Υ 55'05 | 1012123 | | 11647 Aug 06 05:37 | 0° m | |
| | = | 17° Y 35'10 | | | 11647 Sep 20 06:54 | 0° ⊼ ¹ | |
| greatest brilliancy | 11642 Sep 29 21:54 | | | | 1 | | |
| min. Earth dist. | 11642 Oct 04 13:24 | 15° ℃ 48'11 | 0.62325 AU | | 11647 Nov 05 10:35 | 0°る | |
| direct | 11642 Nov 09 05:01 | 7° Y 58′05 | | desc. node | 11647 Dec 03 19:50 | 18° ろ 08'38 | |
| | 11643 Jan 17 00:41 | 0° 8 | | | 11647 Dec 22 12:08 | 0° ≈ | |
| | 11643 Mar 07 02:19 | Π °0 | | evening set | 11648 Jan 08 02:06 | 10° ≈ 29'46 | |
| asc. node | 11643 Apr 14 06:02 | 27° Ⅱ 03'39 | | | 11648 Feb 07 22:09 | 0° ∀ | |
| | 11643 Apr 18 05:10 | 0°© | | max. Earth dist. | 11648 Feb 17 14:43 | 6° ∺ 08'24 | 2.68264 AU |
| | 11643 May 27 11:53 | $0^{\circ}\Omega$ | | | | | |
| | 11643 Jul 04 18:02 | 0° m y | | conjunction | 11648 Feb 21 14:29 | 8°) 40′17 | -0°40'05 |
| | 11643 Aug 12 05:30 | 0∘ ত | | minimum elong | 11648 Feb 21 13:28 | 8°) 38′40 | 0°39'43 |
| | 11643 Sep 20 20:32 | 0° M . | | | 11648 Mar 26 01:16 | 0° Υ | |
| evening set | 11643 Oct 12 18:31 | 16°ML03'23 | | morning rise | 11648 Apr 04 20:33 | 6° Ƴ 17'50 | |
| 8 | 11643 Nov 01 06:22 | 0° ∡ ⊓ | | . 8 | 11648 May 11 09:22 | 0°8 | |
| | 110.01.01.01.01.00.22 | · ,. | | | 11648 Jun 25 16:08 | 0°II | |
| conjunction | 11643 Dec 07 18:35 | 25° ∡ 17'16 | 0°42'55 | | 11648 Aug 08 20:24 | 0°© | |
| minimum elong | 11643 Dec 07 20:11 | 25° × 1710 | | | 11648 Sep 21 02:06 | 0° U | |
| minimum ciong | 11643 Dec 14 17:46 | 23 メ 1939 | 0 43 39 | | 11648 Nov 03 02:18 | 0°m) | |
| max. Earth dist. | | 0 3 12° る 29'25 | 2.50201.411 | 1- | | ~ | |
| | 11644 Jan 02 10:43 | | 2.59301 AU | asc. node | 11648 Dec 04 18:46 | 21° m/23'38 | |
| morning rise | 11644 Jan 26 10:13 | 28° る 11'06 | | | 11648 Dec 18 06:48 | 0° ⊽ | |
| | 11644 Jan 29 05:34 | 0° ≈ | | retrograde | 11649 Mar 03 09:09 | 29° ₽ 22'04 | |
| desc. node | 11644 Feb 29 06:56 | 19° ≈ 49'02 | | min. Earth dist. | 11649 Mar 29 07:18 | 24° ≏ 49'18 | 0.41251 AU |
| | 11644 Mar 16 12:58 | 0° ∀ | | greatest brilliancy | 11649 Apr 04 11:30 | 22° ≏ 52'29 | |
| | 11644 May 04 17:36 | 0° Y | | opposition | 11649 Apr 06 04:10 | 22° ≏ 20'05 | 6°15'20 |
| | 11644 Jun 26 01:46 | $_{0\circ}$ 8 | | direct | 11649 May 07 02:20 | 16° ≏ 30'46 | |
| | 11644 Aug 29 04:47 | Π \circ 0 | | | 11649 Jun 27 10:27 | 0° M | |
| retrograde | 11644 Oct 07 07:37 | 7° Ⅱ 42'19 | | | 11649 Aug 23 19:10 | 0° ∡ ¹ | |
| opposition | 11644 Nov 11 08:13 | 0° Ⅱ 31'33 | -5°03'12 | | 11649 Oct 13 18:01 | 0°₹ | |
| | 11644 Nov 12 19:52 | 30° ₹ 8 | | desc. node | 11649 Oct 20 23:39 | 4° る 21'07 | |
| greatest brilliancy | 11644 Nov 12 22:59 | 29° 8 57'15 | -2.1m | | 11649 Dec 02 04:50 | 0° ≈ ≈ | |
| min. Earth dist. | 11644 Nov 19 23:10 | 27° 8 29'44 | 0.50439 AU | | 11650 Jan 19 16:37 | 0°) € | |
| direct | 11644 Dec 19 14:56 | 21° 8 44'28 | | evening set | 11650 Feb 11 15:45 | 14° ¥ 27'47 | |
| | 11645 Jan 25 12:42 | 0°II | | <i>8</i> | 11650 Mar 07 22:56 | 0° Υ | |
| asc. node | 11645 Mar 01 12:43 | 18° Ⅱ 03'59 | | max. Earth dist. | 11650 Mar 11 06:22 | | 2.64491 AU |
| use. Houe | 11645 Mar 20 07:23 | 0°50 | | max. Earth dist. | 11030 1111 11 00.22 | 2 1 00 10 | 2.011)1110 |
| | 11645 May 01 16:34 | 0° Ω | | conjunction | 11650 Mar 28 01:48 | 13° Y ′04'33 | 1005120 |
| | • | 0° m) | | minimum elong | 11650 Mar 28 01:02 | 13° Υ 03'17 | |
| | 11645 Jun 10 13:17 | | | minimum eiong | | | 1 03 34 |
| | 11645 Jul 20 06:46 | 0∘ 亚 | | | 11650 Apr 22 15:06 | 0°8 | |
| | 11645 Aug 30 01:55 | 0° M ₊ | | morning rise | 11650 May 12 09:54 | 13° 8 22'10 | |
| | 11645 Oct 11 14:00 | 0° ∡ 7 | | | 11650 Jun 05 12:37 | 0°П | |
| | 11645 Nov 24 22:44 | 0°ಕ | | | 11650 Jul 17 16:23 | 0°® | |
| evening set | 11645 Nov 30 04:11 | 3° る 27'35 | | | 11650 Aug 27 08:07 | 0 ° Ω | |
| | 11646 Jan 09 21:59 | 0° ≈ | | | 11650 Oct 05 23:36 | 0° ™ | |
| desc. node | 11646 Jan 15 22:08 | 3° ≈ 51'37 | | asc. node | 11650 Oct 22 13:51 | 12° m 38'24 | |
| | | | | | 11650 Nov 14 11:26 | 0∘ ⊽ | |
| | | | 0000122 | | 11650 Dec 25 06:27 | 0° M . | |
| conjunction | 11646 Jan 16 22:54 | 4° ≈ 31′20 | -0°00'33 | | 11030 DCC 23 00.27 | 0 110 | |
| conjunction minimum elong | 11646 Jan 16 22:54 11646 Jan 16 22:56 | 4°≈31'20 4°≈31'23 | -0°00'33 0°00'07 | | 11651 Feb 08 14:59 | 0° ∡ 7 | |
| · | | | | retrograde | | | |
| minimum elong | 11646 Jan 16 22:56 | 4° ≈ 31'23 | | retrograde min. Earth dist. | 11651 Feb 08 14:59 | 0° ∡ ¹ | 0.54844 AU |
| minimum elong behind sun begin | 11646 Jan 16 22:56 11646 Jan 16 04:15 | 4°≈31'23 4°≈01'25 | | min. Earth dist. | 11651 Feb 08 14:59 11651 Apr 22 15:44 11651 May 24 08:32 | 0° 尽 26° 尽 49'25 20° 尽 00'11 | 0.54844 AU 3°52'00 |
| minimum elong behind sun begin behind sun end | 11646 Jan 16 22:56 11646 Jan 16 04:15 11646 Jan 17 17:38 | 4°≈31'23 4°≈01'25 5°≈01'20 | 0°00'07 | • | 11651 Feb 08 14:59 11651 Apr 22 15:44 | 0° ҂ ¹ 26° ҂ ¹49'25 | 3°52'00 |

| direct desc. node | 11651 Jul 06 08:55 11651 Sep 08 07:08 | 9° х 16′32 27° х 10′33 | | | 11656 Sep 09 04:35 | 0∘ ⊽ | |
|----------------------|--|---|------------|---------------------|--|--------------------------------------|------------|
| desc. node | 11651 Sep 08 07:08 11651 Sep 14 09:23 | 2/* メ ・1033 | | conjunction | 11656 Sep 14 01:07 | 3° ≏ 47'27 | 0°56'34 |
| | 11651 Nov 10 08:52 | 0°≈ | | minimum elong | 11656 Sep 13 21:42 | 3° ⊆ 4727 | 0°56'31 |
| | 11651 Dec 31 11:42 | 0° ₩ | | minimum ciong | 11656 Oct 18 03:59 | 0°M | 0 3031 |
| | 11652 Feb 17 14:53 | 0°Υ | | max. Earth dist. | 11656 Nov 06 19:27 | 14°M40'20 | 2.41290 AU |
| evening set | 11652 Mar 19 17:25 | 20° Υ 17'22 | | morning rise | 11656 Nov 21 04:44 | 25°M11'49 | _,,,_,,,,, |
| Č | 11652 Apr 03 05:15 | 0°B | | C | 11656 Nov 27 20:25 | 0° ∡ ¹ | |
| max. Earth dist. | 11652 Apr 06 07:23 | 2° 8 05'31 | 2.55442 AU | | 11657 Jan 09 19:53 | ರ°0 | |
| | | | | | 11657 Feb 24 14:52 | 0°≈ | |
| conjunction | 11652 May 06 16:11 | 23° 8 04'37 | -1°04'56 | | 11657 Apr 15 08:23 | 0° ∀ | |
| minimum elong | 11652 May 06 17:12 | 23° 8 06'24 | 1°05'30 | desc. node | 11657 Apr 30 10:07 | 8°) €24'02 | |
| | 11652 May 16 10:52 | Π °0 | | | 11657 Jun 13 15:05 | 0° Y | |
| | 11652 Jun 26 14:48 | 0ංම | | retrograde | 11657 Aug 06 06:36 | 13° Y ′06'48 | |
| morning rise | 11652 Jun 28 19:29 | 1° © 38'14 | | opposition | 11657 Sep 14 14:04 | 4°Υ°05'02 | |
| | 11652 Aug 05 04:05 | 0°N | | greatest brilliancy | 11657 Sep 15 02:38 | 3°Υ52'48 | |
| asc. node | 11652 Sep 08 04:25 | 26° Ω 25'47 | | min. Earth dist. | 11657 Sep 18 14:45 | 2° Υ 31'01 | 0.65331 AU |
| | 11652 Sep 12 17:58 11652 Oct 21 03:52 | 0∘ ರ 0∘ಋ | | 3:4 | 11657 Sep 25 07:59 | 30° ₹ ₩ 24° ₩ 02'27 | |
| | 11652 Nov 29 09:12 | 0°M | | direct | 11657 Oct 26 02:44 11657 Nov 28 08:31 | 24 π 0227 0° Υ | |
| | 11653 Jan 09 16:30 | 0° ∡ 7 | | | 11658 Jan 29 05:46 | %8 0°B | |
| | 11653 Feb 24 07:12 | 0°ਤ | | | 11658 Mar 16 09:53 | 0°Ⅱ | |
| | 11653 Apr 25 00:22 | 0° ≈ | | | 11658 Apr 26 17:58 | 0°es | |
| retrograde | 11653 May 29 13:04 | 6° ≈ 41'39 | | asc. node | 11658 Apr 30 19:15 | 3°503'29 | |
| C | 11653 Jun 30 15:07 | 30°Ŗ₹ | | | 11658 Jun 04 17:22 | $0^{\circ}\Omega$ | |
| min. Earth dist. | 11653 Jul 05 11:13 | 28° ට 07'11 | 0.64753 AU | | 11658 Jul 12 18:41 | 0° m) | |
| opposition | 11653 Jul 09 01:16 | 26° ප් 41'43 | 0°39'06 | | 11658 Aug 20 00:54 | 0∘ ত | |
| greatest brilliancy | 11653 Jul 08 23:23 | 26° පි 43'35 | -1.5m | evening set | 11658 Sep 18 02:23 | 22° ჲ 15'39 | |
| desc. node | 11653 Jul 26 14:03 | 20° る 31'23 | | | 11658 Sep 28 09:38 | 0° M | |
| direct | 11653 Aug 17 10:15 | 17° る 29'06 | | | 11658 Nov 08 12:30 | 0° ∡ | |
| | 11653 Oct 08 20:46 | 0° ≈ | | | | _ | |
| | 11653 Dec 08 13:30 | 0°) € | | conjunction | 11658 Nov 18 09:50 | 6° ₹ 759'48 | 0°56'52 |
| | 11654 Jan 28 04:40 | 0° Υ | | minimum elong | 11658 Nov 18 11:36 | 7° ₹ 02'54 | 0°57'32 |
| | 11654 Mar 15 10:23 11654 Apr 27 12:26 | 0° Ⅱ | | max. Earth dist. | 11658 Dec 21 18:08 11658 Dec 22 01:03 | 0°궁 0°궁11'41 | 2.55011 AU |
| evening set | 11654 May 03 05:59 | 0 Π 4°Π08'00 | | morning rise | 11659 Jan 10 14:51 | 13° る 17'50 | 2.33011 AU |
| max. Earth dist. | 11654 May 18 12:54 | | 2.42332 AU | morning rise | 11659 Feb 05 04:12 | 0°≈ | |
| man. Baran dige. | 11654 Jun 07 04:27 | 0ಂತಿ | 22332 110 | desc. node | 11659 Mar 18 00:35 | 25°≈49'11 | |
| | | | | | 11659 Mar 24 19:12 | 0° ∀ | |
| conjunction | 11654 Jun 30 11:52 | 17° 5 49'32 | -0°18'38 | | 11659 May 14 04:38 | 0° Υ | |
| minimum elong | 11654 Jun 30 13:28 | 17° 9 52'36 | 0°19'21 | | 11659 Jul 09 18:25 | 9° 8 | |
| | 11654 Jul 16 03:45 | $0^{\circ}\Omega$ | | retrograde | 11659 Sep 17 19:09 | 20° 8 25'05 | |
| asc. node | 11654 Jul 26 20:51 | 8° Ω 23'56 | | opposition | 11659 Oct 24 09:43 | 12° 8 33'23 | -5°13'15 |
| | 11654 Aug 23 05:33 | 0° m) | | greatest brilliancy | 11659 Oct 25 19:34 | 12° 8 02'02 | |
| morning rise | 11654 Sep 08 16:59 | 13° m 01'46 | | min. Earth dist. | 11659 Nov 01 01:26 | 9° 8 44'01 | 0.55717 AU |
| | 11654 Sep 30 06:35 | 0∘ 亚 | | direct | 11659 Dec 03 05:43 | 3° 8 05'53 | |
| | 11654 Nov 08 04:03 | 0°M 0°. ₹ | | 1 | 11660 Feb 15 22:37 | 0°П | |
| | 11654 Dec 18 19:15 | 0°♂ 5°0 | | asc. node | 11660 Mar 18 02:19 11660 Apr 01 10:11 | 19° Ⅱ 59'10 0° © | |
| | 11655 Jan 31 03:50 11655 Mar 19 21:33 | 0°≈ | | | 11660 Apr 01 10:11 11660 May 11 21:49 | 0°€ | |
| | 11655 May 18 04:35 | 0° ∺ | | | 11660 Jun 19 20:21 | 0° m) | |
| desc. node | 11655 Jun 13 15:47 | 8° ₩ 09'54 | | | 11660 Jul 28 21:34 | 0° م | |
| retrograde | 11655 Jul 02 17:32 | 10°) 14′10 | | | 11660 Sep 07 02:27 | 0° ™ | |
| opposition | 11655 Aug 12 06:30 | 0°) 31'48 | -2°01'42 | | 11660 Oct 19 01:39 | 0° ∡ 7 | |
| greatest brilliancy | 11655 Aug 12 05:51 | 0° ¥ 32'27 | | evening set | 11660 Nov 12 18:26 | 17° ∡ *01'40 | |
| min. Earth dist. | 11655 Aug 12 11:17 | 0°) 27′04 | 0.68383 AU | | 11660 Dec 02 00:04 | ರ°0 | |
| | 11655 Aug 13 14:38 | 30° R ≈ | | | | | |
| direct | 11655 Sep 22 11:39 | 20° ≈ 40'43 | | conjunction | 11661 Jan 01 23:33 | 20° පි 26'40 | 0°16'33 |
| | 11655 Nov 05 10:06 | 0° ∺ | | minimum elong | 11661 Jan 02 00:11 | 20° る 27'42 | 0°17'17 |
| | 11656 Jan 05 17:50 | 0° Y | | | 11661 Jan 16 16:59 | 0° ≈ | 0.640-0-1 |
| | 11656 Feb 23 07:16 | 0° B | | max. Earth dist. | 11661 Jan 17 01:09 | 0°≈13'11 | 2.64353 AU |
| | 11656 Apr 06 22:25 | 0° Ⅱ | | desc. node | 11661 Feb 01 14:35 | 10°≈13'03 | |
| aga nede | 11656 May 17 13:03 | 0°95 | | morning rise | 11661 Feb 16 23:47 | 20° ≈ 01'13 | |
| asc. node | 11656 Jun 12 17:53 11656 Jun 25 07:01 | 20° © 10'35 0° Ω | | | 11661 Mar 04 18:27 11661 Apr 21 19:45 | 0° ℋ 0° Ƴ | |
| evening set | 11656 Jul 03 22:30 | 6° Ω 48'47 | | | 11661 Jun 09 22:20 | 0° 8 | |
| croming set | 11656 Aug 02 04:33 | 0° m) | | | 11661 Jul 31 05:37 | 0°Π | |
| | | ~ ·× | | | 01 00.07 | | |

| | 11661 Sep 28 23:08 | 0° © | | | 11666 Sep 27 07:53 | ე∘ჳ | |
|--|--|---|-------------|--------------------------------------|--|--|------------|
| retrograde | 11661 Nov 16 00:15 | 11° © 25'03 | | | 11666 Nov 19 00:55 | 0° ≈ | |
| opposition | 11661 Dec 17 19:21 | 5° © 35'23 | -3°06'42 | | 11667 Jan 07 20:03 | 0° ∀ | |
| greatest brilliancy | 11661 Dec 18 21:04 | 5°9515'26 | -2.6m | | 11667 Feb 24 12:43 | 0° Υ | |
| min. Earth dist. | 11661 Dec 25 16:25 | 3° 5 09'27 | 0.41833 AU | evening set | 11667 Mar 05 19:23 | 5° Ƴ 59'41 | |
| | 11662 Jan 07 04:17 | 30°RⅡ | | max. Earth dist. | 11667 Mar 26 23:53 | 19° Ƴ 53'37 | 2.59585 AU |
| direct | 11662 Jan 21 04:57 | 28° Ⅲ 37'42 | | | 11667 Apr 11 02:37 | 0°8 | |
| asc. node | 11662 Feb 03 09:11 | 29° Ⅱ 51'17 | | | • | | |
| | 11662 Feb 04 03:48 | 0 \circ \mathfrak{S} | | conjunction | 11667 Apr 20 19:43 | 6° 8 34'51 | -1°09'19 |
| | 11662 Apr 09 12:05 | $0^{\circ}\Omega$ | | minimum elong | 11667 Apr 20 19:52 | 6° 8 35'05 | 1°09'43 |
| | 11662 May 23 13:48 | 0° m | | | 11667 May 24 13:33 | Π °0 | |
| | 11662 Jul 04 12:19 | 0∘ ⊽ | | morning rise | 11667 Jun 08 21:55 | 10° Ⅱ 56'38 | |
| | 11662 Aug 15 21:16 | 0° M | | | 11667 Jul 05 01:28 | 0 \circ | |
| | 11662 Sep 28 14:28 | 0° ∡ ¹ | | | 11667 Aug 13 23:24 | 0 $^{\circ}$ Ω | |
| | 11662 Nov 12 21:00 | 0°ප | | | 11667 Sep 21 20:57 | 0° m | |
| desc. node | 11662 Dec 20 08:43 | 24° る 13'04 | | asc. node | 11667 Sep 26 00:49 | 3° m 13'57 | |
| evening set | 11662 Dec 24 15:57 | 26° る 58'15 | | | 11667 Oct 30 13:24 | 0∘ ⊽ | |
| | 11662 Dec 29 09:43 | 0° ≈ | | | 11667 Dec 09 02:44 | 0° M | |
| | | | | | 11668 Jan 20 03:39 | 0° ∡ ″ | |
| conjunction | 11663 Feb 08 01:03 | 25° ≈ 50'07 | | | 11668 Mar 08 11:18 | 0°ಕ | |
| minimum elong | 11663 Feb 08 00:18 | 25° ≈ 48'56 | | retrograde | 11668 May 15 14:05 | 22° る 33'28 | |
| max. Earth dist. | 11663 Feb 09 01:17 | | 2.68253 AU | min. Earth dist. | 11668 Jun 19 15:48 | 14° る 35'16 | 0.61588 AU |
| | 11663 Feb 14 14:41 | 0°) { | | opposition | 11668 Jun 24 16:44 | 12° る 35'52 | 1°50'39 |
| morning rise | 11663 Mar 23 10:40 | 23°) €22'28 | | greatest brilliancy | 11668 Jun 24 09:01 | 12°る43'29 | -1.6m |
| | 11663 Apr 02 20:32 | 0° Υ | | direct | 11668 Aug 01 22:35 | 3°₹46′26 | |
| | 11663 May 19 16:04 | 0° B | | desc. node | 11668 Aug 12 01:28 | 4° る 22'23 | |
| | 11663 Jul 04 21:00 | 0° Ⅱ | | | 11668 Oct 23 05:31 | 0° ≈ | |
| | 11663 Aug 19 13:04 | 0° © | | | 11668 Dec 17 07:07 | 0° ℋ 0° Ƴ | |
| | 11663 Oct 04 04:13 | 0° N | | | 11669 Feb 04 15:42 | | |
| aga mada | 11663 Nov 20 20:20 11663 Dec 22 10:57 | 0° Т р 17° Тр 00'44 | | avanina aat | 11669 Mar 22 13:11 | 0° と 15° と 43'57 | |
| asc. node | 11664 Feb 05 12:28 | 29° Mg 02'46 | | evening set max. Earth dist. | 11669 Apr 14 11:17 11669 Apr 28 11:07 | 25° 8 34'53 | 2.47751 AU |
| retrograde min. Earth dist. | 11664 Mar 03 00:31 | 29 m/02 46 24° m/45'17 | 0.37385 AU | max. Earth dist. | 11669 Apr 28 11.07 11669 May 04 15:44 | 25 O 54 55 0°耳 | 2.47/31 AU |
| opposition | 11664 Mar 07 13:59 | 23° Tb 28'49 | 5°13'12 | | 11009 May 04 13.44 | υд | |
| greatest brilliancy | 11664 Mar 06 15:25 | 23° m) 44'37 | -3.0m | conjunction | 11669 Jun 06 13:36 | 24° ∏ 04'08 | -0°43'25 |
| direct | 11664 Apr 05 21:16 | 18° m) 29'05 | -3.0III | minimum elong | 11669 Jun 06 15:50 | 24° I I04'08'17 | |
| direct | 11664 May 21 13:12 | 0° © | | minimum clong | 11669 Jun 14 11:41 | 0°99 | 0 44 07 |
| | 11664 Jul 16 16:48 | 0°M | | | 11669 Jul 23 15:51 | 0°N | |
| | 11664 Sep 03 23:28 | 0° ⊼ 7 | | morning rise | 11669 Aug 08 11:35 | 12° Ω 21'39 | |
| | 11664 Oct 22 07:41 | 5°0 | | asc. node | 11669 Aug 12 15:05 | 15° Ω 36'51 | |
| desc. node | 11664 Nov 06 10:27 | 9° る 23'37 | | | 11669 Aug 30 21:37 | 0° m) | |
| | 11664 Dec 09 13:49 | 0° ≈ | | greatest brilliancy | 11669 Sep 13 16:35 | 10° m) 52'27 | 1.2m |
| | 11665 Jan 26 12:55 | 0° ∀ | | | 11669 Oct 08 00:58 | 0∘ <u>⊽</u> | |
| evening set | 11665 Jan 28 22:03 | 1° ¥ 29′58 | | | 11669 Nov 15 23:41 | 0°M | |
| max. Earth dist. | 11665 Mar 02 04:27 | 21° ¥ 58'35 | 2.66604 AU | | 11669 Dec 26 17:25 | 0° ∡ ¹ | |
| | | | | | 11670 Feb 08 12:52 | ರ°0 | |
| conjunction | 11665 Mar 14 00:28 | 29°) 34′11 | -0°57'58 | | 11670 Mar 30 04:35 | 0° ≈ | |
| minimum elong | 11665 Mar 13 23:26 | 29° ∺ 32'31 | 0°57'52 | retrograde | 11670 Jun 19 12:23 | 27° ≈ 43'30 | |
| | 11665 Mar 14 16:30 | 0 ° Υ | | desc. node | 11670 Jun 30 05:00 | 26° ≈ 58'30 | |
| morning rise | 11665 Apr 27 01:32 | 28° Y ′20'49 | | min. Earth dist. | 11670 Jul 28 22:05 | 18° ≈ 21'54 | 0.67758 AU |
| | 11665 Apr 29 13:16 | 0°8 | | opposition | 11670 Jul 30 05:11 | 17° ≈ 51'01 | |
| | 11665 Jun 12 21:22 | Π °0 | | greatest brilliancy | 11670 Jul 30 03:26 | 17° ≈ 52'45 | -1.3m |
| | 11665 Jul 25 15:49 | 0 \circ | | direct | 11670 Sep 08 21:42 | 8° ≈ 11'46 | |
| | 11665 Sep 05 00:51 | $0^{\circ}\Omega$ | | | 11670 Nov 20 23:37 | 0° ∀ | |
| | 11665 Oct 15 11:26 | 0° ™ | | | 11671 Jan 14 18:41 | 0° Υ | |
| asc. node | 11665 Nov 08 07:41 | 17° Mp 44'12 | | | 11671 Mar 03 02:46 | 0° B | |
| | 11665 Nov 24 23:39 | 0∘ ⊽ | | | 11671 Apr 15 10:35 | 0°II | |
| | | | | | 11671 May 26 00:35 | 0 \circ \odot | |
| | 11666 Jan 06 17:50 | 0°M. | | | | | |
| , 1 | 11666 Jan 06 17:50 11666 Mar 01 17:29 | 0° ∡ ¹ | | evening set | 11671 Jun 07 13:16 | 9° © 34'12 | |
| retrograde | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 | 0° ҂ 7° ҂ ³37'44 | 0.40616.433 | evening set asc. node | 11671 Jun 07 13:16 11671 Jun 30 09:49 | 9°534'12 27°519'19 | |
| retrograde min. Earth dist. | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 11666 May 04 13:18 | 0° द्र ⁷ 7° द्र ⁷ 37'44 1° द्र ⁷ 41'31 | 0.49616 AU | = | 11671 Jun 07 13:16 11671 Jun 30 09:49 11671 Jul 03 19:48 | 9°\$34'12 27°\$19'19 0°Ω | |
| min. Earth dist. | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 11666 May 04 13:18 11666 May 09 04:26 | 0° ☎ 7° ☎37'44 1° ☎41'31 30° RM | | = | 11671 Jun 07 13:16 11671 Jun 30 09:49 | 9°534'12 27°519'19 | |
| min. Earth dist. | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 11666 May 04 13:18 11666 May 09 04:26 11666 May 11 05:59 | 0° ፟፟፟፟ ⁷ 7° ፟፟፟ ⁷ 37'44 1° ፟ ⁷ 41'31 30° RM 29° M 14'07 | -2.2m | asc. node | 11671 Jun 07 13:16 11671 Jun 30 09:49 11671 Jul 03 19:48 11671 Aug 10 18:09 | 9°\$34'12 27°\$19'19 0°\$\Oonumber\text{0} 00 | 0°31'45 |
| min. Earth dist. greatest brilliancy opposition | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 11666 May 04 13:18 11666 May 09 04:26 11666 May 11 05:59 11666 May 12 16:05 | 0° ₹ 7° ₹37'44 1° ₹41'31 30° RM 29° M.14'07 28° M.42'40 | | asc. node | 11671 Jun 07 13:16 11671 Jun 30 09:49 11671 Jul 03 19:48 11671 Aug 10 18:09 | 9°\$34'12 27°\$19'19 0°\$A 0°\$p 3°\$p16'35 | 0°31'45 |
| min. Earth dist. | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 11666 May 04 13:18 11666 May 09 04:26 11666 May 11 05:59 11666 May 12 16:05 11666 Jun 15 18:09 | 0° ₹ 7° ₹37'44 1° ₹41'31 30° RM 29° M14'07 28° M42'40 21° M26'24 | -2.2m | asc. node conjunction minimum elong | 11671 Jun 07 13:16 11671 Jun 30 09:49 11671 Jul 03 19:48 11671 Aug 10 18:09 11671 Aug 14 21:14 11671 Aug 14 17:59 | 9°\$34'12 27°\$19'19 0°\$\Omega\$ 0°\$\mu\$ 3°\$\mu\$16'35 3°\$\mu\$10'08 | 0°31'18 |
| min. Earth dist. greatest brilliancy opposition | 11666 Jan 06 17:50 11666 Mar 01 17:29 11666 Apr 05 06:25 11666 May 04 13:18 11666 May 09 04:26 11666 May 11 05:59 11666 May 12 16:05 | 0° ₹ 7° ₹37'44 1° ₹41'31 30° RM 29° M.14'07 28° M.42'40 | -2.2m | asc. node | 11671 Jun 07 13:16 11671 Jun 30 09:49 11671 Jul 03 19:48 11671 Aug 10 18:09 | 9°\$34'12 27°\$19'19 0°\$A 0°\$p 3°\$p16'35 | |

| morning rise | 11671 Oct 26 15:08 11671 Oct 27 06:03 11671 Dec 06 05:27 | 0°M 0°M28'14 0°⊀ | | greatest brilliancy min. Earth dist. direct | 11676 Nov 24 22:55 11676 Dec 02 04:48 11676 Dec 30 12:17 | 11°Д53'00 9°Д26'09 4°Д10'40 | -2.3m 0.47315 AU |
|--------------------------|--|-----------------------------------|-------------|---|--|--|---------------------|
| dd- | 11672 Jan 18 05:23 11672 Mar 04 10:37 11672 Apr 25 00:28 | 0°る 0°≈ 0°升 11°升08'46 | | asc. node | 11677 Feb 19 22:06 11677 Mar 10 16:48 11677 Apr 24 10:07 | 19°∏25'28 0°© 0°Ω | |
| desc. node | 11672 May 17 02:32 11672 Jul 15 17:08 11672 Jul 22 23:18 | 0° Υ 0° Υ 18'42 | | | 11677 Jun 04 04:37 11677 Jul 14 11:06 | 0°₽ 0°₽ | |
| retrograde opposition | 11672 Jul 30 00:19 11672 Aug 31 22:13 | 30°R X 20°¥58'17 | 2°22'05 | | 11677 Aug 24 16:17 11677 Oct 06 12:21 11677 Nov 20 03:08 | 0°⊼ 0°₹ | |
| greatest brilliancy | 11672 Sep 01 04:03 | 20° X 52'34 | | evening set | 11677 Dec 09 09:02 | 12° る 37'19 | |
| min. Earth dist. | 11672 Sep 03 10:47 | | 0.67343 AU | desc. node | 11678 Jan 05 23:50 | 0°≈28'49 | |
| direct | 11672 Oct 12 12:53 | 10°) 56'34 0° Υ | | | 11678 Jan 05 05:53 | 0° ≈ | |
| | 11672 Dec 17 01:55 11673 Feb 08 03:48 | 0° 8 | | conjunction | 11678 Jan 25 03:17 | 12° ≈ 43'42 | -0°10'18 |
| | 11673 Mar 24 22:17 | 0°II | | minimum elong | 11678 Jan 25 02:57 | 12 ≈43 42 12°≈43'11 | 0°09'41 |
| | 11673 May 04 20:24 | 0ಂ ತಾ | | behind sun begin | 11678 Jan 24 11:47 | 12°≈19'01 | 0 0741 |
| asc. node | 11673 May 17 11:14 | 9° © 37'21 | | behind sun end | 11678 Jan 25 18:07 | 13°≈07'21 | |
| | 11673 Jun 12 16:03 | 0°N | | max. Earth dist. | 11678 Jan 31 06:41 | | 2.67372 AU |
| greatest brilliancy | 11673 Jul 04 20:42 | 17° Ω 31'18 | 1.2m | | 11678 Feb 21 07:36 | 0° ∀ | |
| | 11673 Jul 20 14:32 | 0° m) | | morning rise | 11678 Mar 10 03:58 | 10°) 39′54 | |
| evening set | 11673 Aug 20 13:49 | 24° m 25'47 | | | 11678 Apr 09 18:24 | 0° Y | |
| | 11673 Aug 27 16:54 | 0∘ ⊽ | | | 11678 May 27 05:50 | 0° 8 | |
| | 11673 Oct 05 20:31 | 0° M | | | 11678 Jul 13 18:30 | Π °0 | |
| | | | | | 11678 Aug 30 21:48 | 0ა ௐ | |
| conjunction | 11673 Oct 27 00:35 | 15°M43'04 | | | 11678 Oct 20 23:01 | 0°N | |
| minimum elong | 11673 Oct 27 01:22 | 15°M44'32 | 1°05'54 | retrograde | 11679 Jan 04 23:20 | 26° Ω 28'29 | |
| T d T d | 11673 Nov 15 17:43 | 0° 🖍 1.60 ₹0.5100 | 2 50005 411 | asc. node | 11679 Jan 08 03:02 | 26° Ω 24'34 | 2002112 |
| max. Earth dist. | 11673 Dec 08 12:55 11673 Dec 24 03:00 | 16° ₹ 05'09 26° ₹ 49'29 | 2.50005 AU | opposition | 11679 Feb 03 12:35 11679 Feb 03 13:15 | 21° Ω 35'37 21° Ω 35'11 | -3.1m |
| morning rise | 11673 Dec 24 03:00 11673 Dec 28 19:02 | 20 x·4929 | | greatest brilliancy min. Earth dist. | 11679 Feb 03 13:13 | $21^{\circ}\Omega_{15'42}$ | 0.36542 AU |
| | 11674 Feb 12 05:37 | 0°≈ | | direct | 11679 Mar 05 05:28 | 16°Ω35'46 | 0.30342 AU |
| | 11674 Apr 01 08:56 | 0° ∀ | | uncet | 11679 Apr 22 14:57 | 0°m) | |
| desc. node | 11674 Apr 03 17:37 | 1° ¥ 25'17 | | | 11679 Jun 13 22:22 | 0∘ ত | |
| | 11674 May 23 15:36 | 0° Υ | | | 11679 Jul 30 10:16 | 0°M | |
| | 11674 Jul 30 05:02 | 0°8 | | | 11679 Sep 14 12:45 | 0° ∡ ″ | |
| retrograde | 11674 Aug 30 22:22 | 5° 8 10'25 | | | 11679 Oct 31 07:06 | ರ∘ರ | |
| | 11674 Sep 28 22:03 | 30° ₹ Υ | | desc. node | 11679 Nov 23 22:55 | 15° る 00'21 | |
| opposition | 11674 Oct 07 19:20 | 26° Y 46'24 | -4°58'11 | | 11679 Dec 17 17:05 | 0°≈ | |
| greatest brilliancy | 11674 Oct 08 20:54 | 26° Y ′22'05 | | evening set | 11680 Jan 16 02:28 | 18° ≈ 31′04 | |
| min. Earth dist. | 11674 Oct 14 02:52 | 24° Y 22'40 | 0.60238 AU | | 11680 Feb 03 07:04 | 0° ∀ | |
| direct | 11674 Nov 17 14:51 | 16° Y 56'36 | | max. Earth dist. | 11680 Feb 22 13:50 | 12° 米 13'11 | 2.67895 AU |
| | 11675 Jan 06 15:18 | 0° 8 | | | 11600 5 1 20 00 21 | 1601/21116 | 0045105 |
| 1 | 11675 Feb 28 11:05 | 0°П 24°П20127 | | conjunction | 11680 Feb 29 08:24 | 16° ¥ 31'46 16° ¥ 30'02 | |
| asc. node | 11675 Apr 04 16:05 | 24° Ⅱ 20′27 0° © | | minimum elong | 11680 Feb 29 07:20 11680 Mar 21 09:54 | 16° Υ 30'02 0° Υ | 0°47′10 |
| | 11675 Apr 12 10:11 11675 May 22 01:04 | 0°€ 0 € | | morning rise | 11680 Mai 21 09.34 11680 Apr 12 17:51 | 0 γ 14° Υ 25'26 | |
| | 11675 Jun 29 11:49 | 0° mp | | morning risc | 11680 May 06 13:30 | 0° 8 | |
| | 11675 Aug 07 02:49 | 0∘ ⊽ | | | 11680 Jun 20 11:24 | 0°II | |
| | 11675 Sep 15 21:23 | 0° ™ | | | 11680 Aug 03 01:53 | 0. 0 | |
| evening set | 11675 Oct 25 02:34 | 28°M21'24 | | | 11680 Sep 14 12:28 | $0^{\circ}\Omega$ | |
| C | 11675 Oct 27 10:25 | 0° ∡ ″ | | | 11680 Oct 26 07:26 | 0° m | |
| | 11675 Dec 10 00:14 | ರ°0 | | asc. node | 11680 Nov 25 02:08 | 21°Mp08'03 | |
| | | | | | 11680 Dec 07 22:44 | 0∘ ত | |
| conjunction | 11675 Dec 17 17:58 | 5° る 11'16 | 0°33'33 | | 11681 Jan 25 19:02 | 0° M | |
| minimum elong | 11675 Dec 17 19:16 | 5° ප 13'26 | | retrograde | 11681 Mar 16 05:54 | 14°M43'07 | |
| max. Earth dist. | 11676 Jan 08 12:07 | 19° る 34'33 | 2.61312 AU | min. Earth dist. | 11681 Apr 12 03:42 | 9° ™ 42'59 | 0.44105 AU |
| | 11676 Jan 24 12:29 | 0° ≈ | | greatest brilliancy | 11681 Apr 18 18:49 | 7°M28'51 | -2.5m |
| morning rise | 11676 Feb 03 21:19 | 6°≈40'43 | | opposition | 11681 Apr 20 12:18 | 6°M53'28 | 6°05'17 |
| desc. node | 11676 Feb 19 06:37 | 16° ≈ 30'08 | | direct | 11681 May 22 14:38 | 0°M31'15 | |
| | 11676 Mar 11 16:23 | 0° ℋ 0° Ƴ | | | 11681 Aug 15 06:51 | 0°る | |
| | 11676 Apr 29 08:35 11676 Jun 19 04:45 | 0.8 0.4. | | desc. node | 11681 Oct 07 16:09 11681 Oct 11 04:09 | 0°5 2° る 02'54 | |
| | 11676 Aug 14 22:46 | 0°II | | desc. Houc | 11681 Nov 27 00:57 | 2 3 02 34 0° ≈ | |
| retrograde | 11676 Oct 20 09:39 | 19° Ⅱ 09'10 | | | 11682 Jan 14 22:33 | 0° ∺ | |
| opposition | 11676 Nov 23 08:45 | 12° ∏ 25'28 | -4°38'54 | evening set | 11682 Feb 19 13:36 | 22° ∺ 26'51 | |
| 11 | | | - | <i>3</i> | , | | |

| | 11682 Mar 03 08:20 | 0° Ƴ | | | 11686 Sep 25 08:53 | 0∘ ত | |
|-----------------------------------|--|-----------------------------------|------------|---|--|---|------------|
| max. Earth dist. | 11682 Mar 16 17:32 | * . | 2.62959 AU | morning rise | 11686 Sep 26 18:27 | 1° ≏ 05'43 | |
| | | | | C | 11686 Nov 03 05:24 | 0° M ₊ | |
| conjunction | 11682 Apr 05 09:27 | 21° Y 35'44 | -1°08'12 | | 11686 Dec 13 18:47 | 0° ∡ ¹ | |
| minimum elong | 11682 Apr 05 08:56 | 21° Y '34'53 | 1°08'25 | | 11687 Jan 25 21:38 | 0°ප | |
| | 11682 Apr 17 23:43 | 0° 8 | | | 11687 Mar 13 20:34 | 0° ≈ | |
| morning rise | 11682 May 21 19:14 | 23° 8 04'34 | | | 11687 May 07 21:47 | 0° ∀ | |
| | 11682 May 31 17:30 | 0°II | | desc. node | 11687 Jun 03 17:16 | 10°) 57'43 | |
| | 11682 Jul 12 15:17 | 0° © | | retrograde | 11687 Jul 10 08:06 | 17° ¥ 50'53 | 2022/20 |
| | 11682 Aug 22 00:04 | 0° Ω 0° m | | opposition | 11687 Aug 19 17:49 | 8° 光 15'19 8° 光 14'19 | |
| asc. node | 11682 Sep 30 08:08 11682 Oct 12 19:25 | 9° m y34'59 | | greatest brilliancy min. Earth dist. | 11687 Aug 19 18:50 11687 Aug 20 18:19 | 8 X 14 19 7° X 51′08 | 0.68301 AU |
| asc. node | 11682 Nov 08 11:05 | 0₀ ⊽ | | iiiii. Lartii dist. | 11687 Sep 13 20:55 | 30°R≈ | 0.00501 AC |
| | 11682 Dec 18 15:23 | 0° M . | | direct | 11687 Sep 30 04:26 | 28° ≈ 19'16 | |
| | 11683 Jan 31 04:53 | 0° ∡ ¹ | | | 11687 Oct 17 11:17 | 0°) | |
| | 11683 Mar 28 17:16 | ರ∘ರ | | | 11687 Dec 30 02:37 | 0° Y | |
| retrograde | 11683 May 01 16:37 | 6° る 59'43 | | | 11688 Feb 17 21:30 | 0° 8 | |
| | 11683 Jun 02 23:24 | 30°R ✓ | | | 11688 Apr 01 21:26 | Π °0 | |
| min. Earth dist. | 11683 Jun 03 15:57 | 29° ∡ ⁴44'10 | 0.57492 AU | | 11688 May 12 14:38 | 0 \circ \odot | |
| greatest brilliancy | 11683 Jun 09 09:39 | 27° ∡ ³30′14 | -1.8m | asc. node | 11688 Jun 03 01:43 | 16°528'26 | |
| opposition | 11683 Jun 10 02:15 | 27° ∡ 14'05 | 3°07'02 | | 11688 Jun 20 09:12 | 0°N | |
| direct | 11683 Jul 16 22:17 | 18° ∡ 54′27 | | evening set | 11688 Jul 20 19:45 | 24° Ω 04'24 | |
| desc. node | 11683 Aug 29 12:22 | 28°₹13'15 0°♂ | | | 11688 Jul 28 06:59 | 0 ்⊽ 0°₯ | |
| | 11683 Sep 03 04:10 11683 Nov 04 01:56 | 0°≈ | | | 11688 Sep 04 07:25 | 0 == | |
| | 11683 Dec 26 07:49 | 0° ∺ | | conjunction | 11688 Sep 30 14:32 | 20° ₽ 20'36 | 1°03'55 |
| | 11684 Feb 12 20:37 | 0°Υ | | minimum elong | 11688 Sep 30 12:43 | | 1°04'07 |
| evening set | 11684 Mar 28 14:43 | 29° Y ′21′10 | | 8 | 11688 Oct 13 07:37 | 0°M | |
| Č | 11684 Mar 29 13:44 | 0°8 | | max. Earth dist. | 11688 Nov 20 17:41 | 28°M20'54 | 2.44448 AU |
| max. Earth dist. | 11684 Apr 13 11:48 | 10° 8 10'22 | 2.52882 AU | | 11688 Nov 23 00:46 | 0° ∡ ¹ | |
| | 11684 May 11 18:47 | Π °0 | | morning rise | 11688 Dec 04 00:02 | 7° ∡ ¹49'35 | |
| | | | | | 11689 Jan 04 23:21 | 0°ಕ | |
| conjunction | 11684 May 17 00:58 | 3° ∐ 45'43 | | | 11689 Feb 19 13:06 | 0° ≈ | |
| minimum elong | 11684 May 17 02:31 | 3° Ⅱ 48'30 | 1°00'05 | | 11689 Apr 09 11:50 | 0° \ | |
| | 11684 Jun 21 20:08 | 0°95 | | desc. node | 11689 Apr 20 11:05 11689 Jun 04 02:09 | 6° ¥ 20'39 0° Υ | |
| morning rise | 11684 Jul 12 04:04 11684 Jul 31 06:08 | 15° © 20'44 0° Ω | | retrograde | 11689 Jun 04 02:09 11689 Aug 14 20:01 | 21° Υ 12'05 | |
| asc. node | 11684 Aug 29 11:43 | 22° Ω 46'32 | | opposition | 11689 Sep 22 17:06 | 12° Υ 22'11 | -4°28'36 |
| asc. node | 11684 Sep 07 16:46 | 0° m) | | greatest brilliancy | 11689 Sep 23 10:04 | 12° Υ 05'47 | |
| | 11684 Oct 15 23:24 | 0∘ ⊽ | | min. Earth dist. | 11689 Sep 27 13:35 | 10° Y ′29'43 | 0.63804 AU |
| | 11684 Nov 24 00:54 | 0°M | | direct | 11689 Nov 03 02:12 | 2° Y 21'48 | |
| | 11685 Jan 04 00:38 | 0° ∡ ¹ | | | 11690 Jan 21 20:27 | 9° 8 | |
| | 11685 Feb 17 16:37 | 0°ಕ | | | 11690 Mar 10 13:36 | $\Pi^{\circ}0$ | |
| | 11685 Apr 12 10:46 | 0° ≈ | | asc. node | 11690 Apr 21 05:36 | 29° Ⅱ 54'14 | |
| retrograde | 11685 Jun 06 06:23 | 14° ≈ 51'18 | | | 11690 Apr 21 08:41 | 0°€ | |
| min. Earth dist. | 11685 Jul 14 03:24 | 5°≈58'55 | 0.66115 AU | | 11690 May 30 12:31 | $0^{\circ}\Omega$ | |
| opposition | 11685 Jul 16 22:07 | 4°≈52'39 | -0°00'23 | | 11690 Jul 07 16:21 | 0° m) | |
| desc. node greatest brilliancy | 11685 Jul 16 17:51 11685 Jul 16 22:11 | 4°≈56'53 4°≈52'35 | 1.4m | | 11690 Aug 15 00:37 | 0° ៤ | |
| greatest brimancy | 11685 Jul 30 01:21 | 4 ≈3233 30°Rる | -1.4111 | evening set | 11690 Sep 23 11:40 11690 Oct 02 11:31 | 6°ML40'02 | |
| direct | 11685 Aug 25 20:16 | 25°る29'15 | | evening set | 11690 Nov 03 17:01 | 0° ⊼ ¹ | |
| anoct | 11685 Sep 24 07:16 | 0°≈ | | | 110,01101 05 17.01 | · ^ | |
| | 11685 Dec 02 03:44 | 0°) € | | conjunction | 11690 Nov 29 16:40 | 18° ∡ 10'42 | 0°49'14 |
| | 11686 Jan 22 23:19 | 0° Υ | | minimum elong | 11690 Nov 29 18:26 | 18° ∡ 13'44 | 0°49'58 |
| | 11686 Mar 10 13:47 | $0^{\circ}B$ | | | 11690 Dec 17 00:18 | 0°ರ | |
| | 11686 Apr 22 18:22 | Π °0 | | max. Earth dist. | 11690 Dec 28 19:26 | 7° る 55'34 | 2.57480 AU |
| evening set | 11686 May 14 23:50 | 16° Ⅱ 12′25 | | morning rise | 11691 Jan 19 19:02 | 22° る 26'51 | |
| | 11686 Jun 02 10:06 | 0°© | | | 11691 Jan 31 09:53 | 0° ≈ | |
| max. Earth dist. | 11686 Jun 03 17:49 | 1°900'01 | 2.39457 AU | desc. node | 11691 Mar 08 01:11 | 22°≈40'53 | |
| | 11686 Jul 11 08:17 | $0^{\circ}\Omega$ | | | 11691 Mar 19 19:01 | 0° ∀ 0° Υ | |
| conjunction | 11686 Int 15 17:14 | 3° Ω 25'35 | 0001106 | | 11691 May 08 09:16 11691 Jul 01 02:14 | 0° ႘ | |
| conjunction minimum elong | 11686 Jul 15 17:14 11686 Jul 15 17:26 | 3° Ω 25'58 | | | 11691 Jul 01 02:14 11691 Sep 20 09:52 | 0°U | |
| behind sun begin | 11686 Jul 14 12:54 | 2° Ω 30'02 | 3 01 10 | retrograde | 11691 Sep 29 00:02 | 0° П 26'18 | |
| behind sun end | 11686 Jul 16 21:58 | 4° Ω 21'55 | | | 11691 Oct 07 09:18 | 30°R 8 | |
| asc. node | 11686 Jul 17 04:30 | 4° Ω 34'44 | | opposition | 11691 Nov 03 19:10 | 22° 8 56'04 | -5°11'02 |
| | 11686 Aug 18 08:54 | 0° m) | | greatest brilliancy | 11691 Nov 05 08:25 | 22° 8 22'21 | |
| | | | | | | | |

| min. Earth dist. direct | 11691 Nov 12 01:50 11691 Dec 12 21:11 11692 Feb 05 08:52 | 19° 8 57'20 13° 8 48'19 0° I I | 0.52882 AU | max. Earth dist. | 11697 Mar 07 09:30 11697 Mar 10 01:48 | 28° ℋ 16′34 0° Ƴ | 2.65540 AU |
|-----------------------------------|--|---|--------------------|-----------------------------------|--|-----------------------------------|------------------|
| asc. node | 11692 Mar 08 12:28 | 0 <u>II</u> 18°II48'43 | | conjunction | 11697 Mar 21 23:04 | 7° Ƴ 41'18 | -1°02'46 |
| | 11692 Mar 25 06:49 | 0ංම | | minimum elong | 11697 Mar 21 22:10 | 7° Ƴ 39'49 | |
| | 11692 May 05 16:56 | $0^{\circ}\Omega$ | | 8 | 11697 Apr 24 20:47 | 0°8 | |
| | 11692 Jun 14 02:34 | 0° m | | morning rise | 11697 May 05 15:01 | 7° 8 12'38 | |
| | 11692 Jul 23 11:18 | 0∘ ⊽ | | | 11697 Jun 07 23:47 | $\Pi^{\circ}0$ | |
| | 11692 Sep 01 22:26 | 0° M | | | 11697 Jul 20 10:41 | 0 \circ 50 | |
| | 11692 Oct 14 03:08 | 0° ∡ ¹ | | | 11697 Aug 30 10:15 | $0^{\circ}\Omega$ | |
| evening set | 11692 Nov 22 20:44 | 27° ∡ 04'48 | | | 11697 Oct 09 09:44 | 0° m | |
| | 11692 Nov 27 05:43 | 0°ප | | asc. node | 11697 Oct 29 15:59 | 15° m) 18'02 | |
| | | | | | 11697 Nov 18 06:06 | 0∘ ⊽ | |
| conjunction | 11693 Jan 10 15:03 | 29°る05'13 29°る05'38 | 0°06'33 0°07'15 | | 11697 Dec 29 15:34 | 0°M√ 0°⊀ | |
| minimum elong behind sun begin | 11693 Jan 10 15:19 11693 Jan 09 21:46 | 29° ろ 05°38 28° ろ 37'20 | 0-07-15 | retrograde | 11698 Feb 15 00:10 11698 Apr 15 09:22 | 19° ∡ ¹22'28 | |
| behind sun end | 11693 Jan 11 08:51 | 28 33 720 29° る 33'56 | | min. Earth dist. | 11698 May 16 00:35 | 19 x 22 28 | 0.52561 AU |
| bennia sun ena | 11693 Jan 12 01:00 | 2)° ∞ | | opposition | 11698 May 23 16:11 | 10°×703'34 | 4°25'22 |
| max. Earth dist. | 11693 Jan 22 09:17 | 6°≈39'20 | 2.65659 AU | greatest brilliancy | 11698 May 22 12:20 | 10° ₹ 09'51 | -2.0m |
| desc. node | 11693 Jan 22 15:17 | 6° ≈ 48'58 | | direct | 11698 Jun 27 19:17 | 2° × 722'11 | |
| morning rise | 11693 Feb 24 18:40 | 27° ≈ 55'14 | | desc. node | 11698 Sep 14 22:00 | 27° ∡ ′43'39 | |
| | 11693 Feb 28 01:36 | 0° ∀ | | | 11698 Sep 19 10:28 | ರ°0 | |
| | 11693 Apr 16 20:19 | 0° Y | | | 11698 Nov 13 07:37 | 0° ≈ | |
| | 11693 Jun 04 05:53 | 0° 8 | | | 11699 Jan 02 20:35 | 0° ∀ | |
| | 11693 Jul 23 18:52 | Π °0 | | | 11699 Feb 19 19:57 | 0° Y | |
| | 11693 Sep 14 20:54 | 0ಂಣ | | evening set | 11699 Mar 14 04:44 | 14° Ƴ 30'47 | |
| retrograde | 11693 Dec 02 23:39 | 26° © 36'18 | | max. Earth dist. | 11699 Apr 02 06:54 | | 2.57389 AU |
| opposition | 11694 Jan 02 18:10 | 21°515'40 | | | 11699 Apr 06 11:13 | 0°B | |
| greatest brilliancy | 11694 Jan 03 05:46 | 21°907'14 | | | 11600 4 20 04 01 | 1.00 | 100712.4 |
| min. Earth dist. | 11694 Jan 09 00:00 | 19° © 27'18 15° © 54'46 | 0.39247 AU | conjunction | 11699 Apr 30 04:01 | 16° 8 12'11 | |
| asc. node direct | 11694 Jan 24 17:01 11694 Feb 04 06:24 | 15°954'46 15°907'29 | | minimum elong | 11699 Apr 30 04:39 11699 May 19 20:19 | 16° 8 13'17 0° Ⅱ | 1 08 04 |
| direct | 11694 Mar 26 11:24 | 13 3 0729 | | morning rise | 11699 Jun 20 07:17 | 0 <u>H</u> 22° ∐ 42'04 | |
| | 11694 May 14 19:13 | 0° m) | | morning risc | 11699 Jun 30 04:42 | 0°95 | |
| | 11694 Jun 27 12:14 | 0∘ <u>ರ</u> | | | 11699 Aug 08 22:23 | $0 {\circ} \mathcal{O}$ | |
| | 11694 Aug 09 20:29 | 0° M , | | asc. node | 11699 Sep 16 06:48 | 29° Ω 42'13 | |
| | 11694 Sep 23 05:04 | 0° ∡ ¹ | | | 11699 Sep 16 15:56 | 0° m) | |
| | 11694 Nov 07 21:36 | ರ°0 | | | 11699 Oct 25 04:14 | 0∘ ⊽ | |
| desc. node | 11694 Dec 10 11:52 | 20° ප 57'16 | | | 11699 Dec 03 11:42 | 0° M | |
| | 11694 Dec 24 16:27 | 0° ≈ | | | 11700 Jan 13 23:41 | 0° ∡ 7 | |
| evening set | 11695 Jan 01 23:04 | 5° ≈ 15'36 | | | 11700 Mar 01 08:15 | ರ∘ರ | |
| | 11695 Feb 09 23:54 | 0° ∀ | | | 11700 May 10 14:48 | 0° ≈ | |
| max. Earth dist. | 11695 Feb 14 01:14 | 2° ₩ 34'12 | 2.68368 AU | retrograde | 11700 May 24 15:14 | 1°≈15'06 | |
| . ,. | 11605 F. 1 . 15 . 10 . 07 | 201/40/25 | 002.412.0 | i matra | 11700 Jun 07 03:24 | 30°Rる | 0.62454.444 |
| conjunction | 11695 Feb 15 19:07 | 3° ¥ 40'35 3° ¥ 39'07 | | min. Earth dist. | 11700 Jun 29 18:24 | 22°る56'25 | 0.63454 AU |
| minimum elong | 11695 Feb 15 18:11 11695 Mar 29 04:13 | 3° π 39'07 0° Υ | 0°34'04 | opposition greatest brilliancy | 11700 Jul 04 00:23 11700 Jul 03 20:24 | 21°る15'26 21°る19'23 | 1°08'19 -1.5m |
| morning rise | 11695 Mar 31 01:25 | 0 1 1° Υ 12'15 | | desc. node | 11700 Jul 03 20:24 11700 Aug 03 05:12 | 12°る40'58 | -1.3111 |
| morning rise | 11695 May 14 17:36 | 0°8 | | direct | 11700 Aug 11 22:20 | 12° ろ 12'27 | |
| | 11695 Jun 29 10:01 | 0°II | | | 11700 Oct 15 14:29 | 0° ≈ | |
| | 11695 Aug 13 04:49 | 0ංම _ | | | 11700 Dec 12 13:03 | 0° ∀ | |
| | 11695 Sep 26 07:59 | $0^{\circ}\Omega$ | | | 11701 Jan 31 15:42 | 0° Υ | |
| | 11695 Nov 09 18:55 | 0° m | | | 11701 Mar 18 19:15 | 9° 8 | |
| asc. node | 11695 Dec 12 19:30 | 20° m 54'49 | | evening set | 11701 Apr 25 19:14 | 26° 8 19'14 | |
| | 11695 Dec 28 20:53 | 0∘ 亚 | | | 11701 Apr 30 22:55 | Π °0 | |
| retrograde | 11696 Feb 21 08:35 | 17° ≏ 07'53 | | max. Earth dist. | 11701 May 09 18:08 | 6° Ⅱ 20'37 | 2.44772 AU |
| min. Earth dist. | 11696 Mar 18 00:57 | 12° ≏ 49'03 | 0.39243 AU | | 11701 Jun 10 17:42 | 0 \circ ∞ | |
| greatest brilliancy | 11696 Mar 23 09:07 | 11° ≙ 13'47 | -2.8m | | | | |
| opposition | 11696 Mar 24 20:30 | 10° £ 47'16 | 6°04'41 | conjunction | 11701 Jun 20 13:08 | 7°525'49 | |
| direct | 11696 Apr 23 21:06 11696 Jul 06 07:51 | 5° £ 23'22 0° ™ | | minimum elong | 11701 Jun 20 15:15 11701 Jul 19 19:44 | 7° © 29'50 0° Ω | 0-310/ |
| | 11696 Jul 06 07:31 11696 Aug 28 01:37 | 0°11L 0° ∡ 7 | | asc. node | 11701 Jul 19 19:44 11701 Aug 03 22:06 | 0°37 11° Ω 49'09 | |
| | 11696 Aug 28 01.37 11696 Oct 16 16:58 | 0°る | | morning rise | 11701 Aug 03 22:06 11701 Aug 26 15:42 | 29° Ω 44'39 | |
| desc. node | 11696 Oct 27 15:03 | 6° る 40'23 | | | 11701 Aug 26 13:42 11701 Aug 26 23:28 | 0°m) | |
| | 11696 Dec 04 14:06 | 0°≈ | | | 11701 Oct 04 01:07 | 0∘ ⊽ | |
| | 11697 Jan 21 20:18 | 0° \ | | | 11701 Nov 11 22:06 | 0° M . | |
| evening set | 11697 Feb 05 18:12 | 9° ∺ 23′23 | | | 11701 Dec 22 12:50 | 0° × 7 | |
| - | | | | | | | |

| | 11702 Feb 03 23:11 | 0° ප | | | 11707 Feb 22 01:08 | Π $\circ 0$ | |
|---|--|----------------------------------|-------------|---------------------|--|---------------------|-------------|
| | 11702 Mar 24 05:50 | 0°≈ | | asc. node | 11707 Mar 27 01:24 | 21° ∏ 59′06 | |
| | 11702 May 27 08:13 | 0° ∀ | | | 11707 Apr 07 07:02 | 0 \circ \odot | |
| desc. node | 11702 Jun 21 08:18 | 5° ₩ 08'11 | | | 11707 May 17 08:47 | $0^{\circ}\Omega$ | |
| retrograde | 11702 Jun 28 01:22 | 5°) 24'47 | | | 11707 Jun 25 01:31 | 0° mp | |
| | 11702 Jul 27 05:45 | 30°R≈ | | | 11707 Aug 02 21:13 | 0∘ <u>⊽</u> | |
| opposition | 11702 Aug 07 17:07 | 25° ≈ 37'30 | -1°38'23 | | 11707 Sep 11 20:09 | 0° M | |
| min. Earth dist. | 11702 Aug 07 17:07 11702 Aug 07 05:45 | 25°≈48'46 | | | 11707 Oct 23 13:29 | 0° ⊼ ″ | |
| | • | | | | | | |
| greatest brilliancy | 11702 Aug 07 15:36 | 25°≈39'00 | -1.3m | evening set | 11707 Nov 06 13:43 | 9° ∡ ¹45'56 | |
| direct | 11702 Sep 17 17:43 | 15°≈51'17 | | | 11707 Dec 06 06:38 | 0°ಕ | |
| | 11702 Nov 12 19:33 | 0° ∀ | | | | _ | |
| | 11703 Jan 09 21:40 | 0° Y | | conjunction | 11707 Dec 28 04:02 | 14°₹33'00 | |
| | 11703 Feb 26 23:40 | $0^{\circ}S$ | | minimum elong | 11707 Dec 28 04:57 | 14° る 34'31 | 0°24'30 |
| | 11703 Apr 11 13:13 | Π $\circ 0$ | | max. Earth dist. | 11708 Jan 15 04:28 | 26° る 19'49 | 2.63106 AU |
| | 11703 May 22 04:46 | 0 \circ \odot | | | 11708 Jan 20 20:22 | 0°≈ | |
| asc. node | 11703 Jun 21 18:30 | 23° © 33'24 | | desc. node | 11708 Feb 10 08:04 | 13° ≈ 09'47 | |
| evening set | 11703 Jun 23 10:45 | 24°952'02 | | morning rise | 11708 Feb 13 00:43 | 14° ≈ 52'52 | |
| Č | 11703 Jun 29 23:55 | $0^{\circ}\Omega$ | | Ü | 11708 Mar 07 21:48 | 0° ₩ | |
| | 11703 Aug 06 21:58 | o°mp | | | 11708 Apr 25 04:22 | 0° Υ | |
| | 11703 Aug 00 21.30 | עוו י | | | 11708 Jun 13 22:18 | 0°8 | |
| conjunction | 11703 Sep 02 11:29 | 21° m 02'06 | 0°47'29 | | 11708 Aug 06 00:07 | 0°II | |
| 3 | | • | | | Č | | |
| minimum elong | 11703 Sep 02 07:32 | 20° m 54'18 | 0°47'15 | | 11708 Oct 18 20:38 | 0.22 | |
| | 11703 Sep 13 21:13 | 0∘ ⊽ | | retrograde | 11708 Nov 04 18:58 | 1° © 39'09 | |
| | 11703 Oct 22 18:40 | 0°M₊ | | | 11708 Nov 20 21:49 | 30° Ŗ Ⅱ | |
| max. Earth dist. | 11703 Oct 24 02:44 | 1°ML00'37 | 2.38853 AU | opposition | 11708 Dec 07 12:57 | 25° Ⅱ 24'43 | -3°55'32 |
| morning rise | 11703 Nov 12 09:42 | 15°M25'59 | | greatest brilliancy | 11708 Dec 08 22:10 | 24° Ⅱ 57'43 | -2.5m |
| | 11703 Dec 02 08:46 | 0° ∡ ¹ | | min. Earth dist. | 11708 Dec 16 02:04 | 22° Ⅱ 38′50 | 0.44218 AU |
| | 11704 Jan 14 06:28 | 0° ප | | direct | 11709 Jan 12 06:51 | 17° Ⅱ 49'19 | |
| | 11704 Feb 29 03:22 | 0° ≈ | | asc. node | 11709 Feb 11 08:49 | 23° Ⅱ 43'55 | |
| | 11704 Apr 19 10:01 | 0° ₩ | | | 11709 Feb 26 01:43 | 0ം ഉ | |
| desc. node | 11704 May 08 03:51 | 10° 米 07'07 | | | 11709 Apr 17 01:50 | $0^{\circ}\Omega$ | |
| | 11704 Jun 21 12:43 | 0°Υ | | | 11709 May 29 07:06 | 0° m) | |
| retrograde | 11704 Aug 01 00:36 | 8° Ƴ 04'41 | | | 11709 Jul 09 08:09 | 0∘ ⊽ | |
| retrograde | 11704 Sep 06 20:09 | 30°R) € | | | 11709 Aug 20 01:59 | 0° ™ | |
| opposition | 11704 Sep 00 20:03 | 28° ¥ 54'03 | 3°40'24 | | 11709 Aug 20 01:59 11709 Oct 02 07:51 | 0° ⊼ ″ | |
| | - | 28° H 44'54 | | | 11709 Nov 16 05:46 | 0°る | |
| greatest brilliancy min. Earth dist. | 11704 Sep 10 01:26 | | | | | | |
| | 11704 Sep 13 00:39 | | 0.66355 AU | evening set | 11709 Dec 19 05:35 | 21° る 26'47 | |
| direct | 11704 Oct 21 06:55 | 18° ¥ 51'19 | | desc. node | 11709 Dec 28 01:16 | 27° る 07'02 | |
| | 11704 Dec 07 18:06 | 0° Υ | | | 11710 Jan 01 13:09 | 0° ≈ | |
| | 11705 Feb 02 21:39 | 0° 8 | | | | | |
| | 11705 Mar 20 11:41 | Π °0 | | conjunction | 11710 Feb 03 03:21 | 20° ≈ 46'45 | |
| | 11705 Apr 30 16:23 | 0 \circ \odot | | minimum elong | 11710 Feb 03 02:45 | 20° ≈ 45'48 | 0°19'07 |
| asc. node | 11705 May 08 19:17 | 6° ॐ 09'17 | | max. Earth dist. | 11710 Feb 06 08:40 | 22° ≈ 49'30 | 2.67973 AU |
| | 11705 Jun 08 14:40 | 0 $^{\circ}$ Ω | | | 11710 Feb 17 16:08 | 0° ℋ | |
| | 11705 Jul 16 14:52 | 0° m y | | morning rise | 11710 Mar 18 18:03 | 18° ∺ 25'41 | |
| | 11705 Aug 23 18:51 | 0∘ 亚 | | | 11710 Apr 05 23:55 | 0 ° Υ | |
| evening set | 11705 Sep 07 01:13 | 11° ♀ 02'12 | | | 11710 May 23 02:17 | 0°8 | |
| | 11705 Oct 02 00:14 | o° m ₊ | | | 11710 Jul 08 20:05 | Π° | |
| | | | | | 11710 Aug 24 10:36 | 0ം ഉ | |
| conjunction | 11705 Nov 10 02:08 | 28°M39'14 | 1°01'24 | | 11710 Oct 10 19:45 | 0°N | |
| minimum elong | 11705 Nov 10 02:00 | 28°M41'59 | 1°02'00 | | 11710 Dec 02 11:34 | 0° m) | |
| minimum clong | | 20 11G41 39 0° ₹ ⁷ | 1 02 00 | asc. node | | -• | |
| F 4 F 4 | 11705 Nov 11 23:17 | | 2 52050 ATT | | 11710 Dec 30 11:56 | 11° Mp 20'03 | |
| max. Earth dist. | 11705 Dec 17 12:32 | | 2.52850 AU | retrograde | 11711 Jan 24 02:25 | 15° m) 12'07 | 0.00000 177 |
| | 11705 Dec 25 01:20 | 0°⋜ | | min. Earth dist. | 11711 Feb 21 02:22 | 10° m 39'52 | 0.36556 AU |
| morning rise | 11706 Jan 04 07:09 | 6° る 54'27 | | opposition | 11711 Feb 23 05:25 | 10° m 05'34 | 4°04'06 |
| | 11706 Feb 08 10:01 | 0° ≈ | | greatest brilliancy | 11711 Feb 22 19:14 | 10° My 12'25 | -3.0m |
| desc. node | 11706 Mar 25 18:25 | 28° ≈ 31'40 | | direct | 11711 Mar 24 10:25 | 5° Mp 14'30 | |
| | 11706 Mar 28 04:11 | 0° ℋ | | | 11711 Jun 03 15:06 | 0∘ 亚 | |
| | 11706 May 18 04:29 | 0° Y | | | 11711 Jul 23 20:48 | 0° M | |
| | 11706 Jul 16 15:12 | 0° 8 | | | 11711 Sep 09 11:01 | 0° ∡ ¹ | |
| retrograde | 11706 Sep 10 18:16 | 14° 8 08'26 | | | 11711 Oct 26 23:56 | ರ∘ರ | |
| opposition | 11706 Oct 18 00:02 | 6° 8 01'17 | -5°08'54 | desc. node | 11711 Nov 15 01:59 | 11° る 58'54 | |
| greatest brilliancy | 11706 Oct 19 06:25 | 5° 8 32'47 | | | 11711 Dec 13 20:14 | 0° ≈ | |
| min. Earth dist. | 11706 Oct 25 02:30 | 3° 8 21'58 | 0.57848 AU | evening set | 11712 Jan 25 00:38 | 26° ≈ 28'11 | |
| | 11706 Nov 04 01:19 | 30°RY | | | 11712 Jan 30 15:06 | 0° ∀ | |
| direct | 11706 Nov 27 08:35 | 26° Υ 22'01 | | max. Earth dist. | 11712 Feb 28 15:09 | | 2.67291 AU |
| 311001 | 11706 Nov 27 08:33 | 0°8 | | max. Darui dist. | 11,12100 20 13.09 | 10 /(2233 | 2.0,271 AU |
| | 11/00 100 21 17.43 | ÿ O | | | | | |

| conjunction | 11712 Mar 09 03:02 | 24° ∺ 26′50 | | retrograde | 11717 Jun 14 20:21 | 22° ≈ 45'57 | |
|---------------------|--|----------------------|-------------|---------------------|--|---------------------------------|-------------------------|
| minimum elong | 11712 Mar 09 01:56 | 24° ∺ 25′06 | 0°53'47 | desc. node | 11717 Jul 07 21:26 | 19° ≈ 16'41 | |
| | 11712 Mar 17 18:41 | 0° Y | | min. Earth dist. | 11717 Jul 23 14:50 | 13° ≈ 36′56 | 0.67146 AU |
| morning rise | 11712 Apr 21 19:17 | 22° Ƴ 45'12 | | opposition | 11717 Jul 25 13:52 | 12° ≈ 50'15 | -0°38'06 |
| | 11712 May 02 19:09 | 0°8 | | greatest brilliancy | 11717 Jul 25 12:29 | 12° ≈ 51'38 | -1.4m |
| | 11712 Jun 16 09:48 | 0° I I | | direct | 11717 Sep 03 23:14 | 3° ≈ 17'32 | |
| | 11712 Jul 29 13:24 | 0°99 | | | 11717 Nov 26 02:32 | 0°) € | |
| | 11712 Sep 09 09:09 | 0°N | | | 11718 Jan 18 13:33 | 0° Υ | |
| | 11712 Oct 20 08:20 | 0° m) | | | 11718 Mar 06 15:25 | 0°8 | |
| asc. node | 11712 Nov 16 09:28 | 19° m) 47'35 | | | 11718 Apr 18 23:06 | 0°II | |
| asc. Houe | 11712 Nov 10 09:28 11712 Nov 30 13:21 | ~ | | | • | 0 H 29°H23'18 | |
| | | ია ო | | evening set | 11718 May 28 19:35 | | |
| | 11713 Jan 13 21:44 | 0°M, | | | 11718 May 29 14:59 | 0°® | |
| retrograde | 11713 Mar 28 22:10 | 28°M40'03 | | max. Earth dist. | 11718 Jul 03 15:48 | 26° © 59'30 | 2.37006 AU |
| min. Earth dist. | 11713 Apr 26 03:21 | 23°M09'06 | 0.47143 AU | | 11718 Jul 07 12:02 | 0 $^{\circ}$ Ω | |
| greatest brilliancy | 11713 May 02 21:39 | 20°M44'46 | -2.3m | asc. node | 11718 Jul 08 10:45 | 0° Ω 44'32 | |
| opposition | 11713 May 04 12:02 | 20°M10'25 | 5°36'47 | | | | |
| direct | 11713 Jun 06 16:39 | 13° M ₊17'08 | | conjunction | 11718 Aug 02 07:35 | 20° £ 21′23 | 0°17'50 |
| | 11713 Aug 05 13:31 | 0° ∡ ¹ | | minimum elong | 11718 Aug 02 05:44 | 20° Ω 17'44 | 0°17'15 |
| desc. node | 11713 Oct 02 09:01 | 0° る 09'32 | | | 11718 Aug 14 11:32 | 0° m) | |
| | 11713 Oct 02 02:15 | 0° ප | | | 11718 Sep 21 10:55 | 0∘ 亚 | |
| | 11713 Nov 22 16:24 | 0° ≈ | | morning rise | 11718 Oct 15 09:23 | 18° ≏ 36'30 | |
| | 11714 Jan 11 02:00 | 0° ∀ | | • | 11718 Oct 30 07:04 | 0°M | |
| | 11714 Feb 27 16:17 | 0° Υ | | | 11718 Dec 09 19:38 | 0° ∡ ¹ | |
| evening set | 11714 Feb 28 15:07 | 0° Y 36'44 | | | 11719 Jan 21 18:52 | ਰ°0 | |
| max. Earth dist. | 11714 Mar 23 11:59 | 15° Y ′29'14 | 2.61200 AU | | 11719 Mar 09 04:26 | 0° ≈ | |
| max. Darm dist. | 11714 Apr 14 08:00 | 0°8 | 2.01200110 | | 11719 Apr 30 18:37 | 0°) € | |
| | 11/14 Apr 14 00.00 | ٥ ن | | desc. node | 11719 May 25 20:12 | 11° ¥ 52'04 | |
| agniumation | 11714 Apr. 15 00:20 | 0° 8 28'00 | 1900129 | | 11719 Jul 19 01:00 | 25°\(\frac{11}{26}\)'26'26 | |
| conjunction | 11714 Apr 15 00:39 | 0° 8 27'44 | | retrograde | | | 2002110 |
| minimum elong | 11714 Apr 15 00:29 | _ | 1 09 48 | opposition | 11719 Aug 28 05:49 | 15°) € 58'47 | |
| | 11714 May 27 23:00 | 0°П | | greatest brilliancy | 11719 Aug 28 09:16 | 15°) € 55'24 | |
| morning rise | 11714 Jun 01 18:40 | 3° Ⅱ 23'57 | | min. Earth dist. | 11719 Aug 30 02:20 | 15°) 15′02 | 0.67909 AU |
| | 11714 Jul 08 16:18 | 0°© | | direct | 11719 Oct 08 19:56 | 5° ¥ 59'04 | |
| | 11714 Aug 17 19:31 | $0^{\circ}\Omega$ | | | 11719 Dec 23 17:13 | 0° Ƴ | |
| | 11714 Sep 25 21:47 | 0° m | | | 11720 Feb 13 07:00 | 0°8 | |
| asc. node | 11714 Oct 04 03:08 | 6° Mg 21'31 | | | 11720 Mar 28 18:30 | Π °0 | |
| | 11714 Nov 03 18:08 | 0∘ 亚 | | | 11720 May 08 15:34 | 0 \circ \odot | |
| | 11714 Dec 13 11:50 | 0° M ₊ | | asc. node | 11720 May 25 11:19 | 12° © 51'49 | |
| | 11715 Jan 24 23:15 | 0° ∡ ¹ | | | 11720 Jun 16 11:10 | $0^{\circ}\Omega$ | |
| | 11715 Mar 16 06:04 | 8°0 | | | 11720 Jul 24 09:16 | 0° m) | |
| retrograde | 11715 May 11 07:29 | 16° ⋜ 33'16 | | evening set | 11720 Aug 08 04:03 | 11° m)42'38 | |
| min. Earth dist. | 11715 Jun 14 11:33 | 8° る 53'32 | 0.59864 AU | | 11720 Aug 31 10:13 | 0∘ ত | |
| opposition | 11715 Jun 20 03:58 | 6° ප 39'41 | 2°22'22 | | 11720 Oct 09 11:11 | 0° M . | |
| greatest brilliancy | 11715 Jun 19 16:48 | 6° ප් 50'38 | -1.7m | | | | |
| · · | 11715 Jul 10 10:17 | 30°₽ ⋌ | | conjunction | 11720 Oct 17 00:48 | 5° M 40'50 | 1°06'20 |
| direct | 11715 Jul 27 20:05 | 28° ∡ °02'33 | | minimum elong | 11720 Oct 17 00:40 | 5°M40'35 | 1°06'44 |
| | 11715 Aug 15 10:24 | 0°రె | | | 11720 Nov 19 05:15 | 0° ∡ ⊓ | |
| desc. node | 11715 Aug 20 16:45 | 1° る 10'03 | | max. Earth dist. | 11720 Dec 02 12:54 | | 2.47574 AU |
| acco. node | 11715 Aug 20 10.45 | 0°≈ | | morning rise | 11720 Dec 02 12:34 11720 Dec 16 19:01 | 19° × ⁷ 27'13 | <u>,</u> <u>J, 1110</u> |
| | 11715 Dec 21 22:55 | 0°) € | | morning rise | 11721 Jan 01 03:46 | 0°る | |
| | 11715 Dec 21 22:35 11716 Feb 08 23:40 | 0° Υ | | | 11721 Jan 01 03:40 11721 Feb 15 13:52 | 0°≈ | |
| | | 0°8 | | | | 0 ≈ 0° ∺ | |
| ovening set | 11716 Mar 25 20:36 | 8° 8 56'36 | | daga rada | 11721 Apr 04 22:40 | 3° ∺ 53'19 | |
| evening set | 11716 Apr 07 23:56 | | 2 50107 411 | desc. node | 11721 Apr 11 11:52 | 3° π 33'19 | |
| max. Earth dist. | 11716 Apr 22 14:24 | | 2.50107 AU | | 11721 May 28 06:20 | | |
| | 11716 May 08 01:28 | Π \circ 0 | | retrograde | 11721 Aug 24 18:36 | 29° Y 31'42 | 10.17:50 |
| | | — | | opposition | 11721 Oct 02 03:46 | 20° ℃ 55'21 | |
| conjunction | 11716 May 29 06:41 | 15° Ⅲ 21'13 | | greatest brilliancy | 11721 Oct 03 01:27 | 20° Y 34'35 | -1.5m |
| minimum elong | 11716 May 29 08:42 | 15° Ⅱ 24'54 | 0°52'01 | min. Earth dist. | 11721 Oct 07 20:11 | 18° Ƴ 44'56 | 0.61964 AU |
| | 11716 Jun 18 00:57 | 0ංම | | direct | 11721 Nov 12 07:03 | 10° Y ′59'45 | |
| morning rise | 11716 Jul 27 22:58 | 0° Ω 28'19 | | | 11722 Jan 14 03:03 | 0° 8 | |
| | 11716 Jul 27 08:22 | $0^{\circ}\Omega$ | | | 11722 Mar 05 08:01 | Π °0 | |
| asc. node | 11716 Aug 20 17:28 | 19° Ω 01'29 | | asc. node | 11722 Apr 12 15:50 | 26° Ⅱ 57'12 | |
| | 11716 Sep 03 16:36 | 0° m | | | 11722 Apr 16 19:01 | 0ං ම | |
| | 11716 Oct 11 21:11 | 0∘ ⊽ | | | 11722 May 26 05:09 | $0^{\circ}\Omega$ | |
| | 11716 Nov 19 20:05 | 0° M, | | | 11722 Jul 03 12:33 | 0° m) | |
| | 11716 Dec 30 14:33 | 0° ∡ ¹ | | | 11722 Aug 10 23:49 | 0∘ ⊽ | |
| | 11717 Feb 12 14:58 | ರ°0 | | | 11722 Sep 19 13:42 | 0°M | |
| | 11717 Apr 04 09:56 | 0° ≈ | | evening set | 11722 Oct 16 16:10 | 19° M 49'54 | |
| | r | | | 3 | | | |

morning rise

11727 Apr 08 19:53

11727 May 10 20:26

11727 Jun 25 02:35

9°**Υ**12'10

0°8

 $0^{\circ}\Pi$

min. Earth dist.

opposition

11732 Jul 08 15:12

11732 Jul 11 04:03

11732 Jul 12 01:36

1°≈00'20

29°る38'37 0°27'30

30°Ŗ**ට**

0.65061 AU

| greatest brilliancy desc. node direct | 11732 Jul 12 00:21 11732 Jul 24 09:31 11732 Aug 20 14:01 11732 Oct 04 12:28 11732 Dec 06 09:50 | 29°♂39'51 25°♂02'52 20°♂23'33 0°≈ 0°升 | -1.4m | evening set | 11737 Jul 11 13:55 11737 Aug 18 19:40 11737 Sep 22 10:08 11737 Sep 27 03:08 11737 Nov 07 04:15 | 0° M) 0° Ω 26° Ω 28'03 0° M 0° ⊀ | |
|---|--|---|------------|--|--|--|----------------------------------|
| evening set max. Earth dist. | 11733 Jan 26 12:18 11733 Mar 13 23:33 11733 Apr 26 05:07 11733 May 06 20:07 | 0°Υ 0°Β 0°Π 7°Π39'59 | 2.41794 AU | conjunction minimum elong max. Earth dist. | 11737 Nov 22 02:47 11737 Nov 22 04:35 11737 Dec 20 07:50 11737 Dec 24 18:06 | 10°メ33'30 10°メ36'39 0°る 2°る59'46 | 0°55'00 0°55'41 2.55503 AU |
| max. Earth dist. | 11733 May 22 09:40 11733 Jun 05 23:27 | 0°© | 2.41794 AU | morning rise | 11738 Jan 13 21:21 11738 Feb 03 15:24 | 2 83946 16° 8 26'12 0°≈ | 2.33303 AU |
| conjunction | 11733 Jul 04 17:16 | 21° © 59'52 | | desc. node | 11738 Mar 15 19:03 | 25° ≈ 27'54 | |
| minimum elong | 11733 Jul 04 18:35 | 22°502'26 | 0°15'20 | | 11738 Mar 23 02:42 | 0° ℋ 0° Ƴ | |
| behind sun begin behind sun end | 11733 Jul 04 09:37 11733 Jul 05 03:34 | 21°545'02 22°519'49 | | | 11738 May 12 04:25 11738 Jul 06 15:47 | 0°8 | |
| ooming sun ong | 11733 Jul 15 00:04 | 0°Ω | | retrograde | 11738 Sep 21 07:33 | 23° 8 38'34 | |
| asc. node | 11733 Jul 25 05:55 | 8° Ω 01′25 | | opposition | 11738 Oct 27 19:35 | 15° 8 50'44 | -5°12'50 |
| | 11733 Aug 22 02:13 | 0° m) | | greatest brilliancy | 11738 Oct 29 06:14 | 15° 8 18'50 | |
| morning rise | 11733 Sep 13 14:41 11733 Sep 29 02:34 | 17° Mp 48'32 0° <u>₽</u> | | min. Earth dist. direct | 11738 Nov 04 15:07 11738 Dec 06 13:37 | 12° 8 58'47 6° 8 26'34 | 0.55207 AU |
| | 11733 Sep 29 02:34 11733 Nov 06 22:15 | 0° ™ | | uncet | 11739 Feb 13 06:48 | 0°Ⅱ | |
| | 11733 Dec 17 10:27 | 0° ∡ 7 | | asc. node | 11739 Mar 17 11:51 | 20° Ⅱ 11'45 | |
| | 11734 Jan 29 14:03 | 0°ප | | | 11739 Mar 31 16:41 | 0ංම | |
| | 11734 Mar 17 21:23 | 0° ≈ | | | 11739 May 11 11:13 | 0°N | |
| desc. node | 11734 May 14 04:42 11734 Jun 11 10:13 | 0° ∺ 9° ∺ 48'13 | | | 11739 Jun 19 12:16 11739 Jul 28 13:59 | 0ം ⊽ 0ംൂ⊅ | |
| retrograde | 11734 Jul 05 14:39 | 13°\(\frac{4}{6}\)13 | | | 11739 Sep 06 18:12 | 0° M | |
| opposition | 11734 Aug 15 04:21 | 3° ∺ 21'48 | -2°11'24 | | 11739 Oct 18 16:10 | 0° ∡ ¹ | |
| greatest brilliancy | 11734 Aug 15 03:56 | 3° ¥ 22′13 | | evening set | 11739 Nov 17 04:54 | 20° х 20′10 | |
| min. Earth dist. | 11734 Aug 15 12:57 | 3° ¥ 13′18 | 0.68407 AU | | 11739 Dec 01 13:10 | 0° ප | |
| direct | 11734 Aug 23 21:17 11734 Sep 25 11:45 | 30°R≈ 23°≈29'33 | | conjunction | 11740 Jan 06 02:49 | 23° る 27'43 | 0°13'42 |
| uncet | 11734 Oct 31 07:49 | 0° ∀ | | minimum elong | 11740 Jan 06 03:21 | 23° る 28'35 | |
| | 11735 Jan 03 14:57 | $0^{\circ}\mathbf{\Upsilon}$ | | behind sun begin | 11740 Jan 05 19:03 | 23° ප 15'05 | |
| | 11735 Feb 21 16:56 | 0°B | | behind sun end | 11740 Jan 06 11:39 | 23° る 42'05 | |
| | 11735 Apr 06 13:40 | 0° Ⅱ | | Davida diak | 11740 Jan 16 04:46 | 0°≈ 2°••52!55 | 2 (4(20 AII |
| asc. node | 11735 May 17 07:22 11735 Jun 12 02:11 | 0°ഇ 19° ഇ 48'52 | | max. Earth dist. desc. node | 11740 Jan 20 15:55 11740 Jan 31 08:40 | 2°≈52'55 9°≈45'27 | 2.64620 AU |
| ase. Hode | 11735 Jun 25 02:51 | 0° Ω | | morning rise | 11740 Feb 20 22:59 | 22°≈53'07 | |
| evening set | 11735 Jul 09 13:31 | 11° Ω 23'16 | | | 11740 Mar 03 04:49 | 0° ∀ | |
| | 11735 Aug 02 00:49 | 0° m | | | 11740 Apr 20 03:49 | 0° Ƴ | |
| | 11735 Sep 09 00:21 | 0∘ ⊽ | | | 11740 Jun 08 01:26 | 0° B | |
| conjunction | 11735 Sep 19 18:14 | 8° ≏ 22'55 | 0°58'48 | | 11740 Jul 28 19:51 11740 Sep 24 02:16 | 0° © 0°∏ | |
| minimum elong | 11735 Sep 19 15:09 | 8° ≏ 16'56 | 0°58'49 | retrograde | 11740 Nov 20 14:30 | 15° © 35'16 | |
| | 11735 Oct 17 22:25 | 0° M | | opposition | 11740 Dec 22 05:41 | 9° 9 51'17 | -2°46'37 |
| max. Earth dist. | 11735 Nov 12 10:15 | 19°M00'38 | 2.41887 AU | greatest brilliancy | 11740 Dec 23 04:13 | 9°533'57 | |
| morning rise | 11735 Nov 26 04:58 11735 Nov 27 12:46 | 29° ™ 02'40 0° √ | | min. Earth dist. direct | 11740 Dec 29 19:40 11741 Jan 25 05:42 | 7° © 32'26 3° © 03'05 | 0.41295 AU |
| | 11736 Jan 09 09:15 | 0° ਣ | | asc. node | 11741 Jan 23 03:42 11741 Feb 01 16:57 | 3°927'10 | |
| | 11736 Feb 23 23:40 | 0° ≈ | | | 11741 Apr 06 12:42 | 0°N | |
| | 11736 Apr 13 07:46 | 0° ∀ | | | 11741 May 21 13:11 | 0° Mp | |
| desc. node | 11736 Apr 28 04:41 | 8° ¥ 24′21 | | | 11741 Jul 02 19:09 | 0° ™ | |
| retrograde | 11736 Jun 09 23:42 11736 Aug 09 07:41 | 0° Υ 15° Υ 59'38 | | | 11741 Aug 14 07:08 11741 Sep 27 01:25 | 0° ™ 0° <i>⊀</i> ¹ | |
| opposition | 11736 Sep 17 14:15 | 6°Υ59'52 | -4°13'08 | | 11741 Nov 11 08:07 | ∘ੰਤ | |
| greatest brilliancy | 11736 Sep 18 03:42 | 6° Ƴ 46'48 | -1.4m | desc. node | 11741 Dec 18 04:11 | 23° ⋜ 48′06 | |
| min. Earth dist. | 11736 Sep 21 19:05 | 5° Υ 22'06 | 0.65079 AU | evening set | 11741 Dec 27 17:17 | 29° る 54'25 | |
| direct | 11736 Oct 07 10:57 | 30° ₹ ₩ 57137 | | | 11741 Dec 27 20:46 | 0° ≈ | |
| direct | 11736 Oct 29 03:28 11736 Nov 21 05:12 | 26°) 57′37 0° ° | | conjunction | 11742 Feb 10 23:01 | 28°≈39'38 | -0°28'33 |
| | 11737 Jan 27 02:21 | 0°8 | | minimum elong | 11742 Feb 10 22:12 | 28°≈38'21 | 0°28'04 |
| | 11737 Mar 14 20:33 | 0°II | | max. Earth dist. | 11742 Feb 11 08:57 | 28° ≈ 55'22 | 2.68298 AU |
| | 11737 Apr 25 10:08 | 0ංම | | | 11742 Feb 13 01:43 | 0° ∀ | |
| asc. node | 11737 Apr 29 05:07 | 2°950'56 | | morning rise | 11742 Mar 26 07:43 | 26° 升 11′00 | |
| | 11737 Jun 03 11:55 | 0 ° Ω | | | 11742 Apr 01 07:33 | 0° Υ | |

| | 11742 May 18 02:35 | 0° ႘ | | greatest brilliancy | 11747 Jun 28 12:00 | 15° る 44'39 | -1.6m |
|---------------------|--|----------------------------------|------------|---|--|---|---------------------|
| | 11742 Jul 03 05:43 | 0°II | | direct | 11747 Aug 06 04:08 | 6° る 45'48 | 1.011 |
| | 11742 Aug 17 17:49 | 0°© | | desc. node | 11747 Aug 10 20:31 | 6° る 53'44 | |
| | 11742 Oct 02 00:23 | 0°N | | | 11747 Oct 21 08:59 | 0° ≈ | |
| | 11742 Nov 17 16:56 | 0° m) | | | 11747 Dec 16 08:21 | 0°) € | |
| asc. node | 11742 Dec 20 20:19 | 18° m 48'45 | | | 11748 Feb 04 00:47 | 0° Y | |
| | 11743 Jan 16 16:32 | 0∘ ⊽ | | | 11748 Mar 21 02:50 | 0°8 | |
| retrograde | 11743 Feb 10 06:27 | 3° ჲ 59′20 | | evening set | 11748 Apr 17 20:04 | 19° 8 01'43 | |
| | 11743 Mar 07 10:17 | 30°R, M) | | max. Earth dist. | 11748 May 01 13:56 | 28° 8 44'16 | 2.47200 AU |
| min. Earth dist. | 11743 Mar 08 09:04 | 29° m 44'18 | 0.37664 AU | | 11748 May 03 08:22 | Π $^{\circ}0$ | |
| greatest brilliancy | 11743 Mar 12 10:30 | 28° m 35'53 | -2.9m | | | | |
| opposition | 11743 Mar 13 12:15 | 28° M 17'44 | 5°30'25 | conjunction | 11748 Jun 10 09:15 | 27° Ⅱ 50'42 | |
| direct | 11743 Apr 11 20:37 | 23° m 14'42 | | minimum elong | 11748 Jun 10 11:28 | 27° ∏ 54'52 | 0°41'12 |
| | 11743 May 15 19:52 | 0∘ ⊽ | | | 11748 Jun 13 06:14 | 0 | |
| | 11743 Jul 15 00:11 | 0°M₊ | | | 11748 Jul 22 11:20 | 0 $^{\circ}\Omega$ | |
| | 11743 Sep 02 22:51 | 0° ∡ | | asc. node | 11748 Aug 10 23:54 | 15° Ω 15'37 | |
| | 11743 Oct 21 13:02 | 0°ප | | morning rise | 11748 Aug 13 02:29 | 16° Ω 54'55 | |
| desc. node | 11743 Nov 05 06:35 | 9° る 07'39 | | greatest brilliancy | 11748 Aug 26 14:00 | 27° Ω 31'44 | 1.2m |
| | 11743 Dec 08 22:06 | 0° ≈ | | | 11748 Aug 29 17:11 | 0° m/y | |
| | 11744 Jan 25 23:05 | 0° ∀ | | | 11748 Oct 06 19:46 | 0° ™ | |
| evening set | 11744 Feb 01 20:52 | 4°) €20'55 | | | 11748 Nov 14 16:43 | 0°M | |
| max. Earth dist. | 11744 Mar 04 17:45 | | 2.66433 AU | | 11748 Dec 25 07:16 | 0° ∡ 7 | |
| | 11744 Mar 13 04:12 | 0° Ƴ | | | 11749 Feb 06 20:38 | 0°₹ | |
| . ,. | 11744 M 16 22 56 | 200026100 | 0050120 | | 11749 Mar 27 20:00 | 0° ≈ | |
| conjunction | 11744 Mar 16 22:56 | 2°Υ26'08 | | | 11749 Jun 12 21:13 | 0°){ | |
| minimum elong | 11744 Mar 16 21:55 | 2° Y 24'29 0° と | 0°59′26 | retrograde | 11749 Jun 22 09:37 | 0°) 33'18 0°) 20'59 | |
| marning rica | 11744 Apr 28 02:14 | 1° 8 19'55 | | desc. node | 11749 Jun 28 01:02 11749 Jul 01 15:39 | | |
| morning rise | 11744 Apr 30 02:20 11744 Jun 11 11:10 | 0°Ⅱ | | min. Earth dist. | 11749 Aug 01 00:00 | 30°R≈ 21°000°152 | 0.67871 AU |
| | 11744 Jul 24 05:55 | 0°© | | opposition | 11749 Aug 01 00:00 11749 Aug 02 03:12 | 21 ≈08 32 20°≈41'55 | |
| | 11744 Sep 03 14:29 | 0° U | | greatest brilliancy | 11749 Aug 02 03:12 11749 Aug 02 01:20 | 20°≈43'45 | |
| | 11744 Oct 13 23:21 | 0° m) | | direct | 11749 Sep 11 21:52 | 11°≈01'12 | -1.5111 |
| asc. node | 11744 Nov 06 18:03 | رس 17° m و 45' 17 | | uncet | 11749 Nov 17 23:05 | 0°) € | |
| use. Houe | 11744 Nov 23 07:11 | 0∘ <mark>ರ</mark> | | | 11750 Jan 12 20:58 | 0°Υ | |
| | 11745 Jan 04 13:12 | 0°M | | | 11750 Mar 01 13:52 | 0°8 | |
| | 11745 Feb 24 14:49 | 0° ⊼ 7 | | | 11750 Apr 14 02:26 | 0°II | |
| retrograde | 11745 Apr 08 16:52 | 11° ∡ 19′26 | | | 11750 May 24 19:21 | 0°95 | |
| min. Earth dist. | 11745 May 08 05:43 | 5° ∡ 18'21 | 0.50168 AU | evening set | 11750 Jun 11 17:08 | 13° 5 641'24 | |
| greatest brilliancy | 11745 May 14 22:49 | 2° ∡ ¹49'49 | -2.1m | asc. node | 11750 Jun 28 19:25 | 26°\$58'29 | |
| opposition | 11745 May 16 07:43 | 2° ∡ 19'24 | 4°58'02 | | 11750 Jul 02 16:07 | $0^{\circ}\Omega$ | |
| | 11745 May 22 20:42 | 30°RM | | | 11750 Aug 09 14:52 | 0° ™ | |
| direct | 11745 Jun 19 14:51 | 24°M58'24 | | | | | |
| | 11745 Jul 19 20:15 | 0° ∡ ¹ | | conjunction | 11750 Aug 19 15:38 | 7° m 57'36 | 0°35'45 |
| desc. node | 11745 Sep 22 13:03 | 28° х 47′08 | | minimum elong | 11750 Aug 19 12:04 | 7° m 50'31 | 0°35'19 |
| | 11745 Sep 24 19:48 | 5°0 | | | 11750 Sep 16 13:42 | 0∘ ⊽ | |
| | 11745 Nov 17 02:41 | 0° ≈ | | max. Earth dist. | 11750 Sep 26 13:44 | 7° ≏ 49'03 | 2.36829 AU |
| | 11746 Jan 06 03:37 | 0° ∀ | | | 11750 Oct 25 09:39 | 0° M | |
| | 11746 Feb 22 23:51 | 0° Y | | morning rise | 11750 Oct 31 16:27 | 4°M45'04 | |
| evening set | 11746 Mar 08 20:15 | 8° Y ′56'44 | | | 11750 Dec 04 21:32 | 0° ∡ | |
| max. Earth dist. | 11746 Mar 29 12:11 | | 2.59194 AU | | 11751 Jan 16 18:01 | 8°0 | |
| | 11746 Apr 09 16:21 | 0° 8 | | | 11751 Mar 03 17:25 | 0° ≈ | |
| | | | | | 11751 Apr 23 16:36 | 0° \ | |
| conjunction | 11746 Apr 24 00:12 | 9° 8 42'48 | | desc. node | 11751 May 15 21:51 | 11°) € 30'14 | |
| minimum elong | 11746 Apr 24 00:29 | 9° 8 43'16 | 1°09'31 | | 11751 Jul 02 21:39 | 0°Υ ••••••• | |
| | 11746 May 23 05:11 | 0°II | | retrograde | 11751 Jul 26 22:11 | 3°Υ08'05 | |
| morning rise | 11746 Jun 12 11:11 | 14° Ⅱ 27'16 | | ammaciti | 11751 Aug 18 05:41 | 30°₹) 22°¥40!25 | 2020157 |
| | 11746 Jul 03 18:25 | 0°© | | opposition | 11751 Sep 04 20:52 | 23°) (49'25 | |
| | 11746 Aug 12 17:02 | 0° Ω | | greatest brilliancy min. Earth dist. | 11751 Sep 05 03:25 | 23°\(\dagger43'00\) 22°\(\dagger46'03\) | -1.3m 0.67177 AU |
| asc. node | 11746 Sep 20 14:32 11746 Sep 24 09:20 | 0° Mp 2° Mp 56'25 | | direct | 11751 Sep 07 13:37 11751 Oct 16 12:44 | 13°) 47'23 | U.U/1// AU |
| asc. noue | 11746 Sep 24 09:20 11746 Oct 29 05:55 | 0° ت 2°الباء623 | | uncci | 11751 Dec 14 21:42 | 13°π4/23 0°Υ | |
| | 11746 Dec 07 16:22 | 0°M | | | 11751 Dec 14 21.42 11752 Feb 07 07:10 | 0° 8 | |
| | 11747 Jan 18 10:33 | 0° ∡ 7 | | | 11752 Mar 23 10:43 | 0°II | |
| | 11747 Mar 06 20:41 | 0°ਰ | | | 11752 May 03 13:10 | 0°© | |
| retrograde | 11747 May 19 14:15 | 25° ට 35'57 | | asc. node | 11752 May 15 19:30 | 9° © 19'23 | |
| min. Earth dist. | 11747 Jun 23 21:06 | 17° る 34'03 | 0.61956 AU | | 11752 Jun 11 11:02 | 0°Ω | |
| opposition | 11747 Jun 28 18:40 | | 1°38'44 | greatest brilliancy | 11752 Jun 16 13:47 | 4° Ω 01'03 | 1.2m |
| 11 | | | | 5 | | | |

| | 11752 Jul 19 10:22 | 0° m) | | morning rise | 11757 Mar 13 01:41 | 13° ¥ 29′04 | |
|---|---|--|---|---|---|--|---|
| evening set | 11752 Aug 25 06:15 | 29° Mp 00'54 | | | 11757 Apr 08 04:35 | 0° Υ | |
| | 11752 Aug 26 12:33 | 0∘ ⊽ | | | 11757 May 25 14:16 | 0° 8 | |
| | 11752 Oct 04 15:06 | 0°M₊ | | | 11757 Jul 11 22:58 | Π °0 | |
| | | | | | 11757 Aug 28 17:17 | 0ංම | |
| conjunction | 11752 Oct 31 01:35 | 19°M36'02 | | | 11757 Oct 17 16:04 | 0 $^{\circ}$ Ω | |
| minimum elong | 11752 Oct 31 02:39 | 19°M37'57 | 1°05'13 | | 11757 Dec 26 14:47 | 0° m) | |
| | 11752 Nov 14 10:31 | 0° ∡ ¹ | | asc. node | 11758 Jan 06 12:38 | 1° m) 14'03 | |
| max. Earth dist. | 11752 Dec 11 09:42 | | 2.50554 AU | retrograde | 11758 Jan 09 20:47 | 1° m)18'31 | |
| morning rise | 11752 Dec 27 13:39 | 0° る 07'09 | | | 11758 Jan 24 02:44 | 30° ₹Ω | |
| | 11752 Dec 27 09:27 | 0°₹ | | opposition | 11758 Feb 08 12:07 | 26° Ω 24'37 | |
| | 11753 Feb 10 16:54 | 0° ≈ | | greatest brilliancy | 11758 Feb 08 11:33 | 26° Ω 25′00 | |
| | 11753 Mar 30 15:09 | 0° ∀ | | min. Earth dist. | 11758 Feb 09 03:09 | 26° Ω 14'38 | 0.36462 AU |
| desc. node | 11753 Apr 01 12:29 | 1°) €08'40 | | direct | 11758 Mar 10 03:07 | 21° Ω 27'49 | |
| | 11753 May 21 09:25 | 0° Υ | | | 11758 Apr 16 15:51 | 0° m) | |
| | 11753 Jul 24 07:09 | $_{0\circ}$ 8 | | | 11758 Jun 11 07:57 | 0∘ ऌ | |
| retrograde | 11753 Sep 03 03:53 | 8° 8 10'22 | | | 11758 Jul 28 10:44 | 0° M ₊ | |
| opposition | 11753 Oct 10 23:21 | 29° Ƴ 49'20 | -5°01'16 | | 11758 Sep 12 18:34 | 0° ∡ ¹ | |
| | 11753 Oct 10 12:04 | 30° ₹Ƴ | | | 11758 Oct 29 15:15 | 0°ප | |
| greatest brilliancy | 11753 Oct 12 02:00 | 29° Ƴ 24'06 | -1.6m | desc. node | 11758 Nov 21 17:34 | 14° る 37'57 | |
| min. Earth dist. | 11753 Oct 17 11:32 | 27° Ƴ 21'46 | 0.59800 AU | | 11758 Dec 16 02:30 | 0° ≈ | |
| direct | 11753 Nov 20 18:12 | 20° Ƴ 01'14 | | evening set | 11759 Jan 19 02:29 | 21° ≈ 24'11 | |
| | 11754 Jan 02 13:17 | 0° 8 | | | 11759 Feb 01 17:33 | 0° ∀ | |
| | 11754 Feb 26 12:19 | Π° | | max. Earth dist. | 11759 Feb 25 01:39 | 14°) 47'03 | 2.67816 AU |
| asc. node | 11754 Apr 03 00:35 | 24° Ⅱ 17′00 | | | | | |
| | 11754 Apr 10 21:51 | 0°€ | | conjunction | 11759 Mar 04 07:04 | 19°) 23′04 | -0°49'28 |
| | 11754 May 20 16:43 | $0^{\circ}\Omega$ | | minimum elong | 11759 Mar 04 05:58 | 19° ∺ 21′20 | 0°49'13 |
| | 11754 Jun 28 04:52 | 0° m) | | _ | 11759 Mar 20 21:26 | 0 ° $\mathbf{\Upsilon}$ | |
| | 11754 Aug 05 19:59 | 0∘ ত | | morning rise | 11759 Apr 16 17:25 | 17° Ƴ 20'18 | |
| | 11754 Sep 14 13:49 | 0° M . | | • | 11759 May 06 01:43 | 0°B | |
| | 11754 Oct 26 01:37 | 0° ⊼ | | | 11759 Jun 19 23:39 | Π° | |
| evening set | 11754 Oct 28 20:43 | 1° ∡ 758'15 | | | 11759 Aug 02 13:16 | 0ංම | |
| • | 11754 Dec 08 14:00 | 0°రె | | | 11759 Sep 13 21:48 | $0^{\circ}\Omega$ | |
| | | | | | 11759 Oct 25 12:33 | 0° m) | |
| | | | | | | | |
| conjunction | 11754 Dec 21 01:06 | 8° る 20'55 | 0°30'53 | asc. node | 11759 Nov 24 11:05 | 21° m 25'28 | |
| conjunction minimum elong | 11754 Dec 21 01:06 11754 Dec 21 02:18 | 8°る20'55 8°る22'55 | 0°30'53 0°31'39 | asc. node | 11759 Nov 24 11:05 11759 Dec 06 17:39 | 21° ™ 25'28 0° ⊆ | |
| • | | 8° る 22'55 | | asc. node | | | |
| minimum elong | 11754 Dec 21 02:18 | | 0°31'39 | asc. node | 11759 Dec 06 17:39 | 0∘ ⊽ | |
| minimum elong max. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 | 8° ♂ 22'55 22° ♂ 13'26 0°≈ | 0°31'39 | retrograde | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 | 0° ቤ 18° ጤ 51'09 | 0.44675 AU |
| minimum elong max. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 | 8°る22'55 22°る13'26 0°≈ 9°≈35'07 | 0°31'39 | retrograde min. Earth dist. | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 | 0° Ω 0° ጤ 18° ጤ 51'09 13° ጤ 45'01 | 0.44675 AU -2.4m |
| minimum elong max. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 | 8° ♂ 22'55 22° ♂ 13'26 0°≈ | 0°31'39 | retrograde min. Earth dist. greatest brilliancy | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 | 0° ቤ 18° ጤ 51'09 | 0.44675 AU -2.4m 6°00'47 |
| minimum elong max. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 | 8°♂22'55 22°♂13'26 0°≈ 9°≈35'07 16°≈05'18 0°⊁ | 0°31'39 | retrograde min. Earth dist. greatest brilliancy opposition | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 | 0° ቤ 0° ጤ 18° ጤ 51'09 13° ጤ 45'01 11° ጤ 28'28 10° ጤ 52'54 | -2.4m |
| minimum elong max. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 | 8°♂22'55 22°♂13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°Υ | 0°31'39 | retrograde min. Earth dist. greatest brilliancy | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 | 0° M 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 | -2.4m |
| minimum elong max. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°Υ 0°Υ | 0°31'39 | retrograde min. Earth dist. greatest brilliancy opposition | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ₹ | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 | 8°♂22'55 22°♂13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°쒸 0°Ы 0°Ⅱ | 0°31'39 | retrograde min. Earth dist. greatest brilliancy opposition direct | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°円 22°用44'33 | 0°31'39 2.61689 AU | retrograde min. Earth dist. greatest brilliancy opposition | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ₹ | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 | 8°♂22'55 22°♂13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°쒸 0°Ы 0°Ⅱ | 0°31'39 2.61689 AU -4°29'26 | retrograde min. Earth dist. greatest brilliancy opposition direct | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 58'26 | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 | 8°♂22'55 22°♂13'26 0°≈ 9°≈35'07 16°≈05'18 0°¥ 0°Y 0°B 0°I 22°∏44'33 16°∏06'12 | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ₹ 0° ₹ 0° ₹ 0° ₹ 0° ₹ | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 | 8°♂22'55 22°♂13'26 0°≈ 9°≈35'07 16°≈05'18 0°∀ 0°Y 0°B 0°I 22°II44'33 16°II06'12 15°II34'34 | 0°31'39 2.61689 AU -4°29'26 | retrograde min. Earth dist. greatest brilliancy opposition direct | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 | 0° \(\text{\Omega}\) 0° \(\text{\Upsilon}\) 18° \(\text{\Upsilon}\) 13° \(\text{\Upsilon}\) 11° \(\text{\Upsilon}\) 28' 28' 10° \(\text{\Upsilon}\) 0° \(\text{\Upsilon}\) 1° \(\text{\Upsilon}\) 0° \(\text{\Upsilon}\) | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°升 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 | 0° Ω 0° ጤ 18° ጤ51'09 13° ጤ45'01 11° ጤ28'28 10° ጤ52'54 4° ጤ24'39 0° ґ 0° ґ 1° ♂58'26 0° ≈ 0° ዧ 25° ዧ21'48 0° Υ | -2.4m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°円 22°用44'33 16°用06'12 15°用34'34 13°用08'38 | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 | 0° Ω 0° ጤ 18° ጤ51'09 13° ጤ45'01 11° ጤ28'28 10° ጤ52'54 4° ጤ24'39 0° ґ 0° ґ 1° ♂58'26 0° ≈ 0° ዧ 25° ዧ21'48 0° Υ | -2.4m 6°00'47 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 | 8°云22'55 22°云13'26 0°※ 9°※35'07 16°※05'18 0°升 0°升 0°出 22°Ⅱ44'33 16°Ⅲ06'12 15°Ⅲ34'34 13°Ⅲ08'38 7°Ⅲ57'39 20°Ⅲ40'34 0°© | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 | 0° ₽ 0° M 18° M51'09 13° M45'01 11° M28'28 10° M52'54 4° M24'39 0° ⊀ 0° ∀ 1° ₹58'26 0° ≈ 0° ¥ 25° ¥21'48 0° Υ 11° Υ18'25 | -2.4m 6°00'47 2.62648 AU |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°升 22°Ⅱ44'33 16°Ⅱ06'12 15°Ⅱ34'34 13°Ⅱ08'38 7°Ⅱ57'39 20°Ⅱ40'34 0°ᢒ 0°Ω | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 1° ♂ 58'26 0° ≈ 0° ℋ 25° ℋ 21'48 0° ♈ 11° ♈ 18'25 | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 | 8°云22'55 22°云13'26 0°※ 9°※35'07 16°※05'18 0°升 0°升 0°出 22°Ⅱ44'33 16°Ⅲ06'12 15°Ⅲ34'34 13°Ⅲ08'38 7°Ⅲ57'39 20°Ⅲ40'34 0°© | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 558'26 0° ≈ 0° ጕ 25° ጕ 21'48 0° ጕ 11° ጕ 18'25 24° ጕ 37'02 24° ጕ 36'19 | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 | 8°522'55 22°513'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°Υ 0°Β 0°Π 22°Π44'33 16°Π06'12 15°Π34'34 13°Π08'38 7°П57'39 20°П40'34 0°♀ 0°Ω 0°™ 0°₽ | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 558'26 0° ≈ 0° ጕ 25° ጕ 21'48 0° ጕ 11° ጕ 18'25 24° ጕ 37'02 24° ጕ 36'19 0° ♂ | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°出 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 20°用40'34 0°© 0°れ 0°の | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 May 25 02:45 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 558'26 0° ≈ 0° भ 25° भ 21'48 0° Υ 11° Υ 18'25 24° Υ 37'02 24° Υ 36'19 0° ႘ 26° ႘ 20'32 | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Jun 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 | 8° ₹22'55 22° ₹13'26 0° ≈ 9° ≈35'07 16° ≈05'18 0° ¥ 0° ¥ 0° ¶ 22° ¶44'33 16° ¶06'12 15° ¶34'34 13° ¶08'38 7° ¶57'39 20° ¶40'34 0° ♀ 0° ₽ 0° № 0° № | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 558'26 0° ≈ 0° ጕ 25° ጕ 21'48 0° ጕ 11° ጕ 18'25 24° ጕ 37'02 24° ጕ 36'19 0° ♂ | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Apr 18 02:48 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 | 8°\overline{22'55} 22°\overline{313'26} 0°\overline{22'\overline{313'07} 16°\overline{305'18} 0°\overline{40'31} 0°\overline{40'33} 16°\overline{12} 15°\overline{134'34} 13°\overline{134'34} 13°\overline{134'34} 0°\overline{30'\overline{40'34}} 0°\overline{40'34} 0°\overline{40'\overline{40'34}} 0°\overline{40'\overline{40'34}} 0°\overline{40'\overline{40'34}} 0°\overline{40'\overline{40'\overline{40'34}} 0°40'\overline{40'\overline | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ¾ 0° ⅓ 0° ⅓ 1° ♂ 58'26 0° ≈ 0° ዧ 25° ዧ 21'48 0° ♈ 11° ♈ 18'25 24° ♈ 36'19 0° ੴ 26° ♂ 20'32 0° Ⅲ 0° © | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Jun 02 14:11 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 | 8° ₹22'55 22° ₹13'26 0° ≈ 9° ≈35'07 16° ≈05'18 0° ¥ 0° ¥ 0° ¥ 0° \$\mathbb{I}\$ 22° \$\mathbb{I}\$ 44'33 16° \$\mathbb{I}\$ 06'12 15° \$\mathbb{I}\$ 34'34 13° \$\mathbb{I}\$ 08'38 7° \$\mathbb{I}\$ 57'39 20° \$\mathbb{I}\$ 40'34 0° \$\mathbb{O}\$ 0° \$\m | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 58'26 0° ≈ 0° 升 25° 升 21'48 0° Υ 11° Υ 18'25 24° Υ 37'02 24° Υ 36'19 0° ႘ 26° ႘ 20'32 0° Π | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Apr 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 | 8° ₹22'55 22° ₹13'26 0° ≈ 9° ≈35'07 16° ≈05'18 0° ¥ 0° Y 0° ¥ 0° II 22° II 44'33 16° II 06'12 15° II 34'34 13° II 08'38 7° II 57'39 20° II 40'34 0° © 0° II | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 | 0° Ω 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ፟ጾ' 0° ኧ' 0° ኧ' 1° ኧ 58'26 0° ፟፠ 25° ዧ 21'48 0° ♈ 11° ♈ 18'25 24° ♈ 37'02 24° ♈ 36'19 0° ኧ 26° ኧ 20'32 0° ፟ ጠ 0° ፟ 0° ፟ Ω | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 18:24 | 8° 322'55 22° 313'26 0° ≈ 9° ≈ 35'07 16° ≈ 05'18 0° ¥ 0° Y 0° 8 0° II 22° II44'33 16° II06'12 15° II34'34 13° II08'38 7° II 57'39 20° II 40'34 0° © 0° II 0° № 0° II 0° № 15° 34'2'15 0° ≈ 01'57 | 0°31'39 2.61689 AU -4°29'26 -2.3m | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 11761 Sep 29 00:12 | 0° \(\Omega\) 0° \(\Omega\) 18° \(\Omega\) 13° \(\Omega\) 11° \(\Omega\) 28' 228 10° \(\Omega\) 0° \(\Z^*\) 0° \(\Z^*\) 0° \(\Z^*\) 25° \(\X\) 25° \(\X\) 24° \(\Y\) 37'02 24° \(\Y\) 36'19 0° \(\Z^*\) 26° \(\Z\) 20° \(\II\) 0° \(\S^*\) 0° \(\Z\) 0° \(\II\) 0° \(\S^*\) 0° \(\R\) 0° \(\Omega\) 0° \(\R\) 0° \(\Omega\) | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 18:24 | 8° 322'55 22° 313'26 0° ≈ 9° ≈ 35'07 16° ≈ 05'18 0° ¥ 0° Y 0° 8 0° II 22° II44'33 16° II06'12 15° II34'34 13° II08'38 7° II 57'39 20° II 40'34 0° © 0° II 0° № 0° II 0° № 15° 34'2'15 0° ≈ 01'57 | 0°31'39 2.61689 AU -4°29'26 -2.3m 0.46723 AU | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Apr 08 11:31 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 11761 Sep 29 00:12 11761 Oct 11 05:05 | 0° \(\Omega\) 0° \(\Omega\) 18° \(\Omega\) 13° \(\Omega\) 11° \(\Omega\) 28' 22' 34' \(\Omega\) 0° \(\Omega\) 0° \(\Omega\) 0° \(\Omega\) 0° \(\Omega\) 25° \(\Omega\) 25° \(\Omega\) 24° \(\Omega\) 37'02 20° \(\Omega\) 0° \(\Omega\) | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node evening set desc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 18:24 11757 Jan 03 17:12 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°出 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 20°用40'34 0°⑤ 0°凡 0°ᡣ 0°ふ 0°爪 0°ふ 15°云42'15 0°≈01'57 | 0°31'39 2.61689 AU -4°29'26 -2.3m 0.46723 AU | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 11761 Sep 29 00:12 11761 Oct 11 05:05 11761 Nov 07 01:20 | 0° \(\Omega\) 0° \(\Omega\) 18° \(\Omega\) 13° \(\Omega\) 11° \(\Omega\) 28' 22' 39 0° \(\Zama\) 0° \(\Zama\) 0° \(\Zama\) 0° \(\Zama\) 25° \(\Xama\) 25° \(\Xama\) 25° \(\Xama\) 24° \(\Yama\) 37'02 24° \(\Yama\) 36' \(\Yama\) 26° \(\Xama\) 26° \(\Xama\) 26° \(\Xama\) 0° \(\Omega\) | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node evening set desc. node | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 18:24 11757 Jan 03 17:12 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°升 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 20°用40'34 0°⑤ 0°凡 0°ᡣ 0°ふ 0°爪 0°ぶ 15°云42'15 0°≈01'57 0°≈ | 0°31'39 2.61689 AU -4°29'26 -2.3m 0.46723 AU | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Sep 29 00:12 11761 Oct 11 05:05 11761 Nov 07 01:20 11761 Dec 17 01:11 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ¾ 0° ♂ 1° ♂ 558'26 0° ※ 0° ¥ 25° ¥ 21'48 0° Ŷ 11° Ŷ 18'25 24° Ŷ 36'19 0° ₺ 26° ₺ 20'32 0° M 0° ₱ 9° ₱ 23'24 0° ₽ 0° M | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node evening set desc. node conjunction minimum elong | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 18:24 11757 Jan 03 17:12 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°升 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 20°用40'34 0°⑤ 0°凡 0°ᡣ 0°ふ 0°爪 0°ぶ 15°云42'15 0°≈01'57 0°≈ 15°≈37'35 15°≈36'56 | 0°31'39 2.61689 AU -4°29'26 -2.3m 0.46723 AU | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 11761 Sep 29 00:12 11761 Nov 07 01:20 11761 Dec 17 01:11 11762 Jan 29 03:01 | 0° \(\Omega\) 0° \(\Omega\) 18° \(\Omega\) 13° \(\Omega\) 11° \(\Omega\) 28' 28' 10° \(\Omega\) 0° \(\Z\) 0° \(\Z\) 0° \(\Z\) 0° \(\Z\) 25° \(\Z\) 24° \(\Y\) 37'02 24° \(\Y\) 36'19 0° \(\Z\) 26° \(\Z\) 26° \(\Z\) 20° \(\Umathred\) 0° \(\Omega\) | -2.4m 6°00'47 2.62648 AU -1°08'46 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node evening set desc. node conjunction minimum elong behind sun begin | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 18:24 11757 Jan 03 17:12 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°升 0°出 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 20°用40'34 0°⑤ 0°凡 0°ふ 0°ふ 0°ふ 15°云42'15 0°≈01'57 0°≈ 15°≈37'35 15°≈36'56 15°≈18'06 15°≈55'47 | 0°31'39 2.61689 AU -4°29'26 -2.3m 0.46723 AU | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise asc. node | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Mar 19 06:28 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 11761 Sep 29 00:12 11761 Oct 11 05:05 11761 Nov 07 01:20 11761 Dec 17 01:11 11762 Jan 29 03:01 11762 Mar 23 18:05 | 0° \(\Omega\) 0° \(\Omega\) 18° \(\Omega\) 13° \(\Omega\) 11° \(\Omega\) 28' 28' 10° \(\Omega\) 0° \(\Z\) 0° \(\Z\) 0° \(\Z\) 0° \(\Z\) 25° \(\Z\) 24° \(\Y\) 36'19 0° \(\Z\) 24° \(\Y\) 36'19 0° \(\Z\) 26° \(\Z\) 20° \(\Z\) 0° \(\Z\) 0° \(\Omega\) 0° \(\Z\) 0° \(\Omega\) | -2.4m 6°00'47 2.62648 AU -1°08'46 1°09'02 |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. direct asc. node evening set desc. node conjunction minimum elong behind sun begin behind sun end | 11754 Dec 21 02:18 11755 Jan 11 01:53 11755 Jan 23 00:36 11755 Feb 06 21:44 11755 Feb 17 02:05 11755 Mar 11 02:25 11755 Apr 28 15:02 11755 Apr 28 15:02 11755 Aug 12 14:11 11755 Oct 25 12:10 11755 Nov 28 04:54 11755 Nov 29 18:19 11755 Dec 06 23:57 11756 Jan 04 03:15 11756 Feb 19 08:14 11756 Mar 07 18:24 11756 Apr 22 12:45 11756 Jun 02 14:11 11756 Jul 12 23:03 11756 Aug 23 04:48 11756 Oct 05 00:36 11756 Nov 18 14:54 11756 Dec 12 14:15 11757 Jan 03 17:12 11757 Jan 28 03:30 11757 Jan 28 03:30 11757 Jan 28 03:06 11757 Jan 27 15:16 11757 Jan 27 15:16 | 8°云22'55 22°云13'26 0°≈ 9°≈35'07 16°≈05'18 0°升 0°升 0°升 0°出 22°用44'33 16°用06'12 15°用34'34 13°用08'38 7°用57'39 20°用40'34 0°⑤ 0°凡 0°ふ 0°ふ 0°ふ 15°云42'15 0°≈01'57 0°≈ 15°≈37'35 15°≈36'56 15°≈18'06 15°≈55'47 | 0°31'39 2.61689 AU -4°29'26 -2.3m 0.46723 AU -0°13'05 0°12'28 | retrograde min. Earth dist. greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise asc. node | 11759 Dec 06 17:39 11760 Jan 22 20:18 11760 Mar 19 23:16 11760 Apr 16 04:23 11760 Apr 22 20:09 11760 Apr 24 13:26 11760 May 26 19:39 11760 Aug 12 07:01 11760 Oct 05 14:10 11760 Oct 08 23:49 11760 Nov 25 06:00 11761 Jan 13 07:12 11761 Feb 22 13:55 11761 Mar 01 19:33 11761 Apr 08 11:31 11761 Apr 08 11:05 11761 Apr 16 13:03 11761 Apr 16 13:03 11761 May 25 02:45 11761 May 30 08:30 11761 Jul 11 07:23 11761 Aug 20 16:36 11761 Sep 29 00:12 11761 Oct 11 05:05 11761 Nov 07 01:20 11761 Dec 17 01:11 11762 Jan 29 03:01 11762 Mar 23 18:05 11762 May 04 20:19 | 0° ₽ 0° M 18° M 51'09 13° M 45'01 11° M 28'28 10° M 52'54 4° M 24'39 0° ♂ 0° ♂ 1° ♂ 558'26 0° ≈ 0° भ 25° भ 21'48 0° Υ 11° Υ 18'25 24° Υ 36'19 0° ८ 26° ८ 20'32 0° M 0° M 9° M 23'24 0° ₽ 0° M 0° ™ 9° M 23'24 0° ₽ 10° ♂ 10° ♂ 10° ♂ 10° ♂ 10° ♂ 10° ♂ 10° ♂ 10° ♂ 10° ♂ 10° ♂ | -2.4m 6°00'47 2.62648 AU -1°08'46 1°09'02 |

| morning rise | 11772 Feb 28 17:45 | 0°) 46′33 | | direct | 11777 Jul 01 12:08 | 5° ∡ ¹41'36 | |
|---------------------|--|---------------------|----------------|---------------------|--|--------------------------------------|------------|
| | 11772 Apr 15 05:23 | 0 ° Υ | | desc. node | 11777 Sep 12 18:04 | 28° ₮ 08'43 | |
| | 11772 Jun 02 11:36 | $6^{\circ}B$ | | | 11777 Sep 16 13:14 | 0°₹ | |
| | 11772 Jul 21 16:43 | $\Pi^{\circ}0$ | | | 11777 Nov 11 07:31 | 0° ≈ ≈ | |
| | 11772 Sep 11 18:40 | 0° © | | | 11778 Jan 01 03:42 | 0° ∀ | |
| | 11772 Nov 25 07:44 | 0°N | | | 11778 Feb 18 07:10 | 0° Υ | |
| retrograde | 11772 Dec 07 19:50 | 0° Ω 57'24 | | evening set | 11778 Mar 17 05:44 | 17° Y ′28′29 | |
| retrograde | 11772 Dec 07 17:30 11772 Dec 20 04:31 | 30°RS | | max. Earth dist. | 11778 Apr 04 19:23 | 29° Y '49'53 | 2.56962 AU |
| : | | | 1900122 | max. Earm dist. | • | | 2.30902 AU |
| opposition | 11773 Jan 07 09:00 | 25°5541'58 | | | 11778 Apr 05 01:24 | 0°8 | |
| greatest brilliancy | 11773 Jan 07 17:13 | 25°536'05 | | | | | |
| min. Earth dist. | 11773 Jan 13 06:48 | 24° © 01'06 | 0.38823 AU | conjunction | 11778 May 03 10:04 | 19° 8 23'59 | |
| asc. node | 11773 Jan 23 02:53 | 21° © 32'59 | | minimum elong | 11778 May 03 10:49 | 19° 8 25'18 | 1°07'23 |
| direct | 11773 Feb 08 11:33 | 19° © 43'06 | | | 11778 May 18 12:41 | Π °0 | |
| | 11773 Mar 21 07:27 | $0^{\circ}\Omega$ | | morning rise | 11778 Jun 24 00:45 | 26° Ⅲ 22'34 | |
| | 11773 May 12 08:23 | 0° m y | | | 11778 Jun 28 22:26 | 0 \circ \odot | |
| | 11773 Jun 25 14:37 | 0∘ ত | | | 11778 Aug 07 16:42 | $0^{\circ}\Omega$ | |
| | 11773 Aug 08 03:49 | 0° M . | | asc. node | 11778 Sep 14 15:29 | 29° Ω 23'58 | |
| | 11773 Sep 21 14:27 | 0° ∡ ¹ | | | 11778 Sep 15 09:57 | 0° m) | |
| | 11773 Nov 06 07:50 | ರ°0 | | | 11778 Oct 23 20:59 | 0∘ <mark>⊽</mark> | |
| desc. node | 11773 Dec 08 07:07 | 20° පි 32'51 | | | 11778 Dec 02 01:46 | 0°M₊ | |
| desc. node | 11773 Dec 23 03:06 | 0° ≈ | | | 11779 Jan 12 08:17 | 0° ∡ 7 | |
| evening set | 11774 Jan 05 00:06 | 8°≈10'35 | | | 11779 Feb 27 02:37 | 0°ਰ | |
| evening set | 11774 Feb 08 10:52 | 0° ∺ | | | | 0°≈ | |
| E 41 E 4 | | | 2 (0255 AII | . 1 | 11779 Apr 30 21:14 | | |
| max. Earth dist. | 11774 Feb 16 08:59 | 3° X 01'14 | 2.68355 AU | retrograde | 11779 May 27 14:49 | 4°≈14'09 | |
| | | 50 \ | | | 11779 Jun 21 16:25 | 30°₹ ⋜ | |
| conjunction | 11774 Feb 18 17:48 | 6° ∺ 31'18 | | min. Earth dist. | 11779 Jul 02 23:29 | 25° ප් 51'18 | 0.63803 AU |
| minimum elong | 11774 Feb 18 16:50 | 6° ¥ 29'46 | 0°36'28 | opposition | 11779 Jul 07 01:16 | 24° る 14'29 | 0°56'31 |
| | 11774 Mar 27 15:23 | 0° Υ | | greatest brilliancy | 11779 Jul 06 22:07 | 24° る 17'36 | -1.5m |
| morning rise | 11774 Apr 03 00:05 | 4° Υ ′04'11 | | desc. node | 11779 Aug 01 01:19 | 16° る 23'54 | |
| | 11774 May 13 04:33 | 0° 8 | | direct | 11779 Aug 15 02:23 | 15° る 08'48 | |
| | 11774 Jun 27 19:57 | Π \circ 0 | | | 11779 Oct 12 01:57 | 0° ≈ | |
| | 11774 Aug 11 12:27 | 0 \circ \odot | | | 11779 Dec 10 11:32 | 0° ∀ | |
| | 11774 Sep 24 11:03 | $0^{\circ}\Omega$ | | | 11780 Jan 29 23:49 | 0 ° Υ | |
| | 11774 Nov 07 11:29 | 0° m ∕ | | | 11780 Mar 16 08:25 | $_{0\circ}$ 8 | |
| asc. node | 11774 Dec 11 05:22 | 21° m 51'33 | | evening set | 11780 Apr 28 06:19 | 29° 8 43'45 | |
| | 11774 Dec 24 22:26 | 0∘ ⊽ | | | 11780 Apr 28 15:25 | $\Pi^{\circ}0$ | |
| retrograde | 11775 Feb 25 14:35 | 21° - 42'51 | | max. Earth dist. | 11780 May 12 04:10 | 9° Ⅱ 45'37 | 2.44225 AU |
| min. Earth dist. | 11775 Mar 23 07:59 | 17° ≏ 20'38 | 0.39674 AU | | 11780 Jun 08 12:24 | 0°95 | |
| greatest brilliancy | 11775 Mar 28 20:20 | 15° ≏ 40'51 | -2.8m | | | | |
| opposition | 11775 Mar 30 09:09 | 15° ≏ 12'46 | | conjunction | 11780 Jun 23 13:20 | 11° 5 24'03 | -0°26'48 |
| direct | 11775 Apr 29 16:09 | 9° Ω 43'14 | 0 11 10 | minimum elong | 11780 Jun 23 15:18 | 11° © 27'50 | |
| direct | 11775 Jul 03 19:28 | 0°M. | | minimum ciong | 11780 Jul 17 15:40 | 0° Ω | 0 27 33 |
| | 11775 Aug 26 20:44 | 0° ∡ 7 | | asc. node | 11780 Aug 01 07:47 | 11° Ω 28'35 | |
| | 11775 Aug 20 20:44 11775 Oct 15 20:49 | 0° ਠ | | asc. node | 11780 Aug 01 07:47 | 0° m) | |
| daga mada | 11775 Oct 15 20:49 11775 Oct 26 10:25 | 6° る 25'47 | | mamina riaa | Č | | |
| desc. node | | | | morning rise | 11780 Aug 30 10:50 | 4° Mp 27'09 | |
| | 11775 Dec 03 21:48 | 0° ≈ | | | 11780 Oct 01 20:31 | 0∘ 亚 | |
| | 11776 Jan 21 06:22 | 0° ∀ | | | 11780 Nov 09 15:39 | 0° M | |
| evening set | 11776 Feb 09 16:59 | 12°) 14′02 | | | 11780 Dec 20 03:13 | 0° ∡ | |
| | 11776 Mar 08 13:42 | 0° Υ | | | 11781 Feb 01 08:09 | 0°ප | |
| max. Earth dist. | 11776 Mar 09 22:05 | 0° 'Y '52'06 | 2.65298 AU | | 11781 Mar 21 02:33 | 0° ≈ | |
| | | | | | 11781 May 20 21:00 | 0° ∀ | |
| conjunction | 11776 Mar 24 22:44 | 10° Ƴ 35'44 | | desc. node | 11781 Jun 18 03:27 | 7° ∺ 24'30 | |
| minimum elong | 11776 Mar 24 21:52 | 10° Ƴ 34'19 | 1°04'03 | retrograde | 11781 Jun 29 22:33 | 8°) 14′30 | |
| | 11776 Apr 23 10:03 | 0° 8 | | | 11781 Aug 05 18:03 | 30° ₹ ≈ | |
| morning rise | 11776 May 08 18:39 | 10° 8 18'01 | | opposition | 11781 Aug 09 15:04 | 28° ≈ 28′23 | -1°48'27 |
| | 11776 Jun 06 13:55 | Π° 0 | | min. Earth dist. | 11781 Aug 09 08:00 | 28° ≈ 35'22 | 0.68302 AU |
| | 11776 Jul 19 01:04 | 0°© | | greatest brilliancy | 11781 Aug 09 13:40 | 28° ≈ 29'45 | -1.3m |
| | 11776 Aug 29 00:21 | $0^{\circ}\Omega$ | | direct | 11781 Sep 19 17:35 | 18° ≈ 40'43 | |
| | 11776 Oct 07 22:41 | 0° m) | | | 11781 Nov 07 21:43 | 0°) € | |
| asc. node | 11776 Oct 27 23:33 | 15° m 09'59 | | | 11782 Jan 06 20:48 | 0° Υ | |
| | 11776 Nov 16 16:14 | 0∘ ⊽ | | | 11782 Feb 24 09:31 | 0°8 | |
| | 11776 Dec 27 18:27 | 0° m . | | | 11782 Apr 09 04:14 | 0°II | |
| | 11770 Dec 27 18.27 11777 Feb 12 00:14 | 0° ⊼ ¹ | | | 11782 Apr 09 04.14 11782 May 19 22:43 | 0°© | |
| retrograde | 11777 Apr 18 16:40 | 22° ∡ ¹49'40 | | asc. node | 11782 Jun 19 03:08 | 23° © 12'38 | |
| min. Earth dist. | 11777 Apr 18 10.40 11777 May 19 13:37 | | 0.53121 AU | evening set | 11782 Jun 19 03:08 11782 Jun 26 20:49 | 23 3 12 38 29° 5 15'38 | |
| | • | | | evening set | | 29° ω 15'38 | |
| greatest brilliancy | 11777 May 26 00:46 | 13° 🗷 52'20 | -2.0m | | 11782 Jun 27 19:27 | | |
| opposition | 11777 May 27 03:00 | 13° ∡ ′27′30 | 4-14 <i>22</i> | | 11782 Aug 04 18:00 | 0° m) | |
| | | | | | | | |

| conjunction minimum elong | 11782 Sep 06 06:26 11782 Sep 06 02:32 11782 Sep 11 16:49 | 25° m/43'57 25° m/36'17 0° <u>∩</u> | 0°50'37 0°50'26 | retrograde | 11787 Aug 03 07:19 11787 Oct 07 21:55 11787 Nov 09 04:04 | 0°Ⅱ 0°© 5°©35'13 | |
|-----------------------------------|--|---|--------------------|---------------------|--|-----------------------------------|------------|
| | 11782 Oct 20 12:58 | 0° M. | | S | 11787 Dec 09 23:31 | 30° Ŗ Ⅱ | |
| max. Earth dist. | 11782 Oct 29 07:46 | 6° ™ 37'45 | 2.39400 AU | opposition | 11787 Dec 11 17:36 | 29° Ⅱ 26′24 | -3°40'19 |
| morning rise | 11782 Nov 15 14:03 | 19° M 27'59 | | greatest brilliancy | 11787 Dec 13 00:31 | 29° Ⅱ 01'27 | -2.5m |
| | 11782 Nov 30 00:52 | 0° ∡ ¹ | | min. Earth dist. | 11787 Dec 20 02:29 | 26° Ⅱ 45'29 | 0.43632 AU |
| | 11783 Jan 11 19:20 | 0°ප | | direct | 11788 Jan 16 03:02 | 21° Ⅱ 59'38 | |
| | 11783 Feb 26 11:09 | 0° ≈ | | asc. node | 11788 Feb 09 17:01 | 26° Ⅱ 02'25 | |
| | 11783 Apr 17 06:43 | 0° \ | | | 11788 Feb 20 14:11 | 0°9 | |
| desc. node | 11783 May 05 22:37 | 10° ¥ 15'15 0° Υ | | | 11788 Apr 13 17:14 | 0° N | |
| rotro aro do | 11783 Jun 16 21:33 11783 Aug 04 00:07 | 10° Υ 55'49 | | | 11788 May 26 12:01 11788 Jul 06 18:01 | 0 ்⊽ 0 ்மி | |
| retrograde opposition | 11783 Aug 04 00.07 11783 Sep 12 15:07 | 10 γ 33 49 1° γ 47'07 | 2056124 | | 11788 Aug 17 13:45 | 0° M | |
| greatest brilliancy | 11783 Sep 12 13.07 11783 Sep 13 01:23 | 1° Υ 37'07 | | | 11788 Sep 29 20:04 | 0° ⊼ | |
| min. Earth dist. | 11783 Sep 16 04:18 | 0° Υ 24'11 | 0.66152 AU | | 11788 Nov 13 17:45 | 0°ਤ | |
| | 11783 Sep 17 05:18 | 30° Ŗ ₩ | | evening set | 11788 Dec 21 07:37 | 24° ට 24'14 | |
| direct | 11783 Oct 24 06:48 | 21°) 44'08 | | desc. node | 11788 Dec 24 20:56 | 26° ප් 41'19 | |
| | 11783 Dec 03 06:26 | 0 ° Υ | | | 11788 Dec 30 00:49 | 0° ≈ | |
| | 11784 Jan 31 21:27 | 9° 8 | | | | | |
| | 11784 Mar 17 23:08 | Π °0 | | conjunction | 11789 Feb 05 01:37 | 23° ≈ 36′16 | -0°22'19 |
| | 11784 Apr 28 08:44 | 0 | | minimum elong | 11789 Feb 05 00:58 | 23° ≈ 35′13 | 0°21'46 |
| asc. node | 11784 May 06 04:44 | 5° © 55'02 | | max. Earth dist. | 11789 Feb 07 17:29 | | 2.68052 AU |
| | 11784 Jun 06 09:14 | 0° Q | | | 11789 Feb 15 03:35 | 0° ∀ | |
| | 11784 Jul 14 10:03 | 0° m) | | morning rise | 11789 Mar 20 14:59 | 21° ¥ 13'04 0° Ƴ | |
| avanina aat | 11784 Aug 21 13:36 | 0∘ ⊽ | | | 11789 Apr 03 11:04 | 0 ₀ გ | |
| evening set | 11784 Sep 10 13:25 11784 Sep 29 17:49 | 15° ჲ 26'41 0° ጤ | | | 11789 May 20 12:27 11789 Jul 06 03:40 | 0°II | |
| | 11784 Nov 09 15:09 | 0° √ | | | 11789 Jul 00 03:40 | 0°ಅ | |
| | 11/04/10/ 07 13:07 | · ^ | | | 11789 Oct 07 08:14 | 0°Ω | |
| conjunction | 11784 Nov 12 22:45 | 2° ∡ °22'12 | 0°59'56 | | 11789 Nov 26 21:41 | 0° m) | |
| minimum elong | 11784 Nov 13 00:25 | 2° × ⁷ 25'10 | 1°00'35 | asc. node | 11789 Dec 27 20:52 | 14° m) 10'15 | |
| max. Earth dist. | 11784 Dec 19 06:09 | 27° х 42′10 | 2.53374 AU | retrograde | 11790 Jan 28 00:35 | 20° m 12'45 | |
| | 11784 Dec 22 15:04 | ರ∘ರ | | min. Earth dist. | 11790 Feb 24 11:29 | 15° m 46'49 | 0.36679 AU |
| morning rise | 11785 Jan 06 15:40 | 10° る 07'43 | | opposition | 11790 Feb 27 07:05 | 15° m 01'16 | 4°28'51 |
| | 11785 Feb 05 21:01 | 0° ≈ | | greatest brilliancy | 11790 Feb 26 17:36 | 15° My $10'22$ | -3.0m |
| desc. node | 11785 Mar 22 13:11 | 28° ≈ 12'48 | | direct | 11790 Mar 28 09:19 | 10° m 09'42 | |
| | 11785 Mar 25 10:56 | 0° ∀ | | | 11790 May 29 19:07 | 0∘ ⊽ | |
| | 11785 May 15 01:53 | 0° Υ | | | 11790 Jul 20 13:22 | 0° M ○ 3. 3 | |
| rotro aro do | 11785 Jul 11 22:09 | 0° と 17° と 16'05 | | | 11790 Sep 06 13:57 | 0°る | |
| retrograde | 11785 Sep 13 04:01 11785 Oct 20 07:08 | 9° 8 12'27 | 5010102 | desc. node | 11790 Oct 24 07:10 11790 Nov 11 22:01 | 0°る 11° る 39'47 | |
| opposition greatest brilliancy | 11785 Oct 20 07:08 | 8° 8 43'11 | | desc. node | 11790 Nov 11 22.01 11790 Dec 11 05:40 | 0°≈ | |
| min. Earth dist. | 11785 Oct 27 13:41 | . • | 0.57376 AU | evening set | 11790 Dec 11 03:40 11791 Jan 26 23:30 | 0 ∞ 29°≈18'12 | |
| min. Bartii digt. | 11785 Nov 21 19:49 | 30°RY | 0.07370110 | evening see | 11791 Jan 28 02:03 | 0° ∀ | |
| direct | 11785 Nov 29 14:18 | 29° Y ′35'33 | | max. Earth dist. | 11791 Mar 02 03:06 | | 2.67164 AU |
| | 11785 Dec 07 11:34 | 0°8 | | | | | |
| | 11786 Feb 18 18:27 | $\Pi^{\circ}0$ | | conjunction | 11791 Mar 12 01:06 | 27° ¥ 16'41 | -0°55'41 |
| asc. node | 11786 Mar 24 11:18 | 22° Ⅱ 04'38 | | minimum elong | 11791 Mar 12 00:02 | 27° ¥ 14'58 | 0°55'33 |
| | 11786 Apr 04 16:22 | 0ಂತಾ | | | 11791 Mar 16 06:54 | 0° Υ | |
| | 11786 May 14 23:40 | $0^{\circ}\Omega$ | | morning rise | 11791 Apr 24 19:13 | 25° Y 40'47 | |
| | 11786 Jun 22 18:25 | 0° m) | | | 11791 May 01 08:24 | 0°B | |
| | 11786 Jul 31 14:20 | 0∘ 亚 | | | 11791 Jun 14 23:38 | 0°II | |
| | 11786 Sep 09 12:25 11786 Oct 21 04:23 | 0°M√ 0°⊀ | | | 11791 Jul 28 03:08 | 0 ಂ Ω | |
| evening set | 11786 Oct 21 04.23 11786 Nov 09 02:46 | 0 x . 13° ∡ 10'51 | | | 11791 Sep 07 21:53 11791 Oct 18 18:30 | 0° m p | |
| evening set | 11786 Dec 03 20:00 | 0°る | | asc. node | 11791 Nov 14 19:48 | 19° m 54'06 | |
| | | . • | | | 11791 Nov 28 17:22 | 0ಂ ರ | |
| conjunction | 11786 Dec 30 08:32 | 17° る 37'06 | 0°20'56 | | 11792 Jan 11 07:18 | 0° M ₊ | |
| minimum elong | 11786 Dec 30 09:20 | 17° る 38'26 | | | 11792 Mar 12 11:07 | 0° ⊼ ¹ | |
| max. Earth dist. | 11787 Jan 16 17:55 | 28° る 57'55 | 2.63414 AU | retrograde | 11792 Mar 31 12:25 | 2° ∡ ³32'51 | |
| | 11787 Jan 18 08:14 | 0° ≈ | | | 11792 Apr 19 04:22 | 30°RM₊ | |
| desc. node | 11787 Feb 07 02:43 | 12° ≈ 43′21 | | min. Earth dist. | 11792 Apr 28 22:50 | 26°M57'10 | 0.47705 AU |
| morning rise | 11787 Feb 15 00:15 | 17°≈45'40 | | greatest brilliancy | 11792 May 05 18:31 | 24°M30'41 | -2.3m |
| | 11787 Mar 06 07:59 | 0°) € | | opposition | 11792 May 07 08:00 | 23°M56'58 | 5°28'44 |
| | 11787 Apr 23 11:43 | 0°Υ 0°¥ | | direct | 11792 Jun 09 17:39 | 16°M58'25 | |
| | 11787 Jun 11 23:24 | 0°B | | | 11792 Jul 31 09:09 | 0°⊀ | |

| | 11792 Sep 28 19:23 | ე∘ჳ | | morning rise | 11797 Oct 19 01:45 | 23° ≏ 08'45 | |
|---|--|---|--|---|--|---|-----------------------------------|
| desc. node | 11792 Sep 28 19.23 11792 Sep 29 04:01 | 0°る12'00 | | morning rise | 11797 Oct 19 01:43 11797 Oct 28 01:08 | 0°M | |
| desc. Hode | 11792 Sep 29 04.01 11792 Nov 19 20:06 | 0°≈ | | | 11797 Oct 28 01:08 11797 Dec 07 11:11 | 0° ⊼ | |
| | 11792 Nov 19 20.06 11793 Jan 08 10:34 | 0 ≈ 0°¥ | | | 11797 Dec 07 11.11 11798 Jan 19 06:39 | 0°중 | |
| | 11793 Jan 08 10.34 11793 Feb 25 03:55 | 0° Υ | | | 11798 Jan 19 00:39 11798 Mar 06 09:35 | 0°≈ | |
| avanina aat | 11793 Feb 23 05.35 11793 Mar 02 15:35 | 0 1 3° Υ 31'41 | | | 11798 Mai 06 09.33 | 0° ₩ | |
| evening set max. Earth dist. | 11793 Mar 02 15:35 11793 Mar 25 00:55 | 18° Y 07'10 | 2.60838 AU | desc. node | | 12° ∺ 27'18 | |
| max. Earth dist. | | 0°8 | 2.00838 AU | | 11798 May 22 15:16 11798 Jul 20 23:30 | 28° H 16'13 | |
| | 11793 Apr 11 21:53 | 0.0 | | retrograde | | | 2011127 |
| | 11702 1 17 02 26 | 20 42 110 7 | 1000126 | opposition | 11798 Aug 30 04:16 | 18°¥50′23 | |
| conjunction | 11793 Apr 17 03:36 | 3° 8 31'27 | | greatest brilliancy | 11798 Aug 30 08:22 | 18°) 46'21 | -1.3m 0.67791 AU |
| minimum elong | 11793 Apr 17 03:32 | 3° 8 31'21 | 1°09'5 / | min. Earth dist. | 11798 Sep 01 05:18 | 18° ¥ 02'15 | 0.67/91 AU |
| | 11793 May 25 14:37 | 0°II | | direct | 11798 Oct 10 19:20 | 8° ¥ 50′01 | |
| morning rise | 11793 Jun 04 04:47 | 6° Ⅱ 46'19 | | | 11798 Dec 19 21:50 | 0° Υ | |
| | 11793 Jul 06 09:07 | 0° © | | | 11799 Feb 10 11:35 | 0° B | |
| | 11793 Aug 15 12:58 | O°O | | | 11799 Mar 27 07:12 | 0°II | |
| | 11793 Sep 23 15:09 | 0° m) | | | 11799 May 07 08:21 | 0°95 | |
| asc. node | 11793 Oct 01 11:42 | 6° Mp 04'48 | | asc. node | 11799 May 23 19:37 | 12° © 33'21 | |
| | 11793 Nov 01 10:16 | 0∘ ⊽ | | | 11799 Jun 15 06:06 | 0 $^{\circ}\Omega$ | |
| | 11793 Dec 11 00:40 | 0° M - | | | 11799 Jul 23 05:00 | 0° m) | |
| | 11794 Jan 22 03:55 | 0° ∡ ¹ | | evening set | 11799 Aug 12 22:27 | 16° m 24'29 | |
| | 11794 Mar 12 03:53 | 0°ಕ | | | 11799 Aug 30 05:38 | 0∘ ಹ | |
| retrograde | 11794 May 13 09:59 | 19° る 40'17 | | greatest brilliancy | 11799 Sep 03 01:53 | 3° ഫ 00'05 | 1.1m |
| min. Earth dist. | 11794 Jun 16 19:04 | 11° る 56'13 | 0.60270 AU | | 11799 Oct 08 05:23 | 0° M ₊ | |
| opposition | 11794 Jun 22 07:45 | 9° る 45'58 | 2°10'13 | | | | |
| greatest brilliancy | 11794 Jun 21 21:49 | 9° る 55'43 | -1.6m | conjunction | 11799 Oct 21 06:18 | 9°M46'24 | 1°06'16 |
| direct | 11794 Jul 30 03:13 | 1° る 05'42 | | minimum elong | 11799 Oct 21 06:31 | 9° M 46'48 | 1°06'41 |
| desc. node | 11794 Aug 17 11:35 | 3° ප 00'16 | | | 11799 Nov 17 21:30 | 0° ∡ ¹ | |
| | 11794 Oct 25 14:15 | 0° ≈ | | max. Earth dist. | 11799 Dec 05 14:19 | 12° ∡ ³35′50 | 2.48140 AU |
| | 11794 Dec 19 01:36 | 0° ∀ | | morning rise | 11799 Dec 20 08:40 | 22° ₹ ′53′18 | |
| | 11795 Feb 06 09:11 | 0 ° Υ | | | 11799 Dec 30 17:24 | 0°₹ | |
| | 11795 Mar 24 10:14 | $_{0\circ}$ 8 | | | 11800 Feb 14 00:04 | 0° ≈ | |
| evening set | 11795 Apr 11 06:40 | 12° 8 09'07 | | | 11800 Apr 03 03:01 | 0°) € | |
| max. Earth dist. | 11795 Apr 25 11:28 | 22° 8 01'46 | 2.49571 AU | desc. node | 11800 Apr 09 06:20 | 3°) € 40′20 | |
| | 11795 May 06 17:54 | Π° 0 | | | 11800 May 25 19:03 | $0^{\circ}\mathbf{\Upsilon}$ | |
| | - | | | | 11800 Aug 06 13:59 | 9° 8 | |
| conjunction | 11795 Jun 01 22:46 | 18° Ⅱ 58'50 | -0°48'51 | retrograde | 11800 Aug 27 23:12 | 2° 8 30'09 | |
| minimum elong | 11795 Jun 02 00:52 | 19° Ⅱ 02'42 | 0°49'36 | • | 11800 Sep 17 00:04 | 30° ₹Ƴ | |
| C | 11795 Jun 16 19:10 | 0ം ഉ | | opposition | 11800 Oct 05 06:49 | 23° Y 56'43 | -4°51'05 |
| | 11795 Jul 26 03:30 | $0^{\circ}\Omega$ | | greatest brilliancy | 11800 Oct 06 05:41 | 23° Ƴ 34'54 | -1.5m |
| morning rise | 11795 Aug 01 08:59 | 4° Ω 50'07 | | min. Earth dist. | 11800 Oct 11 03:57 | 21° Y 42'10 | 0.61562 AU |
| asc. node | 11795 Aug 19 01:44 | 18° Ω 39'53 | | direct | 11800 Nov 15 09:35 | 14° Υ 02'13 | |
| | 11795 Sep 02 11:50 | 0° mp | | | 11801 Jan 10 22:03 | 0°8 | |
| | 11795 Oct 10 15:40 | 0∘ <u>v</u> | | | 11801 Mar 03 11:40 | 0°II | |
| | 11795 Nov 18 12:47 | 0° M , | | asc. node | 11801 Apr 10 23:41 | 26° Ⅱ 50'07 | |
| | 11795 Dec 29 03:53 | 0° ∡ ¹ | | | | 0ංම | |
| | 11796 Feb 10 21:23 | 0°ठ | | | 11001 ADL 13 07.17 | () = 0 | |
| | | | | | 11801 Apr 15 07:17 11801 May 24 20:56 | | |
| retrograde | 11796 Mar 31 19:32 | | | | 11801 May 24 20:56 | $0^{\circ}\Omega$ | |
| | 11796 Mar 31 19:32 11796 Jun 16 18:25 | 0° ≈ | | | 11801 May 24 20:56 11801 Jul 02 05:39 | 0° N 0° m | |
| Č | 11796 Jun 16 18:25 | 0°≈ 25°≈37'12 | | | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 | 0° ₽ 0° ₽ | |
| desc. node | 11796 Jun 16 18:25 11796 Jul 04 17:00 | 0°≈ 25°≈37'12 23°≈30'18 | 0 67306 AU | evening set | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 | 0° ጥ 0° ጥ 0° ™ | |
| desc. node min. Earth dist. | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 | | evening set | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 | 0° N 0° M 0° Ω 0° M 23° M 36'53 | |
| desc. node min. Earth dist. opposition | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 | -0°49'01 | evening set | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 | 0° N 0° M 0° Ω 0° M 23° M 36'53 0° ✓ | |
| desc. node min. Earth dist. opposition greatest brilliancy | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 | -0°49'01 | evening set | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 | 0° N 0° M 0° Ω 0° M 23° M 36'53 | |
| desc. node min. Earth dist. opposition | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 | -0°49'01 | - | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 | 0°₽ 0°₽ 0°₽ 0°№ 23°№36'53 0°₹ 0°8 | 0°37'53 |
| desc. node min. Earth dist. opposition greatest brilliancy | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0°₩ | -0°49'01 | conjunction | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 | 0°₽ 0°₽ 0°₽ 0°M 23°M36'53 0°₽ 0°₽ | |
| desc. node min. Earth dist. opposition greatest brilliancy | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ℋ 0° Υ | -0°49'01 | conjunction minimum elong | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 | 0°₽ 0°₽ 0°₽ 0°M 23°M36'53 0°₽ 0°B 1°850'59 1°853'28 | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ℋ 0° Υ 0° Υ | -0°49'01 | conjunction | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 | 0°ののである。 0°である。 0°である。 0°である。 0°である。 0°である。 0°である。 1°である。 1°°である。 1 | |
| desc. node min. Earth dist. opposition greatest brilliancy | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 Apr 16 14:54 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ₩ 0° Ψ 0° ₩ 0° Ψ | -0°49'01 | conjunction minimum elong max. Earth dist. | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 | 0°₽ 0°₽ 0°₽ 0°№ 23°№36'53 0°₹ 0°♂ 1°♂55'59 1°♂55'28 17°♂55'58 | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 Apr 16 14:54 11797 May 27 09:31 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ¥ 0° Y 0° ¥ 0° II 0° © | -0°49'01 | conjunction minimum elong max. Earth dist. morning rise | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 | 0° N 0° M 0° এ 0° M 23° M 36'53 0° ౘ 0° ౘ 1° ౘ 50'59 1° ౘ 53'28 17° ౘ 53'58 0° ≈ 4° ≈ 09'39 | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 Apr 16 14:54 11797 May 27 09:31 11797 May 31 19:17 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° भ 0° भ 0° भ 0° 0° 3° 3° \$\mathref{9}20'19 | -0°49'01 | conjunction minimum elong max. Earth dist. | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 | 0°₽ 0°₽ 0°№ 23°№36'53 0°₹ 0°₹ 1°₹50'59 1°₹53'28 17°₹53'28 17°₹53'58 0°≈ 4°≈09'39 19°≈00'10 | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ℋ 0° ℋ 0° ℋ 0° Ⅎ 0° ℿ 0° ℄ 3° ℄ 20'19 0° Ω 23'49 | -0°49'01 | conjunction minimum elong max. Earth dist. morning rise | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 Mar 14 06:42 | 0° N 0° M 0° M 23° M36'53 0° X' 0° S 1° S50'59 1° S53'28 17° S53'58 0° ≈ 4° ≈09'39 19° ≈00'10 0° H | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set asc. node | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 11797 Jul 05 08:02 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ℋ 0° ℋ 0° ℋ 0° Ֆ 0° ℿ 0° ℱ 3° ℱ20'19 0° Ω23'49 0° Ω | -0°49'01 -1.3m | conjunction minimum elong max. Earth dist. morning rise | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 May 14 06:42 11802 May 02 02:16 | 0° N 0° M 0° M 23° M36'53 0° X' 0° S 1° S50'59 1° S53'28 17° S53'58 0° ≈ 4° ≈09'39 19° ≈00'10 0° H 0° Y | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ℋ 0° ℋ 0° ℋ 0° Ֆ 0° ℿ 0° ℱ 3° ℱ20'19 0° Ω23'49 0° Ω | -0°49'01 | conjunction minimum elong max. Earth dist. morning rise | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 May 14 06:42 11802 May 02 02:16 11802 Jun 22 11:22 | 0°ののです。 0°です。 | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set asc. node max. Earth dist. | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 11797 Jul 05 08:02 11797 Jul 12 20:23 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ₩ 0° Ψ 0° Β 0° Π 0° © 3°©20'19 0°Ω23'49 0°Ω 5°Ω53'47 | -0°49'01 -1.3m 2.36680 AU | conjunction minimum elong max. Earth dist. morning rise desc. node | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 Mar 14 06:42 11802 May 02 02:16 11802 Jun 22 11:22 11802 Aug 20 10:49 | 0°ののです。 0°である。 0°がなる。 0°がなる。 0°がなる。 0°がなる。 | 0°38'39 |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set asc. node max. Earth dist. conjunction | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 11797 Jul 05 08:02 11797 Jul 12 20:23 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ¥ 0° Y 0° \$\begin{align*} 0° \$\text{0}\$ 3°\$\text{20'19} 0° \$\text{0}\$ 5°\$\text{0}\$53'47 | -0°49'01 -1.3m 2.36680 AU 0°22'12 | conjunction minimum elong max. Earth dist. morning rise desc. node | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 Mar 14 06:42 11802 May 02 02:16 11802 Jun 22 11:22 11802 Aug 20 10:49 11802 Oct 16 02:42 | 0°ののです。 0°です。 0°可し | 0°38'39 2.60104 AU |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set asc. node max. Earth dist. | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jun 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 11797 Jul 05 08:02 11797 Jul 12 20:23 11797 Aug 06 00:19 11797 Aug 05 21:59 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0°¥ 0°Y 0°8 0°II 0°© 3°©20'19 0°Ω23'49 0°Ω 5°Ω53'47 24°Ω59'31 24°Ω54'55 | -0°49'01 -1.3m 2.36680 AU | conjunction minimum elong max. Earth dist. morning rise desc. node retrograde opposition | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 May 02 02:16 11802 Jun 22 11:22 11802 Aug 20 10:49 11802 Oct 16 02:42 11802 Nov 19 16:25 | 0°ののである。 0°である。 0°がたる。 | 0°38'39 2.60104 AU -4°51'28 |
| desc. node min. Earth dist. opposition greatest brilliancy direct evening set asc. node max. Earth dist. conjunction | 11796 Jun 16 18:25 11796 Jul 04 17:00 11796 Jul 25 17:32 11796 Jul 27 12:12 11796 Jul 27 10:30 11796 Sep 05 23:16 11796 Nov 22 09:05 11797 Jan 15 17:03 11797 Mar 04 02:45 11797 May 27 09:31 11797 May 31 19:17 11797 Jul 05 20:12 11797 Jul 05 08:02 11797 Jul 12 20:23 | 0°≈ 25°≈37'12 23°≈30'18 16°≈24'54 15°≈42'35 15°≈44'15 6°≈08'08 0° ¥ 0° Y 0° \$\begin{align*} 0° \$\text{0}\$ 3°\$\text{20'19} 0° \$\text{0}\$ 5°\$\text{0}\$53'47 | -0°49'01 -1.3m 2.36680 AU 0°22'12 | conjunction minimum elong max. Earth dist. morning rise desc. node | 11801 May 24 20:56 11801 Jul 02 05:39 11801 Aug 09 16:58 11801 Sep 18 06:04 11801 Oct 20 13:58 11801 Oct 29 12:52 11801 Dec 11 20:35 11801 Dec 14 14:18 11801 Dec 14 15:47 11802 Jan 07 16:10 11802 Jan 26 04:24 11802 Feb 01 14:45 11802 Feb 24 19:46 11802 Mar 14 06:42 11802 May 02 02:16 11802 Jun 22 11:22 11802 Aug 20 10:49 11802 Oct 16 02:42 | 0°ののです。 0°です。 0°です。 0°です。 0°です。 23°™36'53 0°ズ 0°です。 1°です。 10°です。 11°です。 11°でする。 11°°でする。 11°°°でする。 11°°°でする。 11°°°でする。 11°°°°でする。 11°°°°°°° | 0°38'39 2.60104 AU -4°51'28 |

| | 11802 Dec 15 14:20 | 30° ₹ 8 | | | 11808 Jan 17 11:44 | 0°) { | |
|------------------------------------|--|---|------------|------------------------------|--|---|------------|
| direct | 11802 Dec 27 14:52 | 28° 8 58'49 | | evening set | 11808 Feb 18 14:31 | 20° 升 12′08 | |
| | 11803 Jan 08 18:44 | Π °0 | | | 11808 Mar 04 22:28 | 0° Υ | |
| asc. node | 11803 Feb 27 07:26 | 19° Ⅱ 35'00 | | max. Earth dist. | 11808 Mar 16 07:41 | 7° Y '20'52 | 2.63940 AU |
| | 11803 Mar 16 15:47 | 0° © | | . ,. | 11000 4 02 02 10 | 18° Ƴ 58'49 | 1007110 |
| | 11803 Apr 29 06:10 11803 Jun 08 12:25 | 0° N 0° m | | conjunction minimum elong | 11808 Apr 03 03:10 11808 Apr 03 02:32 | 18° Y 58'49 | |
| | 11803 Jul 18 09:06 | 0∘ ⊽ رااا | | minimum ciong | 11808 Apr 03 02.32 11808 Apr 19 18:12 | 0° 8 | 1 0/28 |
| | 11803 Aug 28 04:34 | 0°M | | morning rise | 11808 May 18 20:26 | 19° 8 41'34 | |
| | 11803 Oct 09 15:37 | 0° ∡ 7 | | 3 | 11808 Jun 02 18:15 | 0°II | |
| | 11803 Nov 22 22:47 | ರ°0 | | | 11808 Jul 14 23:24 | 0ಂತಾ | |
| evening set | 11803 Dec 07 17:34 | 9° ප් 45'40 | | | 11808 Aug 24 15:11 | $0^{\circ}\Omega$ | |
| | 11804 Jan 07 20:31 | 0° ≈ | | | 11808 Oct 03 05:05 | 0° ™ | |
| desc. node | 11804 Jan 12 11:31 | 2° ≈ 58'40 | | asc. node | 11808 Oct 19 06:52 | 12° m 17'20 | |
| | 11004 \$ 04 01 05 | 100 2424 | 000 (110 | | 11808 Nov 11 12:24 | 0∘ ⊽ | |
| conjunction | 11804 Jan 24 01:27 | 10°≈24'24 | | | 11808 Dec 21 20:23 | 0° M 0° ∡ 7 | |
| minimum elong | 11804 Jan 24 01:15 11804 Jan 23 07:16 | 10°≈24'05 9°≈55'20 | 0°05'39 | | 11809 Feb 03 19:40 | 0° X ' | |
| behind sun begin behind sun end | 11804 Jan 24 19:14 | 9 ≈53 20 10°≈52'50 | | retrograde | 11809 Apr 05 21:53 11809 Apr 29 02:32 | 0 8 3° る 29'41 | |
| max. Earth dist. | 11804 Feb 01 03:43 | 15°≈34'37 | 2.66897 AU | retrograde | 11809 May 21 06:04 | 30°R. ✓ | |
| man. Darun dist. | 11804 Feb 23 20:15 | 0° ∀ | 2.000,7110 | min. Earth dist. | 11809 May 31 06:51 | 26° х 30'47 | 0.55887 AU |
| morning rise | 11804 Mar 08 09:25 | 8°) 34′21 | | greatest brilliancy | 11809 Jun 06 08:34 | 24° √ 10'34 | -1.8m |
| | 11804 Apr 11 08:58 | 0° Y | | opposition | 11809 Jun 07 04:14 | 23° ∡ ′51'35 | 3°28'44 |
| | 11804 May 29 02:56 | 9° 8 | | direct | 11809 Jul 13 12:18 | 15° ∡ °43'41 | |
| | 11804 Jul 16 04:41 | Π °0 | | desc. node | 11809 Sep 03 22:52 | 28° х 36′27 | |
| | 11804 Sep 03 10:45 | 0₀ © | | | 11809 Sep 07 06:38 | 0°ප | |
| | 11804 Oct 27 16:49 | 0°N | | | 11809 Nov 06 02:39 | 0° ≈ | |
| retrograde | 11804 Dec 27 05:29 | 17° Ω 54'38 | | | 11809 Dec 27 23:46 | 0° Υ 0° Υ | |
| asc. node | 11805 Jan 14 13:05 11805 Jan 25 22:45 | 15°Ω48'51 12°Ω58'09 | 0°52'51 | avanina aat | 11810 Feb 14 12:22 11810 Mar 26 23:43 | 26°Υ23'02 | |
| opposition greatest brilliancy | 11805 Jan 26 00:47 | $12^{\circ}\Omega 56'46$ | -3.0m | evening set | 11810 Mai 26 23.43 11810 Apr 01 09:14 | 0° 8 | |
| min. Earth dist. | 11805 Jan 29 05:36 | 12° £ 0040 | 0.37114 AU | max. Earth dist. | 11810 Apr 12 17:35 | | 2.54511 AU |
| direct | 11805 Feb 25 11:42 | 7° Ω 40′26 | 0.57111110 | man zarm uist. | 1101011p1 12 17.50 | , 0.10, | 2.0 .0 |
| | 11805 May 01 04:49 | 0° m | | conjunction | 11810 May 14 10:59 | 29° 8 44'38 | -1°02'25 |
| | 11805 Jun 18 10:21 | 0∘ ⊽ | | minimum elong | 11810 May 14 12:16 | 29° 8 46'55 | 1°03'03 |
| | 11805 Aug 02 14:03 | 0° M | | | 11810 May 14 19:39 | Π °0 | |
| | 11805 Sep 16 22:01 | 0°⊀ | | | 11810 Jun 25 02:54 | 0 \circ \odot | |
| | 11805 Nov 02 04:36 | 0°₹ | | morning rise | 11810 Jul 07 16:37 | 9° 5 24'08 | |
| desc. node | 11805 Nov 29 09:15 | 17° る 21'28 | | , | 11810 Aug 03 17:54 | 0°Ω | |
| ovening set | 11805 Dec 19 07:50 11806 Jan 14 02:57 | 0°≈ 16°2218'03 | | asc. node | 11810 Sep 05 22:06 | 25° Ω 46'06 | |
| evening set | 11806 Feb 04 19:18 | 16°≈18'03 0°) € | | | 11810 Sep 11 07:53 11810 Oct 19 15:51 | 0 ം ச 0 ംம் | |
| max. Earth dist. | 11806 Feb 22 09:39 | | 2.68171 AU | | 11810 Nov 27 16:34 | 0° m | |
| | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | | 11811 Jan 07 14:37 | 0° ∡ 7 | |
| conjunction | 11806 Feb 27 11:43 | 14°) 22'35 | -0°44'33 | | 11811 Feb 21 07:25 | ರ°0 | |
| minimum elong | 11806 Feb 27 10:39 | 14°) €20'53 | 0°44'14 | | 11811 Apr 17 01:56 | 0° ≈ | |
| | 11806 Mar 23 23:41 | 0° Y | | retrograde | 11811 Jun 05 10:22 | 12° ≈ 31'57 | |
| morning rise | 11806 Apr 11 18:39 | 12° Y ′04'53 | | min. Earth dist. | 11811 Jul 12 18:48 | 3° ≈ 49'58 | 0.65319 AU |
| | 11806 May 09 08:17 | 0° 8 | | opposition | 11811 Jul 16 00:46 | 2°≈32'35 | 0°15'58 |
| | 11806 Jun 23 14:04 | 0° Ⅱ | | greatest brilliancy | 11811 Jul 16 00:06 | 2°≈33'14 | -1.4m |
| | 11806 Aug 06 15:22 11806 Sep 18 14:59 | 0 ം ${f v}$ | | desc. node | 11811 Jul 22 13:34 11811 Jul 23 05:16 | 30°Rる 29°る45'20 | |
| | 11806 Oct 31 02:27 | 0°Mp | | direct | 11811 Aug 24 15:14 | 29 3 43 20 23° る 15'14 | |
| asc. node | 11806 Dec 02 12:42 | 22° m) 28'24 | | uncet | 11811 Sep 30 09:49 | 0°≈ | |
| use. Houe | 11806 Dec 13 19:22 | 0∘ ʊ | | | 11811 Dec 05 04:48 | 0°) € | |
| | 11807 Feb 05 02:02 | 0°M | | | 11812 Jan 25 19:25 | $0^{\circ}\Upsilon$ | |
| retrograde | 11807 Mar 12 06:46 | 8°M05'13 | | | 11812 Mar 12 12:18 | 0°B | |
| min. Earth dist. | 11807 Apr 07 15:54 | 3°M21'45 | 0.42299 AU | | 11812 Apr 24 21:12 | $\Pi^{\circ}0$ | |
| greatest brilliancy | 11807 Apr 13 23:45 | 1°M18'12 | -2.6m | evening set | 11812 May 10 13:03 | 11° Ⅱ 18'39 | |
| opposition | 11807 Apr 15 17:24 | 0°M43'58 | 6°15'50 | max. Earth dist. | 11812 May 26 20:25 | 23° Ⅱ 20'39 | 2.41200 AU |
| T | 11807 Apr 17 23:41 | 30°R Ω | | | 11812 Jun 04 17:38 | 0ಂತಾ | |
| direct | 11807 May 17 01:17 | 24° Ω 42'06 | | aamine -4: | 11012 I-1 00 02 57 | 260621102 | 0010120 |
| | 11807 Jun 16 09:15 11807 Aug 19 18:58 | 0° M 0° <i>≯</i> ¹ | | conjunction minimum elong | 11812 Jul 09 02:57 11812 Jul 09 03:56 | 26°\$21'00 26°\$22'55 | |
| | 11807 Aug 19 18.38 11807 Oct 10 20:49 | 0°ਤ | | behind sun begin | 11812 Jul 09 03.36 11812 Jul 08 07:23 | 26 3 22 33 25° 3 42'59 | 0 1104 |
| desc. node | 11807 Oct 17 14:32 | 4°る00'19 | | behind sun end | 11812 Jul 10 00:29 | 27° © 02'53 | |
| | 11807 Nov 29 18:03 | 0°≈ | | | 11812 Jul 13 19:23 | 0° Ω | |
| | | | | | | | |

| asc. node morning rise | 11812 Jul 23 13:17 11812 Aug 20 21:52 11812 Sep 18 15:07 | 7° Ω 37'41 0° Mp 22° Mp 42'20 | | opposition greatest brilliancy min. Earth dist. | 11817 Oct 31 05:28 11817 Nov 01 16:55 11817 Nov 08 04:01 | 19°808'08 18°835'39 | |
|------------------------|--|--|------------|---|--|--|------------|
| morning rise | 11812 Sep 18 13.07 11812 Sep 27 21:46 | 0° ⊡ | | direct | 11817 Nov 08 04:01 11817 Dec 09 20:46 | 9° 8 47'12 | 0.54072 AU |
| | 11812 Nov 05 16:06 | 0°M | | | 11818 Feb 10 09:03 | $\Pi^{\circ}0$ | |
| | 11812 Dec 16 01:52 | 0° ∡ | | asc. node | 11818 Mar 15 20:46 | 20° ∏ 26'51 | |
| | 11813 Jan 28 01:12 | 0°る | | | 11818 Mar 29 21:20 | 0° © | |
| | 11813 Mar 15 23:26 11813 May 10 17:21 | 0° ≈ 0°) € | | | 11818 May 09 23:21 11818 Jun 18 03:14 | 0° N 0° ™ | |
| desc. node | 11813 Jun 09 06:34 | 11° X 13'13 | | | 11818 Jul 27 05:43 | 0∘ ت المار | |
| retrograde | 11813 Jul 08 11:55 | 15°) 49′29 | | | 11818 Sep 05 09:30 | 0° M ₊ | |
| opposition | 11813 Aug 18 01:32 | 6°) €09'44 | -2°20'49 | | 11818 Oct 17 06:22 | 0° ∡ ¹ | |
| greatest brilliancy | 11813 Aug 18 01:27 | 6° ∺ 09'48 | | evening set | 11818 Nov 20 15:11 | 23° ∡ ³38′21 | |
| min. Earth dist. | 11813 Aug 18 14:32 | 5° ¥ 56'53 | 0.68411 AU | | 11818 Nov 30 01:59 | 0°₹ | |
| direct | 11813 Sep 04 00:53 11813 Sep 28 09:51 | 30°R≈ 26°≈16'20 | | conjunction | 11819 Jan 09 06:06 | 26° る 29'09 | 0°10'50 |
| uncet | 11813 Oct 24 19:17 | 0° ₩ | | minimum elong | 11819 Jan 09 06:31 | 26° る 29'49 | 0°11'34 |
| | 11814 Jan 01 10:32 | 0°Υ | | behind sun begin | 11819 Jan 08 16:47 | 26° る 07'32 | 0 113. |
| | 11814 Feb 20 02:10 | 0°8 | | behind sun end | 11819 Jan 09 20:15 | 26° පි 52'06 | |
| | 11814 Apr 05 04:47 | $\Pi^{\circ}0$ | | | 11819 Jan 14 16:12 | 0° ≈ | |
| | 11814 May 16 01:35 | 0° © | | max. Earth dist. | 11819 Jan 23 05:56 | 5° ≈ 31'58 | 2.64875 AU |
| asc. node | 11814 Jun 10 11:26 | 19° © 29'19 | | desc. node | 11819 Jan 29 03:26 | 9°≈19'26 25°≈45'34 | |
| evening set | 11814 Jun 23 22:29 11814 Jul 14 06:01 | 0°Ω 16°Ω01'28 | | morning rise | 11819 Feb 23 22:03 11819 Mar 02 14:49 | 25°≈45°54 0°) { | |
| evening set | 11814 Jul 31 20:42 | 0° m | | | 11819 Apr 19 11:45 | 0°Υ | |
| | 11814 Sep 07 19:33 | 0∘ <u>⊽</u> | | | 11819 Jun 07 05:09 | 0°8 | |
| | | | | | 11819 Jul 27 12:53 | $\Pi^{\circ}0$ | |
| conjunction | 11814 Sep 24 12:36 | 13° ≏ 01'31 | 1°00'47 | | 11819 Sep 21 00:38 | 0ಂತಾ | |
| minimum elong | 11814 Sep 24 09:51 | 12° Ω 56'12 | 1°00'52 | retrograde | 11819 Nov 26 04:06 | 19°542'51 | 2025120 |
| max. Earth dist. | 11814 Oct 16 16:09 11814 Nov 16 14:47 | 0°M 23°M 02146 | 2.42504 AU | opposition greatest brilliancy | 11819 Dec 27 14:59 11819 Dec 28 10:26 | 14°504'43 13°550'00 | |
| max. Earm dist. | 11814 Nov 16 14.47 11814 Nov 26 04:27 | 23 11€02 40 0° 🗷 | 2.42304 AU | min. Earth dist. | 11820 Jan 04 00:10 | 13 9 30 00 | 0.40776 AU |
| morning rise | 11814 Nov 30 05:48 | 2° ₹ 55'14 | | direct | 11820 Jan 30 05:17 | 7° © 26'17 | 0.10770110 |
| C | 11815 Jan 07 22:12 | ರ°0 | | asc. node | 11820 Feb 01 02:51 | 7° 5 27'50 | |
| | 11815 Feb 22 08:33 | 0° ≈ | | | 11820 Apr 03 06:36 | 0 $^{\circ}$ Ω | |
| | 11815 Apr 12 08:23 | 0° ∀ | | | 11820 May 19 10:40 | 0° m y | |
| desc. node | 11815 Apr 27 00:10 | 8°) 23′15 0° Υ | | | 11820 Jul 01 00:46 | 0° Ր | |
| retrograde | 11815 Jun 07 17:03 11815 Aug 13 08:37 | 0° γ 18° Υ 51'41 | | | 11820 Aug 12 15:57 11820 Sep 25 11:28 | 0°11L 0° √ 7 | |
| opposition | 11815 Sep 21 14:17 | 9° Υ 54'18 | -4°19'07 | | 11820 Nov 09 18:33 | ∞ੰਤ | |
| greatest brilliancy | 11815 Sep 22 04:46 | 9° Ƴ 40'17 | | desc. node | 11820 Dec 15 23:41 | 23° る 24'03 | |
| min. Earth dist. | 11815 Sep 25 23:42 | 8° Y 12'18 | 0.64816 AU | | 11820 Dec 26 07:18 | 0° ≈ | |
| | 11815 Oct 28 15:46 | 30° ₹ | | evening set | 11820 Dec 30 18:53 | 2°≈51'36 | |
| direct | 11815 Nov 02 03:41 | 29° ¥ 52'16 0° Ƴ | | | 11821 Feb 11 12:17 | 0° ∀ | |
| | 11815 Nov 06 16:41 11816 Jan 25 20:15 | 0° 8 | | conjunction | 11821 Feb 13 21:52 | 1°) 31'15 | -0°31'04 |
| | 11816 Mar 13 06:16 | 0°II | | minimum elong | 11821 Feb 13 21:00 | 1° ¥ 29′53 | |
| | 11816 Apr 24 01:53 | 0°95 | | max. Earth dist. | 11821 Feb 13 17:32 | 1°) 24′23 | 2.68321 AU |
| asc. node | 11816 Apr 27 15:05 | 2° © 39'27 | | morning rise | 11821 Mar 29 05:55 | 29°) €02'25 | |
| | 11816 Jun 02 06:20 | 0° N | | | 11821 Mar 30 18:04 | 0°Υ | |
| | 11816 Jul 10 09:10 11816 Aug 17 14:32 | 0ം ⊽ 0ംൂ⊅ | | | 11821 May 16 12:34 11821 Jul 01 14:12 | 0°B 0°B | |
| | 11816 Sep 25 20:40 | 0° m . | | | 11821 Aug 15 23:03 | 0ಂತಿ ೧.ಗ | |
| evening set | 11816 Sep 26 16:56 | 0° ™ 37'57 | | | 11821 Sep 29 22:48 | 0°N | |
| | 11816 Nov 05 19:55 | 0° ∡ 7 | | | 11821 Nov 14 21:25 | 0° m | |
| | | | | asc. node | 11821 Dec 19 06:31 | 20° m 19'37 | |
| conjunction | 11816 Nov 25 19:37 | 14° ∡ *06'53 | | | 11822 Jan 08 06:40 | 0° ⊽ | |
| minimum elong | 11816 Nov 25 21:27 11816 Dec 18 21:18 | 14°ダ10'04 0°る | 0°53'42 | retrograde min. Earth dist. | 11822 Feb 14 18:43 11822 Mar 12 17:27 | 8° £ 45'15 4° £ 29'43 | 0.37978 AU |
| max. Earth dist. | 11816 Dec 18 21:18 11816 Dec 27 11:47 | | 2.55973 AU | greatest brilliancy | 11822 Mar 12 17:27 11822 Mar 17 01:43 | 3° Ω 15'42 | |
| morning rise | 11817 Jan 17 03:55 | 19° る 35'05 | | opposition | 11822 Mar 18 05:58 | 2° £ 55'30 | 5°44'46 |
| - | 11817 Feb 02 02:23 | 0° ≈ | | | 11822 Mar 29 07:43 | 30°₽, Т р | |
| desc. node | 11817 Mar 13 12:45 | 25° ≈ 05'18 | | direct | 11822 Apr 16 18:44 | 27° m 48'25 | |
| | 11817 Mar 21 10:15 | 0°){ | | | 11822 May 05 09:51 | 0∘ 亚 | |
| | 11817 May 10 05:08 11817 Jul 03 18:38 | 0° ႘ 0° Ƴ | | | 11822 Jul 12 04:49 11822 Aug 31 21:41 | 0° M 0°⊀ | |
| retrograde | 11817 Jul 03 18:38 11817 Sep 24 21:51 | 26° 8 51'44 | | | 11822 Aug 31 21:41 11822 Oct 19 18:07 | 0° ਨ 0° ਰ | |
| | 1101, обр 27 21.01 | 20 001 44 | | | -1022 000 17 10.07 | ~ • | |

| 1822 1822 1822 1823 1824 1824 1824 1824 1825 1825 1825 1826 1825 1826 1825 1826 1825 1826 1825 1826 1825 1826 1826 1825 1826 1826 1826 1825 1826 | | | | | | | | |
|--|-------------------|---------------------|------------------------------|------------|---------------------|--------------------|--------------------|-------------|
| cenemage of max Fieth lost 11832 field will bill bill bill bill bill bill bill | desc. node | 11822 Nov 03 01:36 | 8° る 50'21 | | | 11827 Aug 29 13:27 | 0° m | |
| evening (ame) 11833 face 9 of 1969 75 Per 1971 2 companies 11823 Mars 20 sept 21 67 Per 1972 2 companies 11823 Mars 20 sept 21 67 Per 1972 2 companies 11823 Mars 20 sept 21 67 Per 1972 67 Per 1972 1 companies 11823 Mars 20 sept 21 87 Per 1972 1 companies 11823 Mars 20 sept 21 87 Per 1972 1 companies | | 11822 Dec 07 06:12 | 0° ≈ | | | 11827 Oct 06 15:13 | 0∘ ত | |
| Max Ma | | 11823 Jan 24 09:10 | 0° ∀ | | | 11827 Nov 14 10:16 | 0°M | |
| Companies 1828 May 12 155 1907 1907 1908 | evening set | 11823 Feb 04 19:50 | 7° ₩ 11'59 | | | 11827 Dec 24 21:31 | 0° ∡ 7 | |
| conjunction I 1823 Mar 20 221 5"P(1912 1905) recognable 11828 Mar 20 200 79"R121 1905 desc. node 11828 Mar 20 200 29"R2702 1908 Mar 20 201 29"R121 1905 desc. node 11828 Mar 10 200 29"R2702 1908 Mar 20 201 1908 Mar | max. Earth dist. | 11823 Mar 08 05:46 | 27°){ 09'47 | 2.66232 AU | | 11828 Feb 06 04:59 | 0°ප | |
| conjunction I 1823 Mar 20 221 5"P(1912 1905) recognable 11828 Mar 20 200 79"R121 1905 desc. node 11828 Mar 20 200 29"R2702 1908 Mar 20 201 29"R121 1905 desc. node 11828 Mar 10 200 29"R2702 1908 Mar 20 201 1908 Mar | | 11823 Mar 12 15:51 | $0^{\circ}\mathbf{\Upsilon}$ | | | | 0° ≈ | |
| conjunition 11823 Mar 2 0221 9°P1996 1 00057 cerogends 11823 Mar 2 0200 3942702 3974708 100 mm 3942702 3974708 3942702 | | | | | | 11828 May 31 20:06 | 0° ₩ | |
| minumentome 11833 May 20 1233 9"N"812 100500 desc. node 11828 July 27 500 27-22 20 morning rise 11833 May 10 40 458 4"822373 organization 11828 July 20 40 258 23-22 20 23- | conjunction | 11823 Mar 20 22:21 | 5° ℃ 19'46 | -1°00'57 | retrograde | | | |
| Memoring rise 1823 May 10458 PS PS PS PS PS PS PS P | · | | | | • | | | |
| mmmgring 11823 May 0 40-58 (1923 or 1924) 4 **C2237 or 1924 or 1923 | minimum ciong | | | 1 00 30 | dese. Hode | | | |
| 1823 18 1926 1926 1926 1926 1828 1828 1926 1926 1828 1 | mamina riaa | • | _ | | min Earth dist | | | 0.67000 ATT |
| 1821 1926 0°82 | morning rise | | | | | | | |
| 1823 No. 19 0 0.02 | | | | | | _ | | |
| ase. node 11823 Nov 16 1041 0"m 11829 Nov 12 1508 0"m 0"m 0"m 0"m 11829 Nov 12 1508 0"m 0 0"m 0"m 0 0 0"m 0 | | | | | - | _ | | -1.3m |
| Section 1823 Nov 0 0 1 7 1 1 1 1 1 1 1 1 | | - | | | direct | _ | | |
| 1824 May 12 1506 90M 1829 May 12 1506 90M 1829 May 23 1350 90M 1820 May 23 1350 May 23 | | 11823 Oct 13 10:50 | | | | 11828 Nov 14 17:00 | | |
| 1824 1824 1825 1824 1825 | asc. node | 11823 Nov 06 01:41 | 17° m)41'17 | | | 11829 Jan 10 22:34 | | |
| February 1824 May 1 12-96 1824 May 1 12-10 1822 May 1 1822 | | 11823 Nov 22 15:05 | 0∘ ত | | | 11829 Feb 28 00:46 | 9° 8 | |
| Petrograde 11824 Any 12 0.2.57 14784788 17874 1824 May 14 12.110 1824 May 18 12.110 1824 May 18 12.110 1825 May 18 12. | | 11824 Jan 03 11:16 | o° m ₊ | | | 11829 Apr 12 18:05 | $\Pi^{\circ}0$ | |
| min. Earth dist. 11824 May 11 21.10 8°×84873 5°×85073 44758 11829 Mug 10 101.20 10°×20 100 | | 11824 Feb 21 12:49 | 0° ∡ ¹ | | | 11829 May 23 13:50 | 0°ಅ | |
| min. Earth dist. 11824 May 11 21.10 8°×84873 5°×85073 44758 11829 Mug 10 101.20 10°×20 100 | retrograde | 11824 Apr 12 02:57 | 14° ₹ '54'58 | | evening set | • | | |
| opposition greates brilliancy 11824 May 18 121-32 5°-8'031* 24'758 1 1829 Jul 01 12:10 0°-Ω* 100 Jul 12:10 0°-Ω* 11829 Aug 24 11:27 12°-№ 14:15 0°-№ 13:15 | - C | • | | 0.50743 AU | - | | | |
| genetacts brilliane 11824 May 18 14.1 6° 31° 94 2.1m 11829 Mag 08 11.27 0° 10° 10° 10° 10° 10° 10° 10° 10° 10° | | • | | | use. noue | | | |
| direct 11824 Jun 23 10:53 28°ML2432 28°ML2 | | | | | | | | |
| direct 1824 Jul 23 10.53 28 mL 243 2 minimum clong 1829 Aug 24 11.27 12 mg 1725 799256 desc. node 1824 Sep 20 08.59 29 mg 70 ms 1829 Sep 15 00 mg 1829 Sep 15 00 mg 1824 Sep 22 08.59 29 mg 70 ms 1829 Sep 15 00 mg 1829 Sep 15 00 mg 1825 Aug 1 11.33 07 ms 1829 Cet 0 00.21 16 mg 70 mg 1825 Jul 21 11.33 07 ms 1829 Sep 15 00 mg 1829 Sep 15 00 mg 1825 Jul 21 11.33 07 ms 1829 Sep 15 00 mg 1829 Sep 15 00 mg 1825 Jul 21 11.33 07 ms 1829 Sep 15 00 mg 1829 Sep 15 00 mg 1825 Jul 21 11.33 07 ms 1829 Sep 15 00 mg 1829 Sep 10 00 mg 1825 Jul 21 11.33 07 ms 1829 Sep 10 00 mg 1829 Sep 10 00 mg 1825 Jul 21 11.33 07 ms 1829 Sep 10 00 mg 1829 Sep 10 00 mg 1825 Jul 21 10.33 07 ms 1829 Sep 10 00 mg 1829 Sep 10 00 mg 1825 Jul 21 11.34 07 mg 1829 Sep 10 00 mg 1829 Sep 10 00 mg 1825 Jul 21 11.34 07 mg 1829 Sep 10 00 mg 1829 Sep 10 00 mg 1825 Jul 21 11.34 07 mg 1829 Sep 1829 | greatest orimancy | • | | -2.1111 | | 11629 Aug 06 11.27 | V III | |
| desc. node 1824 kg 29 1825 29*A° 70*B° 1829 kg 29 08:59 29*A° 08' 1829 kg 29 08:59 29 | | | | | | 11000 1 01 11 07 | 100 7 1110 5 | 0000106 |
| Mathematical Ma | direct | | | | - | _ | | |
| 1824 Sep 22 06.24 0°E max. Earth dist. 1829 Oct 26 06.02.1 16°Δ0's 0 273730 AU 1825 In 04 11:33 0°H morning rise 1829 Nov 06 22.5 9°RL 1825 Apr 11 20.39 1°F°Y5'214 1830 Dec 03 13:59 0°F° 1825 Apr 10 100:53 25°F°09'48 2.8786 AU 1830 Dec 03 13:59 0°F° 1825 Apr 10 100:53 25°F°09'48 2.8786 AU 1830 Dec 03 13:59 0°F° 1825 Apr 10 100:53 25°F°09'48 2.8786 AU 1830 Dec 12 10:34 0°F° 1825 Apr 27 04:35 12°B5'00 -1'08'44 1830 Dec 12 10:34 0°F° 1825 Apr 27 04:35 12°B5'00 -1'08'44 190'12 retograde 1830 Dul 29 21:32 5°F°57'43 1825 Apr 27 04:35 12°B5'00 -1'08'44 190'12 retograde 1830 Dul 29 21:32 5°F°57'43 1825 Apr 27 04:35 10°F° 17°E'85'8 1825 Apr 27 04:35 1825 Apr 27 04:3 | | | | | minimum elong | _ | | 0°39'15 |
| 1824 Nov 15 0439 0°8 1825 Nov 05 0225 0°1 0 | desc. node | 11824 Sep 20 08:59 | | | | 11829 Sep 15 09:51 | 0∘ ত | |
| 1825 Jan 04 11:33 0°H 1826 Jan 04 11:33 0°H 1829 Jan 04 11:35 0°H 0°H 1829 Jan 05 01:25 0°H 0 | | 11824 Sep 22 06:24 | 0°₹ | | max. Earth dist. | 11829 Oct 06 00:21 | 16° ≙ 03'50 | 2.37230 AU |
| evening set | | 11824 Nov 15 04:39 | 0° ≈ | | | 11829 Oct 24 04:26 | 0° M | |
| evening set max. Earth dist. 11825 Apr 01 0.032 | | 11825 Jan 04 11:33 | 0°) € | | morning rise | 11829 Nov 05 02:25 | 9°M00'04 | |
| max. Earth dist. | | 11825 Feb 21 11:23 | $0^{\circ}\mathbf{\Upsilon}$ | | | 11829 Dec 03 13:59 | 0° ∡ ¹ | |
| max. Earth dist. | evening set | 11825 Mar 11 20:39 | 11° Y 52'14 | | | 11830 Jan 15 06:59 | 6°5 | |
| 1825 Apr 08 06:33 0°B 1826 Apr 08 06:34 0°B 1830 Apr 21 10:34 0°B 1830 Apr 31 10:05 1835 Apr 27 04:35 12°B 5000 -1°08'44 1830 Apr 31 10:05 1835 Apr 27 04:35 12°B 5000 -1°08'44 1830 Apr 31 10:05 1830 Apr 31 10:05 1830 Apr 31 10:05 1830 Apr 31 10:05 1830 Apr 30 01:13 0°P C 1830 Apr 30 01:13 0°P C 1830 Apr 30 01:13 0°P C 1830 Apr 30 01:13 | • | | | 2.58786 AU | | | 0°æ | |
| conjunction 11825 Apr 27 04:35 12°85000 1°08'44 11830 Jul 29 1213 16:05 18°84625 12°85000 1°08'44 11830 Jul 29 1213 16:05 18°75 12°85000 1°08'44 11830 Jul 29 1213 15 18°75 | | = | | | | | | |
| conjunction 11825 Apr 27 04:35 12°B5000 1°08'44 retrograde 11830 Jul 25 19:31 0°Ψ sey*75743 minume long 11825 Apr 27 04:59 12°B5041 1°09'12 retrograde 11830 Jul 25 19:31 30°R*3 morning rise 11825 Jul 16 01:10 0°B opposition 11830 Aug 30 01:13 30°R*4 11825 Jul 10 211:46 0°B opposition 11830 Sep 07 19:31 26°H4077 -3°38'38 11825 Sep 19 08:02 0°B inim. Earth dist. 11830 Sep 08 02:53 26°H3345 -1.3m asc. node 11825 Sep 19 08:02 0°B inim. Earth dist. 11830 Dec 11 09:52 0°P 11825 Sep 22 17:22 2°B38'08 - direct 11830 Mep 08:05:3 0°P 11826 Jul 21 12:4 0°A - 11831 Mep 09:53 0°B - 11826 Jul 21 12:4 0°A - 11831 Map 15 04:14 9°B20207 retrograde 11826 Mar 04 09:40 0°A - 11831 Map 15 04:14 9°B20207 retrograde 11826 Jul 20 10:15:13 18°S49'34 12°C43 11831 Jul 19 05:53 <td< td=""><td></td><td>11023 11p1 00 00.33</td><td>۰٠</td><td></td><td>desc node</td><td>•</td><td></td><td></td></td<> | | 11023 11p1 00 00.33 | ۰ ٠ | | desc node | • | | |
| minimum elong 11825 Apr 27 04:59 12°\b 5041 1°09'12 retrograde 11830 Jul 29 21:32 5°\b 75743 11825 May 21 21:18 0°\b 11830 May 21 21:18 0°\b 11825 Jul 16 01:10 17°\b 18878 0°\b 0 | conjunction | 11825 Apr 27 04:35 | 12025000 | 1008144 | desc. Hode | • | | |
| morning rise | · | | | | ratra ara da | | | |
| morning rise 11825 Jun 16 01:10 17° IT 58′58′58 0pposition 11830 Sep 07 19:31 26° H40′57 3°38′38′38 11825 Jun 10 20 11:46 0°\$\$ min. Earth dist. 11830 Sep 10 16:56 25° H33′45 -1.3m 11825 Sug 11 10:50 0°\$\$ min. Earth dist. 11830 Sep 10 16:56 25° H33′45 -1.3m 11825 Sug 12 10:50 0°\$\$ min. Earth dist. 11830 Sep 10 16:56 25° H33′45 -1.3m 11825 Sug 22 17:22 2°\$\$38′08 -1.2m min. Earth dist. 11830 Dec 11 09:52 0°\$\$\$ 0°\$\$\$ 0°\$\$\$ 0°\$\$\$ 11825 Dec 06 05:47 0°\$\$\$ 0°\$\$\$ 0°\$\$\$ 11831 May 20 06:08 0°\$\$\$\$ 0°\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$ 0°\$\$\$\$\$ 0°\$\$\$\$ | minimum elong | _ | | 1 09 12 | retrograde | | | |
| 1825 1825 1825 1826 | | | | | | • | | |
| 1825 Aug 1 10:50 0°Q min. Earth dist. 11830 Sep 10 16:56 25° \(\alpha\) 370 0.67019 AU 1825 Sep 10 1825 Sep 10 18:20 0°\(\alpha\) 1825 Sep 18:20 0°\(\alpha\) 18:20 0°\(\alpha\) 18:20 18:20 0°\(\alpha\) 18:20 18:20 0°\(\alpha\) 18:20 18:20 0°\(\alpha\) 18:20 18:2 | morning rise | | | | * * | • | | |
| 1825 Sep 19 08:02 0°m direct 11830 Oct 19 11:39 16° \(\frac{1}{3}\) 3° \(\frac{1}{3}\) 4 1825 Sep 22 17:22 2°m 38'08 11830 Dec 11 09:52 0°\ \ \ 11825 Oct 27 22:09 0°\ \ 11825 Dec 60 65:47 0°\ \ \ 11826 Dec 16 10 7:48 0°\ \ \ 1826 Dec 16 10 7:48 0°\ \ \ \ 1826 Dec 16 10 7:48 0°\ \ \ 1826 Dec 16 10 7:48 0°\ \ \ \ 1826 Dec 16 10 7:48 0°\ \ \ \ 1826 Dec 16 10 7:48 0°\ \ \ \ 1826 Dec 16 10 7:48 0°\ \ \ \ \ 1826 Dec 16 10 10 15:13 18°\ \ \ \ \ 3°\ \ 3°\ \ \ 1.6m 0°\ \ \ \ 1831 Dec 16 10 10 15:13 18°\ \ \ \ 3°\ \ 3°\ \ \ \ \ \ \ \ 1831 Dec 16 10 10 15:13 18°\ \ \ \ 3°\ \ 3°\ \ \ \ \ \ \ \ \ 1831 Dec 16 10 10 15:13 18°\ \ \ \ 3°\ \ 3°\ \ \ \ \ \ \ \ \ \ \ 1831 Dec 16 10 10 10 15:13 18°\ \ \ \ 3°\ \ 3°\ \ \ \ \ \ \ \ \ \ \ \ | | | | | | - | | |
| 1825 Sep 22 17:22 2°m/38'08 1825 Oct 27 22:09 0°m/4 1826 Jan 16 17:48 0°m/4 | | 11825 Aug 11 10:50 | $0 { m ^{\circ}} \Omega$ | | min. Earth dist. | • | | 0.67019 AU |
| 1825 Oct 27 22:09 0° | | 11825 Sep 19 08:02 | 0° m ∕ | | direct | 11830 Oct 19 11:39 | | |
| 1825 Dec 06 05:47 0°IL 1826 Jan 16 17:48 0°A 1826 Jan 24 09:40 0°B 3sc. node 1831 May 15 04:14 0°S02'07 0°A 0 | asc. node | 11825 Sep 22 17:22 | 2° Mp38′08 | | | 11830 Dec 11 09:52 | 0° Y | |
| 11826 May 16 17:48 0°\$\frac{\$\mathcal{\sigma}\$}{\sigma}\$ 1826 May 16 16 17:48 0°\$\frac{\$\mathcal{\sigma}\$}{\sigma}\$ 1826 May 16 16 17:48 0°\$\frac{\$\mathcal{\sigma}\$}{\sigma}\$ 1826 May 16 16 17:48 0°\$\frac{\$\mathcal{\sigma}\$}{\sigma}\$ 1826 May 17 07:52 20°\$\frac{\sigma}{\sigma}\$ 1826 Jun 17 07:52 20°\$\frac{\sigma}{\sigma}\$ 1826 Jun 17 07:52 20°\$\frac{\sigma}{\sigma}\$ 1.6m evening set 11831 Jun 11 06:00 0°\$\frac{\sigma}{\sigma}\$ 0°\$\fra | | 11825 Oct 27 22:09 | 0∘ ⊽ | | | 11831 Feb 05 09:53 | $8^{\circ 0}$ | |
| 11826 Mar 04 09:40 0°δ asc. node 11831 May 15 04:14 9°©02'07 retrograde 11826 May 22 15:38 28°δ3753 0.62347 AU 11831 Jun 11 06:00 0°Ω min. Earth dist. 11826 Jun 27 03:52 20°δ31'12 0.62347 AU 11831 Jun 11 06:00 0°Ω opposition 11826 Jul 01 20:51 18°δ39'34 1°26'43 11831 Aug 26 07:37 0°Ω greatest brilliancy 11826 Aug 08 16:53 9°δ44'33 -1.6m evening set 11831 Aug 30 22:31 3°Ω36'03 direct 11826 Aug 08 16:53 9°δ44'33 -1.6m evening set 11831 Nov 05 02:23 23°¶L29'1 1°03'43 direct 11826 Aug 09 09:09 9°δ44'23 -1.6m evening set 11831 Nov 05 02:23 23°¶L29'1 1°03'43 11826 Oct 18 08:37 0°∞ 0°% minimum elong 11831 Nov 05 02:23 23°¶L39'1 1°03'43 11826 Dec 14 09:10 0°% minimum elong 11831 Nov 05 03:38 23°¶L31'39 1°04'18 11827 Feb 02 09:51 0°° max. Earth dist. 11831 Dec 15 08:10 22°¾01'00 2.51107 AU evening set 11827 May 03 01:12 0°¶ morning rise 11832 Jan 01 00:39 3°₹26'17 max. Earth dist. 11827 May 05 17:18 1°¶54'28 2.46660 AU morning rise 11832 May 19 03:58 0°% conjunction 11827 Jun 15 05:11 1°©37'31 0°37'22 desc. node 11832 May 19 03:58 0°% conjunction 11827 Jun 15 07:24 1°©34'14 0°38'09 retrograde 11832 Sep 06 12:12 11°♥14'01 asc. node 11827 Aug 10 09:34 14°Ω54'41 0°38'09 retrograde 11832 Sep 06 12:12 11°♥14'01 11°♥14'01 asc. node 11827 Aug 10 09:34 14°Ω54'41 0°38'09 retrograde 11832 Sep 06 12:12 11°♥14'01 | | 11825 Dec 06 05:47 | o° m ₊ | | | 11831 Mar 22 23:16 | $\Pi^{\circ}0$ | |
| 11826 Mar 04 09:40 0°₹ asc. node 11831 May 15 04:14 9°\$02'07 retrograde 11826 May 22 15:38 28°₹37'53 11831 Jun 11 06:00 0°\$\mathcal{\Omega}\$ min. Earth dist. 11826 Jun 27 03:52 20°₹31'12 0.62347 AU 11831 Jun 11 06:00 0°\$\mathcal{\Omega}\$ opposition 11826 Jul 01 20:51 18°₹3934 126′43 11831 Aug 26 07:37 0°\$\mathcal{\Omega}\$ greatest brilliancy 11826 Aug 08 16:53 9°₹44′33 1.6m evening set 11831 Aug 30 22:31 3°\$\mathcal{\Omega}\$ 3°\$\mathcal{\Omega}\$ 36′03 direct 11826 Aug 08 16:53 9°₹44′23 5°\$\mathcal{\Omega}\$ 11831 Oct 04 08:57 0°\$\mathcal{\Omega}\$ direct 11826 Aug 08 16:53 9°₹44′23 5°\$\mathcal{\Omega}\$ 11831 Oct 04 08:57 0°\$\mathcal{\Omega}\$ 11826 Oct 18 08:37 0°\$\mathcal{\Omega}\$ 0°\$\mathcal{\Omega}\$ 0°\$\mathcal{\Omega}\$ 0°\$\mathcal{\Omega}\$ 0°\$\mathcal{\Omega}\$ 1831 Nov 05 02:23 23°\$\mathcal{\Omega}\$ 23°\$\mathcal{\Omega}\$ 11826 Dec 14 09:10 0°\$\mathcal{\Omega}\$ 0°\$\mathcal{\Omega} | | 11826 Jan 16 17:48 | 0° ∡ ¹ | | | 11831 May 03 06:08 | 0°ಅ | |
| retrograde | | 11826 Mar 04 09:40 | 0°₹ | | asc. node | - | 9°\$02'07 | |
| min. Earth dist. | retrograde | | | | | • | | |
| opposition 11826 Jul 01 20:51 18°₹39'34 1°26'43 11831 Aug 26 07:37 0°Φ 4 greatest brilliancy 11826 Jul 01 15:13 18°₹45'08 -1.6m evening set 11831 Aug 30 22:31 3°Φ36'03 - desc. node 11826 Aug 08 16:53 9°₹44'33 - 11831 Oct 04 08:57 0°M - direct 11826 Aug 09 09:09 9°₹44'23 - conjunction 11831 Nov 05 02:23 23°M29'21 1°03'43 11826 Dec 14 09:10 0°¥ minimum elong 11831 Nov 05 03:38 23°M29'21 1°03'43 11827 Feb 02 09:51 0°¥ minimum elong 11831 Nov 05 03:38 23°M31'39 1°04'18 evening set 11827 Mar 20 16:32 0°\$ max. Earth dist. 11831 Nov 14 02:35 0°₹ 20°\$M1'18 max. Earth dist. 11827 Apr 22 04:26 22°\$18'39 morning rise 11831 Dec 26 23:15 0°₹ 0°₹ max. Earth dist. 11827 May 05 17:18 1°\$154'28 2.46660 AU 1832 May 19 03:58 0°¥ + conjunction 11827 Jun 15 | • | - | | 0.62347 AU | | | | |
| greatest brilliancy 11826 Jul 01 15:13 18° 545′08 -1.6m evening set 11831 Aug 30 22:31 3° 436′03 desc. node 11826 Aug 08 16:53 9° 544′23 | | | | | | | | |
| desc. node | ** | | | | avanina aat | Č | | |
| direct 11826 Aug 09 09:09 9°₹44'23 11826 Oct 18 08:37 0°≈ conjunction 11831 Nov 05 02:23 23° | | | | -1.0111 | evening set | _ | | |
| 11826 Oct 18 08:37 0° ≈ conjunction 11831 Nov 05 02:23 23° | | - | | | | 11831 Oct 04 08:57 | บาแน | |
| 11826 Dec 14 09:10 | direct | _ | | | | | | |
| 11827 Feb 02 09:51 0° \gamma 11827 Mar 20 16:32 0° \gamma max. Earth dist. 11831 Nov 14 02:35 0° \gamma 0° \g | | | | | - | 11831 Nov 05 02:23 | | |
| evening set | | 11826 Dec 14 09:10 | | | minimum elong | 11831 Nov 05 03:38 | | 1°04'18 |
| evening set | | 11827 Feb 02 09:51 | 0 ° $\mathbf{\Upsilon}$ | | | 11831 Nov 14 02:35 | 0° ∡ ¹ | |
| max. Earth dist. | | 11827 Mar 20 16:32 | 9° 8 | | max. Earth dist. | 11831 Dec 15 08:10 | 22° 尽 01′00 | 2.51107 AU |
| max. Earth dist. | evening set | 11827 Apr 22 04:26 | 22° 8 18'39 | | | 11831 Dec 26 23:15 | 5°0 | |
| max. Earth dist. | | 11827 May 03 01:12 | $\Pi^{\circ}0$ | | morning rise | 11832 Jan 01 00:39 | 3° ප 26'17 | |
| 11827 Jun 13 01:12 0°S desc. node 11832 Mar 28 21:04 0°H | max. Earth dist. | | | 2.46660 AU | - | | | |
| desc. node 11832 Mar 30 07:07 0°\(\overline{\pmathcal{5}\)5'152 conjunction 11827 Jun 15 05:11 1°\(\overline{\pmathcal{5}\)3'131 -0°37'22 11832 May 19 03:58 0°\(\overline{\pmathcal{5}\)5'152 0°\(\overline{\pmathcal{5}\)5'152 11832 May 19 03:58 0°\(\overline{\pmathcal{5}\)5'152 0°\(\overline{\pmathcal{5}\)5'152 11832 May 19 03:58 0°\(\overline{\pmathcal{5}\)5'152 0°\(| | - | | | | | | |
| conjunction 11827 Jun 15 05:11 1°S37'31 -0°37'22 11832 May 19 03:58 0°Υ minimum elong 11827 Jun 15 07:24 1°S41'41 0°38'09 11832 Jul 19 10:54 0°8 11827 Jul 22 07:27 0°Ω retrograde 11832 Sep 06 12:12 11°8/14'01 asc. node 11827 Aug 10 09:34 14°Ω54'41 opposition 11832 Oct 14 04:48 2°8/56'16 -5°03'46 | | | . = | | desc node | | | |
| minimum elong 11827 Jun 15 07:24 1°541'41 0°38'09 11832 Jul 19 10:54 0°8 11827 Jul 22 07:27 0°Ω retrograde 11832 Sep 06 12:12 11°814'01 asc. node 11827 Aug 10 09:34 14°Ω54'41 opposition 11832 Oct 14 04:48 2°856'16 -5°03'46 | conjunction | 11827 Jun 15 05:11 | 100377131 | -0°37'22 | | | | |
| 11827 Jul 22 07:27 0°Ω retrograde 11832 Sep 06 12:12 11° 8 14'01 asc. node 11827 Aug 10 09:34 14° 8 54'41 opposition 11832 Oct 14 04:48 2° 8 56'16 -5°03'46 | • | | | | | • | | |
| asc. node 11827 Aug 10 09:34 14°Ω54'41 opposition 11832 Oct 14 04:48 2°\\$56'16 -5°03'46 | mmmum eiong | | | 0 3007 | ratra ara da | | _ | |
| • | 1 | | | | • | * | | 5902146 |
| morning rise 1182/ Aug 18 18:10 21~6 (2855) greatest brilliancy 11832 Oct 15 08:32 2°\overline{\ | | _ | | | | | | |
| | morning rise | 1182/ Aug 18 18:10 | 21~ 3(28'55 | | greatest brilliancy | 11832 Oct 15 08:32 | 2~030'05 | -1.6m |

| | 11842 Sep 06 06:39 | 0° m) | | | 11848 Mar 07 04:14 | Π $\circ 0$ | |
|---------------------|--------------------|---------------------------|-------------|---------------------|---------------------|---------------------------|------------|
| | 11842 Oct 14 11:58 | 0० ट | | asc. node | 11848 Apr 17 23:05 | 29° ∏ 33′20 | |
| | 11842 Nov 22 09:46 | 0° M . | | | 11848 Apr 18 13:30 | 0 \circ \odot | |
| | 11843 Jan 02 01:54 | 0° ∡ ¹ | | | 11848 May 27 23:32 | $0^{\circ}\Omega$ | |
| | 11843 Feb 15 01:17 | 0°ರ | | | 11848 Jul 05 05:35 | 0° m) | |
| | 11843 Apr 07 06:37 | 0° ≈ | | | 11848 Aug 12 13:37 | 0∘ <u>⊽</u> | |
| retrograde | 11843 Jun 13 02:53 | 20° ≈ 35'45 | | | 11848 Sep 20 22:41 | 0° M | |
| desc. node | 11843 Jul 13 09:08 | 14°≈40'18 | | evening set | 11848 Oct 10 15:19 | 14°MJ33'24 | |
| | | | 0.66520 ATT | evening set | | 0° √ | |
| min. Earth dist. | 11843 Jul 21 09:03 | 11°≈36'19 | | | 11848 Nov 01 00:49 | 0-× | |
| opposition | 11843 Jul 23 19:15 | 10°≈38'31 | | | | | |
| greatest brilliancy | 11843 Jul 23 18:17 | 10° ≈ 39′28 | -1.4m | conjunction | 11848 Dec 06 17:58 | 24° ∡ 756′16 | |
| direct | 11843 Sep 01 21:10 | 1° ≈ 11'09 | | minimum elong | 11848 Dec 06 19:39 | 24° х 59'09 | 0°45'22 |
| | 11843 Nov 28 07:14 | 0° ℋ | | | 11848 Dec 14 04:16 | 0°₹ | |
| | 11844 Jan 20 10:22 | 0 ° $\mathbf{\gamma}$ | | max. Earth dist. | 11849 Jan 03 00:23 | 13° る 19'38 | 2.58352 AU |
| | 11844 Mar 07 14:09 | $6^{\circ}B$ | | morning rise | 11849 Jan 26 02:33 | 28° る 30'48 | |
| | 11844 Apr 20 02:28 | $\Pi^{\circ}0$ | | | 11849 Jan 28 09:25 | 0°≈ | |
| evening set | 11844 May 22 15:41 | 23° Ⅱ 46′18 | | desc. node | 11849 Mar 03 13:57 | 21° ≈ 52'37 | |
| _ | 11844 May 30 22:57 | 0 \circ \odot | | | 11849 Mar 16 12:45 | 0° ∀ | |
| max. Earth dist. | 11844 Jun 15 16:47 | 11° © 58'03 | 2.38424 AU | | 11849 May 04 16:11 | $0^{\circ}\Upsilon$ | |
| | 11844 Jul 08 23:38 | 0°N | | | 11849 Jun 26 03:04 | 0°8 | |
| asc. node | 11844 Jul 13 21:23 | 3° Ω 50′23 | | | 11849 Aug 30 01:37 | 0°II | |
| use. Houe | 11044 341 13 21.23 | 3 66 50 2 5 | | retrograde | 11849 Oct 06 11:26 | 7° Ⅱ 03'44 | |
| | 11044 1-1 24 20-40 | 129 027155 | 0007157 | Č | | | 5904121 |
| conjunction | 11844 Jul 24 20:40 | 12° Ω 27'55 | | opposition | 11849 Nov 10 20:34 | 29° 8 42'35 | -5-04-21 |
| minimum elong | 11844 Jul 24 19:56 | 12° Ω 26′27 | 0°07'18 | | 11849 Nov 10 00:59 | 30°R 8 | • • |
| behind sun begin | 11844 Jul 23 17:23 | 11° Ω 34'09 | | greatest brilliancy | 11849 Nov 12 10:43 | 29° 8 08'22 | |
| behind sun end | 11844 Jul 25 22:28 | 13° Ω 18'45 | | min. Earth dist. | 11849 Nov 19 07:14 | 26° 8 41'32 | 0.51745 AU |
| | 11844 Aug 16 00:47 | 0° m p | | direct | 11849 Dec 19 14:59 | 20° 8 43'01 | |
| | 11844 Sep 22 23:33 | 0∘ ⊽ | | | 11850 Jan 28 03:00 | Π $^{\circ}0$ | |
| morning rise | 11844 Oct 06 14:35 | 10° ≏ 39'24 | | asc. node | 11850 Mar 06 06:54 | 19° Ⅱ 44'26 | |
| | 11844 Oct 31 17:09 | 0° M ₊ | | | 11850 Mar 22 06:15 | 0ං වෙ | |
| | 11844 Dec 11 01:38 | 0° ∡ ¹ | | | 11850 May 03 12:51 | $0^{\circ}\Omega$ | |
| | 11845 Jan 22 20:38 | 0°ರ | | | 11850 Jun 12 05:39 | 0° m | |
| | 11845 Mar 10 04:15 | 0° ≈ | | | 11850 Jul 21 16:31 | 0∘ ত | |
| | 11845 May 02 03:07 | 0° ∀ | | | 11850 Aug 31 03:24 | 0° M . | |
| desc. node | 11845 May 30 08:53 | 12° ¥ 50′07 | | | 11850 Oct 12 06:34 | 0° ∡ ¹ | |
| retrograde | 11845 Jul 16 04:04 | 23° ¥ 26′29 | | | 11850 Nov 25 07:13 | ರ°0 | |
| opposition | 11845 Aug 25 13:20 | 13°) 54′07 | -2°51'19 | evening set | 11850 Nov 30 13:37 | 3° る 30'29 | |
| greatest brilliancy | 11845 Aug 25 15:20 | 13° ¥ 52′08 | | evening sec | 11851 Jan 10 00:31 | 0°≈ | |
| min. Earth dist. | 11845 Aug 26 22:31 | | 0.68195 AU | | 11031 3411 10 00.31 | 0 ~ | |
| direct | 11845 Oct 06 01:41 | 3° H 56'18 | 0.08193 AU | conjunction | 11851 Jan 17 19:23 | 5° ≈ 01'17 | 0000140 |
| direct | | | | 3 | | | |
| | 11845 Dec 25 05:56 | 0° Υ | | minimum elong | 11851 Jan 17 19:28 | 5°≈01'25 | 0°01'29 |
| | 11846 Feb 14 12:18 | 0°B | | behind sun begin | 11851 Jan 17 00:18 | 4°≈30'35 | |
| | 11846 Mar 31 02:04 | Π °0 | | behind sun end | 11851 Jan 18 14:38 | 5° ≈ 32'14 | |
| | 11846 May 11 02:28 | 0ංම | | desc. node | 11851 Jan 19 05:11 | 5° ≈ 55'37 | |
| asc. node | 11846 May 31 20:03 | 15°950'06 | | max. Earth dist. | 11851 Jan 28 12:18 | 11° ≈ 53′28 | 2.66109 AU |
| | 11846 Jun 19 00:40 | $0^{\circ}\Omega$ | | | 11851 Feb 25 23:03 | 0° ∀ | |
| | 11846 Jul 26 23:24 | 0° m) | | morning rise | 11851 Mar 03 15:40 | 3°) €36′09 | |
| evening set | 11846 Jul 31 08:29 | 3° m ,28'30 | | | 11851 Apr 14 14:40 | 0 ° $\mathbf{\Upsilon}$ | |
| | 11846 Sep 02 22:44 | 0∘ ऌ | | | 11851 Jun 01 17:52 | 9° 8 | |
| | | | | | 11851 Jul 20 16:00 | Π $^{\circ}0$ | |
| conjunction | 11846 Oct 10 14:38 | 29° ≙ 04'04 | 1°05'40 | | 11851 Sep 09 21:56 | 0 \circ \odot | |
| minimum elong | 11846 Oct 10 13:39 | 29° ≏ 02'13 | 1°05'59 | | 11851 Nov 12 21:11 | $0^{\circ}\Omega$ | |
| • | 11846 Oct 11 20:10 | 0° M ₊ | | retrograde | 11851 Dec 13 17:57 | 5° Ω 21'22 | |
| | 11846 Nov 21 09:11 | 0° ∡ ¹ | | opposition | 11852 Jan 13 00:45 | 0° Ω 10′27 | -0°42'29 |
| max. Earth dist. | 11846 Nov 28 19:32 | | 2.45636 AU | greatest brilliancy | 11852 Jan 13 05:40 | 0°Ω06'58 | |
| morning rise | 11846 Dec 12 13:49 | 15° ₹ 105'28 | 2.13030710 | greatest orimane y | 11852 Jan 13 15:33 | 30°Rூ | 2.9111 |
| morning risc | 11847 Jan 03 02:27 | 0°る | | min. Earth dist. | 11852 Jan 18 13:16 | 28°937'08 | 0.38436 AU |
| | | | | | | | 0.36430 AU |
| | 11847 Feb 17 08:45 | 0° ∞ | | asc. node | 11852 Jan 22 13:28 | 27°932'21 | |
| 4 1 | 11847 Apr 06 17:45 | 0° ∀ | | direct | 11852 Feb 13 20:55 | 24°©19'59 | |
| desc. node | 11847 Apr 17 00:40 | 6° ₩ 03'59 | | | 11852 Mar 14 08:22 | 0° N | |
| _ | 11847 May 30 13:07 | 0° Υ | | | 11852 May 09 17:43 | 0° mp | |
| retrograde | 11847 Aug 22 02:03 | 27° ℃ 01'32 | | | 11852 Jun 23 15:37 | 0∘ ⊽ | |
| opposition | 11847 Sep 29 20:09 | 18° Y 16'51 | | | 11852 Aug 06 10:18 | 0°ML | |
| greatest brilliancy | 11847 Sep 30 15:18 | 17° Ƴ 58'27 | | | 11852 Sep 19 23:06 | 0° ∡ ¹ | |
| min. Earth dist. | 11847 Oct 05 01:46 | 16° Ƴ 16′10 | 0.63135 AU | | 11852 Nov 04 17:22 | 0°ಕ | |
| direct | 11847 Nov 10 04:30 | 8° Y 17'48 | | desc. node | 11852 Dec 06 01:27 | 20° පි 08'00 | |
| | 11848 Jan 17 15:47 | 9° 8 | | | 11852 Dec 21 13:09 | 0° ≈ | |
| | | | | | | | |

| evening set | 11853 Jan 08 01:13 | 11° ≈ 06′20 | | | 11858 Feb 25 00:12 | 8°0 | |
|---------------------|---|-----------------------------------|------------|---------------------|--|-------------------------------------|------------|
| | 11853 Feb 06 21:27 | 0° ∀ | | | 11858 Apr 24 19:21 | 0° ≈ | |
| max. Earth dist. | 11853 Feb 18 17:33 | 7° ∺ 30′02 | 2.68350 AU | retrograde | 11858 May 30 15:19 | 7° ≈ 12'01 | |
| | | | | | 11858 Jul 02 23:17 | 30°Ŗる | |
| conjunction | 11853 Feb 21 16:27 | 9° ∺ 22'25 | | min. Earth dist. | 11858 Jul 06 04:14 | 28° ප් 44'58 | 0.64106 AU |
| minimum elong | 11853 Feb 21 15:27 | 9°) €20'49 | 0°38'52 | opposition | 11858 Jul 10 01:42 | 27°る12'15 | 0°44'45 |
| | 11853 Mar 26 02:26 | 0°Υ 6° 20 55145 | | greatest brilliancy | 11858 Jul 09 23:20 | | -1.5m |
| morning rise | 11853 Apr 05 22:16 | 6° Ƴ 55'47 0° と | | desc. node | 11858 Jul 29 21:07 | 20°る27'25 18°る04'09 | |
| | 11853 May 11 15:37 11853 Jun 26 06:12 | 0°U | | direct | 11858 Aug 18 04:31 11858 Oct 08 03:41 | 0°≈ | |
| | 11853 Juli 26 06.12 11853 Aug 09 20:35 | 0°© | | | 11858 Dec 08 08:25 | 0 ≈ 0° ∺ | |
| | 11853 Sep 22 14:56 | 0° U | | | 11859 Jan 28 07:03 | 0°Υ | |
| | 11853 Nov 05 06:09 | 0° m) | | | 11859 Mar 15 20:47 | 0°8 | |
| asc. node | 11853 Dec 09 14:07 | 22° m/40'34 | | | 11859 Apr 28 07:01 | 0°II | |
| | 11853 Dec 21 11:05 | 0∘ <u>v</u> | | evening set | 11859 May 02 20:08 | 3° Ⅱ 15′04 | |
| retrograde | 11854 Mar 01 16:51 | 26° ≙ 16'58 | | max. Earth dist. | 11859 May 16 23:45 | 13° Ⅲ 30′01 | 2.43626 AU |
| min. Earth dist. | 11854 Mar 27 14:22 | 21° ≏ 51'01 | 0.40133 AU | | 11859 Jun 08 06:05 | 0 \circ \mathfrak{S} | |
| greatest brilliancy | 11854 Apr 02 06:15 | 20° ჲ 06'36 | -2.7m | | | | |
| opposition | 11854 Apr 03 20:39 | 19° ≏ 36'47 | 6°16'47 | conjunction | 11859 Jun 28 18:04 | 15° 5 33'29 | -0°22'56 |
| direct | 11854 May 04 07:36 | 14° ≙ 01'16 | | minimum elong | 11859 Jun 28 19:52 | 15° © 36'55 | 0°23'42 |
| | 11854 Jun 29 19:08 | 0°M₊ | | | 11859 Jul 17 10:36 | 0 ° Ω | |
| | 11854 Aug 24 13:16 | 0° ∡ | | asc. node | 11859 Jul 31 15:06 | 11° Ω 05′20 | |
| | 11854 Oct 13 23:22 | 0°る | | | 11859 Aug 24 15:01 | 0° m/y | |
| desc. node | 11854 Oct 24 05:23 | 6° る 12'32 0°≈ | | morning rise | 11859 Sep 05 09:51 | 9° ™ 19'06 0° ₽ | |
| | 11854 Dec 02 04:32 11855 Jan 19 15:39 | 0° ∺ | | | 11859 Oct 01 15:29 11859 Nov 09 09:19 | 0° ™ | |
| evening set | 11855 Feb 12 16:32 | 0 X 15° X 06'48 | | | 11859 Dec 19 18:19 | 0° ⊼ ¹ | |
| evening set | 11855 Mar 08 01:03 | 0°Υ | | | 11860 Jan 31 18:32 | 0°ਰ | |
| max. Earth dist. | 11855 Mar 13 12:37 | | 2.65075 AU | | 11860 Mar 19 02:11 | 0° ≈ | |
| | | | | | 11860 May 16 11:46 | 0°) € | |
| conjunction | 11855 Mar 28 22:58 | 13° Y 31'55 | -1°05'07 | desc. node | 11860 Jun 15 23:12 | 9° ∺ 22'29 | |
| minimum elong | 11855 Mar 28 22:10 | 13° Y 30'36 | 1°05'14 | retrograde | 11860 Jul 02 20:38 | 11° 米 01'38 | |
| | 11855 Apr 22 23:07 | 0° 8 | | opposition | 11860 Aug 12 12:10 | 1°) 16′50 | -1°58'17 |
| morning rise | 11855 May 12 22:24 | 13° 8 24'10 | | greatest brilliancy | 11860 Aug 12 10:57 | 1° ¥ 18′02 | |
| | 11855 Jun 06 04:14 | 0°П | | min. Earth dist. | 11860 Aug 12 09:22 | 1° 米 19'36 | 0.68348 AU |
| | 11855 Jul 18 16:00 | 0°© | | | 11860 Aug 15 18:01 | 30°R≈ | |
| | 11855 Aug 28 15:12 | 0° N | | direct | 11860 Sep 22 14:58 | 21°≈27'50 | |
| asc. node | 11855 Oct 07 12:29 11855 Oct 27 08:42 | 0°Mp 15°Mp03′11 | | | 11860 Nov 03 11:01 11861 Jan 04 19:06 | 0° ℋ 0° Ƴ | |
| asc. Houe | 11855 Nov 16 03:19 | 0∘ ⊽ | | | 11861 Feb 22 19:24 | 0°8 | |
| | 11855 Dec 26 22:47 | 0° m . | | | 11861 Apr 07 19:29 | 0°II | |
| | 11856 Feb 10 06:03 | 0° ⊼ | | | 11861 May 18 16:52 | 0° © | |
| retrograde | 11856 Apr 22 01:03 | 26° ₹ 17'21 | | asc. node | 11861 Jun 17 11:35 | 22° © 51'24 | |
| min. Earth dist. | 11856 May 23 03:37 | 19° ∡ ¹40'48 | 0.53661 AU | | 11861 Jun 26 15:01 | $0^{\circ}\Omega$ | |
| opposition | 11856 May 30 13:45 | 16° ∡ 751'47 | 4°03'03 | evening set | 11861 Jul 01 10:08 | 3° Ω 45′52 | |
| greatest brilliancy | 11856 May 29 13:10 | 17° ∡ 15′12 | -2.0m | | 11861 Aug 03 13:51 | 0° m | |
| direct | 11856 Jul 05 03:39 | 9° х 701′10 | | | 11861 Sep 10 12:01 | 0∘ ত | |
| desc. node | 11856 Sep 10 14:02 | 28° ∡ ³39'59 | | | 11061 0 11 04 40 | 00 0 22120 | 005313.4 |
| | 11856 Sep 13 09:57 | ್ %% | | conjunction | 11861 Sep 11 04:40 | 0° ჲ 32'39 | |
| | 11856 Nov 09 05:33 11856 Dec 30 09:35 | 0° ∺ | | minimum elong | 11861 Sep 11 00:56 11861 Oct 19 06:49 | 0° ჲ 25'20 0° ル | 0°53'28 |
| | 11857 Feb 16 17:18 | 0°Υ | | max. Earth dist. | 11861 Nov 03 22:17 | 11° M 47'09 | 2.39990 AU |
| evening set | 11857 Mar 20 08:41 | 20° Υ 31'08 | | morning rise | 11861 Nov 19 20:15 | 23°M33'23 | 2.37770110 |
| | 11857 Apr 03 14:31 | 0°8 | | | 11861 Nov 28 16:40 | 0° ⊼ ⊓ | |
| max. Earth dist. | 11857 Apr 07 13:28 | | 2.56515 AU | | 11862 Jan 10 08:17 | 0°ెవ | |
| | • | | | | 11862 Feb 24 19:35 | 0° ≈ | |
| conjunction | 11857 May 06 18:07 | 22° 8 41'13 | -1°05'55 | | 11862 Apr 15 05:25 | 0° ∀ | |
| minimum elong | 11857 May 06 19:02 | 22° 8 42'48 | 1°06'29 | desc. node | 11862 May 03 18:03 | 10°) 20′16 | |
| | 11857 May 17 04:09 | 0°Щ | | | 11862 Jun 12 22:51 | 0° Υ | |
| morning rise | 11857 Jun 27 19:43 | 0°9507'37 | | retrograde | 11862 Aug 07 00:52 | 13° Y ′46′02 | |
| | 11857 Jun 27 15:36 | 0°© | | opposition | 11862 Sep 15 14:26 | 4° Υ 39'33 | |
| 000 mc J- | 11857 Aug 06 10:55 | 0°Ω 20°Ω05!22 | | greatest brilliancy | 11862 Sep 16 01:38 | | -1.3m |
| asc. node | 11857 Sep 13 00:29 11857 Sep 14 04:23 | 29° Ω 05'32 0° m | | min. Earth dist. | 11862 Sep 19 07:52 11862 Sep 27 23:01 | 3° Y 12'32 30° Ŗ ₩ | 0.65937 AU |
| | 11857 Sep 14 04:23 11857 Oct 22 14:36 | 0∘ ت میاآل | | direct | 11862 Sep 27 25:01 11862 Oct 27 05:39 | 30°Kπ 24° ∺ 36'22 | |
| | 11857 Nov 30 17:06 | 0° m . | | anoct | 11862 Nov 27 18:37 | 24 γ (3022 | |
| | 11858 Jan 10 18:34 | 0° × 7 | | | 11863 Jan 29 19:54 | 0°8 | |
| | | • | | | | _ | |

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| min. Earth dist. opposition greatest brilliancy direct | 11873 Jun 20 02:49 11873 Jun 25 10:49 11873 Jun 25 02:04 11873 Aug 02 09:00 | 12°ප්50'51 12°ප්59'29 4°ප්07'31 | 0.60701 AU 1°58'12 -1.6m | greatest brilliancy evening set | 11878 Aug 12 16:43 11878 Aug 17 16:43 11878 Aug 29 00:48 11878 Oct 06 23:22 | 17° Mp 09'31 21° Mp 06'01 0° Ω 0° ML | 1.1m |
|---|--|--|---------------------------------|--|--|--|-----------------------|
| desc. node | 11873 Aug 15 08:22 11873 Oct 22 21:12 11873 Dec 17 03:35 11874 Feb 04 18:21 | 5°る06'23 0°≈ 0°升 0°Υ | | conjunction minimum elong | 11878 Oct 25 11:23 11878 Oct 25 11:55 11878 Nov 16 13:41 | 13°M50'53 13°M51'53 0°⊀ | 1°05'56 1°06'27 |
| evening set max. Earth dist. | 11874 Mar 22 23:42 11874 Apr 14 12:49 11874 Apr 28 10:29 11874 May 05 10:22 | 0° 8 15° 8 20'54 25° 8 03'06 0° П | 2.49044 AU | max. Earth dist. morning rise | 11878 Dec 08 20:03 11878 Dec 23 22:20 11878 Dec 29 07:13 11879 Feb 12 10:39 | 15°水50'02 26°水19'02 0°る 0°≈ | 2.48717 AU |
| conjunction minimum elong | 11874 Jun 05 15:04 11874 Jun 05 17:13 11874 Jun 15 13:37 | 22°II36'57 22°II40'54 0°S | | desc. node | 11879 Apr 01 08:06 11879 Apr 07 01:22 11879 May 23 10:13 11879 Jul 29 11:35 | 0°₩ 3°₩26'46 0°Ψ 0°₩ | |
| morning rise asc. node | 11874 Jul 24 23:00 11874 Aug 05 20:10 11874 Aug 17 11:23 11874 Sep 01 07:24 | 0° A 9° A 14'06 18° A 20'17 0° Mp | | opposition greatest brilliancy | 11879 Aug 31 05:28 11879 Sep 30 03:47 11879 Oct 08 09:58 11879 Oct 09 09:55 | 5° 8 29'07 30° RY 26° Y 58'37 26° Y 35'47 | -1.5m |
| greatest brilliancy | 11874 Oct 09 10:17 11874 Oct 26 22:42 11874 Nov 17 05:23 11874 Dec 27 16:59 | 0° 亞 13° 亞 39'18 0° ጤ 0° ℤ | 1.2m | min. Earth dist. direct | 11879 Oct 14 10:49 11879 Nov 18 10:54 11880 Jan 07 08:28 11880 Feb 29 14:55 | 24°Y40'39 17°Y05'00 0°U 0°II | 0.61183 AU |
| retrograde desc. node | 11875 Feb 09 03:52 11875 Mar 30 07:51 11875 Jun 20 17:17 11875 Jul 03 12:36 | 0°る 0°≈ 28°≈28'41 27°≈24'13 | | asc. node | 11880 Apr 08 09:37 11880 Apr 12 20:19 11880 May 22 13:47 11880 Jun 29 23:49 | 26°∏45'40 0°© 0°Ω 0°Mp | |
| min. Earth dist. opposition greatest brilliancy | 11875 Jul 29 20:08 11875 Jul 31 10:26 11875 Jul 31 08:31 | 19°≈12'50 18°≈34'47 18°≈36'41 | 0.67475 AU -0°59'44 -1.3m | evening set | 11880 Aug 07 11:00 11880 Sep 15 23:05 11880 Oct 23 10:20 | 0° ፫ 0° ጤ 27° ጤ 19'41 0° ٪ | |
| direct | 11875 Sep 09 22:27 11875 Nov 20 11:59 11876 Jan 14 19:58 11876 Mar 02 13:51 | 8°≈58'34 0°₩ 0°Υ 0°Β | | conjunction | 11880 Oct 27 04:23 11880 Dec 09 10:22 11880 Dec 16 23:28 | 0°중 5°중05'35 | 0°35'14 |
| evening set | 11876 Apr 15 06:27 11876 May 26 03:46 11876 Jun 04 19:35 11876 Jul 04 05:21 | 0°∏ 0°© 7°©19'23 0°Ω02'59 | | minimum elong max. Earth dist. | 11880 Dec 17 00:51 11881 Jan 09 04:12 11881 Jan 23 16:19 11881 Feb 03 16:34 | 5° පි07'55 20° පි31'06 0° ≈ 7° ≈07'27 | 0°36'03 2.60489 AU |
| max. Earth dist. | 11876 Jul 04 03:49 11876 Jul 26 21:25 | 0° Ω 17° Ω 53'28 | 2.36455 AU | desc. node | 11881 Feb 21 14:39 11881 Mar 11 16:15 11881 Apr 29 07:40 | 18°≈35'19 0°₩ 0°Υ | |
| conjunction minimum elong | 11876 Aug 10 17:22 11876 Aug 10 14:37 11876 Aug 11 04:12 11876 Sep 18 02:25 | 29° \Omega 38'32 29° \Omega 33'04 0° \Omega | | retrograde opposition | 11881 Jun 19 06:50 11881 Aug 15 13:16 11881 Oct 19 02:02 11881 Nov 22 10:55 | 0° В 0° П 18° П 09'03 11° П 13'02 | -4°43'55 |
| morning rise | 11876 Oct 23 16:20 11876 Oct 26 19:31 11876 Dec 06 03:09 11877 Jan 17 18:53 | 27° 으 36'35 0° M 0° メ 0° ರ | | greatest brilliancy min. Earth dist. direct asc. node | 11881 Nov 24 01:04 11881 Dec 01 03:52 11881 Dec 30 02:39 11882 Feb 24 17:00 | 10°Д39'50 8°Д12'21 2°Д42'22 20°Д32'18 | -2.2m 0.48678 AU |
| desc. node | 11877 Mar 04 15:31 11877 Apr 24 19:07 11877 May 20 09:42 | 0°≈ 0°¥ 12°¥55'53 | | asc. nouc | 11882 Mar 13 01:37 11882 Apr 26 11:35 11882 Jun 06 00:03 | 0° N 0° O 0°© | |
| retrograde opposition | 11877 Jul 10 04:32 11877 Jul 23 23:09 11877 Aug 06 03:15 11877 Sep 02 02:28 | 0°Υ 1°Υ05'21 30°R₩ 21°₩41'12 | -3°19'46 | | 11882 Jul 15 22:57 11882 Aug 25 18:47 11882 Oct 07 05:18 11882 Nov 20 11:36 | 0°전 0° % 0° ጤ 0°亞 | |
| greatest brilliancy min. Earth dist. direct | 11877 Sep 02 07:16 11877 Sep 04 07:45 11877 Oct 13 17:05 11877 Dec 16 22:27 | 21°¥36'30 20°¥48'55 11°¥40'03 0° ° | -1.3m 0.67680 AU | evening set desc. node | 11882 Dec 09 22:15 11883 Jan 05 08:31 11883 Jan 09 06:38 | 12° ♂ 49'39 0°≈ 2°≈31'37 | |
| | 11878 Feb 08 16:03 11878 Mar 25 20:13 11878 May 06 01:24 | 0ಂಲ Пಂ0 ೧ಂ႘ | | conjunction minimum elong behind sun begin | 11883 Jan 26 01:20 11883 Jan 26 01:03 11883 Jan 25 08:45 | 13°≈17'18 13°≈16'51 12°≈50'48 | -0°09'06 0°08'27 |
| asc. node | 11878 May 22 04:10 11878 Jun 14 01:04 11878 Jul 22 00:34 | 12°©15'05 0°Ω 0°™p | | behind sun end max. Earth dist. | 11883 Jan 26 17:22 11883 Feb 02 16:03 11883 Feb 21 07:34 | 13°≈42'53 18°≈08'46 0° 米 | 2.67057 AU |

| morning rise | 11883 Mar 11 06:40 | 11°) 22′10 | | opposition | 11888 Jun 09 11:41 | 27°×707'38 | |
|---------------------|--|------------------------|------------|---------------------|--|--|------------|
| | 11883 Apr 09 19:18 | 0° Y | | greatest brilliancy | 11888 Jun 08 17:28 | 27° 🖈 25'16 | -1.8m |
| | 11883 May 27 11:07 | 0° B | | direct | 11888 Jul 15 23:06 | 18° ₹ 55'55 | |
| | 11883 Jul 14 07:57 | 0°II | | desc. node | 11888 Aug 31 18:11 | 29° ∡ ³30′57 | |
| | 11883 Sep 01 02:10 | 0°99 | | | 11888 Sep 01 23:59 | 0°ප | |
| _ | 11883 Oct 23 14:16 | 0°Ω | | | 11888 Nov 02 20:46 | 0° ≈ | |
| retrograde | 11884 Jan 01 06:06 | 22° Ω 44'02 | | | 11888 Dec 25 04:42 | 0° ∀ | |
| asc. node | 11884 Jan 12 21:14 | 21° Ω 51'57 | | | 11889 Feb 11 22:32 | 0° Υ | |
| opposition | 11884 Jan 30 23:34 | 17° Ω 49'15 | 1°24'10 | evening set | 11889 Mar 29 03:18 | 29° Y 27'19 | |
| greatest brilliancy | 11884 Jan 31 01:51 | 17° Ω 47'42 | -3.0m | | 11889 Mar 29 22:48 | 0°8 | |
| min. Earth dist. | 11884 Feb 02 13:53 | 17° Ω 07'15 | 0.36890 AU | max. Earth dist. | 11889 Apr 14 11:45 | | 2.54019 AU |
| direct | 11884 Mar 01 06:44 | 12° Ω 37'43 | | | 11889 May 12 11:37 | Π °0 | |
| | 11884 Apr 26 01:49 | 0° m) | | | | | |
| | 11884 Jun 15 01:46 | 0∘ ⊽ | | conjunction | 11889 May 16 21:09 | 3° Ⅱ 07'13 | |
| | 11884 Jul 30 16:56 | 0° M. | | minimum elong | 11889 May 16 22:35 | 3° Ⅱ 09'46 | 1°01'35 |
| | 11884 Sep 14 05:30 | 0° ∡ ¹ | | | 11889 Jun 22 20:28 | 0 | |
| | 11884 Oct 30 14:06 | 0°ಕ | | morning rise | 11889 Jul 10 16:25 | 13° © 21'15 | |
| desc. node | 11884 Nov 26 05:10 | 16° る 58'53 | | | 11889 Aug 01 12:22 | $0 {\circ} \Omega$ | |
| | 11884 Dec 16 18:21 | 0°≈ | | asc. node | 11889 Sep 03 06:16 | 25° Ω 25'35 | |
| evening set | 11885 Jan 16 02:04 | 19° ≈ 08'42 | | | 11889 Sep 09 02:31 | 0° m ∕ | |
| | 11885 Feb 02 06:35 | 0° ∀ | | | 11889 Oct 17 09:47 | 0∘ ত | |
| max. Earth dist. | 11885 Feb 23 17:15 | 13°) 34′48 | 2.68112 AU | | 11889 Nov 25 08:35 | 0° M $_{\circ}$ | |
| | | | | | 11890 Jan 05 02:36 | 0° ∡ ¹ | |
| conjunction | 11885 Mar 01 09:12 | 17° ∺ 10'41 | -0°46'38 | | 11890 Feb 18 10:01 | 8°0 | |
| minimum elong | 11885 Mar 01 08:07 | 17° ¥ 08'58 | 0°46'23 | | 11890 Apr 12 12:54 | 0° ≈ | |
| | 11885 Mar 21 11:41 | 0° Υ | | retrograde | 11890 Jun 07 10:29 | 15° ≈ 26'56 | |
| morning rise | 11885 Apr 13 16:38 | 14° Ƴ 55'38 | | min. Earth dist. | 11890 Jul 14 22:11 | 6° ≈ 41'23 | 0.65566 AU |
| | 11885 May 06 20:47 | 0°B | | opposition | 11890 Jul 18 00:07 | 5° ≈ 27'52 | 0°04'31 |
| | 11885 Jun 21 02:27 | Π $^{\circ}0$ | | greatest brilliancy | 11890 Jul 17 23:59 | 5° ≈ 28'01 | -1.4m |
| | 11885 Aug 04 02:39 | 0°© | | desc. node | 11890 Jul 20 00:59 | 4° ≈ 39'26 | |
| | 11885 Sep 15 23:41 | $0^{\circ}\Omega$ | | | 11890 Aug 02 00:17 | 30°Ŗ⋜ | |
| | 11885 Oct 28 05:39 | 0° m) | | direct | 11890 Aug 26 15:48 | 26° ⋜ 08'38 | |
| asc. node | 11885 Nov 29 22:15 | 22° m 54'31 | | | 11890 Sep 22 17:31 | 0° ≈ | |
| | 11885 Dec 10 08:39 | 0∘ <u>⊽</u> | | | 11890 Dec 01 20:45 | 0°) € | |
| | 11886 Jan 29 11:57 | 0° M . | | | 11891 Jan 23 01:15 | 0° Υ | |
| retrograde | 11886 Mar 15 05:34 | 12°M25'27 | | | 11891 Mar 11 00:28 | 0°8 | |
| min. Earth dist. | 11886 Apr 10 17:50 | 7°M38'12 | 0.42830 AU | | 11891 Apr 23 13:13 | 0°II | |
| greatest brilliancy | 11886 Apr 17 05:27 | 5°M30'12 | | evening set | 11891 May 14 04:51 | 14° ∏ 55'35 | |
| opposition | 11886 Apr 18 23:37 | 4°M55'16 | | max. Earth dist. | 11891 May 31 14:28 | | 2.40652 AU |
| rr | 11886 May 07 03:23 | 30° ₽ Ω | | | 11891 Jun 03 12:03 | 0ಂತಾ | |
| direct | 11886 May 20 11:50 | 28° ♀ 47'27 | | | 11891 Jul 12 15:01 | $0^{\circ}\Omega$ | |
| | 11886 Jun 03 10:13 | 0° M , | | | | | |
| | 11886 Aug 16 00:53 | 0° ∡ 7 | | conjunction | 11891 Jul 13 10:52 | 0° Ω 38'41 | -0°06'07 |
| | 11886 Oct 07 20:26 | 0°ਰ | | minimum elong | 11891 Jul 13 11:29 | 0° Ω 39'54 | |
| desc. node | 11886 Oct 14 10:02 | 3° ප 52'28 | | behind sun begin | 11891 Jul 12 09:46 | 29° © 49'47 | |
| | 11886 Nov 27 00:03 | 0° ≈ | | behind sun end | 11891 Jul 14 13:12 | 1° Ω 30′03 | |
| | 11887 Jan 14 21:10 | 0°) € | | asc. node | 11891 Jul 21 22:37 | 7° Ω 17'08 | |
| evening set | 11887 Feb 20 13:48 | 23° ¥ 03'55 | | | 11891 Aug 19 17:45 | 0° my | |
| | 11887 Mar 03 10:17 | 0° Υ | | morning rise | 11891 Sep 23 13:20 | 27° Mp 31'21 | |
| max. Earth dist. | 11887 Mar 18 22:31 | | 2.63665 AU | | 11891 Sep 26 16:59 | 0∘ ʊ | |
| | | | | | 11891 Nov 04 09:46 | 0°M₊ | |
| conjunction | 11887 Apr 06 03:50 | 21° Y ′55'55 | -1°08'01 | | 11891 Dec 14 16:59 | 0° ∡ 7 | |
| minimum elong | 11887 Apr 06 03:16 | 21° Υ '54'59 | | | 11892 Jan 26 12:05 | 0°ਤ | |
| mmum trong | 11887 Apr 18 07:54 | 0°8 | 1 00 10 | | 11892 Mar 13 01:47 | 0° ≈ | |
| morning rise | 11887 May 22 01:46 | 22° 8 51'36 | | | 11892 May 06 12:28 | 0° ∀ | |
| morning risc | 11887 Jun 01 09:22 | 0°Ⅱ | | desc. node | 11892 Jun 06 01:51 | 12°) 28′14 | |
| | 11887 Jul 13 15:29 | 0°® | | retrograde | 11892 Jul 10 11:15 | 18°) 38'37 | |
| | 11887 Aug 23 07:37 | 0° U | | opposition | 11892 Jul 10 11:13 11892 Aug 19 23:22 | 9° ∺ 00′24 | -2°30'07 |
| | 11887 Aug 23 07:37 11887 Oct 01 21:06 | 0° m y | | greatest brilliancy | 11892 Aug 19 23:22 11892 Aug 19 23:40 | 9° X 00'24 9° X 00'07 | |
| asc. node | 11887 Oct 01 21:06 11887 Oct 17 16:20 | 12° Mp 05'52 | | min. Earth dist. | 11892 Aug 19 23:40 11892 Aug 20 16:30 | 8°) 43'28 | 0.68389 AU |
| asc. Hour | 11887 Oct 17 16:20 11887 Nov 10 02:32 | 0° ம | | mm. Earth dist. | 11892 Aug 20 16:30 11892 Sep 18 09:20 | 8°π43′28 30°R≈ | 0.00307 AU |
| | 11887 Nov 10 02:32 11887 Dec 20 05:43 | 0° ™ | | direct | * | 30°k≈ 29°≈06'05 | |
| | | 0°แเ 0° ∡ 7 | | ancei | 11892 Sep 30 07:28 11892 Oct 12 19:04 | 29°≈06'05 0° ∺ | |
| | 11888 Feb 01 15:27 | 0°る | | | | 0°π 0°Υ | |
| retrogrado | 11888 Mar 29 00:40 | 0°る 6°る48'05 | | | 11892 Dec 29 02:16 | 0°8 | |
| retrograde | 11888 May 01 08:56 11888 Jun 02 01:01 | 30°R.✓ | | | 11893 Feb 17 09:27 | 0° Π | |
| min Forth dist | | | 0.56366 AU | | 11893 Apr 02 18:41 | 0₀ © 0∘П | |
| min. Earth dist. | 11888 Jun 02 18:32 | 29° ∡ ¹43'25 | 0.50500 AU | | 11893 May 13 19:09 | 0 39 | |

| asc. node | 11893 Jun 07 20:22 | 19° © 09'46 | | desc. node | 11898 Jan 25 22:33 | 8° ≈ 53'23 | |
|---------------------|--------------------|------------------------------|-------------|---------------------|--|---------------------------------|------------|
| | 11893 Jun 21 18:02 | $0^{\circ}\Omega$ | | morning rise | 11898 Feb 25 20:35 | 28° ≈ 36'33 | |
| evening set | 11893 Jul 17 21:54 | 20° Ω 38′24 | | | 11898 Feb 28 01:18 | 0° ∀ | |
| | 11893 Jul 29 16:57 | 0° m) | | | 11898 Apr 16 20:24 | $0^{\circ}\mathbf{\Upsilon}$ | |
| | 11893 Sep 05 15:22 | 0∘ ⊽ | | | 11898 Jun 04 09:59 | 0°8 | |
| | | | | | 11898 Jul 24 08:20 | 0°II | |
| conjunction | 11893 Sep 28 03:19 | 17° ≏ 31'04 | 1°02'25 | | 11898 Sep 16 10:49 | 0°© | |
| · | • | 17° ⊆ 26'33 | 1°02'34 | rotro arado | | 23°952'00 | |
| minimum elong | 11893 Sep 28 00:58 | | 1 02 34 | retrograde | 11898 Nov 29 21:04 | | 2002126 |
| | 11893 Oct 14 10:34 | 0° M , | | opposition | 11898 Dec 31 01:05 | 18°9519'28 | |
| max. Earth dist. | 11893 Nov 19 12:11 | 26°M50'18 | 2.43077 AU | greatest brilliancy | 11898 Dec 31 17:26 | | -2.8m |
| | 11893 Nov 23 20:43 | 0° ⊼ | | min. Earth dist. | 11899 Jan 07 04:44 | 16°©12'16 | 0.40290 AU |
| morning rise | 11893 Dec 03 03:18 | 6° ∡ ¹40′22 | | asc. node | 11899 Jan 29 13:12 | 11° © 56'11 | |
| | 11894 Jan 05 11:33 | 0° ප | | direct | 11899 Feb 02 08:12 | 11° © 50'05 | |
| | 11894 Feb 19 17:47 | 0° ≈ | | | 11899 Mar 30 15:10 | $0^{\circ}\Omega$ | |
| | 11894 Apr 09 09:49 | 0° ₩ | | | 11899 May 17 06:32 | 0° m | |
| desc. node | 11894 Apr 23 18:42 | 8°) 19′02 | | | 11899 Jun 29 05:52 | 0∘ <u>v</u> | |
| dese. Hode | 11894 Jun 03 15:59 | 0°Υ | | | 11899 Aug 11 00:31 | 0° m | |
| 1 | | 21° Υ 45'47 | | | • | | |
| retrograde | 11894 Aug 15 12:04 | | 100.415.6 | | 11899 Sep 23 21:21 | 0° ∡ ¹ | |
| opposition | 11894 Sep 23 15:05 | 12° Y ′50′54 | | | 11899 Nov 08 04:53 | 0° ろ | |
| greatest brilliancy | 11894 Sep 24 06:38 | 12° Ƴ 35'52 | -1.4m | desc. node | 11899 Dec 13 17:39 | 22° る 57'27 | |
| min. Earth dist. | 11894 Sep 28 04:36 | 11° Ƴ 04'56 | 0.64507 AU | | 11899 Dec 24 17:56 | 0° ≈ | |
| direct | 11894 Nov 04 02:46 | 2° Y 49'03 | | evening set | 11900 Jan 02 21:16 | 5° ≈ 49'33 | |
| | 11895 Jan 22 10:05 | $_{0\circ}$ 8 | | | 11900 Feb 09 23:13 | 0°) € | |
| | 11895 Mar 11 13:59 | Π° | | | | | |
| | 11895 Apr 22 16:04 | 0°ಅ | | conjunction | 11900 Feb 16 21:19 | 4°) €23'09 | -0°33'35 |
| asc. node | 11895 Apr 25 22:27 | 2°526'02 | | minimum elong | 11900 Feb 16 20:24 | 4°) 21'42 | |
| asc. node | * | | | | | | |
| | 11895 May 31 23:27 | O°O | | max. Earth dist. | 11900 Feb 16 04:58 | | 2.68355 AU |
| | 11895 Jul 09 03:28 | 0° m) | | | 11900 Mar 29 05:10 | 0° Υ | |
| | 11895 Aug 16 08:50 | 0∘ ত | | morning rise | 11900 Apr 01 04:05 | 1° Y 53'04 | |
| | 11895 Sep 24 14:05 | 0° M ₊ | | | 11900 May 14 23:18 | 9° 8 | |
| evening set | 11895 Sep 30 22:36 | 4° ጤ 45'14 | | | 11900 Jun 29 23:30 | $\Pi^{\circ}0$ | |
| | 11895 Nov 04 11:50 | 0° ∡ ¹ | | | 11900 Aug 14 05:17 | 0 \circ \odot | |
| | | | | | 11900 Sep 27 22:48 | $0^{\circ}\Omega$ | |
| conjunction | 11895 Nov 29 10:10 | 17° ∡ ³35'13 | 0°50'53 | | 11900 Nov 12 06:18 | 0° m) | |
| minimum elong | 11895 Nov 29 12:00 | 17° х 38′24 | 0°51'38 | asc. node | 11900 Dec 17 14:59 | 21° m) 37'34 | |
| minimum ciong | 11895 Dec 17 11:14 | 17 × 30 2 1 | 0 31 30 | asc. node | 11900 Dec 17 14:39 11901 Jan 02 10:19 | ე∘ <u>ი</u> | |
| E 4 E 4 | | | 2.56440 ATT | . 1 | | | |
| max. Earth dist. | 11895 Dec 30 04:42 | 8° ろ 36'30 | 2.56440 AU | retrograde | 11901 Feb 19 03:37 | 13° ≏ 31'07 | |
| morning rise | 11896 Jan 20 08:17 | 22° る 39'24 | | min. Earth dist. | 11901 Mar 17 02:22 | 9° ≏ 14'05 | 0.38334 AU |
| | 11896 Jan 31 13:59 | 0° ≈ | | opposition | 11901 Mar 22 23:16 | 7° ჲ 32'02 | 5°57'01 |
| desc. node | 11896 Mar 10 08:02 | 24° ≈ 43′50 | | greatest brilliancy | 11901 Mar 21 16:37 | 7° ≙ 54'24 | -2.9m |
| | 11896 Mar 18 18:35 | 0° ∀ | | direct | 11901 Apr 21 16:57 | 2° ₽ 19'59 | |
| | 11896 May 07 07:16 | $0^{\circ}\mathbf{\Upsilon}$ | | | 11901 Jul 09 04:19 | 0° M . | |
| | 11896 Jun 30 02:04 | 0°B | | | 11901 Aug 29 19:20 | 0° ∡ ¹ | |
| | 11896 Sep 23 13:26 | 0°II | | | 11901 Oct 17 22:48 | 0° ਰ | |
| retrograde | 11896 Sep 27 13:09 | 0° Ⅱ 05'41 | | desc. node | 11901 Oct 31 20:18 | 8° ರ 33'11 | |
| retrograde | • | | | desc. Hode | | | |
| • . • | 11896 Oct 01 11:21 | 30°R₩ | 5010116 | | 11901 Dec 05 14:06 | 0° ≈ | |
| opposition | 11896 Nov 02 15:49 | 22° 8 26'02 | | | 11902 Jan 22 19:09 | 0°) { | |
| greatest brilliancy | 11896 Nov 04 03:53 | 21° 8 53'01 | | evening set | 11902 Feb 07 19:10 | 10° 米 03'34 | |
| min. Earth dist. | 11896 Nov 10 16:01 | 19° 8 30'38 | 0.54125 AU | max. Earth dist. | 11902 Mar 10 17:00 | 29°) 43′00 | 2.66048 AU |
| direct | 11896 Dec 12 02:30 | 13° 8 08'20 | | | 11902 Mar 11 03:36 | 0 ° Υ | |
| | 11897 Feb 06 04:17 | $\Pi^{\circ}0$ | | | | | |
| asc. node | 11897 Mar 13 05:58 | 20° Ⅱ 45'21 | | conjunction | 11902 Mar 23 21:50 | 8° Y 13'18 | -1°02'20 |
| | 11897 Mar 27 00:29 | 0 \circ \odot | | minimum elong | 11902 Mar 23 20:54 | 8° Ƴ 11'46 | 1°02'21 |
| | 11897 May 07 10:36 | 0°N | | | 11902 Apr 26 04:17 | 0°8 | |
| | 11897 Jun 15 17:21 | 0° m) | | morning rise | 11902 Apr 20 04:17 11902 May 07 07:03 | 7° 8 24'00 | |
| | | • | | morning risc | • | | |
| | 11897 Jul 24 20:36 | 0∘ 亚 | | | 11902 Jun 09 14:47 | 0°II | |
| | 11897 Sep 03 00:04 | 0° M ₊ | | | 11902 Jul 22 09:57 | 0°© | |
| | 11897 Oct 14 20:08 | 0° ∡ ¹ | | | 11902 Sep 01 17:31 | $0^{\circ}\Omega$ | |
| evening set | 11897 Nov 23 01:55 | 26° ₰ 57'09 | | | 11902 Oct 11 23:27 | 0° m | |
| | 11897 Nov 27 14:43 | 5°0 | | asc. node | 11902 Nov 04 10:26 | 17° m 37'16 | |
| | | | | | 11902 Nov 21 00:10 | 0∘ ⊽ | |
| conjunction | 11898 Jan 11 09:21 | 29° ට 30'01 | 0°07'57 | | 11903 Jan 01 11:21 | 0°M₊ | |
| minimum elong | 11898 Jan 11 09:40 | 29° ට 30'31 | 0°08'42 | | 11903 Feb 17 23:50 | 0° ⊼ ¹ | |
| behind sun begin | 11898 Jan 10 16:59 | 29° ろ 03'29 | <u>-</u> | retrograde | 11903 Apr 16 14:25 | 18° × ⁷ 31'22 | |
| behind sun end | 11898 Jan 12 02:21 | 29° る 57'32 | | min. Earth dist. | 11903 Apr 10 14:23 11903 May 16 14:29 | 18 × 31 22 | 0.51317 AU |
| ochina sun ena | | | | | • | | |
| n a v | 11898 Jan 12 03:53 | 0°≈ | 2 (5140 433 | greatest brilliancy | 11903 May 23 06:03 | 9° 🗷 50'02 | -2.1m |
| max. Earth dist. | 11898 Jan 24 15:51 | გ∽≪04'02 | 2.65149 AU | opposition | 11903 May 24 11:43 | 9° ∡ ′22′18 | 4~3/16 |
| | | | | | | | |

| 1908 No. 1 | direct desc. node | 11903 Jun 28 06:13 11903 Sep 19 04:57 11903 Sep 20 13:04 | 1°፟፟፟ ҂ 150'58 29°҆ ҂ 19'07 0°₴ | | conjunction minimum elong | 11908 Aug 29 10:19 11908 Aug 29 06:22 11908 Sep 14 04:54 | 17° m/33'19 17° m/25'31 0° Ω | 0°43'23 0°43'05 |
|--|----------------------|--|---|------------|------------------------------|--|------------------------------------|--------------------|
| event path at Earth dist 11904 Apr 10 227 14°S10°0 25°S379 AU 11909 Apr 10 10 0°B 1909 Apr 10 20 0°B 0°B </td <td></td> <td>11903 Nov 14 05:13 11904 Jan 03 18:38</td> <td>0°₩</td> <td></td> <td></td> <td>11908 Oct 15 22:12 11908 Oct 22 22:10</td> <td>24°£39'06 0°M</td> <td>2.37700 AU</td> | | 11903 Nov 14 05:13 11904 Jan 03 18:38 | 0° ₩ | | | 11908 Oct 15 22:12 11908 Oct 22 22:10 | 24° £ 39'06 0° M | 2.37700 AU |
| max Earth did 1904 yr 0° 10.94 29° 50° 8 28879 AU 1900 Feb 20 80° 20 7° 50° 10° 10° 10° 10° 10° 10° 10° 10° 10° 1 | avanina aat | | | | morning rise | | | |
| 1909 | • | | | 2.58379 AU | | | | |
| companion 11904 Agr 30 1.03 10°6 00°8 1-0°812 10°8 1-0°8 1.0% 11900 Into 20 1.20 "POW 70 1.0% | | | | | | | | |
| minimum clam 10 A gr 30 1.100 16 '80 1/32 1'80 1'80 1'80 1'80 1'80 1'80 1'80 1'80 | | | | | | - | | |
| 1998 | · | • | .T. | | desc. node | • | | |
| moming rises 11904 Jul 19 1615 2 PT 3330 between the population of 1909 Sep 10 2014 30% 315 3-48 State of 1908 Sep 10 2014 20% 315 3-48 State of 1908 Sep 10 2014 20% 315 3-48 State of 1908 Sep 10 2014 20% 315 3-34 State of 1908 Sep 10 2014 20% 325 3-34 State of 1909 Sep 10 2014< | minimum elong | | _ | 1°08'45 | ratrograda | | | |
| 1994 1904 190 1 | morning rise | • | | | retrograde | | | |
| ase. node 11904 Sep 18 20.25 0°Pg 073 7 direct 11909 Dec 07 1 10s 287205 6.68852 AU ase. node 11904 Ce 2 6 15.33 0°A direct 11909 Dec 07 1 10s 0°PC 0°PC 11905 Lai Lo 2 10.34 0°A 11901 He 01 1190 0°PC 11901 May 21 112s 0°PC 11905 May 25 16.55 12983 839 asc. node 11910 May 13 140s 894708 min. Earl dist 11905 May 25 16.55 12983 839 11910 May 13 140s 894708 min. Earl dist 11905 Jul 30 10 10 10 10 0°PQ 11910 Jul 10 10 10 10 0°PQ min. Earl dist 11905 Jul 30 10 10 10 10 10 10 0°PQ 11905 Jul 10 10 10 10 10 10 10 10 10 10 10 10 10 | | | | | opposition | - | | -3°45'51 |
| ase, node 11940 Sep 2 1 02-14 2"mg/3" > direct 11900 Dec 2 2 05-10 1947 Sep 3-10 1940 Dec 2 6 15-33 0"R 11910 Feb 0 3 11-09 0"R 11910 Feb 0 3 11-09 0"R 11910 Feb 0 3 11-09 0"R 0"R 11910 Feb 0 3 11-09 0"R 0"R 11910 Mar 21 11-22 0"R 0"R 11910 Mar 21 11-22 0"R 11910 Mar 21 11-22 0"R 11910 Mar 21 11-22 0"R 0"R 11910 Mar 21 11-23 0"R 0"R 0"R 11910 Mar 21 11-23 0"R 0"R 0"R 11910 Mar 21 11-23 0"R 0"R 0"R 0"R 0"R 11910 Mar 21 11-23 0"R 0"R | | 11904 Aug 10 05:08 | 0 $^{\circ}$ Ω | | greatest brilliancy | 11909 Sep 11 02:14 | | |
| 1904 1904 1905 1905 1905 1906 | | = | | | | = | | 0.66852 AU |
| 1905 Ang 1 | asc. node | | | | direct | | | |
| Part | | | | | | | | |
| Performance 1905 May 02 02.37 0°5 sea. node 1910 May 01 2.30 0°5 sea. node 1910 May 01 2.30 0°5 sea. node 1910 May 01 10 10.50 0°5 sea. node 1910 May 01 10 10.50 0°5 sea. node 1910 May 10 10 10 10 10 10 10 10 10 10 10 10 10 | | | | | | | _ | |
| Pertograde 1908 May 90 12.00 1928 1928 1928 1910 May 13 1400 1974 197 | | 11905 Mar 02 02:37 | | | | | | |
| min. Earth diss. 1905 Jun 30 9718 2***2**74 0.62697 AU 1910 Aug 25 0218 0***2**14 0.62697 AU 1910 Aug 25 0218 0***2**14 0***2**15 0***2**1 | | 11905 May 09 12:20 | 0° ≈ | | asc. node | | 8°547'08 | |
| min. Earth dist. 11905 Jun 30 0918 23°373 0 0.62697 AU evening set 11910 Sep 04 14:3 20°4 Heat 100 Sep 04 14:3 <td>retrograde</td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | retrograde | • | | | | | | |
| opposition greatest brilliane 11905 Jul of 1 22:17 21°E3942 91.493 31.59 evening set 11910 Oct 0 3 02:31 0°ILL Feature 100 Inc. desc. node 11905 Jul of 12:24 12°E55373 12°E5431 1900 Nov 9 03:11 27°E12300 1902 Nov 10 02:32 1903 Nov 10 02:32 1903 Nov 12 18:10 1903 Nov 12 18:10 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>-•</td><td></td></td<> | | | | | | | -• | |
| greatest brillianey 1905 Jul 04 17.35 21°84/23 3.5m conjunction 1910 Nov 09 03.12 27°81.23°0 17.23°0 1 | | | | | ovening set | • | | |
| desc. node 11905 Aug 10 12-47 12°E5537 conjunction 11910 Nov 0 0 0.131 27°RL3300 10°232 direct 11905 Aug 12 12-21 12°E3537 conjunction 11910 Nov 0 0 0.439 27°RL2303 10°31 11906 Dan 31 17:56 0°P max. Earth dist. 11910 Nov 12 18:11 25°R13'44 25:1656 AU 11906 Mar 19 05:20 0°B max. Earth dist. 11910 May 0 17:03 0°R 11911 Mar 2 12:33 0°B 4°640'8 evening set 11906 May 0 17:03 0°R morming rise 11911 Mar 2 0:142 0°PA 6°640'8 11906 Jun 1 1 19:07 0°B -46075 AU morming rise 11911 Mar 2 0:142 0°PA 4°840'8 evening set 11906 Jun 1 19:07:2 5°B38'41 -0°34'01 retrograde 11911 Mar 2 0:0315 0°PA 4°840'8 econjunction 11906 Jun 19 05:18 5°B38'41 -0°34'01 retrograde 11911 Mar 2 0:036 0°PA 4°871'79 asc. node 11906 Jul 2 0:23 0°A opposition 11911 Mar 2 0:143 6°B03'15 -5°05'43 1.6m minimum elo | | | | | evening set | | | |
| direct 11905 Aug 12 12.24 12°542°1 0°84 conjunction 11910 Nov 09 04.39 27°81.23°0 1°931 2°931 2°164 2°164 1°910 Dec 25 12.33 3°134 2°164 4°164 1°910 Dec 25 12.33 3°543 2°164 4°164 1°910 Dec 25 12.33 3°543 2°164 4°164 1°911 Dec 25 12.33 3°543 2°164 4°164 1°911 Dec 25 12.33 3°543 2°160 Dec 3°123 3°243 4°160 Dec 3°123 3°243 4°160 Dec 3°123 1°911 Dec 25 12.33 3°243 4°160 Dec 3°123 4°243 4°160 Dec 3°123 4°243 4°160 Dec 3°123 4°243 4°160 Dec 3°123 4°243 4°340 4°341 4°340 4°341 4°340 4°341 4°340 4°341 4°340 | | | | 1.5111 | | 11910 Oct 03 02.31 | O IIO | |
| 1905 1906 1907 | direct | • | 12° ප් 42'01 | | conjunction | 11910 Nov 09 03:11 | 27°ML23'00 | 1°02'32 |
| 1906 Jan 31 17.56 0°V 1906 Jan 31 17.56 0°V 1910 Dec 18 13.41 25°x*13'4 2.51656 AU 2.5166 AU 2.516 | | 11905 Oct 15 02:10 | 0° ≈ | | minimum elong | 11910 Nov 09 04:39 | 27°M25'38 | 1°03'11 |
| evening set | | | | | | | | |
| evening set | | | | | max. Earth dist. | | | 2.51656 AU |
| max. Earth dist. 1906 May 09 04:39 5°II 2054 2.46075 AU 6esc. node 11911 Mar 29 01:42 0°P3472 1906 May 09 04:39 5°II 2054 2.46075 AU 6esc. node 11911 Mar 29 01:42 0°P3472 1906 May 09 04:39 5°II 2054 1906 May 09 05:19 5°II 20 | evening set | | _ | | morning rise | | | |
| max. Earth dist. 11906 May 09 04:39 5° 120°54 2.46075 AU desc. node 11911 Mar 28 03:15 0° % 3° % 120°54 2.46075 AU desc. node 11911 Mar 18 00:14 0° % 1320°54 2 ° % 1420°54 0° % 1320°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 1200°54 0° % 120 | evening set | • | | | morning risc | | | |
| conjunction 11906 Jun 19 05:18 5°©33844 0°3447 retrograde 11911 May 18 00:14 0°°N 18 1910 minimum elong 11906 Jun 19 07:26 5°©33844 0°3447 opposition 11911 Oct 18 10:13 16°C3015 5°05431 asc. node 11906 Aug 28 17:29 14°Ω3123 opposition 11911 Oct 18 10:13 16°C3015 5°05431 asc. node 11906 Aug 28 13:35 26°Ω1221 min. Earth dist. 11911 Nov 28 00:23 30°N 25°C301221 min. Earth dist. 11911 Nov 28 00:23 30°N 25°C301221 min. Earth dist. 11911 Nov 28 00:23 26°N 1833 5°N 26°C301221 min. Earth dist. 11911 Nov 28 00:23 26°N 1833 5°N 26°C301221 min. Earth dist. 11911 Nov 28 00:23 26°N 1833 5°N 26°C30122 min. Earth dist. 11911 Nov 28 00:23 26°N 1833 5°N 26°C30122 min. Earth dist. 11912 Dec 28 18:49 0°C 26°C30122 min. Earth dist. 11912 Dec 29 18:49 0°C 26°C30122 min. Earth dist. 11912 Min. 25 15:25 0°N 26°C30122 min. Earth dist. 11912 Min. 25 15:25 0°N 26°C3012 min. Earth dist. 11907 Min. 24 10:27 0°C 26°C3013 1907 Min. 24 10:28 0°C 27 10: | max. Earth dist. | • | | 2.46075 AU | | | | |
| conjunction 11906 Jun 19 05:18 5°®34'1 0°34'01 retrograde 11911 Jul 16 08:06 0°B Head of 1911 Sep 10 21:32 14°B17'39 18°B17'39 <td></td> <td>11906 Jun 11 19:07</td> <td>0ಂತ</td> <td></td> <td>desc. node</td> <td>11911 Mar 29 01:42</td> <td></td> <td></td> | | 11906 Jun 11 19:07 | 0ಂತ | | desc. node | 11911 Mar 29 01:42 | | |
| minimum elong 11906 Jul 21 07:26 5°\$38'44 0°34'47 retrograde 11911 Sep 10 21:32 14°B17'39 | | | | | | - | | |
| 1906 Jul 21 02:35 0°Ω 1906 Jul 21 02:35 0°Ω 14°Ω31'2 1906 Jul 21 1906 Jul 21 17:05 14°Ω31'2 1906 Jul 21 1906 Jul 21 17:05 1906 | • | | | | . 1 | | | |
| Second 11906 Aug 08 17:09 14°Ω31'23 1906 Aug 13:35 26°Ω1'21 20°Ω1 1907 Aug 14:35 26°Ω1'21 20°Ω1 1907 Aug 14:35 26°Ω1'32 1°3448 1907 Aug 13:31 21'8 30°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 21'8 30°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°№ 1907 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°∞1 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°∞1 Aug 13:31 26°∞21'32 1°3448 1907 Aug 13:31 24'8 26°∞1 Aug 13:31 26°∞21 26°∞1 Au | minimum elong | | | 0°34'47 | • | • | | 5°05'43 |
| morning rise 1906 Aug 23 13:35 26°Ω12'21 min. Earth dist. 11911 Oct 25 04:59 3°829'54 0.58926 AU 11906 Aug 28 09:01 0°Tφ direct 11911 Nov 04 10:43 30°R Υ 11906 Nov 13 03:58 0°Tk 11911 Nov 28 00:23 26°Υ18'13 11906 Dec 23 12:26 0°A 11912 Eet 23 07:43 0°T 11907 Feb 04 14:36 0°T asc. node 11912 Mar 30 19:56 24°T18'47 11907 Mar 24 10:27 0°∞ asc. node 11912 Mar 30 19:56 24°T18'47 11907 Jun 24 15:48 6°H30'66 asc. node 11912 Mar 30 19:56 0°Ω 11907 Jun 29 06:13 6°H10'52 asc. node 11912 Mar 30 19:56 0°Ω 11907 Jun 30 12:18 30°R ≈ 11912 Mar 30 19:56 0°Ω asc. node 11912 Mar 30 19:56 0°Ω 11907 Jun 29 06:13 6°H10'52 asc. node 11912 Mar 30 19:56 0°Ω asc. node 11913 Mar 30 19:28 0°Ω asc. node 11913 Mar 30 19:28 0°M asc. node 11913 Mar 30 19:28 | asc. node | | | | | | | |
| 11906 Oct 05 10:22 0°Φ direct 11911 Nov 28 00:23 26°¶18'33 26°¶18'34 11906 Nov 13 03:58 0°M 11911 Dec 22 18:49 0°♥ 11912 Feb 23 07:43 0°M 11913 Feb 12 14:33 15°% 17*2 0°M 11913 Feb 12 23:14 0°M 11913 Feb 12 14:33 15°% 17*2 | | - | | | - | | | |
| 11906 Nov 13 03:58 0°M 11906 Nov 13 03:58 0°M 11910 Feb 23 18:49 0°B 11910 Feb 23 17:43 0°M 11910 Feb 23 17:4 | - | 11906 Aug 28 09:01 | 0° m | | | 11911 Nov 04 10:43 | 30° ₹Ƴ | |
| 11906 Dec 23 12:26 0°\$\frac{\pi}{\Pi} 11907 Feb 04 14:36 0°\$\frac{\pi}{\Pi} asc. node 11912 Mar 30 19:56 24°\$\pi 1847 11907 Mar 24 10:27 0°\$\pi 11912 Mar 30 19:56 11912 Mar 30 19:56 24°\$\pi 1847 11907 Mar 24 10:27 0°\$\pi 11912 Mar 17 23:45 0°\$\pi 11912 Mar 17 23:45 0°\$\pi 0°\$\pi | | | | | direct | | | |
| asc. node 11912 Mar 30 19:56 24° Π18'47 1907 Mar 24 10:27 0° ≈ 11912 Apr 07 19:18 0° © 119107 Mar 24 10:27 0° ≈ 119107 Mar 25 15:25 0° № 109107 Mar 26 04:56 0° € 119107 Mar 26 04:56 0° € 119112 Mar 17 23:45 0° № 109107 Mar 26 04:56 0° € 119107 Jun 29 06:13 6° € 10'52 19107 Jun 29 06:13 6° € 10'52 19107 Jun 29 06:13 0° ≈ 119112 Mar 20 06:47 0° № 10907 Jun 29 06:13 0° ≈ 119112 Mar 20 06:47 0° № 10907 Jun 29 06:13 0° ≈ 119107 Jun 29 06:20 19:00 06:00 19:00 06:00 19:00 06:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 10:00 0° ≈ 119107 Jun 29 06:00 0° ≈ 119 | | | | | | | | |
| 11907 May 26 04:56 | | | | | asa node | | | |
| 11907 May 26 04:56 0° H 11912 May 17 23:45 0° Ω 11912 Jun 25 15:25 0° 顶 | | | | | asc. node | | | |
| retrograde | | | | | | • | | |
| 11907 Jul 30 12:18 30°R≈ opposition 11907 Aug 08 22:27 26°≈21'32 -1°34'48 min. Earth dist. 11907 Aug 08 03:40 26°≈40'10 0.68081 AU evening set 11912 Nov 05 05:30 9° x³04'39 greatest brilliancy 11907 Aug 08 20:33 26°≈23'25 -1.3m light 1907 Nov 12 03:43 16°≈37'49 11908 Jun 09 23:11 0°° \text{Y} conjunction 11912 Dec 27 14:55 14° ₹40'25 0°25'20 11908 Apr 11 09:24 0° \text{I} minimum elong 11908 Apr 11 09:24 0° \text{I} max. Earth dist. 11913 Jan 16 02:05 27° ₹27'43 2.62364 AU 11908 May 22 07:51 0° \text{S} morning rise 11908 Jun 25 12:06 26° №14'35 11908 Jun 30 07:29 0° \text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{\text{\text{Q}} 11908 Jun 30 07:29 0° \text{\text{\text{\text{\text{Q}} 128 Jun 30 07:29 0° \text{\text{\text{\text{\text{\text{\text{\text{\ | desc. node | 11907 Jun 24 15:48 | 6° ₩ 03'06 | | | 11912 Jun 25 15:25 | 0° m | |
| min. Earth dist. 11907 Aug 08 22:27 26°≈21'32 -1°34'48 11912 Oct 23 07:38 0° ★ | retrograde | 11907 Jun 29 06:13 | 6° ¥ 10′52 | | | 11912 Aug 03 06:47 | | |
| min. Earth dist. 11907 Aug 08 03:40 26°≈40'10 0.68081 AU evening set 11912 Nov 05 05:30 9°♂04'39 greatest brilliancy 11907 Aug 08 20:33 26°≈23'25 -1.3m 11912 Dec 05 16:35 0°♂ direct 11907 Sep 18 18:43 16°≈37'49 | | | | | | - | | |
| greatest brilliancy direct 11907 Aug 08 20:33 26°≈23'25 -1.3m 11912 Dec 05 16:35 0°δ 11907 Sep 18 18:43 16°≈37'49 11907 Nov 12 03:43 0°升 conjunction 11912 Dec 27 14:55 14°δ40'25 0°25'20 11908 Jan 09 23:11 0°°V minimum elong 11912 Dec 27 15:56 14°δ42'05 0°26'07 11908 Feb 27 11:17 0°δ max. Earth dist. 11913 Jan 16 02:05 27°δ27'43 2.62364 AU 11908 Apr 11 09:24 0°∏ 11908 Apr 11 09:24 0°∏ 11908 May 22 07:51 0°⑤ morning rise 11913 Feb 12 23:17 15°≈27'12 evening set 11908 Jun 20 07:03 22°⑤11'17 desc. node 11913 Feb 12 14:33 15°≈13'15 asc. node 11908 Jun 25 12:06 26°⑤14'35 11908 Jun 30 07:29 0°Ω 11908 Jun 25 03:36 0°°Y | | • | | | | | | |
| direct 11907 Sep 18 18:43 16°≈37'49 11907 Nov 12 03:43 0° ★ conjunction 11912 Dec 27 14:55 14° ₹40'25 0°25'20 11908 Jan 09 23:11 0° ♥ minimum elong 11912 Dec 27 15:56 14° ₹42'05 0°26'07 11908 Feb 27 11:17 0° ₺ max. Earth dist. 11913 Jan 16 02:05 27° ₹27'43 2.62364 AU 11908 Apr 11 09:24 0° 耳 11908 May 22 07:51 0° ⑤ morning rise 11913 Feb 12 23:17 15°≈27'12 evening set 11908 Jun 20 07:03 22° ⑤11'17 desc. node 11913 Feb 12 14:33 15°≈13'15 asc. node 11908 Jun 25 12:06 26° ⑥14'35 11908 Jun 30 07:29 0° Ω 11908 Jun 30 07:29 0° Ω 11908 Jun 30 07:29 0° Ω | | = | | | evening set | | | |
| 11907 Nov 12 03:43 0° ★ conjunction 11912 Dec 27 14:55 14° ₹40'25 0°25'20 11908 Jan 09 23:11 0° ♥ minimum elong 11912 Dec 27 15:56 14° ₹42'05 0°26'07 11908 Feb 27 11:17 0° ₹ max. Earth dist. 11913 Jan 16 02:05 27° ₹27'43 2.62364 AU 11908 Apr 11 09:24 0° ∏ 11908 May 22 07:51 0° ₹ morning rise 11913 Feb 12 23:17 15° ₹27'12 evening set 11908 Jun 20 07:03 22° ₹11'17 desc. node 11913 Feb 12 14:33 15° ₹13'15 asc. node 11908 Jun 25 12:06 26° ₹14'35 11908 Jun 30 07:29 0° €Ω 11913 Apr 25 03:36 0° ♥ ↑ | | • | | 1.5111 | | 11)12 Dec 03 10.33 | 0 0 | |
| 11908 Feb 27 11:17 0°8 max. Earth dist. 11913 Jan 16 02:05 27°₹27′43 2.62364 AU 11908 Apr 11 09:24 0°¶ | | | | | conjunction | 11912 Dec 27 14:55 | 14° る 40'25 | 0°25'20 |
| 11908 Apr 11 09:24 0° II 11908 May 22 07:51 0° S morning rise 11913 Jan 19 23:41 0° ≈ 11908 May 22 07:51 0° S morning rise 11913 Feb 12 23:17 15° ≈27'12 evening set 11908 Jun 20 07:03 22° S11'17 desc. node 11913 Feb 12 14:33 15° ≈13'15 asc. node 11908 Jun 25 12:06 26° S14'35 11918 Jun 25 00° Ω 11918 Apr 25 03:36 0° Υ | | 11908 Jan 09 23:11 | | | _ | | | |
| 11908 May 22 07:51 0°S morning rise 11913 Feb 12 23:17 15°≈27'12 evening set 11908 Jun 20 07:03 22°S11'17 desc. node 11913 Feb 12 14:33 15°≈13'15 asc. node 11908 Jun 25 12:06 26°S14'35 11913 Mar 07 21:28 0°ℋ 11908 Jun 30 07:29 0°Ω 11913 Apr 25 03:36 0°Υ | | | | | max. Earth dist. | | | 2.62364 AU |
| evening set 11908 Jun 20 07:03 22°S11'17 desc. node 11913 Feb 12 14:33 $15^{\circ} \approx 13'15$ asc. node 11908 Jun 25 12:06 26° S14'35 11908 Jun 30 07:29 $0^{\circ}\Omega$ 11913 Apr 25 03:36 $0^{\circ}\Upsilon$ | | - | | | | | | |
| asc. node 11908 Jun 25 12:06 26°€14'35 11913 Mar 07 21:28 0° ★ 11908 Jun 30 07:29 0° ♀ 11913 Apr 25 03:36 0° ♀ | evening set | | | | • | | | |
| 11908 Jun 30 07:29 0° Ω 11913 Apr 25 03:36 0° Υ | • | | | | acse. Houc | | | |
| 11908 Aug 07 07:03 0° Mp 11913 Jun 14 00:40 0° 🞖 | | | | | | | | |
| | | 11908 Aug 07 07:03 | 0° m) | | | 11913 Jun 14 00:40 | 0° 8 | |

| | 11913 Aug 06 12:36 | 0°Щ | | | 11918 Nov 22 15:13 | 0° ≈ | |
|---|--|---|--|--|---|--|---|
| | 11913 Oct 28 02:45 | 0ංම _ | | | 11919 Jan 11 00:44 | 0° ∀ | |
| retrograde | 11913 Nov 02 19:02 | 0°ഇ11'55 | | | 11919 Feb 27 18:41 | 0° Y | |
| | 11913 Nov 08 09:31 | 30° Ŗ Ⅱ | | evening set | 11919 Mar 01 12:58 | 1° Y 07'44 | |
| opposition | 11913 Dec 06 03:04 | 23° Ⅱ 44'11 | -4°06'30 | max. Earth dist. | 11919 Mar 25 11:48 | 16° Ƴ 38'48 | 2.61986 AU |
| greatest brilliancy | 11913 Dec 07 13:34 | 23° II 15'26 | -2.4m | | 11919 Apr 14 16:25 | 0° 8 | |
| min. Earth dist. | 11913 Dec 14 19:44 | 20° Ⅲ 51′52 | 0.45537 AU | | | | |
| direct | 11914 Jan 11 10:03 | 15° Ⅱ 50'46 | | conjunction | 11919 Apr 15 15:20 | 0° 8 38'16 | -1°09'32 |
| asc. node | 11914 Feb 16 02:20 | 23° II 51'04 | | minimum elong | 11919 Apr 15 15:06 | 0° 8 37'53 | 1°09'53 |
| | 11914 Mar 01 11:24 | 0 \circ \odot | | | 11919 May 28 14:58 | Π °0 | |
| | 11914 Apr 19 09:29 | 0 ° Ω | | morning rise | 11919 Jun 01 19:04 | 2° Ⅱ 55'11 | |
| | 11914 May 31 05:39 | 0° m) | | | 11919 Jul 09 15:49 | 0ංම | |
| | 11914 Jul 10 21:25 | 0∘ ⊽ | | | 11919 Aug 19 01:51 | $0^{\circ}\Omega$ | |
| | 11914 Aug 21 05:24 | 0° M ₊ | | _ | 11919 Sep 27 08:48 | 0° m) | |
| | 11914 Oct 03 01:10 | 0° ∡ ¹ | | asc. node | 11919 Oct 08 21:29 | 8° m 53'17 | |
| | 11914 Nov 16 14:31 | 0°る | | | 11919 Nov 05 07:03 | 0∘ 亚 | |
| evening set | 11914 Dec 19 21:28 | 21°る45'58 | | | 11919 Dec 14 23:33 | 0° M 0°. ⊼ | |
| desc. node | 11914 Dec 31 08:43 | 29° る 10'09 | | | 11920 Jan 26 06:20 | 0° ∡ ¹ | |
| | 11915 Jan 01 15:43 | 0° ≈ | | ratra arada | 11920 Mar 16 05:40 | 0°궁 16°궁35'38 | |
| conjunction | 11915 Feb 04 02:51 | 21° ≈ 23'34 | 0010122 | retrograde min. Earth dist. | 11920 May 11 03:51 11920 Jun 13 19:26 | 9° そ 05'10 | 0.58869 AU |
| minimum elong | 11915 Feb 04 02:31 | 21°≈22'40 | 0°17'59 | opposition | 11920 Jun 19 18:18 | 9 3 05 10 6° 3 45'18 | |
| max. Earth dist. | 11915 Feb 04 02:17 | | 2.67745 AU | greatest brilliancy | 11920 Jun 19 15:18 11920 Jun 19 05:49 | 6° ろ 57'32 | |
| max. Lattii dist. | 11915 Feb 17 16:04 | 0° \ | 2.07743 AO | greatest orimaney | 11920 Jul 10 17:15 | 30°R. ₹ | -1.7111 |
| morning rise | 11915 Mar 19 20:59 | 19° ∺ 08'07 | | direct | 11920 Jul 27 01:06 | 28° 🗷 15'14 | |
| morning not | 11915 Apr 06 00:54 | 0° Υ | | | 11920 Aug 13 13:20 | 0°ਰ | |
| | 11915 May 23 07:40 | 0°8 | | desc. node | 11920 Aug 22 23:49 | 2° ろ 09'55 | |
| | 11915 Jul 09 09:41 | 0°II | | | 11920 Oct 27 21:53 | 0° ≈ | |
| | 11915 Aug 25 13:07 | 0ං ම | | | 11920 Dec 20 19:43 | 0° ∀ | |
| | 11915 Oct 12 20:19 | $0^{\circ}\Omega$ | | | 11921 Feb 08 02:13 | 0° Y | |
| | 11915 Dec 07 07:38 | 0° m) | | | 11921 Mar 26 06:31 | 0° 8 | |
| asc. node | 11916 Jan 04 07:05 | 9° m 24'13 | | evening set | 11921 Apr 08 05:44 | 8° 8 45'21 | |
| retrograde | 11916 Jan 20 21:01 | 11° m) 10'06 | | max. Earth dist. | 11921 Apr 23 01:27 | 18° 8 57'04 | 2.51343 AU |
| opposition | 11916 Feb 19 14:38 | 6° Mp 12′46 | 3°31'04 | | 11921 May 08 19:30 | Π °0 | |
| greatest brilliancy | 11916 Feb 19 09:49 | 6° Mp 15′57 | -3.1m | | | | |
| min. Earth dist. | 11916 Feb 18 20:32 | 6° Mg 24′44 | 0.36402 AU | conjunction | 11921 May 28 16:23 | 14° Ⅱ 15′22 | -0°53'32 |
| direct | 1101634 10 10 71 | | | | | | |
| | 11916 Mar 19 19:51 | 1° m)21'05 | | minimum elong | 11921 May 28 18:17 | 14° Ⅱ 18'49 | 0°54'17 |
| | 11916 Jun 05 08:43 | 0∘ ⊽ | | | 11921 Jun 19 02:12 | 0°© | 0°54'17 |
| | 11916 Jun 05 08:43 11916 Jul 24 05:36 | 0° ™ | | minimum elong morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 | 0°ତ 27°ତ49'58 | 0°54'17 |
| | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 | 0° ™ 0° ™ | | morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 | 0°© 27°©49'58 0° Ω | 0°54'17 |
| | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 | ე∘ ഹ 0°₹ 0°≏ | | | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 | 0°© 27°©49'58 0°Ω 21°Ω43'55 | 0°54'17 |
| desc. node | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 | 0° Ω 0° M 0° X 0°ठ 13°ठ56'40 | | morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 | 0°\$ 27°\$49'58 0°\$ 21°\$\Omega43'55 0°\$\$ | 0°54'17 |
| | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 | 0° £ 0° ™ 0° ४ 0° ४ 13° उ 56'40 0°≈ | | morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 | 0°\$\text{0}\$ 27°\$\text{49'58} 0°\$\lambda\$ 21°\$\lambda43'55 0°\$\text{m}\$ 0°\$\text{0}\$ | 0°54'17 |
| desc. node evening set | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 | 0° Ω 0° M 0° ズ 0° 궁 13° ♂56'40 0° ≈ 27° ≈07'03 | | morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 | 0°\$-27°\$49'58 0°\$A 21°\$A43'55 0°\$\textbf{n}\text{0}\te | 0°54'17 |
| evening set | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 | 0° ♀ 0° M 0° ⊀ 0° ♂ 13° ♂556'40 0° ≈ 27° ≈07'03 0° 升 | 2.67500 AU | morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 | 0°\$- 27°\$49'58 0°\$A 21°\$A43'55 0°\$\textbf{m}\$ 0°\$\textbf{n}\$ 0°\$\textbf{m}\$ 0°\$\textbf{N}\$ | 0°54'17 |
| | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 | 0° ♀ 0° M 0° ⊀ 0° ♂ 13° ♂556'40 0° ≈ 27° ≈07'03 0° 升 | 2.67599 AU | morning rise | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 | 0°\$0 27°\$49'58 0°\$1 21°\$43'55 0°\$0 0°\$1 0°\$1 0°\$7 | 0°54'17 |
| evening set max. Earth dist. | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 | 0° ♀ 0° № 0° ♂ 0° ♂ 13° ♂556'40 0° ≈ 27° ≈07'03 0° ℋ 19° ℋ43'17 | | morning rise asc. node | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 | 0°\$0 27°\$049'58 0°\$0 21°\$043'55 0°\$0 0°\$1 0°\$2 0°\$3 0°\$5 0°\$6 | 0°54'17 |
| evening set max. Earth dist. conjunction | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 | 0° № 0° № 0° № 13° ₹ 56'40 0° ≈ 27° ≈07'03 0° ₩ 19° ₩ 43'17 | -0°53'16 | morning rise asc. node retrograde | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 | 0°\$\text{9'58} 0°\$\Omega\$ 21°\$\Omega\$49'58 0°\$\Omega\$ 0°\$\Omega\$ 0°\$\Omega\$ 0°\$\Omega\$ 0°\$\Omega\$ 0°\$\Omega\$ 23°\$\approx28'23 | 0°54'17 |
| evening set max. Earth dist. | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 | 0° № 0° № 0° № 13° ₨ 56'40 0° ≈ 27° ≈ 07'03 0° ₩ 19° ₩ 43'17 25° ₩ 04'24 25° ₩ 02'39 | -0°53'16 | morning rise asc. node retrograde desc. node | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 | 0°\$\text{9'58} 0°\$\alpha\$ 21°\$\alpha\$43'55 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{\text{0}}\$ 0°\$\text{\text{0}}\$ 0°\$\text{\text{0}}\$ 0°\$\text{\text{0}}\$ 23°\$\alpha\$28'23 19°\$\alpha\$18'36 | |
| evening set max. Earth dist. conjunction minimum elong | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 | 0° Ω 0° M 0° ₹ 0° ₹ 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Υ | -0°53'16 | morning rise asc. node retrograde desc. node min. Earth dist. | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 | 0°\$-27°\$-49'58 0°\$\mathcal{O}\$ 21°\$\mathcal{O}\$43'55 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 23°\$\approx 28'23 19°\$\approx 18'36 14°\$\approx 25'32 | 0.66756 AU |
| evening set max. Earth dist. conjunction | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 | 0° № 0° № 0° № 13° ₹ 56'40 0° ≈ 27° ≈ 07'03 0° ₩ 19° ₩ 43'17 25° ₩ 04'24 25° ₩ 02'39 0° ₩ 23° ϒ 10'58 | -0°53'16 | morning rise asc. node retrograde desc. node min. Earth dist. opposition | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 11922 Jul 26 18:09 | 0°\$\text{9'58} 0°\$\alpha\$ 21°\$\alpha\$43'55 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{\text{0}}\$ 0°\$\text{\text{0}}\$ 0°\$\text{\text{0}}\$ 0°\$\text{\text{0}}\$ 23°\$\alpha\$28'23 19°\$\alpha\$18'36 | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 | 0° Ω 0° M 0° ₹ 0° ₹ 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Υ | -0°53'16 | morning rise asc. node retrograde desc. node min. Earth dist. | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 | 0°\$0 27°\$49'58 0°\$0 21°\$\Omega{4}3'55 0°\$\P\\$0°\$\L 0°\$\L 0°\$\L 0°\$\L 0°\$\L 23°\$\approx28'23 19°\$\approx18'36 14°\$\approx25'32 13°\$\approx31'27 | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 May 03 02:05 | 0° № 0° № 0° № 13° ₨ 56'40 0° ≈ 27° ≈ 07'03 0° ₩ 19° ₩ 43'17 25° ₩ 04'24 25° ₩ 02'39 0° ₩ 23° ϒ 10'58 0° ♉ | -0°53'16 | retrograde desc. node min. Earth dist. opposition greatest brilliancy | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 11922 Jul 26 18:09 11922 Jul 26 16:45 | 0°\$0 27°\$49'58 0°\$0 21°\$\Omega{4}3'55 0°\$\P\\$ 0°\$\L 0°\$\n\\$ 0°\$\L 0°\$\n\\$ 0°\$\L 23°\$\approx28'23 19°\$\approx18'36 14°\$\approx25'32 13°\$\approx31'27 13°\$\approx32'50 | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 May 03 02:05 11917 Jun 17 00:28 | 0° № 0° № 0° № 13° ₨ 56'40 0° ≈ 27° ≈ 07'03 0° ₩ 19° ₩ 43'17 25° ₩ 04'24 25° ₩ 02'39 0° Ψ 23° Ψ 10'58 0° ₩ 0° ₩ | -0°53'16 | retrograde desc. node min. Earth dist. opposition greatest brilliancy | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Sep 04 21:21 | 0°\$\text{0}\$27°\$\text{0}49'58\$ 0°\$\alpha\$ 21°\$\alpha43'55\$ 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{23}\$ 23°\$\text{28'23}\$ 19°\$\text{18'36}\$ 14°\$\text{25'32}\$ 13°\$\text{33'1'27}\$ 13°\$\text{32'50}\$ 4°\$\text{02'21}\$ | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 May 03 02:05 11917 Jun 17 00:28 11917 Jul 30 13:08 | 0°₽ 0°M 0°₹ 0°₹ 13°₹56'40 0°≈ 27°≈07'03 0°¥ 19°¥43'17 25°¥04'24 25°¥02'39 0°Y 23°Y10'58 0°B 0°B | -0°53'16 | retrograde desc. node min. Earth dist. opposition greatest brilliancy | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 10 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 | 0°\$0 27°\$49'58 0°\$0 21°\$\Omega{4}3'55\$ 0°\$\Pm\$ 0°\$\Pm\$ 0°\$\Pm\$ 0°\$\Pm\$ 0°\$\Pm\$ 0°\$\Pm\$ 19°\$\approx\$18'36 14°\$\approx\$25'32 13°\$\approx\$31'27 13°\$\approx\$32'50 4°\$\approx\$02'21 0°\$\Hmathred{H} | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 May 03 02:05 11917 Jun 17 00:28 11917 Jul 30 13:08 11917 Sep 10 18:42 | 0° Ω 0° M 0° ₹ 0° ₹ 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Υ 23° Υ10'58 0° ¥ 0° II 0° \$ 0° Ω | -0°53'16 | retrograde desc. node min. Earth dist. opposition greatest brilliancy | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jul 16 02:15 11922 Jul 10 04:57 11922 Jul 26 18:09 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 | 0°\$\text{9'58} 0°\$\alpha\$ 21°\$\alpha43'55 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{23}\$ 0°\$\text{23}\$ 19°\$\text{28'23}\$ 19°\$\text{28'23}\$ 19°\$\text{28'23}\$ 14°\$\text{25'32}\$ 13°\$\text{23'250}\$ 4°\$\text{202'21}\$ 0°\$\text{M}\$ 0°\$\text{M}\$ 0°\$\text{M}\$ 0°\$\text{M}\$ | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong morning rise | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 10 02:23 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Sep 10 18:42 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 | 0° ₽ 0° M 0° \$7 0° \$7 0° \$56'40 0° \$8 27° \$807'03 0° \$1 19° \$143'17 25° \$104'24 25° \$102'39 0° \$7 0° \$1 0° \$2 0° \$1 0° \$2 0° \$1 0° \$2 0° \$1 0° \$2 0° \$1 0° \$2 0° \$1 | -0°53'16 | retrograde desc. node min. Earth dist. opposition greatest brilliancy | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 11923 Mar 07 02:04 11923 Apr 19 18:33 11923 May 27 11:32 | 0°\$0 27°\$49'58 0°\$\mathcal{O}\$ 21°\$\mathcal{O}\$43'55 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 23°\$\approx28'23 19°\$\approx18'36 14°\$\approx25'32 13°\$\approx31'27 13°\$\approx32'50 4°\$\approx02'21 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 0°\$\mathcal{D}\$ 127°\$\$\mathcal{M}\$33'22 | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong morning rise | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 10 02:23 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jan 16 10:26 | 0° ₽ 0° M 0° % 0° % 13° ₹ 56'40 0° ≈ 27° ≈ 07'03 0° ¥ 19° ¥ 43'17 25° ¥ 04'24 25° ¥ 02'39 0° Y 23° Y 10'58 0° B 0° B 0° B 21° M 50'20 0° P 0° M | -0°53'16 | morning rise asc. node retrograde desc. node min. Earth dist. opposition greatest brilliancy direct | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Mar 07 02:04 11923 Mar 07 02:04 11923 May 27 11:32 11923 May 30 17:41 | 0°\$0 27°\$49'58 0°\$0 21°\$\alpha 43'55 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\mathbf{m}\$ 0°\$\sigma\$ 23°\$\alpha 28'23 19°\$\alpha 18'36 14°\$\alpha 25'32 13°\$\alpha 31'27 13°\$\alpha 32'50 4°\$\alpha 00'\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\ | 0.66756 AU -0°33'52 -1.4m |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 10 02:23 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Jun 17 00:28 11917 Nov 21 05:33 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jan 16 10:26 11918 Mar 28 11:03 | 0° ₽ 0° M 0° ₹ 0° ₹ 13° ₹56'40 0° ≈ 27° ≈07'03 0° ₹ 19° ₹43'17 25° ₹04'24 25° ₹02'39 0° Υ 23° Υ 10'58 0° Β 0° Π 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 21° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 120° \$ 0° \$ 0° \$ 130° \$ 140° \$ 15 | -0°53'16 0°53'06 | morning rise asc. node retrograde desc. node min. Earth dist. opposition greatest brilliancy direct | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 11922 Jul 26 16:45 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 11923 Mar 07 02:04 11923 Apr 19 18:33 11923 May 27 11:32 11923 May 30 17:41 11923 Jun 22 12:25 | 0°\$0 27°\$49'58 0°\$0 21°\$\alpha 43'55 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\sigma\$ 19°\$\alpha 18'36 14°\$\alpha 25'32 13°\$\alpha 31'27 13°\$\alpha 32'50 4°\$\alpha 00'\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 17°\$\sigma 20'57 | 0.66756 AU -0°33'52 |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 10 02:23 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 May 03 02:05 11917 Jun 17 00:28 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jan 16 10:26 11918 Mar 28 11:03 11918 Apr 25 00:24 | 0° ₽ 0° M 0° ₹ 0° ₹ 13° ₹56'40 0° ≈ 27° ≈07'03 0° ₹ 19° ₹43'17 25° ₹04'24 25° ₹02'39 0° Υ 23° Υ 10'58 0° Β 0° Π 0° © 0° M 21° M 50'20 0° M 26° M 55'18 21° M 39'27 | -0°53'16 0°53'06 | retrograde desc. node retrograde desc. node min. Earth dist. opposition greatest brilliancy direct evening set max. Earth dist. | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 11923 Mar 07 02:04 11923 May 27 11:32 11923 May 30 17:41 11923 Jun 22 12:25 11923 Jul 08 19:53 | 0°\$\text{9'58} 0°\$\alpha\$ 21°\$\alpha49'58 0°\$\alpha\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{10}\$ 23°\$\text{223}*28'23 19°\$\text{18'36}* 14°\$\text{25'32}* 13°\$\text{31'27}* 13°\$\text{32'50}* 4°\$\text{20'21}* 0°\$\text{10}\$ 0°\$\text{10}\$ 0°\$\text{11}\$ 27°\$\$\text{133'22}\$ 0°\$\text{10}\$ 17°\$\text{20'57}\$ 0°\$\alpha\$ | 0.66756 AU -0°33'52 -1.4m |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. greatest brilliancy | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 May 03 02:05 11917 Jun 17 00:28 11917 Jul 30 13:08 11917 Sep 10 18:42 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jun 16 10:26 11918 Mar 28 11:03 11918 Apr 25 00:24 11918 May 01 20:16 | 0° ₽ 0° M. 0° ₹ 0° ₹ 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Y 23° Y10'58 0° ₽ 0° M 0° ₱ 21° ₱50'20 0° № 26° M.55'18 21° M.39'27 19° M.17'20 | -0°53'16 0°53'06 0.45805 AU -2.4m | morning rise asc. node retrograde desc. node min. Earth dist. opposition greatest brilliancy direct | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jun 16 02:15 11922 Jul 11 04:57 11922 Jul 24 11:47 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Mar 07 02:04 11923 Apr 19 18:33 11923 May 27 11:32 11923 May 30 17:41 11923 Jun 22 12:25 | 0°\$0 27°\$49'58 0°\$0 21°\$\alpha 43'55 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\mathbf{m}\$ 0°\$\sigma\$ 0°\$\sigma\$ 19°\$\alpha 18'36 14°\$\alpha 25'32 13°\$\alpha 31'27 13°\$\alpha 32'50 4°\$\alpha 00'\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 0°\$\mathbf{m}\$ 17°\$\sigma 20'57 | 0.66756 AU -0°33'52 -1.4m |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. greatest brilliancy opposition | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 May 03 02:05 11917 Jun 17 00:28 11917 Jul 30 13:08 11917 Sep 10 18:42 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jun 16 10:26 11918 Mar 28 11:03 11918 Mar 25 00:24 11918 May 01 20:16 11918 May 03 12:10 | 0° ₽ 0° M 0° % 0° % 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Y 23° Y 10'58 0° B 0° M 0° ® 0° M 21° M 50'20 0° № 21° M 39'27 19° M 17'20 18° M 42'27 | -0°53'16 0°53'06 | retrograde desc. node retrograde desc. node min. Earth dist. opposition greatest brilliancy direct evening set max. Earth dist. asc. node | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jul 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 11923 Mar 07 02:04 11923 Mar 07 02:04 11923 May 27 11:32 11923 May 30 17:41 11923 Jun 22 12:25 11923 Jul 08 19:53 11923 Jul 08 19:53 11923 Jul 13 06:36 | 0°\$\text{0}\$27°\$\text{0}49'58\$ 0°\$\alpha\$ 21°\$\alpha43'55\$ 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 23°\$\text{28'23}\$ 19°\$\text{818'36}\$ 14°\$\text{25'32}\$ 13°\$\text{331'27}\$ 13°\$\text{32'50}\$ 4°\$\text{0}2'21\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 17°\$\text{20'57} 0°\$\alpha\$ 3°\$\alpha28'34 | 0.66756 AU -0°33'52 -1.4m |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. greatest brilliancy | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Jul 30 13:08 11917 Sep 10 18:42 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jun 16 10:26 11918 Mar 28 11:03 11918 Apr 25 00:24 11918 May 01 20:16 11918 May 03 12:10 11918 Jun 05 06:11 | 0° ₽ 0° M 0° % 0° % 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Y 23° Y 10'58 0° B 0° M 0° M 21° M 50'20 0° P 26° M 55'18 21° M 39'27 19° M 17'20 18° M 42'27 12° M 02'36 | -0°53'16 0°53'06 0.45805 AU -2.4m | retrograde desc. node min. Earth dist. opposition greatest brilliancy direct evening set max. Earth dist. asc. node conjunction | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jul 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 11923 Mar 07 02:04 11923 Mar 07 02:04 11923 May 30 17:41 11923 Jul 28 19:53 11923 Jul 08 19:53 11923 Jul 13 06:36 | 0°\$\text{0}\$ 27°\$\text{0}49'58\$ 0°\$\alpha\$ 21°\$\alpha43'55\$ 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 23°\$\text{28'23}\$ 19°\$\text{18'36}\$ 14°\$\text{25'32}\$ 13°\$\text{331'27}\$ 13°\$\text{32'50}\$ 4°\$\text{02'21}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{1}\$ 27°\$\text{133'22}\$ 0°\$\text{0}\$ 17°\$\text{20'57}\$ 0°\$\alpha\$ 3°\$\alpha28'34 | 0.66756 AU -0°33'52 -1.4m 2.37974 AU |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. greatest brilliancy opposition | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jan 25 00:44 11917 Jan 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 10 02:23 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Jun 17 00:28 11917 Jul 30 13:08 11917 Sep 10 18:42 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jan 16 10:26 11918 Mar 28 11:03 11918 Apr 25 00:24 11918 May 01 20:16 11918 May 03 12:10 11918 Jun 05 06:11 11918 Aug 06 11:39 | 0° ₽ 0° M 0° % 0° % 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Y 23° Y 10'58 0° ¥ 0° M 21° M 50'20 0° P 21° M 55'18 21° M 39'27 19° M 17'20 18° M 42'27 12° M 02'36 0° % | -0°53'16 0°53'06 0.45805 AU -2.4m | retrograde desc. node min. Earth dist. opposition greatest brilliancy direct evening set max. Earth dist. asc. node conjunction minimum elong | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jul 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jul 26 16:45 11923 May 07 02:04 11923 May 07 02:04 11923 May 07 02:04 11923 May 07 11:32 11923 May 30 17:41 11923 Jul 08 19:53 11923 Jul 13 06:36 | 0°\$\text{0}\$ 27°\$\text{0}\$49'58 0°\$\alpha\$ 21°\$\alpha\$43'55 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 23°\$\text{28'23}\$ 19°\$\text{18'36}\$ 14°\$\text{25'32}\$ 13°\$\text{33'250}\$ 4°\$\text{0}2'21\$ 0°\$\text{0}\$ 0°\$\text{1}\$ 27°\$\text{133'22}\$ 0°\$\text{0}\$ 17°\$\text{20'57} 0°\$\alpha\$ 3°\$\alpha\$28'34 16°\$\alpha\$57'09 16°\$\alpha\$54'42 | 0.66756 AU -0°33'52 -1.4m |
| evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. greatest brilliancy opposition | 11916 Jun 05 08:43 11916 Jul 24 05:36 11916 Sep 09 03:46 11916 Oct 26 06:40 11916 Nov 17 08:33 11916 Dec 12 21:09 11917 Jun 25 00:44 11917 Jun 29 14:29 11917 Mar 01 18:01 11917 Mar 10 03:29 11917 Mar 10 02:23 11917 Mar 17 20:21 11917 Apr 22 16:31 11917 Apr 22 16:31 11917 Jun 17 00:28 11917 Jun 17 00:28 11917 Jul 30 13:08 11917 Sep 10 18:42 11917 Oct 22 02:52 11917 Nov 21 05:33 11917 Dec 02 16:00 11918 Jun 16 10:26 11918 Mar 28 11:03 11918 Apr 25 00:24 11918 May 01 20:16 11918 May 03 12:10 11918 Jun 05 06:11 | 0° ₽ 0° M 0° % 0° % 13° ₹56'40 0° ≈ 27° ≈07'03 0° ¥ 19° ¥43'17 25° ¥04'24 25° ¥02'39 0° Y 23° Y 10'58 0° B 0° M 0° M 21° M 50'20 0° P 26° M 55'18 21° M 39'27 19° M 17'20 18° M 42'27 12° M 02'36 | -0°53'16 0°53'06 0.45805 AU -2.4m | retrograde desc. node min. Earth dist. opposition greatest brilliancy direct evening set max. Earth dist. asc. node conjunction | 11921 Jun 19 02:12 11921 Jul 25 19:40 11921 Jul 28 15:10 11921 Aug 25 13:22 11921 Sep 05 02:13 11921 Oct 13 06:35 11921 Nov 21 02:20 11921 Dec 31 14:45 11922 Feb 13 06:44 11922 Apr 04 12:43 11922 Jul 16 02:15 11922 Jul 11 04:57 11922 Jul 26 18:09 11922 Jul 26 16:45 11922 Jul 26 16:45 11922 Sep 04 21:21 11922 Nov 25 17:04 11923 Jan 18 15:01 11923 Mar 07 02:04 11923 Mar 07 02:04 11923 May 30 17:41 11923 Jul 28 19:53 11923 Jul 08 19:53 11923 Jul 13 06:36 | 0°\$\text{0}\$ 27°\$\text{0}49'58\$ 0°\$\alpha\$ 21°\$\alpha43'55\$ 0°\$\text{m}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 23°\$\text{28'23}\$ 19°\$\text{18'36}\$ 14°\$\text{25'32}\$ 13°\$\text{331'27}\$ 13°\$\text{32'50}\$ 4°\$\text{02'21}\$ 0°\$\text{0}\$ 0°\$\text{0}\$ 0°\$\text{1}\$ 27°\$\text{133'22}\$ 0°\$\text{0}\$ 17°\$\text{20'57}\$ 0°\$\alpha\$ 3°\$\alpha28'34 | 0.66756 AU -0°33'52 -1.4m 2.37974 AU |

| | 11923 Aug 15 21:30 | 0° m ∕ | | direct | 11928 Dec 23 00:32 | 24° 8 18'21 | |
|---------------------|--------------------|--------------------------------------|------------|---------------------|--|---------------------|-------------|
| | 11923 Sep 22 19:45 | 0∘ ত | | | 11929 Jan 22 05:49 | Π° | |
| morning rise | 11923 Oct 12 09:37 | 15° ≏ 18'05 | | asc. node | 11929 Mar 04 16:30 | 20° II 22'02 | |
| morning rise | 11923 Oct 31 11:51 | 0°M | | ase. Hode | 11929 Mar 20 01:21 | 0°95 | |
| | | | | | | | |
| | 11923 Dec 10 17:46 | 0°×7 | | | 11929 May 01 21:18 | $0^{\circ}\Omega$ | |
| | 11924 Jan 22 08:49 | ರ∘8 | | | 11929 Jun 10 18:42 | 0° m) | |
| | 11924 Mar 08 09:18 | 0° ≈ | | | 11929 Jul 20 07:03 | 0∘ ত | |
| | 11924 Apr 29 11:53 | 0° ∀ | | | 11929 Aug 29 17:53 | 0° M | |
| desc. node | 11924 May 28 02:55 | 13°) 33′18 | | | 11929 Oct 10 20:11 | 0° ∡ ¹ | |
| retrograde | 11924 Jul 19 03:53 | 26°) 15′07 | | | 11929 Nov 23 19:43 | 0°ರ | |
| opposition | 11924 Aug 28 11:13 | 16° ¥ 44'14 | -3°00'00 | evening set | 11929 Dec 03 20:17 | 6° ප 40'14 | |
| | - | 16°) 41'43 | | evening set | | 0°≈ | |
| greatest brilliancy | 11924 Aug 28 13:46 | | -1.3m | | 11930 Jan 08 11:57 | | |
| min. Earth dist. | 11924 Aug 30 00:08 | 16° 米 07'52 | 0.68130 AU | desc. node | 11930 Jan 16 23:31 | 5° ≈ 28'25 | |
| direct | 11924 Oct 08 23:00 | 6°) 45′37 | | | | | |
| | 11924 Dec 22 14:34 | 0 ° Υ | | conjunction | 11930 Jan 20 20:36 | 7° ≈ 58'03 | -0°02'08 |
| | 11925 Feb 12 18:21 | $6^{\circ}B$ | | minimum elong | 11930 Jan 20 20:35 | 7° ≈ 58'01 | 0°01'27 |
| | 11925 Mar 29 15:39 | $\Pi^{\circ}0$ | | behind sun begin | 11930 Jan 20 01:29 | 7° ≈ 27'21 | |
| | 11925 May 09 19:50 | 0°© | | behind sun end | 11930 Jan 21 15:41 | 8° ≈ 28'41 | |
| aga mada | | | | | | | 2 66210 ATT |
| asc. node | 11925 May 30 04:11 | 15° © 30'03 | | max. Earth dist. | 11930 Jan 30 22:33 | | 2.66310 AU |
| | 11925 Jun 17 19:56 | 0 \circ Ω | | | 11930 Feb 24 09:33 | 0° ∀ | |
| | 11925 Jul 25 19:17 | 0° m p | | morning rise | 11930 Mar 06 13:38 | 6° ∺ 26'21 | |
| evening set | 11925 Aug 05 03:25 | 8° m 12'09 | | | 11930 Apr 12 23:49 | 0° Y | |
| | 11925 Sep 01 18:16 | 0∘ ⊽ | | | 11930 May 31 00:08 | 0°8 | |
| | 11925 Oct 10 14:30 | 0° M | | | 11930 Jul 18 15:37 | Π° | |
| | 11,20 000 10 11.50 | 0 110 | | | 11930 Sep 07 03:47 | 0°9 | |
| | 11025 0 + 15 00 42 | 20 m 20156 | 1006100 | | = | 0° U | |
| conjunction | 11925 Oct 15 00:43 | 3°M20'56 | 1°06'08 | | 11930 Nov 05 07:21 | | |
| minimum elong | 11925 Oct 15 00:09 | 3° ™ 19'54 | 1°06'30 | retrograde | 11930 Dec 18 17:33 | 9° Ω 58'46 | |
| | 11925 Nov 20 01:36 | 0° ∡ ¹ | | opposition | 11931 Jan 17 21:21 | 4° Ω 51'53 | -0°13'30 |
| max. Earth dist. | 11925 Dec 02 10:10 | 8° ∡ ′52′12 | 2.46222 AU | greatest brilliancy | 11931 Jan 17 22:55 | 4° Ω 50'47 | -3.0m |
| morning rise | 11925 Dec 16 06:54 | 18° ∡ ³39'19 | | asc. node | 11931 Jan 20 21:01 | 4° Ω 01'34 | |
| 5 | 11926 Jan 01 16:16 | 8°0 | | min. Earth dist. | 11931 Jan 22 20:26 | 3° Ω 28'34 | 0.38066 AU |
| | 11926 Feb 15 18:54 | 0° ≈ | | mm. Lattii dist. | 11931 Feb 07 09:01 | 30°R95 | 0.50000710 |
| | | | | 11 | | | |
| | 11926 Apr 04 21:30 | 0° ∀ | | direct | 11931 Feb 18 10:44 | 29° 5 09'47 | |
| desc. node | 11926 Apr 14 19:22 | 5°) 53′43 | | | 11931 Mar 01 09:04 | $0^{\circ}\Omega$ | |
| | 11926 May 27 23:15 | 0 ° Υ | | | 11931 May 07 19:07 | 0° m y | |
| retrograde | 11926 Aug 25 07:11 | 29° Y 58'20 | | | 11931 Jun 22 13:51 | 0∘ ত | |
| opposition | 11926 Oct 02 22:06 | 21° Y 16'14 | -4°43'25 | | 11931 Aug 05 15:48 | 0° M | |
| greatest brilliancy | 11926 Oct 03 18:16 | 20° Y ′56′51 | | | 11931 Sep 19 07:37 | 0° ∡ ¹ | |
| | 11926 Oct 08 06:55 | | 0.62799 AU | | 11931 Nov 04 03:10 | 0°ਤੋਂ | |
| min. Earth dist. | | | 0.02799 AU | | | | |
| direct | 11926 Nov 13 04:20 | 11° Y 17'45 | | desc. node | 11931 Dec 04 20:58 | 19° る 44'32 | |
| | 11927 Jan 14 17:43 | $0^{\circ}S$ | | | 11931 Dec 20 23:32 | 0° ≈ | |
| | 11927 Mar 06 09:59 | Π $^{\circ}0$ | | evening set | 11932 Jan 12 01:16 | 13° ≈ 59'42 | |
| asc. node | 11927 Apr 17 08:37 | 29° Ⅲ 25'30 | | | 11932 Feb 06 08:18 | 0°) € | |
| | 11927 Apr 18 03:21 | 0ంతె | | max. Earth dist. | 11932 Feb 22 03:39 | 10° ₩ 00'44 | 2.68324 AU |
| | 11927 May 27 16:43 | 0°N | | | | | |
| | • | | | | 11022 E-L 25 14.20 | 12° ¥ 12'01 | 0941120 |
| | 11927 Jul 04 23:52 | 0° m/y | | conjunction | 11932 Feb 25 14:28 | | |
| | 11927 Aug 12 07:40 | 0∘ ⊽ | | minimum elong | 11932 Feb 25 13:26 | 12°) 10′22 | 0°41'10 |
| | 11927 Sep 20 15:39 | 0° M | | | 11932 Mar 24 13:45 | 0° Y | |
| evening set | 11927 Oct 15 15:33 | 18° ™ 26'56 | | morning rise | 11932 Apr 08 19:59 | 9° Ƴ 46'23 | |
| | 11927 Oct 31 16:10 | 0° ∡ ¹ | | | 11932 May 10 03:04 | 9° 8 | |
| | | | | | 11932 Jun 24 17:03 | Π° | |
| conjunction | 11927 Dec 11 05:36 | 28° ∡ 17'35 | 0°42'08 | | 11932 Aug 08 05:34 | 0°© | |
| | | | | | • | 0°N | |
| minimum elong | 11927 Dec 11 07:14 | 28° ₹ 20'23 | 0°42'55 | | 11932 Sep 20 20:00 | | |
| | 11927 Dec 13 17:46 | 0°る | | | 11932 Nov 03 02:49 | 0° m) | |
| max. Earth dist. | 11928 Jan 06 16:29 | 16° る 05'00 | 2.58775 AU | asc. node | 11932 Dec 07 22:50 | 23° Mp 24'35 | |
| | 11928 Jan 27 20:51 | 0° ≈ | | | 11932 Dec 18 07:18 | 0∘ ত | |
| morning rise | 11928 Jan 30 05:49 | 1° ≈ 32'35 | | | 11933 Feb 22 17:32 | 0° M . | |
| desc. node | 11928 Mar 01 08:51 | 21° ≈ 29'27 | | retrograde | 11933 Mar 05 21:29 | 0° M ₅54'15 | |
| acco. Hour | 11928 Mar 14 21:26 | 0°) € | | | 11933 Mar 17 01:46 | 30°R <u>₽</u> | |
| | | 0° Υ 0° Υ | | min Forth 3' (| | | 0.40610.417 |
| | 11928 May 02 19:53 | | | min. Earth dist. | 11933 Mar 31 19:54 | 26° £ 25'54 | 0.40610 AU |
| | 11928 Jun 23 17:54 | 0°8 | | greatest brilliancy | 11933 Apr 06 17:28 | 24° ≏ 35'39 | -2.7m |
| | 11928 Aug 24 11:18 | Π °0 | | opposition | 11933 Apr 08 09:27 | 24° ≏ 04'16 | 6°20'03 |
| retrograde | 11928 Oct 10 07:19 | 10° Ⅱ 29'56 | | direct | 11933 May 08 23:38 | 18° ≏ 22'54 | |
| opposition | 11928 Nov 14 11:50 | 3° Ⅱ 12'57 | -4°59'36 | | 11933 Jun 24 22:50 | 0°M | |
| greatest brilliancy | 11928 Nov 16 01:50 | 2° Ⅲ 39'00 | | | 11933 Aug 22 02:32 | 0° ⊼ ⊓ | |
| min. Earth dist. | 11928 Nov 22 23:14 | 2 П 3900 0° П 12'09 | 0.51183 AU | | 11933 Aug 22 02:32 11933 Oct 12 00:56 | 0° ਠ | |
| mm. Darm uist. | | | 0.31103 AU | J 1 | | | |
| | 11928 Nov 23 13:22 | 30° ₹ 8 | | desc. node | 11933 Oct 22 01:11 | 6° る 01'46 | |
| | | | | | | | |

| | 11933 Nov 30 11:06 | 0° ≈ | | | 11938 Sep 30 10:54 | 0∘ ⊽ | |
|---------------------------|--|-----------------------------------|-------------|-----------------------------------|--|------------------------------------|------------|
| | 11934 Jan 18 01:03 | 0° ∀ | | | 11938 Nov 08 03:11 | o° m | |
| evening set | 11934 Feb 15 15:18 | 17° ¥ 58′00 | | | 11938 Dec 18 09:32 | 0° ∡ 7 | |
| | 11934 Mar 06 12:33 | 0°Υ | | | 11939 Jan 30 05:12 | 0°ਰ | |
| max. Earth dist. | 11934 Mar 16 00:06 | 6° Y 05'55 | 2.64842 AU | | 11939 Mar 18 03:01 | 0° ≈ | |
| | | | | | 11939 May 13 16:24 | 0°) € | |
| conjunction | 11934 Mar 31 22:35 | 16° Y ′26′50 | -1°06'08 | desc. node | 11939 Jun 14 18:43 | 11° ∺ 06'33 | |
| minimum elong | 11934 Mar 31 21:50 | 16° Y ′25'37 | 1°06'16 | retrograde | 11939 Jul 06 19:44 | 13°) € 50'06 | |
| | 11934 Apr 21 12:19 | 0° 8 | | opposition | 11939 Aug 16 09:48 | 4°) €06'29 | -2°08'01 |
| morning rise | 11934 May 16 01:39 | 16° 8 29'33 | | greatest brilliancy | 11939 Aug 16 08:47 | 4°) €07'29 | -1.3m |
| | 11934 Jun 04 18:45 | Π °0 | | min. Earth dist. | 11939 Aug 16 10:40 | 4°) €05'36 | 0.68377 AU |
| | 11934 Jul 17 07:19 | 0ა ௐ | | | 11939 Aug 27 03:37 | 30° R ≈ | |
| | 11934 Aug 27 06:43 | $0^{\circ}\Omega$ | | direct | 11939 Sep 26 12:53 | 24°≈16'32 | |
| | 11934 Oct 06 03:13 | 0° my | | | 11939 Oct 30 00:31 | 0°) € | |
| asc. node | 11934 Oct 25 18:29 | 14° m 55'32 | | | 11940 Jan 03 15:08 | 0°Υ | |
| | 11934 Nov 14 15:37 11934 Dec 25 04:55 | 0° ሆ 0° 亚 | | | 11940 Feb 22 04:23 11940 Apr 06 10:26 | 0°B 0°B | |
| | 11934 Dec 23 04:33 11935 Feb 07 17:06 | 0° ∕ 7 | | | 11940 May 17 11:12 | 0°© | |
| retrograde | 11935 Feb 07 17:00 11935 Apr 26 09:33 | 29° х 44'38 | | asc. node | 11940 Jun 15 20:51 | 22° © 30'52 | |
| min. Earth dist. | 11935 May 27 18:04 | 23°×701'50 | 0.54183 AU | use. Houe | 11940 Jun 25 11:12 | 0°Ω | |
| greatest brilliancy | 11935 Jun 03 01:14 | 20° ✓ 37'35 | -1.9m | evening set | 11940 Jul 05 21:49 | 8° Ω 12'02 | |
| opposition | 11935 Jun 04 00:18 | 20° х 15′30 | 3°51'18 | 3 | 11940 Aug 02 10:36 | 0° m) | |
| direct | 11935 Jul 09 17:43 | 12° ∡ ¹20'36 | | | 11940 Sep 09 08:16 | 0∘ <u>v</u> | |
| desc. node | 11935 Sep 09 09:13 | 29° х 16′37 | | | • | | |
| | 11935 Sep 10 23:40 | 8°0 | | conjunction | 11940 Sep 15 22:11 | 5° ₾ 09'39 | 0°56'07 |
| | 11935 Nov 08 02:23 | 0° ≈ | | minimum elong | 11940 Sep 15 18:38 | 5° ჲ 02'44 | 0°56'05 |
| | 11935 Dec 29 15:23 | 0° ℋ | | | 11940 Oct 18 01:39 | 0° M | |
| | 11936 Feb 16 03:47 | 0° Υ | | max. Earth dist. | 11940 Nov 08 12:46 | 16°M09'01 | 2.40543 AU |
| evening set | 11936 Mar 23 11:03 | 23° Y '32'02 | | morning rise | 11940 Nov 23 22:27 | 27° M 29'20 | |
| | 11936 Apr 02 04:08 | 0°8 | | | 11940 Nov 27 09:18 | 0° ∡ 7 | |
| max. Earth dist. | 11936 Apr 10 08:40 | 5° 8 30'31 | 2.56059 AU | | 11941 Jan 08 21:56 | 0°る | |
| agniumation | 11026 May 10, 01:50 | 25° 8 57'32 | 1904!50 | | 11941 Feb 23 04:47 | 0° ≈ 0° ∀ | |
| conjunction minimum elong | 11936 May 10 01:59 11936 May 10 03:01 | 25° 8 59'20 | | desc. node | 11941 Apr 13 05:35 11941 May 01 12:52 | 0 X 10° ¥ 21′29 | |
| minimum ciong | 11936 May 15 20:02 | 23 O 3920 | 1 03 28 | desc. node | 11941 Jun 09 10:23 | 10 χ2129 0°Υ | |
| | 11936 Jun 26 09:02 | 0°© | | retrograde | 11941 Aug 10 03:45 | 16° Υ 37'46 | |
| morning rise | 11936 Jul 01 15:10 | 3° 9 53'36 | | opposition | 11941 Sep 18 14:27 | 7° Υ 33'27 | -4°09'35 |
| | 11936 Aug 05 05:16 | $0^{\circ}\Omega$ | | greatest brilliancy | 11941 Sep 19 02:35 | 7° Υ 21'39 | -1.4m |
| asc. node | 11936 Sep 11 08:44 | 28° Ω 45'25 | | min. Earth dist. | 11941 Sep 22 11:26 | | 0.65681 AU |
| | 11936 Sep 12 22:56 | 0° m) | | | 11941 Oct 10 13:16 | 30°₽) | |
| | 11936 Oct 21 08:26 | 0∘ ⊽ | | direct | 11941 Oct 30 03:45 | 27° ¥ 30′24 | |
| | 11936 Nov 29 08:53 | 0° M | | | 11941 Nov 20 00:32 | 0 ° Υ | |
| | 11937 Jan 09 05:48 | 0° ∡ | | | 11942 Jan 27 15:08 | 0° 8 | |
| | 11937 Feb 23 00:07 | 5°0 | | | 11942 Mar 15 20:06 | Π °0 | |
| | 11937 Apr 20 02:24 | 0° ≈ | | | 11942 Apr 26 16:43 | 0ა ௐ | |
| retrograde | 11937 Jun 02 15:17 | 10°≈09'10 | 0.64005.433 | asc. node | 11942 May 03 22:17 | 5° © 25'12 | |
| min. Earth dist. | 11937 Jul 09 07:53 | 1°≈38'33 | 0.64397 AU | | 11942 Jun 04 22:25 | 0° N | |
| opposition | 11937 Jul 13 01:45 | 0°≈09'15 | 0°32'58 | | 11942 Jul 13 01:02 | 0 ் ம 0 ் மி | |
| greatest brilliancy | 11937 Jul 13 00:04 11937 Jul 13 11:03 | 0°≈10'55 30°Rる | -1.5111 | evening set | 11942 Aug 20 04:00 11942 Sep 20 10:33 | 0° <u>32</u> 24° Ω 05'41 | |
| desc. node | 11937 Jul 13 11:03 | 24°る50'34 | | evening set | 11942 Sep 28 05:53 | 0°M | |
| direct | 11937 Aug 21 06:28 | 20°る59'08 | | | 11942 Nov 07 23:39 | 0° ⊼ | |
| uncet | 11937 Oct 03 15:25 | 0°≈ | | | 119 12 1101 07 23.39 | · / | |
| | 11937 Dec 06 03:56 | 0°) € | | conjunction | 11942 Nov 21 13:01 | 9° ∡ ¹40'01 | 0°56'31 |
| | 11938 Jan 26 14:13 | 0° Υ | | minimum elong | 11942 Nov 21 14:51 | 9° ∡ ¹43'16 | 0°57'15 |
| | 11938 Mar 14 09:41 | 0°B | | Č | 11942 Dec 20 19:13 | 0°ರ | |
| | 11938 Apr 26 23:32 | $\Pi^{\circ}0$ | | max. Earth dist. | 11942 Dec 26 03:42 | 3° ⋜ 38'41 | 2.54381 AU |
| evening set | 11938 May 06 08:58 | 6° Ⅱ 43'18 | | morning rise | 11943 Jan 14 06:43 | 16° පි 29'29 | |
| max. Earth dist. | 11938 May 20 23:24 | 17° Ⅱ 20′26 | 2.43056 AU | | 11943 Feb 03 19:58 | 0° ≈ | |
| | 11938 Jun 07 00:50 | 0₀ © | | desc. node | 11943 Mar 19 02:28 | 27° ≈ 31'12 | |
| | | | | | 11943 Mar 23 02:26 | 0°) € | |
| conjunction | 11938 Jul 02 21:28 | 19°539'02 | | | 11943 May 12 01:46 | 0°Υ | |
| minimum elong | 11938 Jul 02 23:02 | 19°542'04 | 0°19'50 | | 11943 Jul 06 13:34 | 0°8 | |
| asa nada | 11938 Jul 16 06:30 11938 Jul 29 23:56 | 0° Ω 10° Ω 43'17 | | retrograde | 11943 Sep 21 04:17 11943 Oct 27 22:38 | 23° 8 31'53 | 5010/50 |
| asc. node | 11938 Jul 29 23:56 11938 Aug 23 11:07 | 10°3743°17 0°M) | | opposition greatest brilliancy | 11943 Oct 27 22:38 11943 Oct 29 07:42 | 15° 6 35'36 | |
| morning rise | 11938 Aug 23 11.07 11938 Sep 10 07:28 | 0 100 14°M007′02 | | min. Earth dist. | 11943 Oct 29 07.42 11943 Nov 04 10:12 | | 0.56369 AU |
| | 11/30 Бер 10 07.20 | 11 mg/0/02 | | Dartii dist. | 117.13.1107.07.10.12 | .2 07000 | 3.2030) AU |

| direct | 11943 Dec 06 22:32 | 6° 8 03'47 | | conjunction | 11949 Mar 17 23:06 | 3° Y ′02'04 | |
|---------------------|--------------------|---------------------|------------|---------------------|--|--------------------------------|------------|
| | 11944 Feb 14 17:54 | Π °0 | | minimum elong | 11949 Mar 17 22:04 | 3° Y ′00′25 | 0°58'55 |
| asc. node | 11944 Mar 21 05:06 | 22° Ⅱ 20′03 | | | 11949 Apr 28 09:13 | 9° 8 | |
| | 11944 Apr 01 07:04 | 0°€ | | morning rise | 11949 Apr 30 21:18 | 1° 8 39'16 | |
| | 11944 May 12 02:47 | $0^{\circ}\Omega$ | | | 11949 Jun 12 01:34 | $\Pi^{\circ}0$ | |
| | 11944 Jun 20 02:13 | o°mp | | | 11949 Jul 25 04:53 | 0°ഇ | |
| | 11944 Jul 28 23:09 | 0∘ <u>⊽</u> | | | 11949 Sep 04 21:59 | $0^{\circ}\Omega$ | |
| | 11944 Sep 06 20:14 | 0° M | | | 11949 Oct 15 14:31 | 0° m) | |
| | 11944 Oct 18 09:57 | 0° ⊼ 7 | | asc. node | 11949 Nov 11 12:18 | 19° m 57'28 | |
| avanina aat | | 19° ∡ 59′27 | | asc. node | 11949 Nov 25 03:49 | ე° ი | |
| evening set | 11944 Nov 16 04:59 | | | | | | |
| | 11944 Nov 30 22:47 | 0°₹ | | | 11950 Jan 06 14:23 | 0°M | |
| | | | | | 11950 Feb 27 08:25 | 0° ∡ 7 | |
| conjunction | 11945 Jan 05 18:07 | | 0°15'13 | retrograde | 11950 Apr 08 16:07 | 10° ∡ °05'46 | |
| minimum elong | 11945 Jan 05 18:43 | 23° る 46'21 | 0°15'59 | min. Earth dist. | 11950 May 07 13:17 | 4° ∡ 17'44 | |
| | 11945 Jan 15 08:06 | 0° ≈ | | greatest brilliancy | 11950 May 14 08:28 | 1° ∡ ¹49'50 | -2.2m |
| max. Earth dist. | 11945 Jan 21 15:08 | 4° ≈ 04'45 | 2.64010 AU | opposition | 11950 May 15 19:03 | 1° ∤7 18'14 | 5°10'34 |
| desc. node | 11945 Feb 02 16:20 | 11° ≈ 50′29 | | | 11950 May 19 10:21 | 30°₽MJ | |
| morning rise | 11945 Feb 20 23:03 | 23° ≈ 30'53 | | direct | 11950 Jun 18 16:41 | 24°M08'28 | |
| Ü | 11945 Mar 03 04:39 | 0° ∀ | | | 11950 Jul 21 09:39 | 0° ∡ ¹ | |
| | 11945 Apr 20 03:31 | 0° Υ | | | 11950 Sep 24 23:37 | 0°ెవ | |
| | 11945 Jun 08 05:01 | 0°8 | | desc. node | 11950 Sep 25 19:58 | 0° る 27'24 | |
| | 11945 Jul 29 09:20 | 0°II | | desc. Hode | 11950 Nov 17 01:01 | 0°≈ | |
| | | | | | | 0 ≈ 0° ∺ | |
| | 11945 Sep 26 02:13 | 0°5 | | | 11951 Jan 06 01:58 | | |
| retrograde | 11945 Nov 17 21:45 | 13° © 24'01 | | | 11951 Feb 23 01:55 | 0° Υ | |
| opposition | 11945 Dec 20 01:37 | 7° 5 26'50 | -3°06'51 | evening set | 11951 Mar 09 16:16 | 9° Y 22'55 | |
| greatest brilliancy | 11945 Dec 21 03:53 | 7° ॐ 06′13 | -2.6m | max. Earth dist. | 11951 Mar 31 10:01 | 23° Y 36'17 | 2.60096 AU |
| min. Earth dist. | 11945 Dec 28 06:05 | 4° 9 53'37 | 0.42511 AU | | 11951 Apr 10 00:53 | 9° 8 | |
| direct | 11946 Jan 23 19:21 | 0° © 17'49 | | | | | |
| asc. node | 11946 Feb 06 13:02 | 1° 5 36'18 | | conjunction | 11951 Apr 24 11:07 | 9° 8 42'45 | -1°09'27 |
| | 11946 Apr 09 13:10 | $0^{\circ}\Omega$ | | minimum elong | 11951 Apr 24 11:18 | 9° 8 43'03 | 1°09'54 |
| | 11946 May 23 17:34 | 0° m | | Č | 11951 May 23 21:25 | 0°II | |
| | 11946 Jul 04 10:37 | 0∘ <u>⊽</u> | | morning rise | 11951 Jun 12 03:40 | 13° Ⅲ 38′05 | |
| | 11946 Aug 15 10:30 | 0°M | | morning rise | 11951 Jul 04 18:21 | 0°95 | |
| | • | 0° ⊼ ¹ | | | | 0°€ | |
| | 11946 Sep 27 18:03 | | | | 11951 Aug 13 23:20 | | |
| | 11946 Nov 11 15:48 | 0°る | | | 11951 Sep 22 01:07 | 0° m) | |
| desc. node | 11946 Dec 21 10:25 | 25° る 49'20 | | asc. node | 11951 Sep 29 05:03 | 5°m/33'12 | |
| | 11946 Dec 27 22:37 | 0° ≈ | | | 11951 Oct 30 17:42 | 0∘ ⊽ | |
| evening set | 11946 Dec 28 13:24 | 0° ≈ 23'41 | | | 11951 Dec 09 02:04 | 0°M | |
| | | | | | 11952 Jan 19 15:15 | 0° ∡ ¹ | |
| conjunction | 11947 Feb 12 00:46 | 29° ≈ 21'15 | -0°27'34 | | 11952 Mar 06 16:43 | 0° ප | |
| minimum elong | 11947 Feb 11 23:59 | 29° ≈ 20′00 | 0°27'04 | retrograde | 11952 May 19 14:03 | 25° る 51'37 | |
| | 11947 Feb 13 01:13 | 0° ∀ | | min. Earth dist. | 11952 Jun 23 09:08 | 17°る58'02 | 0.61092 AU |
| max. Earth dist. | 11947 Feb 13 18:04 | 0°) € 26'43 | 2.68196 AU | opposition | 11952 Jun 28 13:41 | 15°₹55'06 | 1°46'01 |
| morning rise | 11947 Mar 27 10:51 | 26° ¥ 53'35 | | greatest brilliancy | 11952 Jun 28 06:00 | 16° පි 02'41 | -1.6m |
| | 11947 Apr 01 08:11 | 0° Υ | | direct | 11952 Aug 05 14:15 | 7° る 09'03 | |
| | 11947 May 18 07:52 | 0°8 | | desc. node | 11952 Aug 13 04:27 | 7° る 29'35 | |
| | 11947 Jul 03 18:50 | 0°II | | desc. Hode | 11952 Aug 13 04:27 11952 Oct 19 23:56 | 0° ≈ | |
| | | 0.ಂ ೧ H | | | | 0° ∺ | |
| | 11947 Aug 18 18:35 | | | | 11952 Dec 15 04:18 | 0° ዢ 0° Ƴ | |
| | 11947 Oct 03 18:22 | $0^{\circ}\Omega$ | | | 11953 Feb 03 02:40 | | |
| _ | 11947 Nov 20 16:27 | 0° m | | | 11953 Mar 21 12:19 | 0° 8 | |
| asc. node | 11947 Dec 25 15:54 | 18° m 39'28 | | evening set | 11953 Apr 17 21:25 | 18° 8 38'36 | |
| retrograde | 11948 Feb 07 11:53 | 29° m 58'42 | | max. Earth dist. | 11953 May 01 18:53 | | 2.48485 AU |
| min. Earth dist. | 11948 Mar 05 06:35 | 25° Mp 38'05 | 0.37058 AU | | 11953 May 04 01:58 | Π $^{\circ}0$ | |
| greatest brilliancy | 11948 Mar 08 07:34 | 24° m 48'05 | -3.0m | | | | |
| opposition | 11948 Mar 09 02:51 | 24° m 34'48 | 5°10'53 | conjunction | 11953 Jun 09 10:31 | 26° Ⅲ 22'52 | -0°43'26 |
| direct | 11948 Apr 07 08:48 | 19° m 39'16 | | minimum elong | 11953 Jun 09 12:41 | 26° Ⅲ 26'53 | 0°44'13 |
| | 11948 May 20 02:40 | 0∘ ⊽ | | | 11953 Jun 14 07:17 | 0°© | |
| | 11948 Jul 15 15:16 | 0°M | | | 11953 Jul 23 17:58 | 0°N | |
| | 11948 Sep 02 16:37 | 0° ∡ 7 | | morning rise | 11953 Aug 10 10:03 | 13° Ω 44'45 | |
| | 11948 Oct 20 19:15 | 0°る | | asc. node | 11953 Aug 10 10:03 | $17^{\circ} \Omega 57'59$ | |
| dono e - 4 - | | | | asc. Hour | _ | | |
| desc. node | 11948 Nov 07 11:44 | 11° る 01'39 | | | 11953 Aug 31 02:54 | 0° my | |
| | 11948 Dec 07 22:25 | 0° ≈ | | | 11953 Oct 08 05:23 | 0° ⊽ | |
| | 11949 Jan 24 22:03 | 0° ∀ | | greatest brilliancy | 11953 Oct 09 04:43 | 0° Ω 45'45 | 1.2m |
| evening set | 11949 Feb 01 21:51 | 5° 米 01'41 | | | 11953 Nov 15 22:59 | 0°M₊ | |
| max. Earth dist. | 11949 Mar 06 20:59 | 25° ¥ 55'49 | 2.66853 AU | | 11953 Dec 26 07:32 | 0° ∡ ¹ | |
| | 11949 Mar 13 05:37 | 0° Y | | | 11954 Feb 07 12:26 | 0°ප | |
| | | | | | 11954 Mar 28 00:36 | 0° ≈ | |
| | | | | | | | |

| | | >4 | | | | - | |
|---|--|---|-----------------------------------|--|---|---|-----------------------------------|
| | 11954 Jun 08 20:16 | 0° ∀ | | asc. node | 11959 Apr 07 19:13 | 26° Ⅱ 42′05 | |
| retrograde | 11954 Jun 23 15:41 | 1° ¥ 18′03 | | | 11959 Apr 12 08:37 | 0 \circ | |
| desc. node | 11954 Jul 01 08:13 | 0°) 54′56 | | | 11959 May 22 06:22 | $0 {\circ} \Omega$ | |
| | 11954 Jul 07 16:38 | 30° R ≈ | | | 11959 Jun 29 18:02 | 0° m ∕ | |
| min. Earth dist. | 11954 Aug 01 20:57 | 21° ≈ 59'36 | 0.67610 AU | | 11959 Aug 07 05:15 | 0∘ ত | |
| opposition | 11954 Aug 03 08:03 | 21° ≈ 24'41 | -1°10'21 | | 11959 Sep 15 16:21 | 0° M | |
| greatest brilliancy | 11954 Aug 03 05:56 | 21° ≈ 26'48 | -1.3m | | 11959 Oct 26 20:03 | 0° ⊼ ¹ | |
| direct | 11954 Sep 12 21:13 | 11° ≈ 47'06 | | evening set | 11959 Oct 28 05:54 | 1° ∡ 100'11 | |
| direct | 11954 Nov 17 10:34 | 0° ∀ | | evening sec | 11959 Dec 09 00:09 | 0°පි | |
| | 11955 Jan 12 22:15 | 0°Υ | | | 11/3/ Dec 0/ 00.0/ | υ Ο | |
| | | | | | 11050 D 21 00 27 | 00=10153 | 0022121 |
| | 11955 Mar 02 00:47 | 0° 8 | | conjunction | 11959 Dec 21 08:37 | 8° る 19'53 | 0°32'31 |
| | 11955 Apr 14 21:52 | 0°Щ | | minimum elong | 11959 Dec 21 09:56 | 8° 云 22'05 | |
| | 11955 May 25 21:46 | 0 \circ | | max. Earth dist. | 11960 Jan 12 20:35 | | 2.60855 AU |
| evening set | 11955 Jun 09 23:33 | 11° © 26'27 | | | 11960 Jan 23 04:10 | 0° ≈ | |
| asc. node | 11955 Jul 03 12:37 | 29° 5 39'22 | | morning rise | 11960 Feb 07 18:37 | 10° ≈ 05'43 | |
| | 11955 Jul 03 23:11 | $0^{\circ}\Omega$ | | desc. node | 11960 Feb 20 08:29 | 18° ≈ 08'42 | |
| | 11955 Aug 10 23:57 | o∘ m y | | | 11960 Mar 10 01:52 | 0° ∀ | |
| | Č | • | | | 11960 Apr 27 13:36 | $0^{\circ}\mathbf{\Upsilon}$ | |
| conjunction | 11955 Aug 16 15:00 | 4° m) 27'51 | 0°30'50 | | 11960 Jun 17 04:07 | 0°8 | |
| minimum elong | 11955 Aug 16 11:51 | 4° m) 21'35 | 0°30'22 | | 11960 Aug 12 02:09 | 0°II | |
| max. Earth dist. | • | 7° m) 44'23 | 2.36348 AU | materia ama dia | 11960 Oct 23 00:49 | 21° II 43'01 | |
| max. Earth dist. | 11955 Aug 20 18:05 | | 2.30348 AU | retrograde | | | 402.512.0 |
| | 11955 Sep 17 21:44 | 0∘ ⊽ | | opposition | 11960 Nov 26 06:12 | 14° ∏ 51'58 | |
| | 11955 Oct 26 13:40 | 0° M | | greatest brilliancy | 11960 Nov 27 19:33 | 14° Ⅱ 19'44 | |
| morning rise | 11955 Oct 29 08:47 | 2° ™ 07'50 | | min. Earth dist. | 11960 Dec 05 00:28 | 11° Ⅱ 51'56 | 0.48078 AU |
| | 11955 Dec 05 19:17 | 0° ∡ ¹ | | direct | 11961 Jan 02 15:25 | 6° Ⅱ 28′08 | |
| | 11956 Jan 17 07:52 | 0° ට | | asc. node | 11961 Feb 23 01:41 | 21° Ⅱ 37'16 | |
| | 11956 Mar 02 22:55 | 0° ≈ | | | 11961 Mar 10 05:22 | 0 \circ \odot | |
| | 11956 Apr 22 12:28 | 0° ∀ | | | 11961 Apr 24 14:43 | $0^{\circ}\Omega$ | |
| desc. node | 11956 May 18 05:29 | 13° ¥ 19'11 | | | 11961 Jun 04 10:06 | 0° m) | |
| | 11956 Jun 29 24:00 | 0° Υ | | | 11961 Jul 14 11:34 | 0∘ <u>⊽</u> | |
| retrograde | 11956 Jul 26 23:04 | 3° Υ ′52'53 | | | 11961 Aug 24 08:05 | o° m . | |
| retrograde | | 30°R ∺ | | | 11961 Oct 05 18:20 | 0° ⊼ | |
| .,. | 11956 Aug 20 18:32 | * | 2027120 | | | | |
| opposition | 11956 Sep 05 00:18 | 24°) (30′24 | | | 11961 Nov 18 23:53 | 0°る | |
| greatest brilliancy | 11956 Sep 05 05:46 | 24°) €25'02 | | evening set | 11961 Dec 13 03:23 | 15° පි 54'56 | |
| min. Earth dist. | 11956 Sep 07 08:51 | 23° ¥ 34′50 | 0.67555 AU | | 11962 Jan 03 20:00 | 0° ≈ | |
| direct | 11956 Oct 16 14:18 | 14°) €28'50 | | desc. node | 11962 Jan 07 01:08 | 2° ≈ 04'21 | |
| | 11956 Dec 13 17:27 | 0 ° Υ | | | | | |
| | 11957 Feb 06 19:57 | 9° 8 | | conjunction | 11962 Jan 29 02:09 | 16° ≈ 12'26 | -0°11'54 |
| | 11957 Mar 24 09:24 | Π° 0 | | minimum elong | 11962 Jan 29 01:46 | 16° ≈ 11'50 | 0°11'17 |
| | 11957 May 04 18:53 | 0°ಅ | | behind sun begin | 11962 Jan 28 12:14 | 15° ≈ 50'14 | |
| asc. node | 11957 May 20 13:37 | 11° 9 57'42 | | behind sun end | 11962 Jan 29 15:19 | 16° ≈ 33'25 | |
| | 11957 Jun 12 20:35 | 0°N | | max. Earth dist. | 11962 Feb 05 03:17 | 20°≈42'04 | 2.67208 AU |
| | 11957 Jul 20 20:37 | 0° m) | | max. Lartii dist. | 11962 Feb 19 18:19 | 0°) € | 2.07200710 |
| anactast brillianav | 11957 Jul 28 15:20 | | 1.2 | morning rise | | 14° ∺ 12'34 | |
| greatest brilliancy | | 6° Mp 10'06 | 1.2m | morning rise | 11962 Mar 14 04:53 | 14 γ (12 34 0° γ | |
| evening set | 11957 Aug 22 12:14 | 25° m/48'52 | | | 11962 Apr 08 05:07 | | |
| | 11957 Aug 27 20:15 | 0∘ ⊽ | | | | | |
| | | | | | 11962 May 25 19:07 | 0° 8 | |
| | 11957 Oct 05 17:26 | 0°M₊ | | | 11962 Jul 12 11:49 | Π° | |
| | | | | | 11962 Jul 12 11:49 11962 Aug 29 20:17 | 0°© 10°0 | |
| conjunction | 11957 Oct 29 17:13 | 0°ጤ 17°ጤ56'14 | 1°05'23 | | 11962 Jul 12 11:49 | 0°Ω 0°© П°0 | |
| conjunction minimum elong | 11957 Oct 29 17:13 11957 Oct 29 18:03 | 17°M56'14 17°M57'46 | 1°05'23 1°05'55 | retrograde | 11962 Jul 12 11:49 11962 Aug 29 20:17 | 0°∏ 0°© 0°Ω 27°Ω29'39 | |
| • | 11957 Oct 29 17:13 | 17° M 56'14 | | retrograde asc. node | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 | 0°Ω 0°© П°0 | |
| • | 11957 Oct 29 17:13 11957 Oct 29 18:03 | 17°M56'14 17°M57'46 | | asc. node | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 | 0°Ⅲ 0°ᢒ 0°Ω 27°Ω29'39 27°Ω19'56 | 1°54'39 |
| minimum elong max. Earth dist. | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 | 17° M. 56'14 17° M. 57'46 0° x 7 | 1°05'55 | asc. node opposition | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 | 0°II 0°S 0°N 27°N29'39 27°N19'56 22°N36'22 | |
| minimum elong | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 | 17° IL 56'14 17° IL 57'46 0° ₹ 19° ₹ 15'11 29° ₹ 45'31 | 1°05'55 | asc. node opposition greatest brilliancy | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 | 0°Π 0°Ω 27°Ω29'39 27°Ω19'56 22°Ω36'22 22°Ω35'05 | -3.1m |
| minimum elong max. Earth dist. | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 | 17°M.56'14 17°M.57'46 0°⊀ 19°⊀15'11 29°⊀45'31 0°♂ | 1°05'55 | asc. node opposition greatest brilliancy min. Earth dist. | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 | 0°Π 0°Ω 27°Ω29'39 27°Ω19'56 22°Ω36'22 22°Ω35'05 22°Ω04'54 | |
| minimum elong max. Earth dist. | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 | 17°M56'14 17°M57'46 0°₹ 19°₹15'11 29°₹45'31 0°₹ 0°≈ | 1°05'55 | asc. node opposition greatest brilliancy | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 | 0°Π 0°Ω 27°Ω29'39 27°Ω19'56 22°Ω36'22 22°Ω35'05 22°Ω04'54 17°Ω30'35 | -3.1m |
| minimum elong max. Earth dist. morning rise | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 | 17°M56'14 17°M57'46 0°₺ 19°₺15'11 29°₺45'31 0°₺ 0°₺ | 1°05'55 | asc. node opposition greatest brilliancy min. Earth dist. | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 | 0° N 0° S 0° N 27° N29'39 27° N19'56 22° N36'22 22° N35'05 22° N04'54 17° N30'35 0° M | -3.1m |
| minimum elong max. Earth dist. | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 | 17°M56'14 17°M57'46 0° ₹ 19° ₹15'11 29° ₹45'31 0° ₹ 0° ₹ 0° ₹ 3° ¥11'33 | 1°05'55 | asc. node opposition greatest brilliancy min. Earth dist. | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 | 0°∏ 0°S 0°Ω 27°Ω29'39 27°Ω19'56 22°Ω36'22 22°Ω35'05 22°Ω04'54 17°Ω30'35 0°™ 0°Ω | -3.1m |
| minimum elong max. Earth dist. morning rise | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 | 17°M56'14 17°M57'46 0°ダ 19°ダ15'11 29°ダ45'31 0°उ 0°% 0°) 3°) 11'33 0°° | 1°05'55 | asc. node opposition greatest brilliancy min. Earth dist. | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 | 0° II 0° I 27° N 29'39 27° N 19'56 22° N 36'22 22° N 35'05 22° N 04'54 17° N 30'35 0° I 0° I 0° I | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 | 17°M56'14 17°M57'46 0° ₹ 19° ₹15'11 29° ₹45'31 0° ₹ 0° ₹ 3° ¥11'33 0° ♀ 0° ¥ | 1°05'55 | asc. node opposition greatest brilliancy min. Earth dist. | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 | 0° II 0° S 0° A 27° A29'39 27° A19'56 22° A36'22 22° A35'05 22° A04'54 17° A30'35 0° III 0° S 0° III 0° K | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node retrograde | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 | 17°M56'14 17°M57'46 0°♂ 19°♂15'11 29°♂45'31 0°云 0°≈ 0°∺ 3°升11'33 0°Y 0°∀ 8°♂828'44 | 1°05'55 2.49297 AU | asc. node opposition greatest brilliancy min. Earth dist. direct | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 | 0° II 0° S 0° A 27° A29'39 27° A19'56 22° A36'22 22° A35'05 22° A04'54 17° A30'35 0° ID 0° IL 0° IL 0° IC | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 | 17°M56'14 17°M57'46 0°♂ 19°♂15'11 29°♂45'31 0°云 0°≈ 0°¥ 3°¥11'33 0°Y 0°∀ 8°∀28'44 0°∀01'07 | 1°05'55 2.49297 AU | asc. node opposition greatest brilliancy min. Earth dist. | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 | 0° II 0° S 0° A 27° A29'39 27° A19'56 22° A36'22 22° A35'05 22° A04'54 17° A30'35 0° III 0° S 0° III 0° K | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node retrograde | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 | 17°M56'14 17°M57'46 0°♂ 19°♂15'11 29°♂45'31 0°云 0°≈ 0°∺ 3°升11'33 0°Y 0°∀ 8°♂828'44 | 1°05'55 2.49297 AU | asc. node opposition greatest brilliancy min. Earth dist. direct | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 | 0° II 0° S 0° A 27° A29'39 27° A19'56 22° A36'22 22° A35'05 22° A04'54 17° A30'35 0° ID 0° IL 0° IL 0° IC | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node retrograde | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 11958 Oct 11 13:45 | 17°M56'14 17°M57'46 0°♂ 19°♂15'11 29°♂45'31 0°云 0°≈ 0°¥ 3°¥11'33 0°Y 0°∀ 8°∀28'44 0°∀01'07 | 1°05'55 2.49297 AU | asc. node opposition greatest brilliancy min. Earth dist. direct | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 11963 Nov 25 00:17 | 0° II 0° S 0° A 27° A29'39 27° A19'56 22° A36'22 22° A35'05 22° A04'54 17° A30'35 0° m 0° Ω 0° II 0° ⊀ 0° II 16° ₹ 36'39 | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 11958 Oct 11 13:45 11958 Oct 11 14:55 | 17°M56'14 17°M57'46 0°♂ 19°♂15'11 29°♂45'31 0°云 0°≈ 0°) 3°) 3°) 411'33 0°° 0°∀ 0°∀ 8°∀28'44 0°∀01'07 30°° | 1°05'55 2.49297 AU -4°57'50 | asc. node opposition greatest brilliancy min. Earth dist. direct desc. node | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 11963 Nov 25 00:17 11963 Dec 16 03:56 | 0° II 0° S 0° A 27° A29'39 27° A19'56 22° A36'22 22° A35'05 22° A04'54 17° A30'35 0° M 0° A 0° IL 0° 16° S36'39 0° € | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 11958 Oct 11 13:45 11958 Oct 11 14:55 11958 Oct 12 14:41 | 17°M56'14 17°M57'46 0°♂ 19°♂15'11 29°♂45'31 0°云 0°≈ 0°¥ 3°¥11'33 0°° 0°∀ 8°∀28'44 0°∀01'07 30°R° 29°°Y37'21 | 1°05'55 2.49297 AU -4°57'50 -1.6m | asc. node opposition greatest brilliancy min. Earth dist. direct desc. node | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 11963 Nov 25 00:17 11963 Dec 16 03:56 11964 Jan 20 02:14 | 0° II 0° S 0° Ω 27° Ω29'39 27° Ω19'56 22° Ω36'22 22° Ω35'05 22° Ω04'54 17° Ω30'35 0° ID 0° S 0° IL 0° S 16° S 36'39 0° ≈ 22° ≈02'15 0° H | -3.1m |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 11958 Oct 11 13:45 11958 Oct 11 14:55 11958 Oct 12 14:41 11958 Oct 17 17:10 11958 Nov 21 11:43 | 17°M56'14 17°M57'46 0° √ 19° √ 15'11 29° √ 45'31 0° √ 0° ∞ 0° √ 3° √ 11'33 0° √ 0° 8° 8° 28'44 0° 801'07 30° € 7 29° 7 37'21 27° 7 40'42 20° 7 08'54 | 1°05'55 2.49297 AU -4°57'50 -1.6m | asc. node opposition greatest brilliancy min. Earth dist. direct desc. node evening set | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 11963 Nov 25 00:17 11963 Dec 16 03:56 11964 Jan 20 02:14 11964 Feb 01 17:00 | 0° II 0° S 0° N 27° N29'39 27° N19'56 22° N36'22 22° N35'05 22° N04'54 17° N30'35 0° ID 0° A 0° S 16° S 36'39 0° ≈ 22° ≈02'15 0° ℋ | -3.1m 0.36705 AU |
| minimum elong max. Earth dist. morning rise desc. node retrograde opposition greatest brilliancy min. Earth dist. | 11957 Oct 29 17:13 11957 Oct 29 18:03 11957 Nov 15 05:48 11957 Dec 12 08:06 11957 Dec 27 12:29 11957 Dec 27 20:57 11958 Feb 10 21:23 11958 Mar 30 13:54 11958 Apr 04 20:15 11958 May 21 03:52 11958 Jul 23 17:13 11958 Sep 03 12:56 11958 Oct 11 13:45 11958 Oct 11 14:55 11958 Oct 12 14:41 11958 Oct 17 17:10 | 17° M.56'14 17° M.57'46 0° ₹ 19° ₹ 15'11 29° ₹ 45'31 0° ₹ 0° ★ 3° ዃ 11'33 0° ♀ 0° ዃ 3° ዃ 28'44 0° ♂ 00'07 30° ℞ ♀ 29° ♀ 37'21 27° ♀ 40'42 | 1°05'55 2.49297 AU -4°57'50 -1.6m | asc. node opposition greatest brilliancy min. Earth dist. direct desc. node evening set | 11962 Jul 12 11:49 11962 Aug 29 20:17 11962 Oct 20 01:04 11963 Jan 06 05:58 11963 Jan 11 06:41 11963 Feb 04 22:21 11963 Feb 05 00:16 11963 Feb 06 21:33 11963 Mar 06 21:10 11963 Apr 22 03:57 11963 Jun 13 13:48 11963 Jul 29 18:02 11963 Sep 13 11:39 11963 Oct 29 22:29 11963 Nov 25 00:17 11963 Dec 16 03:56 11964 Jan 20 02:14 11964 Feb 01 17:00 | 0° II 0° S 0° N 27° N29'39 27° N19'56 22° N36'22 22° N35'05 22° N04'54 17° N30'35 0° ID 0° A 0° S 16° S 36'39 0° ≈ 22° ≈02'15 0° ℋ | -3.1m 0.36705 AU 2.68022 AU |

| J | | | e (| ,, | | , , , | , |
|---------------------|--|-------------------------|------------|---------------------|--|---------------------------------|------------|
| minimum elong | 11964 Mar 04 07:13 | 20° ₩ 01'03 | 0°48'29 | desc. node | 11969 Jul 17 20:50 | 9° ≈ 37'29 | |
| minimum ciong | 11964 Mar 19 22:44 | 0°Υ | 0 102) | min. Earth dist. | 11969 Jul 18 00:50 | | 0.65834 AU |
| morning rise | 11964 Apr 16 16:17 | 17° Υ 51'01 | | opposition | 11969 Jul 20 23:30 | 8°≈23'12 | |
| morning rise | * | 0° 8 | | | | 8°≈23'28 | |
| | 11964 May 05 08:11 | | | greatest brilliancy | 11969 Jul 20 23:15 | | -1.4m |
| | 11964 Jun 19 13:41 | 0°Щ | | | 11969 Aug 17 09:16 | 30°Rる | |
| | 11964 Aug 02 12:57 | 0ಂ ತಾ | | direct | 11969 Aug 29 17:26 | 29° පි 02'09 | |
| | 11964 Sep 14 07:57 | 0 $^{\circ}$ Ω | | | 11969 Sep 11 18:45 | 0° ≈ | |
| | 11964 Oct 26 09:37 | 0° ™ | | | 11969 Nov 29 10:42 | 0° ∀ | |
| asc. node | 11964 Nov 28 07:00 | 23° Mp 15'20 | | | 11970 Jan 21 06:34 | 0° Υ | |
| | 11964 Dec 08 01:42 | 0∘ ত | | | 11970 Mar 09 12:25 | 8° 0 | |
| | 11965 Jan 25 03:21 | 0° M | | | 11970 Apr 22 05:10 | Π \circ 0 | |
| retrograde | 11965 Mar 19 03:55 | 16° M ₊37'40 | | evening set | 11970 May 17 21:02 | 18° Ⅲ 33′29 | |
| min. Earth dist. | 11965 Apr 14 18:21 | 11°ML45'54 | 0.43373 AU | | 11970 Jun 02 06:35 | 0ං ව | |
| greatest brilliancy | 11965 Apr 21 09:02 | 9° ™ 34'22 | -2.5m | max. Earth dist. | 11970 Jun 05 07:28 | 2°516'56 | 2.40134 AU |
| opposition | 11965 Apr 23 02:53 | 8°M59'22 | 6°10'31 | | 11970 Jul 11 11:01 | $0^{\circ}\Omega$ | |
| direct | 11965 May 24 21:34 | 2°M45'32 | | | | | |
| | 11965 Aug 13 02:56 | 0° ∡ | | conjunction | 11970 Jul 17 19:23 | 4° Ω 57'18 | -0°01'51 |
| | 11965 Oct 05 18:53 | ರ°0 | | minimum elong | 11970 Jul 17 19:39 | 4° Ω 57'50 | 0°02'34 |
| desc. node | 11965 Oct 12 05:38 | 3°₹46'29 | | behind sun begin | 11970 Jul 16 15:35 | 4° Ω 02'59 | |
| | 11965 Nov 25 05:15 | 0° ≈ | | behind sun end | 11970 Jul 18 23:43 | 5° Ω 52'44 | |
| | 11966 Jan 13 05:53 | 0°) € | | asc. node | 11970 Jul 20 07:48 | 6°Ω55'32 | |
| evening set | 11966 Feb 23 12:49 | 25° ¥ 56'13 | | uov. nouv | 11970 Aug 18 14:11 | 0° m) | |
| evening set | 11966 Mar 01 21:28 | 0° Υ | | | 11970 Sep 25 12:47 | 0∘ ರ್ | |
| max. Earth dist. | 11966 Mar 21 10:09 | | 2.63360 AU | morning rise | 11970 Sep 28 10:54 | o — 2° ⊆ 17'48 | |
| max. Earth dist. | 11700 Wai 21 10.07 | 12 33 34 | 2.03300710 | morning rise | 11970 Nov 03 03:56 | 0°ML | |
| conjunction | 11966 Apr 09 05:08 | 24° Y ′55'08 | 1909'20 | | 11970 Dec 13 08:27 | 0° ⊼ | |
| • | - | 24° Y 54'22 | | | 11970 Dec 13 08.27 11971 Jan 24 23:15 | 0°る | |
| minimum elong | 11966 Apr 09 04:40 | 0° 8 | 1 08 30 | | | 0°≈ | |
| | 11966 Apr 16 20:58 | | | | 11971 Mar 12 04:55 | 0° ∺ | |
| morning rise | 11966 May 25 08:30 | 26° 8 05'41 | | 1 1 | 11971 May 04 13:22 | | |
| | 11966 May 30 23:45 | 0° I | | desc. node | 11971 Jun 04 20:10 | 13°) ₹32′25 | |
| | 11966 Jul 12 06:34 | 0° © | | retrograde | 11971 Jul 14 10:31 | 21°) 27'43 | 2020117 |
| | 11966 Aug 21 22:50 | $\Omega^{\circ}\Omega$ | | opposition | 11971 Aug 23 21:06 | 11° ¥ 50′37 | |
| _ | 11966 Sep 30 11:47 | 0° m | | greatest brilliancy | 11971 Aug 23 21:46 | 11°) 49'57 | |
| asc. node | 11966 Oct 15 23:40 | 11° m 52'45 | | min. Earth dist. | 11971 Aug 24 17:27 | 11°) € 30′29 | 0.68374 AU |
| | 11966 Nov 08 15:31 | 0∘ ⊽ | | direct | 11971 Oct 04 05:33 | 1° ¥ 55′27 | |
| | 11966 Dec 18 14:34 | 0° ™ | | | 11971 Dec 27 16:15 | 0° Υ | |
| | 11967 Jan 30 12:56 | 0° ∡ | | | 11972 Feb 16 16:40 | 0°8 | |
| | 11967 Mar 24 23:30 | 0°ප | | | 11972 Apr 01 08:37 | $\Pi^{\circ}0$ | |
| retrograde | 11967 May 05 13:05 | | | | 11972 May 12 12:38 | 0 \circ \odot | |
| min. Earth dist. | 11967 Jun 07 05:00 | | 0.56871 AU | asc. node | 11972 Jun 06 04:35 | 18° © 49'16 | |
| opposition | 11967 Jun 13 18:21 | 0° る 21'39 | 3°04'42 | | 11972 Jun 20 13:22 | $0^{\circ}\Omega$ | |
| greatest brilliancy | 11967 Jun 13 01:34 | 0° る 37'58 | -1.8m | evening set | 11972 Jul 22 14:21 | 25° Ω 17'04 | |
| | 11967 Jun 14 16:43 | 30°₽ ✓ | | | 11972 Jul 28 12:58 | 0° m) | |
| direct | 11967 Jul 20 08:40 | 22° ₰ 06'22 | | | 11972 Sep 04 11:05 | 0° ⊽ | |
| | 11967 Aug 28 23:35 | 0°ප | | | | | |
| desc. node | 11967 Aug 30 14:40 | 0° る 34'38 | | conjunction | 11972 Oct 02 17:31 | 21° ≏ 58'56 | 1°03'46 |
| | 11967 Nov 01 13:18 | 0° ≈ | | minimum elong | 11972 Oct 02 15:35 | 21° ≏ 55'13 | 1°03'59 |
| | 11967 Dec 24 09:06 | 0° ∀ | | | 11972 Oct 13 05:07 | 0° M ₊ | |
| | 11968 Feb 11 08:26 | 0° Y | | | 11972 Nov 22 13:19 | 0° ∡ ¹ | |
| | 11968 Mar 28 12:19 | 0° ႘ | | max. Earth dist. | 11972 Nov 23 13:11 | 0° ∡¹ 43'16 | 2.43668 AU |
| evening set | 11968 Apr 01 06:07 | 2° 8 30'31 | | morning rise | 11972 Dec 07 00:12 | 10° ∡ ¹23'25 | |
| max. Earth dist. | 11968 Apr 17 09:10 | 13° 8 27'18 | 2.53533 AU | | 11973 Jan 04 01:23 | 0°ರ | |
| | 11968 May 11 03:43 | Π° | | | 11973 Feb 18 03:38 | 0° ≈ | |
| | • | | | | 11973 Apr 07 12:22 | 0° ∀ | |
| conjunction | 11968 May 20 07:22 | 6° Ⅱ 29'55 | -0°59'17 | desc. node | 11973 Apr 21 13:24 | 8° 升 12'48 | |
| minimum elong | 11968 May 20 08:55 | 6° Ⅱ 32'40 | | | 11973 May 31 19:59 | $0^{\circ}\Upsilon$ | |
| | 11968 Jun 21 14:18 | 0° © | | retrograde | 11973 Aug 18 15:39 | 24° Υ 39'46 | |
| morning rise | 11968 Jul 14 17:38 | 17° © 21'15 | | opposition | 11973 Sep 26 15:48 | 15° Ƴ 47'01 | -4°30'21 |
| 0 | 11968 Jul 31 07:02 | 0°Ω | | greatest brilliancy | 11973 Sep 27 08:16 | 15° Υ 31'03 | |
| asc. node | 11968 Sep 01 15:09 | 25° Ω 06'22 | | min. Earth dist. | 11973 Oct 01 08:10 | 13° Υ 58'13 | 0.64223 AU |
| | 11968 Sep 07 21:09 | 0° m) | | direct | 11973 Nov 07 01:50 | 5° Υ 45'30 | |
| | 11968 Oct 16 03:27 | 0∘ 0 ران | | | 11974 Jan 19 21:34 | 0° 8 | |
| | 11968 Nov 24 00:06 | 0°M | | | 11974 Mar 09 22:01 | 0°II | |
| | 11969 Jan 03 14:08 | 0° ∡ 7 | | | 11974 Apr 21 07:00 | 0°© | |
| | 11969 Feb 16 12:54 | 0° ਠ | | asc. node | 11974 Apr 21 07:00 11974 Apr 24 07:57 | 2°915'17 | |
| | 11969 Apr 09 07:41 | 0°≈ | | abe. Houe | 11974 Apr 24 07:37 11974 May 30 17:19 | 2 3 13 17 | |
| retrograde | 11969 Apr 09 07.41 11969 Jun 10 09:18 | 0 ≈ 18°≈22'17 | | | 11974 May 30 17.19 11974 Jul 07 22:20 | 0° m) | |
| renograuc | 11707 Juli 10 07.10 | 10 2241/ | | | 117/7 Jul 0/ 44.40 | لپات ∨ | |

| | 11974 Aug 15 03:26 | 0∘ ⊽ | | morning rise | 11979 Apr 04 01:08 | 4° Υ 41'18 | |
|--|--|---|--|---|--|--|--|
| | 11974 Sep 23 07:37 | 0°M₊ | | | 11979 May 13 10:45 | $0^{\circ}S$ | |
| evening set | 11974 Oct 05 03:00 | 8°M49'05 | | | 11979 Jun 28 09:46 | Π °0 | |
| | 11974 Nov 03 03:48 | 0° ∡ ¹ | | | 11979 Aug 12 12:44 | 0 | |
| | | | | | 11979 Sep 26 00:25 | $0^{\circ}\Omega$ | |
| conjunction | 11974 Dec 03 00:40 | 21° ≯ 02'48 | 0°48'39 | | 11979 Nov 09 18:36 | 0° m) | |
| minimum elong | 11974 Dec 03 02:29 | 21° 尽 05'56 | 0°49'27 | asc. node | 11979 Dec 15 23:35 | 22° m 47'32 | |
| | 11974 Dec 16 01:19 | 0°ප | | | 11979 Dec 28 17:14 | 0∘ ত | |
| max. Earth dist. | 11975 Jan 02 01:22 | 11° る 29'37 | 2.56907 AU | retrograde | 11980 Feb 23 13:08 | 18° ≙ 20'58 | |
| morning rise | 11975 Jan 23 13:14 | 25° る 44'08 | | min. Earth dist. | 11980 Mar 20 10:29 | 14° ≙ 03'38 | 0.38717 AU |
| | 11975 Jan 30 01:53 | 0°≈ | | greatest brilliancy | 11980 Mar 25 08:22 | 12° ≙ 37'00 | -2.8m |
| desc. node | 11975 Mar 09 03:18 | 24° ≈ 21′28 | | opposition | 11980 Mar 26 17:51 | 12° ≙ 12'15 | 6°07'15 |
| | 11975 Mar 18 03:24 | 0° ℋ | | direct | 11980 Apr 25 13:18 | 6° ≙ 55'12 | |
| | 11975 May 06 10:13 | 0° Y | | | 11980 Jul 04 18:53 | 0° M ₊ | |
| | 11975 Jun 28 12:30 | 9° 8 | | | 11980 Aug 26 14:40 | 0° ∡ ¹ | |
| | 11975 Sep 07 03:36 | Π $\circ 0$ | | | 11980 Oct 15 02:47 | 0°ප | |
| retrograde | 11975 Oct 02 04:31 | 3° Ⅱ 22'32 | | desc. node | 11980 Oct 28 16:44 | 8° る 19'30 | |
| | 11975 Oct 25 09:04 | 30° ₹႘ | | | 11980 Dec 02 21:55 | 0° ≈ | |
| opposition | 11975 Nov 07 03:05 | 25° 8 46'36 | -5°07'47 | | 11981 Jan 20 05:13 | 0° ℋ | |
| greatest brilliancy | 11975 Nov 08 15:23 | 25° 8 13'28 | -1.9m | evening set | 11981 Feb 09 17:34 | 12° ¥ 53′25 | |
| min. Earth dist. | 11975 Nov 15 05:09 | 22° 8 50'16 | 0.53597 AU | | 11981 Mar 08 15:24 | 0° Y | |
| direct | 11975 Dec 16 09:09 | 16° 8 32'51 | | max. Earth dist. | 11981 Mar 12 01:34 | 2° Ƴ 11'47 | 2.65853 AU |
| | 11976 Feb 03 12:55 | Π $^{\circ}0$ | | | | | |
| asc. node | 11976 Mar 11 15:52 | 21° Ⅱ 07'52 | | conjunction | 11981 Mar 25 20:37 | 11° Y 05'34 | |
| | 11976 Mar 25 02:26 | 0ంల | | minimum elong | 11981 Mar 25 19:44 | 11° Y ′04'08 | 1°03'39 |
| | 11976 May 05 22:11 | 0 $^{\circ}$ Ω | | | 11981 Apr 23 17:35 | 0 \circ 8 | |
| | 11976 Jun 14 08:25 | 0° m | | morning rise | 11981 May 09 08:38 | 10° 8 24'42 | |
| | 11976 Jul 23 12:39 | 0∘ ⊽ | | | 11981 Jun 07 05:11 | Π °0 | |
| | 11976 Sep 01 15:46 | 0°M₊ | | | 11981 Jul 20 00:56 | 0ංම | |
| _ | 11976 Oct 13 10:48 | 0° ∡¹ | | | 11981 Aug 30 08:21 | 0 $^{\circ}\Omega$ | |
| evening set | 11976 Nov 26 10:47 | 0° ರ 11'13 | | | 11981 Oct 09 13:06 | 0° m) | |
| | 11976 Nov 26 04:06 | 0° ප | | asc. node | 11981 Nov 01 20:36 | 17° m 33'38 | |
| | 11977 Jan 10 16:02 | 0° ≈ | | | 11981 Nov 18 10:35 | 0∘ 亚 | |
| . ,. | 11077 1 14 11 45 | 2020120 | 0005104 | | 11981 Dec 29 13:37 | 0° M 0°. ₹ | |
| conjunction | 11977 Jan 14 11:45 | 2°≈28'29 2°≈28'48 | 0°05'04 | | 11982 Feb 13 20:26 | 0° ∡¹ 22°⋅ ₹ 07!00 | |
| minimum elong behind sun begin | 11977 Jan 14 11:57 | | 0°05'49 | retrograde | 11982 Apr 19 00:25 | 22° ҂ 107′00 | |
| bennia sun begin | | | | min Earth dist | 11092 May 10, 07:02 | 150,7/17/1/ | 0.51961 ATT |
| hahind aun and | 11977 Jan 13 17:32 | 1°≈59'02 | | min. Earth dist. | 11982 May 19 07:02 | 15° ∡ 747'44 | 0.51861 AU |
| behind sun end | 11977 Jan 15 06:21 | 2° ≈ 58'34 | | greatest brilliancy | 11982 May 25 20:50 | 13° ∡ 19′50 | -2.0m |
| desc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 | 2°≈58'34 8°≈25'30 | 2 65384 AU | greatest brilliancy opposition | 11982 May 25 20:50 11982 May 27 01:03 | 13° х 19′50 12° х 53′15 | -2.0m |
| | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 | 2°≈58'34 8°≈25'30 10°≈34'06 | 2.65384 AU | greatest brilliancy opposition direct | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 | 13° х 19'50 12° х 53'15 5° х 17'16 | -2.0m |
| desc. node max. Earth dist. | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 | 2°≈58'34 8°≈25'30 10°≈34'06 0°¥ | 2.65384 AU | greatest brilliancy opposition | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 | 13° х 19'50 12° х 53'15 5° х 17'16 29° х 42'25 | -2.0m |
| desc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 | 2°≈58'34 8°≈25'30 10°≈34'06 0°¥ 1°¥26'29 | 2.65384 AU | greatest brilliancy opposition direct | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 | 13° メ 19'50 12° メ 53'15 5° メ 17'16 29° メ 42'25 0°る | -2.0m |
| desc. node max. Earth dist. | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 | 2°≈58'34 8°≈25'30 10°≈34'06 0°₩ 1°₩26'29 0°Υ | 2.65384 AU | greatest brilliancy opposition direct | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 | 13° ₹ 19'50 12° ₹ 53'15 5° ₹ 17'16 29° ₹ 42'25 0° ₹ 0° ≈ | -2.0m |
| desc. node max. Earth dist. | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ℋ 1°ℋ26'29 0° ♈ 0°℧ | 2.65384 AU | greatest brilliancy opposition direct | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ≈ 0° ¥ | -2.0m |
| desc. node max. Earth dist. | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II | 2.65384 AU | greatest brilliancy opposition direct desc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° Υ | -2.0m |
| desc. node max. Earth dist. morning rise | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 | 2°≈58'34 8°≈25'30 10°≈34'06 0°¥ 1°¥26'29 0°Y 0°B 0°II 0°© | 2.65384 AU | greatest brilliancy opposition direct | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 17° ₩49'39 | -2.0m |
| desc. node max. Earth dist. | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II | | greatest brilliancy opposition direct desc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ¥ 0° ¥ 0° ¥ 17° ¥49'39 0° ¥ | -2.0m |
| desc. node max. Earth dist. morning rise retrograde | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 | 2°≈58'34 8°≈25'30 10°≈34'06 0°¥ 1°¥26'29 0°Y 0°B 0°B 0°B 28°⊊11'44 | -1°39'01 | greatest brilliancy opposition direct desc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ¥ 0° ¥ 0° ¥ 17° ¥49'39 0° ¥ | -2.0m 4°26'11 |
| desc. node max. Earth dist. morning rise retrograde opposition | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ℋ 1°ℋ26'29 0° Ƴ 0° ℍ 0° ℡ 28° № 11'44 22° № 44'38 | -1°39'01 | greatest brilliancy opposition direct desc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ¥ 0° ¥ 0° ¥ 17° ¥49'39 0° ¥ | -2.0m 4°26'11 2.57960 AU |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28°©11'44 22°©44'38 22°©35'09 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ¥ 0° ¥ 0° ¥ 0° ¥ 0° ¥36'36 | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28°©11'44 22°©34'38 22°©35'09 20°©45'16 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 | 13° \$\frac{19}50 12° \$\frac{15}50 \text{317}15 5° \$\frac{17}16 29° \$\frac{14}225 0° \$\frac{15}50 \text{0°}\$ 0° \$\frac{15}50 \text{0°}\$ 0° \$\frac{17}50 \text{0°}\$ 0° \$\frac{17}50 \text{0°}\$ 0° \$\frac{15}50 \text{0°}\$ 0° \$\frac{15}50 \text{0°}\$ 17° \$\frac{14}536 19° \$\frac{15}5226 | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28°©11'44 22°©34'38 22°©35'09 20°©45'16 17°©04'22 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 | 13° \$\frac{19}50 12° \$\frac{15}53'15 5° \$\frac{17}16 29° \$\frac{14}2'25 0° \$\frac{15}50' \$\frac{15} | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28°©11'44 22°©34'38 22°©35'09 20°©45'16 17°©04'22 16°©24'26 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 19 04:39 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 17° ₩49'39 0° ₩ 0° ₩48'36 19° ₩13'35 0° Ⅲ | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28° ©11'44 22° ©44'38 22° ©35'09 20° ©45'16 17° ©04'22 16° ©24'26 0° Ω | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 17° ₩49'39 0° ₩48'36 19° ₩13'35 0° Ⅲ 25° Ⅲ09'37 | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Fpc 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ℋ 1° ℋ26'29 0° ℉ 0° 閎 0° Ⅲ 0° ☞ 28° ☞11'44 22° ℱ44'38 22° ℱ35'09 20° ℱ45'16 17° ℱ04'22 16° ℱ24'26 0° ℛ 0° ♍ | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 17° ₩49'39 0° ₺48'36 19° ₺12'26 19° ₺13'35 0° Ⅲ 25° Ⅲ09'37 0° \$ | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 Jun 27 09:53 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ₩ 1° ₩26'29 0° Ψ 0° Β 0° Π 0° © 28° © 11'44 22° © 44'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° Ω 0° ႃႃ 0° Ω 0° ႃႃ 0° Ω | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 | 13° \$\frac{19'50}{12° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'50'}{42'25}} 0° \$\frac{15'}{60'} \$\fr | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Feb 28 18:52 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 Jun 27 09:53 11978 Aug 09 09:08 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28° © 11'44 22° © 44'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° Ω 0° ID | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 17° ₩49'39 0° ₹36 19° ₹12'26 19° ₹13'35 0° Ⅲ 25° Π09'37 0° \$6 0° \$0 0° \$0 0° \$0 0° \$100'27 0° \$6 | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 Jun 27 09:53 11978 Jun 27 09:53 11978 Jun 27 09:53 11978 Jun 27 09:63 11978 Aug 09 09:08 11978 Sep 22 07:49 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ₩ 1° ₩26'29 0° Ψ 0° Β 0° Π 0° © 28° © 11'44 22° © 44'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° Ω 0° ႃႃ 0° Ω 0° ႃႃ 0° Ω | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 19 11:25 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₹ 0° ¥ 0° ¥ 0° ¥ 0° ¥49'39 0° ₹48'36 19° ₹48'36 19° ₹12'26 19° ₹13'35 0° Ⅲ 25° №09'37 0° € 0° № 2° № 2° № 2° № 02'27 0° № | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 Jun 27 09:53 11978 Aug 09 09:08 11978 Sep 22 07:49 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° 28° 35'09 20° 44'38 22° 35'09 20° 45'16 17° 40'22 16° 42'26 0° 0° 10° 10° 10° 10° 10° 10° 1 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 16 20:28 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 17° Ŷ49'39 0° ₹48'36 19° ₹12'26 19° ₹13'35 0° Ⅲ 25° Π09'37 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 May 14 22:35 11978 Aug 09 09:08 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 11979 Jan 05 21:28 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28° © 11'44 22° © 344'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° Ω 0° ID 0 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 19 11:25 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 11984 Feb 27 22:10 | 13° \$\frac{1}{2}\cdot 12'\cdot 33'15 5° \$\frac{1}{2}\cdot 17'16 29° \$\frac{1}{2}\cdot 25'\cdot 0° \$\infty 0° \$\infty 0° \$\infty 0° \$\infty 0° \$\infty 0° \$\infty 13'35 0° \$\infty 25° \$\infty 0° \$\infty | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 Jun 27 09:53 11978 Aug 09 09:08 11978 Sep 22 07:49 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° 28° 35'09 20° 44'38 22° 35'09 20° 45'16 17° 40'22 16° 42'26 0° 0° 10° 10° 10° 10° 10° 10° 1 | -1°39'01 -2.8m | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise asc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 11984 Feb 27 22:10 11984 Apr 29 15:03 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 17° ₩49'39 0° ₺48'36 19° ₺12'26 19° ₺13'35 0° Ⅲ 25° Ⅲ09'37 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ 0° \$ | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct desc. node evening set | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 Jun 27 09:53 11978 Aug 09 09:08 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 11979 Jan 05 21:28 11979 Feb 08 10:38 | 2°≈58'34 8°≈25'30 10°≈34'06 0° H 1° H26'29 0° Y 0° B 0° II 0° © 28° © 11'44 22° © 44'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° N 0° II 0° © 0° II 0° © 28° © 35'31 0° © 8° ≈ 42'56 0° H | -1°39'01 -2.8m 0.39811 AU | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 19 11:25 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 11984 Feb 27 22:10 11984 Apr 29 15:03 11984 May 27 16:43 | 13° ₹19'50 12° ₹53'15 5° ₹17'16 29° ₹42'25 0° ₹ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 0° ₩ 13'35 0° Ⅲ 25° № 13'35 0° Ⅲ 25° № 109'37 0° © 0° № 0° № 2° № 02'27 0° № 0° № 0° ₹ 0° ₩ 2° № 12'26 | -2.0m 4°26'11 2.57960 AU -1°07'33 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct desc. node evening set conjunction | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 May 14 22:35 11978 Jun 27 09:53 11978 Aug 09 09:08 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 11979 Jan 05 21:28 11979 Feb 08 10:38 | 2°≈58'34 8°≈25'30 10°≈34'06 0° € 1° € 26'29 0° ♥ 0° ₺ 0° Ⅲ 0° © 28°©11'44 22°©44'38 22°©35'09 20°©45'16 17°©04'22 16°©24'26 0° № 0° № 0° № 0° № 0° № 0° № 0° № 0° № | -1°39'01 -2.8m 0.39811 AU | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise asc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 16 20:28 11983 Sep 19 11:25 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 11984 Feb 27 22:10 11984 Apr 29 15:03 11984 May 27 16:43 11984 Jun 22 21:41 | 13° \$\frac{19'50}{12° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'50'}{42'25}}} 0° \$\frac{0° \$\frac{10'}{50'} \$\frac | -2.0m 4°26'11 2.57960 AU -1°07'33 1°08'07 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct desc. node evening set conjunction minimum elong | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 May 14 22:35 11978 Aug 09 09:08 11978 Aug 09 09:08 11978 Sep 22 07:49 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 11979 Jan 05 21:28 11979 Feb 08 10:38 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ₩ 1° ₩26'29 0° Ψ 0° ₩ 0° Ⅲ 0° © 28° © 11'44 22° © 34'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° Ω 0° № 0° № 0° № 0° № 0° № 70° № 22° ♂ 332'31 0°≈ 8°≈42'56 0° ₩ 7° ₩ 11'34 7° ₩ 11'34 7° ₩ 10'03 | -1°39'01 -2.8m 0.39811 AU -0°35'58 0°35'35 | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise asc. node retrograde min. Earth dist. | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 16 20:28 11983 Sep 19 11:25 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 11984 Feb 27 22:10 11984 Apr 29 15:03 11984 May 27 16:43 11984 Jun 22 21:41 11984 Jul 02 13:27 | 13° \$\frac{19'50}{12° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'53'15}{6° \$\frac{15'53'15'}{6° \$\frac{15'53'}{6° \$\fr | -2.0m 4°26'11 2.57960 AU -1°07'33 1°08'07 |
| desc. node max. Earth dist. morning rise retrograde opposition greatest brilliancy min. Earth dist. asc. node direct desc. node evening set conjunction | 11977 Jan 15 06:21 11977 Jan 23 17:02 11977 Jan 27 01:01 11977 Feb 26 12:15 11977 Apr 15 05:34 11977 Apr 15 05:34 11977 Jun 02 15:29 11977 Jul 22 05:04 11977 Sep 13 03:40 11977 Dec 04 17:32 11978 Jan 04 15:27 11978 Jan 05 04:20 11978 Jan 11 09:52 11978 Jan 27 21:15 11978 Feb 06 15:54 11978 Mar 26 04:54 11978 May 14 22:35 11978 May 14 22:35 11978 Jun 27 09:53 11978 Aug 09 09:08 11978 Nov 06 15:56 11978 Dec 11 13:16 11978 Dec 23 05:10 11979 Jan 05 21:28 11979 Feb 08 10:38 | 2°≈58'34 8°≈25'30 10°≈34'06 0° ₩ 1° ₩26'29 0° Ψ 0° ₩ 0° Ⅲ 0° © 28° © 11'44 22° © 34'38 22° © 35'09 20° © 45'16 17° © 04'22 16° © 24'26 0° Ω 0° № 0° № 0° № 0° № 0° № 70° № 22° ♂ 332'31 0°≈ 8°≈42'56 0° ₩ 7° ₩ 11'34 7° ₩ 11'34 7° ₩ 10'03 | -1°39'01 -2.8m 0.39811 AU | greatest brilliancy opposition direct desc. node evening set max. Earth dist. conjunction minimum elong morning rise asc. node | 11982 May 25 20:50 11982 May 27 01:03 11982 Jun 30 23:03 11982 Sep 16 00:27 11982 Sep 16 14:40 11982 Nov 11 04:20 11983 Jan 01 01:09 11983 Feb 18 08:51 11983 Mar 17 23:58 11983 Apr 05 09:39 11983 Apr 06 14:44 11983 May 03 16:35 11983 May 03 17:14 11983 May 03 17:14 11983 May 19 04:39 11983 Jun 23 07:37 11983 Jun 29 22:11 11983 Aug 08 23:00 11983 Sep 16 20:28 11983 Sep 16 20:28 11983 Sep 19 11:25 11983 Oct 25 08:50 11983 Dec 03 11:32 11984 Jan 13 12:32 11984 Feb 27 22:10 11984 Apr 29 15:03 11984 May 27 16:43 11984 Jun 22 21:41 | 13° \$\frac{19'50}{12° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'53'15}{5° \$\frac{17'16}{29° \$\frac{15'50'}{42'25}}} 0° \$\frac{0° \$\frac{10'}{50'} \$\frac | -2.0m 4°26'11 2.57960 AU -1°07'33 1°08'07 0.63026 AU 1°02'44 |

11999 Aug 20 19:25

desc. node

3°**る**53'37

max. Earth dist.

12004 Dec 05 04:41

12°**✗**31'47 2.46834 AU

| morning rise | 12004 Dec 19 00:31 | 22° √ 14'55 | | asc. node | 12010 Jan 18 06:42 | 10° Ω 23'51 | |
|---------------------|--|---------------------|------------|---------------------|--------------------|---------------------|-------------|
| morning rise | 12004 Dec 30 05:32 | 0°පි | | opposition | 12010 Jan 21 15:56 | 9° Ω 28'07 | 0°15'27 |
| | 12004 Bee 30 03:52 12005 Feb 13 04:53 | 0° ≈ | | greatest brilliancy | 12010 Jan 21 16:52 | 9° Ω 27'28 | -3.0m |
| | 12005 Apr 02 01:51 | 0° ∀ | | min. Earth dist. | 12010 Jan 26 02:11 | 8° Ω 14'37 | |
| desc. node | 12005 Apr 11 14:42 | 5° ¥ 42'55 | | direct | 12010 Feb 21 20:29 | 3°Ω54'11 | 0.57725710 |
| desc. node | 12005 May 24 12:28 | 0°Υ | | ancer | 12010 May 03 14:42 | 0° m) | |
| | 12005 May 21 12:28 12005 Aug 04 04:28 | 0°8 | | | 12010 Jun 19 10:26 | 0∘ ⊽ | |
| retrograde | 12005 Aug 27 12:32 | 2° 8 55'21 | | | 12010 Aug 02 20:25 | 0° M | |
| | 12005 Sep 18 01:54 | 30°RY | | | 12010 Sep 16 15:33 | 0° ⊼ ⊓ | |
| opposition | 12005 Oct 05 00:13 | 24°Υ15'39 | -4°47'32 | | 12010 Nov 01 12:36 | 0°ප | |
| greatest brilliancy | 12005 Oct 05 21:17 | 23° Y 55'24 | | desc. node | 12010 Dec 01 16:28 | 19° る 21'27 | |
| min. Earth dist. | 12005 Oct 10 11:43 | 22° Y '09'20 | 0.62457 AU | | 12010 Dec 18 09:43 | 0° ≈ | |
| direct | 12005 Nov 15 04:17 | 14° Υ 18'15 | | evening set | 12011 Jan 14 01:32 | 16° ≈ 53'28 | |
| | 12006 Jan 10 12:37 | 0°8 | | 8 | 12011 Feb 03 19:01 | 0°) € | |
| | 12006 Mar 03 14:17 | 0°II | | max. Earth dist. | 12011 Feb 23 16:22 | | 2.68281 AU |
| asc. node | 12006 Apr 14 18:38 | 29° Ⅱ 19'42 | | | | | |
| | 12006 Apr 15 16:40 | 0ಂಣ | | conjunction | 12011 Feb 27 13:13 | 15° ¥ 02'59 | -0°43'43 |
| | 12006 May 25 09:47 | $0^{\circ}\Omega$ | | minimum elong | 12011 Feb 27 12:09 | 15° 米 01'17 | 0°43'26 |
| | 12006 Jul 02 18:15 | 0° m | | Č | 12011 Mar 23 00:54 | 0° Y | |
| | 12006 Aug 10 01:55 | 0∘ ⊽ | | morning rise | 12011 Apr 11 18:46 | 12° Ƴ 39'11 | |
| | 12006 Sep 18 08:47 | 0° M | | Č | 12011 May 08 14:21 | 0°B | |
| evening set | 12006 Oct 18 15:06 | 22°M18'21 | | | 12011 Jun 23 03:52 | $0^{\circ}\Pi$ | |
| C | 12006 Oct 29 07:36 | 0° ⊼ | | | 12011 Aug 06 14:56 | 0°ಲ | |
| | 12006 Dec 11 07:16 | 8°0 | | | 12011 Sep 19 02:22 | $0^{\circ}\Omega$ | |
| | | | | | 12011 Nov 01 02:42 | 0° m) | |
| conjunction | 12006 Dec 13 17:25 | 1° る 38'55 | 0°39'33 | asc. node | 12011 Dec 06 08:30 | 24° m) 00'45 | |
| minimum elong | 12006 Dec 13 19:00 | 1° る 41'34 | 0°40'23 | | 12011 Dec 15 12:47 | 0∘ <u>⊽</u> | |
| max. Earth dist. | 12007 Jan 08 13:12 | 18° る 57'58 | 2.59190 AU | | 12012 Feb 09 22:03 | 0° M . | |
| | 12007 Jan 25 08:17 | 0° ≈ | | retrograde | 12012 Mar 09 00:26 | 5° M ₁9'15 | |
| morning rise | 12007 Feb 01 09:30 | 4° ≈ 34'56 | | min. Earth dist. | 12012 Apr 03 22:48 | 0° M 47'43 | 0.41097 AU |
| desc. node | 12007 Feb 27 02:45 | 21° ≈ 04'19 | | | 12012 Apr 06 12:15 | 30° Ŗ Ω | |
| | 12007 Mar 13 06:23 | 0° ∀ | | greatest brilliancy | 12012 Apr 10 01:13 | 28° ≏ 52'39 | -2.7m |
| | 12007 May 01 00:27 | $0^{\circ}\Upsilon$ | | opposition | 12012 Apr 11 18:00 | 28° ჲ 20'19 | 6°21'24 |
| | 12007 Jun 21 11:30 | 9° 8 | | direct | 12012 May 12 13:32 | 22° ჲ 33'06 | |
| | 12007 Aug 19 22:17 | $\Pi^{\circ}0$ | | | 12012 Jun 18 01:41 | 0° M | |
| retrograde | 12007 Oct 14 01:22 | 13° Ⅱ 54'59 | | | 12012 Aug 18 14:24 | 0° ∡ ¹ | |
| opposition | 12007 Nov 18 02:49 | 6° Ⅱ 42'32 | -4°54'04 | | 12012 Oct 09 02:23 | 0°₹ | |
| greatest brilliancy | 12007 Nov 19 16:40 | 6° Ⅱ 08'56 | -2.1m | desc. node | 12012 Oct 18 20:57 | 5° る 51'08 | |
| min. Earth dist. | 12007 Nov 26 16:35 | 3° Ⅱ 41′06 | 0.50602 AU | | 12012 Nov 27 17:45 | 0°≈ | |
| | 12007 Dec 09 02:28 | 30° ₹ 8 | | | 12013 Jan 15 10:36 | 0° ∀ | |
| direct | 12007 Dec 26 10:11 | 27° 8 53'31 | | evening set | 12013 Feb 17 14:06 | 20°) 48′50 | |
| | 12008 Jan 13 07:50 | Π $^{\circ}0$ | | | 12013 Mar 04 00:13 | 0° Y | |
| asc. node | 12008 Mar 02 01:10 | 21° Ⅱ 03'38 | | max. Earth dist. | 12013 Mar 17 08:59 | 8° Y 35'45 | 2.64573 AU |
| | 12008 Mar 16 17:10 | 0 \circ \odot | | | | | |
| | 12008 Apr 29 04:20 | 0 ° Ω | | conjunction | 12013 Apr 02 23:09 | 19° Ƴ 23'09 | -1°07'02 |
| | 12008 Jun 08 06:51 | 0° ™ | | minimum elong | 12013 Apr 02 22:28 | 19° Y ′22'03 | 1°07'14 |
| | 12008 Jul 17 21:02 | 0∘ ⊽ | | | 12013 Apr 19 01:36 | 0° 8 | |
| | 12008 Aug 27 08:08 | 0°M₊ | | morning rise | 12013 May 18 06:40 | 19° 8 38'19 | |
| | 12008 Oct 08 09:50 | 0° ∡ | | | 12013 Jun 02 09:10 | Π °0 | |
| | 12008 Nov 21 08:21 | 0°ಕ | | | 12013 Jul 14 22:18 | 0ංම | |
| evening set | 12008 Dec 06 03:10 | 9° る 49'49 | | | 12013 Aug 24 21:44 | $0^{\circ}\Omega$ | |
| | 12009 Jan 05 23:31 | 0° ≈ | | | 12013 Oct 03 17:34 | 0° ™ | |
| desc. node | 12009 Jan 13 18:05 | 5° ≈ 01'17 | | asc. node | 12013 Oct 23 02:01 | 14° M 43'58 | |
| | | | | | 12013 Nov 12 04:00 | 0∘ ত | |
| conjunction | 12009 Jan 22 22:10 | 10° ≈ 55′06 | | | 12013 Dec 22 12:15 | 0° M - | |
| minimum elong | 12009 Jan 22 22:02 | 10° ≈ 54'54 | 0°04'20 | | 12014 Feb 04 09:04 | 0° ∡ | |
| behind sun begin | 12009 Jan 22 03:27 | 10°≈25'06 | | _ | 12014 Apr 06 22:16 | 0°る | |
| behind sun end | 12009 Jan 23 16:37 | 11°≈24'41 | | retrograde | 12014 Apr 28 14:23 | 3°る05'40 | |
| max. Earth dist. | 12009 Feb 01 08:08 | 16°≈56'56 | 2.66494 AU | | 12014 May 19 06:53 | 30°₹ ⋌ ¹ | 0.54=0= :=: |
| | 12009 Feb 21 20:08 | 0°) { | | min. Earth dist. | 12014 May 30 05:40 | 26° ₹ 17'25 | 0.54707 AU |
| morning rise | 12009 Mar 08 11:50 | 9°) 16′52 | | greatest brilliancy | 12014 Jun 05 11:08 | 23° ⋌ '54'07 | -1.9m |
| | 12009 Apr 10 09:10 | 0° Υ | | opposition | 12014 Jun 06 08:46 | 23° ⋌ 33'20 | 3°39'30 |
| | 12009 May 28 07:05 | 0° 8 | | direct | 12014 Jul 12 05:31 | 15° ∡ ³34'37 | |
| | 12009 Jul 15 17:08 | 0°∏ | | desc. node | 12014 Sep 06 05:41 | 29° ₹ '58'51 | |
| | 12009 Sep 03 15:01 | 0°© | | | 12014 Sep 06 06:45 | 0°₹ | |
| | 12009 Oct 29 20:28 | 0°Ω | | | 12014 Nov 04 22:54 | 0° ≈ | |
| retrograde | 12009 Dec 22 14:05 | 14° Ω 31'05 | | | 12014 Dec 26 21:25 | 0° ℋ | |

| | 12015 Feb 13 14:38 | 0° Ƴ | | minimum elong | 12019 Sep 20 12:48 | 9° ≏ 41'04 | 0°58'28 |
|---|--|--|------------|---|--|---|---------------------|
| evening set | 12015 Mar 26 12:57 | 26° Y 31'29 | | | 12019 Oct 16 20:23 | 0° M ₊ | |
| | 12015 Mar 31 18:13 | 0°8 | | max. Earth dist. | 12019 Nov 13 06:01 | | 2.41119 AU |
| max. Earth dist. | 12015 Apr 13 04:32 | 8° 8 21'40 | 2.55596 AU | | 12019 Nov 26 02:00 | 0° ✓ 10. 7100140 | |
| conjunction | 12015 May 13 10:06 | 29° 8 13'43 | -1°03'30 | morning rise | 12019 Nov 28 00:07 12020 Jan 07 11:40 | 1°ズ23'48 0°る | |
| minimum elong | 12015 May 13 11:16 | 29° 8 15'47 | | | 12020 Feb 21 14:05 | 0° ≈ | |
| minimum crong | 12015 May 14 12:25 | 0°Ⅱ | 1 011) | | 12020 Apr 10 06:23 | 0° ∀ | |
| | 12015 Jun 25 02:55 | 0ಂಣ | | desc. node | 12020 Apr 28 07:27 | 10° ¥ 20'39 | |
| morning rise | 12015 Jul 05 11:55 | 7° 5 31'48 | | | 12020 Jun 05 04:49 | 0 ° Υ | |
| | 12015 Aug 03 23:51 | $0^{\circ}\Omega$ | | retrograde | 12020 Aug 12 05:41 | 19° Y 30'12 | |
| asc. node | 12015 Sep 09 17:06 | 28° Ω 25'39 | | opposition | 12020 Sep 20 14:04 | 10° Y ′27'44 | |
| | 12015 Sep 11 17:25 | 0° ™ | | greatest brilliancy | 12020 Sep 21 03:01 | 10° Y 15′07 | |
| | 12015 Oct 20 01:58 | 0∘ 亚 | | min. Earth dist. | 12020 Sep 24 13:49 | 8° Υ 54'31 | 0.65439 AU |
| | 12015 Nov 28 00:16 | 0° ጤ 0° ዶ | | direct | 12020 Nov 01 02:42 | 0° Y 24'56 0° と | |
| | 12016 Jan 07 16:52 12016 Feb 21 01:09 | 0° ਨ ਰਾ | | | 12021 Jan 24 08:08 12021 Mar 13 05:15 | 0°U | |
| | 12016 Feb 21 01:09 12016 Apr 15 03:25 | 0°≈ | | | 12021 Mai 13 03:13 12021 Apr 24 07:54 | 0₀© | |
| retrograde | 12016 Jun 04 13:51 | 0 ∞ 13° ≈ 05'30 | | asc. node | 12021 Apr 24 07:34 12021 May 01 07:25 | 5° © 12'35 | |
| min. Earth dist. | 12016 Jul 11 10:47 | 4° ≈ 31'53 | 0.64706 AU | uov. nouv | 12021 Jun 02 16:18 | 0°Ω | |
| opposition | 12016 Jul 15 01:48 | 3°≈05'25 | 0°21'20 | | 12021 Jul 10 19:49 | 0° m) | |
| greatest brilliancy | 12016 Jul 15 00:46 | 3° ≈ 06′26 | -1.5m | | 12021 Aug 17 22:31 | 0∘ ⊽ | |
| | 12016 Jul 23 02:40 | 30°R₹ | | evening set | 12021 Sep 23 19:58 | 28° ≏ 22'59 | |
| desc. node | 12016 Jul 24 12:50 | 29° る 29'19 | | | 12021 Sep 25 23:21 | 0° M | |
| direct | 12016 Aug 23 09:47 | 23° る 53'20 | | | 12021 Nov 05 15:28 | 0° ∡ ″ | |
| | 12016 Sep 27 05:41 | 0° ≈ | | | | | |
| | 12016 Dec 02 22:05 | 0° ∀ 0° Υ | | conjunction | 12021 Nov 24 06:52 | 13° ₹ 16'35 | |
| | 12017 Jan 23 20:55 12017 Mar 11 22:16 | 0°Y | | minimum elong | 12021 Nov 24 08:45 12021 Dec 18 09:00 | 13° メ 19'53 0°る | 0°55'21 |
| | 12017 Mai 11 22:10 12017 Apr 24 15:49 | 0°U | | max. Earth dist. | 12021 Dec 18 09:00 12021 Dec 28 02:17 | 6° る 36'56 | 2.54883 AU |
| evening set | 12017 Apr 24 13:49 12017 May 08 21:35 | 10° Ⅱ 11'46 | | morning rise | 12021 Dec 28 02:17 12022 Jan 16 13:21 | 19°る39'04 | 2.54003 AO |
| max. Earth dist. | 12017 May 24 01:37 | | 2.42513 AU | morning 1150 | 12022 Feb 01 07:16 | 0° ≈ | |
| | 12017 Jun 04 19:34 | 0ಂತಾ | | desc. node | 12022 Mar 15 21:39 | 27° ≈ 11'02 | |
| | | | | | 12022 Mar 20 10:10 | 0° ∀ | |
| conjunction | 12017 Jul 06 00:55 | 23° 5 644'58 | -0°15'07 | | 12022 May 09 02:27 | 0° Y | |
| minimum elong | 12017 Jul 06 02:15 | 23° 5 47'31 | 0°15'54 | | 12022 Jul 02 16:06 | 0°8 | |
| behind sun begin | 12017 Jul 05 20:59 | 23° © 37'22 | | retrograde | 12022 Sep 23 16:06 | 26° 8 43'44 | |
| behind sun end | 12017 Jul 06 07:31 | 23°957'40 | | opposition | 12022 Oct 30 07:13 | 18° 8 50'47 | |
| asc. node | 12017 Jul 14 02:38 12017 Jul 27 09:13 | 0°Ω 10°Ω21'34 | | greatest brilliancy min. Earth dist. | 12022 Oct 31 16:50 12022 Nov 06 21:32 | 18° 8 19'35 | -1.8m 0.55873 AU |
| asc. Houe | 12017 Jul 27 09:13 12017 Aug 21 07:36 | 0° Mp | | direct | 12022 Nov 00 21:32 12022 Dec 09 03:40 | 9° 8 22'09 | 0.33873 AU |
| morning rise | 12017 Rug 21 07:30 12017 Sep 14 05:01 | 18° m 54'03 | | direct | 12022 Bee 09 03:40 12023 Feb 10 21:30 | 0°П | |
| morning 1150 | 12017 Sep 28 06:44 | 0∘ ⊽ | | asc. node | 12023 Mar 19 14:49 | 22° I 33'12 | |
| | 12017 Nov 05 21:21 | 0° M | | | 12023 Mar 30 12:29 | 0ಂಣ | |
| | 12017 Dec 16 00:52 | 0° ≯ | | | 12023 May 10 15:38 | 0 $^{\circ}$ Ω | |
| | 12018 Jan 27 15:58 | ರ∘ರ | | | 12023 Jun 18 17:47 | 0° ™ | |
| | 12018 Mar 15 04:36 | 0° ≈ | | | 12023 Jul 27 15:17 | 0∘ ⊽ | |
| | 12018 May 09 06:17 | 0°){ | | | 12023 Sep 05 11:47 | 0°M√ | |
| desc. node | 12018 Jun 11 13:36 12018 Jul 08 18:05 | 12°) 37'34 16°) 39'13 | | ovanina sat | 12023 Oct 17 00:17 12023 Nov 19 16:17 | 0° ⊀ ⁷ 23° ≮ ⁷ 20'51 | |
| retrograde opposition | 12018 Jul 08 18:05 12018 Aug 18 07:29 | 6° ¥ 56'27 | 2017:22 | evening set | 12023 Nov 19 16:17 12023 Nov 29 11:43 | 23° x '20'31 | |
| greatest brilliancy | 12018 Aug 18 07:29 | 6° X 57'16 | | | 12023 1107 29 11.43 | 0.0 | |
| min. Earth dist. | 12018 Aug 18 11:14 | 6°) 52'44 | | conjunction | 12024 Jan 08 22:01 | 26° る 48'26 | 0°12'19 |
| | 12018 Sep 07 01:44 | 30°R≈ | | minimum elong | 12024 Jan 08 22:30 | 26° ප් 49'14 | 0°13'06 |
| direct | 12018 Sep 28 12:03 | 27° ≈ 05'35 | | behind sun begin | 12024 Jan 08 11:06 | 26° る 30'38 | |
| | 12018 Oct 21 16:51 | 0° ∀ | | behind sun end | 12024 Jan 09 09:55 | 27° る 07'50 | |
| | 12018 Dec 31 09:07 | 0° Y | | | 12024 Jan 13 19:38 | 0° ≈ | |
| | 12019 Feb 19 12:33 | 0° 8 | | max. Earth dist. | 12024 Jan 24 03:03 | 6°≈40'50 | 2.64287 AU |
| | 12019 Apr 05 00:41 | 0° Ⅱ | | desc. node | 12024 Jan 31 10:44 | 11°≈23'47 | |
| aga mada | 12019 May 16 04:48 | 0°© | | morning rise | 12024 Feb 23 22:16 | 26° ≈ 23'44 | |
| asc. node | 12019 Jun 14 05:07 12019 Jun 24 06:38 | 22° © 09'52 0° Ω | | | 12024 Feb 29 14:44 12024 Apr 17 11:21 | 0° ℋ 0° Ƴ | |
| evening set | 12019 Jul 10 10:49 | 12° Ω 42'35 | | | 12024 Apr 17 11.21 12024 Jun 05 08:10 | 0°8 | |
| 5. J. | 12019 Aug 01 06:45 | 0° m) | | | 12024 Jul 26 00:41 | 0°II | |
| | 12019 Sep 08 04:09 | 0∘ ⊽ | | | 12024 Sep 20 15:25 | 0. 0 | |
| | - | | | retrograde | 12024 Nov 21 13:59 | 17° 5 30'20 | |
| conjunction | 12019 Sep 20 16:01 | 9° ≏ 47'21 | 0°58'26 | opposition | 12024 Dec 23 10:22 | 11° © 39'02 | -2°47'24 |
| | | | | | | | |

17°**I**I58'47 -2.3m

12039 Dec 01 13:38

greatest brilliancy

0°**)**

12045 Jan 10 14:09

| evening set | 12045 Feb 25 12:27 | 28°) 49′52 | | morning rise | 12049 Oct 02 10:14 | 7° Ω 08'03 | |
|--------------------------------|--|---|-------------|---------------------------------------|--|--------------------------------------|------------|
| F41 Ji-4 | 12045 Feb 27 08:23 | 0°Υ 15°W11115 | 2 (2075 AII | | 12049 Oct 31 22:16 | 0°M. | |
| max. Earth dist. | 12045 Mar 22 21:37 | 13, 11,12 | 2.63075 AU | | 12049 Dec 11 00:38 | 0°る | |
| | 12045 A 11 06:46 | 27° Ƴ 55'04 | 1000110 | | 12050 Jan 22 11:46 12050 Mar 09 10:19 | 0° ≈ | |
| conjunction | 12045 Apr 11 06:46 | 27° Υ 54'26 | | | 12050 Mar 09 10:19 12050 Apr 30 20:47 | 0° ∺ | |
| minimum elong | 12045 Apr 11 06:23 | 0° 8 | 1 09 29 | desc. node | 12050 Apr 30 20.47 12050 Jun 01 16:31 | 0 X 14° ¥ 27'07 | |
| morning rise | 12045 Apr 14 10:05 12045 May 27 15:06 | 29° 8 19'18 | | retrograde | 12050 Jul 16 08:12 | 24°)(14'10 | |
| morning rise | 12045 May 28 14:35 | 0° Π | | opposition | 12050 Aug 25 18:06 | 14°) 38'09 | 2040105 |
| | 12045 Jul 09 22:31 | 0ಂ ತಾ | | greatest brilliancy | 12050 Aug 25 18:00 12050 Aug 25 19:09 | 14° X 38'09 | |
| | 12045 Aug 19 15:12 | 0°Ω | | min. Earth dist. | 12050 Aug 25 17:09 12050 Aug 26 17:29 | 14° X 15'03 | 0.68345 AU |
| | 12045 Sep 28 03:44 | 0°m) | | direct | 12050 Aug 20 17:29 12050 Oct 06 03:59 | 4°) (42'19 | 0.00343 AC |
| asc. node | 12045 Oct 13 08:53 | 11° Mp 40'43 | | uncet | 12050 Dec 24 04:09 | 0°Υ | |
| ase. node | 12045 Nov 06 05:48 | 0° <u>م</u> | | | 12051 Feb 13 23:45 | 0°8 | |
| | 12045 Dec 16 00:51 | 0° ™ | | | 12051 Mar 30 22:46 | 0°II | |
| | 12046 Jan 27 12:53 | 0° ∡ 7 | | | 12051 May 11 06:19 | 0°e≥ | |
| | 12046 Mar 19 20:23 | ਰ°0 ਰ°0 | | asc. node | 12051 Jun 04 13:15 | 18° © 29'27 | |
| retrograde | 12046 May 07 16:03 | 13° る 20'06 | | | 12051 Jun 19 08:46 | $0^{\circ}\Omega$ | |
| min. Earth dist. | 12046 Jun 09 13:55 | 6° る 05'30 | 0.57350 AU | evening set | 12051 Jul 27 10:13 | 0° m 02'46 | |
| greatest brilliancy | 12046 Jun 15 09:16 | 3° ප 49'56 | -1.8m | <i>3</i> | 12051 Jul 27 08:50 | 0° m) | |
| opposition | 12046 Jun 16 00:44 | 3° ට 34'53 | 2°52'23 | | 12051 Sep 03 06:28 | 0∘ <u>⊽</u> | |
| 11 | 12046 Jun 25 19:03 | 30°R. ✓ | | | • | | |
| direct | 12046 Jul 22 19:25 | 25° ∡ 16'11 | | conjunction | 12051 Oct 07 09:55 | 26° £ 31'10 | 1°04'52 |
| | 12046 Aug 21 14:31 | 8°0 | | minimum elong | 12051 Oct 07 08:27 | 26° ≏ 28'21 | 1°05'09 |
| desc. node | 12046 Aug 27 10:37 | 1° る 47'56 | | | 12051 Oct 11 23:17 | 0° M | |
| | 12046 Oct 29 03:32 | 0°≈ | | | 12051 Nov 21 05:41 | 0°⊀ | |
| | 12046 Dec 21 12:35 | 0°) | | max. Earth dist. | 12051 Nov 27 18:13 | 4° ∡ °43′22 | 2.44302 AU |
| | 12047 Feb 08 17:42 | 0 ° Υ | | morning rise | 12051 Dec 10 22:04 | 14° ∡ °08'05 | |
| | 12047 Mar 27 01:15 | 9° 8 | | | 12052 Jan 02 15:17 | ರ°0 | |
| evening set | 12047 Apr 04 11:17 | 5° 8 38'39 | | | 12052 Feb 16 14:02 | 0° ≈ | |
| max. Earth dist. | 12047 Apr 20 11:46 | 16° 8 33'03 | 2.53037 AU | | 12052 Apr 04 16:17 | 0° ∀ | |
| | 12047 May 09 19:21 | Π °0 | | desc. node | 12052 Apr 18 09:08 | 8° ¥ 05′20 | |
| | | | | | 12052 May 28 04:44 | 0 ° Υ | |
| conjunction | 12047 May 23 19:51 | 9° Ⅱ 57'52 | | retrograde | 12052 Aug 20 18:50 | 27° Y 33'08 | |
| minimum elong | 12047 May 23 21:31 | 10° Ⅱ 00′51 | 0°58'12 | opposition | 12052 Sep 28 16:28 | 18° Ƴ 42'27 | -4°35'17 |
| | 12047 Jun 20 07:52 | 0 \circ | | greatest brilliancy | 12052 Sep 29 09:48 | 18° Y 25'41 | -1.4m |
| morning rise | 12047 Jul 18 20:29 | 21° © 25'02 | | min. Earth dist. | 12052 Oct 03 11:52 | | 0.63927 AU |
| | 12047 Jul 30 01:51 | 0 \circ Ω | | direct | 12052 Nov 09 01:20 | 8° Ƴ 41'47 | |
| asc. node | 12047 Aug 30 23:42 | 24° Ω 45′26 | | | 12053 Jan 16 04:58 | 0°8 | |
| | 12047 Sep 06 16:26 | 0° m/p | | | 12053 Mar 07 05:13 | 0°П | |
| | 12047 Oct 14 22:13 | 0∘ ⊽ | | _ | 12053 Apr 18 21:47 | 0∘ © | |
| | 12047 Nov 22 17:05 | 0°M | | asc. node | 12053 Apr 21 18:02 | 2°905'56 | |
| | 12048 Jan 02 03:28 | 0° ∡ 7 | | | 12053 May 28 11:22 | 0° N | |
| | 12048 Feb 14 18:22 | 0°ප | | | 12053 Jul 05 17:30 | 0° my | |
| | 12048 Apr 05 10:35 | 0°≈ | | | 12053 Aug 12 22:20 | 0∘ 亚 | |
| retrograde | 12048 Jun 12 06:53 12048 Jul 14 16:27 | 21°≈15'13 | | | 12053 Sep 21 01:17 | 0°M 120 m €211.7 | |
| desc. node min. Earth dist. | 12048 Jul 14 16:27 12048 Jul 20 02:27 | 14°≈30'24 12°≈23'51 | 0.66059 AU | evening set | 12053 Oct 08 07:32 | 12°MJ52'17 0°⊀ | |
| opposition | 12048 Jul 20 02:27 12048 Jul 22 22:21 | 12 ≈ 23 31 11° ≈ 16′20 | | | 12053 Oct 31 19:42 | U X. | |
| greatest brilliancy | 12048 Jul 22 22:21 12048 Jul 22 21:30 | 11°≈10′20 | | conjunction | 12053 Dec 05 15:30 | 24° ∡ ³30'55 | 0°46'17 |
| direct | 12048 Aug 31 19:35 | 1°≈53'32 | -1.4111 | minimum elong | 12053 Dec 05 15:30 12053 Dec 05 17:17 | 24° × 30'33' 24° × 34'00 | 0°47'05 |
| uncet | 12048 Nov 25 22:31 | 0° ∺ | | minimum clong | 12053 Dec 03 17:17 12053 Dec 13 15:10 | 0°る | 0 47 03 |
| | 12049 Jan 18 11:19 | 0°Υ | | max. Earth dist. | 12054 Jan 03 23:37 | | 2.57366 AU |
| | 12049 Mar 06 23:55 | %8 0°8 | | morning rise | 12054 Jan 25 18:27 | 28° ප් 49'39 | 2.57500710 |
| | 12049 Apr 19 20:33 | 0°II | | morning rise | 12054 Jan 27 13:32 | 0°≈ | |
| evening set | 12049 May 20 16:49 | 22° I 19'36 | | desc. node | 12054 Mar 05 21:11 | 23° ≈ 56'57 | |
| | 12049 May 31 00:22 | 0.2 15.20 | | · · · · · · · · · · · · · · · · · · · | 12054 Mar 15 12:13 | 0° ∀ | |
| max. Earth dist. | 12049 Jun 09 04:55 | | 2.39581 AU | | 12054 May 03 13:49 | 0° Υ | |
| | 12049 Jul 09 06:12 | $0^{\circ}\Omega$ | | | 12054 Jun 25 01:56 | 0°8 | |
| asc. node | 12049 Jul 17 14:39 | 6° Ω 31′00 | | | 12054 Aug 29 13:20 | 0°Щ | |
| | | | | retrograde | 12054 Oct 04 19:06 | 6° Ⅱ 40′23 | |
| conjunction | 12049 Jul 21 09:02 | 9° Ω 27'59 | 0°02'45 | | 12054 Nov 07 05:48 | 30° ₹ 8 | |
| minimum elong | 12049 Jul 21 08:48 | 9° Ω 27'31 | 0°02'02 | opposition | 12054 Nov 09 15:05 | 29° 8 08'37 | -5°04'37 |
| behind sun begin | 12049 Jul 20 04:18 | 8° Ω 31'41 | | greatest brilliancy | 12054 Nov 11 03:42 | 28° 8 35'24 | -1.9m |
| behind sun end | 12049 Jul 22 13:18 | 10° Ω 23′22 | | min. Earth dist. | 12054 Nov 17 20:27 | 26° 8 10'33 | 0.53040 AU |
| | 12049 Aug 16 09:55 | 0° m | | direct | 12054 Dec 18 17:14 | 19° 8 59'25 | |
| | 12049 Sep 23 08:16 | 0∘ ⊽ | | | 12055 Jan 29 05:34 | Π °0 | |
| | | | | | | | |

| asc. node | 12055 Mar 10 00:27 | 21° Ⅱ 33'16 | | max. Earth dist. | 12060 Mar 13 11:05 | 4° Y 43'25 | 2.65613 AU |
|--------------------------------|--|--|------------|---------------------|--|----------------------------|-------------------------|
| | 12055 Mar 23 01:36 | 0°9 | | | 1006034 05 00 51 | 1.400001144 | 10044.5 |
| | 12055 May 04 08:12 | 0°N | | conjunction | 12060 Mar 27 20:51 | 14° ℃ 01'44 | |
| | 12055 Jun 12 22:22 | 0° m/y | | minimum elong | 12060 Mar 27 20:01 | 14° Y 00′23 | 1°04'52 |
| | 12055 Jul 22 03:53 | 0∘ ⊽ | | | 12060 Apr 21 05:53 | 0°8 | |
| | 12055 Aug 31 06:52 | 0°M | | morning rise | 12060 May 11 12:14 | 13° 8 30'53 | |
| | 12055 Oct 12 01:01 | 0° ∡ | | | 12060 Jun 04 18:22 | 0°II | |
| . , | 12055 Nov 24 17:03 | 0°る | | | 12060 Jul 17 14:34 | 0°€ | |
| evening set | 12055 Nov 29 19:41 | 3°₹25'45 | | | 12060 Aug 27 21:51 | 0°O | |
| | 12056 Jan 09 03:44 | 0° ≈ | | | 12060 Oct 07 01:44 | 0° Mp | |
| | 100564 15 1100 | 50 00110 | 0000100 | asc. node | 12060 Oct 30 04:05 | 17° m 26'04 | |
| conjunction | 12056 Jan 17 14:28 | 5°≈28'13 | 0°02'09 | | 12060 Nov 15 20:46 | 0∘ 亚 | |
| minimum elong | 12056 Jan 17 14:35 | 5°≈28'23 | 0°02'54 | | 12060 Dec 26 17:15 | 0° M | |
| behind sun begin | 12056 Jan 16 19:23 | 4°≈57'24 | | | 12061 Feb 10 00:55 | 0° ∡ ¹ | |
| behind sun end | 12056 Jan 18 09:46 | 5°≈59'22 | | retrograde | 12061 Apr 21 07:29 | 25° ∡ ³37'30 | |
| desc. node | 12056 Jan 21 11:14 | 7° ≈ 57'54 | | min. Earth dist. | 12061 May 21 21:15 | 19° ∡ 12'41 − | 0.52407 AU |
| max. Earth dist. | 12056 Jan 29 12:40 | | 2.65608 AU | greatest brilliancy | 12061 May 28 09:55 | 16° ∡ ¹45′02 | -2.0m |
| | 12056 Feb 24 22:42 | 0° ∀ | | opposition | 12061 May 29 12:43 | 16° ∡ 19'43 | 4°14'45 |
| morning rise | 12056 Mar 02 17:45 | 4° ₩ 18'15 | | direct | 12061 Jul 03 14:36 | 8° ∡ ³39'32 | |
| | 12056 Apr 12 14:25 | 0° Υ | | desc. node | 12061 Sep 12 20:18 | 0° ට 10'03 | |
| | 12056 May 30 21:13 | 9° 8 | | | 12061 Sep 12 11:54 | 0°ಕ | |
| | 12056 Jul 19 03:26 | Π °0 | | | 12061 Nov 08 02:32 | 0° ≈ | |
| | 12056 Sep 09 03:49 | 0 \circ \odot | | | 12061 Dec 29 07:11 | 0°) € | |
| | 12056 Nov 17 19:05 | $0^{\circ}\Omega$ | | | 12062 Feb 15 19:09 | 0° Y | |
| retrograde | 12056 Dec 08 10:40 | 2° Ω 31′02 | | evening set | 12062 Mar 20 00:58 | 20° Ƴ 47'48 | |
| | 12056 Dec 28 15:46 | 30° ₹ 5 | | | 12062 Apr 02 22:56 | 9° 8 | |
| opposition | 12057 Jan 08 05:18 | 27° 5 09'03 | -1°13'55 | max. Earth dist. | 12062 Apr 08 06:47 | 3° 8 33'41 | 2.57527 AU |
| greatest brilliancy | 12057 Jan 08 14:38 | 27° 5 02'14 | -2.8m | | | | |
| min. Earth dist. | 12057 Jan 14 13:47 | 25°518'08 | 0.39351 AU | conjunction | 12062 May 05 22:50 | 22° 8 24'53 | -1°06'46 |
| asc. node | 12057 Jan 25 06:20 | 22° © 37'56 | | minimum elong | 12062 May 05 23:37 | 22° 8 26'14 | 1°07'23 |
| direct | 12057 Feb 09 20:52 | 20°957'57 | | | 12062 May 16 20:05 | $\Pi^{\circ}0$ | |
| | 12057 Mar 19 16:40 | $0^{\circ}\Omega$ | | morning rise | 12062 Jun 26 00:50 | 28° Ⅱ 49'59 | |
| | 12057 May 11 10:35 | 0° m | | | 12062 Jun 27 15:00 | 0ංම | |
| | 12057 Jun 24 11:39 | 0∘ ⊽ | | | 12062 Aug 06 16:27 | $0^{\circ}\Omega$ | |
| | 12057 Aug 06 16:02 | 0°M | | | 12062 Sep 14 13:50 | 0° m) | |
| | 12057 Sep 19 16:50 | 0° ∡ ¹ | | asc. node | 12062 Sep 16 18:46 | 1° Mp 43'02 | |
| | 12057 Nov 04 01:46 | 0°ರ | | | 12062 Oct 23 01:15 | 0∘ ⊽ | |
| desc. node | 12057 Dec 08 08:25 | 22° る 08'33 | | | 12062 Dec 01 01:41 | 0° M . | |
| | 12057 Dec 20 15:21 | 0° ≈ | | | 12063 Jan 10 21:57 | 0° ∡ ¹ | |
| evening set | 12058 Jan 07 22:44 | 11° ≈ 39'21 | | | 12063 Feb 24 19:17 | 0°ප | |
| <i>3</i> | 12058 Feb 05 21:03 | 0°) € | | | 12063 Apr 23 18:40 | 0° ≈ | |
| max. Earth dist. | 12058 Feb 20 04:58 | 9°) 04'40 | 2.68376 AU | retrograde | 12063 May 30 15:39 | 7° ≈ 39'19 | |
| man. Bartir diot. | 12000100 20 000 | , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 2.00370110 | renograde | 12063 Jul 04 02:17 | 30°R₹ | |
| conjunction | 12058 Feb 21 18:16 | 10°) €03'47 | -0°38'22 | min. Earth dist. | 12063 Jul 05 17:18 | 29° ට 21'44 | 0.63388 AU |
| minimum elong | 12058 Feb 21 17:16 | 10° ₩ 02'12 | | opposition | 12063 Jul 10 00:26 | 27° ට 39'34 | 0°50'45 |
| | 12058 Mar 25 03:23 | 0°Υ | | greatest brilliancy | 12063 Jul 09 21:26 | 27° ප් 42'33 | -1.5m |
| morning rise | 12058 Apr 05 23:55 | 7° Υ 34'06 | | desc. node | 12063 Aug 01 04:09 | 20°る24'25 | 1.5111 |
| morning rise | 12058 May 10 21:12 | 0°8 | | direct | 12063 Aug 17 21:29 | 18° ට 37'20 | |
| | 12058 Jun 25 19:18 | 0°II | | ancer | 12063 Oct 06 10:12 | 0°≈ | |
| | 12058 Aug 09 20:03 | 0 . ಕ | | | 12063 Dec 07 02:25 | 0° ₩ | |
| | 12058 Aug 09 20:05 12058 Sep 23 03:12 | 0°Ω | | | 12064 Jan 27 08:27 | 0° Υ | |
| | 12058 Nov 06 11:00 | 0° m) | | | 12064 Mar 14 06:26 | 0°8 | |
| asc. node | 12058 Dec 13 09:21 | 23° Mp 47'18 | | | 12064 Apr 27 01:00 | 0°II | |
| asc. node | 12058 Dec 13 07:21 12058 Dec 23 20:30 | 25 الب ⁴ / 10 0° <u>م</u> | | evening set | 12064 Apr 30 11:39 | 2° ∏ 26′28 | |
| ratragrada | | 23° £ 01'00 | | max. Earth dist. | - | 12° II 26'18 | 2.44959 AU |
| retrograde min. Earth dist. | 12059 Feb 26 22:23 12059 Mar 24 15:43 | 18° £ 42'56 | 0.39110 AU | max. Latui uist. | 12064 May 14 10:11 12064 Jun 07 07:34 | 0°€ | 4. 44 737 AU |
| | | | -2.8m | | 12004 Juli 07 07.34 | 0 39 | |
| greatest brilliancy | 12059 Mar 29 21:02 | 17° ♀ 10'03 16° ♀ 43'32 | | conjunction | 12064 Jun 25 02:12 | 1300275115 | 0027102 |
| opposition | 12059 Mar 31 08:32 | | 0 13 02 | conjunction | 12064 Jun 25 03:13 | 13°925'15 | |
| direct | 12059 Apr 30 07:04 | 11° £ 21'32 | | minimum elong | 12064 Jun 25 05:09 | 13°928'55 | 0 4/34 |
| | 12059 Jul 01 00:41 | 0°M 0°.₹ | | 1 | 12064 Jul 16 17:29 | 0° Ω | |
| | 12059 Aug 24 07:57 | 0° ∡ | | asc. node | 12064 Aug 03 10:35 | 13° Ω 48'18 | |
| 1 1 | 12059 Oct 13 05:33 | 0°る | | | 12064 Aug 24 00:30 | 0° m) | |
| desc. node | 12059 Oct 26 12:05 | 8° る 05'59 | | morning rise | 12064 Aug 31 03:44 | 5° m/38'05 | |
| | 12059 Dec 01 04:45 | 0° ≈ | | | 12064 Oct 01 00:34 | ია ო 0∘ ত | |
| | 12060 Jan 18 14:25 | 0° \ | | | 12064 Nov 08 14:53 | 0°M 0°. ₹ | |
| evening set | 12060 Feb 12 16:53 | 15°) 45′55 | | | 12064 Dec 18 17:38 | 0° ∡ ¹ | |
| | 12060 Mar 06 02:21 | 0°Υ | | | 12065 Jan 30 09:49 | 0°ಕ | |

| | 12065 Mar 18 07:16 | 0° ≈ | | | 12070 May 14 04:27 | $0^{\circ}\Omega$ | |
|---|--|---|-------------------|---------------------------|--|------------------------------------|-------------|
| | | 0° ∺ | | | 12070 May 14 04:27 12070 Jun 22 00:16 | 0°Mp | |
| desc. node | 12065 May 14 20:02 12065 Jun 18 06:33 | 0 X 10° ¥ 33'28 | | | 12070 Jul 22 00:16 12070 Jul 30 16:25 | 0∘ ت رابا | |
| retrograde | 12065 Jul 18 06.33 | 10 X 53 28 | | | 12070 Sep 08 07:13 | 0°M | |
| • | 12065 Aug 12 18:04 | 2° ₩ 03'14 | 1051155 | | 12070 Sep 08 07:13 12070 Oct 19 13:45 | 0° ⊼ ¹ | |
| opposition min. Earth dist. | | | 0.68251 AU | avaning gat | 12070 Oct 19 13.43 12070 Nov 11 11:19 | 0 x . 16° x 03'19 | |
| | 12065 Aug 12 05:23 | 2° X 1348 2° X 05'04 | | evening set | | 0° 궁 | |
| greatest brilliancy | 12065 Aug 12 16:13 | | -1.3M | | 12070 Dec 01 19:55 | 0.0 | |
| Ji | 12065 Aug 17 23:40 | 30°R≈ | | : | 12071 I 02 02-25 | 200=52144 | 0910120 |
| direct | 12065 Sep 22 18:03 | 22°≈17'21 | | conjunction | 12071 Jan 02 02:35 | 20°る53'44 | 0°19'39 |
| | 12065 Nov 01 07:59 | 0° ℋ 0° Ƴ | | minimum elong | 12071 Jan 02 03:23 | 20°る55'02 | 0°20'27 |
| | 12066 Jan 03 18:11 | | | E d E d | 12071 Jan 16 00:02 | 0°≈ 2°≈ - 45!07 | 2 (2027 ATT |
| | 12066 Feb 22 05:35 | 0° B | | max. Earth dist. | 12071 Jan 20 05:33 | 2°≈45'07 | 2.63027 AU |
| | 12066 Apr 07 14:51 | 0° I I | | desc. node | 12071 Feb 07 04:40 | 14°≈20'59 | |
| , | 12066 May 18 19:47 | 0°© | | morning rise | 12071 Feb 17 23:18 | 21°≈14'31 | |
| asc. node | 12066 Jun 21 05:44 | 25° © 32'45 | | | 12071 Mar 03 18:18 | 0° ∀ 0° Υ | |
| | 12066 Jun 26 22:56 | 0°Ω | | | 12071 Apr 20 18:53 | | |
| evening set | 12066 Jun 27 23:15 | 0° Ω 47'28 | | | 12071 Jun 09 04:03 | 8°0 | |
| | 12066 Aug 03 23:44 | 0° m | | | 12071 Jul 31 06:00 | 0°II | |
| | 120/// 07 00 5/ | 2 60 m 5010 4 | 0040150 | . 1 | 12071 Oct 02 12:08 | 0°95 | |
| conjunction | 12066 Sep 07 00:56 | 26° m 59'04 | 0°49'59 | retrograde | 12071 Nov 10 09:00 | 7° © 46'23 | 2020145 |
| minimum elong | 12066 Sep 06 20:57 | 26° m 51'12 | 0°49'48 | opposition | 12071 Dec 13 05:15 | 1° © 30'08 | |
| | 12066 Sep 10 20:47 | 0∘ ⊽ | | greatest brilliancy | 12071 Dec 14 12:30 | 1° © 04'42 | -2.5m |
| | 12066 Oct 19 11:22 | 0° M | | | 12071 Dec 17 19:38 | 30°Ŗ Ⅱ | |
| max. Earth dist. | 12066 Oct 28 05:35 | | 2.38694 AU | min. Earth dist. | 12071 Dec 21 19:24 | | 0.44370 AU |
| morning rise | 12066 Nov 17 03:54 | 21°M35'25 | | direct | 12072 Jan 18 00:58 | 23° ∏ 52'22 | |
| | 12066 Nov 28 14:31 | 0° ∡ | | asc. node | 12072 Feb 11 20:46 | 27° ∏ 59'44 | |
| | 12067 Jan 09 22:16 | 0°ප | | | 12072 Feb 17 17:27 | 0ა ௐ | |
| | 12067 Feb 24 01:14 | 0° ≈ | | | 12072 Apr 12 19:49 | $0^{\circ}\Omega$ | |
| | 12067 Apr 14 02:53 | 0° ∀ | | | 12072 May 25 17:17 | 0° my | |
| desc. node | 12067 May 06 01:25 | 12°) 15′24 | | | 12072 Jul 05 17:52 | 0° ™ | |
| . 1 | 12067 Jun 11 06:10 | 0°Υ 1.4° Ω 2010.1 | | | 12072 Aug 16 04:56 | 0°M | |
| retrograde | 12067 Aug 07 00:26 | 14° Y 29′01 | 2050150 | | 12072 Sep 28 01:12 | 0° ∡ 7 | |
| opposition | 12067 Sep 15 16:21 | 5° Υ 17'38 5° Υ 08'08 | -3°39'30 -1.3m | | 12072 Nov 11 13:58 | 0°궁 27° 궁 47'23 | |
| greatest brilliancy min. Earth dist. | 12067 Sep 16 02:04 12067 Sep 18 23:42 | 4°Υ°00'06 | 0.66451 AU | evening set desc. node | 12072 Dec 24 04:06 12072 Dec 24 22:02 | 27 84723 28° る 16'16 | |
| mm. Earth dist. | 12067 Sep 18 23:42 12067 Sep 29 21:52 | 4 1 00 00 30° ₹ | 0.00431 AU | desc. Hode | 12072 Dec 24 22:02 12072 Dec 27 14:28 | 28 ⊘ 10 10 0 | |
| direct | 12067 Oct 27 06:45 | 25°) 14'48 | | | 120/2 Dec 2/ 14.20 | · ~ | |
| direct | 12067 Nov 25 21:08 | 0° Υ | | conjunction | 12073 Feb 08 01:34 | 27° ≈ 07'21 | -0°23'55 |
| | 12068 Jan 29 06:51 | %8 0°8 | | minimum elong | 12073 Feb 08 00:51 | 27°≈06'13 | |
| | 12068 Mar 16 08:15 | 0°П | | max. Earth dist. | 12073 Feb 11 12:40 | 29°≈19'18 | |
| | 12068 Apr 27 06:33 | 0°© | | man. Barar alge. | 12073 Feb 12 14:19 | 0° ∀ | 2.07700110 |
| asc. node | 12068 May 08 06:59 | 8° © 15'49 | | morning rise | 12073 Mar 23 15:47 | 24°) 45'22 | |
| uov. nouv | 12068 Jun 05 13:44 | 0°Ω | | morning rise | 12073 Mar 31 22:24 | 0°Υ | |
| | 12068 Jul 13 16:11 | 0° m) | | | 12073 May 18 03:00 | 0°8 | |
| | 12068 Aug 20 17:03 | 0∘ ⊽ | | | 12073 Jul 03 23:37 | 0°II | |
| evening set | 12068 Sep 11 17:34 | 17° Ω 06'14 | | | 12073 Aug 19 15:18 | 0.ಕಾ | |
| e venning see | 12068 Sep 28 14:52 | 0°M | | | 12073 Oct 05 18:41 | $0^{\circ}\Omega$ | |
| | 12068 Nov 08 03:08 | 0° ∡ 7 | | | 12073 Nov 25 12:23 | 0° m) | |
| | | | | asc. node | 12073 Dec 30 00:24 | 15° m 38'05 | |
| conjunction | 12068 Nov 14 22:27 | 4° х 53′54 | 0°59'43 | retrograde | 12074 Jan 28 16:42 | 21° m 06'00 | |
| minimum elong | 12068 Nov 15 00:11 | 4° ∡ °57'02 | | min. Earth dist. | 12074 Feb 25 18:11 | 16° mp 32'29 | 0.36522 AU |
| | 12068 Dec 20 17:07 | 0°ਰ | | opposition | 12074 Feb 27 17:14 | 16° Mp 00'58 | 4°23'38 |
| max. Earth dist. | 12068 Dec 22 14:59 | 1° る 18'38 | 2.52714 AU | greatest brilliancy | 12074 Feb 27 07:05 | 16° Mp 07'47 | -3.0m |
| morning rise | 12069 Jan 09 05:18 | 13° る 14'31 | | direct | 12074 Mar 28 22:25 | 11° mp 10'15 | |
| | 12069 Feb 03 13:14 | 0° ≈ | | | 12074 May 28 00:10 | 0∘ ⊽ | |
| desc. node | 12069 Mar 22 15:40 | 29° ≈ 56'17 | | | 12074 Jul 18 16:39 | 0°M₊ | |
| | 12069 Mar 22 18:04 | 0°) € | | | 12074 Sep 04 10:09 | 0° ∡ ¹ | |
| | 12069 May 11 21:43 | 0°Υ | | | 12074 Oct 21 20:57 | 0°ਰ | |
| | 12069 Jul 07 09:43 | 0°8 | | desc. node | 12074 Nov 11 23:35 | 00 13° る 16'51 | |
| retrograde | 12069 Sep 15 15:46 | 20° 8 27'42 | | | 12074 Dec 08 15:24 | 0° ≈ | |
| opposition | 12069 Oct 22 22:01 | 12° 8 19'18 | -5°08'14 | | 12075 Jan 25 11:27 | 0° ∀ | |
| greatest brilliancy | 12069 Oct 24 04:19 | 11° 8 50'49 | | evening set | 12075 Jan 29 23:16 | 2°) 49'39 | |
| min. Earth dist. | 12069 Oct 29 22:55 | 9° 8 41'04 | 0.57999 AU | max. Earth dist. | 12075 Mar 05 15:54 | 24°) 47'32 | 2.67359 AU |
| direct | 12069 Dec 02 06:29 | 2° 8 39'09 | 5.5777 AU | max. Dartii dist. | 12075 Mar 13 19:43 | 0° Υ | 2.0/337 AU |
| 411000 | 12009 Dec 02 00:29 12070 Feb 16 15:50 | 2 О З909 | | | 120,0 14101 10 17.43 | V 1 | |
| asc. node | 12070 Mar 26 13:39 | 24° ∏ 25'30 | | conjunction | 12075 Mar 15 00:21 | 0° Ƴ 45'49 | -0°56'46 |
| | 12070 Apr 03 12:48 | 0°95 | | minimum elong | 12075 Mar 14 23:18 | 0° Υ 44'07 | |
| | r | | | | ==0 | , | |

| morning rise | 12075 Apr 27 15:39 12075 Apr 29 03:20 12075 Jun 13 02:36 12075 Jul 26 14:45 12075 Sep 06 17:53 12075 Oct 17 20:37 | 29°Y01'27 0°႘ 0°Ⅱ 0°孚 0°Ω 0°୩ 22°୩05'21 | | opposition greatest brilliancy direct | 12080 Jul 30 14:34 12080 Jul 30 12:26 12080 Sep 08 23:02 12080 Nov 17 23:53 12081 Jan 12 20:22 12081 Mar 01 23:40 | 19°≈15'53 19°≈18'00 9°≈43'50 0° \textsf{\textsf}\textsf{\textsf{\textsf{\textsf{\textsf{\textsf{\textsf}}}}}}}}}}}}}}}}}}}}}}}}}}}} | |
|---------------------------------|--|---|-----------------------|---|--|---|---------------------|
| asc. node | 12075 Nov 16 23:39 12075 Nov 27 21:18 12076 Jan 10 02:40 12076 Mar 06 22:27 | 0°₽ 0°™ 0°₹ | | evening set | 12081 Apr 15 00:59 12081 May 26 05:28 12081 Jun 02 10:05 12081 Jul 04 10:31 | 0°© 5°©24'35 0°Ω | |
| retrograde | 12076 Apr 02 20:03 12076 Apr 29 03:00 | 4° ጾ 52'19 30° የጤ | | max. Earth dist. asc. node | 12081 Jul 06 22:33 12081 Jul 07 22:30 | 1° Ω 57'03 2° Ω 43'47 | 2.37097 AU |
| min. Earth dist. | 12076 Apr 30 22:46 | 29°M22'56 | 0.46967 AU | | | | |
| greatest brilliancy | 12076 May 07 17:52 | 26°M58'20 | -2.3m | conjunction | 12081 Aug 06 20:15 | 26° Ω 16'42 | 0°21'18 |
| opposition | 12076 May 09 07:41 | 26°M24'33 | 5°32'32 | minimum elong | 12081 Aug 06 18:03 | 26° Ω 12'21 | 0°20'44 |
| direct | 12076 Jun 11 11:39 | 19°M32'49 | | | 12081 Aug 11 12:58 | 0° m) | |
| | 12076 Jul 26 17:22 | 0°る | | mamina risa | 12081 Sep 18 10:19 12081 Oct 20 00:05 | 0° ჲ 24° ჲ 37'55 | |
| desc. node | 12076 Sep 25 14:59 12076 Sep 29 06:26 | 2°る01'00 | | morning rise | 12081 Oct 20 00:03 12081 Oct 26 23:49 | 0°M | |
| desc. node | 12076 Nov 16 21:22 | 2° ≈ | | | 12081 Dec 06 01:20 | 0° ⊼ ¹ | |
| | 12077 Jan 05 16:28 | 0°) € | | | 12082 Jan 17 09:33 | °ੁੱਠ | |
| | 12077 Feb 22 16:34 | 0° Υ | | | 12082 Mar 03 21:43 | 0° ≈ | |
| evening set | 12077 Mar 05 12:57 | 6° Ƴ 56'47 | | | 12082 Apr 23 15:22 | 0° ∀ | |
| max. Earth dist. | 12077 Mar 28 14:39 | 21° Y ′56'38 | 2.61327 AU | desc. node | 12082 May 22 18:55 | 14°){ 43′19 | |
| | 12077 Apr 09 19:05 | 0° 8 | | | 12082 Jul 05 19:46 | 0 ° Υ | |
| | | | | retrograde | 12082 Jul 24 01:48 | 1° Y 52'16 | |
| conjunction | 12077 Apr 19 20:45 | 6° 8 43'50 | | | 12082 Aug 10 04:44 | 30° ₹ | |
| minimum elong | 12077 Apr 19 20:45 | 6° 8 43'49 | 1°10'14 | opposition | 12082 Sep 02 06:40 | 22°) (24'09 | |
| morning rise | 12077 May 23 21:20 12077 Jun 06 13:10 | 0° Ц 9° Ц 34'47 | | greatest brilliancy min. Earth dist. | 12082 Sep 02 10:16 12082 Sep 04 01:49 | 22° ¥ 20'37 | -1.3m 0.67954 AU |
| morning rise | 12077 Jul 05 00:50 | 9 п з447 | | direct | 12082 Sep 04 01.49 12082 Oct 13 19:57 | 12° H 24'46 | 0.07934 AU |
| | 12077 Aug 14 12:12 | 0° U | | direct | 12082 Dec 15 17:06 | 0°Υ | |
| | 12077 Sep 22 18:54 | 0° m) | | | 12083 Feb 08 02:49 | 0°8 | |
| asc. node | 12077 Oct 03 15:54 | 8° m 23'49 | | | 12083 Mar 25 17:10 | Π $^{\circ}0$ | |
| | 12077 Oct 31 14:38 | 0∘ ⊽ | | | 12083 May 06 05:46 | 0 \circ \odot | |
| | 12077 Dec 10 00:34 | 0° M ₊ | | asc. node | 12083 May 25 22:23 | 14° © 54'56 | |
| | 12078 Jan 20 15:36 | 0° ∡ ¹ | | | 12083 Jun 14 10:06 | 0 \circ Ω | |
| | 12078 Mar 09 06:21 | 0°る | | | 12083 Jul 22 10:51 | 0° m) | |
| retrograde | 12078 May 16 07:20 12078 Jun 19 09:37 | 22°る55'32 | 0.50722 AII | evening set | 12083 Aug 13 18:14 | 17° Mp 40'59 | |
| min. Earth dist. opposition | 12078 Jun 25 03:09 | 13°る1710 | 0.59732 AU 2°06'07 | | 12083 Aug 29 09:05 12083 Oct 07 02:50 | 0° Մ | |
| greatest brilliancy | 12078 Jun 24 17:05 | 13° る 0212 | -1.7m | | 12003 Oct 07 02.30 | O IIU | |
| direct | 12078 Aug 01 17:59 | 4° る 26'07 | | conjunction | 12083 Oct 22 18:36 | 11° M 49'15 | 1°06'15 |
| desc. node | 12078 Aug 17 14:24 | 5° ಕ 52'21 | | minimum elong | 12083 Oct 22 18:48 | 11° M 49'39 | 1°06'44 |
| | 12078 Oct 21 12:44 | 0° ≈ ≈ | | | 12083 Nov 16 10:05 | 0° ∡ 7 | |
| | 12078 Dec 15 23:06 | 0° ∀ | | max. Earth dist. | 12083 Dec 08 13:59 | 15° ∡ ′52'51 | 2.47408 AU |
| | 12079 Feb 03 19:33 | 0° Υ | | morning rise | 12083 Dec 22 15:24 | 25° ∡ ¹43'35 | |
| | 12079 Mar 22 08:05 | 0°8 | | | 12083 Dec 28 19:49 | 0° 3 | |
| evening set max. Earth dist. | 12079 Apr 13 18:45 12079 Apr 28 10:45 | 15° 8 09'49 25° 8 19'09 | 2.50275 AU | | 12084 Feb 11 15:51 12084 Mar 30 07:24 | 0° ≈ 0° ∀ | |
| max. Earth dist. | 12079 Apr 28 10:43 12079 May 05 02:42 | 25 日 1909 | 2.30273 AU | desc. node | 12084 Mai 30 07:24 12084 Apr 08 09:24 | 5° ¥ 29'04 | |
| | 12079 11249 00 02.12 | ~ _ | | dese. node | 12084 May 21 04:29 | 0° Υ | |
| conjunction | 12079 Jun 03 23:24 | 21° Ⅲ 27'56 | -0°48'45 | | 12084 Jul 26 15:22 | 0°8 | |
| minimum elong | 12079 Jun 04 01:27 | 21° Ⅱ 31'40 | 0°49'34 | retrograde | 12084 Aug 29 17:22 | 5° 8 53'16 | |
| | 12079 Jun 15 13:20 | 0ංම | | | 12084 Sep 29 18:16 | 30° ₹Ƴ | |
| | 12079 Jul 25 04:41 | $0^{\circ}\Omega$ | | opposition | 12084 Oct 07 02:49 | 27° Y 16′02 | |
| morning rise | 12079 Aug 02 13:03 | 6° Ω 27'06 | | greatest brilliancy | 12084 Oct 08 00:49 | 26° Y 54'55 | |
| asc. node | 12079 Aug 21 05:12 | 20° Ω 59'58 | | min. Earth dist. | 12084 Oct 12 17:56 | 25° Y ′06'37 | 0.62069 AU |
| | 12079 Sep 01 16:33 12079 Oct 09 19:59 | 0 ்⊽ 0∘∭ | | direct | 12084 Nov 17 05:42 12085 Jan 05 21:30 | 17° Y 20'01 0° と | |
| | 12079 Nov 17 12:33 | 0° ™ | | | 12085 Jan 05 21:30 12085 Feb 28 16:21 | 0°U | |
| | 12079 Nov 17 12:33 12079 Dec 27 18:29 | 0° ⊼ ¹ | | asc. node | 12085 Feb 28 10:21 12085 Apr 12 02:14 | 29° Ⅱ 12'10 | |
| | 12080 Feb 08 21:20 | 0°ਤ ਹ × | | | 12085 Apr 13 04:33 | 0°95 | |
| | 12080 Mar 28 13:33 | 0° ≈ | | | 12085 May 23 01:43 | $0^{\circ}\Omega$ | |
| retrograde | 12080 Jun 19 21:28 | 29° ≈ 11'49 | | | 12085 Jun 30 11:51 | 0° m | |
| desc. node | 12080 Jul 04 20:03 | 27° ≈ 42'56 | | | 12085 Aug 07 19:49 | 0∘ ⊽ | |
| min. Earth dist. | 12080 Jul 28 14:02 | 20° ≈ 04'05 | 0.67111 AU | | 12085 Sep 16 02:03 | 0° M | |

| evening set | 12085 Oct 21 13:18 | 26°M05'53 | | | 12090 Sep 16 09:19 | $0^{\circ}\Omega$ | |
|-----------------------------------|--|--|--------------|---------------------|--|--|--------------------------------|
| C | 12085 Oct 26 23:34 | 0° ∡ ¹ | | | 12090 Oct 29 03:47 | 0° m) | |
| | 12085 Dec 08 21:34 | ರ∘ರ | | asc. node | 12090 Dec 03 16:57 | 24° Mp 31'06 | |
| | | | | | 12090 Dec 11 22:31 | 0∘ ⊽ | |
| conjunction | 12085 Dec 16 03:05 | 4°る54'52 | | | 12091 Feb 02 00:04 | 0° M. | |
| minimum elong | 12085 Dec 16 04:35 | 4° る 57'24 | | retrograde | 12091 Mar 13 02:31 | 9°M43'36 | |
| max. Earth dist. | 12086 Jan 10 05:48 | | 2.59602 AU | min. Earth dist. | 12091 Apr 08 03:42 | 5°M06'51 | 0.41614 AU |
| | 12086 Jan 22 20:39 | 0° ≈ | | greatest brilliancy | 12091 Apr 14 08:53 | 3°ML08'06 | -2.6m |
| morning rise | 12086 Feb 03 11:13 | 7°≈32'35 | | opposition | 12091 Apr 16 01:53 | 2°M35'04 | 6°21'06 |
| desc. node | 12086 Feb 23 22:05 | 20° ≈ 39'45 0° 升 | | T' | 12091 Apr 24 13:58 | 30° RΩ 26° Ω 41'22 | |
| | 12086 Mar 10 16:20 12086 Apr 28 06:23 | 0° Υ | | direct | 12091 May 17 04:22 12091 Jun 09 14:03 | 0°M | |
| | 12086 Apr 28 06.23 | 0°8 | | | 12091 Juli 09 14.03 12091 Aug 15 22:32 | 0° ⊼ | |
| | 12086 Aug 15 01:05 | 0°II | | | 12091 Oct 07 02:27 | 0°ਤ | |
| retrograde | 12086 Oct 16 20:35 | 17° Ⅱ 19'30 | | desc. node | 12091 Oct 07 02:27 12091 Oct 16 16:09 | 5° 云 41'36 | |
| opposition | 12086 Nov 20 18:09 | 10° Ⅱ 11'59 | -4°47'49 | desc. node | 12091 Nov 25 23:34 | 0°≈ | |
| greatest brilliancy | 12086 Nov 22 07:58 | 9° Ⅱ 38'42 | | | 12092 Jan 13 19:31 | 0°) € | |
| min. Earth dist. | 12086 Nov 29 11:02 | 7° Ⅱ 09'17 | 0.50001 AU | evening set | 12092 Feb 20 13:51 | 23°) 41′52 | |
| direct | 12086 Dec 28 22:05 | 1° Ⅲ 28'25 | | C | 12092 Mar 01 11:26 | 0° Y | |
| asc. node | 12087 Feb 28 10:08 | 21° Ⅲ 50′55 | | max. Earth dist. | 12092 Mar 18 19:51 | 11° Y ′09'22 | 2.64316 AU |
| | 12087 Mar 14 05:39 | 0 \circ \odot | | | | | |
| | 12087 Apr 27 10:11 | $0^{\circ}\Omega$ | | conjunction | 12092 Apr 04 23:57 | 22° Y 20'29 | -1°07'51 |
| | 12087 Jun 06 18:06 | 0° ™ | | minimum elong | 12092 Apr 04 23:21 | 22° Y 19'31 | 1°08'05 |
| | 12087 Jul 16 10:10 | 0∘ ⊽ | | | 12092 Apr 16 14:42 | 0 \circ 8 | |
| | 12087 Aug 25 21:39 | 0° M | | morning rise | 12092 May 20 11:23 | 22° 8 46'53 | |
| | 12087 Oct 06 22:58 | 0°×7 | | | 12092 May 30 23:42 | 0°Щ | |
| | 12087 Nov 19 20:51 | 0°る | | | 12092 Jul 12 13:41 | 0°© | |
| evening set | 12087 Dec 09 10:16 | 12° る 59'21 0°≈ | | | 12092 Aug 22 13:17 | 0° N | |
| desc. node | 12088 Jan 04 11:20 12088 Jan 11 13:17 | 0°≈ 4°≈34'41 | | asc. node | 12092 Oct 01 08:26 12092 Oct 20 10:33 | 0° Т р 14° Тр 33'18 | |
| desc. Hode | 12000 Jan 11 15.17 | 4 ~>>4 41 | | asc. node | 12092 Oct 20 10.33 12092 Nov 09 16:52 | 0° ⊽ | |
| conjunction | 12088 Jan 25 23:19 | 13° ≈ 50'54 | -0°07'51 | | 12092 Nov 09 10:32 12092 Dec 19 20:15 | o − o∘n | |
| minimum elong | 12088 Jan 25 23:05 | 13°≈50'31 | | | 12093 Feb 01 03:18 | 0° ⊼ ¹ | |
| behind sun begin | 12088 Jan 25 05:51 | 13° ≈ 22'55 | | | 12093 Mar 29 13:54 | 5°0 | |
| behind sun end | 12088 Jan 26 16:19 | 14° ≈ 18′07 | | retrograde | 12093 Apr 30 19:30 | 6° පි 28'29 | |
| max. Earth dist. | 12088 Feb 03 16:58 | 19° ≈ 26′13 | 2.66693 AU | | 12093 May 31 15:05 | 30°₽ ∡ 7 | |
| | 12088 Feb 20 07:12 | 0° ∀ | | min. Earth dist. | 12093 Jun 01 16:57 | 29° ∡ ³35'42 | 0.55227 AU |
| morning rise | 12088 Mar 10 09:36 | 12°) €05'52 | | opposition | 12093 Jun 08 17:59 | 26° ∡ ¹53'15 | 3°27'17 |
| | 12088 Apr 07 19:10 | 0° Y | | greatest brilliancy | 12093 Jun 07 21:49 | 27° ∡ 12'39 | -1.9m |
| | 12088 May 25 14:54 | 0°B | | direct | 12093 Jul 14 19:44 | 18° ∡ 750'40 | |
| | 12088 Jul 12 20:02 | Π °0 | | | 12093 Aug 31 23:50 | 0°ਰ | |
| | 12088 Aug 31 05:41 | 0°99 | | desc. node | 12093 Sep 03 01:23 | 0° る 49'33 | |
| | 12088 Oct 24 09:41 | 0° N | | | 12093 Nov 01 16:34 | 0° ≈ | |
| retrograde | 12088 Dec 26 12:56 | 19° Ω 04'18 | | | 12093 Dec 24 01:41 | 0° ℋ 0° Ƴ | |
| asc. node | 12089 Jan 15 16:48 12089 Jan 25 10:48 | 16° Ω 35'44 14° Ω 04'40 | 0°44'45 | | 12094 Feb 10 24:00 | 29° Y 36'08 | |
| opposition greatest brilliancy | 12089 Jan 25 13:01 | 14 δ l 04 40 14° Ω 03'09 | -3.0m | evening set | 12094 Mar 28 16:39 12094 Mar 29 06:59 | 0° 8 | |
| min. Earth dist. | 12089 Jan 29 09:51 | 12° Ω 59'54 | 0.37430 AU | max. Earth dist. | 12094 Apr 15 01:44 | | 2.55139 AU |
| direct | 12089 Feb 25 06:04 | 8° Ω 38'17 | 0.57 150 110 | max. Earth dist. | 12094 May 12 03:46 | 0°Ⅱ | 2.33137110 |
| | 12089 Apr 29 01:52 | 0°m) | | | | . — | |
| | 12089 Jun 16 05:10 | 0∘ <u>v</u> | | conjunction | 12094 May 15 19:48 | 2° Ⅱ 34'55 | -1°02'16 |
| | 12089 Jul 31 00:12 | 0°M | | minimum elong | 12094 May 15 21:06 | 2° Ⅱ 37'11 | 1°02'59 |
| | 12089 Sep 13 22:56 | 0° ∡ ¹ | | | 12094 Jun 22 20:09 | 0 \circ \odot | |
| | 12089 Oct 29 21:34 | ರ∘ರ | | morning rise | 12094 Jul 08 10:02 | 11° 9 34'14 | |
| desc. node | 12089 Nov 28 10:43 | 18° ප 57'01 | | | 12094 Aug 01 18:15 | 0 $^{\circ}$ Ω | |
| | 12089 Dec 15 19:35 | 0° ≈ | | asc. node | 12094 Sep 07 01:37 | 28° Ω 05'41 | |
| evening set | 12090 Jan 16 02:27 | 19° ≈ 48'12 | | | 12094 Sep 09 12:09 | 0° m y | |
| | 12090 Feb 01 05:42 | 0° \ | 0.600.55 | | 12094 Oct 17 20:03 | ია ლ | |
| max. Earth dist. | 12090 Feb 25 04:13 | 15° ∺ 09'14 | 2.68255 AU | | 12094 Nov 25 16:24 | 0° M 0° ₹ | |
| | | | | | 12095 Jan 05 04:54 12095 Feb 18 03:54 | ್ತಾ 0°⋜ | |
| aaniumatiam | 12000 Mar 01 12:00 | 170 W 5 4100 | | | 1/US LED 1X U3.24 | U TO | |
| conjunction | 12090 Mar 01 12:09 | 17° ¥ 54'09 | | | | | |
| conjunction minimum elong | 12090 Mar 01 11:05 | 17° ¥ 52′26 | | retrograde | 12095 Apr 11 15:58 | 0° ≈ | |
| minimum elong | 12090 Mar 01 11:05 12090 Mar 20 12:18 | 17° ¥ 52'26 0° Ƴ | | retrograde | 12095 Apr 11 15:58 12095 Jun 07 11:56 | 0° ≈ 16° ≈ 01'55 | 0 64986 AU |
| · | 12090 Mar 01 11:05 12090 Mar 20 12:18 12090 Apr 13 17:38 | 17°¥52'26 0° ° 15° ° 31'47 | | min. Earth dist. | 12095 Apr 11 15:58 12095 Jun 07 11:56 12095 Jul 14 13:48 | 0°≈ 16°≈01'55 7°≈25'13 | 0.64986 AU 0°09'36 |
| minimum elong | 12090 Mar 01 11:05 12090 Mar 20 12:18 | 17°¥52'26 0° ° 15° ° ¥31'47 0° 8 | | min. Earth dist. | 12095 Apr 11 15:58 12095 Jun 07 11:56 12095 Jul 14 13:48 12095 Jul 18 01:41 | 0°≈ 16°≈01'55 7°≈25'13 6°≈01'59 | 0.64986 AU 0°09'36 -1.5m |
| minimum elong | 12090 Mar 01 11:05 12090 Mar 20 12:18 12090 Apr 13 17:38 12090 May 06 02:03 | 17°¥52'26 0° ° 15° ° 31'47 | | min. Earth dist. | 12095 Apr 11 15:58 12095 Jun 07 11:56 12095 Jul 14 13:48 | 0°≈ 16°≈01'55 7°≈25'13 | 0°09'36 |

| | 12095 Aug 04 01:58 | 30°Ŗ⋜ | | evening set | 12100 Sep 28 05:21 | 2°M39'31 | |
|---------------------|--|----------------------|------------|---------------------|--------------------|------------------------------|---|
| direct | 12095 Aug 26 13:22 | 26° る 47'43 | | | 12100 Nov 04 07:04 | 0° ∡ 7 | |
| | 12095 Sep 19 23:48 | 0° ≈ | | | | | |
| | 12095 Nov 30 13:17 | 0°) | | conjunction | 12100 Nov 28 01:22 | 16° ∡ 54'14 0°52'30 | |
| | 12096 Jan 22 02:04 | 0° Υ | | minimum elong | 12100 Nov 28 03:16 | 16° ₹ '57'34 0°53'18 | |
| | | 0°8 | | minimum ciong | | 0°る | |
| | 12096 Mar 09 09:31 | | | F 4 F | 12100 Dec 16 22:31 | | |
| | 12096 Apr 22 06:45 | $\Pi^{\circ}0$ | | max. Earth dist. | 12100 Dec 30 23:52 | 9° る 33'50 2.55385 A | U |
| evening set | 12096 May 11 14:03 | 13° Ⅱ 49'54 | | morning rise | 12101 Jan 19 20:43 | 22° る 50'06 | |
| max. Earth dist. | 12096 May 27 04:04 | 25° Ⅱ 15'47 | 2.41937 AU | | 12101 Jan 30 18:25 | 0° ≈ | |
| | 12096 Jun 02 12:54 | 0 \circ \odot | | desc. node | 12101 Mar 13 15:25 | 26° ≈ 48'11 | |
| | | | | | 12101 Mar 18 18:08 | 0° ∀ | |
| conjunction | 12096 Jul 09 09:36 | 28°904'02 | -0°10'54 | | 12101 May 07 04:15 | $0^{\circ}\mathbf{\Upsilon}$ | |
| minimum elong | 12096 Jul 09 10:36 | 28° © 05'59 | | | 12101 Jun 29 23:16 | 0°8 | |
| behind sun begin | 12096 Jul 08 15:19 | 27°528'39 | 0 11 10 | retrograde | 12101 Sep 27 03:34 | 29° 8 55'51 | |
| _ | | | | • | - | | |
| behind sun end | 12096 Jul 10 05:54 | 28°543'20 | | opposition | 12101 Nov 02 16:24 | 22° 8 06'35 -5°08'55 | |
| | 12096 Jul 11 21:27 | 0 $^{\circ}\Omega$ | | greatest brilliancy | 12101 Nov 04 02:37 | 21° 8 35'00 -1.8m | |
| asc. node | 12096 Jul 24 16:12 | 9° Ω 57'51 | | min. Earth dist. | 12101 Nov 10 10:40 | 19° 8 15'27 0.55362 A | Ű |
| | 12096 Aug 19 03:01 | 0° m y | | direct | 12101 Dec 12 10:28 | 12° 8 41'25 | |
| morning rise | 12096 Sep 18 05:28 | 23° Mp 48'34 | | | | | |
| | 12096 Sep 26 01:54 | 0∘ ⊽ | | | | | |
| | 12096 Nov 03 15:20 | 0° M . | | | | | |
| | 12096 Dec 13 16:29 | 0° ∡ ¹ | | | | | |
| | 12097 Jan 25 03:29 | 0°ਰ | | | | | |
| | 12097 Jan 23 03:29 12097 Mar 12 07:47 | 0° ≈ | | | | | |
| | | | | | | | |
| | 12097 May 05 04:06 | 0° ∀ | | | | | |
| desc. node | 12097 Jun 08 09:31 | 13° ¥ 56'35 | | | | | |
| retrograde | 12097 Jul 10 15:06 | 19° ∺ 27'06 | | | | | |
| opposition | 12097 Aug 20 04:36 | 9°) 45′23 | -2°26'54 | | | | |
| greatest brilliancy | 12097 Aug 20 04:03 | 9° ∺ 45'56 | -1.3m | | | | |
| min. Earth dist. | 12097 Aug 20 11:44 | 9° ₩ 38'20 | 0.68433 AU | | | | |
| | 12097 Sep 26 06:29 | 30°R≈ | | | | | |
| direct | 12097 Sep 30 11:16 | 29° ≈ 53'33 | | | | | |
| ancet | 12097 Oct 04 17:39 | 0° ∺ | | | | | |
| | | 0° Υ | | | | | |
| | 12097 Dec 28 00:55 | | | | | | |
| | 12098 Feb 16 20:06 | 0°B | | | | | |
| | 12098 Apr 02 14:37 | $\Pi^{\circ}0$ | | | | | |
| | 12098 May 13 22:03 | 0 \circ \odot | | | | | |
| asc. node | 12098 Jun 11 13:09 | 21° 5 49'26 | | | | | |
| | 12098 Jun 22 01:32 | $0^{\circ}\Omega$ | | | | | |
| evening set | 12098 Jul 14 03:58 | 17° Ω 22'54 | | | | | |
| C | 12098 Jul 30 02:04 | 0° m) | | | | | |
| | 12098 Sep 05 23:01 | 0∘ <u>ಹ</u> | | | | | |
| | 12076 Sep 03 23.01 | o — | | | | | |
| agniumation | 12000 San 24 12:20 | 14° ₽ 31'59 | 1°00'30 | | | | |
| conjunction | 12098 Sep 24 12:39 | | | | | | |
| minimum elong | 12098 Sep 24 09:46 | 14° £ 26′24 | 1°00'37 | | | | |
| <u> </u> | 12098 Oct 14 14:03 | 0°M, | | | | | |
| max. Earth dist. | 12098 Nov 17 07:02 | | 2.41747 AU | | | | |
| | 12098 Nov 23 17:49 | 0° ∡ ¹ | | | | | |
| morning rise | 12098 Dec 01 02:19 | 5° ∡ ¹20'21 | | | | | |
| | 12099 Jan 05 00:56 | 0°ರ | | | | | |
| | 12099 Feb 18 23:29 | 0° ≈ | | | | | |
| | 12099 Apr 08 08:17 | 0°) € | | | | | |
| desc. node | 12099 Apr 26 03:17 | 10° ¥ 18'57 | | | | | |
| 200. 11040 | 12099 Jun 02 05:31 | 0°Υ | | | | | |
| | | | | | | | |
| retrograde | 12099 Aug 15 07:09 | 22°\bar{Y}22'35 | 4021120 | | | | |
| opposition | 12099 Sep 23 13:56 | 13° Y 22'00 | | | | | |
| greatest brilliancy | 12099 Sep 24 03:44 | 13° Y ′08'36 | -1.4m | | | | |
| min. Earth dist. | 12099 Sep 27 17:16 | 11° Y 45'33 | 0.65193 AU | | | | |
| direct | 12099 Nov 04 02:35 | 3° Y 19'41 | | | | | |
| | 12100 Jan 21 22:20 | 9° 8 | | | | | |
| | 12100 Mar 11 13:50 | $\Pi^{\circ}0$ | | | | | |
| | 12100 Apr 22 23:04 | 0° © | | | | | |
| asc. node | 12100 Apr 29 17:15 | 5° 5 01'19 | | | | | |
| | 12100 Jun 01 10:24 | 0° Ω | | | | | |
| | 12100 Jul 09 14:51 | 0° m) | | | | | |
| | | 0∘ ت الأال | | | | | |
| | 12100 Aug 16 17:11 | 0∘ m | | | | | |

12100 Sep 24 16:46 0°ML